



Book review of *Measuring Poverty around the World*

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It is a sad task to be writing this review of the last book by Anthony (Tony) Atkinson, who passed away in January 2017, before the book could be completed. Throughout his career, Atkinson bridged his considerable technical skill as an economist with a commitment to rigorous thinking about distributional measurement and policies. He combined deep scholarship with social concern. It is a combination that has long made him a role model for all those who seriously study, and care about, poverty and inequality, and social issues more broadly.

Shortly before his death, Atkinson asked two of his past collaborators, Andrea Brandolini and John Micklewright, to bring the book to publication. They took their editorial role seriously, filling in some of the more obvious blank spaces and providing a useful set of editorial notes along the way, pointing to likely arguments or qualifications Atkinson would probably have made. The book he had in mind was clearly ambitious, and the manuscript he left at his death was still some distance from fulfilling his ambition. All those interested in poverty should be grateful to Brandolini and Micklewright for their effort in bringing us Atkinson's last thoughts on this important topic.

The book is written for a broad audience, and it deserves such an audience. Lay readers who want to better understand poverty statistics could do no better than to read the core chapters on the meaning of "poverty" (Chapter 2), the concepts (Chapter 3) and the data (Chapter 4). Chapter 5 reviews what we know about progress against poverty, and related goals. Chapters 6–9 provide regional/country perspectives (for Asia, Africa, Latin America, and the "rich world"), with an accompanying set of 60 country-specific notes based on secondary sources. These are the most unfinished and sketchy chapters. They do not reflect well current knowledge from the literatures at country level (extensive literatures in some cases). I can readily believe that the editors saw it as too daunting a task to finish these chapters, though others may want to complete the stories. I will not have much to say here about Chapters 6–9. Chapter 10 concludes.

Two of Atkinson's past collaborators, Francois Bourguignon and Nicholas Stern, provide extra chapters written after Atkinson's death, on topics he wanted to cover. Bourguignon summarizes what we know about the interrelationship (in both directions) between economic growth and income distribution while Stern writes on climate change and poverty; alongside poverty, Atkinson saw climate change as one of the greatest challenges of our time. One cannot imagine better choices to cover these two topics than Bourguignon and Stern.

As one would expect from Atkinson, the book explains numerous theoretical and empirical measurement issues in a concise and accessible way. Multiple perspectives are provided and given

respectful yet (often subtle) critical attention. Prevailing approaches to measuring poverty are described in Chapter 2, pointing to both the strengths and weaknesses of each. Unfortunately, the section on rights-based approaches in Chapter 2 was not completed before he passed away, although the editors sketch how he might have done so. I agree with them that it would have been interesting to hear what Atkinson thought about the various ongoing country reports by the UN's special rapporteur on poverty and human rights, the legal scholar Philip Alston, who has taken a rights-based perspective.

All the key measurement issues are addressed in the core chapters, with attention to the robustness of poverty measures and the assumptions made in using the (typically imperfect) data. Atkinson did some pioneering work on the robustness of ordinal poverty comparisons using dominance tests (notably in his Walras-Bowley Lecture to the Econometric Society; see Atkinson 1987). The present book tends to focus more on robustness issues related to concepts (such as the choice between income and consumption) and data (such as the price indices used). Atkinson reviews evidence on a range of issues in Chapters 3 and 4. This is an active field of research in economics, so it is not surprising that there is new work since Atkinson passed away, including on intra-household inequality and the construction of PPP price indices. However, the book is an excellent introduction to the theory and practice of measurement.

Atkinson aimed to be truly global in coverage. His more empirical and policy-oriented work has been for rich countries, mainly the UK and Europe. (His first book, Atkinson 1969, was on poverty in the UK.) This step into a more global setting was encouraged by the World Bank, which invited him to chair a Commission on Global Poverty (now known as the Atkinson Commission). As Atkinson acknowledges, this entailed thinking and writing about settings in poor countries that were quite unfamiliar to him. That does show at times in this book, though mostly in minor ways, such as in the examples chosen to illustrate points. A less minor example is found in his views on the choice between consumption and income as a welfare indicator (Chapter 3). Looking at this choice from the perspective of an underdeveloped rural economy would bring in some different issues. It is not surprising that consumption is generally considered preferable to income as a welfare indicator in poor countries, while income is used more often in developed countries (though even then there is a case for using consumption). In addition to the conceptual issues, the more practical challenges in measuring both concepts get well-justified attention in Chapter 3.

