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Labour market and wage developments in 2006, with special focus on relative unit labour cost developments in the euro area

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Abbreviations and symbols used

Member States

BE	Belgium
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
EL	Greece
ES	Spain
FR	France
IE	Ireland
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
SI	Slovenia
SK	Slovakia
FI	Finland
SE	Sweden
UK	United Kingdom

NMS10	European Union Member States that joined the EU on 1 May 2004 (CZ, EE, CY, LT, LV, HU, MT, PL, SI, SK)
NMS	European Union Member States that joined the EU on 1 May 2004 (CZ, EE, CY, LT, LV, HU, MT, PL, SI, SK) and those that joined on 1 January 2007 (BG and RO)
EA-13	European Union Member States having adopted the single currency (BE, DE, EL, ES, FR, IE, IT, LU, NL, AT, PT, SI, FI)
EU-15	European Union, 15 Member States before 1 May 2004 (EUR-12 plus DK, SE and UK)
EU-25	European Union, 25 Member States before 1 January 2007
EU-27	European Union, 27 Member States

Currencies

EUR	euro
ECU	European currency unit
USD	US dollar
CYP	Cyprus pound
MTL	Maltese lira

Other abbreviations

CBC	Central Bank of Cyprus
CBM	Central Bank of Malta
COLA	cost of living allowance
CPI	consumer price index
CR5	concentration ratio (defined as the aggregated market share of five banks with the largest market share)
ECB	European Central Bank
EDP	excessive deficit procedure
EMI	European Monetary Institute
EMU	economic and monetary union
ERM II	exchange rate mechanism II
ESCB	European System of Central Banks
Eurostat	Statistical Office of the European Communities
FDI	foreign direct investment
GDP	gross domestic product
GFCF	gross fixed capital formation
HICP	harmonised index of consumer prices
ICT	information and communication technology
MFSA	Malta Financial Services Authority
MTO	medium-term objective
NGCAs	non-government controlled areas
PPS	purchasing power standard
SFAs	stock flow adjustments
SGP	Stability and Growth Pact
ULC	unit labour costs
VAT	value added tax

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Summary and main findings

This report analyses labour market and wage developments in 2006 ([1]) from a macroeconomic perspective, looking at the main geographical aggregations (euro area, EU-15, NMS10 and EU-27). The report has a macro perspective and does not provide a detailed description of labour market trends by country, sector or type of employment, nor does it review policy initiatives or labour market reforms at EU level ([2]). The macroeconomic focus has been adopted in order to shed light on the interaction of employment trends with other macroeconomic developments such as productivity and GDP growth. Within the framework of the revamped Lisbon strategy for growth and jobs, this report is a contribution to the overall efforts to upgrade the monitoring of macroeconomic developments in the EU ([3]). To this end, the report presents an analytical interpretation of the most recent trends and prospects on both the quantity side (participation, unemployment and employment) and the labour cost side (wage and unit labour cost developments). The report includes also a statistical annex that provides data on key labour market aggregates for each Member States as well as for the EU-27, euro area and EU-12 Member States.

Employment developments

The labour market improved significantly in 2006, as the uncertainty about the timing and robustness of the recovery faded away and growth gained momentum. Employment growth accelerated from 1 % in 2005 to 1.4 %, the highest rate in 6 years. The unemployment situation continued to improve with the unemployment rate hovering around 7 % in July 2007, about 2.2 million fewer unemployed than one year earlier. ([4]) The most significant decline was seen in the new Member States, especially Poland, Bulgaria and Lithuania.

The acceleration in employment was more broadly based than in the previous five years. Net job creation was particularly robust in almost all countries. In Germany, the increase in employment brought to a halt the net employment losses which had been occurring since 2001, though total employment in 2006 was still slightly below the level of 2001.

The main contribution to employment came from the creation of full-time employment for both women and men. Robust employment was recorded for all age groups, in contrast to previous years. While the employment rate of older workers continued along the positive trend already identified in previous years, young and prime-age workers also made a robust contribution to total employment growth. The most dynamic component remained female employment, though its growth in 2006 was

([1]) Please note that some of the data for 2006 are still preliminary.

([2]) An exhaustive panorama of recent developments in European labour markets can be found in the annual *Employment in Europe* report published by the European Commission (Directorate-General for Employment, Social Affairs and Equal Opportunities) which can be found at http://ec.europa.eu/employment_social/employment_analysis/employ_en.htm. More detailed analysis on reforms of labour market institutions can be found in reports related to the Lisbon strategy and the integrated guidelines, which encompasses the broad economic policy guidelines (BEPGs) and the European employment guidelines. The recent assessment of the national reform programmes, along with a detailed analysis of the employment aspects of the programmes at national level can be found in the communication from the Commission to the spring European Council, 'A year of delivery', The European Commission's 2006 'Annual progress report on growth and jobs' at http://ec.europa.eu/growthandjobs/annual-report-1206_en.htm. The most recent 'Joint employment report' evaluating labour market reforms in 2006/2007 undertaken in response to the employment guidelines, within the framework of the integrated guidelines for growth and jobs (2005–08), can be found at http://europa.eu.int/comm/employment_social/employment_strategy/employ_en.htm and http://ec.europa.eu/growthandjobs/annual-report_en.htm.

([3]) See integrated guidelines for growth and jobs (2005–08).

([4]) Eurostat, Euro-indicators New Release 93/207, 3 July 2007.

below the average of the last five years. This more moderate increase was concentrated in older female workers, which underlines the importance of taking further measures to reduce the gap between the average male and female retirement age.

After years of rising employment growth with only moderate economic growth, in 2006 the job-intensity of growth reverted back to the average of the 1996–2000 expansionary cycle in almost all countries. While it is too early to characterise this as a structural recovery in productivity growth, the fact that this reversion is observed for several sectors could be considered as a return towards a normal cyclical relationship between employment and output growth.

Recent trends in wages and labour cost

The report's analysis of recent trends in wages and labour cost for euro-area members assesses the extent to which the functioning of euro-area labour markets has facilitated, and can be expected to continue to facilitate, sound internal and external macroeconomic conditions, namely aggregate price stability and sustainable competitive positions at the individual country level.

The analysis shows that brightening economic conditions have not translated into accelerating wage growth so far and that unit labour costs have remained consistent with price stability since the launch of the euro. However, this rosy picture of subdued labour cost pressures is subject to two qualifications. First, this favourable aggregate behaviour conceals sizeable differences across euro-area countries. The fact that wage developments in recent years have been benign overall is largely due to significant wage moderation in Germany, where nominal unit labour costs remained broadly constant over the period 1999–2006, in contrast to a non-negligible number of euro-area countries, where nominal unit labour costs grew more rapidly. Second, wage growth is projected to edge up somewhat in the short term as new wage agreements reflect the better economic outlook and the increase in labour productivity growth. Over the medium term, however, excessive wage claims should be kept in check by some rebound in trend productivity growth, the unfolding of measures aimed at increasing labour supply, and heightened competition in product and labour markets brought about by structural reforms and globalisation.

The report assesses the contribution of labour costs to the persistent differentials in price competitiveness and widening current account imbalances among EMU members by examining developments in intra-euro-area real effective exchange rates (based on unit labour costs) over the period 1999–2006. Much of the deterioration in competitiveness in selected euro-area countries appears attributable to structural factors. This implies that, over and above wage moderation, there is a need for relative competitive positions in EMU to be rebalanced. The challenge for countries that have seen a strong deterioration in their competitive positions is to keep unit labour cost growth below the euro-area average in a sustained manner. Moreover, emphasis should be put on structural reforms in order to accelerate productivity gains, so that wages do not have to bear the whole burden of adjustment.

In the new Member States (NMS) including Bulgaria and Romania, inflationary pressures from the labour market have remained subdued overall. In the short term, labour productivity is projected to accelerate, mitigating the effect of upward pressures of nominal wage growth on nominal unit labour costs. Further ahead, it will be essential

to ensure continuing structural improvements so that these countries continue to converge smoothly within the European Union and maintain their broader competitiveness. One key issue in this regard is the need to invigorate labour market flexibility and reduce the sizeable tax wedges that have contributed to high unemployment rates in several new Member States.

In the current policy debate, wage moderation has given rise to distributional concerns. One issue is whether the increase in real wages has partially or totally reflected labour productivity improvements, i.e. whether the labour share of national income has remained stable or has declined in the recent past. At first sight one might be tempted to associate wage moderation with declining labour share patterns across EU Member States, as the two phenomena seem to have occurred in parallel. But it would be wrong to interpret movements in the labour share as unequivocally related to wage behaviour. The analysis shows that the observed decline is not as abrupt as is usually claimed once a refined and more disaggregated analysis is carried out (which is now possible with the available EU KLEMS database). The analysis decomposes movements of the labour share into three distinctive components. It shows that the first component, a wage moderation across all sectors in the economy, is just one of the explanatory factors behind changes in the labour share. The others are a sectoral composition effect, that is, the reallocation of value added towards sectors with a structurally lower labour share, and an employment composition effect, that is, a change in the relative weight of the self-employed in total employment. Overall, the different country experiences clearly show that all the three factors, the sectoral composition, the employment structure and the within-sector labour share effects, are sources of changes in the labour income share and that their relative importance differs significantly across countries and periods. In any case, the importance of the sectoral composition and the employment structure effects is not negligible. Indeed, in most countries, keeping the sectoral and employment structure constant at their prevailing levels in 1970 would have resulted in higher and more stationary labour shares.

Developments in relative unit labour costs in the euro area

Part II — Special focus investigates the developments of relative unit labour costs of euro-area countries at disaggregated (industry) level. The trends of relative unit labour costs across industries vary substantially from one country to another. Before EMU (1999), industries with an unfavourable relative wage differential prevailed in Portugal, Greece and Germany. Moderate trends in relative labour costs characterised industries in Italy, Finland, France and the Netherlands. After the launch of EMU, several Member States experienced a deterioration of competitiveness, measured on the basis of aggregate unit labour costs, which was generalised to several industries and not concentrated in few sizeable sectors. This is suggested by the increasing share of industries with rising relative labour costs in Finland, Italy, the Netherlands and Spain. The opposite occurred in Germany where the number of sectors with a wage differential below the productivity differential (and thus with a gain in competitiveness) represented before the launch of the common currency about 34 % of total value added. After EMU this proportion reached 60 %.

These different developments across countries and industries over time stem from specific dynamics of the wage and productivity growth differentials. After EMU, in industries with increasing relative unit labour costs and expanding value added, the loss in competitiveness was caused by the deterioration of relative productivity as well

as the increase in the relative wage. And although cost pressures generally resulted from excessive wage growth, this was not the case in Italy and Spain: there, wages grew only at the average of the remaining countries, but a significant worsening of relative productivity growth led to a considerable deterioration in intra-euro-area competitiveness. A comparison between manufacturing and services suggests that countries experiencing competitiveness gains in manufacturing also improved their competitive position in services.

The contribution of wages to the adjustment that followed German reunification did not mean that Germany undercut the wages of all industries of other euro-area countries. Rather, its gains in competitiveness were possible thanks to generalised productivity gains relative to other euro-area countries, especially in more business-oriented services or in manufacturing sectors where Germany had traditionally a comparative advantage.

The empirical evidence shows that, for the large majority of industries, the wage growth differential is quite narrow. This means that, on average, wages in any specific sector do not persistently deviate between countries. After the introduction of the common currency in 1999, there was a decline in the proportion of industries displaying negative growth in both relative wage and productivity at the same time. In fact, in several countries an improvement in relative productivity has often been accompanied by more moderate relative wage developments (and thus competitiveness gains), which may reflect fiercer competition in monetary union.

Sources of volatility in relative unit labour costs

The special focus also explores the sources of the volatility in relative unit labour costs on the basis of disaggregated industry data. Volatility seems to reflect industry- and country-specific shocks more than common shocks (i.e. shocks common to all industries in a country or to a specific industry in all countries). Finally, since the launch of the monetary union there has been evidence of an increase in the cyclical response of relative unit labour costs, although it remains rather low, and a decline in their persistence.

One explanation for the still insufficient adjustment mechanism is that in a low inflationary environment, one would need downward nominal wage flexibility to change real wages. But nominal wage stickiness prevails because of social norms against wage cuts (Akerlof and Yellen, 1990), past wage levels represent a fall-back position in new negotiations (Holden, 1997) or because of predetermined contract periods due to either the prevalence of legal restrictions (i.e. wages set in contracts lasting for longer periods) or to the high costs of renegotiation in a low inflationary environment.

In an open economy, wage pressures influence overall competitiveness. In an integrated area the wage developments in one country cannot deviate for too long from the evolution in the rest of the area. Industry data suggests that for several countries relative wage growth is centered in a small interval around zero. However, in EMU, downward nominal wage rigidity, especially in large countries, seems to spread to other countries, becomes pervasive, and generates downward relative wage rigidity in the rest of the area. A swifter response of relative wages will ease the adjustment to asymmetric shocks. It is not obvious whether this faster adjustment can be achieved by a centralised or decentralised wage bargaining system. To the extent that in an inte-

grated monetary union industry specific shocks are more frequent than country-specific shocks, it seems that decentralised wage bargaining is required to ease the adjustment of relatives to industry-specific shocks. However, centralised wage bargaining systems allow nominal wage dynamics to be kept consistent with inflation targets. Hence, a two-tier wage bargaining system would require collective agreements that establish nominal wage growth consistent with the ECB inflation target leaving to social partners the space for wage agreements that reflect sectoral or local circumstances. The focus provides a preliminary analysis of the sources of the fluctuations of relative unit labour costs, which appear to be driven more by idiosyncratic industry- and country-specific shocks than by aggregate common shocks.

Part I

Employment and wage developments

Summary

Chapter 1 presents an overall review of recent labour market developments. This chapter describes the recent employment and unemployment trends, with a closer look at age and gender specific patterns and the remaining path toward the Lisbon targets. It decomposes main developments according to determining factors such as demographic factors and looks at future prospects based on the European Commission's Spring 2007 forecast. The labour market improved significantly in 2006 with significant contributions coming from all age groups. Net job creation was positive in several countries and particularly robust in Germany. Yet labour productivity growth picked up from the low levels of the previous years.

Employment growth accelerated from 1 % in 2005 to 1.4 %, the highest rate in 6 years. The unemployment situation continued to improve with the unemployment rate hovering around 7 % in July 2007, about 2.2 million fewer unemployed than one year earlier ([1]). The most significant decline was seen in the new Member States, especially Poland, Bulgaria and Lithuania.

In contrast to previous years, robust employment was recorded for all age groups. While the employment rate of older workers continued along the positive trend already identified in previous years, young and prime-age workers also made a robust contribution to total employment growth. The most dynamic component remained female employment, though its growth in 2006 was below the average of the last five years. This more moderate increase was concentrated in older female workers, which underlines the importance of taking further measures to reduce the gap between the average male and female retirement age.

Chapter 2 assesses the responsiveness of employment to economic growth. In 2006 the job-intensity of growth reverted back to the average of the 1996–2000 expansionary cycle in almost all countries, after a long period of good employment performance with only moderate economic growth. It is too early to characterise this as a structural recovery in productivity growth. This reversion is observed for several sectors and this could be considered as a return towards a normal cyclical relationship between employment and output growth.

Chapter 3 provides a detailed description of the latest wage and labour cost developments and their impact on the internal and external macroeconomic objectives as well as an assessment of the short and medium-term outlook. The chapter discusses the contribution of labour cost developments to the persistent differentials in price competitiveness and widening current account imbalances among EMU members. The evidence suggests that despite the improvement in the economic conditions, wage and unit labour costs growth remained in check.

The contribution of labour costs to the persistent differentials in price competitiveness and widening current account imbalances among EMU members is assessed by examining developments in intra-euro-area real effective exchange rates (based on unit labour costs) over the period 1999–2006. Structural factors appear to be the main drivers of the deterioration in competitiveness in selected euro-area Member States. This implies that, over and above wage moderation, there is a need for relative competitive positions in EMU to be rebalanced.

In the new Member States, inflationary pressures from the labour market have remained subdued overall. In the short term, labour productivity is projected to accelerate, mitigating the effect of upward pressures of nominal wage growth on nominal unit labour costs. Further ahead, it will be essential to ensure continuing structural improvements so that the convergence within the European Union will continue smoothly.

Chapter 3 ends with an analysis of the trends in labour share and the source of the wage moderation based on a rich data set of industry level macroeconomic variables (EU KLEMS). The analysis shows that the observed decline in the labour share experienced by several countries is not as abrupt as is usually claimed once a refined and more disaggregated analysis is carried out (which is now possible with the available database). By decomposing movements of the labour share into three distinctive components, the analysis shows that the first component, a wage moderation across all sectors in the economy, is just one of the explanatory factors behind changes in the labour share. The others are a sectoral

([1]) Eurostat, Euro-indicators news release 93/207, 3 July 2007.

composition effect, that is, the reallocation of value added towards sectors with a structurally lower labour share, and an employment composition effect, i.e. a change in the relative weight of the self-employed in total employment. Indeed, in many countries, keeping the sectoral and employment structure constant at their prevailing levels in 1970 would have resulted in higher and more stationary labour shares.

1. General developments in 2006

1.1. Employment and unemployment performance

Overall employment performance: robust recovery in 2006

In 2006 the EU economy scored the highest growth rate of GDP in six years. In response to a buoyant economic activity, employment creation picked up significantly from the modest rates recorded in the years that followed the 2001 slowdown. Between 2005 and 2006, 3.3 million jobs were created (2 million of which in the euro area), whereas only about 5 million additional jobs were created between 2001 and 2005. In 2006 employment increased by 1.4 %, whereas between 2001 and 2004 ([1]) it expanded at an annual rate of 0.5 %, yet reasonably robust given the moderate GDP growth and, thus, suggestive of increased labour market resiliency in the face of negative shocks. However in 2006, employment expansion remained below the rates recorded at the peak year of the previous cycle. (Table 1 and Graph 1 — detailed country figures are in the statistical annex).

The strong pickup in employment growth (based on national accounts figures ([2])) was driven by differing performances across countries (Graph 1). Yet, in 2006 all countries had employment growing at more than 0.5 % and no country experienced employment losses as experienced between 2001 and 2005 by some Member States such as, for example, Germany and the Netherlands. Compared to the average of the previous five years, the net job creation was particularly robust in almost all countries. In Germany, the increase in employment brought to a halt the net employment losses which had been occurring since 2001, yet total employment in 2006 was slightly below the level of 2001.

The strong labour market recovery strengthened the gains in the employment rate recorded over the last three years of relatively low economic growth. After the modest improvements of the 2001–04 period, the employment rate rose significantly between 2004 and 2006 both in the EU-15 (by about 0.7 percentage point up to 65.9 %) and the new Member States (by about 1 percentage point, from 57 % up to 58 %, thus recovering the significant losses that occurred since 2000). The pattern of expansion of the participation rate appears less sensitive to the cyclical conditions over the last five years, a remarkable outcome which reflects both long-lasting socio-economic changes and the effects of reforms aiming at increasing labour supply.

After being negative in 2004, the contribution of full-time contracts accounted for about half of the total employment growth recorded between 2005 and 2006, with no differences by gender (Graph 2). Part-time work, accounting for 18 % of total employment in the EU-25 (18.9 % in the euro area), is largely dominated by the female components (above 31.9 % and 34.6 % respectively in the EU-25 and in the euro area). The proportion of men in part-time work hovered around 7 %. The share of temporary contracts went further up, reaching 14.9 % in the EU-25 and almost 16.6 % in the euro area. Denmark, Ireland and the UK diverge from the common EU-wide trend as their number of employed in fixed-term contracts has been steadily declining at least since 1995. Germany, Italy, and the Netherlands drive the recent acceleration in euro-area employment in fixed-term contracts as a proportion of total employment. In Sweden, the Netherlands and Portugal the share of temporary contracts rose by more than 1 percentage point, whereas it remained basically unchanged or declined in the new Member States, with only few exceptions. The creation of less stable payroll jobs was particularly robust in Slovenia and especially in Poland, where the number of

([1]) These figures are based on national accounts. They differ from employment data resulting from the labour force survey, which does not count certain categories of workers included in national accounts (e.g. people living in communities, military conscripts).

([2]) National accounts measure employment according to ESA95 methodology and ILO criteria. 'Employment' covers employees and self-employed working in resident production units (i.e. the domestic employment concept). See Eurostat, Euro-indicators news release, No 77/2006.

Table 1

Labour market indicators

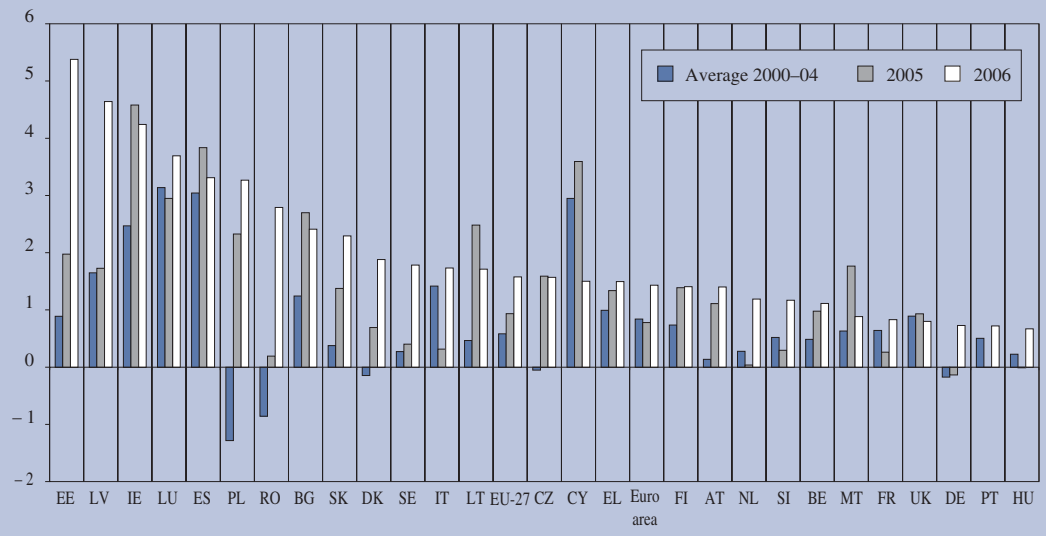
	EU-27		EA	
	2005	**2006** (*)	**2005**	**2006** (*)
Activity rate (as % of population 15–64)	69.7	70.2	70.0	70.6
Male	77.3	77.5	78.2	78.5
Female	62.3	62.9	61.8	62.6
Employment rate (as % of pop. 15–64)	63.4	64.4	63.7	64.6
Male	70.8	71.6	71.9	72.6
Female	56.2	57.2	55.5	56.7
Employment growth (%) (National accounts)	1.0	1.6	0.8	1.4
Temporary employment (as % total)	13.9	14.3	16.2	16.7
Part-time (as % of total employment)	17.1	17.4	18.4	18.9
Male	6.6	6.9	6.3	6.7
Female	30.3	30.4	34.1	34.5
Unemployment rate (Harmonised:15–74) (**)	8.7	7.9	8.6	7.9
Long-term unemployment rate (as % of total unemployment)	46.0	45.7	44.5	45.5

(*) 2006: preliminary figures

(**) Some of the differences (with direct results of the EU–LFS) are due to the different nature of the two data sets, but some of the differences occur just because the transition period that uses the most recent quarterly data is not yet completed:
The headline figures published in the monthly news release are seasonally adjusted unemployment rates. This results in a natural difference from the EU–LFS seasonally non-adjusted data. In general, seasonally non-adjusted monthly data are consistent with the published EU–LFS data (with the condition that the EU–LFS is continuous covering all the weeks of the quarter).
In the monthly application, the idea is to keep the time series as comparable in time as possible. It means that possible breaks in the EU–LFS data due to changes in the definitions or in the filtering of the micro data have been adjusted: in 1991/1992 there was general definition precision; the gradual implementation of the 'new' unemployment definition following Regulation (EC) 1897/2000 still leads to backwards-revisions and also a general improvement in the micro data filtering of the EU–LFS data from 2001 onwards caused breaks and backwards-adjustments. While the original EU–LFS data consists of the raw series as they have been recorded at each point of time, the same series have been adjusted when they have been used as benchmarks for the monthly harmonised time series.

Sources: Eurostat (LFS) and Ameco.

Graph 1: **Employment growth, 2000–06 (in %)**



Source: Commission services.

fixed-term jobs as a percentage of total employment rose between 2000 and 2006 respectively from about 10.5 % to 17 % and from about 6 % to above 27 %. However, the contribution of temporary contracts to total employment growth declined; in 2006 about two thirds of total employment growth derived from the creation of permanent employment.

Employment developments by gender shows a balanced contribution of females and males to overall employment growth in 2006

Robust employment growth was recorded for all age groups, whereas between 2001 and 2005 the number of employed aged 15 to 24 — about 10 % of total employment in 2006 — declined substantially (Table 2) ([1]). In 2006 the number of young people employed started to grow again, especially in the euro area. In contrast, for some groups, especially the older workers, employment grew by less than the 2001–05 average, in particular in the EU-15.

Although the female and the older workers remained the most dynamic components, in 2006 their employment growth was significantly below the average of the previous five years. It is too early to consider this change as a reversal of the positive trend observed since 1995. However, the less dynamic increase in participation is mainly

([1]) These figures are based on labour force surveys and refer to the age group 15–64. Please note that in some countries (notably Spain, Italy and the UK, but also Germany and Sweden), some official labour market data have been revised over the most recent years, following revision in the structure of the labour force survey and updating in the official estimates of population. This may have created some breaks in the series making the comparison with past years more difficult.

Graph 2: **Contribution of full-time and permanent employment to total employment growth, EU-25 (in %)**

Source: Commission services.

explained by a more moderate increase, if not even a decline, in the participation of female seniors in several Member States (Graph 4). This should emphasise the importance of additional incomes aiming at closing the gap between average male and female retirement ages.

A closer look at developments at national level reveals that both male and female components contributed to the improvement in the employment performance, with a significant positive contribution from the male component in countries where employment growth had been negative in 2001–05 for this group (i.e. Germany, the Netherlands, Portugal and Finland). A breakdown of employment growth by age groups shows that the shift to positive employment growth in particular for prime-age males in Poland, Germany, the Netherlands, Austria, Denmark, Sweden and Finland contributed to the acceleration in employment. The number of prime-age male workers increased everywhere, which is suggestive of a recovery of employment after the restructuring of the economy which may have taken place in recent years. With the only exceptions of France, Greece, Portugal, Malta and Hungary, the contribution of employment of young people to total employment growth has been positive in all Member States, and in some they were either the main source of employment growth (Denmark and Lithuania) or as important a source as older workers (Finland, Sweden, Latvia and Poland).

Still significant increases in the employment rate of older workers

The relatively large increase in the employment of older workers has been one of the most remarkable developments of recent years. Job creation for older workers accounted for 70 % and 40 % respectively of EU-27 and euro-area total employment growth during the period 2001–05 (Table 2 and Graph 3). Recent reforms in pension systems that have postponed the statutory retirement age and cut incentives for early retirement have reversed the structural decrease in participation of older workers in many Member States. The positive contribution of older workers is offset somewhat by the negative contribution of younger employees. The slowdown in the increase of older workers' employment observed in 2005 continued in 2006, yet with a high growth rate by historical standards. In addition, the lower contribution of the older workers to total employment growth is due also to the recovery in the job creation for young and, especially, prime-age workers.

Member States differ in their pattern of job creation for older workers. Graph 3 reports the change in the employment rate in 2006 relative to the average change between 2000 and 2005. The number of older workers (as a percentage of the total workforce) accelerated remarkably in Austria, Cyprus, Germany, Latvia, Poland and Slovakia. While still growing, the most significant decelera-

Table 2

Employment growth — Contribution by gender and age groups (in %)

	2005–06						2001–05					
	EU-27		Euro area		EU-15		EU-27		Euro area		EU-15	
	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution	Growth rate	Contribution
Employment growth:	1.9		2.0		1.7		0.7		1.0		0.9	
Young (15–24)	0.7	0.0	0.4	0.0	0.5	0.0	– 1.0	– 0.2	– 0.5	0.0	– 0.2	0.0
Prime age (25–54)	1.6	0.7	1.8	0.7	1.5	0.7	0.4	0.5	0.8	0.6	0.6	0.5
Older (55–64)	4.8	0.3	4.8	0.3	4.2	0.3	4.6	0.7	5.0	0.4	5.0	0.5
Male:	1.7	0.5	1.6	0.5	1.4	0.5	0.4	0.3	0.5	0.3	0.4	0.3
Young (15–24)	1.0	0.0	1.0	0.0	0.9	0.0	– 0.8	– 0.1	– 0.5	0.0	– 0.3	0.0
Prime age (25–54)	1.4	0.3	1.4	0.3	1.2	0.3	0.1	0.1	0.2	0.1	0.1	0.0
Older (55–64)	4.1	0.1	3.9	0.1	3.4	0.1	3.7	0.3	3.5	0.2	3.8	0.3
Female:	2.2	0.5	2.1	0.5	2.0	0.5	1.1	0.7	1.4	0.7	1.6	0.7
Young (15–24)	0.4	0.0	– 0.4	0.0	0.2	0.0	– 1.1	– 0.1	– 0.4	0.0	– 0.1	0.0
Prime age (25–54)	4.1	0.4	2.3	0.4	1.8	0.4	3.7	0.4	1.6	0.5	1.2	0.5
Older (55–64)	5.8	0.1	6.1	0.1	5.4	0.2	6.0	0.3	7.3	0.2	6.8	0.3

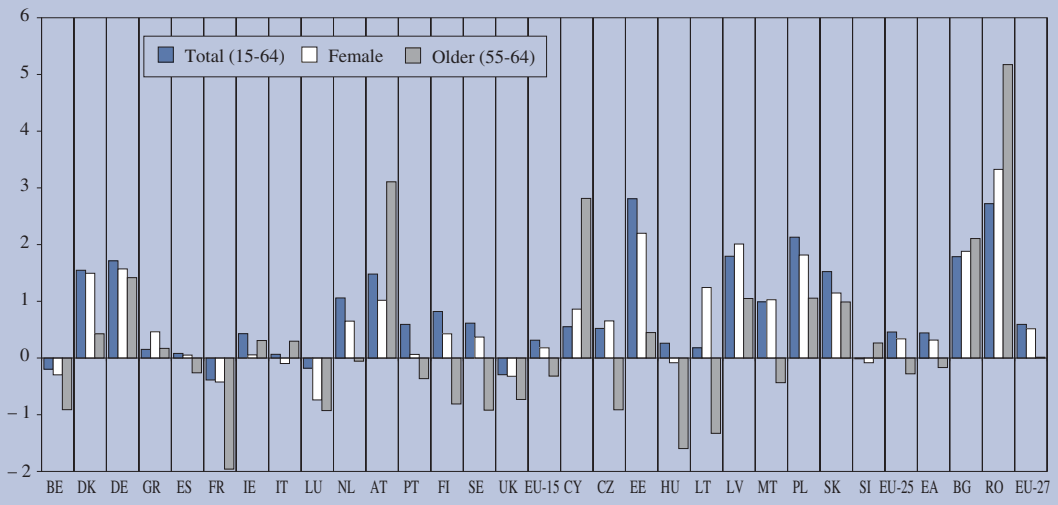
Sources: Commission services based on LFS, Eurostat.

tion was recorded in France, Hungary, Lithuania, Belgium, the Czech Republic, Finland, Sweden and the UK. Overall, between 2000 and 2006 the employment rate of older workers increased by more than 7 percentage points both in the EU-25 and in the euro area (compared to about 1 percentage point over the previous five years, 1995–99). Latvia (+17.4 p.p.), Finland (+12.5 p.p.), Estonia (+12.2 p.p.), Slovakia (+11.7 p.p.), Hungary (+11.4 p.p.) and Germany (+11.0 p.p.) are the countries where the increase in the older workers' employment rate between 2000 and 2006 is spectacular. These promising developments warrant further analysis, especially as regards the recent pickup in young employment and the sustainability of the high employment rate of older workers, without changes in early retirement schemes and pension systems and attitudes of enterprises towards older workers. Indeed, the low increase, and for some countries even declines, in the participation rates of older female workers should warn against the risks in some countries of a low or declining female labour force participation (Graph 4).

The impact of population and participation rate effects on the dynamic of employment rates

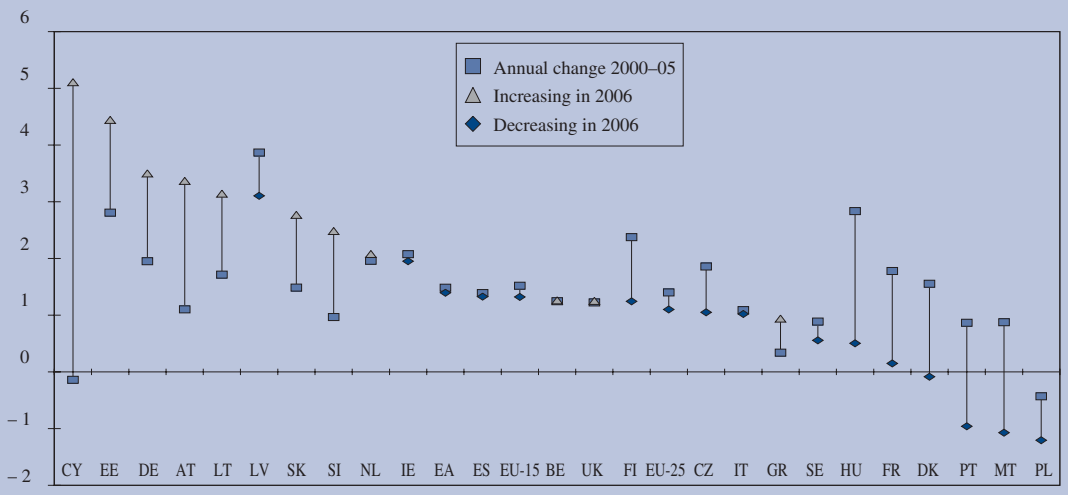
The contribution of different gender and age groups to the changes in the employment rates and the participation rates is shown in Table 3, along with the contribu-

Graph 3: **Changes in the employment rate over 2005–06 relative to the average changes over 20–05 (in percentage points)**



Source: Commission services.

Graph 4: **Changes in the participation rate of older female workers (in percentage points)**



Source: Commission services.

tion provided by the demographic component (detailed country figures are in Annex 1). Over the period of cyclical slowdown (2000–03) and the first year of recovery in 2004, the increase in both participation and employment rate was due to the older and, especially, female components, whereas male employment dampened the overall increase in the employment rate. In 2006, the contribution of male employment and their participation rate turned out to be positive, while that of women almost halved. The impact of the demographic effect (that is the shift in the relative share of different age and gender groups) on the overall employment rate is also relevant and deserves attention. Between 2000 and 2004 almost 40 % of the improvement in the EU employment rate was due to the increasing share of older workers, the most dynamic component of the last five years. In 2006 this effect did not play a significant role.

A significant reduction of the unemployment rate in 2006

After having fallen substantially from 1997 to early 2001 to 8.3 %, the EU-25 unemployment rate ([1]) increased swiftly in response to the global slowdown, reaching 9.1 % in the first half of 2004. It started to decline again in the second semester of 2004, a signal of a much more flexible labour market and of more favourable cyclical conditions, and reached 7.9 % in 2006. In May 2007, the unemployment rate reached 7 % for both the EU-27 and the euro area, the lowest rate for more than a decade. This reduction brought the number of unemployed persons in the EU below 16 million in May 2007 (about 4.5 million less than in 2004).

Unemployment rates range from about 4 % in Denmark, Ireland and the Netherlands to about 14 % in the Slovak Republic and Poland. In 2006 the unemployment rate declined in 20 Member States with Germany (-0.9 p.p.), Italy (-0.9 p.p.), Greece (-1 p.p.), Denmark (-0.9 p.p.) and the Netherlands (-0.8 p.p.) recording the highest reduction. A limited deterioration was registered in countries with unemployment rates lower than the EU average (Ireland, Luxembourg, the UK and Portugal, although for the latter the deterioration is related to a slow adjustment process to the productivity slowdown of the early 2000s). For the new Member States, the trend reduction from high unemployment rates accelerated in 2006. Particularly sharp decreases in unemployment were recorded in Poland (-3.9 %), Slovakia (-2.9 %), Lithuania (-2.7 %), Latvia (-2.1 %) and Estonia (-2.0 %). For the EU-15, the cross-country dispersion of national unemployment rates continued to narrow, and, despite the recent pickup, reached in 2006 the lowest level since the early 1990s (Graph 5). For the EU-27, the significant declines in the unemployment rate of several new Member States, especially of Bulgaria, Poland and Lithuania — more than halving their unemployment rates in about five years — is responsible for a rapid fall in the measure of dispersion.

While it remains difficult to assess precisely to what extent the recent improvements in labour market performance are cyclical, the evidence points toward long-term structural improvements related to reforms enacted in the past five to 10 years. The introduction of more flexible working arrangements, the reduction of disincentives to work embedded in tax and benefit systems, a greater link with activation policies and a stronger reliance on preventive and targeted ALMPs, the reduction — although moderate — of the tax burden on labour, especially for the low-skilled, and more generally, widespread wage moderation, are all factors that would imply a structural improvement in the functioning of labour markets in Europe. Evidence of these improvements is provided by the Beveridge curve, which depicts a negative relationship between unemployed workers and job vacancies. Shifts along the curve represent cyclical increases and decreases in the excess demand for labour, whereas shifts of the curve are indicative of long-run changes. Graph 6 reports the Beveridge curve ([2]) for the period 1993q1 2006q4. Over time the curve shifted inward, which points to an improvement in the process of job reallocation, a lower unemployment rate in association to any given rate of vacancies. Although it is too early to interpret as structural a further shift of the curve, data for 2006 point towards a gradual improvement in the matching of unemployed workers and job vacancies.

Evidence of structural improvements in the labour market is provided also by the relation between the employers' perceptions of the limits to production due to insufficient demand and the unemployment rate. Over the

([1]) The 'harmonised' unemployment rate, compiled by Eurostat, refers to people aged 15 to 74, who are unemployed according to the ILO definition.

([2]) Data on job vacancies and occupied posts area available depending on the countries starting only form 2000. The graph is based on the information from the 'Business and consumer survey' (Directorate-General for Economic and Financial Affairs) which asks about various factors including labour shortages that limit production. Data used are balances between percentage of respondents giving positive and negative answers.

