

Introduction

Jacques Silber and Guanghua Wan

As a consequence of the rapid economic growth in recent decades, Asia and the Pacific have experienced an impressive reduction in extreme poverty, when measured at the conventional \$1.25/day/person poverty line. Whereas in 1981, 1.59 billion Asians were poor (corresponding to a poverty rate of 69.8 percent), in 1990 the number of poor in Asia had fallen to 1.48 billion (a 54.7 percent poverty rate). In fact, by 2005, Asia had succeeded in halving its extreme poverty because its 26.9 percent poverty rate was already less than half the 1990 level and, by 2010, the extreme poverty rate reduced further to 20.7 percent.¹

The early attainment, in the world as a whole, of the Millennium Development Goals (MDGs) (halving extreme poverty globally) would certainly not have been possible without Asia. Although, for the developing world as a whole, the poverty rate fell from 43.1 percent in 1990 to 25.1 percent in 2005 and to 20.6 percent in 2010, thus meeting the MDG global target, when excluding Asia the extreme poverty rate would have been 24.9 percent in 1990 and 20.5 percent in 2010. Clearly, the rest of the developing world would not have been able to halve its 1990 poverty rate before, say, 2030.

In absolute terms, between 1990 and 2010, the number of extremely poor declined by 745.42 million in Asia, but only by 693.47 million globally. Thus, the number of extremely poor actually increased in the rest of the developing world by 51.95 million, partly because of population growth. Similar conclusions may be drawn when adopting a more 'moderate' poverty line of \$2 per day per person. The number of moderately poor in Asia declined, between 1990 and 2010, by 566.31 million but, during the same period, it increased by 97.73 million in other regions of the world.

The drop in extreme poverty was, however, not uniform across Asia. It has been especially impressive in East Asia because, over a 20-year period, extreme poverty in East Asia fell from about 60.2 percent in 1990 to 11.6 percent in 2010 – with the People's Republic of China (the PRC) reducing the number of extremely poor by 527.64 million. The poverty reduction was also quite important in Central and West Asia (39.4 percent)

and Southeast Asia (31.0 percent). In South Asia, the reduction was 19.8 percent and, in the Pacific, it was 10.9 percent. Note also that India, the second most populous country, reduced the number of 'extremely poor' by 48.26 million during this period.

This remarkable decrease in poverty in Asia, when poverty is measured on the basis of \$1.25, or even \$2, per day poverty line, should, however, not imply that poverty is no longer an important issue in Asia.² This book aims at showing that, as impressive as Asia's accomplishments in poverty reduction are, the achievements are still incomplete. A more objective picture of the extent of poverty in Asia would show that several issues remain critical. At least four elements have to be taken into consideration.

First, it is likely that the \$1.25 poverty line is not adequate for Asia-Pacific, mainly because it underestimates the costs for the poor to maintain a minimal standard of living. Remember here that the \$1.25 poverty line was derived from the world's 15 poorest countries, only two of them being Asian countries. In addition, this \$1.25 poverty line was based on 1988–2005 consumption data. Because consumption patterns are not uniform across regions and change over time, there is a case for refining and updating the poverty line accordingly. In fact, several Asian countries (including the PRC and India) recently raised their national poverty lines to make them more relevant for policy making.

There is an additional reason for adjusting the traditional \$1.25 poverty line. In the past two decades, numerous studies have shown that individual well-being depends on relative as well as absolute income. There is, thus, a case for taking relative income into account when determining a poverty line because individual life-satisfaction is not independent of the standard of living of some relevant 'reference group'. Such an idea had already been suggested by Duesenberry (1949) who argued that the utility of an individual was negatively affected by the income of anyone with a higher income. It is difficult to identify the relevant reference group. Some researchers, for example, have considered colleagues at work (Senik 2009). Ferrer-i-Carbonell (2005) assumed that the reference group consisted of people with the same characteristics such as age, level of education and region of residence. Others have used space-based reference incomes such as the average income of individuals of the same race in the cluster and district where the individuals surveyed live (Kingdon and Knight 2007).

The need to modify the \$1.25 poverty line to adapt it to the new standards of living in Asia, and the idea of taking relative income into account when determining a poverty line, is the object of the two chapters that form Part I of this book.

