

# Poverty Strategies in Asia: Growth Plus

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## Introduction

It is well known that the East Asian miracle produced both high growth and poverty reduction over a sustained period. Thus Asia can justly claim great achievements in both growth and poverty reduction. At the same time, some parts of Asia—South Asia in particular—are still mired in poverty. Hence, somewhat paradoxically, Asia is still the home of a large number of the world's poor.

This book is an examination of a part of the continuing efforts to reduce poverty in Asia rapidly and much further. Both from a historical examination of the East Asian experience of growth and poverty reduction and the ongoing experiments in Asia now, it is becoming increasingly clear that what is required is a 'growth plus...' strategy for poverty reduction. However, this broad characterization is just a beginning. We need to consider carefully and unpack both the growth part and the 'plus...' part of the equation. To do this in some detail using different models, countries, policy interventions and data sets is one of the main objectives of this book.

As the title suggests, Asia is our special focus. Although we believe there are good reasons to think that the "growth plus..." approach is applicable elsewhere, it is Asia where this approach has met with the most success in the postwar period. However, this is not to deny that there may be other historical precedents as well.

It could be said, for instance, that in at least one economic history and institutionalist tradition pioneered by Karl Polanyi a claim similar to a 'growth plus...' argument can be made in the European context. Polanyi identified strategies that were in his view a response to the distributional and other conflicts generated during the course of capitalist economic transformation of first Great Britain and then the rest of Western Europe. His discussion of Bismarck's strategic plan for what amounted to a late 19<sup>th</sup> century version of an early type of welfare state is still a fascinating account.<sup>1</sup> We may also recall that in the United Kingdom in early 20<sup>th</sup> century, the pioneering work of Benjamin S. Rowntree which presented among other things, a 'socially acceptable' amount of money 'poverty line' by estimating a budget required 'to obtain the minimum necessities for the maintenance of merely physical efficiency', really launched what we know today as distinctive poverty analysis.<sup>2</sup>

Therefore, without claiming that Asia has pioneered this 'growth plus...' approach we nevertheless wish to advance the discussion of what matters for poverty reduction in addition to simply increasing average income in an economy. A sequence of structural reforms for enhancing growth together with other specific poverty reduction policies undertaken in different parts of Asia in the 1980s and 1990s make this a meaningful exercise within the context of the economic history of the region in the last twenty five years. However, it is important to put the story of Asian poverty within the context of the global poverty picture. Hence, we start with a global perspective.

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<sup>1</sup> See particularly the last six chapters of Polanyi (1944).

<sup>2</sup> See Rowntree (1910:86); Rowntree took the nutritional contents of a menu of food items and their prices in York at that time as a basis and arrived at the figure of 15 shillings as the minimum budget for one week for a family of six. When allowance was made for shelter, clothing, fuel and a few other necessary items, the budget increased to 26 shillings. Using that as the 'poverty line' approximately 10 per cent of the people at York were found to be poor.

## Global Poverty Estimates

Global poverty affecting nearly 3 billion people worldwide is by most standards the biggest challenge of our age. Of the development targets set by the international community (the so-called Millennium Development Goals) the first and most fundamental is the halving of extreme poverty by 2015 (where the comparison is between 1990 and 2015). Such precise targets cannot be taken too seriously because of the difficulty in estimation of the numbers involved, but the more important issue is the implied commitment to poverty reduction as an international development objective. This introductory chapter surveys ways forward and highlights recent approaches to poverty reduction within the international community before focusing on the content of this book.

The scale of the problem is seen in tables 1.1 and 1.2 for two international poverty lines – with the lower one dollar a day (at constant purchasing power parity, not current prices) representing ‘extreme poverty’.

Table 1.1 People living on less than one dollar a day

\$1/day poverty line	poor in millions		poverty headcount <sup>a</sup> %	
	1990	2001	1990	2001
East Asia and Pacific	472	271	29.6	14.9
of which People's Republic of China	375	212	33.0	16.6
Europe and Central Asia	2	17	0.5	3.6
Latin America and the Caribbean	49	50	11.3	9.5
Middle East and North Africa	6	7	2.3	2.4
South Asia	462	431	41.3	31.3
Sub-Saharan Africa	227	313	44.6	46.4
Total	1,218	1,089	27.9	21.1

a) proportion of the population below the poverty line

Source: World Bank, World Development Indicators 2005, available from [www.worldbank.org](http://www.worldbank.org)

Table 1.2 People living on less than two dollars a day

\$2/day poverty line	poor in millions		poverty headcount <sup>a</sup> %	
	1990	2001	1990	2001
East Asia and Pacific	1,116	864	69.9	47.4
of which People's Republic of China	825	594	72.6	46.7
Europe and Central Asia	23	93	4.9	19.7
Latin America and the Caribbean	125	128	28.4	24.5
Middle East and North Africa	51	70	21.4	23.2
South Asia	958	1,064	85.5	79.2
Sub-Saharan Africa	382	516	75.0	76.6
Total	2,654	2,735	60.8	52.9

a) proportion of the population below the poverty line

Source: World Bank, World Development Indicators 2005, available from [www.worldbank.org](http://www.worldbank.org)

We see roughly 20% of the population of the developing and transitional economies in extreme poverty in 2001, with a fall in the absolute numbers in extreme poverty of around 129 million. Global trends are dominated by the two large Asian economies of the People's Republic of China (henceforth PRC) and India. In the former the reduction in poverty has been very substantial and the fall in the number of the poor in PRC is far higher than that shown in table 1.1, if the national poverty line (roughly two-thirds of the dollar a day figure) is used. In India the numbers of the poor fell more modestly during the 1990's, although there remains considerable debate concerning the exact figures. In South East Asia significant reductions in the numbers of the extreme poor were achieved particularly in Indonesia, Thailand and Viet Nam.<sup>3</sup> On the other hand, numbers in extreme poverty rose appreciably in Sub-Saharan Africa (by 86 million) and in Central Asia and transitional Europe (by 15 million).