Table 3

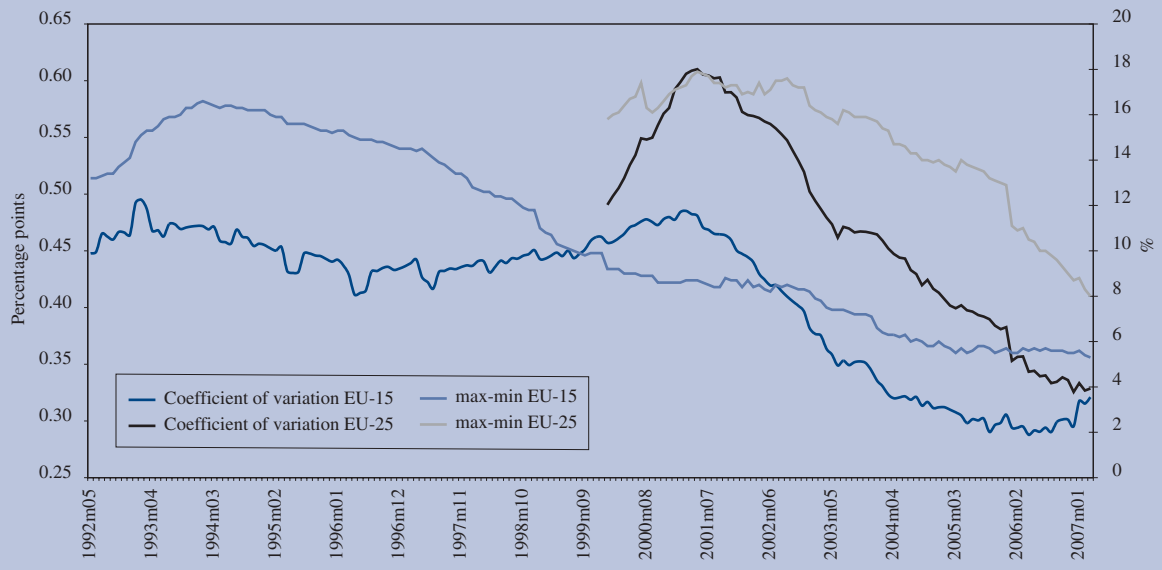
Employment rate and participation rate contribution to changes by gender and age groups

	Employment rate							
	EU-27				Euro area			
Rate in:	2006		2005		2006		2005	
	64.4		63.4		64.6		63.7	
	p.p. change in				p.p. change in			
	2005–06		2000–04		2005–06		2000–04	
	0.9	100 %	0.6	100 %	0.9	100 %	1.3	100 %
	due to shifts in employment rates of:							
Young	0.1	8.8 %	– 0.3	– 44 %	0.1	7.2 %	– 0.2	– 10 %
Prime age	0.6	70.1 %	0.3	53 %	0.6	66.3 %	0.6	50 %
Older	0.2	22.5 %	0.6	101 %	0.2	24.3 %	0.7	60 %
MALE:	0.4	44.3 %	– 0.2	– 38 %	0.4	38.5 %	– 0.1	– 10 %
Young	0.0	5.2 %	– 0.2	– 27 %	0.0	5.3 %	– 0.1	– 10 %
Prime age	0.3	28.9 %	– 0.3	– 54 %	0.2	22.9 %	– 0.3	– 30 %
Older	0.1	10.2 %	0.3	44 %	0.1	10.3 %	0.4	30 %
FEMALE:	0.5	56.8 %	0.9	146 %	0.5	58.6 %	1.3	100 %
Young	0.0	3.5 %	– 0.1	– 18 %	0.0	1.7 %	0.0	0 %
Prime age	0.4	41.0 %	0.6	107 %	0.4	43.0 %	1.0	70 %
Older	0.1	12.3 %	0.3	57 %	0.1	13.9 %	0.4	30 %
	due to demographic effect:							
TOTAL:	0.0	– 1.6 %	– 0.1	– 14 %	0.0	1.9 %	0.1	10 %
Young	– 0.1	– 6.7 %	– 0.1	– 25 %	– 0.1	– 7.7 %	– 0.2	– 20 %
Prime age	– 0.1	– 6.2 %	– 0.2	– 27 %	0.0	2.4 %	0.2	10 %
Older	0.1	11.3 %	0.2	38 %	0.1	7.2 %	0.1	10 %
	due to interaction effect:							
	0.0	0.2 %	0.0	0.0	0.0	0.2 %	0.0	0 %

	Participation rate							
	EU-27				Euro area			
Rate in:	2006		2005		2006		2005	
	70.2		69.7		70.6		70.0	
	p.p. change in				p.p. change in			
	2005–06		2000–04		2005–06		2000–04	
	0.4	100 %	0.6	100 %	0.5	100 %	1.5	100 %
	due to shifts in participation rates of:							
Young	0.0	– 7 %	– 0.3	– 42 %	0.0	– 6 %	– 0.1	– 8 %
Prime age	0.3	67 %	0.4	60 %	0.3	62 %	0.8	54 %
Older	0.2	45 %	0.6	96 %	0.2	42 %	0.7	48 %
MALE:	0.1	31 %	0.0	– 5 %	0.1	22 %	0.2	14 %
Young	0.0	– 5 %	– 0.1	– 21 %	0.0	– 1 %	0.0	– 3 %
Prime age	0.1	18 %	– 0.2	– 25 %	0.0	8 %	– 0.1	– 6 %
Older	0.1	18 %	0.3	41 %	0.1	16 %	0.3	23 %
FEMALE:	0.3	74 %	0.7	117 %	0.4	75 %	1.2	80 %
Young	– 0.01	– 2 %	– 0.1	– 23 %	0.0	– 5 %	– 0.1	– 5 %
Prime age	0.21	49 %	0.5	86 %	0.3	53 %	0.9	60 %
Older	0.12	27 %	0.3	54 %	0.1	26 %	0.4	26 %
	due to demographic effect:							
TOTAL:	0.0	– 6 %	– 0.1	– 18 %	0.0	2 %	0.1	4 %
Young	– 0.1	– 17 %	– 0.2	– 29 %	– 0.1	– 16 %	– 0.2	– 15 %
Prime age	– 0.1	– 14 %	– 0.2	– 27 %	0.0	4 %	0.2	12 %
Older	0.1	25 %	0.2	38 %	0.1	13 %	0.1	7 %
	due to interaction effect:							
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Commission services.

Graph 5: **Dispersion of unemployment rates in the EU**



Note: Coefficient of variations; seasonally adjusted data.
Source: Commission services.

cycle one should expect a positive relationship between these two variables. As the economy improves, both the unemployment rate and the perceived constraints to production from insufficient demand should decline. In the early 1990s this curve shifted upwards, implying a high level of unemployment rate associated with any given employers' perceptions. Since the mid-1990s, the curve has shifted downward suggesting a structural improvement in the labour market as any given perceptions of constraints on the demand side occurs at a lower unemployment rate.

Estimates from the Directorate-General for Economic and Financial Affairs point to a further, although slight, reduction in the NAIRU for the euro area (7.6 % in 2005, compared to a peak of 9.3 % of 1997). However, these structural rates are still high, and without further reduction they represent a serious limitation to the speed of recovery. Indeed, for several countries already at this juncture most of the remaining unemployment appears to be structural in nature (Graph 7).

Driving forces of unemployment developments

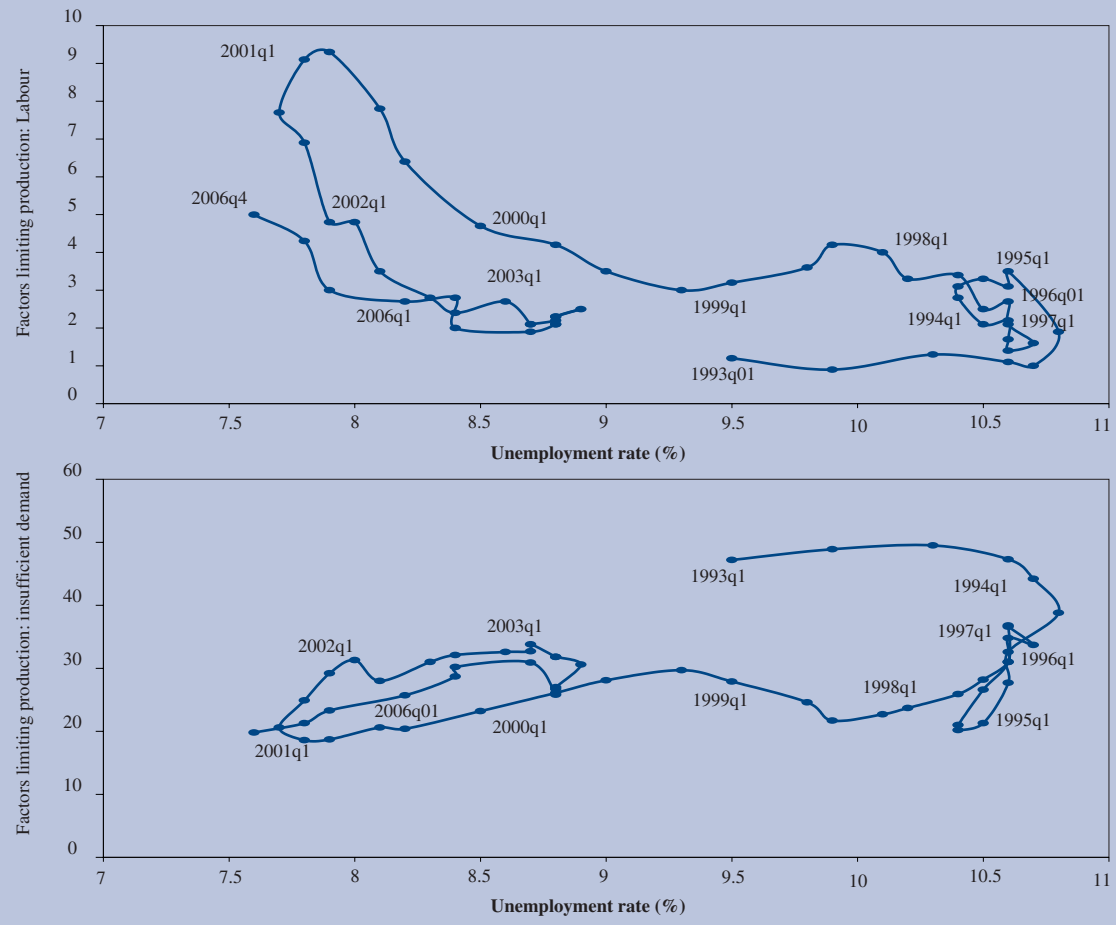
In Table 4, changes in the unemployment rates (for the age group 15–64) are disaggregated into changes in the working-age population, labour force (participation rate) and employment growth ([1]). This decomposition shows that the reduction EU-27 unemployment rate to 8.4 % ([2]) in 2006 was due to the increase in employment (1.7 %), more than offsetting the increase in labour supply, that is the combined increase in both the size of the working-age population (+0.4 %) and the participation rate (+0.6 %).

The overall positive trend observed at the aggregate EU level masks quite diverging developments across Member States. In countries such as Belgium, France, Lithuania, Poland and Slovakia, the reduction in the unemployment rate occurred in parallel with a reduction in participation rates (as likely displaced workers and job-seekers became

([1]) We have used the following calculation: $U = (Popwa * Pr) - E$, where U: unemployed persons, $Popwa$: working age population (15–64); Pr: participation rate; UR: unemployment rate; E: employment. This can be rearranged as $U/(Popwa * Pr) = 1-E/(Popwa * Pr)$ and $(1-UR) = E/(Popwa * Pr)$. Thus, by taking the logarithm of the expression and differentiating it, we can obtain a decomposition that approximates the changes in the unemployment rate (in percentage point) as: $dUR = dPopwa/Popwa + dPr/Pr - dE/E$, that is as the sum of the % change in the working age population and the participation rate minus the % change in employment.

([2]) Calculations are based on the EU-LFS. The aggregate unemployment from LFS differs from the harmonised unemployment rate in Table 1 due to the different nature of the two data sets, but some of the differences occur just because the transition period that uses the most recent quarterly data is not yet completed. For summary methodology, see http://europa.eu.int/estatref/info/sdds/en/une/une_sm.htm

Graph 6: **Beveridge curve and aggregate demand constraints in the euro area (in %)**



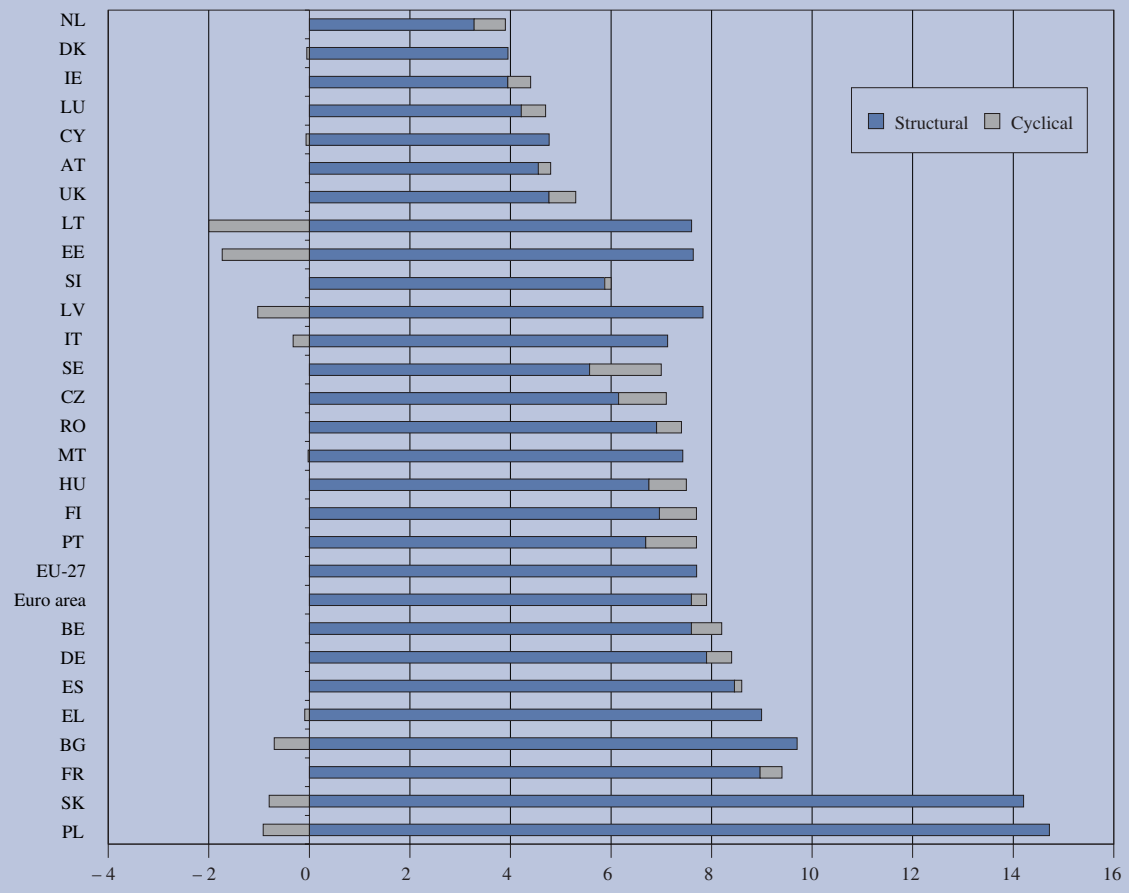
Source: Commission services.

discouraged and left the labour market altogether), while in Ireland, Portugal, Hungary and the UK the increase in employment did not keep pace with the increasing 'potential' labour supply (that is, the increase in the number of people of working age) ([1]). In the former group of countries the decline in the unemployment reflects generally an increase in employment growth. However, for some countries it is also explained by some form of discouragement of labour supply (e.g. as in France and Belgium), or by the decline in the working-age population (e.g. as in Germany). In the last group, the employment growth was not sufficient to absorb the increase in both the participation rate and the size of the working-age population, leading to a slight increase in the (harmonised) unemployment rate in 2006.

The contrasting trends as regards developments in employment and unemployment rates in the euro area between 1994 and 2005 are shown in Graph 8, which depicts the evolution in the number of employed (blue line) and unemployed persons (black line). The number of employed persons increased sharply since the mid-1990s, continued to grow moderately during the 2001–03 slowdown and picked up more robustly during the current recovery. The numbers of unemployed persons (with scale presented in reverse order on the right-hand side, i.e. an upward sloping line means a fall in numbers of persons unemployed), also fell in the second half of the 1990s, but

([1]) Figures for Germany from different sources are inconsistent as, according to the labour force statistics, employment (age group 15+) has grown by 2.2 % in 2006, while national account figures present a smaller increase in employment (0.7 %).

Graph 7: **Estimates of structural and cyclical unemployment rates in 2006 (in %)** (*)



(*) Structural unemployment refers to the NAIRU estimated by the Economic and Financial Affairs DG (Source: Ameco database).
Source: Commission services.

increased during 2001–04. In 2005, after the period of a diverging trend, there is a return to a parallel movement with employment observed since the mid-1990s. The divergence during the economic slowdown occurred because the structural increase in the labour supply (mainly due to increased female participation) was faster than the creation of additional jobs.

1.2. Monitoring the gap with the Lisbon employment targets

Because of the weakness in employment growth over the first half of this decade, approaching significantly the Lisbon employment targets for the EU-27 would require an acceleration in employment over the few remaining years up to 2010. Progress towards the Lisbon employment rate targets since 2001 is shown in Table 5.

The overall employment rate in the EU-27 rose only by 1.9 percentage points since 2001 to reach 64.4 % in 2006. It needs to record an increase of the same size each year over the remaining four years to reach the target of 70 % in 2010. This, in turn, implies that about 21 million additional jobs would need to be created — equivalent to an employment growth between 2007–10 of 2.4 % per year, far above the growth of both the most recent period (2001–06) and the historical average.

The contribution provided by each Member State to the fulfilment of the Lisbon targets (which are targets set for the overall EU economy) varies substantially (Graph 9 and Graph 10). There are only three countries (Denmark, Sweden and United Kingdom) which already exceed all three targets (for the total, female and older workers employment rates of respectively 70 % , 60 % and 50 %) while

Table 4

Decomposing changes in the EU unemployment rate in 2006

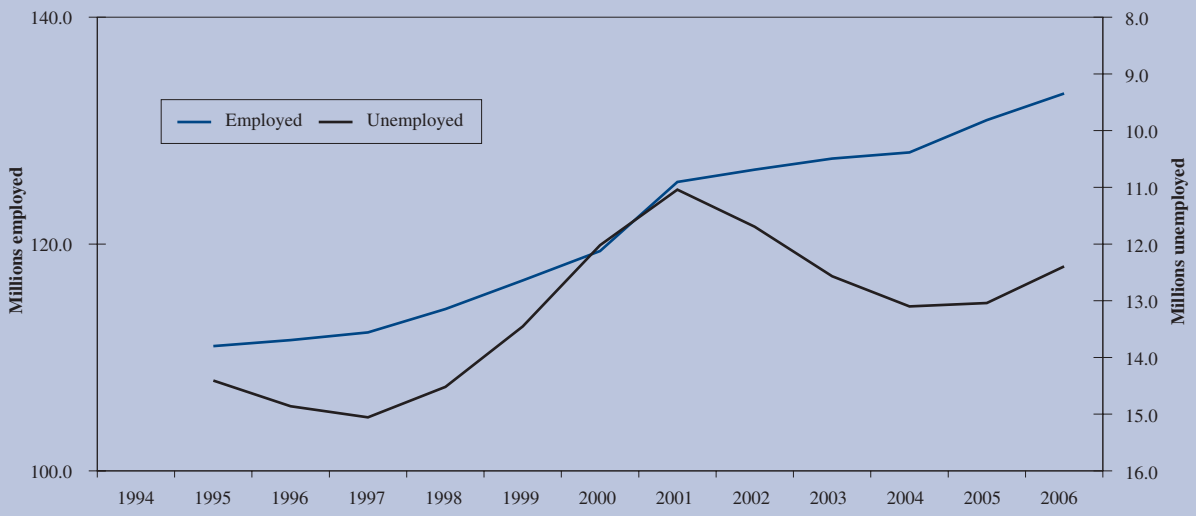
	Unemployment rate (age 15-64)						
	Change since (age 15–64)		is ~ equal to				
	2006	2005	% Change in active population	+	% Change in participation rate	–	% Change in employment
BE	8.3	– 0.2	0.9		– 0.4		0.8
DK	4.0	– 0.9	0.1		0.9		2.0
DE	10.3	– 0.9	– 0.4		1.3		1.9
EL	9.0	– 1.0	0.4		0.4		1.8
ES	8.6	– 0.6	1.7		1.6		4.1
FR	9.1	0.0	1.0		– 0.2		0.8
IE	4.4	0.0	2.9		1.4		4.4
IT	6.9	– 0.9	0.4		0.4		1.8
LU	4.7	0.2	1.0		0.2		0.9
NL	3.9	– 0.8	0.2		0.6		1.7
AT	4.8	– 0.4	0.3		1.8		2.5
PT	8.1	0.1	0.0		0.7		0.6
FI	7.8	– 0.7	0.2		0.7		1.6
SE	7.1	– 0.4	0.9		0.7		2.1
UK	5.4	0.6	0.6		0.4		0.4
EA	8.4	– 0.6	0.5		0.8		2.0
EU-15	7.8	– 0.4	0.5		0.7		1.7
CY	4.6	– 0.8	1.3		0.9		3.0
CZ	7.2	– 0.8	0.5		– 0.1		1.3
EE	6.0	– 2.0	0.3		3.3		5.9
HU	7.5	0.3	0.0		1.0		0.7
LT	5.7	– 2.7	0.0		– 1.4		1.5
LV	7.0	– 2.0	– 0.2		2.4		4.5
MT	7.3	0.0	0.9		1.7		2.7
PL	14.0	– 4.0	0.4		– 1.6		3.6
SK	13.4	– 2.9	1.0		– 0.4		4.0
SI	6.1	– 0.6	0.3		0.3		1.3
EU-25	8.3	– 0.8	0.5		0.5		1.9
BG	9.0	– 1.2	– 0.9		3.8		4.2
RO	7.6	0.1	0.1		2.1		2.2
EU-27	8.3	– 0.7	0.5		0.6		1.9

Source: Commission services, based on Eurostat LFS data.

five countries stand out as being particularly far from the three targets (Hungary, Italy, Greece, Poland and Malta) and two particularly close to the targets (Cyprus and Finland).

Looking at the employment target for specific groups, the most feasible seems to be the one set for females (60 %). Since 2001, the employment rate of women has increased by almost 3 percentage points in the EU-27 (and 4 percentage points in the euro area) to reach 57.2 % in 2006. In 2006 the gap was only 2.8 p.p., which requires an average annual growth of only 1.4 % in 2007–10 compared with an average rate of 2.2 % recorded over the period 1998–2000, 1.4 % over the period 2001–06 and 1.9 % for the year 2006. The female target is already achieved by 13 Member States (Denmark, the Netherlands, Austria, Portugal, Finland, Sweden, the United Kingdom, Estonia, Slovenia, Germany, Cyprus, Latvia, Lithuania) while another one (Ireland) is very close to it. Women from younger generations show higher participation than women from older generations. This cohort effect, fostered by changes in cultural attitudes and the increasing average level of female education, is bringing female employment closer to the Lisbon target.

Graph 8: **Employed and unemployed persons (age 15–64), euro area**



Source: Commission services.

Table 5

Lisbon employment targets: required job performance

Lisbon projections					Required		Pro memoria	
					2006–10	Annual	Employment growth	
Total (15–64)		**2001**	**2006**	**2010**	**New jobs**	**Employment growth**	**1998–2000**	**2001–06**
Employees (15–64)	(1 000)	200 385	210415	231 456	21 041	2.4 %	1.4 %	0.9 %
Employment rate	(%)	62.5	64.4	70				
Population (15–64)	(1 000)	320 435	326 933	330 652				
Older workers (55–64)								
Employees (55–64)	(1 000)	19 597	24 589	30 325	5 736	5.4%	1.8 %	4.6 %
Employment rate	(%)	37.5	43.5	50				
Population (55–64)	(1 000)	52 312	56 576	60 650				
Female								
Employees (15–64)	(1 000)	87 407	93 748	99 018	5 270	1.4 %	2.2 %	1.4 %
Employment rate	(%)	54.3	57.2	60				
Population (15–64)	(1 000)	160 935	163 900	165 031				

Source: Commission services, calculation by the Economic and Financial Affairs DG using Eurostat figures (Europop2004 demographic projections)

The employment rate of older workers (those aged 55–64) across the EU-27, despite considerable recent improvements mainly related to pension reforms, is still a long way (43.5 % in 2006) off the 50 % target established by the European Council in Stockholm in 2001. To achieve this target, almost 5.7 million additional jobs should be created in the EU-27 between 2007–10. This would require an annual growth rate of employment of about 5.4 % per year, a growth rate higher than the average registered in the first half of the decade (4.6 % for the period 2001–06). The older workers' target is already exceeded by 9 Member States (Denmark, Ireland, the United Kingdom, Finland, Portugal, Sweden, Cyprus, Estonia and Latvia)

while another three (Germany, the Netherlands and Lithuania) are already very close to it.

The road ahead to reach national employment rate targets for 2010

Seventeen Member States have set national employment targets in their national reform programmes (NRPs) for growth and jobs ([1]) — a new development in the strategy five years after its launch. In order to identify what could be feasible national targets for the year 2010 under different employment performances, and to see whether and how these national targets would lead to the fulfilment of the overall EU-27 targets, a set of simulations is run taking into account the most recent Eurostat demographic projections for the year 2010. For each Member State, Table 7 reports the national employment rates under the hypothesis of job creation rates over the remaining four years (2007–10) as those observed under four different scenarios (employment growth rate used in the simulation are reproduced in Table 6):

(1) the employment growth scored in 2006;

(2) the recent trend (2001–06), featuring a global low rate of employment growth (and for some countries even a negative growth rate) as a result of the economic slowdown;

(3) the period of buoyant economic and employment growth (1997–2000);

(4) the overall period 1997–2006, which averages the very strong performance of the first half and the following period of slowdown.

For some of the new Member States (Cyprus, Lithuania, Latvia, Malta, Slovakia and Bulgaria) we have used the employment growth rate in 2001–06 (for periods 1997–2000 and 1997–2006) because figures in the previous period were either not available or strongly negative.

In the best possible scenario (i.e. employment growth equal to highest rates recorded in 2006), the overall EU-27 employment rate would still stay below the 70 % target. Thus, if the overall target is to be achieved, some of the laggard countries should try to contribute substantially more than they have done over the last 8–10 years. For the female target, the situation is less challenging, as the 60 % target could be hit with an employment growth close to the average of the last period 2005–06. The result for older workers deserves attention. Indeed, even if the strong acceleration in the employment growth of older workers over the most recent period (2001–06 and 2005–06) was maintained over the remaining five years, the EU-27 older workers' employment rate would still be below the 50 % target, especially in the euro area. To sum up, the Lisbon employment targets remain very ambitious, especially in view of the fact that achieving the Lisbon strategy involves efforts both to improve labour market performance and to raise growth. This implies a need for substantial acceleration in medium-term labour productivity growth. ([2])

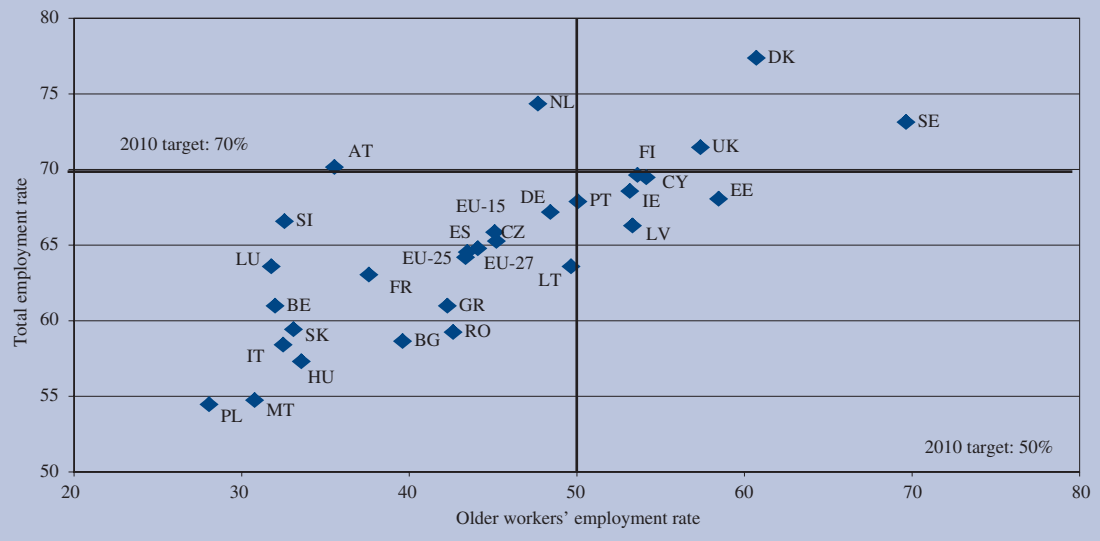
([1]) The Commission, on 12 April 2005, put forward its communication on integrated guidelines for growth and jobs (2005–08). The integrated guidelines reflect the new economic governance approach following the outcome of the mid-term review of the Lisbon strategy. The new set of BEPGs and EGs translates the spring European Council conclusions on the vital strands of the new start of Lisbon into guidelines for economic and employment policies for the four year period 2005–08. According to the new integrated guideline No 16: 'Implement employment policies aiming at achieving full employment, improving quality and productivity at work, and strengthening social and territorial cohesion', policies should contribute to achieving an average employment rate for the European Union (EU) of 70 % overall, of at least 60 % for women and of 50 % for older workers (55 to 64), and to reduce unemployment and inactivity. 'Member States should set national employment rate targets for 2008 and 2010 (integrated guideline No 16)'.

([2]) For a detailed analysis of the linkages between employment and productivity growth, see European Commission (2004), 'Labour markets in the EU: an economic analysis of recent performance and prospects' in *European Economy — The EU economy: 2004 review*, chapter 3.

Graph 9: **Progress towards the Lisbon targets: total and female employment rates, 2006**

Note: EU objective 2010: 70 % for total employment rate, 60 % for female employment rate.
Source: Commission services.

Graph 10: **Progress towards the Lisbon targets: total and older workers' employment rates, 2006**



Note: EU objective 2010: 70 % for total employment rate, 50 % for older workers' employment rate.
Source: Commission services.

Table 6

Employment growth rate used in the simulation (in %)

Country	Total				Female				Older			
	2005–06	2001–06	1997–2000	1997–2006	2005–06	2001–06	1997–2000	1997–2006	2005–06	2001–06	1997–2000	1997–2006
BE	0.8	1.0	2.1	1.1	1.3	1.8	3.4	2.0	0.8	1.0	2.1	1.1
DK	2.0	0.5	0.6	0.5	2.2	0.6	1.3	0.8	2.6	3.7	7.5	5.5
DE	1.9	0.4	1.0	0.6	2.0	1.0	1.7	1.3	5.5	2.4	– 0.5	0.9
EL	1.8	1.8	2.4	1.8	3.1	2.8	2.6	2.4	3.5	2.9	– 5.2	– 0.4
ES	4.1	4.1	5.1	4.4	5.6	5.9	6.7	6.2	5.2	5.3	2.8	4.7
FR	0.8	0.9	1.8	1.4	1.2	1.5	2.0	1.8	3.9	9.2	0.4	5.8
IE	4.4	3.1	7.4	4.5	4.5	3.8	8.9	5.5	6.7	6.5	8.1	7.2
IT	1.8	1.3	1.4	1.4	2.5	2.4	2.5	2.6	3.8	3.9	– 0.6	2.0
LU	0.9	1.1	2.3	1.7	4.1	2.6	4.0	3.3	8.1	8.7	5.4	5.4
NL	1.7	0.4	3.1	1.5	2.2	1.1	4.3	2.5	5.9	8.2	9.8	8.4
AT	2.5	1.0	1.0	0.9	2.7	1.6	1.1	1.4	10.0	5.0	2.5	3.5
PT	0.6	0.1	3.6	1.4	0.4	0.6	3.4	1.6	0.3	1.4	– 0.5	0.6
FI	1.6	0.6	3.3	1.6	1.5	0.8	3.2	1.7	6.6	8.0	7.2	8.5
SE	2.1	0.5	1.6	1.3	1.6	0.3	1.7	1.2	1.8	3.7	5.6	5.0
UK	0.4	0.5	0.5	0.6	0.6	0.8	1.4	1.0	2.9	4.7	3.6	4.3
EU-15	1.7	1.1	1.8	1.4	2.0	1.8	2.4	2.0	4.2	4.8	1.6	3.4
CY	3.0	2.9	2.9	2.9	4.3	3.3	3.3	3.3	7.4	5.0	5.0	5.0
CZ	1.3	0.6	– 1.5	– 0.2	1.3	0.3	– 1.5	– 0.3	4.7	8.5	1.2	5.8
EE	5.9	2.1	– 2.0	0.6	5.0	2.5	– 2.0	0.8	4.9	3.0	– 5.0	0.4
HU	0.7	0.3	2.2	1.0	0.4	0.4	3.0	1.4	3.6	9.0	7.1	8.5
LT	1.5	2.2	2.2	2.2	2.6	1.7	1.7	1.7	1.0	4.0	4.0	4.0
LV	4.5	2.2	2.2	2.2	4.9	1.9	1.9	1.9	6.0	5.4	5.4	5.4
MT	2.7	0.7	0.7	0.7	4.6	2.0	2.0	2.0	– 1.6	2.1	2.1	2.1
PL	3.6	0.7	– 1.1	– 0.2	3.6	0.4	– 0.7	– 0.2	8.4	4.6	– 8.8	– 0.9
SK	4.0	1.6	1.6	1.6	2.8	0.6	0.6	0.6	15.8	11.8	11.8	11.8
SI	1.3	1.0	0.3	0.8	1.0	1.0	0.2	0.7	11.0	6.7	0.9	5.1
EU-25	1.9	1.1	2.4	1.5	2.1	1.6	3.0	2.1	4.5	5.0	1.7	3.5
EA	2.0	1.3	2.1	2.0	2.4	2.1	2.8	2.7	4.8	4.9	0.8	3.6
BG	4.2	2.8	2.8	2.8	4.9	2.5	2.5	2.5	14.0	10.5	10.5	10.5
RO	2.2	– 1.5	– 2.0	– 1.6	2.9	– 1.9	– 2.0	– 1.8	8.8	– 2.5	– 6.2	– 4.1

Source: Commission services, Directorate-General for Economic and Financial Affairs.

Table 7

Employment rates in 2010, alternative simulation (in %)

	Alternative country targets						
Target:	Overall employment rate in 2010						
	Rates in 2010 using employment growth rate in:					Employment rate targets set by Member States	
Country	2006	2005–06	2001–06	1997–2000	1997–2006	(from NRPs)	
BE	61.6	62.6	63.0	66.0	63.5	70	
DK	77.0	83.4	78.3	78.7	78.4	50 000/60 000 extra jobs	
DE	63.6	69.2	65.1	66.7	65.7		
EL	58.4	62.1	62.0	63.4	62.0	64.1	(projections)
ES	65.7	75.9	75.9	79.0	77.0	66	
FR	62.7	63.8	64.0	66.2	65.2		
IE	71.3	81.6	77.8	91.3	82.1		
IT	58.7	63.3	62.1	62.2	62.3		
LU	60.1	59.7	60.2	63.2	61.6		
NL	73.6	77.9	73.8	82.3	77.2		
AT	70.4	77.1	72.6	72.6	72.4		

(Continued on the next page)

Table 7 (continued)

PT	68.0	69.5	68.2	78.2	71.8	70	
FI	68.9	73.1	70.1	78.0	72.9	75	"(2011)
SE	73.5	78.8	74.0	77.4	76.5	80	(age 20–64)
UK	69.8	69.6	70.0	70.0	70.2	80	(national definition)
EU-15	65.0	69.0	67.6	69.8	68.5		
CY	67.7	71.6	71.3		72.4 (**)	71	
CZ	65.8	69.9	68.0	62.6	66.0	66.4	
EE	67.7	87.0	75.1	63.6	70.7	67.2	(projections)
HU	56.4	58.6	57.7	62.3	59.4	63	
LT	63.6	67.9	69.7	55.5 (*)	64.1 (*)	68.8	
LV	66.4	81.0	74.1	62.3 (*)	70.9 (*)	67	
MT	53.6	57.2	53.0		53.4 (**)	57	
PL	53.4	60.9	54.2	50.5	52.3		
SK	59.6	69.0	63.0	53.9 (*)	60.0 (*)	yearly increase	1-2 p.p.
SI	66.4	69.9	69.0	67.3	68.7	67	"(2008)
EU-25	63.7	68.2	66.2		66.1 (**)		
EA	64.5	69.4	67.6	69.7	69.4		
BG	57.8	70.2	66.5		63.2 (**)		
RO	58.8	64.4	55.7	54.6	55.5		
EU-27	64.0	68.6	66.2		65.8 (**)		

Target:	Employment rate of females in 2010						
	Rates in 2010 using employment growth rate in:					Employment rate targets set by Member States	
Country	2006	2005–06	2001–06	1997–2000	1997–2006	(from NRPs)	
BE	54.5	56.6	57.7	61.3	58.2	60	asap
DK	73.1	79.5	74.7	76.8	75.4		
DE	58.2	63.5	61.1	62.8	61.7		
EL	46.0	51.5	50.8	50.4	50.0	51	
ES	53.8	65.7	66.6	68.6	67.2	57	
FR	57.8	59.6	60.4	61.7	61.1		
IE	61.4	70.4	68.7	83.2	73.3		
IT	46.5	51.6	51.5	51.6	51.8		
LU	49.7	55.9	52.9	55.7	54.2		
NL	67.2	72.2	69.3	78.5	73.0	65	>12 hours week
AT	64.0	70.7	67.6	66.2	67.1		
PT	62.0	63.0	63.3	70.9	66.1	63	(2008)
FI	67.3	71.0	69.0	76.0	71.6		
SE	71.1	74.9	71.1	75.0	73.7		
UK	65.0	65.5	66.0	67.5	66.6		
EU-15	57.7	62.2	61.7	63.8	62.6		
CY	59.3	65.8	63.4		59.6 (**)	63	
CZ	57.1	60.8	58.4	54.5	57.0	57.6	(2008)
EE	65.1	80.7	73.3	61.3	68.5	65	
HU	50.6	51.9	52.0	57.5	54.1	57	
LT	61.0	68.0	65.7	59.4 (*)	61.7 (*)	61	
LV	62.5	77.4	69.1	62.7 (*)	65.5 (*)	62	
MT	34.3	39.6	35.8		33.5 (*)	41	
PL	47.4	53.9	47.7	45.5	46.6		
SK	52.0	57.6	52.9	50.5 (*)	51.6 (*)		
SI	61.8	64.5	64.6	62.6	63.9	2pp >EU-15	(2008)
EU-25	56.6	61.3	60.2		57.8 (**)		
EA	56.7	62.0	61.3	63.1	62.8		
BG	54.1	67.5	61.6		57.2 (**)		
RO	53.0	59.7	49.3	49.3	49.7		
EU-27	57.1	62.0	60.1		57.9 (**)		

(Continued on the next page)

Table 7 (continued)

Target:	Employment rate of older workers in 2010						
Country	Rates in 2010 using employment growth rate in:					Employment rate targets set by Member States	
	2006	2005–06	2001–06	1997–2000	1997–2006	(from NRPs)	
BE	29.6	26.2	26.4	27.6	26.6	50	asap
DK	61.7	65.6	68.6	79.1	73.4		
DE	43.5	54.3	48.2	42.9	45.3		
EL	42.2	43.6	42.5	30.7	37.4		
ES	47.3	50.7	51.0	46.2	49.7		
FR	41.6	38.8	47.4	33.9	41.8		
IE	57.8	62.3	62.0	65.8	63.5		
IT	32.6	36.3	36.5	30.6	33.9		
LU	30.0	35.1	36.0	31.8	31.8		
NL	50.6	55.3	60.2	63.9	60.7	40	>12 hours week
AT	34.1	51.6	42.7	38.9	40.5		
PT	52.2	47.7	49.8	46.1	48.2	50	
FI	59.3	64.4	67.8	65.7	69.0		
SE	73.3	75.7	81.6	87.7	85.9		
UK	59.8	61.9	66.3	63.6	65.5		
EU-15	45.8	49.5	50.7	44.7	48.0		
CY	57.3	61.5	52.0	52.0	47.1 (**)	53	
CZ	48.9	51.7	59.4	45.0	53.7	47.5	(2008)
EE	58.4	66.7	61.8	44.8	55.8	54.8	(2008)
HU	34.2	34.8	42.7	39.7	41.9	37	
LT	49.9	51.2	56.4	57.5	49.5 (*)	50	
LV	52.0	67.6	65.0	62.6	54.2 (*)	50	
MT	26.1	19.3	27.0	22.3	21.3 (**)	35	
PL	31.5	31.9	27.6	16.0	22.2		
SK	35.7	50.7	33.0	31.7	28.6 (*)		
SI	34.7	43.7	37.2	29.8	35.1	35	(2008)
EU-25	44.5	47.7	48.6	42.0	40.7 (**)		
EA	43.0	47.4	47.6	40.6	45.2		
BG	39.8	61.9	54.5		37.9 (**)		
RO	44.0	52.5	33.8	29.0	31.7		
EU27	45.2	48.9	48.6		41.0 (**)		

(*) data range from 1998.
(**) data range from 1999.

