Chapter IV

STRUCTURAL CHANGE AND EMPLOYMENT CREATION IN DEVELOPING COUNTRIES
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A. Introduction

Employment creation is a particularly difficult challenge for developing countries. Their labour force is still growing rapidly, necessitating the constant generation of additional jobs for the new entrants within an economic structure characterized by dualism. Typically, these countries have a modern sector with relatively high productivity and large economies of scale, which coexists with a sluggish traditional sector with low productivity and mostly constant returns to scale. Economic development, in general, and employment creation for a growing population, in particular, require an expansion of modern activities and the reallocation of labour from the traditional to the modern sector. The more productive use of previously underemployed labour through its transfer from less remunerative traditional activities to better paid jobs in the modern sector generates higher incomes and a consequent increase in effective demand.

The modern sector, where production takes place in organized units with formal wage jobs, has often been equated with industry, particularly manufacturing, but increasingly it also includes modern services and some innovative agricultural activities. Since the early 1980s developing countries have sought to expand this sector through a growing emphasis on production for the world market. It was hoped that this could trigger and accelerate a virtuous process of output growth, and steady gains in productivity and employment. However, in many countries exports did not grow as expected due to a lack of supply capacities and insufficient competitiveness of domestic producers on global markets. In others where exports grew, the domestic labour force employed in export industries did not share in the productivity gains. Instead, firms tried to use such gains to raise the profit share or passed them on to lower prices, so that domestic demand did not increase, which would have led to higher income in the rest of the economy. As a result, employment problems persisted, or even worsened, particularly in Latin America and Africa.

The employment situation generally improved between 2003 and 2008, partly as a result of a reorientation of macroeconomic policies, and partly due to a more favourable international environment with higher prices for primary commodities and rapidly rising import demand from the United States, China and some other fast-growing emerging-market economies. But the global financial and economic crisis has caused unemployment and underemployment to rise again and they are likely to persist in the changing global economic environment, as discussed in chapter II. Since 2008, the global employment-to-population ratio has been exhibiting a declining trend and unemployment rates have been rising. Global
unemployment reached its highest level on record in 2009, and the share of workers in vulnerable employment worldwide is estimated to represent over half of the world’s labour force (ILO, 2010a).

This chapter examines the issue of employment in the structural context of developing and emerging-market economies and how the employment situation has evolved in developing countries over the past 30 years. An analysis of employment and unemployment in developing countries is made difficult by the scarcity of statistical data on employment and labour market conditions in many countries, and by the problem of distinguishing unemployment from underemployment. In developing countries more than in developed countries, workers who are laid off in the formal sector of the economy in bad times often tend to move into the informal economy, where productivity and earnings are lower. This informal sector is often quite large in the absence of social safety nets. Therefore changes in the quality of employment are as much a reflection of changing labour market conditions as changes in the quantity of employment and unemployment.

Section B of this chapter takes a general look at employment trends in developing and transition economies, and how they are related to specific characteristics of different groups of countries as well as the process of their structural transformation. Section C then discusses in greater detail the growth and employment performance in three developing regions, Latin America, Africa and East, South-East and South Asia in the context of the macroeconomic and development strategies pursued by countries in these regions.

B. Employment, productivity growth and structural change in developing countries

1. The employment challenge in developing countries

The nature of the employment challenge in developing countries differs greatly from that in developed countries. In most developing countries a deficiency of effective demand may cause the underutilization of capital equipment and labour, but there is more to it than that. According to Kalecki (1976), “the principal problem is deficient productive capacity and not the abnormality of it being underutilised”, so that even if all existing equipment were fully employed, it would still be insufficient to provide decent jobs to all the available labour force. The solution therefore lies in increasing investment and accelerating economic growth. However, even this may not be enough because of the probable “dynamic insufficiency” of the development process (Prebisch, 1963: 27–29) which is unable to provide productive employment to an abundant labour force that, in addition, may be growing at a rapid pace.

Several developing regions are at an early stage of demographic transition, with rapid growth rates of their population. In sub-Saharan Africa and West Asia, the average annual growth rate of the population was well over 2 per cent during the period 2003–2009, compared with less than 1 per cent in developed regions since the mid-1960s, and it has been close to zero in the transition economies. In China, there has been an active policy to keep population growth under control; consequently, the population growth rate in East Asia as a whole has
declined significantly, from 1.5 per cent in the 1980s to 0.6 per cent in the 2000s—a rate similar to that of developed countries. In the other developing regions, namely North Africa, South and South-East Asia and Latin America and the Caribbean, there has been a deceleration of demographic growth, from an average annual rate of 2–2.7 per cent in the 1980s to a nevertheless significant 1.2–1.7 per cent in the period 2003–2009 (table 4.1).

In general, the labour force increases at a considerably faster rate than the total population (table 4.1). Even if total population growth were to further decelerate in most developing regions, growth of the working age population would only begin to slow down after a time lag of several years. Moreover, in many countries the labour force is growing more rapidly than the working age population owing to social factors, the most important being the increasing participation of women in labour markets (table 4.2). Women’s participation in paid or recognised work increased globally by more than 18 per cent between 1997 and 2007 (ILO, 2008a; Horton, 1999; Çağatay and Özler, 1995). In some countries, this evolution has been partially counterbalanced by a longer period of time spent by youth in education, which delays their entry into the active population, and by some reduction in the rates of men’s participation in the labour force. But in general, the effect of the increasing participation of women on the overall participation rate is greater than that of the declining participation of youth and men (box 4.1).

In all the regions, in the long run total employment seems to have increased at a fairly similar rate as the labour force, even though GDP growth rates have varied widely (tables 4.1 and 4.3). This may have prevented the emergence of large-scale open unemployment in regions where the labour force has been expanding and GDP growth has been slow, but at the cost of overall productivity which has barely increased, or even declined. Moreover, there has been little improvement in the quality of jobs in terms of remuneration and working conditions.

### Table 4.1

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<tbody>
<tr>
<td>(Average annual growth rates)</td>
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<td>Developed economies</td>
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<td>Latin America and the Caribbean</td>
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<td>Transition economies</td>
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Trade and Development Report, 2010

In some regions, the agricultural sector absorbed a significant proportion of new entrants to the labour market, but in low quality jobs. The labour force in agriculture is still growing significantly in sub-Saharan Africa and South Asia, although at a slower rate than overall employment. On the other hand, it has declined rapidly in developed countries and in the transition economies, and has also begun to fall in absolute terms in Latin America and East Asia (table 4.4). But rather than going into manufacturing, workers have been moving disproportionately into traditional service activities, where they often take up informal jobs for wages that may be higher than in agriculture. However, there is limited scope for sustained growth of productivity in these activities, and consequently little potential for the creation of a virtuous cycle of industrialization, whereby fast productivity growth enables real income growth and an expansion of domestic demand, which in turn motivates additional fixed investment for further industrialization. While a select group of countries were able to industrialize using interventionist policies and relying on dynamic export demand, many others could not adopt a similar approach. This was partly because of their inability to compete in global markets, but also because they adopted strategies that relied primarily on market forces for growth. And even when such growth occurred it did not necessarily translate into an accelerated generation of formal and well remunerated employment.

### Table 4.2

**Labour participation rates and share of women in total labour force, selected regions, 1980–2009**

(Per cent)

<table>
<thead>
<tr>
<th>Share of</th>
<th>Labour force in total population</th>
<th>Women in total labour force</th>
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<td>41.5</td>
<td>50.8</td>
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<td>20.4</td>
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</table>

Source: See table 4.1.

*1990 refers to 1992.*

Open unemployment is a persistent problem in several regions, both developed and developing. In most regions, unemployment rates displayed an upward – although irregular – trend, and were significantly higher in 2009 than in 1980, with the...
There appears to have been a negative correlation between the trend in unemployment rates and GDP growth rates (with a lag of one or two years) in developed and transition economies, though less so, or not at all, in developing regions, except East Asia (table 4.6). In many developing economies there exist “cushions” of informal, low-quality employment as an alternative source of employment for workers who lose their jobs or are unable to find formal jobs due to economic recession. With economic recovery, many of these workers may shift from informal to formal employment, instead of moving from open unemployment to employment. The existence of such “cushions” reduces the growth elasticity of employment in the short run. This does not imply that there is no relationship between growth and unemployment, but rather that changes in growth rates affect unemployment more gradually, and that output growth is not the only factor explaining the level and evolution of unemployment rates.
Very slow or even negative growth of per capita GDP in the 1980s and 1990s in Latin America and the Caribbean, West Asia and North Africa contributed to pushing unemployment rates up to two-digit levels by the early 2000s. But while unemployment did not surge in the 1980s, when per capita GDP growth rates were negative, it did in the 1990s, despite a recovery in economic growth. In these cases, changes in policy orientation, including privatizations, trade liberalization and the deregulation of capital flows affected the capacity for job creation. Similarly, although sub-Saharan Africa did not perform better in terms of per capita GDP growth, the economic depression was not clearly reflected in open unemployment statistics. This has to do with the high incidence of informal and rural employment in most countries of that subregion, so that changes in GDP growth have a greater effect on productivity than on employment. It should be pointed out that reliable and comparable statistics on unemployment and underemployment are scarce in sub-Saharan Africa. In some cases, statistics merely assume that informal sector workers are employed, although many workers in the rural sector are only seasonally employed (Nkurunziza, 2007: 166).2 But even with these caveats, available national surveys

### Table 4.3

**REAL GDP AND EMPLOYMENT, SELECTED REGIONS, 1981–2009**

(Average annual growth rates)

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<td>-0.4</td>
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</tr>
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</table>

*Source:* See tables 1.1 and 4.1.


### Table 4.4

**LABOUR FORCE IN AGRICULTURE, SELECTED REGIONS, 1981–2009**

(Average annual growth rates)

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<tr>
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<tbody>
<tr>
<td>Developed economies</td>
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<td>North America</td>
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*Source:* UNCTAD secretariat calculations, based on FAO, FAOSTAT Resources PopSTAT database.
show clear differences between African countries and also within each country. In particular, unemployment rates are much higher in urban than in rural areas.³

East, South and South-East Asia present a very different picture, with much higher GDP growth in the past few decades. However, only in East Asia has the unemployment rate been very low. In South Asia, open unemployment rose from 6 per cent in 1980 to 11 per cent in 1991, and has since remained close to 10 per cent. In South-East Asia, the unemployment rate increased progressively from very low levels in 1980, especially in Indonesia and the Philippines, where it remained relatively high until 2005.

