



Global Absolute Poverty: The Beginning of the End?

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1. Introduction

The Idea of Ending Poverty, Rhetoric and Reality

The first Sustainable Development Goal of “Ending poverty in all its forms everywhere” reflects an admirable collective aspiration.¹ The idea that the poor need not always be with us² is a revolutionary idea, and arguably a modern one³.

If global development goals such as SDG 1 are not meant to be taken literally but rather to provide a guide to action and a horizon for aspiration (see, e.g., Reddy and Kvangraven 2015), neither the use of demanding words such as “ending” and “all”, nor the adequacy of their specific definition in terms of targets and indicators, would lead to excessive preoccupation. If goals are meant to provide a concrete objective for policy-making, or a reference for enabling those who frame and implement policies to be held accountable, then the details of their definition may matter a great deal.

The understanding of the first Millennium Development Goal (to “Eradicate Extreme Poverty and Hunger”) showed a gap between rhetoric and implementation, because “eradication” was ultimately interpreted with exceedingly modestly, as an intention to halve, between 1990 and 2015, the proportion of people in the developing

¹ I would like to thank Rahul Lahoti for undertaking the calculations, based on the Global Consumption and Income Project, which gave rise to the alternative forecasts reported later in this paper, and for useful suggestions.

² Jesus of Nazareth was said to have said (Matthew 26, p. 11): “The poor you will always have with you, but you will not always have me”. There is no reason to interpret this famous remark as an injunction to fatalism, even if it involved the idea that the eradication of poverty was not a proximate prospect.

³ Classical political economists such as Smith, Malthus, and Ricardo, because of their notion that wages were determined by the cost of a modest subsistence, were skeptical of the prospects for economic growth leading to a necessary improvement in living standards of ordinary workers, including in particular the eradication of poverty. The attitude of Smith to China is illustrative. He views it both as a most prosperous country and one in which beggars and distress abound. Smith states (in *The Wealth of Nations*, Book 1, Chapter VIII) that “China has been long one of the richest, that is, one of the most fertile, best cultivated, most industrious, and most populous countries in the world”, but also that “The poverty of the lower ranks of people in China far surpasses that of the most beggarly nations in Europe”.

world living on less than \$ 1.25 (2005 PPP) a day (Pogge 2004; United Nations 2015).⁴ Ultimately, the declaration that the first Millennium Development Goal (MDG) had been achieved also turned crucially on an interpretation of the halving of poverty as applying to the global total headcount rather than to regional or national totals. Presumably, the most favorable case for the SDGs would be that they can do both, providing a framework for motivating and directing action and meaningful and well-defined statistical objectives.

This paper examines the likelihood that income poverty will be “ended” by 2030 as demanded by the first Sustainable Development Goal. It is demonstrated that this is unlikely, with the extent of remaining poverty and the regional distribution of poverty depending greatly on the assumptions made. It is also shown that the global economic downturn brought about by policies against COVID-19 has led to a significant setback to the goal. Conceptual issues in estimation, poverty projections, and implications for the attainment of SDG 1 are discussed.

2. Relationship between Goals, Targets, and Indicators: Internal vs. External Views

As already noted, a basic question when approaching an exercise of a societal nature such as the SDGs is that of the relationship between their public face—the understandings of them in broad social and political contexts—and their technical face—the understandings of them relevant for operational applicability in administrative contexts. Does the technical understanding of SDG 1 correspond to the societal understanding?

An interesting feature of SDG 1 targets and indicators is that they are plural (see United Nations 2019a). The very idea of eliminating poverty in all its forms involves an implicit recognition that any single measure of poverty—which must fail to capture all the forms of poverty that there are—cannot suffice. This recognition is echoed in the fact that diverse targets and indicators were chosen for SDG 1, with indicators referring, for instance, both to “the international poverty line” and to “the national poverty line”, to “poverty in all its dimensions”, and to the population covered by “social protection floors/systems”, having “access to basic services”, having “rights to land”, affected by “disasters”, and that live in localities or countries that adopt and implement “disaster risk reduction strategies”. Moreover, each of

⁴ The poverty lines referred to are in “international dollars”, a unit for assessing purchasing power parity (PPP) that is set notionally equivalent to one US dollar in the United States.

these are required to be disaggregated by various sub-categories, such as age, sex, employment status, geographical location (urban/rural), children, disability status, pregnancy status, whether an individual is a work-injury victim, etc. The idea of poverty adopted for technical purposes appears to involve a somewhat haphazard collection of concepts and is less clear, than the umbrella concept of eliminating poverty in all its forms adopted for public purposes.

How should an analyst or an advocate for poverty reduction respond to this situation? The internal and the external view of the matter may be distinguished. The internal view holds that the technical definition fully determines the meaning of the SDGs. The external view holds that the adequacy of the technical definition of the SDGs must be assessed in light of their broader societal role and responsibility. In the external view, the meaning of the phrase, “eliminating poverty in all its forms” must be examined in light of a broader field of references; accustomed ordinary language uses of terms such as “eliminate” and “poverty” or ambient social and political understandings (as revealed, for instance, by the spirit of political documents such as the Agenda 2030). From the external point of view, although the officially adopted list of targets and indicators (see United Nations (2019a)) provides a relevant, and perhaps even a privileged, reference point, it cannot be viewed as the last word on the subject of whether the goal of “eliminating poverty in all its forms” is adequately being met.

