

To place the discussion on global wage trends into perspective, this first section provides a brief review of major economic trends. Our focus is, whenever possible, on the period 1995–2007, but for reasons linked to data availability we sometimes restrict our analysis to the years 2001–07. We focus on some key macroeconomic factors, such as economic growth and inflation, and we also examine some trends in the globalization of the world economy through international trade, foreign direct investment and human migration. All these factors are generally recognized as having major influences on wage developments, which will be discussed in sections 2 and 3.

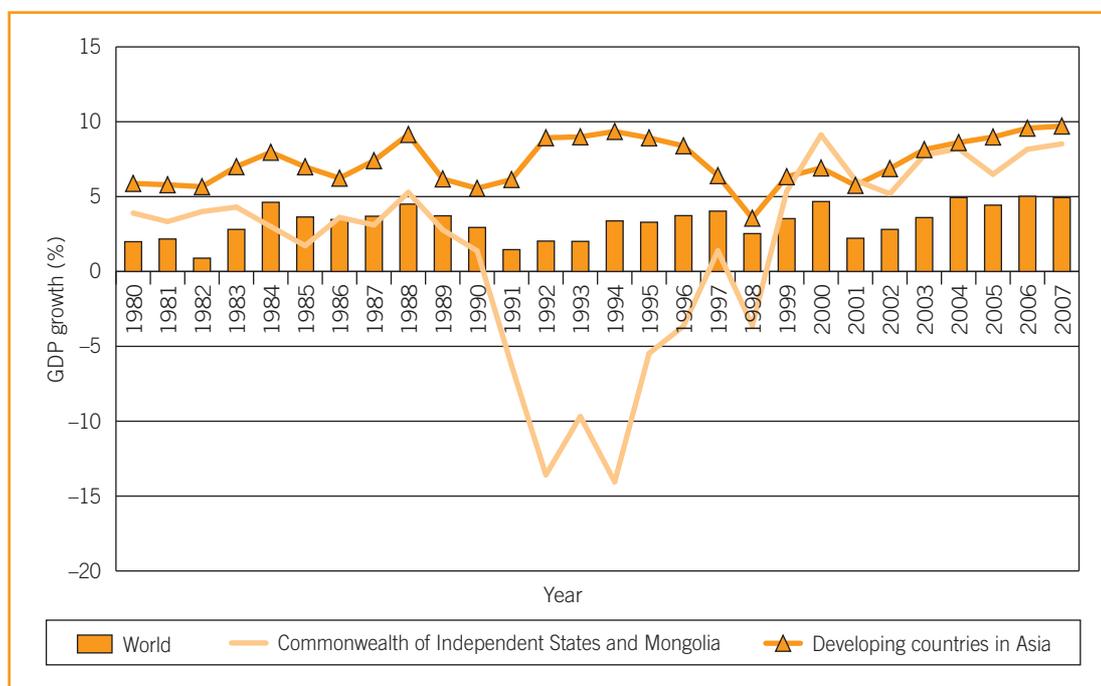
1. The economic context

1.1. Strong economic growth, but a gloomy outlook

In terms of global economic growth, the period 1995–2007 appears to have been a success, although with severe economic difficulties in several regions, such as the financial crises in Asia and Latin America and continued economic challenges in transition countries. Figure 1 reports global estimates of GDP growth. We see that the global economy has been growing at an average rate of 3.3 per cent per year for the past three decades, propelled by high-performing emerging economies. During this time, growth has accelerated from an average of 2.9 per cent per year in the period 1980–94 to 3.8 per cent per year between 1995 and 2007. This is remarkable and provides at first sight a very favourable context for global wage growth.

However, the two regional estimates shown in figure 1, for developing countries in Asia and the Commonwealth of Independent States (CIS) countries, highlight important regional variations. While the group of developing Asian countries has experienced higher than average growth rates, countries in the CIS have been recovering from a severe economic collapse in the 1990s. Other developing regions have, on the whole, enjoyed above-average performance since 1995, with growth rates averaging a solid 4.8 per cent per year in Africa and 3.2 per cent per year in the western hemisphere, although there have been severe economic problems in Latin America, particularly during 2000–02.

Inevitably, there are some caveats. First, the experiences of individual countries often differ from the regional trends, sometimes widely. Over the period 2001–07, some countries have experienced low or negative economic growth rates – even in fast growing regions. This was the case, for example, for Côte d’Ivoire in Africa, and for Guatemala and Haiti in Latin America and the Caribbean. In fact, differences in economic growth

Figure 1 Economic growth: Annual changes in GDP, 1980–2007 (2000 constant prices US\$, %)

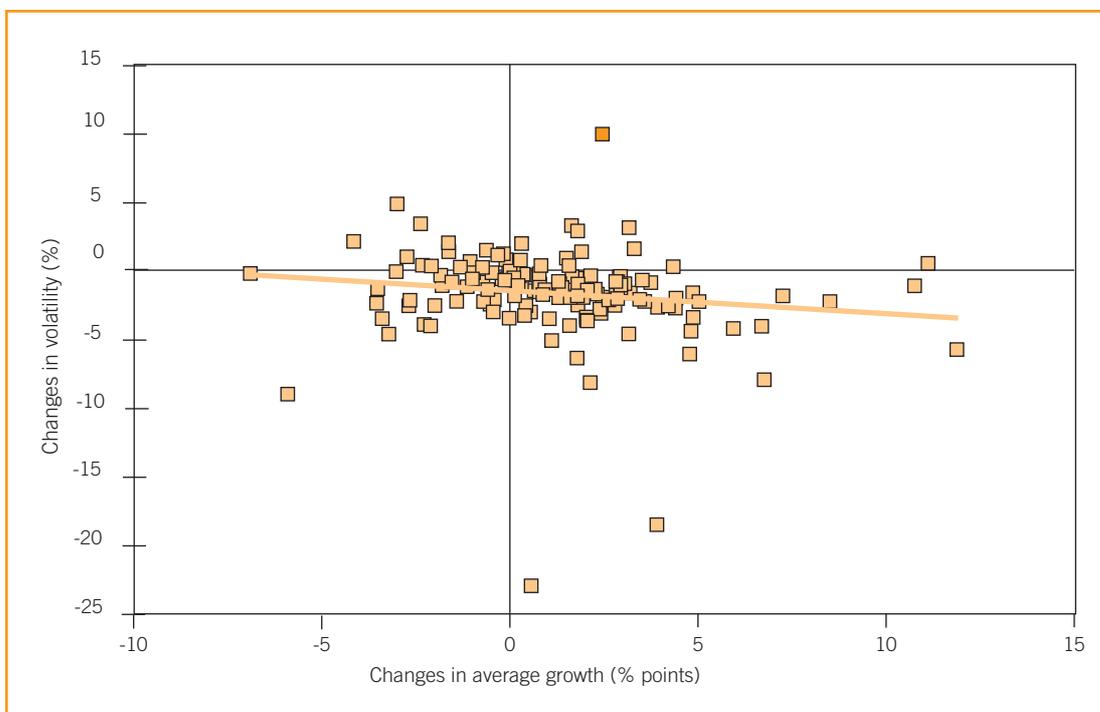
Source: IMF.

across countries tended to increase in the 1990s and reached a peak in 1998, when the effects of the previous financial crisis were felt to their full extent.¹ Second, it is important to look beyond annual averages and to consider the stability of economic growth over time. Volatility in economic performance makes wage determination difficult and unpredictable. In this respect, it is interesting to note that volatility in economic growth declined after 1998. This is illustrated in figure 2. We see that compared with the period 1980–94, a majority of countries managed to achieve higher economic growth with less volatility during the period 1995–2007.

The situation in 2008 and outlook for 2009 are not so bright. The slowdown in global economic growth caused by the financial turmoil in the United States appears to be inevitable. There is strong evidence that industrial production is weakening and that consumer confidence is declining. During 2008, the International Monetary Fund (IMF) revised its global forecast down to 3.9 per cent for 2008, and it is predicted that this downward trend will continue in 2009. The IMF's projection for 2009 has also been revised downward, to 3.0 per cent.² These downward revisions might still be seen as rather optimistic, as many developing and transition countries have just begun to feel the impacts of the global slowdown in their economies. The IMF's predictions for sustained positive economic growth for 2008–09 are based on the premise that economic growth

¹ Differences in cross-country economic growth rates were estimated on the basis of the standard deviation for GDP growth among countries included in the sample.

² IMF *World Economic Outlook* (2008, updated in October 2008).

Figure 2 Economic growth and stability: Comparing the periods of 1980–94 and 1995–2007

Note: “Change in average growth” refers to difference in average annual GDP growth rate for the period 1995–2007 compared with that for 1980–94; “Change in volatility” refers to change in standard deviation in GDP growth rate for the period 1995–2007 compared with that for 1980–94.

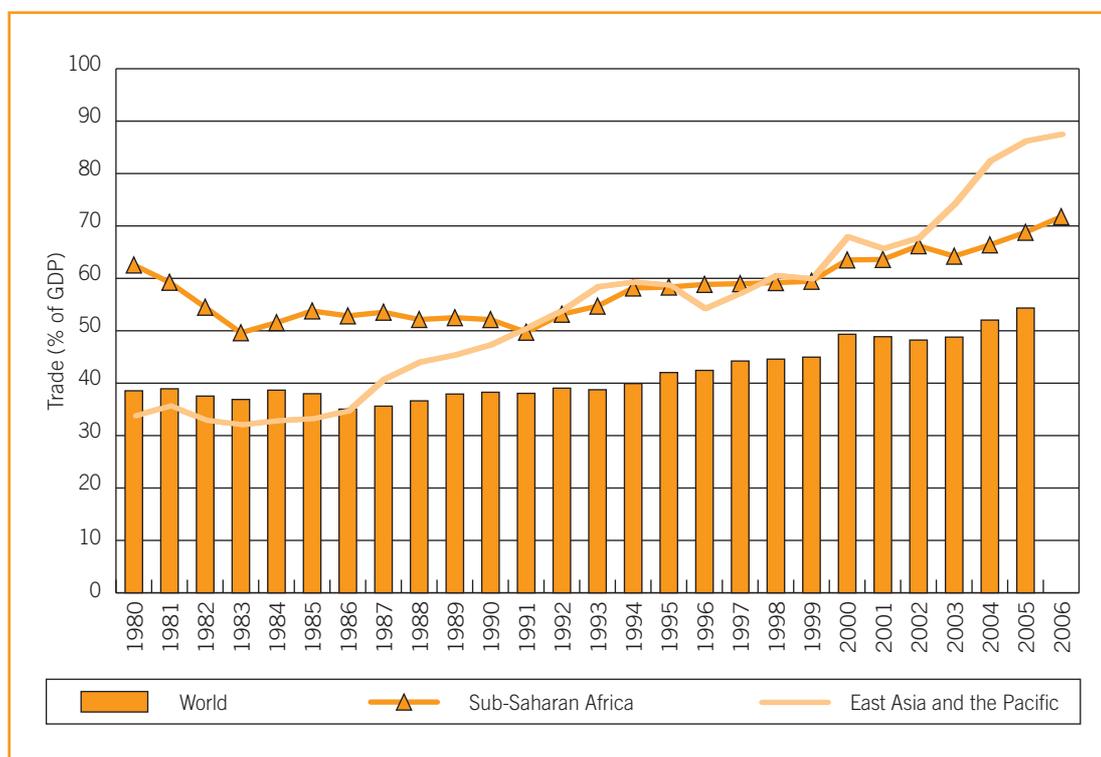
Source: IMF.

will continue to be higher than 6 per cent in the developing world. By contrast, it is predicted that industrialized economies will grow by less than 2 per cent in 2008 and less than 1 per cent in 2009.

1.2. Continued global economic integration

Globalization has provided the backdrop for the strong economic growth in recent years. As this report is not intended to discuss conceptual questions of globalization, we only briefly review trends in three major aspects of globalization, namely international trade, foreign direct investment and labour migration. It has been widely recognized that these three dimensions of globalization affect, to a greater or lesser extent, the level and distribution of wages. Their potential implications are multidimensional, but debate has focused on their impacts on the overall level of wages – in particular the extent to which workers have benefited from globalization through higher wages – and on the so-called “skill-premium”; that is, the gap between the wages of skilled and unskilled workers. Concerns about the effect of international trade on wage inequality were recognized in a joint study by the ILO and the secretariat of the World Trade Organization.³

³ Jansen and Lee (2007). For more technical reviews of the literature on globalization and inequality in developing countries see, for example, Anderson (2005) and Goldberg and Pavcnik (2007).

Figure 3 Trade (imports + exports) as a percentage of GDP, 1980–2006

Source: IMF database.

