

Tony Atkinson's New Book, *Measuring Poverty Around the World*: Some Further Reflections¹

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Abstract: A new book on measuring global poverty by the late Tony Atkinson was published in 2019 by Princeton University Press. We describe how we edited the incomplete manuscript that Atkinson left at his death, the additions we made (which include afterwords by François Bourguignon and Nick Stern), and the content and structure of the book. We then discuss what we believe Atkinson was trying to achieve, emphasising both the important insights of the book and where the gaps remain. We also review parallel developments in the World Bank's measurement of global poverty that were stimulated by the report of the Commission on Global Poverty, written by Atkinson, from which this book was developed. The new book is more than four hundred published pages. It remains unfinished yet it is a masterly guide to the nuances of poverty measurement and an invaluable source for future research.

Keywords: global poverty, income, consumption, multidimensional poverty, cosmopolitanism.

JEL codes: C80, I32

1. INTRODUCTION

Tony Atkinson's death on 1 January 2017 deprived social science of one of its finest scholars. His magnum opus *Inequality: What Can Be Done?* (Atkinson, 2015), translated into more than a dozen other languages, is often talked of as his last book. But the good news is that a new Atkinson book is now published. *Measuring Poverty Around the World*, from Princeton University Press (Atkinson, 2019; henceforth, *MPAW*), appears fifty years after Tony's first book, also on the subject of poverty, *Poverty in Britain and the Reform of Social Security* (Atkinson, 1969). That first book was restricted in coverage to just his home country. In a volume published twenty years later, his view was broadened to embrace the whole of Europe (Atkinson, 1998). With this book, Tony's perspective turns truly global in its compass.

Had Tony Atkinson still been alive, we believe he would have wanted to discuss his work with the Society himself. (It would not have been the first time – in May 2005 he presented a paper about his report for the UK government on the measurement of government output and productivity (Atkinson, 2005).) He would have wanted to do so as he had taken a keen interest in the measurement of poverty in Ireland. He cites the National Anti-Poverty Strategy, NAPS, in the opening pages of his new book, drawing attention to its use of 'a poverty reduction target relating both to the numbers below the poverty line and to those experiencing basic deprivation' (*MPAW*, p.2).

In this paper we return to Tony's book, which we edited for publication, describing in more detail what we believe he was trying to achieve and where the gaps in the book remain. In doing so we mention parallel developments since Tony's death in the World Bank's measurement of global poverty, stimulated by his Commission on Global Poverty (CGP) report (World Bank, 2017), and how some of these differ from the

¹ This paper is based on and further develops our foreword to Atkinson (2019). We benefitted from discussion at presentations of Tony's book. In particular, we are grateful to Elena Granaglia, Tonia Mastrobuoni and Giovanni Vecchi (Festival dell'economia 2019, Trento), Francesca Bastagli, Torsten Bell, Rachel Glennerster, Nick Stern (Resolution Foundation, London), Chico Ferreira, Stephen Jenkins, Ingrid Robeyns (Human Development and Capability Association conference, London), Sabina Alkire and Brian Nolan (Oxford Martin School, Oxford), and Tricia Keilthy and Brian Nolan (The Statistical and Social Inquiry Society of Ireland, Dublin). We have also benefitted from reading early reviews of the book including Faktorovich (2019), Iacono (2019), Ravallion (2019), and Sivaraman (2019). The views expressed here are solely ours and they do not necessarily reflect those of the Bank of Italy or the Eurosystem.

direction Tony was taking in his book. In Section 2 we explain the thrust of the book and our editorial work. We discuss three aspects of the book that, in our view, characterise Tony's original view of the problem in hand in Section 3 and his 'principled' approach in Section 4. Then, we deal with the importance of statistical assumptions and data in Section 5. In Section 6 we turn to the second part of the book dealing with the interpretation of empirical evidence and the analysis of several substantive issues. In Section 7 we conclude.

2. THE THRUST OF THE BOOK AND OUR EDITORIAL WORK

Tony Atkinson's book is not an exercise in statistics, although statistics are a central theme of the book. He takes seriously the first of the seventeen UN Sustainable Development Goals (SDGs): the ending of poverty, 'everywhere'. His purpose is then to convince readers that measurement is fundamental in tackling this key challenge to humanity. Better measurement is essential for raising awareness of poverty, for motivating action to address it, for designing good policy, for gauging progress towards goals, and for holding political leaders accountable for meeting targets. By examining how poverty is – and should be – measured, Tony provides an inspiring guide to understand poverty and policies to fight it.

The book is about measurement of poverty 'around the world' in two senses. First, it leads readers through the nuances of measurement used in individual countries. 'Around' in this sense means 'anywhere'. How can one go about measuring poverty in any particular country, rich or poor? The book's chapters illustrate Tony's arguments with numerous examples, in part drawing on an appendix that was planned to include national reports on poverty measurement for sixty different countries at all levels of development. Second, the book shows how one can arrive at a global total for poverty. Here, 'around' is a gathering together of all countries. How many poor people are there in the world? What are the steps needed to arrive at such a total and, critically, what are the assumptions that lie behind the calculations? In addition to providing a guide to measurement in these two senses, Tony had also planned to analyse a large amount of data on poverty trends and to discuss a range of substantive issues concerning poverty – for example poverty and climate change, poverty and growth, poverty and the colonial inheritance from European empires. The project was ambitious and the book's plain, unassuming title is restrictive as Tony's plan was to cover much more than 'just' measurement.