The picture is bleaker if one defines poverty by a higher poverty line, as in table 1.2. Now between 1990 and 2001 the numbers of the poor rose in total (by 81 million) and in

<sup>3</sup> ADB (2004a) examines poverty experiences in Asia over this period. Wang (2005) and Srivastava (2005) provide information on PRC and India, respectively.

every region apart from East Asia and the Pacific. In Sub-Saharan Africa the rise in number of the poor was as much as 134 million. In 2001 over half of the population of the developing and transitional economies was in poverty by these estimates.

### Explaining these Trends – Economic Growth

At one level there is little mystery about these figures. Countries that have grown rapidly (like PRC and economies in East and South-East Asia) have seen substantial falls in poverty and countries where growth has been low or negative have seen rising poverty (most obviously in Sub-Saharan Africa). The power of economic growth in reducing poverty can be illustrated in table 1.3. This shows the number of years it takes to bring someone in extreme poverty (taken as half the two dollar a day poverty line) and moderate poverty (taken as three quarters of that poverty line) out of poverty. The calculations assume that growth is equitably distributed, so that all gain equally from a given rate of increase in national income. Three growth scenarios are shown; low (1% annually in real income per capita), intermediate (3% annually in real income per capita) and high growth (5% annually in real income per capita). The poverty line is assumed constant in real terms.

Table 1.3 Number of years to grow out of poverty

poverty	low growth	intermediate growth	high growth
extreme	70	24	15
moderate	29	10	6

What is clear is that if growth is low it will take a very long time to pull the poor out of poverty in the absence of very dramatic redistributive measures, which may in turn be difficult to implement and sustain. In our illustrations with low growth it will take 70 years to grow out of extreme poverty and 29 years out of moderate poverty. Regrettably low growth as specified here is not unusual in the developing world and over the 1990's the least developed country group (many from Sub-Saharan Africa) averaged just only 1% annually.<sup>4</sup> On the other hand, the power of compound interest is such that if economies can grow rapidly major inroads can be made in the numbers of poor. In our illustrations with high growth, it takes 15 years to grow out of extreme poverty and only six years out of moderate poverty. The 'East Asian Miracle' and more recent Chinese and Vietnamese experience show that such rates of growth can be achieved and that if sustained these can rapidly reduce poverty levels. Current projections for East Asia (including PRC), for example, suggest that it will grow more rapidly than our high growth scenario in the next couple of years.<sup>5</sup>

However the story is not quite a simple as this, since although all empirical analyses of the problem reveal a close negative correlation between rates of economic growth and changes in poverty (so faster growing economies reduce poverty more quickly), this is

<sup>4</sup> Least developed countries are defined by the UN in terms of three criteria: low income, weak human assets and economic vulnerability; see UNCTAD (2002).

<sup>5</sup> ADB (2004b) projects growth per capita of 6.3% for 2004 and 6.2% for 2005 for East Asia as a whole. If PRC is excluded the figure will come to close to 5%.

simply an average relationship whose strength varies between countries and within countries over time. Recent analysis finds that across countries economic growth explains only a little more than 40% of the variation in poverty reduction, leaving the remainder to be determined by other factors.<sup>6</sup> Thus, whilst it is obvious that 'growth matters for poverty reduction', so do other things.

Another generalization from cross-country analysis is that on average the poor benefit from economic growth roughly proportionately, in the way assumed in our simple illustration. Although this relation has been demonstrated rigorously in cross-sectional analyses across countries, country specific calculations have found the reverse; that whilst the poor benefit from growth they do so less than proportionately, so that the benefits of growth may be shared inequitably.<sup>7</sup> If one allows for an inequitable outcome from growth the time taken to bring the poor out of poverty will lengthen considerably. Table 1.4 presents our original illustrations with the introduction of two additional scenarios. In the highly inequitable case the poor receive an income increase 50% of the national average and in the moderately inequitable case they receive 70% of the average gain. Our original calculations are the equitable case.