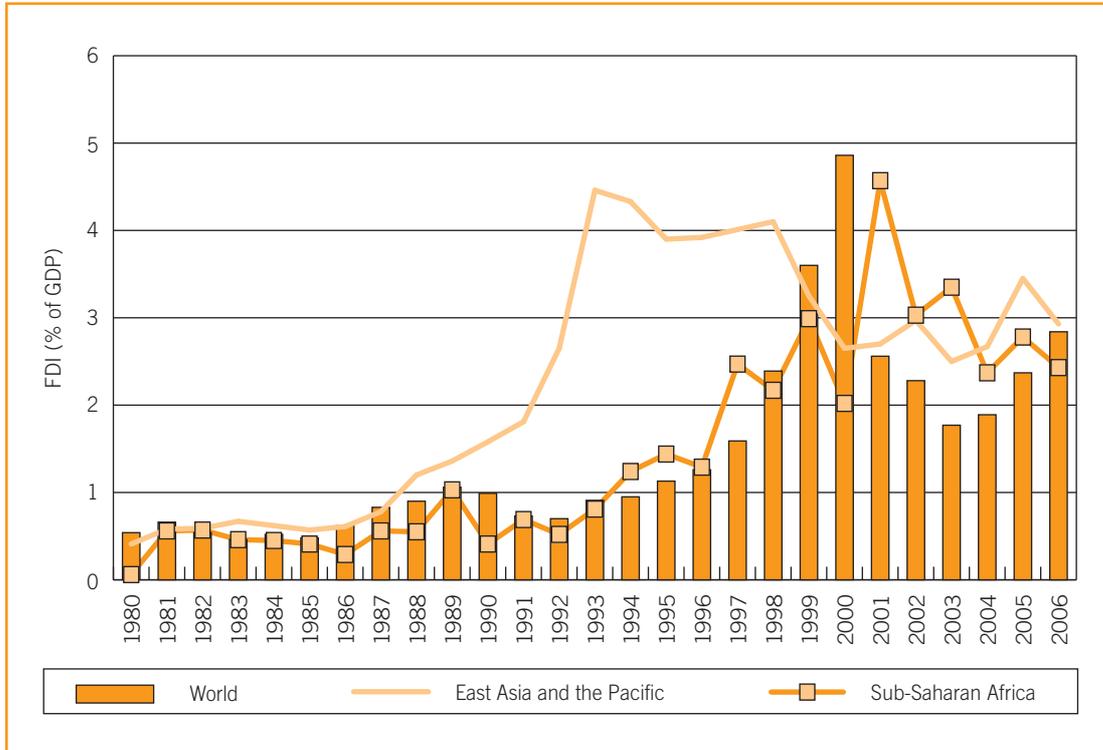
International trade

At the global level, the trade share of GDP has increased consistently since the 1980s and in recent years it has exceeded 50 per cent (see figure 3). At the regional level, the change is most pronounced in East Asia and the Pacific, while a steady upward trend was also observed for sub-Saharan Africa. However, this global picture masks contrasting developments in individual countries. Not all the countries for which data are available are “globalizers”. Despite the general trend towards policies to open their economies, the trade share has fallen in about one-third of countries, including many countries in sub-Saharan Africa. As a result, intercountry differences in the share of trade have widened.⁴

Foreign direct investment

Another driver of globalization is foreign direct investment (FDI), which increased considerably between 1980 and 2006, but with significant fluctuations (see figure 4). The global average share of FDI in GDP was barely 1 per cent in the 1980s and reached its peak of about 4.9 per cent in the year 2000. Thereafter it stabilized at 2–3 per cent. As for international trade, intercountry variations in FDI inflows have also increased

⁴ The standard deviation of trade share in sample countries increased from 44.8 in 1995 to 60.3 in 2006.

Figure 4 Net inward inflows of FDI as a percentage of GDP, 1980–2006

Source: IMF database.

over the years.⁵ This suggests that despite a general trend towards more open policies in the areas of trade and foreign investment, the actual success of countries to integrate into the world economy is increasingly diverse.

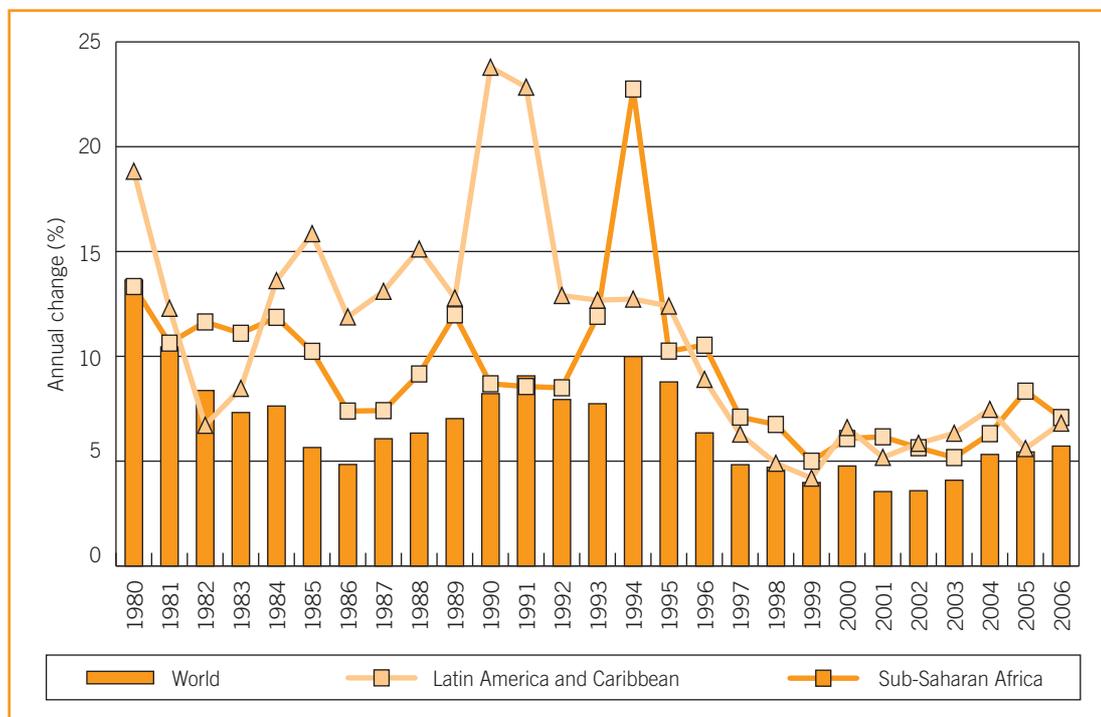
Labour migration

Labour migration from developing countries to industrialized countries has also been increasing over the past few decades. Although the full global magnitude of these flows is difficult to measure, the ILO estimated in 2004 that there were about 86 million economically active migrants all over the world, of whom some 32 million were in the developing regions.⁶ The forces driving migration are diverse, but wage differences between poor and rich countries are often cited as one important reason. Labour migration remains particularly significant in the United States and in Europe – where the number of people residing in the European Union (EU) who originated in non-EU countries was estimated in 2006 at 18.5 million, or 3.8 per cent of the total population.⁷

⁵ Volatility in overall private capital flows was even sharper. This is why some observers see FDI as the “sunny side” of private capital flows.

⁶ See ILO (2004).

⁷ See Council of Europe (2008).

Figure 5 Inflation: GDP deflators, 1980–2006 (annual changes, %)

Source: IMF.

Gulf countries also represent a major destination, with a particularly large proportion of migrant workers among their total labour force.

1.3. Inflation

Prices were relatively stable in the ten years until 2006 compared with the previous periods. As figure 5 shows, the global average rate of inflation had been fluctuating in the range of 5–10 per cent in the 1980s and early 1990s. As is well known, the Latin American region was hit severely by soaring inflation in the context of the debt crisis and wider economic turmoil of the 1980s and early 1990s. High inflation also affected sub-Saharan Africa, especially the heavily indebted and politically unstable countries. The rapid increases in global inflation in the early 1990s were also strongly driven by unprecedented rates of inflation in the transition countries of Europe and Central Asia (more than 100 per cent in 1991–94). In recent years, however, inflation has been largely stabilized in most regions and the global inflation rate has been kept at around 5 per cent.⁸ In 2005, inflation was below 9 per cent in all developing regions – a record low never before achieved in the post Second World War period.

⁸ While the inflation in consumer prices (CPI) was low, there was higher inflation in asset prices, particularly in some developed economies, which tends to reduce the value of people's wealth.

Inflationary pressures have built up since 2006, in particular because of soaring food and oil prices. As figure 6 (panel A) shows, the food price index computed by the Food and Agriculture Organization (FAO) of the United Nations more than doubled between 2000 and May 2008 – mostly because of soaring prices during the past two-and-a-half years. The most striking price increases have been those reported for cereals such as grains, wheat and rice, which have more than tripled (panel B). The prices of these cereals are expected to remain high in the future.

Fuel prices have also been very volatile. According to the IMF index for primary commodity prices, energy prices⁹ increased by more than 30 per cent between 2005 and 2007. Oil prices continued to increase rapidly and reached a peak in mid-2008 before sliding back. Speculation is widely blamed for this volatility. However, the combination of increasing demand and limited supply suggests that oil prices will increase in the long run. In the future, high oil prices are likely to provide incentives for reducing emissions and drive the search for new sources of energy, both of which are necessary for combating climate change. These recent trends suggest that the era of “cheap food” and “cheap oil” may soon be over. It is possible that the positive effects of global trade on price stability – due to developing countries exporting cheap manufactured products – may also be coming to an end. This is indicated by the recent increases in the prices of exports from China, for example.

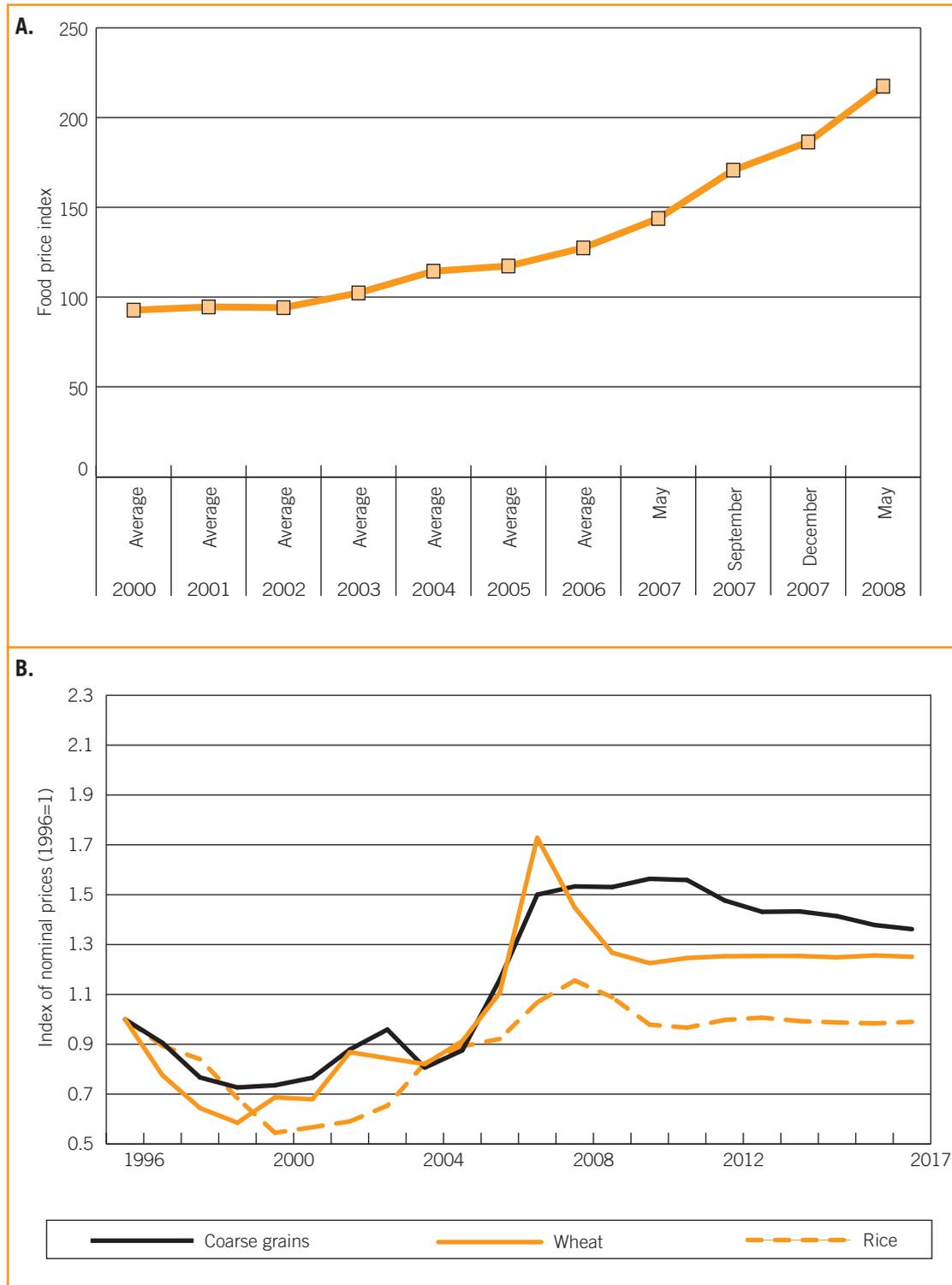
2. Aggregate wages

To identify the major trends in wages, in this section we discuss two main indicators of the aggregate level of wages, namely the economy-wide average wages (in real terms) and the share of wages in total GDP. The first indicator shows whether and how the purchasing power of wages increases over time, while the second indicator – often called the “wage share” – shows the proportion of economic value added which goes to wages.¹⁰ These two indicators are closely linked. If the growth in average wages is slower than the growth in GDP per capita, then the wage share usually declines.¹¹ If, on the contrary, average wages grow faster than GDP per capita, then it will usually be the case that the wage share increases at the expense of profits. Before discussing trends in wages, however, we briefly review the definition of wages and highlight the difficulty in collecting comprehensive statistics on wages.

