





PRO-POOR GROWTH AND POLICIES

The Asian Experience

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This publication presents some of the principal findings from the UNDP's Asia-Pacific Regional Programme on the Macroeconomics of Poverty Reduction.

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Design and Layout by the printhouse
Printed by Jagadamba Press

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1. **INTRODUCTION**

The relationship between economic growth and the change in the incidence of poverty is both complex and multi-dimensional. An understanding of this relationship and its underlying determinants is the key to the formulation of successful poverty reduction strategies. If it can be demonstrated that fast economic growth is always accompanied by rapid poverty reduction, as a result of the 'trickle-down' effect, then such strategies can focus, more or less, exclusively on achieving faster growth. However, if this is not necessarily the case, then the pursuit of growth will have to be combined with an effort at achieving more pro-poor growth through a degree of redistribution of assets and incomes in the economy. This would have significant implications on the nature of anti-poverty strategies.

A number of studies have attempted to analyze the relationship between economic growth and poverty incidence across countries and time periods (see Ravallion and Chen (1997), Bruno, Ravallion and Squire (1998) and Adams (2003)). It has been estimated that, on average, a one percentage point increase in the rate of per capita income growth can produce up to a two percent decrease in the proportion of people living below the poverty line, subject, of course to the process of income change being distribution-neutral in character. But inequality has tended to change in most

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situations and some countries have experienced limited poverty reduction despite impressive growth performance, while others have managed to decrease poverty significantly despite relatively low growth.

The experience of Asian countries in this regard is mixed. Countries of East Asia have managed an exceptionally high average growth rate of per capita income of 6.4 percent, in the 90's, while the corresponding growth rate for the group of South Asian countries is 3.2 percent. The incidence of poverty has declined sharply in the former sub-region by 6.8 percent annually, whereas the rate of decline in South Asia has been relatively modest at about 2.4 percent. For the region as a whole, a one percentage point increase in the growth rate of per capita income has translated into only a 0.9 percent decline in the incidence of poverty. Clearly, inequality as a whole has worsened in the region during the 90's, and while it has been successful in achieving high rates of economic growth, gains with regard to poverty reduction have been limited by the absence of pro-poor growth.

The Millennium Development Goals of the United Nations have committed the world to reducing the incidence of poverty by half by 2015 (in relation to the base year level of 1990). This implies that poverty will have to fall by about three percent per annum for the target to be achieved. If progress during the 90's is any guide, East Asia has already met this target; subject to no reversals in future years, but South Asia is expected to achieve the target of halving poverty by 2015. It needs to be emphasized, however, that much of the breakthrough of East Asia is due to the remarkable strides made by China in poverty reduction. On the contrary, many countries of East Asia have also fallen behind in terms of achieving the poverty reduction target.

The decade of the 90's has also witnessed qualitative changes in the growth process, which could have a vital bearing on the relationship with poverty reduction. Some countries have just begun the transition from a highly centrally planned to a market economy while others have reached a fairly mature stage in this process. Many countries have started or intensified the implementation of various structural economic reforms, sometimes under the aegis of an IMF/World Bank structural adjustment program or poverty reduction and growth facility (PRGF), which have included trade liberalization, financial sector reform, privatisation, deregulation and removal of restrictions on foreign private investment. While these changes may have resulted in faster economic growth it is not clear what the consequences have been on the rate of poverty reduction. In some countries, like Pakistan, Philippines and Sri Lanka, the process of poverty reduction has visibly slowed down. In others, periods of political or economic crises (like the East Asian financial crisis) have contributed to cases of rising poverty.¹

The objective of this paper is to assemble on a systematic basis the available data on Asian countries and then analyse the relationship between growth and poverty on a long-term basis. Section 2 presents the trends in growth, income inequality and poverty incidence for different countries and different periods. These trends reveal the substantial variation in the relationship between growth and poverty, which is then explained on the basis of changes in the level of inequality. Section 3 studies the role of different potential macroeconomic determinants of poverty in the Asian context on the basis of simple statistical techniques.² Section 4 analyses the impact of different types of policies on the proximate determinants of poverty and highlights how different Asian countries have operated within the policy trade-offs with respect to poverty. Finally, Section 5 provides some concluding observations.

Figure 1
THE METHODOLOGICAL FRAMEWORK

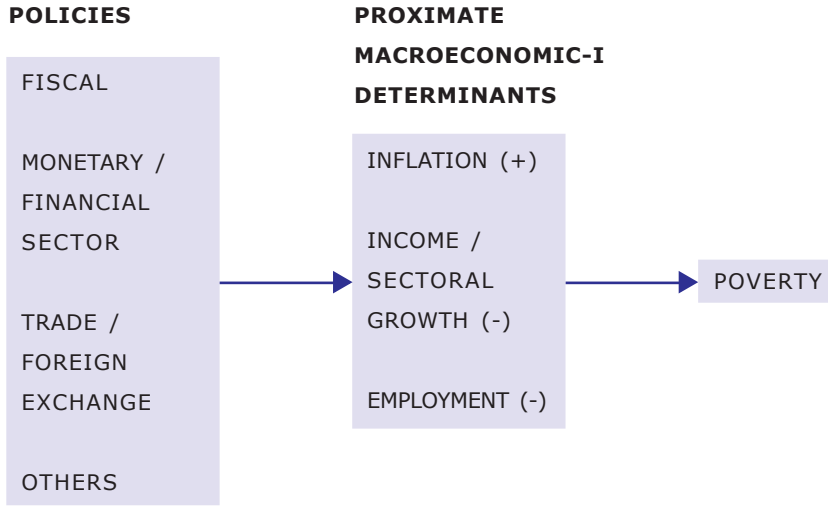


Figure 1 highlights in schematic fashion the methodological approach adopted in the paper. According to this framework, various policies impact on macroeconomic determinants of poverty, with inflation likely to cause an increase in poverty, while income and employment growth expected to mitigate against poverty. A successful policy is one that operates on the right side of this trade off.

2. **GROWTH, INEQUALITY AND POVERTY REDUCTION**

Before we quantify the relationship between growth and poverty in different settings, we proceed to describe the data. The sample consists of nine countries from East Asia (Cambodia, China, Indonesia, Lao PDR, Malaysia, Mongolia, Philippines, Thailand, and Vietnam) and five from South Asia (Bangladesh, India, Nepal, Pakistan and Sri Lanka). These countries account for 97 percent of the population and 77 percent of the gross national income of the whole of Asia and the Pacific. For all these countries data is available for the 90's, in most cases for the 80's and in some cases for the 70's. Changes are measured over the decades to remove the impact of random factors and to identify the underlying long-term relationships. Altogether, we are able to observe 32 'cases', where a particular case relates to a particular country over a particular decade. 14 cases are for the 90's, 10 for the 80's and 8 for the 70's.

Poverty estimates, based on national poverty lines, are used in the analysis. (For the justification behind using national poverty estimates rather than those based on the international poverty line of US \$ 1 PPP per capita per day, see annex I). These estimates are given in Table A-1 in the statistical appendix. Annual rates of change in the incidence of poverty are computed by decade and presented along with the rate of per capita income growth in Table 1. It is interesting to note that out of the 32 cases on which data is available, there are

only nine cases in which poverty increased. This testifies to the success of Asian countries in reducing poverty, on average, during the last three decades. It is, significant to note, however, that most of the cases of increasing poverty are concentrated in the 90's. This indicates greater variability in performance of countries with regard to poverty reduction during the last decade.

