



Asian Experience

on Growth, Employment and Poverty

An overview with special reference to the findings of some recent case studies



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Preface

Since 2005, the Economic and Labour Market Analysis Department of ILO, Geneva and the Asia-Pacific Regional Programme on the Macroeconomics of Poverty Reduction (MPRP) of UNDP Regional Centre in Colombo (RCC) have been working together to undertake a series of country studies in Asia, focusing on employment intensity of economic growth as a means of poverty reduction. These country studies covering Cambodia, China, India, Indonesia, Malaysia, Philippines, Sri Lanka, and Thailand contain detailed empirical analysis of trends in the employment intensity of economic growth and of factors that could explain the observed trends. They provide interesting insights into the reasons for low and in some cases the declining employment outcome of economic growth in Asia.

The objective of this publication is to bring together the main findings of the above mentioned studies which can serve as an important advocacy and dissemination tool. This synthesis paper highlights some of the key findings from these studies including the following:

The employment intensity of growth (defined as the rate at which employment grows when output grows by one percentage point) has not only been low but has been declining over time in some of the fastest growing Asian countries (e.g., China and India). Further, out of the eight countries under review here, all with the exception of Malaysia experienced the problem of inadequate employment growth, and the problem appears to have aggravated in recent years. In some countries, e.g., Indonesia and Sri Lanka, inadequate output growth in recent years have also been a problem; meanwhile in others, employment growth has been low despite high growth of output.

While our understanding of the causes of low and declining employment intensity of growth is still inadequate, this paper highlights a few factors that emerge from the country studies mentioned above. One major factor is the transition towards a market-based competitive environment (e.g., in the cases of China and India) that necessitated economic reforms which, in turn, led to shedding of excess labour and the adoption of a cautious approach to new hiring. The second factor is a shift in the composition of output towards less employment-friendly sectors which may have been caused by a change in the competitiveness of an economy. Third, policy environments within countries may have favoured the growth of more capital-intensive sectors (or the adoption of more capital-using technologies). Likewise, small and medium enterprises (which are expected to be more employment-friendly) may have been facing a disadvantageous policy environment such as in terms of availability of finance.

In some countries (e.g., in Malaysia), relative factor prices may have shifted in such a way as to create conditions for a shift towards more capital-intensive technology or products that are more capital-intensive by nature. While such an occurrence would be regarded as natural development in an already labour scarce setting such as Malaysia, if it occurs in countries that are still characterized by 'surplus labour', it will become a concern for policy makers.

This paper makes the point that distribution of income has worsened in all the countries studied, except in Malaysia. This implies that the rate of poverty reduction in these countries could have been higher if the income distribution remained unchanged. The worsening distribution of income, in turn, may largely be a reflection of poor employment performance.

Employment performance is strongly influenced by macroeconomic policies. In a number of the countries studied, e.g., Indonesia, Philippines and Sri Lanka, higher economic growth could at least partially help address the problem of inadequate employment growth. Quite often, disproportionately stringent macroeconomic stabilization programmes constrain economic growth to too low a level to permit sufficiently high rate of employment growth even with reasonably high employment intensity. In such cases, revisiting the macroeconomic framework of the country concerned makes for a strong case.

The paper offers compelling insights into the reasons for low and declining employment outcome of economic growth in Asia. By drawing from a diverse range of settings within the region, we see important lessons that can be drawn towards poverty reduction in Asia.

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I. Introduction

The role of employment as the principal link through which economic growth is transmitted to the poor and enable them to overcome poverty has been increasingly emphasized in the analysis of development policy in recent years. It has been realized that the magnitude of benefit to the poor derived from economic growth largely depends on the nature and extent of employment that growth generates. It is also recognized that there is no automatic and pre-determined relationship between economic growth and employment and that not all growth is equally employment intensive. Increasing attention has thus been directed to measure and look for ways to enhance the employment intensity of growth.

In contemporary development literature there is a consensus that the best example of poverty-alleviating growth in recent history, perhaps in the entire history of modern economic development, is the experience of East Asia in the decades since the 1960s. The central elements of this performance consisted of a very high growth rate and a high employment intensity of growth in the “growth-elastic” sectors, namely industries and modern services. To illustrate, in the Republic of Korea in the early phase of growth spurt during the 1970s, roughly comparable to what is currently being experienced in countries like India, the elasticity of manufacturing employment with respect to value added in manufacturing, was approximately 0.7. With similar elasticity in other industries and modern services and an annual growth rate of these non-agricultural sectors averaging 12 to 15 per cent, employment in those sectors grew at a rate of between 8.4 per cent and 10.5 per cent per year. With such rapid increase in employment in these sectors any “concealed” unemployment (low-productivity employment) in agriculture and other traditional sectors was soon eliminated, setting the stage for a rapid fall in absolute employment in agriculture (thus facilitating the so-called Lewis transition). With the simultaneous occurrence of the demographic transition, these countries experienced a sharp rise in real wages, brought about by a far faster upward shift in demand for than in the supply of labour. Real wages increased at roughly the same rate as per capita income. Rapid increase in employment and its remuneration was the principal instrument for poverty alleviation.¹

More recent Asian experiences in development has shown countries growing at rates exceeding those of the East Asian pioneers during the decades of their most rapid growth (China during the last two decades) and equaling their performance in growth (India during the last three years). But, the success of these countries in poverty reduction cannot be said to be nearly as remarkable.² One common and critical failure of these countries has been

¹ The experience has been widely documented. See, for example, chapter 6 in Khan and Muqtada, 1997 and chapter 4 in Islam, 2006.

² This may seem to be an unfair comment on the performance of China which is credited with the most rapid reduction of poverty in absolute numbers ever achieved. But, as documented in Khan, 2004, China's poverty reduction has been far less than it could have been for a country with such an astounding growth record. There have been periods of rapid growth when the incidence of poverty remained unchanged and overall poverty incidence continues to be higher than what it is in countries with comparable real income per capita.

the inability to make their growth sufficiently employment intensive. As shown below, the employment intensity of growth of the “growth-elastic” sector in China has been dismally low compared to what it was in the East Asian pioneers.

The International Labour Organization (ILO) has strongly focused on the role of employment linking growth and poverty reduction in its recent analytical and empirical work. A number of its studies during the last five years have documented that slow employment growth has been a major correlate of slow or negative poverty reduction in the entire developing world.³ Slow employment growth has been due both to slow growth of the economy and to low employment intensity of growth. While in Latin America, sub-Saharan Africa and the transition economies of Central Asia, the principal problem was slow growth, even in rapidly-growing countries like Thailand prior to the Asian crisis, the premature decline in the employment intensity of growth was reducing the poverty-alleviation effect of growth. A very recent ILO book, incorporating seven country case studies on growth-employment-poverty linkage, concludes that slow employment growth was an obstacle to poverty reduction that might otherwise have been achieved. Almost without exception, slow employment growth was associated with low employment intensity of growth.⁴

A different kind of study, by Osmani (2006), shows that the elasticity of manufacturing employment, with respect to manufacturing output in Asia, has sharply declined or remains dismally low.⁵ Asia as a whole experienced negative growth in manufacturing employment during the 1990s, an outcome driven largely by the negative growth of manufacturing employment in China during the decade of its extraordinarily rapid growth. In most of the other Asian countries growth of manufacturing employment was positive though lower than during the preceding decade. India was a rare case of increased elasticity of employment with respect to output in the 1990s as compared to the preceding decade, but the absolute level of elasticity was very low.

This paper is an attempt to update the Asian experience on the linkage between growth, employment and poverty. Apart from focusing on a number of analytical issues, it updates and attempts to deepen the lessons of past findings by drawing upon a number of recent case studies on the subject coming from the collaboration of the United Nations Development Programme (UNDP) with the ILO. Section II is concerned with issues of the nature and measurement of the magnitude of employment linkage. Section III discusses the broad features of growth and poverty reduction in the countries included in the new set of case studies. Section IV highlights the major findings of the case studies adding insights from the findings of other studies (e.g., the ILO case studies in Islam, 2006).⁶ Section V evaluates the Asian development experience in this area and seeks insights for future development policy. Section VI concludes by briefly highlighting the important findings.

³ See chapter 4 of Islam, 2006 for evidence on different developing regions.

⁴ Islam, 2006. The case studies include four countries from Asia (Bangladesh, India, Indonesia and Vietnam), two African countries (Ethiopia and Uganda) and a Latin American country (Bolivia).

⁵ Osmani, 2006.

⁶ These are not the summaries of the case studies, which often are quite lengthy, covering many topics, not all of which have been, or need to be, dealt with in a synthesis of the present kind.

II. Analyzing the Nature and Quantifying the Magnitude of the Employment Linkage

The centrality of the role of employment in transferring the benefits of growth to the poor derives from the fact that labour is about the only resource in which the poor are *relatively* abundant. They own little physical capital and when they have access to such capital, it is used as a factor that facilitates the use of their labour and not as an asset that is loaned for direct factor return to augment their income.⁷ The role of public transfer for poverty reduction has been on the decline for decades and, except for the limited cases of labour-poor households, this has come to be considered an inefficient method of poverty reduction in the long run. Numerous studies have established that poor households are less able than richer ones to take advantage of the opportunity of domestic and international migration, thereby limiting their access to private transfer as a source of income.⁸ For the poor, the productive use of their plentiful factor, labour, is the principal way to overcome poverty.

What to Monitor?

There are several ways that labour income can be augmented: (i) an increase in wage employment; (ii) an increase in real earning from wage employment; (iii) an increase in self-employment; (iv) an increase in the productivity of employment; and (v) an improvement in the terms of exchange for the produce of the poor both in wage employment and in self employment.⁹ In quantifying the extent of the employment linkage all these possible effects need to be captured.

The parameter that is often used to quantify the employment linkage is the output elasticity of employment (OEE) at the overall, sectoral and industry level and the ratio of the proportionate increase in employment to the proportionate increase in output. This only captures the first and the third of the above effects. Thus, it is important to monitor the change in the variables representing the other three effects. This is so especially because the movements in these other effects may not be synchronized with movements in OEE. To illustrate, a movement in real wage and OEE are likely to be synchronized if the change in OEE is caused by a change in labour demand: a rise in labour demand would increase both OEE and real wage. But a change caused by a shift in the supply of labour would usually result in divergent changes for them: a fall in labour supply could result in a fall in OEE and a rise in real wage. Similarly, a change in the extent of self-employment may be associated with either a positive or a negative change in productivity. Finally, it is very important to monitor the terms of exchange of the products of the poor. Rising physical productivity of labour may not translate into positive change in earning if there is an adverse change in such terms of exchange.

⁷ See, however, the case study of Thailand which suggests such a role.

⁸ For example, see the China case study.

⁹ See chapter 4 of Islam, 2006.

As shown in section IV, most of the new case studies provide some information on real wages and labour productivity. It is, however, rare for them to provide information on the last of the indicators. Part of the reason for this is that it is hard to obtain the relevant information. These indices are not systematically estimated by the existing systems of statistical information. However, one would hope that some of the obvious indicators, such as the terms of trade for agriculture, the sector that often employs most of the poor, would be documented.

While it is true that monitoring changes in the five components of change in labour income together should provide a good account of change in welfare of the poor, occasionally their aggregate effect may be favourably or adversely affected by other factors. Thus, a favourable labour outcome may be inconsistent with the poverty outcome if there is a large change in income from non-labour sources. Public income subsidy has become a decreasing source of incremental income for the poor in recent years and it is quite possible for the on-going reform process in the developing countries to further reduce its net benefit to the poor. Therefore, the avoidance of bemusement when a positive overall employment linkage fails to reduce poverty would require an accounting of these effects. In the absence of such information, it would be helpful to monitor such indicators as the change in the distribution of income.

Measuring and Interpreting the Output Elasticity of Employment

Gross or Partial Elasticities

Conceptually, elasticities are defined with respect to the determinants of a variable and they are meaningful when a complete specification of all the determinants, or at any rate the major ones, are taken into account. In such a system the partial elasticity with respect to a particular determinant shows the per cent change in the variable that is *caused* by a one per cent change in the given determinant when all the other determinants remain unchanged. For employment, the estimation of such partial elasticities would show the causal sources of employment growth which would be very useful for many purposes. But, the OEE as an indicator of the actual employment intensity - employment friendliness - of growth would not be well represented by the partial elasticity of employment with respect to output. A high partial output elasticity of employment does not mean that a per cent growth of output would provide an increase in employment indicated by it: the actual growth in employment would depend on the change in all the other determinants and the employment elasticities with respect to those determinants. Employment intensity and employment friendliness of growth are better represented by what this paper calls the *gross* OEE, the ratio of proportionate change in employment to proportionate change in output. If reliable estimates of partial elasticities are available, one could get an idea of the *sources* of employment intensity by comparing them with the gross OEE. It is the gross OEE, however, that serves as the indicator of employment intensity of growth. In some of the case studies, partial elasticities have been estimated for

a number of the sectors. Little use could be made of them mainly for the reason just given, but partly also because of the uncertainty of whether the stipulated function represents a reasonably complete specification of the determinants.¹⁰

Time-series or Cross-Section

Gross OEE could be estimated in a variety of ways. The simplest estimate, often called *arc* elasticity, shows the ratio of observed proportionate change in employment to observed proportionate change in output (typically value added) over a period of time. The obvious problem with these measurements is that they often show sharp fluctuations if their measurements are available for consecutive short periods (say annual estimates based on annual data), and they become biased when estimated over a period of time if the end values of the variables diverge from trend values. It is thus desirable to obtain simple econometric estimates based on regressions of logarithms of employment and output when enough observations are available.