⁹ This index includes prices of petroleum, natural gas and coal.

¹⁰ Value added is the sum of incomes that are being generated in productive activities, including compensation of employees, operating surplus, rents and mixed incomes. In the so-called “production approach”, total GDP is measured as the sum of value added in all industries (augmented with net taxes and subsidies on products and services). See for example OECD (2002), Chapter 2.

¹¹ This happens when the employment-to-population ratio remains stable from one year to the next, which is usually the case. When the employment ratio expands massively, the wage share can remain stable even when the growth in average wages lags behind the growth in GDP per capita.

Figure 6 Food prices: A. Food price index, 2000–08; B. Outlook for cereal prices, 1996–2017

Notes: The food price index in panel A is the weighted average of six commodity group indices (meat, dairy, cereals, oils, fats and sugar). The surges in the food price index have been driven by increases in cereals and dairy prices, which have more than doubled.

Source: FAO estimates (<http://www.fao.org/worldfoodsituation/FoodPricesIndex/en>); OECD-FAO (2008).

2.1. Definitions and statistics

The statistics on wages used in this report, which are those commonly available, consist of the total remuneration received by employees for a given period, which includes payments for time not worked (such as for annual vacations) and regular bonuses. Remuneration is usually in cash, although some payments in kind may also be included. In principle, “wages” refers to gross earnings, therefore wages differ from employees’ disposable take-home pay (which is what remains of wages after taxes, pensions and social security contributions and other deductions). Wages also differ from employers’ total labour costs (which can include employers’ contributions to social security, pension schemes or the costs of vocational training).

Not every worker receives a wage. Indeed, wages are only linked to so-called “paid employment”, which excludes all self-employed people such as employers, own-account workers, contributing family workers and workers in producers’ cooperatives. Table 1 shows that “paid employees” (or, in short, “employees”) account for about half of global employment. Regional variations are striking. While the share of employees exceeds 80 per cent of total employment in industrialized countries, this share is often much lower in developing countries – reaching little more than 20 per cent in both South Asia and sub-Saharan Africa, and often even lower among women workers. Overall, however, paid employment appears to be growing everywhere (with the exception of Latin America) and has been expanding particularly rapidly in East Asia. The incidence of paid employment in women’s total employment has been growing as well, although with significant variations by region. This suggests that, over time, wages will become an ever more important dimension of total employment-related income.¹²

At present, wage statistics are most widely available in developed economies. Most developed countries now regularly collect data on average wages, and also – but less frequently – on median wages and/or on the distribution of wages between top wage earners and bottom wage earners. Some of the countries which do not yet implement regular surveys – such as Ireland, which has collected data on economy-wide earnings only twice in its history (in 2003 and 2006) – are in the process of improving their data collection systems. For all other countries, statistics on wages are collected through monthly, quarterly or annual establishment-based surveys. A number of international institutions compile these national wage statistics.¹³ The present report benefits much from these statistical sources.

In developing countries, by contrast, wage statistics are often scarce. This is because wage statistics are not only among the most complex statistics but also require substantial resources and infrastructure. The data for Latin America used in this report were directly processed by the ILO/SIAL (Information System and Labour Analysis)

¹² It is interesting to note from table 1 that the upward trend in wage employment was accompanied by a sizeable decline in the share of contributing family workers, which reflects the declining proportion of employment in the agriculture sector, as well as by an increase in the share of own-account workers – an indicator of the size of the informal economy (see ILO, 2008).

¹³ See the OECD, Eurostat, UNECE and AMECO databases.

Table 1 Share of wage and salaried workers (% of total employment)

	Wage and salaried worker		Employers		Own-account workers		Contributing family workers	
	1996	2006	1996	2006	1996	2006	1996	2006
World	43.1	46.9	3.4	2.9	30.8	33.0	22.7	17.2
Developed economies and EU	82.4	84.3	6.4	6.3	8.7	7.8	2.5	1.6
Central and South-Eastern Europe (non-EU and CIS)	77.1	76.6	2.9	3.8	14.2	16.1	5.7	3.6
East Asia	32.4	42.6	2.8	1.2	33.4	38.2	31.4	18.0
South-East Asia and the Pacific	33.0	38.8	2.1	2.1	34.8	35.2	30.1	23.9
South Asia	17.1	20.8	1.5	1.0	45.6	47.4	35.8	30.8
Latin America and the Caribbean	64.4	62.7	4.4	4.7	24.5	27.1	6.7	5.5
North Africa	54.4	58.3	7.9	9.6	17.7	16.2	20.0	15.9
Sub-Saharan Africa	20.6	22.9	3.1	3.0	49.1	48.7	27.2	25.4
Middle East	58.5	61.5	3.9	5.2	28.6	22.6	9.0	10.6

Source: ILO, *Key Indicators of the Labour Market* (2008). <http://www.ilo.org/public/english/employment/strat/kilm/index.htm>.

from country-level household survey data.¹⁴ For other regions, we have had to rely on a mixture of sources, including the ILO's *Yearbook of Labour Statistics* (which includes data on wages provided by a limited number of countries) and various publications by national statistical offices. Despite these efforts, wage data for developing countries remain incomplete, and data for African countries are particularly scarce. The quality of the data is also an issue. In some regions, such as in the CIS for example, there is sometimes a problem of large under-reporting or non-declaration of salaries. Many of the wage data also relate to hourly wages rather than monthly wages.

As a result of these difficulties, our database should be treated very much as work in progress. It is our expectation that the quality of the data and number of indicators used in the *Global Wage Report* will gradually improve over time as a result of the ILO's growing effort to assist countries in producing better statistics on the various dimensions of decent work.¹⁵ In future it would also be valuable to collect data on wages systematically by occupation, in order to facilitate comparisons across different groups of workers and between countries. This could be done by asking ILO member States to provide occupational wage data in the context of a modernized and streamlined version of the ILO's worldwide survey

¹⁴ We are hugely indebted to ILO/SIAL for providing a comprehensive set of data.

¹⁵ See ILO (2008).

of wages and hours of work – the so-called “October Inquiry” (see box 1). In the meantime, to address these potential problems with data comparability, our report concentrates on identifying changes over time within countries and then comparing these identified changes across countries. In other words, instead of comparing wage levels across countries, the focus is placed on comparing *changes* around the world.

Box 1 The ILO’s October Inquiry

The ILO October Inquiry is a worldwide annual survey of wages and hours of work relating to 159 occupations in 49 industry groups and of retail prices of 93 food items. It was initiated in 1924, and a major revision was made in 1985. The Inquiry is conducted with reference to the month of October each year by means of two questionnaires, one relating to wages and hours of work and the other to retail prices. The questionnaires are sent to governments for transmission to the relevant reporting agencies, who are requested to supply information for as many of the occupations and items as possible. The ILO does not ask reporting agencies to undertake special surveys, but to supply whatever information is available from existing national sources, including establishment and household surveys. The survey results related to wages are then published by the ILO Bureau of Statistics, and are also made available online (<http://laborsta.ilo.org/>).

Unfortunately, data are incomplete for many countries and for many years. Indeed, the reporting by ILO member States has been falling over the years. While 71 countries reported wages to the Inquiry for at least one occupation in 1985, only 43 countries responded in 2002 (Oostendorp, 2005). Furthermore, countries use different definitions and units when reporting data to the ILO. As a result, the reported wages are non-comparable in various ways between countries and, in some cases, within countries. For example, while some countries report average monthly wages, others report wage or salary rates. It has been estimated that overall only 5.7 per cent of the wages are reported on exactly the same basis (Freeman and Oostendorp, 2001). In addition to these problems of definition, various questions have been raised regarding the quality of the data provided to the Inquiry and published by the ILO without any adjustment. Combining all these elements, the vast majority of the Inquiry statistics are non-comparable.

As a result, the data from the October Inquiry are seldom used. Some authors have tried to use the available data for the purpose of cross-country comparison by applying a complicated and time-consuming standardization procedure that involves the cleaning of the data (harmonizing units, erasing idiosyncratic figures, etc.) and using a model to convert all data, however reported, into standard monthly average wage rates. This, however, involves many assumptions. The ILO *Key Indicators of the Labour Market* uses a selection of 19 occupation groups for which data coverage and quality are reasonable to compute an index of real wages (ILO, 2008).

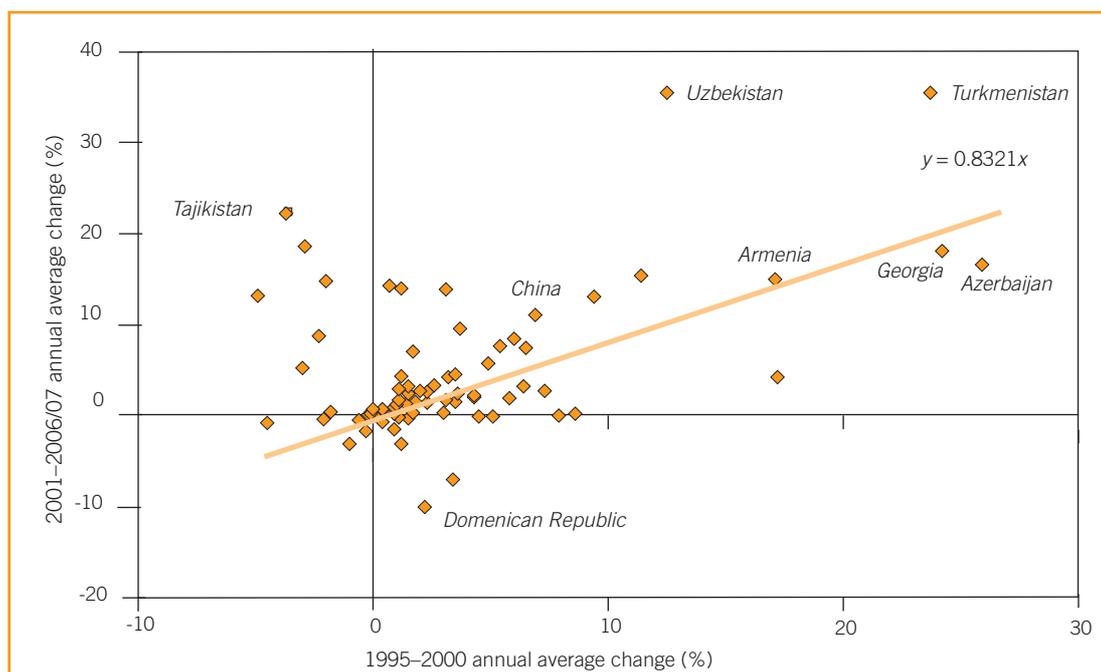
In the future, however, it might be useful to undertake a review of the October Inquiry with a view to streamlining and modernizing the questionnaire, and so to obtain more reliable and complete data by covering fewer occupations. This would benefit not only the ILO but also the member States, which at present are faced with very long questionnaires on which they seldom provide complete responses. The recent revision of the International Standard Classification of Occupations (ISCO) in December 2007 provides a good opportunity for initiating work on the revision of this far-ranging ILO survey.

Sources: ILO Occupational Wages and Hours of Work and Retail Food Prices: Statistics from the ILO October Inquiry (various years); Freeman and Oostendorp (2001); Oostendorp (2005).

2.2. Average wages

Keeping in mind the data limitations, we provide some estimates of wage growth¹⁶ over the period 2001–07. These estimates are based on wage data for 83 countries, representing about 70 per cent of the world’s population. Globally, we estimate that average wages grew by 1.9 per cent per year.¹⁷ There are large regional variations. Among developed countries, we find that wages in the median country grew by about 0.9 per cent per year. Comparable figures were 0.3 per cent in Latin America and the Caribbean, 1.8 per in Asia, and a much higher 14.4 per cent in CIS and non-EU Central and South-Eastern Europe.¹⁸ Compared to earlier periods, we find that wage growth has tended to slow down in the majority of countries for which data are available. This can be seen in figure 7, where we plot countries’ growth in two periods, 1995–2000 and 2001–07. The slope of the trend line, which is less than 1, indicates a general decline in wage growth.