Source: Commission services, Directorate-General for Economic and Financial Affairs.

2. Employment developments and economic growth

2.1. The responsiveness of employment to economic growth

The elasticity of employment to growth has increased

Employment growth usually lags behind the pickup in aggregate demand, and the lags are typically higher when the recovery in activity is sluggish or uncertain. This seems to have been the case for the last two years. In 2004, the pace of GDP growth averaged 2 % in the euro area and 2.4 % in the EU for the year as a whole (although with a deceleration in the second half of the year). For some quarters, employment performance at the EU level was lagging improvement in the economic growth and the risk of a 'jobless recovery' was raised. After the pickup in the first semester of 2004, the pace of output growth slowed down again in the following quarters up to 2005q2, resulting in an annual GDP growth for the euro area lower than in 2004. Yet, employment in the euro area continued to grow at the same rate as in 2004, and even accelerated slightly in the EU. In the euro area, job creation of dependent employment contributed to smooth out the negative effect on total employment growth of a poor self-employed job creation (Graph 11, first panel). With the uncertainties on the timing and robustness of the recovery fading away and growth gaining momentum at the end of 2005, job creation picked up significantly. In the euro area the employment recovery, which characterised all sectors, was particularly robust in services, especially finance and business services, and construction. The negative employment growth of industry excluding construction, due to the restructuring of this sector since the beginning of the decade, slowed down considerably in 2006. Employment in this sector stabilised to a level lower than the one prevailing in the second half of the 1990s, whereas in other sectors there is no evidence of a significant deviation from the long-term trend (Graph 12).

The evolution of the job-intensity of growth can be better observed looking at the apparent elasticity of employment to GDP growth (Graph 13). Between 1996 and 2001, the elasticity of employment to GDP growth increased quite substantially, whereas employment turned out to be quite resilient also to the downturn of 2001–03. After the drop to lower levels in 2003–04, in 2005–06 there was a rebound towards the historical value of the elasticity.

In terms of average hours per worker, the relative drop since the start of the slowdown in 2001 was more accentuated, pointing to substantial labour hoarding which was compensated by a reduction in the intensity of use of the workforce (more short-time working and reduction of overtime, reflected in lower number of hours worked). As the recovery gained momentum the working hours-intensity of growth picked up substantially.

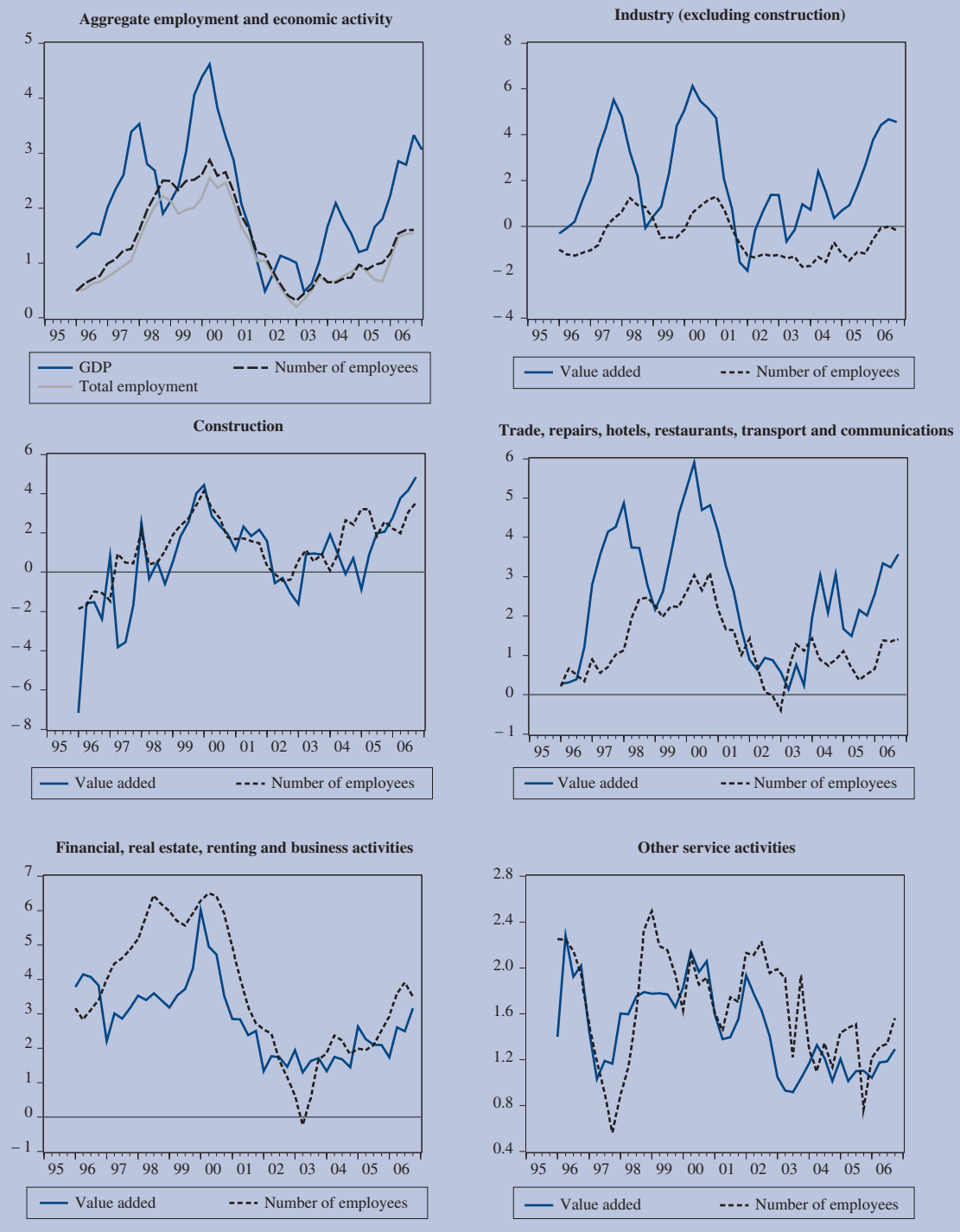
The dynamics of the total apparent elasticity is influenced by the contribution of services (in particular of financial and business services, and trade, transport and communications), whereas the contribution of industry (excluding construction) and of construction is respectively negative and increasingly positive (Graph 14).

Diverging developments across Member States

The cyclical recovery of employment at the aggregate EU level masks diverging developments across Member States. This is the result of two factors that are difficult to disentangle:

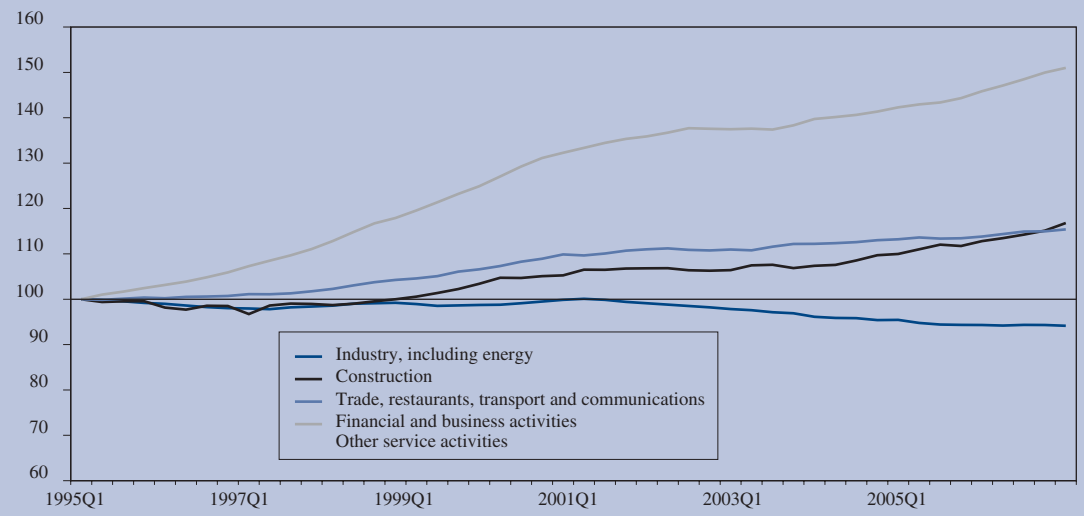
- Member States undergo cyclical swings of different length and depth; and,
- the performance of labour markets differs even under the same cyclical conditions, due to different structural features.

Graph 11: **Aggregate and sectoral employment and economic activity in the euro area**



Source: Commission services.

Graph 12: **Sectoral employment in the euro area (1995=100)**



Source: Commission services.

Looking at country performances, almost all countries display a job-intensity of growth close to the values recorded over the previous expansionary period (1996–2000) — Table 8. Compared with this, the job-intensity of growth picks up in Greece, Ireland, Italy, Austria and Poland in 2006, whereas the recovery is associated with an acceleration of productivity in Germany and France. However, the strong acceleration in the path of economic activity in Germany sustained the most sizeable gains in employment since 2001.

2.2. The contribution of employment and labour productivity to GDP growth

The relative contribution to GDP growth of its two main components, labour productivity and labour utilisation, can be assessed using the standard accounting framework.

$$GDP = Labour\ productivity \times Labour\ productivity$$

$$\text{or } GDP = \frac{GDP}{Hours} \times \left(\frac{Hours}{Employment} \times \frac{Employment}{Working\ age\ pop.} \times \frac{Working\ age\ pop.}{Population} \right) \times Population$$

The level of GDP is given by the product of labour productivity (GDP per hour worked) by the different components of labour utilisation, that is average hours worked per person, the employment rate, the share of working-age population and the population. GDP growth equals the sum of the growth rates of these variables. This simple accounting is reproduced in Table 9 and Table 10.

Compared with the average of the 1997–2005 period, the pickup in GDP growth in 2006 in both the EU-15 and the euro area is due to the increase in the contribution of labour utilisation, which was made possible by the less negative growth in the hours worked per employed. For the euro area, the less negative growth in hours worked offset a small decline in the share of the working age population. In all Member States but Ireland, Greece, France, Portugal and Slovenia hourly labour productivity growth was in 2006 higher than the 1997–2005 average. For several Member States, the contribution of an increasing employment rate was reduced by a decline in the hours worked per employee. However, the declining trend observed in the past slowed down in many countries. In some (CZ, DK, EE, EL, ES, PL, SI, SK, FI) there was even an increase in the hours worked. ([1])

The demographic component contributed positively to the increase in employment growth in a high number of countries, and especially in Belgium, Spain, Ireland, Cyprus,

([1]) Over the period 2001–04, there was a cyclical reduction in per capita hours worked that played the role of buffer in presence of labour hoarding. This added to the trend decline in average hours worked that reflects both the increased participation of women, who are more likely to work part-time and persons choosing more leisure time as real income rose.

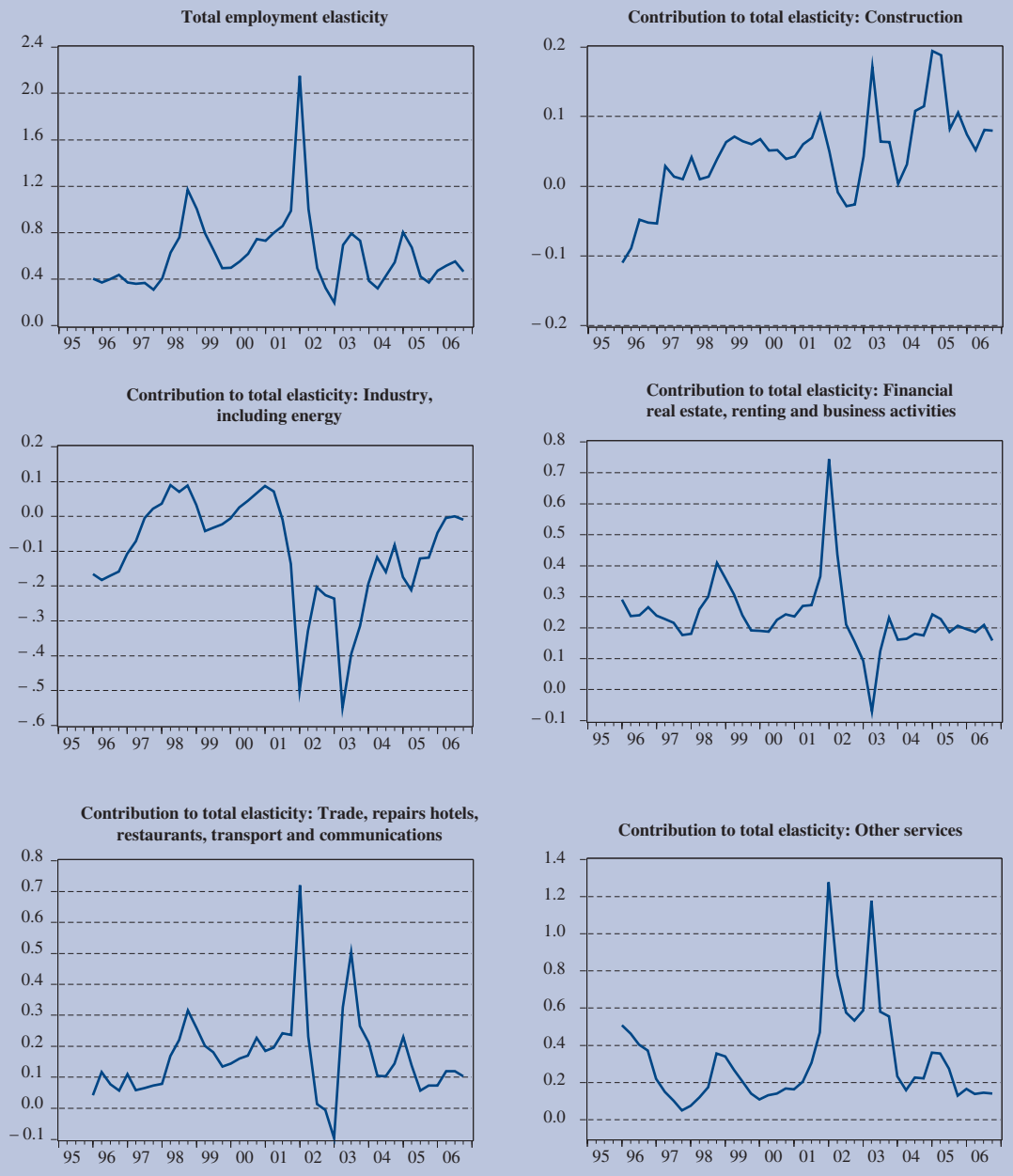
Graph 13: **Job-intensity of growth**

Source: Commission services.

Sweden, Slovenia and the UK. The contribution of the change in the share of the working-age population was negative in Germany, Italy, Finland, France, Portugal and the Netherlands. Demographic trends have been an important factor in the differing relative performance of the EU versus the US over the last decade, and are projected to be even more relevant in the coming decades given the faster pace of ageing in Europe. In 2006 the positive contribution of the demographic effect was in the US (about 30 % of total GDP growth) three times as much as in the EU.

Looking at the recent hourly productivity trends in the EU, the pickup observed since 2004 brings the average growth of hourly productivity of the last three years (1.4 %) at about its average of 1.5 % for the EU-15 over the period 1996–2006. This pattern conceals country specific developments. In several countries, namely Belgium, Germany, the Netherlands, Finland, Sweden and the UK, the acceleration of hourly productivity in 2006 brought the growth rate above the historical average. Although improving, productivity growth remained below the average in Greece, France, Ireland Portugal and Hungary. As typically occurs during the early stages of recovery, in 2004 productivity was the dominant engine of output growth, whereas in 2006 the increase in the employment rate contributed to the overall output growth by as much as the increase in hourly productivity. In 2006, acceleration in hourly productivity and in

Graph 14: **Total apparent elasticity of employment to growth and sectoral contributions**



Source: Commission services.

labour utilisation sustained the pickup in GDP growth. A similar pattern can be observed in the US, where the strong growth in 2004 (3.0 %) was followed in 2005 by a decline in hourly productivity growth (1.8 %) and an increase in the rate of labour utilisation. The simultaneous acceleration in 2006 in hourly productivity and in the employment rate may suggest that part of the increase in productivity is of a structural nature.

Table 8

Job-intensity of growth (elasticity of employment to growth) (*)

	Previous slowdown	Previous expansionary period	Annual average		
	1991–93	1996–2000	2001–03	2004–06	2006
BE	0.3	0.5	0.6	0.5	0.3
CZ	0.0	– 0.1	0.0	0.2	0.3
DK	5.1	0.4	– 0.8	0.3	0.6
DE	0.3	0.3	1.8	0.1	0.2
EE	0.0	– 3.1	0.2	0.2	0.5
EL	0.2	0.2	0.1	0.4	0.4
ES	0.6	0.9	0.9	1.0	0.9
FR	0.4	0.5	0.6	0.2	0.4
IE	0.2	0.6	0.4	0.8	0.7
IT	1.1	0.6	15.5	1.6	0.9
CY	0.0	0.3	1.2	0.7	0.4
LV	0.3	– 0.2	0.3	0.2	0.4
LT	0.0	0.1	0.1	0.2	0.2
LU	0.8	0.8	1.4	0.7	0.6
HU	3.5	0.2	0.1	0.0	0.2
MT	0.2	0.2	– 1.4	– 1.8	0.3
NL	0.8	0.6	2.1	0.0	0.4
AT	– 0.3	0.2	0.0	0.4	0.4
PL	– 0.2	– 0.1	– 1.5	0.5	0.6
PT	0.0	0.5	0.7	0.2	0.5
SI	0.0	– 0.1	0.2	0.1	0.2
SK	0.0	– 2.2	0.2	0.1	0.3
FI	3.1	0.5	0.4	0.3	0.3
SE	2.6	0.1	0.5	0.1	0.4
UK	– 2.2	0.4	0.4	0.4	0.3
US	1.5	0.5	0.1	0.5	0.6
JP	1.1	2.1	– 3.4	0.2	0.2
Euro area	0.0	0.5	0.7	0.5	0.5
EU-25	0.0	0.4	0.4	0.5	0.5
EU-15	1.1	0.5	0.6	0.4	0.5

(*) Data are from national accounts statistics and Commission's forecasts

Source: Commission services.

The latest data show that total factor productivity and labour productivity in the euro area have respectively increased by 1.0 % and 1.5 % in 2006, compared with an average change of rate of 0.7 % and 1.2 % during the previous decade ([1]). The declining trend of labour productivity from the past could have come to an end by 2003 and the evolution of labour productivity in recent years is particularly remarkable in light of the simultaneous increase in employment. Yet the jury is still out on whether the recent rebound in productivity is purely cyclical or whether it contains an element of trend reversal to weakening productivity dynamics observed over the past decade.

On the sceptical side, the rebound is too recent to be attributed to a structural break in the time series as it usually takes data of five to 10 years before a structural break can be confidently identified. As a matter of fact, part of the recent increase in labour productivity growth could be regarded as transitory, on the basis that its marked pro-cyclical behaviour may be reflecting the lagged response of employment — a quasi-fixed production factor to output growth. This source of uncertainty notwithstanding, recent evidence

([1]) Gomez-Salvador et al. (2006) provide a description of some important aspects relating to recent productivity developments in the euro area. Following decades of stronger gains in the euro area than in the US, labour productivity growth has fallen behind that in the US since the mid-1990s. The decline in labour productivity growth resulted from both lower capital deepening and lower total factor productivity growth. A comparison with developments in the US suggests that the euro area economy seems to have benefited much less from increased production and use of ICT technologies, in particular in the services sector.

Table 9

GDP growth and its sources in 2006

	GDP growth in 2006	Due to growth in:						GDP per capita growth in 2006
		Productivity (GDP/hour)	Labour utilisation of which	Hours worked per employee	Employment rate	Share of working-age population	Population	
	1 = 2+3	2	3 = 4+5+6+7	4	5	6	7	8 = 1-7
BE	3.2	2.0	1.1	0.0	0.2	0.5	0.4	2.7
CZ	6.1	3.8	2.2	0.6	1.2	0.1	0.2	5.9
DK	3.2	1.2	2.0	0.1	1.7	– 0.1	0.3	2.9
DE	2.8	2.1	0.6	– 0.1	1.6	– 0.7	– 0.1	2.9
EE	11.4	3.7	7.4	2.0	5.4	0.2	– 0.2	11.6
EL	4.3	2.2	2.0	0.5	1.1	0.1	0.3	4.0
ES	3.9	0.5	3.3	0.0	2.1	0.0	1.2	2.7
FR	2.0	1.2	0.8	0.0	0.3	– 0.1	0.6	1.4
IE	6.0	1.8	4.1	– 0.1	1.3	0.4	2.5	3.5
IT	1.9	1.0	0.9	– 0.8	1.7	– 0.3	0.3	1.5
CY	3.8	2.3	1.5	0.0	– 0.6	0.1	2.0	1.8
LV	11.9	6.7	4.9	0.2	5.0	0.2	– 0.5	12.4
LT	7.5	6.6	0.9	– 0.8	2.3	0.0	– 0.6	8.1
LU	6.2	3.3	2.9	– 0.8	2.5	0.2	1.0	5.2
HU	3.9	3.4	0.5	– 0.2	0.8	0.1	– 0.2	4.1
MT	3.3	2.4	0.9	0.0	0.0	0.3	0.5	2.7
NL	2.9	2.1	0.7	– 0.5	1.1	– 0.1	0.2	2.7
AT	3.1	1.8	1.3	– 0.1	0.9	0.1	0.4	2.7
PL	5.8	2.3	3.4	0.2	2.9	0.4	– 0.1	5.9
PT	1.3	0.6	0.7	0.0	0.5	– 0.1	0.4	0.9
SI	5.2	3.0	2.2	1.0	0.9	0.1	0.2	5.0
SK	8.3	5.4	2.7	0.4	2.2	0.1	0.1	8.2
FI	5.5	3.8	1.6	0.2	1.2	– 0.2	0.4	5.1
SE	4.2	2.7	1.4	– 0.3	0.8	0.2	0.7	3.5
UK	2.8	2.6	0.2	– 0.6	– 0.1	0.3	0.5	2.2
US	3.3				0.8	0.2	0.9	2.4
Euro area	2.7	1.4	1.3	– 0.1	1.3	– 0.2	0.4	2.3
EU-25	2.9	1.5	1.4	– 0.1	1.2	– 0.1	0.4	2.6
EUR-15	2.8	1.7	1.1	– 0.2	1.0	– 0.1	0.4	2.4
NMS10	5.9	3.1	2.7	0.2	2.3	0.3	0.0	6.0

Source: Commission services.

suggests that productivity growth in the euro area appears to have stabilised after decades of trend decline ([1]).

Another aspect that should be brought into the analysis when trying to predict the most likely behaviour of productivity in the near future is the effect of low-skilled workers. Although there is general perception that labour market reforms have improved the prospects of low-skilled workers, which in turn could have reduced productivity growth, there is no indication of a rising share of low-skilled workers in employment to date. According to the labour force survey, the share of low-skilled workers declined between 2000 and 2006 in each Member State and the euro area. This could mean that the impact of low-skilled workers on aggregate productivity developments is still to be awaited.

([1]) Benati (2007) uses various estimation methodologies to investigate changes in the equilibrium rate of growth of labour productivity in the United States and the euro area over the post-WWII era. Results for the US capture the 'conventional wisdom' of a golden era of high productivity growth, the 1950s and 1960s; a marked deceleration starting from the beginning of the 1970s; a strong growth resurgence starting from mid-1990s; and evidence of the 1990s' productivity acceleration to have reached a plateau over the last few years. Results for the euro area point towards a marked deceleration since the beginning of the 1980s, with the equilibrium rates of productivity growth stabilising over the last few years. More precisely, the equilibrium rate of growth of real GDP per hour in the euro area is estimated to have fallen from 2.1 % before 2001 to 0.6 % over the most recent sub-period; and the equilibrium growth rate of real GDP per worker is estimated to have decreased from the 3.3 % of the former sub-period to 1.4 % over the latter.

Some have expressed concerns that measures exclusively focused on the flexible use of atypical contracts (e.g. fixed term and temporary) could increase labour market segmentation between regular and contingent workers, with the latter being more often in low quality jobs, precarious labour market attachment and insufficient training. This, in turn, contributes to a dismal aggregate performance of productivity (Blanchard and Landier, 2001) ([1]). Reforms under the so-called 'flexicurity' ([2]) approach, which combine flexibility measures across all workers categories with preventive actions, may be more suitable to simultaneously sustain employment and productivity.

On the bright side, although the latest growth rates of labour productivity have not been high in comparison with previous cycles (similar growth rates were recorded during cyclical peaks in 1997/98 and 2000), what is remarkable in the current juncture is that the productivity recovery has been relatively long. The growth rate was above the 10-year average in seven out of the latest eight quarters, i.e. almost the complete years 2005 and 2006.

Moreover, both employment and productivity growth accelerated in tandem in 2006, which was the first time since 1997. The simultaneous appearance of job creation and productivity improvements in the USA has often been considered as an indication of structural productivity improvement. The ongoing acceleration is broadly based across the larger euro-area Member States, most notably Germany, France and Spain, and it comprises the services sectors, conventionally less sensitive to the business cycle.

([1]) Blanchard, Olivier J. and Landier, A. (2001).
([2]) For details, see European Communication on flexicurity (27/06/2007), reference COM (2007) 359 final.

2.3. Employment prospects in the coming years

Business and consumer expectations and forecasts of the Economic and Financial Affairs DG point to improved employment prospects. Since the trough in 2003, survey measures of employment intentions and household perceptions of labour market conditions have improved significantly. According to the 'Business and consumer survey', in April 2006, the overall 'economic sentiment' index reached the highest level since November 2000 and industry and service sectors were more optimistic about future employment developments (Graph 15), whereas consumers' unemployment expectations returned to the level of June 2001 ([3]).

Looking forward, the spring 2007 Commission's forecasts (Table 11) suggest that robust employment growth will continue in 2007 for both the euro area and the EU, supported by firm output growth in most Member States ([4]). The EU as a whole is expected to create 5.5 million new jobs over the period 2006–07 (3.8 million of which in the euro area). Total employment will grow by 1.4 % and 1.2 % in the euro area over the period 2007–08. The unemployment rate is projected to decline from 8.6 % to about 6.7 % in 2008 in the EU-27 (and to 6.9 % in the euro area).

([3]) http://ec.europa.eu/economy_finance/indicators/business_consumer_surveys/2007/bcs_2007_04_en.pdf
For a detailed analysis of future growth developments see European Economy — Economic Forecasts — spring 2007.
http://ec.europa.eu/economy_finance/publications/european_economy/2007/ee207en.pdf
([4]) According to the flash estimate for the first quarter of 2007 (see Eurostat press release, 15 May 2007), compared with the first quarter of 2007, GDP grew by as much as the average of the previous three quarters, respectively 3.1 % for the euro area and by 3.2 % for the EU-27 (+0.6 over the previous quarter for both the aggregates).

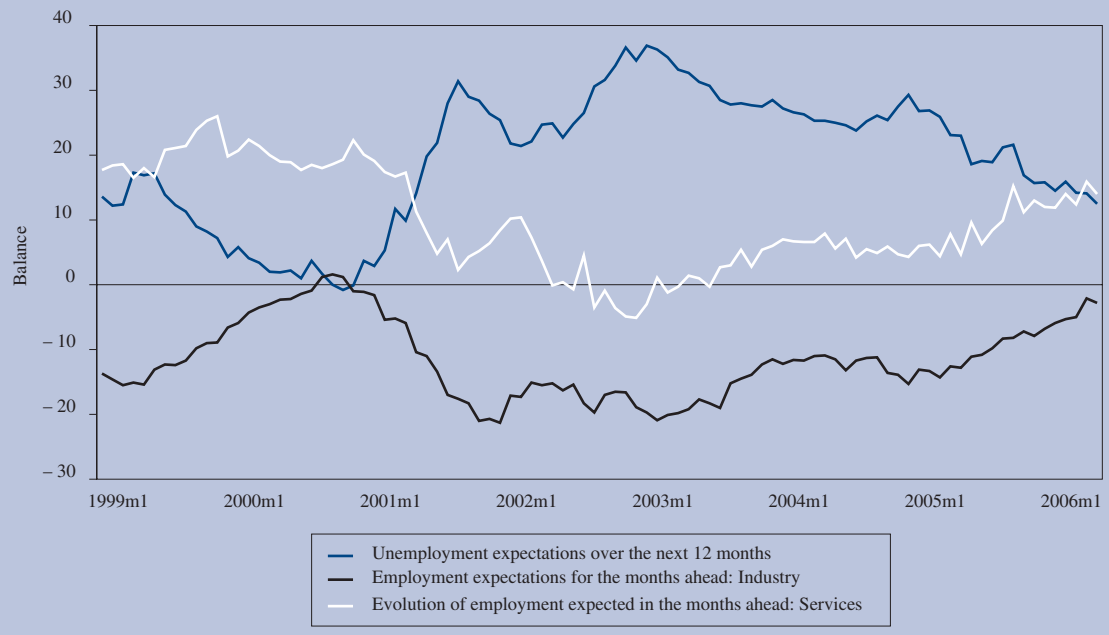
Table 10

GDP growth and its sources, 1997–2006

	GDP growth in 1997–2006	Due to growth in:						GDP per capita growth in 1997–2006
		Productivity (GDP/hour)	Labour utilisation of which	Hours worked per employee	Employment rate	Share of working-age population	Population	
	1 = 2+3	2	3 = 4+5+6+7	4	5	6	7	8 = 1-7
BE	2.3	1.4	0.9	– 0.1	0.6	0.0	0.4	1.9
CZ	2.8	3.3	– 0.5	– 0.3	– 0.5	0.4	– 0.1	2.8
DK	2.1	1.0	1.1	0.5	0.5	– 0.2	0.3	1.8
DE	1.5	1.6	– 0.1	– 0.5	0.7	– 0.3	0.1	1.4
EE	7.6	0.0			0.5	0.4	– 0.5	8.2
EL	4.1	3.3	0.9	– 0.2	0.7	0.0	0.4	3.7
ES	3.8	0.5	3.3	– 0.3	2.5	0.1	1.1	2.7
FR	2.3	2.0	0.4	– 0.7	0.5	0.0	0.6	1.7
IE	7.6	4.2	3.2	– 1.1	2.2	0.5	1.6	6.0
IT	1.4	0.6	0.8	– 0.4	1.2	– 0.3	0.3	1.1
CY	3.7	0.0			– 0.1	0.7	1.6	2.1
LV	7.6	0.0			1.5	0.5	– 0.7	8.3
LT	6.5	5.8	0.7	0.7	0.2	0.3	– 0.6	7.1
LU	5.1	2.0	3.0	– 0.7	2.6	0.0	1.1	4.0
HU	4.4	3.8	0.6	– 0.2	0.9	0.2	– 0.2	4.7
MT	2.6	0.0			– 0.5	0.4	0.9	1.8
NL	2.5	1.7	0.9	– 0.4	0.9	– 0.1	0.5	2.0
AT	2.2	1.6	0.6	– 0.1	0.2	0.1	0.4	1.9
PL	4.2	0.0			– 0.7	0.6	– 0.1	4.3
PT	2.2	1.5	0.7	– 0.4	0.6	0.0	0.5	1.7
SI	4.1	3.9	0.2	– 0.2	0.2	0.1	0.1	4.0
SK	4.2	4.8	– 0.6	– 0.5	– 0.8	0.7	0.0	4.1
FI	3.8	2.5	1.3	– 0.3	1.3	0.0	0.3	3.6
SE	3.1	2.6	0.5	– 0.3	0.3	0.3	0.3	2.8
UK	2.8	2.2	0.6	– 0.4	0.4	0.2	0.4	2.4
US	3.2	0.0			0.1	0.2	1.0	2.2
Euro area	2.2	1.4	0.8	– 0.4	1.0	– 0.1	0.4	1.8
EU-25	2.4	0.0			0.7	0.0	0.3	2.1
EU-15	2.3	1.5	0.8	– 0.4	0.9	– 0.1	0.4	1.9

Source: Commission services.

Graph 15: **Employment and unemployment expectations: business and consumer survey**



Source: Commission services.

Table 11

Commission's forecasts (autumn 2006 and spring 2007)

	Total employment (percentage change on preceding year)				Number of unemployed (as a percentage of civilian labour force)			
Year	2007		2008		2007		2008	
(Forecast in:)	X-2006	IV-2007	X-2006	IV-2007	X-2006	IV-2007	X-2006	IV-2007
Belgium	1.0	1.1	0.9	0.9	8.5	7.8	8.4	7.6
Germany	0.5	0.7	0.6	0.5	8.4	7.3	7.8	6.5
Ireland	3.0	3.4	1.5	2.1	4.5	4.5	4.8	4.6
Greece	1.3	1.4	1.3	1.3	8.9	8.5	8.6	8.1
Spain	3.0	2.8	2.5	2.5	7.9	8.1	7.4	7.8
France	0.9	0.9	0.8	0.9	9.0	8.9	8.7	8.5
Italy	0.5	0.9	0.5	0.8	7.0	6.6	7.0	6.4
Luxembourg	3.7	3.6	3.6	3.2	4.4	4.6	4.1	4.4
Netherlands	1.4	1.1	0.8	1.0	3.0	3.2	2.7	2.7
Austria	0.7	1.2	0.7	0.7	5.1	4.4	5.1	4.3
Portugal	0.6	0.7	0.7	0.8	7.7	7.7	7.7	7.5
Slovenia	0.4	0.7	0.5	0.5	6.1	5.8	6.0	5.6
Finland	0.6	1.0	0.2	0.7	7.4	7.2	7.3	6.8
Euro area	1.2	1.4	1.1	1.2	7.7	7.3	7.4	6.9
Bulgaria	1.0	1.4	0.8	1.2	7.7	8.2	7.0	7.4
Czech Republic	0.7	1.0	0.5	0.7	7.1	6.4	6.9	6.1
Denmark	0.2	0.4	0.1	– 0.1	3.5	3.3	3.5	3.3
Estonia	2.0	1.2	1.1	0.9	3.8	6.6	3.1	6.2
Cyprus	1.5	1.5	1.5	1.5	5.5	4.8	5.6	4.8
Latvia	1.0	1.4	0.7	0.9	7.2	6.3	7.0	6.0
Lithuania	0.6	0.7	0.3	0.1	5.2	4.8	5.2	4.3
Hungary	– 0.2	– 0.3	0.1	– 0.2	7.7	7.8	7.7	7.8
Malta	0.8	0.9	0.9	1.0	7.0	7.4	6.9	7.3
Poland	1.2	2.4	0.8	1.9	12.2	11.0	11.6	9.0
Romania	0.2	1.2	0.1	1.0	7.5	7.2	7.6	7.1
Slovakia	1.5	1.7	0.9	0.9	13.3	12.2	12.9	11.7
Sweden	1.4	2.1	1.0	0.9	7.4	6.4	7.1	5.9
United Kingdom	0.8	0.8	0.5	0.6	5.0	5.0	4.8	4.9
EU-27	1.0	1.4	0.9	1.1	7.6	7.2	7.3	6.7
USA	0.7	1.3	0.8	0.6	5.1	4.7	5.4	5.0
Japan	0.3	0.3	0.3	0.3	4.3	4.1	4.3	4.2

Note: Unemployment rate: series following Eurostat definition, based on the labour force survey.
Source: Commission's forecast.

3. Wage and labour cost developments

3.1. Introduction

This chapter monitors wage and labour cost developments in the EU-27. It does so separately for euro-area countries, Denmark, Sweden and the UK and the new Member States (NMS). The analysis for EMU members assesses to what extent the functioning of euro-area labour markets have facilitated and can be expected to facilitate sound internal and external macroeconomic conditions, namely aggregate price stability and sustainable competitive positions at individual country level. The section devoted to Denmark, Sweden and the UK compares cyclical patterns in wage and labour cost series with those prevailing at the euro-area level. The analysis of the situation in NMS highlights the contribution of wage and labour cost developments to macroeconomic stability in a context characterised by sustained economic convergence with the old Member States.

Section 3.2 provides a detailed description of the latest wage and labour cost developments and their impact on the internal and external macroeconomic stability in old Member States, as well as an assessment of the short and medium-term outlook. The analysis in Section 3.2.1 shows that brightening economic conditions have not translated into accelerating wage growth so far and that unit labour costs have remained broadly consistent with price stability since the launch of the euro. However, this rosy picture of subdued labour cost pressures is subject to two qualifications. On the one hand, this favourable aggregate behaviour conceals sizeable differences across euro-area countries. Much of the overall benign wage developments in recent years are due to significant wage moderation in Germany, where nominal unit labour costs had stagnated over the period 1999 to 2006, while in a non-negligible number of euro-area countries nominal unit labour costs had grown more rapidly. On the other hand, wage growth is projected to edge up somewhat in the short term as new wage agreements are expected to reflect the better economic outlook and the increase in the growth of labour productivity. Over a medium-term span, some rebound in trend productivity growth, the unfolding of measures aimed at increasing labour supply and heightened competition in product and labour markets brought about by structural reforms and globalisation should help to keep a lid on excessive wage claims.

Section 3.2.2 discusses the contribution of labour-cost developments to the persistent differentials in price competitiveness and widening current account imbalances among EMU members. To assess the contribution of labour costs to the external macroeconomic balance, our analysis examines developments in intra-euro-area real effective exchange rates (based on unit labour cost) over the period 1999–2006. We conclude that much of the deterioration in competitiveness in selected euro-area countries is attributable to structural factors and that, by consequence, over and above wage moderation, there is a need for relative competitive positions to be rebalanced. The challenge for countries that have seen a strong deterioration in their competitive positions is to keep unit labour cost growth temporarily below the euro-area average. Moreover, much emphasis should be given to structural reforms with the aim of moderating unit labour cost growth while preventing the whole burden of adjustment from falling on wages.