Table 1.4 Number of years to grow out of poverty

Equitable			
poverty	low growth	intermediate growth	high growth
extreme	70	24	15
moderate	29	10	6
Highly inequitable			
poverty	low growth	intermediate growth	high growth
extreme	139	47	29
moderate	58	20	12
Moderately inequitable			
poverty	low growth	intermediate growth	high growth

<sup>6</sup> World Bank (2001) surveys a range of studies and suggests an average an elasticity of the headcount index of poverty to growth of around -2; in other words a 1% growth is associated with a 2% fall in the headcount index. Jalilian and Weiss (chapter in this volume) find a broadly similar elasticity of around -2.0 for the one dollar a day poverty line. (ADB 2004a) finds an elasticity of the headcount index of poverty to growth of around -1.5. These average relations can be contrasted with similar calculations on time series data from individual countries. Warr (2000) finds that the elasticity of the headcount index varies between -0.7 for the Philippines and -2.0 for Thailand. Hence the range across countries can be very wide, varying in particular with the initial level of inequality and the change in inequality over time.

<sup>7</sup> Dollar and Kraay (2004) is the widely cited cross-country analysis of this issue. However what one is finding here is that on average across countries as growth occurs the shifts in distribution against the poor are balanced by those in their favor. For the Philippines Balisacan and Pernea (2003) find an income poverty elasticity (change in the income of the poor to the change in average income) of 0.54 and for Indonesia, Balisacan et al (2003) finds an elasticity of 0.71. In other words by their results, in the Philippines the proportionate gain for the poor will be roughly half the national average and in Indonesia it will be two-thirds.

extreme	93	32	19
moderate	39	13	8

The years involved lengthen proportionately with the assumption on sharing of benefits and the extreme results are heightened. With an inequitable distribution of benefits and low growth it takes nearly 60 years to bring someone out of even moderate poverty. Also with inequitable distribution even high growth can take a long time to work through, at least with extreme poverty. With high growth and highly inequitable distribution it now takes nearly 30 years to bring someone out of extreme poverty and nearly 20 years if the distribution is moderately inequitable. As these are relatively long periods of time this prompts the question what else needs to be done in addition to encouraging growth, which is the theme of this volume.

### Experience in the 1990's

However the actual reduction in poverty noted in above in tables 1.1 and 1.2 is arguably even lower than might be expected given recorded rates of economic growth. This has been termed 'the paradox of persistent global poverty' (Cline 2004: 28). This is based on the fact that poverty in the 1990's as reported in tables 1 and 2 declined by less than is predicted if one applies the poverty-growth elasticities of around  $-2$  that are now standard in the empirical literature to actual growth rates of consumption or income. In other words, for every one percent increase in GDP on the basis of past average relationships across countries we should expect a two percent reduction in poverty and this has not occurred. Further at the level of individual countries actual poverty rates in some of the middle-income countries are far higher than would be predicted by applying the most common statistical form (that is log-normal) for income distribution.<sup>8</sup> The two broad possible explanations for these results are either that the data underlying tables 1.1 and 1.2 are wrong or changes in income distribution are weakening the expected impact of growth.

In recent years there has been considerable discussion about poverty numbers and discrepancies between alternative measures have emerged. The standard way of collecting international poverty data (as for tables 1 and 2) is to rely on household surveys that collect information on expenditure and income across a sample of the population including the poor. However there is a problem in that generally average consumption data from national surveys is above average consumption estimated from the national accounts in very poor countries (possibly because the national accounts fail to pick up self-consumption goods accurately) whilst in higher income countries the reverse holds with average national accounts consumption exceeding average survey consumption (probably due to the under-coverage of and misreporting by the better-off in household surveys). Further this latter gap tends to widen as countries become richer. Hence it makes a large difference whether one bases estimated improvements in poverty on rising consumption of the poor as measured by household surveys or by the national accounts.

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<sup>8</sup> Cline (2004) terms the first point a 'time series paradox' and the second a 'cross-section paradox'.

This basic difference of approach gives very different estimates for the levels of poverty in the late 1990's (as the ratio of average consumption based on survey means to that based on the national accounts fell significantly over the period) with the World Bank estimates based on survey data charged with significantly overestimating global poverty<sup>9</sup>. Essentially what is involved are two imperfect approaches to poverty measurement with errors likely in both sources of data. The great advantage of the survey approach is that it allows more rigorous checks on the quality and consistency of the underlying data and it still remains the approach of first choice for most of those working in the field. However, there are reasons to believe that household surveys may under report the total value of household consumption (for example the value that must be imputed for public services like schooling and health care) and that some of this under-coverage will affect the poor. Hence the underlying data in tables 1.1 and 1.2 may understate the degree of actual poverty reduction, but probably by not that much.<sup>10</sup>

The other factor that may be at work in weakening the relation between actual recorded growth and poverty reduction is inequality. Again there has been disagreement on how far inequality has actually worsened within poor countries over this period. What seems clear is that there is no evidence of a systematic relation between growth in income or consumption and changing inequality. In other words, fast growing economies need not inevitably have rapidly rising inequality (although some may). However there is also evidence that in period since 1980 there has been a modest rise in inequality within countries, although as just noted this is not directly linked with differences in growth.<sup>11</sup> This modest rise in inequality may have had an impact in weakening the poverty reduction effect of economic growth in the 1990's. However it is also quite possible that changes in inequality may have been occurring, which are not picked up by the summary statistic, namely the Gini coefficient that is available in international databases. Whilst overall inequality may change little it is possible that around the poverty line income distribution may change a lot with an increased differentiation amongst the poor (for example between the urban and rural poor or between the land-owning or landless poor). A given rate of economic growth will have a bigger impact on poverty where the poor are clustered closely around the poverty line than where there is a marked differentiation below the line. If such shifts within the poor were at work this could in part explain the weaker than expected response of poverty levels to growth in the face of only modest changes in overall inequality.<sup>12</sup>

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<sup>9</sup> This debate was originally stimulated by alternative national accounts based estimates for India and was widened to include global figures in Bhalla (2002); UNCTAD (2002) also employs the national accounts approach. A highly combative technical debate ensued; see Ravallion (2002) and Bhalla (2003). The dramatic claim in Bhalla (2002) and (2003) is that because of the under-estimate of poverty reduction in the World Bank data the Millennium of Development Goal of halving recorded poverty between 1990-2015 was already achieved by 2000. Probably few development professionals accept this proposition.