This global overview shows that generating jobs at a pace rapid enough to absorb the unemployed and employ the new entrants into the labour market remains an enormous challenge for developing economies. Even in countries where the total labour force has been growing slowly, such as China, internal migration from rural areas makes it necessary to provide greater employment opportunities in the cities, or alternatively, to create new job opportunities in the countryside.⁴
3. Quality of employment

Developing countries not only need to create enough employment in quantitative terms; they also need to improve the quality of jobs. Indeed, a major characteristic of the labour structure in developing countries is the large number of informal low-productivity jobs and the relatively few modern, high-productivity jobs. This kind of segmentation is important enough to affect the entire functioning of their labour markets, although the relative weight of the different segments varies widely from country to country. The structural heterogeneity of employment is evidenced by a number of dual characteristics: high/low productivity, qualified/non-qualified, formal/informal, with/without social security, stable/transferable, wage earners/self-employed or unpaid family worker, urban/rural, unionized/non-unionized, and employment in big/small firms. These varying forms of employment are naturally related to the structural heterogeneity of an economy. For example, there tend to be more jobs with high productivity and social security coverage in manufacturing, modern services and the public sector than in traditional agriculture and the retail trade. In the latter two sectors, the borders between employment, underemployment and open unemployment are frequently blurred.

Employment status varies widely from one region to the other (table 4.7). In developed countries, wage earners (“employees”) constitute 85 per cent or more of the total employed population, followed by self-employed workers that constitute almost 9 per cent. This preponderance of wage earners is the result of a long process involving the gradual decline of farmers (their share in total employment now ranging from 1.5 per cent in the United States to 4 per cent in Japan) and the replacement of individual storekeepers by commercial chains. Self-employed workers also include a number of qualified workers, professionals, and, in some countries, even employers. Wage earners are also the largest category in the employment structure of transition economies, particularly in Europe, where the structure by status is very similar to that of developed countries. By contrast, the share of self-employed and unpaid family workers remains significant in the transition economies of Central Asia, where informal employment is higher and employment in agriculture in many of these countries exceeds 25 per cent of total employment.

The employment status in developing countries varies widely, reflecting different levels of development and also the different sectoral composition of employment. In sub-Saharan Africa, the share of wage earners in employment is particularly low, at only 13 per cent (excluding South Africa), and there is an overwhelming predominance of self-employed and unpaid family workers. By contrast, countries in North Africa (especially Algeria, Egypt and Tunisia) and parts of Southern Africa (South Africa, Botswana and Namibia) have a high proportion of wage earners. Much of this difference is due to the share of employment in agriculture, which is still predominant in most sub-Saharan countries, while it has fallen dramatically in North and South Africa. Wage earners constitute the largest proportion of the workforce in small island States, such as Mauritius and Seychelles, where employment related to tourism and assembly manufacturing has expanded.

Asian countries also present a mixed picture. West Asia, has a very high proportion of wage earners, exceeding 95 per cent of the total workforce in Kuwait, Qatar and the United Arab Emirates. Such a high proportion of salaried workers is partly explained by the large participation of foreign nationals in total employment, since these workers normally arrive with formal contracts and require monetary payments to be remitted to their home countries. Lebanon, the Syrian Arab Republic and Turkey also have a high share of wage earners, although self-employed, family workers and employers account for a significant share in sectors such as retail trade, personal services and agriculture. In East, South and South-East Asia, much of the labour force is still linked to agriculture: more than 40 per cent in Indonesia and Thailand, close to 50 per cent or even more in Bangladesh, Cambodia, China, India, the Lao People’s Democratic Republic, Nepal, Pakistan and Viet Nam. In all these countries, self-employed and family workers constitute the majority of the employed, although the proportion of wage earners is increasing and already exceeds one third of all workers in most of them. Salaried and wage workers are the largest category in the most industrialized economies of the region, such as Taiwan Province of China, the Republic of Korea, Malaysia, Hong Kong (Special Administrative Region of China) and Singapore, and to a lesser extent, the Islamic Republic of Iran and the Philippines. There is a much smaller share of employment in agriculture in these countries.
Latin America and the Caribbean has the highest proportion of wage earners among developing regions owing to a relatively early process of urbanization, industrialization and development of government institutions and public services. This is particularly true for Argentina, Barbados, Brazil, Chile, Costa Rica, Cuba, Mexico, Panama, Trinidad and Tobago and Uruguay, where between 65 and 75 per cent of the employed population are wage earners. On the other hand, in Bolivia, Colombia, Paraguay, Peru and several Central American countries, self-employed and unpaid family workers remain a significant proportion of the employed population. Most are unqualified workers in agriculture – which still employs a significant percentage of the population in these countries – or in low-productivity services in urban areas.

4. **Structural change and employment: recent evidence**

Economic development is closely related to structural change, particularly the growing importance of non-agricultural sectors in production and employment (Kuznets, 1966). As the share of labour in agriculture falls continuously over time, that of services increases, while the share of labour in manufacturing follows an inverted U-shaped pattern: increasing in the early stages of development and decreasing in the later stages (Chenery, Robinson and Syrquin, 1986).

For many years, the development process was equated with industrialization. The importance of
manufacturing for economic development relates, on the supply side, to its potential for strong productivity growth, and on the demand side, to the high income elasticity of demand for manufactures. The productivity growth potential in manufacturing activities derives from their growing tendency towards specialization, learning and agglomeration economies, as well as from static and dynamic economies of scale. As labour and capital move into these activities, average productivity in the economy climbs. This further enhances the demand for services and industrial products, which generates profitable new investment opportunities in these areas and growing demand for labour (Lluch, Powell and Williams, 1977).

While these mechanisms remain valid even today, their functioning is likely to have been affected by recent external developments, which may require a re-examining of the role of services and primary production in development. One external factor is the pattern of international demand. A sharp increase in demand for manufactured imports in the United States provided a strong stimulus to exporters of manufactures and further supported the role of industrializing Asian economies, particularly China, in global growth and trade flows. This in turn reinforced growing demand and soaring prices for primary commodities between 2002 and 2008, which temporarily reversed the usually bleak demand prospects for primary commodity production.

Another factor has to do with the substantial changes that have occurred in the services sector over the past few years. For example, the information and communications technology (ICT) revolution has increased the tradability of services, as well as the potential for productivity growth of ICT-based services. In addition, several services based on new technologies and standardization of delivery enable substantial productivity gains in some activities (Baumol, Blackman and Wolff, 1989). Thus, productivity growth in transport services, financial operations, wholesale trade and renting services has become similar to that in the most dynamic manufacturing sectors (Maroto-Sánchez and Cuadrado-Roura, 2009). This has led some observers to argue that the services sector may have turned into a growth engine (Dasgupta and Singh, 2007). However it must be borne in mind that this is a particularly heterogeneous sector. Recent studies point to two waves of growth in services: the first one occurs at modest levels of per capita income and is associated with traditional services, and a second wave starts at middle-income levels and is associated with more modern services (e.g. financial, communications, computing, legal, technical and business) (Eichengreen and Gupta, 2009).

In this context, it is worth examining which sectors have driven labour productivity growth and employment generation in developing and transition economies, and how productivity growth has interacted with employment generation. Four economic sectors are identified: agriculture (which also includes hunting, forestry and fishing), mining (which also includes utilities), manufacturing and services. Two periods are distinguished: (i) from 1995 to 2002, when several emerging-market economies experienced slow growth and financial crises; and (ii) between 2002 and 2008, when economic growth accelerated in a number of emerging-market economies, in particular the large and populated “BRIC” countries (i.e. Brazil, the Russian Federation, India and China) that joined the United States as major drivers of global demand, which boosted the demand for primary commodities.

In the vast majority of developing and transition economies that have experienced rapid per capita income growth, this has been associated with above-average growth of output in manufactures and/or services (chart 4.1), particularly in China and India. In countries where aggregate growth rates have been negative or low, so also have been the growth rates of manufactured output. During the first period, in most regions per capita growth was slow, without a clear sectoral pattern: primary production performed somewhat better than manufactures in South America, sub-Saharan Africa and South-East Asia, since it was less exposed to cyclical movements, while manufactures grew faster in Central America, North Africa and South Asia (excluding India), partly due to the introduction of assembly industries. When overall growth accelerated after 2002, growth rates in the manufacturing and services sectors exceeded those in the agricultural and mining sectors – a somewhat surprising development in a context of rapidly rising primary commodity prices in global markets. Several factors could explain this result. First, primary production tends to be relatively price inelastic, at least in the short run: agriculture depends heavily on climate, and investment in extractive industries typically involves long gestation periods. Second, it could be that a significant share of windfall revenues
was not reinvested in the primary activities that generated them, either because foreign enterprises chose to repatriate most of their gains or because governments managed to appropriate a larger share of those revenues and used them for diversifying their economies. Supplementary income obtained from primary activities can thus generate demand for the entire domestic economy.

It has already been noted that in the process of structural change job losses can be prevented when output growth in the higher productivity sectors is
sufficiently strong to compensate for productivity growth, or if those sectors have significant linkages with other sectors for employment to be generated in the rest of the economy. With this in mind, decomposition techniques can be used to examine which sectors of an economy have contributed to gains in productivity and employment. Syrquin (1986), who conducted such a decomposition, found that economy-wide productivity growth equals the sum of sector-specific productivity changes and the reallocation of labour. Labour reallocation measures the degree to which labour mobility from low-productivity sectors to higher productivity sectors contributes to overall productivity growth. A similar decomposition applied to the four sectors identified above for the period 1995–2008 shows that in all four sectors direct labour productivity growth made a much larger contribution to overall productivity growth than intersectoral labour reallocation (chart 4.2).