The book grew out of Tony's work chairing the CGP for the World Bank, the report of which he wrote single-handed and delivered in the summer of 2016 (World Bank, 2017). The report finished, he decided to write a book for a broader audience about the nature and extent of poverty across the world and in particular, but not only as we have noted, how to measure it. The book re-uses some of the text in the CGP report, but it goes much further. The report was written to advise the World Bank on two specific issues about its future measurement of poverty: how to update its methods based on households' consumption or income given that prices change over time and new rounds of international price comparisons become available, and whether and how to incorporate other (non-monetary) dimensions of poverty and deprivation into its measurement. The report contains little analysis of data. In contrast, Tony's book starts from first principles about the meaning of poverty, translates these principles into concrete measures, and then analyses the data to which the measures can be applied. It is much broader than the CGP report both in approach and in content, addressing a range of substantive issues alongside the data analysis, with a central emphasis on the integration of countries' own national measurements and the measures adopted by international organisations.

As the brief outline above already hints, sadly Tony was unable to carry through all his plans. But before his death he asked us to take his manuscript forward to publication. He left an incomplete first draft and no guidance on how he wished us to proceed. Neither of us had discussed the project with him. However, he also left a detailed list of all chapter sections and sub-sections together with a ten page summary of the book, written we are sure as a proposal for publishers (although never sent – he had secured no contract for the book). Tony's family gave us access to his working files, both on his computer and in paper form. In addition, one of us had been a member of the CGP and hence was familiar with Tony's starting point.

Of course, we could rely on years of friendship, open discussion on multiple and diverse issues, and joint work on papers and books. But we quickly decided that completion of the book was impossible. There was too much left to do, especially in the book's second half. We might have imposed our own ideas and become co-authors (an option the Atkinson family suggested we consider) but we were clear from the outset that the book should remain Tony's alone. We therefore decided to bring the book to a state where it could be published while remaining incomplete.

We added a significant amount of material in the first half of the book with the aim of more or less finishing Tony's discussion of conceptual and practical issues in measuring poverty. Most additions are based on Tony's previous writings or on arguments we had long discussed with him. Others are straightforward updates for

developments that Tony would have definitely included, such as those relating to the EU indicators of material deprivation or the Global Multidimensional Poverty Index. We added smaller amounts of text elsewhere and much of what Tony planned to cover in several chapters in the second half of the book is still missing. We also edited the sixty ‘national reports’ at the end of the book, adding and updating text and data, and writing reports for a few countries and drawing graphs for others, although nineteen of the reports remain largely skeletons without the flesh that Tony would have supplied. After some thought, we decided that our edits and additions to the main text and to the national reports should not be visible to the reader: hopefully, the gain in readability outweighs the loss in philological precision (Faktorovich, 2019). On occasion, however, we added footnotes in which we comment explicitly as editors, for example on the direction that we think Tony may have planned to take in an unfinished section of his manuscript.

There are only two major exceptions in our resistance to filling the gaps beyond the interventions just described. In one of the chapters in the second half of the book, Tony had planned to discuss the relation between growth, inequality and poverty reduction and the relation between poverty reduction and action on climate change. Tony made clear that he saw both these issues as fundamental in the fight against poverty but he had no time to deal with them. We felt they should indeed be covered in his book. To fill the gaps, we asked François Bourguignon and Nick Stern, long standing co-authors and friends of Tony, leading scholars in these two areas, and both former Chief Economists of the World Bank, to deal with these subjects, which they did in two extensive afterwords.

The result is a book of over four hundred pages, with about two hundred and fifty pages of main text, including the afterwords, a hundred and twenty pages of national reports, and an extensive bibliography and index. There are thirty graphs, tables and boxes in the main text and a graph (two in the case of China) in each of the sixty national reports. The book is a substantial one despite being unfinished. Most likely, at the first round of revisions of his completed manuscript Tony would have not only polished the text but also cut it significantly.

3. ATKINSON’S ORIGINAL VIEW OF GLOBAL POVERTY MEASUREMENT

Chapter 1 sets the scene for the rest of the book and develops Tony’s ideas on the measurement of global poverty. In our view, the originality of his approach emerges in the analysis of three important questions, which are likely to pave the way to new research.

First, Tony believes that the measurement of global poverty must be truly global. Typically, the World Bank’s estimates excluded high income countries, as they were assumed to have no-one beneath the International Poverty Line of PPP\$1.90 a day per person, defined by the Bank as ‘extreme’ poverty. (PPP means here Purchasing Power Parities and refers to the fact that \$1 has the same purchasing power in any country thanks to the use of proper conversion rates from national currencies to the US\$.) Following his advice in the CGP report (World Bank, 2017, p. 47), the World Bank now includes these countries in its global poverty count and provides estimates for them in its public use databases. Unsurprisingly, the proportion of people living in extreme poverty in high income countries is tiny, 0.7 per cent against 9.9 per cent worldwide in 2015, and is such not to affect the global count given population sizes. Although it confirms the geographical distribution of extreme poverty, this number helps draw attention to those 8 million and more individuals in the rich world who have resources insufficient even by the minimum standard applied by the World Bank in the poorest countries.