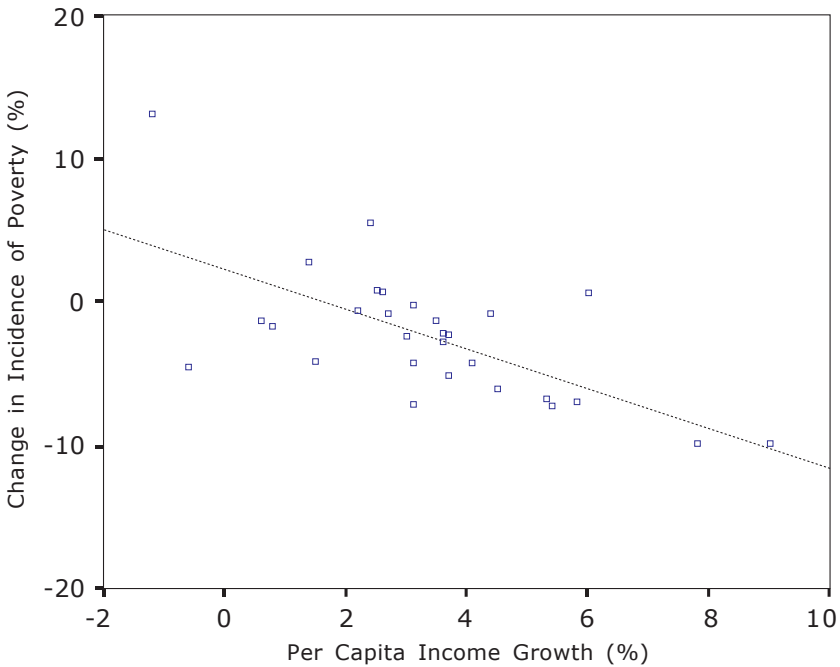
Table 1
RATES OF PER CAPITA INCOME GROWTH AND CHANGE IN INCIDENCE OF POVERTY IN SAMPLE COUNTRIES IN DIFFERENT DECADES (%)

Country	1970's		1980's		1990's	
	Rate of Per Capita Income Growth	Rate of Change in Incidence of Poverty	Rate of Per Capita Income Growth	Rate of Change in Incidence of Poverty	Rate of Per Capita Income Growth	Rate of Change in Incidence of Poverty
Cambodia	-	-	-	-	2.4	5.5
Bangladesh	-	-	2.2	-0.6	3.0	-2.4
China	4.4	-0.8	7.8	-9.8	9.0	-9.8
India	0.8	-1.7	3.6	-2.2	3.6	-2.8
Indonesia	5.4	-7.2	4.5	-6.1	2.9	2.1
Lao PDR	-	-	-	-	3.7	-5.1
Malaysia	5.3	-6.7	3.1	-4.2	4.6	2.9
Mongolia	-	-	-	-	-1.2	13.1
Nepal	-	-	2.5	0.8	2.6	0.7
Pakistan	1.5	-4.1	3.5	-1.3	1.4	2.8
Philippines	3.1	-0.2	-0.6	-4.5	0.6	-1.3
Sri Lanka	2.7	-0.8	3.1	-7.1	3.9	4.8
Thailand	4.1	-4.2	6.0	0.6	3.7	-2.3
Vietnam	-	-	-	-	5.8	-6.9

Sources: (i) Rate of Per Capita Income Growth: World Bank (2003), World Development Indicators. (ii) Rate of Poverty Incidence: from Table A-1 (Statistical Appendix)

The strong relationship between growth and change in poverty is demonstrated by the fact that the fastest growing country, China (in the 80's and 90's), has shown the highest rate of decline in poverty while the slowest growing country, Mongolia (in the 90's), has experienced the largest rate of increase in poverty. In between, however, there appears to be much heterogeneity in the relationship, as revealed by the scatter diagram in Figure 2. There are countries, on the one hand, which despite showing only modest growth or even decline in per capita income were able to bring down poverty in particular periods. Examples of this are India (in the 70's) and Philippines (in the 80's and 90's). On the other hand, we observe cases where countries were unable to reduce poverty

Figure 2: Scatter Diagram
RELATIONSHIP BETWEEN CHANGE IN INCIDENCE OF POVERTY (%) AND PER CAPITA INCOME GROWTH (%)



despite achieving fairly high rates of growth in per capita income. Thailand (in the 80's), Malaysia (in the 90's) and Sri Lanka (in the 90's) are examples of such a failure. However, in the latter two cases the rise in poverty could be attributed to prevailing economic or political crises.

In order to focus on the underlying relationship between growth and poverty and to remove the effect of individual country variations, we categorize the cases into two types, on the basis of growth rate of per capita income (above or below 3.5 percent)³. 29 cases have been included in the analysis. Three cases have been excluded because of economic or political crisis during these periods.⁴ The objective is to focus on the long-term relationship between growth and poverty in a 'normal' development situation.

Results of this simple analysis are presented in Table 2. It appears that in 13 cases of fast growth, the average rate of poverty reduction per annum was 4.9 percent, whereas in cases of relatively slow growth there was only a marginal decline in poverty of 0.4

Table 2
RELATIONSHIP BETWEEN ECONOMIC GROWTH AND
POVERTY (%)

	Number of Cases	Average Rate of Growth in Per Capita Income	Average rate of Change in Incidence of Poverty	Average Growth Elasticity of Poverty
Fast Growth in Per Capita Income; (> 3.5% per annum)	13	5.1	-4.9	-0.96
Slow Growth in Per Capita Income; (≤ 3.5% per annum)	16	1.9	-0.4	-0.21

Sources: Calculated from Table 1

percent. Clearly, on the average, there is a well-defined relationship between growth and poverty reduction. It appears on the basis of this relationship that, on average, countries will have to achieve a growth rate in per capita income of about 3.5 percent if the MDG target of halving poverty in 25 years is to be attained.

Perhaps, the best way to capture the intensity of the relationship between economic growth and poverty is to compute the growth elasticity of poverty. This indicates the percentage change in the incidence of poverty associated with a one percent increase in per capita income. Estimates of this elasticity for the sample countries in different decades are given in Table 3. This Table demonstrates a wide variation in the elasticity estimates.

Table 3
GROWTH ELASTICITY OF POVERTY IN DIFFERENT COUNTRIES IN DIFFERENT DECADES

Country	1970's	1980's	1990's
Bangladesh	-	-0.29	-0.81
Cambodia	-	-	2.31
China	-0.18	-1.26	-1.09
India	-2.15	-0.60	-0.77
Indonesia	-1.33	-1.35	0.72
Lao PDR	-	-	-1.37
Malaysia	-1.26	-1.36	0.63
Mongolia	-	-	n.a
Nepal	-	0.33	0.27
Pakistan	-2.73	-0.38	2.01
Philippines	-0.07	n.a	-2.25
Sri Lanka	-0.30	-2.28	1.24
Thailand	-1.02	0.10	-0.63
Vietnam	-	-	-1.18

Sources: Calculated from Table 1

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Three conclusions can be drawn from Table 3. First, the elasticity is both positive and negative. Positive elasticities are generally observed in cases where the growth of per capita income is low and poverty has increased. Second, the elasticity tends to be more negative in the case of countries, which experience faster growth. For example, when China's growth rate soared in the 80's and 90's, the elasticity became substantially more negative as compared to the 70's. Third, the elasticity appears to be highly unstable in the case of individual countries over time. In the case of Sri Lanka it has varied from -0.3 in the 70's to -2.28 in the 80's.

It is generally recognised that the extent to which the growth elasticity of poverty is negative is a good measure of the degree to which the growth process has been pro-poor. The basic question that arises then is: what determines the magnitude of this elasticity? Before we proceed to analyse what characteristics of growth determine the degree to which it is pro-poor, we explore the implications of changes in the level of inequality; trends in which are shown in Table A-2. Clearly, for a given growth rate, the implications for the level of poverty are likely to be more favourable if there is simultaneously a reduction in inequality such that the income of poor rises disproportionately in relation to the increase in average income in the economy. Alternatively, if the trickle down effect is weak and much of the gains in income are pre-empted by relatively well-off households, then the impact on poverty is likely to be limited.

Table 4 focuses on four types of cases. The first category consists of cases in which a country experienced rapid growth, but simultaneously witnessed a rise in income inequality. There are nine such cases, mostly in East Asia, with the notable exception of India in the 90's. It appears that in these cases the process of growth was robust enough to offset any negative consequence

Table 4
RELATIONSHIP BETWEEN ECONOMIC GROWTH,
INEQUALITY AND POVERTY (%)

	Number of Cases	Average rate of Change incidence of Poverty	Average Growth Elasticity of Poverty
Fast Growth in Per Capita Income; Rising Inequality	9	-5.6	-1.06
Fast Growth in Per Capita Income; Falling Inequality	4	-3.1	-0.65
Slow Growth in Per Capita Income; Rising Inequality	11	0.7	0.41
Slow Growth in Per Capita Income; Falling Inequality	5	-2.7	-1.13

Sources: Data taken from Table 1 and Table A-2 (Statistical Appendix)

on poverty of worsening inequality since the average rate of decline in poverty was as high as 5.6 percent. Of particular interest is what happened at the other extreme—when not only was growth slow but there was also a rise in inequality. Countries in this situation experienced on average an increase in poverty of close to one percent per annum.