Direct growth of labour productivity was particularly impressive in China’s manufacturing sector, owing to a number of factors: industrial restructuring and labour shedding in public sector enterprises from the middle of the 1990s till around 2005, continuous technological upgrading in both exporting and import-substituting activities, and access to newer and more sophisticated technologies. In countries that recover from economic depression, rapid productivity gains are possible without significant technological upgrading as a result of a better use of idle productive capacities. This seems to have been the experience in most transition economies, particularly with respect to manufacturing and services. By contrast, productivity gains through labour reallocation among sectors have been very limited. In particular, labour reallocation in agriculture had an overall negative effect on productivity growth in India, other South Asian countries, South-East Asia, North Africa and South America (chart 4.2). In these countries, agriculture appears to have become a “refuge” sector for unemployed or underemployed labour to a greater extent than services.

While the figures in charts 4.1 and 4.2 indicate percentage changes over the past 15 years, the absolute number of jobs that these four sectors have provided depends on their relative weight in each economy. Agriculture accounts for a significant share of total employment in several regions, particularly in Asia, North Africa and the Central Asian Commonwealth of Independent States, a share that is much larger than its relative contribution to total value added (chart 4.3). This contrasts with manufacturing, where the contribution to total GDP is generally higher than that to total employment, showing that labour productivity in manufacturing is above the average for these economies.

With regard to the mining sector, it appears that whatever it may contribute to GDP, its direct contribution to employment is marginal. This sector can contribute to generating more and better employment, but only indirectly and mainly in other economic sectors. Therefore, its linkages with the rest of the economy should be strengthened. In addition, substantial parts of the income generated in the extractive industries, which have greatly expanded in recent years, should be channelled to other activities within national economies (as discussed in the next section).

The services sector accounts for the largest share of employment in many regions, with labour productivity close to the economies’ average labour productivity. The main exception to this is West Asia, where productivity in the services sector is well below average, and other Asian economies, where it is clearly above average. In China and India, the services sector contributed relatively little to total employment, compared to its contribution to value added. Although that sector’s share in total employment has increased since the late 1970s (Bosworth and Collins, 2008: table 4), in international comparisons it has remained unusually small. In India, services are clearly the most dynamic sector in output terms, but their potential to offer adequately productive and remunerative employment is not clear: the number of jobs in modern services, such as communication and business services, doubled between the mid-1990s and the mid-2000s, but they still only account for around 5 per cent of total services employment and less than 1 per cent of total employment (Chandrasekhar and Ghosh, 2010; Nayyar, 2009). This pattern is probably mainly due to the fact that both China and India (and many other Asian and African countries) remain largely rural societies, and modern
AVERAGE SECTORAL CONTRIBUTIONS TO ECONOMY-WIDE LABOUR PRODUCTIVITY GAINS, SELECTED COUNTRIES AND COUNTRY GROUPS, 1995–2008

(Per cent)

Source: UNCTAD secretariat calculations and estimates, based on United Nations, National Accounts database; and ILO, Employment database.

Note: South America refers to: Argentina, the Bolivarian Republic of Venezuela, Chile, Colombia, Ecuador and Peru. South Asia refers to: Pakistan and Sri Lanka. South-East Asia refers to: Indonesia, Malaysia, the Philippines and Thailand. North Africa refers to: Egypt and Morocco. Central Europe refers to: Czech Republic, Hungary and Poland. CIS refers to: Azerbaijan, Georgia, Kazakhstan and Kyrgyzstan.

services are both supplied and demanded predominantly in urban areas. This might also explain why the share of agricultural employment remains very high, though its productivity is very low compared to other sectors, in particular services in India and manufacturing in China.

Structural heterogeneity of employment thus remains a central feature of developing countries, with wide differences between and within countries and regions. In addition, the evidence on structural change shows that even if the most dynamic sectors are manufacturing and services, as expected by development theory, the generation of good quality employment in these sectors has generally been insufficient to absorb the available labour force. Moreover, the productivity gains through labour reallocation to relatively high-productivity sectors have been minor.

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**Chart 4.3**

**AVERAGE SECTORAL SHARES IN TOTAL VALUE ADDED AND EMPLOYMENT, SELECTED COUNTRIES AND COUNTRY GROUPS, 1995–2008**

**Source:** See chart 4.2.

**Note:** For mining in China see note to chart 4.1. See chart 4.2 for the countries included in the regional groups listed below.

BRA: Brazil; CHN: China; IND: India; MEX: Mexico; KOR: Republic of Korea; RUS: Russian Federation; SEA: South-East Asia; SA: South Asia; WA (West Asia): Qatar and Saudi Arabia; SAm: South America; NA: North Africa; CE: Central Europe; CIS: Commonwealth of Independent States.
Therefore, the strategy of improving labour conditions and raising the aggregate productivity of labour should not only concentrate on the modern sectors. In addition to increasing formal employment in these sectors, improving the productivity of informal work should also be a central concern of public policy (Pollin, Heintz and Mwangi, 2008). And those activities that presently employ much of the low-productivity labour force deserve special attention.

Thus investment in agriculture is essential. On the one hand, growth in agricultural productivity is indispensable for improving the living standards of a large segment of the population and for increasing domestic food production. On the other hand, efforts should be made to improve productivity in agriculture in such a way that it does not lead to accelerated migration to urban areas, where it is already difficult to absorb the existing flow of migrants. Therefore it is necessary to consider strategies for increasing productivity per hectare and not only per worker, such as through irrigation projects, better transport infrastructure, more rational use of fertilizers, better seeds and crop rotation, and access to credit at reasonable rates (Kalecki, 1976; Nkurunziza, 2007).

Even if in the long run agricultural employment is projected to shrink, development policies aimed at improving production capacity and employment cannot afford to overlook agriculture and rural areas. Similarly, there needs to be a greater focus on improving technology and ensuring access to credit for small producers in manufacturing and services, many of whom are denied such access at present because of their informal status.

5. The extractive industries: employment impact and economic linkages

Many developing economies are highly dependent on the extractive industries, from which they derive a substantial share of their foreign exchange earnings and government revenues. Thus the sharp increases in prices of oil and mineral and metal products between 2003 and 2008 enabled these countries to achieve higher rates of economic growth. But since the extractive industries have very low employment elasticities (UNECA, 2010), the boom in commodity prices has not fully translated into generally higher standards of living for the population.

With technological advances and productivity increases there has been a steady decline in the number of people employed in mining in the 1990s, a decline exacerbated by the processes of privatization and restructuring of the sector through mergers and acquisitions (ILO, 2002). In most producing countries, direct employment in the extractive industries accounts for no more than 1 or 2 per cent of total employment. The International Labour Organization (ILO) estimates that the mining sector accounts for about 0.5 per cent of the world’s workforce.

The small labour generation by these industries is in stark contrast to their important contribution to export earnings, government revenues and GDP in many developing countries. Most of the formal employment data available refer to employment by large-scale mining companies, which dominate production. However, in a number of the poorest producing countries, small-scale artisanal mining can still be an important source of employment, although difficult to quantify because it mainly takes the form of informal employment.

It is likely that the activities in the extractive industries lead to important increases in employment at the initial stages of projects, mainly at the time of construction and in relation to the supporting infrastructure, for instance to transport the oil and mineral products or to provide power supply. While this infrastructure is useful, it is mostly oriented to the export sector and not to the physical integration of different regions within the countries. Furthermore, once the mines or the oil projects become operational, the number of employees is considerably reduced. For instance, in the United Republic of Tanzania it is estimated that employment in construction related to the extractive industries peaked at 6,600 workers in 2009, but fell to about 3,100 in 2010, and total direct employment peaked at 12,000 workers, stabilizing later to 7,000–8,000 workers (ICMM, 2009). In the Chad-Cameroon oil pipeline project, employment in Chad amounted to over 7,600 workers in 2002, but by the end of 2009 it had fallen to 5,747 Chadian workers (Leibold, 2010; Esso, 2010). In addition, most of the local workers tend to be hired to perform the less sophisticated activities, which require a lower skill base, while it is normally expatriate employees who perform the more specialized managerial tasks and those requiring higher skills.

The extractive industries can also generate indirect employment stemming from increased
consumer demand by the directly employed workers who may be earning wages that are higher than average, and also from the provision of goods and services to these companies by local businesses. According to some estimates, employment multipliers in African economies may be three or more indirect jobs for every directly created job in the mining sector (ICMM, 2009). In Peru, it is estimated that each direct employment generates four indirect jobs (Instituto de Ingenieros de Minas de Perú, 2010). However, again, as many of the services needed are highly specialized and have a strong technological content, they are usually provided by foreign firms.

In analysing the employment effects of the mining sector it is also important to look at what happened during the privatization phase in the 1990s. While the positive direct employment effects of large-scale mining are negligible, in some countries such as Zambia, privatization led to a steep decline in employment, and to the casualization of labour in this sector. Employment in the mining sector increased in the 2000s, but many workers shifted to service providers and were subcontracted under worse labour conditions (Lungu, 2008; Fraser and Lungu, 2007; Simutanyi, 2008). Furthermore, in the United Republic of Tanzania, for example, the introduction of large-scale mining had a strong social impact by forcing many small-scale miners out of business and into unemployment. It is estimated that the sector employed between 500,000 and 1.5 million people in the late 1990s, mainly small-scale miners, and by 2006 there were only around 170,000 small-scale miners in that country (Curtis and Lissu, 2008).

Regarding the economic linkages of the extractive industries with the rest of the economy, transnational corporations (TNCs) often source their inputs and equipment from foreign suppliers, particularly for products and services with a high technological content. This is because many producing countries often lack the industrial capabilities to supply these goods. The opportunities for backward linkages are therefore limited, and are mainly concentrated in non-specialized goods and services, such as housing, catering, cleaning and retailing. Although this may enable some learning spillovers, their effect remains marginal. In most producing developing countries, there are also few, if any, forward linkages related to adding value to the metals and oil products, such as refining. For instance, many African countries export crude oil, but have to import the refined petroleum.