A second issue, which is important for poverty targeting, is that of vulnerability, whether it is vulnerability to natural disasters, to the increasing

impact of climate change, to economic crises or other types of shocks. Following unexpected shocks, such as earthquakes, extreme weather events, job losses, or illnesses, it is not uncommon to observe that many individuals, whose standards of living before the shock classified them as non-poor, end up with standards of living below the poverty line. In recent years, vulnerability to natural calamities has been increasing in both frequency and severity, especially in East, South, and Southeast Asia. In fact, seven of the world's ten most vulnerable countries are in Asia. Many low-income households live just above extreme poverty and, as a consequence, can easily fall back into poverty following an unexpected shock. Conventional poverty assessments tend, however, to ignore these vulnerabilities. In Asia, where formal insurance is not common, poverty reduction policies should thus take into account such vulnerabilities. Part II of this book includes three chapters that deal with various features of vulnerability in Asia, with special emphasis being put on approaches that could allow incorporating shocks or risks into setting poverty lines and estimating 'vulnerability' to poverty in Asia.

In Part III of this book, an attempt is made to estimate the extent of poverty, not on the basis of a traditional money-metric poverty line, but by taking into account the fact that well-being is multifaceted so that poverty is intrinsically multidimensional. Many studies have indeed shown that money-metric measures do not provide a satisfactory picture of well-being for either individuals or households and that other dimensions should be taken into account (see Baulch and Masset 2003; McKay and Lawson 2003; Carter and Barrett 2006; Hulme and McKay 2007). Money does not mean much when there is market failure or markets do not exist.

Several studies have shown that the correlation between monetary income and other dimensions of human well-being is often quite low (Baulch and Masset 2003; McKay and Lawson 2003; Günther and Klasen 2009). Non-monetary poverty is generally more persistent than monetary poverty. For example, once a child is stunted, the impact of such malnutrition is often irreversible, even when the income status of the individual improves. Similar conclusions may be drawn with respect to education because most school dropouts remain poor in terms of human capital, even if some become richer later in life (Baulch and Masset 2003; Stifel et al. 1999).

Taking a multidimensional approach to poverty is, however, not a simple task (see Kakwani and Silber 2007, 2008a, 2008b) because, among other reasons, it implies selecting poverty indicators and their weights. The Multidimensional Poverty Index (MPI) published by the United Nations Development Programme (UNDP) is an interesting attempt to create this type of comparable poverty measure. It uses a so-called 'dual cut-off'

method (Alkire and Foster 2011), where the first cut-off defines whether a household is deprived in a particular dimension and the second determines whether a household has passed the threshold of deprivation that defines it as multidimensionally poor. Many details remain to be worked out (Dotter and Klasen 2014) but computing an Asia-specific version of an MPI could be considered, although this will not be a simple task given Asia's great heterogeneity. The two chapters of Part III of this book attempt to present illustrations of the relevance of multidimensional poverty for Asia.

Given the unprecedented reduction in poverty levels in Asia in recent decades, it is also important to investigate whether the benefits of this higher well-being have reached the entire population or whether differences in economic opportunities are related to characteristics such as gender, race or ethnicity. This question is particularly relevant in Asia, given its large ethnic diversity. We may, thus, expect disadvantaged groups to be overrepresented among population subgroups that live in remote areas, were historically denied access to proper education and basic infrastructure, or suffered from segregation and wage discrimination in the labor market. Attempting to estimate the extent of the ethnic differential in poverty is, hence, a crucial issue that should be of utmost interest to policy makers who wish to decrease such gaps. This topic is covered in Part IV of this book. This part consists of only one chapter that deals with poverty and ethnicity in Asian countries.

OUTLINE OF INDIVIDUAL CHAPTERS

In the first chapter, which is titled 'An Asian poverty line? Issues and options', Stephan Klasen wonders, in view of Asia's particular economic situation, whether there is merit in developing an Asia-specific poverty line that would address some of the shortcomings of the \$1.25 per day poverty line. The author reviews various ways of determining an Asia-specific poverty line, including an Asia-specific international income poverty line (using purchasing power parity, PPP, adjusted dollars) that would be derived from Asian national poverty lines. He suggests grounding such an Asian-specific poverty line in a consistent method of generating national poverty lines using national currencies rather than a PPP-adjusted poverty line in international dollars that would be specific to Asia. Klasen thinks that it is also important for such a poverty line to take into account relative poverty to reflect the rising aspirations of Asian societies. Finally, Klasen discusses the possibility of developing an Asia-specific multidimensional poverty index that would take into account the specific living conditions of Asian societies.