Section 3.2.3 documents some common cyclical patterns in wage and labour cost developments in the subset of EU-15 countries outside the euro area. One remarkable feature found in the data is the relatively larger cyclicality in compensation per employee and real unit labour costs. Beyond the fact that an aggregate indicator tends to exhibit less volatility than individual-country indicators, there may be economic reasons behind this finding, most notably, the fact that Denmark, the UK and, to a lesser extent, Sweden, stand out in terms of successful labour market performance in a context characterised by flexible labour and product markets.

In the current policy debate, wage moderation has given rise to distributional concerns among those that emphasise consumption as an engine of growth. Section 3.3 contributes to this debate by identifying the source of wage moderation. This is done by relating real consumption wages to real production wages and the domestic terms of trade through a basic accounting rule. This allows us to conclude that the (admittedly slight) increase in real consumption wages that has occurred since the introduction of the single currency is predominantly rooted in the increase in production real wages while the influence of the domestic terms of trade has been mixed across Member States. Another issue is whether the increase in production real wages has partially or totally absorbed labour productivity improvements, i.e. whether the labour share has remained stable or has rather declined in the recent past. At first sight one might be tempted to associate wage moderation with declining labour share patterns across EU Member States as both phenomena seem to have been coincident in time. And although it is true that wage moderation has prevailed in the recent past, it would be wrong to interpret movements in the labour share as univocally related to wage behaviour. Section 3.4 contributes to the current debate on the labour share and shows that its decline is not as abrupt as is usually claimed once a refined and disaggregated analysis is carried out with the available EU KLEMS data. Our analysis decomposes movements of the labour share into three distinctive components. We show that widespread wage moderation across all sectors in the economy is just one of the explanatory factors of changes in the labour share.

Section 3.5 is entirely devoted to the study of labour cost developments in NMS. This analysis requires a separate section on account of the specific characteristics of these countries, both in terms of availability of statistical data but also as regards their condition of catching-up countries, with the ongoing convergence process triggering higher-than-EU average wage growth while in turn benefiting from higher-than-EU average productivity growth. Inflationary pressures coming from the labour market have overall remained subdued. As for the short-term outlook, labour productivity is projected to accelerate, thereby mitigating the effect of upward pressures of nominal wage growth on nominal unit labour costs. Looking ahead, structural improvements are critical to facilitate continuing smooth convergence within the European Union and to ensure the broader competitiveness of these countries. One key issue in this regard is the need to invigorate labour market flexibility and reduce sizable tax wedges that have contributed to high unemployment rates in several NMS.

3.2. Labour cost developments and macroeconomic stability in the euro area

3.2.1. Labour cost developments and internal macroeconomic balance in the euro area

Inflationary pressures stemming from the labour market have so far remained subdued

Brightening economic conditions have not translated into accelerating wage growth so far. Notwithstanding a period of brisk growth in the euro area and gradually declining unemployment, wage moderation has continued to prevail. The latest information conveyed by the various labour market indicators suggests that labour cost growth remained generally moderate until the end of 2006. All harmonised nominal wage indicators ([1]) show that the moderate wage growth recorded in 2005 also prevailed in 2006, despite noticeable volatility. Looking at the latest information (Graph 16 and Table 12), the various labour cost indicators point to continued moderation in wage growth in the course of 2006, once one-off factors generating volatile developments are taken into account. The acceleration in compensation per employee (CPE) registered in the second and third quarter did not persist in the fourth quarter as the annual rate of change declined markedly from around 2.5 % in 2006Q2 and 2006Q3 to 1.7 % in 2006Q4. By contrast, negotiated wages increased strongly in the last quarter of 2006. The ups and downs in negotiated wage growth in 2006 mainly reflected temporary developments in Germany, such as negotiated one-off payments for an increase in working hours in a large industrial company and bonus payments in the banking sector. A fall in the annual growth rate of negotiated wages to 1.9 % in the first quarter of 2007, from 2.4 % in the previous quarter, mainly reflected base effects related to one-off payments resulting from the timing of wage agreements in some sectors. This information should be interpreted with caution in the absence of other labour cost indicators so far. Indeed, there are some sources of uncer-

([1]) In the context of monitoring aggregate wage and labour cost developments in the euro area, there is a need to compare the information provided by any individual indicator of wage developments with that offered by other indicators in order to avoid drawing misleading conclusions from possibly excessive volatility in a particular series. In terms of labour cost indicators, three harmonised nominal wage series are analysed for the euro area, i.e negotiated wages, compensation per employee (CPE), and the hourly labour cost index (LCI). Differences between the CPE and LCI series are to be expected mainly due to the fact that the LCI is based on hourly data, while the CPE is calculated in terms of employees. As a result, changes in hours worked may drive a wedge between developments in the two series. For example, a reduction in the hours worked per employee would *ceteris paribus* imply a lower growth rate for CPE compared with the LCI.

tainty regarding the impact of current rounds of wage negotiations, some of which will be concluded only later in the year ([1]). The growth rate of the hourly labour cost index (LCI) decelerated from 2.5 % in 2006Q3 to 2.2 % in 2006Q4 ([2]). On an annual average basis, hourly labour costs rose by 2.5 % in 2006, marginally above the average growth observed in the previous two years.

Labour costs include wages paid to employees as well as non-wage labour costs. The latter item relates to social security contributions paid by employers. They also include employers' contribution to contractual and private benefit plans. Therefore non-wage labour costs do not only depend on legally-defined contribution rates to social security but can also be influenced by changes in firms' pension reserves. The available breakdown in the LCI allows us to examine the respective contributions of wages and salaries and of costs other than wages and salaries to the overall LCI. Graph 17 illustrates that the contribution of non-wage labour costs to the increase in total hourly labour costs in the euro area is small. Conversely, wages have remained a key factor driving the increases in total hourly labour costs in the recent past (for further details on the most recent trends in non-wage labour costs and, more generally, on the tax wedge, see Box 1).

In order to assess inflationary pressures coming from the labour market, developments in wage growth should be viewed in conjunction with developments in productivity, i.e. developments in nominal unit labour costs (ULC) should be examined. Annual growth in nominal ULC remained subdued during 2006. This stems from the combination of overall moderate growth in CPE together with a surge in labour productivity developments, particularly in 2006Q4. This muted rate of increase in the euro-area nominal ULC supports the assessment of only mild inflationary pressures emanating from the labour market in 2006. Over a longer time span Table 16 shows that during the period 1999–2006 nominal ULC has grown at an average rate of 1.4 %. With the GDP deflator in the eurozone growing at an average rate of 1.9 % over the same period, real ULC average rate of change has amounted to -0.5 %.

From a different angle, moderate wage increases are also reflected in Graph 18 where the GDP deflator, which measures the 'price' of total value added per unit of output, is decomposed into its various components of income, i.e. nominal unit labour costs, gross operating surplus and net indirect taxes per unit of output. A look at Graph 18 suggests, first of all, that the domestic price pressures reflected in the annual rate of change of the GDP deflator have been contained in recent years, standing at around 1.9 % since 2004 after having been as high as 2.6 % in 2002. The income decomposition of the GDP deflator also unveils that the contribution of ULC to the growth in the GDP deflator decreased significantly from 2002 onwards, finishing at slightly less than half a percentage point in 2006. Conversely, the contribution of net indirect taxes has increased over time. The contribution of profits has remained broadly constant as producers have been able to maintain profit margins despite heightened international competition and strong non-labour input cost pressures ([3]).

Moderate increases in aggregate wages in the euro area over the past few years can be explained by a set of factors, most prominently sluggish productivity growth, less prevalent use of automatic wage indexation coupled with enhanced credibility of monetary policy, the impact of globalisation, structural changes in the euro-area labour market and last, but not least, country-specific factors (mainly in Germany) over recent years. ([4])

Monitoring wage and labour cost developments in the euro area also entails examining wage pressures at sectoral level. To the extent that spillovers across sectors exist, a sectoral approach may provide early signals of a possible build-up of economy-wide wage pressures, or at least a more precise picture of where wage pressures could be mounting. In terms of sectoral developments, the two sets of series used for the euro area are the series on sectoral CPE and the sectoral LCI. According to the sectoral LCI, the annual rate of wage growth (Graph 19) gathered pace in construction and market services sectors in 2006Q4 and

([1]) On 4 May, IG-Metall concluded a new collective agreement for the region of Baden-Württemberg. The agreement covers a period of 19 months and it advises other regions to conclude a similar agreement in their metal sector. Although the interaction of structural wage increases with one-off payments makes it difficult to estimate the impact of the agreement on total wage growth, comparing the average wage increase over the 19 months covered by the May 2007 agreement with the average wage increase over the 13 months covered by the March 2006 agreement reveals that the acceleration of the average monthly wage increase is from 3.05 % in the old agreement to 3.17 % in the new agreement.

([2]) Revised data: the estimate for the fourth quarter 2006, published in Eurostat news release 38/2007 of 15 March 2007, was 2.5 % for the EA13.

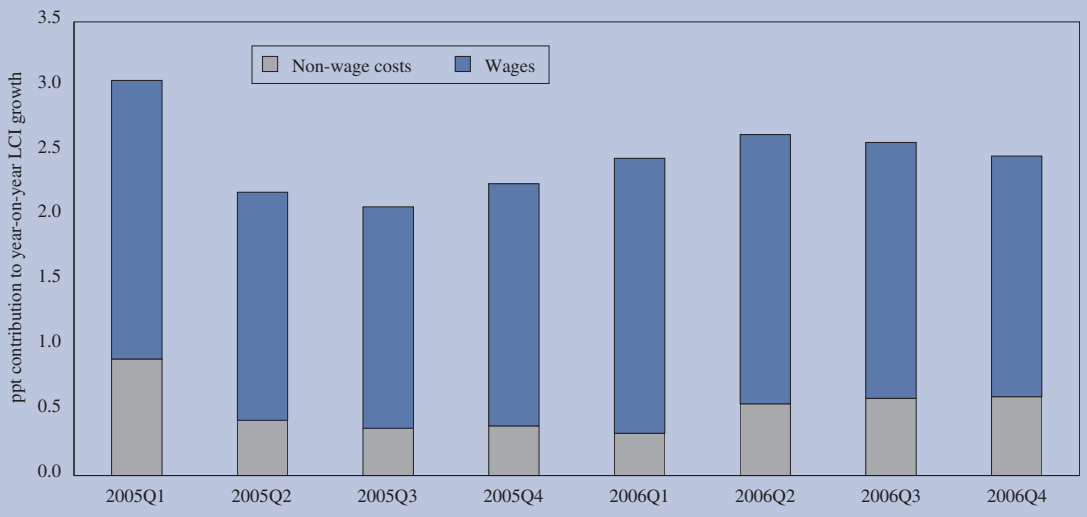
([3]) With regard to the latter, recent developments in the industrial sector show an increasing gap between producer prices and the sector value added deflator. This is due primarily to increases in intermediate input costs. As these increases have not been fully passed through to producer prices, the rate of growth of the value added deflator in the overall industrial sector has declined.

([4]) All these causes were already explored in the *Quarterly report on the Euro area*, Vol. 5, No 3, 2006.

Graph 16: **Quarterly nominal wage growth, euro area**
Year-on-year % changes, 2001Q1–2006Q4

Source: Commission services.

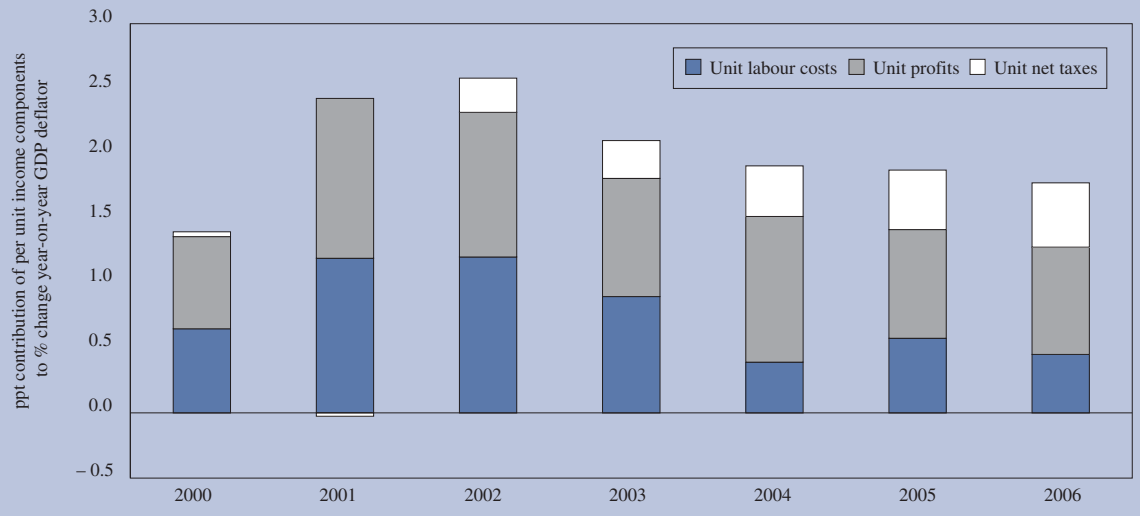
Graph 17: **Contribution of wage and non-wage costs to total LCI growth, euro area**
ppt contribution to year-on-year LCI growth



Source: Commission services.

recorded a sharp deceleration in the industrial sector, although in annual average terms wage growth in the latter still remains somewhat stronger than that registered in the former two sectors. The volatility of the series suggests some caution when assessing short-term developments. In particular it seems too early to speak of a pick-up in construction and market-services sectors. From a long-term perspective, the average year-on-year growth rate of the LCI over the period 1999Q1–2006Q4 amounted to 3.1 % in industrial sectors, and 3.0 % in both construction and market-services sectors. The fact that labour costs increased by a similar amount in all three sectors confirms

Graph 18: **Income decomposition of GDP deflator, euro area**
ppt contribution to year-on-year GDP deflator growth



Source: Commission services.

Table 12

Recent labour cost indicators in the euro area, year-on-year % changes

	2004	2005	2006	Av. 1999-2006	2006Q1	2006Q2	2006Q3	2006Q4
Negotiated wages	2.1	2.1	2.2	2.3	2.1	2.4	2.0	2.4
Total hourly labour costs	2.2	2.4	2.5	2.9	2.5	2.6	2.5	2.2
Compensation per employee	2.2	1.7	2.2	2.2	2.2	2.5	2.4	1.7
Labour productivity	1.1	0.8	1.4	0.8	1.3	1.4	1.3	1.7
Nominal unit labour costs	1.1	0.9	0.8	1.4	0.9	1.1	1.1	0.0

Source: Commission services.

that the persistently high inflation differentials between goods, market services and construction are mainly due to differing sectoral labour productivity developments ([1]) and that wage growth in the market-services and construction sectors appear to be much less aligned with productivity developments than wage growth in manufacturing, thus creating upward pressures on overall prices in the euro area. Over the period 1999–2006 productivity growth in industry averaged 2.6 %; -0.8 % in construction; 1.15 % in trade repairs, hotels, transport and communication services; -0.6 % in financial intermediation, real estate, renting and business activities; and -0.2% in other service activities. The comparatively weak performance in the latter sectors can be explained by several factors, most remarkably, constraining regulations, less scope for technological change and less exposure to international competition.

Graphs 20 to 23 compare the sectoral LCI and CPE series for industry (excluding construction), construction and two sub-sectors of market services, namely trade, repairs, hotels, transport and communication services; financial intermediation, real estate, renting and business activities.

([1]) This analysis is in line with the so-called 'Scandinavian model of inflation' (Akrust, 1977), according to which prices in the sector exposed to external competition (i.e. the manufacturing sector) will generally align with external prices. With an integrated labour market, wage developments will be similar in both the exposed sector and the sheltered sector (i.e. services and construction) and will be determined by developments in external prices and in productivity in the exposed sector. If productivity is slower in the sheltered sector, prices in that sector will grow faster than in the exposed sector.

The charts indicate that all series show some volatility, but that medium-term developments in the two indicators run broadly in parallel within a sector. In industry, excluding construction, there has been a deceleration in wage growth since 2000 that seems to have continued in recent quarters, possibly reflecting the strong competitive pressures in this sector from low-cost countries outside the euro area. For trade, repairs, hotels, restaurants, transport services and communications the series suggest a profile of decelerating wage growth from 2003 to 2005, and some correction since then. As regards labour cost developments in the financial intermediation, real estate, renting and business activities, the smoother LCI series point to a levelling off of the moderation in wage growth since 2004, yet the CPE series suggests some rise in wage growth in the last few quarters. Overall, wage pressures have eased in industry in the recent past quarters, considerably accelerated in the construction sector and picked up somewhat in market services.

In order to assess inflationary pressures at disaggregated level, developments in sectoral nominal ULC are analysed. Graph 24 suggests that (barring construction) a general pattern of moderation in ULC growth since 2001 has been common to all the sectors shown. At a more disaggregated level, ULC growth has been consistently lower in industry excluding construction and in trade, hotels and transport services than in the rest of the economy. By contrast, ULC growth was more pronounced in the construction, financial intermediation and the non-market services sectors. Although in general this reflects weaker productivity performance, capacity constraints and acceleration of wages also seem to have played a role in these sectors, especially in the construction sector.

Box 1: The evolution of tax wedges on labour

A comprehensive analysis of the development of wages in the European Union needs to take into account the tax and social security components that create a gap between the cost of labour for employers and the net earnings received by the workers.

In 2006, the total tax wedge on labour (including employers' social security payments) for an average-wage worker ([1]) varied in the European Union ([2]) from 23.1 % in Ireland to 55.4 % in Belgium. Although all data for individual Member States in 2006 are not yet available, the GDP-weighted EU-27 average decreased from 45.6 % to 44.7 % between 2000 and 2005. This 0.9-percentage-point for the EU-27 average since 2000 reflects a reduction taking place in a large majority of Member States and which has been most marked in Ireland, Finland, Slovak Republic, Bulgaria and Sweden (See Table 1).

The changes from 2004 to 2006 have been relatively modest for most countries, probably partly reflecting small changes in the average wages or small adjustments in the thresholds of tax and social security payments brackets. There are however a few noticeable exceptions. The total tax wedge in Ireland decreased by an impressive 2.6 percentage points, thanks to a dramatic decrease in the personal income tax. However, the total tax wedge in the Netherlands soared by 5.8 percentage points, under the combined effect of higher social security contributions of employers and a higher personal income tax burden.

Several reforms of personal income tax schemes have allowed for a reduction in the tax wedge in 2006. The Czech Republic reduced its first personal income tax brackets from 15 % and 20 % to 12 % and 19 % respectively. Denmark followed suit with a slight decrease in its basic rate from 5.5 % to 5.48 %. In Finland, the rates in the 5 brackets that ranged from 10.5 % to 33.5 % have all been decreased to range now from 9 % to 32.5 %. There was however some accompanying changes in social security contributions with an increase in health-related and unemployment-related contributions and a decrease in pension-related contributions. The top marginal income tax rate in Hungary has also been decreased from 38 % to 36 %. On the other hand, Portugal increased the top marginal income tax rate from 40 %

([1]) The reference is a single person without children. The figures are taken from OECD's publication on taxing wedges. For additional measures of taxation on labour see also the European Commission's publication on 'Structures of taxation systems in the European Union', which provides real-life data on the implicit tax rate on labour. This report can be found at http://ec.europa.eu/taxation_customs/taxation/gen_info/economic_analysis/tax_structures/index_en.htm

([2]) Bar Cyprus, Estonia, Latria, Lithuania, Malta, and Slovenia, which are not OECD members.

(Continued on the next page)

Box 1 (continued)

to 42 % but this does not affect average-wage workers. Finally, the Netherlands increased the personal income tax rates of its first two brackets from 1.8 % and 9.35 % to 2.45 % and 9.75 % respectively. In compensation, the social security contribution rates for these earnings were reduced from 32.6 % to 31.7 %. All other changes in the tax wedges of countries are generally related to the absence or adjustment of the threshold (bracket creep) or to adjustments that differ from the level of salary increase.

Interesting trends can be observed for low-wage workers ([1]) as well. With the exceptions of Austria, the UK, Cyprus, Estonia, Malta and Poland, all Member States have decreased the total tax wedge on low-wage workers since 2000. This reduction has been particularly marked in Hungary, Slovak Republic ([2]) and Finland. Over the last years, several Member States have targeted their reduction in labour costs to this category of workers leading to a 1.7 percentage point decrease in the total tax wedge between 2000 and 2005. Between 2005 and 2006, some major changes have been accounted for in Ireland, with reductions in personal income taxation and social security contributions by employees, and the Czech Republic, with a reduction in personal income taxes.

Table 13

Total tax wedge on labour (including employers' social security contributions)

	Total tax wedge (including employers' SSC): Single person without children, 100% of AW across countries								Total tax wedge (including employers' SSC): Single person without children, 67% of AW across countries							
	2000	2001	2002	2003	2004	2005	2006	Difference 2000–06	2000	2001	2002	2003	2004	2005	2006	Difference 2000–06
Belgium	57.1	56.7	56.3	55.7	55.4	55.4	55.4	– 1.7	51.3	50.7	50.5	49.6	48.9	49.1	49.1	– 2.2
Denmark	44.3	43.6	42.6	42.6	41.3	41.4	41.3	– 3.1	41.2	40.5	39.8	39.8	39.3	39.3	39.3	– 1.9
Germany	53.9	53.0	53.6	51.5	53.3	51.8	52.5	– 1.5	48.6	47.7	48.2	45.5	47.9	46.7	47.4	– 1.2
Greece	38.4	38.1	37.7	37.7	38.3	38.8	n.a.	n.a.	35.5	35.1	34.3	34.4	34.4	34.4	n.a.	n.a.
Spain	38.6	38.8	39.1	38.5	38.7	39.0	39.1	0.5	34.7	35.3	35.7	34.7	35.2	35.7	35.9	1.2
France	49.6	49.8	49.8	49.8	49.8	50.1	50.2	0.6	47.4	47.6	47.4	45.0	42.3	41.4	44.5	– 2.8
Ireland	28.9	25.8	24.5	24.2	26.2	25.7	23.1	– 5.8	18.1	17.3	16.7	16.2	20.5	19.9	16.3	– 1.8
Italy	46.4	46.0	46.0	45.0	45.4	45.4	45.2	– 1.3	43.1	42.7	42.7	41.1	41.4	41.7	41.5	– 1.5
Luxembourg	38.2	36.2	33.6	34.1	34.6	35.3	36.5	– 1.7	32.5	30.6	28.6	28.9	29.2	29.8	30.6	– 1.9
Netherlands	39.7	37.2	37.4	37.1	38.6	38.6	44.4	4.7	42.0	38.9	39.1	40.0	40.4	41.3	40.6	– 1.4
Austria	47.3	46.9	47.1	47.4	47.5	47.4	48.1	0.8	43.2	42.9	43.1	43.5	43.4	42.5	43.5	0.3
Portugal	37.3	36.4	36.6	36.8	36.8	36.2	36.3	– 1.0	33.2	32.2	32.3	32.4	32.4	31.7	31.7	– 1.4
Finland	47.8	46.4	45.9	45.0	44.5	44.6	44.1	– 3.7	43.0	41.4	40.9	40.0	39.4	39.5	38.9	– 4.1
Sweden	50.1	49.1	47.8	48.2	48.4	47.9	47.9	– 2.2	48.6	47.8	46.8	47.0	47.1	46.5	46.0	– 2.6
United Kingdom	32.1	31.8	31.9	33.3	33.4	33.5	33.9	1.7	28.3	28.0	28.1	29.6	29.7	29.9	30.4	2.0
Cyprus	20.5	20.9	17.3	18.5	18.6	19.0	n.a.	n.a.	16.8	17.0	17.2	18.5	18.6	19.0	n.a.	n.a.
Czech Republic	42.7	42.6	42.9	43.2	43.5	43.8	42.6	– 0.1	41.4	41.3	41.5	41.7	41.9	42.1	40.1	– 1.3
Estonia	40.2	39.7	42.2	42.5	41.4	41.6	n.a.	n.a.	38.2	37.4	40.2	40.7	38.9	39.8	n.a.	n.a.
Hungary	52.7	54.0	53.7	50.8	51.8	50.5	51.0	– 1.7	48.5	48.1	48.2	44.5	44.8	42.9	42.9	– 5.6
Latvia	43.0	42.7	42.9	42.2	42.5	42.2	n.a.	n.a.	41.4	41.2	41.4	40.8	41.2	40.9	n.a.	n.a.
Lithuania	45.0	45.2	44.6	43.4	43.7	44.4	n.a.	n.a.	42.0	42.2	41.2	39.5	40.0	41.0	n.a.	n.a.
Malta	19.6	20.7	21.4	21.5	23.3	24.2	n.a.	n.a.	13.8	14.7	15.2	15.8	18.0	18.7	n.a.	n.a.
Poland	43.2	42.9	42.9	43.1	43.3	43.6	43.7	0.4	42.2	41.8	41.7	41.9	42.2	42.4	42.5	0.3
Slovak Republic	41.8	42.8	42.5	42.9	42.5	38.3	38.5	– 3.2	40.6	41.3	40.8	40.9	39.6	35.3	35.6	– 5.0
Slovenia	42.5	42.3	42.5	42.5	42.6	42.4	n.a.	n.a.	41.0	41.0	41.1	41.1	41.1	39.4	n.a.	n.a.
Bulgaria	43.1	40.4	39.6	39.1	38.9	38.9	n.a.	n.a.	39.4	35.9	35.2	35.2	34.9	35.3	n.a.	n.a.
Romania	45.8	46.2	45.3	44.4	44.1	43.0	n.a.	n.a.	43.1	43.5	42.3	41.7	41.3	41.0	n.a.	n.a.
European Union (27 countries)	45.6	44.9	45.0	44.7	45.2	44.7	n.a.	n.a.	41.9	41.3	41.4	40.4	40.6	40.2	n.a.	n.a.

Source: OECD (*Taxing wages report*). (*) GDP-weighted average.

([1]) It is defined as a single person without children earning 67 % of the average earnings of a full-time production worker.
([2]) Note however that from January 2005, the Slovak Republic has introduced a fully-funded pension pillar. Under this system, 9 % of the social security contributions paid by the employer to the pension insurance go directly to pension funds and not to the social insurance company as previously. The pension funds are treated outside of the general government so that these contributions are not accounted for in the OECD calculations.

(Continued on the next page)

Box 1 (continued)

Table 14

Tax wedge on labour and its components for the average-wage worker

Single person without children, 100% of AW	Total tax wedge		Of which			Difference 2005–06				Difference 2000–06			
			Personal income tax	Social security contribution		Total tax wedge	Personal income tax	Social security contribution		Total tax wedge	Personal income tax	Social security contribution	
	2000	2006		employee	employer			employee	employer			employee	employer
Austria	47.3	48.1	11.5	14.0	22.6	0.7	0.7	0.0	0.0	0.8	1.7	0.2	– 1.1
Belgium	57.1	55.4	21.3	10.7	23.3	– 0.1	– 0.1	0.0	0.0	– 1.7	– 0.5	0.2	– 1.4
Czech Rep.	42.7	42.6	7.4	9.3	25.9	– 1.2	– 1.2	0.0	0.0	– 0.1	– 0.1	0.0	0.0
Germany	53.9	52.5	17.5	18.0	17.0	0.7	0.2	0.7	– 0.2	– 1.5	– 2.4	1.0	0.0
Denmark	44.3	41.3	30.1	10.6	0.6	– 0.1	– 0.2	0.0	0.0	– 3.1	– 2.1	– 1.0	0.1
Greece	38.4	0.0	0.0	0.0	0.0	– 38.8	– 4.3	– 12.5	– 21.9	– 38.4	– 4.1	– 12.4	– 21.9
Spain	38.6	39.1	10.8	4.9	23.4	0.1	0.1	0.0	0.0	0.5	0.5	0.0	0.0
Finland	47.8	44.1	19.3	5.5	19.4	– 0.5	– 0.8	0.3	0.0	– 3.7	– 2.3	– 0.1	– 1.3
France	49.6	50.2	10.9	9.5	29.7	0.1	0.1	0.0	0.0	0.6	0.0	0.0	0.5
Hungary	52.7	51.0	14.6	10.6	25.8	0.5	0.3	0.7	– 0.5	– 1.7	– 2.4	1.4	– 0.7
Ireland	28.9	23.1	8.8	4.6	9.7	– 2.6	– 2.6	0.0	0.0	– 5.8	– 4.8	0.0	– 1.0
Italy	46.4	45.2	13.9	7.0	24.3	– 0.2	0.3	0.1	– 0.6	– 1.3	– 0.2	0.1	– 1.1
Luxembourg	38.2	36.5	12.3	12.3	11.9	1.2	1.2	0.0	0.0	– 1.7	– 1.5	0.0	– 0.2
Netherlands	39.7	44.4	11.7	19.7	13.0	5.8	2.2	0.0	3.6	4.7	3.7	– 2.3	3.4
Poland	43.2	43.7	5.3	21.4	17.0	0.1	– 0.1	0.2	0.0	0.4	– 0.4	0.8	0.0
Portugal	37.3	36.3	8.2	8.9	19.2	0.1	0.1	0.0	0.0	– 1.0	– 1.0	0.0	0.0
Sweden	50.1	47.9	18.2	5.3	24.4	0.0	0.1	0.0	– 0.1	– 2.2	– 1.9	0.0	– 0.4
Slovak Rep.	41.8	38.5	7.1	10.6	20.8	0.2	0.2	0.0	0.0	– 3.2	1.7	1.9	– 6.9
UK	32.1	33.9	15.9	8.3	9.7	0.3	0.2	0.1	0.1	1.7	0.3	0.8	0.7

Source: OECD (*Taxing wages report*).

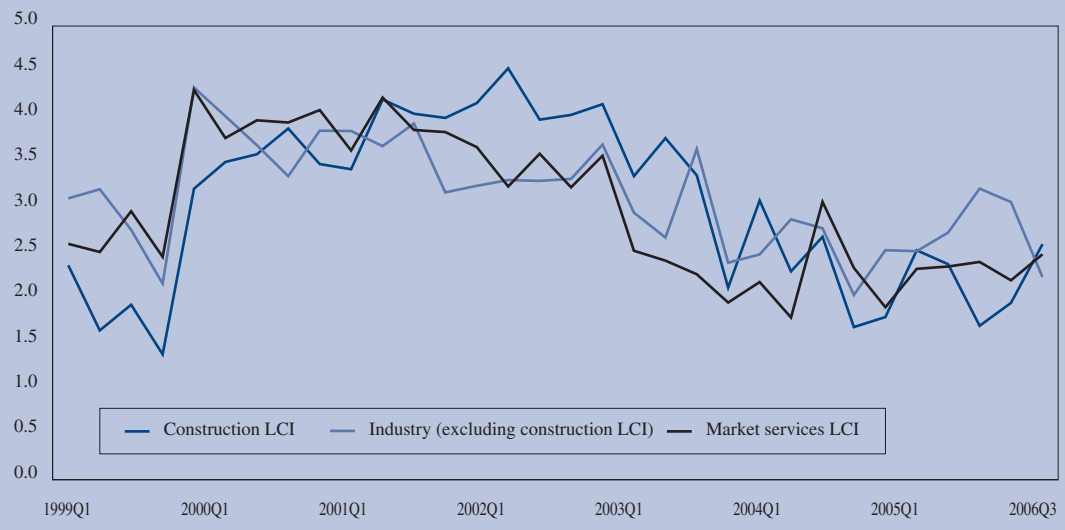
Table 15

Tax wedge on labour and its components for the low-wage worker

Single person without children, 67% of AW	Total tax wedge		Of which			Difference 2005–006				Difference 2000–06			
			Personal income tax	Social security contribution		Total tax wedge	Personal income tax	Social security contribution		Total tax wedge	Personal income tax	Social security contribution	
	2000	2006		employee	employer			employee	employer			employee	employer
Austria	43.2	43.5	6.9	14.0	22.6	1.0	1.0	0.0	0.0	0.3	1.2	0.2	– 1.1
Belgium	51.3	49.1	16.7	10.4	22.0	0.0	– 0.1	0.1	0.1	– 2.2	– 0.5	0.5	– 2.2
Czech Rep.	41.4	40.1	4.9	9.3	25.9	– 2.0	– 2.0	0.0	0.0	– 1.3	– 1.3	0.0	0.0
Germany	48.6	47.4	12.4	18.0	17.0	0.7	0.2	0.7	– 0.2	– 1.2	– 2.1	1.0	0.0
Denmark	41.2	39.3	26.5	11.9	0.9	0.0	– 0.2	0.1	0.1	– 1.9	– 1.0	– 1.1	0.2
Greece	35.5	0.0	0.0	12.5	21.9	– 3.9	0.0	0.0	0.0	– 1.1	– 1.2	0.1	0.1
Spain	34.7	35.9	7.6	4.9	23.4	0.2	0.2	0.0	0.0	1.2	1.2	0.0	0.0
Finland	43.0	38.9	14.2	5.4	19.4	– 0.6	– 0.9	0.3	0.0	– 4.1	– 2.6	– 0.2	– 1.3
France	47.4	44.5	9.3	10.2	25.0	3.1	– 0.4	– 0.5	4.0	– 2.8	0.7	0.7	– 4.2
Hungary	48.5	42.9	6.2	10.6	26.1	0.0	0.1	0.7	– 0.8	– 5.6	– 6.6	1.4	– 0.4
Ireland	18.1	16.3	4.1	2.4	9.7	– 3.6	– 1.7	– 1.9	0.0	– 1.8	– 6.1	2.4	1.9
Italy	43.1	41.5	10.3	7.0	24.3	– 0.2	0.3	0.1	– 0.6	– 1.5	– 0.5	0.1	– 1.1
Luxembourg	32.5	30.6	6.3	12.2	12.0	0.8	0.8	0.0	0.0	– 1.9	– 1.8	0.0	– 0.1
Netherlands	42.0	40.6	3.8	23.2	13.6	– 0.6	0.4	– 0.3	– 0.7	– 1.4	– 0.7	– 0.4	– 0.2
Poland	42.2	42.5	4.1	21.4	17.0	0.1	– 0.1	0.2	0.0	0.3	– 0.5	0.8	0.0
Portugal	33.2	31.7	3.7	8.9	19.2	0.0	0.0	0.0	0.0	– 1.4	– 1.4	0.0	0.0
Sweden	48.6	46.0	16.3	5.3	24.4	– 0.5	– 0.4	0.0	– 0.1	– 2.6	– 2.3	0.0	– 0.4
Slovak Rep.	40.6	35.6	4.2	10.6	20.8	0.3	0.3	0.0	0.0	– 5.0	0.0	1.9	– 6.9
UK	28.3	30.4	14.0	7.6	8.8	0.5	0.3	0.1	0.1	2.0	0.6	0.7	0.7

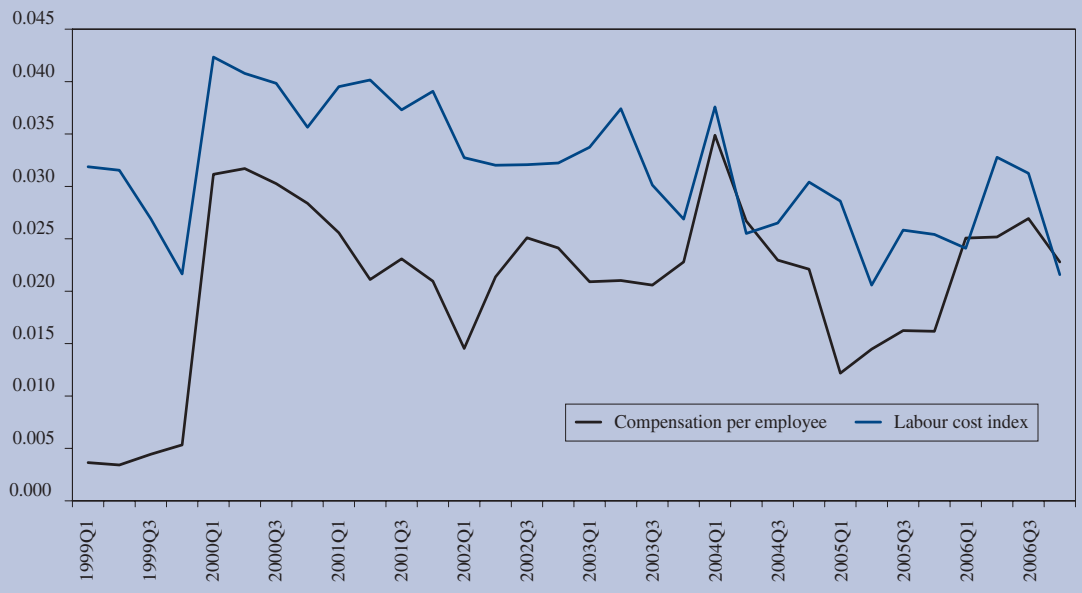
Source: OECD (*Taxing wages report*).

Graph 19: **Sectoral labour cost developments, euro area**
Year-on-year % changes — 1999Q1–2006Q4



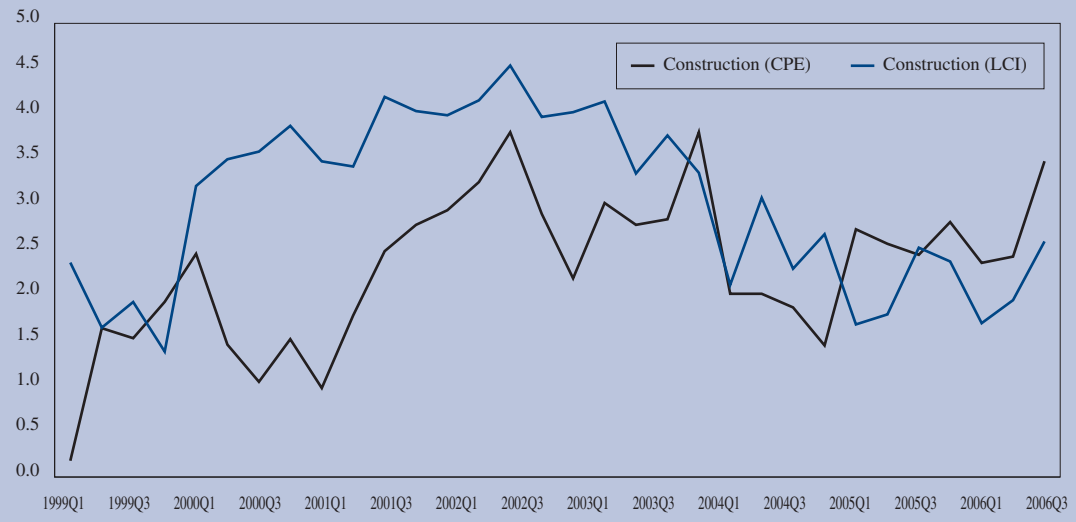
Source: Commission services.

Graph 20: **Industry (excluding construction)**
Year-on-year % changes — 1999Q1–2006Q4



Source: Commission services.