Therefore, since the extractive industries offer limited opportunities for employment and for backward and forward linkages, they often tend to create enclave situations, with hardly any connections with the rest of the economy. Consequently the only means of establishing linkages between these industries and other economic activities, and deriving benefits from these industries for the society at large, is through economic policies, particularly through the generation and efficient use of government revenues. While proactive policies may encourage some transformation of raw materials, and regulations may require the use of more domestic inputs with higher local content requirements, as well as the hiring of a specified proportion of local nationals, this is generally insufficient. The main domestic impact of production in the extractive industries will depend on the capacity of the State to appropriate a significant share of the natural rent and use it for development financing (an issue examined further in chapter V).
This section examines the impact of globalization and policy reforms on employment in developing countries in the 1980s and 1990s. Reforms involved a reorientation of macroeconomic policies, with priority given to combating inflation and attracting foreign capital inflows, as well as structural adjustment programmes that aimed at greater openness to trade and capital flows, market liberalization (including of financial and labour markets) and a smaller economic role for governments.

According to the new policy orientation, the hierarchy of sectors that were supposed to lead development was altered: industry, to which the lead role was formerly assigned, was replaced by whichever sector was seen as reflecting a country’s comparative advantage. Previous industrial policies were sometimes blamed for fostering an inefficient manufacturing sector and encouraging the use of capital-intensive technologies that were considered partially responsible for employment problems. In this view, opening up and liberalization would therefore permit a reallocation of productive resources from protected, inefficient sectors to export-oriented competitive sectors that were supposedly more labour-intensive.

The proponents of liberalizing reforms acknowledged that the reallocation of resources would necessarily involve costs, in particular in the form of temporary unemployment, since capital and labour “released” from the firms and sectors affected by the new policies could not be re-employed immediately in the firms and activities that were supposed to lead development. However, they believed such costs would be moderate and short-lived (World Bank, 1987: 107). Therefore one critical aspect of the case for reform was the relative importance of employment created in sectors that were the “winners” when compared with the jobs lost in sectors that were “losers”, not only in quantitative terms, but also when assessed in terms of the kinds of jobs won and lost and the timing of employment destruction and creation. If this process actually destroyed formal employment (typically in manufacturing and the public sectors) and the expected employment creation in the internationally competitive sectors did not rapidly create at least an equivalent amount of jobs, the “transition period” involving higher unemployment may be longer than expected and exert downward pressure on domestic wages and domestic demand. Unless foreign demand was dynamic enough to offset this negative impact, global growth would be affected in the medium term, together with job creation.

In addition, financial liberalization gave rise to recurrent economic crises, which in turn altered growth trajectories in ways that were inimical to employment generation. Typically, recessionary episodes with high unemployment weakened the bargaining power of organized workers, lowered their share in income distribution and favoured reforms that provided for greater labour flexibility. Subsequent recoveries did not in general restore the pre-crisis distribution of income and employment conditions (ILO, 2008b: 15). Rather, the availability of a large unemployed or underemployed workforce willing to work without social security or labour protection increased de facto labour flexibility, which made it easier to establish de jure labour flexibility in the formal sector.
It has been pointed out that globalization also contributed to this shift in economic power (Jomo, and Baudot, 2007; Ocampo and Jomo, 2007). One of the reasons was that the increased international mobility of goods and factors – the core of the whole process – was very uneven: capital appears to have been much more mobile than labour, which increased the former’s bargaining power. This asymmetry was no doubt partly due to technical factors (no person can move easier, faster and farther than a wire transfer), but it also partly resulted from differences in regulations: capital controls have been greatly relaxed over the past few decades, while the movement of workers has remained tightly controlled, especially in developed countries. In these countries the threat of delocalization became a powerful argument for wage moderation (Scarpetta, 2009). The mobility of capital and immobility of labour also tended to generate competition among developing countries for foreign direct investment (FDI), causing them to engage in a race to the bottom through concessions made to TNCs in terms of tax rebates, subsidies and relaxation of labour regulations (Cornia, 2005). To what extent all these factors actually affected employment and income distribution in the long run is discussed in more detail below.

1. Latin America: stagnation and deterioration of labour markets in the 1980s and 1990s

Although the policy shift towards liberalization and global integration was widespread, its timing and intensity were quite diverse. The first developing region to embrace the new policy orientation was Latin America and the Caribbean, its three Southern Cone countries (Argentina, Chile and Uruguay) having adopted radical liberal reforms in the mid-1970s. After the debt crisis of the 1980s and the subsequent policy adjustments required to access international liquidity, other Latin American countries followed their example in the early 1990s (Sáinz and Calcagno, 1992).

However, between 1980 and 2002, these policies failed to deliver a combined growth of GDP, employment and productivity, as the policy regimes between 1950 and 1980 had been able to do. The average annual rate of GDP growth slowed down to 2.4 per cent between 1980 and 2002 from 5.4 per cent between 1950 and 1980, unemployment increased and average annual labour productivity declined by 0.5 per cent in the later period, which contrasts with the robust annual increase of 2.5 per cent recorded in the earlier period (Palma, 2010). Thus the main objectives of structural reforms were not met. It was only after 2003 that a virtuous cycle of increasing GDP, employment and productivity was achieved, although progress in the latter has remained modest (chart 4.4). By that time several countries had departed from a neoliberal policy orientation.

In the past three decades, labour markets in Latin America have gone through four distinct phases, associated with changing macroeconomic frameworks and policy stances: a long recession in the 1980s, followed by a recovery during the period 1990–1997; then a new recession between mid-1998 and 2002, and rapid economic growth since 2003. So far, the 2008-2009 crisis seems to be more of a pause than a breaking point in this last period.

Of course, not all the countries underwent this sequence of change with the same intensity and at the same time, but overall the region experienced a highly synchronized succession of economic ups and downs, owing to common external shocks and similar domestic policies. For example, most countries devalued and adjusted their domestic spending during the 1980s, in response to the debt crisis and the conditionality attached to assistance by international financial institutions. During the 1990s, almost all the countries embarked on (or deepened) liberal structural reforms and cut inflation through currency appreciations. This was facilitated by a renewed access to capital inflows, which eased import restrictions and spurred growth. However, they also experienced an increase in domestic and foreign indebtedness, deterioration in their competitiveness and large trade deficits, making the continuation of growth dependent on a permanent flow of foreign capital (ILPES, 1998: 13–15). The 1997-1998 financial crises dried up capital inflows and affected almost the whole region. In several countries, restrictive monetary and fiscal policies accentuated the recession. In addition, many primary exporters were affected by deteriorating terms of trade. It was only after 2003 that the region was able to return to rapid GDP growth as a result of better international conditions and a significant reorientation of economic policies, which restored competitiveness and
Chart 4.4

EMLOYMENT, UNEMPLOYMENT, GDP AND LABOUR PRODUCTIVITY,
SELECTED REGIONS, 1980–2009
(Index numbers, 2000 = 100, and per cent)

Source: UNCTAD secretariat calculations, based on table 1.1; ILO, LABORSTAT and Key Indicators of the Labour Market (KILM) databases; OECD, Stat Extracts database; ECLAC, CEPALSTAT database; Economist Intelligence Unit, EIU CountryData database; UN/DESA, World Population Prospects. The 2008 Revision; and national sources.

Note: Latin America and the Caribbean comprises: Argentina, the Bolivarian Republic of Venezuela, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, and Uruguay. North Africa comprises: Algeria, Egypt, the Libyan Arab Jamahiriya, Morocco, Sudan and Tunisia. South-East Asia comprises: Indonesia, Malaysia, the Philippines, Singapore and Thailand. East Asia comprises: China, Hong Kong (China), the Republic of Korea and Taiwan Province of China. South Asia comprises Bangladesh, India, Islamic Republic of Iran, Pakistan and Sri Lanka.
enlarged the space for expansionary public policies. All these shocks and changing policies had a strong impact on the region’s labour markets.

During the 1980s, GDP grew at a meagre 1.5 per cent a year (implying a fall in per capita GDP), but employment continued to grow, matching the expansion of the labour force. As a result, unemployment remained in check, finishing the decade at only 5.5 per cent (i.e. below its pre-crisis level), despite an initial increase between 1980 and 1983. Although a large share of the labour force found employment, an increasing proportion worked in low-productivity activities, leading to an appreciable reduction in average labour productivity, with average annual output per worker employed shrinking by 1.9 per cent. The decline in average productivity was partly due to the reduced weight of manufacturing production and employment: the share of manufacturing in GDP fell from 26 per cent in 1980 to 23.7 per cent in 1990 (ECLAC, 1996: 76–80). With few exceptions (notably Brazil and Colombia), real wages contracted significantly during the 1980s. Concurrently, between 1980 and the late 1980s, labour’s share in GDP declined by more than 5 percentage points in Argentina, the Bolivarian Republic of Venezuela and Peru, and by more than 10 percentage points in Chile and Mexico. This trend proved very hard to reverse subsequently (Cornia, 2009; Lindenboim et al., 2010).

The scenario changed significantly during the 1990–1998 period, when the region registered average annual growth rates of close to 3.5 per cent. Paradoxically, employment creation decelerated as GDP growth improved. This implied sizeable gains in labour productivity, from -1.5 per cent to +1.5 per cent a year for the whole region (excluding Mexico). Shifts from negative to high productivity growth were particularly impressive in Argentina, Chile and Peru. However, economic growth was unable to generate the employment required – in terms of both quantity and quality – to sustain durable and comprehensive productivity gains and expanding domestic demand. Productivity gains only partially responded to new investment and technology upgrading. To a large extent, those gains were a one-off result of the use of idle productive capacity and rationalization, which in many cases led to labour retrenchments. In order to gain efficiency and adapt to international competition, many firms in tradable sectors replaced labour by capital and domestic inputs by imported inputs, taking advantage of lower tariffs and appreciating domestic currencies. The increasing penetration of TNCs in services and manufacturing reinforced these trends. Indeed, a substantial share of FDI in this period consisted of the acquisition of existing firms, while subsequent investments and reorganizations aimed at increasing efficiency rather than expanding production and employment.