Figure 7 Real wage growth



Note: Only countries for which data are available for both periods are included (74 countries).

Source: ILO Wage Database.

¹⁶ Throughout this section we use the term “wages” as meaning “real wages”, unless otherwise stated.

¹⁷ In this section we report the annual growth in average wages in the median country.

¹⁸ Estimates for African and Middle-Eastern countries are less robust and are therefore not reported.

At the country level, CIS countries, such as Armenia, Azerbaijan, Georgia, Turkmenistan and Uzbekistan, displayed some of the best records, achieving annual wage growth rates higher than 10 per cent (see Statistical appendix). Except for China, all the top ten performers came from this region. This impressive performance is, however, part of the recovery process following the huge reductions in wages that took place during the early stages of economic transition at the beginning of the 1990s. In some countries, despite the record-breaking growth in recent years, the current wage level still remains lower than the pre-transition level. In Armenia, for instance, real wages fell to one-fifth of their initial level during the early 1990s; the trend was reversed by sustained growth during the following ten years, but in 2006 real wages were still slightly below the 1991 level.¹⁹ By contrast, some countries, such as the Dominican Republic, experienced reductions in real wages over this period.

Wages and productivity

In general, despite some negative experiences, the economic growth during the period 1995–2007 was associated with growth in average wages. This positive link between economic growth and wage growth is illustrated in figure 8. We see that, on average, a country's wages grow faster when its GDP per capita grows faster. This confirms that sustained wage growth over several years is normally only possible when the economy is expanding and when labour productivity is growing. One example is China, where real wages grew on average about 11 per cent per year thanks to double-digit economic growth. Conversely, it is simply not realistic to expect sustained wage growth when the economy is shrinking. So, for example, when GDP per capita declined in Argentina during the financial crisis in 2001–03, wages fell by an average of 11 per cent per year.

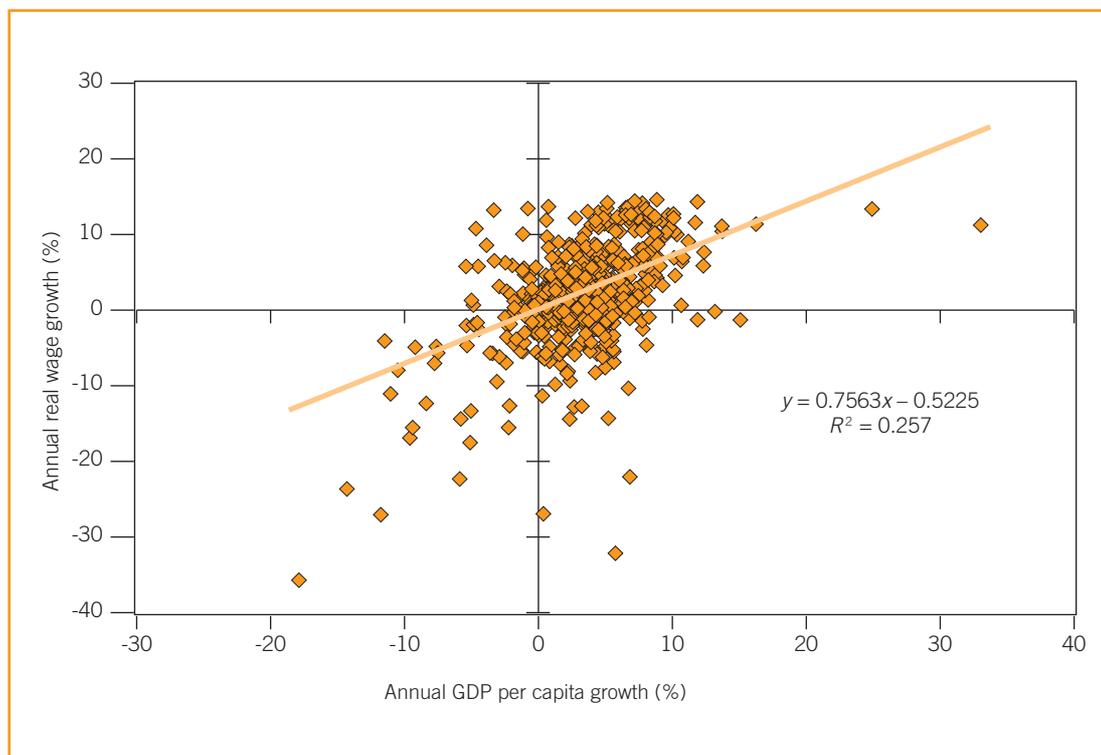
Another way to look at the link between productivity and wages is to observe that the level of average wages is higher in countries in which labour productivity is higher. From a comparative perspective, it has been shown in various studies that international differences in wages across countries mainly reflect differences in economic development and labour productivity.²⁰ This is illustrated in figure 9, which plots the level of wages and the level of GDP per capita for 60 countries in 2006. We see that a large proportion of the differences in average wages across countries can be explained by international differences in labour productivity, as measured by GDP per capita (although GDP per capita is not always a reliable indicator of productivity). This again shows that it is not realistic to expect wages “beyond what the productivity of the economic machine was capable of furnishing”.²¹ In other words, the solid and sustained wage growth which is hoped for in all societies requires sound economic performance.

However, the relationship between economic growth and wages is not as straightforward as one might assume. Indeed, while figure 8 shows that economic growth is

¹⁹ On Armenia see World Bank (2007); see also Statistical Committee of the Commonwealth of Independent States (2007).

²⁰ See, for example, Rodrik (1999).

²¹ This formulation is from Keynes (1936).

Figure 8 GDP per capita growth and change in real wages

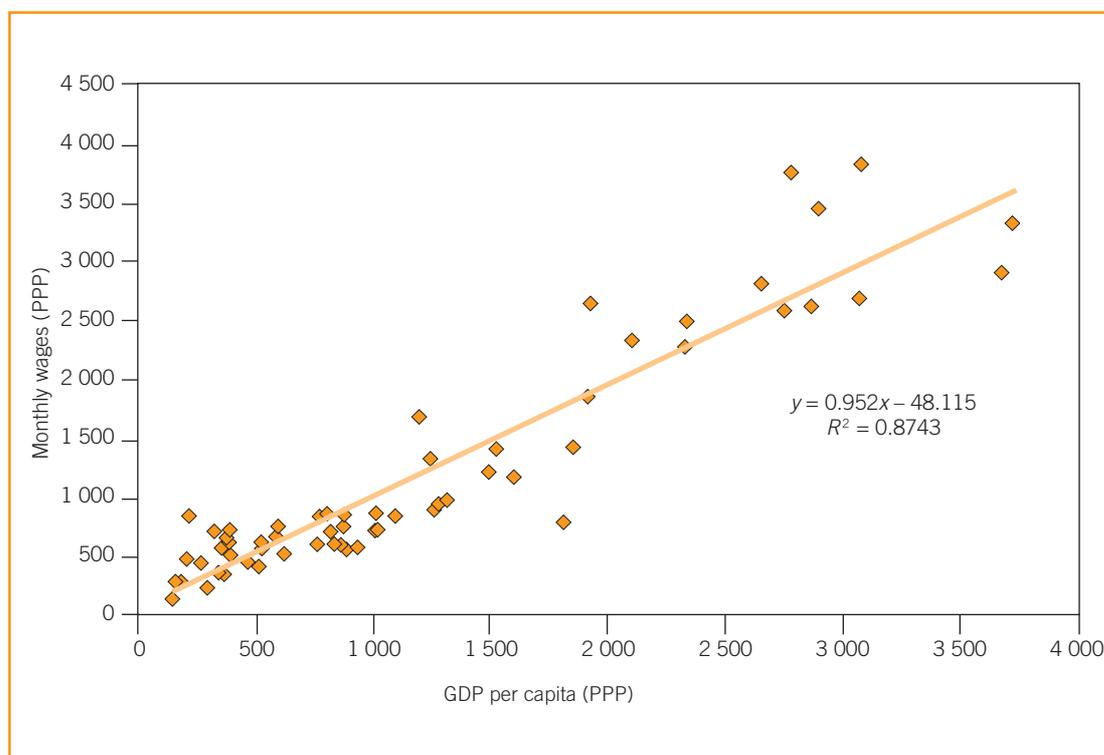
Source: ILO Wage Database.

overall positively correlated with changes in real wages, the relationship does not appear to be very strong. The slope of the regression line²² can be called the “wage elasticity to GDP” (or in short, “wage elasticity”) – it shows the typical percentage change in real wages in response to a 1 per cent change in GDP per capita. Hence, if GDP per capita and wages grew at exactly the same rate, we would find that the slope (wage elasticity) was equal to 1. Our statistical analysis, however, shows that the wage elasticity is about 0.75, which indicates that on average, over the whole period 1995–2007, real wages increased at a slower rate than economic growth. Each additional 1 per cent increase in the annual growth of GDP per capita is associated, on average, with a 0.75 per cent increase in the annual growth of wages.

One interpretation of these results is that they support the widespread concern that in recent years the growth of wages has lagged behind the growth of productivity.²³ However, this interpretation relies on the assumption that GDP per capita is a valid

²² In the regression we have estimated the following equation: wage growth = $a + b \cdot \text{GDP per capita growth}$ (where GDP per capita is used as a proxy for productivity change) by pooling all data on annual GDP per capita growth and annual real wage growth (defined as an annual real wage growth above 15 per cent).

²³ A rather unlikely alternative interpretation would be that growth in GDP per capita is overwhelmingly driven by an expansion in the employment-to-population ratio, which could in theory lead to a situation where GDP per capita grows much faster than output per worker (productivity). In practice, however, the employment-to-population ratio usually changes only marginally from one year to the next.

Figure 9 Level of GDP per capita and level of wages (purchasing power parity, PPP)

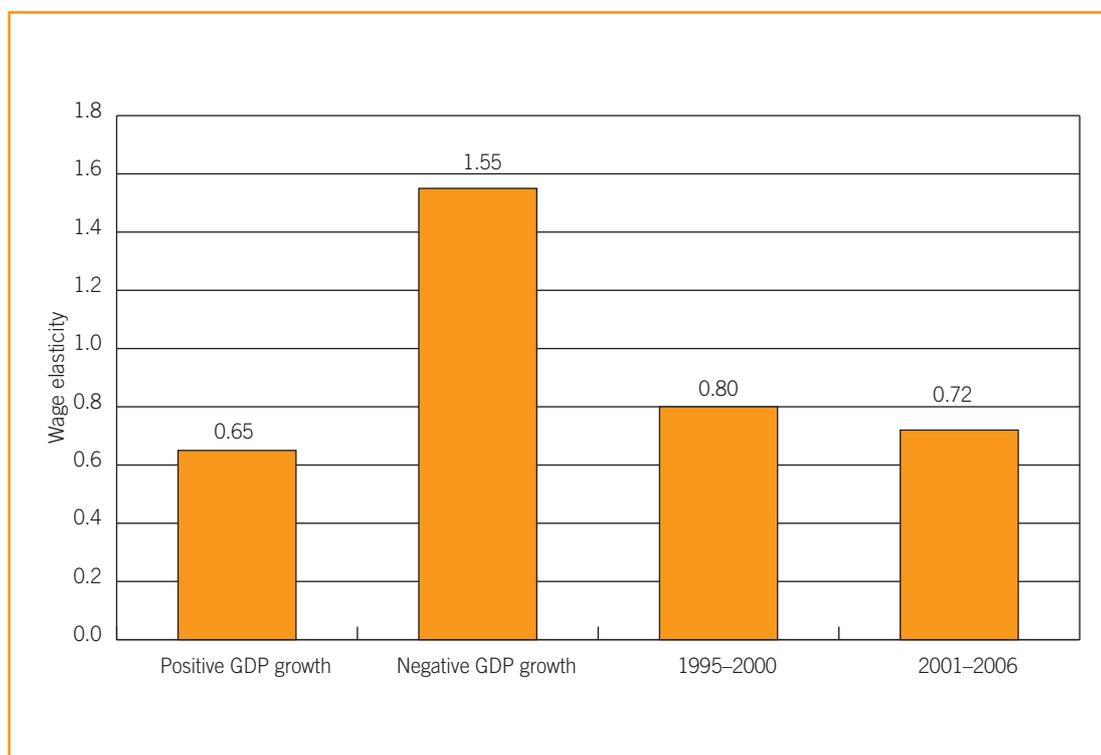
Source: ILO Wage Database.

indicator of labour productivity. In practice, although this is a common and convenient assumption²⁴ (since GDP per worker is much less frequently available), we also know that GDP per capita is an imperfect indicator of labour productivity. Therefore, comparing the labour productivity in two countries by looking at GDP per capita could, under certain circumstances, be very misleading. At the same time, the *change* in GDP per capita is a less risky proxy for the *change* in labour productivity over time.²⁵

This general observation can be complemented by two additional remarks, illustrated in figure 10. First, it can be observed that the relationship between wages and economic growth typically changes in periods of economic decline. Whereas in times of economic expansion wages are less than fully responsive to changes in GDP per capita, during economic downturns wages tend to become overly responsive and fall faster than GDP. This can explain why in many of the countries that suffered from an economic crisis in the late 1990s (in particular some South Asian and Latin American countries) real wages have not fully recovered to pre-crisis levels despite significant economic recovery over recent years. Second, the transmission between economic growth and wages has possibly weakened over time. Indeed, we estimate that the wage elasticity declined slightly between 1995–2000 and 2001–06. While this appears to be

²⁴ See for example Rodrik (1999) or Flanagan (2006).