The SDGs ultimately gain their credibility and their authority from their endorsement by political authorities and their acceptance by a wide range of actors; therefore, it seems that the external view demands due attention. Targets and indicators should not become objects of obsession. They must be subject to ongoing scrutiny to assess their individual and joint adequacy for achieving the objective of ultimate interest, “eliminating poverty in all its forms”.

3. Slips between Cup and Lip: Questions of Measurement

There is a wide and well-developed body of literature on the appeal and adequacy of individual poverty measures, which cannot be treated comprehensively here. Many of the questions raised in this literature are relevant to determining the suitability of the chosen SDG indicators. These can guide the application of the external view, since the officially accepted SDG targets and indicators may be inadequate to monitoring whether poverty “in all of its forms” is on course to being “eliminated”.

Amartya Sen has noted (see, e.g., Sen 1981) that descriptions of the extent of poverty can be seen as decomposable into two component exercises, viz. identification

(e.g., determining who is poor, in what ways and to what degree) and aggregation (e.g., determining the quantity, severity and distribution of poverty in a population). Both exercises can be approached in multiple ways, and there can be reasonable disagreement over the alternative ways of specifying them:

(1) Identification

Unidimensionality vs. Multidimensionality:

Should poverty be conceived primarily in terms of inadequate command over material resources (e.g., in the form of income or consumption) or in terms of the presence of deprivations of diverse sorts, whether of means (e.g., access to schooling) or attainments (e.g., years of schooling completed)? In either case, what is the underlying conceptual framework used to determine whether there is inadequacy or deprivation and to guide the selection of indicators?

Adequacy of Thresholds:

In any given dimension (e.g., income or consumption) what is the appropriate threshold to be used in determining adequacy? Specifically, how should a threshold be specified in order for it to have a *meaningful* interpretation as being adequate for poverty avoidance? How should they be defined so as to have a *common meaning* at different points in space and in time? It is not only the setting of a threshold for any one context, but also its translation across contexts to ensure a consistent interpretation that requires reference to a common meaning (see Pogge and Reddy 2010; Reddy 2004, 2007, 2008, 2013, 2020; Reddy and Lahoti 2016; Reddy and Pogge 2006; and Reddy et al. 2008).

(2) Aggregation

How should the overall extent of poverty in a society be summarized? For instance, is the number of poor persons, the proportion of poor persons, the typical severity of poverty or a composite measure most suitable? Moreover, is the performance of society in relation to the goal to be judged on the basis of a global aggregate or performance in each region or country? If the latter, what importance is to be given to each region when assessing overall progress?

(3) SDG Targets and Indicators in Light of These Questions

In practice, SDG targets and indicators raise very serious issues. For example, what United Nations (2019a) refers to as the “international poverty line” (the World Bank’s \$ 1.90 2011 PPP poverty line, which it has deemed equivalent to its own previous \$ 1.25 2005 PPP poverty line) has come in for serious criticism [“Indicator

1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)”. It has been argued, for instance, that this line lacks meaning in terms of the real requirements for achieving human well-being. This results both from the absence of sound conceptual and empirical underpinnings, and from distortions generated by the price indices used to attempt to maintain purchasing power over space and time (see previously cited writings, and Reddy and Lahoti (2016) for detailed criticism of the \$ 1.90 2011 PPP line and the claim of equivalence to the prior line).

National poverty lines are not necessarily better, because they correspond to many distinct methodologies, often poorly conceived or executed, and subject to political influence [“Indicator 1.2.1 Proportion of population living below the national poverty line, by sex and age”]. Although such measures may be validated by governments, they may not capture poverty in a sense that can be rationally justified and widely accepted. The debates about the adequacy of national poverty lines in many countries testify to this difficulty. Even if these lines have discernible purchasing power interpretations (which they often do not) these are not common across countries. Additionally, many countries, including even otherwise advanced countries, simply do not have official poverty lines (see, e.g., Reddy 2007, 2013; Subramanian 2012, etc.).

In the case of international poverty lines, and very often also in the case of national poverty lines, the focus has been on a stringent “absolutist” concept of poverty, whereas poverty “in all its forms” implies a more expansive concern. For instance, whereas according to the international poverty line, poverty is almost non-existent in most advanced countries, it is frequently present according to national poverty lines, and even prevalent when unofficial poverty lines and rights-based assessments of conditions of the poor are employed.⁵

Similarly, efforts to assess multidimensional poverty using a single composite index, although well-intentioned, may capture but also miss a great deal [“Indicator 1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions”]. Such an effort necessarily involves choices about what information to include, or not (depending, in part, on the availability of data), where to place thresholds of adequacy in each dimension, and how to aggregate across dimensions, including, in particular, how to treat correlations

⁵ See, for instance, the evaluations of the UN Special Rapporteur on Extreme Poverty and Human Rights, available on <https://www.ohchr.org/EN/Issues/Poverty/Pages/CountryVisits.aspx> (accessed on 1 August 2021).

between dimensions which reflect intensive concentrations of poverty. As a result, aggregate measures of multidimensional poverty may fail to take adequate note of specific deprivations, or of intense concentrations of multiple deprivations, if these do not greatly influence averages.

