DESA Working Paper No. 49
ST/ESA/2007/DWP/49

July 2007

Growth, employment and poverty: An analysis of the vital nexus based on some recent UNDP and ILO/SIDA studies

Azizur Rahman Khan

Abstract

This Working Paper explores the role of employment growth in determining the effect of a given rate of economic growth on the rate of change in poverty. It is based on the findings of 16 country case studies recently carried out by the United Nations Development Programme and the International Labour Organization. The principal finding of the paper is that the rate of poverty reduction has invariably been lower than what it potentially should have been and the main reason for this is both the low employment intensity of growth and, with few exceptions, low overall growth itself.

JEL Classification: 01 (Economic Development)

Keywords: Employment, Poverty

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Growth, employment and poverty: An analysis of the vital nexus based on some recent UNDP and ILO/SIDA studies

Azizur Rahman Khan[1]

Introduction

This chapter explores the relationship between economic growth and poverty reduction with special focus on the role of employment in shaping the linkage. The empirical basis of the analysis consists of two recent sets of studies: nine UNDP country case studies on the macroeconomics of poverty reduction (hereafter referred to as the UNDP case studies) and seven ILO/SIDA studies on the growth-employment-poverty nexus (hereafter referred to as the ILO/SIDA studies).[2]

Altogether, 13 countries are covered by the two sets of studies (as three each of the UNDP and the ILO/SIDA studies concern the same countries: Bangladesh, Indonesia and Vietnam). Ten of the countries are located in Asia: three in South Asia, four in East and South-East Asia, one in the Caucasus, and two in Central Asia. Of the three non-Asian countries, two are in sub-Saharan Africa and one in Latin America. The countries range in population size from the two largest countries of the world at one end to five small countries, with populations ranging from two to twelve million, at the other end. In between are the fourth and the eighth largest countries of the world, two medium-sized, and two relatively small-sized countries. Three of them (China, Bolivia and Armenia) are lower-middle income countries according to the World Bank classification, while the rest are low-income countries. Note, however, that Indonesia, classified as a low-income country since the Asian crisis, has a higher real per capita income (PPP$ income) than does Bolivia, a lower-middle income country. Five of the countries—Bangladesh, Nepal, Cambodia, Ethiopia and Uganda—are in the category of least-developed countries, according to the UN classification. Note, again, that some of these countries (Bangladesh and Nepal) have higher real per capita income than others not included in this category (Kyrgyz Republic and Mongolia). Together these countries thus incorporate a wide variety of characteristics, although their experience in the area under review would not be representative of the experience of the contemporary developing world. Indeed, one region, Asia, and one development category, the transitional economies, are well represented. Other regions and categories have token or no representation.

The case studies belong to two distinct sets. The first set, by the UNDP, considers the relationship between macroeconomic policies and poverty reduction, while the second set, sponsored by the ILO and SIDA, looks at the role of employment in the growth-poverty linkage. Motivations behind the two sets of studies may have been quite disparate. The UNDP studies appear to have been designed to demonstrate how

1 The final revision benefited from discussions at the ILO-UNDP conference on 'Strengthening the employment nexus between growth and poverty reduction' held in January 2005 at the International Poverty Centre in Brasilia and from a set of suggestions given by Dr. Rizwanul Islam.

2 The UNDP studies cover Armenia, Bangladesh, Cambodia, China, Indonesia, Kyrgyz Republic, Mongolia, Nepal and Vietnam. The ILO/SIDA studies cover Bangladesh, Bolivia, Ethiopia, India, Indonesia, Uganda and Vietnam. An ILO/SIDA study (Islam 2004), which is itself an overview of the growth-employment-poverty nexus based on the seven case studies and a cross-sectional analysis of a larger number of countries, is also taken into account in this chapter. Individual papers are cited in the list of references.

developing countries might pursue macroeconomic adjustment that is more consistent with the welfare of the poor than the policy regime that the Bretton Woods institutions have incorporated as part of their conditionality for assistance in recent decades. The principal focus is on designing macroeconomic policies so that they help accelerate, rather than retard, growth, and on shaping the character of growth in ways that benefit the poor. The ILO/SIDA studies start with the concern that benefits of growth often bypass the poor; they are premised on the notion that "countries which attained high rates of employment growth alongside high rates of economic growth are also the ones who succeeded in reducing poverty significantly".[3]

Despite their apparently disparate motivation and different coverage of issues, the two sets of studies have a large common area of focus. To see this clearly, one needs to consider the process that links economic growth with poverty reduction. While broader indicators are often used by the case studies, the basic indices of poverty that are common to them all relate to shortfalls from some minimum acceptable level of income or consumption (the poverty threshold). A change in such an income/consumption poverty index is completely determined by: (a) the change in average income/consumption; and (b) the change in the distribution of income/consumption (hereafter, for brevity, reference will be made only to income and income poverty, but would equally apply to consumption and consumption poverty).

The first of the above two determinants of change in poverty, the growth of average income, is determined by the rate of growth of the economy. An economy's growth rate is usually measured by the rate of growth of per capita real GNP. Change in income for poverty indicators, however, needs to be measured by the change in per capita *personal* income, in terms of which the poverty threshold is defined. In addition to individuals, or members of households, there are other claimants to GNP, e.g., business and government. It is not necessary for the shares of the different claimants to remain unchanged. Thus, it is possible, indeed quite normal, for the rate of growth of personal income to differ from the rate of growth of GNP. This difference itself is an outcome of macroeconomic policies.

The second of the two determinants of change in the poverty indicator, the change in the distribution of income, is represented by the change in the Lorenz distribution curve of income. While this is usually captured by the change in summary indicators of income distribution, e.g., the Gini index, this is not necessarily the case. This is because what matters is the change in the relevant segment of the Lorenz distribution curve, which is the part that lies to the left of the point that indicates the proportion of the population living in poverty. The Gini index can fail to capture a change in this segment accurately if there is a (compensatory) change in the segment of the Lorenz distribution curve that lies to the right.

Where does employment feature in this nexus? Growth in employment can influence both determinants of change in poverty. Growth in employment and productivity can improve the growth rate of the economy. This is especially the case for a typical developing economy which has a large endowment of labour relative to other factors, such as capital. Productive utilization of this relatively abundant resource can make growth go faster.[4]

But the more powerful way that growth in employment and productivity can influence the growth-poverty linkage is by pushing up the relevant segment of the Lorenz distribution curve. Except for income

3 This quote is from the preface to the discussion papers of the ILO/SIDA case studies.

4 This particular direction of the employment-growth linkage has not featured prominently in the case studies. The focus has usually been on the reverse direction of the relationship, the effect of growth on employment and labour productivity.

transfer in favour of the poor—an instrument that has always been of limited scope in poor countries and has become even more so in the present era of emphasis on macroeconomic stability, encompassing the avoidance of budgetary imbalance—and institutional changes, such as land reform—which have rarely occurred in contemporary history. This can only come about by increasing employment and its remuneration.

Most of the poor, who are clustered on the left of the Lorenz distribution curve, are endowed with labour as their only significant resource. Even when a poverty-reduction strategy improves the access of these poor to other resources—e.g., land and capital: physical, financial, infrastructural and human—the process of poverty reduction does not depend on the creation of an entitlement to rent or annuity for the poor, but on the enhancement of opportunity for them to be employed more intensively, productively and remuneratively.

There are many aspects of the linkage between employment and poverty. The poor can escape poverty when they have: (a) an increase in wage employment; (b) an increase in the real wage; (c) an increase in self-employment; (d) an increase in productivity in self-employment; and (e) an increase in the terms of exchange of the output of self-employment.[5] Poverty declines if the aggregate of all these effects is favourable for the poor.

Now, one can identify three distinct ways in which macroeconomic policies can contribute to poverty reduction:

(a) They can promote higher growth which, given the gross output elasticity of employment (GOEE), increases employment and/or the earnings of the poor, which alleviates poverty.

(b) They can change incentives in favour of more labour-intensive activities and techniques, thereby increasing employment and/or the earnings of the poor, which alleviates poverty.

(c) They can directly improve the welfare of the poor, e.g., by changing the allocation of public expenditure to increase income transfer to the poor. Faster growth facilitates this process, but is neither necessary nor sufficient for it to happen.

In analyzing the role of employment in the linkage between growth and poverty reduction—the subject of the ILO/SIDA studies—the focus must primarily be on a faster rate of increase in labour demand which translates into a higher rate of increase in employment and/or labour remuneration. Policies are no longer limited to macroeconomic instruments, but also include microeconomic instruments and institutional reform. Once again, one can think of two avenues for pursuing this goal:

(a) Promoting higher economic growth to stimulate labour demand; increase employment and earnings of the poor; and reduce poverty. This effect is essentially the same as the first effect of macroeconomic policies for poverty reduction shown above, except that the instruments for the promotion of higher growth are broader.

(b) Increasing the labour-intensity of growth, essentially the same as the second effect of macroeconomic policies listed above, except that a much broader set of instruments can be in play.

Strictly speaking, there is nothing corresponding to the third channel listed above, through which

5 This analytical framework is more fully discussed in Khan (2001), the first discussion paper in the Issues in Employment and Poverty series.

macroeconomic policies influence poverty directly because, by definition, these studies (should) limit themselves to those instruments only that affect poverty by influencing employment and earnings from it.

Thus, the common area covered by the two sets of studies encompasses:

(a) Policies for higher growth to stimulate greater labour demand; and

(b) Policies for greater labour-intensity of growth.

It is fair to say that the UNDP studies are primarily preoccupied with the first of these two aspects. They often analyze the second aspect, but do not always make the employment link explicit. Instead, they subsume this effect under a broad analysis of the effect of the *character* of growth on poverty reduction. The primary focus of the ILO/SIDA studies is—or should have been—on the second of the two channels although, in varying degrees, they also focus on the first set of issues. The analysis of the first effect by the two sets of studies should, in principle, have been distinct: the UNDP studies focusing only on macroeconomic policies and the ILO/SIDA studies focusing on the whole gamut of policies, including microeconomic policies and institutional reforms. But in practice, this distinction is blurred by the very flexible definition of macroeconomic policy that the UNDP studies adopt: not only does the definition include monetary policies; fiscal policies; policies concerning trade, exchange rates and capital movement; policies concerning the setting of domestic prices and regulation of distribution; labour market policies; and privatization, but also land reform and other institutional changes. As is well known, reforms of trade, monetary and fiscal regimes entail both macroeconomic aspects, affecting the level of aggregate demand, as well as microeconomic aspects, affecting the allocation of resources.

This chapter primarily limits itself to those parts of the two sets of studies that deal with these common issues. There are many other aspects of growth and poverty that these studies are concerned with. For example, they often have comprehensive discussions of poverty reduction policies, going beyond the common, employment-related issues. They often devote a great deal of effort to identifying the characteristics of the poor during particular time periods. These are not the primary focus here.

This review generally limits itself to the analysis made in the case studies. It does not concern itself with the validity of their analysis except in the obvious cases of clear inconsistency and convincing contrary evidence. Nor does it extend their analysis except in the rare instances where it is possible to do so by using easily available information from closely related sources—such as another publication in the same UNDP or ILO series.

The review begins by summarizing the principal arguments of each paper on the growth-employment-poverty linkage (Khan, 2001: Annex). This is not to suggest that these summaries are of peripheral importance for the review, but to free the reader from entanglement with details, which themselves are highly selective and compressed statements of far more lengthy and detailed reports. Next, it summarizes the experiences of the 13 countries in two areas: relationship among economic growth, income distribution, employment and poverty, and the broad patterns of employment growth experienced by the 13 countries. The following is concerned with the role of macroeconomic policies in determining economic growth and its character, which subsumes the effect of growth on distribution and poverty. These are the principal areas of focus of the UNDP case studies. The next discusses the role of the employment intensity of economic growth in the growth-poverty nexus, the principal area of focus of the ILO/SIDA studies. The final section concludes by highlighting a few important areas in which similar future studies could make further useful analysis.

Summary of country experience

Tables 1 and 2 summarize some of the relevant information about the 13 countries. Table 1 presents the most recent information about population, income, rates of income growth, distribution of expenditure and poverty incidence from World Bank sources. Table 2 qualitatively summarizes the information presented in the case studies concerning growth, distribution, employment and poverty in these countries.

Table 1:
Basic features of the countries studied

Country	Population in 2002 (millions)	Per capita income 2002		Per capita GDP growth per year: 1990-2002	Gini ratio (expenditure)	Poverty (PPP$1)	
		$	PPP$			HC	gap
Bangladesh	136	380	1 770	3.0	0.32	36.0	8.1
India	1 049	470	2 650	4.1	0.33	34.7	8.2
Nepal	24	230	1 370	2.4	0.37	37.7	9.7
Cambodia	12	300	1 970	4.3	0.40	34.1	-
China	1 280	960	4 520	8.6	0.45	16.6	3.9
Indonesia	212	710	3 070	2.3	0.34	7.5	0.9
Mongolia	2	430	1 710	-0.1	0.44	13.9	3.1
Vietnam	80	430	2 300	6.1	0.36	17.7	3.3
Ethiopia	67	100	780	2.2	0.30	26.3	5.7
Uganda	25	240	1 360	4.1	0.43	82.2	40.1
Armenia	3	790	3 220	-0.8	0.38	12.8	3.3
Kyrgyzstan	5	290	1 560	-3.5	0.29	<2	<0.5
Bolivia	9	900	2 390	1.6	0.45	14.4	5.4

Notes: These data are from the World Development Indicators, (World Bank, 2003, 2004). These are not necessarily the same as the data shown in the case studies. PPP$ income estimates are often based on indirect methods. Gini ratios are for per capita (consumption) expenditure distribution. Poverty indices are based on poverty thresholds defined in terms of per capita daily expenditure of 1.08 PPP$ at 1993 prices. The gap index of poverty is the proportionate poverty gap, which is the product of the headcount ratio and the average of the proportions by which the incomes of the poor fall below the poverty threshold.