Conceptually, this is a revolutionary change that at last closes the gulf between rich countries and the rest of the world. At the same time, it highlights issues that may have been given insufficient consideration in measuring global poverty. On the one hand, the estimated number of people in extreme poverty in high income countries does not include those who do not live in registered households, and hence generally escape poverty counts, such as the homeless and those living in institutions, the illegal immigrants and the refugees. This is an important topic, one which will only gain in importance when the migrations that are expected to be caused by climate change will eventually materialise. Tony extensively deals with ‘the missing’, in rich and poor countries, in a specific section in Chapter 4 which he aptly concludes with the remark:

‘As the total living below the International Poverty Line falls over time, the missing population will become proportionately more significant. Moreover, a number of the groups – such as refugees, the homeless and those living in war zones – have a particular claim on our compassion.’ (*MPAW*, p. 131)

On the other hand, including high income countries raises the question of whether the International Poverty Line makes sense in advanced economies. Critiques of the World Bank’s approach have long stressed that the International Poverty Line is too low to cover the purchasing of basic necessities in many countries, including the United States, the base country (e.g. Reddy and Pogge, 2010, Reddy and Lahoti, 2016). This criticism is partly accounted for by the World Bank’s recent use of two lines set at higher levels (PPP\$3.20 and PPP\$5.50) as well as by the adoption of the ‘societal’ poverty line discussed below.

Second, Tony critically discusses an implicit, and overlooked, assumption in global poverty measurement. Estimates of global poverty, such as those made by the World Bank using the International Poverty Line, invariably weight each poor person around the world equally. Tony describes this as a ‘cosmopolitan’ approach to estimating global poverty and one that is entirely suitable for an international organisation such as the World Bank. However, he offers alternatives, which include the extreme position of an ‘isolationist’ approach in which poverty outside one’s own country is ignored, and, more importantly, a ‘limited sympathy’ approach in which full weight is given to the poor within national borders and a weight less than 1 but greater than 0 to the poor in other countries. The latter is a possibility which has received virtually no attention in the literature on global poverty. It raises ethical as well as measurement questions. In particular, it would imply that the global poverty count is nationally specific and varies with the country where the calculation is made: ‘the magnitude of world poverty as seen from India will be different from that seen from the US; the two world poverty counts may even be moving in opposite directions’ (*MPAW*, pp. 13-4).

The attention for the ‘limited sympathy’ approach is motivated by the fact that opinions differ: ‘we have to recognise that sympathy may, in today’s world, be less than complete, and that this needs to be reflected in the measures employed’ (*MPAW*, p. 14). This recognition is echoed in the current debate on the impact of globalisation on inequalities between and within countries: ‘Whether one thinks the last quarter century has been good or bad for equity depends critically on whether one takes a national or global perspective’ (Rodrik, 2017, p. 1). We have no doubt that Tony would have stood on the ‘cosmopolitan’ side but, realism apart, his emphasis on ‘limited sympathy’ is a natural consequence of his conviction that measurement must allow for alternative ethical views. Although Tony examines this issue in the context of a discussion of instrumental versus intrinsic reasons for concern over poverty (he firmly favours the latter), his ideas here should be seen in the light of the intuition of his landmark paper on the measurement of inequality in the *Journal of Economic Theory (JET)* in 1970. Counting across countries requires an ethical judgement on how to weight each contribution to the count, and such judgement needs to be made explicit.

Third, Tony calls for integrating the measurement of poverty made by international organisations with the national analyses produced within each country. One of his recommendations in the CGP report was that the World Bank should produce brief ‘National Poverty Statistics Reports’ for each country (World Bank, 2017, pp. 28-9). The World Bank accepted this advice and has started to publish on its website short country ‘poverty briefs’. In this opening chapter, Tony describes the selection of the sixty countries used as case studies of measurement, measurement described in the sixty two-page national reports at the end of the book. These national reports reflect his proposal although his implementation differs from the World Bank’s, for example including more information on sources. They represent a key feature of the book. The existing literature tends to take either the global or the national perspective without reconciling the two, sometimes with highly confusing results. As Tony writes in the explanatory note to Figure 7.2, ‘Zimbabwe has a poverty rate of 72.3 per cent when poverty is measured using the national line and a rate of 21.4 per cent when poverty is measured using the \$1.90 per person per day line. (These estimates refer to 2011.)’ (*MPAW*, p. 179). On the other hand, he notes elsewhere that, ‘we may be more concerned with the trend than with the level and conclude that the estimates are congruent even if differently located’ (*MPAW*, p. 163). His discussion of recent changes in poverty in rural China provides an example of where such congruency seems absent. The fall in the World Bank’s estimate of the number of poor people between 2012 and 2013 using the \$1.90 line was 62.9 million, ‘which was over half of the global fall between 2012 and 2013 of 114 million. In contrast, the figures supplied by the NBS [National Bureau of Statistics] show a fall of 16.5 million’ (*MPAW*, p. 171).

In the national reports, Tony documents the measurement done at the national level by national statistical offices and ministries and the trends shown by these national data, comparing them with what is shown by data published by international organisations, notably the World Bank. Of course, for many countries there exist exercises comparing poverty estimates elaborated at the international and at the national levels, but the novelty of Tony’s approach is to demand their systematic integration (but not full alignment). In his view, this serves to cross-check the conclusions on the structure and changes in poverty shown by different methods or sources, where inconsistencies that cannot be explained must sound a warning bell for users of the data. National measures are grounded in some kind of political process within each country, whereas the measures worked out by international organisations have a different origin. The integration of these two measurement exercises provides legitimacy to both, and eventually to the policy decisions that are taken based on them.