It is of significance to note that some countries have managed to reduce poverty fairly rapidly even in periods of relatively slow growth by ensuring that whatever gains ensue from this growth accrue relatively more to the poorer segments of the population. This is observed in five cases. For example, despite growth in per capita income of about three percent, Malaysia and Sri-Lanka in the 80's were able to reduce poverty annually by as much as four to seven percent due to falling inequality. It is not surprising that high growth elasticities of poverty are observed in these cases.

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A striking example of success in poverty reduction, despite slow growth (of less than two percent) and rising inequality, is that of Pakistan during the decade of 70's. The largest negative value of 2.77 is observed in this case among the sample growth elasticities of poverty. This decade witnessed a rapid increase in labour migration of workers to the Middle East leading to a large and growing inflow of home remittances. At home, there was a vigorous expansion of the public sector, workers were given more rights and living standards of the poor were raised through enhanced budgetary outlays for subsidies on basic consumer items. However, it has been argued that the poverty reduction strategy adopted was fiscally unsustainable.

3.

MACROECONOMIC DETERMINANTS OF PRO-POOR GROWTH

In the Asian context, the previous section has demonstrated that, although there exists a strong relationship between growth and poverty, this relationship is highly variable in character. We proceed now to examine the impact of different macroeconomic variables like the rate of inflation, employment growth, sectoral pattern of growth, etc., on the intensity of the relationship between growth and poverty. The approach adopted is to control for the rate of growth, and then to see the impact of variation in magnitude of a particular macroeconomic variable on the level of poverty.

INFLATION

It has been argued that inflation affects the poor directly through a decline in their real wages owing to the short-run rigidity of nominal wages. Also, if there are any savings, the poor mostly hold it in liquid form. Inflation generally reduces the real value of such holdings. If inflation is unanticipated, the poor will be harmed disproportionately as they have weaker bargaining power and are generally unable to hedge against inflation. On the contrary, since the poor are frequently indebted, the real cost of their debt falls with inflation. If the source of inflation is higher food prices, then this could have an ambiguous impact on the level of poverty. On the one hand, farmers who market their surplus food production, benefit, but on the other hand, the landless in rural areas and the urban poor are impacted adversely.

Empirical findings on the effect of inflation on poverty, after controlling for the rate of economic growth, are, in fact, mixed. Agenor (2002) finds a statistically insignificant relationship between inflation rate and change in poverty. Recently, Epaulard (2003) also shows that a high rate inflation (above 80%) is associated with higher elasticity of poverty rate to any economic downturn. Datt and Ravallion (2002), using panel data on poverty from Indian states, show that inflation matters to India's poor and attribute this effect primarily to adverse shocks on the real wage of unskilled labour.

Table A-3 gives the rates of inflation in sample countries, while Table 5 quantifies the average rate of change of poverty in different types of cases. The first two types relate to periods of fast economic growth, with the first type of cases also witnessing double-digit rates of inflation and the second type having low rates (single digit) of inflation. There are six cases of the first type and seven of the second type. It is important to note that given this, more or less, equal distribution, fast growth appears to be as likely during periods of high inflation as low inflation. For example, China achieved a per capita income growth of as high as eight percent in the 80's when the inflation rate approached 12 percent. Similarly, during the 70's, the Indonesian economy averaged a growth rate in per capita income of almost 5.5 percent in the presence of high inflation of almost 18 percent per annum. Comparison of the average rates of decrease in the incidence of poverty in the two types of cases reveals hardly any difference.

We turn next to the other two types of cases, both corresponding to situations of slow economic growth. In seven cases, slow growth was accompanied by low inflation while in nine cases there was high inflation. Here again, we find that once the growth effect on poverty is controlled for, inflation does not really matter. Overall,

the direct effect on the incidence of poverty of inflation does not appear to be significant in the Asian context, within the range of rates of inflation experienced. This is in line with the findings of Agenor (2002) and Epaulard (2003).

The lack of sensitivity of poverty to inflation is one of the potentially more important findings of the paper. It highlights that the trade-off faced by policies, fiscal or monetary, between growth and inflation from the viewpoint of impact of poverty is not as severe as has traditionally been thought. It appears that to the extent expansionary policies are resorted to with the objective of stimulating the process of growth, then any resulting inflation is

Table 5
ECONOMIC GROWTH, INFLATION AND POVERTY (%)

	Number of Cases	Average Rate of Inflation	Average rate of Change in Incidence of Poverty	Average Growth Elasticity of Poverty
Fast Growth in Per Capita Income; High Rate of Inflation ($\geq 10\%$)	6	15.4	-5.0	-1.04
Fast Growth in Per Capita Income; Low Rate of Inflation ($<10\%$)	7	6.2	-4.8	-0.89
Slow Growth in Per Capita Income; High Rate of Inflation	7	19.8	0.1	0.07
Slow Growth in Per Capita Income; Low Rate of Inflation	9	7.0	-0.7	-0.30

Sources: Calculated from Table 1 and Table A-3 (Statistical Appendix)

likely to be less damaging on poverty. This clearly strengthens the case for pursuing expansionary fiscal and monetary policies at a time when space already exists, as inflation rates are currently low throughout the region.

EMPLOYMENT GROWTH

Employment is one of the main channels through which the link between economic growth and poverty reduction is established. As the level of income is the key determinant of poverty and as productive employment is the principal source of income, expanding gainful employment opportunities has to be a major element in the strategy of poverty reduction. This might be called the 'employment nexus' between growth and poverty. Unfortunately, the growth—employment—poverty linkage has not been adequately recognised in the pro-poor debate.

Clearly, employment growth depends upon the growth of the economy. However, empirically a wide variation is observed in this relationship. The rate of employment growth is also influenced by the sectoral composition of economic growth, the choice of technology and the degree of effective functioning of the labour market. If economic growth is concentrated in sectors in which most of the poor work, then this is likely to have a positive impact on poverty reduction. Also, if the process of trade liberalization leads to greater openness of the economy, the net impact on employment opportunities depends on how far employment is gained or lost in shifting resources from the non-tradable to the tradable sectors.

Based on the data available, we test whether employment growth has any impact on the change in poverty, independently of the effect of economic growth on poverty. Table A-4 gives the rate of employment growth in sample countries. As before, we distinguish four types of cases depending upon the rate of growth of per

capita income (fast or slow) and the rate of employment growth (fast or slow). There is substantial variation in the rate of employment growth. For example, the growth rate of the Chinese economy was higher in the 90's in relation to the 80's, but while employment grew at almost 5 percent in the latter period, it increased by only 1 percent during the 90's, despite faster growth. As opposed to this, in the presence of relatively slow growth, Sri Lanka was able to achieve almost a 4 percent growth in employment during the 80's.

Results of the analysis presented in Table 6 clearly demonstrate the importance of employment growth in influencing the rate of change in the incidence of poverty, after controlling for the effects of economic growth on poverty. In the seven cases where both rapid economic and employment growth was observed, the average rate of decline was close to 5.5 percent, whereas in the six cases where fast growth was accompanied by relatively slow employment growth, the rate of fall in poverty was 4.2 percent. The importance of employment growth in contributing to poverty reduction appears to be even more pronounced in situations where the overall pace of economic growth is slow. We observe seven cases where employment growth in excess of 2.5 percent per annum was achieved despite a growth in per capita income of less than 3.5 percent. Poverty declined on the average in these cases by 2 percent. As opposed to this, in the nine cases of both slow economic and employment growth, poverty increased on an average by almost 1 percent per annum. These results represent a strong confirmation of the view that employment growth is a key element in pro-poor growth.

AGRICULTURAL GROWTH

There is a substantial body of literature that argues that it is not only the overall growth that matters for poverty reduction, but that the pattern of growth also matters (see Ravallion (2001),

Table 6
ECONOMIC GROWTH, EMPLOYMENT AND POVERTY (%)

	Number of Cases	Average Rate of Inflation	Average rate of Change in Incidence of Poverty	Average Growth Elasticity of Poverty
Fast Growth in Per Capita Income; Rapid Employment Expansion ($\geq 2.5\%$ per annum)	7	3.3	-5.4	-1.02
Fast Growth in Per Capita Income; Slow Employment Expansion ($<2.5\%$ per annum)	6	1.8	-4.2	-0.84
Slow Growth in Per Capita Income; Rapid Employment Expansion	7	3.1	-2.0	-0.91
Slow Growth in Per Capita Income; Slow Employment Expansion	9	1.8	0.9	0.53

Sources: Calculated from Table 1 and Table A-4 (Statistical Appendix)

Datt and Ravallion (2002)). In particular, since bulk of the poverty is rural in character, agricultural growth has a crucial role to play in the process of poverty reduction, through both its direct effect within the rural economy and through the spill over effects on the urban economy. Very few countries in the world have experienced rapid and sustained growth without agricultural growth either preceding or accompanying it. As highlighted by the UNDP Global Human Development Report (1997), strong agricultural growth has been a feature of countries that have successfully reduced poverty at different times. We test, therefore, for the direct effect of agricultural growth after controlling for the overall rate of growth.