Some of the studies have used cross-sectional data, or combined cross-sectional and time-series data, to estimate gross OEE. The reason is that the time series data do not provide enough observations to fit regressions. But these cross-sectional estimates do not seem to be the right indicators of employment possibility of growth. The cross-sectional data are usually obtained for different provinces or states of the country. Consider an industry faced with the same incentive system in different provinces. Chances are that capital/labour ratios would be similar with provincial differences in the size of the industry providing the variation in the levels of output and employment. A fitted regression on the basis of such data would give an OEE of approximately one. This would be a poor indicator of employment growth that would be generated by the growth of the industry over time. Time series estimates are far better indicators of employment intensity of growth.¹¹

How to interpret the magnitude of OEEs

It is hard to decide the desirable magnitude or range of OEEs. There are, however, some simple criteria that one might consider. In a dynamically-growing economy, OEEs would not be the same for all sectors at any time; nor would they change in the same direction over any given period of time. One would expect the OEE for agriculture to decline and ultimately, once the Lewis transition is under way, to become negative. This does not mean that a precipitous decline and/or a negative value of the OEE for agriculture by itself represent a dynamic/Lewis transition. For that to be the case, labour absorption in industries and services must be rapid enough for the overall employment growth to exceed the growth of the labour force: for these sectors to productively absorb labour shed by agriculture, their employment growth must

¹⁰ For the Indian case study on the non-agricultural sectors, partial elasticities have been estimated for manufacturing industries.

¹¹ Indonesian estimates for agriculture are based on cross-sectional data. Predictably they yield extremely high elasticities. Chinese estimates of cross-sectional elasticity for the non-agricultural sectors similarly are extremely high and impossible to accept as indicators of employment possibility of growth in the recent past or near-term future. Some Thailand estimates are based on pooled cross-section and time series data.

exceed the growth of total labour supply. This kind of transition should be distinguished from a reduction in agricultural employment that is more likely a reflection of the sector's inability to productively employ labour which is pushed out to residual employment sectors of even lower productivity.

How high should the OEE be for manufacturing industries and modern services? Historically, the East Asian countries appear to have had an OEE of 0.7 for manufacturing in the relatively early years of rapid growth as in the case of the Republic of Korea during the 1970s. It fell to 0.5 in the next decade and kept declining as agriculture went through a rapid Lewis transition. Thus, for most of the countries in the present group a range between 0.5 and 0.7 would seem reasonable.¹² It is, however, worrying if it hits the lower range of the limit with a widening of productivity and earnings between modern sectors and traditional activities, like agriculture.

An OEE above one signifies a fall in labour productivity and is generally undesirable. The meaning is the same for a negative OEE accompanied by a fall in output. As short-term cyclical phenomena, their occurrence is quite consistent with healthy long-term OEE. In the estimates made for several countries for short periods, many of the sectoral OEEs fluctuate rather wildly. In the absence of corresponding estimates for longer time periods, little sense can be made of these elasticities.

A final, though obvious, point is that a high OEE does not necessarily suggest good employment performance. It is possible for an activity, with an initial capital intensity that is inappropriately high for the country's resource endowment, to continue to grow with unchanged capital intensity, thereby yielding a high OEE. It will, however, not be a good outcome for poverty alleviating growth. OEEs only measure the employment friendliness of *growth*, not of the initial *structure* of the economy. Similarly, "non-competitive" activities (e.g., power generation) with high capital intensity can grow with high OEE without providing much employment growth.

III. Broad Features of the Poverty-Reduction Performance of the Countries

Of the eight countries covered by the new set of studies, six (Cambodia, China, Indonesia, Malaysia, Philippines and Thailand) are in East and South-East Asia ("East Asia and the Pacific" according to World Bank's regional classification) and two (India and Sri Lanka) are in South Asia. They include the three largest developing countries of the world, as well as small countries like Cambodia (14 million) and Sri Lanka (19 million). Together, they account for 84 per cent of the population of developing Asia and the Pacific and 52 per cent of the population of the entire developing world. They include three of the eight "high performing Asian countries" (HPAEs) in the World Bank's Asian Miracle study (Malaysia, Thailand and Indonesia) as well as two of the countries at the top of the contemporary growth league (China and India). Taking

¹² Malaysia, at an advanced stage of Lewis transition, is an obvious exception.

into account Cambodia's rapid growth since the early 1990s, six of the eight countries can be said to have a good to excellent record of growth in overall GDP. The Philippines and Sri Lanka have achieved slower, but still positive growth.

Table 1 summarizes some facts about these countries' level of development, incidence of poverty, and trends in growth, inequality and poverty. As a perusal of these basic facts reveal, simple relations between levels of income and poverty levels can be puzzling and even mysterious. Note here that poverty thresholds and incomes are in internationally comparable units. The level of per capita income and the incidence of poverty, or rather the inverse of it, are well related, with some clear outliers. But, this relationship is much stronger for moderate poverty (proportion of population below the higher threshold of PPP\$2 per person per day) than for extreme poverty (those below PPP\$1). Spearman's rank correlation coefficient between per capita income and the poverty incidence is 0.70 for extreme poverty and 0.85 for moderate poverty.¹³ The main difference is due to China which has a much poorer performance in terms of extreme poverty than in terms of moderate poverty *relative to the other countries in the group*. For example, it has more than twice the incidence of extreme poverty as Indonesia, a country with less than 60 per cent of its per capita income, but a lower incidence of moderate poverty.

Another puzzle is India, which has the highest incidence of both extreme and moderate poverty.¹⁴ India's per capita income is more than a third higher and inequality, as measured by the Gini ratio, is a fifth lower than Cambodia's. And yet it has higher poverty according to both indices. This could, of course, be due to one or more reasons, e.g., lack of comparability of PPP\$ incomes and poverty thresholds and the failure of the difference in the Gini ratios to capture the difference in the income shares of the poor.

Apart from a question mark about the Philippines, all the countries achieved poverty reduction in the periods under review. Even the three HPAEs appear to have reversed the rise in poverty that they experienced during brief periods after the onset of the Asian crisis. While in Malaysia and Thailand the resumption of rapid decline in poverty quickly pushed the incidence of poverty below the pre-crisis levels, in Indonesia the process has been slower.

It is, however, important to point out that, by and large, actual poverty reduction has been slower than the "*potential*" poverty reduction, a rate of poverty reduction that might have been expected from the given growth in income if other unfavourable changes (e.g., deterioration in the distribution of income) could be avoided. The only possible exception may be Malaysia. The reason is that inequality increased in most of the countries. Malaysia is the only country

¹³ The positive coefficient is due to the fact that the country with the highest incidence of poverty is assigned the highest rank, as is the country with the highest income.

¹⁴ For India the moderate poverty rates in WDI, 2006 seem to be misprints. We have used the figures from the WDI, 2005.

which experienced a slight drop in inequality, but even there the absolute degree of inequality is high by the traditional Asian standard.¹⁵ Indonesia is the only country with low inequality which has avoided a trend increase in inequality. What has been the role of the employment performance of the countries in this growth-poverty linkage? Before we can attempt an answer, it is necessary to analyse the basic facts for the countries from the case studies.

Table 1: Performance of the Countries

Country	Per-capita Income 2004	Income Growth	Poverty Level		Inequality	Poverty Reduction
			PPP\$1	PPP\$2		
Cambodia	2310`	Rapid but not robust	34.1	77.7	High & rising	Slow
China	5890	Very rapid	16.6	46.9	High & rising	Rapid but less than the potential rate
Indonesia	3480	Rapid before 1997, slow since 2000	7.5	52.4	Low	Rapid until 1997, slow in recent years
Malaysia	9720	Rapid, some slowdown after 1997	<2	9.3	High but some fall	Rapid, except between 1997 and 1999
Philippines	4950	Slow	15.5	47.5	High & rising	Slow if at all
Thailand	7930	Rapid until 1997, slow recently	<2	25.2	High, rose until recently	Fairly rapid, less than potential
India	3120	Moderate in the 1980s, rapid since early 1990s	34.7	79.9	Moderate but rising	Slow
Sri Lanka	4210	Modest	5.6	41.6	Moderate but rising	Slow

Note: Per-capita income is in PPP\$ for 2004. Poverty estimates refer to the proportion of population below respectively PPP\$1 and PPP\$2 per person per day in the early 2000s. These data are from the *World Development Indicators (WDI), 2006*. Trend in growth, inequality and poverty are from a variety of sources including the case studies.

IV. An Overview of the Findings of the Specific Case Studies

In this section, the case studies are not summarized, but rather the highlights of the issues in them, relevant for the analysis of growth-employment-poverty linkage, are presented. The case studies, many of them extraordinarily long, often discuss issues that, however valuable for other purposes, are not directly relevant to this one. The following overviews have also drawn upon evidence from sources other than the new case studies.

¹⁵ This standard has been changing. Malaysia's Gini ratio is reported to be close to 0.5. In the East Asian pioneers it was very substantially lower during their rapid economic growth.

East Asia

Cambodia

In the decade between 1994 and 2004, Cambodia's GDP increased at an annual rate of 6.8 per cent and per capita GDP increased at 4.3 per cent per year. Much of the growth was concentrated in a few narrow sectors: garment manufacturing; construction; transport; and hotels and restaurants. Agriculture, the sector "employing" more than 70 per cent of the labour force, grew at a much slower rate of 3.4 per cent. Overall GDP growth rate accelerated since the late 1990s when the rate of growth of agriculture fell.

Inequality, as measured by the Gini ratio, increased from 0.347 in 1993 to 0.403 in 2004. This being the Gini ratio of consumption, the Gini ratio of income distribution was almost certainly much higher. This indicates that inequality is both high and has increased substantially over the decade.

Cambodia had four household surveys between 1994 and 2004. Estimates of poverty shown by these surveys indicate little change. The case study, however, argues that the surveys are not comparable over time, especially because of the low coverage of the first of them. Based on the World Bank's adjustment, it argues that poverty headcount rate fell in the part of Cambodia covered by the first survey from 47 per cent to 35 per cent over the decade. Unadjusted estimates show a small decline of 3 percentage points between 1994 and 1997 and virtually none thereafter.

Agriculture absorbed more than 75 per cent of employment in 1994. This ratio fell to about 72 per cent in 2000 and changed very little thereafter. Over the decade the labour force increased at an annual rate of 3.5 per cent due to natural increase, the return of refugees and the reintegration of the members of the former Khmer Rouge households. Employment is estimated to have grown at a slightly slower annual rate of 3.3 per cent. But, since much of the so-called growth in employment was in the slow-growing agricultural sector, not much can be made of these figures.

Even if one accepts the adjusted Bank estimate of the decline in the poverty headcount rate between 1994 and 2004, the rate of poverty reduction must be judged to be slow, given that per capita GDP during the period increased by more than half. It is particularly worrying that poverty reduction in later years appears to have been much slower, if at all significant, when the rate of increase in per capita GDP accelerated. The case study argues that much of the explanation for this is to be found in the low overall employment intensity of growth.

The economy-wide OEE was 0.48 for the entire period. It was much higher for agriculture (0.76) than for industries (0.56) and services (0.53). Since output growth for agriculture was low, the high labour absorption in the sector was not particularly helpful for poverty reduction. Garments, the most rapidly growing activity, had an OEE of 0.47, not nearly as high as one would expect.

The study shows the OEEs for two sub-periods: 1994-97 and 1998-2004. The rate of growth was higher in the second period. The OEE for the economy as a whole and for each individual sector was higher in the second period. For industries it increased to 0.63 and for garments to 0.62, both quite decent rates. The same occurred for construction and the rapidly-growing services like transport. For agriculture the elasticity exceeded one, an indication of slow growth of output and declining productivity.

The economically active proportion is about as high for females as for males. 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 higher dependency ratio is a correlate of 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 started moderating only in recent years.¹⁶

The case study blames the low employment friendliness of growth as a major reason for the low poverty reduction effect of growth. And yet, on the evidence of more recent years, it is hard to argue that the rapidly-growing sectors, such as garments and construction, have not been adequately employment intensive. That employment growth has not been robust, is rather due to the fact that growth was limited to some narrow sectors of the economy and, in particular, was very low for agriculture, where most of the population and the poor are located. The slow growth of agriculture and its undiminished share of the labour force have led to 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 the continued incidence of extensive poverty in the rural areas.

The paper analyses the role of four major instruments of public policy - fiscal policy, investment policy, trade policy and privatization of common property resources - on growth, employment and poverty. Relaxed investment policy, supported by import tax exemption on raw materials, easy immigration of expatriate experts and other targeted incentives, have helped growth. Fiscal policy has not helped poverty reduction because the limitation of resources has obviated large public investment to promote infrastructure development necessary for agricultural growth and broad industrialization. It has also been an obstacle to public expenditure needed to promote investment in human capital development and other targeted support to the poor. Trade liberalization and World Trade Organization (WTO) membership have generally supported growth by enabling access to the markets of the advanced industrial countries. According to the study, Cambodia's acceptance of the regulation of minimum wages and working conditions in garments has ensured favourable access of these exports to the US and European markets. The paper is, however, indirectly critical of trade reforms in so far as the reduction of tariff has reduced public revenue and the ability of the government to finance a higher level of investment in infrastructure and poverty-

¹⁶ Information in this paragraph is from sources other than the case study.

alleviation programmes. An interesting point that the study leaves unexplored is the extent to which the acceptance of higher regulated wages in garments has resulted in the rationing of employment in that sector and the extent to which the sector's OEE might possibly have been higher in the absence of such regulations. According to the study, the ongoing privatization of traditional common property rights - notably access to forestry and fishing water - have hampered the welfare of the poor whose livelihoods significantly depended on such access.

China

The case study on China, titled "Growth, Employment and Poverty Reduction: The Case of China", begins with an overview of trends in growth in GDP and its major sectoral components, as well as in total and sectoral employment. Observed OEE for the economy as a whole has steadily declined since the 1980s. Its decline has been particularly sharp for industries. For the services sector also the OEE has declined over time though remaining higher than in industries.

The case study argues that China's trade liberalization and external orientation during the reform period have been conducive to higher growth and employment. While the method and actual magnitude of its estimates of employment growth due to trade liberalization are open to question, the broad qualitative conclusion that it has helped growth and employment generation does not seem in dispute. It also argues that the export processing zones (EPZs) have helped attract foreign direct investment (FDI) and by 2004 FDI-funded enterprises directly employed 3.9 per cent of all urban workers. By 2003 such enterprises also directly employed 5.4 per cent of all employment in township and village enterprises (TVEs) in rural China.