The importance of integrating these two measurement approaches could be seen also from the perspective of the tension between ‘cosmopolitanism’ and ‘nationalism’. As we discuss in an editors’ footnote (*MPAW*, p. 209), Greenstein, Gentilini and Sumner propose to estimate global poverty as simply the sum of national head counts based on national poverty lines, because of ‘the importance of national ownership and the incorporation of

context-specific measures of poverty, and that any new poverty goals should be designed with political mobilization as a consideration' (2014, p. 132; see also Gentilini and Sumner, 2012). This proposal reflects a 'nationalist' approach to the global poverty count, which refrains from establishing a common framework for measurement as implicit in the International Poverty Line. Rather than going this way, Tony suggests recognising the legitimacy of both approaches.

4. THE 'PRINCIPLED' APPROACH

The book is an example of the 'principled' approach followed by Tony throughout his research: there is no measurement without theory and conversely the theoretical developments are valuable only to the extent that they are liable to being used in practice. More importantly, ethical judgments are embedded in the measurement and researchers have the duty to make them explicit – the enduring insight of his 1970 *JET* paper.

This approach is evident in the previous discussion but finds a neat illustration in Chapter 2. This chapter reviews a range of different concepts of poverty: 'political' definitions (standards adopted by governments to classify a person as poor or not), subjective assessments, basic needs, Nussbaum's and Sen's capability approach, and principles of human rights. It is a pity that Tony had no time to elaborate further on these issues as we think that he would have added more in time on the last of these concepts, perhaps commenting on the approach taken by the UN special rapporteur on extreme poverty and human rights in his country visits and annual reports. (Recent country visits include China, the UK, the USA, Ghana, Laos and Malaysia; the most recent annual report focuses on poverty and climate change (Alston, 2019).)

Each concept has implications for poverty measurement which become apparent in the following chapters. For instance, it is observed in Chapter 3 that focusing on multiple dimensions follows naturally from the capability and minimum rights approaches. At the end of Chapter 2 such implications are taken up in the context of the debate between absolute and relative measures of poverty. Thus, the basic needs approach may lead one to choose an absolute measure which has some scientific basis – although Tony warns that 'the idea of a purely physiological basis is illusory' (*MPAW*, p. 53) – whereas approaches focusing on individuals not in isolation but living in a society may favour a relative line. But Tony goes beyond this standard distinction to introduce the idea of what has come to be known as a 'societal' poverty line, following the work that he had done twenty years ago with François Bourguignon (Atkinson and Bourguignon, 2000 and 2001). The societal poverty line is an absolute one at lower levels of development but then moves up as national income rises, something rationalised using the capability approach. The 2018 edition of *Poverty and Shared Prosperity*, the World Bank's new biennial flagship report, published after Tony's book went to press, includes estimates of global poverty based on just such a 'societal' line following another of the recommendations of the CGP report. This is an important new research area (e.g. Ravallion and Chen, 2011, 2013, 2019; Chen and Ravallion, 2013; Ravallion, 2019b; Jolliffe and Prydz, 2019; Decerf, 2017, 2020; Decerf and Ferrando, 2020).

5. A GUIDE TO STATISTICAL ASSUMPTIONS AND DATA

In Chapters 3 and 4 Tony provides a 'Checklist' of the questions he believed one should ask when faced with any statistics on poverty. Frequent references to illustrate the arguments are made to the sixty case studies of measurement provided by the national reports at the end of the book.

Chapter 3 focuses on clarifying the concepts. If a monetary measure is being used, what is being measured, consumption or income and how are these being defined? And for what period? How are differences in the cost of living across countries dealt with by the use of purchasing power parity exchange rates? How are differences in needs between households catered for and what about inequalities within the household (another new feature of data in *Poverty and Shared Prosperity 2018* following the CGP report)? What about the depth of poverty, its severity?

Tony then moves on to non-monetary indicators, for example the absence of a particular item in the home or lack of access to clean water. He clearly wanted to give prominence to these measures of poverty, noting that the targets under the SDGs refer to reducing poverty 'in all its dimensions' (UN Sustainable Development Goals website). In part he could draw here on his long experience of research on social indicators in the EU (e.g. Atkinson et al, 2002), extended more recently to the global level (Atkinson and Marlier, 2010). What indicators are chosen in practice to measure an underlying dimension of e.g. health or education? How are indicators updated over time? Many of the available estimates of non-monetary poverty discussed in the book come from the work of the Oxford Poverty and Human Development Initiative (OPHI), building on the research there of Sabina Alkire, James Foster and their colleagues (e.g. Alkire and Foster, 2011, Alkire et al, 2015). For several years the OPHI estimates have been published in the UNDP's annual *Human Development Report*. Tony also covers Eurostat's measurement of material deprivation for the European Union. In both cases, classification of a household as poor is based on counting the number of indicators on which the household is classed as deprived.