The hypothesis is that for the same rate of economic growth, the impact on poverty is likely to be more pronounced the faster the rate of agricultural growth.

Table A-5 gives the rate of agricultural growth in sample countries. It is interesting to note that in ten cases where rapid agricultural growth occurred along with overall rapid economic growth, poverty fell sharply in all these cases, by almost 6 percent per annum, as shown in Table 7. As opposed to this, in the three cases where agriculture lagged behind other sectors in achieving rapid growth, the performance with respect to poverty reduction was more modest, at about 2 percent per annum. The evidence points to the fact that progress in bringing down poverty was retarded (China in the 70's, India during the 80's and 90's and Thailand in the 90's) due to slow progress of agriculture during these periods.

We also observe seven cases where although the overall growth performance was relatively poor, agriculture performed strongly, showing a growth rate in excess of 3 percent. On average, in these cases, the rate of decline in poverty was 0.7 percent per annum. Of particular significance is the fact that although the agricultural sector of Pakistan has done exceptionally well during the last two decades, it has not made a significant dent on rural poverty in the country, and thereby on poverty overall. In a recent paper, Sohail Malik (2003) has argued that this is due to a number of reasons, such as the high level of inequality, the lack of non-farm employment opportunities and a decline in the real wages of the rural poor as mechanization has reduced labour demand. In the nine cases of both slow economic and agricultural growth, poverty incidence remained stagnant.

EXPORT GROWTH

The relationship between trade liberalization, as reflected by a greater emphasis on seeking export markets, and

Table 7
ECONOMIC GROWTH, AGRICULTURAL DEVELOPMENT AND POVERTY (%)

	Number of Cases	Average Rate of Agricultural Growth	Average rate of Change in Incidence of Poverty	Average Growth Elasticity of Poverty
Fast Growth in Per Capita Income; Rapid Agricultural Development ($\geq 3\%$ per annum)	10	4.4	-5.7	-1.04
Fast Growth in Per Capita Income; Slow Agricultural Development ($<3\%$ per annum)	3	2.5	-2.0	-0.51
Slow Growth in Per Capita Income; Rapid Agricultural Development	7	3.9	-0.7	-0.26
Slow Growth in Per Capita Income; Slow Agricultural Development	9	2.1	-0.1	-0.08

Sources: Calculated from Table 1 and Table A-5 (Statistical Appendix)

poverty reduction and inequality both within countries and at the global level, has been one of the most prominent elements of the current debate on pro-poor growth. This debate is reflected in a study published by the WTO Secretariat in 2000 on *Trade, Income Disparity and Poverty*. While there is generally a consensus that expansion of exports can contribute to faster economic growth, there is less clarity on the direct impact of exports on poverty, once we control for the overall rate of growth.

In a comprehensive paper, Alan Winters (2000) identifies several key linkages between trade liberalization and poverty. He highlights the fact that trade tends to alter relative product and factor prices, so its net effect on poverty reduction depends also on the signs of these relative product and factor price changes. For example, if exports are primarily of labor-intensive manufactures, then they could bid up the relative wages of unskilled and semi-skilled labor, thereby contributing to poverty alleviation. This appears to be the experience of East Asia in earlier decades. However, during the 90's, trade liberalisation seems to have led to the emergence of urban 'enclaves', with beneficiaries consisting primarily of those directly involved in export activities and the limited auxiliary service functions that developed around these activities. For example, information technology exports from India and exports of garments from countries such as Bangladesh and Cambodia have remained restricted to a few urban centers. In the case of Bangladesh and Cambodia, exports have not contributed much to value added because of high import content. The absence of backward and forward linkages has meant that the employment generation due to export expansion has not been significant.

Table A-6 gives the rate of export growth in sample countries. Here again, we distinguish among four types of cases depending upon the rate of economic growth (fast or slow) and rate of expansion of exports (fast or slow). For fast growing countries, the rate of poverty reduction appears to be mildly sensitive to export performance, as shown in Table 8. However, a counter-intuitive result is that among cases of slow growth, greater buoyancy of exports can actually contribute to a lower rate of reduction of poverty.

Nonetheless, our findings on the impact of export performance on poverty is in line with some recent empirical

studies. For example, studies such as Agenor (2002), Ghura et al (2002), Epaulard (2003) find that, once the effect of overall income has been taken into account, trade openness has no significant direct influence on poverty incidence or on the income of the poor or on the elasticity of the poverty with respect to growth. Overall, it appears that export growth does not have a significant direct impact on poverty. Its effect has to be seen primarily via its bearing on the overall rate of economic growth. Therefore, exports cannot be said to play a significant role in influencing the extent to which the process of growth is pro-poor or not.

Table 8
ECONOMIC GROWTH, EXPORTS AND POVERTY (%)

	Number of Cases	Average Rate of Export Growth	Average rate of Change in Incidence of Poverty	Average Growth Elasticity of Poverty
Fast Growth of Per Capita Income; Rapid Export Expansion ($\geq 10\%$ per annum)	7	15.9	-5.2	-0.91
Fast Growth in Per Capita Income; Slow Export Expansion ($<10\%$ per annum)	6	7.0	-4.5	-0.98
Slow Growth in Per Capita Income; Rapid Export Expansion	7	12.9	-0.1	-0.04
Slow Growth in Per Capita Income; Slow Export Expansion	9	5.8	-0.6	-0.33

Sources: Calculated from Table 1 and Table A-6 (Statistical Appendix)

Macroeconomic Determinants of Pro-Poor Growth

Based on the above analysis, it appears that the key macroeconomic determinants of the degree of pro-poor growth are employment growth and agricultural growth. Inflation, at least up to a certain rate, does not seem to matter in negatively impacting on poverty while the role of exports is essentially indirect through its contribution to the overall rate of economic growth. Altogether, a successful poverty reduction strategy will need to focus on achieving a high and sustainable rate of economic growth, with such growth possessing two key characteristics: high rate of employment generation and rapid agricultural growth⁵. These appear to be the key conclusions drawn from the Asian experience vis-a-vis poverty reduction during the last three decades⁶.

4. PRO-POOR POLICIES

We turn now to the role of policies in influencing the magnitude of macroeconomic determinants of growth and the extent to which it is pro-poor. The empirical analysis in the previous section has demonstrated that from the viewpoint of poverty reduction in Asia the stance of policies can be oriented more towards faster economic growth rather than lowering of inflation within the overall inflation-growth trade-off. Apparently, poverty in the region is more sensitive to the rise in real income than prices. This is an important finding and indicates that in the stabilization versus growth debate, the 'Washington Consensus' view is at one extreme and, by and large, countries can be more flexible in their policy posture with regard to the adoption of more growth oriented policies.

Examination of the change in policy stance of the Asian countries during the 90's in relation to the 80's yields some important conclusions:

- i) The size of the fiscal deficit (as a percentage of the GDP) has fallen in most of the sample countries, with the exceptions of Cambodia, Lao PDR, India and Thailand (in the second half of the 90's), as shown in Table A-7. However, the path to fiscal adjustment has been achieved in different ways. Some countries such as Bangladesh and Philippines have opted to use part of their revenue gains to bring down their fiscal deficit

and the remaining part to raise the level of public expenditure. Nepal and Vietnam have managed large increases in the revenue to GDP ratio, but have combined this with a containment of public expenditure to achieve significant lowering of the fiscal deficit.

There has been a visible slackening of resource mobilization effort in a number of countries including Indonesia, Malaysia, Pakistan and Sri Lanka. These countries have been compelled to make major cutbacks in public expenditure in order to contain the fiscal deficit. In the case of Pakistan and Sri Lanka, capital expenditure as a percentage of the GDP has fallen by almost a factor of one-half. It is likely that in such cases fiscal policy has exerted a strong negative influence on the process of growth.