The chosen SDG targets and indicators can offer only a partial picture of the extent of poverty in ‘all of its forms’. The credibility of the measures which have already been chosen or are likely to play roles as SDG 1 indicators is undermined by various weaknesses. As such, those who adopt the ‘external view’ of the appropriate relationship between the public and the technical faces of the SDGs cannot, therefore, accept as definitive the picture of global poverty that is presented by such measures alone. This having been said, the measures which are most readily available and are most prominently circulated are also likely to continue to provide public reference points for SDG monitoring. For this reason, we employ in what follows conventional measures (in particular, the \$ 1.90 2011 PPP poverty line and some variants of them within the World Bank’s favored “money metric” international poverty line approach) despite our conviction that better poverty monitoring methods are possible and deserve significant additional investment. The use of alternative lines within the money metric approach offers one way of recognizing the uncertainties involved, although a limited one. We have argued extensively elsewhere against the existing measures of global income poverty, and also made a case for an international project to develop credible alternative measures based on the cost of achieving income-dependent human capabilities. Therefore, we shall not make this case again here.⁶

4. Poverty Projections to 2030

What is the likely evolution of poverty to 2030? We draw on the survey data of the Global Consumption and Income Project (GCIP) (see Lahoti et al. 2016) and consider alternative poverty lines and growth scenarios. Using the data of the GCIP, we were able roughly to replicate the poverty estimates of the World Bank for the SDG initial year (2015), and prior years, although with small discrepancies in estimates

⁶ In addition to the readings cited elsewhere in this paper, see also the debate of the author with World Bank economist Francisco Ferreira on the credibility of its existing global poverty estimates, conducted in early 2019: <https://www.worldbank.org/en/news/video/2019/03/05/smackdown-debate-how-credible-are-the-world-banks-global-poverty-estimates-how-can-they-be-improved> (accessed on 10 February 2020).

for individual regions and countries.⁷ In the baseline scenario we considered, we employed projected real income growth rates for individual countries from an available source (the U.S. Department of Agriculture International Macroeconomic Data Set⁸) which provides publicly available forecasts to 2030, unlike other prominent forecasting sources (notably the IMF World Economic Outlook Database⁹). We considered both USDA estimates from immediately before the pandemic (January 2020) and more recent ones (January 2021) revised as a result of the pandemic in order to gauge the effect of COVID-19 on global poverty projections.¹⁰

These are summarized by region and for the world in Table 1. It may be observed that growth projections for the decade fell for all regions as a result of the pandemic, with the world as a whole expected to have annual per capita growth rates that are almost half a percentage point lower than previously expected. In South Asia, the Middle East and North Africa, and Latin America and the Caribbean, more than one percentage point of annual per capita growth is expected to be lost.

Table 1. USDA projected compound annual per capita income growth rate between 2020 and 2030.

| Region | January 2021 USDA Projections | January 2020 USDA Projections |
|---------------------------------|-------------------------------|-------------------------------|
| East Asia and the Pacific | 3.40 | 3.53 |
| Latin America and the Caribbean | 0.86 | 2.05 |
| Middle East and North Africa | 0.65 | 1.84 |
| South Asia | 3.44 | 5.33 |
| Sub-Saharan Africa | 0.39 | 1.33 |
| World | 1.48 | 1.89 |

In the analyses we report on below, we also consider ‘low’ and ‘high’ forecasts, which are based on greater and lesser per capita real income growth rates than those projected by the USDA (one percentage point higher or lower than the baseline growth rate, respectively). Projections can vary greatly depending on the source and

⁷ This reflects the presence of some differences between the sources and underlying assumptions of the two databases.

⁸ See <https://www.ers.usda.gov/data-products/international-macroeconomic-data-set/> (accessed on 25 January 2020).

⁹ See <https://www.imf.org/external/pubs/ft/weo/2019/02/weodata/index.aspx> (accessed on 25 January 2020).

¹⁰ These were downloaded in January 2020 and in March 2021, respectively.

its assumptions, and this gives reason to consider different possibilities. For instance, the USDA estimates of growth rates in sub-Saharan Africa are considerably lower than those of the IMF—a difference which is potentially consequential, due to the presence of high poverty rates in the region. The IMF projected (prior to the onset of the pandemic) an average annual per capita income growth rate through 2024 of 3.89% per annum, whereas the USDA estimate through 2030 was 1.33% per annum.

Population projections were drawn from the same source and used to calculate expected per capita real income growth rates. These alternative growth rates were used to project the initial year per capita real consumption levels for percentiles of national populations, and to arrive at estimated future levels for these same percentiles. Regional consumption levels at each percentile were determined by aggregating national information using the methods described by Lahoti et al. (2016). These were then compared to the real (\$ 2011 PPP) poverty line used (also expressed in terms of real per capita consumption levels) to estimate alternative poverty headcounts and headcount ratios for individual countries, major regions, and for the world as a whole.

The poverty lines chosen were (all in \$ 2011 PPP) \$ 1.90, \$ 2.52, \$ 3.10 and \$ 5.04. The first of these is the “absolute” poverty line, which has been claimed by the World Bank to be equivalent to its previous \$ 1.25 (2005 PPP) IPL (accepted as an SDG indicator by the United Nations). The \$ 3.10 line is the higher poverty line applied by the World Bank (for reasons that are unclear, because limited conceptual justification has been offered for it). The \$ 5.04 line is that which was deemed necessary for meeting basic nutritional requirements in the United States in 2011, according to the Thrifty Food Plan of the USDA (see the discussion in Reddy and Lahoti (2016) of why this should, in principle, provide some guidance as to the minimum cost of basic human requirements elsewhere too, if the PPPs used are taken at face value as preserving purchasing power over relevant commodities). The \$ 2.52 line is half of this basic nutritional standard for the United States, providing a more stringent alternative. In neither case is any allowance made for non-nutritional capabilities.