In addition, investment rates remained modest, with gross fixed capital formation (GFCF) in the range of 17–19 per cent of GDP, and the manufacturing sector’s share further declining to 18 per cent of GDP. All this limited employment of the labour force in the most productive sector of the economy: the share of employment in manufacturing fell from 16.8 to 15 per cent between 1990 and 1999. More generally, employment growth in all tradable sectors was weak. Between 1990 and 1999, the average annual rate of increase of total employment was 2.2 per cent, resulting from an increase of 3 per cent in the non-tradable sectors and only 0.8 per cent in tradable activities (ECLAC, 2004). Important exceptions to this trend were in Mexico and Central America, where the annual growth of employment in tradable sectors was 1.8 per cent, mainly due to increased employment in industries that assembled imported inputs (maquiladoras). However, employment creation in these industries had little impact on the domestic industrial network, and the general objective of increasing productivity through the reallocation of labour from low- to high-productivity sectors or branches was not achieved.18

The average quality of jobs also deteriorated, as evidenced by the significant reduction of formal employment. Between 1990 and 1999, two thirds of the jobs created were in the informal sector, which increased its share in total urban employment from 41 per cent to 46.3 per cent (table 4.8). At the same time, the share of the public sector in total urban employment declined from 16 per cent to 12.9 per cent, and that of wage earners in the formal private sector fell from 40.6 per cent to 36.9 per cent. In the informal sector, the share of unqualified self-employed
### Table 4.8

**EMPLOYMENT AND INCOME INDICATORS, SELECTED COUNTRIES IN LATIN AMERICA, 1980–2008**

(Per cent, unless otherwise indicated)

<table>
<thead>
<tr>
<th>Population employed in low-productivity activities (Percentage share in urban employment)</th>
<th>Employment-density of households (Number of occupied wage earners in the private sector, in urban areas)</th>
<th>Average income of occupied households (In number of poverty lines)</th>
<th>Income distribution (Ratio D10 / D1 to D4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>44.4</td>
<td>41.3</td>
<td>42.4</td>
</tr>
<tr>
<td>Bolivia</td>
<td>58.5</td>
<td>65.6</td>
<td>66.7</td>
</tr>
<tr>
<td>Brazil</td>
<td>40.7</td>
<td>47.4</td>
<td>46.2</td>
</tr>
<tr>
<td>Chile</td>
<td>38.9</td>
<td>34.3</td>
<td>31.7</td>
</tr>
<tr>
<td>Colombia</td>
<td>32.9</td>
<td>40.9</td>
<td>45.1</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>36.9</td>
<td>39.5</td>
<td>40.3</td>
</tr>
<tr>
<td>Ecuador</td>
<td>54.5</td>
<td>54.0</td>
<td>56.4</td>
</tr>
<tr>
<td>Mexico</td>
<td>40.7</td>
<td>44.3</td>
<td>47.1</td>
</tr>
<tr>
<td>Peru</td>
<td>..</td>
<td>61.0</td>
<td>63.8</td>
</tr>
<tr>
<td>Uruguay</td>
<td>36.8</td>
<td>42.4</td>
<td>45.7</td>
</tr>
<tr>
<td>Venezuela, Bolivarian Republic of</td>
<td>39.1</td>
<td>48.1</td>
<td>56.5</td>
</tr>
<tr>
<td>Latin America</td>
<td>41.0</td>
<td>46.3</td>
<td>48.4</td>
</tr>
</tbody>
</table>

**Source:** UNCTAD secretariat calculations based on ECLAC, *Social Panorama* statistical database; and national households surveys.

**Note:** When data were missing for a specific year, they were replaced by the closest year for which data were available (no more than two years). Income distribution refers to the average of per capita household income of the richest decile (D10), divided by the average of per capita household income of the four poorest deciles (D1 to D4).
workers (mainly in trade and services) in total urban employment increased from 22.3 per cent to 25.8 per cent (ECLAC, 2004; Sáinz, 2007). As a result, productivity gains were concentrated in too few firms or sectors, which meant that not enough employment could be generated for their dynamism to have an impact on the entire economy. Some economic agents, including a number of well-qualified employees, gained higher incomes and benefits, but an increasing share of the labour force had to work in low-productivity, informal activities or remained unemployed. Indeed, during these years of economic growth, open unemployment in the region practically doubled, to almost 10 per cent of the labour force.19

Employment problems worsened between mid-1998 and 2002, when most countries in the region entered a new recessionary phase. During these years investment rates dropped to 16 per cent of GDP – a historic low. Employment creation slowed down even further, productivity growth turned negative once more and unemployment averaged more than 11 per cent. Real remuneration for employed wage workers stagnated or declined in most countries, and the quality of employment further deteriorated, with informal employment close to 50 per cent (table 4.8). Thus, after more than two decades of liberalization there were greater disparities in productive and social structures in a region that was already viewed as having the largest inequalities in the world, and little if any progress in achieving sustained capital accumulation and growth or an improved employment situation.

A major problem in the 1980s and 1990s were the weak linkages between the export sector and the rest of the economy, due to the lack of industrial policies, inappropriate macroeconomic policies and income concentration. As a result, domestic markets and domestic productive capacities were undermined. Two factors mitigated the social cost of these outcomes. One was the progressive increase in the number of employed relative to the size of households (“employment density”) which had become smaller as a result of demographic trends. Higher employment density was also a response to declining real revenues. In most countries, instead of being discouraged by the labour market conditions, more members of poorer households, including women, began to participate in low-productivity activities (ECLAC, 2004: 47–48). Where the new entrants to the labour market were young and had been obliged to abandon their education, this was a less positive development. Another factor that contributed to alleviating the social costs was the progressive increase in social spending by governments since the early 1990s, both as a percentage of GDP and in constant value per capita. This may have helped prevent further increases in the poverty level, though by 2002 this level was still higher than that in 1980, at 44 per cent of the total population compared with 40.5 per cent respectively.

The employment situation improved substantially after 2003 as a result of renewed economic growth and a new policy orientation. Several governments abandoned the “trickle-down” approach and directly addressed the problems of unemployment, informalization of employment, falling wages of unskilled workers and other social problems such as reduced social security coverage and the weakening of institutions for wage negotiation and dispute settlement (Cornia, 2009). They adopted specific measures for the labour market, including sizeable increases in minimum wages, reactivation of collective bargaining bodies and the launching of public works and programmes for the unemployed. Following a rise in fiscal revenues, governments were able to increase their social spending significantly, and many countries improved public salaries. Fiscal revenues rose rapidly not only because higher incomes and imports augmented the tax base, but also because of new sources of revenue. In particular, several countries were able to appropriate part of the very high rents from the export of oil and natural gas, mining products and/or agricultural commodities, either through export duties or new taxes, or by increasing public sector participation in the extractive industries. A number of countries also began to tax financial transactions, clamped down on tax evasion and improved the collection of direct taxes, and made the tax system less regressive. As a result, the share of fiscal revenues in GDP increased in almost all the countries, particularly in Argentina, Bolivia, Brazil and Colombia (by between 8 and 10 percentage points of GDP) and the Bolivarian Republic of Venezuela (by 6 points). This enabled the reduction of budget deficits (or even a switch to
fiscal surplus) and of the public debt as a percentage of GDP, while increasing public spending.

Most governments also adopted a more accommodative monetary policy and a flexible approach to exchange rates: instead of the “corner solutions” of the previous years (i.e. free floating or totally fixed exchange rate regimes), they opted for a managed floating regime. In a context of trade surpluses and renewed capital inflows, central banks had to intervene to prevent (or set limits to) currency appreciation, which also led to the accumulation of international reserves. However, in some cases, their interventions were not strong or systematic enough to prevent some revaluation of real exchange rates. In the countries where more competitive exchange rates could be sustained, production in a number of labour-intensive tradable sectors increased (mainly in manufacturing). In addition, a number of production linkages were re-established within those countries (i.e. by substituting imported inputs with domestically produced ones), which increased employment in some of the non-exporting sectors. Even if competitive exchange rates may have only a moderate effect in boosting exports, especially in countries that are specialized in primary commodities, they amplify the positive effects of those exports on the rest of the economy. One outstanding example is that of Argentina, which undertook a massive devaluation in 2002: even though exports did not immediately respond to new relative prices, production and employment surged in all the economic sectors, most notably in manufacturing, which increased its share in total employment for the first time in 25 years. In just five years, open unemployment dropped from 22 per cent to 8 per cent. Similarly in Chile in the late 1980s and early 1990s, after a huge devaluation, jobs were not created by export-oriented activities per se – indeed, new employment in activities such as mining, fishing, and fruit production was negligible – but as a result of the domestic spending related to them. Export-related investment (mainly in construction) and fiscal expenditure (funded by the revenues obtained through the State-owned copper company) strongly increased domestic demand primarily for domestically produced goods and services, owing to the competitive exchange rate. This in turn had a strong multiplier effect on employment: in five years, one million new jobs were created, causing employment to jump from 3.9 to 4.9 million people, essentially in domestic-oriented activities such as commerce, manufacturing and construction (ECLAC, 1994).

The employment intensity of economic growth also rose. Between 2002 and 2008, unemployment in Latin America and the Caribbean fell by almost 4 percentage points, to reach its lowest levels since the early 1990s. With a few exceptions, the share of formal employment increased vis-à-vis informal and low-productivity jobs. The participation of wage-earners rose while that of non-qualified self-employed workers fell. Household incomes also grew along with employment density, real remuneration and better quality of employment. In addition, several governments improved social security coverage, partly by expanding the formal sector and partly by providing basic benefits to previously excluded segments of the population (i.e. unemployed, workers in the informal sector and their families). These included non-contributory minimum pensions and conditional transfer programmes in which monetary subsidies were given to low-income households provided their children attended school and used the public health services. All these factors helped to reverse the trend of income inequality which had been widening continuously since the 1980s. Income inequality, measured as the ratio between the per capita average income of the top 10 per cent of rich households and the bottom 40 per cent of poor households, has narrowed the most in Argentina, the Bolivarian Republic of Venezuela, Bolivia and Brazil since 2003 (table 4.8). The combination of a higher average income and its better distribution brought about a significant reduction in poverty ratios, which fell from 44 per cent of the population in 2002 to 33 per cent in 2008. The concomitant rebound of domestic markets provided the impetus for continued growth and employment creation. Together with a strong recovery of fixed investment (from 16.5 per cent of GDP in 2002-2003 to 21.9 per cent in 2008), this may help to restore a virtuous circle of employment expansion, growth and productivity increase.