Tony had a long-standing interest in the multidimensional measurement of poverty and inequality (e.g. Atkinson and Bourguignon, 1982) and pioneered the formalisation of the ‘counting approach’ as compared to the ‘social welfare’ approach (Atkinson, 2003). Were Tony to have completed his book, we think he would have continued to look for a ‘middle ground’ – as suggested by Ferreira and Lugo (2013) – in the debate that has surrounded these measures, pointing to the arguments on both sides while recognising that the measures have been adopted by many national statistical offices. He would have accounted for recent initiatives in rich countries that aim to broaden the measurement of poverty such as the Social Metrics Commission (2018) in the UK (an approach that the UK government has recently decided to implement in 2020 on an experimental basis) and Glassman (2019) in the USA. He would have discussed the World Bank’s approach to estimating multidimensional poverty started with *Poverty and Shared Prosperity 2018*. The World Bank’s approach differs from that taken by Tony in his book and recommended by him in the CGP report since a monetary measure of poverty is included as one of the indicators to be counted rather than the non-monetary measures being kept separate as a complementary set of indicators. The Bank includes the monetary measure with a weight of 1/3 in the main calculations with the result that ‘anyone who is income poor is also poor under the broader poverty concept’ (World Bank, 2018, p. 98). In the OPHI calculations that Tony draws on, estimates of multidimensional poverty are based on non-monetary indicators alone.

Chapter 4 considers the data underlying the statistics on poverty. What are they – do real data as opposed to imputations actually exist? Here, for example, Tony emphasises the importance of development aid from rich countries in improving the available sources in poorer countries. (‘If you ask, “Where does our aid money go?”, then one answer is the improvement of the information basis for monitoring and designing development policy’ (*MPAW*, p. 105).) How comparable are the data between countries and over time? How well measured are price changes within countries, vital to the updating of national thresholds for monetary poverty? Who is missing from the sources used to measure poverty? What sorts of levels of response to sample surveys are achieved in practice? Can estimates be triangulated with information from other sources?

Chapters 3 and 4 extend over almost a hundred pages and cover virtually all problems arising in the empirical analysis of poverty. All different elements in the ‘Checklist’ should be considered together: what is needed is what Tony labels an ‘All-round (AA) Approach’. Such an approach ‘serves both to clarify the way in which a particular estimate has been reached – which boxes have been ticked – but also alerts us to the fact that there are alternative choices that could lead to different conclusions about the extent and direction of change in measured poverty’ (*MPAW*, p. 213).

Built on the unrivalled knowledge Tony accumulated in his lifelong research, his ‘Checklist’ provides an invaluable guide to anyone trying to estimate, or simply understand, poverty measures in practice, whether at the global or national level. Tony stresses that ‘these issues are not nuisances to be left to the specialists’: since ‘they affect results, their comparability over time and across countries, and the soundness of policy conclusions, ... analysts and users must pay close attention to them’ (*MPAW*, p. 145). On the other hand, these two chapters offer to specialists and data producers a starting point for further research. One case in point is the treatment of durable goods. Tony mentions the important distinction between the consumption of the good’s services and the expenditure required to purchase the good, but he provides no further analysis of methods to deal with the problem or of what is done in practice around the world. In a very useful survey paper, Amendola and Vecchi (2014) note that official poverty measurement in the US, Canada, Australia and the UK ignores durables and that the same is true in 41 out of 95 poverty assessments carried out by the World Bank between 1996 and 2014 (covering 61 countries) in which the definition of the welfare aggregate was clear.

6. FROM EMPIRICAL TRENDS TO SUBSTANTIVE QUESTIONS

Chapter 5 marks a transition in the book from considering concepts, measures and data sources, the subjects of Chapters 1 to 4, to analysis of the existing data. Tony planned this chapter to look at the figures for poverty around the world produced by international organisations, picking up where Chapter 1 left off with the monetary measures produced by the World Bank (first reviewing the history of the World Bank’s measurement of global poverty). He then intended to consider how rapidly poverty is falling on this basis and to show who it is that is living in poverty. This part of the chapter is largely missing. Next he planned to turn to the non-monetary measures of poverty published by the UNDP based on the work of OPHI. Do they tell the same story? Again, the analysis here is incomplete. Drawing on Tony’s notes and files, we included some limited discussion of the data to address this question along the lines he had already started and point to directions that we think he would have taken the analysis.

Tony intended in Chapters 6-9 to do two things. First, he wanted to use the data he had assembled in the sixty national reports at the end of the book to answer a standard set of ‘key questions’ about poverty levels and trends

for each of four regions or groups of countries – Asia and the Pacific, Africa, Latin America and the Caribbean, and high income countries. In each case, he planned to compare the evidence from the national studies with the global estimates of poverty from the international agencies. Again, much of the analysis that he had wanted to include is missing and the existing literature that he would also have drawn on is only referred to sparsely.

The same is true for most of the second thing planned for these four chapters. Tony was to consider a series of ‘general issues’ – two per chapter – about the causes and correlates of poverty or about its measurement. These include: the extent of the ‘trickle down’ to the poor from economic growth and the impact on poverty of changes in inequality; the relationship between poverty reduction and climate change (the poor suffer most from changes in climate); the legacy from the colonial period to poverty today in former colonies (this reflecting his interest in income inequality in Africa back to the colonial period, e.g. Atkinson 2014); the poverty suffered by indigenous peoples; and the persistence of poverty in rich countries. This would have been a bold attempt to use the historical trends and structural patterns of poverty drawn from his national reports to illuminate fundamental questions about poverty. The discussion was not to be restricted to just the countries that made up the region or group with which the chapter was principally concerned, for example Asia in Chapter 6. He intended extensive cross-referencing to countries in other parts of the world, seeing these chapters as ‘building horizontal bridges between the measurement of poverty at a national level in different countries’ (*MPAW*, p. 162).

