



International  
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## Global Wage Report 2008/09

Minimum wages and collective bargaining  
Towards policy coherence

# Global Wage Report

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Towards policy coherence

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## Main contributors

This report was prepared by the Conditions of Work and Employment Programme (TRAVAIL) of the Labour Protection Department (PROTRAV) of the ILO's Social Protection Sector. The report is the result of teamwork by Patrick Belser, Yongjian Hu, Nassul Kabunga, Sangheon Lee, Manuela Tomei and Daniel Vaughan-Whitehead. Patrick Belser was the principal editor. Charlotte Beauchamp coordinated editing and publication.

## Specific contributions

Chang-Hee Lee and John Ritchotte provided contributions on collective bargaining and minimum wages in China and Cambodia, respectively. National experts produced country-level background studies and data: Ernesto Kritz (Argentina), Claudia Dedecca (Brazil), Helia Henriquez (Chile), Rodolfo Tacsan Chen (Costa Rica), Carlos Salas (Mexico), Jorge Bernedo Alvarado (Peru), Juan Manuel Rodriguez and Graciela Mazzuchi (Uruguay); Charles Ackah (Ghana), Haroon Bhorat and Sumayya Goga (South Africa), Godius Kahyarara (United Republic of Tanzania); Wang Xia and Su Hainan (China), Ganesh Chand (Fiji), Rayaprolu Nagaraj (India), Armida S. Alisjahbana (Indonesia), Gunna Jung (Republic of Korea), Esther F. Guirao (Philippines), Worawan Chandoevrit (Thailand), Nguyen Thi Lan Huong (Viet Nam).

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## Introduction

What have been the major trends in the level and the distribution of wages around the world since 1995? How have economic growth and globalization affected these wage trends? And what have been the roles of minimum wages and collective bargaining? These are some of the main questions addressed in this first ILO *Global Wage Report*.

The report is divided into three parts. Part I provides a summary of the main trends in average wages and in the distribution of wages. We show that over the period 1995–2007 average wages lagged behind the growth in GDP per capita, which we interpret as an indication that increases in productivity have failed to translate fully into higher wages. We also show that the recent period, characterized by growing economic integration, has seen a decline in the share of GDP distributed to wages, disappointingly slow reductions in the wage gap between women and men and an overall increase in inequality among wage earners. Another feature of the report is our estimate for global wages growth for 2008 and our forecast for 2009.

In every future publication in this series, Part II will be devoted to a specific topic deserving particular attention. In this year's report we focus on minimum wages and collective bargaining – the two main labour market institutions affecting wages. We first present some statistics on these institutions, which confirm that there has been a revival of the minimum wage and document changes in the coverage of collective bargaining. Our statistical analysis then shows that wage policies have important positive effects on wages outcomes: while collective bargaining reduces overall wage inequality and ensures a stronger link between economic growth and average wages, minimum wages can reduce inequality in the bottom half of the labour market. One challenge for policy-makers, however, is to develop institutions for collective bargaining and for minimum wages that are complementary rather than contradictory. The report therefore provides some concrete recommendations on how to design minimum wages so that they do not “crowd out” collective bargaining.

Part III of the report presents concrete policy recommendations and identifies key issues for further research. Our policy recommendations have gained particular urgency due to the new context of weaker economic growth in 2008 and 2009. Higher prices, particularly of food, are likely to erode further the real wages of not only low-paid workers but also those of many workers belonging to the middle class. In this context, we recommend that governments implement active wage policies: they should promote bargaining among social partners to ensure that total income is shared equitably between workers and employers, and uprate whenever possible the minimum wages to protect the purchasing power of low-wage workers. We also recommend that these wage policies be part of a more comprehensive response which includes income support measures.

Finally, we are acutely aware that many important issues deserve much more detailed scrutiny or remain unaddressed in this first report on wages. For this reason,

Part III also outlines some possible themes for future issues of the *Global Wage Report*. These include unequal pay for men and women and differences in wages across particular occupations, as well as more detailed understanding of the links between wages and labour productivity. In the future, a major effort will also have to be devoted to improving the new database on wages statistics which has been created for the purpose of this first report. It is hoped that this will be a significant contribution towards an improved understanding of the role of wages in providing access to decent work and social justice.

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.

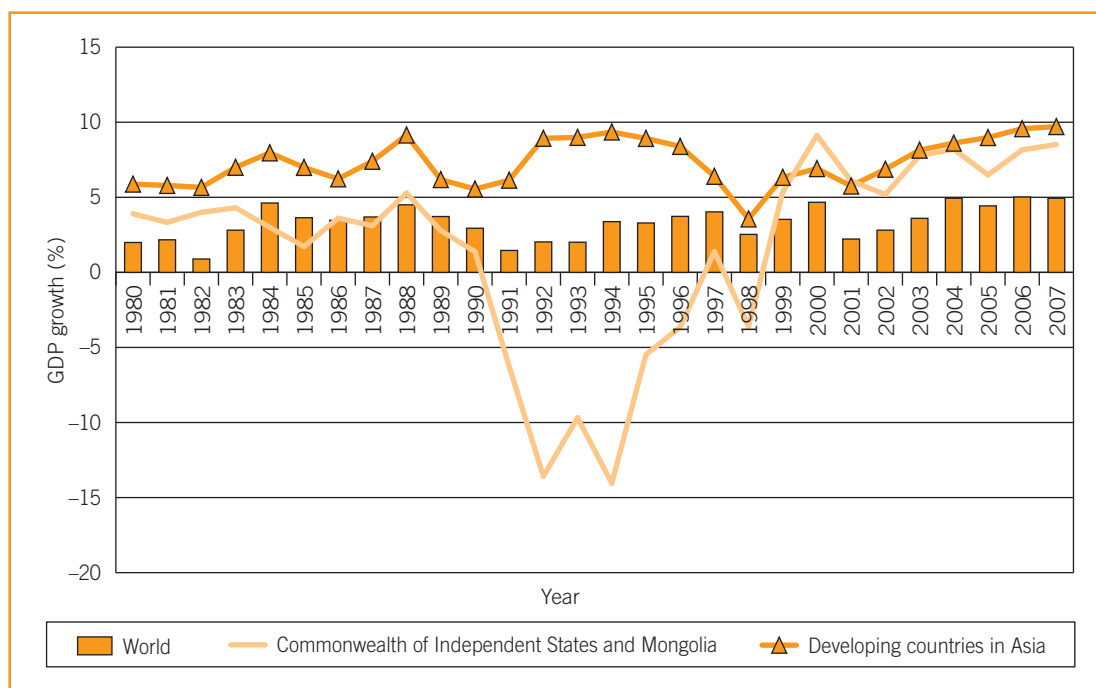
## 1. The economic context

### 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\$, %)**

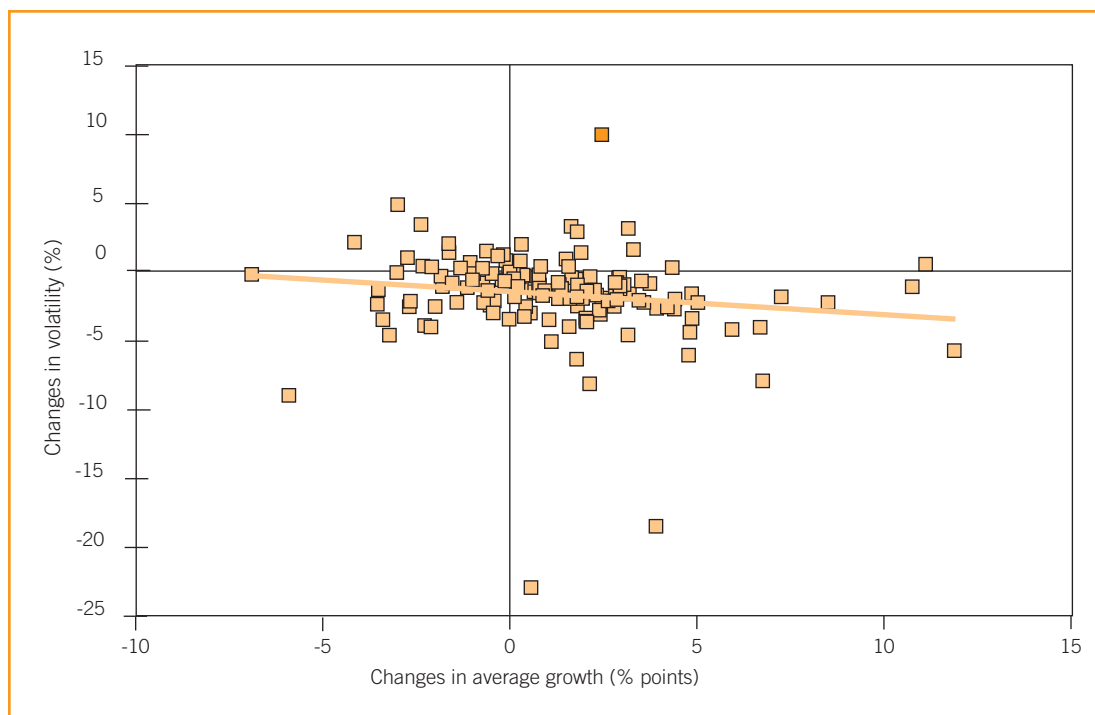
Source: IMF.

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.<sup>1</sup> 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.<sup>2</sup> 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

<sup>1</sup> 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.

<sup>2</sup> 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.

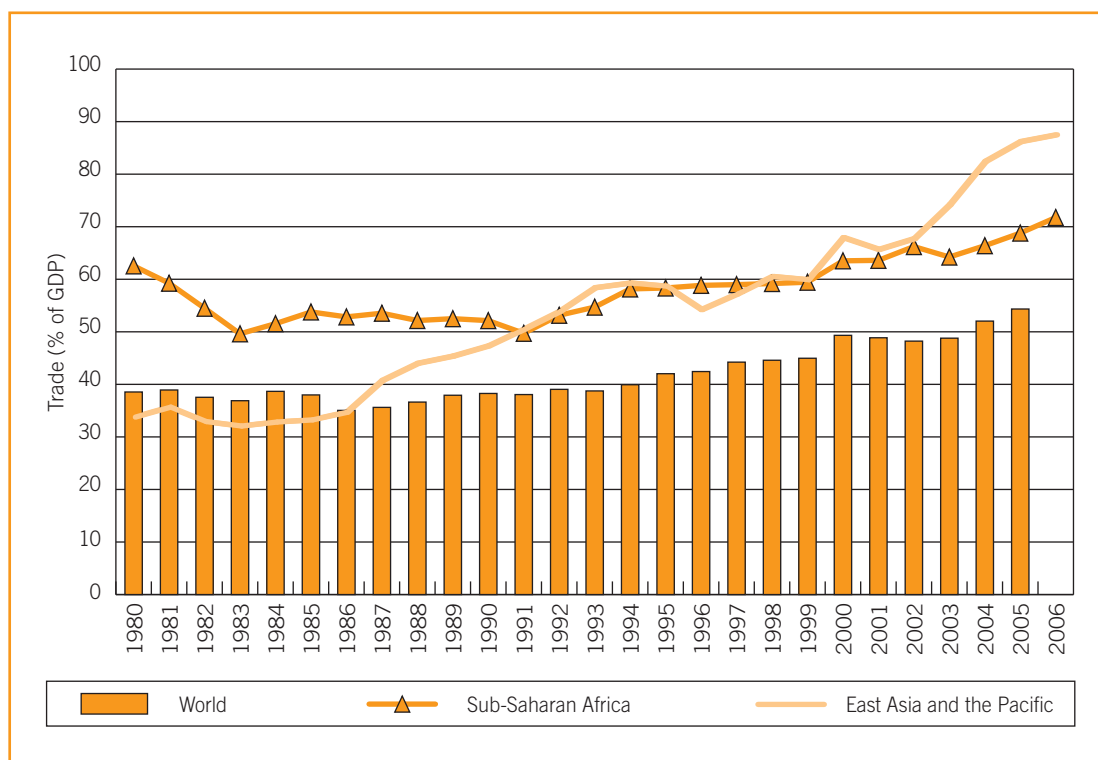
Source: IMF.

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.<sup>3</sup>

<sup>3</sup> 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.

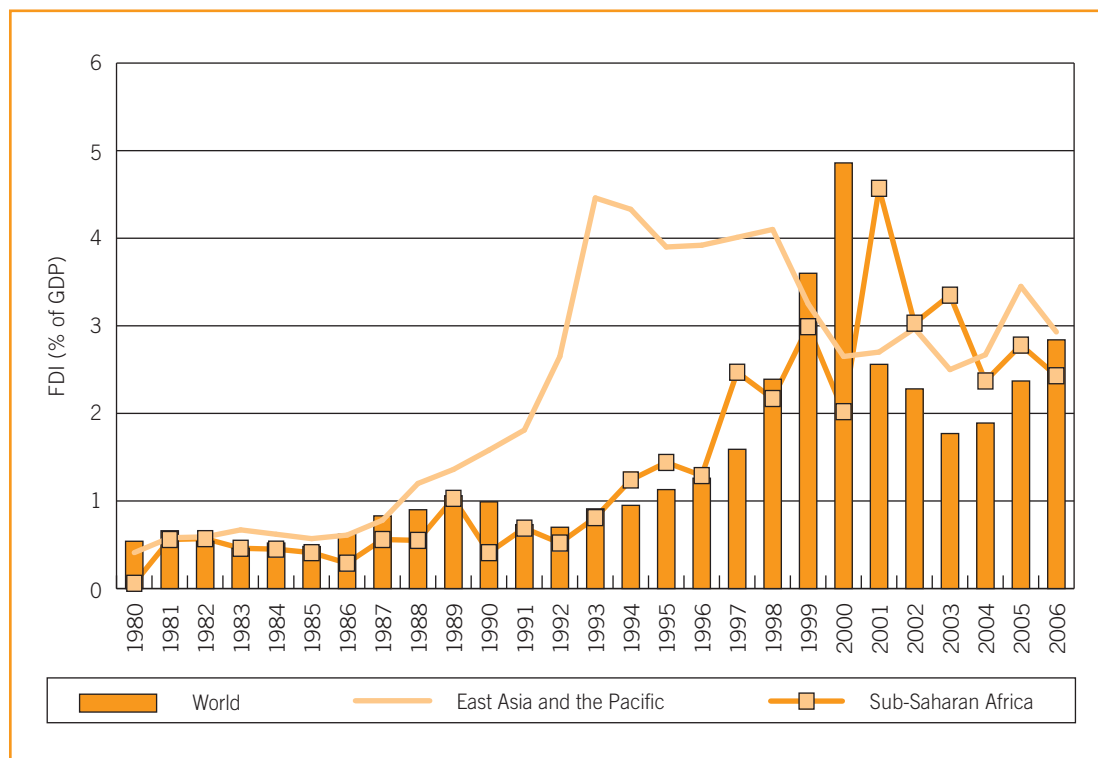
### International trade

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.<sup>4</sup>

### 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

<sup>4</sup> 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.<sup>5</sup> 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.

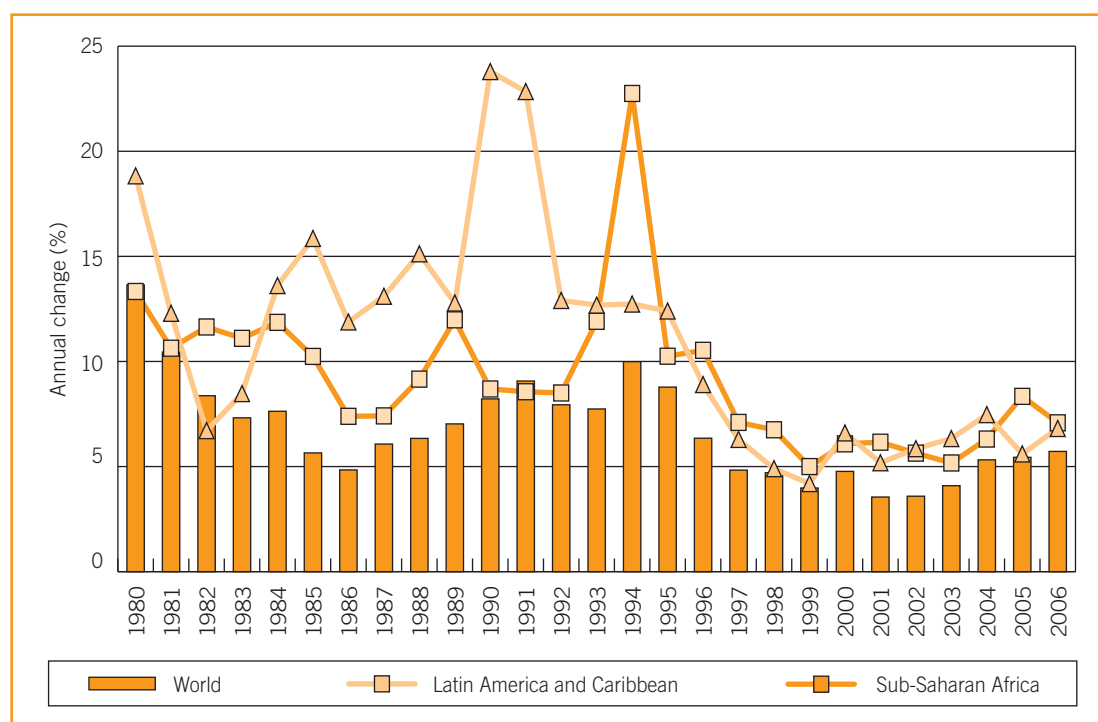
### *Labour migration*

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.<sup>6</sup> 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.<sup>7</sup>

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

<sup>6</sup> See ILO (2004).

<sup>7</sup> 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.<sup>8</sup> 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.

<sup>8</sup> 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 prices<sup>9</sup> 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.

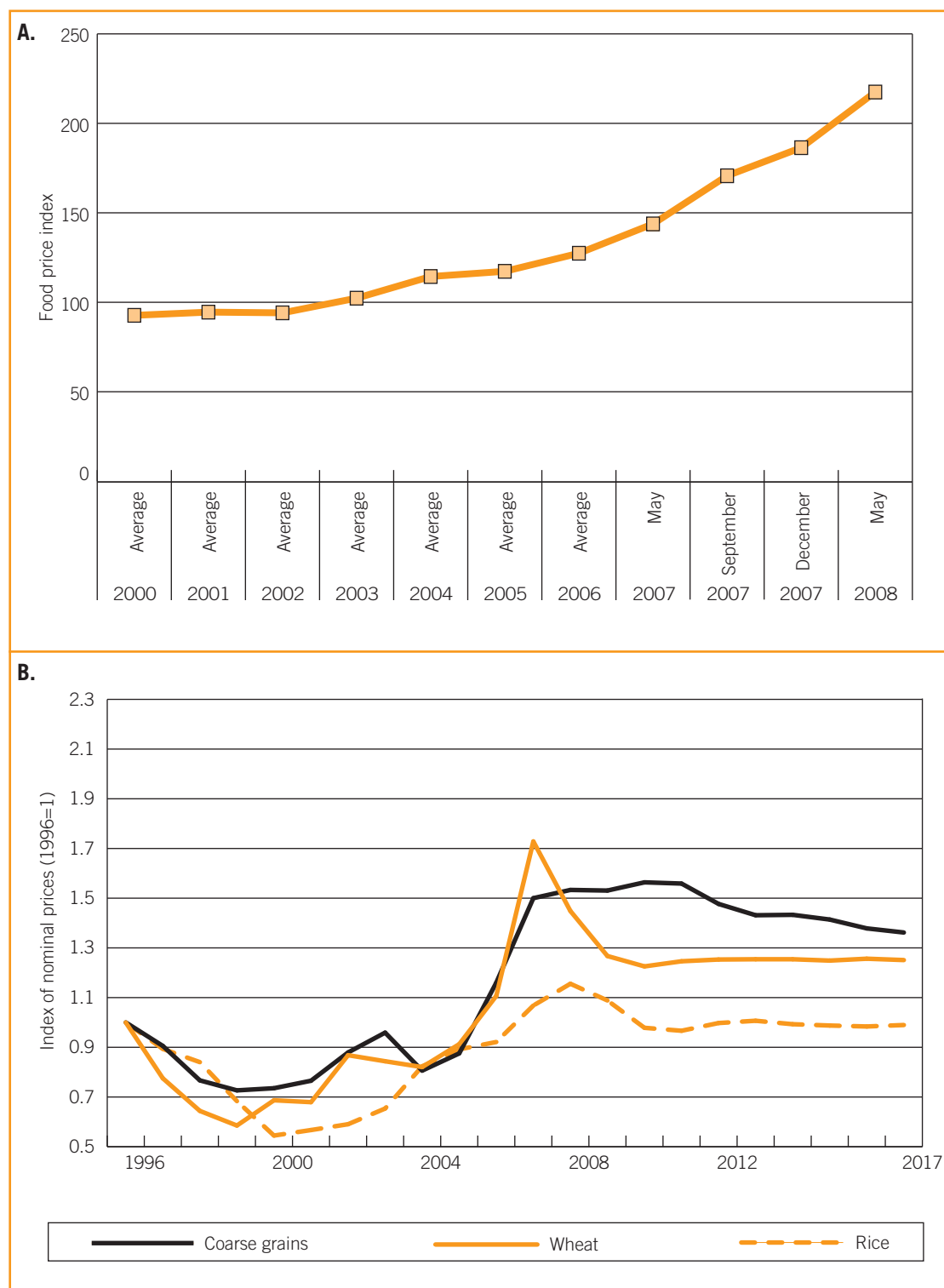
## 2. Aggregate wages

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.<sup>10</sup> 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.<sup>11</sup> 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.

<sup>9</sup> This index includes prices of petroleum, natural gas and coal.

<sup>10</sup> 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.

<sup>11</sup> 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.<sup>12</sup>

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.<sup>13</sup> 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)

<sup>12</sup> 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).

<sup>13</sup> 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.<sup>14</sup> 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.<sup>15</sup> 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

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

<sup>15</sup> 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).

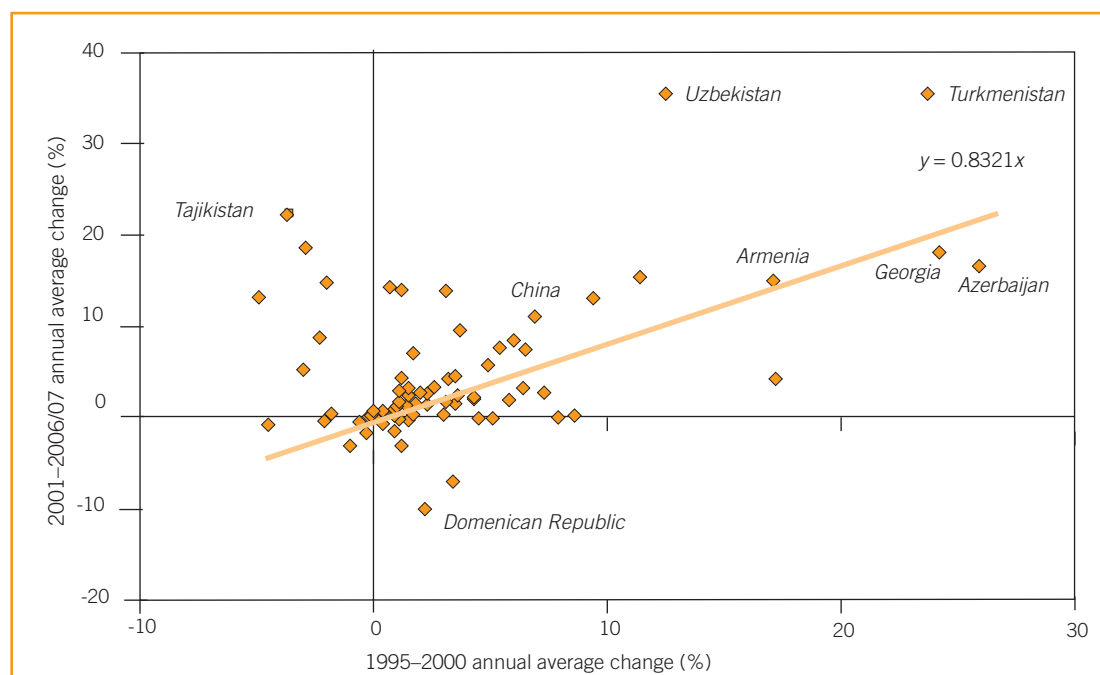
In the future, however, it might be useful to undertake a review of the October Inquiry with a view to streamlining and modernizing the questionnaire, and so to obtain more reliable and complete data by covering fewer occupations. This would benefit not only the ILO but also the member States, which 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 growth<sup>16</sup> 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.<sup>17</sup> 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.<sup>18</sup> 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.

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

<sup>17</sup> In this section we report the annual growth in average wages in the median country.

<sup>18</sup> 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.<sup>19</sup> 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.<sup>20</sup> 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”.<sup>21</sup> In other words, the solid and sustained wage growth which is hoped for in all societies requires sound economic performance.