<sup>10</sup> Deaton (2001) has an authoritative survey of the key issues. He rejects the approach in Bhalla (2002) of assuming that survey data is wrong in its average, but correct in its distribution, stating "the last condition is a real stretch" (Deaton 2001:135). Hence there is considerable doubt about the accuracy of the rapid fall in poverty found in Bhalla (2002).

<sup>11</sup> For example, on the growth-inequality link based on an analysis of comprehensive survey data from 60 countries Adams (2004) finds no statistically significant relation, provided Eastern European transitional economies are excluded as outliers. From his data inequality (as measured by the Gini coefficient) rose in slightly more than half of the cases. A more formal analysis of a set of Gini coefficients from a different database by Cline (2004:33-35) finds a significant positive time trend over 1980-2000, implying rising inequality. The annual change is modest however

<sup>12</sup> Cline (2004) uses this explanation for his 'cross section paradox' that poverty levels are higher than expected on the basis of a standard form of income distribution in some of the large higher income countries

Perhaps the main point emerging from the debates on levels of global poverty is the uncertainty of the key data. We have noted already the doubts that have been raised about the accuracy of consumption data and its distribution from both household surveys and national accounts. International comparisons also require a standard international poverty line. The original World Bank approach essentially was to select a low poverty line representative of the poorest countries, which is where the original constant price one dollar a day line came from. As this is used for comparisons across countries the line has to be converted to local currency and as it is to measure control over actual goods and services the exchange rates necessary for this conversion are purchasing power parity rates. These exchange rates measure the cost of a representative bundle of goods in local currency to the dollar cost of such goods in the US. Once a local currency value for the poverty line in constant prices is estimated it needs a further adjustment for use with survey data since the poverty line in local currency at constant prices must be adjusted to the prices of the year of the survey by an appropriate price index. When so many steps are involved the possibility of error can creep in at several points and errors carried forward can be magnified (unless they cancel each other out by operating in opposite directions). Setting the original poverty line from a base of 1985 to one of 1993 caused further complications and became a minor part of the disagreement on the accuracy of the World Bank poverty estimates for the 1990's. However a key problem has been the appropriateness of the purchasing power parity exchange rates for this exercise, since the rates are based on prices of general bundles of consumer goods not on bundles consumed specifically by the poor. Changes in purchasing power parity exchange rates have had significant effects on poverty estimates. In one dramatic instance a recalculation of the purchasing power parity exchange rate removed poverty completely from a country.<sup>13</sup>

Whilst international poverty estimates are useful in broad comparative terms and in part for advocacy purposes to support development initiatives on concessional funding and technical assistance the central theme of this book is that it is far more productive to focus on poverty within countries rather than between them. Only one chapter (Jalilian and Weiss chapter 5) focuses on international comparisons. National poverty analysis is clearly not without its own uncertainties as a national poverty line based upon local conditions for a socially acceptable minimum standard will be required and household survey or national accounts data will be needed to track the movements of the poor in relation to this line. The extensive debate on the level of and trend in poverty in countries like India and Pakistan is evidence of this uncertainty. National poverty estimates using national poverty lines can give a quite different picture to international estimates. To illustrate table 1.5 reproduces the national and international poverty estimates for the Asian economies that are covered in our case-study chapters. These estimates are all based on the survey approach discussed above not on national accounts data. For the four countries shown in all but one case (India in 1999-2000) the national poverty lines give higher poverty estimates than the one-dollar-a-day line. Substantial differences

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like PRC, India, and Mexico. Technically it means that the share of inequality taken by those around the poverty line is greater than would be found in a log normal form of income distribution.

<sup>13</sup> Deaton (2001:128) recounts how for the mid 1990's Thailand was shown "as having only 0.1 per cent of its population living on less than \$1/day at PPP. This virtual elimination of poverty was cited in the New York Times by then Chief Economist (sic of the World Bank) Joseph Stiglitz as one of the consequences of the Asian economic miracle..but it is much more likely a tribute to inappropriate PPP conversion." Ravallion (2002) summarizes the approach for international comparisons; see also Ravallion (2001).

between rural and urban poverty rates are also shown, which are not addressed in the international comparisons.

Table 1.5 National Estimates of Poverty Headcount index<sup>a</sup>: selected countries.