²⁵ Unless countries have particularly strong population or employment growth.

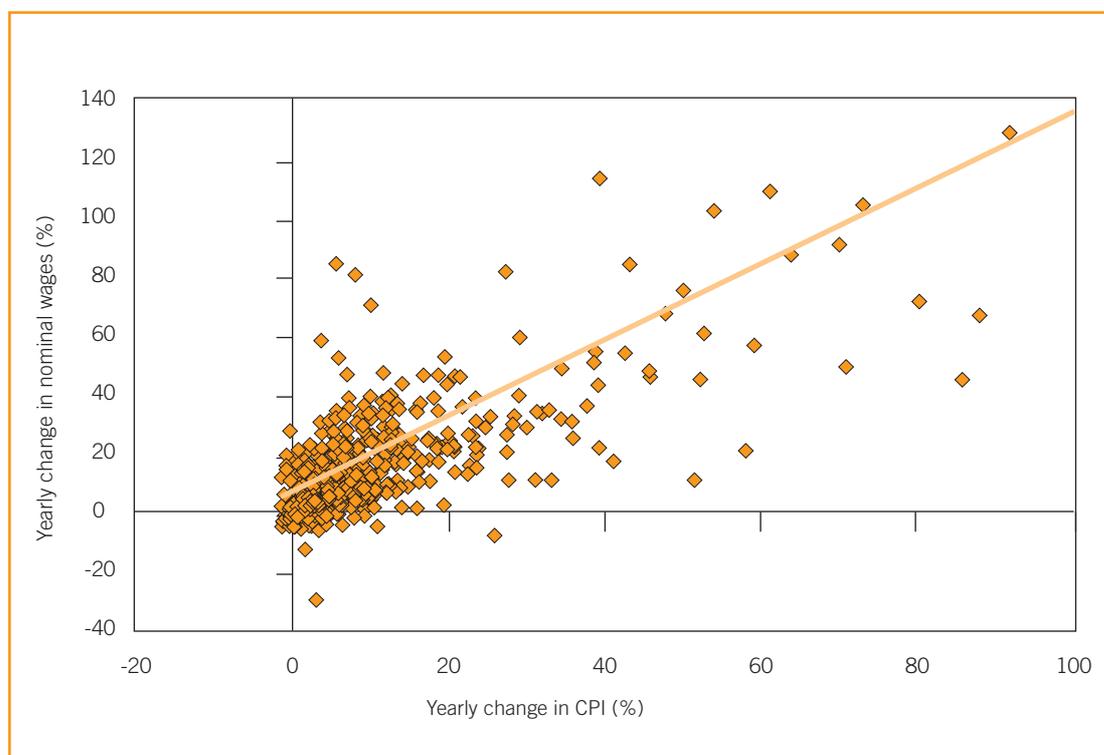
Figure 10 Comparative estimates of global wage elasticity

consistent with our earlier observation regarding a decline in the growth of wages relative to GDP growth, it is currently difficult to draw any strong conclusions from this trend because the difference is rather modest (from 0.80 to 0.72).

Wage forecasts for 2008 and 2009

The years 2008 and 2009 are likely to be characterized by slower economic growth and higher consumer prices than in the preceding years. While cuts in nominal wages are likely to remain exceptional, it is likely that in 2008–09 a large share of the gains in nominal wages will be “eaten away” by price increases. Based on IMF forecasts for GDP growth together with our own findings on wage elasticity, we estimate that in 2008 the growth in real average wages will be 0.8 per cent in developed countries and 2.0 per cent worldwide. Further, for the year 2009, we estimate that wage growth will be 0.1 per cent in developed countries and 1.7 per cent worldwide.

While real wages will continue to grow at the global level, some individual countries are likely to experience a fall in real wages. In some countries, food prices will remain so high that workers will be hit very badly. In the absence of quick and comparable adjustments to nominal wages, these inflation trends could effectively reduce real wages and workers’ living standards. As can be seen in figure 11, our dataset shows that reductions in real wages are far from unusual – especially when inflation is very high. Over the period 1995–2007, negative real wage growth was observed in about a quarter of the total observations available (i.e. all the data points below the 45-degree line).

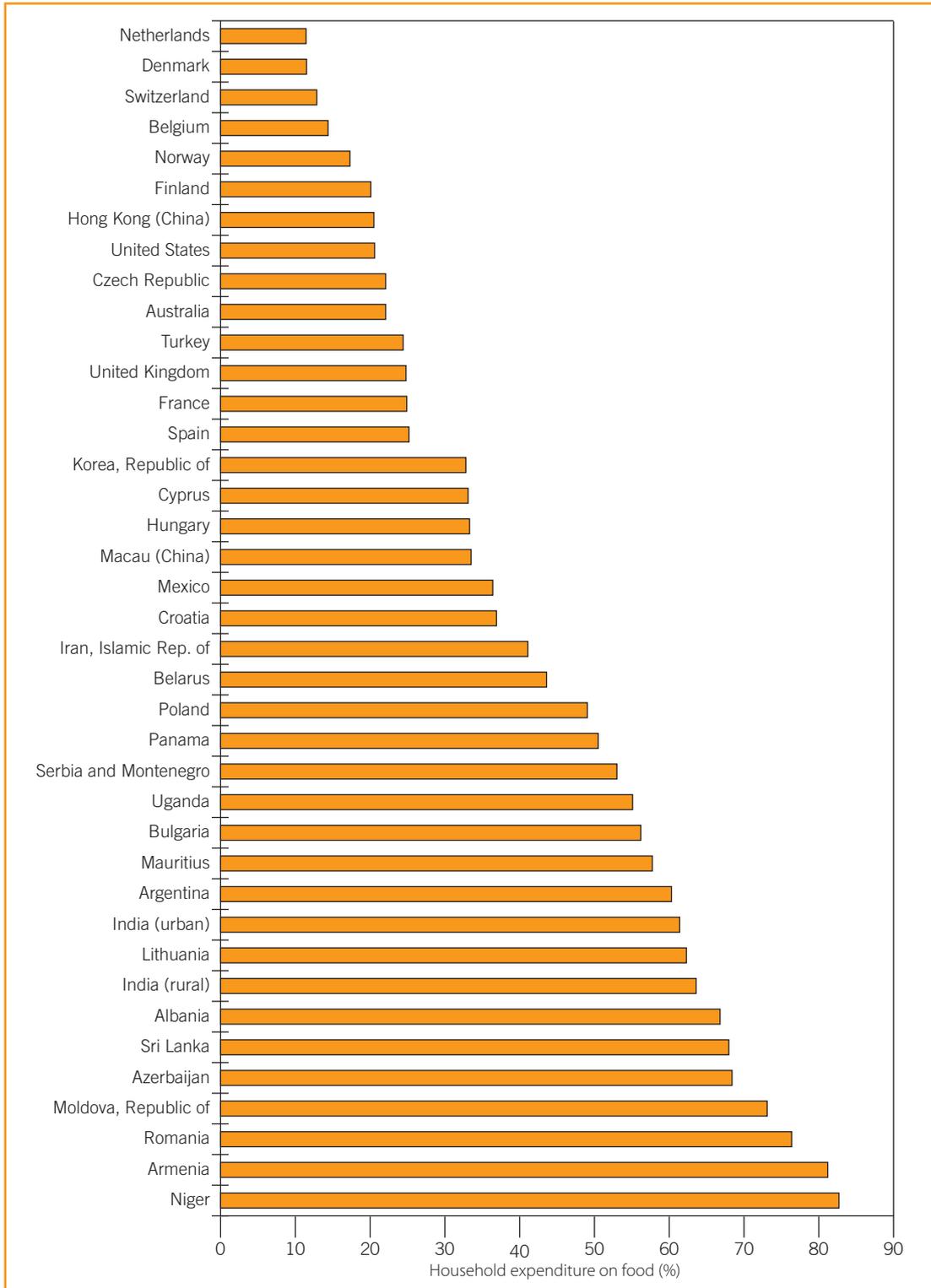
Figure 11 Relationship between changes in consumer price index (CPI) and nominal wages, 1995–2007

Source: ILO Wage Database.

In a number of countries, higher food prices have triggered a series of labour disputes. In Viet Nam, for example, high inflation driven by sharply increasing food prices has caused public concern and triggered labour disputes across the country. According to government statistics, about 300 strikes took place in the first quarter of 2008, up from 103 strikes recorded in the first quarter of 2007. This happened despite new labour rules that make workers liable to compensate their employers if they walk off the job illegally. The strikes reflect the concerns of the large number of people who have left their rural farming communities to seek work in the new industrial zones around Hanoi and Ho Chi Minh City, only to see the purchasing power of their wages dwindle amid rising food costs.

Even in those countries where wages are likely to increase in aggregate, some workers will suffer from real wage declines. In particular, the impact of food price inflation will be greater for poor workers and households in developing countries as these groups spend a much higher proportion of their incomes on the purchase of food. To illustrate this point, figure 12 presents food expenditure as a percentage of total expenditure for the poorest 10 per cent households in the countries for which data are available. It is shown that in advanced economies (Denmark, the Netherlands and Switzerland), food expenditure is less than 20 per cent of total expenditure, but that it is more than 60 per cent in many developing countries. The ratio even exceeds 70 per cent in some countries, such as Armenia, Niger and Romania. In these latter countries, the large increases in food prices experienced in recent months may threaten the health of poor households unless additional income sources are provided.

Figure 12 Poorest households' expenditure on food
(latest years when data were available, percentage of total expenditure)



Higher food prices will not only translate into worse diets for poor households, they will also lead to cuts in the purchasing of other goods and services that are vital for the well-being of family members. Women, especially pregnant women and nursing mothers, as well as children, are likely to be worst hit.²⁶ As a coping strategy, women on low incomes may take on more paid work – often informal and casual – lengthening further their already long working days.

2.3. Changes in the wage share

When the growth of wages lags behind overall economic growth, it normally follows that workers receive a declining share of the total economic pie (i.e. of GDP).²⁷ This outcome is often captured in the concept of the wage share (employees' compensation as a proportion of total GDP), which has attracted much attention in global and national debates.²⁸ Not surprisingly, the wage share has often been given significance as an indicator of a “fair share” for workers. This is because a declining wage share usually implies that a larger share of the economic gains is directed into profits. Not only may this be seen as unfair, but it can also have an adverse impact on future economic growth.²⁹ At the same time, a declining wage share does not automatically mean a reduced purchasing power. In circumstances of fast economic growth, declining wage shares may simply reflect the fact that wages are growing at a slower pace than profits. In such a context, the purchasing power increases, but not as much as could have been hoped for.

The increasingly important policy implications of wage-share dynamics have led a number of national, regional and international organizations as well as academics to examine trends in the wage share and their underlying causes.³⁰ While these studies may have employed different estimation procedures and analytical frameworks, their findings are usually consistent in that the decline in the wage share remains a predominant trend even after controlling for cyclical fluctuations. Trends in the wage share for the countries where data are easily available are illustrated in panel A of figure 13, which compares the change in the wage share between the periods 1995–2000 and 2001–07. We see that the predominant trend is a declining wage share: the wage share fell in three-quarters of the countries included in our sample (28 out of 38). Sizeable reductions are observed in some transition countries, such as Bulgaria, Latvia and Poland. These three countries are estimated to have seen the wage share fall by more than four percentage points between the two periods. Our analysis also indicates that the overall trend for falling wage shares represents a significant secular (non-cyclical) trend (see the description of “trends coefficients” in the Statistical appendix, Appendix

²⁶ IFPRI (2008).

²⁷ This again assumes, realistically, that employment and population remain reasonably stable from one year to the next. See footnote 11.

²⁸ See, for example, Krueger (1999) and Luebker (2007).

²⁹ Because the marginal propensity to consume is higher for labour income than for capital income, it is usually considered that an increase in wage share will have a positive economic impact. Recent studies of Europe estimated that one percentage point increase in the wage share would increase GDP by 0.17 per cent (Stockhammer, 2008).