Growth, distribution, employment and poverty

Table 1 shows that the richest country (China) has 5.8 times the real per capita income of the poorest country (Ethiopia). The Gini ratio of per capita expenditure distribution ranges from a low of 0.29 in Kyrgyz Republic to 0.45 in China and Bolivia. Poverty estimates, made by the World Bank with a common poverty threshold of approximately PPP$1 per day per person, should be internationally comparable. The headcount index of poverty ranges from a low of less than 2 per cent in Kyrgyz Republic to more than 82 per cent in Uganda. It is worth noting that Kyrgyz Republic has the fourth lowest income among the countries, which means that its low poverty incidence must be explained by its low inequality, lowest among all the countries studied. There are other indications that the poverty level is driven more by the inequality of distribution than by the level of income. Thus, China has more than twice the poverty of Indonesia, even though its income is nearly one and a half times that of Indonesia. The explanation appears to be the much higher inequality in China. A crude estimate of the elasticities of headcount rate of poverty, based on the data in Table 1, shows that the partial elasticity with respect to the Gini ratio of expenditure is higher than the absolute value of the partial elasticity with respect to per capita PPP$ income. Unfortunately, the estimated elastici-

Table 2:
Basic features of performance in growth, distribution, employment and poverty

Country	*Growth*	*Distribution/ Inequality*	*Employment*	*Poverty*
Bangladesh	Moderate	Rising inequality	Fairly rapid growth in RNF	Falling
India	High	Rising inequality *	Increased employment Growth: still slow	Falling
Nepal	Slow	Uncertain: may not have increased	Uncertain: probably slowing down of growth	Uncertain
Cambodia	High but narrow base	Stable with a question mark	Rapid growth in narrow sectors; slow overall	Increase overall & rural; fell in urban areas
China	High	Increasing rapidly	Growing slowly	Falling, but at a slower rate
Indonesia (Pre-crisis period)	High	Stable and low	Growing rapidly	Falling rapidly
Indonesia (Post-crisis period)	Slow	Stable (or getting more unequal)	Slow growth; fell in formal sectors	Initial rise, then fall, ending above initial level
Mongolia	Slow & partial recovery from deep fall	Increased *	Fell in industries; labour moved into agriculture	Sharp rise since Soviet era; no change recently
Vietnam	Rapid	Rapid Modest rise in inequality	Slow growth in industries and modern services	Fell
Ethiopia	Slow	Rural inequality fell urban inequality rose	Slow growth in industries, negative in agriculture (data implausible)	Unchanged overall, rise in urban, fall in rural
Uganda	Moderate until 2000, slow since	Stable until 2000, rise thereafter	Slow growth in industries. Agriculture absorbed a lot of labour with falling productivity per worker	Fell until 2000, rose thereafter
Armenia	Sharp fall till 1993; moderate but incomplete recovery since	Sharp initial rise in inequality, slow further rise later possible	Fall in industries & services; rise in agriculture	Sharp rise since Soviet era
Kyrgyzstan (Recovery period)	Slow	Non-increasing	Fell in industries & most services; sharp rise in agriculture	Fell
Bolivia	Slow (fall in per capita income since 1999)	Sharp (inexplicable) fall in rural Gini since 1997; urban Gini rose since 1999	Rapid growth till 1997, slow thereafter	Urban fell till 1999, then rose; rose in rural (!)

Note: * Indicates that these are based on an estimate, or no data from outside the case studies.

ties are not as highly significant as one would want them to be, probably largely due to the poor estimates of PPP$ income and its distribution.[6]

6 The estimated equation is as follows:

$$Log\,HC = -2.526\frac{-1.012}{(-1.744)}Log\,Y + \frac{3.635}{(2.055)}Log\,Gini$$

where HC is headcount index of poverty, Y is per capita PPP$ income and Gini is the Gini index of per capita expenditure distribution. The figures in parentheses are t-values. The adjusted R^2 is 0.204. The coefficient of Y is significant at 11.2 per cent, while the coefficient of Gini is significant at 6.7 per cent. The problem with the data consists of the fact that most of the PPP$ income estimates are based on indirect methods of projection, rather than direct price information; and, to the best of my knowledge, no adjustment is made for the possibility of different PPP deflators for different expenditure groups in estimating the Gini ratio.

Table 2 is based on information from the case studies. Actual trends are often more nuanced than can be summarized in one short table (see Khan, 2001: Annex). Often, only changes during the major subperiods are reported in the Table when there is more than one subperiod within the time period of a case study.

Growth rates are classified into three categories. A high growth rate refers to an annual average growth in per capita GDP of 4 per cent or more. The logic of this is that it should translate into an annual average growth in per capita personal consumption of 2.5 to 3 per cent (or more), which should provide a reasonable base for poverty reduction in so far as it should be able to outweigh the adverse effect of a moderate increase in inequality (though not necessarily of a large increase in inequality). Moderate growth refers to a minimum of 2.5 per cent growth in per capita GDP, which hopefully translates into a minimum of 1.5 per cent annual growth in per capita personal consumption. This would not prevent an increase in poverty if the increase in inequality was not very modest. Low growth refers to annual growth in per capita income of 2.5 per cent or less. This is not a reliable basis for poverty reduction: it could provide so low a rate of growth in per capita personal income that its effect would be outweighed by even a very modest increase in inequality.

Four countries—China, Vietnam, India and Cambodia—achieved high growth. Pre-crisis Indonesia also belonged to this category. With the exception of pre-crisis Indonesia, they all had increased inequality in the distribution of income and consumption. China, Vietnam and India achieved significant reduction in poverty. The rate of decline of poverty in each case, with the exception of pre-crisis Indonesia, was however, below the *potential rate of decline*, the rate of poverty reduction that would have resulted from the actual growth of income if distribution had remained unchanged.[7]

In the case of China, the sharp increase in inequality resulted in a fragile poverty outcome despite the country's historically unprecedented rate of growth: urban poverty during 1988-1995 probably increased overall, and in many regions, poverty failed to register a decline. The powerful effect of distribution on poverty in China is also demonstrated by a subsequent study, which showed that the poverty reduction effect of a per cent increase in personal income sharply increased during 1995-2002 over what it was during 1988-1995 because inequality stopped increasing during the second period as compared to the sharp increase in inequality in the first period (Khan, 2001). Furthermore, the increased inequality during 1988-1995 was associated with a serious worsening of the employment situation, particularly with rising urban unemployment without social protection. The stable distribution in the subsequent period was associated with improved rural employment and the institution of a partial system of protection for the urban unemployed.

In India, employment growth was faster during the 1990s, the period of focus of the case study, than earlier. Still, the overall employment intensity of growth was not high. In Vietnam, slow employment growth was the major blemish on an otherwise good growth performance.

Of the rapidly growing cases, Cambodia failed to achieve an overall reduction of poverty. Poverty increased for rural Cambodia and for the nation as a whole, while it fell for urban Cambodia. The evidence on income distribution is murky. The poverty outcome is principally explained by the very narrow base of growth. Employment growth was limited to the narrow base of a few urban industries and overall employment growth was very slow.

7 In the case of China, this has been demonstrated by actual simulation by Khan and Riskin (2001). In other cases, this is strongly suggested by the case studies.

In the rapidly growing contemporary cases (i.e., excluding pre-crisis Indonesia), inequality increased and/or employment growth was too slow to enable the poor to have an adequate share of the increase in income. The result was a slower and less robust reduction of poverty than the high rate of growth should have made possible.

Two countries, Bangladesh and Uganda (until 2000), achieved a moderate rate of growth in per capita GDP. Inequality in Bangladesh increased steadily. The most important, though perhaps still tentative, explanation of poverty reduction in Bangladesh is the rapid increase in remunerative employment in rural non-farm (RNF) activities. Still, it has been shown by simulation exercises that poverty reduction was significantly lower than what would be possible if the poor had maintained their share of incremental income (Khan and Sen, 2004). In Uganda, industrial employment increased at a relatively slow rate. Agriculture absorbed labour at a very rapid rate (even though the statistical evidence seems quirky), rendered remunerative by a favourable movement in agricultural terms of trade. This helped stabilize the distribution of income and reduce poverty. After 2000, income growth became slow, agricultural terms of trade deteriorated, and inequality and poverty increased.

In the two moderately growing countries, the real earnings of the poor were kept from falling, despite otherwise non-egalitarian growth in one of them, by unorthodox sources of employment, RNF and agricultural production, without which the poverty outcome might have been worse.

The remaining seven cases achieved slow growth, negative growth or no growth during the 1990s. Three of these—Armenia, Kyrgyz Republic and Mongolia—are transition economies. Over the 1990s, they experienced a sharp fall in per capita income, a sharp rise in inequality, a large fall in employment due to de-industrialization and a big increase in the incidence of poverty. Interestingly, the pattern of recovery began in the mid-1990s. De-industrialization forced many urban workers to move to agriculture. In Kyrgyz Republic and Armenia, egalitarian land reform widened the access of the population to land, and economic recovery, concentrated in agriculture, did not increase inequality. Indeed, estimates for Kyrgyz Republic show that, in the late 1990s, the Gini ratio of per capita expenditure remained stable in rural areas, so that the growth of agricultural income helped reduce poverty. Urban poverty fell, partly due to the reduced population pressure on urban income sources. In Armenia too, poverty fell after 1996, although estimates there suffer from greater uncertainty. In Mongolia, poverty remained unchanged between 1995 and 1998—the only period for which estimates are available—due to greater inequality generated by the privatization of urban industries, housing and herds.

During the recovery, Indonesia's per capita GDP increased at half the rate at which it had increased prior to the crisis. It is possible that the reason for the growth in personal income and consumption being slower than the growth in GDP in the post-crisis period was related to the large claims made by external creditors. The case studies are skeptical about the official estimates, which claim that distribution of income remained stable and that the incidence of poverty fell, though not yet to the pre-crisis level. Be that as it may, during this period, formal sectors of the economy reduced their share in employment, while that of agriculture and informal sectors increased. In the aftermath of the crisis, poverty increased for all categories of workers, but the *proportionate increase* in poverty was lowest for agricultural workers and far greater for those employed in industries and services. This, again, is an example of agriculture providing at least temporary protection from poverty *relative* to other sectors.

The remaining three cases are plagued with too many gaps and inconsistencies in data to permit any reasonably confident analysis. In Bolivia, slow growth occurred until 1998. The case study reports stable

urban Gini and a reduction in urban poverty until 1999, when poverty rose as per capita income growth became negative and urban inequality rose. Employment growth, rapid until 1997, became slow thereafter. This, together with the decline in growth, helps explain the urban poverty. For rural areas, the case study claims a massive fall in inequality of income distribution in 1999, for which no explanation is provided and none can apparently be found, and which had no effect on poverty, which, according to the case study, increased steadily after 1997. For Ethiopia, poverty estimates are available only for 1995/1996 and 1999/2000. Growth in per capita GDP was so slow that per capita personal expenditure fell by 4 per cent in rural areas and rose by a mere 3 per cent in urban areas. Poverty, determined by the change in inequality, fell slightly in rural areas and increased substantially in urban areas: rural poverty fell a little and urban poverty increased. It is difficult to relate the fall in rural poverty to the employment outcome, which was highly negative for agriculture. The employment intensity of industries was low as well. For Nepal, it is difficult to be certain about any of the magnitudes or even directions of change of the indicators. The only certainty is that the rate of growth was low.

In the countries growing slowly, the poverty outcome was mainly shaped by the low rate of growth. In the three transition economies and in Bolivia and Indonesia, agriculture absorbed a lot of labour, while industries and most other modern sectors failed to do so. Egalitarian agriculture in Armenia, Kyrgyz Republic and Indonesia—promoted by land reform in the first two and by predominantly traditional peasant farming in the last—helped create a kind of survival mechanism, through large-scale absorption of labour displaced from other sectors, which resulted in a reduction in poverty in Armenia and Kyrgyz Republic in the late 1990s and a degree of protection for the poor in Indonesia, at least relative to those in other sectors. Elsewhere, in slow- growing countries, poverty declined slightly where forces of inequality were held in check, despite slow growth of income and lack of dynamism in employment growth, which failed to prevent a rise in poverty where inequality increased due to institutional or other reasons.

Patterns of employment growth

The case studies reveal at least three distinct patterns of employment growth. Classical industrialization envisages a rapid increase in employment in industries and other modern activities, leading to a quick fall in agriculture's share of employment, which soon translates into an *absolute* fall in employment in agriculture. In contemporary development experience, this is best illustrated by the original East Asian tigers: in the Republic of Korea, for example, agriculture's share of employment fell from 34 per cent to 17 per cent between 1980 and 1991. Over the same period, absolute employment in agriculture fell by nearly 40 per cent!

None of the 13 countries under review has achieved anything like this yet, even though China has been growing at a faster rate for nearly two decades than the East Asian tigers ever did, and the Indian growth rate during the 1990s has approached the East Asian rate. China and, to a lesser degree, India appears to be poised for this transition however. In these two countries, the proportion of the workforce employed in agriculture has been declining for quite some time. In China, the absolute employment in agriculture peaked in 1991, when it started falling very slowly. In India, employment in agriculture remained stable during the last six years of the last century. The historically unprecedented rate of growth in China failed to induce more than a very slow decline in agricultural unemployment, while in India decades of industrialization, leading to very high rates of growth, failed to initiate a decline in the absolute size of the agricultural labour force. In both countries, the gross output elasticity of employment in industry has been far lower than what it was in East Asia at a comparable level of development, an issue dealt with later.

A different kind of employment dynamic is credited by the UNDP case study to have been the principal source of poverty reduction in Bangladesh.[8] This consists of a reduction in agricultural underemployment, not by the classical expansion of industrial employment, but by the rapid expansion of remunerative and productive employment in RNF activities. This also appears to have been a major source of employment growth in Vietnam and India. The sustainability of this path to poverty reduction is subject to numerous questions dealt with below.

A third kind of employment dynamic is a variant of 'agricultural involution', an increase in agriculture's share of employment when industries and related modern activities failed to absorb labour, or even reduced the number employed. This is a perverse trend from the standpoint of development theory. And yet, in seven of the 13 countries—Armenia, Kyrgyz Republic, Mongolia, Uganda, Indonesia, Bolivia and Cambodia—this phenomenon can be observed in various degrees.[9] What is even more surprising is that, at least in Armenia and Kyrgyz Republic, with the help of egalitarian land redistribution, this process helped reduce poverty during the period of recovery. Elsewhere, the evidence suggests that poverty would have been worse if it was not possible for agriculture to absorb more labour. While this can not be a sustainable method of poverty reduction, experience shows that it can serve as a useful survival mechanism for short periods, if appropriate institutions are in place.

The role of macroeconomic policies in determining the rate and character of growth

The preceding section identified two broad sets of poverty determinants. The first concerns the rate of economic growth and its broad character, subsuming all those factors that determine the pattern of income distribution and the wellbeing of the poor. The second is concerned with the very different employment intensities of growth. The former was the principal concern of the UNDP case studies, while the latter was the central focus of the ILO/SIDA case studies. This section and the next, deal with these two sets of issues.

Summaries of the relevant findings of the UNDP case studies are available (Khan, 2001: Annex). As already noted, these studies have a broadly uniform approach and represent alternatives to the adjustment programmes sponsored by the Bretton Woods institutions, recently featuring Poverty Reduction Strategy Papers (PRSPs). The UNDP studies take the view that macroeconomic policies can affect poverty both by influencing the rate of growth of income and by making growth more or less pro-poor by influencing the incremental income share of the poor. Both these channels of poverty reduction operate through their effects on employment, among others. A majority of, but not all, the studies make this linkage explicit. The overall evaluation of the case studies of macroeconomic policies in the nine countries can be classified into three categories:[10]

8 While the ILO/SIDA case study on Bangladesh does not take a clear position on this issue, later work by the same authors confirms this hypothesis, though not as strongly as the UNDP case study. According to the authors of the ILO/SIDA case study, overall employment growth in Bangladesh consisted of slow growth of formal employment and faster creation of informal employment, especially in the RNF sector.

9 As noted in the Annex, in the case of Uganda this may largely be a statistical quirk. The evidence for Bolivia is also puzzling.

10 Of these nine countries, the Indonesian experience is only considered during the post-crisis period. As briefly noted above, pre-crisis Indonesia, combining rapid growth with non-increasing inequality, was unlike any of the following three categories.

(a) In China and Vietnam, macroeconomic policies have largely been designed by national policymakers. These policies have, by and large, been helpful in promoting economic growth. But they have not succeeded in ensuring a more equitable distributional outcome. In particular, these policies have been unhelpful for the expansion of productive and remunerative employment and the welfare of the workforce.