	National poverty line								International poverty line (\$1/day)	
Country	Survey year	Rural %	Urban %	National total %	Survey year	Rural %	Urban %	National total %	Survey year	National total %
India	1993-4	37.3	32.4	36.0	1999-2000	30.2	24.7	28.6	1999-2000	35.3
Lao PDR	1993	48.7	33.1	45.0	1997-8	41.0	26.9	38.6	1997-98	26.3
Pakistan	1993	33.4	17.2	28.6	1998-9	35.9	24.2	32.6	1998-9	13.4
Philippines	1994	53.1	28.0	40.6	1997	50.7	21.5	36.8	2000	15.5

Source: World Bank, World Development Indicators 2005, available from [www.worldbank.org](http://www.worldbank.org)

Note a) share of the population below the poverty line

Table 1.5 reveals some of the uncertainties involved. National poverty lines are well above the international dollar a day line for all but India. This in itself is unremarkable but what is noteworthy is the significant change in national poverty estimates over brief periods. For example, there is a fall of 6.4 percentage points in Lao PDR over just four or five years and a fall of 7.4 percentage points in India over six years. How far this is genuine poverty reduction and how far it is due to statistical re-adjustments is an important issue that requires detailed analysis. The international comparison has the startling and strongly counter-intuitive result that Pakistan has lower poverty than the Philippines. (More recent national poverty estimates for Pakistan for 2000-01 confirm the figure of around 32%; see chapter 8 by Arif). Also all social indicators are higher for the Philippines and alternative estimates using the dollar a day line reverse this result. These alternatives also find that Lao PDR is poorer than India again contrary to the data in table 1.5.<sup>14</sup> The point here is not to stress what country figures are right or wrong but to point up the uncertainties that must be borne in mind in this type of work. Only detailed country specific calculations can address these problems.

<sup>14</sup> ADB (2004) table 11 has headcount estimates at the dollar a day poverty line for the late 1990's of 36% for India, 39% for Lao PDR, 25% for Pakistan and 15% for the Philippines. The adjustment for Pakistan is obtained by using the national accounts approach of increasing an earlier mean consumption figure from survey data by the average increase in consumption shown from the national accounts; see ADB (2004) footnote 44. Although as we have seen doubt has been cast of the validity of this approach of mixing survey and national accounts data and it is not used extensively in the ADB estimates it does appear to have corrected an unrealistically low poverty figure, even if only approximately.

## Poverty Measurements and Differing Perceptions

In emphasizing the reduction in the headcount measure, that is the percentage of people living below some predetermined poverty line--- the one or two dollar a day lines noted above, for example---- the international development finance organizations, such as the World Bank, have certainly helped focus attention on global poverty in a direct way. However, focusing too narrowly on these headcount ratio measures may conceal as much information about poverty as they reveal. Part of the problem stems from the nature of headcount ratio indexes,<sup>15</sup> but the problem goes well beyond a critique of this special class of poverty measures. In particular, there are problems related to aggregation, policy time horizons, and market and non-market aspects of poverty that merit discussion.

The most significant limitation of the headcount measure is that it is insensitive to the actual extent of deprivation among the poor. For example, a person well below the poverty line earning only a few cents per day may be said to be suffering much more than a person with daily income just below a dollar. But the headcount ratio index will count them as having equal weights when measuring poverty. In terms of interpreting poverty reduction results, the index therefore is not very helpful in answering questions such as how poor the remaining poor people really are. In a somewhat extreme example, we can think of a poverty profile where 90 percent of the people are just below the poverty line whereas the remaining 10 per cent are close to earning a zero income. It may well be that with growth the former group quickly achieves non-poor status; however it may be difficult to lift the remaining 10 percent out of poverty by growth alone. This suggests that even within the context of counting the poor in this way, growth may not work equally well for all the poor.

Using alternative measures of poverty such as the squared poverty gap measure, which gives greater weight to the poorer segments may be more revealing; but even these relatively more sensitive measures fail to address fully problems arising from aggregation, policy horizon and the embeddedness of the poor in both market and non-market institutions.<sup>16</sup> Simply stated, the embeddedness of the poor refers to their connections, or lack there of, with all the economic, social and political institutions that affect their lives.<sup>17</sup> For example, in the 'dual-dual' models of chapters 2 and 3 the poor households are embedded in an economy with an imperfect market structure among other things. In particular, the existence of unions in the formal sectors and no bargaining power in the informal sector are features that come from being embedded in a particular socio-economic structure with the prevailing rules of the game that are assumed to be sanctioned by the current political institutions. Another pertinent example of the implications of embeddedness for poverty is the discussion of *zakat* in chapter 8 of this volume on poverty targeting in Pakistan by Arif. Essentially a wealth tax and transfer scheme that is in reality a social and religious institution, this has been used creatively in Pakistan to target a subgroup among the poor. Clearly, such a specific social embedding

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<sup>15</sup> See Khan (2005) for a more detailed discussion of the limitations of the headcount measure.

<sup>16</sup> The squared poverty gap is defined as  $p = 1/n \sum (G_j/z)^2$ , where  $n$  is the total population (poor and non-poor),  $G$  is the gap (either in income or consumption) relative to the poverty line  $z$  for each poor person  $j$ . The simple poverty gap is  $p = 1/n \sum (G_j/z)$ , which gives the average shortfall below the poverty line. Unlike the squared gap here there is no weighting system that places a higher weight in the calculation on those furthest from the poverty line. Both of these measures of poverty are used in later chapters.