The second chapter is titled 'A poverty line contingent on reference groups: implications for the extent of poverty in some Asian countries'. Its authors, Satya R. Chakravarty, Nachiketa Chattopadhyay and Jacques Silber, start by defining what they call an 'amalgam poverty line', that is, a poverty line that is a weighted average of an absolute poverty line (such as \$1.25 per day) and a reference income (such as the mean or the median income). They then compute the number of poor in various countries and sub-national regions in Asia, on the basis of such an 'amalgam poverty line'. They examine various scenarios, depending on the relative weight of the absolute poverty line and of the reference income. They also analyze the impact on poverty of selecting an absolute poverty line of \$1.45 (rather than \$1.25) per day, a threshold that seems more adapted to the Asian case. The chapter provides, for the countries and sub-national regions involved and under the various scenarios examined, estimates of the headcount ratio, together with the income poverty gap and the average income of the poor.

The next three chapters, in Part II of the book, examine different aspects of vulnerability in Asia. In the chapter titled 'Concepts and measurement of vulnerability to poverty and other issues: a review of literature' Tomoki Fujii reviews the growing body of literature on vulnerability. He first summarizes various concepts of vulnerability that have appeared in the literature, namely, the welfarist, expected poverty and axiomatic approaches. He then reviews a number of empirical studies on vulnerability to poverty, mainly in Asia and, in particular, in the PRC. Finally, the author briefly reviews other areas of vulnerability analysis, such as vulnerability to climate change, to non-monetary outcomes (for example, nutritional outcomes). The chapter ends with a discussion of some policy implications of vulnerability analysis.

In a chapter titled 'Measuring the impact of vulnerability on the number of poor: a new methodology with empirical illustrations' Satya R. Chakravarty, Nachiketa Chattopadhyay, Jacques Silber and Guanghua Wan examine the possibility of defining a poverty line that would also depend on the extent of vulnerability. The basic idea is to adjust the poverty line, in the presence of vulnerability, in such a way that the utility of a person at the current poverty line and that at the adjusted poverty line are identical. Using an additive model of vulnerability, it is shown that if the utility function is assumed to have the property of constant absolute risk aversion, then the adjusted poverty line becomes a simple absolute augmentation of the current poverty line. On the other hand, under a multiplicative model of vulnerability, assuming constant relative risk aversion, the revised poverty line is a simple relative augmentation of the current poverty line. Given that uncertainty plays a central

role, a section of the chapter is devoted to the estimation of the variance of the noise which characterizes uncertain income. The chapter ends with a detailed empirical illustration covering many Asian countries.

In the final chapter in Part II, titled 'Climate change and vulnerability to poverty: an empirical investigation in rural Indonesia', Tomoki Fujii takes a closer look at the impact of climate change on vulnerability. More precisely, given that that anthropogenic climate change may lead to increased surface temperature, sea-level rise, more frequent and significant extreme weather and climate events, among others, the author investigates how climate change can potentially affect vulnerability to poverty. His analysis is based on panel data from Indonesia and the focus of his study is on the effects of droughts and floods, two of the commonly observed disasters there. Fujii's simulation results indicate that vulnerability to poverty may increase substantially as a result of climate change in Indonesia.

The following two chapters, in Part III of the book, deal with the need to take a multidimensional approach to poverty in Asia. In the chapter titled 'Measuring multidimensional poverty in three Southeast Asian countries using ordinal variables' Valérie Bérenger looks at the evolution of poverty in Cambodia, Indonesia and the Philippines. Her approach is based on recent methodological refinements of poverty measurement that are based on counting approaches using ordinal variables. Her chapter compares multidimensional poverty measures such as the MPI proposed by Alkire and Foster (2011) with other measures, such as those proposed by Chakravarty and D'Ambrosio (2006), Rippin (2010) and those based on the extension of the Aaberge and Peluso (2012) approach, suggested by Silber and Yalonetzky (2013) – approaches that have the advantage of being sensitive to the distribution of deprivation counts across individuals. The empirical illustrations of Bérenger are based on the Demographic and Health Surveys for the years 2000, 2005 and 2010 for Cambodia, 1997, 2003 and 2007 for Indonesia, and 1997, 2003 and 2008 for the Philippines. The emphasis of her analysis is on deprivations in education, health and standard of living.