Graph 21: **Construction**
Year-on-year % changes — 1999Q1–2006Q4

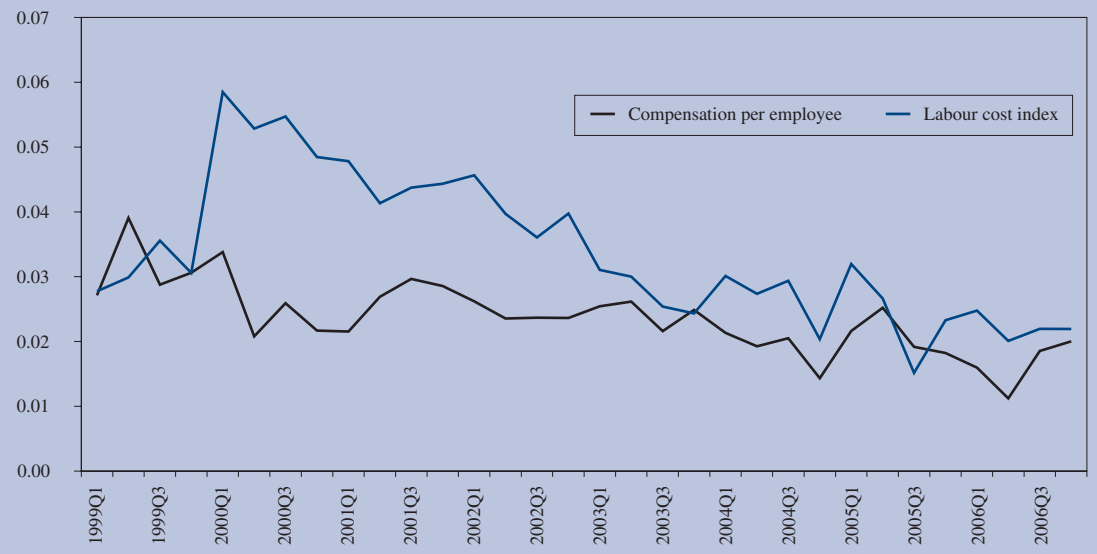


Source: Commission services.

Graph 22: **Trade, repairs, hotels, restaurants transport and communication services**
Year-on-year % changes — 1999Q1–2006Q4

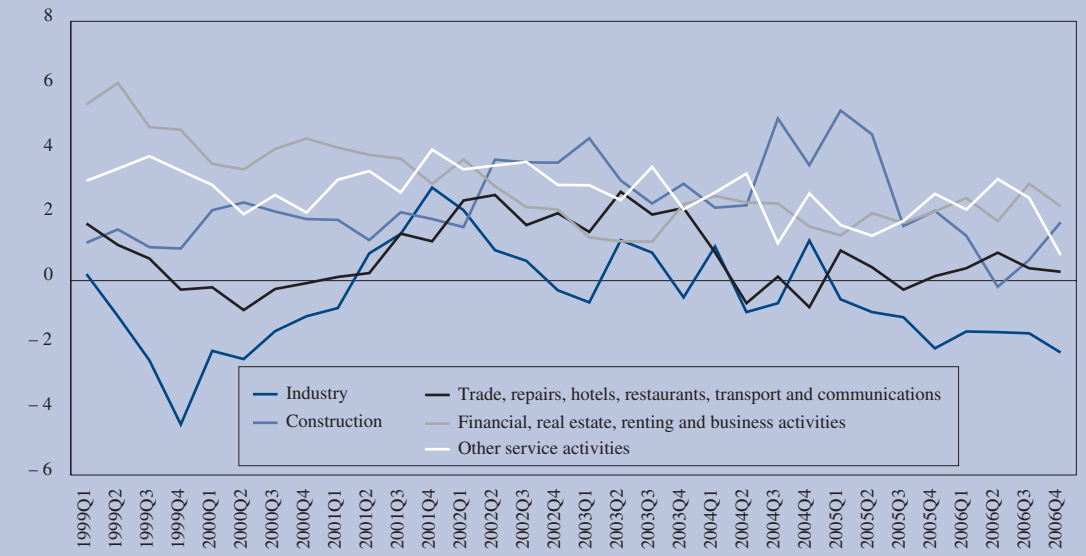
Source: Commission services.

Graph 23: **Financial intermediation, real estate, renting and business activities**
Year-on-year % changes — 1999Q1–2006Q4



Source: Commission services.

Graph 24: **Sectoral unit labour cost developments**
Year-on-year % changes — 1999Q1–2006Q4



Source: Commission services.

The aggregate picture of subdued labour cost pressures conceals sizeable country differences

At country level, sizeable differences across euro-area countries in CPE and nominal ULC growth have built up since the launch of the monetary union. The historically low average growth rate of 2.3 % in CPE in the euro area over the period 1999–2006 needs to be seen in conjunction with the very low growth recorded in Germany. Excluding Germany from the euro-area aggregate would yield an average growth rate of 3 % over the same time horizon. Similarly, nominal ULC increased at an annual rate of 1.4 % for the euro area, as against 2 % when Germany is excluded from the aggregate (Graph 25).

Looking in more detail at country-specific developments (Table 16), it is easy to see that wage growth differentials are relatively high. Both Germany and Austria have experienced moderate wage pressures, with CPE growing in both countries at an average growth of 1.9 % over the period 1999–2006. By contrast, the highest wage growth has been recorded in Greece (6.4 %) and Ireland (5.9 %). Barring Slovenia, the remaining euro-area countries are in the range of 2.8 % to 4 %. Moreover, wage growth differentials across countries appear to have been only loosely related to productivity growth differentials, which are relatively low across euro-area countries. Consequently, persistent wage growth differentials are also reflected in fairly divergent growth rates of nominal ULC (for further details see PART II of this publication). Average growth of nominal ULC in the euro area over the period 1999–2006 amounted to 1.4 %. Again, such moderate aggregate behaviour was mainly driven by Germany (0.2 %) and, to a lesser extent, Austria (0.5 %). At the other end of the spectrum, pronounced increases in nominal ULC were recorded in Portugal (3.1 %), Ireland and Greece (2.9 % each), Spain, Italy and Luxembourg (around 2.5 % each), and the Netherlands (2 %), with varying patterns in terms of composition. The behaviour of nominal unit labour costs in the group of countries which experienced pronounced increase in nominal ULC was governed by substantial increases in compensation per employee — Ireland, Greece, the Netherlands and Luxembourg — weak productivity gains — Spain and Italy — or a combination of the two — Portugal.

To shed further light on the origin of labour cost inflationary pressures in euro-area Member States we use EU KLEMS data covering the period 1999–2004 to provide the income decomposition of the Value Added deflator corresponding to two broadly-defined sectors, i.e. tradeables and non-tradeables ([1]). Graph 26 shows that the rise in the relative price of non-tradeables versus tradeables can mostly be attributed to the considerably slower productivity gains in the former sector. In contrast, differences in wage developments between the two sectors are limited in most Member States. Notable exceptions are Germany and Italy, where differentials in wage rates have contributed respectively to reduce and widen price differentials between tradables and non-tradables. There is a considerable degree of cross-country heterogeneity in productivity differentials between tradables and non-tradables. For the period considered, the differential was particularly high in Greece and Finland and notably low in Italy and Portugal. Lastly, there is also considerable cross-country heterogeneity regarding profit margin behaviours, which can essentially be traced back to the tradable sector. For instance, there were large rises in margins in this sector in Austria and Greece and significant cuts in Portugal. In general, there is no clear evidence, except in the case of Portugal, that countries which have experienced large losses in price competitiveness since the launch of the euro have responded to these losses by squeezing margins in the tradable sector.

Table 16

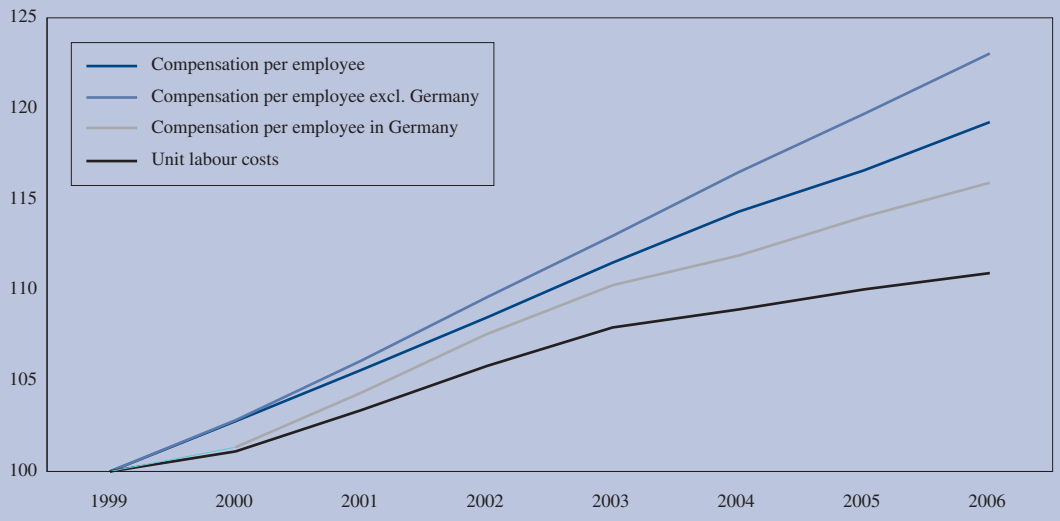
Labour cost indicators across EU-15 countries
Average percentage change 1999–2006

	Compensation per employee	Labour productivity	Nominal unit labour costs
BE	2.8	1.3	1.5
DE	1.9	1.7	0.2
IE	5.9	2.9	2.9
EL	6.4	3.4	2.9
ES	3.1	0.4	2.6
FR	2.8	1.0	1.7
IT	2.9	0.4	2.6
LU	3.5	1.0	2.5
NL	3.8	1.7	2.0
AT	1.9	1.4	0.5
PT	4.0	0.8	3.1
SI	8.1	3.2	4.7
FI	3.2	2.1	1.2
EA-13	2.6	1.1	1.4
EA-12	2.6	1.1	1.4

Source: Commission services. Employment-related series calculated on the basis of full-time equivalents, not headcounts, for DE, ES, FR, IT, NL and AT.

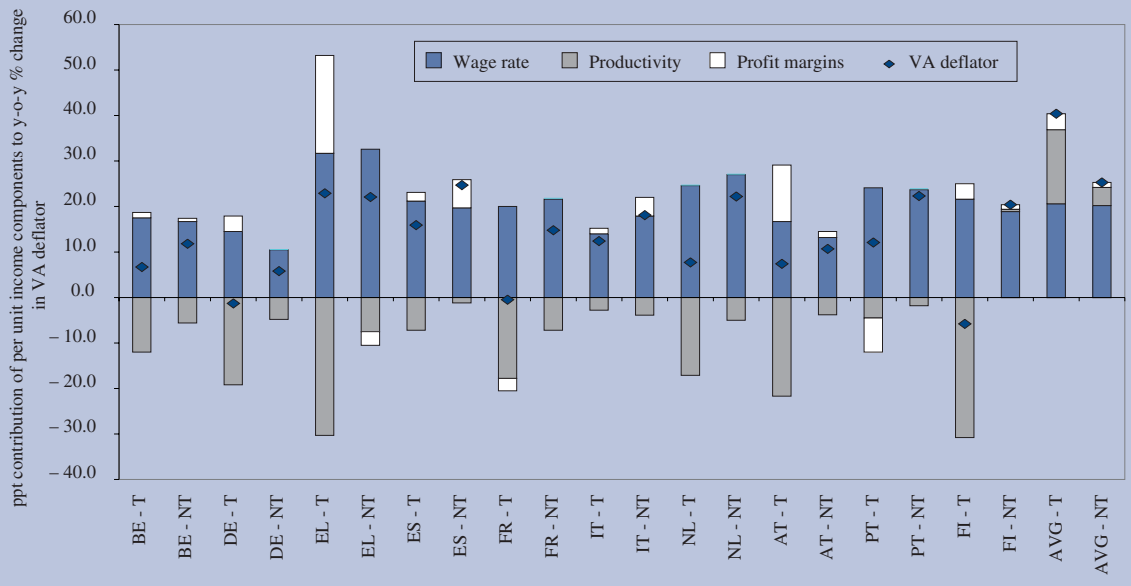
([1]) It is assumed that a sector qualifies as tradable if it exhibits a trade intensity (defined as the share of imports plus exports in value added) of more than 20 %.

Graph 25: **Compensation per employee and nominal unit labour costs, euro area with and without Germany**
Index 1999=100



Source: Commission services.

Graph 26: **Sectoral decomposition of VA deflator, selected EU-15 Member States**
% contribution to year-on-year changes of VA deflator



Note: 'T' denotes 'tradeables' and 'NT' represents 'non-tradeables'.
Source: Commission services.

Moderate increases in wages did not prevent private consumption from being supportive of domestic demand in 2006

With real labour compensation improving in line with favourable labour market developments and consumer confidence on an upward trend since mid-2005 ([1]), consumer spending is benefiting from supportive conditions. Despite wage moderation, real labour compensation (or the real wage bill), as defined by compensation per employee deflated by the consumption price deflator times total employment, has expanded robustly in the euro area since the mid-1990s. Although this trend reflects both employment growth and increases in real compensation per worker, employment growth has considerably outpaced the growth in real compensation per worker (Graph 27). In 2006 the labour market improved considerably in the euro area. After four years of subdued growth at an average of 0.65 % per year, employment growth accelerated to around 1.4 % in 2006, representing some 2 million new jobs. Meanwhile, the euro-area unemployment rate pursued its downward course, reaching 7 % in May 2007, i.e. the lowest rate for more than a decade.

With real compensation per employee moderating at a time when the outlook for employment growth is brighter, the question arises as to the relative importance of the two components of the real wage bill in driving real private consumption. To this aim, it is illustrative to put into a historical perspective the developments of these variables. This is done in Graph 28 (real wages) and Graph 29 (employment), which respectively compare real compensation per employee and employment in the current recovery with the previous recovery (namely when GDP bottomed out in 1993Q2 and 2003Q2). This comparison shows employment during the current recovery has largely outpaced that of the previous recovery. The opposite can be said of real compensation per employee.

Whereas it is often stressed that moderate real wage growth contributes to the weakness of private consumption, it is obviously more appropriate to refer to real labour compensation (or the real wage bill) as the key variable having an impact on aggregate consumption. There is some evidence that, at least in recent years, employment growth has been more relevant as a determinant of households' private consumption than the growth of real wages per employee ([2]). This statement, however, should be taken with a great deal of caution, since it is based on simple correlations between real consumption growth and the two components of the real wage bill. Correlations are a useful way to illustrate the relationship between variables, but they do not indicate the strength of any co-movement and nor do they necessarily imply any causality ([3]). In any case, Graph 30 shows the respective contributions of employment and real compensation per employee to the growth of the real wage bill in the euro area during the period 1996–2006. It clearly shows that years with high employment growth were also years with high growth in real private consumption. The same cannot be said for the relationship between real compensation per employee growth and real private consumption, which displays a much weaker correlation and even a slightly negative correlation over the period 2001–06. A high correlation of consumption with employment rather than with wages is also visible at the level of the individual euro-area Member States (Graph 31). This evidence seems to indicate that differences in labour market conditions matter more than differences in real pay in explaining consumption growth. The fact that a strong negative correlation exists between consumer confidence and unemployment provides further empirical evidence along this line.

Moreover, the real wage bill, or more generally, the real disposable income is only one determinant of consumption. Economic theory posits that changes in real disposable income have an impact on consumption to the extent that they are perceived as indicating a change in permanent income, thereby pointing to wealth as another variable with a strong link with consumption. Recent ECB estimates ([4]) for euro-area households' wealth show that households' net worth (i.e. the sum of households' housing and financial wealth, net of their liabilities) as a percentage of gross disposable income increased relatively steadily in the euro area in the period between 1995 and 2005, amounting to about 650 % of disposable income in 2005. Until 1998, the increase in households' net worth was mainly due to the favourable stock market developments and the resulting

([1]) Consumer confidence surpassed its long-term average at the end of 2005 and is gradually heading for the peak value reached in 2000.

([2]) *Quarterly report on the euro area*, Vol. 5, No 1 (2006), pp. 15–20.

([3]) Cycles in private consumption, employment and real wages per employee may be driven by other factors or there could also be some source of endogeneity between employment and real wages per employee. For example, it could be the case that declining real wages lead to an increase of employment. Refined econometric studies should attempt to control for such factors.

([4]) ECB's *Monthly Bulletin*, December 2006, Box 5: Estimates of housing wealth for households in the euro area.

rise in households' financial wealth, while households' housing wealth remained fairly stable in relation to disposable income. After 1998, households' net worth increases mostly reflected the continued strong dynamism in residential property prices witnessed during the past few years. Most of the empirical studies on the relationship between wealth (usually proxied by housing wealth) and household consumption have estimated macroeconomic consumption functions based on the approach by Davidson et al. (1978) and Henry and von Ungern-Sternberg (1981). This approach is based on the life-cycle hypothesis developed by Modigliani (1949), whereby consumption depends on household's lifetime income and wealth, so that in the long run, trends in consumption are closely related to trends in income and wealth ([1]). The importance of the wealth effect in explaining consumption has been documented in various empirical studies ([2]).

In the short term there are increasing signs of tightening labour market conditions and risks of wages pressures are rising in the euro area

In line with brightening economic conditions, employment expectations ([3]) remain high and the unemployment gap (i.e. the gap between actual and structural unemployment rates) is expected to turn negative, implying that, at least in the short term, there are increasing signs of tightening labour market conditions and wage developments posing upward pressures to the inflation outlook. This assessment of risks to the inflation outlook is confirmed by the latest 'ECB survey of professional forecasters' ([4]).

Lessons from the past suggest that the evolution of unit labour costs in the euro area fits well with the

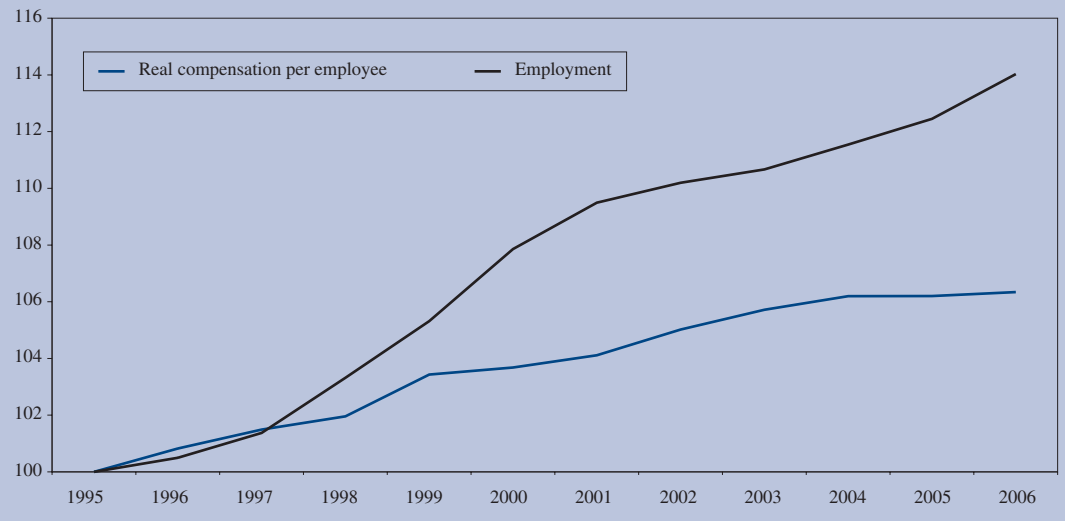
([1]) Household consumption will tend to deviate from this long-run equilibrium relationship in the short run, but will tend gradually to revert to equilibrium over time. In modelling, this latter process is termed the error-correction mechanism. The short-run dynamic terms that can lead to deviations from the trends can include lagged values of income and wealth, along with other factors such as interest rates and inflation.

([2]) Some of them focus on housing wealth, as is the case of Kennedy and Andersen (1994), Girouard and Blondal (2001) or Henley and Morley (2001). Other studies focus on financial wealth, as in Lettau, and Sydney (2004) and Baker et al. (2006). Finally, a comprehensive concept of wealth is adopted in Lettau and Ludvigson (2001), Greger et al. (2005) and Dreger and Reimers (2006).

([3]) Employment prospects, as reported in the Commission's business and consumer surveys (BCS), suggest that employment creation will continue into the second half of the 2007. The employment component of the Purchasing Managers' Index is at its highest in six years.

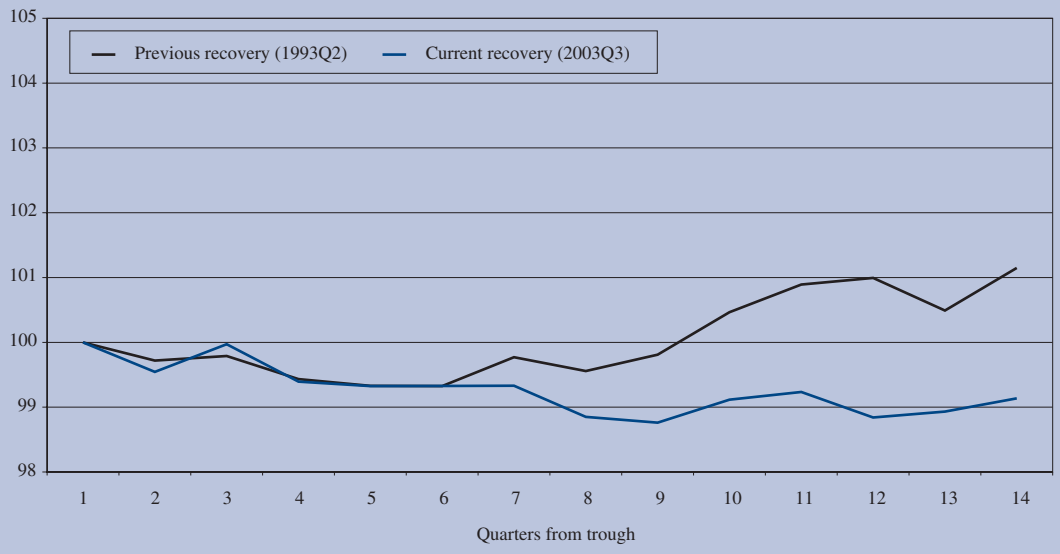
([4]) The 'ECB survey of professional forecasters' (SPF) is a quarterly survey of expectations for the rates of inflation, real GDP growth and unemployment in the euro area for several horizons, together with a quantitative assessment of the uncertainty surrounding them. The survey is called the 'ECB survey of professional forecasters' to reflect the fact that all of the participants are experts affiliated with financial or non-financial institutions based within the European Union.

Graph 27: **Employment and real compensation per employee, euro area, 1995–2006**
Index 1995=100



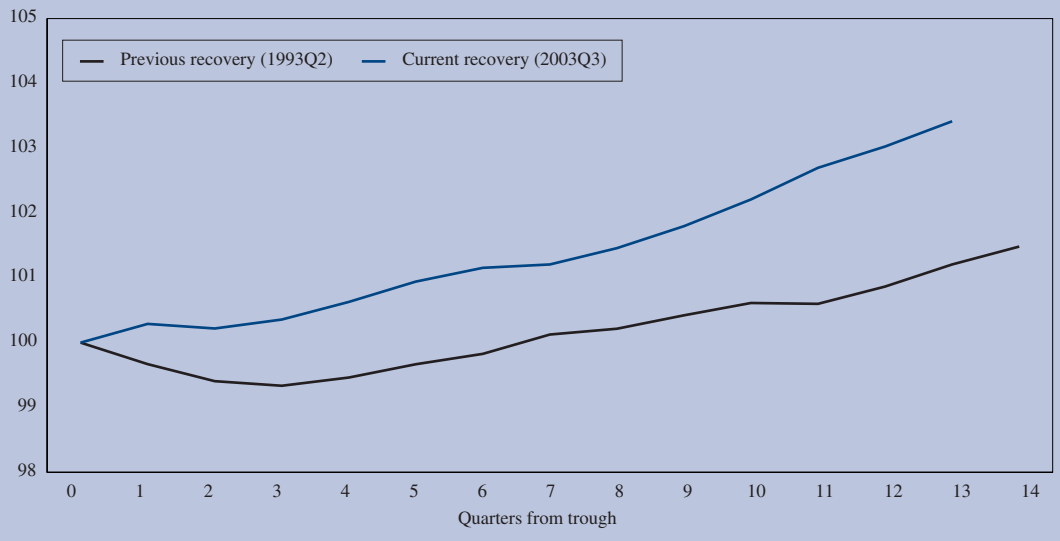
Source: Commission services.

Graph 28: **Real wages across cycles, euro area**
Index 1995=100 at trough



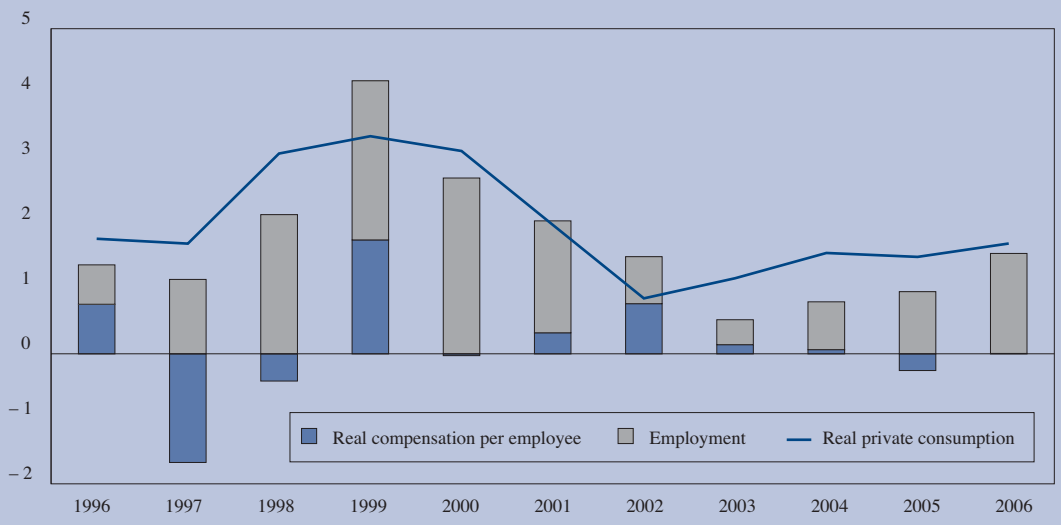
Source: Commission services.

Graph 29: **Employment across cycles, euro area**
Index=100 at trough



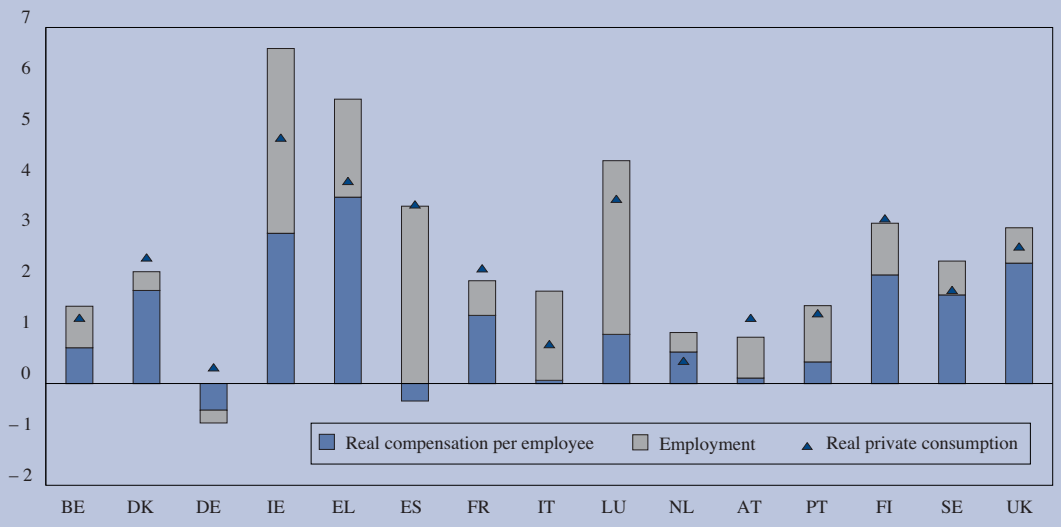
Source: Commission services.

Graph 30: **Contribution of employment and real wages to the real wage bill, euro area**
Annual % changes, 1996–2006



Source: Commission services.

Graph 31: **Contribution of employment and real wages to consumption, EU–15 Member States**
Average annual % changes, 2001–06



Source: Commission services.

unemployment gap ([1]). Nevertheless, the quantitative impact of a diminishing unemployment gap on wage inflation will depend on a number of factors. On the one hand, in the current context of brisk employment growth, trade unions could demand wage increases beyond productivity trends. On the other hand, although the incidence of automatic wage indexation has been reduced in the past few years, the threat of second-round effects has not been confirmed so far ([2]). Close monitoring of wage-

([1]) See *Quarterly report on the euro area*, Vol. 5, No 4 (2006), pp. 4.

([2]) Globalisation and increased product market competition brought about by the effective completion of the internal market in the EU may have adversely affected the bargaining power of workers and the capacity of firms to increase mark-ups in tradable sectors, thereby dampening the extent to which oil price increases can trigger second-round effects.

setting behaviour on a country basis will be required in the immediate future so as to add credibility to the scenario of moderate wage growth. Specifically, after stabilising at around 2.3 % in the past three years, the Commission's spring 2007 forecasts indicate some slight wage growth acceleration in the short term (to 2.6 % in 2007 and 2.9 % in 2008) due to new wage agreements being implemented in selected euro-area countries, namely Germany, Belgium, Ireland and the Netherlands. Overall, wage growth is projected to edge up somewhat as new wage agreements are expected to reflect the better economic outlook and the increase in the growth of labour productivity. However, due to the staggered nature of wage agreements, such developments are likely to remain moderate, at least in 2007.

In the medium term several factors are likely to ease labour cost pressures

In the medium term, three main factors could put a lid on labour cost pressures, namely, stronger-than-expected reduction in the structural unemployment, enhanced labour force growth and the likely favourable contribution of labour productivity growth.

Firstly, the estimate for the structural unemployment rate depends on a number of parameters which are subject to change over time. The structural unemployment rate could well decline faster than expected, as has already happened in the past, thereby helping dampen potential upward wage pressures. Indeed, the unfolding of recent labour and product market reforms could favour stronger-than-expected reduction in the structural unemployment (or NAIRU). Labour market reforms undertaken by some of the largest euro-area countries have resulted in improving employment prospects. In Germany, while contracts in the form of full-time employment for an unlimited period have become less prevalent in the past few years, self-employment and part-time employment have been gaining importance. These changes reflect the need for flexibility in enterprises and households, and have recently been further strengthened by measures introduced in the context of the reforms promoting modern labour market services (also known as the 'Hartz reforms'). In France, a special two-year contract, entailing no costs for dismissing new recruits for enterprises with less than 20 employees, was introduced in August 2005 to boost employment in the private sector. In Italy, new legislation implemented in 2003 (known as the Biagi Law) introduced measures to enhance flexibility in the labour market, mainly in the form of more flexible part-time contracts and non-standard labour contracts for temporary workers. Overall, more flexible labour markets have seen the share of part-time and fixed-term contracts soar, especially in Spain, Germany, and Italy. Such atypical contracts constitute the bulk (around 60 %) of all jobs created in the EU and their share in total employment could rise further.

Secondly, labour market reforms designed to enhance labour force growth can help to alleviate inflation pressures emanating from the supply side. In a more technical sense, successful labour market reforms would result in a downward shift in the labour supply (or wage) curve — more supply at a given wage. Overall, labour force growth appears to have been relatively strong between 2001 and 2006. This is partly due to immigration, but it also reflects an underlying increase in participation. Women and older workers in particular, and to some extent workers with lower skills, have experienced significant improvements in their labour market situation. These developments may be related to the fact that many euro-area countries have made some progress with reforms improving incentives to work and making work pay. Nevertheless, the performance of the euro-area labour markets is still far from being efficient and sufficiently flexible and participation in the labour market is low by international standards. Looking ahead, labour force growth is expected to decelerate, if not even decline, due to the projected slowdown in working-age population growth. This represents an important challenge that needs to be addressed by further reforms.

Thirdly, wage increases have to be assessed also against the acceleration of productivity growth in 2006, which may have a dampening effect on unit labour costs. Should the recent rebound turn out to be of a structural nature, the likely favourable contribution of labour productivity growth could partly or totally offset the effect of higher wage demands on inflation ([1]). European Commission (the Economic and Financial Affairs DG) calculations suggest that the trend decline in labour productivity growth could have come to an end by 2003 (Graph 32 and Graph 33). This conclusion holds both for trend and potential labour productivity growth, i.e. irrespective of whether purely statistical or economic-based methods are used to remove the cyclical component of labour productivity growth.

Overall, despite wage indicators pointing to a pickup, compared with past wage restraint, real unit labour costs in the euro area could experience further declines in the

([1]) For further details on the assessment of recent labour productivity developments, see Box 1 in the *Quarterly report on the euro area*, Vol. 5, No 4 (2006).

Graph 32: **HP-filtered labour productivity growth, euro area**
Annual data 1980–2008

Source: Commission services.

Graph 33: **Potential labour productivity growth, euro area (production function methodology)**
Annual data 1980–2008

Source: Commission services.

medium term owing to the favourable effect of labour market reforms and the strengthening of labour productivity.

3.2.2. Labour cost developments and external macroeconomic conditions in the euro area

Divergent unit labour cost developments across countries have contributed to widening current account imbalances across euro area members since the launch of the euro ([1])

In a monetary union where national policymakers no longer have the possibility to use a country's nominal exchange rate to compensate for competitiveness losses, a careful examination of developments in competitiveness indicators remains particularly important. In turn, the latter are very much related to labour market developments. On the one hand, protracted losses in competitiveness could signal narrow differences in labour productivity but sustained dispersion in wage developments across euro-area members due to impediments associated with structural rigidities and inertial components in the wage and price-setting mechanisms. On the other hand the widening dispersion of current account positions within the euro area may not be a matter of concern to the extent that it reflects long-term catching-up processes, equilibrium price and cost adjustments in response to country-specific economic shocks (such as asymmetric cyclical positions of national economies) or a financial deepening process fostered by the euro and European financial market integration ([2]). The remainder of the section discusses the relative importance of the aforementioned benign and non-benign factors in the explanation of widening current account positions. To this aim, the analysis below relies on ULC-based intra-euro-area real effective exchange rates ([3]).

To start with, Graph 34 plots the proportion of real effective exchange rate appreciation/depreciation against the change in the average value of the current account balance to GDP ratio between the pre- and post-EMU periods. Almost all countries experiencing competitiveness losses, i.e. real exchange rate appreciation, face some deterioration of their average current account position. On the other hand, countries experiencing competitiveness gains, i.e. real exchange rate depreciation, generally face an improvement in their current account position. The first group, represented in the upper-left quadrant of Graph 34 includes Greece, Italy, Ireland, Portugal and Spain; the second group, located in the bottom-right quadrant includes Austria, Germany and Finland.

Countries can be classified into three main groups with regard to cost competitiveness developments since the launch of the euro (Graph 35). A first group of countries, represented by Greece, Ireland, Italy, the Netherlands, Portugal and Spain, have registered a noticeable deterioration in their competitiveness position against the rest of the euro area.

Barring the Netherlands, where the situation has slightly improved since 2003, the remaining countries in this group were still on an appreciation path at the end of 2006. A second group including Belgium, France and Finland have seen their competitiveness position unaltered since the launch of the euro. A third group comprising Austria and Germany have experienced a steady increase in their competitiveness position against the rest of the euro area since 1999. Overall, the information provided by Table 16 and Graph 35 shows that there is a close correspondence between Member States that have registered increases in nominal ULC growth above (below) the euro-area average and the group of countries that have experienced some decline (improvement) in their competitiveness positions against the euro area.

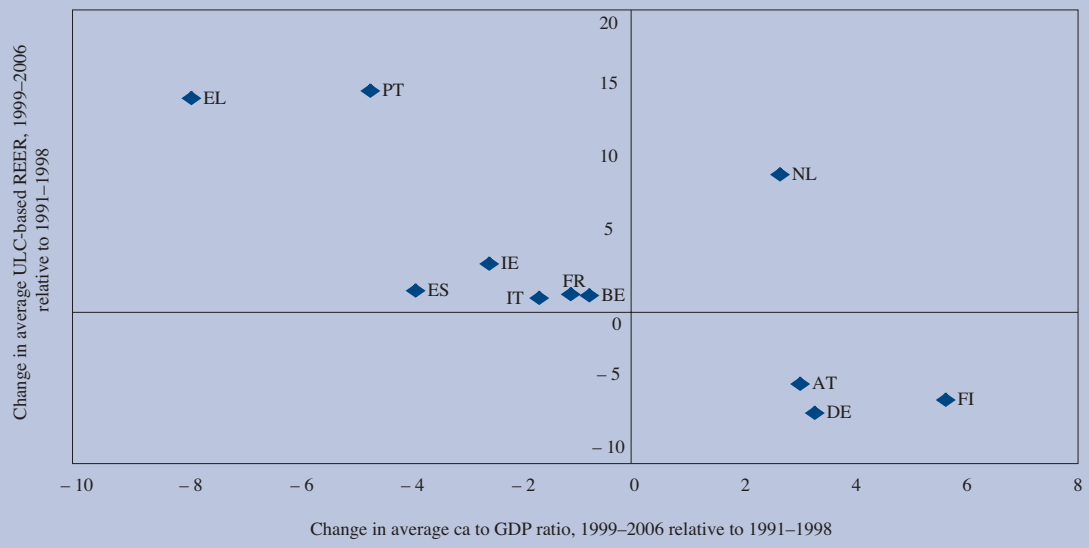
Since the adoption of the common currency, the evolution of the real effective exchange rate is influenced only by the dynamics of the relative unit labour costs and its two components, i.e. the relative compensation per employee and the relative labour productivity. For euro-area countries, Graph 36 reports the average growth in the unit labour costs, compensation per employee and labour productivity relative to the average of the remaining countries of the euro area. To capture changes in the competitive position vis-à-vis the remaining euro-area partners, each average is weighted with the bilateral trade weights used in the calculation

([1]) For a detailed analysis see the focus section of this publication and *The EU economy — 2006 review*, *European economy* No 6, 2006.

([2]) There is some evidence that the euro and financial integration have allowed Member States with bigger financing needs (i.e. catching-up economies) to tap international capital markets more easily. See *Quarterly report on the euro area*, Vol. 5, No 4 (2006).

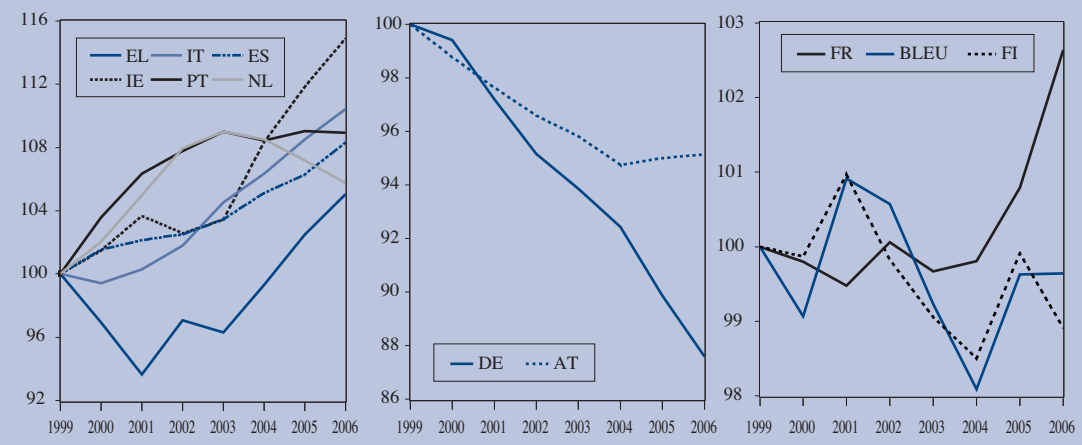
([3]) There are two reasons for using ULC-based intra-euro-area real effective exchange rates in this section. First, the aim of this section is to analyse the contribution of unit labour cost developments to the external macroeconomic balance. Second, measures of the real effective exchange rates based on economy-wide deflators, such as unit labour costs, are probably better explanatory variables of cross-country differences in the trade balance than more narrow measures, such as export prices. The latter provide only a partial description of the competitive position of a country insofar as changes in these indices modify the competitive position of exporters rather than the incentive to produce tradeable versus non-tradeable goods. In this vein, the evidence suggests that it is probably better to use economy-wide measures of the real effective exchange rates when trying to understand Member States' differences in current accounts, while more narrow measures could be more suitable to analyse the export performance.