Given the residual nature of the sector's employment which is dominated by self-employment, the observed OEE in agriculture is more a reflection of employment growth in the rest of the economy than of productive absorption of labour in the sector itself. The fact that the OEE turned from positive, in the period until 1991, to negative during the next five years simply indicates the beginning of the absolute fall in employment in agriculture which was facilitated by a reasonably rapid growth of employment in secondary and tertiary sectors just as the fact that the sector's OEE turned positive again in 1997 and continued to be so until 2002, reflects the reversal of the trend of absolute decline in agricultural employment, a change brought about by the absolute decline in employment in industries. By 2003 growth in industrial employment again turned agriculture's OEE negative.

Employment in TVEs, accounting for much of the rural non-farm employment, had an explosive rate of growth during 1984-88. During the following three years, growth in TVEs slowed down due to credit restrictions that were imposed as a part of stabilization policies. Throughout much of this period the decline in output growth was accompanied by a negative observed OEE for the sector, resulting in an absolute fall in employment. This was followed by frequent sharp fluctuations in the observed OEE for the sector, negative elasticities being recorded for 1994 and also for the first two years of the Asian crisis. By the early twenty-first century the OEE for the TVEs recovered to an average of 0.23, a rather low value for a country of

China's relative resource endowment.¹⁷ Cross-sectional data provide support for the hypothesis that TVE employment, as a proportion of total employment, is strongly negatively correlated with the incidence of rural poverty, a finding that suggests that the decline in the OEE for the TVEs was an obstacle to rural poverty alleviation in recent years.

Growth of manufacturing employment fell from an annual rate of 2.6 per cent in the first half of the 1990s to -3.9 per cent during the second half. In the early 2000s there was some recovery. Most of the manufacturing employment growth during the period since 1990 took place in the coastal provinces, the net growth over the entire period being negative for all the other provinces. The gross OEE for the manufacturing sector was approximately 0.5 in the mid 1980s. It steadily declined thereafter reaching a negative value in 1996. It was not until 2002 that it turned positive again, even though reaching a value of just 0.25.

The case study presents several sets of estimates of employment elasticity for construction and services sectors. Like some of the elasticities for TVEs, these are hard to interpret. For a given year, the elasticity is based on regression of employment on value added based on cross-sectional panel data in which average values for a province constitute one observation. What such estimates capture is the variation in employment intensity between provinces of different size of aggregate value added of these sectors. One can make little operational sense of such an estimate as an indicator of likely employment growth as net outputs of these sectors grow over time. The difficulty is compounded by the fact that the ordinary least square estimates based on these methods give elasticity for construction of 1.11 and for services of 0.74 for the period 1996-2002. Elasticities based on random effect and fixed effect models using the same data – for which the methods are inadequately explained – are respectively 0.30 and 0.26 for construction and 0.33 and 0.31 for services. The present reviewer made estimates of observed OEEs for the entire tertiary sector as ratios of annual employment growth to annual growth in value added over three time periods: 1990-95; 1995-2000 and 2000-2004 and they turned out to be respectively 0.71, 0.40 and 0.46.¹⁸

On the whole, the estimates suggest that China's non-agricultural sectors, including industries, had an increasingly employment-hostile growth, especially since the mid 1990s. During the second half of the 1990s the observed OEEs in industries became negative and in construction and services much lower than before. In the early years of the twenty-first century these elasticities improved somewhat, but still remained far lower than the East Asian pioneers at comparable levels of development.

The case study reports that real wages in all sectors have increased steadily without interruption during the entire reform period. This appears to have been the case for manufacturing during the second half of the 1990s as well when absolute employment fell and urban unemployment rose. It would be interesting to know what drove wages up during this

¹⁷ The paper also reports a "regression-based" elasticity which ranged between 0.7 and 0.8 from 1996 and 2003. These are based on provincial panel data on employment and value added in TVEs, presumably each province constituting one observation. It is hard to interpret the operational meaning of this estimate. More on this follows in connection with estimates for other sectors.

¹⁸ The data are shown in National Bureau of Statistics of China, 2005.

period of sharply rising urban unemployment. This clearly represents a desirable outcome in so far as this reduced concealed unemployment in manufacturing, increased the productivity of those who remained in employment and passed the benefits of productivity growth on to the employed workers. However, it is unclear how the market was “induced” or manipulated to make this possible.

Poverty in China has traditionally been considered a rural phenomenon. According to official estimates reported in the case study, the incidence of rural poverty was halved in the short span of five years after the launching of reforms in 1978, a period of rapid agricultural growth and growth in rural income. Ever since, the rate of decline in the number of the rural poor has slowed down in each successive period and in very recent periods it has shown very little reduction according to official estimates. The case study argues that while rural poverty now afflicts a small proportion of the rural population, the ability of the poor to benefit from labour market opportunities has become very limited. Migration is a major source of poverty alleviation: it increases the incomes of the migrants and, through the remittances that they make, of members of their families who are left behind. Studies have, however, shown that households below the poverty line have a much lower probability of migrating. Targeting poor counties and creating labour market opportunities there, the principal strategy of poverty reduction in rural China, have not succeeded in benefiting these households. The case study argues that the focus of China’s rural poverty reduction must shift to the targeting of these poor households, rather than poor counties, and use income transfers and other direct instruments.

China has experienced a fairly high rate of migration from rural to urban areas in recent years although most migrants continue to be without official residential status and excluded from most of the benefits available to the urban residents. The flow of migration has not been high enough, or free enough, to bring about a reduction of the large urban/rural income differential that adversely affects the welfare of China’s poor who are mostly resident in rural areas.

Urban poverty has become an issue in recent years in the wake of rising unemployment in urban China, a phenomenon that has emerged as the result of the reform of State and collective enterprises in the 1990s. Urban unemployment rate increased from 4 per cent in 1995 to 6.1 per cent in 2002 and, thereafter, fell to 5.8 per cent in 2004 according to official survey data. However, these estimates are serious understatements of the extent of unemployment as is indicated by the fall of the labour force participation from 83.1 per cent in 1995 to 74 per cent in 2002 and 71.6 per cent in 2004 according to the same official surveys. The case study argues that the increase in unemployment is largely hidden by the phenomenon of discouragement which has led to the 11.5 percentage point reduction in the labour force participation rate between 1995 and 2004.

To the above findings of the case study might be added the following additional points about China's growth-employment-poverty nexus from some other recent sources.¹⁹ Most of these points are consistent with the findings reported in the case study.

The instruments of external economic policy have indeed facilitated China's quest for rapid economic growth, which has expanded the opportunity for poverty reduction, but have not uniformly benefited the poor. China's trade liberalization, following WTO accession, has made it more difficult to protect and augment the incomes of the agricultural producers. This has made the task of rural poverty reduction more difficult than it would otherwise have been. The benefits of income and employment growth due to 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 concentrated in the rich coastal provinces. The result has been a lop-sided regional performance in poverty reduction.

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 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.

There has been an asymmetrical relation between the overall growth rate and the rate of poverty reduction in different time periods in rural and urban China. 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.

In urban China, the vital employment link in the growth-poverty nexus was broken especially in the 1990s. Between 1990 and 2001 urban employment increased at an annual rate of 3.1 per cent while urban labour force increased much faster (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.

Cities in China have had a much lower incidence of poverty than in 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

¹⁹ See Khan, 2005, for a discussion of these issues and references to their sources.

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.

Indonesia

In the years preceding the Asian financial crisis Indonesia's per capita income was increasing at an annual rate of more than five per cent, indicating a six to seven per cent annual growth in GDP. GDP fell sharply in the two years after the crisis hit Indonesia and, although recovery started in 2000, by 2003 per capita income remained six per cent below what it had been in 1997, the year crisis hit. Per capita real consumption expenditure, however, grew faster and, by 2003, it had slightly exceeded the pre-crisis level. The inequality in the distribution of income, which had fallen in the immediate aftermath of the crisis, rose thereafter, close to the pre-crisis level. Although, the headcount rate of poverty, defined in terms of a consumption poverty threshold, fell back to nearly the pre-crisis level by the year 2002 after a sharp rise in the immediate post-crisis years. Some of the other indices of poverty, however, indicate a less favourable performance.²⁰

The unemployment rate in Indonesia had been rising in the years before the crisis. Its rate of increase accelerated in the post-crisis period. The rise in the unemployment rate showed no signs of slowing down in the period of recovery. In 2003 it was more than twice the 1997 level. This unfavourable turn in employment performance has been combined with a number of other undesirable changes in the employment scene. Agriculture's share of total employment had been falling steadily until 1997. Since then it has increased substantially and stood nearly six percentage points higher in 2003 than in 1997. The share of manufacturing industries in total employment was lower in 2003 than in 1997. There was an increase in the proportion of employment in informal activities and a corresponding fall of employment in the formal sectors.

In the two decades before the crisis, real wages and productivity grew at about five per cent per year and poverty headcount rate fell 29 percentage points. Except for two short spells, a rise in real wages and fall in poverty moved closely together.²¹ In the aftermath of the crisis real wages fell sharply. Since 2000 they have been rising again.

Labour market performance in the post-crisis period has been the subject of a debate about policies. One group of economists has argued that the recovery in real wages has been due to strong government intervention in the form of minimum wage enforcement and other regulations and that this has hampered employment growth in the formal sector. An opposing school of thought to which the authors belong, has rejected this view by arguing that there is no evidence of wage increases leading to a rise in wages as a proportion of output value.

²⁰ These include the indices showing the depth and distribution of poverty among the poor as well as the proportion of population below the international poverty line of purchasing power parity \$2 per person per day.

²¹ The case study highlights the fact that these two periods were characterized by favourable circumstances, an oil boom and trade liberalization, which apparently had no positive effect on real wages.

The authors introduce a different index of real wage that they call *real product wage*, derived by deflating nominal wage by the price of the product that wage-earners are employed to produce, and show that its trend warrants no concern about rising wages eating into profits. They argue that the slow employment growth is essentially due to slow growth in aggregate demand resulting from deflationary fiscal and monetary policies.

For the two decades leading to 1990, agriculture attained an annual output growth of 3.6 per cent and an employment growth of 1.7 per cent, leaving a healthy gap of 1.9 per cent for growth in productivity per worker. During this long period, agriculture productively absorbed labour as is indicated by the observed *arc* OEE of 0.47. By the early 1990s agricultural growth rate fell to a significantly lower rate and change in employment in agriculture became rather erratic, oscillating between large positive and large negative rates. Employment in agriculture appeared to be changing, not in response to change in labour demand warranted by change in output and technology, but by its role as the residual employment sector receiving and releasing labour shed or reclaimed by the other sectors of the economy. Estimates of OEE based on observed changes in output and employment for this period do not reflect meaningful employment intensities for purposes of projection.²² The case study also reports OLS estimates of so-called “point elasticity” based on cross-sectional provincial data on output and employment. These elasticities are usually above one for each year between 1977 and 1996. In the opinion of the present reviewer, these cross-sectional elasticities are hard to interpret and use for analytical purposes. The authors argue that the decline in agricultural growth has been largely due to lack of resources for infrastructure. This has been bad for both overall economic growth and poverty reduction because agricultural growth has a large multiplier effect on the growth of other sectors and on the income of the poor.

Manufacturing industries grew very rapidly, especially between 1985 and 1992, following the adoption of trade liberalization and export-led development strategy. But, its growth rate had started moderating in the years prior to the crisis. According to the authors this was due to the decline in the international competitiveness of textile, wood and paper industries. They argue that in the last decade there has been a disjoint between output composition and export composition of industries: output share has increased for low-technology products while export share has increased for high-technology products. The case-study shows OLS estimates of OEE based on time-series data for individual industries and for manufacturing as a whole for different time periods. The OEE was quite healthy, falling from 0.8 to 0.6 for manufacturing as a whole, between the first half of the 1980s and the first half of the 1990s. Since the second half of the 1990s the elasticity has been drastically lower: less than 0.1 in the second half of the 1990s and -0.2 during 2000-03. While the first of these two sub-periods began well before the crisis, the elasticity for the period itself, ending in 1999, must have been the outcome of the consequences of the crisis. Indeed, the estimated elasticity for 1975-96 is higher than 0.7, indicating very healthy employment intensity, while that for 1997-2003 is less than 0.2. Unfortunately, the case study does not shed much light on the causes for this change. It maintains that the low employment growth is due to constrained aggregate demand, an argument that the reviewer finds persuasive. Nevertheless, that by itself does not explain why

²² The authors of the paper call such annual estimates of OEE “employment elasticity based on descriptive method”. These estimates fluctuate sharply between -8 and +3 during the 1990s.

industries should have become less employment intensive, unless one argues that stringent monetary policy caused disproportionately more severe credit starvation for small, labour-intensive industries; and invokes other similar asymmetrical effects of macroeconomic policies on activities differing in factor intensity.

The case study shows “descriptive” arc elasticities, the only ones that the authors say available data allow to estimate, for construction and trade, transport and finance service for each of the years from 1994 to 2003. For construction, the average elasticity is just over one while annual values range from a low of -0.6 to a high of +2.3. For trade, the average value is a staggering -6.5.²³ For transport, the average elasticity is 0.46, although annual values fluctuate between -1.7 and +1.8. Even more oddly, for finance, the average elasticity is 1.8 while annual estimates range from -0.8 and +8.6. Little sense can be made of these estimates.

The authors make extensive recommendations for policies to overcome the unfavourable employment scenario and to help accelerate poverty reduction. The principal emphasis is on the restoration of economic growth to pre-crisis rates: ending of the perverse credit squeeze and fiscal retrenchment adopted at the onset of the crisis, motivated by an unwarranted concern for stabilization, and instead setting monetary and fiscal targets that are consistent with higher investment and faster growth; improved focus on the growth of agriculture, the sector employing most workers and housing most of the poor; and improved resource flow into small and medium industries, the sectors with most employment potential. They reject the argument in favour of greater labour market flexibility as the main policy for employment promotion. Indeed, they recommend an expansion of both reactive (e.g., greater protection for the workers) and proactive (e.g., improved access to human capital) labour market interventions.