The second chapter covering the topic of multidimensional poverty, written by Hermann Waibel and Lena Hohfeld, is titled 'Poverty and nutrition: a case study of rural households in Thailand and Viet Nam'. In this chapter, the authors analyze the link between nutrition and poverty in Thailand and Viet Nam, where monetary-based poverty reduction was especially successful. They are two emerging market economies where poverty rates are now below 10 percent and are declining further. Despite this impressive decline in income poverty, the authors wonder whether this success was translated into similar improvements in the nutritional status of the people and especially that of children. They conclude that malnutrition continues to be a problem in Viet Nam and Thailand where

child underweight rates are 27 percent and 19 percent, respectively, and, are much higher than the traditional headcount ratios. The authors investigated factors that influence nutrition outcomes and found that, although poverty and income have an impact on nutrition outcomes, other factors such as mother's height, education, migration and sanitation also have important influences. The authors conclude that, even under the assumption of high growth, income growth alone will not be able to reduce malnutrition in the near future.

The final chapter of this book, in Part IV, deals with the issue of poverty and what is often called 'horizontal inequities'. The chapter, written by Carlos Gradín, is titled 'Poverty and ethnicity in Asian countries'. Based on data from Health and Demographic Surveys, it compares the extent and nature of the higher prevalence of poverty among disadvantaged ethnic groups in several Asian countries. The author first estimates a composite wealth index which serves as a proxy for economic status. He then analyzes the magnitude of the ethnic gap in absolute and relative poverty levels across countries and ethnicities. Then, using regression-based counterfactual analysis, he compares the actual differential in poverty with the gap that remains after disadvantaged ethnic groups are given the distribution of characteristics of the advantaged ethnic groups. The results of this empirical investigation show that there is substantial cross-country variability in the extent, evolution and nature of the ethnic poverty gap, which can be as high as 50 percentage points or more in Nepal, Pakistan and India. Ethnic disadvantaged groups are poorer because of the strongly persisting high inequalities in education (for example, in India, Nepal and Pakistan), differences in regional development (for example, in the Philippines) or a persistent large urban-rural gap (for example, in Pakistan).

In an interview given for the magazine, *Prospect*, on 18 August 2013, Nobel Prize winner Amartya Sen stressed the following points:

[I]n order to judge how a country is doing you can't just talk about per capita income. India used to be 50 per cent richer than Bangladesh in per capita income terms but is now 100 per cent richer. Yet, in the same period . . . when, in the early 1990s, India was three years ahead of Bangladesh in life expectancy, it is now three or four years behind. In India it is 65 or 66, in Bangladesh it's 69. Similarly, immunization: India is 72 per cent, Bangladesh is more like 95 per cent. Similarly, for the ratio of girls to boys in school. So in all these respects, we are looking at capability. We're looking at the capability to lead a healthy life, an educated life, to lead a secure life (with immunization making people immune to some preventable illnesses), having the capability to read and write, for girls as well as boys.

Expanding and safeguarding human capability is central to thinking about policy making. . . . human capability is not only important in itself,

but that human capability expansion is also a kind of classic Asian way of having sustained economic growth. It started in Japan, just after the Meiji restoration, where the Japanese said: 'We Japanese are no different from the Europeans or the Americans; the only reason we're behind is that they are educated and we are not.' They then had this dramatic expansion in universal education and then, later, widespread enhancement of health-care. They found that a healthy, educated population served the purpose of economic growth very well.³

This long citation seems to justify, in a certain way, the title we chose for this book, because clearly, as far as poverty reduction is concerned, the accomplishments of most Asian countries are impressive but they certainly remain incomplete.

NOTES

1. See ADB (2014) for additional data on poverty reduction in Asia in recent decades.
2. See ADB (2014) for more details.
3. The full transcript of Jonathan Derbyshire's interview with renowned Nobel Prize-winning economist, Amartya Sen, *Prospect Magazine*, August issue, 2013. <http://www.prospectmagazine.co.uk/magazine/prospect-interviews-amartya-sen-the-full-transcript-jonathan-derbyshire>.

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