- ii) Monetary policy has tended to be less expansionary in the majority of the sample countries. In relation to the 80's, the rate of expansion in money supply has been lower or, more or less, the same during the 90's, with the exception of Malaysia, Pakistan and Sri Lanka, as shown in Table A-8. Consequently, real interest rates have been high, and have shown a tendency only in recent years to fall sharply. The tightening of monetary policy throughout the region appears to have been largely motivated by the objective of containing inflation and the need to avoid any balance of payment difficulties. It is, therefore not surprising that inflation rates have been lower in the majority of sample countries in the 90's (see Table A-3). Two countries, Indonesia and Pakistan, have experienced higher inflation, arising in the latter case from the pressure exerted on the money supply by runaway government borrowing in the first half of the decade. In the case of Indonesia, inflation spiralled in the aftermath of the East Asian financial crisis, as the GDP plummeted and the exchange rate depreciated significantly.

- iii) There has been much more action during the 90's in the area of trade liberalisation and exchange rate policies. Import tariffs, on average, at the end of the decade are one-sixth the level prevailing at the beginning of the decade in Bangladesh, about one-half in India, and one-third in Pakistan and Thailand, one-fifth in Philippines, and so on. Simultaneously, most countries have operated a managed floating exchange rate regime and allowed their currency to depreciate in real terms at a faster rate than in the 80's with the exception of Bangladesh, China, and Philippines, as shown in Table A-9. The objective clearly was to stimulate exports and limit the size of any trade deficit. Most countries did, in fact, experience an upsurge in exports. For example, the growth rate of exports in countries such as India, Philippines and Vietnam more than doubled. A relative stagnation of exports was observed only in the case of Pakistan.

What are likely to have been the implications of these policy choices on the level of poverty in the region? South Asia, as a whole, grew somewhat less rapidly than it did in the 80's. East Asia did show faster growth, but due primarily to the exceptional growth performance of China, while other countries like Indonesia and Thailand, which were impacted by the East Asian financial crisis, experienced a significant decline in growth. Part of the fall in growth rates is clearly due to a resort to contractionary fiscal and monetary policies in pursuit of stabilisation. Another key development was the change in sources of growth, arising from the shift in emphasis from raising domestic demand through fiscal and monetary stimuli towards tapping into foreign demand, through exports, by adopting aggressive trade and exchange rate policies.

On balance, the mix of policies does not appear to have been pro-poor. The sacrifice of growth in pursuit of macroeconomic

stability, implied by a lower rate of inflation, has diminished the impact on poverty. Export buoyancy has certainly contributed to faster growth, thereby indirectly resulting in lowering poverty. However, as demonstrated earlier, exports have not done much directly to alleviate poverty, in fact, they may even have exacerbated it. This is primarily due to the failure of exports to stimulate faster growth of employment. Exports of manufactures from the region grew rapidly in the 90's and this contributed to the fast growth of the industrial sector; employment, however in this sector, failed to respond. A classic example of such a failure is observed in the case of Bangladesh. Exports from this country, mostly of manufactured goods like garments, grew by almost 12 percent per annum in the 90's and the industrial sector expanded at the rate of 7 percent, but industrial employment fell by close to 4 percent.

Given that fiscal deficits have fallen in most countries and interest rates have shown a tendency to decline recently, while foreign exchange reserves have generally tended to go up in the region, there is a strong case for providing a fiscal stimulus to achieve faster growth. Such a stimulus is unlikely to ignite inflationary pressures at a time when inflation rates are generally down to low single digit levels, as shown in Table A-3. A modest enhancement in the inflation rate is unlikely to have adverse consequences on poverty as demonstrated in the previous section.

The fiscal stimulus should come in the form of a boost to public investment, which has been curtailed in many countries during the 90's. Such public investment should be used for human development and physical infrastructure of direct benefit to the poor. The allegation that higher public investment could 'crowd out' private investment is not borne out by the facts. In many countries of the region buoyant private investment has gone

hand in hand with major increases in public investment. The best examples of this complementary relationship are seen in China and Vietnam. If anything, the evidence points to a 'crowding in' through the familiar multiplier effect and the impact of profit expectations and cost reductions associated with improved infrastructure. Countries that have limited the investment role of the public sector such as, Cambodia, Indonesia, Nepal, and Pakistan have experienced an inferior investment performance by the private sector.

Therefore, the function of fiscal policy must be one of helping the economy achieve its potential and sustain a growth rate via a redistribution of income at the margin in order to increase the elasticity of poverty reduction with respect to growth. Public investment is the key to these goals since it increases capacity, and can be designed to do so in a way that biases income gains to the poor.

It needs to be emphasised, however, that there are limits in special circumstances to the use of expansionary fiscal policy, involving deficit financing of higher public investment outlays. If government labours under a large internal or external debt, then such a policy may lead to an unsustainable fiscal position. It is sometimes argued that this is the situation in Indonesia. However, when GDP growth is significantly lower than the potential long-run growth rate, there is definitely a case for using fiscal policy, at least temporarily as a counter-cyclical measure. Another argument that has been put forward is that the use of fiscal policy should be limited in the presence of 'governance' failure, corruption and problems in implementation of public sector projects. In such situations, improvements in governance have to go hand in hand with the conduct of a more active fiscal policy. Thailand has discovered an ingenious

way of increasing aggregate demand in the 90's by adopting an ambitious program of fiscal decentralization.

As far as monetary policy is concerned, it is necessary to maintain a stance of this policy that sustains the recent fall in interest rates in the region. As highlighted earlier, with inflation rates generally down, there exists considerable space for resorting to an expansionary monetary policy. Exchange rate policy should aim at preventing an overvaluation of the currency, to avoid loss of competitiveness. Currently, many countries in the region are showing symptoms of the 'Dutch disease', involving appreciation of the currency resulting from a rapid build up of foreign exchange reserves.

We discuss below how fiscal, monetary and other policies can jointly be used to further the goals of faster agricultural development and employment absorption, which have demonstrated to be key elements of a pro-poor growth strategy.

POLICIES FOR AGRICULTURAL DEVELOPMENT

Over the past few decades, Asian agriculture has demonstrated remarkable resilience. The spectre of population growth outstripping agriculture's ability to meet human needs has not materialised. Food prices have secularly declined on a long-term basis in the region. However, growth of agricultural output has slowed down both in East Asia and South Asia during the 90's as compared to the 80's. East Asian agriculture grew at close to five percent in the 80's, which has fallen to about three percent in the 90's, whereas agriculture in South Asia rose by 3.5 percent in the 80's and has come down to three percent in the 90's. This has fundamental implications for the rural poor, whose share in the total number of poor ranges from 66 percent in Indonesia to 94 percent in Nepal.

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China's remarkable success in poverty reduction during the initial years after the systemic land reforms in 1979 was largely because of a sharp improvement in agriculture's terms of trade and an increase in public expenditure for the rural economy. Rural communes were dismantled, land was parcelled to households on an essentially egalitarian basis, farmers were encouraged to abandon the previous 'grain first' policy and to diversify production, and farm prices rose substantially along with a large increase in chemical fertilizer supplies. When China shifted gears in the late 80's to a development strategy oriented towards exports with concentration of economic activity in the coastal region, the process of growth became noticeably less pro-poor. Similarly, when India experienced relatively fast agricultural growth (mainly due to the green revolution) in the 70's and in the first half of the 80's, poverty declined despite a relatively low rate of economic growth. However, the slowdown in agricultural growth in the 90's, despite high economic growth, has had an adverse impact on poverty reduction. Further, the astonishing egalitarian and poverty alleviating growth in Indonesia during the 70's and the 80's was principally due to a diversion of a high proportion of public investment towards the rural areas, and to reforms of the domestic trade and marketing regime, which led to an improvement of the agricultural terms of trade.

These examples reveal that if economic growth is to be favourable to the poor, then it should have a pattern that directs resources to the sectors in which the poor work (agriculture), areas in which they live (relatively backward regions), factors of production which they possess (unskilled labour) and outputs which they consume (such as food).

Policies for promoting faster agricultural development will have to focus on the following:

- i) Diversification of agriculture into labour-intensive high-value agricultural commodities such as horticulture and livestock for

increased profit incentives and employment opportunities. This may require intervention by the state initially in the process of marketing and in providing minimum support prices to help farmers manage the risks of moving into new economic activities.

- ii) Strengthening of the backward and forward linkages between the agricultural sector and the off-farm sector in the rural areas in order to create a virtuous cycle of growth of incomes and employment. This is what happened in the countryside of China during the 80's and largely explains the phenomenal employment growth during this period. Development of small and medium-scale rural enterprises for agri processing and provision of agricultural inputs will require greater outreach for extension of rural credit, both farm and off-farm, by financial institutions, specialised or otherwise.