As noted earlier, we decided that the first two of these ‘general issues’ really should be covered in the published book, leading to our invitation to François Bourguignon and Nick Stern to write their afterwords. One of the issues to be dealt with in Chapter 9 was the estimation of global totals of monetary poverty based on the ‘societal’ poverty line introduced in Chapter 2. Here Tony made substantial progress, providing estimates for 2013 based on two different lines – yielding figures of 1.2 billion people and 2.0 billion people living in poverty. However, he had not yet taken the analysis further, by for example comparing his estimates with those of other authors who had used an analogous approach, albeit with important differences in the implementation of the basic idea (e.g. Ravallion and Chen, 2013; Jolliffe and Prydz, 2019, first released as working paper in May 2017), or by looking at changes over time (societal poverty declines more slowly with growth than poverty assessed using a yardstick of \$1.90 a day because the poverty line increases).

Chapter 10 concludes. The section titles show that Tony planned to draw together the main messages from each chapter of the book. He finishes in a characteristic upbeat way, his innate optimism on display. As far as the measurement of poverty is concerned, he argues that this cannot be static:

‘The world is changing, notably on account of the rise of countries that were classified as ‘low-income’ a generation ago, but also because all societies evolve and their ambitions with regard to tackling poverty change over time. To meet the changing world, the analysis of poverty has to become richer and more subtle.’ (*MPAW*, p. 210)

This, he notes, requires researchers to broaden their view:

‘Economists, statisticians, sociologists, and political scientists, among others, have to open their minds to new ways of thinking.’ (*MPAW*, p. 210)

Moreover, he emphasises:

‘The measurement of poverty is not a purely technical subject. This book is not like a guide to plumbing, because the right answers depend on views that are politically influenced and, at heart, matters of moral judgement. They are influenced by culture and by history. My hope is that the book will widen the ways in which poverty is viewed, allowing for a greater diversity of approaches.’ (*MPAW*, p. 212)

(Is the reference to ‘plumbing’ an allusion to Esther Duflo’s work? We were alerted to this possibility by Iacono (2019). Duflo’s Ely lecture to the American Economic Association in January 2017, ‘The Economist as Plumber’ (Duflo, 2017), came just after Tony’s death but Duflo also gave the annual IMF Richard Goode lecture with the same title in early November 2016, of which Tony may well have been aware.)

Tony concludes that despite the holes in the data and their variable quality, in broad terms the evidence is already sufficient, in the sense that policy makers cannot say that they do not have the necessary information to tackle poverty. One section is titled ‘We know enough to act’. He argues that what is lacking is political will. Politicians have accepted the ambitious goals for tackling poverty that are embodied in the SDGs and we now need to hold them to account.

7. CONCLUSIONS

Tony Atkinson's new book grew from his work chairing the CGP but it goes well beyond the CGP report. It is much broader both in approach and in content, and ambitious in trying to address a wide non-specialist audience. It is a classic Atkinson volume and in our foreword to the book we place it within Tony's career and huge research output since his first work on poverty in the late 1960s.

In the event, considerable parts of the work remain incomplete. Our purpose has been to carry out the necessary editorial work to allow readers to appreciate the many insights contained in the draft left by Tony without nurturing an illusion that the book was almost finished. In this short paper, we have tried to highlight Tony's original contributions and promising research areas.

This is a book worth reading. It guides the reader through the many conceptual and empirical nuances of poverty measurement; while the focus is on global poverty, the analysis applies to measurement at any level, local, national or super-national. Yet, readers must be aware that it is an unfinished book. The unfinished chapters offer a foundation on which other researchers can build, and a challenge to them to do so.

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**FIRST VOTE OF THANKS PROPOSED BY TRICIA KEILTHY,
ST VINCENT DE PAUL AND UNIVERSITY COLLEGE DUBLIN**

I am pleased to offer a vote of thanks for this important paper based on the work of Sir Tony Atkinson, which has been excellently and meticulously edited by John Micklewright and Andrea Brandolini. This book and paper are an important contribution not only because of the substantive content which expands our understanding of poverty and how we should measure it but also because it's a call to action. I read this paper with great interest both as social research but also as someone who is tasked with holding government to account on meeting poverty reduction targets in my role with St. Vincent de Paul.

Taking both these perspectives, two things strike me about the contribution of this work. Firstly, is its emphasis on the multidimensional nature of poverty. The work presents different perspectives on poverty and how it can be measured. But it doesn't seek a gold standard in poverty measurement. Instead focuses on the positives of having a variety of approaches in terms of expanding our understanding of poverty and places an emphasis on the triangulation of measures. It particularly draws out the relation between monetary and nonmonetary measures of poverty in recognition of the emphasis on the latter among the Sustainable Development Goals.

It also manages incorporate poverty in both poor and rich countries into a single 'global poverty measure'. This is an important contribution as it means when measuring and understanding poverty at a global level, poverty in rich countries is not forgotten.

The emphasis placed on Sen's capability approach and the centrality of human rights is also important. Freedom from poverty is not just about been able to afford basics, it also about having the means and resources to access opportunities and to fully participate in society. Fulfilling the basic human right of living in dignity.