The current poverty headcount ratios in 2020 in each world region for the various poverty lines used are shown in Table 2.

The baseline pre-pandemic forecast generated the same estimate of the \$ 1.90 2011 PPP global poverty headcount ratio for 2030 as United Nations (2019b), namely, six percent (compared to eleven percent in 2020), as can be seen in Table 3(a). The projected 2030 poverty headcount ratio in sub-Saharan Africa is 36%, considerably greater than that for any other world region. The projected 2030 headcount ratio was expected to be between zero and three percent in every other region. Adopting more

favorable assumptions leads to lower poverty headcount ratios. Growth rates that are two percent higher (closer to IMF estimates) lead to the projected headcount ratio for sub-Saharan Africa being lowered to 27%, and the world headcount ratio falling by one percentage point, to 5%.

Table 2. Poverty headcount ratios (%) for different poverty lines for 2020. Source: own estimates based on Global Consumption and Income Project data.

| Region | Poverty Headcount Ratio (%) for Different Poverty Lines (\$ 2011 PPP) | | | |
|---------------------------------|---|---------|---------|---------|
| | \$ 1.90 | \$ 2.52 | \$ 3.10 | \$ 5.04 |
| East Asia and the Pacific | 1 | 7 | 13 | 30 |
| Latin America and the Caribbean | 5 | 11 | 17 | 38 |
| Middle East and North Africa | 4 | 9 | 15 | 34 |
| South Asia | 14 | 30 | 44 | 75 |
| Sub-Saharan Africa | 47 | 61 | 70 | 86 |
| World | 11 | 20 | 27 | 45 |

Table 3. (a) Poverty headcount ratio estimates (%) for \$ 1.90 IPL in 2030 using pre-COVID-19 growth estimates; **(b)** poverty headcount ratio estimates (%) for \$ 1.90 IPL in 2030 using post-COVID-19 growth estimates. Source: own estimates based on Global Consumption and Income Project data.

| (a) | | | | | |
|---------------------------------|--------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Region | Poverty Proportion (%) | | | | |
| | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 0 | 0 | 1 | 0 | 1 |
| Latin America and the Caribbean | 2 | 1 | 2 | 1 | 3 |
| Middle East and North Africa | 1 | 1 | 2 | 1 | 3 |
| South Asia | 0 | 0 | 0 | 0 | 0 |
| Sub-Saharan Africa | 36 | 31 | 41 | 27 | 46 |
| World | 6 | 5 | 7 | 5 | 8 |

Table 3. Cont.

| (b) | | | | | |
|---------------------------------|--------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Region | Poverty Proportion (%) | | | | |
| | Baseline Growth Estimate | Baseline Growth Estimate +1% | Baseline Growth Estimate -1% | Baseline Growth Estimate +2% | Baseline Growth Estimate -2% |
| East Asia and the Pacific | 0 | 0 | 1 | 0 | 1 |
| Latin America and the Caribbean | 3 | 2 | 4 | 1 | 6 |
| Middle East and North Africa | 3 | 2 | 3 | 1 | 5 |
| South Asia | 1 | 0 | 2 | 0 | 5 |
| Sub-Saharan Africa | 42 | 37 | 47 | 32 | 53 |
| World | 8 | 7 | 9 | 6 | 11 |

As shown in Table 3(b), for the baseline scenario and the \$ 1.90 poverty line, the lower growth estimates as a result of the pandemic lead to a higher expected 2030 level of the poverty headcount ratio in sub-Saharan Africa (42%; six percentage points higher than under the pre-pandemic scenario) and in all regions other than East Asia. The expected 2030 world poverty headcount ratio is raised by two percentage points, or one-third of the pre-pandemic projection, to 8% of the global population. The expected world poverty headcount ratio is also raised in all other scenarios. In the most unfavorable case corresponding to growth rates two percentage points lower than in the baseline estimate, it rises a full three percentage points (to 11% of the global population), with the majority of the population in sub-Saharan Africa (53%) expected to remain in poverty even in 2030.

As can be seen from Table 4(a), under the baseline pre-pandemic growth estimate, the total number of poor persons expected to remain worldwide in 2030 is 515 million people, with the total varying between 385 million and 696 million depending on the growth scenario. The vast majority of these are projected to be in sub-Saharan Africa under all of the scenarios. As shown in Table 4(b), the revised growth estimates as a result of the pandemic lead to much higher estimates of the number of poor, ranging from 470 million to 954 million, with 659 million projected in the baseline scenario.

Table 4. (a) Poverty headcount estimates for \$ 1.90 IPL in 2030 using pre-COVID-19 growth estimates; **(b)** poverty headcount estimates for \$ 1.90 IPL in 2030 using post-COVID-19 growth estimates.

| (a) | | | | | |
|---------------------------------|--------------------------------|--|--|--|--|
| Number of Poor (in millions) | | | | | |
| | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 0.00 | 0.00 | 23.70 | 0.00 | 23.70 |
| Latin America and the Caribbean | 13.90 | 6.97 | 13.90 | 6.97 | 20.90 |
| Middle East and North Africa | 6.14 | 6.14 | 12.30 | 6.14 | 18.40 |
| South Asia | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sub-Saharan Africa | 495.00 | 427.00 | 564.00 | 371.00 | 633.00 |
| World | 515.00 | 440.00 | 614.00 | 385.00 | 696.00 |
| (b) | | | | | |
| Number of Poor (in millions) | | | | | |
| | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 0 | 0 | 23.76 | 0 | 23.76 |
| Latin America and the Caribbean | 20.83 | 13.88 | 27.77 | 6.94 | 41.65 |
| Middle East and North Africa | 18.35 | 12.24 | 18.35 | 6.12 | 30.59 |
| South Asia | 20.22 | 0 | 40.43 | 0 | 101.08 |
| Sub-Saharan Africa | 599.85 | 528.44 | 671.27 | 457.03 | 756.96 |
| World | 659.25 | 554.56 | 781.57 | 470.09 | 954.03 |