(b) In countries like Bangladesh and Cambodia, these policies, designed under the auspices of the Bank and the Fund, have been neutral for economic growth overall. There have been both favourable and unfavourable effects on the welfare of the poor. The three transition economies are Armenia, Mongolia and Kyrgyz Republic.

(c) In the remaining cases, the three transition economies, Nepal and post-crisis Indonesia, Bank-Fund sponsored macroeconomic policies have both exacerbated recent crises and adversely affected the recoveries. Their overall effects on employment and poverty have been negative.

One might start with the last category representing the largest number of countries. The critique launched by the UNDP studies, against the macroeconomic policy package that Bank-Fund conditionality imposes in these countries, has a number of major themes:

(a) Macroeconomic policies in these cases generally overemphasize macroeconomic stabilization, which involves a drastic retrenchment of aggregate demand. Public expenditure is subjected to huge reduction and credit expansion is severely restricted. Ungenerous debt rescheduling and sharply reduced net external resources force a current account surplus (as in Indonesia) that reduces the rate of investment well below the rate of domestic saving. Sometimes, dogmatic insistence on curtailing expenditure results is restricting investment, even though domestic savings, properly mobilized, could finance a higher rate of investment (as in Kyrgyz Republic).

(b) These policies have a doctrinaire antipathy to public investment, justified by the claim that public investment crowds out more efficient and productive private investment. The UNDP studies—for example, on Indonesia, Bangladesh and Nepal—argue that public investment has indeed had a 'crowding in' effect. These investments, concentrated in sectors providing broad externalities (as argued by Allyn Young and Rosenstein-Rodan), actually make private investment more profitable. The notion that public and private investments are competitors for scarce resources is often exaggerated by an extreme emphasis on stabilization and intolerance of inflation.

(c) Trade reform is often implemented without adequate precautions to enable existing industries, fostered in the past by a regime of import substituting industrialization, to make orderly adjustments to a more open trade regime. Instead, 'shock therapy', simultaneously implementing wholesale reforms of the trade and price regimes, as in the case of the three transition economies, led to wholesale de-industrialization that drastically reduced employment and unfavourably affected the welfare of the poor. In Nepal, trade reform allegedly eroded the competitiveness of industries and, adversely affected employment and poverty.

(d) In a number of countries, the bias against agriculture, the sector that provides livelihoods to most of the poor, was aggravated by the reform package. The Nepal case study argues that the reduction in public investment in agriculture and the abolition of subsidies for fertilizer and irrigation resulted in the fall in agricultural growth in the 1990s.

(e) Drastic curtailment of public expenditure also reduced the ability of the government to directly assist the poor. The ability to fund public works programmes and publicly funded programmes of direct income and consumption subsidies to the poor is reduced. Even when the government maintains, or increases, the share of public expenditure for health, education and other services for the poor and working members of the population, their absolute levels can be threatened and, within each expenditure category, the proportion directed to the poor could decline, due to more intense competition from privileged groups.

The UNDP case studies do not take a universally negative position vis-à-vis the Bank-Fund type of macroeconomic policy packages. Thus, the case study of Bangladesh recognizes the favourable effect these policies had by creating macroeconomic stability, which promoted higher rates of saving and investment. It argues, however, that trade reform had both favourable and adverse effects on the poor: while it helped foster higher agricultural growth by liberalizing the import of irrigation equipment in the 1980s and stabilized consumer prices by liberalizing private imports of rice in the 1990s, import liberalization stifled the growth of domestic engineering and capital goods in the absence of countervailing support for these fledgling industries. Also, discriminatory tariffs on machine tools, used by small enterprises, hindered the development of the latter. Fiscal policy in Bangladesh has had a neutral effect on aggregate demand. Banking reform, on the other hand, by focusing on the de-regulation of interest rates and neglecting appropriate institutional reform, created huge loan defaults, which effectively made credit scarce for small borrowers, a phenomenon that also occurred in other countries. The Cambodia case study takes the view that, on balance, macroeconomic reforms under the auspices of the Bank and the Fund neither helped nor hindered economic growth, which they were meant to promote. The Bangladesh case study refers to the interesting appreciation in the real value of the country's currency relative to the competing neighbours, which hindered the diversification of exports. However, it appeared to recommend inaction, noting that the exchange rate is market determined in the reformed trade regime. This might sound like absolving macroeconomic policy reforms of any responsibility for real exchange rate appreciation. It is, however, possible to argue that the only way out is to expand aggregate demand, especially investment, so that the demand for foreign exchange increases faster and brings about a market-determined reduction in the real exchange rate. Clearly, the overt emphasis on stabilization has been an obstacle to this solution, a condition which, it seems, has also afflicted other countries (e.g., Nepal).

The UNDP studies are generally complimentary about the effect on economic growth of the autonomous macroeconomic policy regime in China and Vietnam, but are critical of its effects on employment and poverty. While China's macroeconomic policies have helped rapid growth, which has expanded the opportunities for poverty reduction, their benefits have been unequally distributed among regions and groups. China's trade liberalization, especially related to WTO accession, has seriously constrained government ability to protect vulnerable rural producers. The benefits of income and employment growth have been concentrated in richer coastal areas, leaving the poorer inland regions further behind. Foreign direct investment (FDI) inflows have had a similar effect. The decentralization of China's fiscal system, along with the fall in the tax/GDP ratio, has exacerbated inequality among regions by making interregional transfers far more difficult than in the past. The case study claims that restricted credit expansion has hurt small enterprises

with inadequate access.[11] Reform of state and collective enterprises, without prior institution of a system of unemployment insurance, has created a serious problem of urban unemployment, which has contributed to worsening urban poverty in a period of unprecedented growth. Half-hearted tolerance of migration and continued discrimination against migrants has become serious obstacles to faster labour allocation that would better serve the objective of poverty reduction. In Vietnam, the UNDP case study notes that failure to rein in the forces of inequality is a major limitation of macroeconomic policies. Principal omissions include the absence of old-age pensions and the erosion of transfers and subsidies.

The policy recommendations that emerge from the UNDP case studies are suggested by the above critique. First, they reject the extreme preoccupation with stabilization measures that heavily curtail aggregate demand by deflationary methods. These studies strongly emphasize the supreme importance of avoiding and reversing the decline in the level and rate of investment that so many countries have experienced. While most of the studies argue in favour of more strenuous efforts to generate domestic resources to this end, several studies recognize that avoidance of extreme stabilization is often contingent on the cooperation of international donors. Countries like Indonesia simply could not find a way of avoiding deflationary policies while coping with a drastic reduction in net capital inflows and meeting international commitments to service debt. Thus, this is as much a policy recommendation for the countries concerned as for the international donor and financial community.

Secondly, the studies advocate a strong role for public investment in human resources and infrastructure. They argue that the 'crowding in' effect of such investment, through the creation of widespread externality, is beneficial for private investment.

Thirdly, these studies urge caution in the adoption of sudden and wholesale trade reform without a system of countervailing support for the existing industries that have good long-term prospects of survival after an orderly and gradual integration with the global economy. They reject the 'shock therapy' of simultaneous wholesale reforms of price and trade regimes, which drove many existing industries in transition economies into extinction. Several studies also argue in favour of retaining the option of pursuing industrial policies of promoting fledgling industries and exports by provision of support, as in the East Asian tradition. This is an area in which there is a distinct likelihood of conflict between desirable policies and WTO commitments, except possibly for the very poor countries.

Fourthly, these studies place great emphasis on avoiding growth that raises inequality, to ensure that the incomes of the poor increase as fast as the overall growth of income. Macroeconomic policies should direct resources to sectors that employ and provide livelihood to the poor. Rapid employment generation is seen by the studies as a major instrument for poverty reduction. To this end, they recommend easy access to resources for agriculture and small-scale non-farm activities, i.e. labour intensive sectors. Often, the studies underline the importance of improving the terms of trade for peasant agriculture by appropriate trade, price and related policies. Several studies go beyond the range of the usual macroeconomic policy instruments to urge broader institutional reform to make growth more egalitarian and pro-poor. More equitable distribution of land and other physical assets is often strongly emphasized.

11 This criticism is of questionable validity. It is difficult to argue that, in China, the rate of aggregate credit expansion was not rapid enough or the average cost of credit was too high. The case study may, of course, be right that small borrowers were at a disadvantage due to market failure and to bureaucratic interferencein credit allocation, in which case further liberalization of credit, by itself, would be of little help.

Employment intensity of economic growth

The employment intensity of economic growth is the principal link in the growth-poverty nexus that the ILO/SIDA case studies focus on. These studies employ the concept of gross output elasticity of employment (simply the output elasticity of employment in the vocabulary used by most studies), the ratio of the growth rate of employment to the growth rate of output or value-added.

The Indian case study contests the utility of this concept by arguing that output growth is just one of several determinants of employment growth, the principal among them being the rate of change in the 'real' wage rate (nominal wage rate deflated by the price of the product that the worker is employed to produce, or the real wage cost). It introduces the concepts of partial elasticity of employment with respect to output (which has a positive sign in normal cases) and partial elasticity of employment with respect to wage cost (which has a negative sign).

The authors of the Indian study argue that the concept of gross output elasticity of employment "does not net out the impact of other variables and, hence is inappropriate in our view" (Sundaram and Tendulkar, 2002). They are right only in so far as the partial elasticities quantify *causal* sources of employment growth under *ceteris paribus* assumptions. While the concept of gross output elasticity of employment *does not capture the effect of output growth on employment growth in a causal sense*; it serves as an *observed indicator of the actual degree of the labour intensity of growth,* which is the outcome of the overall incentive system affecting the choice of labour intensity from alternative techniques. A high elasticity means that the overall incentive system is employment friendly. A low elasticity means that the overall incentive system is employment hostile. Thus, a certain expansion of a particular activity, with a given labour intensity from the technological standpoint (with a given 'isoquant' if one were to use a narrower concept than intended), can provide larger (smaller) employment if the overall system of incentives is employment friendly (employment hostile).

The Indian case study argues that the gross elasticity represents the aggregate of two distinct effects: the positive effect of output growth on employment (the positive partial elasticity with respect to output) and the negative effect of the wage cost of employment (the negative partial elasticity with respect to wage cost). The partial elasticity of employment with respect to output—which, *ceteris paribus*, shows the correct effect of output growth on employment growth—could be high while the observed gross output elasticity of employment could be low because of a large rise in the wage cost of employment. Gross elasticity, as an indicator of the labour intensity of growth, captures the effect of any unwarranted increase in wage cost or, for that matter, any other unfavourable change in the incentive system that guides the choice of technique. Thus, for example, several studies refer to the high gross output elasticity of manufacturing employment in East Asia during the 1970s, which ranged from 0.7 to 0.8. This observed gross elasticity was measured for a period when the real wage rate was rising roughly at the same rate as per capita income. The overall employment friendliness of the incentive system outweighed this effect to yield a gross elasticity as high as the observed ones. As the case study shows, this was far from the case in India. During the 1990s, when real wage cost per worker increased at a much slower rate (2.62 per cent per year) than per capita income, gross elasticity was less than 0.3. Clearly, there were other elements of the incentive system that were still rather strongly employment hostile. The much higher rate of increase in real wage cost during the 1980s clearly indicates the even higher employment hostility of the incentive system in that decade.

Empirical estimation of gross output elasticity of employment suffers from numerous problems. In agriculture and traditional services employment, estimates are often very unreliable, and over time, the

intensity of employment varies, both due to actual changes and due to differences in survey methods over time. That is why one encounters an estimated elasticity for agriculture of well over 2 and for services of over 1 in certain cases. Estimates of employment in modern manufacturing and services should be relatively free from these problems. And yet, there can be serious problems when industries are not organized on market principles. Thus, excess employment is a widely observed phenomenon in state enterprises. Even in private enterprises, fostered under protection, facing little pressure of competition to limit employment to what efficiency would dictate, employment in manufacturing can be excessive. During the process of market reform, these phenomena are going through a transition and can easily give wild estimates of gross elasticity (in several cases, negative elasticities have been reported). But then again, this kind of transition can be viewed as periods of employment hostility of the incentive system, although this is clearly desirable.[12] China's extremely low observed gross elasticity in industry during the 1990s falls in this category.

None of the case studies found the rate of employment growth satisfactory during the periods on which they primarily focus (even though overall employment growth in Uganda was very rapid, estimates of gross elasticity for industry are low, and for agriculture and services quirky). Table 3 tries to provide a qualitative evaluation of the factors behind the inadequate growth in employment for six of the case studies. (The Bangladesh case study itself does not provide enough information for complete identification of the nature of the problem within the framework used in this section. Subsequent discussion with the authors of the case study, partly based on the results of their more recent research, made possible the interpretation that follows).

Table 3:
Cause of slow employment growth

Country	*Degree of employment intensity of growth*	*Cause of slow employment growth*
Bangladesh	Questionable in industries; Fairly good in informal activities	Less than robust growth and questionable incentives
Bolivia	Good; high GOEE Poor: low GOEE in industry; negative in agriculture	Slow growth and bad incentives
India	Improving but low GOEE	Bad incentives
Indonesia	Seems good; no estimate of GOEE for post-crisis period; Good in pre-crisis period	Slow growth
Uganda	Mixed: GOEE low in industries Greater than 2 (1) for agriculture (services)	Slow growth; possibly bad incentives as well
Vietnam	GOEE good in agriculture & RNF; Low in industries (recently improved)	Poor incentives

Note: GOEE – gross output elasticity of employment.

Except in the case of India and Vietnam, slow economic growth is the dominant cause of slow growth in employment. Even in India, the case study argues in favour of faster growth as a necessary condition for expanding increasingly productive employment, requiring a reduction or stabilization of employment in certain low-productivity sectors, as a condition for poverty alleviation. Thus, faster economic growth seems to be the dominant condition for rapid expansion of employment.

12 The idea that the gross output elasticity of employment in manufacturing is a reasonably reliable indicator of the system of incentives guiding decisions about technological choice may underlie the regression analysis made by Islam (2004), which shows that, for a sample of 23 countries, growth in per capita GDP and the gross output elasticity of employment in manufacturing both have significantly positive effects on poverty reduction. The underlying assumption must be that these incentives determine employment growth throughout the economy.

Employment hostile incentives also appear to be the dominant cause of slow employment growth in two cases and a significant or possible cause in another two. The incentive system only seems to be sufficiently employment friendly in Indonesia and Bolivia, although in the former case, the evidence is based on the pre-crisis period, and in the latter case, only on the estimated value of the gross output elasticity of employment.

The Indian case study gives an account of recent improvements in the incentive system: reduced barriers to entry; relaxation of constraints on the private sector; reduction of distortions caused by arbitrary customs and excise duty rates, as well as the lowering of these rates. In Vietnam, recent improvements in the gross output elasticity of employment in industries have been attributed to the abandonment of the policy of arbitrary allocation of resources for investment in large capital-intensive public enterprises and a big shift in favour of private investment, often in smaller enterprises. This is an area in which the ILO/SIDA studies could have made greater effort. There are outstanding labour market irrationalities that plague many of these countries. The great difference between industrial wages and average rural earnings is many times greater than the difference in the original East Asian tigers, for example. The lack of mobility of labour out of declining industries, often involving very high costs in getting them relocated elsewhere, is another important issue.