³⁰ ADB (2007); European Commission (2007a,b); ILO (2007); IMF (2007a,b); OECD (2007).

Figure 13 Trends in wage share: Differences between the periods 1995–2000 (average) and 2001–07 (average); A. Countries with adjusted wage shares

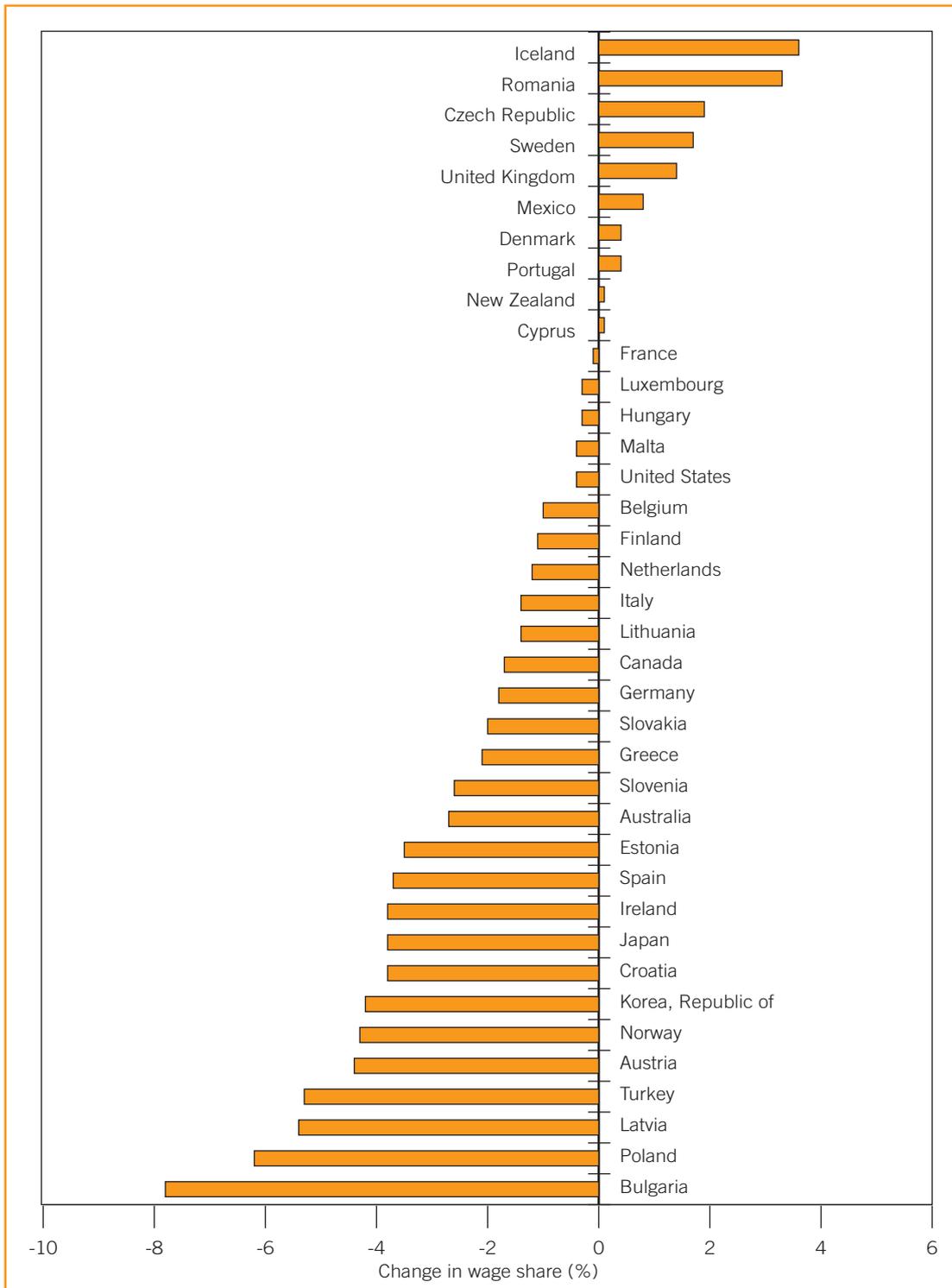
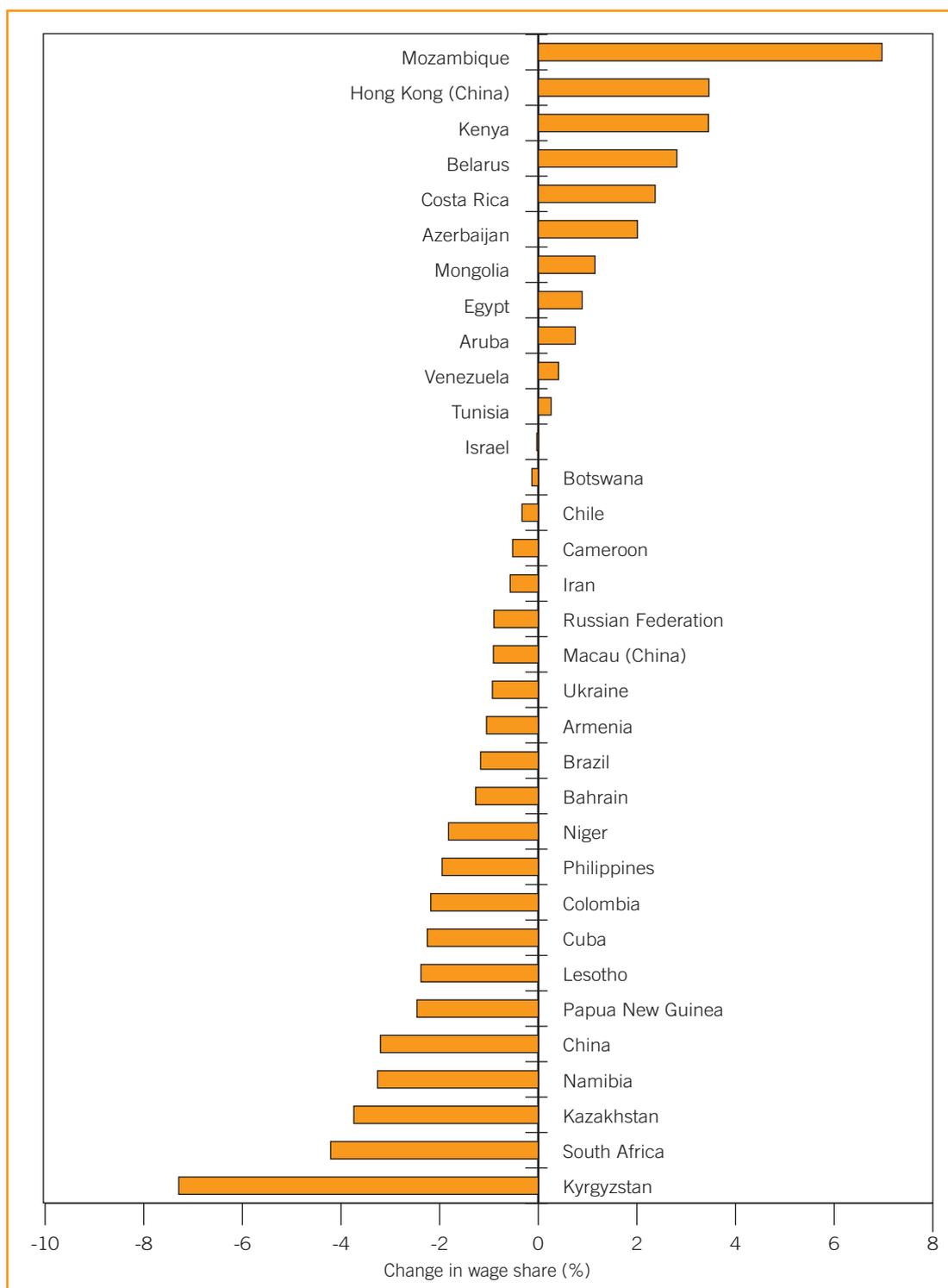


Figure 13 Trends in wage share: Differences between the periods 1995–2000 (average) and 2001–07 (average); B. Countries with unadjusted wage shares



Note: ILO estimates for unadjusted wage shares.

Sources: AMECO; United Nations (National accounts).

table A1). There are also important exceptions to this trend, including in particular Czech Republic, Iceland, Romania and Sweden. Studies using long-term series data from European countries indicate that the wage share appears to have peaked around the mid-1970s and has declined at an accelerating pace since then.³¹

While great attention has been paid to these few countries – mostly EU and other developed countries – little is known about other countries, especially developing countries. To address this issue, we have undertaken some additional estimates of the wage share based on the United Nations National Account Statistics. The results are shown in panel B of figure 13; most are for developing countries but some additional developed countries are also included. Because the methods of estimation are different, the magnitudes of changes should not be compared across the two panels (see Technical appendix I for a discussion on the methodology to compute wage shares). However, the overall picture in panel B is similar to that in panel A. The wage share declined in almost two-thirds of the countries included in panel B, most notably in transition countries such as China, Kazakhstan and Kyrgyzstan. Overall, when taking into consideration all the countries, we estimate that a 1 per cent annual growth in GDP has been associated on average with a 0.05 per cent decrease in the wage share.

When considering the causes of these trends at least three possible factors have been identified. First, it has been argued that the observed decreases in the wage share are due to the weakening of trade unions – a possibility to which we return in Part II of the report. Second, it has been considered that technical progress has been responsible for the decline in wages relative to profits. This is the explanation apparently favoured by the IMF.³² Our own statistical analysis suggests that globalization may also have played a part in this story. We found that over the past decade the countries in which trade was growing as a percentage of GDP were also the countries with the fastest decline in wage share (see the full regression results in Technical appendix I). This link with globalization is often established because of the coincidence in the timing of increasing economic integration and declining wage share. One possible explanation for the link between trade and lower wage share is that the intensification of competition – particularly the presence of large low-wage exporters in the market for labour-intensive products – has worked as a wage moderation factor.³³

³¹ European Commission (2007).

³² See IMF (2007a,b). The argument is that the decline in the wage share is due to factor productivity changes favouring capital (primarily involving changes in capital-to-labour ratio) and changes in skill structure favouring skilled workers only (the so-called skill-biased technological change).

³³ The total effects of trade on wages can be evaluated by considering immediate, short-term and long-term effects together. These effects can be different in size. See Majid (2004).

3. The distribution of wages

3.1. Does wage inequality matter?

Average wages and the wage share are aggregate measures of wages and therefore do not help us to understand how wages are distributed among workers. As the wage share is declining in many countries, the issue of wage distribution gains further importance. Of course, wage inequality is a complex issue, involving multiple dimensions. Particular interest has been paid in recent years to wage inequality between different groups of workers, for instance by sex, level of education, age, ethnicity, migration status or formality. Due to the complexity of these issues and the paucity of relevant data for global analysis, these issues are not addressed in this year's report. Instead, we examine some simple indicators that compare high- and low-wage earners, and also compare these two extreme groups with the median-wage earners.