²³ This is due to an elasticity of -69.1 for 1999. Excluding 1999 the average elasticity for the remaining years is 0.36 (but see below). The paper shows output and employment growth only on crowded diagrams, without actual numbers shown in tables. From the diagrams it appears that the massive negative elasticity for 1999 is due to a minuscule negative output growth and a small, but much larger, positive employment growth. If so, this should have been ignored. Averaging of such annual elasticities makes little sense. It is also not clear to the reviewer why OLS estimates of point elasticities could not be made from these data.

Malaysia²⁴

Malaysia achieved a very high rate of growth in recent decades. Between 1970 and 2004 it had an annual compound rate of growth in GDP of 6.77 per cent, an annual population growth of 2.56 per cent and an annual growth of 4.1 per cent in per capita income. During this period, stretching over nearly three and a half decades, Malaysia experienced negative GDP growth only twice: in 1985 in the wake of a sharp decline in export prices and in 1998, in the aftermath of the Asian financial crisis. Malaysia started out with a high inequality in the distribution of income: the earliest estimate of the Gini ratio reported in the case study is 0.51 for 1970 for Peninsular Malaysia only. For Malaysia as a whole, the Gini ratio is reported from 1980 onwards. On this evidence, Malaysia's remarkable growth performance was not accompanied by an increase in inequality. Indeed, inequality decreased: the Gini ratio declining from 0.51 in 1980 to 0.46 in 2002. The result of this high and inequality-averse growth was a rapid decline in the incidence of poverty: the proportion of population below the official poverty line, representing a minimum consumption basket, fell from 52 per cent in 1970 to a minuscule 4 per cent in 2004. There was a short-lived increase in the incidence of poverty from 6.1 per cent in 1997 to 7.5 per cent in 1999, but by 2000 it fell below the 1997 level and continued to decline.

Employment growth appears to have played an important role in the process of making growth inequality-averse and poverty-alleviating. In the 34 years between 1970 and 2004, the annual growth of labour force averaged 3.16 per cent: it was 3.87 per cent during the 1970s, 2.67 per cent during the 1980s, 3.23 per cent during the 1990s and 2.44 per cent during 2000-04.²⁵ The acceleration in the rate of growth in the labour force during the 1990s was due to a rise in the rate of immigration; during this decade net immigration accounted for 42 per cent of the increase in the labour force.²⁶ The fall in the rate of growth in the labour force in the years after 2000 was due to a sharp fall in the rate of immigration. Employment growth exceeded the growth of the labour force over the whole period and in each sub-period except

²⁴ This, longest of the case studies, provides a great deal of information, though much of it is reproduction of tables from official sources and not all of it is necessary for an analysis of the issues under consideration. An unfortunate problem is that most of its own calculations seem to be faulty. For example, all the growth rates calculated by the authors are percentage changes between the values in the terminal year and the base year, divided by the number of years. A comparison of Table 2.1 and Table 2.3 and a perusal of Tables like 3.16 makes this clear. The result is that the growth rate of GDP between 1970 and 2004 is estimated to have been an absurd 24.4 per cent per year. Among other problems, growth rate of a variable and its per capita growth rate are inconsistent with the population growth rate that is shown. The reviewer has chosen to ignore all numerical estimates made by the authors unless they can be confirmed by data sources. Normally this would be a serious obstacle to analysis, but, fortunately, Malaysia's growth-employment-poverty linkage is relatively clear and unambiguous. The growth rates reported are usually estimates made by the reviewer from the official data shown in the case study.

²⁵ These growth rates, and the ones that follow, are estimated by the reviewer on the basis of the official labour force and employment figures shown in Tables 2.6, 2.8 and others. As noted earlier, the growth rates estimated and shown by the authors of the report are all incorrect.

²⁶ This is based on the net immigration of 620,000 during the 1990s shown in WDI, 2006. To argue that 42 per cent of the increased labour force during the decade was accounted for by immigration one would need to assume that all immigrants became members of the labour force.

the 1970s when the former was just a shade lower than the latter. The officially-estimated unemployment rate fell from 9.3 per cent in 1970 to less than two per cent in 1995 where it had been hovering around just over three per cent.

Malaysia has experienced the classic type of Lewis transition. Agricultural employment peaked in 1975 after which it started to decline. The annual rate of decline was 0.4 per cent during the 1980s and 1.5 per cent during 1990-2004. Agriculture's share of employment fell from more than 52 per cent in 1970 to less than 14 per cent in 2004.

The fall in agricultural employment was offset by the rising demand for labour generated by the manufacturing and services sectors. Employment in manufacturing grew at an annual average rate of 6.7 per cent over the entire period since 1970: at 8.9 per cent during the 1970s, 5.94 per cent during the 1980s, 6.74 per cent during the 1990s and 2.91 per cent since 2000. Estimates of employment in services are shown only since 1980. In the 24 years since then it averaged an annual growth rate of 4.1 per cent: 4.9 per cent during the 1980s, 3.6 per cent during the 1990s and 3.3 per cent since 2000.

Overall OEE for the economy as a whole has shown no downward trend over more than three decades: it was 0.46 in the 1970s, 0.55 in the 1980s, 0.48 in the 1990s and 0.53 during 2000-04.²⁷ The reviewer has also estimated gross OEEs for manufacturing and services sectors by combining information for growth in value, added from the WDIs and growth in employment from the data shown in Table 2.8. The gross OEE for manufacturing industries was 0.67 during the 1980s and 0.71 during the 1990s. For services the gross OEE for the 1980s, thus calculated, turned out to be just over one. This may be because of the non-comparability of growth in value added and growth in employment in this sector. If, however, this estimate is taken seriously then it must be concluded that the initial labour shedding by agriculture was accompanied by the movement of these workers to rudimentary service activities, until their absorption into more productive activities after a period of adjustment. On the evidence of movement in real wages, discussed below, it appears that the former explanation is more plausible; that the estimate of OEE for the 1980s is biased upwards due to error in the measurement of growth rates of the variables. For the 1990s the services OEE thus calculated turns out to be 0.77.

It can be seen that agricultural value added grew at 3.8 per cent per year during the 1980s when employment in the sector fell at 0.4 per cent, together the two factors representing an annual growth in labour productivity of more than 4 per cent. While the rate of growth of agriculture fell to 0.3 per cent during the 1990s, the rate of decline in employment was 1.5 per cent, meaning a growth of productivity per worker of close to 2 per cent. Much of

²⁷ These are the estimates made by the reviewer by estimating the growth rates of real GDP from the official data shown in Table 2.3 and growth rates of employment from the official data shown in Table 2.8. These growth rates are the annually-compounded rates of change between end points and hence are subject to short-term fluctuations in output and employment. Note that the authors provide their own estimates of "output elasticity of employment in manufacturing", but this is the partial elasticity, showing a value greater than one, and is derived from an econometric function of uncertain quality which has, in addition to output, employment cost and capital/labour ratio as independent variables. As this review has argued, these partial elasticities are not particularly useful as indicators of the employment friendliness of growth.

this was passed on to the workers in the form of increased real wages.²⁸ The high OEE for manufacturing left enough scope for productivity increase which again appears to have been passed on to the workers in the form of increased real wages. Between 1972 and 2000 real wages in manufacturing increased at an annual rate of 2.8 per cent. Real wages in services also increased at an annual rate of 2.6 per cent over the same period.²⁹

Not much can be gathered from the paper about the policies that led to the high employment intensity of Malaysia's growth. It appears that the shift away from import-substituting industrialization and towards export-led industrialization in the mid-1980s helped make the incentive system friendlier towards labour absorption. Overall public policy during the successive development strategies emphasized poverty reduction. The New Economic Policy initiated in 1971 focused on the reduction of poverty, then encompassing more than half the population, as one of the two prime objectives of development. It also promoted egalitarianism by emphasizing a higher share in employment and assets for the Bhumiputra, the relatively disadvantaged ethnic group. The National Development Policy, instituted in 1991, focused public action on the reduction of hardcore poverty; those who were below half the poverty income level. The New Vision Policy, instituted in the aftermath of the Asian Financial Crisis, emphasized sustainable growth and the removal of poverty in hard-to-reach pockets to where it had retreated.

The Philippines

The study shows estimates of OEE (which it calls EOE, "employment-output elasticity") at the aggregate level for agriculture, manufacturing, construction and services for the 1980s, 1990s and the first five years of the twenty-first century. These are obtained as the ratio of annual growth in employment to annual growth in GDP/value added. At the aggregate level this OEE fluctuated wildly, from negative value in 2002 to an absurd 1,200 in 1983.³⁰ Wild fluctuations in this observed aggregate OEE probably reflect sharp changes in the degree of under-employment in the residual employment categories like agriculture and informal activities, if not to inappropriate measurement of changes in employment. What is surprising is that the elasticities for individual sectors too, make little sense. Thus the average elasticity for manufacturing changed from -5.8 during the 1980s to -2.07 during the 1990s and 0.45 during the first five years of the twenty-first century. Year-to-year fluctuations within a decade are wild: during the 1980s they ranged from -47.9 in 1981/82 to 2.75 during 1986/87. The report's explanation of the phenomenon is as follows:

The observations made above call attention to the limited usefulness of EOE - as computed above - to measure employment responsiveness to output growth... Though simple enough

²⁸ This is illustrated by the growth of real wages in rubber, a major agricultural activity, at the rate of 3.4 per cent per year between 1981 and 1995.

²⁹ All these estimates are based on real wages data shown in Table 3.16.

³⁰ It is not clear that the sectoral elasticities in Table 5.a are comparable with the overall elasticity shown in Table 1. The former are for fiscal years while the latter are for calendar years.

and economical with data, a practical problem is that the available data may reflect some unusual event that had nothing to do with the usual relationship between output and employment. Changes in output as well as employment estimates on account of changes in survey methodology and sampling frames easily come to mind. Factor intensities in the base and terminal years may also be different as a result of technological change, thus leading to faulty elasticity estimates.

The kind of change referred to in the final sentence is precisely what a study such as this should try to measure, and it is inappropriate to call this a cause of faulty elasticity estimates. If, however, the problem is with the factors noted in the preceding sentences then either the economy of the Philippines is organized in a way that output and employment are causally unrelated or the data are so bad that no meaningful estimates of an actual relationship can be made. Intriguingly, the case study refers to “alternative estimates of EOE based on regression [that] indicate low overall elasticity (0.14) for the Philippines in 1980-2004, with those for agriculture (0.10) and services (0.08), about half of industry’s...” Unfortunately no explanation or details of these alternative estimates are given.³¹

Poverty estimates made by the official statistical agency show a steady decline between 1991 and 2004 from 46 to 30 per cent of the population. During this period average annual growth in GDP was 3.8 per cent and the annual growth in population, according to World Bank’s *WDI 2006*, was 2.1 per cent. Per capita GDP grew at about 1.7 per cent per year. If the usual relation between growth in GDP and growth in personal income holds in the case of the Philippines, then the annual growth in per capita personal income was lower, perhaps less than 1.5 per cent per year. The paper states that inequality in the distribution of income is high, but gives no information about its change over time. World Bank’s *WDIs* for 1997 and 2006 respectively, show that the Gini ratio of distribution of personal expenditure went up from 0.407 in 1988 to 0.461 in 2000. This suggests that the Gini ratio of *income* distribution was almost certainly higher, which would make it one of the highest in the region, and probably increased at a similar rate. With a low growth of personal income of less than 1.5 per cent and a significant increase in inequality, it is puzzling that poverty fell as steadily as claimed. The case study expresses strong skepticism about the claim and argues that poverty estimates over time are not comparable due to a change over time in the standard of living indicated by the poverty threshold.

From the labour force and employment data reported by the paper, the rate of unemployment is found to be about the same in 2004 as in 1986, approximately 11 per cent. But, there is a considerable difference in the pattern of change over time. Unemployment initially more than doubled between 1980 and 1985 to 11 per cent; then fell steadily to 7.4 per cent by 1995 and, thereafter, rose steadily to close to 11 per cent by 2003. Annual rate of employment growth was 3.04 per cent between 1986 and 1995 and it fell to 2.37 per cent between 1995 and 2004.

³¹ It is not clear, for example, if these are from regressions based on the same data in which case the fit of the regressions would be very poor. The case study cites a paper by Felipe and Lanzona, 2005, as the possible source of these alternative estimates. The references at the end of the case study do not include a full citation of the paper.

The economy-wide observed OEE thus fell from 0.83 in the period 1986-95 to 0.6 in the period 1995-2004.³² And yet, the annual rate of decline in the headcount rate of poverty, as claimed by official estimates, was considerably faster in the second period than in the first period! If there is any validity in these claims, its explanation must be found in other policies and changes affecting poverty that the case study does not deal with.