Several case studies acknowledge the role of institutions in employment generation. Reform of the agrarian system receives most attention. Poverty reduction in Kyrgyz Republic, despite 'agricultural involution', was possible largely as a consequence of land reform. Though less definitively documented, Armenia seems to have had a similar experience of protecting those living in extreme poverty.

Earlier, three distinct paths of poverty-alleviating employment growth were identified in the ILO/SIDA case studies and a number of questions were raised. The principal question about the path of classic industrialization, transferring labour from agriculture to industries and modern services, was concerned with the tardiness of the process in rapidly growing contemporary economies, like China and India. Employment in agriculture in China peaked in 1991, and fell by a mere six per cent in the next eleven years. In the Republic of Korea between 1980 and 1991, agricultural employment fell by nearly 40 per cent. In India, absolute employment in agriculture remained stable for the last six years of the last century without beginning a decline. This slow transition out of the sector with far lower output and income per worker than industry and services is one reason for the persistence of poverty, which has a far greater incidence among agricultural populations than other populations.

Much of the explanation for this slow structural change in the composition of employment in China is to be found in the public policies pursued in the past. For decades, China restricted the movement of labour out of rural areas by exercising strict residential control. This has contributed to a steady increase in the ratio of urban to rural per capita household incomes. At more than 3, this ratio in China is among the highest in the world. In recent years, there has only been a half-hearted tolerance of 'floating migrants' in urban areas who are subjected to severe discrimination. The other side of the explanation for slow transition is to be found in the slow growth in urban industrial employment. This is not because the new industries in China have not been sufficiently labour intensive. Indeed, these industries have, by all indications, created a lot of employment. The problem is that the SOEs (state and collective enterprises) initially had a great deal of excess labour as part of China's past policy of putting people on the payroll of SOEs as a method of 'concealed unemployment insurance'. During the period of reform, this could not be sustained, as the SOEs were opened up to competition and started shedding labour at a rapid rate. The low observed gross output elasticity of employment in China's industries is the weighted average of two unobserved elasticities: a highly

negative one for SOEs and a fairly decent positive one for new industries. The effect of this transition on urban poverty was exacerbated by China's failure to institute an open system of unemployment insurance before reducing employment in SOEs.

The large difference between the average urban wage and the average rural earnings in India suggests something similar, though smaller in magnitude. Such high differentials effectively means that the wages of urban industrial employees include an element of 'rent', buttressed by regulations limiting entry into and exit out of industrial employment. Quite apart from contributing to a rise in wage costs, this system restricts labour mobility from less productive sectors to more productive industries.

Thus, compared to those countries that started industrialization without the above types of irrationalities characterizing their labour markets—for example, the original East Asian tigers—the countries that have embarked on reform from typical import-substitution regimes will take much longer to bring about a structural change in the composition of their employment.

How attractive an alternative is the Bangladesh model of rapid increase in remunerative employment in the RNF sector, as hypothesized by the UNDP case study of that country? As noted in Khan (2001: Annex), this review considers the explanation a tentative, albeit highly interesting hypothesis in need of clearer evidence to establish its validity. Be that as it may, the case study itself raises a number of question marks on its viability. First, the Bangladesh case clearly establishes that RNF income has a disequalizing influence on distribution. The evidence from China and Cambodia also shows that, contrary to what many development policymakers hoped, RNF income is rather strongly disequalizing. The question is: can such a disequalizing source of income be a dynamic source of poverty-alleviating employment expansion? Something needs to be done to make this a more equalizing source of income. A second problem, at least specific to Bangladesh, is that these RNF activities are all in non-traded sectors. The Bangladesh case study hints that their growth would be adversely affected if the trade regime was too liberalized, but is doubtful whether this is either viable or desirable in the long run. The way for these activities to survive is probably to link them up with the export market, requiring a good deal of investment to provide the necessary services.

The third path, which involves an increased share of agricultural employment, is the most widely prevalent case among the 13 countries. Development theory has long viewed this as an indicator of retrogression that does not constitute a long-term solution to the problem of unemployment and poverty. Some case studies nevertheless show that appropriate institutional reform can improve the capacity of agriculture to productively absorb more labour, thereby giving a short-term boost to poverty reduction.

A final issue highlighted by some ILO/SIDA studies—especially on India and Bangladesh—is the case of the working poor, the large numbers of workers engaged in long, strenuous labour but with low levels of remuneration. The way out of poverty is to make employment more productive for them and to get the higher productivity reflected in higher remuneration. The kind of action needed to attain this would depend on the nature of the problem, and solutions would consist of one or more of many instruments encompassing investment, access to resources, improvement in terms of trade for afflicted groups and structural change in the composition of employment.

Concluding observations

No attempt will be made to summarize the findings of this review, except to confirm the presumptions of the UNDP and ILO/SIDA case studies in some principal areas. Rapid economic growth and containment of the forces of inequality are essential for healthy and sustained poverty reduction. Increased inequality can even offset the benefits of a rapid rate of growth as far as poverty reduction is concerned. But continued, or even improved, equality of income distribution is an uncertain guarantee against increased poverty when growth is weak and narrowly-based. Equality in this context means maintaining at least an unchanged share of incremental income for the poor, rather than holding down some overall indicator of income distribution. This kind of equality is best ensured by a rapid expansion in remunerative and productive employment. The case studies indicate that no country's employment growth equaled the kind of dynamic growth envisioned by development theory as the hallmark of success. Poor or less than potential performance in poverty reduction in rapidly growing countries can all be traced to employment performance falling that far short of the best historically observed cases. In most cases, however, inadequate economic growth itself has to be blamed for poor employment performance. Apart from slow growth, there have also been serious problems with incentives and institutions determining the labour intensity of production and investment. Macroeconomic policies in most of the countries have either hindered growth or been unhelpful in promoting growth. In the two cases of growth-promoting macroeconomic policies, the effect of the latter has been to exacerbate inequality and hinder employment growth.

The two sets of studies have made substantial contributions to our understanding in a vitally important area of policymaking. The UNDP case studies have sharpened the debate on policy reform in contemporary developing countries by presenting a clear alternative to the adjustment process implemented Bank-Fund conditionalities. These concluding comments will highlight two areas in which these studies might go further.

The first relates to international cooperation envisaged by these studies. Quite a number of them propose international scenarios that postulate large-scale accommodations by the donor community. This is most clearly illustrated by the Indonesian case, in which a large reduction in debt service is seen as a precondition for the expansionary policy recommended by the study. It is well known that the donor community, led by the Bank and the Fund, will not endorse such a strategy. What should the country do in this case? Should a poverty reduction strategy await a change of heart by the international community? Should the country seek some method of augmenting domestic resources, as suggested by the Armenian and Mongolian studies? In the latter case, what kind of scenario can be visualized for the transition process? What are the political and economic implications of these alternatives?

A second issue relates to trade liberalization. The UNDP strategy differs from the typical Bank-Fund strategy in that it has strong reservations against unrestricted free trade. It often recommends some variant of the East Asian kind of industrial policy, involving careful nurturing and promotion of fledgling industries. This is a policy that needs to be clarified in operational detail. The East Asian kind of industrial policy would be inconsistent with current WTO agreements, which are binding for the developing countries, with the possible exception of the very poor countries. It is important for the UNDP studies to clarify the implications of their vision for the on-going round of WTO negotiations in which developing countries are engaged. These countries need to preserve the option of promoting worthwhile fledgling industries. Similarly, they need to preserve their freedom to avoid unviable liberalization of capital movements—another

major theme of the UNDP studies. Furthermore, these studies should have delved deeper into WTO issues involving intra-developing country conflicts, e.g., the termination of the MFA and its successor. While this is projected to bring enormous benefits to China and India, the effect on Bangladesh, Cambodia and Nepal is going to be highly negative, with serious adverse consequences for employment and poverty. How can macroeconomic policies in these countries achieve poverty-alleviating growth in the face of these external shocks?

The ILO/SIDA studies have heroically explored an area in which the quality of statistical information is notoriously poor in developing countries. A number of their estimates bear the mark of this deficiency. Future studies along this line should make greater effort to both improve the quality of data and make more nuanced use of existing data, as did the case study on India. Few countries among those in which case studies have been carried out have as good data as India has on these aspects of the economy. Thus, for many countries, meaningful improvement in analysis must be preceded by improving the quality of data. In the meantime, care needs to be exercised in qualifying, and finding explanations for, implausible data.

The ILO/SIDA studies also need to devote greater attention to the incentive system affecting employment intensity. Very few studies have paid significant attention to this issue, which should have been the principal focus of analysis seeking explanation for variations in employment intensity.

Several indicators of labour market functioning and of the incentive system affecting factor proportions should receive careful attention. These include the difference between the wage rates in urban industries and rural employment; factors contributing to arbitrarily high wage costs (e.g., administered wages and obstacles to mobility); differences between large and small enterprises in their access to credit and other resources; differences in transaction costs accrued by large and small enterprises; and elements of under-pricing of competing factors, such as capital.

Annex

The findings of the case studies

This section summarizes the principal linkages in the growth-employment-poverty nexus that have been identified in individual case studies. These are not summaries of the case studies themselves, which deal with a great many other issues as well. For the UNDP case studies, only the impacts of macroeconomic policies on the poverty outcome is analyzed. These studies also deal with the details of the effect of each individual instrument of macroeconomic policy on various indicators of macroeconomic outcome. These are not included in the summaries of findings below. For the ILO/SIDA case studies, only the employment and labour market related policies and performances, that help understand the impact of growth on poverty outcome, are analyzed. Most of these case studies use detailed models to identify the determinants of poverty at the household level. A number of case studies of both kinds include lengthy discussions of broad policies for poverty reduction. These are left out here, except when their findings illuminate some employment aspect of the poverty outcome.

Main findings of the UNDP case studies on the relationship among growth, employment and poverty

Armenia

The reference period for the Armenia case study is the post-Soviet transition era up to the year 2000, although the latest poverty estimates relate to 2001. During this period, the population of Armenia, estimated currently to be about 3 million, is estimated to have declined, although no confident numerical measurement of this is available. Real GDP fell by 59 per cent between 1989 and 1993. Thereafter it increased at an annual rate of 5 per cent. Still, real GDP in 2000 was 42 per cent below what it had been in 1989.

There are many causes of this decline: the major earthquake at the end of 1988; the negative impact of the disintegration of the Soviet Union, with which Armenia's highly industrialized economy was strongly integrated both for the supply of inputs and the market for outputs; and the war with neighbouring Azerbaijan. But the study also holds the transition strategy itself, based on the application of 'shock therapy', responsible for the exacerbation of the effect of the above factors. Simultaneous implementation of: rapid price reform; dismantling of protection and tariffs; wholesale privatization; reduction in public expenditure; tight monetary policy; and the deregulation of capital movement, succeeded in stabilizing the economy but failed to promote growth and productivity. Investment in 2000 was only a quarter of what it had been in 1990 in real terms. Over the entire decade, net capital inflow exceeded the volume of investment, thereby indicating a negative domestic savings rate.

In the absence of offsetting measures to support them, the reforms drastically reduced the international competitiveness of Armenia's industries. Between 1990 and 2000, industrial output fell by 69 per cent, construction by 32 per cent and services by 12 per cent. Much of the decline took place in earlier years. Since 1993, industrial output stabilized and services output increased rapidly. Agriculture is the only sector in which output increased between 1990 and 2000, by a total of 14 per cent.

Labour moved out of industry and services into agriculture. Over the decade as a whole, agriculture's share of employment increased by a staggering 155 per cent, while the shares of industry, construction and

services fell respectively by 54 per cent, 69 per cent and 7 per cent. Total employment in the economy fell by 22 per cent.

During the period of restoration of growth, 1993 to 2000, total employment fell while the GDP increased, indicating a negative overall gross output elasticity of employment. Over this period, industrial employment fell by a half while industrial output appears to have been maintained. (This is based on a combination of information in Tables 2.1 and 1.3, although it appears that sectoral shares in Table 2.1 are at current prices, which makes this conclusion uncertain).[13] Thus, gross output elasticity of employment in industries was highly negative. Services output increased at an annual rate of 15 per cent (making same assumptions as for industries) while employment in the sector fell at an annual rate of 1.6 per cent, yielding a gross output elasticity of employment of -0.1. In agriculture, output increased at an annual rate of 2.1 per cent while employment grew at an annual rate of 1.2 per cent, indicating a very healthy gross output elasticity of employment of 0.6. It should be noted that, prior to 1993, agriculture absorbed a massive influx of labour from the rest of the economy.

Estimates of income poverty are available for a relatively short period during the recovery phase, between 1996 and 2001. For a very low poverty threshold, indicating extreme poverty, there was poverty reduction in both rural and urban areas. For a higher poverty threshold, poverty declined in urban areas but increased a little in rural areas.

The study recommends a strategy consisting of a sharp acceleration in the rate of investment by improving the rate of domestic resource mobilization. It also strongly emphasizes a concerted strategy of employment promotion to ensure that economic growth benefits the poor.

Bangladesh

The economy of Bangladesh achieved steady, if unspectacular, growth during the 1980s and the 1990s. Growth in per capita income was substantially higher during the 1990s (reaching 3.6 per cent per year in the second half of the decade) than during the 1980s, due both to an acceleration of the rate of GDP growth and a deceleration of population growth. The distribution of income became more unequal during the 1990s. Growth in income, however, outweighed the effect of increased inequality and brought about significant reduction in poverty. The pace of poverty reduction was faster during the 1990s than during the 1980s, if poverty is measured as the proportion of the population below a threshold level of per capita consumption expenditure. The headcount rate of this indicator fell from 52 per cent of the population in 1983/1984 slowly to about 50 per cent in 1991/1992 and then significantly more rapidly to 40 per cent in 2000. Non-income indicators of poverty fell at a much faster rate.

The pursuit of an export-led growth strategy resulted in the very rapid expansion of a rather narrow set of exports—garments and fisheries—together accounting for a relatively small proportion of the total increment in output. Between two-thirds and three-quarters of the incremental output was due to the expansion of non-tradable sectors, mainly services, construction and small-scale industry, a phenomenon that is confirmed by the increased share of employment in these activities. Most of these activities can be classified as belonging to the rural non-farm (RNF) sector.

The principal thesis of the case study is that the increased contribution of the non-tradable RNF sectors—stimulated not by autonomous productivity gain within the sectors, but by the robust demand

13 All table and graph references in the Annex are to tables and graphs in the respective case studies.

stimulus from outside these sectors—was the principal factor behind the superior poverty reduction performance during the 1990s. The demand stimulus came from three main sources: the large increase in crop production that occurred in the late 1980s; income growth from the rapid growth in the ready-made garments industry; and the large inflow of remittances sent by emigrant workers.