The recent global economic and financial crisis may test the durability of these advances. Rather than resorting to procyclical adjustments, most
countries have been supporting domestic demand, including through monetary transfers to vulnerable populations. In some cases, they have introduced specific programmes for safeguarding employment. For instance some governments have committed to assuming part of the labour costs for a period of time, if firms in difficulty refrain from laying off workers. The combination of countercyclical macroeconomic policies and specific pro-employment measures may not have been able to prevent a rise in unemployment, but they have certainly mitigated it, as the rate only increased from 7.4 per cent in 2008 to 8.3 in 2009. The future evolution of employment conditions and income distribution – which continues to be highly inequitable – will be critical for the success of the policy reorientation towards a development strategy that places a greater emphasis on domestic markets, and, within these markets, on workers’ demand.

2. Africa: persistence of a large informal sector despite structural adjustment policies

Output growth in Africa in the past few decades has been low and unstable, partly as a result of wars and civil strife, but also because of fluctuations in international prices of primary commodities, which remain the region’s most important exports. In addition, the overall policy orientation has played a major role. During the 1960s and 1970s, when African economies pursued mainly import-substituting policies, economic activity improved in North Africa, but it was weak in sub-Saharan Africa. Even so, the average regional performance was considerably better than in subsequent years when structural adjustment programmes associated with the Washington Consensus (described earlier in this chapter) were undertaken in the 1980s which continued in the early 2000s. The 1980s to the end of the 1990s was a period of stagnation and decline for most of the countries of the region. In North Africa, GDP growth slowed down and labour productivity failed to grow for 20 years, while the growth rate of employment was not rapid enough to absorb the fast expanding labour force. As a result, unemployment surged to two-digit levels in the 1990s. In sub-Saharan Africa, per capita GDP actually fell during the 1980s and 1990s, which, for the majority of the countries, implied falling productivity, except in mining. In the subregion as a whole, labour productivity dropped by 20 per cent (chart 4.4), but there was little change in open unemployment, which indicates that recession in these countries affected the quality and productivity of employment but not its volume. For the subregion as a whole, excluding South Africa, these years of decline resulted in a slump in manufacturing, from 10 per cent of total value added in the early 1980s to 8 per cent 20 years later. By the end of the 1990s the production structure of the subregion had become reminiscent of the colonial period, consisting overwhelmingly of agriculture and mining.

While there are several reasons for this disappointing performance, the combination of external instability and relatively inflexible production systems, aggravated in many countries by civil conflict, greatly increased the problems of economic management in the sub-Saharan region. Nearly all the countries pursued orthodox macroeconomic policies advocated by the International Monetary Fund (IMF) and the World Bank, both of which played a major if not decisive role in their policy-making. During nearly half of the 1990–2009 period, the governments of 46 sub-Saharan countries were managing their economies with IMF assistance. Two countries, Burkina Faso and Mali, submitted to IMF conditionality throughout that period, except for one year, and two others – Mozambique and Senegal – for eight years. The impacts of the macroeconomic policy conditions of the World Bank were no less important in all but a handful of sub-Saharan countries: Botswana, Equatorial Guinea, Eritrea, Namibia, South Africa and Sudan.

At the end of the 1990s growth began to recover, rising faster and remaining higher than population growth during the period 2002–2008. However, there is little evidence to suggest that liberalized trade and investment rules, combined with “sound macro fundamentals” in the form of reduced deficits and tight monetary policies, as required by the IMF, World Bank and other creditors and donors, were responsible for the recovery. Rather, on examining the evolution of fiscal deficits across the sub-Saharan region during the 1990s and 2000s, it is possible to make the
general observation that, except in some extreme cases, deficits were reduced through output growth, not through fiscal austerity (Weeks, 2010). Fiscal balances in oil-exporting countries tended to be in surplus whenever oil prices rose. In other countries, deficits were substantially reduced in the mid-2000s when growth rates rose, largely due to the positive elasticity of revenue with respect to national income, rather than to conscious deficit reduction measures. Similarly, tight monetary policies are likely to have dampened economic activity instead of creating a favourable macroeconomic climate for investment. High real interest rates, driven by a single-minded focus on “inflation targeting” rather than one aimed at balancing the different needs of inflation control relative to output expansion and employment creation, served to raise the cost of borrowing and inhibited private investment.

Therefore, more than 20 years of so-called policy reforms seem to have had a relatively limited impact on strengthening the potential for rapid and sustainable growth in Africa, particularly in the sub-Saharan region; indeed, they may even have reduced that potential by hindering crucial investments in physical and social infrastructure. The main drivers of the recovery during the second half of the 2000s appear to have been a commodity price boom, debt relief and fewer domestic conflicts. The growth of demand for imports, a major factor that had previously hampered economic growth, may have become an even more binding constraint, given the lower level of industrialization in the 2000s compared with the previous 20 or 30 years.

The emphasis of the Washington Consensus-related policies on static comparative advantage virtually amounted to a prescription for non-development in the sub-Saharan region. Since exports in most sub-Saharan economies were based on natural resource endowments, volatile global commodity prices caused volatile exchange rates in response. Further, the lack of diversification of national production (in other words, the lack of industrialization) reduced the tax base, especially in economies dominated by agriculture. In mineral-exporting countries, the reliance on taxation of companies involved in natural resource extraction resulted in unstable public revenues due to fluctuations in commodity prices.

These trends in turn were reflected in employment patterns, or, more precisely, in the lack of change in these patterns, since slow economic growth and deteriorating productivity prevented significant improvements in labour markets. Participation and employment rates (i.e. labour force and employment as a share of the working age population) have remained stable and comparatively high in sub-Saharan Africa over the past 20 years: with participation rates of 71–72 per cent and employment rates of 65–66 per cent, which is consistent with an almost constant unemployment rate of 7–8 per cent. The unsolved problem in this subregion is not a shortage of employment in absolute terms, but rather inadequate employment, or insufficient decent and productive jobs (ILO, 2007).

A proxy for assessing the quality of employment is the ILO’s concept of “vulnerable employment”, which consists of the self-employed and contributing (but usually unpaid) family members. It is used as a basis for estimating informal jobs, although not all the wage earners and employers are necessarily employed in the formal sector. In sub-Saharan Africa very little has changed in this respect in the last 15 years: three out of four jobs correspond to “vulnerable” positions and, unsurprisingly, most of the employed are classified as “working poor” (table 4.9).

This lack of improvement is reflected in the sectoral composition of employment: jobs in manufacturing

| Table 4.9 |
| EMPLOYMENT INDICATORS IN AFRICA, 1996 AND 2008 (Per cent) |
| North Africa | Sub-Saharan Africa |
| Employment by sector |
| Agriculture | 33.4 | 30.3 | 68.1 | 63.0 |
| Industry | 19.1 | 20.0 | 9.0 | 8.8 |
| Services | 47.5 | 49.6 | 22.9 | 28.2 |
| Vulnerable employment | 42.9 | 37.9 | 80.9 | 75.5 |
| Working poor | 19.9 | 13.6 | 66.5 | 58.6 |
| Unemployment rate |
| Men | 11.3 | 8.2 | 7.6 | 7.6 |
| Women | 18.2 | 14.8 | 8.9 | 8.5 |
| Youth | 27.3 | 23.5 | 12.6 | 12.3 |


Note: Employment by sector in 2008 refers to 2006 data.
remain at very low levels (less than 10 per cent of the employed population). In addition, part of the employment in manufacturing recently created in export promotion zones, mainly in garment industries, consists of precarious jobs with little possibility for promotion or the acquisition of marketable skills (ILO, 2007). Employment in agriculture, which is characterized mainly by informal occupations, has diminished somewhat, in line with progressive urbanization, but it is still clearly predominant. In 1996, it accounted for 68 per cent of total employment, while the rural population was 69 per cent of the total sub-Saharan population, and in 2006 these shares were 63 and 64 per cent respectively. The counterpart to this moderate drop in the share of agricultural employment was increasing employment in services, mainly in the informal sector (including small-scale retail trade). It is estimated that the informal economy accounted for 78 per cent of non-agricultural employment, 61 per cent of urban employment and 93 per cent of new jobs created in the African continent (Xaba, Horn and Motala, 2002). The low rate of employment generation in the formal sector can largely be attributed to insufficiency of aggregate output growth, combined with low labour intensity of production in the formal sector (Pollin et al., 2006). The low labour intensity of production is the converse of the productivity increases discussed in Chapter III, and reinforces the argument made there, that sectoral productivity gains may not necessarily translate into aggregate economy-wide gains if the benefits are not distributed in a manner that leads to more rapid increases in aggregate demand.

Labour market characteristics in North Africa have also remained largely unchanged since the 1990s with respect to participation rates and the sectoral composition of employment. Participation rates increased marginally, and in the late 2000s were about 44 per cent of the working age population (and 33 per cent of the total population). This was largely owing to low female participation in the labour market, although it increased more rapidly than in other developing regions. Agriculture still accounts for almost one third of total employment, with half of the population living in rural areas. Industrial employment represents some 20 per cent of the total, and has been showing a slightly upward trend. Correspondingly, the share of manufacturing in total value added has increased from 9 per cent to 12–13 per cent over the past 30 years. As a result, although this region is not highly industrialized, it does not show any sign of deindustrialization either. Services account for approximately 50 per cent of both value added and total employment.

Acceleration of GDP growth in the 2000s has led to an improvement in several labour indicators, including aggregate labour productivity. The incidence of vulnerable employment has declined, as also that of the working poor. Unemployment has shrunk, although, at close to 10 per cent, it remains high relative to many other developing regions. Much of the improvement is attributable to the sharp fall in the unemployment rate in Algeria, from 30 per cent in 2000 to 11 per cent in 2009. Despite these improvements, unemployment continues to be a serious problem, especially for young people and women (table 4.9).