The case study makes a big point about low total factor productivity growth in the Philippines as the explanation of the country's slow growth and high poverty. It also highlights the poor performance of labour productivity, which is just saying that the OEE is undesirably high. While all these might be valid, there is little in the case study that allows a meaningful analysis of the growth-employment-poverty nexus. One thing, however, clearly stands out: the rate of growth of the economy has been too low to provide a reliable basis for poverty reduction given so many structural features that contribute to a highly unequal distribution of incremental income.³³

Thailand

During the 1980s the rate of growth for the economy averaged 7.5 per cent. Overall output elasticity of employment, estimated from pooled time series and cross section data, was 0.56 while the observed overall OEE was 0.47.³⁴ The rate of employment growth was substantially higher than the rate of growth in labour force. During this period, the inequality in the distribution of income increased, but income poverty declined rapidly. Elasticities for four major sectors – agriculture, manufacturing, construction and services – ranged from 0.53 (agriculture) to 0.68 (services). Given the very high rate of growth, the OEE was sufficiently high to generate rapidly enough employment growth for a quick reduction in poverty. A blemish in this otherwise admirable performance was the increase in inequality. The Gini ratio of income distribution increased steadily until it reached a plateau in 1992 at 0.536.³⁵ But for this, the rate of decline in poverty would have been much faster. The case study quotes an econometric study which established that a one per cent increase in the Gini ratio led to a 3.4 per cent increase in poverty.³⁶

The next time period considered by the paper is 1990-96, the part of the decade of the 1990s before Thailand was hit by the Asian financial crisis. During this period the annual rate of GDP growth accelerated to 8.6 per cent, but the overall OEE fell sharply: the elasticity based on pooled data reported by the case study was only 0.07 while the observed elasticity was just under 0.1. However, apparently this did not create a problem of unemployment because the rate of growth in the labour force fell sharply. The paper does not discuss the latter

³² These observed OEEs are just the ratios of growth rates in employment to growth rates in GDP over the entire time periods, not averages of annual ratios. These have no relation to EOE's reported in the case study.

³³ The case study does not discuss these features. For an earlier study analysing these features see Khan, 1997.

³⁴ The elasticities reported by the paper are based on pooled time series and cross section data. The method of estimation of these elasticities is not fully discussed. But, the overall rate of growth of employment is shown to have been 3.5 per cent, implying that the observed overall output elasticity of employment was 0.47.

³⁵ The Gini ratio is not shown for individual years of the 1980s but it is reported to have been as low as 0.485 in 1988.

³⁶ The reviewer interprets this to be an increase in the headcount index of poverty, something that the case study does not make absolutely clear.

phenomenon. Without a full understanding of this phenomenon it is hard to explain the story during this period. The data reported in the *WDI (2006)* show that the labour force participation rate fell sharply after 1990 and the annual growth rate of labour force between 1990 and 2004 was just over one per cent per year. Even so, the average annual rate of employment growth was lower, just about 0.8 per cent. The distribution of income remained unchanged: the Gini ratios for 1990 and 1996 were virtually the same. The incidence of poverty fell very rapidly, the headcount index for the country as a whole falling by more than half.

Disaggregated OEEs for individual sectors shed more light on the puzzling scenario. OEEs for manufacturing and services remained about the same as in the 1980s, while the OEE for construction, the most labour-absorbing sector, shot up to 1.41.³⁷ Thus, overall OEE for the non-agricultural sectors taken together increased, perhaps significantly so. The sharp fall in the economy-wide OEE is explained by a highly negative (-0.86) OEE for agriculture. This was clearly the period when Thailand started its so-called “Lewis transition”, an absolute decline in employment in agriculture, apparently promoted by a very rapid increase in employment in the non-agricultural sectors, which in turn was induced by very high rates of growth in those sectors. For an economy experiencing hyper growth for several decades, this kind of transition is expected and desirable. The highly negative OEE for agriculture, resulting in the very low overall OEE, must be attributed to measurement anomalies. This was clearly a period of rapid growth in employment, helped by a decline in the growth of labour force, which contributed to both an improved distribution of income and an accelerated reduction in poverty.

In the aftermath of the Asian crisis, the GDP growth rate was negative for several years as was the rate of employment growth. Employment, however, fell at a slower rate than output.³⁸ During this period inequality also rose a little and the incidence of poverty increased.

The paper captures the characteristics of the period after the resumption of growth by analyzing the performance during the period 2001-04. Annual growth rate in GDP was 5.2 per cent during this period with an employment growth of 2.0 per cent. This would make the observed overall OEE 0.38, much higher than it was in the immediate pre-crisis period, though arguably not as high as it should have been for a country at Thailand’s level of development. And yet, it needs to be noted that this overall OEE would have resulted in a very fast annual rate of employment growth of 3.3 per cent if the rate of growth had been as high as in the pre-crisis period. The restoration of growth appears to have been accompanied by a fall in inequality. The incidence of poverty started its rapid decline once again.

³⁷ This in itself is a puzzle. An OEE greater than one indicates falling output per worker. This can happen during a period of low employment growth leading to rising concealed underemployment which must be ruled out for this period of dynamic growth. The only other explanation is a change in the composition of output of the sector leading to a sharp rise in the share of more labour-intensive types of construction (for example, more of rural housing and less of mechanized construction).

³⁸ It is puzzling that in Table 2.1 the overall OEE is reported to be -0.62 while GDP growth and employment growth rates are reported to be respectively -2.5 per cent and -0.1 per cent. On the basis of these growth rates the *observed* (not the one based on pooled data used by the case study) overall OEE was 0.04, positive, but fortunately very low.

During the period of resumed growth, sectoral OEEs for services and construction increased over their respective pre-crisis levels. For manufacturing it fell somewhat, to 0.39. The most intriguing outcome is a negative OEE for agriculture during this period when output growth of the sector continued to be slightly negative. This implies that agriculture started a net absorption of labour despite a fall in the sector's real value added, thereby (hopefully temporarily) reversing the Lewis transition that Thailand had been experiencing prior to the crisis.³⁹ Overall the story suggests that in the period of recovery Thailand's agriculture had a net absorption of labour to offset the slowdown in labour absorption in the non-agricultural sectors, largely due to their declining growth, but also due to a fall in the labour intensity of manufacturing growth. Be that as it may, the overall rate of employment growth was faster than in the pre-crisis period.

The experience of the last few post-crisis years shows that growth in Thailand has become more poverty alleviating than in the pre-crisis period. The principal difference between growth patterns in the two periods is that growth now is more inequality averse than before. Reasonably high labour intensity of growth, on the aggregate far more so than in the immediate pre-crisis period, probably explains some of the difference. The study strongly suggests that it is also due to the redistributive public expenditure by the Thaksin government.

The case study makes use of the social accounting matrix (SAM) to explain how growth is transmitted to augment income of the poor households through inter-sectoral linkage and by identifying both the initial activities that result in the greatest final income contribution to the poor and the form of factor payments that these contributions take. For low-income agricultural households, the activities that provide the maximum linkage, ranked in order of importance, are wheat products, meat products, other agricultural activities and non-farm activities. For non-agricultural poor households such activities are diffused. A surprising finding is that these households benefit more by payments for factors of production other than labour, capital to be more specific. Expansion of banking and insurance does not benefit the poor through enhanced wage income because they do not have the necessary skills to be gainfully employed in these activities. But an expansion of these activities benefits the non-agricultural poor by increasing the return on their deposits. In the absence of more detailed information on the resource endowment of these poor and of greater transparency of the SAM multiplier analysis, the present reviewer reserves judgement on the validity of this particular finding.

The case study makes a number of broad policy recommendations: support to agriculture-related activities to arrest the decline in agriculture's labour absorption and to promote the activities that the SAM multiplier analysis shows to have the maximum linkage to the income of the poor; the promotion of service industries; skill development of the workers; the promotion of small enterprises, which the study finds to have a greater labour intensity than larger enterprises; and more effective enforcement of minimum wage laws and other forms of protection for the workers. While all these recommendations appear innocuous, one must take a more careful approach to agriculture's so-called inability to absorb labour. Thailand's present

³⁹ A qualification is warranted by the fact that the sectoral OEEs reported by the case study are probably the ones based on "pooled data" and hence may diverge from the observed elasticities.

stage of development warrants a reallocation of labour from agriculture to non-agricultural activities. In the early 2000s agriculture's share of employment continues to be around 45 per cent while its share of GDP has fallen below 10 per cent. This means an enormous difference in productivity of labour between agriculture and non-agricultural activities. Given that most of the poor are in agriculture, a reallocation of labour is a precondition of rapid poverty reduction.

South Asia

India ⁴⁰

Two distinct time periods, dictated by the timing of the National Sample Surveys (NSS), are considered: 1983 to 1993/94 and 1993/94 to 1999/2000. The former is interchangeably referred to as "the 1980s" and "the pre-reform period" while the latter is named "the 1990s" and "the post-reform period". Total employment growth in India decelerated from just over 2 per cent per year in the former period to just under one per cent in the latter period. Growth rate in population declined slightly between the two periods. However, during the post-reform period the rate of growth in employment was significantly lower than the rate of population growth. Employment growth rate during the 1980s had slightly exceeded the population growth rate.

The annual growth of employment in agriculture, employing 60 per cent of those working in 2000, fell from 1.4 per cent during the 1980s to about zero in the post-reform period.⁴¹ The growth of employment in manufacturing fell too, but comparatively slightly. The same was the case for community, social and personal services, and electricity and gas. In the remaining sectors – construction, trade, transport and financial services – the rate of employment growth increased in the post-reform period. But, for the non-agricultural sectors taken together, the rate of employment growth fell.

The rate of GDP growth was significantly faster in the post-reform period than during the pre-reform period, 6.42 per cent as compared to 5.05 per cent. The overall OEE fell from the already-low 0.40 in the pre-reform period to a dismal 0.15 during the post-reform period. In agriculture it fell from 0.5 to zero or less and in manufacturing from 0.37 to 0.29. In construction it was exceptionally high in both periods, 1.1 in the pre-reform period and 1.2 in the post-reform period. In trade, transport and financial services it remained reasonably high, ranging respectively from 0.6 and 0.8 and rising between the periods for the last two.

⁴⁰ There are two case studies on India in the present series: Chadha, 2006, deals with the case of rural India while Mitra and Bhanumurthy, 2006, is concerned with manufacturing, construction and tertiary sectors. This subsection draws on the findings of both the case studies. In addition, it occasionally draws upon Sundaram and Tendulkar, 2006.

⁴¹ It varies between 0.05 per cent and -0.15 per cent depending on what population figures are used in conjunction with the NSS ratios to estimate employment. The lower figure indicates the estimate made by the Planning Commission using a different population figure than do others.

Between the two periods employment growth fell in both the organized sector and in the unorganized sector. The fall in the former was largely due to the downsizing of the public sector. While the proportionate decline in the employment growth rate was the same for the two, employment growth was almost twice as fast in the unorganized sector as in the organized sector. Casual workers, earning less than the average of the other workers, increased as a proportion of all workers, both in rural and urban areas.

Although the rate of employment growth significantly lagged behind the rate of population growth during the post-reform period, the evidence of the NSS suggests that the open unemployment rate and the unemployment rate adjusted for hours of employment, showed very little change. For rural areas they are very low and show only the slightest increase. For urban areas they show a slight decline when adjusted for hours of work. That the unemployment rate remained roughly stable while the growth in employment lagged behind the growth in population means that the ratio of workers to population fell, a crucial issue to which this review will return.

According to official estimates, the incidence of poverty fell in India during both the periods, the rate of fall being higher in the post-reform period. This was the case both for rural and urban India, the rate of decline in poverty during the post-reform period being faster in rural India. Thus, India seems to have achieved a faster rate of reduction in poverty during the post-reform period when the rate of growth in GDP was faster despite the fact that the employment intensity of growth was dismal by any absolute standard and slower than in the pre-reform period. Was the employment linkage unnecessary in India's growth-induced poverty reduction? If so, what was the mechanism of converting growth into an improved well-being of the poor?

One possible response to the question is that poverty reduction in India was very slow for the kind of growth that the country experienced and the poor performance on employment is to blame for this breakdown of linkage between growth and poverty reduction. The two case studies appear to take this position, especially when they highlight the continued high incidence of poverty. But, the fact remains that official estimates, unchallenged by the case studies, show that the annual rate of reduction in the number of persons in poverty increased from a mere 0.3 per cent during the pre-reform period to 3.8 per cent in the post-reform period in rural India and from a -0.7 per cent (i.e., from an annual rise in the number of poor of 0.7 per cent) to 2.2 per cent in urban India. Therefore, growth in the post-reform period, though arguably still not adequately poverty-alleviating, was far more pro-poor (or at least far less hostile to the poor) than growth in the pre-reform period. How did this happen despite a far worse performance on employment growth? Unfortunately, the case studies do not quite address this issue, nor do they provide the information necessary to fully analyse the growth-poverty linkage.

Another possible response to the puzzle may be that poverty reduction in India during the post-reform period was slower, perhaps much slower, than official estimates claim. There is a lively debate on this issue that remains unresolved. In this debate the official estimates have been challenged both for showing too much and too little reduction in poverty. A very careful examination of the entire controversy and the methodological backgrounds of contending views have led Angus Deaton and Valerie Kozel (2005) to reach the following conclusion:⁴² Although there is no consensus on what happened to Indian poverty in the 1990s, there is good evidence both that poverty is falling and that the official estimates of poverty reduction are too optimistic, particularly for rural India.

The role of employment in poverty reduction can, however, be guessed. Employment in agriculture did not grow at all. The rural case study rightly does not consider this to be, by itself, an undesirable phenomenon in so far as it argues that the most desirable change in agriculture is for output to grow rapidly while more and more workers are taken out of agriculture. Indeed, this desirable outcome was borne out by actual events: agricultural growth in the post-reform period was higher albeit very slightly and agricultural employment arguably fell (according to the Planning Commission estimates). The problem is about what happened to employment and its productivity elsewhere in the rural economy. Non-agricultural employment increased much more rapidly than agricultural employment, but aggregate rural employment growth was slower than in the pre-reform period and slower than rural population growth. Furthermore, there was an increase in the proportion of casual labourers who have lower income than other workers. Of non-agricultural employment, the largest category, namely enterprises based on self-employment, had the fastest expansion, but they also had an OEE greater than one, signifying declining productivity.⁴³

Against all these negative employment outcomes in rural India there occurred a positive outcome in the form of strong growth in real wages for casual agricultural labourers and workers in rural informal employment. This clearly indicated a tightening of the labour market which can only be explained by the decline in the worker/population ratio being caused by a decline in labour supply rather than a fall in demand, a decline induced by such beneficial changes as improved schooling rates.⁴⁴ It is possible that positive changes in some of the factors listed above further reinforced this favourable "employment" outcome to make growth in the post-reform period more poverty alleviating than in the pre-reform period.