Not only was inequality increasing faster during the 1990s than before, but also income from the RNF sector is recognized by the study as a disequalizing source of income growth. So what was there in the evolution of this sector that helped a faster rate of poverty reduction? According to the study, a sizable proportion of the rural labour force shifted from farming to the RNF sector in the last two decades. During the 1990s, there was a structural change in the RNF sector that was especially favourable for poverty reduction. During the 1980s, the rapidly increased labour absorption by the RNF sector seems to have taken place in low-productivity activities, to which the rural landless, pushed out of agriculture, were drawn as self-employed workers. In contrast, during the 1990s, a less rapid shift of labour force into the RNF sector was pulled in by the growth of wage employment in larger and more productive RNF activities. In the 1990s, the rural poor therefore found improved opportunities of more remunerative wage employment in the RNF sector as compared to moving into overcrowded, low-productivity RNF activities in the previous decade.[14]

Based on this analysis of the growth-poverty nexus, the study recommends continued sustenance to the expansion of demand; the maintenance of a macroeconomic policy environment that directs growth in demand to growth of the non-tradable sectors; and enabling the poor to take advantage of the growing wage employment by improving their human capital endowment, access to credit and access to infrastructure.

The study also provides an analysis of the role of specific macroeconomic policy instruments in helping growth and poverty reduction. Macroeconomic policies during the 1990s have succeeded in improving the government's budgetary position and the rate of private saving. With some time lag, the rate of investment has also broken its long stagnation around the mid-teens and climbed past 21 per cent. All this happened with remarkable macroeconomic stability. The outcome is qualified by the fact that there has been periodic depletion of foreign exchange reserves; government budgetary discipline has weakened in recent years; and the low inflation rate has recently tended to unleash contractionary pressures that might endanger the demand-driven growth of RNF activities.

Fiscal policy has not been used as an aggressive tool for the management of aggregate demand. The evolution of the government budget has however been characterized by several favourable developments: the revenue/GDP ratio has increased; the rising share of current expenditure by the government has mainly taken the form of increased allocation for education and health, especially the former; and the rising public expenditure on education and health appears to have been moderately pro-poor.

Privatization of SOEs was another major component of the macroeconomic reform in Bangladesh. Its pace was rapid in the 1980s and significantly slower in the 1990s, but the resources from the sale of SOEs rarely exceeded one per cent of total government revenue. Information on the social impact of privatization is very limited. The study nevertheless argues that the process, by reducing the waste of public resources in loss-making SOEs, could have helped the welfare of the poor by improving the ability of the government to divert resources to social sectors.

14 The present reviewer finds this analysis a bold but plausible hypothesis, although based on rather fragile evidence.

The study is ambivalent about the impact of the extensive reform of the external sector on growth and poverty reduction. Some of the reforms—e.g., those liberalizing the import of irrigation equipment that spurred agricultural growth in the 1980s and the privatization of rice imports—have helped growth and poverty reduction. Other measures—e.g., import liberalization that stifled the growth of domestic engineering and capital goods, and the discriminatory tariff on machine tools (such as, sewing machines), used by small enterprises—appear to have harmed growth and poverty reduction. The study also laments the rise in the real exchange rate of the currency relative to the currencies of major neighbours, although it recommends inaction because the exchange rate is by and large market determined. The study makes the important observation that further reform of the trade regime by way of reducing its current bias in favour of non-tradable sectors should be viewed with caution because of the poverty-alleviating effect of growth of these sectors. On the consequence of WTO reforms, the study highlights the very uncertain prospect that garment exports face in the immediate future when the MFA is due to end.

On financial policies, the great failure consists of the continued incidence of high loan default by large borrowers which results in a very high spread between the banks' borrowing and lending rates. This has been particularly disadvantageous for small produces and poor borrowers.

Cambodia

The case study focuses on the recovery of the Cambodian economy since 1993. During the period between 1993 and 2002, per capita income grew at more than 4 per cent per year. The rate of growth has accelerated since 1999. The growth of the economy has, however, been very narrowly based, especially since 1999, with much of the growth from export-based garment manufacturing. Agriculture, the sector employing more than 70 per cent of the labour force, had a much slower growth, although the extremely low agricultural growth in recent years hides the fact that crop production and fishery have increased at modest rates that outstripped the rate of population growth, while the overall rate of agricultural growth was pulled down by the highly negative growth of forestry.

The Gini ratio of the distribution of per capita consumption increased between 1993/1994 and 1997 and then fell to the benchmark level in 1999. The consumption Gini of 0.35—the lowest of the available estimates—indicates that, under the usual assumption about the relation between this ratio and the income Gini, the latter was probably well over 0.4, indicating a relatively high degree of inequality for a poor agrarian economy. Disaggregated information shows that crop cultivation and fishery are about the only activities for which the income share is higher for the lower deciles than for the top two deciles. Income from rural non-farm activities constitutes a much higher proportion of income for the two richest deciles than for the poorer deciles.

The overall growth rate of the economy, rapid by historical and any absolute standard, does not appear to have had an impact in reducing the incidence of poverty, the estimates of which suffer from uncertainty, due to the extreme asymmetry between the results of the two rounds of the 1999 household survey. The most persuasive conclusion that emerges from these data is that the proportion of the population living in poverty in urban Cambodia declined while that in rural Cambodia increased. For Cambodia as a whole, poverty appears to have increased between 1993/1994 and 1999, the most recent year for which estimates are available. The incidence of poverty, the proportion of the population below a comparable indicator of living standard, is three to four times as high in rural Cambodia as in urban Cambodia. There is evidence to suggest that other indicators, e.g., childhood mortality, have also increased over the last decade, after an initial decline in the post-Khmer Rouge period.

Between 1993/1994 and 1999 the share of agriculture of the total workforce increased, both for men and women, despite a fall in the share of agriculture in output. By 1999, nearly 74 per cent of the labour force was employed in agriculture. The share of industrial employment also increased, mainly due to the expansion of employment in garment manufacturing. In manufacturing, the share of female employment increased sharply while the share of male employment fell, a phenomenon explained by the high intensity of female labour in garment manufacturing. Manufacturing employment in 1999 was still just over 5 per cent of the total. Over the period under review, the share in total employment fell for most services, including health, education, transport and the public sector. The proportion of economically active adults is about as high for women as for men. There are striking differences between the poor and the rich in terms of labour endowment: the proportion of economically inactive adults is much lower for the poorest consumption quintile (22 per cent) than for the richest quintile (30 per cent) while the proportion of members under working age is much higher for the poorest quintile (30 per cent) than for the richest quintile (9 per cent). The former must indicate a lower affordability of inactivity for the poor, while the latter shows that a higher dependency ratio is a correlate for poverty. Overall, dependency ratio is high for the country, due to the massive loss of life during the Khmer Rouge period and the high population growth that has only moderated to 2.5 per cent in recent years.

Since the information on employment reported by the study almost entirely refers to structures at two points of time, without an estimate of absolute sizes, it is difficult to judge the impact of growth on employment. There are few signs of robust employment growth. The increased share of agriculture in total employment and the extremely narrow base of employment expansion in industries nevertheless point to the failure of employment to record a growth proportionate to overall GDP growth. The slow growth of agriculture, only marginally higher than population growth, even when forestry is excluded, and the rise in agriculture's share of the labour force, itself growing faster than the population, probably indicate a fall in output per worker in agriculture and perhaps also output per person dependent on agriculture. Combined with the fact that households in lower deciles derive a higher proportion of income from agriculture, one gets a picture of increased immiserization of the rural population.

The study thus suggests that the very narrow base of growth, leaving the vast rural economy virtually untouched and leaving impact on employment limited to a tiny proportion of (female) workers in manufacturing, has failed to reduce poverty. Furthermore, the study points to the fragility of this growth in the context of the great uncertainty that garment export faces as the end to the MFA approaches.

The study does not attribute responsibility for this outcome to Cambodia's macroeconomic policy reforms at the behest of the Bretton Woods institutions. Nor does it argue that these reforms have done anything to alter these circumstances. These reforms have succeeded in controlling inflation and restoring some confidence in the economy although, in more recent years, the deflationary policies instituted in the wake of the Asian crisis, seem to have outlived their necessity. Sectoral allocation of public expenditure has helped human development objectives of the country, which may have helped the poor. Trade liberalization has so far not enabled the economy to benefit, except by a very narrow and arguably fragile expansion of garment export. Privatization has promoted efficiency, but has not served the objective of poverty reduction. The study argues that Cambodia's poverty needs to be dealt with by a much broader strategy of development—gradually making adjustment in the recent macroeconomic policies to remove their negative effects; expanding domestic demand by greater resource generation; better governance; and a host of institutional reforms—to overcome the political, economic and social damage sustained in recent history.

China

China's economic reform and transition to market economy have ushered in the most spectacular growth that any society in history ever experienced. This has also brought about a remarkably rapid reduction in poverty over the period as a whole. But the rate of poverty reduction has not been temporally or regionally uniform; nor has it always been highly correlated with the overall rate of growth. The study argues that much of this asymmetry is due to the change in course in China's macroeconomic policies. Both external economic policies—those related to foreign direct investment (FDI), exchange rate and capital account liberalization—and domestic policies: monetary policy, fiscal policy and employment policy—are reviewed by the study for their impact on growth and poverty reduction.

The instruments of external economic policy—rapid export promotion, large inflows of FDI, stable exchange rate pegged to the dollar and the avoidance of capital account liberalization—have helped China's objective of rapid economic growth, which has expanded the opportunity for poverty reduction. But these policies have not uniformly benefited the poor. China's trade liberalization, following its WTO accession, has made it more difficult to protect and augment the incomes of agricultural producers. This has made the task of rural poverty reduction more difficult. The benefits of income and employment growth accruing from export expansion have been concentrated in the coastal areas, which were already much richer than the inland provinces. FDI inflow has, on balance, helped create a lot of employment and income; but again, these have been concentrated in the richer coastal provinces. The result has been a lop-sided regional performance in poverty reduction. However, exchange rate and capital market policies have helped avoid turmoil that might have otherwise hampered growth, without having any adverse effect on poverty reduction.

The study, in what might be an unorthodox analysis, concludes that China's monetary policy in the 1990s, due to an overt concern with the avoidance of inflation, was too tight to permit an adequate flow of credit to small enterprises and the poor, especially in rural areas. The decentralization of China's fiscal system, together with a sharp fall in the tax/GDP ratio, has exacerbated the inequality among regions to finance public services that affect the welfare of the poor, while at the same time reducing the ability of the central government to use public expenditure as an instrument of redistribution between rich and poor provinces.

Employment policies have suffered from serious deficiencies. In rural areas, egalitarian access to land has helped the creation of self-employment, which has served as an ultimate safety net for the vast rural population. There has also been a steady increase in non-farm employment, though not equally in all regions. Finally, the tolerance of migration to cities—though half-hearted, with the persistence of widespread discrimination against the migrants—has helped improve the balance between supply and demand of labour in rural China. Between 1995 and 2001 rural employment remained stable, while the rural population declined at an annual rate of 1.3 per cent. This has helped poverty reduction in rural China, given the effect of other policies and circumstances.

In urban China, the vital employment link in the growth-poverty nexus was broken, however, especially in the 1990s. Between 1990 and 2001, urban employment increased at annual rate of 3.1 per cent, while the urban labour force increased much faster (the urban population increased at 4.3 per cent per year). This was due to a sharp fall in employment in state and collective enterprises—by almost 50 million over the period—due to the shedding of concealed surplus labour as part of public enterprise reform.

The asymmetrical relation between the overall growth rate and the rate of poverty reduction in different time periods in rural and urban China is highlighted by the report. Thus, the fall in rural poverty

in the two decades of reform was largely accounted for by two relatively brief periods: the first five years of reform and the middle three years of the 1990s. During these periods, macroeconomic policies concerning public revenue and expenditure determining the pricing and procurement of agricultural products facilitated rapid growth in rural income by improving agriculture's terms of trade. In other periods, contrary policies adversely affected agriculture's terms of trade and led to slow growth of rural income and much reduced rates of poverty reduction.

Cities in China have had a much lower incidence of poverty than the countryside. Nevertheless, urban poverty actually increased in the late 1990s, even when no account is taken of the floating migrants to urban areas. This was largely due to the rise in urban unemployment, caused by an inappropriate sequencing of the reforms: reforms of state enterprises, creating large-scale redundancy, were implemented long before the creation of a safety net to protect the unemployed. This again was intimately related to macroeconomic policies concerning public expenditure.

China's poverty-reduction programmes emphasized targeted support to poor communities. China's macroeconomic policies were not synchronized with these targeted poverty-reduction policies. As noted above, a combination of trade policy reform and fiscal reform led to fluctuations in agricultural terms of trade, which in turn has led to sharp periodic fluctuations in the rate of rural poverty reduction. Policies concerning the incentives for FDI resulted in its regional location, which exacerbated regional differences in the rate of poverty reduction. Fiscal decentralization and the reduction in the redistributive role of expenditure by the central government have vastly increased the inequality in the regional ability to provide the poor with basic education, health and other services.

The study recommends a better synchronization of macroeconomic policies with targeted poverty reduction policies. In particular, it advocates adjustments in fiscal policies to permit a better regional and rural-urban balance in access to resources for basic services and the loosening of monetary policy, along with other measures, to promote access under equitable terms to credit for the poor and to resources in general for small and medium enterprises. Continued capital-intensive bias in macroeconomic policies, by easier access of the state and large-scale enterprises to resources relative to the small and medium enterprises, needs to be ended.

Indonesia

The focus of the study is on the effect of macroeconomic policies on poverty in the post-Asian crisis period, i.e., after 1997. Growth in per capita income during this period was only about 2.25 per cent per year, less than half the rate of growth during the pre-crisis decade. The growth rate in GDP was 3.7 per cent per year, down to nearly half of the 7 per cent rate at which the economy grew in the decades before the crisis.

In the decades prior to the crisis, Indonesia achieved a rapid reduction in the incidence of poverty, which had gone up sharply in the years immediately after the crisis. What happened in more recent years is not very clear. World Bank estimates suggest that the headcount index of poverty increased from 16 per cent in 1996 to 27 per cent in 1999, but fell back to 16 per cent in 2002. The study is skeptical about these estimates and cites some limited surveys suggesting a gloomier poverty outcome between 2001 and 2002.

The distribution of per capita consumption expenditure, which is the basis of poverty estimates in the country, reveals estimates of the Gini ratio, which show that it has remained stable over the period

except for short-term fluctuations. The study claims that these estimates have failed to capture the increase in inequality in the distribution of income that resulted from the large unrecorded shift in income in favour of the rich.

Growth in GDP was too slow to absorb more than half the net increase in the labour force. Thus, the employment situation worsened. This is demonstrated by several examples of both direct and indirect evidence cited by the study. Reported open unemployment rose from 8.1 million in 2001 to 9.1 million in 2002. An increase in concealed unemployment and underemployment is strongly indicated by the rise in the proportion of the workforce employed in agriculture after 1996 and the rise in informal sector employment from 53.7 million in 1997 to 62.4 million in 2002. Between 1997 and 2000, real wages fell by 16 per cent in urban areas and 10 per cent in rural areas. All these were consequences of an inadequate rise in demand for labour.

The study blames Indonesia's macroeconomic policies both for the onset of the crisis and the anemic recovery. The deregulation of the financial market and the capital account in the 1980s led to a borrowing spree by private corporations that created a huge short-term debt. After the onset of the crisis, a contractionary fiscal and monetary policy exacerbated the recession. The huge debt repayment necessitated a large net capital outflow, which drove the rate of domestic investment way below the rate of domestic saving. The success in stabilizing domestic prices and the exchange rate was bought at the high cost of sacrificing growth.