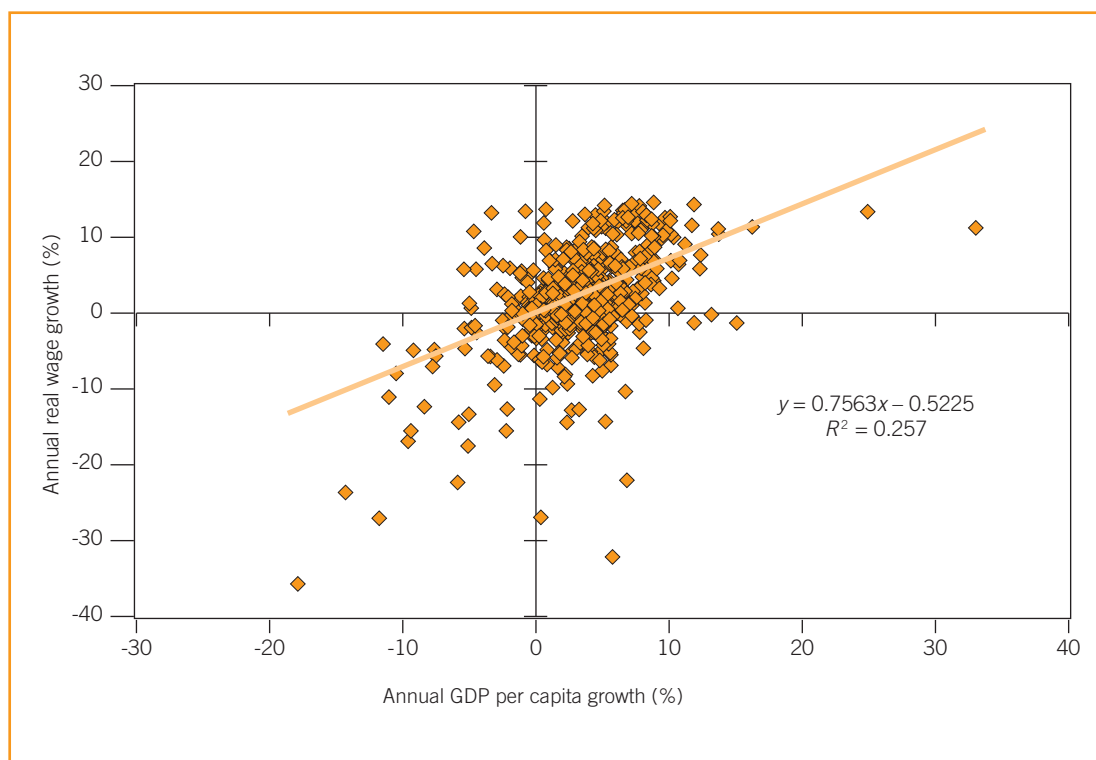
However, the relationship between economic growth and wages is not as straightforward as one might assume. Indeed, while figure 8 shows that economic growth is

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

<sup>20</sup> See, for example, Rodrik (1999).

<sup>21</sup> This formulation is from Keynes (1936).



**Figure 8 GDP per capita growth and change in real wages**

Source: ILO Wage Database.

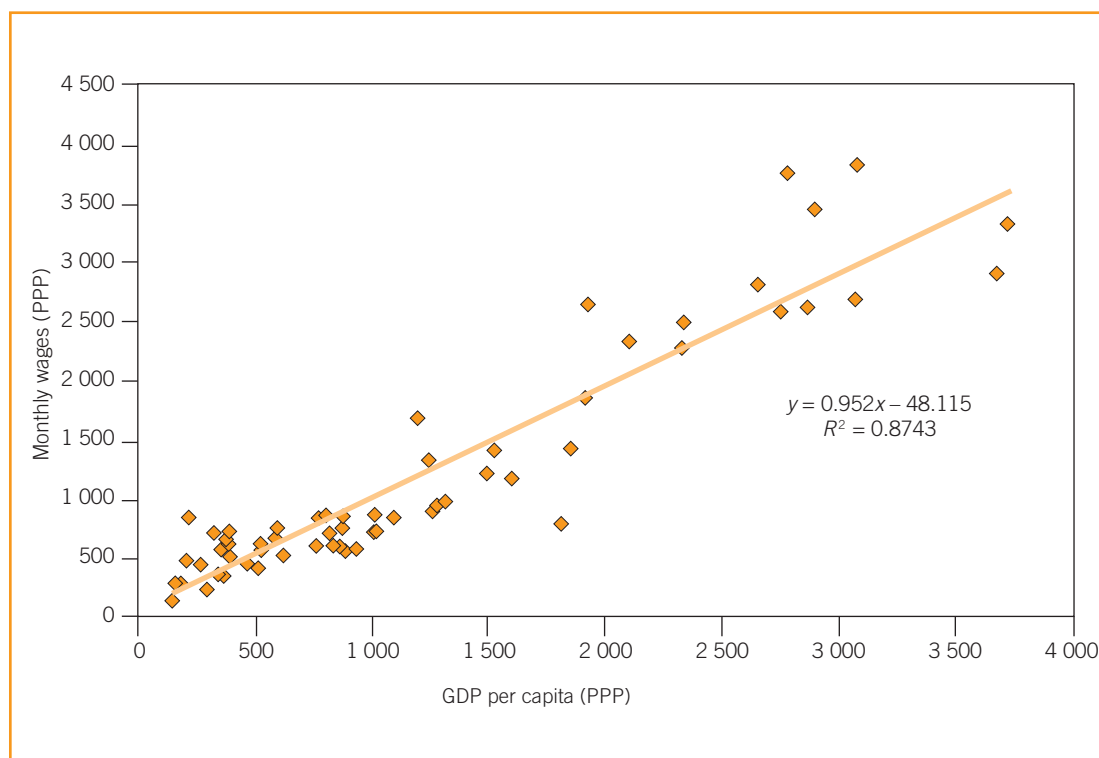
overall positively correlated with changes in real wages, the relationship does not appear to be very strong. The slope of the regression line<sup>22</sup> can be called the “wage elasticity to GDP” (or in short, “wage elasticity”) – it shows the typical percentage change in real wages in response to 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.<sup>23</sup> However, this interpretation relies on the assumption that GDP per capita is a valid

<sup>22</sup> 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).

<sup>23</sup> 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)

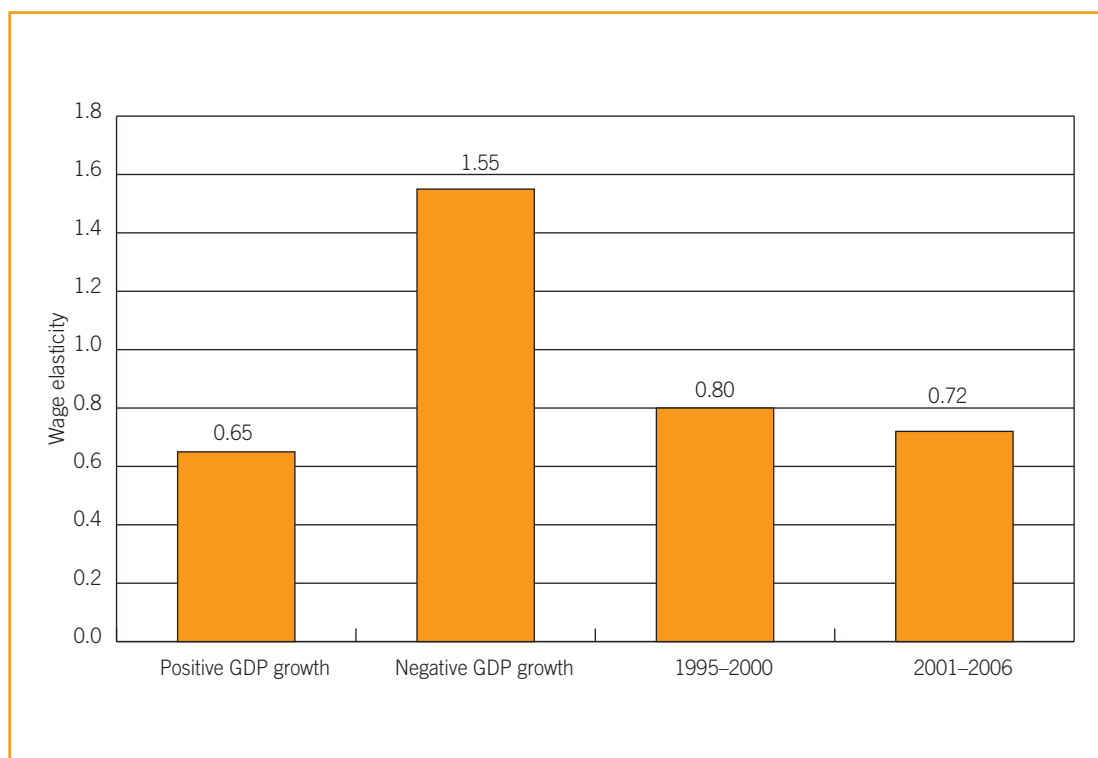
Source: ILO Wage Database.

indicator of labour productivity. In practice, although this is a common and convenient assumption<sup>24</sup> (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.<sup>25</sup>

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

<sup>24</sup> See for example Rodrik (1999) or Flanagan (2006).

<sup>25</sup> Unless countries have particularly strong population or employment growth.

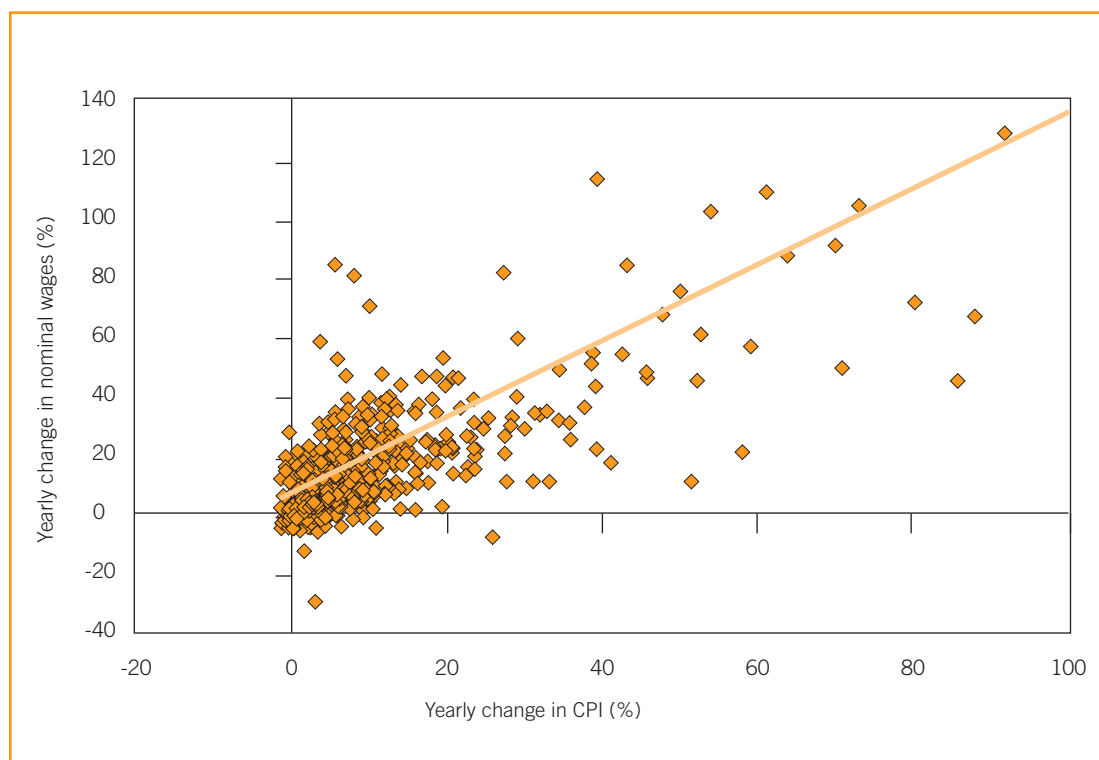
**Figure 10** Comparative estimates of global wage elasticity

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).

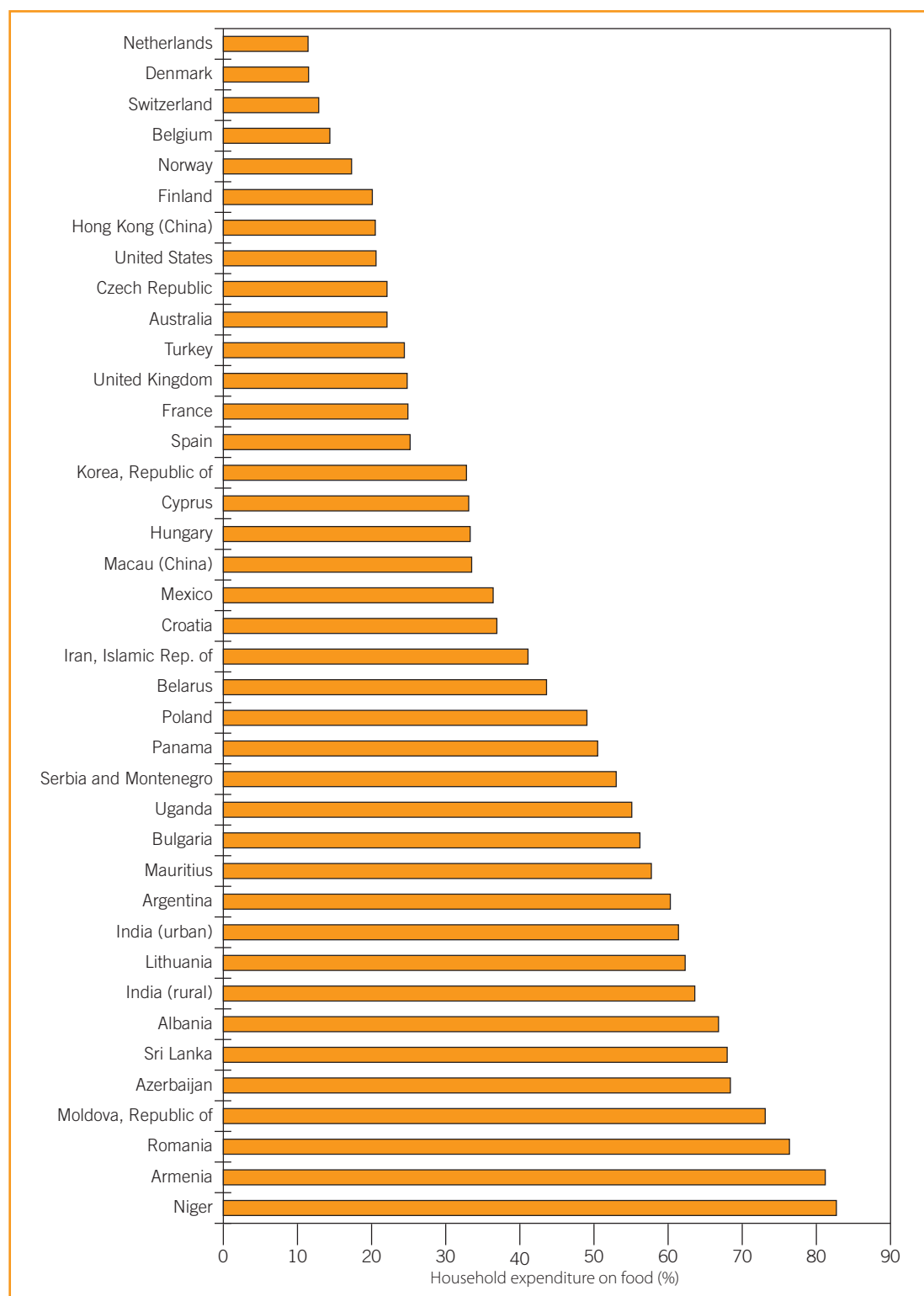
**Figure 11** Relationship between changes in consumer price index (CPI) and nominal wages, 1995–2007

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)



Source: ILO LABORSTA.

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.<sup>26</sup> 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).<sup>27</sup> 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.<sup>28</sup> 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.<sup>29</sup> 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.<sup>30</sup> 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

<sup>26</sup> IFPRI (2008).

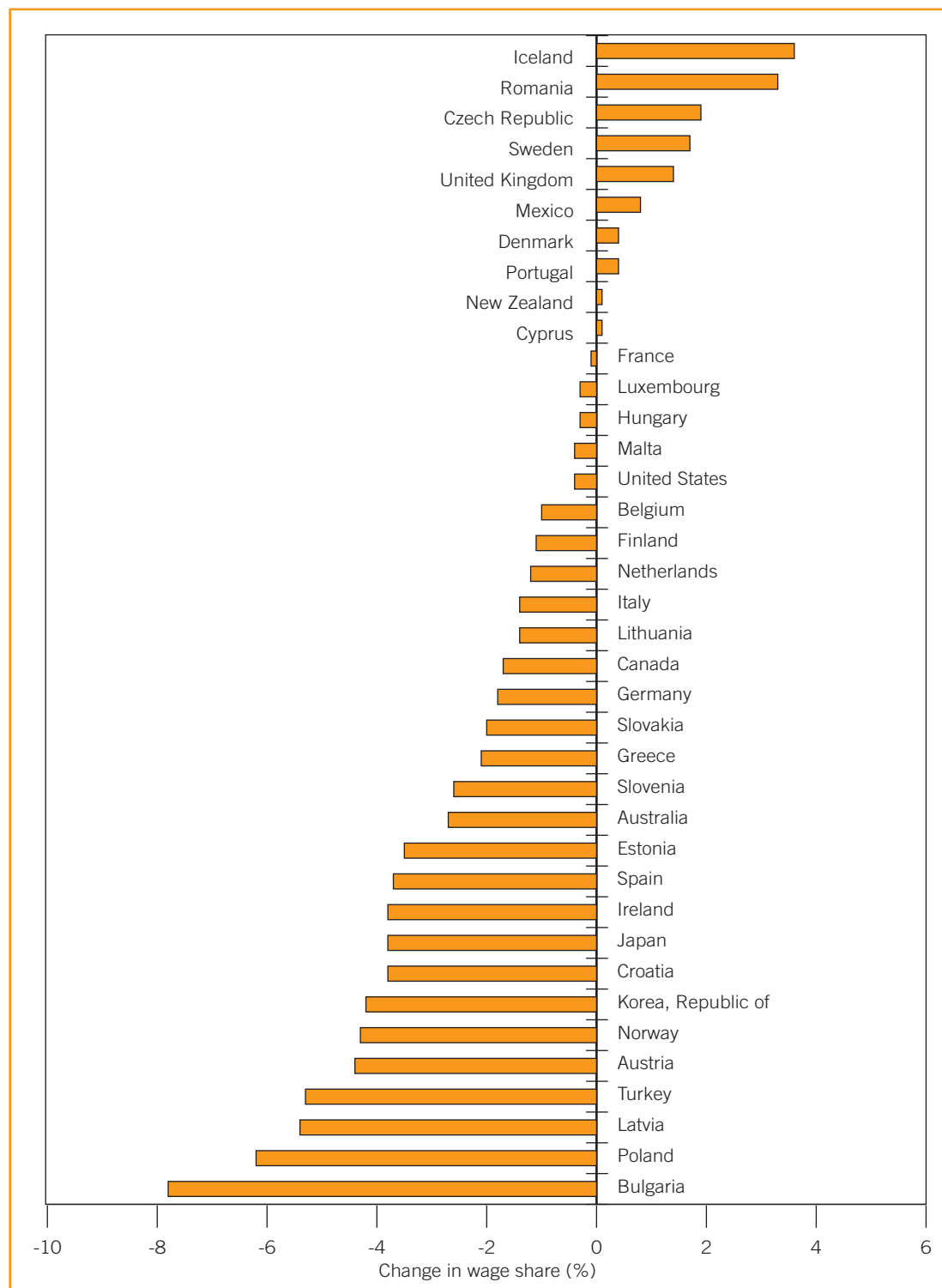
<sup>27</sup> This again assumes, realistically, that employment and population remain reasonably stable from one year to the next. See footnote 11.

<sup>28</sup> See, for example, Krueger (1999) and Luebker (2007).

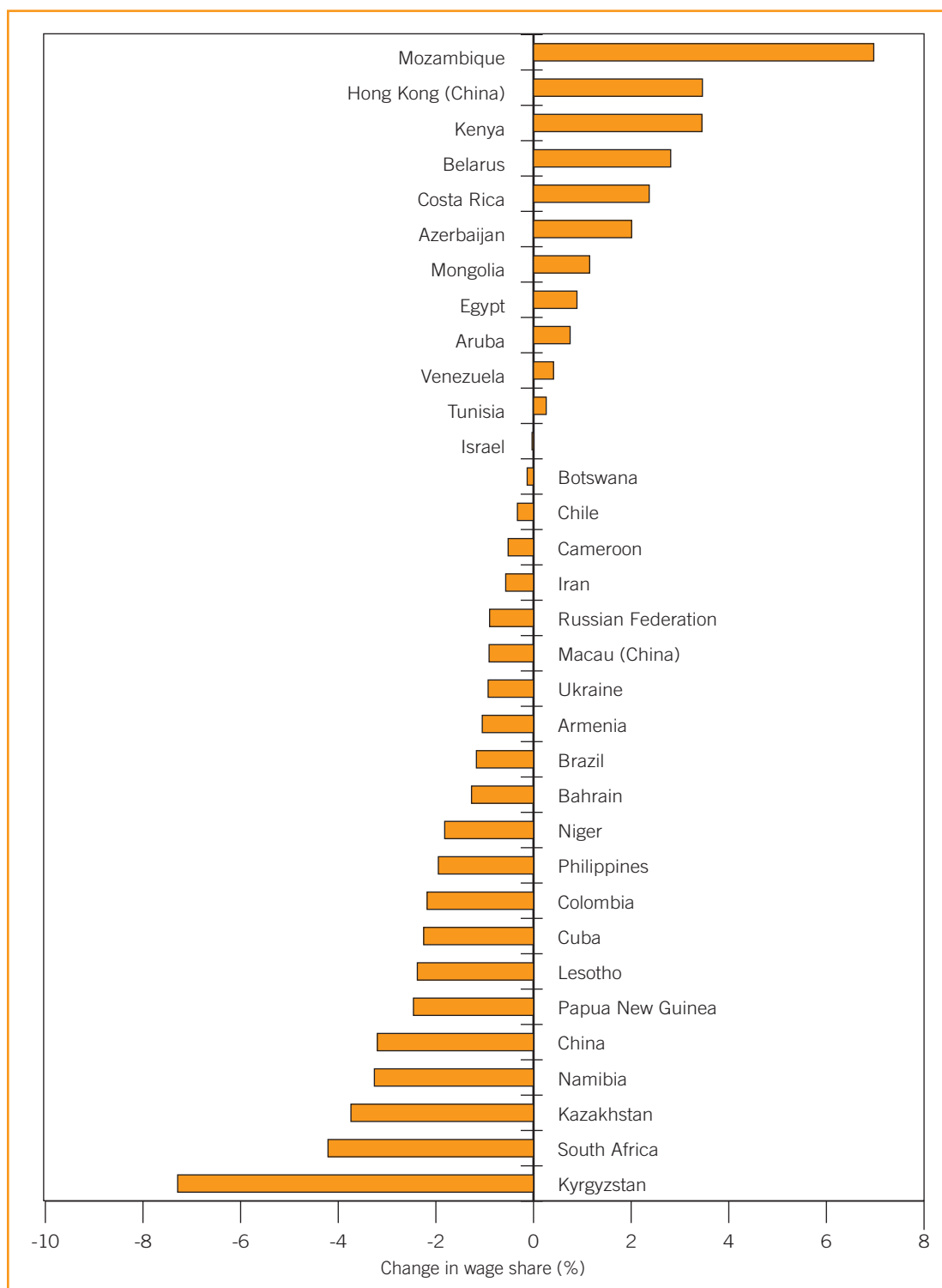
<sup>29</sup> Because the marginal propensity to consume is higher for labour income than for capital income, it is usually considered that an increase in wage share will have a positive economic impact. Recent studies of Europe estimated that one percentage point increase in the wage share would increase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

<sup>30</sup> 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.<sup>31</sup>

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.<sup>32</sup> 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.<sup>33</sup>

<sup>31</sup> European Commission (2007).

<sup>32</sup> 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).

<sup>33</sup> 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.<sup>34</sup> 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.<sup>35</sup>

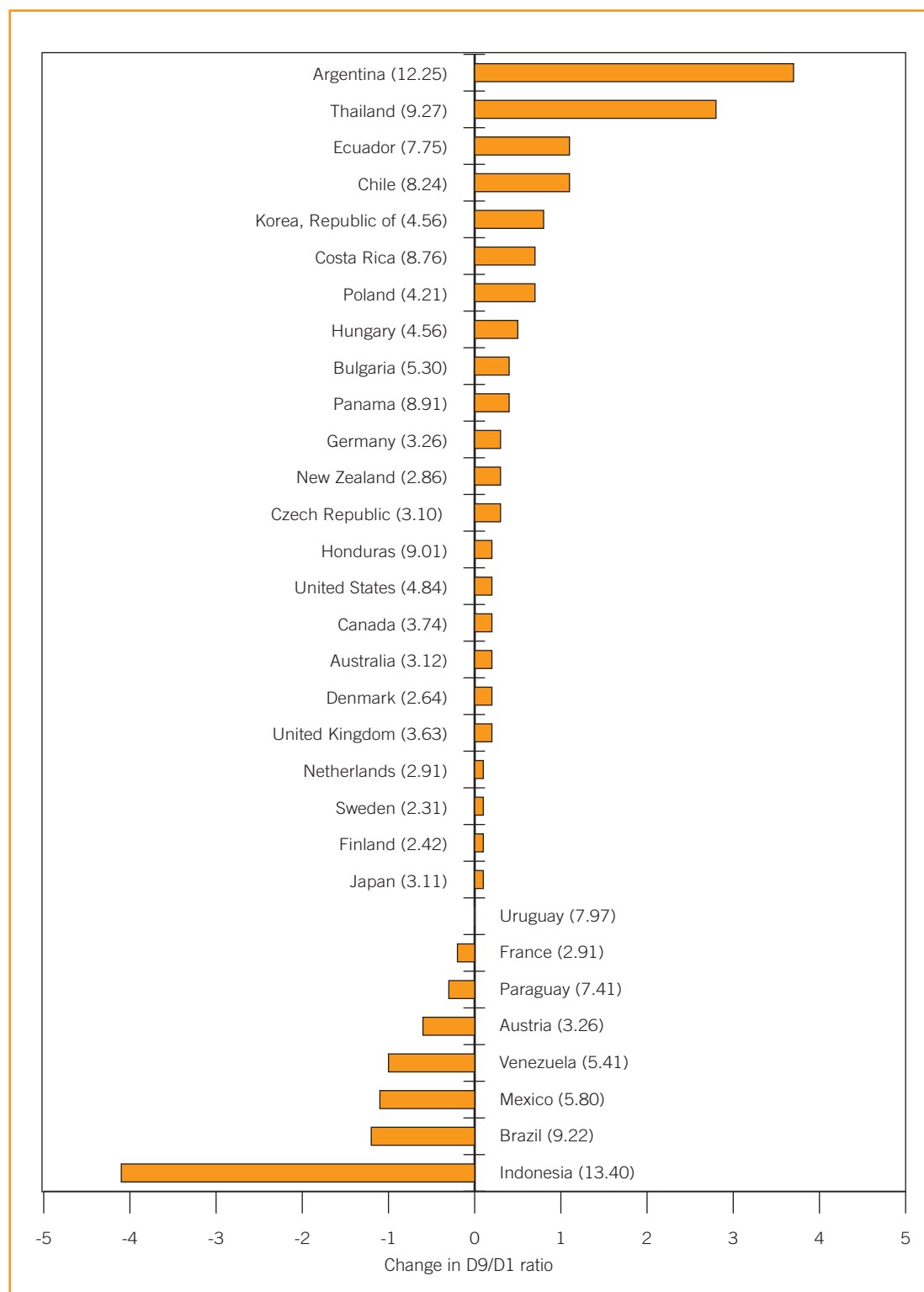
#### 3.2. Trends in wage inequality

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).<sup>36</sup> 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

<sup>34</sup> Layard (2006).