We also considered alternative poverty lines, recognizing that the \$ 1.90 2011 PPP IPL may be inadequate for specific countries and regions, or globally. For each of these, we once again considered alternative global growth scenarios (the baseline aggregate GDP growth scenario plus or minus one or two percentage points per annum). The estimated poverty headcount ratios and headcounts for regions and for the world are reported for distinct poverty lines and, in each case, for pre- and post-pandemic growth estimates, in Tables 3–10.

The pattern that the majority of the poor remaining in 2030 are expected to be in sub-Saharan Africa does not change when the distinct growth scenarios are applied uniformly across regions (although the specific proportions do, with South Asia becoming a major contributor to the poverty total at the higher poverty lines and under the more unfavorable global growth scenarios. For the pre-pandemic growth estimates, even if the most favorable growth scenario for sub-Saharan Africa (baseline plus two percentage points) is compared with the most unfavorable growth scenario for South Asia (baseline minus two percentage points) and the highest poverty line is considered (\$ 5.04 2011 PPP; see Table 10a), a greater number of poor are expected to be in sub-Saharan Africa (977 million) as compared to South Asia (913 million). The number of poor people in the world in this scenario, even if the other world regions experience strong growth, is more than two billion persons. Considering the various “pure” scenarios, including the baseline and those which raise or lower growth rates uniformly across all regions, leads to the conclusion that at least 2.7 billion people will remain in poverty in all of these scenarios. Even if we consider the lower \$ 2.52 2011 PPP and \$ 3.10 2011 PPP poverty lines, we find that, in all scenarios, at least half a billion people will remain in poverty in 2030. These are hardly circumstances in which poverty will have been ‘eliminated’. Considering the less optimistic post-pandemic growth estimates only accentuates this conclusion.

Table 5. (a) Poverty headcount ratio estimates for \$ 2.52 IPL in 2030 using pre-COVID-19 growth estimates; (b) poverty headcount ratio estimates for \$ 2.52 IPL in 2030 using post-COVID-19 growth estimates. Source: own estimates based on Global Consumption and Income Project data.

| (a) | | | | | |
|---------------------------------|--------------------------------|--|--|--|--|
| | Poverty Proportion (%) | | | | |
| Region | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 1 | 1 | 1 | 0 | 3 |
| Latin America and the Caribbean | 4 | 3 | 6 | 2 | 8 |
| Middle East and North Africa | 3 | 2 | 4 | 2 | 6 |
| South Asia | 1 | 0 | 3 | 0 | 6 |
| Sub-Saharan Africa | 50 | 45 | 55 | 39 | 60 |
| World | 9 | 8 | 11 | 7 | 13 |
| (b) | | | | | |
| | Poverty Proportion (%) | | | | |
| Region | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 1 | 1 | 1 | 0 | 3 |
| Latin America and the Caribbean | 7 | 5 | 9 | 4 | 12 |
| Middle East and North Africa | 6 | 4 | 8 | 3 | 11 |
| South Asia | 7 | 3 | 12 | 1 | 17 |
| Sub-Saharan Africa | 56 | 51 | 61 | 45 | 66 |
| World | 13 | 10 | 15 | 9 | 18 |

Table 6. (a) Poverty headcount estimates for \$ 2.52 IPL in 2030 using pre-COVID-19 growth estimates; **(b)** poverty headcount estimates for \$ 2.52 IPL in 2030 using post-COVID-19 growth estimates. Source: own estimates based on Global Consumption and Income Project data.

| (a) | | | | | |
|---------------------------------|--------------------------------|--|--|--|--|
| Number of Poor (in millions) | | | | | |
| | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 23.70 | 23.70 | 23.70 | 0.00 | 71.20 |
| Latin America and the Caribbean | 27.90 | 20.90 | 41.80 | 13.90 | 55.80 |
| Middle East and North Africa | 18.40 | 12.30 | 24.60 | 12.30 | 36.90 |
| South Asia | 19.80 | 0.00 | 59.50 | 0.00 | 119.00 |
| Sub-Saharan Africa | 688.00 | 619.00 | 757.00 | 537.00 | 826.00 |
| World | 778.00 | 676.00 | 906.00 | 563.00 | 1110.00 |
| (b) | | | | | |
| Number of Poor (in millions) | | | | | |
| | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 23.76 | 23.76 | 23.76 | 0 | 71.27 |
| Latin America and the Caribbean | 48.59 | 34.71 | 62.48 | 27.77 | 83.30 |
| Middle East and North Africa | 36.70 | 24.47 | 48.94 | 18.35 | 67.29 |
| South Asia | 141.51 | 60.65 | 242.59 | 20.22 | 343.66 |
| Sub-Saharan Africa | 799.81 | 728.39 | 871.22 | 642.70 | 942.63 |
| World | 1050.37 | 871.98 | 1,248.98 | 709.04 | 1508.16 |