We also consider trends in wage inequality in relation to both economic growth and gender. Before doing so, however, we address the more fundamental issue of why inequality matters. Debates around this issue have intensified in recent years. As a general principle, it is widely accepted that wage compensation needs to reflect workers' contributions and performance. Since these inevitably show individual variations, it follows that wage inequality is a fairly "natural" aspect of economic reality. At the same time, too much inequality may not be acceptable on moral, social or political grounds. This point is of importance for public policy, particularly in the light of the recent findings on what determines people's levels of satisfaction. Population surveys show that subjective perceptions of happiness depend more on how an individual's income compares with those of other people than on the absolute level of their income.³⁴ There are also many economic costs associated with higher inequality, such as higher crime rates, higher expenditures on private and public security, worse public health outcomes and lower average educational achievements. A growing body of studies also highlights the importance of reducing inequality to achieve poverty reduction.³⁵

3.2. Trends in wage inequality

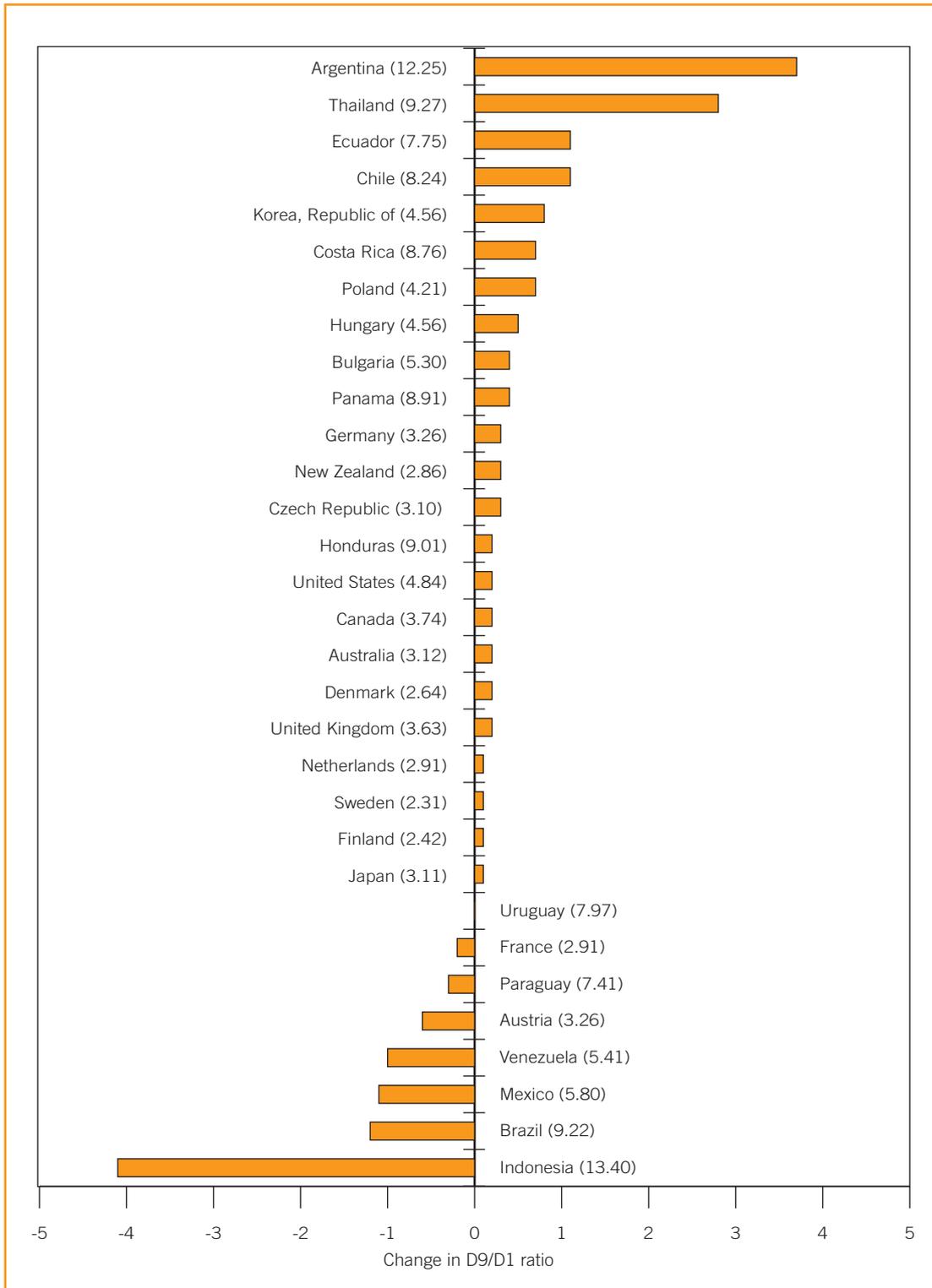
To present some trends, we first compare high-wage earners with low-wage earners. In particular, we compare the wage level below which the bottom 10 per cent of workers are paid (this wage threshold is commonly referred to as D1) with the wage level above which the top 10 per cent of workers are paid (a threshold referred to as D9).³⁶ Results are presented in figure 14 and these show the difference in this ratio of overall wage inequality for two periods, 1995–97 and 2004–06. We see that more than two-thirds of the countries in the sample experienced increases in wage inequality. There are, however, some important exceptions, primarily in Latin American countries such

³⁴ Layard (2006).

³⁵ Ferreira and Ravallion (2008); UNDP (2007).

³⁶ Technically, D9 denotes the upper limit of the 9th decile in the wage distribution (or the lower limit of the top decile), while D1 is the upper limit of the bottom decile.

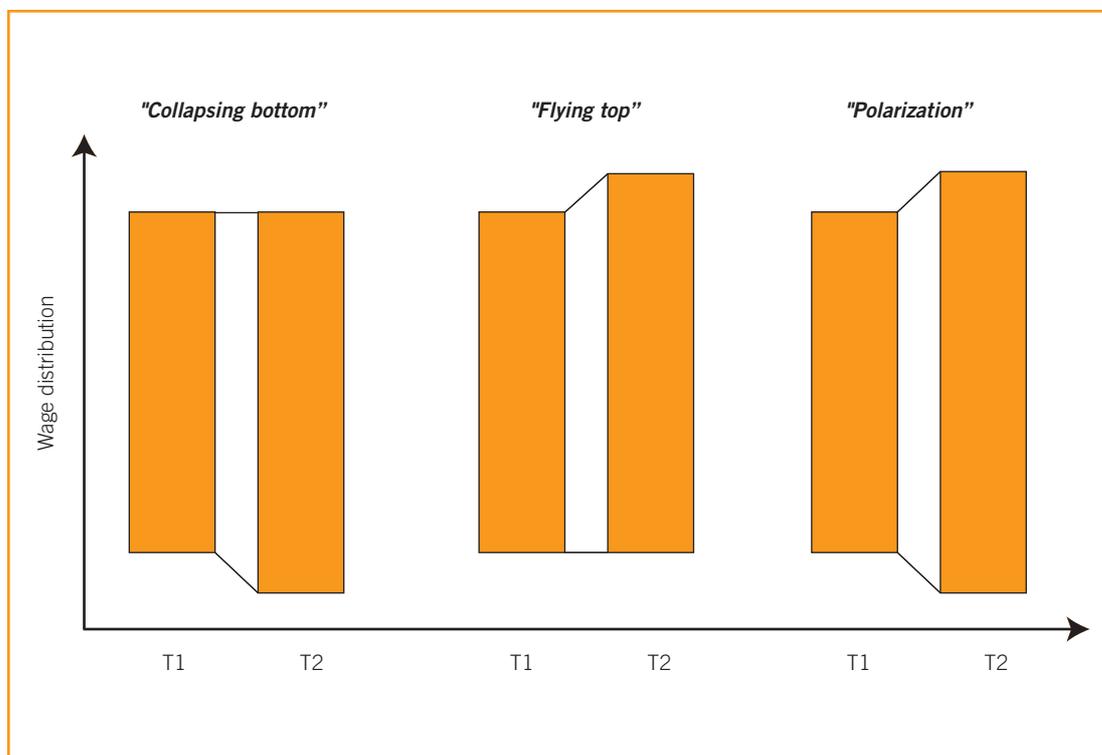
Figure 14 Wage inequality, D9/D1 ratio: Differences between the periods 1995–97 and 2004–06



Note: The latest ratio shown in brackets.

Source: ILO Wage Database.

Figure 15 Growing inequality in different types: An illustration



Note: T1 refers to the initial condition, T2 refers to the new condition.

as Brazil, Mexico and Venezuela.³⁷ The countries which recorded the largest increases in wage inequality are those that were hit by severe economic crises, such as Argentina, the Republic of Korea and Thailand, as well as former transition countries such as Bulgaria, Hungary and Poland.

Such increases in wage inequality certainly require policy attention, but policy implications cannot be drawn immediately. One important question in this regard is whether the increase is driven by changes at the higher end of the wage scale or by changes at the lower end, or by both. The policy implications are profoundly different. To illustrate this, figure 15 shows a typology with three different types of increase in wage inequality. The first – the “collapsing bottom” – refers to the situation where wage inequality is growing as a result of deterioration in the lowest wages. The second – the “flying top” – presents the opposite case, where top wage earnings are increasing faster than in other wage groups. The final type is the case where both changes are taking place simultaneously, which results in a “polarization” of wage earnings. While the reality is usually a mixture of these types, our simple typology highlights the fact that changes in the overall level of wage inequality are always the product of changes in two sub-categories of wage inequality, namely the inequality between top earners and

³⁷ As the figures refer to the differences between two average ratios, it is no surprise that the scale of the changes varies considerably across countries, largely depending on the *level* of wage inequality.

median earners (or D9/D5) and the inequality between median earners and low earners (or D5/D1).³⁸

The underlying reasons for the increasing wage inequality vary across countries. Figure 16 shows, for a select number of countries, the changes in wage inequality in both the top half of the wage distribution (D9/D5) and in the bottom half of the wage distribution (D5/D1). We compare the years 1995–2000 with the years 2001–06. Countries with growing inequality are presented on the left of the chart, while those with falling inequality are located on the right. Among countries which have experienced increases in inequality, the more developed countries such as the United Kingdom and the United States mainly fall into the category of “flying top” wages,³⁹ with the exception of Germany which falls into the category of “collapsing bottom” wages. Australia may be characterized by some “polarization”.⁴⁰ The countries from developing regions are predominantly close to the scenario of “collapsing bottom” wages: in Argentina, Chile and Thailand, the main force behind the overall increase in wage inequality has been the growing inequality between the median and lowest wages.

Similar diversity can be found in countries where wage inequality has fallen since 1995. In the case of France, lower inequality was induced mainly by wage compressions between the median and lowest wages. The opposite situation was found in Brazil, where the gap between median and higher wages narrowed considerably (mainly because median wages grew rapidly), while Mexico presents a case where reductions in inequality have been made on both fronts.

3.3. Wage inequality and economic development

The issue of wage inequality has been much debated in the context of economic development. One widespread perception is that inequality is part of a wider process of economic growth. This understanding is often expressed in the so-called “Kuznets curve” – named after Nobel Prize economist Simon Kuznets (1901–85) – which suggests that during industrialization, inequality first increases, then stabilizes and eventually falls.⁴¹ Many have interpreted this relationship as evidence that inequality is somehow a “natural” by-product of early economic development, and that it will decline “naturally” in later stages of development. This view is often associated with recommendations against policy interventions to reduce inequality – usually for fear that such policies may inadvertently jeopardize economic growth. An alternative view

³⁸ Changes in (D9/D1) = changes in (D9/D5) + changes in (D5/D1). With this deconstruction, each type of inequality increase can be described in the following way:

“Collapsing bottom” – D5/D1 is increasing while D9/D1 is stable.

“Flying top” – D9/D5 is increasing while D5/D1 is stable.

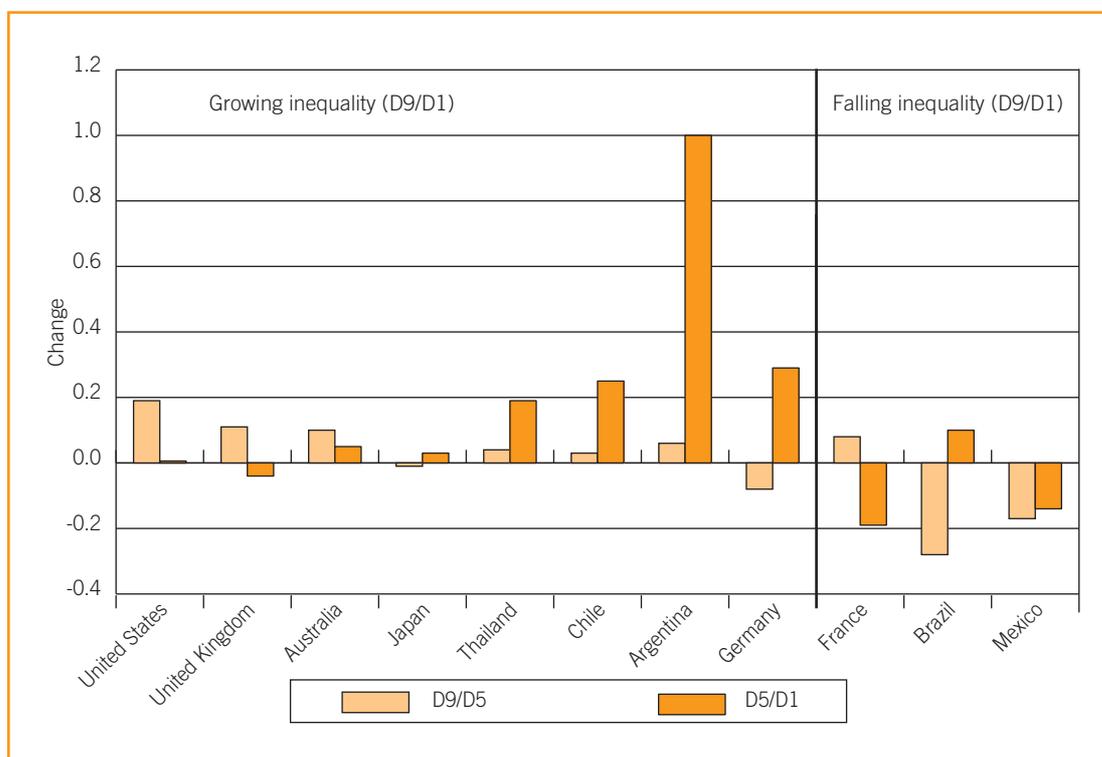
“Polarization” – both D9/D5 and D5/D1 are increasing.