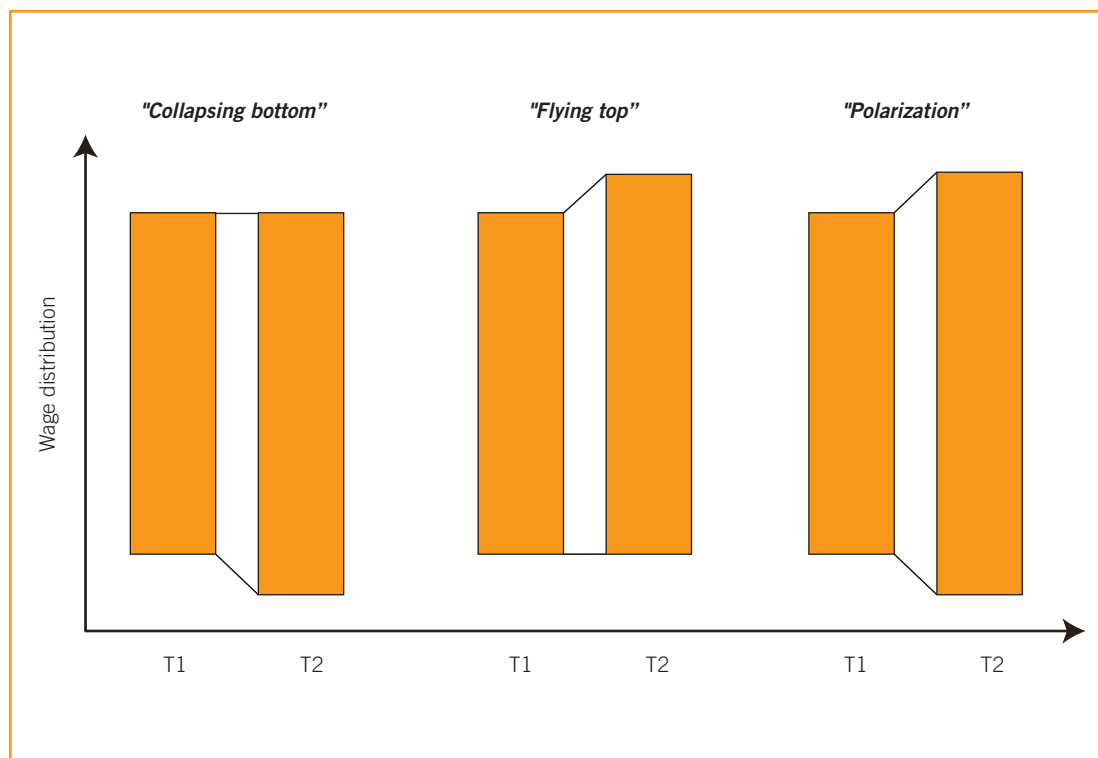
<sup>35</sup> Ferreira and Ravallion (2008); UNDP (2007).

<sup>36</sup> 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.<sup>37</sup> 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

<sup>37</sup> 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).<sup>38</sup>

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,<sup>39</sup> with the exception of Germany which falls into the category of “collapsing bottom” wages. Australia may be characterized by some “polarization”.<sup>40</sup> 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.<sup>41</sup> 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

<sup>38</sup> 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.

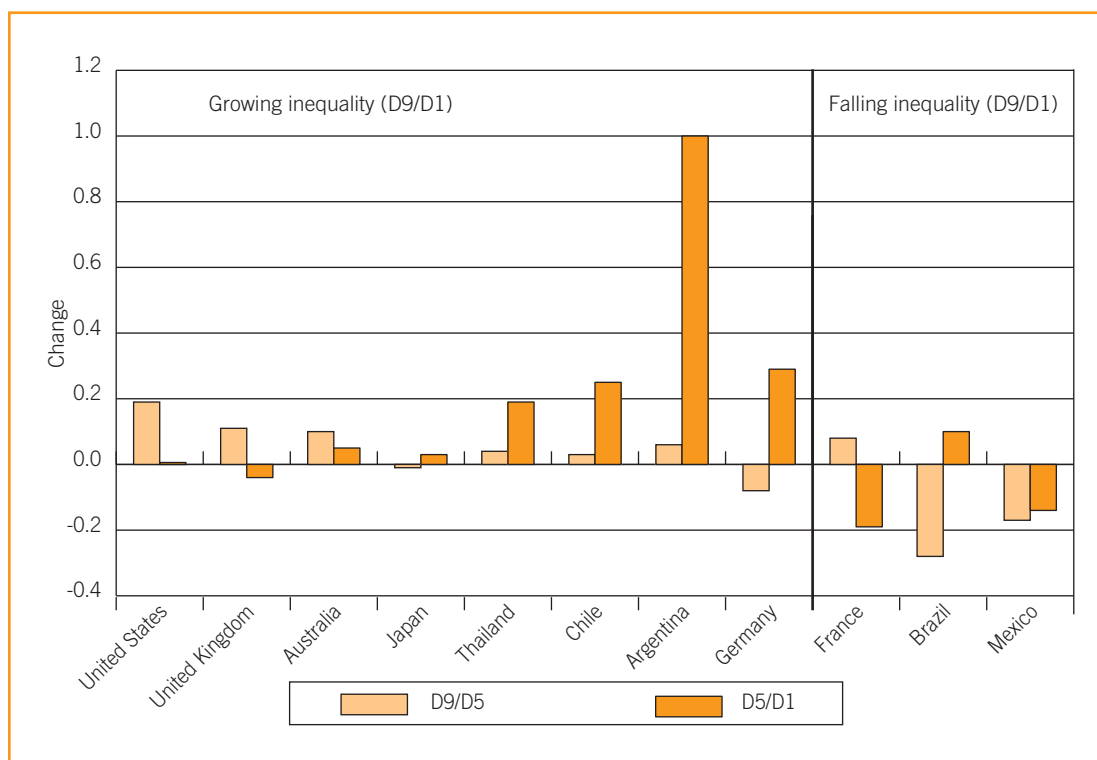
“Polarization” – both D9/D5 and D5/D1 are increasing.

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

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

<sup>41</sup> 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.

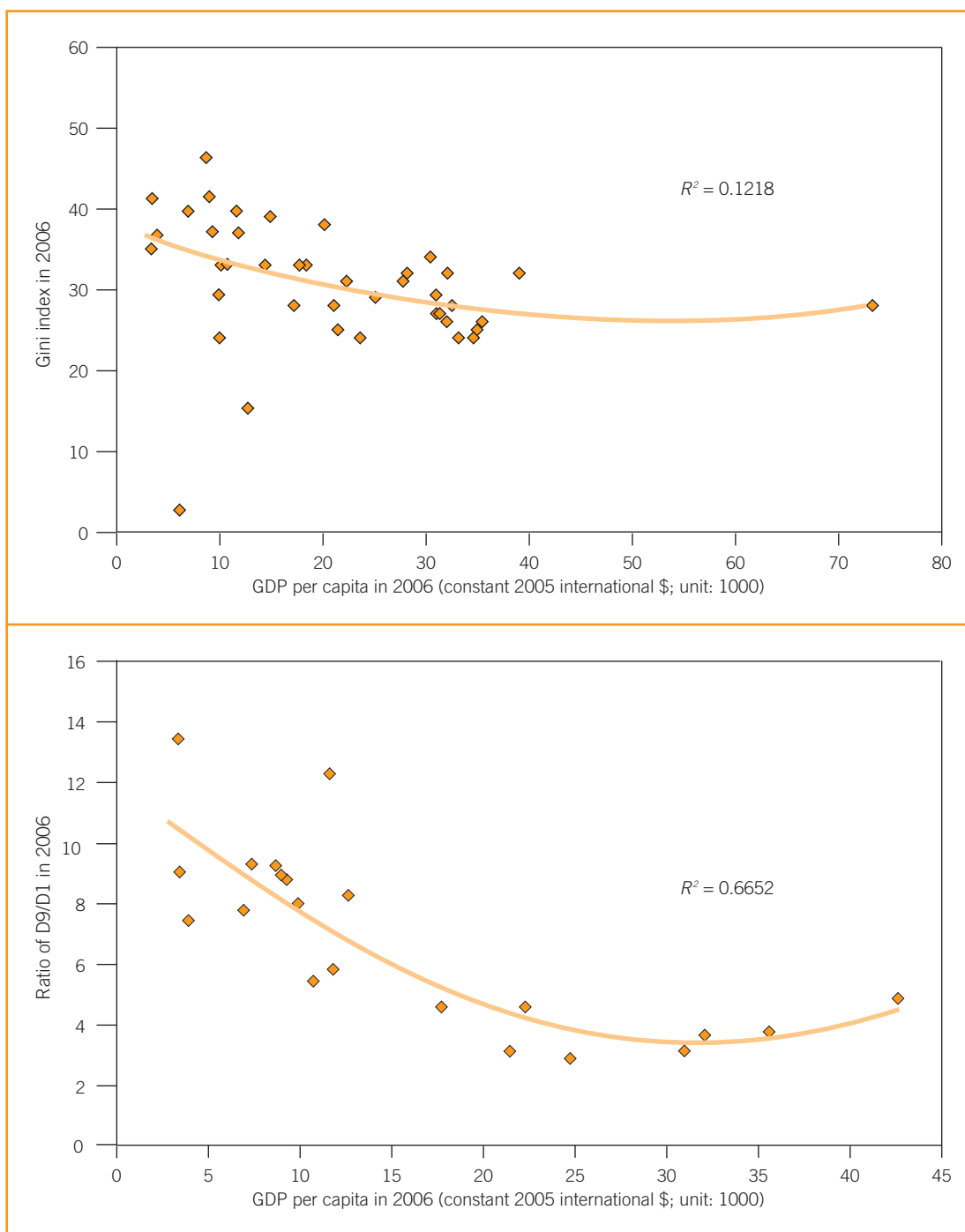
is that policy intervention is justified on the basis that too much inequality is in fact bad for economic growth.<sup>42</sup>

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”.<sup>43</sup> 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

<sup>42</sup> 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”.

<sup>43</sup> 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.<sup>44</sup>

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.

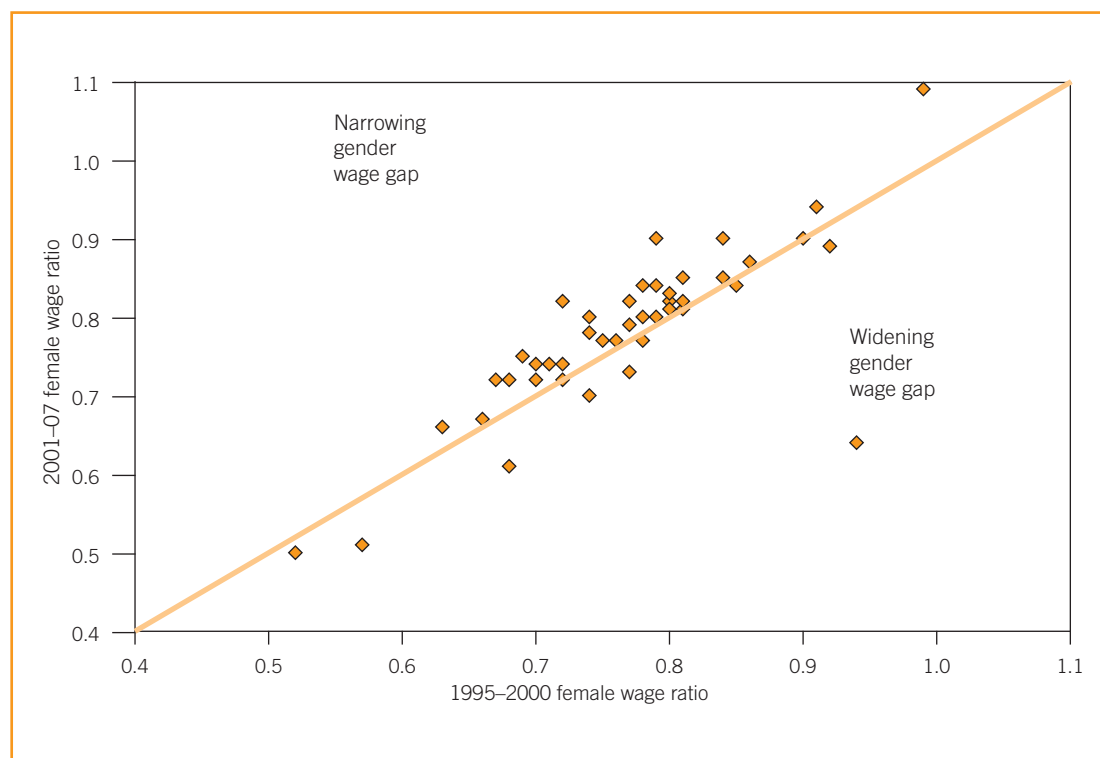
The results of our limited analysis are shown in figure 18. We observe that the wage gap is still wide and is closing only very slowly. When gender pay gaps are measured using the female wage ratio (the ratio of female average wages to male average wages), we find that overall the pay gap has been decreasing 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.<sup>45</sup> 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,<sup>46</sup> but it is not uncommon to find much higher ratios in other parts of the world, particularly in Asia.<sup>47</sup>

<sup>44</sup> See Piketty and Saez (2007).

<sup>45</sup> Gupta (2002); ITUC (2008); Plantenga and Remery (2006).

<sup>46</sup> Plantenga and Remery (2006).

<sup>47</sup> 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.<sup>48</sup> The literature also displays mixed findings with regard to the effects of globalization on the gender pay gap.<sup>49</sup> Several studies have found a negative effect of export-oriented growth on female relative wages.<sup>50</sup> 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.<sup>51</sup> 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.<sup>52</sup>

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

<sup>48</sup> Gupta (2002), figure 1.

<sup>49</sup> Seguino and Grown (2006).

<sup>50</sup> Oostendorp (2004).

<sup>51</sup> Braunstein and Brenner (2007).

<sup>52</sup> 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.<sup>53</sup> Studies show that entry-level wages tend to be lower for women than for men – especially for skilled workers.<sup>54</sup> 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.

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<sup>53</sup> Pay Equity Task Force (2004).

<sup>54</sup> Kunze (2003).

## PART II

## Minimum wages and collective bargaining

Part II of this first *Global Wage Report* highlights the effects on wages of minimum wages policies and collective bargaining. Both minimum wages and collective bargaining are part of a broader set of labour market institutions, defined broadly as comprising “rules, practices and policies – whether formal or informal, written or unwritten – all of which affect how the labour market works”.<sup>55</sup> While wages are linked to labour productivity and general economic conditions (as we have seen in Part I), they are also mediated by a set of institutions, including trade unions and minimum wage policies.<sup>56</sup> In practice, the relative influence of these institutions varies across countries and over time, but in most countries they form part of the societal and labour market governance structures in which employees and employers interact and determine wages.<sup>57</sup> All around the world, governments rely on wage policies to correct the failure of the market to produce outcomes that are socially desirable, morally acceptable or in line with local perceptions of social justice.

In section 4, we first present some global trends for both the levels of minimum wages and the numbers of workers covered by collective bargaining agreements. We find that while there is a revival of minimum wages, trends in collective bargaining are more contrasted. In section 5, we present some evidence as to how collective bargaining and minimum wages affect wage outcomes. This evidence shows that the effects of these two wage policies are quite different. Whereas collective bargaining affects both the level of wages and wage distribution, the effect of minimum wages is limited to the wage distribution in the lower half of the labour market. Section 6 thus emphasizes the importance of using minimum wages as an instrument of social protection, to provide a decent wage floor, and not – as is too often the case – as a permanent substitute for bargaining among social partners. Section 6 also provides some simple but relevant recommendations for a coherent articulation between minimum wages and collective bargaining.

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<sup>55</sup> Berg and Kucera (2008), p. 11.

<sup>56</sup> Normative standards of fairness also play a role; see for example Dickens et al. (2007). Economic decisions and actions such as wage negotiations are also “embedded” in social networks, culture, politics and religion. See Granovetter (2005) or Gibbons (2005).

<sup>57</sup> This assertion is from Hirsch (2006).

## 4. Recent trends

### 4.1. The revival of minimum wages

The ILO defines a minimum wage as a wage which provides a floor to the wage structure in order to protect workers at the bottom of the wage distribution.<sup>58</sup> Minimum wages are a nearly universal policy instrument – they are applied in more than 90 per cent of ILO member States.<sup>59</sup> However, the level at which minimum wages are set varies greatly between countries, as do the rate and frequency at which they are updated. To document worldwide trends in the levels of minimum wages, new data were collected to update the ILO's database on minimum wages. These new data focus mainly on the period 2000–07. Overall, our expanded database now includes information on levels of minimum wages in more than 100 countries, whose populations represent about 90 per cent of the world's total population. We have estimated the annual increase in minimum wages in real terms (i.e. adjusted for inflation) for all these countries. This provides an indication of the purchasing power of those who earn the minimum wage. We have also calculated two additional country-level indicators. The first is the ratio of the minimum wage to the average wage – a measure of the extent to which countries try to reduce wage inequality through minimum wage policies. The second is the ratio of the minimum wage to GDP per capita, which provides an indication of how changes in the rates of minimum wages relate to changes in the overall levels of labour productivity.<sup>60</sup>

Some of the conceptual difficulties in computing indicators for minimum wages should be highlighted here. Although changes in nominal and real minimum wages may appear to be very easy to compute, this is not always the case. The main reason is that most countries do not just have one minimum wage rate. As this report will discuss in more detail, countries often have several rates for minimum wages, which can vary by region, age of worker, economic activity or professional occupation. This can make it difficult to estimate one minimum wage level per country, which in turn makes it difficult to compare minimum wages with other economic indicators, such as GDP per capita or economy-wide average wages. As a general rule, and with some exceptions, we have chosen what we consider the most relevant minimum wages (usually the rate applicable to the largest number of workers). In the case of large countries with large regional disparities, we have used an average of the most relevant regional minimum wage rates.

<sup>58</sup> From a legal perspective, a minimum wage must have the force of law and be enforceable under threat of penal or other sanctions.

<sup>59</sup> Significant exceptions are some Gulf countries, such as Bahrain, Saudi Arabia and the United Arab Emirates, which are host to a large number of still poorly protected migrant workers.

<sup>60</sup> Of course, here again, the ratio of minimum wages to GDP per capita is a very imperfect indicator, mainly because GDP per capita is an imperfect indicator of labour productivity, but it is more frequently available than average wages (especially in developing countries). Also, *change* in the GDP per capita is commonly accepted for estimating *change* in labour productivity over time. The ratio of the minimum wage to GDP per capita should, however, be interpreted with care in cross-country comparisons, particularly because countries differ in the proportion of the population that is employed. See, for example, Saget (2008) for a more detailed discussion on appropriate minimum wage indicators.

Our trends reveal that in recent years, minimum wages have enjoyed something of a revival. Globally, over the period 2001–07, more than 70 per cent of the countries included in our sample increased their minimum wages in real terms. On average, the minimum wages in all countries increased by 5.7 per cent in real terms. This represents a substantial gain in the purchasing power of those earning minimum wages compared with the beginning of the century, and is in contrast with some previous periods, when the real value of minimum wages declined. Real gains for those earning minimum wages were substantial in both developed economies (+3.8 per cent) and developing countries (+6.5 per cent).

Perhaps most symbolic of the revival of minimum wages in developed countries is the case of the United Kingdom, which, after having dismantled its system of industry-level minimum wages in the 1980s, adopted a new national minimum wage in 1999. Since then, the national minimum wage has been increased by 3.5 per cent per year in real terms. In addition to the UK example, Spain has increased its minimum wage relatively rapidly, and Ireland introduced a national minimum wage for the first time in the year 2000. Among the newer members of the EU, minimum wages were generally raised substantially, with a view to progressively catching up with the levels in older Member States.

Developing countries are also increasingly uprating their minimum wages to provide social protection to vulnerable and unorganized categories of workers. Regional powers such as Brazil, China and South Africa are among the main drivers of this upward trend. In China, for example, new regulations on minimum wages were issued in 2004 in the face of growing concerns about increasing wage inequality. In Argentina and Brazil, minimum wage policies were revitalized to help reverse the decline in the wages of low-paid workers. And in South Africa, wage floors were introduced in 2002 to support the wages of millions of low-paid workers in different economic sectors.

Individual country experiences sometimes diverge from this upward trend. In the Netherlands, the value of the minimum wage stagnated – this also led to stagnation in social security benefits, which are coupled to the minimum wage. In the United States, the federal minimum wage lost about 17 per cent of its real value between 2001 and 2007 – at the end of 2007 it was increased for the first time in ten years. This loss in value will now be compensated for by a series of increases planned for 2008 and 2009. The minimum wage has also lost value in Georgia, where it declined by more than 6 per cent per year in real terms during 2001–07, and in a sizeable number of African countries. Overall, however, these examples remain a minority within the overall upward trend in minimum wage rates worldwide.

When we compare minimum wages with average wages and GDP per capita, the picture is slightly more complicated (see table 2). We find that minimum wages globally have increased slightly relative to average wages (from 37 per cent in 2000–02 to 39 per cent in 2004–07), mainly due to the upward trend in developing countries. Compared with GDP per capita, however, minimum wages have remained stable in developed countries and have declined globally (from 68 per cent to 60 per cent). This mainly reflects the strong growth in average labour productivity in developing countries, which did not fully translate into corresponding increases in minimum wages at the lower end of the labour market.

**Table 2 Trends in minimum wages**

	Real growth in minimum wages (%)	Minimum wages/ average wages (%)		Minimum wages/ GDP per capita (%)	
	2001–07	2000–02	2004–07	2000–02	2004–07
Developed countries	+ 3.8	39	39	38	37
Developing countries	+ 6.5	36	40	76	68
Total	+ 5.7	37	39	68	60

Source: ILO Wage Database

Significant differences also remain in the levels of minimum wages across countries. Among developed economies, Spain and the United Kingdom have set relatively low minimum wages, at about 35 per cent of average wages, while in France the SMIC<sup>61</sup> was raised to about 50 per cent of average wages – the highest level among any developed economy. In former and current transition countries, minimum wages have increased rapidly but remain relatively low. In Estonia, for example, where the real value of the minimum wage increased rapidly between 2001 and 2007, its level is now around 32 per cent of average wages. In other countries, such as in Georgia and Russia, the rate is even lower, at 10 per cent or less of average wages in 2007. In general, the levels of minimum wages remain highest in Latin America, with a regional average above 50 per cent of average wages.

#### 4.2. Contrasting developments in collective bargaining coverage

We now consider the global trends in the numbers of workers who benefit from collective bargaining. In theory, this can be measured by the so-called “coverage” of collective bargaining, which is defined as the proportion of wage workers under a collective agreement. Unfortunately, comparative statistical information on such coverage is still relatively scarce. There are at least two reasons for this. The first has to do with the different measures that are used. One measure – the *unadjusted* rate of collective bargaining coverage – is the number of employees covered by a collective agreement as a proportion of the total number of employees (i.e. as a proportion of the total number of wage earners). This indicator shows the extent to which the employment of wage earners is regulated by collective agreements. Another measure is the *adjusted* rate of collective bargaining coverage – which excludes from the denominator all employees who are not eligible to bargain collectively, such as certain groups of public employees (for example, the police or the armed forces) or workers in the informal economy. If different measures have been used, the resulting data can not be used for meaningful international comparisons.

The second, more problematic, reason for the lack of data has to do with the difficulty of estimation. In most countries it is impossible to know the exact number of

<sup>61</sup> *Salaire minimum interprofessionnel de croissance.*

workers covered by collective bargaining agreements simply because there are no registration processes and no monitoring of agreements. It is only in those countries where collective bargaining is the most developed (and where the coverage rate is probably also the highest) that collective agreements are well monitored. There are a few exceptions in developing countries, such as the Philippines. Other methods of estimation include extrapolation from household or labour force surveys. However, in developing countries, a question asking whether the respondent's job is covered by a collective agreement is rarely included.

In the light of these difficulties, data on coverage are often estimated by the bargaining parties themselves. For the purpose of the present report, we have used a similar methodology. We first compiled existing statistics from secondary sources and then supplemented these data using a special survey carried out with workers' representatives. This survey was implemented during the International Labour Conference (ILC) in June 2008. Because of the difficulties in obtaining precise estimates with such methods, we have distinguished only four broad categories of countries. Those with coverage below 15 per cent, those with coverage between 15 and 50 per cent, those with coverage between 51 and 70 per cent, and those with a coverage rate above 70 per cent. The results are shown in table 3.

The first striking result is that, with the exception of European countries, the coverage rate of collective bargaining is typically low. In Asian countries, it is usually below 15 per cent, and often in fact below 5 per cent. In Europe, collective bargaining coverage is relatively high, with 70 per cent or more of employees being covered by collective agreements in the majority of EU countries. Because of compulsory extension mechanisms, Austria in fact has a coverage rate of almost 100 per cent. But not all European countries follow the high-coverage model. In Hungary, Poland and the United Kingdom, fewer than half of employees are covered, and in Latvia and Lithuania this rate is less than 15 per cent.