Table 7. (a) Poverty headcount ratio estimates for \$ 3.10 IPL in 2030 using pre-COVID-19 growth estimates; (b) poverty headcount ratio estimates for \$ 3.10 IPL in 2030 using post-COVID-19 growth estimates. Source: own estimates based on Global Consumption and Income Project data.

| (a) | | | | | |
|---------------------------------|--------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Region | Poverty Proportion (%) | | | | |
| | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 3 | 1 | 05 | 1 | 08 |
| Latin America and the Caribbean | 7 | 5 | 10 | 4 | 13 |
| Middle East and North Africa | 6 | 4 | 8 | 3 | 10 |
| South Asia | 6 | 2 | 10 | 1 | 15 |
| Sub-Saharan Africa | 59 | 54 | 65 | 49 | 69 |
| World | 13 | 10 | 16 | 9 | 19 |
| (b) | | | | | |
| Region | Poverty Proportion (%) | | | | |
| | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 3 | 1 | 5 | 1 | 8 |
| Latin America and the Caribbean | 11 | 9 | 14 | 7 | 18 |
| Middle East and North Africa | 10 | 8 | 13 | 6 | 16 |
| South Asia | 16 | 11 | 22 | 7 | 29 |
| Sub-Saharan Africa | 65 | 60 | 70 | 55 | 74 |
| World | 18 | 15 | 21 | 12 | 25 |

Table 8. (a) Poverty headcount estimates for \$ 3.10 IPL in 2030 using pre-COVID-19 growth estimates; **(b)** poverty headcount estimates for \$ 3.10 IPL in 2030 using post-COVID-19 growth estimates. Source: own estimates based on Global Consumption and Income Project data.

| (a) | | | | | |
|---------------------------------|--------------------------------|--|--|--|--|
| | Number of Poor (in millions) | | | | |
| | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 71.20 | 23.70 | 119.00 | 23.70 | 190.00 |
| Latin America and the Caribbean | 48.80 | 34.90 | 69.70 | 27.90 | 90.60 |
| Middle East and North Africa | 36.90 | 24.60 | 49.20 | 18.40 | 61.40 |
| South Asia | 119.00 | 39.70 | 198.00 | 19.80 | 298.00 |
| Sub-Saharan Africa | 812.00 | 743.00 | 894.00 | 674.00 | 949.00 |
| World | 1090.00 | 866.00 | 1330.00 | 764.00 | 1590.00 |
| (b) | | | | | |
| | Number of Poor (in millions) | | | | |
| | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 71.27 | 23.76 | 118.79 | 23.76 | 190.06 |
| Latin America and the Caribbean | 76.36 | 62.48 | 97.19 | 48.59 | 124.96 |
| Middle East and North Africa | 61.17 | 48.94 | 79.53 | 36.70 | 97.88 |
| South Asia | 323.45 | 222.37 | 444.74 | 141.51 | 586.25 |
| Sub-Saharan Africa | 928.35 | 856.93 | 999.76 | 785.52 | 1056.89 |
| World | 1460.60 | 1214.48 | 1740.00 | 1036.09 | 2056.03 |

Table 9. (a) Poverty headcount ratio estimates for \$ 5.04 IPL in 2030 using pre-COVID-19 growth estimates; (b) poverty headcount ratio estimates for \$ 5.04 IPL in 2030 using post-COVID-19 growth estimates. Source: own estimates based on Global Consumption and Income Project data.

| (a) | | | | | |
|---------------------------------|--------------------------------|--|--|--|--|
| Poverty Proportion (%) | | | | | |
| Region | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 16 | 13 | 20 | 10 | 24 |
| Latin America and the Caribbean | 22 | 18 | 26 | 14 | 31 |
| Middle East and North Africa | 18 | 14 | 22 | 11 | 26 |
| South Asia | 31 | 25 | 38 | 19 | 46 |
| Sub-Saharan Africa | 79 | 75 | 83 | 71 | 85 |
| World | 28 | 25 | 32 | 21 | 37 |
| (b) | | | | | |
| Poverty Proportion (%) | | | | | |
| Region | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 16 | 13 | 20 | 10 | 24 |
| Latin America and the Caribbean | 29 | 24 | 34 | 20 | 39 |
| Middle East and North Africa | 27 | 22 | 32 | 18 | 37 |
| South Asia | 47 | 40 | 55 | 33 | 62 |
| Sub-Saharan Africa | 83 | 80 | 86 | 76 | 88 |
| World | 35 | 31 | 39 | 27 | 43 |

Table 10. (a) Poverty headcount estimates for \$ 5.04 IPL in 2030 using pre-COVID-19 growth estimates; **(b)** poverty headcount estimates for \$ 5.04 IPL in 2030 using post-COVID-19 growth estimates. Source: own estimates based on Global Consumption and Income Project data.