For urban India the increased poverty-alleviating effect of growth in the post-reform period, as compared to the pre-reform period was probably due to similar factors: a supply-induced tightening of the labour market leading to a rise in real wages along with other possible positive effects of government policies and programmes. Once again, the paucity of information on these aspects and an absence of an analysis of income distribution obviate

⁴² Deaton and Kozel, 2005.

⁴³ This is based on the evidence for own-account rural manufacturing enterprises in Mitra and Bhanumurthy, 2006. It is left to the reader to decide if this phenomenon is quite consistent with the hypothesis of the tightening of the labour market discussed below.

⁴⁴ This explanation is spelled out in Sundaram and Tendulkar, 2006, which also argues that the slight rise in some of the indicators of open unemployment rates are more apparent than real.

a fuller understanding of the phenomenon. Another limitation of the case studies, especially of the one on manufacturing, construction and tertiary sectors (referred to below as the MCT study), is the lack of an analysis of changes after the year 2000 when growth accelerated further and its composition changed substantially. While lack of as detailed data as for the NSS years makes a full analysis of this period impossible, some broad features of changes in this period might have been analysed on the basis of information from non-NSS sources.

The MCT case study makes detailed analysis of employment intensity of manufacturing industries, both organized and unorganized, analyses the role of construction and services in growth and poverty reduction, and discusses the effects of some major reforms in the 1990s on employment. For the organized manufacturing sector the study makes estimates of partial elasticities of employment with respect to both output and wages for three distinct time periods: regulated regime (1973/74 to 1984/85), deregulated regime (1984/85 to 1990/91) and reform period (1990/91 to 1997/98) for as many as 178 industries. These econometric estimates capture the acceleration or deceleration in partial output elasticities of employment in subsequent periods by the use of dummy variables. As noted before, a problem with this approach is that while the partial elasticities are better able to capture the effects of causal determinants of employment growth, the gross (observed) output elasticities of employment better represent the degree of employment friendliness of growth. It is also not possible to compare these partial elasticities with either the elasticities estimated in the other studies or with the estimates for the other sectors made in the same study. Another problem of comparability is the different time periods used for these estimates from those used for the ones discussed above and for the estimates of the other sectors made by this study. Data reported by the study shows that the gross OEE for organized manufacturing as a whole was 0.44 in the regulated regime, 0.14 in the deregulated regime and 0.33 in the reform period. Unfortunately, the non-comparability of time periods makes it impossible to juxtapose these estimates against the ones shown for the pre-reform and post-reform periods above. The broad conclusions are that: the partial elasticity with respect to output at the aggregate level declined slightly in the reform period as compared to the pre-reform periods; and, at the disaggregated level, the partial elasticities with respect to output increased for one-fifth of the industries while for the rest they remained very low and/or stagnant. The study concludes that reform seems to have made no impact on the elasticity.

For unorganized manufacturing the case study estimates gross OEEs for time periods which, dictated by the availability of relevant surveys, are again different: the pre-reform period now consists of 1989/90 to 1994/95 while the post-reform period stretches between 1994/95 and 2000/01. For the entire unorganized manufacturing, rural and urban, the rate of growth of output rose, from negative in the pre-reform period to a high annual growth of 7.6 per cent in the post-reform period. Gross OEE fell from a staggering 10.4 in the pre-reform period⁴⁵ to 1.1 in the post-reform period.

⁴⁵ This was due to an annual fall of 0.7 per cent in output and 7.4 per cent in employment. It would appear that during this period a fairly large number of those in unorganized manufacturing with very low productivity were moving out to other activities with very little effect on the output of the sector.

Unorganized manufacturing is classified into three categories: more than 80 per cent of rural and about half of urban employment in unorganized manufacturing is in own-account manufacturing enterprises (OAMEs) which are entirely based on family labour. For this group, output growth turned from negative in the pre-reform period to a highly positive eight per cent per year in the post-reform period. Gross OEE for the sector fell from 3.3 to 1.4. The high OEE for the former period represents a large exodus of workers from other occupations resulting in a relatively small decline in output. In the post-reform period the greater-than-unity OEE is the outcome of a large increase in output resulting from a still larger inflow of workers from other activities, most likely from agriculture, but possibly also consisting of those laid off by the organized sector. If this interpretation is correct then this would not quite be consistent with the hypothesis of the tightening of the labour market in the post-reform period that has been highlighted as the critical element explaining the rise in real wages in the period.

About a quarter of employment in unorganized manufacturing is in non-directory manufacturing enterprises (NDMEs) which employ up to five workers of which at least one must be hired. In the pre-reform period these enterprises experienced a small decline in output accompanied by a still smaller decline in employment, resulting in the gross OEE of 0.65. In the post-reform period they achieved a high rate of output growth with a high employment growth resulting in almost an unchanged OEE. The remainder of unorganized manufacturing, the so-called directory manufacturing enterprises (DMEs) each employing six to nine workers if using power and six or more workers if not using power, increased their output growth from a modest rate in the pre-reform period to a much higher rate in the post-reform period. While their output growth in the pre-reform period was so employment hostile as to yield a negative OEE, in the post-reform period these enterprises had a reasonably decent OEE of more than 0.5.

The picture is still somewhat confusing. In the post-reform period all categories of unorganized manufacturing grew rapidly and their growth was employment intensive. It, however, seems that in the vast self-employment category, the high employment elasticity represents an expansion of activities with very low productivity, indicating declining employment opportunity in the more productive activities. This creates some uneasiness about the hypothesis of the tightening of the labour market in this period.

The analysis of the tertiary sector in the MCT case study shows that states with a higher share of this sector in state product have a lower incidence of poverty and the higher growth of the tertiary sector is associated with faster poverty reduction. Within the tertiary sector this effect is stronger for the transport sector, which probably indicates the strong role of infrastructural linkage in the promotion of growth. It is, however, not entirely clear what particular type of causality these observed phenomena imply.

The MCT case study also has an analysis of the major policy changes in the post-reform period and their effects on employment growth and poverty reduction. It cites the results of other recent studies which claimed that trade reform helped employment growth: greater export growth contributed to higher OEE in manufacturing as the Stolper-Samuelson theorem would suggest. The study itself found that the effect of greater import penetration has been positive on employment growth, perhaps due to the higher capacity utilization facilitated by the greater availability of imported intermediate goods. The study also mentions the evidence of the greater use of labour-displacing technology by some industries in the post-reform period. On balance, it finds that the result of trade reform on employment growth was mixed, unlike the more positive finding of some other recent studies. It also concludes that on balance foreign direct investment helped employment growth.

On fiscal and monetary policies, the study suggests that changes in subsidies, reduction of it on inputs, but a rise of it on food, had an uncertain effect on employment due to their mixed effect on the growth of respective products. The tightening of monetary policy adversely affected the growth of employment due to its adverse effect on growth.

The case study analyses recent policy changes to make the labour market more flexible and to reduce the share of the public sector in total employment. Since these measures are very recent, it is unlikely that they had any effect on the employment outcome analysed above for the period ending in 2000.

Sri Lanka

Sri Lanka achieved a modest rate of GDP growth of 4.2 per cent during the 1980s. It accelerated to 5.2 per cent during the 1990s, but fell back to 4.0 per cent during the early years of the new century. Population increased at just below one per cent per year. Thus per capita GDP increased at an average of about 3.5 per cent over the entire period.

The case study reports estimates of OEE for the 1980s, 1990s and the first four years of the present century. On the evidence of these estimates, the overall employment intensity of growth fell in each subsequent period. One, however, needs to look at the sectoral and sub-sectoral estimates carefully to get a clearer picture of reality. First, one needs to take into account the lack of comparability for the OEE estimates between the 1980s and the subsequent periods. For the 1980s they are the arc elasticities between 1981/82 and 1986/87 while for the two later periods they are based on regressions of employment on output.

For manufacturing industries the OEE fell between the 1980s and the 1990s, but nearly doubled between the 1990s and the early 2000s.⁴⁶ At the sub-sectoral level separate estimates of OEE for most manufacturing industries for the period 1993-2001 are very low by any standard. Construction, the other major industry, experienced a steady decline in OEE over

⁴⁶ Remember, however, the lack of comparability between the estimates for the 1980s and the 1990s and the very small number of observations for the 2000s.

each of the subsequent time periods, but continued to have a very healthy level of OEE (0.8 in the early 2000s).⁴⁷

For the services sector the OEE increased between the 1980s and the 1990s, but then fell drastically during the early 2000s. On closer examination one finds that its decline was entirely due to the highly negative - nearly negative one - OEE of the residual sub-sector "other services". It seems very implausible that the OEE for other services - likely to consist of informal activities - would have so highly negative an OEE.⁴⁸ It is more likely that data sources for employment and output for this category, entirely different from one another, do not define the contents to be exactly the same, a frequent occurrence for residual categories. For all the other service sub-sectors for which estimates are available for multiple periods, the OEE has either gone up or remained high in absolute terms.⁴⁹ It should, however, be noted that the jump of the OEE for public administration and defence, to an implausible 5.5 during the early 2000s, clearly indicates an attempt on the part of the government to artificially expand employment during this period of slow employment growth elsewhere.⁵⁰

The OEE for agriculture fell sharply during the 1990s and increased to an extraordinary 2.6 during the early 2000s. As repeatedly emphasized in this review, no great significance needs to be attached to these fluctuations. They reflect more the change in labour demand in the non-agricultural sectors than change in labour demand within the agricultural sector which is the ultimate residual employment category dominated by self-employment. The very low OEE during the 1990s probably indicates a favourable growth in employment outside agriculture, while the extraordinarily high OEE during the early 2000s reflects the slow employment growth elsewhere.

Real wages generally grew at a much slower rate during the early 2000s than during the 1990s. Indeed real wages in manufacturing, numerous services and an agricultural sub-sector (coconut) fell during the early 2000s confirming slow employment growth during this period. All these would point to some increase in inequality. This is confirmed by the increase in the Gini ratio of personal income distribution from 0.43 to 0.48 between 1990/91 and 2002.

Poverty headcount rates are available for 1990-91, 1995-96 and 2002. In the initial period, poverty was highest in rural areas (29 per cent) and lowest in urban areas (16 per cent) with

⁴⁷ It is a little hard to imagine the OEE of the sector being higher than 26 during the 1980s unless one allows for a vast change in the composition of the sector's output in favour of labour-intensive products. Manufacturing and construction together account for more than 95 per cent of industrial output. One can thus ignore the erratic behavior of OEEs for the remaining sub-sectors, e.g., mining; and electricity and water.

⁴⁸ Note also that the two previous time periods do not show estimates for this residual category (Table 5.7) for which employment estimates are available only from 1992 (Tables 5.3 and 5.4). There is also an obvious inconsistency between Tables 5.5 and 5.6 with respect to employment growth for this sub-sector.

⁴⁹ For hotels and restaurants elasticity is estimated for only one period and this is very low.

⁵⁰ The elasticity of 5.5 indicates something about the nature of employment growth in this sector because usually value added in this sector is based on the income method, i.e., the change in payments to factors of which labour is overwhelmingly dominant. Thus this elasticity must mean that the government was hiring lots of low-paid workers, perhaps as part of a conscious anti-poverty policy.

the estates having an intermediate incidence (21 per cent). By the end of the period, poverty had become highest in the estates where it had increased to 30 per cent. It had declined moderately in rural areas (to 25 per cent) and impressively in urban areas (to eight per cent). For the country as a whole, poverty over the entire period declined modestly from 26 to 23 per cent. It is interesting to note that poverty had increased between 1990-91 and 1995-96 for Sri Lanka as a whole and for rural and estate sectors. In other words, poverty declined more rapidly between 1995-96 and 2002 in all three areas than during the period as a whole; for the country as a whole, the fall being from 29 to 23 per cent.

Poverty estimates are also available for 1995-96 and 2002 by sectors of employment. For those employed in agriculture, poverty changed little, from 40 to 39 per cent. For those employed in industries it fell from 28 to 23 per cent. For those employed in services it increased from 16 to 18 per cent!⁵¹

Since the time points for poverty estimates do not coincide with the points for which estimates for growth rates, employment and inequality are available, it is not possible to analyse the relations among changes in these variables. If the problem of asymmetrical time points is ignored, several observations can be made. First, the rate of poverty reduction appears to have been rather slow, just over one per cent annual reduction in the headcount rate. Even with the modest increase in inequality, the annual growth in per capita GDP of 3.5 per cent should have provided an opportunity for a faster reduction in poverty. The problem is that the study does not show the rates of increase in personal income. In income poverty estimates, it is per capita personal income, not per capita GDP, which is the basis of measurement. The rate of growth of personal income is typically lower than the rate of growth of GDP: the incremental shares of the claimants other than households – the government and business – are usually greater than their average shares. Furthermore, the divergence between the growth of personal income and the growth of GDP can vary over time depending on macroeconomic policies of which the study provides no analysis. Finally, in 2004 net factor payments made by Sri Lanka to foreign factors of production amounted to 2.8 per cent of GDP. A variation in this ratio over time could drive yet another wedge between the growth in personal income and the growth in GDP.

Be that as it may, it does not appear that low employment intensity of growth has been the principal obstacle to the transformation of economic growth into poverty reduction. The principal problem seems to have been the inadequacy of growth itself, along with a possible diversion of a high proportion of incremental income to claimants other than the households, which stood in the way of poverty reduction. Lack of faster growth was also a reason for the slow growth in productivity and real wages which would have helped poverty reduction. This does not mean that everything was fine with the employment intensity of growth. Higher OEEs in some of the services and some industrial sub-sectors during the 2000s would have been helpful.

⁵¹ If one wants to reconcile these with the decline in overall poverty from 29 to 23 per cent, one must assume that these three sectors do not add up to the total, that there are residual categories where poverty fell more sharply. One wonders what those categories might be!