Graph 34: **ULC-based REER movements and current account developments in former euro-area-12 members**
Average % change 1999–2006 relative to average % change 1991–98



Source: Commission services.

Graph 35: **Real effective exchange rates based on ULC, former euro-area-12 members**
Index 1999=100 — 1999Q1–2006Q4



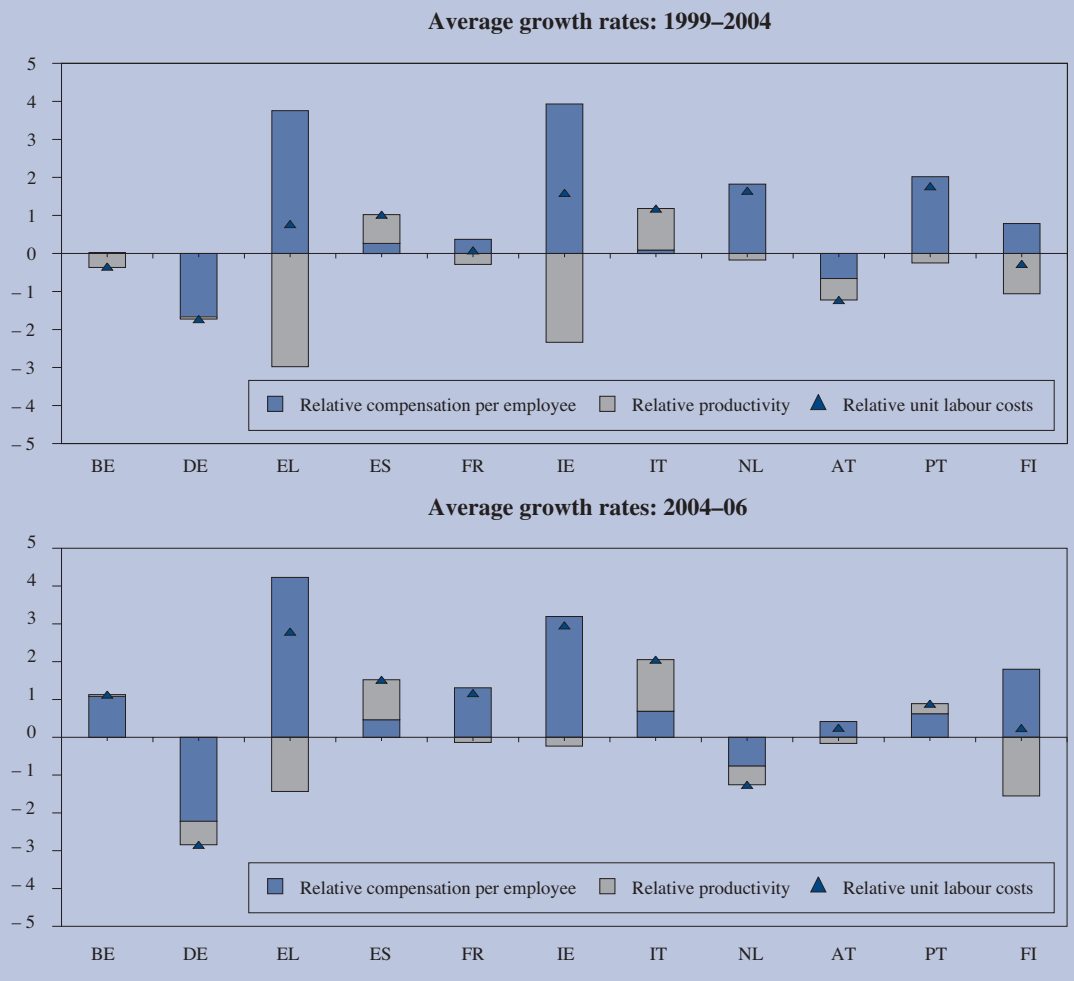
Source: Commission services.

of the real effective exchange rate. Among those countries which experienced a persistent deterioration in competitiveness, cost pressures derive from an increase in relative wages higher than the one of their main competitors in Greece, Ireland, and, to a lesser extent, Italy, Portugal and Spain. Put differently, in these countries the wage growth differential does not reflect the productivity growth differential. Moreover, the increase in productivity in Greece and Ireland is not sufficient to contain labour cost pressures as, for a given wage differential, productivity grows also by more for their competitors. The situation is even more worrying in the case of Italy, Spain and Portugal, where relative productivity has decreased over the period 2004–06. Finally, in countries such as Belgium and France the cyclical deterioration in price competitiveness over the period 2004–06 is associated with a marked increase in their relative wages.

Divergent competitive developments may be justified in terms of cyclical positions, income convergence phenomena and, above all, structural factors

Recent empirical evidence has provided support to the argument of enhanced synchronisation of business cycles among the euro-area countries since the inception

Graph 36: **Relative unit labour costs, compensation per employee and productivity**



Source: Commission services.

of the monetary union ([1]). Some have interpreted these findings as evidence that the link between divergent external positions and cyclical differences is becoming weaker. However, enhanced synchronisation of business cycles does not preclude some divergence in external positions to emerge, due to heterogeneous responses of specific countries to common shocks. Graph 37 illustrates that euro-area countries in a relatively stronger cyclical position during the recent cyclical upturn (2004–06) have also tended to experience a real appreciation against the rest of euro-area members. Another issue is whether divergent competitiveness developments justified by asymmetric cyclical positions should be regarded as benign or rather considered a matter of concern. In principle, any external imbalances associated with a relatively stronger cyclical position should be considered of a temporary nature and, thus, should not be the object of major concern. However, the link between the cycle and real exchange rate movements may incorporate some hysteresis due to the existence of downward nominal rigidities in the labour market. In the presence of hysteresis mechanisms, losses in competitiveness brought about by rapid cyclical growth could persist in the long term. For example, rapid cyclical growth and inflationary pressures in Ireland, the Netherlands and Portugal in the late 1990s were accompanied by appreciation movements in the same countries. Subsequently, these appreciation episodes proved difficult to be reversed despite a protracted period of weaker growth than in the rest of the euro area. Even in the absence of such persistence mechanisms one should bear in mind that because of the lagged response of employment to activity, sluggish growth tends to depress the cyclical component of productivity more than it moderates wages, so that a cyclical downturn may be associated with unit labour cost pressures and the opposite occurs during upswings. Italy, Portugal, and the Netherlands have actually experienced both a sharp cyclical slowdown in productivity and a pickup in unit labour costs over the period 2001–03.

Beyond cyclical factors, divergences in real exchange developments may also reflect the effect of structural factors. These include, inter alia, (i) insufficient degree of alignment of wages with structural developments in productivity, and (ii) appreciation phenomena associated with income convergence process. These two factors are briefly discussed in the remainder of this section.

Graph 38 displays the evolution of wages and trend productivity in euro-area countries. Wages are measured by nominal compensation per employee whereas trend productivity is calculated as the ratio of potential GDP to potential employment ([2]). The general picture is that of an increasing gap between wages and trend labour productivity over the past decade. Nevertheless, there are sizeable differences across countries. In only two countries, i.e. Austria and Luxembourg, wage developments have paralleled trend productivity improvements. In Germany and Finland, and to a lesser extent, Belgium and France, the magnitude of the gap is limited. In Spain and Italy, relatively flat productivity patterns have been accompanied by a fairly steady upward rise in wages. Brisk wage increases in Ireland and, above all, Greece, have widened the gap with trend labour productivity, in spite of notable augmentation in the latter. In the Netherlands, some moderation in wages at the end of the sample is starting to close the gap with trend productivity growth. Overall, all euro-area countries which have registered real exchange rate appreciation movements in the recent past, namely Spain, Italy, Ireland, Greece, Portugal and the Netherlands, have also shown difficulties in aligning wage behaviour with trend productivity dynamics.

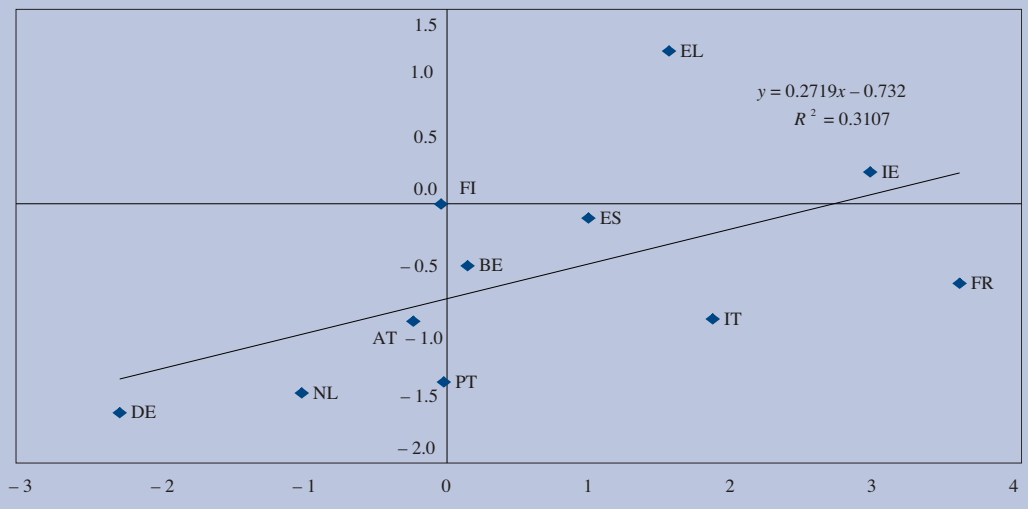
Differences in real exchange rate developments may also partly reflect a process of income convergence (the so-called 'Balassa–Samuelson effect'). This is the way such imbalances are treated in Blanchard and Giavazzi (2002) or the European Commission (2005) ([3]). It is true that three out of six countries which have experienced a large exchange rate appreciation since the launch of the euro,

([1]) Such relevant empirical work includes Giannone and Reichlin (2006), Benadal et al. (2006) and Bower and Guillemineau (2006). Giannone and Reichlin (2006) analyse output dynamics in euro-area countries in the last 30 years and find that business cycle characteristics have been very similar across countries. It is further shown that output variance is mainly explained by common shocks with similar propagation mechanisms while idiosyncratic shocks, although persistent, are small. Benadal et al. (2006) show that the degree of synchronisation of business cycles across euro-area countries has been increasing since the beginning of the 1990s. This finding holds for various measures of synchronisation applied to overall activity and to the cyclical component, for annual and quarterly data, as well as for various country groupings. Bower and Guillemineau (2006) investigate the key factors underlying business cycle synchronisation in the euro area. They show that the determinants of business-cycle synchronisation has varied over time, depending on the difference phases of the European construction, with fiscal policy, in addition to industrial and financial structures, playing a greater role during the completion of the single market, while short-term interest rate differentials and cyclical services have become more determinant since the start of the EMU.

([2]) Potential employment is computed as the trend participation rate times the working age population times one minus the non-accelerating wage rate of unemployment.

([3]) See *Quarterly report on the euro area*, Vol. 5, No 3 (2005).

Graph 37: **2004–06 average ULC-based REER change versus average output gap differential against euro-area partners**



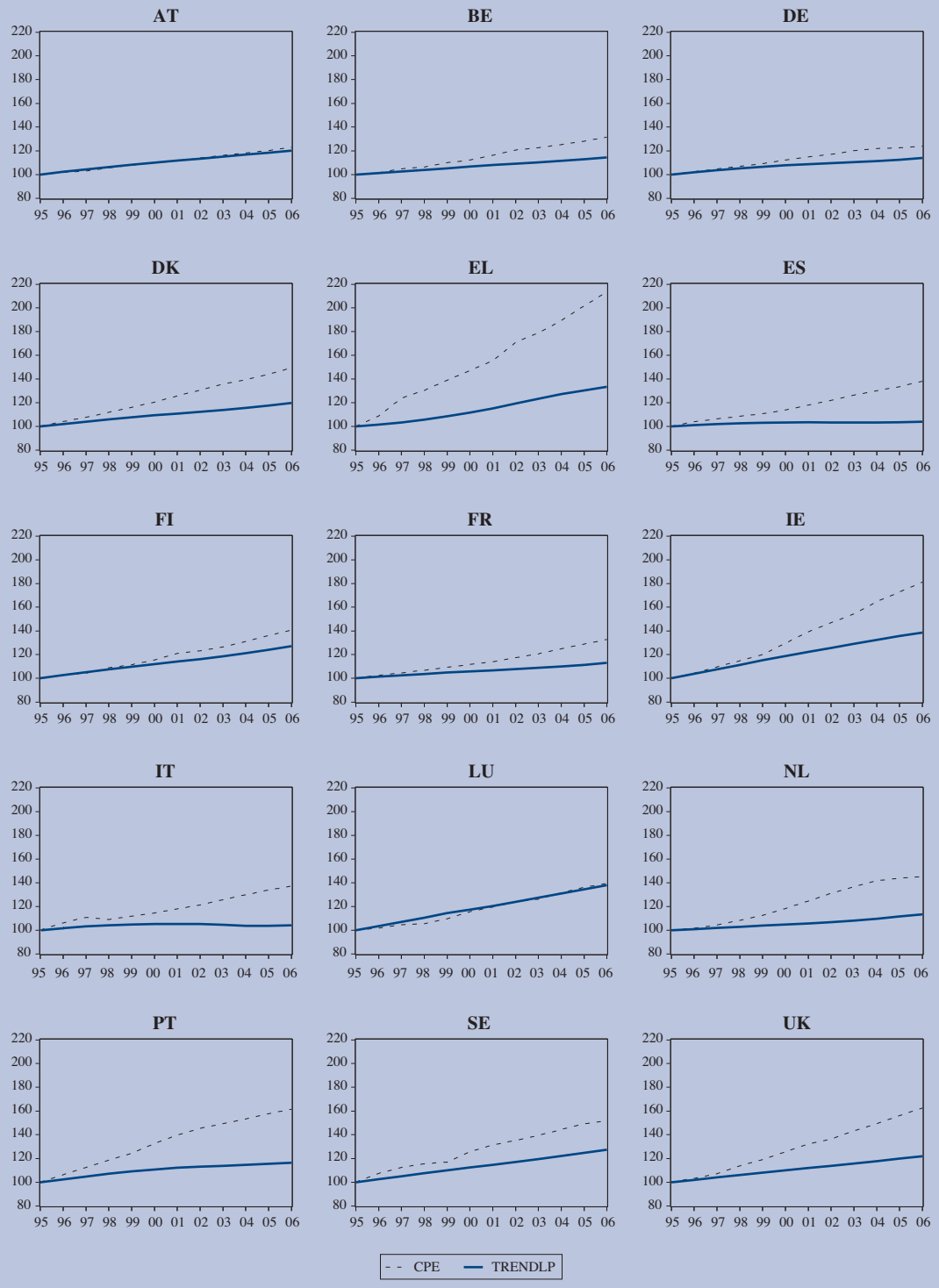
Source: Commission services.

i.e. Greece, Spain and Portugal, exhibit a level of GDP per capita that is well below the euro-area average. However, empirical evidence suggests that the Balassa–Samuelson effect has played only a modest role in explaining inflation differentials since the launch of the euro. What these studies actually show is that there is no obvious link between Member States' level of economic development and developments in the non-tradable component of the real exchange rate. In any case, should the convergence process be of some relevance in explaining external imbalances in the group of catching-up countries, this would reinforce the argument for the need to enhance flexibility. This is because without full convergence among the current members and given the loss of monetary independence as an instrument of managing real exchange rates, the task of securing current account adjustment is left to the ratio of relative prices. The need for wage and price flexibility is even more pressing if analysed against the background of a radical change in the macroeconomic framework. Large swings in real exchange rates in the past were in part an offspring of a high inflation environment. In the 1970s and part of the 1980s, with semi-fixed exchange rates, high inflation dispersion entailed rapid changes in competitiveness positions which were later offset by abrupt nominal exchange rate movements. In the context of a monetary union, even a relatively low degree of divergence in competitiveness positions can be considered as problematic because it will be slow and difficult to correct. This is because in an environment of low inflation and in the absence of nominal exchange rate fluctuations, changes in intra-euro-area relative competitive positions are achieved only gradually.

3.2.3. Labour cost developments in Denmark, Sweden and the UK

Denmark, Sweden and the UK share the position of being outside the euro area and being endowed with a GDP per capita level well above the EU-27 average. Although these countries are quite different in terms of openness to external trade, the exchange rate regime in place and labour market institutions, they have in common that wage growth used to be higher than in the euro area. In 2006, nominal compensation per employee as depicted in Graph 39 grew at 3.8 % in Denmark and 4.2 % in the UK, showing some acceleration as compared with the euro area. More moderate increases were recorded in Sweden, where compensation per employee increased by 2 %, i.e. slightly below the euro-area behaviour. Graph 40 is suggestive of a stronger cyclicality of real unit labour costs in these three countries as compared with the euro area. In 2006, real ULC

Graph 38: **Compensation per employee and trend labour productivity developments, EU-15,** Index 1995=100



Source: Commission services.

remained broadly constant in Denmark and the UK (growth rates in real ULC respectively stood at 0.2 % and -0.2 %) and decreased sharply in Sweden by -2.1 %. In Denmark, the labour market continued to strengthen in 2006, employment increased further and most sectors reported shortages of labour. Nevertheless, the increase in wage growth has so far been rather limited in the overall economy. In 2005 and 2006 the labour market in the UK was characterised by record inflows of migrant labour and higher participation rates among older and female workers. Notwithstanding strong employment growth in 2006, the remarkable increase in the labour supply contributed to a rise in the unemployment rate and unutilised labour resources raised steadily in the first half of the year, thereby easing labour market pressures. In Sweden, the weak developments in the labour market over the last few years have helped to contain wage demands.

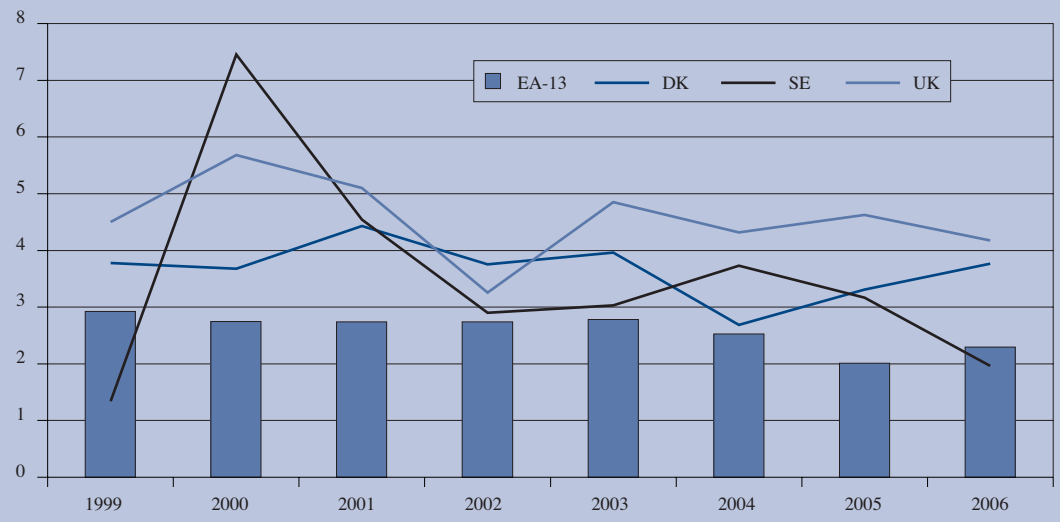
Looking further ahead, wage growth is eventually set to accelerate in Denmark, judging from the outcome of the 2007 wage negotiation round. The current indications seem to point to wages over the next three-year period rising at a rate about 1.5–2 % per year faster than in the previous period. In Sweden, after a period of weakness, high profitability in the private sector together with the improving labour market situation and emerging labour shortages in a few sectors (construction and services) is estimated to lead to higher wage growth over the forecast period. This pickup is corroborated by the outcome of the sectoral agreements in the 2007 private sector wage negotiation round that have been concluded so far. In the UK, lower labour force growth and robust employment growth are expected to lead to a tighter labour market over the period 2007–08. Nevertheless, unemployment will remain higher than the natural rate and contribute to dampen upward pressures on wages. Labour productivity growth is also expected to remain high, as firms seek to maximise utilisation of their present staffing levels.

3.3. Real consumption wages, real production wages and the domestic terms of trade revisited

Increasing workers' purchasing power without jeopardising external competitiveness

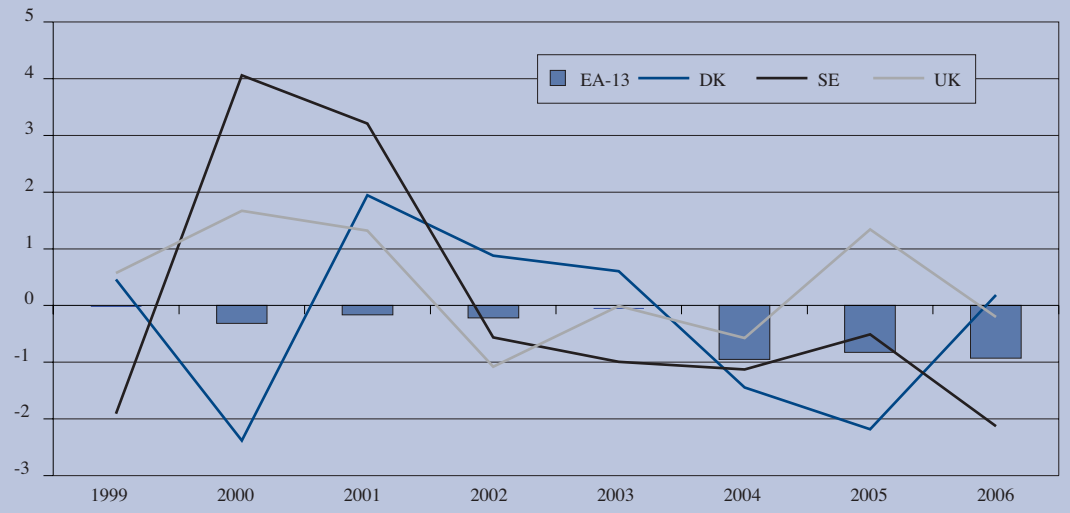
Real wages in terms of the deflator for private consumption (or wages expressed in terms of purchasing power of workers) equate real wages in terms of the GDP deflator times the ratio of the GDP deflator to the deflator for private consumption. That is to say:

Graph 39: **Compensation per employee in Denmark, Sweden and the UK compared with the euro area**
Year-on-year % changes, 1999–2006



Source: Commission services.

Graph 40: **Real unit labour costs in Denmark, Sweden and the UK compared with the euro area**
Year-on-year % changes, 1999–2006



Source: Commission services.

$$(1)\ \frac{W}{P_c} = \frac{W}{P} \times \frac{P}{P_c}$$

where W, P_c and P respectively denote nominal compensation per employee, the deflator for private consumption and the GDP deflator. For the sake of clarity let us denote the three ratios in the above formula respectively as 'real consumption wages', 'real production wages' and the 'domestic terms of trade'. Clearly, there are four main sources of difference in production and consumption prices: (i) the price of investment goods, given that workers produce investment goods but do not directly consume them, (ii) the price of housing, given that costs of housing investment are part of the production price deflator but are not part of the consumption price deflator, (iii) international trade, given that imports are clearly part of consumption but they are not part of domestic production, and (iv) indirect taxes, given that they are levied on consumption expenditure.

In the current policy debate, wage moderation has given rise to distributional concerns. This section contributes to this debate by identifying the source of wage moderation. This is done by relating real consumption wages to real production wages and the domestic terms of trade through the basic accounting rule specified above. This allows us to conclude that the (admittedly slight) increase in real consumption wages that has occurred since the introduction of the single currency is predominantly rooted in the increase in production real wages while the influence of the domestic terms of trade has been mixed across Member States. To see this, Graph 41 illustrates this decomposition during the period 2000–06 for euro area Member States together with Denmark, Sweden and the UK. Real consumption wages display a steady upward trend in the euro area over the period 2000–04, which stopped afterwards, as a result of the deterioration in the domestic terms of trade brought about by soaring energy prices. Very recently, the increase in real production wages, brought about by a surge in labour productivity, has more than offset the deterioration in the domestic terms of trade, thereby allowing for a net increase in consumption real wages.

The general upward trend in real consumption wages across EU-15 countries is predominantly rooted in strong productivity performance

Graph 41 illustrates that over the period 2000–06 real consumption wages have shown a marked upward pattern in a large number of EU-15 countries, most remarkably Greece, Ireland, Finland, Sweden and the UK. Following an initial period of positive increases, real consumption wages somewhat stabilised, or even declined, in Belgium, Portugal and the Netherlands. Ger-

many displays a hump-shaped pattern with real consumption wages exhibiting a modest increase on average since 2000, whereas Spain stands out as the only country where real consumption wages have slightly deteriorated over the period 2000–06.

A question arises as to whether the upward trend in real consumption wages that has prevailed in many EU-15 countries is predominantly rooted in strong productivity performance and/or an improvement in the domestic terms of trade. Whereas the former is informative about the functioning of the domestic economy, the latter assesses whether foreign trade has improved the average level of real wages in European countries. The general conclusion is that the forces underlying wage performance and the purchasing power of workers chiefly reflect the result of forces originating in the domestic economy. This is because the steady upward trend in real consumption wages has coincided with the improvement in production real wages, which in turn tend to reflect increases in labour productivity over the medium term. Although trade does not change the picture that much for a large number of euro-area countries, there are several exceptions to this general rule. The stagnation of real consumption wages in Germany is attributable to the deterioration in the domestic terms of trade that has more than offset the increase in real production wages. A similar explanation applies to the recent stabilisation of real consumption wages in Belgium. Overall, it appears that soaring energy prices (reflected in the consumption price deflator, but not in the GDP deflator) have been a factor weighing on the purchasing power of households.

In analysing the relationship between real consumption wages and real production wages, particular emphasis is given to the subset of countries that need to rebalance their relative intra-euro-area competitiveness positions

This is the case in respect of Greece, Italy, the Netherlands, Portugal and Spain. Having in mind that the adjustment of external positions transitorily requires real production wages growing at a lower pace than labour productivity (i.e. decreasing real unit labour cost growth), recent developments in all these countries but Spain provide some comfort, with positive growth in real production wages backed by favourable labour productivity developments allowing for increases in real consumption wages over and above the contribution of the domestic terms of trade. The same cannot be said of Spain, where extremely poor real production wages performance has dragged down real consumption wages in spite of increases in the domestic relative prices. Intuitively, the increase in domestic relative prices in this country is attributable to investment and housing costs that have been inflating rapidly in recent years. This dynamic has dominated over the substantial increase registered in import prices ([1]). Overall, the analysis suggests that foreign trade is not the reason for the stagnation of real consumption wages in Spain but the sharp slowdown in the rate of productivity growth that commenced in the 1990s ([2]). An additional reason underlying the deterioration of the purchasing power of Spanish workers is that real production wages have increased below productivity developments. To the extent that production real wages have advanced slower than the already stagnant productivity growth, domestic forces, not trade, have been the principal cause of poor performance of consumption real wages in Spain. The challenge in terms of external adjustment in this country is therefore to pursue substantial labour productivity gains ([3]) as well as to put a lid on prices in the non-tradable sectors through structural reforms that improve the domestic terms of trade P/P_c.

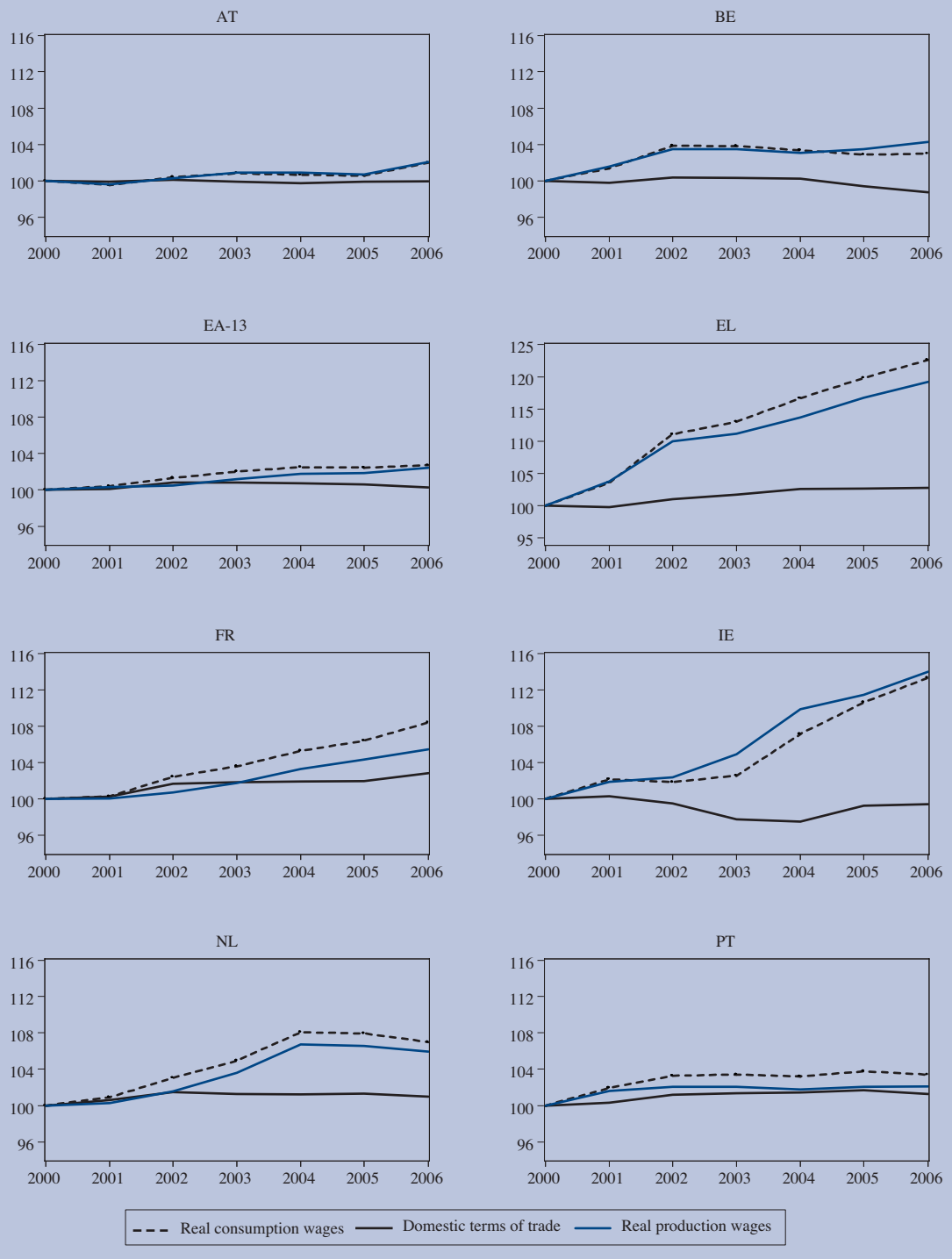
Another issue is whether the improvement in production real wages has partially or totally absorbed labour productivity increases, i.e. whether the labour share has remained stable or has rather declined in the recent past. At first sight one might be tempted to associate wage moderation with declining labour share patterns across EU Member States as both phenomena seem to have been coincident in time. And although it is true that wage moderation has prevailed in the recent past, it would be wrong to interpret movements in the labour share as univocally related to wage behaviour.

([1]) This is not to say that increases in housing prices result in increases in the purchasing power of Spanish workers. Increases in housing prices lead to increases in the domestic relative prices which in turn result, all other things being equal, in increases in real consumption wages only because housing is an investment good which is included in the production price deflator and excluded from the consumption price deflator. The latter includes housing only to the extent that it incorporates housing rents. Yet most households in Spain are housing proprietors so that they are much affected by housing prices rather than housing rents.

([2]) In turn, there is little doubt that productivity performance in Spain is largely rooted in poor productivity growth in the service and housing sectors.

([3]) Yet relatively rapid productivity growth in the manufacturing sector will mean still fewer manufacturing jobs, and if technological change continues to exhibit its bias for high-skill workers, their wage will ultimately rise relative to those of less skill with or without trade of protection. Restoring productivity growth in the domestic service sector would provide the most assured path to higher average wages. A substantial increase in spending on education and retraining could give the greatest assurance against poor wage performance.

Graph 41: **Real consumption wages, real production wages and the domestic terms of trade, EU-15**
Index 2000=100



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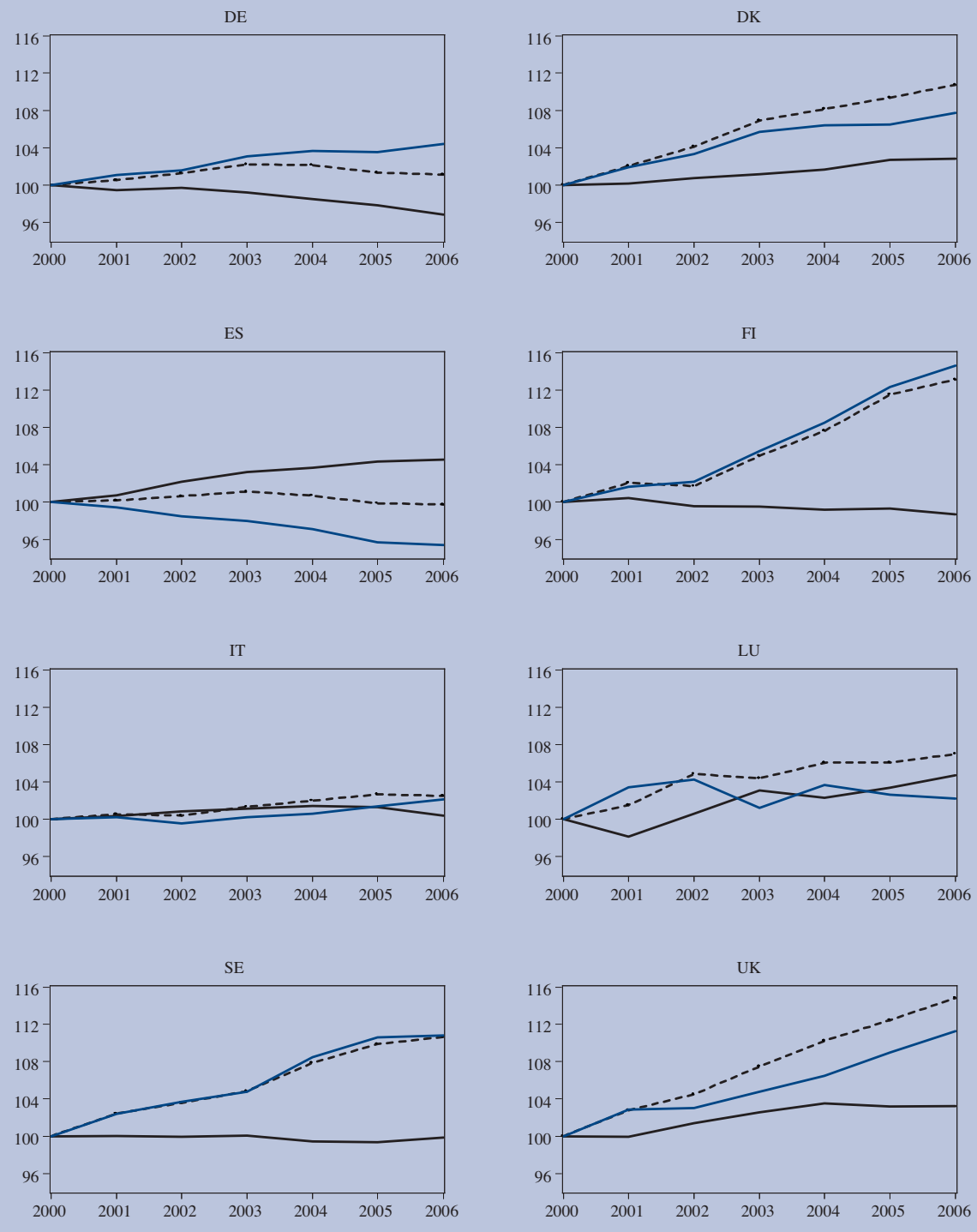
Graph 41 (continued)



Source: Commission services.

3.4. Wage developments and income distribution: an analysis of trends in the labour share using sectoral data

Traditionally, the evolution of the labour share has been studied in the context of economic growth theory. In this literature, the evolution of the constancy of the labour share has long been taken for granted as one of the 'stylised facts' that characterises economic growth. More recently, increasing attention has been given to the evolution of income distribution. This is probably because the apparent declining pattern in the labour share may have been influenced by two global shocks, i.e. the change in the international division of labour and the IT revolution. This emerging political debate has motivated abundant research into the determinants of the labour share. This section discusses different measures of the labour share and provides an accurate analysis of these measures on the basis of sectoral data taken from the EU KLEMS database.

Traditional measures of the labour share should be interpreted with caution: measurement refinements may affect the traditional view of generalised declining labour share patterns in EU-15 countries

One way of measuring gross value added (GVA) for an economy is to add up all incomes. Thus, by definition, GVA is equal to the sum of compensation of employees, corporate profits, rental income, net interest income, the proprietors' income, indirect taxes less subsidies and the capital depreciation ([1]). In principle, computing the labour income share simply entails dividing compensation of employees by GVA (GDP at current factor cost) as in:

$$(1)\ LS_t^{aggregate\ data} = \frac{CE_t}{GDP_{t,\,cfc}}$$

However, some important questions arise when computing the labour share. First, how should proprietors' income be divided between labour and capital? National accounts do not identify separately the labour income of proprietors, which is typically a mix of capital and labour. Second, should we exclude the government sector or should we attempt to impute capital income to it? Because value added generated by the government sector is simply wage and salary income plus consumption of fixed capital, including the government sector biases the measured share of labour's income up. Third, how should indirect taxes less subsidies be handled? If government is excluded from the income measured, as discussed above, consistency calls for apportioning indirect taxes less subsidies to both capital and labour income. Fourth, should capital depreciation be included or excluded from the measure of output?

Measures of labour share differ principally with regard to decisions made on these items. What follows is a fairly typical description of how labour share is computed in the macroeconomics literature. To sidestep complications discussed above, the government sector is typically excluded. With respect to the issue of categorising proprietors' income and indirect taxes less subsidies, the consensus in the literature is that this 'ambiguous' income should be allocated to labour and capital in the same proportions they represent in the remainder of the economy. These simplifying assumptions leave us with the most widely-used expression to calculate the so-called 'adjusted labour share':

$$(2)\ ALS_t^{aggregate\ data} = \frac{CE_t}{GDP_{t,\,cfc}} \times \frac{TE_t}{E_t}$$

Where CE_t, GDP_{cfc}, TE_t, E_t respectively stand for compensation of employees, gross domestic product at current factor costs, total employment and the number of employees in the whole economy. Expression (2) attributes to proprietors' income the average compensation of wage earners as remuneration of their labour ([2]).