³⁹ In both countries, D9/D5 increased considerably while changes in D5/D1 were either negligible (United States) or moderate (United Kingdom).

⁴⁰ Australia has witnessed substantial increases in relative wages for top earners, but this has been accompanied by smaller (but significant) increases in D5/D1.

⁴¹ An inverse U-shaped relationship between economic growth and inequality.

**Figure 16 Decomposition of wage inequality in selected countries:
Changes in D9/D5 and D5/D1 (1995–2000 and 2001–06)**



Source: ILO Wage Database.

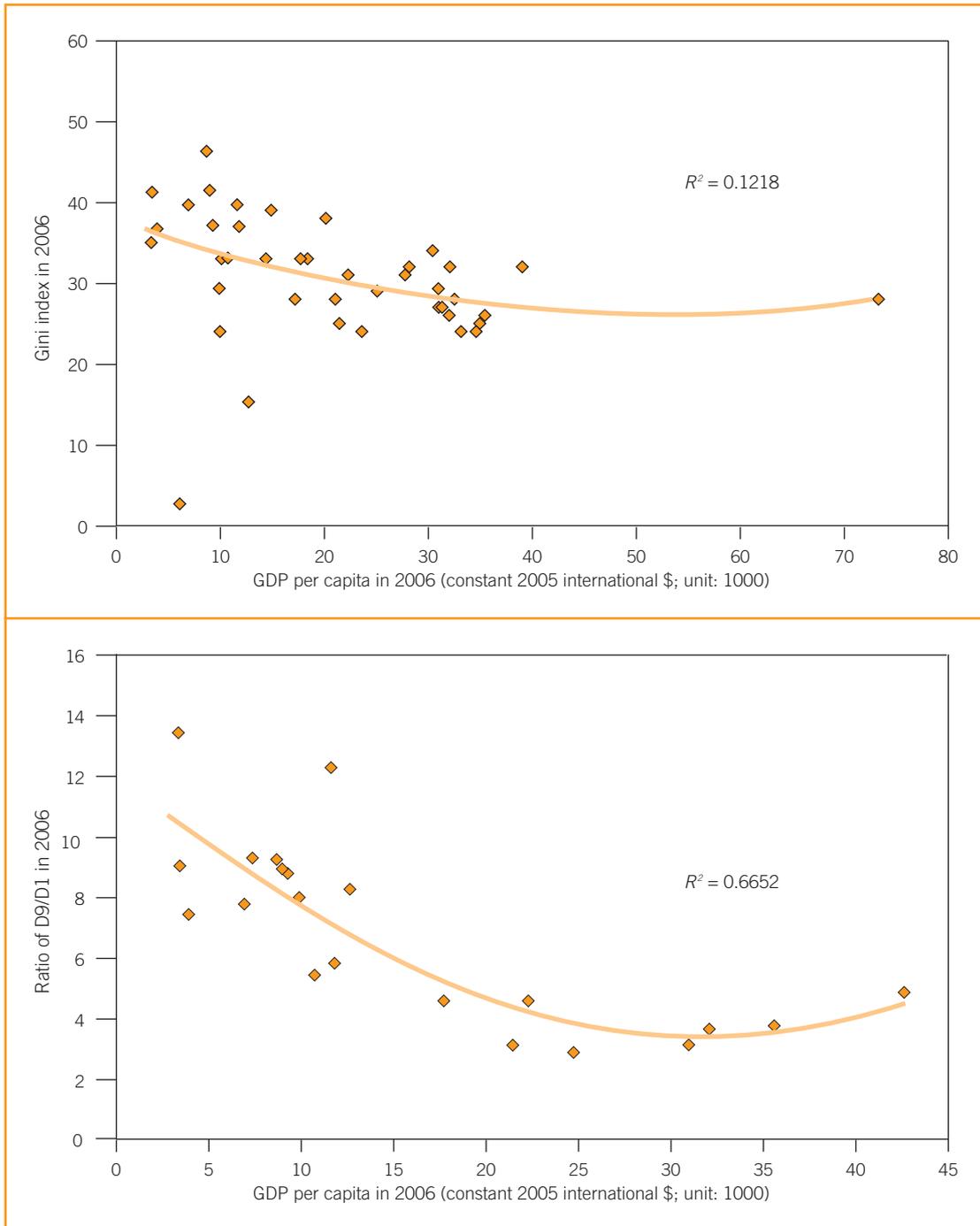
is that policy intervention is justified on the basis that too much inequality is in fact bad for economic growth.⁴²

While the potential trade-offs between policy intervention and economic growth must be given full consideration, two points at least deserve some clarification. The first is that Kuznets himself never claimed that the decline in inequality that he observed in the later stages of development was “natural”. On the contrary, the major factor that Kuznets identified as reducing inequality was “legislative interference and political decisions” driven by “the growing political power of the urban lower-income groups”.⁴³ The second point is that the statistical relationship observed by Kuznets links economic growth and income inequality – not wage inequality. Income also includes, in addition to earnings, property income and income transactions, and is usually measured at the level of the household rather than for individuals. Recent research has shown that much

⁴² Attempts have even been made to somehow reconcile these views by distinguishing “good” and “bad” inequalities, with the recognition that inequalities may be good or harmful to economic growth depending on their underlying forces. Chaudhuri and Ravallion (2007), for instance, consider inequalities as “good” if they reflect “the role of economic incentives” (created within the market), whereas “bad” inequalities refer to “those that prevent individuals from connecting to the market and limit investment and accumulation of human and physical capital”.

⁴³ See Kuznets (1955). We thank Malte Luebker for reminding us of this fact which is often overlooked.

Figure 17 Wage inequality and economic development, 2006 or latest years:
A. Gini index (overall wage inequality); B. D9/D1 ratio



Notes: Country coverage in panels A and B is different due to data limitation. See Statistical Appendix for details.

Panel A. 0 = perfect equality, 100 = perfect inequality. Significant at the 5% level.

Panel B. Higher ratio means higher inequality. Significant at the 1% level.

Source: ILO Wage Database.

of the decline in US income inequality after the Great Depression and Second World War was due to progressive taxation rather than a compression of wages.⁴⁴

So how does economic development affect wage inequality? Figure 17 presents two different indicators of wage inequality for a relatively small number of countries: a Gini index for wages (which estimates the overall degree of wage inequality) and our indicator of the wage gap between top and bottom wage groups (D9/D1). These two indicators are plotted against GDP per capita to indicate level of development. We see that, on average, wage inequality is higher in countries with a lower GDP per capita. Although the limited country coverage makes it difficult to draw any strong conclusions from these charts, there nonetheless seems to be a correlation between higher economic development and lower wage inequality. It must be pointed out, however, that variations in the Gini index (panel A) are very large among developing countries – to the extent that no significant relationship can be detected between GDP per capita and wage dispersion among these countries. Furthermore, the trends described above have shown that one of the most important developments in recent years is that wage inequality has increased in many countries, irrespective of their national income levels.

3.4. Wage inequality and gender

Another fundamental dimension of inequality is the difference between men's wages and women's wages, the so-called "gender pay gap". While this issue deserves special attention, existing constraints in both data and research make it difficult at this stage to present a comprehensive analysis of gender pay gaps from a global perspective. This section nevertheless provides an overview based on a limited sample of countries for which data on average wages are disaggregated by sex.

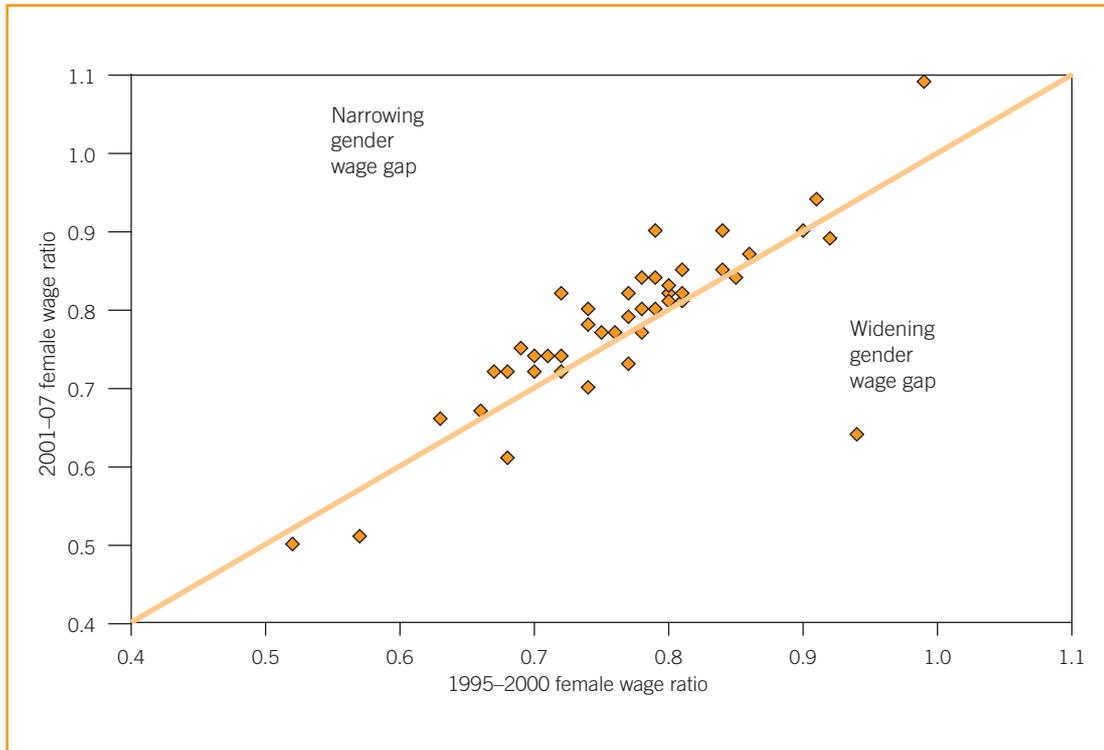
The results of our limited analysis are shown in figure 18. We observe that the wage gap is still wide and is closing only very slowly. When gender pay gaps are measured using the female wage ratio (the ratio of female average wages to male average wages), we find that overall the pay gap has been decreasing in recent years. In about 80 per cent of the countries for which data are available the gender pay gap has narrowed. However, the size of change is small, and in some cases negligible. Overall, this finding is in line with the existing studies that show that the gender pay gap has been rather stable, or decreasing only very slowly.⁴⁵ Hence, the reduction in the gender pay gap has clearly been disappointing in the light of recent developments, namely women's educational achievements, the progressive closing of the gender gap in work experience and the favourable economic context documented in section 1. In a majority of countries, women's wages represent between 70 per cent and 90 per cent of men's wages. In the case of European countries, the ratio is known to be on average around 0.75,⁴⁶ but it is not uncommon to find much higher ratios in other parts of the world, particularly in Asia.⁴⁷

⁴⁴ See Piketty and Saez (2007).

⁴⁵ Gupta (2002); ITUC (2008); Plantenga and Remery (2006).

⁴⁶ Plantenga and Remery (2006).

⁴⁷ See Gupta (2002); ITUC (2008).

Figure 18 Changes in gender pay gap, 1995–2007

Note: The figures refer to the ratio of female to male average wages. The values less than 1.0 mean that women workers are on average earning less than male counterparts.

Source: ILO Wage Database.

The slow decline in wage inequality between men and women confirms that the relationship between growing income levels and narrowing gender pay gaps is not straightforward.⁴⁸ The literature also displays mixed findings with regard to the effects of globalization on the gender pay gap.⁴⁹ Several studies have found a negative effect of export-oriented growth on female relative wages.⁵⁰ Others have shown that, while export-oriented FDI might result in higher wage gains for women, the reverse might be observed when FDI shifts towards higher productivity and more domestic-oriented production.⁵¹ Yet other studies have revealed that where female to male wage ratios have increased, the proportion of the wage gap that is unexplained by productivity differentials has increased.⁵²

A major challenge for the future is to ensure that men and women doing work that is different but of equal value are remunerated equally. This is the principle of “equal

⁴⁸ Gupta (2002), figure 1.

⁴⁹ Seguino and Grown (2006).

⁵⁰ Oostendorp (2004).

⁵¹ Braunstein and Brenner (2007).

⁵² Liu (2004).

pay for work of equal value”. Problems also persist in respect of guaranteeing equal pay to women and men doing *equal* work. Indeed, there appears to be a persistent, and even increasing, pay gap between men and women engaged in similar work, especially in professional and executive-level jobs and the skilled trades.⁵³ Studies show that entry-level wages tend to be lower for women than for men – especially for skilled workers.⁵⁴ Another challenge is the lack of suitable work and family reconciliation measures and the high proportion of involuntary part-timers among women. In Part II of the report we also discuss how collective bargaining and minimum wages can contribute to the reduction of gender pay gaps.

⁵³ Pay Equity Task Force (2004).

⁵⁴ Kunze (2003).