In some countries, the already low coverage rate has been declining further. The coverage has fallen dramatically since 1995 in several countries of Central and Eastern Europe, such as in the Czech Republic and Slovakia, as well as in some Western European countries, such as Germany, the Netherlands and the United Kingdom. In Latin America, it is generally considered that the reduced use of social dialogue mechanisms in the 1990s, along with the implementation of liberal reforms, also led to a fall in collective bargaining coverage and in trade unionization. In Peru, for example, collective bargaining has reached a historically low level, with less than 8 per cent coverage and a decrease in the number of collective agreements from 2,000 in the early 1980s to 300 in 2007. In Tanzania, as in a number of other African countries, coverage declined when a centralized wage policy was replaced by wage bargaining at enterprise level.<sup>62</sup>

Important factors that can help to explain this reduction in coverage include the erosion of union membership<sup>63</sup> and the decentralization of social dialogue institutions. More centralized systems – where collective agreements are signed at national or secto-

<sup>62</sup> Kahyarara (2008).

<sup>63</sup> See Visser (2006).

**Table 3 Collective bargaining coverage, 2007 or latest year**

	Less than 15 %	15–50 %	51–70 %	Higher than 70 %
European Union	Latvia, Lithuania	Hungary, Poland, Slovakia, United Kingdom	Czech Republic, Germany, Luxembourg	Austria, Belgium, Denmark, Finland, France, Greece, Italy, Netherlands, Portugal, Romania, Slovenia, Spain, Sweden
Non-EU	Serbia, Turkey	Switzerland		Norway
CIS countries				Belarus, Russia, Ukraine
North America	United States	Canada		
Other developed economies	New Zealand	Australia, Japan		
East Asia	Republic of Korea		China	
Pacific islands	Kiribati			
South Asia	Nepal	India		
South-East Asia	Indonesia, Malaysia, Philippines, Singapore, Thailand			
Central America	El Salvador, Mexico, Nicaragua			
South America	Brazil, Chile, Colombia, Peru	Venezuela		Argentina, Bolivia, Uruguay
Middle East	United Arab Emirates			
North Africa	Morocco			Sudan
Sub-Saharan Africa	Burundi, Comoros, Malawi, Mauritania	South Africa, Ghana, Kenya, Swaziland, Tanzania, Togo	Guinea, Lesotho	Ethiopia, Niger, Senegal

Sources: ILO special surveys (conducted during the International Labour Conference of 2008); ILO's internal database on union membership and collective bargaining coverage; OECD; other regional and national sources.

Notes:

(1) The rate of collective bargaining coverage is an indicator of the extent to which the terms of employment are regulated by collective agreements. It is defined as the number of employees covered by a collective agreement as a proportion of the total number of employees (i.e. wage and salary earners). This rate is an "unadjusted" one in the sense that it does not take into account the number of employees excluded from the right to bargain. Data on these excluded employees are difficult to estimate and reliable data are not readily available.

(2) The rate of collective bargaining coverage is not necessarily the same as the union density (i.e. the ratio of the number of union members to the total number of paid employees). The main difference comes from the fact that the former reflects the presence of extension mechanisms which allow collective agreements to be applied to non-union members. Extension mechanisms have been relatively common in European countries, but are sometimes found in other regions such as Africa (e.g. South Africa) and Latin America (e.g. Argentina).



ral level – typically lead to a higher coverage of collective bargaining. This may explain part of the difference in coverage rates between Europe and many African and Asian countries, where bargaining often takes place at the enterprise level. The trend towards decentralization and enterprise-level bargaining has also been well documented for Australia, the United Kingdom, the United States and New Zealand, as well as for a number of economies of Central and Eastern Europe.

Another factor contributing to lower coverage is the increase in the number of workers employed in smaller firms or under atypical forms of contract – such as fixed-term, temporary/agency or part-time – who are in practice often excluded from collective bargaining.<sup>64</sup> The Republic of Korea, for instance, has experienced a massive increase in the use of fixed-term contracts as a response to the financial crisis – and this phenomenon has also been observed in other countries.<sup>65</sup> Declining coverage often has important gender dimensions as the incidence of non-standard forms of employment is higher among women than men, and coverage in female-dominated industries (including some service sectors) is less complete than in male-dominated industries.<sup>66</sup>

It must be kept in mind that some developing countries have high coverage in a small formal sector, but none in their large informal economy. In Ghana, for example, although unions are relatively strong in the formal sector, it is estimated that informal employment represents about 88 per cent of total employment. Hence, although real collective bargaining does exist in Ghana and trade unions try to reach out to the informal economy, the challenge remains huge. Unions in Ghana estimate, for example, that only about 8 per cent of workers in the agricultural sector find themselves in the formal economy, mainly in commercial farms.<sup>67</sup> When they are not self-employed, the conditions and terms of employment of workers in the informal economy are usually determined either through an informal bargaining between the employer and the employee or exclusively by the employer.

At the same time, it should be emphasized that there is no clear-cut negative trend towards the weakening of collective wage bargaining, as there are also some important counteracting developments. First, collective bargaining coverage remains high – and is sometimes increasing – in Europe. This is the case, for example, in Denmark, Finland, Portugal, Spain and Sweden. In addition, the coverage has also been increasing in some developing countries in Africa and Latin America. In South Africa, for example, the number of formally employed workers covered through bargaining council agreements doubled in the ten years following the ending of apartheid. This was mainly thanks to the rise of the bargaining council system within the public sector, but it also occurred in the private sector, such as in the textile industry.<sup>68</sup>

The attempt to revive or introduce collective bargaining has also been strong in former and current transition countries, where the concept of wage bargaining has yet to take root. In Eastern European countries, such as Latvia and Lithuania, the coverage rate

<sup>64</sup> See, for example, Cazes and Nesporova (2007).

<sup>65</sup> Lee and Eyraud (2008). See also Alvarado (2008); Eyraud and Vaughan-Whitehead (2007); Kahyarara (2008).

<sup>66</sup> Rubery et al. (2005).

<sup>67</sup> Ackah (2008).

<sup>68</sup> Bhorat and Goga (2008).



is low but efforts have intensified to bring wages into the realm of collective bargaining. Slovenia, for example, has introduced a strong extension mechanism, to the effect that the coverage rate now reaches almost 100 per cent. This extension is possible because companies are obliged to be members of all-encompassing “chambers” of commerce and industry, which also act as employers’ associations in collective bargaining. The recent developments in China are also significant (see box 2), although there are remaining problems regarding the freedom of association.

### Box 2 China: Trends in collective bargaining

Collective bargaining was virtually unknown in China until the mid-1990s (except for a few cases on an experimental basis) as labour relations were adjusted through administrative interventions under the centrally planned economy. Things began to change slowly after the Labour Law came into effect in January 1995, as the law introduced the concept of collective bargaining (the Chinese term is *jitixieshang*, literally meaning “collective consultation”).

After a slow start, the development of collective bargaining gained some momentum in the early 2000s, when the Chinese Government began its policy shift towards more balanced social and economic development under the overarching goal of “building a harmonious society”. When the Government, the All-China Federation of Trade Unions (ACFTU) and the China Enterprise Confederation (CEC) started to set up tripartite consultation mechanisms at various levels in 2001, the promotion of collective bargaining became a priority across China. Official statistics indicate that the number of workers covered by collective agreements increased from 66 million in 2000 to 102 million in 2005.

It is well known, however, that until recently many collective agreements in China were little more than a replication of legal minimum conditions, and that the agreements were not genuinely negotiated between workers’ representatives and employers. For instance, the wage level was not included in most collective agreements until the early 2000s. While this is still true for a significant number of enterprises even today, there is an indication that the quality of collective agreements and of the process of collective bargaining is gradually improving. According to the official statistics, the number of workers covered by wage agreements has risen from 27 million in 2000 to 37 million in 2005. The number of workers covered by wage agreements appears to be a more reliable measure of the influence of collective bargaining in China than the number of workers covered by general collective agreements.

Another significant change in recent years is the growing number of collective agreements at regional or sectoral level. While most collective bargaining took place at the enterprise level until the 2000s, trade unions under the ACFTU structure have been successful in developing a new practice of collective bargaining at regional or sectoral level. It is reported that some regional/sectoral agreements include negotiated minimum wages that are higher than the mandatory minimum wage set by some local governments.

It is possible that the Labour Contract Law, which came into effect from January 2008, will accelerate the spread of collective bargaining at various levels. There are flaws in the emerging industrial relations system in China, but there is scope for a gradual but steady move towards a system based upon more genuine collective bargaining in the future.

Source: Contribution from Chang-Hee Lee (ILO, Beijing).

## 5. The effects of institutions on wage outcomes

The trends we described in the previous section have important implications because collective bargaining and minimum wages have profound effects on wages. In this section we present some statistical analysis that shows that collective bargaining is associated with both higher average wages and lower overall wage inequality, while minimum wages are associated with reduced wage inequality in the lower half of the labour market.

### 5.1. Collective bargaining, productivity and wages

We first look at the effect of collective bargaining on average wages. In the light of the apparently weakening correspondence between wages and economic growth discussed earlier in this report, we examine the impact of collective bargaining on wage elasticity (i.e. the responsiveness of wages to changes in GDP per capita). To do so we separated our sample of countries into two groups: a “high coverage” group and a “low coverage” group. High coverage is defined as a coverage rate above 30 per cent, while low coverage is defined as coverage of 30 per cent or below. This threshold divides the countries in our sample into two groups of roughly equal size.

The results indicate a positive relationship between collective bargaining and wage elasticity. As figure 19 shows, for the low-coverage countries the wage elasticity stands at about 0.65 – below the world average of 0.75 (as calculated in section 2.2). In other words, in the countries in which collective bargaining is not a significant tool for wage determination, each additional 1 per cent growth in GDP per capita is typically accompanied by a 0.65 per cent increase in average wages. In the case of high-coverage countries, the wage elasticity is much higher. Figure 20 shows that in those countries, an extra 1 per cent growth in GDP per capita is accompanied on average by a 0.87 per cent increase in average wages. Hence, it seems that in the presence of significant collective bargaining coverage, real wages are much more strongly connected to economic growth.<sup>69</sup>

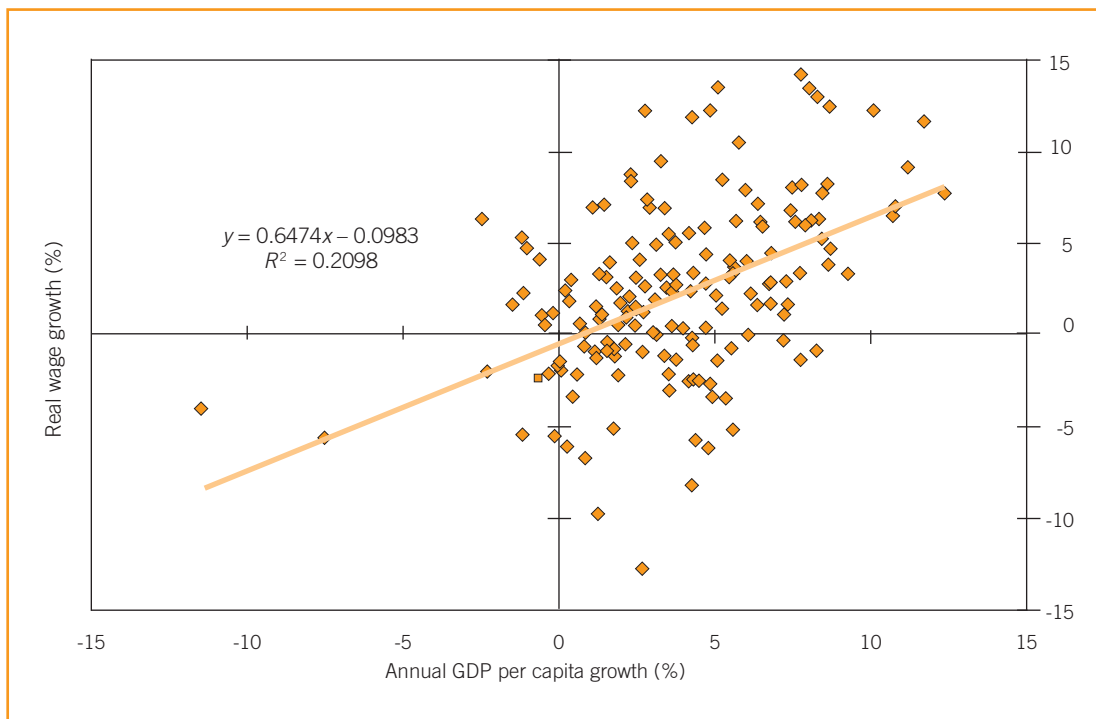
While coverage is an important determinant of wage outcomes, the level at which collective bargaining takes place and the degree of coordination between the different possible levels also affect wage outcomes. Unfortunately, owing to the lack of relevant data we have not been able to capture these effects in our own analysis. Other research studies have confirmed a strong relationship between centralized and/or coordinated bargaining and lower wage disparity, including a narrower gender pay gap.<sup>70</sup> Conversely, decentralization of collective bargaining has been shown to be leading to higher wage disparity in a number of cases, including in Australia and Chile.<sup>71</sup> But some observers have emphasized that the relationship between bargaining systems and labour market

<sup>69</sup> Since high coverage of collective bargaining is associated with a stronger linkage between wages and economic performance, it should also affect the “wage share”, i.e. the division of income between workers and employers (see Technical appendix I).

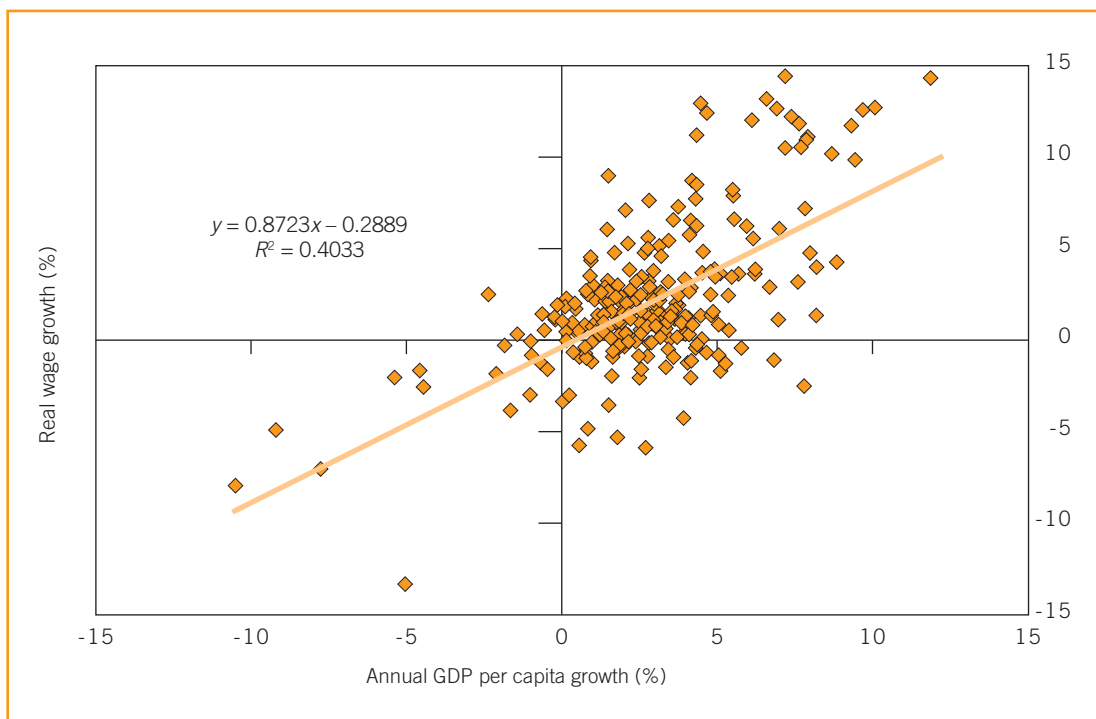
<sup>70</sup> Bertola et al. (2002); Blau and Kahn (1996, 1999); OECD (2004).

<sup>71</sup> See respectively Hall (2007); Riveros (1994).

**Figure 19** GDP per capita change and real wage growth in countries with lower coverage of collective bargaining ( $\leq 30\%$ )



**Figure 20** GDP per capita change and real wage growth in countries with higher coverage of collective bargaining ( $>30\%$ )



performance is not as straightforward as is often assumed and therefore should not be generalized.<sup>72</sup> A more refined analysis is necessary to provide a better understanding of the effects of decentralization on country differences in wage outcomes.

## 5.2. Institutions and wage inequality

In addition to wage elasticity, we look at how minimum wages and collective bargaining affect wage inequality. Due to data limitations, our analysis mainly covers developed countries, although it also includes countries in Asia and Latin America (the full results are reported in Technical appendix II). We find that, here again, collective bargaining coverage matters considerably. The results show that high-coverage countries have significantly less wage inequality, both overall and in the lower half of the wage distribution.<sup>73</sup> In the case of European countries, figure 21 shows the link between collective bargaining coverage and overall wage inequality through a simple correlation. Although other factors also affect inequality, we nevertheless see that Denmark, Finland, France, the Netherlands and Sweden have both high coverage and low wage inequality, while Hungary, Poland and the United Kingdom have low coverage and high wage inequality.

Our results for minimum wages are less robust. Somewhat surprisingly, higher minimum wages (above 40 per cent of average wages) are associated with higher overall wage inequality.<sup>74</sup> Interpretation of this finding requires further analysis in the future. One hypothesis is that it may be due to some reverse causality, whereby countries with higher overall inequality tend to use minimum wages more vigorously. At the same time, however, higher minimum wages are associated with reduced wage inequality in the bottom half of the wage distribution.<sup>75</sup> This latter result is rather intuitive since minimum wages are precisely intended to protect low-wage earners.<sup>76</sup> Indeed, in both developed and developing regions, minimum wages have been reactivated with a view to reducing the social tensions that result from the growing inequalities in the lower half of the labour market. In Europe, for example, the increase in the number of working poor has placed pressure on governments. In some European countries, minimum wages have also been found to play an important role in securing the wages of low-skilled workers who are in competition with immigrant workers.<sup>77</sup>

<sup>72</sup> See, for example, Freeman (2007).

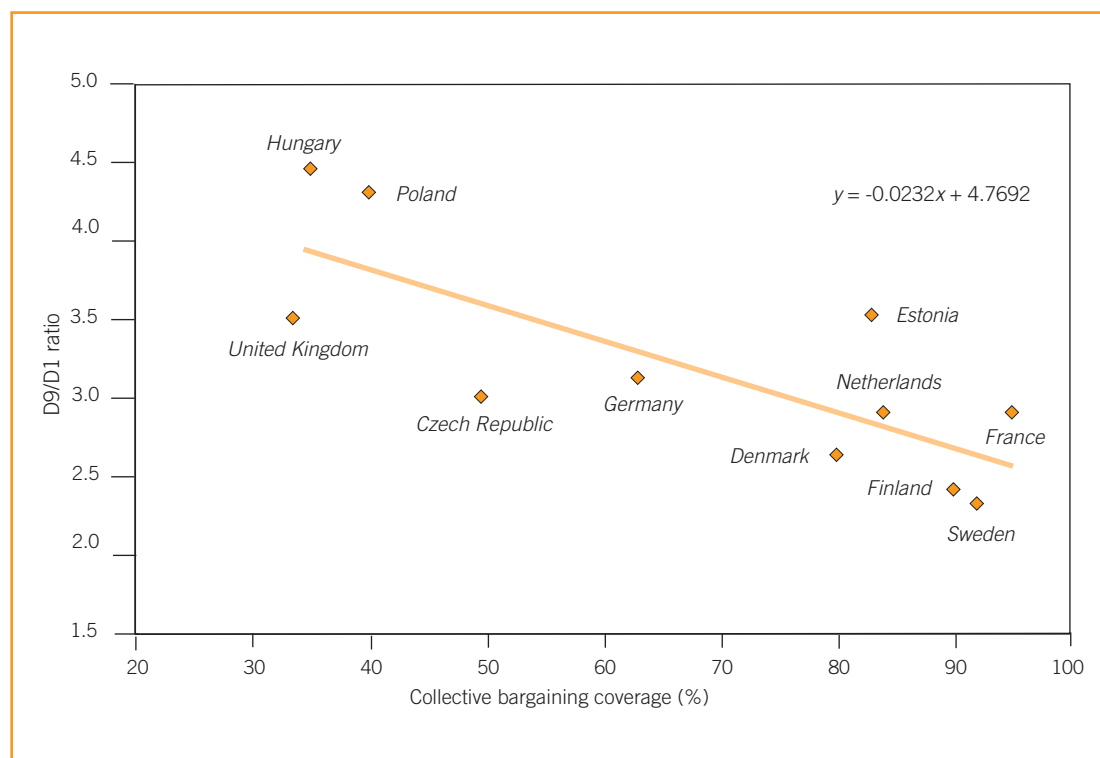
<sup>73</sup> As in Part I of the report, overall wage inequality is measured by the ratio of high-wage earners to low-wage earners ( $D9/D1$ ), while inequality in the lower half of the wage distribution is measured by the ratio of median-wage earners to low-wage earners ( $D5/D1$ ).

<sup>74</sup> As measured by  $D9/D1$ .

<sup>75</sup> In other words, minimum wages are linked with a lower  $D5/D1$  ratio but are not significant in explaining cross-country differences in  $D9/D1$ .

<sup>76</sup> At the same time, it must be pointed out that our statistical results are sensitive to model specification and estimation methods, which means that it is difficult to draw any strong conclusions from this analysis. This reflects the fact that differences in minimum wages across countries cannot be captured easily in a single variable. The complex system of minimum wages and the resulting diversity in operation and impacts are discussed later in this report.

<sup>77</sup> Dustmann et al. (2007a).

**Figure 21 Wage differentials (D9/D1) and collective bargaining rate (2005), EU countries**

Source: ILO Wage Database.

### 5.3. Findings from the literature

The above-documented effects of institutions on wage outcomes are increasingly well understood and appreciated around the world – even though much of the earlier research had focused on their employment effects. The contribution of trade unions to the reduction in wage inequality is a well-established empirical finding.<sup>78</sup> Recent economic studies have increasingly recognized that collective bargaining has a positive effect on wages without much negative impact on the overall employment or economic performances.<sup>79</sup> A comprehensive review of the literature published by the World Bank concluded that comparative studies “reveal little systematic difference in economic performance” between countries that effectively guarantee freedom of association and collective bargaining and countries that do not.<sup>80</sup> Similarly, the most recent body of research has also dispelled some simple stereotypes about minimum wages, showing that – if set at a reasonable level – they can increase the number of workers with access to decent wages and reduce the gender pay gap with little or no adverse

<sup>78</sup> See Machin (2008) for a review.

<sup>79</sup> Cahuc and Zylberberg (2004); Manning (2003); Tzannatos (2008).

<sup>80</sup> Aidt and Tzannatos (2002), p. 4.

impact on employment levels.<sup>81</sup> At the same time, while a growing body of research has dismissed widely held beliefs about the detrimental impact of minimum wages or collective bargaining on a number of socio-economic variables, policy-makers should not ignore the fact that poorly designed policies can have adverse effects on employment or economic indicators.

It is difficult to quantify in general terms the effects of institutions on wages. Regarding collective bargaining, much of the existing research has focused on how union membership (rather than coverage) affects wages. In countries such as the United Kingdom and the United States, by comparing similar unionized and non-unionized jobs it has generally been estimated that unionization raises wages by more than 10 per cent. With the presence of strong extension mechanisms, where collective agreements on wages are applied to non-union workers – such as in France, Germany and Sweden – this wage premium almost disappears.<sup>82</sup> It has also been documented that the wage premium has tended to fall in recent years, particularly in the United Kingdom and the United States – where this may reflect the weakening power of trade unions.<sup>83</sup> It is also estimated that one-third of the increase in wage inequality in the United States over the past 20 years can be explained by falls in union density, and a similar finding is reported for Germany.<sup>84</sup> Unfortunately, studies on the effects of trade unions on wages in other parts of the world remain scarce.

Recent studies on minimum wages have also tried to estimate their effect on inequality at the lower end of the wage distribution. One study in the United States found strong evidence that an increase in the minimum wage raised pay rates for workers in the bottom 10 per cent of the wage distribution and hence contributed to partially reversing the trend towards rising wage inequality.<sup>85</sup> The same study estimated that a 10–15 per cent increase in the US minimum wage redistributes a relatively modest 0.2 per cent of total annual earnings. In developing countries, the distributional effects are also increasingly being studied. In Brazil, for example, it has been found that 12.5 per cent of workers earn the minimum wage, and that the minimum wage strongly compresses the wage distribution.<sup>86</sup> The literature also highlights that minimum wages can help to curb gender wage differentials at the bottom of the wage distribution. Women are over-represented among low-paid workers and their mobility into higher paid jobs is much lower than men's. Women are therefore concentrated in jobs and sectors where collective bargaining is more limited. By establishing comparable wages across dissimilar and often sex-segregated workplaces, minimum wages can help address gender biases in wage fixing.

In general, the determinants of wage inequality are very complex, implying that a wide range of factors work together in different ways and with different weights to

<sup>81</sup> See in particular the comprehensive research commissioned by the UK's Low Pay Commission.

<sup>82</sup> See Blanchflower and Bryson (2002).

<sup>83</sup> See Hirsch (2008).

<sup>84</sup> For the United States, see Lemieux (2007) and for Germany, see Dustmann et al. (2007b).

<sup>85</sup> Card and Krueger (1995).

<sup>86</sup> See Lemos (2007) and Dedecca (2008).

create different results. One factor that has attracted much attention in this regard is skill-biased technological changes, which can favour skilled workers and lead to polarization.<sup>87</sup> However, it is beyond the scope of this report to offer a global picture concerning the extent to which technological change is related to changes in wage inequality. In our own statistical analysis, changes in economic variables such as GDP per capita, trade ratio and FDI inflows do not appear to have any statistically significant importance in explaining the difference in wage inequality across countries (see Technical appendix II).