- iii) Higher priority in public sector allocations to rural development. In fact, during the 90's, the share of government spending on agriculture has declined sharply throughout the region. For example, it has fallen in Indonesia from over 16 percent in the mid-80's to only four percent in recent years, from 11 percent to four percent in Sri Lanka, from 19 percent to 11 percent in Nepal, and so on. This trend will have to be reversed. Numerous studies have been undertaken to find out what kind of public expenditure caters most to needs of the rural poor. It appears that the greatest impact on agricultural productivity and poverty comes from investment in roads, irrigation, village electrification, and from outlays on agricultural research and development and extension.

- iv) Focus on redistribution of assets to the poor. This will also include the possibility of progressive land reform in countries, like Nepal, Philippines and Pakistan, where agricultural land is unevenly

distributed. In addition, rural micro-credit schemes, of the type in Bangladesh, can endow the poor, especially women, with some basic assets.

POLICIES FOR EMPLOYMENT GENERATION

The share of employment in agriculture is currently high in most countries of the region. For example, at one extreme, in less developed countries like Cambodia and Bangladesh, the share of employment in agriculture is close to three-quarters. As opposed to this, the share of employed in industry is relatively small (in the range of six to 20 percent) in most countries. The data on employment reveals that, contrary to expectations, in some countries such as Bangladesh, India, Mongolia and Pakistan, the industrial sector's share in employment has declined during the 90's. A substantial increase in employment share is observed only in the services sector of most countries.

However, as a consequence of slow growth of formal (organised) sector jobs in the modern industrial sector and increasing labour supply pressure in agriculture, there has been enormous pressure put on informal sector activities. This has translated into falling labour productivity and income levels in the services sector. Therefore, it is not surprising that one- half of the poor consist of employed workers due to part-time work, low wages and frequently hazardous working conditions. Mega cities of Asia have witnessed an explosion of the informal sector and 'urbanization' of poverty is an ongoing phenomena.

Policy makers have generally had an ambivalent attitude towards the informal sector, recognising, on the one hand, the problems that it poses in terms of tax evasion, illicit activities, adverse impact on the environment, etc., and, on the other hand, accepting that it acts as a cushion for the poor in terms of at least providing some minimum livelihood. While regulation will need to be improved to

avoid some of the evils, it is clear that the informal sector will also have to be supported through provision of better physical infrastructure and other government facilities. Simultaneously, the progressive and dynamic end of the informal sector consisting of small and medium enterprises (SMEs), frequently engaged in export, will need to be encouraged by improved access to management and technical extension services and to credit from the banking system.

China provides an excellent example of how a development strategy focusing on SMEs can play an important role in growth and employment. The experience of Bangladesh is also illustrative in this regard. In the 90's, Bangladesh was able to accelerate the rate of poverty reduction mainly by employment generation in non-tradable sectors (i.e. construction small-scale industry, services etc.)

Within rural areas, much of the focus on employment generation will have to be on the off-farm sector, as discussed above. Several countries—notably Bangladesh and India—have used rural public works programs as an effective method of providing employment to poor workers, especially on a seasonal basis.

Beyond this, the overall policy environment will have to be one that promotes a higher labour intensity of growth. This will include the development of a system of incentives and institutions that avoids undesirably high capital intensity of investment (e.g. maintenance of an overvalued exchange rate that permits the import of cheap machinery, the promotion of large mechanised corporate farms instead of small holders, making intensive use of family labour).

Reducing vulnerability due to labour market conditions could also be useful in the context of reducing poverty among the working

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poor. Legal and institutional reforms will be needed to address the various factors contributing to vulnerability. A recent ILO study provides strong support to the idea that minimum wage would bring positive results in poverty alleviation. The study shows that the minimum wage has a small disemployment effect, while providing unskilled workers with decent living conditions (Saget (2001)). Similarly, social protection can help workers adapt to both cyclical and structural change. In many developing countries, social protection systems tend to cover only workers in formal full-time employment, leaving most of the workers with no protection. Hence, new mechanisms to extend coverage of social security need to be explored.

5. CONCLUSIONS

The Asian experience reveals a strong, though variable, relationship between growth and poverty. For the region as a whole, the growth elasticity of poverty is estimated at -0.9 during the 90's as compared to a distribution-neutral elasticity of -2 . The divergence is attributed to worsening inequality. It appears that while the region has been successful in achieving high rates of economic growth, gains with regard to poverty reduction have been limited by the absence of pro-poor growth.

Analysis of the macroeconomic determinants of pro-poor growth like the rate of inflation, employment growth and sectoral pattern of growth leads to some important, perhaps unexpected, findings. Once the effect of growth on poverty is controlled for, the level of poverty does not appear to be sensitive to the rate of inflation, at least up to the level experienced by most Asian countries. Similarly, while greater exports indirectly impact upon poverty via faster growth, the direct relationship with poverty seems to be limited. The empirical evidence indicates that the key macroeconomic determinants of the degree of pro-poor growth are the rates of agricultural growth and employment generation.

Based on these findings, the paper recommends a set of pro-poor policies. Given the relatively weak trade-off between inflation and growth with regard to the impact on poverty and the fact that

inflation rates are currently low, it is argued that countries can be more flexible in their policy stance with regard to the adoption of more growth-oriented as opposed to stabilization policies. In particular, a case is made for resort to a more expansionary counter-cyclical fiscal policy, led by higher levels of public investment, supported by appropriate monetary and exchange rate policies. The paper concludes with a detailed description of the policies designed to achieve faster agricultural development and greater employment generation.

End Notes

- ¹ Out of the ten countries of Asia on which data is available on the incidence of poverty during the last two decades, the rate of poverty reduction has declined in the 90's in relation to the 80's in Philippines, while there has been a reversal in the poverty trend during the 90's, from a reduction in the 80's, in Indonesia, Malaysia, Pakistan and Sri Lanka. Poverty incidence has increased over both decades in Nepal.
- ² Econometric analysis involving the use of the OLS technique has also been tried. However, due to the limited number of observations, the results appear to be very sensitive to one or two observations and cannot, therefore, be judged as being robust in character. For example, the inclusion of Mongolia into the data dramatically alters the nature of the results because this country experienced a sharp increase in poverty in the 90's, arising from a fall in per capita income and a very high rate of inflation. Hence, regression results have not been presented here, though they indicate a negative and significant relationship between growth and poverty.
- ³ The cut-off point used in deciding whether faster or slower growth (higher or lower inflation, higher or lower employment growth, etc) is generally based on the average figure of our sample as well as on the international experience.
- ⁴ The three excluded cases are Indonesia, Malaysia, and Sri Lanka, all in the 90's—the first two because of the Asian financial crisis, and the last because of the serious conflict situation in the North and East of the country.
- ⁵ Looking at the two extremes we observe that in the six cases of fast growth per capita income combined with fast employment and agricultural growth, the average rate of decline annually in the incidence of poverty was as high as seven percent. These cases are: China (80's); Indonesia (70's); Malaysia (70's); Thailand (70's); Vietnam (90's) and Lao PDR (90's). As opposed to this, in the eight cases where slow growth of per capita income was accompanied by both slow agricultural and employment growth, poverty increased on the average at the rate of one percent per annum.
- ⁶ In order to test whether these findings are driven mainly by China or/and India, we carried out these exercises without China as well as without both China and India. The results are, more or less, the same in these exercises too.