3. South, South-East and East Asia: growth and employment before and after the 1997-1998 financial crisis

The experiences of East, South and South-East Asian countries with liberalization were quite different from those of Latin America and Africa. In most of the Asian countries, liberalization in the 1980s and 1990s did not lead to deindustrialization. This was because the approach they adopted was more successful in increasing exports of manufactures and improving the trade balance, and because they typically began to open up only after they had developed their domestic capacities following many years of infant industry protection. All three Asian subregions have experienced rapid economic growth over the past 30 years, interrupted, as is well known, only by the financial crisis in the late 1990s. Even so, this has not prevented an increase in open unemployment in South Asia and South-East Asia (mainly in the 1990s), partly because the opportunities for employment in urban areas have been insufficient to absorb all the migrants from the rural areas.

Fixed investment grew significantly in the three subregions, boosting productivity and output growth, as well as employment creation in manufacturing. In the 10 years before the Asian financial crisis average annual productivity increased at more than 5 per cent and total employment at more than 2 per cent. Real wages rose in line with productivity
gains in Indonesia, Malaysia, the Philippines and the Republic of Korea, but at a significantly slower rate than productivity in China, Thailand and Viet Nam (table 4.10).

While the Asian countries generally liberalized trade in a gradual and strategic way, many governments failed to manage integration into global financial markets with the same prudence and skill. With capital account deregulation, several countries in South-East Asia (and the Republic of Korea) ended up exposed to the vagaries of capital flows and short-term speculation. Capital inflows caused an appreciation of their real exchange rates, shifted incentives within their economies from tradables to non-tradables, generated bubbles in asset markets and led to current-account deficits. This sowed the seeds for the financial crisis of 1997-1998, resulting in a wave of bankruptcies. The adoption of procyclical policies as part of IMF-led stabilization strategies worsened the situation by causing asset deflation and thereby exacerbating the downturn in output and employment.

Following the crisis, most countries, many of them under IMF pressure, continued with financial liberalization, although now they adopted proactive exchange-rate policies aimed at keeping their exchange rates low after the sharp depreciation of their currencies during the crisis. The currency depreciation enabled a rapid recovery of exports, which had suffered during the crisis. In Indonesia, for example, exports grew by more than 30 per cent in 2000 alone.

GDP growth also recovered, but in general less rapidly and with greater volatility than in the pre-crisis period. Underlying this loss of dynamism was an abrupt adjustment in investment rates in all the crisis-hit countries. They were cut by almost half in Malaysia and Thailand, for example. Subsequently, there was a partial recovery in those rates, but in general they have not returned to their pre-crisis levels. Fiscal policies contributed to a large extent to the reduction of aggregate investment. Even though the crisis in these countries was essentially caused by the profligacy of private investors in an environment of financial liberalization, in its aftermath, governments in these subregions came under pressure to cut back on spending and reduce their deficits or increase their fiscal surpluses (Ghosh and Chandrasekhar, 2009).

How did these macroeconomic trends affect the labour market? In the post-crisis period from 1998 to 2002 there was a sharp deceleration of growth in both employment and labour productivity in the crisis-affected economies, compared with the pre-crisis period of the early 1990s.²³ By comparison, no such deceleration was evident in countries not affected by the Asian financial crisis, such as Cambodia, China, India or Viet Nam. The unemployment rate in the crisis-affected South-East Asian countries almost doubled between 1997 and 2003, to 8 per cent, but fell thereafter. Since 2002, employment creation, productivity and economic growth have recovered significantly, although they have not reached their pre-crisis growth levels (chart 4.4). Moreover, real wages have clearly lagged behind productivity gains in the crisis-hit countries, including Indonesia, Malaysia, the Philippines, the Republic of Korea and Thailand (table 4.10). It seems that this group of countries made deliberate efforts to avoid running large current-account deficits again, and opted for an export-led economic recovery supported by competitive exchange rates, while also containing labour costs.

These broad macroeconomic trends, in particular the decline of investment rates, also set back the structural changes that had accompanied the phase of rapid industrialization during the pre-crisis boom. In most South-East Asian countries, growth rates of manufacturing output fell, typically to less than half the previous rates. The lower output growth rates were accompanied by increases in labour productivity, such that employment elasticities of manufacturing growth declined dramatically, and in some cases even turned negative (table 4.10). It is worth noting that, even though the share of manufacturing in total value added and employment stopped growing in several countries, it remained relatively high. Moreover, in other lower income...
**Table 4.10**

### EMPLOYMENT INDICATORS, SELECTED ASIAN COUNTRIES, 1985–2008

(Per cent)

<table>
<thead>
<tr>
<th></th>
<th>Share in total employment in</th>
<th>Overall productivity growth</th>
<th>Productivity growth in manufacturing</th>
<th>Real wage growth</th>
<th>Value added growth in manufacturing</th>
<th>Employment elasticity in manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td></td>
<td></td>
<td></td>
<td>63.2</td>
<td>51.7</td>
<td>48.1</td>
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<tr>
<td>China</td>
<td></td>
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<td></td>
<td>48.5</td>
<td>44.1</td>
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<tr>
<td>India</td>
<td></td>
<td></td>
<td></td>
<td>63.3</td>
<td>57.4</td>
<td>55.7</td>
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<tr>
<td>Indonesia</td>
<td></td>
<td></td>
<td></td>
<td>44.0</td>
<td>44.3</td>
<td>40.3</td>
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<tr>
<td>Malaysia</td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
<td>14.9</td>
<td>14.0</td>
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<tr>
<td>Pakistan</td>
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<td></td>
<td>46.8</td>
<td>42.1</td>
<td>43.6</td>
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<tr>
<td>Philippines</td>
<td></td>
<td></td>
<td></td>
<td>44.1</td>
<td>37.0</td>
<td>35.3</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td></td>
<td></td>
<td></td>
<td>12.4</td>
<td>9.3</td>
<td>7.4</td>
</tr>
<tr>
<td>Sri Lanka</td>
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<td>37.3</td>
<td>34.5</td>
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<tr>
<td>Thailand</td>
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<td></td>
<td>52.0</td>
<td>46.1</td>
<td>42.5</td>
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<tr>
<td>Viet Nam</td>
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<td></td>
<td>64.8</td>
<td>62.0</td>
<td>57.9</td>
</tr>
</tbody>
</table>

**Source:** UNCTAD secretariat calculations, based on ILO, Global Wage and LABORSTAT databases; National Bureau of Statistics of China, China Statistical Yearbook 2005; UN/DESA, National Accounts Main Aggregates database; and EIU, EIU CountryData database.

*a* Employment in agriculture, industry and services does not add up to 100 per cent due to non-classified employment.
countries in the region (e.g. Cambodia and Viet Nam) the manufacturing sector expanded rapidly.

The two Asian economic and demographic giants – China and India – recorded exceptionally high GDP and productivity growth rates, but less impressive employment outcomes. In both countries, their most dynamic economic activities (manufacturing and modern services respectively) contributed significantly to GDP growth, but still account for a relatively small proportion of employment.

China’s economy, backed by investment rates often exceeding 40 per cent of GDP, has expanded at an average annual rate of almost 10 per cent since 1980, and its manufacturing sector by 11.5 per cent. However, such a large increase has not resulted in an equivalent rise of employment in manufacturing; indeed employment in that sector has been declining since the mid-1990s, in relative and absolute terms. As a result, manufacturing currently generates 43 per cent of total value added but only about 15 per cent of total employment.24

China’s labour market has undergone profound changes, owing not only to accelerated economic growth, but also to structural reforms. Beginning in 1978, the framework for rural employment changed radically with the authorization of family farming for agricultural production, and the creation of township and village enterprises (TVEs). In urban areas, there was increasing diversification of enterprises and forms of employment, including private and cooperative enterprises, small-scale firms and individual businesses. On the other hand, employment in State and collective enterprises declined significantly from the mid-1990s. Job losses of more than 60 million in State and collective enterprises between 1994 and 2002 outnumbered job creation in new formal enterprises. Rural migrants – many of whom did not have official permission for permanent urban residence – added to the newly unemployed in the urban areas, which significantly increased the number of informal workers in those areas. Total employment has increased in line with the labour force, but has changed in nature: all the new jobs tend to be in urban areas and are in largely informal activities, while employment in rural areas, although still predominant, is stagnating.

The contrast between the very rapid increase of GDP and the much slower increase of employment has resulted in a significant growth of labour productivity (chart 4.4). Productivity gains led to higher real wages for skilled workers after 1996, especially in urban formal enterprises (Ghose, 2005: 14–15). However, the continued presence of surplus labour constrained the growth of real income in low-skilled, non-farm occupations, and contributed to rising income inequality (Jomo, 2006).

In India, the growth of modern services such as information technology (IT) and IT-enabled services, communication services and financial services has not been accompanied by a proportionate growth in employment. This reflects an increase in labour productivity, which makes India’s growth trajectory in services more positive in terms of productivity, though less positive in terms of unemployment and underemployment in a labour-surplus economy. Moreover, technological changes and developments have enabled the export of a number of services through various modes of supply such as digital transmission. Thus, in IT and IT-enabled services in India, the expansion of output is being driven by the expansion of exports, with positive effects on the country’s balance of payments.25 As a result, the services sector as a whole has come to dominate the Indian economy, accounting for more than half of its GDP and contributing overwhelmingly to its relatively high rate of growth in recent years.26 However, only half of the services sector’s GDP consists of modern activities. By 2005, knowledge-intensive market and non-market services, including education and health services accounted for 17.7 per cent of GDP. If the 8 per cent contributed by the railways, defence and public administrations is added, the total comes to 25.7 per cent. To this could be added an equal percentage of substantially unorganized services that offer extremely low wages (Chandrasekhar and Ghosh, 2010).