## 6. Designing coherent wage policies

This section focuses on the appropriate articulation and design of minimum wages and collective bargaining policies. As we have seen, in many countries collective bargaining is facing difficult challenges, which may be linked to globalization, new forms of employment or the growth of subcontracting. In other countries, collective bargaining has been presented as a source of rigidity and the common recommendation has been to replace higher level collective bargaining with bargaining at the enterprise level. In many of these cases, to protect the most vulnerable workers in the labour market, governments seem to have turned towards minimum wages policies as a substitute for collective bargaining. In the absence of strong collective bargaining, governments somehow seem compelled to intervene in wage determination through minimum wages. This has sometimes led to very complicated systems of industry, sectoral and occupational minimum wages.

The reliance on overly complex systems of minimum wages rather than collective bargaining is unfortunate for at least two reasons. First, the role of collective bargaining goes much beyond protecting vulnerable workers – it actually benefits a broader spectrum of workers than do minimum wages. Collective bargaining also goes beyond wage negotiations to include other aspects of working conditions, such as hours of work and quality of employment. Second, minimum wages that set wage rates for many categories of workers in different industries can end up discouraging collective bargaining instead of stimulating it. While some negotiations between social partners over minimum wages have contributed to stimulating collective bargaining, in the majority of cases complex minimum wages were found to “crowd out” collective bargaining. This negative experience points towards the importance of careful and coherent policy design. In the following paragraphs we therefore review some good practices related to the design of a complementary and coherent set of minimum wages and collective bargaining policies.

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<sup>87</sup> See Machin (2008) for a review, and Autor et al. (2006) on the role of computerization. One obvious limitation with this approach is its difficulty in explaining why changes in wage inequality vary substantially across countries where the extent of technological changes is at least comparable (for example, between Anglo-Saxon and Continental European countries). This also explains why institutional factors have emerged as a more powerful explanatory factor for changes in wage inequality in recent years (see, for example, Lemieux, 2007). In addition, technological changes often fail to explain much of wage dynamics at the industry level (see, for example, Berg, 2004).



### 6.1. Using the minimum wage as an effective and decent wage floor<sup>88</sup>

In designing minimum wages policies, two key principles should be kept in mind. The first is to use the minimum wage in the manner it was intended, namely to provide a decent wage floor. The second principle is to involve social partners – not only in the design and monitoring of the minimum wage system, but also in the decision-making related to setting the level of the minimum wage.

#### *What is a decent wage floor?*

As a general principle, the ILO Convention No. 131 calls on countries to take a balanced approach when determining levels of minimum wages. They should take into account both the needs of workers and their families and economic factors such as productivity and the need to maintain high levels of employment. The actual levels of minimum wages will, of course, vary according to national perceptions of a decent wage floor. The term “decent wage floor” implies that the level of a minimum wage should be set high enough to be considered as decent but low enough to remain a wage floor. Figure 22 shows that the levels of minimum wages relative to average wages vary widely across countries, but that there is a relatively high frequency at around 40 per cent of average wages. This may serve as a useful reference point when considering the ideal level for a minimum wage.

Beyond this very rough reference level, the level of a minimum wage should be determined through much more refined country-specific analysis. Indeed, to maximize the benefits of a minimum wage while minimizing the potential negative impacts, it is essential that the level of the minimum wage is determined through research-based policy decisions and that its application is accompanied by systematic monitoring. It must also be remembered that to reduce the gender pay gap at the bottom end of the wage distribution, the minimum wage should be set at a level above that prevailing in female-dominated occupations or sectors.<sup>89</sup> It is not uncommon that well-intended policy decisions on minimum wages lack solid evidence and analysis and thus defy their goals. Good policies and good social dialogue on minimum wages need good research.<sup>90</sup>

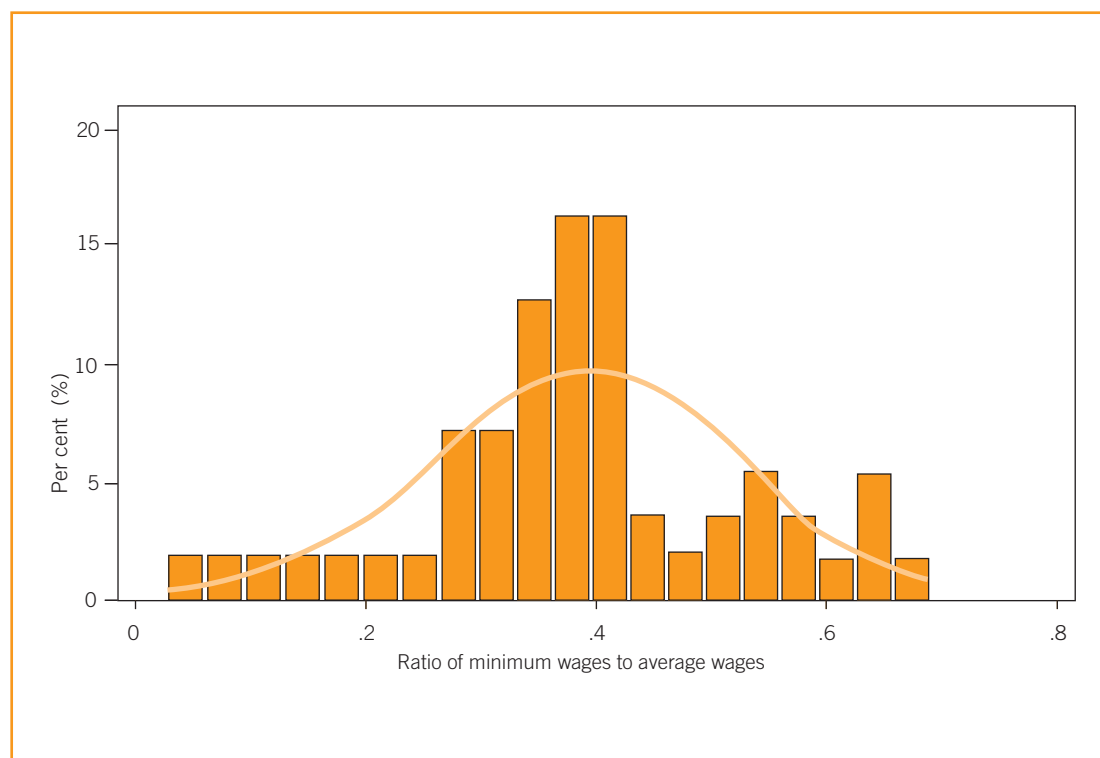
Decisions on minimum wages should always involve social partners. These partners should be involved in the decision-making regarding both the coverage and the rates of minimum wages. In the majority of countries, governments take the final decision

<sup>88</sup> This section draws and expands on the very comprehensive research undertaken by Eyraud and Saget (2005). It is also based on ILO Conventions related to the minimum wage, namely the Wage-Fixing Machinery Convention No. 26, adopted in 1928, and the Minimum Wage Fixing Convention No. 131 adopted in 1970. Overall, a total of 119 out of the ILO's 181 member States have now ratified at least one of these two Conventions. Countries which have ratified either or both of these Conventions in the new century include – in chronological order of the ratification of Convention No. 131 – the Republic of Moldova (2000), Serbia (2000), the Republic of Korea (2001), Antigua and Barbuda (2002), Albania (2004), Armenia (2005), Ukraine (2006), Montenegro (2006), the Central African Republic (2006) and Kyrgyzstan (2007).

<sup>89</sup> Rodgers and Rubery (2003).

<sup>90</sup> In order to facilitate such research work, the ILO has recently developed some standard terms of reference (available upon request) to serve as guidelines for determining minimum wages.

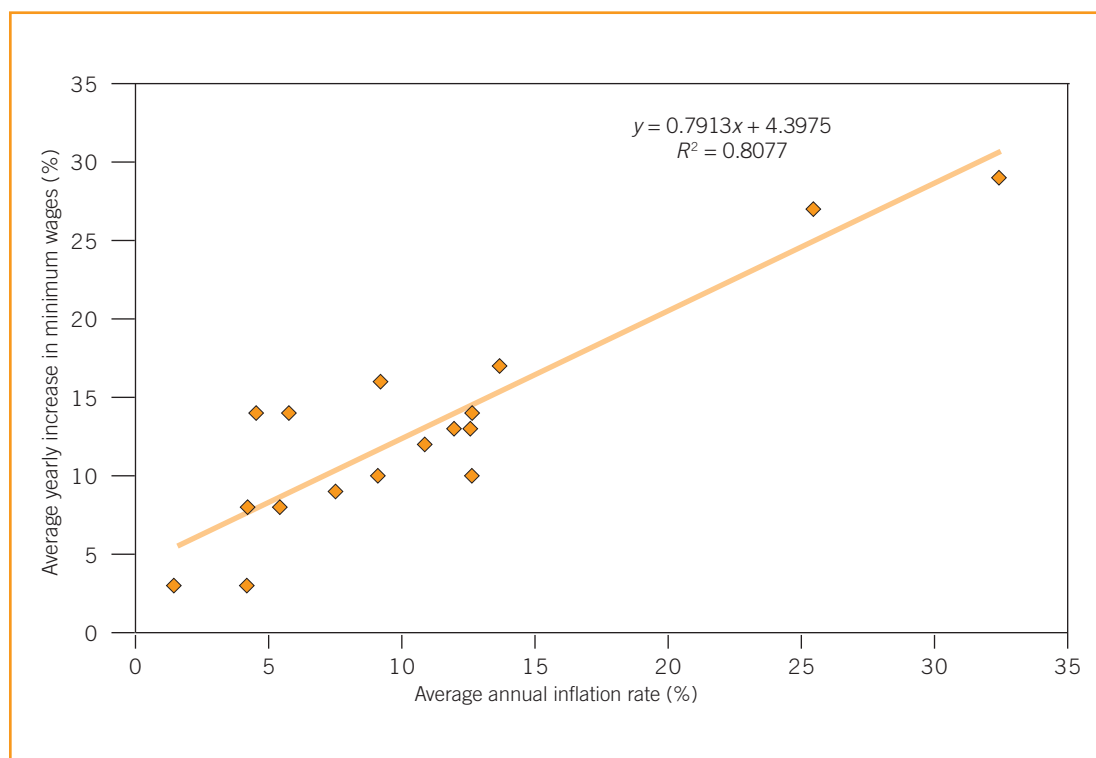


**Figure 22 Minimum wages relative to average wages**

Source: ILO Wage Database.

on uprating minimum wages, after some consultation with social partners. In a sizeable minority of countries, the minimum wages rates are set directly through social dialogue by independent tripartite bodies. When decisions are made by tripartite bodies, governments are in effect required to come to an agreement with employers' and workers' representatives. In a few cases, a *national* minimum wage rate is negotiated directly by social partners – such as in Belgium and Greece – and the government's only official role is to validate the outcome of negotiations.

In other countries, *sectoral* minimum wages are determined exclusively through collective bargaining. This is the case, for example, in Germany, Italy and Switzerland. This system certainly provides the most flexibility and avoids state intervention into minimum wage fixing. There are, however, some increasingly obvious limitations. First, whereas such systems can effectively protect a majority of workers in some European countries, which have well-established collective bargaining, they would be mainly ineffective in developing countries, where the coverage of collective bargaining is typically very low. Second, even in European countries, the recent decline in collective bargaining coverage and the increase in the number of “working poor” in the unregulated part of the labour market have created strong social tensions. In Germany and – to a lesser extent – Switzerland, these shortcomings have revived the debate about the possible introduction of a national minimum wage to provide a decent wage floor for *all* wage earners.

**Figure 23** Nominal minimum wages and inflation in Latin America, 1996–2007

Source: ILO Wage Database.

### *Uprating minimum wages*

Minimum wages should be adjusted regularly to maintain the purchasing power of affected workers in the face of price increases, and to avoid large occasional shocks to the economy. The welfare of poor workers and households critically depends on both their wages and the prices they face. The adjustment of the nominal minimum wage in the context of increasing prices is thus as important as the setting of the initial rate for a minimum wage. In the current context of sharply increasing food and oil prices, and high inflation forecasts for 2008 and 2009, swift adjustment in minimum wages is all the more important.

Past evidence from Latin America shows that – in the medium term – inflation is generally compensated for by commensurate adjustment in the nominal minimum wage (see figure 23). The data, however, also show that there can be a lag between inflation and minimum wage adjustments. In the context of high inflation, this lag can be the cause of much human suffering. When adjusting minimum wages, it must also be kept in mind that the consumer price index (CPI) reflects the prices faced by an average consumer and is used to monitor economy-wide consumer price inflation. When food prices increase rapidly, the CPI typically underestimates the increase in the prices of goods and services consumed by those earning minimum wages. This is because poorer households spend a larger proportion of their incomes on food. In other words, the rate of inflation experienced by minimum wage earners might be

**Table 4 National and sectoral minimum wages (% of total countries with a minimum wage)**

	National minimum wages (%)	Minimum wages by sectors and/or occupations (%)
Latin America and the Caribbean	43	57
Asia and the Pacific	47	53
Africa	69	31
Middle East	100	0
Developed economies and European Union	67	33
Central and South-Eastern Europe (non-EU) and Commonwealth of Independent States (CIS)	100	0
Total	60	40

Source: ILO Wage Database.

significantly higher than the CPI. This should be taken into account when uprating minimum wages. In China, for example, many provinces raised their minimum wages in 2007 and 2008 in consideration of the rising food prices and their effects on low-wage workers.

In a context of rising inflation, much has been said about the risk that higher minimum wages may lead to a so-called “wage–price spiral”, which has been defined as a situation in which wages and prices chase each other upwards.<sup>91</sup> This perception is linked to the fact that the minimum wage is often considered as a benchmark in collective bargaining, or even for wages in the informal sector,<sup>92</sup> and hence also affects wages of workers above the minimum wage. But while it is true that minimum wages can affect prices, this effect has generally been found to be modest, especially in the case of simple national minimum wages.<sup>93</sup> Therefore, fears that minimum wages can trigger overall inflation increases throughout the economy are often exaggerated.

### *Keeping it simple*

It is important that the design of minimum wage fixing institutions is kept simple. A majority of countries in the world implement relatively straightforward national minimum wages (see table 4). National minimum wages are economy-wide wage floors that apply to all workers, with possible variations between regions or broad categories of workers (in particular young workers or other groups such as domestic workers).

<sup>91</sup> See Layard et al. (1991).

<sup>92</sup> See Saget (2006).

<sup>93</sup> For a review of the literature on the effects of minimum wages on prices, see Lemos (2004).

Examples include the United Kingdom's national minimum wage and the SMIC in France. Another example is the US federal minimum wage, which celebrated its 75th anniversary in 2007. There are also a fair number of developing countries that rely on such relatively simple systems, including Brazil, China, and much of francophone West Africa. National minimum wages may also contribute to enhanced gender equality, as the examples of the Netherlands and Portugal have shown.

A minority of countries implement more complex systems of sectoral and/or occupational minimum wages. Systems in which public authorities determine different minimum wages rates for different economic activities or occupations are relatively more frequent in developing countries (as can be seen in table 4). Such systems have often been implemented to compensate for the absence of collective bargaining in some sectors. In South Africa, for example, the Government sets minimum wages through so-called "sectoral determinations" in sectors characterized by a non-unionized and vulnerable workforce. Since 2002, this has included domestic workers and farm workers – categories which encompass some of the lowest-paid and poorest workers in the economy. Similar systems of mandated minimum wages at sector or occupation level exist in quite a large number of countries in Africa, Asia and Latin America. These sectoral minimum wages are important for the workers they protect and – when they are set in sectors characterized by vulnerable workers – they can be useful in complementing the collective bargaining that takes place in other sectors. In many cases, however, the systems with multiple minimum wages that prevail in African and Asian countries have been observed to "crowd out" collective bargaining. This typically occurs when minimum wages shift from simply providing a wage floor towards determining actual wage policy at enterprise level. The resulting system is then more an actual wage-fixing method than a regulator of minimum wages. Taken to the extreme, such a system becomes a substitute for collective bargaining, often with the state as the dominant player.

In Viet Nam, for example, the wages of all types of workers are fixed through a multiplier of the minimum wage, with all social benefits also being related to the minimum wage. But some confusion also exists in other, less centralized, countries. In Indonesia, most wages in the formal sector are ultimately clustered around the minimum wage, and hence not much bargaining takes place after the announcement of the minimum wage by the local government. Similarly, in the Philippines the regional boards seem to have supplanted firm-level wage bargaining, and companies now simply wait for the annual wage adjustments by the boards rather than negotiate with the workers. There are other examples in South Asia – such as in Bangladesh, Sri Lanka and India – where the government sets a series of minimum wages for 45 occupations and activities and where local governments do the same at local level, resulting in an estimated 1,230 occupational and sectoral minimum wages rates across the country.

Another complication arises when different aspects of social protection, such as pensions, disability payments or maternity benefits, are linked to the level of the minimum wage. In practice, this means that retirement and other benefits will be adjusted upwards when the minimum wage increases. So, for example, in Algeria the minimum pension is set at 75 per cent of the level of the minimum wage, while in Brazil the minimum wage is the benchmark for retirement, sickness and unemployment bene-

fits. Although this may be useful in maintaining the purchasing power of the poorest pensioners, in practice it often prevents governments from increasing minimum wages for fear of the adverse impact on social security budgets. This therefore makes the minimum wage an ineffective policy. To be meaningful, the minimum wage should focus on providing a wage floor for low-paid workers, and social benefits should, in so far as possible, not be connected to minimum wages.

### *Compliance, coverage and coherence*

Minimum wages, to be useful, need to be well enforced. Therefore, minimum wages should be accompanied by credible enforcement mechanisms. It is well appreciated that compliance is a function of the probability of firms being visited by labour inspection services, and of the level of penalties in the case of non-compliance.<sup>94</sup> Unfortunately, in many countries, labour inspection services are understaffed and penalties are too weak. As a result, minimum wages too often remain a “paper tiger” rather than an effective policy. Evidence from a number of country studies suggests that non-compliance can be extremely high, especially in developing countries. In Latin America, for example, it has been estimated that the share of workers who are earning less than the minimum wage frequently exceeds 20 per cent, and can reach up to 45 per cent.<sup>95</sup> The role of social partners is also important in ensuring observance of labour laws. Employers’ organizations and trade unions can apply pressure on underpaying employers, while social peer pressure can also discourage abusive practices by employers.

In order to maximize the impact of minimum wages on gender equality, coverage and compliance acquire crucial relevance, as the jobs and sectors where women prevail are often excluded – de jure or de facto – from the protection of minimum wages laws.<sup>96</sup> When wage floors take the form of industry minima, coverage is frequently incomplete, various low-wage sectors are left uncovered and female-dominated jobs or sectors are the least likely to have high minima.<sup>97</sup> This is demonstrated by the consistently lower minimum wages rates set for domestic workers – when they are covered at all by minimum wages laws (see table 5). This problem has recently been addressed in the Netherlands through the extension of minimum wages coverage to casual and domestic workers. In Portugal the progressive levelling up of the lower rate of minimum wages set for domestic workers to align them with the rate applicable to other minimum wage earners also represents a positive development.

Finally, minimum wages should not be determined and evaluated in isolation from other policies. In fact, minimum wages should be seen as only one component in a battery of measures against low pay, poverty and inequality. This is because minimum wages only benefit wage earners (and, moreover, only those wage earners who are covered by minimum wages legislation). In some countries, this can leave many

<sup>94</sup> See Squire and Suthiwart-Narueput (1997).

<sup>95</sup> See Cunningham (2007).

<sup>96</sup> See Rubery (2003).

<sup>97</sup> See Rubery et al. (2005).

**Table 5 Minimum wages and domestic workers (selected countries)<sup>1</sup>**

Countries excluding domestic workers from coverage by minimum wages legislation	Countries where minimum wages rates for domestic workers are amongst the lowest minima	Countries in which domestic workers are entitled to the same minimum wages as the general workforce
Bangladesh, Cambodia, China, Egypt, India, <sup>2</sup> Indonesia, <sup>3</sup> Islamic Republic of Iran, Japan, Jordan, Malaysia, Pakistan, Peru, Republic of Korea, Saudi Arabia, Senegal, Sri Lanka, Thailand, United States, <sup>4</sup> Yemen	Argentina, Belgium, <sup>5</sup> Chile, Colombia, Costa Rica, Côte d'Ivoire, Guatemala, Italy, Mali, Nicaragua, Panama, Paraguay, Philippines, South Africa, Spain, Switzerland	Bolivia, Brazil, Bulgaria, Croatia, Czech Republic, Estonia, France, Ireland, Kazakhstan, Latvia, Moldova, Netherlands, Portugal, Russian Federation, Romania, Trinidad and Tobago, Tunisia, Turkey, United Kingdom, Viet Nam, Zimbabwe <sup>6</sup>

## Notes

(1) Fifty-six countries from across all regions.

(2) Central government sets minimum wages for 45 occupations from which domestic work is excluded. Nonetheless, central and regional governments are allowed, with previous notification, to set minimum wages rates for additional occupations. The States of Karnataka, Kerala, Andhra Pradesh, Tamil Nadu, Bihar and Rajasthan have set minima for domestic work.

(3) The law applies only to workers employed by firms. Domestic workers are therefore excluded because they do not work for or in a firm.

(4) Only domestic workers hired on a casual basis (e.g. babysitters) and "companions" for the sick or the elderly are excluded.

(5) Same rate as for blue-collar workers, but part of the remuneration, up to a certain percentage, can be provided in kind.

(6) Domestic workers and agricultural workers are the only two categories of workers covered by minimum wages legislation.

poor people outside the reach of minimum wages. Therefore, minimum wages should be accompanied by a number of complementary policies,<sup>98</sup> such as targeted income policies. Indeed, minimum wages alone cannot be used for targeted poverty reduction. Minimum wages are paid to individuals, whereas the key unit for poverty-reducing income transfers is the household or the family. Hence, minimum wages should be used in conjunction with income transfers.

## 6.2. Promoting collective bargaining alongside minimum wages

Well-designed minimum wages will avoid the "crowding out" of collective bargaining. For minimum wages and collective bargaining to operate as complementary and mutually reinforcing elements of comprehensive wage policies, governments should accompany their reliance on minimum wages with measures and incentives to promote collective bargaining. This section addresses how this should be done and how it can be done.

### *Promoting a coordinated approach<sup>99</sup>*

One basic ILO principle is that collective bargaining should take place within a framework that upholds the right to freedom of association. Freedom of association is char-

<sup>98</sup> Some like Neumark (2008) have argued that a negative income tax would in fact be more efficient in the fight against poverty and would benefit all the poor – whether or not they are in the labour market. In practice, however, the applicability of such tax systems is controversial and questionable, not least because of the effect on incentives for employers to transfer the cost of decent wages onto the State.

<sup>99</sup> Part of this section draws on ILO (2007) and ILO (2008).

acterized by a number of elements, including the recognition of the right of workers and employers to associate freely, without interference by the State, and to establish organizations of their own choice. Workers should also be protected against acts of anti-union discrimination by employers, such as the dismissal of unionized workers. Despite some significant positive developments in recent years, freedom of association remains a challenge. Government intervention in trade union activities remains a recurrent problem and the number of complaints received by the ILO concerning acts of anti-union discrimination and interference has increased. Several countries also continue to exclude important categories of workers from the right to collective bargaining, particularly domestic workers, agricultural workers, seafarers and public servants. In some countries, the murder of trade unionists also remain a serious concern.

In addition to guaranteeing freedom of association, governments should create an enabling environment to promote collective bargaining at all different levels – company, industry, sectoral and national – and ensure that these levels are connected. Indeed, it is now increasingly recognized that bargaining systems in which the different levels of bargaining are coordinated can lead to more efficiency and equity. Unions and employers who are involved at different levels have been found to take into account the broader needs of the economy when negotiating collective bargaining arrangements.<sup>100</sup> In Central and Eastern European countries, for example, the lack of intermediary sectoral bargaining between the national tripartite bodies and enterprise-level wage fixing has led to a disconnection between the wage increases decided at the national level and the actual wage increases observed at enterprise level.<sup>101</sup>

### *Examples of measures to activate collective bargaining*

The previous section emphasized the importance of promoting collective bargaining at different levels. To address how this can be done, this section provides a number of examples, some of which are clearly more country specific and difficult to replicate in different circumstances than others.

Recent experience in Latin America suggests that state intervention can be effective in activating or reactivating collective bargaining. In the 1990s, shortcomings in social dialogue and the search for flexibility and promotion of enterprise-level bargaining throughout the region had been identified as some of the causes explaining its large wage inequalities. The ILO considered that countries in “Latin America recovered more slowly from external shocks because they lacked institutions that would have allowed them to process distributive conflicts generated by international turbulences”.<sup>102</sup> Since then, however, a number of countries in the region have tried to redevelop their wage and collective bargaining institutions.

The stimulation of collective bargaining turned out to be an important channel through which economic growth led to improvement in wage trends in Argentina,

<sup>100</sup> See Marginson and Sisson (2004) for a European comparative assessment. See also Tzannatos and Aidt (2008) for a more general review. See also Baccaro and Simoni (2007).

<sup>101</sup> Ghellab and Vaughan-Whitehead (2003).

<sup>102</sup> ILO (2002).



where the Government's decision to push for higher wages ultimately stimulated collective bargaining. There, the Government, in agreement with social partners, imposed fixed general wage increases by decree – which were incorporated as of 2003 by social partners into collective agreements. This progressively reactivated genuine collective bargaining to all sectors of activity, and the number of workers covered increased from 1.2 million in 2004 to 2.1 million in 2005 and 3.5 million in 2006. Another example in Latin America is the case of Uruguay, where the Government implemented an active tripartite policy (see box 3).

In other regions, too, there have been attempts to activate collective bargaining alongside minimum wage policies. In Asia, one example is Cambodia (see box 4). Some promising trends have been observed in some European and CIS transition countries, where collective bargaining has been boosted in the hope of improving wage developments. In Bulgaria, for example, the “Pact on economic and social development

### Box 3 Uruguay: Reactivating collective bargaining and wage policy

In 2005, Uruguay's Government identified the promotion of social dialogue and collective bargaining as among its top priorities. This objective was pursued through a comprehensive strategy based on three main pillars: the adoption of a series of laws to promote collective bargaining and trade union activities; the development of national tripartite mechanisms for social dialogue; and the reactivation of collective bargaining and wage councils at sectoral level, in order to stimulate wage bargaining, including in the formerly excluded public sector and in agriculture.