One gets the feeling at times, notably in Chapter 1, that Atkinson was thinking about global poverty reduction as in large part a task for rich countries, such that the main moral question becomes how much citizens in the latter countries should care about foreigners (as discussed in Chapter 1). I would contend that the bulk of the recent success in reducing global poverty has come from policy making and citizen action within developing countries, though often with some international support. I expect that will continue to be the case. Relatedly, the (varying) capacities for redistribution within developing countries, including as a means of poverty reduction, get less attention than I would have liked. The latter parts of the book, that were not completed in time, would undoubtedly have gone further into the myriad of domestic policies in developing countries. The "global poverty" version of Atkinson's (2015) excellent monograph on policies for reducing inequality in rich countries would have been hugely interesting. Bourguignon's afterword touches on the policy issues related to the potentially complex interconnections between poverty, inequality and economic growth.

The World Bank's global poverty measures get much attention. The Bank's international line is currently \$1.90 per person per day, at 2011 Purchasing Power Parity (PPP). This is an update of the prior line of \$1.25 at 2005 PPP, as used by Chen and Ravallion (2010), which documents the methods used, as implemented in the *PovcalNet* software platform for

replicating the estimates and trying different assumptions. Chapter 4 of the book comments on data issues, such as the need to make interpolations/extrapolations because survey data have incomplete coverage over time and across countries. (Data have improved greatly in these respects, and the estimates are clearly less reliable as one goes back in time.) Chapter 5 reviews the history and conceptual foundations of the Bank's method, the concerns raised by critics, as well as the results (also summarized in Chapter 1). As elsewhere, the discussion is careful and balanced.

Atkinson favors a range of measures, to properly reflect different aspects of poverty. These need not tell the same story. A case in point is the use of "higher-order" measures of poverty, reflecting distribution below the line. Atkinson points to our recent progress in reducing various measures globally. However, the "counting measures" he considers (in common with the literature) need not reflect well our progress in reaching the poorest—in lifting the floor as given by the lower bound to the global distribution of real income (Ravallion 2016). We are making progress in reducing the numbers of people living near the floor, but rather little in raising the floor above the biological level for survival. I see this as a serious deficiency of prevailing approaches to social protection, and I can imagine that this would have been a policy issue of great interest to Atkinson.

In his work on poverty in Europe (notably Atkinson 1998), Atkinson had been an advocate of relative poverty measures, in which the poverty line is set at some constant proportion of the current mean or median—what I term "strongly relative measures" as distinct from weakly relative measures in which the poverty line has an elasticity with respect to the mean that is strictly less than unity (as reviewed in Ravallion 2020). Absolute measures have been favored by the World Bank (and the US Census Bureau). Atkinson (and Bourguignon) repeat the common claim that absolute lines are the norm in developing countries. In the past I also thought that was true, but I have recently found evidence to the contrary. In particular, when I regress national poverty lines on the national means (both at PPP), pooling data over countries and time with country fixed effects, I find that the average elasticity is about 0.5, and that it is significantly positive but also significantly less than unity (Ravallion 2020). So weakly relative poverty lines seem to be the norm over time at country level in the developing world rather than strictly absolute lines (for which the aforementioned elasticity is zero). One can go further and interpret this empirical regularity as reflecting a global concept of "poverty" that is inherently absolute, but absolute in a relevant welfare space, while being relative in the space of commodities (Ravallion 2020).

Researchers at the World Bank (including the author in the past) have measured weakly relative poverty globally (with some variations in methods). The World Bank still has some way to go in absorbing this approach into its high-profile measurement practices (such as its widely-used *World Development Indicators*). Atkinson would clearly have joined me in applauding further success by the Bank in making that transition in its institutional measurement practices.

Atkinson nicely explains the differences between the Bank's global cosmopolitanism (ignoring country boundaries) and more nationalistic perspectives, including "limited sympathy" in which foreigners are given positive weight but less than for one's fellow citizens. Here and elsewhere, this book is both a treatise on applied economics and one on applied ethics. Those familiar with Atkinson's early work (notably in Atkinson 1970) will recognize his effort to bring out clearly the ethical foundations of social measurement. He emphasizes the need for objective measures of "poverty" but also appreciates the essential normative content and social specificity of all such measures. In justifying the focus on poverty, Atkinson emphasizes the intrinsic moral case, somewhat

downplaying the (recently more popular) instrumental arguments. My own view is that the latter are an integral part of the moral case against poverty.

Atkinson considers the relationship between the Bank's international \$1.90 line and national lines. The discrepancy between the two is naturally larger in richer countries, given that the Bank's line is based on the (frugal) lines found in the poorest countries. Atkinson's approach to integrating the international and national lines follows an earlier (under-appreciated) paper with Bourguignon (Atkinson and Bourguignon 2001). By this approach, a person is deemed to be not poor if she lives above both the \$1.90 line and a relative line set at a fixed proportion of the mean income in the country of residence, calibrated to how national lines vary. This can be nicely interpreted within Amartya Sen's capability approach. Chapter 9 provides illustrative calculations of global poverty rates by this method.