STATISTICAL APPENDIX



**TABLE A-1
INCIDENCE OF POVERTY IN DIFFERENT COUNTRIES IN DIFFERENT YEARS ACCORDING TO
NATIONAL POVERTY LINE (% OF POPULATION)**

Country	1970	1980	1990	2000
Bangladesh	71.0 (73)	52.3 (83)	49.7 (91)	39.8
Cambodia	-	-	39.0 (94)	51.1 (99)
China	33.0	31.0 (78)	9.0	3.2
India	55.6	48.4 (78)	38.9 (88)	28.6 (99)
Indonesia	60.0	26.5 (81)	15.1	18.2 (99)
Lao PDR	-	-	53.0	31.5
Malaysia	18.0	9.0	6.1 (89)	8.1 (99)
Mongolia	-	-	17.0 (92)	35.6 (98)
Nepal	-	36.2 (77)	40.0 (89)	42.0 (96)
Pakistan	46.5	30.7 (79)	26.1 (91)	32.6 (99)
Philippines	61.6 (71)	59.7 (85)	45.2 (91)	40.0
Sri Lanka	37.0 (63)	30.9 (85)	19.9 (91)	25.2 (96)
Thailand	26.0	17.0	18.0	14.2
Vietnam	-	-	75.0 (88)	32.0 (02)

Note: Figure in the parenthesis corresponds to the year of poverty level.
Source: UNDP (2003b); ESCAP (2002); ESCAP and UNDP (2003) and World Bank (2004)

TABLE A-2
LEVEL OF INEQUALITY IN SAMPLE COUNTRIES IN DIFFERENT YEARS (GINI COEFFICIENT %)

Country	1970	1980	1990	2000
Bangladesh	36.8 (73)	39.0 (81)	28.9 (89)	31.8
Cambodia	-	-	37.4	40.4 (97)
China	27.9	32.0	34.6	40.3 (98)
India	30.4	31.5 (83)	29.7	37.8 (97)
Indonesia	30.7	31.8	33.1	30.3
Lao PDR	-	-	30.4 (92)	37.0 (97)
Malaysia	51.8	51.0 (79)	48.3 (89)	49.2 (97)
Mongolia	-	-	37.4	44.0 (98)
Nepal	-	30.1 (84)	33.4 (89)	36.7 (96)
Pakistan	33.0	37.3 (79)	40.7	33.0 (98)
Philippines	48.3 (71)	46.1 (85)	47.7 (91)	46.1
Sri Lanka	31.2	42.0	30.1	34.4 (96)
Thailand	49.9 (71)	47.3 (81)	42.9	43.2
Vietnam	-	-	35.7 (92)	36.1 (98)

Note: Figure in the parenthesis corresponds to the year of inequality level.
Source: UNDP (2003a); UNDP (2003b) and World Bank (2003)

TABLE A-3
RATE OF INFLATION IN SAMPLE COUNTRIES IN DIFFERENT DECADES (%)

Country	1970's	1980's	1990's	2000-2002
Bangladesh	—	7.4	5.2	2.5
Cambodia	—	—	5.4	-0.7
China	10.0	11.8	7.5	0.3
India	8.2	8.9	9.1	3.8
Indonesia	17.5	8.6	14.1	7.6
Lao PDR	—	—	34.1	16.4
Malaysia	6.0	3.2	3.6	1.5
Mongolia	—	—	65.6	9.8
Nepal	—	10.2	8.9	2.1
Pakistan	12.4	7.0	9.2	3.8
Philippines	14.9	13.7	8.6	5.2
Sri Lanka	8.9	12.4	9.7	10.2
Thailand	10.0	4.4	4.5	1.6
Vietnam	—	—	3.7	-1.1

Sources: World Bank (2003) and Asian Development Bank (2003)

TABLE A-4
RATE OF EMPLOYMENT GROWTH IN SAMPLE COUNTRIES IN DIFFERENT DECADES (%)

Country	1970's	1980's	1990's
Bangladesh	—	2.3	1.4
Cambodia	—	—	2.8
China	2.2	4.7	1.1
India	2.1	2.2	2.4
Indonesia	2.5	3.0	1.8
Lao PDR	—	—	2.9
Malaysia	3.2	3.4	3.2
Mongolia	—	—	0.6
Nepal	—	1.8	3.1
Pakistan	3.1	2.0	2.1
Philippines	2.9	2.9	2.1
Sri Lanka	2.1	3.6	2.2
Thailand	3.1	3.1	0.4
Vietnam	—	—	2.9

Sources: ILO (2003) and various ILO employment reports

TABLE A-5
RATE OF AGRICULTURAL GROWTH IN SAMPLE COUNTRIES IN DIFFERENT DECADES (%)

Country	1970's	1980's	1990's
Bangladesh	-	2.3	1.4
Cambodia	-	-	2.8
China	2.2	4.7	1.1
India	2.1	2.2	2.4
Indonesia	2.5	3.0	1.8
Lao PDR	-	-	2.9
Malaysia	3.2	3.4	3.2
Mongolia	-	-	0.6
Nepal	-	1.8	3.1
Pakistan	3.1	2.0	2.1
Philippines	2.9	2.9	2.1
Sri Lanka	2.1	3.6	2.2
Thailand	3.1	3.1	0.4
Vietnam	-	-	2.9

Sources: World Bank (2003)

TABLE A-6
RATE OF EXPORT GROWTH IN SAMPLE COUNTRIES IN DIFFERENT DECADES (%)

Country	1970's	1980's	1990's
Bangladesh	—	10.4	11.7
Cambodia	—	—	22.7
China	6.9	12.1	17.5
India	6.4	6.0	13.6
Indonesia	9.5	1.4	7.7
Lao PDR	—	—	15.7
Malaysia	8.1	10.7	12.5
Mongolia	—	—	8.8
Nepal	—	11.5	12.7
Pakistan	2.6	8.8	5.2
Philippines	10.3	4.0	8.1
Sri Lanka	1.8	6.7	—
Thailand	9.9	14.1	10.8
Vietnam	—	—	27.4

Sources: World Bank (2003)

TABLE A-7
REVENUES, EXPENDITURE AND FISCAL DEFICIT IN SAMPLE COUNTRIES IN DIFFERENT DECADES (%)

Country	Revenues		Expenditure		Fiscal Deficit	
	1980's	1990's	1980's	1990's	1980's	1990's
Bangladesh	6.4	9.1	11.4	13.1	-4.9	-4.0
Cambodia	4.9	7.5	7.2	12.6	-2.3	-5.1
China	19.3	12.7	21.9	14.6	-2.7	-1.8
India	12.7	10.2	19.0	16.5	-6.3	-6.3
Indonesia	17.1	16.7	19.5	17.4	-2.5	-0.7
Lao PDR	5.3	40.4	12.0	70.3	-6.7	-29.9
Malaysia	24.9	22.8	30.5	23.5	-5.6	-0.8
Mongolia	—	27.5	—	32.4	—	-5.0
Nepal	9.4	11.0	19.6	19.2	-10.2	-8.2
Pakistan	20.4	19.0	29.1	26.6	-8.7	-7.6
Philippines	14.2	17.4	16.8	19.1	-2.6	-1.7
Sri Lanka	21.5	18.3	32.0	28.3	-10.5	-10.0
Thailand	16.5	17.0	16.0	16.9	0.5	0.0
Vietnam	13.7	18.2	21.9	21.6	-8.1	-3.4

Sources: Asian Development Bank (2003)

TABLE A-8
GROWTH IN MONEY SUPPLY AND REAL INTEREST RATES IN SAMPLE COUNTRIES IN DIFFERENT DECADES (%)

Country	Money Supply Growth		Real Interest Rate	
	1980's	1990's	1980's	1990's
Bangladesh	20	13	4.7	10.2
Cambodia	—	28	—	9.7
China	24	25	2.5	2.5
India	17	17	7.4	6.6
Indonesia	27	25	11.9	7.3
Lao PDR	115	51	—	1.2
Malaysia	11	17	7.1	4.5
Mongolia	—	53	—	45.9
Nepal	20	19	4.3	5.6
Pakistan	13	16	4.8	5.4
Philippines	21	19	5.4	6.4
Sri Lanka	16	18	1.3	7.8
Thailand	20	13	9.6	8.0
Vietnam	—	31	—	8.2

Sources: World Bank (2003)

TABLE A-9
RATE OF REAL DEPRECIATION IN EXCHANGE RATE AND AVERAGE IMPORT TARIFFS IN SAMPLE COUNTRIES (%)

Country	Rate of Exchange rate Depreciation		Average Import Tariff	
	1980's	1990's	1990	2000
Bangladesh	1.2	-1.0	88.2	21.0
Cambodia	—	13.6	—	—
China	0.8	-1.0	32.5	14.3
India	-0.5	1.1	56.2	28.2
Indonesia	3.3	13.7	13.2	5.4
Lao PDR	10.1	1.2	—	14.2
Malaysia	-1.0	0.6	9.9	5.8
Mongolia	—	-47.5	—	—
Nepal	-0.7	0.6	17.5	16.8
Pakistan	1.3	0.3	46.3	14.7
Philippines	-0.4	-1.7	22.4	4.0
Sri Lanka	-3.0	-2.9	26.9	7.2
Thailand	-2.1	0.7	33.0	9.7
Vietnam	—	5.4	18.4	15.1

Sources: World Bank (2003)

ANNEX I

There is need for a discussion of the particular measure used to quantify the incidence of poverty. Most studies have used data on poverty incidence based on the poverty line of income of US \$ 1 (in purchasing power parity terms) per capita per day. Alternatively, some studies have looked at changes in income share in the bottom quantile of the income distribution as a proxy for changes in poverty (for example, Romer and Gragerty (1997), Dollar and Kraay (2001), and Ghura, Leite and Tsangarides (2002)). Both approaches have been subjected to various forms of criticism. The former approach has been criticised by a number of authors Bhalla (2002) and Reddy and Pogge (2002)) on the grounds that the relative purchasing power per dollar of the people of poor nations is not measured accurately. The estimate of the purchasing power of the poor is based on the measure of their ability to buy any of the goods and services an economy has to offer. However, the poor do not generally use services (and services in low income countries are much cheaper in relative terms to other goods in the basket in terms of a dollar's purchasing power across countries). Nonetheless, services do get included in their basket of goods, thus reflecting an inflated purchasing power of the poor.