The recommended solution consists of more rapid growth with lesser emphasis on stabilization. An expansionary fiscal policy for augmenting public investment and the easing of monetary policy to further bring down the real interest rate are seen as basic elements of macroeconomic policy for the restoration of growth. As a condition of easier monetary policy, the study recommends the regulation of the capital account. Labour-intensive exports have faced intense competition in recent years, which indicates a need for an industrial policy of systematically promoting export industries. The study recognizes that the feasibility of these policies depends on international cooperation in granting Indonesia more favourable terms in debt rescheduling, and on the success in reducing the burden of servicing domestic public debt.

Faster growth alone is not seen as the way to rapid poverty reduction. Growth should be concentrated in promoting agriculture, the sector which in recent years has experienced an influx of labour; creating rural off-farm employment; and helping rapid growth of small and medium enterprises—activities which rapidly absorb labour.

The ongoing trend in land distribution, resulting in fragmentation and steady decline in farm size, is identified as a major obstacle to poverty reduction in the rural economy, where poverty is concentrated. Investment for improved land productivity is emphasized as a way to offset these trends.

Kyrgyz Republic

At the turn of the twenty-first century, per capita income in the Kyrgyz Republic was only 60 per cent compared to levels during the last years of Soviet rule (around 1990). During Soviet rule, the incidence of absolute poverty was low by the standard of the low-income countries. By the turn of the century, the incidence of absolute poverty had become high. The change between the end of Soviet rule and the turn of the century was not monotonic. This decade can be divided into two distinct subperiods. The years from 1990 to 1995 were characterized by a sharp reduction in output and income throughout the economy, coinciding

with a rapid rise in inequality in the distribution of income. From 1996 on, the economy has been on a path of recovery, led by the agricultural sector. This recovery has neither been particularly robust nor very steady: growth was by and large limited to agriculture, gold mining and electricity production. And yet there is convincing evidence that, during much of the period of recovery, the incidence of absolute poverty declined. The critical element in this outcome was the avoidance of increased inequality in the distribution of income.

Perhaps the most important and immediate cause of the beginning of decline was the breakup of the Soviet Union. The highly autarkic economic union, exacerbated by the system of central planning by command, fostered a production structure in these republics that was extremely rigid. The breakup of the system immediately resulted in a massive dislocation of sources of supply of raw materials and capital inputs and markets for outputs, disrupting production. Kyrgyz Republic depended on substantial transfers from the Soviet Union. Independence meant an end to these transfers, leading to a sharp reduction in resources available for investment and public expenditure. Independence also witnessed the emergence of new political problems, causing instability and its adverse economic consequences.

There was a sharp reduction in the rate of investment. The Soviet period was characterized by a high rate of investment—close to 25 per cent of GDP on the eve of independence. During the post-independence period, the rate of investment sharply declined, with the level of investment declining even more rapidly. One of the major weaknesses of the recent recovery is that it has not only failed to reverse this trend but has actually been characterized by a continued further decline in the rate of investment. The decline in investment was associated with a drastic fall in the rate of domestic saving. The elimination of transfers from the Soviet Union and the disruption in the production structure led to a reduction in the capacity to save. Kyrgyz Republic recorded large current account deficits in the post-independence period. In recent years, this has declined substantially, though investment continues to be heavily dependent on capital inflow. The continued decline in the rate of investment in recent years is a consequence of the stabilization of the external imbalance by reducing the current account deficit without a compensating increase in the rate of domestic saving.

Kyrgyz Republic is an outstanding example of replacing collective agriculture by a system of egalitarian peasant farming through nearly universal access to land. The distribution of land has been reasonably equitable. It was distributed according to family size. There were large regional variations in the amount of land allotted per person, due to differences in the availability of distributable land. Land distribution was not, however, accompanied by measures to promote access to complementary resources to enhance the capacity of the weaker households to perform as farmers.

The performance of the industrial sector has been infinitely gloomier than that of agriculture. Within industries, manufacturing sectors have performed most dismally. Two non-manufacturing activities, gold mining and production of electricity, have, on the other hand, performed very well.

The quantitative magnitude of the fall in aggregate industrial value-added is an inadequate indicator of the adverse impact of industrial decline on the poor. This is because a good part of the incremental value-added in the most rapidly growing industrial sector, gold mining, is lost to Kyrgyz Republic, because it takes the form of factor income paid abroad to the foreign investors at the Kumtor mine. There is a second reason why the change in aggregate industrial value-added is an inadequate indicator of the adverse effect of the sector's decline on the poor. Of the value-added contributed to GNP by the best performing sectors, gold mining and electricity production, the proportion that accrues to poor households in the form of wages is

much smaller than the average of that proportion for the rest of the industries. Outputs of transport, trade and many other services are closely linked with the commodity production sectors, principally agriculture and industries. It is therefore not surprising that GDP originating in these sectors declined sharply over the decade under consideration. Even during the period of recovery, only the trade sector registered a rapid and steady growth.

In the decade since independence, much of traditional industries and urban services have declined. The sectors that have contributed to the 'recovery' of industries since 1996 have neither absorbed much labour nor been specifically located in urban areas. In these circumstances, one would have expected a sharp rise in urban unemployment. Paradoxically, the registered unemployment rate in the Kyrgyz Republic has remained low and stable, well below 5 per cent and declining during the second half of the 1990s. The explanation of the phenomenon is as follows. Growth was concentrated in three sectors, among which agriculture was the largest with the biggest absolute increase in output and employment. The second sector that experienced growth was trade, hotels and restaurants. It is possible that a good part of their growth was due to ancillary agricultural activities and informal activities in the urban areas. A third sector in which output growth took place consists of two subsectors of industry and mining, namely gold mining and electrical energy. For the rest of the manufacturing sector, there was a decline in output.

Of the three growing sectors, manufacturing and mining experienced employment-hostile growth. This sector as a whole had a highly negative gross output elasticity of employment: a 49 per cent growth in real value-added leading to a 20 per cent reduction in employment. The explanation must lie in the fact that the growing segment of the sector, gold mining and electricity, has a far smaller labour intensity than the stagnating and declining segment, the traditional manufacturing, details that are hidden because of the aggregation of the two disparate segments.

The other two growing sectors were highly labour intensive: once the output and employment growth are converted into annual compound rates, the gross output elasticity of employment is 0.72 for agriculture and 0.6 for trade. It is the high employment intensity of growth in these two sectors that helped preserve the linkage between growth and poverty reduction.

The sharp fall in output and income and the steep rise in inequality in the distribution of income in the period since independence should lead one to expect a serious worsening of poverty and welfare. The actual extent of their deterioration and the time trend thereof are, however, very hard to establish due to the impossibility of assembling data on a comparable basis for the Soviet period and recent years.

For the period of recovery, the trend in rural poverty is fairly easy to describe: it rises until 1998 when it reaches a peak. Thereafter, rural poverty declines steadily until 2001. Urban poverty had a more zigzag course. A highly implausible change took place between 1996 and 1997, when average urban income shot up and urban poverty declined sharply. Barring the possibility of a statistical quirk—a really strong possibility—this can only be explained by large-scale income transfer in favour of urban residents by the state in that year. Urban poverty increased between 1996 and 1998. Thereafter it did not change much. There was a small overall decline between 1998 and 2001, but only after a small rise in 2000. For Kyrgyz Republic as a whole, the period since 1998 may be regarded as a period of poverty reduction, disregarding an insignificant rise in 1999. Between 1998 and 2001 there was a 7.3 percentage point reduction in the proportion of the population living in poverty.

The pattern of growth during the recovery period is not sustainable. Manufacturing, construction, transportation and other services must attain growth rates that are higher than that of agriculture and GDP. As growth occurs in these, more capital-intensive, sectors, the overall incremental capital-output ratio would rise. Furthermore, the overall growth rate must be accelerated to achieve continued poverty reduction in view of the inevitability that the resumption of urban growth would lead to some increase in inequality. This leads to two conclusions: (a) Kyrgyz Republic must reverse the declining trend in the rate of investment that has characterized its recent development; and (b) it must reverse the recent trend of a drastic reduction in the share of the public sector in total investment. The orthodox argument that public investment crowds out private investment, and hence provides no benefit, ignores the demand side of investment which is a serious constraint in Kyrgyz Republic. As has been argued by the critics of the orthodox view, without public investment in infrastructure and other externality-producing activities, there is inadequate incentive to invest, especially on the part of the small entrepreneurs. In this sense, public investment in Kyrgyz Republic will have a 'crowding in' effect on private investment. The study argues that recent savings performance of Kyrgyz Republic demonstrates that it can finance a higher rate of investment than the ones that the Bretton Woods institutions have persistently advocated.

Mongolia

The case study looks at Mongolia's performance during the post-Soviet period, between 1990 and 2001. During the first half of this period, until 1995, per capita income in Mongolia fell at an average annual rate of 4.3 per cent while during the second half, ending in 2001, it increased at 1.2 per cent per year. Per capita income in the early 21st century remains substantially below what it was at the end of the 1980s. The study attributes much of the responsibility for the decline and subsequent slow recovery in output to the 'shock therapy' of economic reform; emphasizing simultaneous price reform; strong deflationary policies for stabilization; and trade reform consisting of sudden dismantling of tariff and non-tariff protection without any complementary policy package for the support of worthwhile industries. Many of the existing industries turned out to be unprofitable, which, via multiplier effect on demand, contributed to the decline. The absolute level of investment fell by 58 per cent between 1989 and 1996 and, as recently as in 2000, remained less than half of what it was in 1989. The fall in investment was accompanied by a high degree of dependence on foreign aid, which led to an appreciation of the real exchange rate and loss of export competitiveness

During the Soviet period, employment was available to all members of the workforce. By 1994, largely due to the failure on the part of many industries to survive, 8.7 per cent of the labour force constituted registered unemployment. Restoration of growth thereafter reduced this to 4.6 per cent by 1999. Large numbers of workers left the cities in the wake of loss of job and became pastoralists. Between 1995 and 2000—the period of recovery—agriculture's share of employment went up from 46.1 per cent to 48.6 per cent while the share of manufacturing fell from 8.8 per cent to 6.7 per cent. One of the dreariest aspects of this movement of labour, which can only be attributed to a strategy on the part of the migrants from industries to agriculture to survive, was that it resulted in a fall in output per worker in both agriculture and manufacturing between 1995 and 2000.

Inequality in the distribution of income appears to have increased sharply, although numerical estimates of the change are not available. This trend received a strong impetus from the highly unequal distribution of assets that characterized the process of privatization of industries, collective livestock farms and urban housing.

Estimates of poverty are available only for 1995 and 1998, a period during which economic recovery had started, with a significant rise in per capita income. And yet overall incidence of extreme poverty, defined as those below an income threshold required to satisfy minimum nutritional needs and the barest of other needs, remained virtually unchanged at 36 per cent of the population, with a slight rise in urban poverty and a slight fall in rural poverty. There seems to be little doubt that the incidence of poverty has increased sharply over the entire period under review.

The study recommends acceleration of growth through increased investment, financed by a broad strategy of domestic resource mobilization, accompanied by a variety of measures for employment expansion, including investment in labour intensive sectors, development of small and medium enterprises and public works, and more egalitarian access to resources, especially human capital and credit. The focus of the country's economic policy needs to be shifted away from stabilization towards economic growth.

Nepal

During the 1980s and the 1990s Nepal managed to average approximately 5 per cent annual growth in GDP. In the late 1980s and the early 1990s, Nepal implemented extensive reforms under the auspices of the IMF and the World Bank. These reforms included: controlling monetary expansion to a level that is consistent with low inflation; reduction of fiscal deficit by raising the tax/GDP ratio, cutting subsidies and transfers and reducing support to SOEs; increasing the share of social sectors in public expenditure; extensive reform of the trade regime, encompassing the convertibility of the currency, market-determined exchange rate, elimination of quotas and reduction of tariff rates; liberalization of the financial market; liberalization of input and output markets for agriculture; and manufacturing sector reform, including the abolition of licensing; liberalization of FDI; and privatization of SOEs. These reforms do not appear to have led to a higher rate of growth. Per capita growth rate in the late 1990s was lower than in the 1980s, largely because of the decline in the growth rate of GDP, but partly also because of the probable slight rise in population growth rate reported in the study (Table 1.2).

Poverty estimates suffer from numerous types of imprecision in measurement. One major problem is that the poverty lines at different points in time do not indicate a given level of nutrition or standard of living. The study claims that the proportion of the population below the poverty line increased between 1985 and 1996 for rural Nepal and Nepal as a whole, while marginally falling for urban Nepal. Between 1989 and 1996, the proportion of the population below the poverty line increased for both rural and urban Nepal. During these periods, per capita income increased significantly. Inequality in the distribution of income, measured by the Gini index, actually fell between 1985 and 1996 both for rural and urban areas, especially sharply for the latter. Thus, the reconciliation of the data on change in poverty and growth in income would have to be based on the validity of one or more of the following propositions: (a) per capita GDP growth failed to bring about a commensurate increase in per capita personal income; (b) change in the Gini index failed to capture the change in the relevant segment of the Lorenz distribution curve; and (c) there was an upward drift in the poverty line.

Most of Nepal's poor live in rural areas, where agriculture is the principal source of livelihood. The agricultural growth rate during the 1990s was appreciably lower than during the 1980s. The study attributes much of this to the stabilization policies that led to the abolition of subsidies for fertilizer and irrigation. Investment growth in agriculture has been slow. The study argues that this is largely due to low public investment in agriculture, the reduction in public expenditure being a cornerstone of the doctrine driving

the reform programme. The study views public investment, critical for overcoming indivisibility, as having a 'crowding-in' effect on private investment. Trade liberalization policies have also had an adverse effect on agricultural growth by reducing food prices.

In industries, initial expansion of manufactured exports, following upon trade liberalization, soon fizzled out: manufacturing growth rate in the second half of the 1990s was half of that in the first half. This had an adverse effect on employment and poverty reduction in the non-agricultural sector. The study attributes this to the absence of an industrial policy to help overcome low supply elasticity in manufacturing. The study also attributes the lack of competitiveness of Nepal's industries to the appreciation of the real exchange rate vis-à-vis the Indian currency, despite the fact that the exchange rate came to be determined by market forces.

Public expenditure in Nepal has been constrained by the low revenue/GDP ratio and an overt emphasis of the reform process on stabilization. This led to the allocation of insufficient resources for non-wage recurrent expenditure, which had a negative effect on the productivity of public investment and service delivery. Within the overall fiscal constraint, the change in the composition of public expenditure in the post-reform period, with an increase in allocation for education and health, has benefited the poor.

The study does not deal with the consequences of macroeconomic policies on employment in a quantitative manner. It suggests, however, that productive absorption of labour in agriculture was constrained by slow agricultural growth. Also the decline in industrial growth in the late 1990s, after an initial increase, prevented a rapid expansion of employment in that sector.

Vietnam

Like China, Vietnam in an exception to the transition economies in so far as it achieved a rapid rate of growth and adopted macroeconomic policies and reform measures which were largely devised by the country itself, not authored by the multilateral development agencies. The case study is broadly positive in its assessment of the role of macroeconomic policies for facilitating economic growth. During the 1990s, Vietnam's rapid growth was also associated with some increase in inequality. But the balance of their conflicting effects still enabled Vietnam to achieve substantial reduction in the incidence of poverty.