Furthermore, despite the expansion of the services sector, employment growth in this sector has been limited: while the sector accounted for 50 per cent of GDP in 2004/05, it employed only 25 per cent of the work force. Between 1999/00 and 2004/05, employment in the sector increased by only 22 per cent, whereas the sector’s contribution to GDP at constant prices increased by 44 per cent. A typical example is the contribution of the IT sector to employment, which is far below its contribution to income and foreign exchange. Employment in computer-related activities which increased from around 314,000 in
1999/00 to about 963,000 in 2004/05, accounted for only 0.2 per cent of the workforce (Government of India, 2010); in business services, including financial intermediation, real estate renting and business activities, the share of employment was just 1.7 per cent. This explains to a great extent the large disparity between the services sector’s respective contributions to GDP and employment.

Similarly, the rapid rate of output growth in the organized manufacturing sector has not been accompanied by any noticeable expansion of decent work opportunities for India’s labour force. Formal employment in this sector (involving explicit contracts, including a minimum level of work security and social protection) actually stagnated between 1999/00 and 2004/05, signifying a decline from 9.3 per cent to 7.5 per cent of total employment. Since the share of employment in manufacturing in total employment remained at around 12 per cent during this period, the manufacturing sector’s contribution to organized employment was not only small relative to the total, but it even declined slightly. This happened despite the rapid growth of production in manufacturing in the period after 2001/02, in large measure due to increases in private consumption and investment in housing, which were driven by rapid income growth in the top deciles of the population and in urban areas. Real aggregate consumption in urban areas increased by 22 per cent, much faster than the 5.5 per cent rate of increase in rural areas between 1999/00 and 2004/05 (Chandrasekhar and Ghosh, 2010). Another factor driving demand was the sharp increase in credit-financed investment in housing and consumption of durable goods, facilitated by financial liberalization. Exports also provided a stimulus, especially as India became drawn into the export-oriented manufacturing hub dominated by East Asia. In recent years, the share of India’s traditional manufactured exports (such as textiles, gems and jewellery, and leather) in its total manufactured exports has declined, while that of chemicals and engineering goods has risen significantly. As a result, recent industrial growth in India has been driven by the metal and chemical industries. The metal industries have gained from new export opportunities, and from credit-financed construction and the surge in demand for consumer goods such as automobiles, television receivers and computing equipment, while the chemical industries, such as refined petroleum products, provide inputs into luxury products for which there is growing demand. All these industries, which tend to be capital-intensive and are characterized by relatively high productivity and high rates of productivity growth, create much less direct employment than those more oriented to the production of goods consumed by the lower income groups. Moreover, real wages in India have not followed productivity gains (table 4.10).

Summing up, most Asian countries have experienced strong economic growth over the past few decades, based on rapid productivity growth in manufacturing and, increasingly, also in modern services. Despite these achievements, employment problems persist: a large proportion of the labour force is still employed in informal and low-productivity employment, either in agriculture or in traditional services. The dynamic modern sectors boosted GDP and overall productivity growth without absorbing a substantial part of the surplus labour force. Moreover, informal employment and even open unemployment have increased in recent years, owing to lack of sufficient job creation in the urban areas to absorb rural migrants. The Asian financial crisis in 1997-1998 and the global crisis in 2008-2009 have exacerbated this situation. Several of the crisis-hit countries managed to restore productivity gains, particularly in manufacturing, but these have not translated into higher wages. In addition, employment creation in manufacturing has remained weak. This situation may not only widen the gap in income distribution in the region; it could also render economic recovery fragile and overdependent on uncertain export performance.

In the long-term, a sustainable development strategy, high investment and productivity gains are of the utmost importance, as discussed in chapter III, but they need to be complemented with rising wages, better incomes for non-wage earners, and the creation of more and better employment. This is critical for rebalancing the structure of demand. As stated by the ILO, in reference to the crisis-affected countries of the Association of Southeast Asian Nations (ASEAN), the crisis has highlighted the importance of reducing excessive dependence on exports to drive growth in some countries in the region, and of strengthening domestic and regional demand through deeper regional integration for sustainable recovery and development (ILO, 2010b: 15).
Notes

1. Vulnerable employment is defined as the sum of own-account workers and contributing family workers.
2. For instance, official statistics for Senegal estimate that in 2001–2002, 25 per cent of the rural population was underemployed because they mainly worked in agricultural activities, which only take place for 5 to 7 months a year, depending on the geographical zone (Agence Nationale de la Statistique et de la Démographie, Situation Economique et Sociale du Sénégal Edition 2005, at: www.ansd.sn).
3. Around 2005, urban unemployment rates were 31 per cent in Mozambique, 26.1 per cent in Ethiopia, 22.5 per cent in Senegal, 17.9 per cent in Cameroon (Yaoundé), 13.8 per cent in Morocco, 8.4 per cent in Rwanda (Kigali) and 6.9 per cent in Uganda. In contrast, rural unemployment rates were 12.9 per cent in Mozambique, 4.5 per cent in Senegal, 3.7 per cent in Morocco, 0.6 per cent in Rwanda and 1.1 per cent in Uganda, while rural unemployment figures were not available for Ethiopia and Cameroon.
4. It may become more important to generate employment opportunities in small cities and rural areas, as the positive agglomeration effects that are found in urban areas are becoming increasingly limited by congestion and inadequate urban infrastructure.
5. The greater role of services in output and employment observed in recent data may partly be an accounting problem. Outsourcing of services to specialized service providers has become important, leading to the statistical effect that services which used to be performed within a manufacturing firm were counted under manufacturing, while the same services now performed by a specialized provider are counted under services.
6. Construction is not included in this analysis because developments in the real estate sector are often affected by financial factors unrelated to productivity and employment, which would blur the analysis.
7. For these decomposition exercises, see also UN/DESA, 2006 and Rada and Taylor, 2006.
8. Due to data limitations, resource shifts within these four sectors cannot be accounted for. This may be an important shortcoming in the analysis of the services sector, which presents substantial variations across sub-categories with respect to both their level of labour productivity and their productivity growth potential.
9. Due to data limitations, sub-Saharan Africa is not included in charts 4.2 and 4.3.
10. One estimate indicates a shortfall of 21 percentage points for China, and 19 percentage points for India, relative to what would be expected from a cross-country comparison (IMF, 2006: table 3.1). However, this estimate may be unreliable because the underlying predictions are based partly on population size. Given that the populations of China and India are so much larger than those of the next largest country, reliable extrapolations based mainly on data for other countries become impossible. Another study, using different controls and comparator countries, estimates a lower but still substantial shortfall of 9 percentage points for China (Guo and N'Diaye, 2009: 12).
11. In some cases, the share of employment in mining in total employment is even below 1 per cent. In Ghana, the mining sector provides only 0.7 per cent of total employment (Akabzaa, 2009). In Angola, employment in the petroleum sector is about 0.3 per cent of total employment (Government of Angola: Programa de Governo 2009, available at: http://mirror.undp.org/angola/Official-Documents.htm).
13. For instance, in Zambia in 2005, while formal employment in the mining sector was about 8 per cent of total formal employment, the share of employment in mining in total employment was only 1.4 per cent, because informal employment in the mining sector accounted for over 30 per cent of total employment in that sector (van Klaveren et al., 2009).
14. For the example of Ghana, see Akabzaa, 2009.
16. For a more detailed discussion on the limited linkages between foreign affiliates of TNCs in the extractive
industries and domestic companies, see UNCTAD, *World Investment Report 2007*, chapter V.

17 Sturmer and Buchholz (2009) provide some estimates of potential revenues in the mining sector up to 2015 for Ghana, Namibia, Mozambique and Zambia. They conclude that government revenues from the extractive sector can greatly contribute to financing efforts towards meeting the Millennium Development Goals (MDGs). See also Sturmer, 2008; and ODI, 2005.

18 ECLAC studies on the Latin American industry have shown that productivity gains were realized within each industrial sector rather than through reallocations between sectors, and that such increases in productivity without structural change were associated with a low generation of jobs in manufacturing in the 1990s. Instead of generating a virtuous cycle of growth in which productivity gains go along with structural changes, production expansion, diversification and strong employment creation, employment and productivity actually evolved in opposite directions, and the productivity gap with developed countries’ industries widened (Cimoli et al., 2005; Holland and Porcile, 2005).

19 Unemployment figures are estimates by ECLAC’s CEPALSTAT, *Social Statistics and Indicators*, which adjusted historical data to the new series in Argentina, Brazil, Chile and Mexico.

20 Participation rates are of course lower when the labour force is compared with total population, as in table 4.2, instead of with the working age population.

21 South Africa is somewhat of an exception in this regard, with around 64 per cent of workers in the formal sector, but it also has high rates of open unemployment (NALEDI, 2004).

22 The share of manufacturing in total value added eventually declined slightly in Singapore and in Taiwan Province of China, but this was more a process of “normal” reduction, owing to relatively high income levels, rather than “premature” deindustrialization caused by badly handled trade liberalization.

23 The only exception seems to be Thailand, which recorded low employment growth and high labour productivity growth even in the pre-crisis period. However, employment statistics may be muddied by the impact of unrecorded migration. In Thailand there appear to be a large number of migrant workers from Myanmar, who are not included in employment statistics, which means that labour productivity indicators may be exaggerated.

24 Figures calculated by the UNCTAD secretariat, based on ILO, *LABORSTAT* database.

25 The Central Statistical Organisation has estimated that the share of ICT services in total GDP increased from 3 per cent in 2000/01 to 6 per cent in 2007/08. Regarding their contribution to the balance of payments, gross exports of software, business, financial and communication services amounted to 5.3 per cent of GDP at market prices in 2007/08, with exports of software services amounting to 3.4 per cent of GDP. By comparison, the ratio of merchandise exports to GDP was 14.2 per cent (see Reserve Bank of India, at: http://rbidocs.rbi.org.in/rdocs/Bulletin/PDFS/T%2042%20[Trade%20and%20Bal].pdf; and Central Statistical Organisation, at: http://mospi.gov.in/qr_estimate_gdp_curr_prices_12march09.pdf).

26 Services (excluding construction) accounted for 56 per cent of the increase in GDP at factor cost between 1996/97 and 2006/07 (computed from figures reported by the Reserve Bank of India, 2008). “Organized sectors” are defined as including all enterprises with electricity employing 10 or more workers, and those without electricity employing 20 or more workers and which are subject to the Factories Act.
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