The Atkinson-Bourguignon framework is a good starting point for thinking about global poverty, but it can be improved. It does not seem plausible that the relative line has a homogeneous form, which implies very low costs of social inclusion in poor countries. Nor does it seem plausible that the appropriate comparison income in relative comparisons is either the mean or median, as is commonly assumed. As an example of Atkinson's continuing influence, in a paper since he passed away, Ravallion and Chen (2019) generalize the A-B framework to address both these issues, and provide new global measures of poverty.

While much of the book is devoted to the standard measures, it does not ignore other dimensions of poverty not well reflected in those measures (Chapter 3). Of course, Atkinson does not make the (still surprisingly common) mistake of thinking that the use of a monetary metric of poverty implies that one believes that people only care about their monetary incomes; that depends crucially on how the poverty line is set, as discussed in Chapter 2. However, given the existence of money-metrics of "non-income" dimensions of welfare there is potential confusion in making a sharp distinction between "monetary" and "nonmonetary" measures.

Atkinson also recognized that being "multi-dimensional" in thinking about poverty does not imply that one needs a (unidimensional) composite index with weak theoretical foundations (what I have termed "mashup indices"). The dashboard approach that Atkinson clearly favored is more revealing for policy. Insisting on a single "multidimensional" index also constrains data options since one must have all variables for each household, sometimes precluding use of the best available data sources. Nonetheless, the book's national reports do include composite indices, to give recognition to some of the otherwise neglected dimensions of welfare such as health and education attainments. Atkinson, and the editors, point to the rising popularity of mashup indices at country level. There is a darker interpretation of this popularity not noted: governments doing badly in one dimension, such as maternal and child health, may well be happy to have this hidden from view in some composite index. Atkinson would clearly not have wanted that.

One of Atkinson's recommendations for future practice in global poverty measurement is to abandon PPP revisions at least until 2030 (the target date for "eliminating" global "extreme poverty"). This recommendation appears to stem mainly from the public confusion associated with the large and sometimes inexplicable revisions to PPPs that come with each new round of the International Comparison Program (ICP). These revisions reflect both new data and changes in methodology. This can create public confusion when the old numbers are put side-by-side with the new ones, and there is no immediately obvious explanation for the difference. For example, drawing on Deaton (2010), Allen (2017) says that the World Bank's methods indicate "that the number of poor in India...increased markedly despite India's economic growth—a perverse result indeed!" (p.3691). However, Allen is not actually

referring to how India's poverty rate has changed over time; the Bank's methods have long indicated falling poverty measures in India with economic growth. Rather Allen's comment refers to the comparison of two sets of estimates using old and new PPPs (for different ICP base years). The Bank follows standard practice in only doing the PPP conversion at the ICP base year; the price adjustments over time use the best available local price indices (Chen and Ravallion 2010).

While I understand Atkinson's motivation for recommending no further PPP revisions beyond the 2011 ICP round, I also see a serious risk. If the Bank's poverty counts break from the new ICP one can expect a (reasonable) critique that, on release of the next ICP round, the international line will be demonstrably uneven in purchasing power across countries, and the unevenness has little or no justification in measuring poverty. I worry that the measures will risk losing international credibility. It should also be noted that the "PPP upheaval" from new ICP rounds does not happen that often—only a few times since the global poverty monitoring task started in 1989. One might also hope that the ICP will stabilize soon. Possibly a weighted average of PPPs is called for to smooth the transitions, rather than going cold turkey.

The overall progress being made against global poverty in recent decades is affirmed by Atkinson's careful inspection of the theoretical and empirical foundations of past measures. That is good news. Going forward, as Atkinson fully appreciated, there are numerous threats to that progress continuing, including rising inequality and climate change. Bourguignon's afterword makes clear the role played by inequality, and the potential threat it poses. Stern's afterword serves the same role for climate change. Appropriately, Stern also emphasizes the fundamental distributional aspects of this threat—notably that the stock of green-house gases generating global warming was produced in large part by the rich world, but the costs will almost certainly be borne in large part by the world's poor. Naturally, inter-generational equity also figures prominently, and Stern points to the need for a dynamic public economics of this topic. This is the book's most policy-oriented chapter, though (given the size of the topic and limited space) it is not surprising that the chapter lacks the Atkinson-like balance in which opposing views on policy are well represented, on the road to policy prescription.

While acknowledging the good news that the aggregate counts of global absolute poverty have been falling, we need to be aware of some important qualifications. There is a variance of course, with much less progress in some places than others. We are also seeing rising numbers of relatively poor in many countries, alongside only very modest gains to the poorest, including from social policies. And we are seeing much less progress against poverty in the rich world than in the developing world.

In the struggle ahead to assure that progress against poverty is maintained and hopefully accelerated, the type of intellectually honest, scholarly yet socially committed, research exemplified by Tony Atkinson throughout his career will be needed in spades.

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