<sup>17</sup> For a more detailed discussion of the issues relating to embeddedness, see Searle (1995, 2003).

of the poor is possible only in an Islamic society; however, many non-Islamic societies have other embedding institutional features that may be relevant for poverty reduction strategies.

For the moment, we can begin with a basic area of aggregation where different people who may be equally well informed may nevertheless look at different aspects of aggregation and weigh these differently. As Kanbur (2004) and many practitioners, particularly NGO staff at the local level, have underlined, what may be of as much relevance as percentage reductions in headcounts is the absolute number of poor people. However, numbers *per se* may hide the human face of poverty as well.

Clearly, both the people who insist on looking at the incidence of poverty numbers and those who put more emphasis on the absolute numbers are informationally correct. However, from the welfare angle, in a world of rapidly growing population the relevance of the latter cannot be denied. People involved in ground level operations experience increasing pressure on their ability to provide services to the poor when their absolute number increases even though the national or even regional statistics may show a decline in the incidence of poverty. If there is a limited amount of food to be distributed to the poor or a limited amount of shelter for them, it is their absolute number that really matters for the adequate provision of these services. More generally, with a budget constraint that cannot be relaxed as the absolute number of poor increases the per capita service provision has to decline if the relevant prices do not decline significantly.

Even if the number of poor people does not increase absolutely there may nevertheless be a disconnect between the practical people in the field and the poverty analysts at the national or international level. One reason is that even if the incidence numbers show a decline, the level and or the rate of growth of public services for the poor may be declining at the same time. This is what apparently happened in Ghana in the 1990's (Kanbur 2004). We know that during the last two decades the household income-expenditure surveys have improved a great deal. We know that now previously omitted elements such as production for home consumption, regional price variations, and imputation of use value to dwellings are now routinely taken into account. However, the information on public services provision is still not well integrated into these surveys. Although sometimes there are separate modules on health, education, and infrastructure these measures are rarely integrated fully into the income or consumption based measures of poverty estimates for households. As noted above this may contribute to the slow decline in measured poverty in some countries.

Even if services do not show a decline, regional or group dis-aggregation may pull in different directions leading to different perceptions regarding trends in poverty at different levels of aggregation. Let us call this "the poverty decomposition problem". For example, Kanbur (2004) cites the case of Ghana where during 1987-91, national poverty declined; but while rural poverty followed the national trend, urban poverty actually rose. In Mexico in 1994, exactly the opposite regional trends were observed along with a decrease in national poverty. More generally, within particular subgroups poverty may increase, decrease or remain constant during changes (or even no change) in either direction in overall poverty.

One way to show sensitivity to this important aspect of the aggregation problem is to include methodologies, which allow the disaggregation of poverty at various levels. In this book, in part we follow this approach within the context of economy-wide modeling.

We do this in two different ways. First, in chapters two and three we allow households to be disaggregated by region and socio-economic status and measure the impact of import tariff reduction on poverty reduction both nationally and within regions and groups. Secondly, in chapter four, we follow a completely disaggregated approach by looking at the impact of liberalization in the rice market in the Philippines on each and every household in the survey sample. Although we are still using the income or expenditure based measures, this type of aggregation problem, that is 'the poverty decomposition problem', can be addressed by drawing attention to both the overall and 'within sample' characteristics of households.

In later parts of the book we allow different chapters to address 'the poverty decomposition problem' at different levels. We focus primarily on individual countries looking at the impact of alternative forms of intervention on national poverty. Only one chapter (chapter 5 by Jalilian and Weiss) uses cross country, cross-sectional data to focus on infrastructure investment as a form of poverty intervention.

Another set of issues in poverty analysis touches upon both different time horizons that different people have in mind when discussing the impact of various poverty reduction policies. The difficulty here emerges at least partially from the usually implicit nature of these assumptions. For example, the advocates of growth-oriented policies are usually thinking in equilibrium economics terms. Therefore, the policies are supposed to be evaluated at different equilibrium situations after the economy in question has had the time to adjust to the policy shock.

Many participants in the debate on poverty, however, wish to know what this may mean in terms of calendar time. The economic theorist will usually answer by saying that these are medium term problems. Although no definite time period is mentioned in this particular statement, the professional opinion among economists would translate this as a period of five to ten years. Some practitioners on the ground at this point may shake their collective heads in disbelief and point out that the short run, often today or tomorrow, may be what really matters for the poor, especially the poorest. Even without knowing anything about the famous Keynesian dictum about the long run, the intuitions and experiences on the ground level of fighting poverty may point to the real possibility of many poor people dying as the economy sails from one equilibrium to another in the medium term of five to ten years.

Nevertheless, we need to know what to expect as we go from one particular equilibrium to another. The general equilibrium models of the early chapters of this book try to do this and at the same time be sensitive to the time horizon problem. This is done in two different ways. The first is to build into the model a number of imperfections of real world economies. Thus both in chapters 2 and 3 (by Khan) we take into account some structural features of a developing Asian economy. In particular the 'dual-dual' structure of the South Asian economies are modeled carefully so that at least some of these departures from a smooth neoclassical world of no frictions are modeled approximately. In chapter 4 (by Cororaton) likewise, some of the structural features of the rice market in the Philippines are taken into account.