The concept of social inclusion is widely incorporated into poverty measures and policy formation across Europe and here in Ireland. However, the application of this concept often doesn't follow through when it comes to policy implementation. In Ireland at least, income supports, and social transfers do most of the heavy lifting, for example in in 2017 social transfers reduced monetary poverty from 42.8% to 15.7%. While income supports are critical, it is a lack of investment in key services, in particular housing, health and childcare limits people's ability to get out and stay out of poverty.

Because poverty is a multifaceted issue it requires a whole of government approach, but it is our experience that joined up working which is required to address poverty is made more difficult in a system that operates vertically and when departments work in Silos. This siloed approach to working will also be a challenge for governments across the world who need to ensure coherence across all sustainable development goals.

This leads to the second important contribution; in that it is a compelling account of why measuring poverty matters. The book is an important reminder to governments of their responsibility in providing better solutions and doing more to tackle poverty. In his view statistical evidence on poverty motivates political action and that better measurement is essential for raising awareness of poverty, for designing good policy, and for holding political leaders accountable for meeting targets.

It is optimistic body of work and as John outlined in his presentation it acknowledges that measures are imperfect, but "we know enough to act". I was struck by the following quote "The measurement of poverty is not a purely technical subject. This book is not like a guide to plumbing, because the right answers depend on views that are politically influenced and, at heart, matters of moral judgement. They are influenced by culture and history."

My final two reflections focus on two barriers to political action that could potentially be overcome by expanding our perspective on how we view and measure poverty. The first challenge is overcoming a prevailing view that poverty is inevitable. The book is written at time when absolute poverty is falling while relative poverty is static or indeed increasing in some countries. For policy makers and politicians there may be inertia to addressing poverty if there is perception that using relative monetary measure there is a statistical certainty, that the poor will always be with us.

The deprivation indicators used at a European level and nonmonetary measures at a global level are typically derived by experts. While they are informed by the research on human needs and well-being, no one can say what absolute food, clothing and shelter needs are without relating them to the local environment or people's lived experiences. Again, this goes back to the importance of complementary methods of poverty measurement which is highlighted throughout this body of work. Here in Ireland and in many other European countries there has been a growing emphasis on Budget Standards research which seeks to establish a minimum standard no one should be expected to live below.

It is decided by members of the public, agreeing on what is needed to live at a generally acceptable standard and take part in the day-to-day life in a given society. It is a standard that meets people physical, psychological and social needs. Researchers use qualitative methods to determine family budgetary requirements by bringing members of the public together for focused group interviews. This standard is grounded in the lived experience of people, and is a minimum standard for everyone, not just those in poverty. Taking this viewpoint poverty can be abolished in any society which ensured that, however unequal, no one had fewer resources than needed to achieve that society's minimum standards. But this is not to say income inequality is inevitable either.

Which brings me to my final observation. It is critical to understand to how economic and social forces lock people at the lower end of the income distribution into poverty. But it is equally important to understand and scrutinise what is happening at the top end of the income distribution. Are the same economic forces that are driving the accumulation of income and wealth of top 1% the same as those driving poverties?

One difficulty is that poverty data is typically derived from household survey data which the super rich don't tend to take part in and those on the lowest incomes do not appear in income tax data by virtue of the fact that people experiencing poverty are outside the tax net. Therefore, greater efforts to merge income and wealth data are important.

And why the emphasis on the links between poverty, growth and inequality in this paper are critical. In 1997 Peadar Kirby's wrote in the Irish Times and criticised the limited focus on growing income inequality in Ireland's first National Anti Poverty Strategy and said; "without mainstreaming of poverty reduction into economic policy, our best efforts are likely to be blunted". That's why 15 Policy Proposals outlined in Tony's 2015 book 'Inequality – What can be done?' are also critical in the fight against poverty.

SECOND VOTE OF THANKS PROPOSED BY BRIAN NOLAN, UNIVERSITY OF OXFORD

I want to begin my remarks by saying just what a service John Micklewright and Andrea Brandolini have done us all by bringing this book so successfully to publication. The task Tony Atkinson asked them to take on, and that they embraced with great enthusiasm if also I suspect with some trepidation, was not an easy one; the care and judgement they have exercised amply demonstrate that Tony got it right. They do not attempt to complete discussions that Tony was unable to finish, but their very valuable footnotes suggesting what he might well have wanted to include and say look like pretty good mind-reading to me, not surprisingly given how closely they both worked with Tony and teased through these topics with him.

I want to highlight a few striking features of the book that link back to Tony's enormous and enormously impressive body of work on poverty and underline its importance. The first is that figures and measures are intended to serve a purpose external to themselves: as John has brought out, better measures of poverty are intended to raise awareness, motivate action, and allow progress to be monitored. But why should we care in the first place? Here Tony is more explicit in this book than ever that for him, this is for intrinsic rather than instrumental reasons. It is not hard to produce instrumental reasons why those in rich countries might fear the potential consequences of global poverty and inequality, or to evidence that poverty and inequality in rich countries has a range of negative side-effects. As he puts it in the book, "I have never been a great fan" of motivating concern about poverty or inequality in that way. Instead, his concerns were based on intrinsic arguments, on the moral dimension. He explores these in the book in the context of those in richer countries caring about the poor elsewhere, and acknowledges that such sympathy may be less than complete – with implications for how poverty may be measured. As in his book on *Inequality: What Can be Done?*, he does not spell out or try to impose his own theory of justice or moral standpoint, characteristically leaving it to the reader to bring his or her own moral compass and judgements to bear.