The principal message of the case study is that, in years to come, Vietnam's success in reducing poverty will critically depend on its ability to rein in the forces of inequality. This is because it is unlikely that Vietnam's high growth rate will be sustained in the future. The study presents an analytical framework that divides the growth performance in transitional countries as consisting of two distinct sources: a regime change component, which is a once-for-all spurt in growth due to the removal of rigid and inefficient central planning, and the regulatory change, the effect of the volume and efficiency of resource use promoted by the system of market reform. The study argues that the first effect is dying out so that the future will witness lower growth, determined by such basic factors as the rate of capital accumulation with almost certainly a rise in the (hitherto unusually low) incremental capital-output ratio. Growth rate decelerated considerably during the second half of the 1990s, although preliminary estimates suggest some reversal of this trend around the turn of the century. The 1990s also witnessed an upward rising trend in the inequality of distribution, which is likely to get worse as market reform progresses, unless careful countervailing measures are put in place. The Gini coefficient of expenditure distribution increased from 0.34 in 1992/1993 to 0.35 in 1997/1998 and 0.37 in 2002. Assuming the usual relationship between the Gini ratios of expenditure and income, this

would imply that the income Gini had become considerably higher, perhaps over 0.4. While this represents a moderately high degree of inequality by Asian standards, the rate of increase in inequality over the decade would not appear to be particularly high.

The study only makes casual and occasional references to employment. It is, however, possible to construct the employment trends from the data reported in Tables 2.2 and 2.3 (though the extreme regularity of annual employment growth creates doubt as to whether these are actually observed rates of change or projections of trends). The ILO/SIDA case study shows estimates of gross output elasticity of employment, both overall and for individual sectors, which were low during most of the decade of the 1990s. It shows erratic change in these elasticities in the period after 1998.

Estimates of poverty are available only for selected points of time: 1993, 1998 and 2002. The rate of poverty reduction was slower between 1998 and 2002 than between 1993 and 1998. The study identifies the reduction in the rate of growth as the clearest cause of the slowdown in the rate of poverty reduction, followed by the rise in inequality. By comparing the rates of change in poverty reduction between regions and seeking explanation for their difference, the study identifies other important determinants of poverty reduction: quality of education service; quality of infrastructure; agriculture's terms of trade; obstacles to migration; inflow of private sector resources; access to land and employment.

The study visualizes two distinct ways that fiscal, monetary and trade policies can help reduce poverty: by promoting a higher rate of economic growth, and by directly improving the welfare of the poor. It is the first avenue that is considered to be of prime importance in Vietnam and, on this count, the study rates Vietnam's macroeconomic policies favourably: they have helped foster a high rate of growth. On the second count, the study makes certain specific recommendations, mostly concerning the composition of public expenditure. The most important of them is the creation of a universal old-age pension. It also argues that concern about the level of social subsidies, which have a favourable effect on the welfare of the poor, is unwarranted.

Main findings of the ILO/SIDA studies on the relationship among growth, employment and poverty reduction

Bangladesh

Although this case study does not explicitly substantiate or invalidate the tantalizing hypothesis in the UNDP study: that the principal mechanism of the significant poverty reduction in the 1990s was the expansion of wage employment and productive self-employment in the RNF sector, driven by demand emanating from outside the RNF sector, its authors, in a subsequent discussion with the present reviewer, suggested that, based on their later work, they surmise that employment growth was probably quite rapid in informal activities, though not adequately high in formal sectors. This case study makes a more ambiguous assessment of poverty performance during the 1990s, though the authors, in the aforementioned subsequent discussion, suggested that over the decade of the 1990s as a whole, poverty went down.

The study looks at the role of employment from two distinct angles. First, it looks at the changing composition of employment, as reported in labour force surveys, in response to growth. It shows a fall, between 1991 and 2000, in the proportion of the workforce employed in agriculture and manufacturing and a rise in the proportion employed in services. Indeed, total employment in manufacturing fell by about 5 per cent according to these data.

A great deal of work is then directed to estimate gross output elasticities of employment in individual manufacturing industries (at 3 and 4 digit level), based on the data from the censuses of manufacturing industries. The overall finding is that for manufacturing industries as a whole, the gross elasticity of employment (GOEE) with respect to value-added was above 0.7 over the period 1990-1998. It is indeed possible that manufacturing during the 1990s had high overall labour intensity, as it was dominated by the growth of garment manufacture both in terms of output and value-added. But this could not possibly have been the main vehicle for poverty reduction in Bangladesh during the 1990s. The UNDP study cites this as one of three sources of external demand that stimulated the RNF sector. Another problem with this estimate of high gross output-elasticity of employment during 1990-1998 is that it is very hard to reconcile it with the fall in aggregate employment in manufacturing that the study reports (see the previous paragraph). Subsequent discussions with the authors revealed their skepticism about the estimates of GOEE, based on the industrial census data, which suffer from non-uniform coverage of enterprises from one year to another. Also, the extremely high variability of GOEE between industries is a source of doubt about the reliability of their reflection of the degree of employment friendliness of the overall system of incentives. It seems likely that these estimates have been influenced by the ongoing process of privatization, and the closure of public enterprises, which suffered from labour hoarding.

Bolivia

Bolivia sustained severe loss in per capita income until 1986, as part of the Latin American crisis of that decade, which was exacerbated by bad climatic conditions and natural disasters. From 1987, onwards the economy experienced modest growth, which accelerated somewhat during the 1990s. Per capita income growth was, however, just 1 per cent per year during 1987-1990 and 1.7 per cent during 1991-1998. Since 1999, the GDP growth rate declined sharply once again, due to the international financial crisis, leading to a fall in per capita income.

Poverty estimates are reported only since 1996. The incidence of urban poverty fell between 1996 and 1999 and increased thereafter. The incidence of rural poverty fell substantially between 1996 and 1997 but started rising from 1999 and onwards (estimates are not available for 1998). By the early 21st century, the incidence of rural and national poverty was close to the level in 1996, while urban poverty remained a bit lower.

Inequality in the distribution of income in urban Bolivia showed no increase between 1996 and 1999, but rose significantly thereafter. The reported course of rural inequality is, however, a big puzzle: the Gini ratio of rural per capita income dramatically dropped from 0.68 in 1997 to 0.44 in 1999 and remained steady around that low level thereafter.

It is possible to make sense of the change in urban poverty in the light of the change in income and inequality: until 1999, income increased modestly with non-increasing inequality, leading to a modest reduction in poverty. After 1999, income fell and the distribution worsened, leading to a rise in poverty. It is impossible to explain the change in rural poverty, which fell briefly between 1996 and 1997 and increased steadily thereafter. Agriculture continued to grow at more than 3 per cent until 1998 and at a somewhat slower rate thereafter. The distribution of income became dramatically more equal after 1997. There is nothing in the study to explain the momentous decline in rural inequality and its failure to have even a momentary effect to reduce rural poverty. It does not seem that the phenomenon can be explained by a possible change in agriculture's terms of trade, which remained stable according to the study (Graph 2).

Growth in employment during 1992-1997 was high. That helps explain the favourable poverty performance until 1997 (assuming that poverty declined prior to 1996, the year from which estimates are available). After 1997, employment growth slowed dramatically to well below one per cent per year. The analysis of the employment scene in the study presents its own puzzles. There was a dramatic fall in the proportion of rural population, due to migration to urban areas over the period from 1985 to 2001. Despite this, the proportion of labour force in agriculture increased over the period: by 2001, the rural population accounted for less than 35 per cent of the total, while agriculture accounted for more than 44 per cent of the labour force.[15] The share of manufacturing in total employment showed a modest increase until the late 1990s, but fell in 2001 to a level lower than that of the early 1990s. The only major shift in the composition of employment during the 1990s consists of a sharp increase in the share of 'commerce and restaurants' and a substantial fall in the share of 'community and personal service'. The study interprets the increase in the share of commerce and restaurants as a kind of survival strategy on the part of the poor, who moved into "low-paid, small-scale commerce and related service activities, as a means of increasing income opportunities of poor households". It is possible to interpret the increased share of agriculture in the labour force in the same way during a period when industries and non-agricultural activities failed to absorb labour. It is not altogether clear how this can be reconciled with the data on migration.

Employment growth is analyzed also by estimated gross output elasticities of employment (Table 12). At the aggregate level, these elasticities are relatively high: 0.8 during 1992-1997; 0.7 during 1997-1999; and 0.6 during 1999-2001. If these are trusted, then the slow growth in employment after 1997 must be attributed to the slow growth of the economy. It would not be justified to argue that the low labour intensity of growth was a cause of the failure of the transmission to poverty reduction of whatever growth took place. It is impossible, however, to describe the elasticity estimates at the sectoral level as anything but wild: they range from large negative numbers (usually indicating a fall in employment despite a rise in output) to positive values above five! These values indicate a serious structural imbalance within individual sectors, rendering these measurements useless as indicators of meaningful trends.

To conclude: moderate growth in per capita income combined with non-increasing inequality probably led to some reduction in poverty between the early 1990s and sometime around 1997 or 1998. Healthy growth in employment and a fall in the open unemployment rate helped this process. Thereafter, poverty increased due to a decline in the growth of per capita income and a rise in urban inequality—thus, the claim of a dramatic fall in rural inequality poses a huge question mark. Slow growth in employment and a rise in the open unemployment rate contributed to this process.[16]

Ethiopia

Ethiopia stagnated during the 1980s, the decade preceding the emergence of the new regime, with an annual average GDP growth of just 2.3 per cent, below the rate of population growth, estimated to have been above 2.5 per cent. During the 1990s, following extensive economic reform—involving standard stabilization policies; trade, exchange rate and financial liberalization; widespread deregulation; and some amount of privatization—growth became faster at an annual average rate of 4.6 per cent. In per capita terms, this translated to just over 2 per cent annual growth in income.

15 This can not be explained by the change in employment in agricultural activities located in urban areas.

16 Yet another anomaly is the steady rise in real wages despite the rise in open unemployment after 1997. This however, is perhaps less of a puzzle due to the well-known distortions that the highly urbanized Latin American labour market is subject to.

That this rate of growth was inadequate for poverty reduction is evident from the fact that, between 1995/1996 and 1999/2000, the only period over which poverty estimates are reported in the case study, per capita real consumption in rural Ethiopia actually fell by 4 per cent and per capita real urban consumption increased by just 3 per cent. The poverty outcome was actually determined by the change in the distribution of income and consumption: rural Gini ratios fell a little and the incidence of rural poverty, by all the standard measures, fell a little. Urban Gini ratios increased, substantially for consumption expenditure, and urban poverty increased according to both headcount and income gap indices. At the national level, there was no appreciable change in the incidence of poverty. The study calls the official estimate of the slight decline in rural poverty "a statistical myth" since "the growth rate of real agricultural per capita output has been negative and real per capita rural income (sic) has declined".[17] It is noteworthy that the poverty outcome would have been far more favourable if the growth rate in per capita consumption was the same as the growth rate in per capita GDP. As is well known, the GDP elasticity of personal income and personal consumption is well below one. In Ethiopia the incremental share of the government in GDP was higher than its average share for well-known imperatives and so might have been the share of business. The incremental share of the households was inevitably less than their average share.

The study reports some non-income indicators of welfare. In education, enrolment has generally increased, although the crowding of physical facilities and the rise in student/teacher ratios, indicate the possibility of deterioration in quality. Short-term child malnutrition has increased in rural areas, although long-term child malnutrition has declined.

Employment data are available at discrete intervals and do not coincide with the pre-reform or post-reform periods. Between 1984 and 1994, employment increased at a rapid annual rate of 5.9 per cent, at similar rates across sectors, far outpacing the rate of output growth. During 1994-1999, roughly coinciding with the period over which poverty estimates are available, employment growth for the economy as a whole was dismal, -0.6 per cent per year. The largest sector of employment, agriculture and allied activities, recorded a -2.9 per cent annual change in employment. For a number of reasons, these employment data seem implausible. Poverty data show that for the farming population the incidence of poverty declined between 1995/1996 and 1999/2000. It is difficult to imagine this happening with a large decline in employment. It is also difficult to imagine where all the laid-off 'workers' in agriculture went. The 'allied activities' seem to indicate much of the informal rural employment categories. It is possible that the sources of employment data at the two points were not comparable.

Employment in manufacturing, reported by separate annual data sources, recorded an annual trend growth of 1.8 per cent from 1992/1993 to 1999/2000. During the same period, the annual growth trend in manufacturing output was 5 per cent. These indicate a 'trend' estimate of the gross output elasticity of employment of 0.36, which must be considered low for a labour-abundant economy like Ethiopia. The study reports 'arc elasticity' estimates of gross output elasticity of employment over the period 1994-1999, which is highly variable between different manufacturing activities and negative overall. It also shows econometric estimates of these elasticities based on the annual data: these are again highly variable between activities and extremely low—0.07—overall. Clearly, the failure to reduce poverty in the Ethiopian case was due to the low rate of economic growth. There is nothing about the change in the distribution of income that would have offset the effect of a decent rate of growth, even with the low output elasticities of employment.

17 The figures that the study quotes to show this decline actually refer to expenditure, not income.

India

This case study is principally focused on the post-reform period (after 1991/1992), while putting the experience of this period in historical perspective by providing a comparison with the two to three decades before 1980 (the pre-1980 period) and the intermediate decade of the 1980s. The pre-1980 decades were characterized by the Indian variant of the ISI development strategy with all its usual attributes. During this period, the economy was stuck with an annual average growth of 3.4 per cent over three decades (1950/1951 to 1980/1981), despite more than doubling of the rates of domestic saving and investment. During the 1980s, the rate of growth increased substantially to an annual average of 5.4 per cent. Economic policy during this period made some changes in the ISI regime by the liberalization of the import restrictions and investment licensing, sharp devaluation, and the depreciation of the real exchange rate. The third, post-reform, period began with the implementation of large-scale reform of the ISI regime. Besides implementing a standard macroeconomic policy package for stabilization, it instituted widespread structural reforms: a near complete dismantling of industrial licensing; a drastic reduction in the number of sectors reserved for public investment; the phased abolition of quantitative restriction on imports; gradual reduction and rationalization of tariff and excise tax rates; significant liberalization of private foreign direct and portfolio investment; and a gradual transition to current account convertibility.[18] Between 1992/1993 and 1999/2000, the average annual rate of growth went up to 6.4 per cent.

The study shows the evolution of employment during three periods roughly, but not exactly, conforming to the above three growth periods. During the first period, there was an annual addition of 5.1 million to the labour force. This increased to 6.8 million during the second period, but fell to 4 million during the post-reform period. Agriculture's share of employment declined slowly during the first period; this became somewhat faster during the second period and faster still during the post-reform period. Industries ('secondary commodity producing sectors' in the terminology of the study) absorbed only a fifth of the incremental employment during the first and the second periods, but as much as 40 per cent during the post-reform period. Within the industrial sector, manufacturing lost out to other industries, e.g., construction, its share falling from 75 per cent in the first period to 57 per cent in the post-reform period. Within manufacturing, the share of the rural sector increased sharply to 52 per cent during the post-reform period, as compared to less than 29 per cent in the first period. Services absorbed a progressively higher proportion of the incremental employment: 24 per cent during the first period, 33 per cent during the second period, and 57 per cent during the third period.