Scaling up the average compensation for the entire workforce will be a good adjustment to the extent that the self-employed command essentially the same wages as people who work as employees. On the contrary, it will be a poor assumption if there are systematic differences in earnings between employees and the self-employed. Askenazy (2003) has underlined that average compensation calculated on the basis of data from the whole economy is a very bad approximation of the income of the self-employed. As it stands, equation (2) can be expected to overestimate the income of the self-

([1]) Of these income sources, compensation of employees is unambiguously labour income. Corporate profits, rental income, net interest income, and depreciation are unambiguously capital income.

([2]) The correction of the labour share by attributing a certain proportion of the proprietors' income to labour was first discussed by Kravis (1962), who pointed out that entrepreneurial income as a share of GDP was shrinking over time as a result of long-term shifts in the structure of employment — away from agriculture and self-employment and into industrial wage labour. More recently, Gollin (2002) has argued that when labour shares are corrected to impute the labour income of the self-employed, the large differences in labour shares between rich and poor countries become much smaller.

employed in the 1970s, when these non-employee workers were mainly farmers with low earnings. Symmetrically, this method can be expected to underestimate their income today, as a large part of these workers (doctors, lawyers…) earn much more than the average employee. A better estimate can easily be obtained by attributing to these workers the compensation of the average employee of their own activity branch (and not the national average compensation). This methodological improvement leads to the following expression for the adjusted labour share:

$$(3)\quad ALS_t^{sectoral\ data} = \frac{\sum_{i=1}^{k} CE_{i,t} \times TE_{i,t}}{\sum_{i=1}^{k} va_{i,t} \times E_{i,t}}$$

$$= \sum_{i=1}^{k} \frac{va_{i,t}}{GDP_{cfc,t}} \times \frac{CE_{i,t}}{va_{i,t}} \times \frac{TE_{i,t}}{E_{i,t}}$$

$$= \sum_{i=1}^{k} \omega_{i,t} \times aws_{i,t}$$

where for any sector i comprising the economy, $CE_{i,t}$, $va_{i,t}$, $TE_{i,t}$, $E_{i,t}$, $aws_{i,t}$, $\omega_{i,t}$, respectively denote compensation of employees, gross value added at current basic prices, total employment, the number of employees, the adjusted labour share and the weight of the sector's value added in the value added of the whole economy. Note that, using equation (3) to compute labour shares requires reliable data on compensation per employee, total employment and gross value added of the various sectors in the economy. Now, from (3) follows that the change in the adjusted labour share can be split into three components:

(4)

$$\Delta ALS_t^{sectoral\ data} = \sum_{i=1}^{k} \left[\frac{CE_{i,t}}{va_{i,t}} \times \frac{TE_{i,t}}{E_{i,t}} \times \Delta\omega_{i,t} + \omega_{i,t} \times \frac{TE_{i,0}}{E_{i,0}} \times \Delta \frac{CE_{i,t}}{va_{i,t}} - \frac{CE_{i,t}}{va_{i,t}} \times \frac{1}{q_{i,t}} \times \omega_{i,t} \times \frac{\Delta q_{i,t}}{q_{i,0}} \right]$$

where $q_{i,t} = \frac{E_{i,t}}{TE_{i,t}}$. The three summations on the right-hand side represent the contribution to changes in the adjusted labour share arising respectively from changes in (i) the weights of each sector's value added in the valued added of the whole economy (sectoral composition effect), (ii) changes in the labour share within sectors (within-sector labour share effect), and (iii) changes in the structure of employment (employment structure effect). We subsequently provide some intuition on these three effects.

Starting with the sectoral composition effect, consider an economy with only two sectors of activity A and B, each of them weighting 50 % of total value added. The labour share of sector A equals to 80 %, the labour share of B equals to 60 %, so that the national labour share equals 70 %. Suppose now that the weight of sector B grows and reaches 60 % of total value added (40 % for sector A). The national labour share then decreases to 68 % (40 %*0.8 + 60 %*0.6) whereas labour share in each sector (i.e. the within-sector labour share effect) remains unchanged. Total labour share decreases only because the economy specialises in the sector with a lower labour share level. Put differently, even in an economy composed of a large number of heterogeneous sectors, a fall in the aggregate labour share could reflect genuine labour share decline within the majority of sectors. But it could also result from a gradual shift in the sectoral composition of the economy from high to low wage-share sectors. As for the within-sector labour share evolution effect, it simply informs us of changes in the labour share of the overall economy induced by changes in the labour share within sectors. Finally, the sector employment structure effect tells us that any increase in the ratio of total employment to the number of employees (due to an increased share of self-employed in total employment) in the economy will result, all other things being equal, in an upward revision of the labour share since it entails higher average employee compensation being imputed to higher levels of workforce.

We now proceed to explore empirical evidence on labour share patterns across EU-15 countries according to the various measures discussed above. We use EU KLEMS data covering the period 1970-2004. We conclude that, in many EU-15 countries, keeping constant sectoral and employment structure tends to deliver higher and less declining labour share patterns. To see the effect induced by the imputation of labour income to

the self-employed, Graph 42 compares non-adjusted and adjusted labour shares, i.e. it feeds expressions (1) and (2) with EU KLEMS data. Inspection of Graph 42 reveals that computing the labour share according to (2) results in an augmentation in the labour share as compared with (1). This obviously stems from the fact that there is always a certain amount of workers other than employees who provide labour services, i.e. the ratio TE_t / E_t is greater than one. We also learn from the data that the adjustment generally preserves the dynamic patterns in labour shares ([1]). The structure of employment in the whole economy has remained broadly the same in Belgium, Germany, the Netherlands and Portugal. Self-employment as a proportion of employees has decreased markedly in a significant number of countries, namely Greece, Spain, France, and Ireland. A slight decrease in self-employment as a proportion of employees has occurred in Germany, Denmark, Finland, Italy, Luxembourg and Sweden. The UK stands out as the only country where the number of employees as a proportion of total workforce has actually shrunk, as illustrated by the increasing gap over time between non-adjusted and adjusted labour shares.

Following Askenazy (2003), we subsequently compute labour shares by attributing to the self-employed the compensation of the average employee of their own activity branch ([2]), instead of the national average compensation. Graph 43 compares the labour share series obtained from sectoral data with the conventional adjusted labour shares calculated on the basis of aggregate data. Although the refinement does not seem to change the broad picture in several EU-15 members, in various other countries Askenazy's alternative results in a downward revision of the labour share. Revisions are remarkable in Greece, quite sizeable in Spain, Italy and Portugal and more modest in Germany, France and Ireland. It is apparent that adjusting the labour share on the basis of aggregate data tends to largely overestimate the income of the self-employed in the 1970s in Greece, Spain and Italy. The magnitude of the overestimation is smaller in Germany and France. This is due to the fact that the agricultural population remained pretty large in 1970 in these countries, i.e. self-employed workers were mainly farmers with low earnings. We interpret these results as a confirmation that imputing to the self-employed the national average compensation is a poor approximation when there are systematic differences in the earnings ability between employees and the self-employed, and that the magnitude of the measurement error will be unavoidably high in economies where the average compensation is a poor approximation of the income perceived by the self-employed (see Greece, Spain, Italy at the beginning of the sample and Portugal at the end of the sample).

To interpret long-term movements in the labour share, we proceed to decompose overall changes in the adjusted labour share into its three components as stated in expression (4) in the main text: the within-sector labour share effect, the sectoral composition effect, and the employment structure effect. This decomposition allows us to isolate movements in the labour share owing to changes in structural forces, i.e. coming from changes in the sectoral and/or employment structure of the economy. The outcome of this decomposition is illustrated in Graph 44 for three selected sub-periods, namely 1970–85, 1986–95 and 1996–2004. Our results illustrate the complexity of the phenomenon of labour share movements.

Widespread within-sector labour share reductions have been pronounced over the whole period of analysis in Ireland and have dominated over selected periods in several other countries, such as Sweden (1970–95), Germany (1996–2004), Spain (1970–85), Italy, Finland and the UK (1986–95). By contrast, widespread within-sector labour share increases have prevailed in Denmark and Germany over the period 1970–85, in Spain and Luxembourg over the period 1986–95, and in Denmark, Greece, Luxembourg, Portugal, Sweden and the UK over the period 1996–2004.

France stands out as the only country where the employment-structure effect has dominated the behaviour of the labour share since the 1970s. This effect has also played an increasing role in Spain from 1986, where the reduc-

([1]) Readers should be aware of the fact that Austria has been excluded from the analysis. This is because the imputation of labour income to the self-employed as implied by (2) results in an adjusted labour share exceeding one. This is due to the fact that the correction implied by (2) is not very reliable when the wages for the two types of employment differ, which is the case at stake. In the case of Austria, it turns out that equation (2) largely overestimates the income of the self-employed in the 1970s, when these non-employee workers were mainly farmers with low earnings. In Austria, the share of employees in total employment in the Agriculture sector in 1970 was barely 6 %, i.e. atypically low as compared with European standards. This measurement problem vanishes when calculating the adjusted labour share on the basis of sectoral data, i.e. following expression (3) in the main text.

([2]) The sectoral breakdown used in the analysis (see Table 17) includes 29 sectors grouped into 10 broadly-defined categories (NACE code in brackets), namely Agriculture, hunting, forestry and fishing (A–B), Mining and quarrying (C), Total manufacturing (D), Electricity, gas and water supply (E), Construction (F), Wholesale and retail trade (G), Hotels and restaurants (H), Transport and storage and communication (I), Finance, insurance, real estate and business services (J–K), Community social and personal services (L–Q).

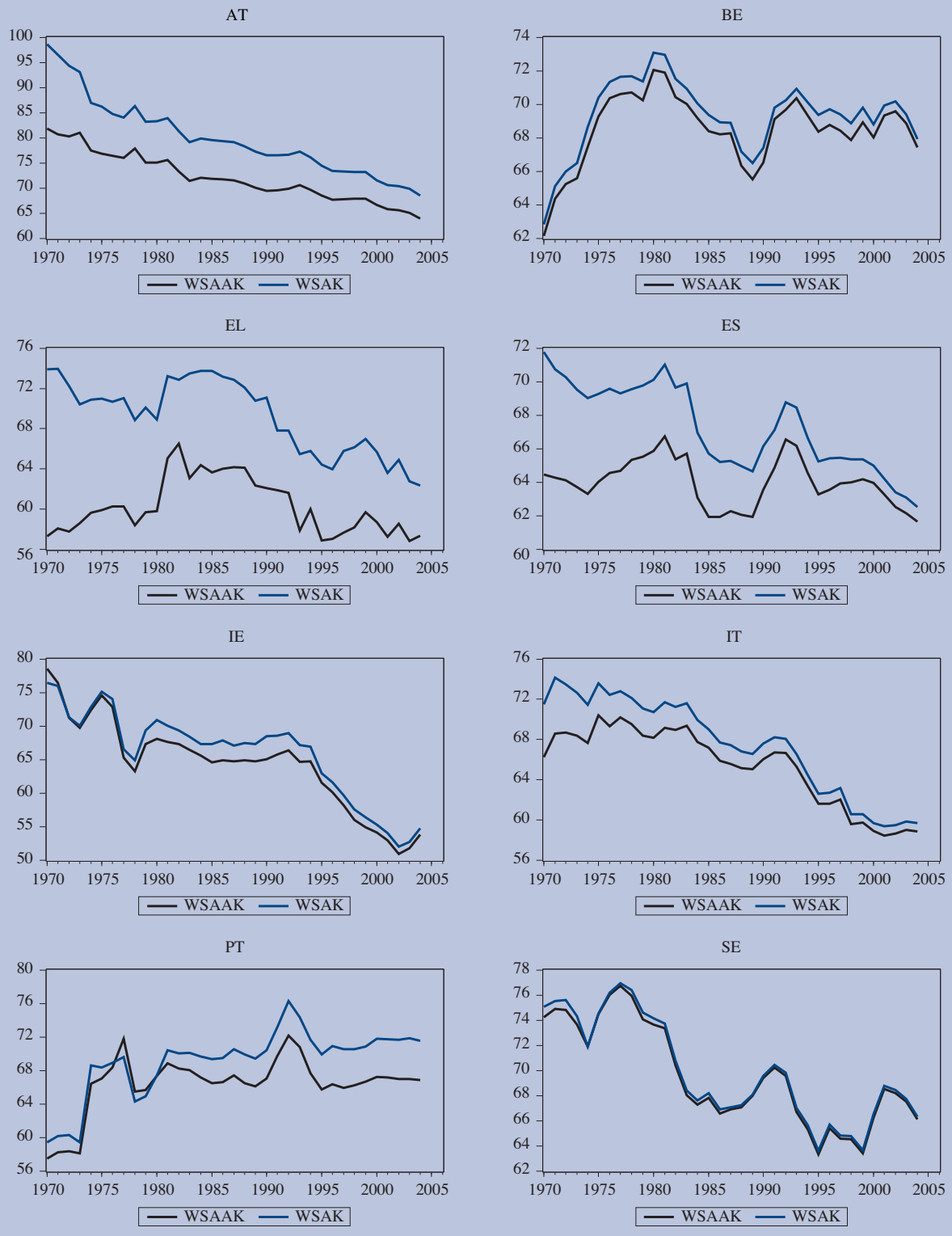
Graph 42: **Non-adjusted versus adjusted labour share, EU-15 Member States**
Comparison of expressions (1) and (2) in the main text fed with EU KLEMS data, 1970–2004

(Continued on the next page)

Graph 42 (continued)

Source: Commission services.

Graph 43: **Adjusted labour share on the basis of both aggregate and sectoral data, EU-15 Member States**
Comparison of expressions (2) and (3) in the main text fed with EU KLEMS data, 1970–2004



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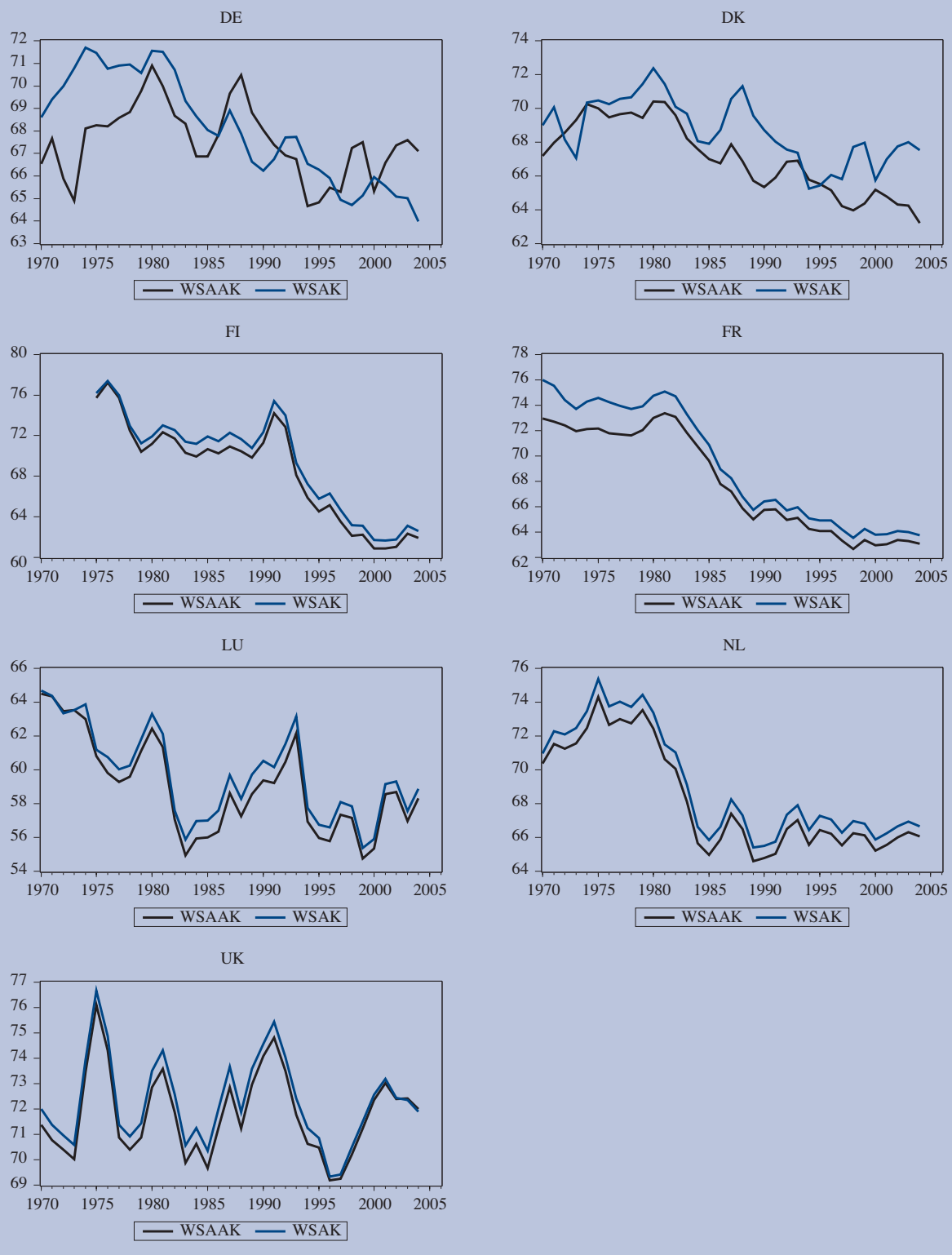
Graph 43 (continued)



Source: Commission services.

tion in the ratio of total employment to the number of employees was only offset by the general increase in the labour share within sectors between 1986 and 1995. Decreases in the same ratio have notably contributed to moderate, or even reduce labour shares, in certain other countries over particular periods, such as the UK, the Netherlands, Italy and (1996–2004), Ireland and Austria (1970–1985), and Greece (1986–2004). Conversely, in several other countries sizeable increases in total employment relative to the number of employees contributed to augment the labour share, as in the case of Portugal, and Greece and Italy (1970–85).

Sectoral composition effects have been persistent in Austria, Germany, Denmark and Italy where they have contributed to moderate or even reduce the labour share over the entire period of analysis. Sizeable sectoral composition effects are also present in several other countries over particular periods, either by pushing the adjusted wage share up (Greece, 1970–85) or dragging it down (Greece and Finland over 1986–95, the Netherlands and the UK 1970–85, and Luxembourg 1970–95).

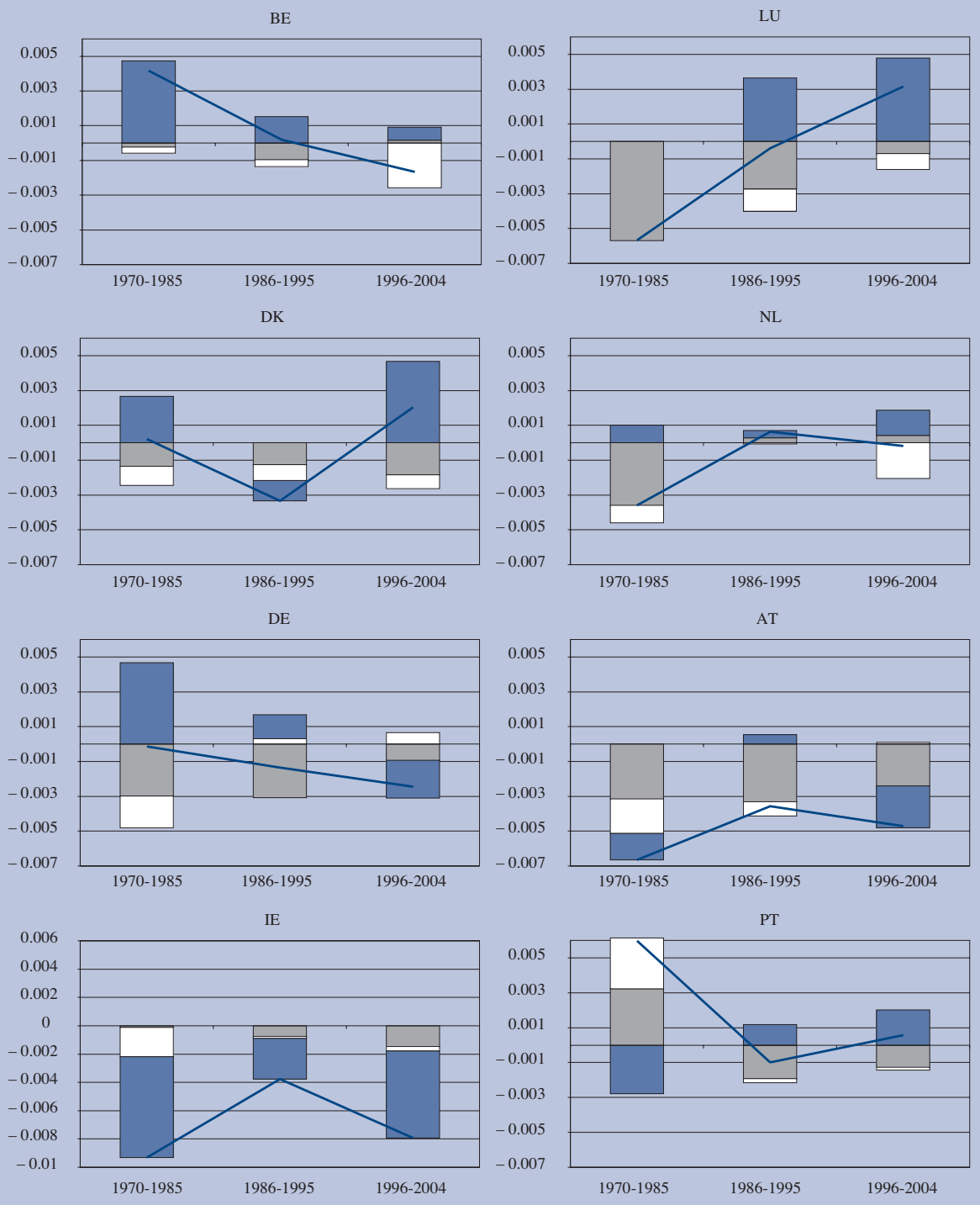
For the sake of transparency, Table 17 provides for each economic sector the combined effect of changes in the within-sector labour share and the employment structure over the last sub-period of analysis 1995–2004. For the economy as a whole (i.e. 'total industries'), Table 17 provides the combined effect of changes in the within-sector labour share, the sectoral composition and the employment structure over the last sub-period of analysis, 1995–2004.

Overall, these different country experiences clearly show that all the sectoral composition, the employment structure and the within-sector labour share effects are sources of changes in the labour income share and that their relative importance differs significantly across countries and periods. In any case, the importance of the sectoral composition and the employment structure effects is not negligible. To illustrate this argument more forcefully, we proceed to disentangle the within-sector labour share movements from the other two sources of labour share developments. This is to avoid structural changes in the sectoral and/or employment composition of the economy being misinterpreted as episodes of excessively moderate wage developments in specific sectors and thus declining labour share patterns. This exercise amounts to keeping constant the sectoral and employment composition at their prevailing levels in 1970. The results are presented in Graph 45. There are only two countries, i.e., Italy and Sweden, in which both series are undistinguishable. In many EU-15 countries, however, keeping constant the sectoral and employment structure at their prevailing levels in 1970 tends to deliver higher and less declining labour share patterns. This general rule applies to Belgium, Denmark, Germany, Ireland, Spain, France, Finland, the Netherlands and Austria. Keeping constant the employment and sectoral structure results in a rather flat pattern in Greece (except for the period between 1996 and 2004). In Portugal one is left with lower labour shares after removing the effect of structural changes. Finally, in the case of the UK our alternative measure is situated above the original one between the mid 1970s and the mid 1980s and below the original one from then onwards. Yet, globally the labour share in this country remains stationary.

3.5. Labour cost developments and macroeconomic stability in the new Member States

Graph 46 shows remarkable GDP growth rates in the new Member States (NMS) as compared with those of EU-15 over the past decade. Outstanding growth rates have been registered in Estonia, Latvia and Lithuania (Baltic3), followed by the Czech Republic, Hungary, Poland, the Slovak Republic and Slovenia (Central and Eastern Europe 5 or CEE5 for short) and Cyprus and Malta (CY&MT). Although benefiting from bright economic conditions as of 2000, over a 10-year period Romania and Bulgaria (South and Eastern Europe or SEE2 for short) still appear to be lagging behind the remaining NMS in terms of average GDP growth. A key driver of NMS' sustained growth has been the process of integration with the EU. This structural change has been the dominating determinant of economic growth, while cyclical forces have been less important. This is because the enlargement process has brought large economic benefits to the new member countries, both by opening up new trade and investment opportunities and by anchoring macroeconomic and institutional reforms. Indeed, investment has benefited from heavy foreign direct investment inflows and consumption has been boosted by rising employment and real wages. Export performance has remained strong, fuelled by the increased momentum of growth in Western Europe. In 2006, growth accelerated to 6.1 %, largely reflecting buoyant domestic demand and strong export performance.

Graph 44: **Sources of changes (%) in the labour share in selected sub-periods, 1970–85, 1986–95, 1996–2004, EU-15 Member States**
Expression (4) in the main text fed with EU KLEMS data. Annualised change in the labour share



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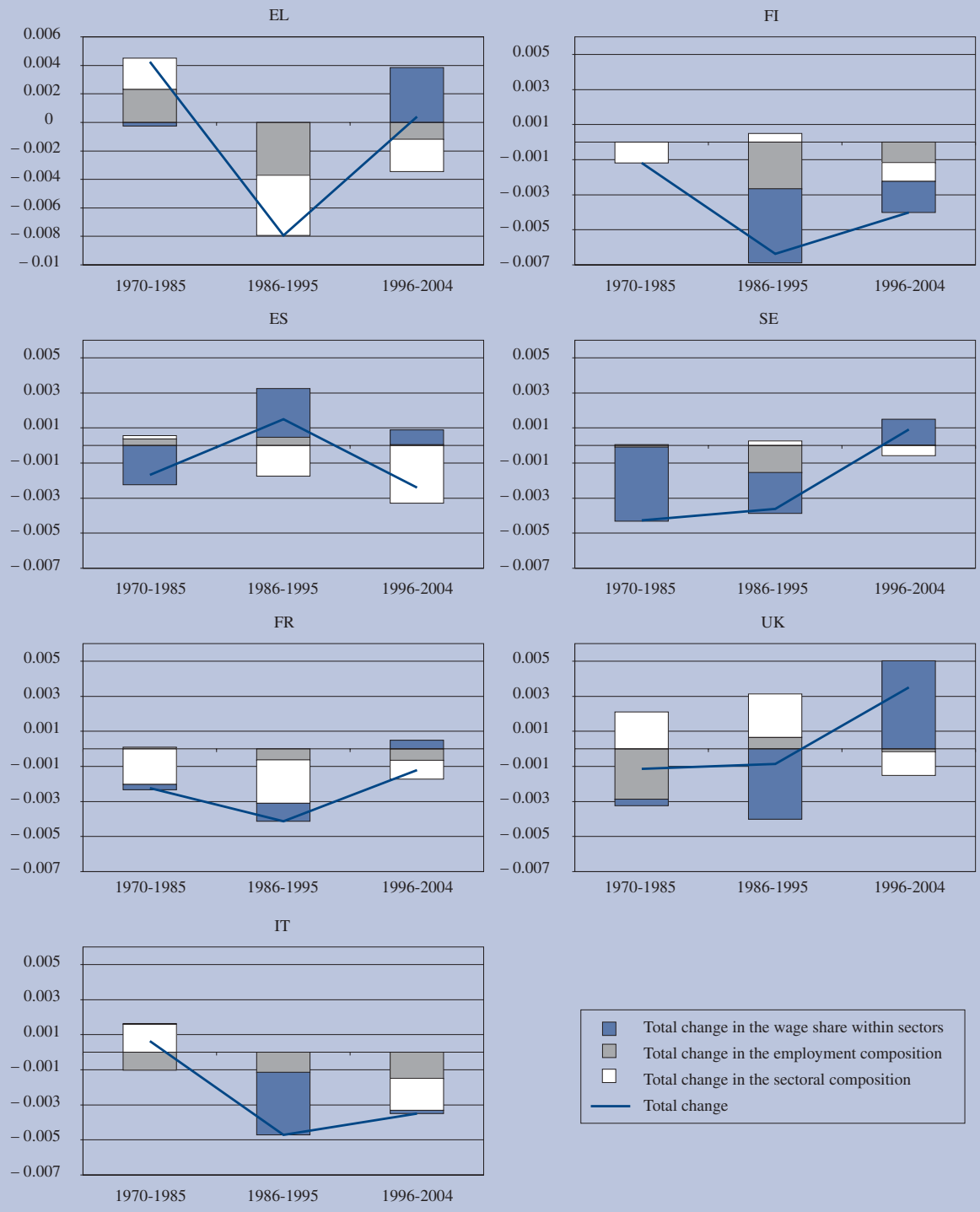
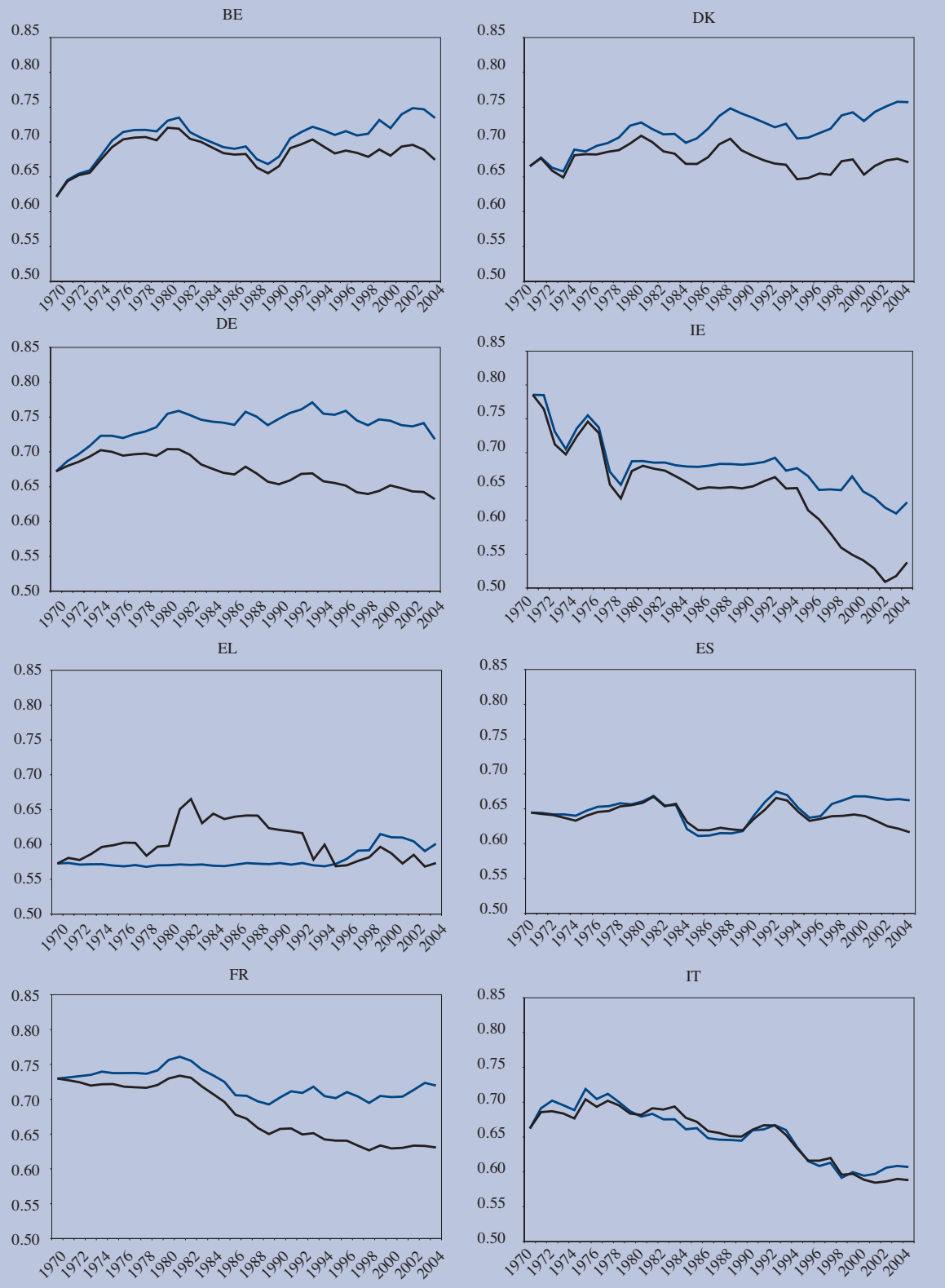
Graph 44 (continued)



Note: The scales differ slightly for Ireland, Greece and Portugal. Readers should also take note of the fact that scale of the left axis should be multiplied by 100 to get percentage figures.

Source: Commission services.

Graph 45: **Adjusted labour share versus adjusted labour share for given sectoral and employment composition at 1970 levels, EU-15 Member States**
Comparison of expression (3) in the main text with an alternative measure of the labour share where sectoral and employment composition are kept constant at their prevailing levels in 1970



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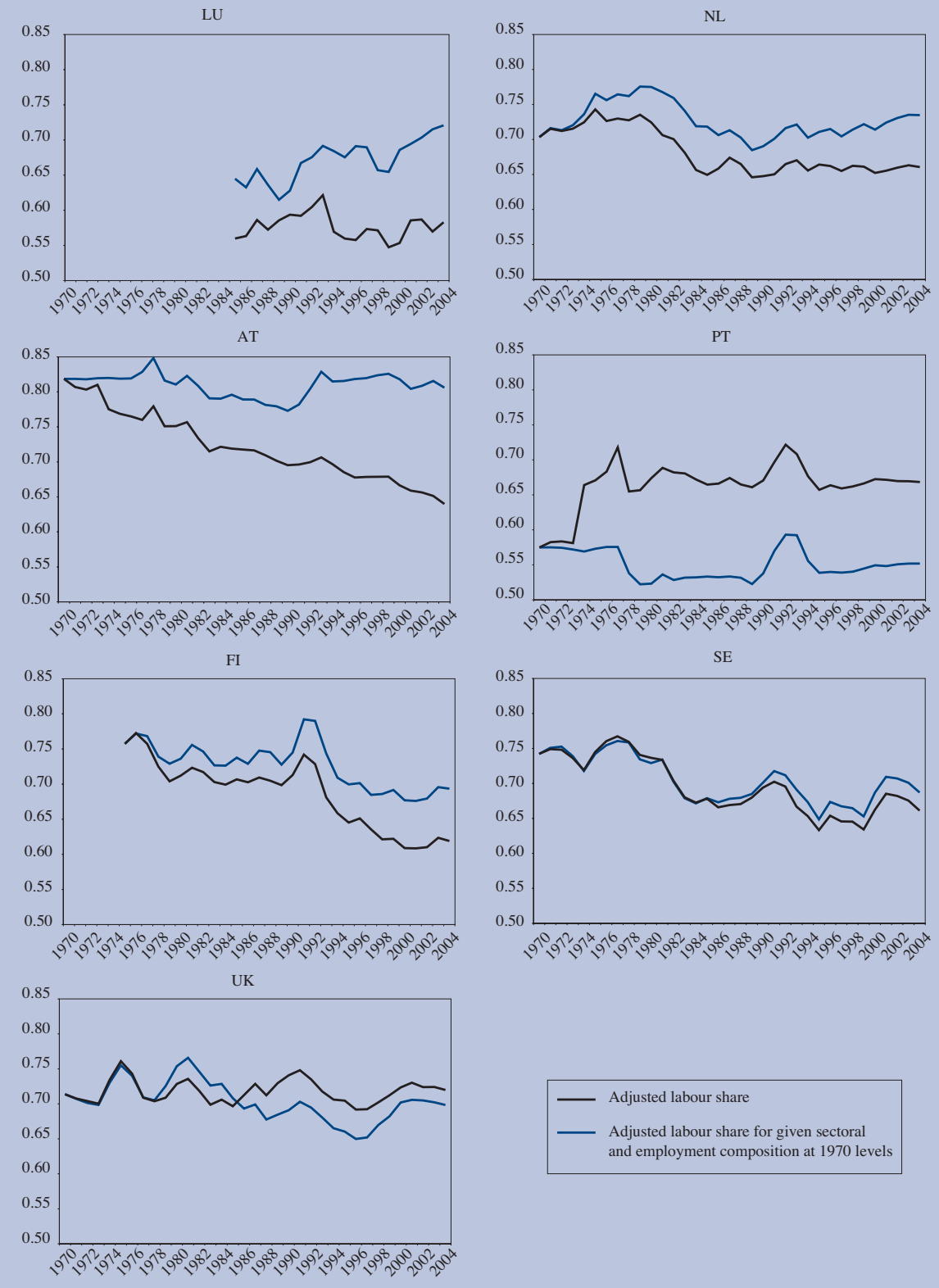
Graph 45 (continued)



Source: Commission services.