At the same time, the Government decided to play an active role in wage fixing, through two major means. First, the Government reactivated tripartite sectoral wage councils, which were asked to negotiate wage agreements and to adjust wages twice a year in line with past and expected inflation. Wage councils also were given the role of determining minimum wages for each category of workers. Second, the Government chose to uprate the national minimum wage so that it would recover its previous function, namely to provide a decent wage floor. For this purpose, the Government also stopped the official practice of using the minimum wage as the basis for calculating all social benefits.

This shift in government policy had direct effects on both collective bargaining and wages. The return to collective bargaining rounds after many years led to a number of agreements being adopted by consensus between the three sides. A few agreements have introduced more refined wage-fixing criteria (such as enterprise size or geographic location) or have been extended to cover non-wage issues such as health and safety, training and non-wage benefits.

In the context of economic recovery following a deep crisis, and with the reactivation of minimum wages and collective bargaining, the trend of deterioration of wages was stopped. In 2005–06, average wages in real terms increased by 9.1 per cent, while wage disparity also decreased. Together with increased employment and social protection plans, this may have contributed to the Government's success against poverty, which was reduced by 13.7 per cent in 2005–06. The gender pay gap, regional pay gaps and wage disparity between workers of different educational levels were also reduced. Wage dispersion, however, remains very high in Uruguay.

Source: Contribution from Juan Manuel Rodriguez and Graciela Mazzuchi.



#### Box 4 Cambodia: The minimum wage as a foundation for collective bargaining

Cambodian labour law states that the minimum wage shall be set by the ministry responsible for labour, after receiving recommendations from the Labour Advisory Committee (LAC), the country's highest tripartite consultative body (Kingdom of Cambodia, Labour Law, article 107, paragraph 2; 1997).

Cambodia has witnessed two minimum wage setting episodes, one in 2000 and the other in 2006. A third wage adjustment took place in April 2008. All have applied only to the textile, garment and shoe sectors, and all have been preceded by a period of inflation and industrial unrest.

The Government consulted with employers and unions prior to setting the first minimum wage in 2000. By contrast in 2006, the employers and 17 union federations from across the political spectrum took the lead in negotiating the new minimum wage, the social partners' first attempt at industry-wide wage fixing. Although the negotiations were inconclusive, the experience was an important step in establishing social dialogue, and it set the foundation for a change in attitude towards collective bargaining. In the end the Government established the new minimum wage for a three-year period starting from 1 January 2007, following recommendations from the LAC.

In the wake of inflationary pressures, the Government agreed in April 2008 to union demands for additional wage increases. Rather than issue a new minimum wage, the Government has instead labelled it a "cost-of-living adjustment", although the effect is largely the same.

In Cambodia, as in other countries in the region, the ILO consistently tries to distinguish between minimum wage fixing and wage setting through collective bargaining. Enterprise-level collective bargaining, while still in its infancy, is most mature in the hotel industry and continues to develop in the garment, construction and other industries. The ILO in Cambodia supports these developments through policy advice, training and capacity building, and review of laws and regulations. The tripartite constituents agree that the environment for industrial relations and collective bargaining has improved in recent years.

Source: Contribution from John Ritchotte (ILO, Cambodia).

of the Republic of Bulgaria up to 2009" signed by the social partners in 2005 aims to promote both collective bargaining and minimum wages.

A further issue that arises is the appropriate use of "extension mechanisms", under which collective agreements are extended to other employers and workers in an industry or sector. Such extension practices can significantly increase the level of coverage. Indeed, it has been shown that the degree to which extension mechanisms are used in different countries is the most powerful single determinant of variations in the level of bargaining coverage across countries.<sup>103</sup> Extension mechanisms of various kinds are used in almost all European countries<sup>104</sup> and can be powerful tools to stimulate collective bargaining. In particular, obliging employers to implement collective agreements that

<sup>103</sup> Traxler et al. (2001).

<sup>104</sup> EIRO (2002).

they have not signed provides a strong incentive for them to join employers' associations and to participate in the bargaining process.

### *Monitoring collective bargaining and collecting wage statistics*

Finally, monitoring, reporting and statistical analysis of collective agreements trends should represent one basic avenue for promoting collective bargaining. In most countries, due to the lack of a registration process, it is impossible to track and monitor trends in the number of agreements, their content, or possible extension. In Brazil, for example, employers and workers are organized by sectors, occupations and regions – usually starting at the level of municipalities. Furthermore, unions can negotiate either with an employers' association (*convenio colectivo*) or with enterprises directly (*acordo colectivo*). As in many other countries, the absence of centralized registration and monitoring of collective agreements hinders informed policy decision-making.

Solid data on wages should also be collected in order to inform collective bargaining. Indeed, solid wage statistics are not just useful for analysis and macro policy development but are also critical in creating a favourable environment for social dialogue on wages. Without a shared understanding of key wages statistics, collective negotiations between workers and employers at various levels (including tripartite negotiations over minimum wages) may not be as constructive as needed. In some cases, even when such data are available to both parties, confidence is lacking on how the statistics have been created and their reliability may even be questioned. Therefore, the importance of reliable and transparent wage statistics in promoting effective wage bargaining cannot be overestimated. Transparency and reliability should be ensured in both data collection and data processing, and the resulting wage statistics need be to made available as “public goods” to all members of society, rapidly and in an easily accessible format. These goals and principles are yet to be achieved in many parts of the world, although substantial progress has been made in recent years.



### 7. Main findings and policy implications

Altogether this report has presented a rather disappointing picture for wage earners, despite an apparently favourable economic context. Over the period 2001–07, inflation was low and the global economy grew at 4.0 per cent per year in real terms. The growth in wages, however, lagged behind overall economic performance. According to our estimates, real wages only grew by an estimated 1.9 per cent during 2001–07, notwithstanding the impressive recovery in some current and former transitions countries. For the countries included in our sample, we found that over the period 1995–2007, each additional 1 per cent in the annual growth of GDP per capita only led, on average, to a 0.75 per cent increase in the annual growth of wages. There are some preliminary indications that this wage elasticity (the responsiveness of wage increases to changes in GDP growth) has further weakened in recent years. These trends occurred in a context of growing economic integration, characterized by the increasing international movement of people, goods, services and capital.

The slow growth in wages was accompanied by a decline in the share of GDP distributed to wages compared with profits. We estimate that every additional 1 per cent of annual growth of GDP has been associated on average with a 0.05 per cent decrease in the wage share. We also found that the wage share has declined faster in countries with a higher openness to international trade, possibly because openness places a lid on wage demands based on a fear of losing jobs to imports. Inequality among workers has also increased. Overall, more than two-thirds of the countries included in our sample experienced increases in wage inequality. This was both because top wages took off in some countries and because bottom wages fell relative to median wages in many other countries. The wage gap between women and men is also still high and is closing only very slowly. This is disappointing in the light of women's recent educational achievements and the progressive closing of the gender gap in work experience.

The economic context is now much less favourable and the outlook for 2009 is not so bright. The world economy has now seen a period of higher inflation, mainly due to the rise in energy and food prices, and an overall economic slowdown. The IMF has also revised its global growth forecast down to 3.9 per cent for 2008 and to 3.0 per cent for 2009. These forecasts suggest it is likely there will likely be a prolonged period of slow economic growth. Looking towards the future, prospects for wage growth are therefore rather uncertain. Overall, we expect that in 2008 the growth in real average wages will not exceed 0.8 per cent in developed countries and 2.0 per cent worldwide.

For the year 2009, we estimate – somewhat more tentatively – real wage growth of 0.1 per cent in developed countries and 1.7 per cent worldwide.

For many workers we expect that difficult times lie ahead. Slow or negative economic growth combined with highly volatile prices will erode the real wages of many workers, particularly the low-wage and poorer households. In many countries, the middle classes are also likely to be affected. As a result, tensions are likely to intensify over wages, and the workplace may become more vulnerable to wage-related disputes. Such problems were already reported in various countries during the summer of 2008, such as in Viet Nam, Bangladesh and many other Asian and African countries. There is also a risk of seeing increases in the number of working poor and a general rise in poverty.

What can be done? In the short term, governments are encouraged to display a strong commitment towards protecting the purchasing power of their populations and hence stimulating internal consumption. This requires a coherent combination of wage policies. First, collective bargaining should be promoted, and social partners should be encouraged to negotiate ways to prevent a further deterioration in the wage share and growth of wage differentials – while taking into account the specific conditions in their sector or enterprise. Second, the levels of minimum wages should be maintained wherever possible to protect the most vulnerable workers. In the current context, it would be neither fair nor economically desirable to make wages the only adjustment variable. If wages bear a disproportionate part of the burden, the result will be a further decline in the share of wages relative to the share of profits in GDP.

This emphasis on minimum wages and wage bargaining should be complemented by public intervention through income support measures. This would benefit poorer households. Furthermore, as highlighted in the report, the majority of wage earners around the world are unorganized or not covered by collective agreements. In addition, the recent macroeconomic developments are likely to make wage bargaining more difficult, as pressures on enterprises are increasing. This means that wage bargaining alone is unlikely to be sufficient in coping with the current macroeconomic pressures.

What about the medium term? Our findings concerning the impact of institutional factors on wages suggest that wage outcomes can be improved by making labour market institutions more effective. Higher coverage of collective bargaining improves the transmission between economic growth and the growth of wages. We have calculated that in countries where collective bargaining covered more than 30 per cent of employees, any additional 1 per cent of economic growth was accompanied by a 0.87 per cent growth in wages, compared with only 0.65 per cent wage growth in countries with lower coverage. Our interpretation is that collective bargaining is helpful in strengthening the link between productivity and wages. In addition, our analysis shows that collective bargaining contributed to lower overall wage inequality. Minimum wages can also be used effectively to reduce wage inequality in the bottom half of the labour market.

These results support the view that there is a need to revitalize labour market institutions.<sup>105</sup> There is a need to reiterate the principle that bargaining and negotiation are the most effective methods of wage determination since they reflect the needs and interests of both workers and employers. There is also a need to revisit minimum wages, considering the contribution they could make in the new global context. There is also an urgent need to strengthen the coherence between wage policies and other social and economic policies, with a view to contributing towards the objective of ensuring decent wages and social justice for workers in both developed and developing countries.

## 8. Emerging issues and the way forward

While the suggestions put forward in the previous section indicate overall policy directions, more research and analysis are needed to translate them into concrete and innovative policy measures that can be readily considered for policy actions in countries around the world. It must also be emphasized that this report, as the first output of ILO's new initiative to provide global trends in wages, is focused on macro-level developments across countries. Therefore, it does not include detailed analysis of more complex developments within countries; for instance, across different sectors or between different groups of workers. With a view to developing policy interventions with more direct applicability, the following issues (among others) deserve more systematic research work.

Wages developments need to be more closely monitored, and wages statistics and analytical methodology need to be improved. As emphasized throughout the report, the key challenge in this regard is to improve global wages statistics by extending the country coverage and enhancing data quality. This is of great importance for ensuring continued improvement in the global estimates of wage growth and in the analysis of the relationships between wages and relevant macroeconomic variables such as labour productivity. Better statistics are certainly essential for improving our understanding of how wages react to changes in economic growth and labour productivity and for documenting trends in the wage share (the proportion of GDP that goes to compensating employees).

Wage differentials, or inequality, are increasingly important around the globe for numerous reasons. While this report outlines key aspects of recent developments, this issue deserves much more in-depth analysis. For instance, the gender pay gap needs to be more thoroughly investigated, with a special focus on the developing world. The size of and change in the gender pay gap and its underlying factors should be identified and used as a base for policy decisions. It should also be noted that diversification in the workforce and in employment patterns will have implications for wages. These need to be scrutinized, particularly given the growing concern about the risk of discriminatory treatment attached to certain types of workers and employment. For instance, research

<sup>105</sup> On this, see also Berg and Kucera (2008).

on the wage consequences of informality, non-standard work and migration is required for the development of better policy responses.

Of equal importance is the issue of how minimum wage systems can be better designed and managed. There has been an intensification of research aimed at identifying a list of elements that will help ensure the effectiveness and relevance of minimum wages systems, based on the experiences of various countries. However, these elements need to be further elaborated to guide policy decisions on minimum wages. At the same time, more attention needs to be paid to how to reflect price changes when setting the levels of minimum wages to protect low-paid workers while at the same time avoiding the risk of contributing to accelerating inflation. The automatic indexation scheme has been dropped in many countries for precisely this reason.

While the report concentrates on changes in the levels of wages, it is well known that the way in which wages are determined and paid also matters. Different wage-fixing mechanisms can create different incentives (both positive and negative) for workers and can also result in different wage levels. Therefore, the importance of the pay system should not be underestimated. In this regard, performance-related pay and profit-sharing schemes, which relate wages to profits or other measures of enterprise performance and which have attracted much attention in both the industrialized and developing worlds, are worth exploring further. It would be worth studying in more detail how the development of these schemes could help preserve the wage share for workers while also responding to employers' concerns that wages be aligned with productivity levels. Another area that concerns many countries and requires in-depth analysis is how to reform public sector pay, in order to bring pay levels into line with the private sector and to ensure the overall coherence of national wage policies.

Finally, the role of collective bargaining in wage determination deserves further research work. This is due, in particular, to the ongoing discussions about changes in union membership and the collective bargaining structure in industrialized countries and the important initiative to promote collective bargaining in transition and developing countries. As discussed in the report, it is very important to understand how to maximize the benefits of the complementary use of minimum wages and collective bargaining. The wage implications of variations in the structure of the bargaining system and its coordination mechanism are also areas for further research work. A particularly important challenge is to investigate ways to extend collective agreements on wages to non-union members, particularly workers in non-standard employment or informal workers.



## Technical appendix I: The wage share

### *Definitions and methods*

The wage share is normally measured by comparing total compensation of employees to gross domestic product (GDP). The so-called “unadjusted” wage share is defined as the total compensation for employees as a percentage of GDP. This is measured as follows:

$$\text{Unadjusted wage share} = \text{Total compensation of employees/GDP}$$

The problem with this method, however, is that the result depends on knowing both the number of employees and their wages (which must be multiplied to obtain the total compensation of employees). This makes interpretation difficult, particularly in the case of long-term series data. For instance, empirical studies that examine the increase in the wage share in the first half of the twentieth century in the United States indicate that much of the increase was attributable to the growth of wage employment rather than to the growth in the level of wages. Hence, it is preferable to define a so-called “adjusted” wage share, which is usually measured as follows:

$$\text{Adjusted wage share} = (\text{Total compensation per employee} \times \text{Total employment})/\text{GDP}$$

Unfortunately, when comparable consistent time-series data for employment structure are not available, it is impossible to estimate the *adjusted* wage shares. Therefore, in this report we have computed only *unadjusted* shares (presented in panel B of figure 13). This is unfortunate because there is large-scale self-employment in many developing countries. For this reason, great caution is needed in interpreting the data, and a simple cross-country comparison of the absolute levels is discouraged. Due to these limitations, the report concentrates on changes within a relatively short period of time (about ten years) and within, not between, countries.

As more general caveats, the following points need to be noted in interpreting the wage share. First, the compensation of employees conceptually differs from labour income, as some important forms of non-wage compensation may not be included. Second, when the focus is extended to cover the self-employed (and so “labour income” more generally), measurement problems become even more challenging. Some studies have attempted to impute the labour income from self-employment when analysing the wage share.<sup>106</sup> In fact, if we assume that the self-employed command the same wage rate as people who work as employees, the adjusted wage share can be seen as an approximate measure of labour share. However, it is not entirely clear if this is an acceptable approach based on sound empirical evidence.<sup>107</sup>

<sup>106</sup> See, for example, European Commission (2007a).

<sup>107</sup> See, for example, Krueger (1999).



### Panel regressions

In order to investigate correlations between *changes* in trade, foreign direct investment (FDI) and the wage share in recent years, we created two panel datasets. The first panel comprises the adjusted wage shares, covering the years 1995–2007, mostly for developed and middle-income countries; the second panel consists of the unadjusted wage shares for the period 1995–2006, mostly for developing nations. Compared with other quantitative methods, the panel regression modelling makes better use of the data and improves estimates by controlling for heteroscedasticity across panels. In the model, GDP growth is also included to take into account its potential relationship with the wage share.

Table A1 shows the results for panel regression on the wage share. The first model demonstrates how the (adjusted) wage share responds to economic growth and the trade share. The second model focuses on the unadjusted wages share, primarily for developing nations. No countries are presented twice in the panels. In addition, we also pooled two datasets in an attempt to assess the overall impacts. This of course involves the risk of pooling together two non-comparable indicators. However, we are interested only in changes over time within countries, which reduces such a risk quite considerably.

The results show that economic development and the wage share moved in different directions over the past ten years. Overall, a 1 per cent annual growth in GDP is associated with a 0.047 per cent decrease in the wage share. This negative correlation is particularly strong in the case of the unadjusted wage share (developing countries).

**Table A1 Panel regression results on the change in wage share**

	Model I (adjusted wage share) coefficient	Model II (unadjusted wage share) coefficient	Model III (pooled data) coefficient
Constant	-0.047 (0.082)	0.249** (0.127)	0.014 (0.065)
Annual change in GDP	-0.043* (0.025)	-0.071*** (0.026)	-0.047*** (0.017)
Annual change in trade ratio	-0.049*** (0.01)	-0.048*** (0.013)	-0.05*** (0.008)
Annual change in FDI ratio	-0.013 (0.012)	0.027 (0.028)	-0.002 (0.010)
Observations	370	233	603
Panels	36	28	64
Wald chi <sup>2</sup>	41.31	22.61	60.61

Notes: \*\*\*, \*\* and \* denote that the parameter is significant at 1%, 5% and 10% levels, respectively; standard errors in brackets.

FGLS is used to estimate panel-data models; trade ratio refers to the proportion of trade (import + export) volume in GDP; FDI ratio indicates the proportion of FDI (net inflow) in GDP. All the original data are from the World Bank's World Development Indicators; GDP is measured at constant prices; the original data are from IMF's World Economic Outlook Database. For further details on the dataset, see Statistical Appendix.

It is shown in table A1 that, for all three models, the coefficients for the trade ratio variable also have significant negative values, which indicates that growing trade share as a percentage of GDP may have contributed to the decline in wage share in the past decade. In our pooled model we find that every 1 per cent increase in the ratio of trade (imports + exports) to GDP is associated with a 0.05 per cent decrease in the wage share. Surprisingly, the magnitude of the response of wage share to the changes in trade ratio is almost the same across the three models. By contrast, the results for the FDI ratio are mixed, yet no significant findings are observed. It must also be pointed out that we did not control for the possible influence of technology on the wage share. If technological progress is associated with rising trade share, there is a possibility that the effects of trade and technology could be difficult to disentangle.

## Technical appendix II: Institutions and inequality

Collective bargaining is known to be an effective tool for compressing wage differentials in the case of industrialized countries. Less is known about the statistical effect of minimum wages on differences in wage inequality across countries. We therefore ran the following simple panel regressions. We see in table A2 that collective bargaining is associated with less overall wage inequality (D9/D1) and also less inequality in the bottom half of the labour market (D5/D1). Minimum wages by contrast are associated with less wage inequality in the lower part of the labour market (D5/D1) but, somewhat surprisingly, with higher overall inequality (D9/D1). This may point to some reverse causality, whereby countries with higher overall inequality also tend to use minimum wages more vigorously. At the same time, estimation results tend to be sensitive to changes in model specification. However, the negative relationship between trade and the wage share, as reported earlier, remains significant and strong, even if these institutional factors are taken into account.

The possible correlations between the wage share and institutional factors have been discussed in recent international reports.<sup>108</sup> These reports give some empirical support to this linkage in the case of industrialized countries. Using the statistical strategy that we applied for wage inequality, a series of statistical analyses (both panel and cross-section) was undertaken on our new data on the wage share, which were far more extensive than the existing dataset. We found that while both collective bargaining coverage and minimum wages are positively correlated with the wage share, the coefficients are not statistically significant (full details are not reported here but are available upon request from [travail@ilo.org](mailto:travail@ilo.org)). At the same time, estimation results tend to be sensitive to changes in model specification. However, the negative relationship between trade ratio and the wage share, as reported earlier, remains significant and strong, even if these institutional factors are taken into account.

<sup>108</sup> European Commission (2007a); European Commission (2007b); IMF (2007a); IMF (2007b); OECD (2007).

Table A2 Wage inequality and institutional factors

Dependent variable	Independent variable	Model I	Model II	Model III
D9/DI ratio	Constant	6.414*** (0.097)	6.513*** (0.143)	6.570*** (0.150)
	Annual GDP per capita growth		-0.015 (0.018)	-0.027 (0.019)
	Annual change in trade ratio			0.008 (0.007)
	Annual change in FDI ratio			-0.010 (0.012)
	Collective bargaining coverage (=1 if the coverage>30 %)	-2.277*** (0.110)	-2.43*** (0.124)	-2.571*** (0.131)
	Ratio of MW to AW (=1 if the ratio>=0.4)	0.641*** (0.176)	0.629*** (0.182)	0.689*** (0.185)
	No. of observations	225	225	220
	Panels	28	28	28
D5/DI ratio	Constant	2.716*** (0.055)	2.769*** (0.063)	2.772*** (0.064)
	Annual GDP per capita growth		-0.017* (0.010)	-0.012 (0.011)
	Annual change in trade ratio			-0.001 (0.005)
	Annual change in FDI ratio			0.001 (0.004)
	Collective bargaining coverage (=1 if the coverage>30 %)	-0.538*** (0.069)	-0.548*** (0.069)	-0.636*** (0.068)
	Ratio of MW to AW (=1 if the ratio>=0.4)	-0.169** (0.073)	-0.173** (0.073)	-0.093 (0.074)
	No. of observations	214	214	209
	Panels	27	27	27

Notes: \*\*\*,\*\* and \* denote that the parameter is significant at 1%, 5% and 10% levels, respectively; standard errors in parentheses.

FGLS is used to estimate panel-data model; Model I only takes into account institutional factors, i.e. collective bargaining coverage and ratio of minimum wage (MW) to average wage (AW), which are specified as dummy variables. In Model II, both GDP per capita growth and institutional factors are included. Model III is a full model including changes in trade and FDI ratios. Trade ratio refers to the proportion of trade (import + export) volume in GDP; FDI ratio indicates the proportion of FDI (net inflow) in GDP; annual GDP per capita growth, trade ratio and FDI ratio are from World Bank's World Development Indicators database. For further details on the dataset, see Statistical Appendix.

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# *Statistical appendix*<sup>109</sup>

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<sup>109</sup> The full data set is available from the ILO website at <http://www.ilo.org/public/english/protection/condtrav/>.

## Appendix table A1: Average wages and the “wage share”

Table A1 comprises the average growth rates of real wages. This indicator captures changes in the purchasing power of wages. The table shows simple average annual growth rates in two time periods. The first period includes the years 1995–2000; the second period covers the years 2001–06/07. The wage statistics used in this report consist of the total remuneration received by employees for a given period of time, for the time worked as well as the time not worked (such as for annual vacations), including regular bonuses. Unless otherwise specified, the level of wages in principle refers to gross earnings. We report *changes* in wages rather than the *levels* of wages. This is because cross-country comparisons in the levels of wages are influenced by the use of different data collection methods and by the fact that some countries report monthly wages while others report weekly or hourly wages. To estimate growth in real wages, we first calculate real wages by dividing nominal wages by the consumer price index (CPI), and we then apply the formula:

$$GR_t = \left( \frac{RW_t}{RW_{t-1}} - 1 \right) \times 100$$

where  $GR_t$  is the growth in real wages at the year  $t$ ,  $RW_t$  is the level of real wages at the year  $t$ , and  $RW_{t-1}$  is the level of real wages in the year  $t-1$ .

Table A1 also shows simple average levels of the share of wages in GDP (the so-called “wage share”) during the same two periods of time. We report estimates of “adjusted” and “unadjusted” wage shares over two time periods respectively. The latter is the total compensation of employees as a share of GDP, while the former also adds a fraction of the incomes of self-employed workers (for more details see Technical appendix I). Our table also reports the so-called “trend coefficient”, the sign of which indicates the direction of the change in the wage share over the two periods. A positive sign denotes an upward trend in the wage share from 1995 to 2007, whereas a negative coefficient shows a downward trend.<sup>110</sup> The trend coefficient  $\beta$  for each country is calculated as:

$$Ws_t = \alpha + \beta t$$

where  $Ws_t$  represents the level of wage share and the time variable  $t$  is known as the trend variable.

<sup>110</sup> The relatively volatile changes in wage share means there is sometimes a discrepancy between the direction of the change in average wage share and the sign of the trend coefficient. This is because the average wages data are not continuous, but the trend coefficients take into account all the data for these years.

## Data sources

The data on wages were obtained from international sources (such as UNECE, Eurostat and the Statistical Committee of the CIS) as well as from national sources, usually national statistical offices. For countries in Latin America and the Caribbean, average wages were estimated directly by the ILO/SIAL (Labour Analysis and Information System) from country-level household survey data. Data on the CPI were obtained from the IMF's World Economic Outlook database. Data on the adjusted wage share were taken from AMECO, the annual macroeconomic database of the European Commission's Directorate General for Economic and Financial Affairs (DG ECFIN). The unadjusted wage shares are our own estimates, using employee compensation and GDP published in the United Nations' *National Accounts*, 2008.