They key then is that the information on which these judgements are made should be able to bear the weight. Here readers will be forcibly struck by the - again characteristic - combination of breadth of vision and absence of dogmatism about the range of information that may be helpful in assessing the extent and nature of poverty, and strictness about the care with which the available data need to be employed. The book devotes considerable space to discussing the role of non-monetary deprivation indicators, and Tony's overall 'take' on this is nicely captured by his reference in the book's concluding chapter to the advert for the beer that refreshes the parts that others could not reach – with non-monetary indicators playing that role vis-à-vis monetary ones.

On data, Tony showed a degree of respect for the work of official statistical agencies that is perhaps not universal among academics: his sympathy for the difficulties they face is illustrated by the entire chapter on The Key Role of Data and the nice quote it includes from the director of the Trinidad and Tobago Statistics Office that dogs and crime are just two of the many problems faced by survey fieldworkers. The combined poverty checklist he sets out then covers both concepts and data, and requires the user to not only be clear not only precisely what is being measured but also to probe crucial aspects of the quality of the data being used.

His approach in that regard was not to seek a 'gold standard' in terms of survey versus administrative or national accounts data, but to triangulate between these different sources – and indeed different surveys. There is currently very welcome interest among academics and statistics offices in reconciling estimates from surveys with national accounts aggregates and using administrative data to capture the top of the distribution better; in this context it is worth highlighting Tony's point that surveys should not simply be seen as the 'guilty party', other sources are themselves subject to error and problems of definition.

While the book's treatment of concepts and data applies across the board, its discussion on measuring poverty specifically in rich countries, about which Tony thought so much and had so much more to say, is alas uncompleted and all too brief, as John explained. It thus does not reflect, among other things, the depth of Tony's thinking about poverty in the UK, and also the time and effort he devoted to advancing poverty

measurement and analysis at the European level. His commitment and contribution to improving EU's social monitoring was fundamental, not least in designing indicators to monitor progress in fighting poverty and social exclusion across the EU in which I had the privilege to be involved. Typically, as in poverty across the world, Tony's starting-point in approaching that task was to first think through the principles that should guide it, then bring out the limitations of the available data and indicators and make concrete recommendations for their improvements, but 'the best' was not to be 'the enemy of the good' in promoting forward movement.

The national poverty reports for rich countries on which it was intended to draw more extensively, brought together and elaborated in the book, are themselves of great interest and value. The discussion also serves to underline again the importance Tony assigned to reconciling national poverty measures and those produced by international organisations, and to including in global poverty measures meaningful estimates of poverty in rich as well as poorer countries based on a common measurement framework but taking into account that the standard applied would be higher in terms of income and living standards in the former. He illustrates this concretely by applying an income standard that, after a certain point in terms of national average income per head, rises by a proportion of the increase in that average – but, again characteristically, shows how sensitive the results are to the inflexion point and the steepness of the gradient (the proportionate increase) chosen. The implications for global poverty of adopting the 'limited sympathy' perspective, which is discussed earlier in the book and allows greater weight to be given to tackling poverty at home, would surely have been among the topics Tony would have explored further at this point, as the notes by the editors suggest.

Despite all the conceptual complexities and data difficulties, Tony was firmly convinced that, as one of the headings in the final chapter puts it, "We know enough to act". As John quoted in his presentation, Tony arrived at the conclusion that to make progress in tackling poverty "The key is the engagement of top politicians and policy-makers". Of course, researchers also have to play their part, including devoting attention to not always fashionable topics such as data quality, and also being willing and indeed eager to lift their heads from the screen and engage with policy-makers and broader societal debates to seek to improve the quality of policy formation and those debates. We could ask for no better role model than Tony in that regard, as exemplified once again in this book.

DISCUSSION

Siobhan Carey: You mention the disparity between national and international estimates of poverty and that the differences can be quite large. Does the work consider to what extent that might be attributed to the international pricing mechanism, where in the need to ensure a common basket of goods means that it is atypical of goods bought by the very poorest and whether a pro-poor basket of goods might feature in the national estimates?

Patrick Honohan: The presentation has been very thought provoking. I will mention three questions that come to mind. In addition to the poverty count, it is often useful to consider the poverty gap as a measure of the scale of resources that would be needed to bring all poor people up to the poverty line. With three quarters of a billion people below even the low \$1.90 PPP per day line, I wonder what the size of this gap is on a worldwide basis. Given that PPPs are generally smaller in poor countries, it might only come to a fraction of total aid flows to developing countries. If so, it might prompt greater attention being given to direct distributional policies of the basic income type.

Turning to the alternative kinked poverty line that rises in proportion to average income after a certain point, I wonder whether there is a clear pattern of falling poverty as one moves from low average income countries to high income. The percentage fall in poverty in China in recent decades has been dramatic, and it is a middle income country. Perhaps if we plot on the y-axis the percentage fall in poverty over the past few decades, and on the x-axis the average income by country we would get a distinctive hump-shaped curve – an Atkinson turtle curve to be compared with Branko Milanovic's elephant curve.

On a completely separate note, I am wondering whether, in an increasingly integrated world, it is enough to consider national living standards as a reference point for judging capabilities in choosing a country-specific poverty line. Why should the life attainable in Johannesburg not be a more relevant reference point than national living standards, for judging the resources needed for someone in Lesotho to sustain a good life.