The case study credits labour market reforms carried out since 2002, which amended many of the job protection measures that allegedly caused employment hostility on the part of the employers, with making the market flexible and thereby promoting high employment intensity. It should, nevertheless, be noted that employment intensity of growth was quite reasonably high before these reforms took place. The case study further mentions numerous provisions for training and incentives which have helped job creation. It also mentions the early replacement of the import-substituting industrialization regime by the strategy of export-led industrialization as a major factor in promoting an overall system of incentives that helped the development of appropriately labour-intensive technology.

The case study documents one very important avenue for the alleviation of the problem of employment generation in Sri Lanka, namely the rapid expansion of foreign employment which absorbed 28 per cent of the increase in labour force during the period between 2000 and 2005. The rapid growth of private remittances made by these workers also appears to have helped the reduction of poverty during a period of anaemic growth.

On accelerating the growth of the economy, the case study has a number of sector-specific policy recommendations. It does not seem to have much of a problem with the overall development strategy or macroeconomic policies. One is left wondering if the resolution of the ongoing political conflicts is a precondition for putting Sri Lanka on a significantly higher growth path.

V. What does the Experience of the Asian Countries say about Growth-Employment-Poverty Linkage?

How Employment-Intensive has Growth been?

The first set of questions that we address relates to whether growth in the Asian countries has been sufficiently employment intensive and what has been happening to the employment intensity of growth over time. The latter part of the question is often framed as how the employment intensity - the OEEs - changed between the 1980s and the 1990s, the two most recent full decades. As the perusal of the case studies reveals, such a mechanical division of time periods is unjustified. Thus, for example, the estimation of OEE for the 1990s for a country that experienced the severe Asian crisis would suffer from the fact that the terminal years have been subject to abnormal fluctuations in output and employment. Rather than doing this, the analysis below makes inter-temporal comparisons between more natural time periods, e.g., the pre-crisis period and the post-crisis period; and the pre-reform period and the post-reform period. One unfortunate problem is that the data availability often limits the ability to precisely adhere to such time periods. Table 2 presents capsule summaries of employment performance of the eight countries.

The two countries in which there was a sharp decline in employment intensity over time are China and India. In China the OEE for the non-agricultural sector had been falling since the 1980s, a trend that appears to have quickened since the mid 1990s. The case study shows a

reversal of this trend right at the end of the period (2004), but, in view of the presence of such short-term fluctuations in the past, it is impossible to say if this is the beginning of the reversal of the trend.

The sharp decline in China's OEE seems to be largely a problem of transition. Studies carried out in the 1990s after the onset of the phenomenon did not find that the industries which accounted for most of the increase in output were inappropriately capital intensive. Expansion in employment in these industries was accompanied by a parallel phenomenon of reforming the State and collective enterprises. During the earlier years of the reform period, China's State and collective enterprises continued the policy of the Maoist period of adding people to their payrolls in excess of legitimate demand for labour. This was a concealed system of unemployment insurance in a society which refused to admit the possibility of unemployment.

Table 2: A Summary of Employment Performance

Cambodia	The OEEs in rapidly-growing industries and most services rose in the late 1990s as compared to the early 1990s. Those and the economy-wide OEE in the late 1990s were quite decent by absolute standards.
China	Agriculture started shedding labour from the early 1990s, but this was reversed for a period starting in 1997. Industries and services experienced sharply falling OEE. Overall employment performance has been poor. The problem appears essentially to be one of poor management of transition.
Indonesia	Employment performance was good prior to the crisis. OEE in manufacturing fell sharply in the recovery period. There was a reversal of the long-term reduction in agriculture's share of employment. On balance employment performance has been poor in the recovery period.
Malaysia	OEEs have shown no trend reduction. Growth has been employment friendly overall.
Philippines	Estimates of employment intensity in the case study are inadequate to arrive at a firm judgement although it appears, from findings of other studies, that there were institutional obstacles to labour absorption in agriculture and manufacturing.
Thailand	OEEs were higher for the non-agricultural sectors in the 1990s (until 1996) than in the 1980s but the overall OEE was lower due to the fact that agriculture's OEE turned from a positive value in the 1980s to a highly negative value in the 1990s. In the recovery period the OEE for manufacturing fell somewhat but the same for construction and services rose. The Lewis transition in agriculture of the 1990s was reversed.
India	In the post-reform period the OEEs fell and employment growth fell as compared to pre-reform period. But real wages rose presumably due to a supply-induced tightening of the labour market.
Sri Lanka	With the exception of a few sub-sectors of industries and services OEEs were reasonably high and growth was employment intensive.

Source: Country Case Studies.

During the reform period these State enterprises were opened up to the challenge of international and domestic competition, as well the opportunity of collaboration with foreign entrepreneurs, which required them to shed surplus labour. Necessary legal changes were made and these enterprises entered a period of massive lay-offs. For manufacturing as a whole, total employment was pulled down by this transitional lay-off of large numbers of workers. The observed OEE for the sector became very low and negative for the 1990s. This was a necessary transition whose effects are still being felt. China could, and should, have done more and earlier, by way of mitigating the adverse consequences of this phenomenon on the urban poor, whose ranks were swelled by these laid-off workers, through the institution of a transparent system of unemployment insurance. The overall OEE might have been boosted by the institution of public works programmes for capital construction in poor regions. Some of these measures were adopted around the turn of the century which appears to have mitigated the problem of urban poverty to some extent.⁵²

What accounts for the sharp fall in India's industrial OEE? The case studies do not provide much of a clue. It appears, however, that to a certain extent India also faced a transition brought about by adjustment in State enterprises. The ceiling on recruitment in State enterprises indicates that there was some element of excess employment in them in India as well. Furthermore, India's industries had much lower sectoral growth elasticity: during the 1990s they grew at about the same rate as GDP, whereas the more usual pattern is for industries to grow considerably faster. It was the services sector that spearheaded India's growth: during the 1990s the elasticity with respect to GDP was 1.33 for services and 1.05 for industries. The services that grew rapidly were intensive in skilled labour and it is probable that their headcount contribution to employment was not particularly large. A final point worth noting is that most of these skilled workers who were employed in services were non-poor.

Indonesia and Thailand also experienced a decline in industrial OEEs in the post-crisis period. The case studies do not provide much of an explanation for this fall. In each case, however, the overall OEE was high enough for the economy to provide more employment than the increase in the labour force only if the growth rates of the economies had returned to pre-crisis levels. In this sense, it is possible to argue that the employment problem was largely due to slow growth. The Indonesian case study strongly argues that the poor employment performance was due to the slow growth in aggregate demand caused by restrictive monetary and fiscal policies. One wonders if the explanation of the low OEE in industries might not, at least partly, be due to the relative disadvantage that small enterprises, with labour-intensive techniques, faced in getting access to credit and resources during a period of restrictive fiscal and monetary policies. In both countries, agriculture came to absorb more labour in the post-crisis period than before: in Indonesia, there was an increase in agriculture's share of employment and in Thailand there was a reversal of the absolute decline in agricultural employment that had started in the 1990s. Furthermore, in Thailand, during this period of relatively poor employment performance, growth became more poverty-alleviating than before. This review returns to these issues later.

⁵² For a somewhat more detailed analysis of the issue see Khan, 2004.

In three of the cases – Cambodia, Malaysia and Sri Lanka – the OEEs have by and large been at decent levels. In Cambodia, they went up in the late 1990s and early 2000s as compared to the early 1990s. In Malaysia there is no evidence of a trend decline in OEEs and the country seems to have successfully advanced, attaining the Lewis transition. Data on Sri Lanka, on the whole show fairly high OEEs. Of these three cases, Malaysia is the only one that has attained high enough employment growth. In the other two cases, overall employment growth has not been high enough due to inadequate and/or unbalanced growth. In Cambodia, the aggregate GDP growth rate has been high, but growth has bypassed agriculture, the sector in which most of the country's workers are located. In Sri Lanka the growth rate has not been sufficiently high.

For the remaining country, the Philippines, the available estimates of OEEs are not sufficiently illuminating. While a number of studies have in the recent past underlined the employment-hostile institutions in agriculture and industries, a recent Asian Development Bank (ADB) study estimates its overall OEE to have risen from 0.54 in the 1980s to a very decent 0.75 in the 1990s.⁵³

Thus, the outcome on employment intensity of growth has been mixed. In four of the countries it has been low and declining while in the other four it has been high and non-diminishing or increasing. Of the four cases of low and declining OEE, in two countries the primary problem about inadequate employment growth seems to have been slow economic growth and restrictive monetary and fiscal policies to rein in the growth of aggregate demand.

It is worth comparing these results with the recent ADB findings which show that of 11 Asian countries for which they obtained estimates, the overall OEE fell in seven and rose in four, between the 1980s and the 1990s. Their sample includes six of the present case studies (Cambodia and Sri Lanka being excluded from the ADB list) and it is only for Malaysia that the ADB results appear to diverge from the present studies. Indeed, the present study also shows a fall in the overall OEE for Malaysia between the 1980s and the 1990s and a rise in the early 2000s which leads to a different conclusion from that made from the ADB data.⁵⁴

⁵³ The ADB estimates are shown in Table 1.9 of the Indonesia case study.

⁵⁴ The other difference between the present case studies and the ADB list is that the latter includes Bangladesh (where the OEE fell), Pakistan (where it rose) and the three East Asian "tigers": the Republic of Korea, "Taipei, China" and Singapore. It rose in Korea and Taipei, China, as one would expect to happen during the transition of these countries to a high level of industrialization and development. The surprising result is that it rose in Singapore which had a very high OEE of 0.71 during the 1990s rising from 0.38 during the 1980s!

What can be said about the Causes of the Decline in Employment Intensity?

While the decline in the OEEs has not been universal, the effect of their change on employment and poverty has been very unfavourable in most countries, including the largest ones like China and India where the effect of such decline on human welfare has been devastating. It is thus important to look for an analysis of the factors behind their change. As the perusal of the case studies show, these changes have often been considered baffling by analysts. Our knowledge about the factors behind them is incomplete. Certain facts, ranging from clear explanations to probable hypotheses have, however, emerged.

The principal explanation for the sharp decline in the industrial OEE in China is the transition from an economic system that made inefficient use of labour in the past under a State-dominated regime of extreme import-substituting industrialization (ISI). Transformation to an efficient system of competition, both domestic and international, requires the shedding of a high proportion of workers, principally in State-owned enterprises, but also in other forms of enterprises which tolerated excess labour absorption in a regime that made this possible by shutting out competition. This is a desirable change and a transitional fall in the overall industrial OEE due to this, is inevitable for healthy development. The greater the initial inefficiency and distortion, the larger is the magnitude of such transition, both in terms of the extent of fall of the OEE and the duration of time that must elapse before a reversal occurs.

While the policy-makers cannot avoid such transition, except by opting for continued inefficiency that is ultimately bad for the poor, they can mitigate its cost. This can be done by resorting to public works programmes, retraining the laid-off workers and replacing the system of concealed unemployment insurance by a transparent system. In recent years China has been moving in these directions. India, too, has very recently moved toward legislating for a large public works programme that should mitigate the effects of the transitional fall in employment intensity of growth.

A second source of the fall in employment intensity of growth may be a shift in the composition of output in favour of activities that are not the traditional labour-intensive ones. This is not the usual outcome that economic theory foresees for a labour-abundant developing country where transition to a more globalized and market-oriented system should increase the share of labour-intensive activities in total output. However, exceptions are possible and it appears that this explains a good part of the paradox of India's rapid growth that may have relatively bypassed the traditional labour-intensive industries.⁵⁵ While having a comparative advantage in a host of labour-intensive industries, India also came to attain strong comparative advantage in the highly skill-intensive information technology and related industries. This has been due to its past policy of promoting higher technical education. The country has long been the one with the largest excess supply of highly-skilled technical human power. This is a relatively unusual situation for a developing country and the policy behind this was often subjected to criticism by the development community in the past. Be that as it may, in the

⁵⁵ The hypothetical formulation of the statement is deliberate. While there is a great deal of "circumstantial" evidence in favour of this hypothesis, the reviewer knows of no serious study on the subject.

age of globalization with the emergence of IT as a major activity in the world economy, India came to have a strong comparative advantage in this activity.⁵⁶ India's accelerated growth in the post-reform period came to feature a very large share of these highly skill-intensive activities which did not provide much employment of the traditional kind.⁵⁷ Once again, there is nothing undesirable about responding to such opportunities. It would, however, be desirable to simultaneously improve incentives for manufacturing and agriculture which still have to provide employment to the bulk of the labour force.

The shift in comparative advantage may also come from other sources. The Indonesian case study suggests that Indonesia has been losing competitiveness in labour-intensive garments and other exports to newly emerging cheaper exporters like Vietnam and that its exports have been shifting towards more technologically-sophisticated products. Such shifts in competitiveness for specific exports are a normal hazard of development in a globalized world economy. The right policy response is to see if this can be offset by *appropriate* (i.e., consistent with the country's true comparative advantage) support to restore competitiveness for the adversely affected industries or to shift to new areas of comparative advantage. There is no reason why such an orderly shift in policies should result in an overt change in the composition of output in favour of employment-hostile activities. In any case, the Indonesian case study notes that the composition of output in Indonesia has not shifted in response to the change in the composition of exports, so this particular explanation for Indonesia's decline in industrial OEE does not appear valid.

A third possible source of a decline in the employment intensity of growth is an adverse shift in the relative access of the labour-intensive activities to resources, most importantly credit. An example is a reduction in the access of the small-scale enterprises, which are almost invariably more labour intensive than the large-scale enterprises, to credit. This is most likely to happen in a situation of general credit crunch when, even without ostensible discrimination, the small-scale enterprises face greater disadvantage. This review has tentatively suggested that in the environment of strict control of credit in the post-reform period, this may have happened in Indonesia and possibly Thailand. The obvious way to prevent this is to design stabilization measures with care and avoid an unnecessarily stiff dose of stabilization.

A fourth possible source of a decline in employment intensity is an undesirable shift in the relative cost of factors of production. The Indonesian case study points out to the school of thought - one that the study rejects - that government regulations and enforcement of minimum wages have been a major cause of the employment hostility of Indonesia's recovery. Generally, the nearly-universal long-term shift in development policy has meant a move away from such policies in the developing world. It is not obvious that this has happened in any of the cases in the current group of countries. But policy-makers need to be alert to such possibilities.