**Statistical appendix Table A1**

	Average real wage growth (%)		Adjusted wage share (%): average			Unadjusted wage share (%): average		
	1995–2000	2001–07	1995–2000	2001–07	Trend coefficient	1995–2000	2001–05/06	Trend coefficient
<i>Africa</i>								
Algeria	4.95	5.63						
Angola								
Benin								
Botswana	7.91	-0.12				32.91	32.79	-0.12
Burkina Faso								
Burundi								
Cameroon						20.21	19.69	-0.17
Cap Verde								
Central African Rep.								
Chad								
Comoros								
Congo, Rep. of								
Congo, Dem. Rep. of								
Côte d'Ivoire						22.15		-0.12
Djibouti								
Egypt	8.62	0.14				27.15	28.04	0.24
Equatorial Guinea								
Eritrea								
Ethiopia								
Gabon								
Gambia								
Ghana								

	Average real wage growth (%)		Adjusted wage share (%): average			Unadjusted wage share (%): average		
	1995–2000	2001–07	1995–2000	2001–07	Trend coefficient	1995–2000	2001–05/06	Trend coefficient
Guinea								
Guinea-Bissau								
Kenya						33.56	37.01	0.63
Lesotho						18.39	16.01	-0.46
Liberia								
Libyan Arab Jamahiriya								
Madagascar								
Malawi								
Mali								
Mauritania								
Mauritius	2.33	1.34						
Morocco								
Mozambique						19.31	26.29	1.74
Namibia						41.14	37.88	-0.53
Niger						16.74	14.92	-0.31
Nigeria								
Reunion								
Rwanda								
Sao Tome and Principe								
Senegal								
Seychelles	-0.13	0.15						
Sierra Leone								
Somalia								
South Africa						49.57	45.36	-0.7
St. Helena								
Sudan								
Swaziland								
Tanzania, United Rep. of								
Togo								
Tunisia						36.64	36.90	-0.08
Uganda								
Zambia								
Zimbabwe								

*Asia and the Pacific*

Afghanistan  
Bangladesh  
Bhutan  
Brunei

	Average real wage growth (%)		Adjusted wage share (%): average			Unadjusted wage share (%): average		
	1995–2000	2001–07	1995–2000	2001–07	Trend coefficient	1995–2000	2001–05/06	Trend coefficient
Cambodia								
China	9.43	12.93				55.15	51.95	-0.72
Cook Islands								
East Timor								
Fiji	-2.75							
French Polynesia								
Guam								
Hong Kong (China)						49.37	52.83	0.82
India	1.09	1.58						
Indonesia	1.22	4.19						
Kiribati								
Korea, Dem. People's Rep. of								
Korea, Rep. of	3.23	4.11	72.08	67.85	-0.63			
Lao								
Macau (China)						33.35	32.44	0.31
Malaysia								
Maldives								
Marshall Islands								
Mongolia		3.62				24.75	25.90	0.10
Myanmar								
Nauru								
Nepal								
New Caledonia								
Niue								
Northern Mariana Islands								
Pakistan								
Papua New Guinea						23.40	20.94	-0.80
Philippines						26.63	24.68	-0.26
Samoa (American)								
Samoa (Western)								
Singapore	5.75	1.80						
Solomon Islands								
Sri Lanka	0.36	-0.77						

	Average real wage growth (%)		Adjusted wage share (%): average			Unadjusted wage share (%): average		
	1995–2000	2001–07	1995–2000	2001–07	Trend coefficient	1995–2000	2001–05/06	Trend coefficient
Taiwan (China)	1.71	0.16						
Thailand	-0.02	0.59						
Tokelau								
Tonga								
Tuvalu								
Vanuatu	-3.00	5.13						
Viet Nam								
Wallis and Futuna Islands								

#### Central and South-Eastern Europe and CIS

Albania	6.04	8.28						
Armenia	17.11	14.78				41.33	40.28	-0.04
Azerbaijan	25.93	16.43				21.94	23.95	0.36
Belarus	11.36	15.20				43.32	46.12	0.38
Bosnia and Herzegovina	17.20	4.12						
Croatia	7.30	2.61	69.60	65.78	-0.59			
Georgia	24.23	17.89						
Kazakhstan	6.93	10.93				37.32	33.58	-0.64
Kyrgyzstan, Rep. of	3.10	13.65				33.16	25.87	-1.25
Macedonia, former Yugoslav Rep. of	1.15	2.78						
Moldova, Rep. of	1.20	13.82						
Montenegro								
Russian Federation	0.71	14.13				45.99	45.10	-0.41
Serbia	-1.99	14.58						
Tajikistan	-3.67	21.96						
Turkey		2.85	62.23	56.93	-0.63			
Turkmenistan	30.34	35.25						
Ukraine	-2.87	18.37				45.76	44.83	-0.18
Uzbekistan	12.50	35.17						

#### Developed economies and the European Union

Andorra								
Australia	1.76	1.41	58.06	55.32	-0.36			
Austria		0.74	61.55	57.14	-0.69			
Belgium	0.91	0.78	61.96	60.92	-0.25			
Bulgaria	10.69	2.31	54.90	47.08	-1.15			

	Average real wage growth (%)		Adjusted wage share (%): average			Unadjusted wage share (%): average		
	1995–2000	2001–07	1995–2000	2001–07	Trend coefficient	1995–2000	2001–05/06	Trend coefficient
Canada	0.91	0.13	57.79	56.08	-0.27			
Cyprus	1.95	2.58	57.03	57.16	-0.01			
Czech Rep.	3.48	4.43	50.69	52.56	0.22			
Denmark	0.97	0.83	56.88	57.32	0.03			
Estonia	5.39	7.50	52.24	48.77	-0.45			
Finland	1.54	2.32	55.65	54.51	-0.19			
France	0.38	0.60	57.37	57.32	-0.04			
Germany	0.40	0.51	59.16	57.38	-0.33			
Gibraltar								
Greece	3.49	1.41	54.36	52.22	-0.24			
Greenland								
Hungary	1.72	6.86	52.81	52.50	-0.18			
Iceland	4.26	1.85	65.29	68.93	0.79			
Ireland			52.74	48.95	-0.50			
Isle of Man								
Israel	2.98	0.20						
Italy			55.21	53.85	-0.21			
Japan	-0.62	-0.60	65.19	61.38	-0.56			
Latvia	3.73	9.42	52.46	47.10	-0.56			
Liechtenstein								
Lithuania	6.51	7.29	50.83	49.44	-0.03			
Luxembourg			51.03	50.77	-0.21			
Malta	-4.53	-0.91	51.58	51.22	-0.16			
Monaco								
Netherlands	1.42	1.19	59.76	58.58	-0.21			
New Zealand	1.03	1.13	46.80	46.94	0.10			
Norway	2.25	2.50	50.79	46.49	-0.70			
Poland	4.26	2.07	57.11	50.87	-1.00			
Portugal		0.59	63.75	64.18	-0.02			
Romania	-2.28	8.57	64.63	67.89	0.39			
San Marino								
Slovakia	1.51	3.12	45.25	43.29	-0.29			
Slovenia	-2.12	-0.48	65.57	62.97	-0.48			
Spain	-0.23	0.02	59.66	55.95	-0.58			
St. Pierre and Miquelon								
Sweden		1.08	56.96	58.66	0.14			
Switzerland						64.04	67.25	0.52
United Kingdom	6.35	3.12	62.44	63.84	0.17			
United States		0.03 <sup>1</sup>	62.49	62.10	-0.08			



	Average real wage growth (%)		Adjusted wage share (%): average			Unadjusted wage share (%): average		
	1995–2000	2001–07	1995–2000	2001–07	Trend coefficient	1995–2000	2001–05/06	Trend coefficient
<i>Latin America and the Caribbean</i>								
Anguilla								
Antigua and Barbuda								
Argentina	0.21	0.13				55.87	56.61	0.25
Aruba								
Bahamas								
Barbados								
Belize								
Bermuda								
Bolivia						34.03		0.48
Brazil	-1.84	0.25				38.19	37.03	-0.14
British Virgin Islands						37.32	40.52	0.51
Cayman Islands								
Chile						39.75	39.42	-0.05
Colombia	-4.85	13.03				36.53	34.36	-0.35
Costa Rica	1.10	-0.27				44.87	47.23	0.24
Cuba						36.61	34.36	-0.37
Dominica								
Dominican Rep.	2.25	-10.06						
Ecuador		4.51						
El Salvador	1.24	-3.23						
French Guiana								
Grenada								
Guadeloupe								
Guatemala	5.13	-0.19						
Guyana								
Haiti								
Honduras	4.55	-0.18						
Jamaica								
Martinique								
Mexico	3.12	1.60	42.71	43.55	-0.01			
Montserrat								
Netherlands Antilles								
Nicaragua	2.61	3.22						
Panama	0.92	-1.62						
Paraguay	1.51	-0.42						

	Average real wage growth (%)		Adjusted wage share (%): average			Unadjusted wage share (%): average		
	1995–2000	2001–07	1995–2000	2001–07	Trend coefficient	1995–2000	2001–05/06	Trend coefficient
Peru	-0.34	-1.79						
Puerto Rico								
Saint Kitts and Nevis								
Saint Lucia								
Saint Vincent and Grenadines								
Suriname								
Trinidad and Tobago								
Turks and Caicos Islands								
Uruguay	3.39	-7.06						
Venezuela						32.55	32.96	0.33
Virgin Islands (US)								

#### *Middle East*

Bahrain	-0.96	-3.20				37.27	35.99	-0.26
Iran						23.78	23.21	-0.07
Iraq								
Jordan		0.61						
Kuwait								
Lebanon								
Oman								
Qatar								
Saudi Arabia								
Syrian Arab Rep.								
United Arab Emirates								
West Bank and Gaza								
Yemen								

Note: <sup>1</sup> Refers to median wages.

## Appendix table A2: Minimum wages

Table A2 provides information on minimum wages. The first two columns show the ratification as of 1 January 2008 of the Minimum Wage-Fixing Machinery Convention No. 26 and of the Minimum Wage Fixing Convention No. 131. A value of “1” indicates ratification, a value of “0” indicates an ILO member State which has not ratified, and a blank indicates that the country is not an ILO member State. Next, table A2 shows three indicators of trends over the period 2001–07: (1) the annual *increase* in the minimum wage in real terms, calculated as the change in nominal minimum wages divided by changes in the level of consumer price indices (CPI); (2) the percentage point change in the ratio of the minimum wages to GDP per capita; and (3) the percentage point change in the ratio of the minimum wage to average wages. Finally, table A2 also provides some indicators of the *level* of minimum wages, namely: (1) the minimum wage expressed in international dollars using purchasing power parity (PPP) rates (an international dollar has the same purchasing power as a US dollar has in the United States); (2) the minimum wage as a percentage of GDP per capita; and (3) the minimum wage as a percentage of average wages.

### Data sources

The data on minimum wages are mostly from national sources and have been collected over the years by the ILO and made available to the public through the ILO legal database (<http://www.ilo.org/public/english/protection/condtrav/>). For the purpose of the present report, this database has been complemented and updated.

Statistical appendix Table A2

	Ratification of ILO Conventions (as of 01.01.2008)		Changes in minimum wages (MW) over the period 2001–07			Level of the minimum wage (2007 or latest)		
	Convention No. 26	Convention No. 131	Annual growth (real) (%)	MW / GDP per capita (%)	MW / average wages (%)	PPP (US\$)	MW / GDP per capita (%)	MW / average wages (%)
<i>Africa</i>								
Algeria	0	0	3.50%	-16.16%		294	53.97%	
Angola	1	0	2.84%	-23.12%		126	27.03%	
Benin	1	0	0.00%	-1.17%		136	106.16%	
Botswana	0	0	0.04%	-4.56%	0.15%	209	15.25%	
Burkina Faso	1	1	0.30%	-22.14%		158	151.37%	
Burundi	1	0						
Cameroon	1	1	-2.46%	-9.19%		94	53.77%	
Cap Verde	0	0						
Central African Rep.	1	1						
Chad	1	0	-0.40%	-93.11%		131	93.93%	

	Ratification of ILO Conventions (as of 01.01.2008)		Changes in minimum wages (MW) over the period 2001–07			Level of the minimum wage (2007 or latest)		
	Convention No. 26	Convention No. 131	Annual growth (real) (%)	MW / GDP per capita (%)	MW / average wages (%)	PPP (US\$)	MW / GDP per capita (%)	MW / average wages (%)
Comoros	1	0						
Congo, Rep. of	1	0						
Congo, Dem. Rep. of	1	0	-16.24%	0.00%		351		
Côte d'Ivoire	1	0		-		126	87.82%	
Djibouti	1	0						
Egypt	1	1	9.05%	7.45%		174	38.03%	
Equatorial Guinea	0	0						
Eritrea	0	0						
Ethiopia	0	0	3.58%	-35.72%		116	173.38%	
Gabon	1	0						
Gambia	0	0						
Ghana	1	0	5.91%	8.29%		115	96.68%	
Guinea	1	0						
Guinea-Bissau	1	0						
Kenya	1	1	4.33%	39.93%		225	158.63%	
Lesotho	1	0	-2.14%	-44.82%		202	189.10%	
Liberia	0	0						
Libyan Arab Jamahiriya	1	1						
Madagascar	1	0	12.13%	31.79%		83	92.76%	
Malawi	1	0	-3.32%	-79.51%		53	81.50%	
Mali	1	0	-0.85%	-23.75%		118	136.92%	
Mauritania	1	0						
Mauritius	1	0	3.12%	-0.91%	2.53%	188	20.21%	
Morocco	1	0	-0.32%	-22.78%		383	112.91%	
Mozambique	0	0	8.50%	60.81%		143	207.06%	
Namibia	0	0						
Niger	1	1	1.58%	-21.94%		125	224.54%	
Nigeria	1	0	-7.91%			133	78.59%	
Reunion								
Rwanda	1	0						
Sao Tome and Principe	0	0						
Senegal	1	0	-2.13%	-29.04%		140	99.87%	
Seychelles	1	0						
Sierra Leone	1	0						
Somalia	0	0						
South Africa	1	0	0.96%	29.98%	-2.95%	244	29.98%	
St. Helena								
Sudan	1	0	19.99%	26.20%		108	59.42%	

	Ratification of ILO Conventions (as of 01.01.2008)		Changes in minimum wages (MW) over the period 2001–07			Level of the minimum wage (2007 or latest)		
	Convention No. 26	Convention No. 131	Annual growth (real) (%)	MW / GDP per capita (%)	MW / average wages (%)	PPP (US\$)	MW / GDP per capita (%)	MW / average wages (%)
Swaziland	1	1						
Tanzania, United Rep. of	1	1	3.20%	-25.73%	-6.66%	116	110.75%	
Togo	1	0						
Tunisia	1	0	0.67%	-12.97%		412	66.15%	
Uganda	1	0	-4.62%	-7.01%			11.16%	
Zambia	1	1	52.03%	42.28%		96	87.57%	
Zimbabwe	1	0						

*Asia and the Pacific*

Afghanistan	0	0						
Bangladesh	0	0	4.63%	2.06%		69	63.60%	
Bhutan								
Brunei	0	0						
Cambodia	0	0	-0.87%	-69.83%		156	103.80%	
China	1	0	8.26%	-9.36%	-6.43%	204	46.28%	37.54%
Cook Islands								
East Timor	0	0						
Fiji	1	0						
French Polynesia								
Guam								
Hong Kong (China)								
India	1	0	1.51%	-13.58%	0.92%	113	50.92%	22.84%
Indonesia	0	0	8.70%	-0.73%	12.06%	142	45.82%	64.03%
Kiribati	0	0						
Korea, Dem. Peoples' Rep. of (North)								
Korea, Rep. of	1	1	8.44%	9.91%	5.64%	815	39.44%	28.85%
Lao	0	0	6.87%	-0.63%		65	38.02%	
Macau (China)								
Malaysia	0	0						
Maldives								
Marshall Islands	0	0						
Nauru								
Mongolia	0	0						
Myanmar	1	0						
Nepal	0	1	3.64%	13.30%		133	132.40%	
New Caledonia								
Niue								

	Ratification of ILO Conventions (as of 01.01.2008)		Changes in minimum wages (MW) over the period 2001–07			Level of the minimum wage (2007 or latest)		
	Convention No. 26	Convention No. 131	Annual growth (real) (%)	MW / GDP per capita (%)	MW / average wages (%)	PPP (US\$)	MW / GDP per capita (%)	MW / average wages (%)
Northern Mariana Islands								
Pakistan	0	0	-1.60%	-24.56%		118	54.50%	
Papua New Guinea	1	0						
Philippines	0	0	0.32%	-26.78%	1.94%	424	150.64%	90.81%
Samoa (American)								
Samoa (Western)	0	0						
Singapore	0	0						
Solomon Islands	1	0						
Sri Lanka	1	1	1.02%	-7.61%		122	36.01%	
Taiwan (China)			0.46%	-5.16%	0.62%	955	38.02%	36.67%
Thailand	0	0	-0.21%	-16.94%	-3.01%	304	46.17%	55.95%
Tokelau								
Tonga								
Tuvalu								
Vanuatu	0	0						
Viet Nam	0	0	13.93%	20.40%	32.57%	120	55.71%	58.45%
Wallis and Futuna Islands								

#### Central and South-Eastern Europe and CIS

Albania	1	1						
Armenia	1	1	25.60%	10.10%	5.59%	109	26.49%	26.01%
Azerbaijan	0	1	46.51%	5.34%	8.31%	97	15.27%	18.69%
Belarus	1	0	59.37%	19.07%	22.87%	196	21.57%	25.80%
Bosnia and Herzegovina	0	1						
Croatia	0	0	1.72%	-10.24%	-2.91%		44.41%	30.68%
Georgia	0	0	-6.31%	-9.76%	-15.72%	24	6.13%	5.42%
Kazakhstan	0	0	15.04%	-4.11%	-0.38%	138	14.99%	19.75%
Kyrgyzstan, Rep. of	0	1	26.24%	7.29%	1.68%	26	15.34%	8.55%
Macedonia, former Yugoslav Rep. of	0	1						
Moldova, Rep. of	0	1						
Montenegro	0	1						

	Ratification of ILO Conventions (as of 01.01.2008)		Changes in minimum wages (MW) over the period 2001–07			Level of the minimum wage (2007 or latest)		
	Convention No. 26	Convention No. 131	Annual growth (real) (%)	MW / GDP per capita (%)	MW / average wages (%)	PPP (US\$)	MW / GDP per capita (%)	MW / average wages (%)
Russian Federation	0	0	29.75%	-3.15%	-5.76%	70	5.69%	8.13%
Serbia	0	1						
Tajikistan	0	0	23.00%	0.24%	-4.90%	19	12.06%	12.12%
Turkey	1	0	6.86%	14.26%	24.67%	605	56.30%	65.02%
Turkmenistan	0	0						
Ukraine	0	1	12.70%	2.43%	-3.88%	208	35.88%	34.05%
Uzbekistan	0	0	13.13%	-2.77%	-10.07%		18.09%	10.54%

#### *Developed economies and the European Union*

Andorra								
Australia	1	1	1.11%	-5.38%	-1.81%	1557	51.53%	57.16%
Austria	1	0						
Belgium	1	0	0.00%	-4.50%	-1.57%	1459	49.98%	40.60%
Bulgaria	1	0	7.03%	0.27%	6.45%	275	29.19%	41.76%
Canada	1	0	-0.05%	-4.48%	-0.13%	1146	35.79%	41.52%
Cyprus	0	0						
Czech Rep.	1	0	6.09%	1.76%	3.00%	560	27.71%	36.80%
Denmark	0	0						
Estonia	0	0	10.05%	-0.41%	4.65%	419	23.84%	33.69%
Finland	0	0						
France	1	1	2.03%	2.65%	3.45%	1402	50.84%	48.29%
Germany	1	0						
Gibraltar								
Greece	0	0	-0.10%	-9.49%	-1.87%	931	33.30%	37.39%
Greenland								
Hungary	1	0	9.26%	-0.68%	-4.37%	498	31.39%	33.83%
Iceland	0	0						
Ireland	1	0	2.94%	-0.65%	0.28%	1450	40.41%	41.61%
Isle of Man								
Israel	0	0						
Italy	1	0						
Japan	1	1						
Latvia	0	1	8.69%	-9.32%	-7.70%	339	23.39%	30.15%
Liechtenstein								
Lithuania	0	1	3.01%	-11.91%	-10.68%	370	25.13%	33.09%
Luxembourg	1	0	1.67%	-4.68%		1655	24.87%	
Malta	1	1	0.51%	-2.26%	3.85%	439	22.98%	53.63%
Monaco								
Netherlands	1	1	0.02%	-3.24%	-2.21%	1483	46.39%	38.28%

	Ratification of ILO Conventions (as of 01.01.2008)		Changes in minimum wages (MW) over the period 2001–07			Level of the minimum wage (2007 or latest)		
	Convention No. 26	Convention No. 131	Annual growth (real) (%)	MW / GDP per capita (%)	MW / average wages (%)	PPP (US\$)	MW / GDP per capita (%)	MW / average wages (%)
New Zealand	1	0	3.31%	5.91%	7.18%	1252	56.93%	51.83%
Norway	1	0						
Poland	0	0	1.91%	-7.98%	-1.91%	500	36.77%	35.25%
Portugal	1	1	0.36%	-0.37%	-0.49%	665	36.86%	34.67%
Romania	0	1	12.80%	-6.75%	-3.09%	237	24.94%	30.09%
San Marino	0	0						
Slovakia	1	0	5.32%	-2.56%	2.54%	479	28.40%	40.21%
Slovenia	0	1	7.63%	-2.90%	-1.85%		38.59%	41.11%
Spain	1	1	3.51%	3.17%	7.04%	857	34.26%	36.29%
St. Pierre and Miquelon								
Sweden	0	0						
Switzerland	1	0						
United Kingdom	0	0	4.09%	3.53%	3.92%	1431	48.88%	36.52%
United States	0	0	-0.71%	-3.63%	-0.89%	1014	26.54%	33.67%

#### *Latin America and the Caribbean*

Anguilla								
Antigua and Barbuda	0	1						
Argentina	1	0	14.03%	16.73%	37.85%	553	49.92%	72.90%
Aruba								
Bahamas	1	0						
Barbados	1	0						
Belize	1	0						
Bermuda								
Bolivia	1	1	1.53%	-17.36%		199	59.60%	
Brazil	1	1	6.48%	5.39%	11.13%	267	33.07%	42.41%
British Virgin Islands								
Cayman Islands								
Chile	1	1	2.45%	-11.39%	2.92%	377	32.43%	42.81%
Colombia	1	0	1.46%	-8.99%	-11.63%	389	69.41%	58.96%
Costa Rica	1	1	0.41%	-8.35%	2.90%	446	51.95%	49.23%
Cuba	1	1						
Dominica	1	0						
Dominican Rep.	1	0	-0.29%	-16.04%		221	37.60%	
Ecuador	1	1	6.49%	-9.24%	-4.79%	443	73.83%	65.34%
El Salvador	0	1	-1.00%	-6.94%	3.13%	304	62.42%	54.93%



	Ratification of ILO Conventions (as of 01.01.2008)		Changes in minimum wages (MW) over the period 2001–07			Level of the minimum wage (2007 or latest)		
	Convention No. 26	Convention No. 131	Annual growth (real) (%)	MW / GDP per capita (%)	MW / average wages (%)	PPP (US\$)	MW / GDP per capita (%)	MW / average wages (%)
French Guiana								
Grenada	1	0						
Guadeloupe								
Guatemala	1	1	2.38%	11.43%	3.59%	335	85.58%	48.22%
Guyana	1	1						
Haiti	0	0	-2.61%	-17.61%		90	83.57%	
Honduras	0	0	4.15%	11.33%	8.17%	284	83.44%	37.99%
Jamaica	1	0	5.48%	13.87%		369	57.54%	
Martinique								
Mexico	1	1	0.23%	-4.05%	-1.15%	202	18.99%	26.79%
Montserrat								
Netherlands Antilles								
Nicaragua	1	1	4.05%	16.38%	4.30%	198	90.93%	27.02%
Panama	1	0	0.82%	-19.13%	-1.12%	464	53.90%	50.93%
Paraguay	1	0	0.59%	-31.48%	9.93%	569	152.23%	94.62%
Peru	1	0	1.68%	-16.42%	3.74%	326	50.14%	40.47%
Puerto Rico								
Saint Kitts and Nevis	0	0						
Saint Lucia	1	0						
Saint Vincent and Grenadines	1	0						
Suriname	0	0						
Trinidad and Tobago	0	0	-1.69%	-16.33%		313	20.55%	
Turks and Caicos Islands								
Uruguay	1	1	9.50%	4.91%	20.69%	219	22.62%	36.71%
Venezuela	1	0	3.50%	-12.05%	1.37%	382	37.70%	62.40%
Virgin Islands (US)								
<b>Middle East</b>								
Bahrain	0	0						
Iran	0	0						
Iraq	1	1						
Jordan	0	0	-0.79%	-17.58%	-3.36%	234	57.52%	31.12%
Kuwait	0	0						
Lebanon	1	1	-1.82%	-11.81%		341	36.35%	
Oman	0	0						

	Ratification of ILO Conventions (as of 01.01.2008)		Changes in minimum wages (MW) over the period 2001–07			Level of the minimum wage (2007 or latest)		
	Convention No. 26	Convention No. 131	Annual growth (real) (%)	MW / GDP per capita (%)	MW / average wages (%)	PPP (US\$)	MW / GDP per capita (%)	MW / average wages (%)
Qatar	0	0						
Saudi Arabia	0	0						
Syrian Arab Rep.	1	1	8.71%	17.01%		262	69.93%	
United Arab Emirates	0	0						
West Bank and Gaza								
Yemen	0	1						

## Appendix table A3: Inequality

Table A3 presents several indicators that are widely used to measure inequality at national level. The first four columns present the Gini index. The Gini index in the first two columns is based on wages and measures the extent to which the distribution of wages among individuals deviates from a perfectly equal distribution, while the index in the second two columns (which is more widely available) refers to the distribution of income rather than wages. The greater the value of the Gini index, the greater the inequality. The next columns compare top, median and bottom wage deciles: D9 is the wage level above which the top 10 per cent of workers are paid, D5 is the median wage (which separates the wage distribution into two equal halves), and D1 is the wage level below which the bottom 10 per cent of workers are paid. Hence, D9/D1 is a measure of overall inequality between top and bottom wage earners, which can be decomposed into inequality in the upper half of distribution (D9/D5 ratios) and inequality in the lower half of the distribution (D5/D1).