As opposed to this, the latter approach has been found to have the problem that the income of the bottom 20 percent of the income distribution cannot be assumed to fully represent the income of

the poor. In many developing countries, 30 to 50 percent of the population lives below the poverty line.

We have relied on estimates of the incidence of poverty based on national poverty lines. These estimates are being used perhaps for the first time to analyse the relationship between growth and poverty. Given that these estimates are indigenous in character and are mostly produced by national statistical organizations, they are likely to be more acceptable to national governments. But the basic problem with these estimates is their comparability across countries. Since the national poverty lines are generally derived as the consumption expenditure required to finance a minimum nutritional intake (in calories) by an individual, there is a lack of standardization as reflected by the choice of different minimum nutritional level in different countries. However, if the analysis is not with respect to the levels of poverty but with regard to changes in the incidence of poverty then the problem is likely to be less serious.

Our primary motivation for choosing poverty estimates based on national rather than international poverty line (of \$ 1 PPP per capita per day) is that the direction of change highlighted by the two approaches tends to be different for a number of countries, especially during the decade of the 90's. As can be seen from Table B-1, out of 14 countries in the sample for the 90's there is divergence in trends revealed by the two approaches for five countries, namely, Bangladesh, Cambodia, Indonesia, Malaysia and Pakistan. Differences are particularly pronounced in the case of the last three countries. Indonesia and Malaysia went through an economic crisis after 1997 and the former, in particular, experienced a severe contraction in its GDP. Poverty estimates in the immediate aftermath of the Asian financial crisis revealed that the incidence had increased sharply. While there has been some economic recovery since then, it is hardly likely that poverty could have fallen

as sharply as indicated by estimates based on the international poverty line. Similarly, Pakistan has experienced low growth during the decade of the 90's and the common perception is that poverty has increased significantly during this period. Today, the government of Pakistan is placing a high emphasis on reducing poverty and unemployment. According to estimates based on the poverty line of US \$ 1 PPP per capita per day, the incidence of poverty in Pakistan has fallen from as much as 48 percent in 1990 to 31 percent in 1996. This seems very unlikely.

TABLE B-1
DIRECTION OF CHANGE IN INCIDENCE OF POVERTY
ACCORDING TO DIFFERENT MEASURES

Country	1980's		1980's	
	According to International Poverty Line	According to the National Poverty Line	According to International Poverty Line	According to the National Poverty Line
Bangladesh	Increase	Decrease	Increase	Decrease
Cambodia	—	—	Decrease	Increase
China	Decrease	Decrease	Decrease	Decrease
India	Decrease	Decrease	Decrease	Decrease
Indonesia	Decrease	Decrease	Decrease	Increase
Lao PDR	—	—	Decrease	Decrease
Malaysia	Decrease	Decrease	Decrease	Increase
Mongolia	—	—	—	Increase
Nepal	Decrease	Increase	—	Increase
Pakistan	Decrease	Decrease	Decrease	Increase
Philippines	Decrease	Decrease	Decrease	Decrease
Sri Lanka	Decrease	Decrease	Increase	Increase
Thailand	Decrease	Increase	Decrease	Decrease
Vietnam	—	—	Decrease	Decrease

Source: World Bank, 2003, various tables from Pasha and Palanivel, 2003

REFERENCES

- Adams, R. H. 2003. "Economic Growth, Inequality and Poverty: Findings from a New Data Set". World Bank Policy Research Working Paper No. 972, World Bank, Washington D.C.
- Agénor, P. R. 2002. "Macroeconomic Adjustment and the Poor: Analytical Issues and Cross-Country Evidence.", World Bank Policy Research Paper, No. 2788, World Bank, Washington, DC.
- ADB (Asian Development Bank). 2003. "Key Indicators of Developing Asian and Pacific Countries 2003." ADB, Manila.
- Bhalla, S. 2002. "Imagine There's No Country – Poverty, Inequality and Growth in the Era of Globalisation." Institute for International Economics, Washington.
- Bruno, M., M. Ravallion and L. Squire. 1998. "Equity and Growth in Developing Countries: Old and New Perspectives on the Policy Issues." In *Income Distribution and High-Quality Growth*. Edited by Vito Tanzi and Ke-young Chu, Cambridge, Massachusetts: MIT.

Pro-Poor Growth and Policies: The Asian Experience

- Datt, G. and M. Ravallion. 2002. "Why Has Economic Growth Been More Pro-poor in Some States of India Than Others?." *Journal of Development Economics*, Vol. 68, pp. 381-400.
- Dollar, D. and A. Kraay. 2001. "Growth is Good for the Poor." World Bank Policy Research Working Paper No. 2587, Washington, DC.
- Easterly, W. and S. Fischer. 2001. "Inflation and the Poor". *Journal of Money, Credit and Banking*, Vol. 33, pp. 160-79.
- ESCAP (Economic and Social Commission for Asia and the Pacific). 2002. "Economic and Social Survey of Asia and the Pacific 2002" United Nations, New York.
- and UNDP. 2003. "Promoting Millennium Development Goals in Asia and the Pacific- Meeting the Challenges of Poverty Reduction.", United Nations, New York.
- Ghura, D., C. Leite, and C. Tsangarides. 2002. "Is Growth Enough? Macroeconomic Policy and Poverty Reduction." Working Paper 02/118, International Monetary Fund, Washington, DC.
- Epaulard, A. 2003. "Macroeconomic Performance and Poverty Reduction.", IMF Working Paper, WP/03/72, International Monetary Fund, Washington, DC.
- ILO (International Labour Office). 2003. "Global Employment Trends.", Geneva.
- ILO, Employment Report or Annual Labour Statistics, Various report

References

- Malik, J. Sohail. 2003. "Agricultural Growth and Rural Poverty in Pakistan: A Review of the Evidence", Asian Development Bank
- Pasha, H. A. and T. Palanivel. 2003. "Macroeconomics of Poverty Reduction: An Analysis of the Experience in 11 Asian Countries" Discussion Paper No. 3, UNDP Asia-Pacific Regional Programme on Macroeconomics of Poverty Reduction.
- Ravallion, M. 2001. "Growth, Inequality and Poverty: Looking Beyond Averages." World Development, Vol. 29, No. 11. pp. 1803-15.
- Ravallion, M. and S. Chen. 1997. "What Can New Survey Data Tell Us about Recent Changes in Distribution and Poverty?," World Bank Economic Review, 11(2): 357-82.
- Reddy, S. G., and T. W. Pogge, 2002, "How *Not* to Count the Poor," (Version 3.0), mimeo, Barnard College, New York.
- Roemer, M. and M. Gugerty. 1997. "Does Economic Growth Reduces Poverty?." CAER Discussion Paper No. 4, Cambridge, Massachusetts.
- Saget, C. 2001. "Is Minimum Wage an Effective Tool to Promote Decent Work and Reduce Poverty? The Experience of Selected Developing Countries" Employment Paper, 2001/3, ILO, Geneva.
- UNDP (United Nations Development Programme). 2003a. "Human Development Report 2003." New York: Oxford University Press.

Pro-Poor Growth and Policies: The Asian Experience

———2003b. "Macroeconomics of Poverty Reduction: Country Case studies in Bangladesh, Cambodia, China, Indonesia, Mongolia, Nepal, Sri Lanka, and Vietnam", UNDP Regional Programme on the Macroeconomics of Poverty Reduction, mimeo.

———1997. "Human Development Report 1997." New York: Oxford University Press.

Winters, A. L. 2000. "Trade and Poverty: Is There a Connection?" in: World Trade Organization (WTO), *Trade, Income Disparity and Poverty*, Geneva: WTO Special Study No. 5 (June 2000), pp. 43-69.

World Bank. 2004. "Vietnam Development Report, 2004", Washington DC (forthcoming)

World Bank 2003 "*World Development Indicators C-D ROM.*" The World Bank, Washington DC.