Significant microeconomic structural reform in the industrial sector, entailing reduced barrier to entry, relaxation of constraints on the private sector and the reduction of distortions caused by arbitrary customs and excise duty rates, as well as their lowering, led to greater domestic and external competition, conducive to increased employment. Compared to the jobless industrial growth of the 1980s, the 1990s was characterized by substantial labour intensity of industrial growth. The study documents this at different levels: first, the 'gross' output elasticity of employment in the factory manufacturing sector of 0.32 during the 1990s, as compared to an insignificant value of the same during the 1980s. The study then argues that this gross elasticity, showing the ratio of employment growth to output growth, is an inappropriate reflection of the true elasticity, which can only be measured by fully specifying the determinants of labour use. It further argues that, while the partial elasticity of employment with respect to output should be positive, the partial elasticity of employment with respect to wages (real wages defined as nominal wages deflated by the price

18 The study calls these, perhaps with some justification, *microeconomic* reforms although they are usually included in the menu of macroeconomic policies, including those considered in the UNDP studies and most other ILO/SIDA studies.

index of the product of the industry) should be negative. A fully specified model, econometrically fitted, shows that the partial elasticity of employment with respect to output was always very high: 0.85 during the 1980s and 0.90 in the post-reform period. The partial elasticity of employment with respect to real wages, on the other hand, was -0.83 during the 1980s and -0.97 during the post-reform period. The gross output elasticity of employment, showing the aggregate of the two effects, was insignificant during the 1980s, due to the inordinately large increase in real wages for factory workers, who were overprotected by economic policies at the time. During the post-reform period, the gross elasticity was much higher, because of both a faster increase in output and a more modest increase in real wages, presumably due to the reduction in the overprotection of workers in the factory sector.[19] The study shows evidence of the reduction in the difference between factory wages on the one hand and non-factory manufacturing wages, both urban and rural, on the other to argue that, during the post-reform period, there was healthy growth of employment in the non-factory manufacturing sector as well, signaling a reduction in the duality of the labour market. Finally, the study refutes the argument that the fall in the overall worker/population ratio and the average number of days worked per person during the 1990s signify an adverse impact of reforms on aggregate employment by citing evidence that these changes were due to the change in the conditions of labour supply. The study cites evidence that real annual earnings of the entire vulnerable labour force, rural and urban, increased at a healthy rate of more than 3 per cent per year and claims that this shows that there was clear improvement in the employment situation in India during the post-reform period. The study concludes that this improvement in the overall employment situation, especially the rise in the annual earnings of workers, provides an explanation for what the authors, after a lot of argument on the inter-temporal comparability of poverty data, claim to have been a faster rate of poverty reduction during the 1990s than during the 1980s.

Indonesia

The ILO/SIDA study on Indonesia complements the UNDP study on macroeconomic policies and poverty by filling in the employment details of the growth-poverty linkage in Indonesia before and after the Asian crisis. During the decades prior to the Asian crisis, per capita income increased rapidly, the distribution of income remained stable and income poverty (measured in Indonesia with reference to a per capita consumption poverty threshold) fell steadily. The process was facilitated by the high labour intensity of economic growth. High gross output elasticity of employment in industries and modern services led to rapid expansion of employment in non-agricultural sectors into which workers moved from agriculture in pursuit of more productive occupations. Just between 1990 and 1996, the share of agriculture in the workforce fell from 55.1 per cent to 43.5 per cent. Formal non-agricultural employment during the same period increased from 28.1 per cent of the workforce to 37.9 per cent in 1996. During the two decades preceding the crisis, real wages had increased at an average annual rate of 5 per cent.

In the post-Asian crisis period, all these trends were reversed. The growth rate in per capita income fell to less than half of the pre-crisis rate. The incidence of poverty shot up and peaked in 1999. Thereafter, it came down, according to some measures close to the pre-crisis level, but remaining higher according to certain other measures (especially the poverty gap, showing the average depth of poverty, and severity of poverty, showing the inequality of distribution among the poor). During this period, employment in the formal sector shrank, from 37.9 per cent in 1996 to 35.4 per cent in 1998. The most recent data, for 2000, shows it stuck at 35.3 per cent. In 2000, agriculture's share of the workforce was 45.1 per cent, significantly

19 As discussed in the paper, this argument is valid in so far as the "gross" elasticity does not capture the causality behind change in employment. It nevertheless remains true that the gross elasticity, incorporating the effect of changes in both output and wages, was found to be as high as 0.7 to 0.8 at comparable levels of development in the East Asian tigers, and in those countries real wage increased about as fast as per capita income.

higher than the pre-crisis level. Employment in urban informal sector, steadily declining up to 1996, went up by 3.3 percentage points by 1999. Estimates for February 1996 and February 1999 show that the head-count rate of poverty increased in all occupations, but agriculture's share of the poor actually fell, while the share of all other occupational groups, including manufacturing, increased. This was largely due to a sharper fall in real wages in the urban economy than the fall in real earnings in agriculture. Unfortunately, data on employment characteristics end at an earlier date (2000) than the data that show the most recent estimates of poverty indicators (2002). It is therefore not possible to say if the recent (partial) reversal of the adverse poverty performance in the immediate post-crisis period has actually been associated with similar improvement in employment performance.

The study sheds some useful light on the asymmetrical poverty impact of the economic slowdown on different categories of workers. Among workers employed in different sectors, the incidence of poverty is highest among those employed in agriculture. Poverty increased for all categories of workers after the onset of the Asian crisis, but the proportionate increase in poverty was lowest for agricultural workers and far greater for those employed in industries and services. Poverty is highest among the least educated workers and systematically lower for those who have higher levels of formal education. But the proportionate increase in poverty was lowest among the least educated workers and progressively higher for those with better education and training.

While the study strongly underlines the critical importance of the high employment intensity of Indonesia's growth during the pre-crisis decades, it does not comprehensively discuss the factors that made this possible. Some analysis of incentives for greater labour intensity would have been useful.

The policy recommendations made by the study for the restoration of adequate employment growth for Indonesia's poverty reduction are very similar to the recommendations made by the UNDP study about macroeconomic policies for poverty reduction: restoration of faster growth; relaxation of strict monetary and fiscal retrenchment motivated by an overt concern for stabilization and instead setting monetary and fiscal targets that are consistent with the provision of productive employment; improved focus on the growth of agriculture, the sector employing most workers and housing most of the poor; improved resource flow into small and medium industries, the sectors with most employment potential; and an improved labour market information system. Once again, little is recommended by way of improving the incentive system for the promotion of greater labour intensity of growth. This may mean that the author of the study believes that the existing incentive system does not suffer from serious deficiency.

Uganda

This study analyzes the relationship among growth, employment and poverty in Uganda during the 1990s, specifically focusing on the period between 1992 and 2002. Uganda has achieved steady economic growth since the end of the civil war in 1986. During the period under review, Uganda attained close to a 6 per cent annual growth in GDP, a 2.7 per cent growth in per capita income.[20] While the growth rate fluctuated from one year to another, it was reasonably stable in so far as in every year per capita income registered positive growth.

Uganda's growth was poverty alleviating until the turn of the century. Between 1992/1993 and 1999/2000, six distinct annual observations record a steady decline in the incidence of poverty. In the early

20 These are the growth rates shown by the data in Table 2.1. They imply an annual population growth rate of over 3 per cent, which is higher than the population growth figures reported in Table 2.7.

years of the new millennium—between 1999/2000 and 2002/2003—this process was reversed, with a rise in the incidence of poverty in both rural and urban areas.

The immediate explanation is that growth in the new millennium slowed down, and, more significantly, the inequality in the distribution of income, which had remained steady during the 1990s, registered a fairly sharp rise by 2002/2003. The Gini ratio of the distribution of per capita expenditure was 0.326 in 1992/1993, 0.322 in 2000/2001 and 0.363 in 2002/2003 in rural Uganda. It was 0.394 in 1992/1993, 0.384 in 2000/2001 and 0.477 in 2002/2003 in urban areas. It should also be noted that, assuming that the usual relationship holds between the income Gini and expenditure Gini, the inequality in the distribution of income in Uganda had become very high by the end of the period. Thus, the poverty-alleviating character of growth during the 1990s appears to have been due largely to its avoidance of increased inequality.

The attempt of the study to link growth to poverty reduction via the employment performance of the economy has not been successful, due to the poor quality of employment data. Comparable data on employment are available only for 1992/1993 and 1997 and these data, too, suffer from a lack of standardization of the amount of work time per worker. These data show that, over this period, the share of agriculture in employment increased slightly, that of industry fell slightly, while that of services increased slightly. Over the period, employment in agriculture increased at 7.86 per cent per year and real value-added increased at 3.54 per cent per year, indicating a gross output elasticity of employment of 2.22.[21] On the same basis, the elasticity turns out to be 0.42 for industries, 1.04 for services and 1.06 for the economy as a whole. Except for industries, output per worker fell everywhere, drastically so in agriculture, while output per person increased significantly. It is almost certain that these extraordinary estimates are due to the lack of comparability of the average intensity of work per person in agriculture and traditional services over time. If one takes the estimates literally, then one must conclude that, over time, an average agricultural household of a given size was allocating more individuals to the labour force, causing strongly diminishing returns, which sharply reduced the output per worker but still allowed the output per person to rise. This would make sense only under the assumption of increased work-sharing among a larger number of family members.

While the elasticity estimates for agriculture and services are not enlightening, it is unlikely that industrial employment estimates, largely in a wage-based market environment, would suffer from these problems. One would thus conclude that Uganda's industries were not particularly employment intensive, a fact that is confirmed by the detailed, and often erratic, estimates of these elasticities for individual manufacturing industries reported by the study. It also seems likely that agriculture absorbed a lot of labour, if not at the stratospheric rate suggested by the data.

Be that as it may, it seems fairly certain that the agricultural population increased at least at the same rate as the growth of aggregate population. This would imply that output per person in agriculture increased very little. The study reports poverty incidence by the occupational sector of the head of the household. It shows a significant decline in the incidence of poverty over the period for agricultural households. How could that be consistent with very modest, if any, increase in output per person? The explanation seems to lie in an improvement in agriculture's terms of trade brought about by the rising export prices of agricultural crops during this period. Indeed, the study reports a much faster reduction in poverty among households dependent on cash crops than among households dependent on food crops. One of the major explanations

21 The study shows these elasticities as ratios of change over the entire five years, not as ratios of annualized rates of change. Hence its estimates are more extreme.

of the reversal of poverty reduction in the early 21st century is the adverse movement in export prices of agricultural crops during that period.

Thus, Uganda's poverty-alleviating growth during the 1990s is largely due to a reasonably rapid income growth in agriculture, facilitated by a modest rate of growth in physical output per capita and an improvement in terms of trade; stable inequality; and large-scale labour absorption in the sector, possibly including ancillary services. Industrial growth was rapid, but not highly labour intensive. This limited the prospect for migration of labour out of agriculture. Even without the benefit of large-scale emigration, agriculture experienced significant poverty reduction as long as its rising income continued to be distributed with unchanged inequality. The process came to and end when the rate of income growth slowed down and inequality increased. It would have been interesting to disentangle the details of the story behind the distribution of income and the role that employment had in it, if adequate data were available.

Vietnam

The ILO/SIDA study on the employment/poverty linkage nicely complements the UNDP study on macroeconomic policies and poverty in Vietnam. It attributes the sharp acceleration in the rate of growth in the 1990s to extensive reforms, including reforms of macroeconomic policies. In the aftermath of the Asian crisis, there was a reduction in the rate of growth in 1998 and 1999, from which a recovery started in 2000. Between 1993 and 1998, the two years for which reliable estimates are available, the incidence of poverty declined substantially in both rural and urban Vietnam, the rate of decline being much faster in the latter.

The study analyzes the role that employment expansion played in this process. During 1993-1998, in rural areas, farm self-employment increased at an annual rate of 0.8 per cent. This was not a passive absorption of labour in overcrowded agriculture, but a productive absorption of labour that was accompanied by a significant increase in average labour productivity in the sector. This process was facilitated by the agricultural reform that promoted widespread and equitable access to land, and market and trade reform that encouraged a shift of agricultural production in the direction of higher valued crops, and improved terms of trade for agriculture. Together, these resulted in a large increase in rural peasant income which, in turn, created demand for rural non-farm (RNF) products. Appropriate public policy helped elastic supply response in the RNF sector, so that self-employment in the RNF sector increased at an annual rate of 6.7 per cent. There was also an annual increase of rural wage employment of 3.3 per cent for farm and RNF activities together. The overall annual growth in rural employment in this period was 1.7 per cent. This was a healthy rate of growth of employment in a rural economy dominated by agriculture. But urban demand for labour did not increase sufficiently rapidly. Net growth in urban employment was only 2 per cent per year. This low labour absorption was largely due to the dominance of urban industries by some large, capital intensive enterprises under state ownership, which were set up as import-substituting industries. These industries were promoted behind high tariffs, with the provision of investment resources and subsidies by administrative fiat, thereby crowding out more labour- intensive small and medium enterprises. Gross output elasticity of employment in manufacturing was only 0.29, as compared to something close to 0.8 in the East-Asian pioneers at a comparable stage of development. Thus, overall employment growth during this period fell short of the growth of the labour force.[22] The study takes the view that slow employment growth in industries was the principal reason why the extraordinarily rapid growth of the economy achieved no more than a modest reduction in poverty.

22 The study reports a steady annual growth in overall labour force of 2 to 3 per cent.

In the aftermath of the Asian crisis, the employment performance of industries improved sharply. For the period 1998-2001, the gross output elasticity of employment in manufacturing was 0.79. This was due to the abandonment of the policy of promoting large capital-intensive industries and a big push for private industries under the Enterprise Law, promulgated in 1999. The gross output elasticity of employment in services was an incredible 1.91, indicating a sharp shift in composition in favour of labour-intensive services. It should also be noted that the acceleration in employment growth was somewhat less dramatic than the rate of change in these elasticities between the two periods because of the reduction in the rate of output growth. Also, during this period, agriculture was able to shed some labour, thereby recording a negative gross output elasticity of employment and achieving a faster growth in productivity than the rest of the economy.

Inequality increased during 1993-1998, but, by all evidence, at a modest rate: the Gini ratio of per capita expenditure distribution increased from 0.33 in 1993 to 0.35 in 1998. It is not clear what prevented a faster increase in inequality when employment growth failed to absorb the increment in labour force, and the gap widened between average productivities in agriculture and industry. It is possible that other redistributive measures—such as, the national hunger eradication and poverty reduction programme—helped alleviate inequality.

The study reports that "the pace of poverty reduction has slowed since 1998". It cites a number of causes: the decline in the rate of growth; the deterioration in agriculture's terms of trade between 1999 and 2001 due to the fall in world demand; the fact that many benefits of reforms were one-time gains; and the remaining poor being increasingly difficult to reach. But for the increase in the output elasticity of employment in industries and services in this period, the poverty outcome might have been worse: agriculture partly coped with the adverse terms of trade by transferring labour to other sectors; and the urban economy coped with lower growth by improving its distribution through a faster expansion in employment. The Gini ratio of per capita income distribution was 0.39 in 1999 and 0.391 in 2001/2002.

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