The second way of being responsive to this criticism is to look at distribution-sensitive poverty measures (like the squared poverty gap) along with the headcount ratio. Further disaggregation according to groups and regions will allow group and regionally focused policy questions to be raised. The key question here has to be how to ensure the

protection of the more vulnerable among the poor. While the equilibrium analysis still assumes a medium term time horizon, the positive analysis of a Computable General Equilibrium (CGE) model can help identify the more vulnerable groups and ask what must be done in the short run to protect them.

Finally, in terms social and political realities, as noted above the poor are always embedded in a socio-political structure where power asymmetries are biased against them. We have not gone as far as in trying to build models that can incorporate these constraints explicitly. In fact, at the present state of model building in economics, it is not clear that we know how to incorporate social and political power issues in an analytically coherent way. Even if we could solve all the analytical issues, the task of empirical implementation would still remain a formidable challenge. This is, of course, not to discourage analytical and empirical research in these areas. Quite to the contrary although our position is that clarification of conceptual and analytical aspects of power is a precondition for model-based empirical research.

### **Growth Plus**

What needs to be done in addition to raising the rate of economic growth has been discussed in recent years in connection with the concept of 'pro-poor growth,' although there is no universally accepted definition. A strong version implies growth where there is a distributional shift in favor of the poor; a weaker version implies growth where the poor gain in absolute terms, so poverty falls as average incomes rise.<sup>18</sup>

Whether growth is pro-poor or not will thus depend on both initial inequality and how inequality changes over the process of growth.

In broad terms the changes necessary to maximize the impact of growth on poverty reduction are reasonably well understood although there can be disagreements over the emphases to be placed on different parts of the package. First, there is little doubt that growth accompanied by rapid job creation for the relatively unskilled is central. Wage employment on a regular basis offers a clear route out of poverty for workers and their families, who may rely on remittances out of wages from migrant family members. In some countries rapid wage employment may come through non-agricultural rural activities, whilst in others it may involve migration to urban areas to find employment in industry, construction, and services. Industrialization based on export-led growth was a key determinant of poverty reduction in the East Asian Miracle economies, and more recently in PRC, whilst in South Asia rural growth both in agricultural and non-agricultural activities has had a greater impact on poverty reduction.<sup>19</sup>

At one time there was considerable debate whether the pattern of growth in many countries was biased in a capital-intensive direction due to the impact of exchange rate policies (which cheapened the cost of imported capital goods) and financial policies (which reduced the cost of borrowing to invest). How far such measures actually had an impact on the growth of employment is an empirical issue and their impact in the so-

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<sup>18</sup> Ravallion (2004) has an analysis of this latter case and a formal measure of pro-poor growth rate as the actual rate adjusted by a distributional term, defined as the actual rate of poverty reduction over the rate that would be achieved under distributional neutrality; by this measure for example he finds pro-poor growth in India to be 0.8 % annually over the 1990's, whilst actual growth was 1.3% (that is the distributional shift was anti-poor).

<sup>19</sup> Quibria (2002) has a good analysis of the employment impact on poverty in East Asia.

called 'import-substitution era' is open to doubt. An alternative hypothesis is that the pattern of growth and its factor-intensity is driven essentially by demand either domestic or international, rather than by factor prices. With low-income countries specializing for the export market and selling a high proportion of output abroad the expectation will be that growth will be labor-intensive, as these will be the goods in which low income countries will be cost competitive. Hence with a greater export-orientation, as implied by more open trade policies, the implication is that growth should be more labor-using. At any rate the factor price distortions of controlled interest rates and over-valued exchange maintained by import and capital controls that might have biased growth against employment creation in the past are now much less common and have tended to be abandoned as part of macro economic policy reforms.

Whilst growth in labor-intensive sectors will be an important part of the package there is a critical issue of how effectively the poor can respond to income-earning opportunities. The poor suffer from multiple disadvantage some of these will be personal (low skills, poor literacy, large families, lack of assets and possibly also ethnicity and gender), whilst others will be locational (poor access to infrastructure) and structural (poorly developed market relations in terms of information and access to credit). This means that the resources generated by growth or made available by international aid transfers and other inflows need to be channeled to address these constraints.

Much of this initiative will have to be public sector driven. Whilst some private investment in physical infrastructure sectors is to be expected, not all of this need be aimed at services for the poor. Further the impact of recent privatizations, with their associated increases in tariffs and service charges, has been controversial in a number of countries, with mixed experience in terms of poverty impact. Large-scale road investment in rural areas has been identified as a key determinant of rural poverty reduction in the large economies of India and PRC. Similar poverty returns to road programs can be expected elsewhere and this type of infrastructure provides a key link between the rural poor and expanding economic activities elsewhere in the economy. Where electrification systems are not well developed rural electrification programs also offer the potential for a strong poverty impact, although whether they are commercially viable for private investors will vary with circumstances.<sup>20</sup> The chapter by Jalilian and Weiss looks at the crosscountry evidence on the link between an aggregate measure of infrastructure, growth of income and poverty

In terms of social expenditure public investment on primary health and education sectors appears broadly pro-poor in the sense that a disproportionate share of benefits from additional expenditure goes to those below the poverty line.<sup>21</sup> This is in line with thinking that stresses that the key to poverty reduction is to build up the human capital of the poor through health and education programs that reach into rural areas and urban slums. Protecting public expenditure on such programs at a time of public sector financial constraints is a key challenge and the moves towards full or partial cost recovery in such sectors (that is charging for access to clinics and schools) are highly controversial. Critics argue that such sectors are inherently financially unsustainable and

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<sup>20</sup> Fan (2003) surveys the evidence from the econometric analysis of road programs in a number of countries carried out by IFPRI. For the Philippines Balisacan and Edillon (2005) report that from various simulation of the impact of various expenditure packages rural electrification appears to offer the best combination of growth and poverty reduction. They also include the impact of land reform, which surprisingly appears to have only a weak poverty effect.