⁵⁶ The present reviewer has elsewhere compared this with the classical case of "vent for surplus".

⁵⁷ This means that even if IT industry grows with a high OEE and even if it is true that physical capital intensity of these industries is not particularly high – an issue that needs to be documented – the direct impact of such employment growth on poverty reduction would be minimal.

The Overall Employment Performance

It needs to be noted that poor overall employment performance was not limited to the countries which experienced a decline in the employment intensity of growth. Employment growth was inadequate in three of the remaining four countries which show no evidence, or at least no clear evidence, of declining employment intensity of growth (Cambodia, the Philippines and Sri Lanka). In these countries the slow rate of growth or growth bypassing the major “poverty” sectors has been the obstacle to adequate employment growth. The only country in which the overall employment growth has not been a serious issue is Malaysia which has been a significant net importer of labour from abroad. Indeed, Malaysia has also faced a problem of employment growth in the post-crisis period to which its response has been to sharply reduce the inflow of immigrant labour. Thus, the problem of inadequate employment growth must be seen as a much wider problem than of merely improving the employment intensity of growth.

Change in Employment Intensity Induced by Supply Shift

The process of economic development over the long period induces a gradual fall in the OEE, first turning it negative in agriculture and then reducing it throughout the economy as labour becomes scarce. In the Indian case, the simultaneous occurrence of a decline in OEE and a rise in real wages has been explained with reference to a shift in labour supply brought about by a decline in the worker/population ratio, which in turn was induced by such favourable changes as a rise in the rate of school enrolment.⁵⁸ While this may explain the rise in real wages, and its positive impact on the poor, despite the fall in the OEE, this does not say if the fall in the OEE was itself *caused* by the supply shift brought about by the decline in the worker/population ratio. Indeed, India’s agriculture needs to release a great deal more of labour. Had the OEE in industries and the non-agricultural sectors been sufficiently high, there might have been a beginning of the Lewis transition *aided* by the fall in the overall worker/population ratio. The supply shift that has occurred in India does not warrant or justify the extreme employment hostility in industries although it may have mitigated the adverse effect of the latter on real wages and poverty incidence.

Thailand also experienced a decline in the worker/population ratio during the 1990s when the rate of growth of labour supply fell. This period witnessed the aggressive beginning of a Lewis transition which was facilitated by both this favourable shift in labour supply and a rise in non-agricultural OEEs.⁵⁹ The Asian financial crisis ended, and started, a reversal of the Lewis transition.

⁵⁸ This is based on the arguments and evidence, not so much in one of the present case studies, as in a previous ILO study: Sundaram and Tendulkar, 2006.

⁵⁹ Note that in its interpretation of the case study, this review takes the view that observed data probably overstate the extent of the Lewis transition and understate the overall employment growth during this period.

Growth, Employment, Inequality and Poverty

This review has argued that, with the possible exception of Malaysia, the rate of poverty reduction in all the countries in the group has been less than the potential rate of poverty reduction. This potential rate of poverty reduction is the one that would obtain, if the rate of growth of the income of the poor was the same as the rate of growth of per capita income or, in other words, if the distribution of income remained unchanged.⁶⁰ In reality, the distribution of income worsened in all countries except Malaysia, where it improved very slightly, and in Indonesia, where it fell slightly at the onset of the crisis and then went up back to the pre-crisis level during the recovery period.

The mechanism through which increased employment leads to a reduction in poverty is presumed to be an augmentation of the earnings of the poor. If this effect is strong enough, the distribution of income should improve or avoid deterioration. The worsening of the income distribution may thus be largely a reflection of the poor employment performance. Exceptions to the linkage between employment and distribution can be found even in the small number of cases under review. In Thailand, the distribution of income deteriorated over the long period leading to the crisis, but it improved during the post-crisis period despite a poor and worsened employment performance. During this period growth also became more poverty alleviating than before. In Cambodia, employment intensity was higher during 1998-2004 than before. But, available evidence, imperfect as it is, suggests that poverty reduction was faster in the earlier period than in the later period.

Each of these disjoints between employment growth on the one hand and inequality and poverty on the other, needs to be evaluated by examining changes in factors other than employment that affect inequality and poverty. In the case of Thailand the case study refers to the redistributive public expenditure by the Thaksin government in the post-crisis period which may have brought about an improvement in income distribution and welfare of the poor despite the poor employment performance. This also points to the importance of other instruments of policy to compensate for the failure of the employment linkage.

The case studies are generally weak with regard to the analysis of these "other factors". Let us illustrate with reference to the case study for rural India. The indicated reduction in poverty must have resulted from a substantial increase in personal income/consumption of the poor. Actual increase in personal income/consumption, available from the NSS, has not been shown.

⁶⁰ Strictly speaking, an unchanged income distribution is not necessary. An unchanged share for the poor is quite consistent with redistribution among the non-poor which can bring about a change in the indices of inequality, such as the Gini ratio. When we talk about an increase in inequality we mean a fall in the share of the poor.

The extent to which overall GDP growth is transmitted to the rural poor in the form of an increase in their income depends on a variety of factors of which the following are important:

- (a) The share of the rural economy in the growth in GDP;
- (b) Change in terms of trade for agriculture and other rural economic activities;
- (c) Macroeconomic policies and their consequences in determining the effect of growth in GDP on the growth in personal income;
- (d) Other factors affecting the distribution of personal income.

Very little is said in this case study, or in any other, on any of the above aspects of development in the post-reform period. It is thus very hard to know the mechanism and the extent of change in the income of the poor.

The strong poverty alleviating effect that inequality-averse growth exerts is illustrated by the case of Malaysia. Unfortunately, few other case studies provide an opportunity for the illustration of such experience. Indonesia before being hit by the Asian crisis constituted such a case. The difference between China's poverty-reduction performance in the decade ending in the mid 1990s and in the period around the turn of the century illustrates the near-dramatic effect that a change in performance with respect to inequality makes. In the earlier period high growth led to slow reduction in rural poverty and virtually no reduction in urban poverty because of its association with sharply rising inequality. In the later period equally high growth led to a sharp fall in poverty due to its association with a fall in poverty albeit very small for urban areas.⁶¹ The favourable linkage between growth and poverty reduction via the avoidance of rising inequality in the case of Malaysia, Indonesia prior to the crisis and rural China around the turn of the century, was associated with a favourable employment performance. In the case of urban China around the turn of the century, the favourable distribution effect was associated with a worsening of the employment situation, and was due to a number of policies improving the distribution of income, e.g., social protection for the unemployed, greater equality in the distribution of public subsidies and greater regional balance in growth.

Agricultural Employment

Historically, all successful cases of economic development have been characterized by the following sequence with respect to employment in agriculture: in the beginning, the proportion of workers employed in agriculture starts falling although the absolute employment in agriculture continues to rise. During this period the OEE in the sector remains positive though it begins to decline and remains below the OEE in the non-agricultural sectors. As growth continues, at some stage, the absolute decline in employment in agriculture occurs, a phenomenon that is known as the Lewis transition. Beyond this point, the OEE in agriculture turns negative. The Lewis transition has been considered to be a landmark in the process of development, indicating the launching of a country on a sustained path of industrialization. A real Lewis transition occurs through the rapid expansion of demand for labour from the

⁶¹ See Khan, 2004.

non-agricultural sectors, a pull from outside rather than a push from agriculture itself due to its inability to sustain the existing labour force. Under the ideal scenario this leads to a rise in productivity in agriculture and the rural economy and a reduction in income gap between agriculture and the rural economy, on the one hand, and the non-agricultural sectors and the urban economy, on the other.

There are many different patterns of change in employment in agriculture even in the limited number of eight cases. Malaysia appears to have achieved the classic kind of Lewis transition. China apparently started going through a Lewis transition after 1991 when its agriculture started experiencing an absolute fall in employment. China's experience, however, falls seriously short of the criterion of a successful Lewis transition in so far as the gap between rural and urban incomes has continued to rise over the period during which agriculture has experienced a net decline in employment. Furthermore, the process of declining absolute employment in agriculture was reversed between 1997 and 2003 when it resumed again. Thailand also started having a decline in agricultural employment during the 1990s when the OEE for the sector turned highly negative. In the aftermath of the Asian crisis this was reversed and agricultural employment in Thailand began to rise. Indonesia also experienced a setback in so far as agriculture's share of employment, falling steadily until the Asian crisis, significantly rose thereafter. In India the absolute size of agriculture's labour force seems to have stabilized in the second half of the 1990s, indicating that the country is poised for a Lewis transition. Although a hypothesis about the tightening of the labour market has emerged among some economists, the evidence of the rural non-farm economy is inconsistent with it. In this sector, absorbing a great deal of the increment of the labour force, productivity has not only been low, but also declining. Both in the Philippines and Sri Lanka the share of agriculture in total employment has been falling though these countries do not appear to be close to a Lewis transition. In both these countries the rate of decline in agriculture's share of GDP was much faster than the rate of decline in the sector's share of employment during the last decade and longer, thereby signifying that, relative to the rest of the economy, productivity per person employed in agriculture has been falling.⁶² Absence of data does not permit any such analysis for Cambodia, but more than 70 per cent of employment in that country is in agriculture which contributes just a third of GDP, signifying a huge gap between agriculture and the rest of the economy in terms of output per worker.

Indeed, the record of the Asian countries in bringing about a transformation in the sectoral distribution of employment is much bleaker than what the above depicts. A different set of recent studies on growth-employment-poverty linkage looked at the experience of ten Asian countries and found that five of them - Armenia, Kyrgyz Republic, Mongolia, Indonesia, and Cambodia - experienced an *increase* in agriculture's share of total employment. This was because industries and related modern activities failed to absorb labour and, in several cases, the absolute number of workers employed by these sectors declined.⁶³ This is a perverse trend from the standpoint of development theory and is inconsistent with all historical experience of successful development.

⁶² These are based on the sectoral shares of employment and GDP shown in WDI, 2006.

⁶³ See Khan, 2005.

Therefore, the picture is dismal with respect to the treatment of agriculture which employs and houses most of the poor in these countries. What these countries' agriculture needs is a smaller share of national employment and a larger share of national capital in order to boost productivity and reduce the gap in living standards and poverty between agriculture and the rural economy, on the one hand, and the non-agricultural and urban economies, on the other. Healthy resolution of employment problems cannot be achieved without such change. When employment growth in the non-agricultural sector is fast enough to permit a Lewis transition, the process must be hastened by promoting agricultural growth so that the remaining labour force in the sector can achieve a rapid increase in living standards. Where such transition is not happening, agriculture must be provided with adequate resources to absorb its share of incremental labour productively.

VI. Concluding Observations

In recent decades several countries of developing Asia have replicated the growth performance of the East Asian pioneers, but almost all of them have failed to replicate their performance in income distribution and poverty reduction. One of the principal failures, if not the outstanding failure, that led to this asymmetrical outcome has been that their growth was not nearly as highly employment intensive as was the case in the East Asian pioneers. Indeed, the fastest growing Asian countries of today have in most cases experienced dismally low and declining output elasticities of employment. This has been documented by a variety of empirical case studies. The present review discusses new case studies of growth-employment-poverty linkage in eight more Asian countries. With one exception – that of Malaysia – all the Asian countries in the present set of studies experienced the problem of inadequate employment growth. This is a problem that appears to have become aggravated in recent years and has been a major factor in weakening the impact of economic growth on the earnings of the poor and in making growth less poverty alleviating than it might have been.

In four of the seven cases of inadequate employment growth – those of China, India, Indonesia and Thailand – the employment intensity of growth has been low and has declined over time. In two of those cases, those of China and India, the two largest developing countries, the sharp fall in the employment intensity of growth has been the cause of the problem. In the other two, Indonesia and Thailand, the cause was both a reduction in employment intensity and a reduction in the rate of growth. In the remaining three cases – those of Cambodia, the Philippines and Sri Lanka – the poor employment performance was, by and large, due to inadequate growth or growth bypassing the large sectors where poor workers are concentrated.

While more work is needed to understand fully the causes behind the decline in the employment intensity of growth, several factors stand identified as responsible for this phenomenon. A major explanation of the phenomenon is inherent in the nature of the transition from inward-looking, regulation-based, ISI-type of regime to one based on greater competition and integration with the global economy. While the incentive system of the latter is more employment friendly than the incentive system of the former, the transition itself entails the laying off of vast numbers of workers inefficiently absorbed in the payroll, principally, but not exclusively, of State enterprises. A second source is a sharp sudden shift in the composition of incremental output in favour

of activities with low labour intensity, either in response to such factors as opportunity thrown open by the global economy or due to loss of competitiveness in some labour-intensive exports. Although the move away from the regime of distorted incentives that favours inappropriate factor intensities is widespread among the countries under review, they may have occasionally lapsed into circumstances with consequences similar to those of the past system. These lapses constitute the other factors behind the problem of diminished employment-intensity of growth. An example is the relative reduction in access to credit for small labour-intensive enterprises in a period of macroeconomic contraction. Another is inappropriate market interventions affecting the relative factor costs. Public policy can mitigate the effects of those of the factors that are inevitable and remove the ones that are not.⁶⁴

Employment performance is powerfully influenced by macroeconomic policies. In five of the seven countries in difficulty, higher economic growth would help overcome the problem. Far too often disproportionate degrees of macroeconomic stabilization have reduced economic growth to rates that simply are too low to permit adequately high rates of employment growth even when employment intensities are high and intact. However, macroeconomic contraction can also damage the employment intensity itself through its asymmetrical impact on enterprises differing in factor intensity.⁶⁵

⁶⁴ This review does not find it necessary to discuss these policies which have so very eloquently been spelled out in several ILO publications. See, for example, Islam, 2006.

⁶⁵ Khan, 2005, synthesizes a number of UNDP case studies which analyse these issues and outline policies to deal with these problems.

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