### Data sources

The data on inequality were obtained from international sources (OECD, WIDER) and various national sources. For countries in Latin America and the Caribbean, inequality was estimated directly by the ILO/SIAL (Information System and Labour Analysis) from country-level household survey data.

Statistical appendix Table A3

Gini index				Decile ratios							
Wages: average		Income: average		D5/D1 for wages: average		D9/D5 for wages: average		D9/D1 for wages: average		D9/D1 for income: average	
1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007

#### Africa

No data  
available for  
Africa

#### Asia and the Pacific

Afghanistan  
Bangladesh  
Bhutan  
Brunei  
Cambodia  
China 40.50 45.33  
Cook Islands  
East Timor  
Fiji

[illegible]



	Gini index				Decile ratios							
	Wages: average		Income: average		D5/D1 for wages: average		D9/D5 for wages: average		D9/D1 for wages: average		D9/D1 for income: average	
	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007
Belgium	28.33	27.60									3.85	3.50
Bulgaria	25.00	25.17									4.95	5.44
Canada			29.63		2.00	2.00	1.79	1.84	3.59	3.69		
Cyprus	29.00	28.33										
Czech Rep.		25.33			1.65	1.72	1.73	1.77	2.85	3.04		
Denmark	20.33	23.80			1.47	1.52	1.69	1.72	2.48	2.61		
Estonia	36.00	34.67									6.75	6.15
Finland	22.80	26.00			1.40	1.42	1.69	1.71	2.37	2.43		
France	28.67	27.33			1.58	1.48	1.94	1.99	3.06	2.96		
Germany	26.00	26.00			1.60	1.76	1.83	1.79	2.93	3.14		
Gibraltar												
Greece	34.33	33.60									7.39	5.33
Greenland												
Hungary	26.00	27.40			1.94	1.90	2.17	2.30	4.22	4.37		
Iceland												
Ireland	32.50	31.20			1.82	1.83	1.97	2.05	3.60	3.76		
Isle of Man												
Israel			43.90	37.20							14.07	6.40
Italy	31.00	31.75			1.39		1.73		2.40			
Japan	29.63	28.90			1.62	1.64	1.84	1.84	2.99	3.01		
Latvia	34.00	37.50									5.75	5.66
Liechtenstein												
Lithuania	33.74	34.37									6.50	7.55
Luxembourg	26.83	27.00									3.58	3.75
Malta	30.00	28.00										
Monaco												
Netherlands	27.33	26.80			1.64	1.65	1.73	1.76	2.84	2.91		
New Zealand			40.30		1.58	1.57	1.63	1.77	2.58	2.77		
Norway			27.17	26.70	1.38	1.43	1.43	1.46	1.97	2.09		
Poland	30.00	33.00			1.76	1.94	1.99	2.08	3.50	4.05		
Portugal	36.33	37.75									7.00	5.00
Romania	29.00	30.83									4.50	
San Marino												
Slovakia	24.91	26.37									3.28	3.37
Slovenia	22.00	22.80									3.41	3.50
Spain	33.67	31.50							4.22	3.53		
St. Pierre and Miquelon												
Sweden	21.50	23.40			1.38	1.38	1.63	1.67	2.25	2.30		
Switzerland					1.49	1.47	1.67	1.75	2.50	2.58		

[illegible]

	Gini index				Decile ratios							
	Wages: average		Income: average		D5/D1 for wages: average		D9/D5 for wages: average		D9/D1 for wages: average		D9/D1 for income: average	
	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007	1995–2000	2001–2007
Panama	39.58	42.00			3.47	3.73	2.46	2.35	8.52	8.78		
Paraguay	39.70	38.71			4.12	4.27	2.05	1.95	8.46	8.33		
Peru	47.00	44.67			3.30	3.10	2.40	2.39	7.93	7.41		
Puerto Rico												
Saint Kitts and Nevis												
Saint Lucia												
Saint Vincent and Grenadines												
Suriname												
Trinidad and Tobago												
Turks and Caicos Islands												
Uruguay	30.48	29.49			4.24	4.92	1.89	1.80	8.02	8.84		
Venezuela	37.51	36.31			3.58	3.32	2.17	2.06	7.76	6.85		
Virgin Islands (US)												

#### Middle East

No data available for the Middle East



## Appendix table A4: Background indicators

Table A4 presents four indicators: average growth rate of GDP, average share of trade (imports + exports) in GDP, consumer price index and the share of wage employment in total employment. The volume of GDP is the sum of value added, measured at constant prices, by households, government and industries operating in the economy. This is a widely used indicator of a country's economic development. Trade share in GDP and its evolution over time are often used to indicate the extent to which a country is engaged in the global economy. The share of wage and salaried employment is one of the most frequently cited employment indicators in the ILO's statistical publications.

### Data sources

The growth rate of GDP and the share of trade (imports + exports) in GDP are derived from the World Bank's World Development Indicators and IMF databases. The data for shares of wage and salary employment are from the fifth edition of the ILO's KILM (Key Indicators of the Labour Market).

Statistical appendix Table A4

	GDP annual growth (%): average		Trade (imp+exp) share in GDP(%): average		Annual CPI (2000 = 100) change rate (%): average		Share of wage employment			
	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	Men	Women	All	Latest year available
<i>Africa</i>										
Algeria	3.25	4.61	53.21	63.52	6.45	2.56	61.9	49.8	59.8	2004
Angola	7.09	13.20	149.63	130.63	1004.61	49.88				
Benin	5.22	3.96	46.05	40.65	3.81	2.66				
Botswana	7.69	4.96	90.78	82.33	8.37	8.57	74.4	72.0	73.2	2003
Burkina Faso	6.60	5.95	37.51	33.03	2.41	2.08	5.8	1.4	3.6	1994
Burundi	-2.44	2.82	27.45	41.87	19.55	6.99				
Cameroon	4.51	3.62	40.61	44.41	3.06	2.53	29.3	8.7	19.2	2001
Cap Verde	6.58	5.54	79.64	83.68	4.18	1.91	43.8	33.0	38.9	2000
Central African Rep.	3.18	0.55	40.45	33.99	1.05	2.49				
Chad	2.42	11.08	50.29	94.66	3.31	0.84	8.8	0.8	4.9	1993
Comoros	1.83	1.92	54.68	46.68	2.42	3.53				
Congo, Rep. of	2.73	3.78	132.83	135.71	5.16	3.02				
Congo, Dem. Rep. of	-3.12	4.51	48.97	59.48	336.37	15.58				
Côte d'Ivoire	3.87	0.35	73.83	85.73	2.95	3.04				
Djibouti	-0.94	3.56	88.91	89.04	2.01	2.89	75.4	78.7	75.8	1991
Egypt	5.10	4.63	43.37	51.54	4.98	6.28	62.2	50.8	60.0	2005

	GDP annual growth (%): average		Trade (imp+exp) share in GDP(%): average		Annual CPI (2000 = 100) change rate (%): average		Share of wage employment			
	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	Men	Women	All	Latest year available
Equatorial Guinea	31.91	20.27	216.15	160.25	4.14	5.63	30.7	6.0	21.1	1983
Eritrea	1.45	2.67	104.24	90.14	10.37	16.92	79.6	75.6	78.3	1996
Ethiopia	5.13	7.03	31.67	47.16	1.81	8.76	49.3	42.7	46.3	2006
Gabon	1.17	2.21	97.46	89.88	2.14	1.25	58.6	29.2	45.2	1993
Gambia	3.90	4.45	106.59	97.17	1.93	8.66				
Ghana	4.29	5.40	82.23	100.88	25.20	14.96				
Guinea	4.31	2.82	46.49	54.27	4.27	20.37				
Guinea-Bissau	1.62	0.87	58.56	85.50	22.86	1.61				
Kenya	2.53	4.45	53.57	57.36	8.64	9.65				
Lesotho	3.46	3.77	133.93	156.39	8.03	7.05	22.5	29.9	25.7	1999
Liberia	32.07	0.06	58.65	76.31		8.91				
Libyan Arab Jamahiriya	1.15	4.10	47.39	66.60	2.19	-0.35				
Madagascar	3.48	3.45	55.05	62.31	9.84	11.42	16.0	10.8	13.4	2005
Malawi	6.06	2.87	65.21	69.08	30.20	12.62	29.0	3.9	16.1	1987
Mali	5.36	5.68	61.14	69.48	1.59	1.90	15.2	11.4	13.6	2004
Mauritania	3.82	4.69	92.04	103.03	5.32	7.78				
Mauritius	5.16	4.12	127.16	119.59	6.26	6.06	78.7	83.9	80.4	2006
Morocco	2.23	4.97	58.01	64.53	1.88	1.96	46.8	33.4	43.2	2006
Mozambique	6.81	8.29	46.17	75.24	14.58	11.74				
Namibia	3.61	4.46	103.87	101.77	8.18	6.10	76.0	68.8	72.8	2004
Niger	2.87	4.16	41.36	40.94	2.68	1.54				
Nigeria	2.98	5.73	80.14	86.89	12.27	12.39				
Reunion										
Rwanda	14.04	5.47	31.25	37.62	6.69	8.13	9.4	3.3	6	1996
Sao Tome and Principe		6.93			35.04	15.56				
Senegal	4.32	4.39	63.17	67.64	1.43	2.08	14.4	7.5	11.3	1991
Seychelles	5.10	0.28	141.84	199.32	2.97	2.09	78.5	85.9	81.1	1987
Sierra Leone	-4.29	11.97	43.53	56.88	21.37	8.56	11.3	3.7	7.6	2004
Somalia										
South Africa		4.23	48.64	57.47	6.68	5.26	81.7	80	80.9	2004
St. Helena										
Sudan	6.39	7.82	24.78	37.88	44.12	8.03				
Swaziland	3.39	2.33	170.74	175.71	6.99	6.80	82.7	67.4	76.4	1997
Tanzania, United Rep. of	4.00	6.56	47.51	48.04	12.86	5.29	15.3	6.1	10.5	2006
Togo	5.08	2.44	73.90	82.76	2.54	2.08				
Tunisia	5.08	4.85	89.82	98.38	3.10	3.12			64.3	2003
Uganda	7.38	5.73	33.82	39.98	5.43	5.01	22.2	7.5	14.5	2003

	GDP annual growth (%): average		Trade (imp+exp) share in GDP(%): average		Annual CPI (2000 = 100) change rate (%): average		Share of wage employment			
	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	Men	Women	All	Latest year available
Zambia	1.89	5.05	67.53	69.69	28.97	16.60			18.7	2003
Zimbabwe	0.76	-5.45	80.88	68.87	37.08	2092.55	51.0	23.1	37.7	2002
<i>Asia and the Pacific</i>										
Afghanistan		11.09		79.11		13.56				
Bangladesh	5.16	5.63	30.78	37.43	4.94	6.19	13.8	13.3	13.7	2003
Bhutan	6.44	9.95	79.63	75.37	7.33	4.06				
Brunei	1.87	2.28	111.19	102.83	0.88	0.10				
Cambodia	7.19	9.57	84.54	128.91	6.63	4.12			12.9	2004
China	9.00	10.00	39.93	59.08	1.86	2.05				
Cook Islands										
East Timor										
Fiji	2.25	1.63	122.69	126.98	3.46	2.91	59.4	56.6	58.6	2005
French Polynesia	2.82		29.97							
Guam										
Hong Kong (China)	3.65	4.85	267.79	342.03	1.46	-0.17	83.0	93.5	87.8	2006
India	6.13	7.61	24.14	36.28	7.61	4.78				
Indonesia	2.22	5.06	65.46	60.35	19.15	9.10	40.1	33.8	37.9	2006
Kiribati	5.69	1.95	100.17	108.97	1.23	0.55				
Korea, Dem. People's Rep. of										
Korea, Rep. of	5.32	4.69	68.79	77.87	3.99	2.90	66.8	67.7	67.2	2006
Lao	6.32	6.62	69.73	62.50	56.10	9.17	14.3	5.4	9.7	1995
Macau (China)	0.34	13.18	148.99	165.43			88.1	93.8	90.7	2006
Malaysia	5.80	4.88	202.58	213.47	3.14	2.17	75.5	77.5	76.2	2003
Maldives	8.36	7.87	167.35	160.07	2.84	2.74	21.3	28.8	23.8	2000
Marshall Islands	-3.08	3.03								
Nauru										
Mongolia	3.32	7.29	113.45	131.64			37.1	41.8	39.3	2003
Myanmar	7.62	8.43	2.35		22.45	26.27				
Nepal	4.57	3.26	57.83	46.96	7.32	5.10				
New Caledonia	1.37		43.44				80.5	89.1	83.8	1996
Niue										
Northern Mariana Islands										
Pakistan	3.55	5.48	34.30	32.99	7.94	5.86	40.0	25.7	37.3	2006

	GDP annual growth (%): average		Trade (imp+exp) share in GDP(%): average		Annual CPI (2000 = 100) change rate (%): average		Share of wage employment			
	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	Men	Women	All	Latest year available
Papua New Guinea	0.51	2.39	103.76		11.94	5.73				
Philippines	4.08	5.02	100.20	101.09	7.00	4.85	51.0	49.7	50.5	2006
Samoa (American)										
Samoa (Western)	4.39	4.29	92.35	101.40	3.66	5.22				
Singapore	6.70	5.13		417.45	0.90	0.88	81.3	89.9	84.9	2006
Solomon Islands	-0.65	2.90	127.60	82.92	9.41	8.00				
Sri Lanka	5.12	4.79	81.09	78.44	8.08	10.09	56.0	54.5	55.5	2006
Taiwan (China)					1.42	0.97			71.6	2002
Thailand	2.08	5.02	100.10	133.41	4.28	2.77	44.3	42.9	43.7	2006
Tokelau										
Tonga	2.08	1.48	47.54	53.96	3.38	9.31				
Tuvalu										
Vanuatu	1.31	2.47	99.70	102.07	2.35	2.26				
Viet Nam	7.39	7.75	95.68	131.08	3.82	6.49	29.8	21.2	25.6	2004
Wallis and Futuna Islands										

#### Central and South-Eastern Europe and CIS

Albania	6.32	5.43	48.80	66.71	13.39	3.01				
Armenia	5.43	12.61	76.70	70.92	8.25	3.45			48.8	2006
Azerbaijan	3.97	18.00	76.84	104.54	3.20	7.73				
Belarus	3.57	7.98	118.57	131.22	130.37	19.14				
Bosnia and Herzegovina	28.63	5.23	106.02	96.74	3.31	2.26	72.2	73.1	72.5	2006
Croatia	4.00	4.92	92.38	103.47	4.30	2.48	75.6	78.7	77.0	2006
Georgia	5.36	8.38	57.44	78.03	14.61	7.11	34.3	34.5	34.4	2005
Kazakhstan	0.77	10.16	79.94	93.98	17.12	7.68	64.1	60.2	62.2	2004
Kyrgyzstan, Rep. of	3.80	4.30	87.79	90.87	24.09	4.89	48.0	49.9	48.8	2005
Macedonia, former Yugoslav Rep. of	2.30	2.19	89.07	102.31	2.37	1.47	68.5	74.4	70.8	2006
Moldova, Rep. of	-2.13	6.34	122.31	134.91	22.71	11.11				
Montenegro	-0.47	5.08	91.67	105.89		3.00	77.1	85.4	80.5	2005
Russian Federation	0.79	6.50	57.27	58.00	39.34	11.95	91.8	93.1	92.4	2006
Serbia	4.52	5.61	49.92	65.40	47.03	13.01	69.8	77.6	73.0	2006
Tajikistan	-1.68	8.80	148.36	117.92	121.98	11.03				

	GDP annual growth (%): average		Trade (imp+exp) share in GDP(%): average		Annual CPI (2000 = 100) change rate (%): average		Share of wage employment			
	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	Men	Women	All	Latest year available
Turkey	4.58	4.80	51.08	62.01	74.11	17.60	59.9	46.7	56.5	2006
Turkmenistan	2.82	11.60	141.49	126.65	224.87	7.59				
Ukraine	-3.60	7.60	97.20	107.05	31.52	8.38	81.9	80.0	81.0	2006
Uzbekistan	3.07	6.27	50.48	64.43	41.58	13.67				

#### *Developed economies and the European Union*

Andorra										
Australia	3.94	3.27	40.75	40.55	1.93	2.78	84.9	90.6	87.5	2006
Austria	2.77	1.97	79.54	98.62	1.25	1.82	84.7	88.7	86.5	2006
Belgium	2.66	1.88	144.64	164.88	1.60	1.93	82.4	88.2	84.9	2006
Bulgaria	-0.07	5.54	102.32	126.10	243.16	5.89	84.1	89.9	86.9	2006
Canada	3.92	2.61	78.37	75.38	1.73	2.21	89.8	92.1	90.9	2006
Cyprus	4.21	3.51	92.08		2.85	2.52	73.3	85.1	78.5	2006
Czech Rep.	2.25	4.51	111.71	135.19	6.78	1.98	79.4	88.9	83.5	2006
Denmark	2.89	1.68	75.69	90.22	2.31	1.85	88.2	94.2	91.1	2006
Estonia	5.44	8.54	153.83	159.66	9.95	3.84	88.8	95.3	92.0	2006
Finland	4.63	3.22	68.94	73.89	1.58	1.18	82.9	91.6	87.1	2006
France	2.70	1.72	49.02	52.86	1.28	1.98	86.2	92.5	89.1	2005
Germany	1.99	1.22	55.05	72.38	1.07	1.69	85.6	90.8	87.9	2006
Gibraltar										
Greece	3.23	4.29	43.43	46.54	4.57	3.36	60.9	67.9	63.6	2006
Greenland										
Hungary	3.60	3.83	116.58	135.84	15.18	5.34	84.3	90.9	87.3	2006
Iceland	4.10	3.97	72.01	76.25	2.85	4.33	79.1	92.1	85.0	2006
Ireland	9.70	5.28	156.23	161.91	2.65	3.15	76.4	93.3	83.6	2006
Isle of Man	8.85	5.73					79.7	92.3	85.4	2001
Israel	5.15	2.90	68.10	80.85	6.41	1.65	82.9	91.4	86.8	2006
Italy	2.06	0.97	47.77	51.76	2.42	2.36	69.7	79.5	73.6	2006
Japan	1.16	1.55	19.36	23.25	0.32	-0.20	85.6	85.9	85.7	2006
Latvia	4.58	9.02	96.20	100.52	7.14	5.74	86.7	90.2	88.4	2006
Liechtenstein										
Lithuania	4.08	7.94	103.68	114.93	8.58	2.12	82.4	86.2	84.3	2006
Luxembourg	5.37	3.84	230.82	280.24	1.60	2.30			93.5	2005
Malta	4.79	1.62	188.42	166.82	2.98	2.18	82.7	94.2	86.4	2006
Monaco										
Netherlands	3.89	1.73	120.82	128.14	1.89	2.03	84.5	90.8	87.1	2005
New Zealand	2.84	3.17	59.72	61.20	1.45	2.58	77.9	87.3	82.2	2006
Norway	3.77	2.50	72.96	71.55	2.30	1.47	88.2	95.1	91.5	2006
Poland	5.68	4.02	52.12	70.26	12.80	1.97	73.4	78.2	75.6	2006
Portugal	4.12	1.01	65.90	65.82	2.40	2.84	74.3	77.0	75.6	2006

	GDP annual growth (%): average		Trade (imp+exp) share in GDP(%): average		Annual CPI (2000 = 100) change rate (%): average		Share of wage employment			
	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	Men	Women	All	Latest year available
Romania	0.20	6.03	62.74	77.26	68.83	11.68	65.5	67.1	66.2	2006
San Marino	2.25	4.09					88.3	92.3	89.9	2006
Slovakia	4.06	5.94	124.66	157.67	8.22	4.89	83.1	92.0	87.0	2006
Slovenia	4.27	4.07	106.48	121.64	8.23	4.21	81.4	86.2	83.6	2006
Spain	3.88	3.41	52.19	57.03	2.59	3.25	79.3	86.1	82.1	2006
St. Pierre and Miquelon										
Sweden	3.35	2.65	76.78	85.91	1.14	1.55	85.8	94.6	90.0	2006
Switzerland	1.75	1.67	74.35	84.10	0.74	0.86	82.1	86.5	84.1	2006
United Kingdom	3.15	2.59	56.89	56.56	1.60	1.78	82.0	91.7	86.5	2006
United States	3.87	2.45	24.31	24.69	2.48	2.67	91.4	94.0	92.6	2006

#### *Latin America and the Caribbean*

Anguilla							63.2	66.1	64.6	2001
Antigua and Barbuda	3.21	5.31	161.17	132.28	1.40	1.97	77.9	82.5	80	1991
Argentina	1.74	4.12	21.92	38.84	-0.10	12.18	72.5	80.2	75.8	2006
Aruba	5.30	-0.57	226.94						96.8	1997
Bahamas	3.62	0.60			1.23	2.08	81.6	87.4	84.4	2004
Barbados	3.12	0.01	112.50	109.09	2.56	3.44	79.5	89.5	84.4	2004
Belize	5.01	4.99	110.62	118.38	1.20	3.13	66.9	73.9	69.3	2005
Bermuda	3.37									
Bolivia	3.66	3.42	48.69	57.93	6.31	4.51	38.5	26.5	33.3	2002
Brazil	2.41	3.28	17.44	26.90	7.61	7.42	60.9	65.5	62.9	2004
British Virgin Islands							83.9	91.9	87.3	1991
Cayman Islands							86.4	93.4	89.8	2006
Chile	5.27	4.31	57.18	70.28	5.16	2.87	69.6	73.7	71.1	2006
Colombia	1.66	4.38	36.68	43.16	15.61	5.71	52.9	53.0	53.0	2006
Costa Rica	4.80	5.08	89.17	95.85	12.69	10.93	69.0	73.7	70.7	2006
Cuba	4.32	3.50	33.40				76.1	92.0	82.0	2006
Dominica	2.07	3.99	120.86	106.60	1.44	1.83	63.6	75.6	68.3	2001
Dominican Rep.	7.28	5.23	88.63	86.75	6.55	17.00	45.7	66.5	52.7	2005
Ecuador	1.14	4.71	55.03	59.08	47.88	5.15	63.1	54.5	59.7	2006
El Salvador	3.62	2.87	61.96	70.60	3.92	3.50	63.7	42.5	54.7	2006
French Guiana										
Grenada	5.90	2.07	117.55	113.92	1.68	2.82	68.6	75.2	71.3	1998
Guadeloupe										
Guatemala	4.12	3.26	44.43	46.78	7.62	7.30	30.7	25.6	28.9	2002

	GDP annual growth (%): average		Trade (imp+exp) share in GDP(%): average		Annual CPI (2000 = 100) change rate (%): average		Share of wage employment			
	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	Men	Women	All	Latest year available
Guyana	3.16	1.94	207.58	201.51	5.76	6.97	52.2	52.9	52.4	1992
Haiti	1.36	0.41	38.78	53.75	14.08	17.40	17.4	21.2	18.9	1990
Honduras	3.24	4.32	97.11	98.28	16.07	7.47	48.7	52.6	49.9	2005
Jamaica	0.37	1.77	96.22	99.09	11.76	10.66	57.6	66.1	61.2	2006
Martinique										
Mexico	3.51	2.44	61.88	59.64	19.40	4.31	65.5	65.3	65.4	2006
Montserrat							78.3	87.4	82.3	1991
Netherlands Antilles							84.0	92.0	87.8	2000
Nicaragua	5.18	3.33	67.55	80.03	11.00	8.13	59.3	57.4	58.4	2002
Panama	4.17	5.82	162.86	135.01	1.18	1.92	62.7	72.4	66.2	2006
Paraguay	0.77	3.37	104.44	97.11	8.81	8.93	44.7	45.7	45.1	2003
Peru	3.53	5.38	32.26	38.93	6.92	1.87	60.3	47.4	54.9	2006
Puerto Rico	4.18	5.58	166.61	181.21			79.6	91.4	84.8	2006
Saint Kitts and Nevis							81.8	88.7	85.0	2001
Saint Lucia							58.8	70.6	64.1	2000
Saint Vincent and Grenadines							71.2	79.4	74.0	1991
Suriname	1.45	5.75	60.26	70.35	36.57	12.55	77.8	86.8	80.7	1998
Trinidad and Tobago	4.82	8.68	99.68	98.25	3.91	5.79	76.4	83.0	79.0	2005
Turks and Caicos Islands										
Uruguay	1.57	2.89	39.46	51.87	13.88	10.29	67.6	73.2	69.9	2006
Venezuela	1.36	4.88	48.59	52.33	45.09	20.60	56.7	60.1	57.9	2006
Virgin Islands (US)										
<i>Middle East</i>										
Bahrain	4.25	6.18	148.22	141.58	0.40	1.94				
Iran	3.83	5.45	34.84	56.64	18.27	14.41	52.4	41.5	50.3	2005
Iraq	18.43	-2.30								
Jordan	3.70	6.00	116.68	127.79	2.78	3.66				
Kuwait	2.42	6.42	90.86	88.46	1.82	2.54				
Lebanon	3.25	3.48	59.88	58.54	4.21	2.27				
Oman	3.67	4.93	87.05	96.30	-0.02	1.84	87.8	87.8	87.8	2000
Qatar		10.35	87.00	93.51	3.32	7.29	98.7	99.9	98.8	2004
Saudi Arabia	2.19	4.01	63.53	75.82	-0.43	1.37				
Syrian Arab Rep.	2.91	4.30	65.80	71.25	0.44	5.75	49.8	46.6	49.2	2001

	GDP annual growth (%): average		Trade (imp+exp) share in GDP(%): average		Annual CPI (2000 = 100) change rate (%): average		Share of wage employment			
	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	1995– 2000	2001– 2006/07	Men	Women	All	Latest year available
United Arab Emirates	5.65	8.01	142.03	150.09	2.27	6.27				
West Bank and Gaza	6.14	-0.81	89.09	84.72			60.2	55.0	59.3	2006
Yemen	6.54	3.79	84.48	78.00	15.00	13.01	50.7	13.8	41.6	1999