| (a) | | | | | |
|---------------------------------|--------------------------------|--|--|--|--|
| Number of Poor (in millions) | | | | | |
| Region | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 380.00 | 308.00 | 475.00 | 237.00 | 569.00 |
| Latin America and the Caribbean | 153.00 | 125.00 | 181.00 | 97.60 | 216.00 |
| Middle East and North Africa | 111.00 | 86.00 | 135.00 | 67.60 | 160.00 |
| South Asia | 615.00 | 496.00 | 754.00 | 377.00 | 913.00 |
| Sub-Saharan Africa | 1090.00 | 1030.00 | 1140.00 | 977.00 | 1170.00 |
| World | 2350.00 | 2050.00 | 2690.00 | 1760.00 | 3030.00 |
| (b) | | | | | |
| Number of Poor (in millions) | | | | | |
| Region | Baseline Growth Estimate | Baseline Growth Estimate + 1% | Baseline Growth Estimate – 1% | Baseline Growth Estimate + 2% | Baseline Growth Estimate – 2% |
| East Asia and the Pacific | 380.12 | 308.85 | 475.16 | 237.58 | 570.19 |
| Latin America and the Caribbean | 201.32 | 166.61 | 236.03 | 138.84 | 270.74 |
| Middle East and North Africa | 165.17 | 134.58 | 195.76 | 110.11 | 226.34 |
| South Asia | 950.13 | 808.62 | 1111.85 | 667.11 | 1253.36 |
| Sub-Saharan Africa | 1185.43 | 1142.58 | 1228.27 | 1085.45 | 1256.84 |
| World | 2882.16 | 2561.24 | 3247.06 | 2239.09 | 3577.46 |

The alternative growth scenarios considered in the tables involve the application of the “same” poverty line in different world regions. However, there is a question as to whether or not the poverty lines involved are in fact the same in a meaningful sense, as a result of deficiencies in current PPPs as constant price indices for the cost of poverty avoidance. In the presence of these problems, poverty lines which, for different world regions or countries, capture the cost of poverty avoidance in terms of purchasing power over commodities necessary to avoid poverty locally according to a common criterion may correspond to *different* nominal PPP dollar amounts. It cannot be known what these discrepancies are without full-fledged studies leading to the construction of suitable country-specific poverty lines reflecting a common understanding of what poverty avoidance demands. The \$ 1.90 2011 PPP poverty line is highly conservative for developed countries (such as the ‘base country’ for PPP price indices, the United States, where it is clearly inadequate to avoid poverty even according to absolutist standards such as those offered by the Thrifty Food Plan). There is therefore reason to think that more realistic poverty lines, when expressed in 2011 PPP dollars, would be higher for at least some countries. It is likely that more realistic poverty lines would be attained through adjustments that vary across countries and regions. Any appearance that different poverty lines (in \$ 2011 PPP units) are being applied in different regions as a result of such modifications would be only an optical illusion, reflecting the need to correct for systematic mismeasurement of the PPPs being used at present, when applied to poverty lines, in order to ensure that they correctly measure the same thing everywhere.

5. Poverty Reducing the Impact of Economic Growth, and Implications

Where is the poverty-reducing impact of economic growth the greatest? The relationship between a change in the growth rate and the incremental reduction in poverty in each world region at each poverty line defines a “semi-elasticity”. We report in Table 11 the impact of the growth rate being one percentage point less (baseline minus one) or one percentage point more (baseline plus one) at different poverty lines, and for different world regions. It can be seen that the impact of a one percentage point increase or decrease in the growth rate (from the baseline level) is greatest in terms of both headcount ratio and headcount in sub-Saharan Africa, at lower poverty lines. This changes, however, as the poverty line is raised, with South Asia becoming the world region where a change in the growth rate has the largest impact on both the headcount ratio and the total headcount of poverty. At the highest poverty line studied, a one percentage point change makes a difference in the headcount of 142 million in South Asia compared to 43 million in sub-Saharan Africa

(for post-pandemic growth estimates). Growth is poverty-reducing everywhere. A one percentage point increase in global growth makes a difference of between 105 and 321 million poor worldwide, depending on the poverty line chosen, for post-pandemic growth estimates. Growth benefitting sub-Saharan Africa and South Asia has a greater impact. The region where the impact is greatest depends on the poverty line.

At higher poverty lines, additional growth has a sizable impact on poverty in all regions, with its impact on poverty in East Asia rising considerably. At the highest poverty line, the impact of additional growth on the number of poor in East Asia surpasses that on the number of poor in sub-Saharan Africa (although the impact is less than in South Asia). These conclusions qualify the widespread presumption that addressing the problem of absolute poverty worldwide requires a singular focus on sub-Saharan Africa. Especially at higher poverty lines, income poverty is a global problem, and sustaining growth throughout the developing world is important for its reduction.

Table 11. (a) Headcount semi-elasticities of growth based on pre-COVID-19 growth estimates for different poverty lines (2011 PPP); (b) headcount semi-elasticities of growth based on post-COVID-19 growth estimates for different poverty lines (2011 PPP). Source: own estimates based on Global Consumption and Income Project data.

| (a) | | | | |
|---------------------------------|-----------------------------|---------------|------------------------------|---------------|
| \$ 1.90 | | | | |
| Region | Poverty Headcount Ratio (%) | | Number of Poor (in millions) | |
| | Baseline + 1% | Baseline – 1% | Baseline + 1% | Baseline – 1% |
| East Asia and the Pacific | 0 | 1 | 0.00 | 23.70 |
| Latin America and the Caribbean | –1 | 0 | –6.93 | 0.00 |
| Middle East and North Africa | 0 | 1 | 0.00 | 6.16 |
| South Asia | 0 | 0 | 0.00 | 0.00 |
| Sub-Saharan Africa | –5 | 5 | –68.00 | 69.00 |
| World | –1 | 1 | –75.00 | 99.00 |

Table 11. Cont.