<sup>21</sup> See, for example, the evidence in figure 2.5 of World Bank (2004).

that charging simply deters the poor, whilst raising little in revenue. In recent years donor aid has increasingly gone to these 'broad targeting' activities.

In addition to employment generation, and various public sector investments in physical and social infrastructure, a third strand of the pro-poor growth case consists of various 'narrow targeting' measures that attempt to provide special support for the poor. The logic here is that the poor are not a homogeneous group who are equally well placed to respond to the opportunities provided by a dynamic economy. Some may periodically fall below the poverty line due to adverse shocks whether personal (like illness) or activity-specific (like a crop failure). Such 'transitory poor' need short-term support to see them through this problem (for example through food subsidies or employment creation measures). Others are the longer-term or 'chronic poor', who need promotional support to help them raise their income on a long-term basis (they may need training and access to credit) and hence need to be incorporated in specially designed support programs. Finally there will be some of the poor who are the destitute, due to age, ill health or ethnic bias and they will require sustained long-term support.

Experience with these targeting measures that aim to channel special support to the poor is very mixed with problems of leakage (as the non-poor siphon off some of the funds) and under-coverage (as many of the poor are missed). The chapters by Arif for Pakistan and Srivastava for India provide original evidence on degree of leakage from selected schemes. Perhaps the most innovative development in this area has been the growth of microfinance schemes that aim to incorporate the poor in financial markets through the provision of small loans. These are now generally offered at relatively high real interest rates (that reflect the high cost of making small loans), but which are nonetheless below the cost of borrowing from informal sources, like moneylenders. In countries like Bangladesh and Indonesia microfinance services are now widely available and offer an important source of funds to the poor.<sup>22</sup> However, how successful microfinance is in addressing the needs of all of the poor remains a subject of dispute, since one can argue that the very poor will be too risk-averse to take out what are normally high cost loans in real terms, due to the high transactions cost in making small loans. The chapter by Montgomery considers in detail the impact of one such microfinance scheme on poverty.

The policy prescription of growth plus various interventions to address poverty makes sense provided there is no significant trade-off between growth and poverty reduction outcomes, so that increased attention to the latter does not come at the cost of slower growth and lower future average incomes. Fortunately there are reasons to believe that such a trade-off, if it exists, is unlikely to be very significant. First, the type of distortionary policies likely to impede labor-intensive growth (interest rate controls and highly overvalued exchange rates) are now much less commonly applied, as the evidence on their macro economic consequences has become better understood. Second, project level evidence tends to show that investment in health and education for the poor can generate high returns, not just for the poor themselves, but also for society as a whole (in other words their growth impact is also strong). Third, at a more conceptual level there has been an intense discussion on whether inequality (and by extension poverty) is good or bad for economic growth. Recent thinking has challenged

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<sup>22</sup> The chapters in Weiss (2005) survey country experiences with poverty targeting. Weiss et al (2005) address the question of how far microfinance measures actually reach the core poor, as opposed to those just below the poverty line.

the view that inequality can help growth by allowing a higher rate of domestic savings than would a more equitable distribution. The counter argument is that inequality is bad for growth by limiting access to the credit market and therefore restricting access to productive investment opportunities.<sup>23</sup> Some cross-country work has found a negative relation between the level of initial inequality and growth in subsequent periods, with the implication that removing inequality and poverty should help growth. Although this result has not been replicated in other studies and is controversial, few now take the view that inequality is itself a necessary condition for higher growth. Finally, if one considers direct poverty targeting expenditures (even if they have a zero or negative growth effect) in most countries the value of these measures as a share of government expenditure or GDP is normally too small for their impact on growth to be substantial.<sup>24</sup>

However stating what needs to be done to make major inroads into poverty – faster economic growth of a pattern that supports growing incomes of the poor – is not the same as achieving it. What allows some countries to grow fast and what constrains others to grow slowly may be partially understood, but achieving change in the environment of poor countries is never easy and not all lessons are universally applicable. The global as well as the regional challenges remain daunting.

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<sup>23</sup> If one has a simple conventional model with declining marginal product of capital then at the margin the poor may be expected to have a higher marginal product than the non-poor and if the former are excluded from credit markets then the higher the poverty rate, ceteris paribus, the lower will be the growth rate; see Ravallion (2004)

<sup>24</sup> India is perhaps the exception here where targeting measures have been more than 10% of government expenditure with the exact proportion varying with how different expenditures are classified (Srivastava 2005).

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