| \$ 2.52 | | | | |
|---------------------------------|-----------------------------|---------------|------------------------------|---------------|
| Region | Poverty Headcount Ratio (%) | | Number of Poor (in millions) | |
| | Baseline + 1% | Baseline – 1% | Baseline + 1% | Baseline – 1% |
| East Asia and the Pacific | 0 | 0 | 0.00 | 0.00 |
| Latin America and the Caribbean | –1 | 2 | –7.00 | 13.90 |
| Middle East and North Africa | –1 | 1 | –6.10 | 6.20 |
| South Asia | –1 | 2 | –19.80 | 39.70 |
| Sub-Saharan Africa | –5 | 5 | –69.00 | 69.00 |
| World | –1 | 2 | –102.00 | 128.00 |
| \$ 3.10 | | | | |
| Region | Poverty Headcount Ratio (%) | | Number of Poor (in millions) | |
| | Baseline + 1% | Baseline – 1% | Baseline + 1% | Baseline – 1% |
| East Asia and the Pacific | –2 | 2 | –47.50 | 47.80 |
| Latin America and the Caribbean | –2 | 3 | –13.90 | 20.90 |
| Middle East and North Africa | –2 | 2 | –12.30 | 12.30 |
| South Asia | –4 | 4 | –79.30 | 79.00 |
| Sub-Saharan Africa | –5 | 6 | –69.00 | 82.00 |
| World | –3 | 3 | –224.00 | 240.00 |
| \$ 5.04 | | | | |
| Region | Poverty Headcount Ratio (%) | | Number of Poor (in millions) | |
| | Baseline + 1% | Baseline – 1% | Baseline + 1% | Baseline – 1% |
| East Asia and the Pacific | –3 | 4 | –72.00 | 95.00 |
| Latin America and the Caribbean | –4 | 4 | –28.00 | 28.00 |

Table 11. Cont.

| | | | | |
|---------------------------------|-----------------------------|---------------|------------------------------|---------------|
| Middle East and North Africa | -4 | 4 | -25.00 | 24.00 |
| South Asia | -6 | 7 | -119.00 | 139.00 |
| Sub-Saharan Africa | -4 | 4 | -60.00 | 50.00 |
| World | -4 | 4 | -300.00 | 340.00 |
| (b) | | | | |
| \$ 1.90 | | | | |
| | Poverty Headcount Ratio (%) | | Number of Poor (in millions) | |
| Region | Baseline + 1% | Baseline - 1% | Baseline + 1% | Baseline - 1% |
| East Asia and the Pacific | 0 | 1 | 0 | 23.76 |
| Latin America and the Caribbean | -1 | 1 | -6.94 | 6.94 |
| Middle East and North Africa | -1 | 0 | -6.12 | 0 |
| South Asia | -1 | 1 | -20.22 | 20.22 |
| Sub-Saharan Africa | -5 | 5 | -71.41 | 71.41 |
| World | -1 | 1 | -104.69 | 122.33 |
| \$ 2.52 | | | | |
| | Poverty Headcount Ratio (%) | | Number of Poor (in millions) | |
| Region | Baseline + 1% | Baseline - 1% | Baseline + 1% | Baseline - 1% |
| East Asia and the Pacific | 0 | 0 | 0 | 0 |
| Latin America and the Caribbean | -2 | 2 | -13.88 | 13.88 |
| Middle East and North Africa | -2 | 2 | -12.24 | 12.24 |
| South Asia | -4 | 5 | -80.86 | 101.08 |
| Sub-Saharan Africa | -5 | 5 | -71.41 | 71.41 |
| World | -2 | 2 | -178.39 | 198.61 |

Table 11. Cont.

| Region | \$ 3.10 | Poverty Headcount Ratio (%) | | Number of Poor (in millions) | |
|---------------------------------|---------|-----------------------------|---------------|------------------------------|---------------|
| | | Baseline + 1% | Baseline – 1% | Baseline + 1% | Baseline – 1% |
| East Asia and the Pacific | | –2 | 2 | –47.52 | 47.52 |
| Latin America and the Caribbean | | –2 | 3 | –13.88 | 20.83 |
| Middle East and North Africa | | –2 | 3 | –12.24 | 18.35 |
| South Asia | | –5 | 6 | –101.08 | 121.29 |
| Sub-Saharan Africa | | –5 | 5 | –71.41 | 71.41 |
| World | | –3 | 3 | –246.12 | 279.40 |
| | \$ 5.04 | | | | |
| Region | | Poverty Headcount Ratio (%) | | Number of Poor (in millions) | |
| | | Baseline + 1% | Baseline – 1% | Baseline + 1% | Baseline – 1% |
| East Asia and the Pacific | | –3 | 4 | –71.27 | 95.03 |
| Latin America and the Caribbean | | –5 | 5 | –34.71 | 34.71 |
| Middle East and North Africa | | –5 | 5 | –30.59 | 30.59 |
| South Asia | | –7 | 8 | –141.51 | 161.72 |
| Sub-Saharan Africa | | –3 | 3 | –42.85 | 42.85 |
| World | | –4 | 4 | –320.93 | 364.90 |

6. Conclusions

Sustained economic growth in developing countries—especially the poorest—is required for global income poverty reduction. The likelihood of achieving the first Sustainable Development Goal of “ending poverty” has diminished, as a result of the economic setbacks experienced in the wake of COVID-19. Our picture of the likely extent of worldwide progress by 2030, and of where remaining poverty is likely to be concentrated, are both greatly dependent on specific assumptions, such as the

poverty line used. Even in the most favorable scenarios, the world will reduce but not “end” poverty. Under less favorable ones, mass poverty is likely to remain a significant concern.

Funding: This research received no external funding.

Conflicts of Interest: The author declares no conflict of interest.

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