Table 17

Adjusted labour share at sectoral level — EU-15 Member States

Percentage points

	BE		DK		DE		IE		EL		ES		FR		IT		LU		NL		AT		PT		FI		SE		UK	
	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004	2004	1995–2004
Total industries	67.9	– 1.4	67.5	2.1	64.0	– 2.3	54.7	– 8.2	62.3	– 2.1	62.5	– 2.7	63.7	– 1.2	59.7	– 2.9	58.9	2.1	66.7	– 0.6	68.5	– 6.0	71.6	1.7	62.6	– 3.1	66.3	2.7	71.9	1.1
1 Agriculture, hunting, forestry and fishing	58.5	– 1.8	67.4	16.5	66.0	– 28.4	85.0	13.6	81.8	15.1	41.5	1.4	57.5	0.4	50.6	– 11.9	90.3	26.3	73.7	20.6	212.4	26.9	128.4	27.8	71.1	– 10.3	56.1	1.8	67.4	13.2
1.1 Agriculture, hunting and forestry	56.5	– 1.1	65.9	17.0	66.3	– 28.3	88.2	12.5	79.8	16.0	38.1	3.0	57.6	2.7	50.1	– 13.1	90.3	26.3	73.6	21.6	212.4	26.8	131.7	31.1	71.3	– 11.4	55.6	2.4	68.3	13.0
1.2 Fishing	70.3	3.8	86.8	21.5	36.2	– 39.1	35.7	16.9	75.8	– 57.7	83.4	7.0	50.4	– 42.3	58.9	12.1			75.3	– 12.8	203.0	23.5	50.6	– 12.4	61.5	24.2	93.9	– 62.4	41.6	15.8
2 Mining and quarrying	48.4	2.1	3.4	– 10.0	119.9	36.6	63.6	8.8	45.8	– 18.6	58.6	– 15.9	49.9	– 0.7	32.5	4.3	43.5	– 10.5	6.1	– 1.5	38.7	– 23.9	65.3	21.4	52.3	0.7	51.7	2.2	13.4	– 7.5
2.1 Mining and quarrying of energy producing materials			2.0	– 4.7	190.3	94.1	53.7	9.1	41.7	– 27.3	79.0	– 10.6	22.8	– 16.9	20.1	6.7			5.1	– 1.5					56.8	13.2	66.7	– 13.8	9.2	– 8.5
2.2 Mining and quarrying except energy producing materials	48.4	2.1	34.2	– 23.8	65.7	9.5	67.8	2.7	49.3	– 9.6	48.0	– 6.9	54.9	– 3.7	45.7	– 10.9	43.5	– 10.5	28.8	– 5.7			65.3	21.4	49.7	– 5.0	50.8	3.2	68.0	13.3
3 Total manufacturing	67.0	– 1.8	71.7	0.2	73.3	– 6.0	28.7	– 11.8	68.3	– 8.5	64.2	1.3	68.4	– 1.8	67.5	1.2	68.5	2.7	64.0	– 0.4	56.3	– 13.8	65.9	1.7	56.7	– 1.6	66.0	5.3	79.5	9.5
3.1 Food , beverages and tobacco	62.0	– 2.5	67.8	– 0.4	66.8	1.0	32.9	– 9.9	65.0	– 1.2	62.6	2.3	60.4	– 0.8	63.1	– 3.7	67.2	7.4	51.6	– 1.0	66.2	2.7	51.7	– 5.1	63.6	3.3	59.2	– 0.7	68.1	4.5
3.2 Textiles, textile , leather and footwear	74.3	– 0.1	77.0	3.6	73.5	– 10.4	67.2	– 13.7	78.7	5.4	77.2	11.1	70.4	– 2.6	71.3	4.4	37.4	2.4	69.8	– 5.5	53.6	– 27.4	74.9	2.0	87.0	7.3	69.1	– 12.2	92.5	13.8
3.3 Wood and of wood and cork	60.6	– 16.3	74.3	– 0.8	78.2	– 7.4	71.7	10.3	120.7	41.3	75.3	9.2	66.9	– 4.0	70.7	0.1	51.6	– 30.4	72.6	– 1.7	50.8	– 18.1	83.1	– 2.0	73.7	8.6	58.4	– 9.8	72.8	– 7.0
3.4 Pulp, paper, paper , printing and publishing	70.2	2.0	75.4	– 1.2	60.8	– 13.8	20.4	– 22.2	69.4	– 17.2	62.5	0.3	74.4	– 0.5	66.9	– 0.4	72.9	6.1	67.1	– 3.3	51.9	– 13.6	52.5	7.9	52.6	8.2	54.6	6.7	77.6	7.3
3.5 Chemical, rubber, plastics and fuel	56.6	– 0.6	60.8	0.1	61.0	– 9.2	13.1	– 6.8	45.1	– 17.0	53.0	– 1.5	55.9	– 2.2	56.6	7.3	54.9	4.8	42.4	– 1.1	56.1	– 5.8	66.1	14.5	41.8	– 8.7	43.9	– 1.6	74.9	14.8
3.6 Other non-metallic mineral	64.1	0.9	70.5	1.7	70.4	3.0	41.9	– 6.4	56.1	– 21.7	63.5	– 1.5	65.8	– 4.7	58.6	– 5.2	66.5	19.2	70.1	8.8	54.8	– 12.2	54.9	6.6	60.8	– 6.0	65.3	1.3	76.9	6.3
3.7 Basic metals and fabricated metal	70.2	– 3.4	77.0	– 0.1	72.8	– 12.3	59.9	– 9.2	70.1	– 15.0	62.9	3.1	73.0	0.8	65.7	3.4	81.4	– 8.9	74.5	7.9	50.5	– 19.2	73.3	– 3.6	63.3	7.0	69.5	11.3	95.2	16.8
3.8 Machinery, nec	70.4	– 6.6	81.5	7.9	79.1	– 3.4	53.2	– 14.6	131.1	30.8	67.2	– 3.0	79.6	– 3.6	72.3	1.7	79.7	– 1.8	73.1	– 4.8	61.1	– 12.4	69.1	– 12.6	73.6	0.1	68.7	2.0	81.0	10.7
3.9 Electrical and optical equipment	76.6	0.3	70.1	– 1.5	77.7	– 11.6	37.6	– 0.9	36.4	– 27.1	69.6	4.0	83.8	9.4	67.9	– 3.7	78.9	4.6	109.6	26.7	60.2	– 16.4	76.5	13.6	42.0	– 15.7	99.2	29.3	78.3	11.9
3.10 Transport equipment	83.2	8.1	79.5	– 5.9	81.4	2.8	84.0	– 4.0	66.6	– 49.6	68.6	1.7	63.6	– 11.4	83.3	– 2.1	74.9	– 1.1	60.0	– 17.9	51.5	– 15.9	54.9	– 23.3	86.2	0.0	68.6	5.8	86.6	7.7
3.11 Manufacturing nec; recycling	69.6	– 14.6	74.0	2.4	80.5	– 14.5	89.6	5.0	93.1	18.5	71.7	– 3.1	66.1	– 2.9	69.7	– 0.9	91.9	28.8	90.2	– 5.2	60.1	– 23.1	75.6	1.6	77.0	0.7	114.0	– 19.9	77.9	2.6
4 Electricity, gas and water supply	38.3	2.9	19.7	– 2.0	42.2	– 2.8	47.2	– 2.6	54.3	13.2	25.0	– 3.1	42.8	4.1	23.6	– 14.6	35.1	– 3.3	26.1	– 5.9	40.3	– 2.6	28.7	3.3	22.4	– 5.6	23.8	4.3	29.1	– 4.6
4.1 Electricity and gas	34.9	2.1	17.9	– 2.0	44.2	– 0.7			50.7	12.0	18.6	– 5.2	40.7	3.4			31.1	– 4.3	25.0	– 6.7	39.5	– 3.1	25.0	3.4	21.5	– 6.9	22.5	3.4	30.9	– 4.4
4.2 Water supply	62.2	2.5	54.7	0.1	30.8	– 14.4			75.2	20.0	59.5	– 4.9	64.2	– 2.6			66.2	10.1	32.3	– 1.0	50.5	2.1	54.7	2.8	30.9	6.1	34.0	11.6	21.0	– 5.5
5 Construction	71.1	– 3.5	81.7	– 12.0	79.8	2.8	86.7	– 13.9	45.7	– 0.2	69.1	– 3.4	66.1	– 0.2	62.5	– 3.7	71.7	– 0.8	77.8	– 5.0	55.2	– 10.4	81.7	8.9	81.9	– 5.5	88.4	3.7	83.8	– 9.1
6 Wholesale and retail trade	67.3	– 9.9	77.4	8.9	77.0	– 1.0	51.4	– 22.1	58.2	9.0	68.0	– 1.1	70.4	– 1.0	66.0	5.8	57.5	– 1.3	66.9	– 4.6	61.6	– 3.6	72.2	1.5	63.5	– 9.2	75.8	7.7	70.5	– 2.5
7 Hotels and restaurants	78.0	– 10.6	80.9	– 0.6	85.8	– 20.4	72.5	3.6	38.4	– 4.6	68.1	– 3.3	77.4	– 8.1	72.8	– 3.2	73.3	5.2	62.2	– 4.0	62.8	– 13.1	55.0	– 1.0	92.5	– 0.4	74.5	– 2.8	74.2	– 1.6
8 Transport and storage and communication	61.7	0.6	56.1	– 6.4	56.4	– 12.7	71.1	7.5	45.0	– 28.8	51.4	– 2.4	64.2	– 4.9	51.4	– 11.8	50.3	– 2.8	56.7	– 4.7	58.2	– 7.2	58.8	– 0.8	42.7	– 8.6	58.2	– 1.8	81.2	– 0.2
8.1 Transport and storage	67.2	5.7	56.2	– 10.5	70.4	– 12.8	109.4	38.2	51.6	– 37.4	56.9	– 2.3	70.8	– 4.1	59.4	– 6.9	68.7	– 0.8	68.1	1.0	69.2	– 7.3	74.9	3.3	48.8	– 1.3	60.3	– 0.9	89.1	1.3
8.2 Post and telecommunications	51.0	– 9.0	56.0	3.8	33.9	– 16.0	46.4	– 10.8	28.9	– 13.5	38.5	– 3.4	51.4	– 7.6	33.4	– 23.5	24.6	– 4.1	36.8	– 11.0	34.5	– 10.0	39.1	– 1.3	31.0	– 25.8	53.7	– 3.6	67.6	– 2.0
9 Finance, insurance, real estate and business services	51.6	2.5	47.3	9.3	36.4	5.1	34.6	– 6.1	28.6	4.9	41.7	– 2.6	44.7	1.3	36.1	– 2.2	45.6	7.0	55.4	5.0	45.0	4.1	35.9	– 2.1	42.8	3.0	45.7	8.2	54.3	3.1
9.1 Financial intermediation	58.2	– 8.2	54.0	– 0.8	62.5	– 6.1	33.2	– 14.3	41.1	– 13.2	52.9	– 11.4	62.1	– 1.9	58.9	– 14.1	51.6	5.9	53.2	– 0.2	55.9	– 2.0	46.0	– 11.8	53.3	4.0	46.6	5.7	51.1	– 5.7
9.2 Real estate, renting and business activities	47.7	7.3	45.0	12.5	30.8	7.6	34.7	1.7	21.5	9.1	37.8	1.5	41.5	2.6	29.0	3.3	38.0	11.2	55.6	6.8	39.6	7.5	31.0	2.4	41.1	4.7	45.3	8.8	54.9	6.4
10 Community social and personal services	90.4	0.8	87.2	4.2	79.5	0.6	88.4	– 2.4	90.0	6.1	80.5	– 3.9	79.4	0.3	80.4	– 2.4	83.1	1.7	87.2	– 3.8	89.1	5.6	86.0	– 1.3	90.0	1.4	85.3	– 5.7	92.3	1.5
10.1 Public admin and defence; compulsory social security	91.4	1.0	84.9	1.2	84.1	– 0.4	79.8	– 4.8	103.0	3.3	77.8	– 3.9	80.1	0.3	74.2	– 4.7	79.4	2.1	73.5	0.2	83.8	1.8	86.5	0.7	88.3	0.3	78.3	– 4.3	87.8	3.5
10.2 Education	93.4	2.2	94.6	7.9	96.2	1.9	99.6	– 2.6	113.7	15.7	88.2	– 6.0	91.0	0.2	92.6	– 3.7	93.6	– 0.2	88.5	1.1	91.0	0.6	98.3	3.6	90.5	1.2	87.0	– 3.9	98.0	1.5
10.3 Health and social work	84.8	– 0.8	92.0	3.0	74.6	– 1.5	95.1	4.3	57.5	8.2	84.2	– 2.7	75.5	0.6	80.6	– 2.5	79.1	– 0.3	78.6	0.4	100.5	17.7	79.1	– 2.5	96.7	1.6	89.1	– 5.7	90.6	1.7
10.4 Other community, social and personal services	85.8	3.0	66.8	5.1	61.0	3.9	62.9	– 10.0	64.4	– 5.1	68.7	– 2.6	63.5	4.4	69.0	3.0	74.1	6.9	80.5	– 15.8	74.6	1.1	61.3	– 16.8	74.7	1.9	81.6	– 13.2	84.3	4.7
10.5 Private households with employed persons	100.0	0.0	98.8	– 1.2	100.0	0.0	130.4	15.8	100.0	0.2	100.0	0.0	100.0	0.0	100.0	0.0	100.0	– 1.5	260.1	– 117.9	100.0	0.0	103.1	0.2	100.0	0.0	55.4	– 42.4		

Source: Commission services.

As a result of relative rapid GDP growth, per capita income levels have moved closer to the EU average (Graph 47). Convergence has been particularly impressive in Baltic3, helped not just by their low starting positions and more dynamic trading partners, but also their strong commitment to an attractive business environment and sound macroeconomic policies (including lower tax burdens and early commitment to fixing exchange rates against the euro). All NMS have benefited from high rates of inward FDI, averaging 5 % of GDP, as companies have taken advantage of relatively low-cost, but highly skilled labour forces in a relatively secure and familiar neighbourhood. In spite of this substantial convergence process, NMS still exhibit a substantially lower GDP per capita than the EU average. Another feature worth mentioning is the large differences in growth rates across NMS. This is so much so that the dispersion in GDP per head in 2006 was even higher than 10 years before (Graph 48).

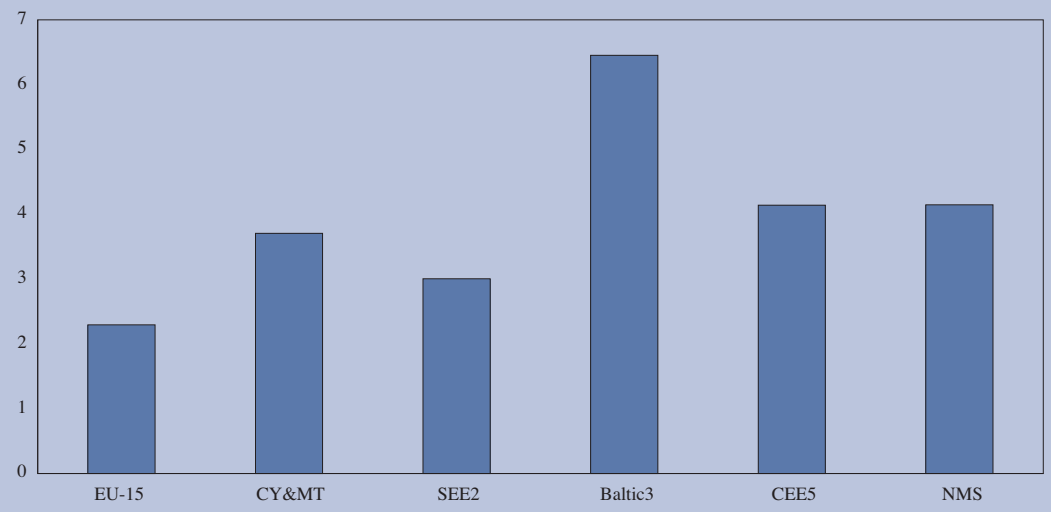
Inflationary pressures stemming from the labour market have remained subdued as high nominal wage increases have been paralleled by strong productivity performance

Overall labour market conditions have remained dynamic in 2006, with foreign companies taking advantage of relatively low-cost and reasonably skilled labour forces in a relatively secure business environment. This general climate notwithstanding, weak labour market conditions have been present in a number of countries, most notably Poland, and wage pressures have picked up in some others, such as Bulgaria and Romania.

Nominal wages per employee grew stronger in NMS than in the EU-15 countries in the last years and continued to do so in 2006 (Graph 53 and Table 18). The highest rates of growth of compensation per employee were registered in Romania (17.8 %), the three Baltic countries (well above 10 %), followed by Bulgaria (8.2 %), Slovakia (7.7 %) and Hungary (6.7 %). At the lower end of the spectrum, wage growth in Malta was even below the EU-15 patterns. Four countries are placed in between the EU-15 and the NMS average values, namely the Czech Republic, Cyprus, Slovenia and Poland.

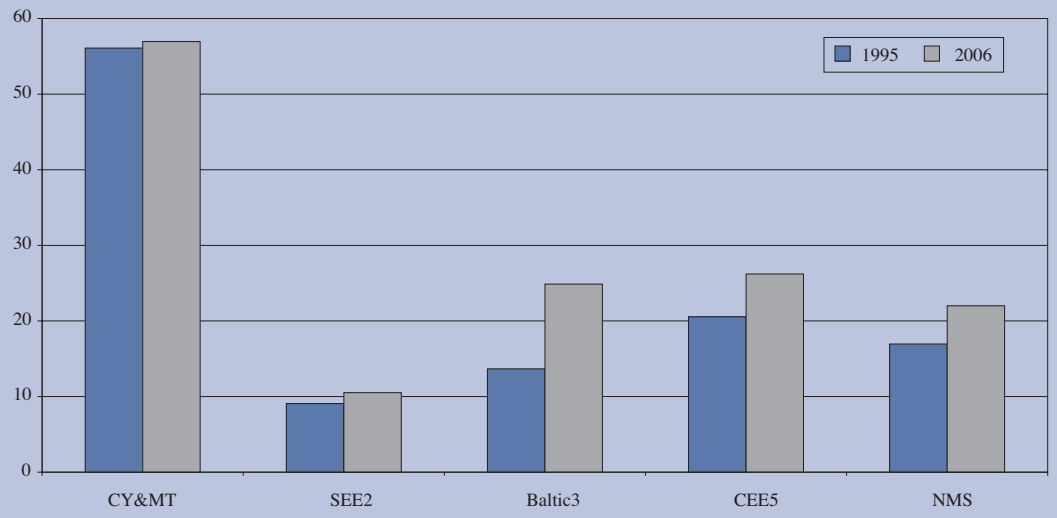
Labour productivity in NMS as a whole grew at a notable 3.5 % in 2006 (Graph 53 and Table 18), well above the EU-15 aggregate (1.6 %). Labour productivity increased markedly in the three Baltic countries, followed by Slovakia, the Czech Republic, Romania and Slovenia, with more intermediate positions represented by Bulgaria and Hungary and fairly poor productivity performance in Cyprus, Malta and Poland.

Graph 46: **Convergence of NMS with the EU-15: real GDP growth**
Average year-on-year % change 1995–06



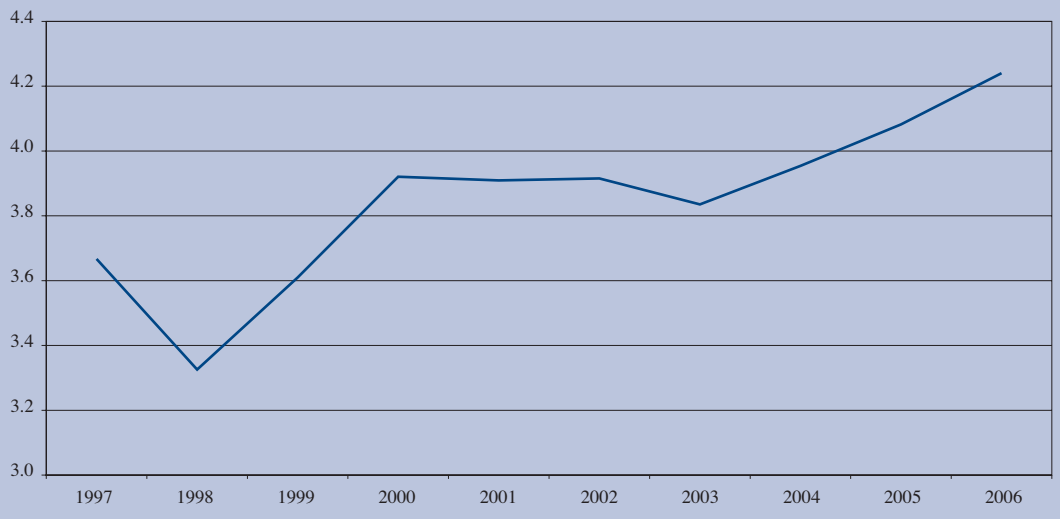
Source: Commission services.

Graph 47: **Convergence of NMS with the EU-15: per capita GDP relative to EU-15**
%, 1995 and 2006



Source: Commission services.

Graph 48: **σ-convergence across NMS**
1997–2006



Source: Commission services.

In order to assess the inflationary pressures, developments in wage growth should be viewed in conjunction with developments in productivity, i.e. in terms of the development of nominal unit labour costs (ULC). Strong productivity improvements in 2006 did not suffice to compensate for high nominal wage growth, i.e. NMS as a whole saw an increase in nominal unit labour costs of 3.5 % (Graph 54 and Table 18), well above the average

registered for EU-15 countries. Nominal ULC increased most in SEE2, followed by non-negligible increases in Baltic3. More modest increases were registered in CEE5 and CY&MT.

With inflation well above the EU-15 standards, real ULC remained broadly constant in 2006 for NMS as a whole (Graph 54 and Table 18). Positive real unit labour costs increases were recorded in SEE2 and Baltic3 while CEE5 and CY&MT exhibited negative growth rates, in the latter case somewhat below the decline in real ULC registered in the EU-15.

Graphs 49 to 52 put labour cost indicators in NMS into a longer-term perspective. Not surprisingly, they clearly show that NMS dynamics ave governed by developments in CEE5, as they constitute the economies biggest in size among NMS. Indicators in SEE2 are extremely volatile and also the least aligned with EU-15 standards. Marked volatility is also present in Baltic3 and, to a lesser extent, CY&MT. Going into a more detailed analysis we immediately see that Baltic3 benefited from shrinking nominal ULC between 1999 and 2002 owing to relatively moderate nominal wage increases and strong productivity performance. This trend was inverted as of 2002, mostly associated with mounting wage pressures. Acceleration in nominal wages is also the main explanation for the problem of relatively high nominal ULC growth in SEE2. In spite of declining growth rates in nominal compensation per employee, Romania and Bulgaria still appear as the two new Member States with unavoidably high increases in nominal ULC. CEE5 comprises the group of countries which has exhibited most convergence with the EU-15 in terms of nominal ULC, implying that although both growth in nominal wages and productivity are situated well above the EU-15 values, nominal wages are fairly aligned with productivity developments. The main weakness of CY&MT is the instability of the labour productivity series, which, combined with non-negligible increases in nominal wages led to adverse nominal ULC developments in 2002–03.

Much in the same way we did in the section devoted to the monitoring of labour cost developments in EU-15 Member States, our surveillance of such developments in NMS would gain some robustness if we were capable of disentangling cyclical from structural factors in place. In the case of NMS, however, we are discouraged to proceed in the same manner from the very beginning. This, we argue, not only because the short length of the series we have at our disposal precludes any sound analysis of this sort, but also because of the absence of any clear patterns or stylised facts, be it of a structural or cyclical nature. This is evidenced by the observation of Graph 55.

Relatively strong employment growth and higher real incomes continued boosting private consumption

In 2006, growth in NMS gained strong impetus from consumption, which increased by around 7.5 %, up from about 6 % in 2005. In most NMS, consumption was supported by increasing employment, rises in real wages, sustained credit expansion and strong consumer confidence. Strong job creation was in turn boosted by a reduction in pension contributions, and an increase in participation rates that led to higher-than-expected employment growth of around 2.5 % in 2006. In selected countries, most notably Latvia, private consumption was also stimulated by an increase in households' disposable income following the cut in the personal income tax rate. In Bulgaria and Romania, consumption demand has substantially exceeded expectations, spurred by rapid credit growth and large-scale wage increases. In Hungary household consumption decelerated and confidence indicators showed a strong deterioration after the adoption of a fiscal consolidation package in summer 2006. In Malta private consumption increased by 2.6 %, as the depressing effect of higher energy prices was outweighed by sustained employment creation and a continued expansion in consumer credit.

From a longer-term perspective, Graph 56 illustrates the evolution of real wages and employment in NMS as compared with the EU-15 between 1995 and 2006. Whereas in the EU-15 real wages and employment grew in parallel, the same cannot be said of NMS where the increase in real wages has outpaced that of employment, which has actually recorded a slight decrease in the period of analysis. Real wage expansion has been impressive in Baltic3. After the trough of the 1997 recession, real compensation per employee has expanded at a rapid pace in SEE. CEE5 have recorded a steady, though more modest, increase in real compensation per employee.

In the short term, labour productivity is projected to accelerate, thereby mitigating the effect of upward pressures of nominal wage growth on nominal unit labour costs

Thanks to an increase in participation rates, relatively solid employment growth of above 1 % per year is

expected over the period 2007–08 despite a drop in the working-age population due to negative demographic trends. The unemployment rate is projected to fall further, to around 7.5 %, in 2008. An increasingly tight labour market will entail certain upward pressures on nominal wage growth. However, in line with a substantial increase in the investment ratio and ongoing economic restructuring, labour productivity is projected to accelerate steadily from around 3.5 % in 2005 to 5 % in 2008. This will mitigate the effect of the increase in wages on nominal unit labour costs. Somewhat higher oil prices and some upward pressure from wage developments could, however, imply slightly higher inflation in 2008, while real unit labour costs are expected to remain more or less stable over the forecast period.

Sectoral developments

Catch-up growth processes are usually driven by strong productivity improvements in the tradable sector. In the NMS, average productivity growth over the period 2000–06 was 4.5 percentage points higher in manufacturing than in services. Conversely, data on compensation per employee reveal that services wages in NMS have grown 2 percentage points faster than manufacturing wages during the same period. As a result, nominal ULC fell by 1.53 % in manufacturing against a 5.34 % growth rate in services (see Graphs 57 to 59).

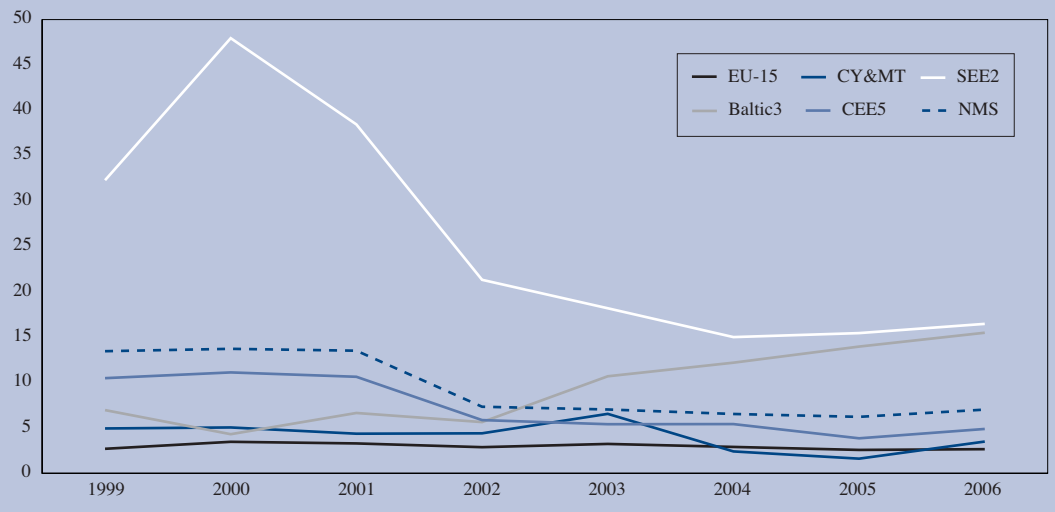
The divergent pattern in nominal ULC across manufacturing and services could be suggestive of the so-called Balassa–Samuelson effect, i.e. real appreciation movements driven by high price increases in the non-tradable sector. Although the empirical literature is not conclusive, it is recognised that Balassa–Samuelson effects could add 1½–2½ percentage points to inflation in an accession country as its productivity catches up to EU levels. This is one reason why sectoral wage developments warrant some monitoring.

Overall assessment

Supported by rapid increases in total factor productivity brought about by the ongoing convergence process, vigorous increases in labour productivity are still to be expected which in turn result in upward pressures on nominal wages. Key for the sustainability of their catch-up process will be that labour costs remain in line with productivity. If the expectation among wage-setters of continuously high wage growth became entrenched, there is a risk that in the future a cyclical slowdown in labour productivity growth would yield severe economic consequences in the form of upward inflation pressures, higher unemployment, and possibly squeezed profit margins.

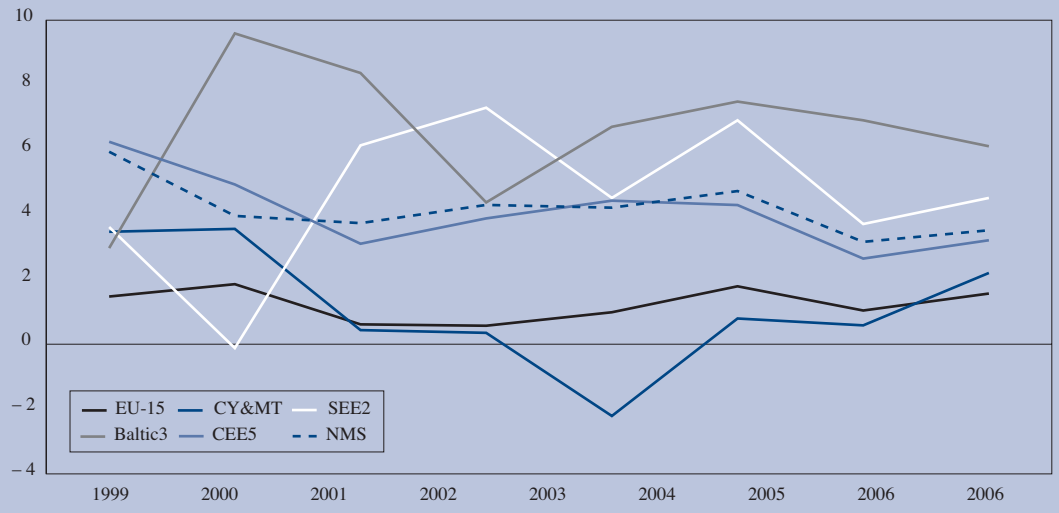
In view of foreseeable overheating in NMS' labour markets, labour cost developments deserve close monitoring. Looking ahead, continuing structural improve-

Graph 49: **Convergence of NMS with the EU-15: compensation per employee**
Year-on-year % changes 1999–2006



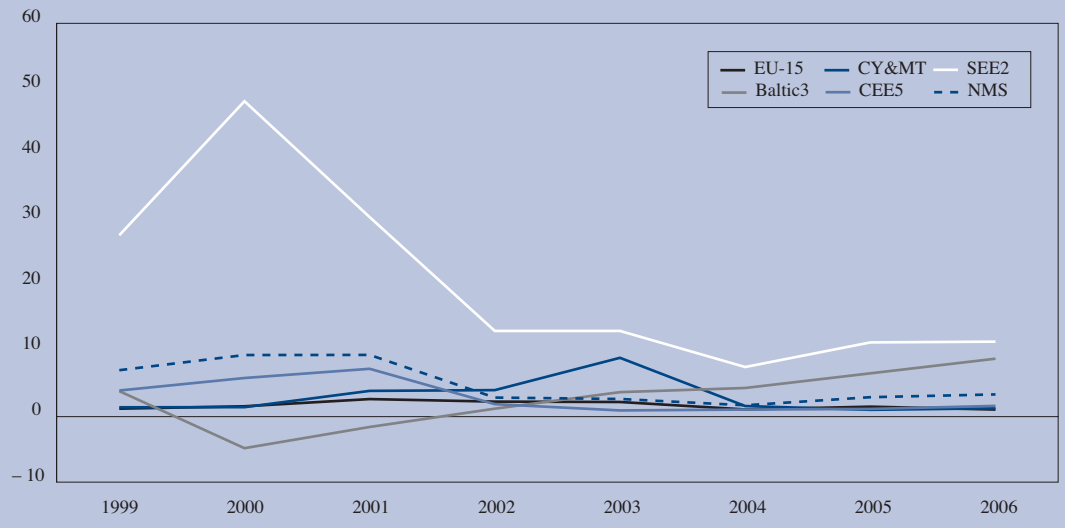
Source: Commission services.

Graph 50: **Convergence of NMS with the EU-15: labour productivity**
Year-on-year % changes, 1999–2006



Source: Commission services.

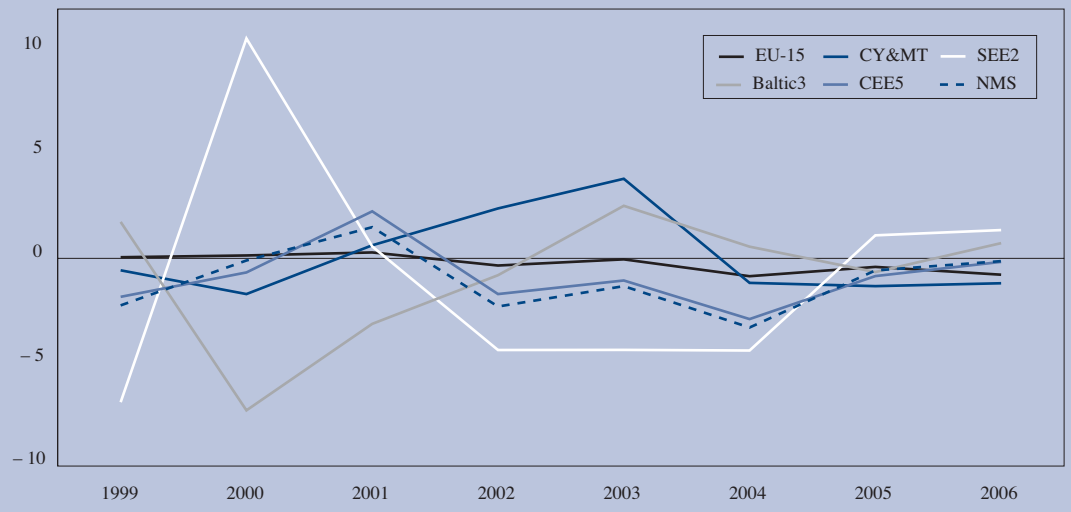
Graph 51: **Convergence of NMS with the EU-15: nominal unit labour costs**
Year-on-year % changes, 1999–2006



Source: Commission services.

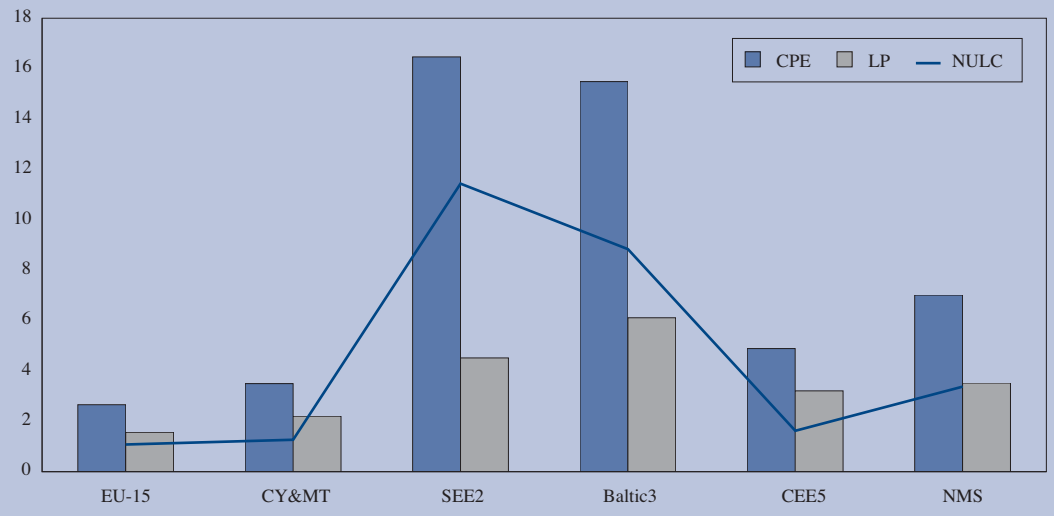
ments are critical to facilitate continuing smooth convergence within the European Union and ensure the broader competitiveness of these countries. One key issue in this regard is the need to invigorate labour market flexibility and reduce sizable tax wedges that have contributed to high unemployment rates, still in excess of 10 % in Poland and the Slovak Republic.

Graph 52: **Convergence of NMS with the EU-15: real unit labour costs**
Year-on-year % changes, 1999–2006



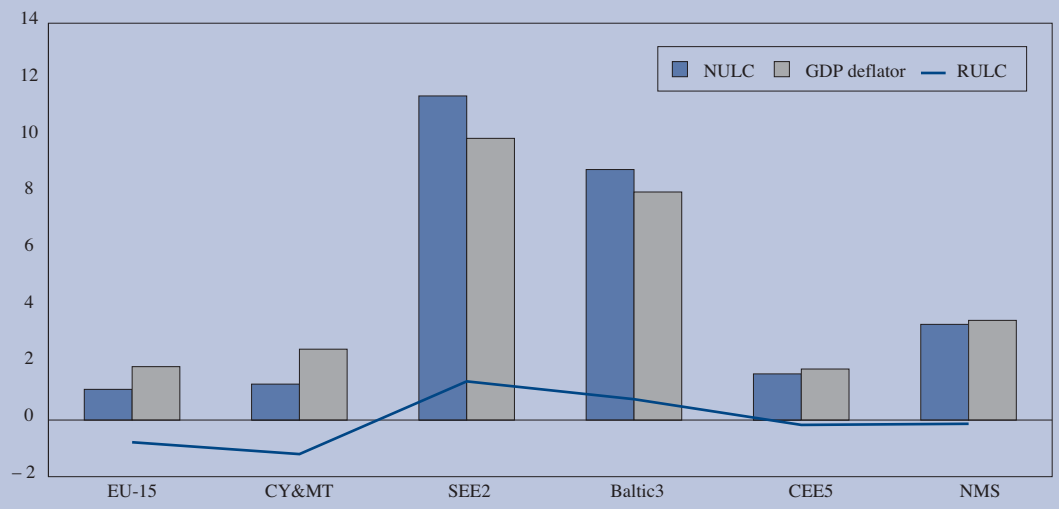
Source: Commission services.

Graph 53: **Breakdown of nominal unit labour costs into compensation per employee and labour productivity, NMS**
Year-on-year % changes 2006



Source: Commission services.

Graph 54: **Breakdown of real unit labour costs into nominal unit labour costs and the GDP deflator, NMS**
Year-on-year % changes, 2006



Source: Commission services.

Table 18

Breakdown of real unit labour costs, NMS compared to several EU aggregates
Year-on-year % changes 2003–06

	BG	CZ	EE	CY	LV	LT	HU	MT	PL	RO	SI	SK	EU-27	EU-15	NMS
Comp. employee															
2003	5.1	8.6	13.5	7.4	11.3	8.9	9.9	3.9	1.7	22.7	6.6	8.1	3.3	3.2	7.0
2004	4.9	5.8	12.6	2.0	14.3	10.9	11.5	2.5	1.8	17.8	7.6	9.2	2.9	2.9	6.5
2005	5.9	4.3	11.5	1.6	25.5	8.5	7.1	1.1	2.1	19.3	5.4	5.1	2.5	2.6	6.2
2006	8.2	4.8	11.8	4.2	21.7	13.4	6.7	1.2	3.9	17.8	4.8	7.7	2.6	2.7	7.0
Labour productivity															
2003	2.0	4.7	6.2	– 1.9	5.4	7.9	3.3	– 3.3	5.1	5.5	3.1	2.3	1.2	1.0	4.2
2004	3.9	4.1	8.0	0.4	7.5	7.3	5.4	1.2	4.0	8.0	3.9	5.8	1.9	1.8	4.7
2005	3.5	4.7	8.6	0.3	8.7	5.0	3.7	1.2	1.2	3.9	3.7	4.6	1.0	1.0	3.2
2006	3.6	4.7	5.5	2.3	7.0	5.7	3.1	2.0	2.4	4.7	4.0	5.8	1.5	1.6	3.5
NULC															
2003	3.1	3.9	7.3	9.3	5.9	1.0	6.6	7.2	– 3.4	17.2	3.6	5.7	2.1	2.2	2.8
2004	1.0	1.7	4.6	1.6	6.9	3.6	6.1	1.2	– 2.2	9.7	3.7	3.4	1.0	1.1	1.8
2005	2.5	– 0.3	2.9	1.3	16.8	3.5	3.4	– 0.1	0.9	15.3	1.6	0.6	1.5	1.5	3.1
2006	4.6	0.1	6.4	2.0	14.8	7.7	3.6	– 0.7	1.5	13.1	0.8	1.8	1.1	1.1	3.5
GDP deflator															
2003	1.8	0.9	2.3	5.1	3.6	– 0.9	5.8	4.6	0.4	24.0	5.8	4.7	2.4	2.3	4.1
2004	5.1	3.5	2.1	3.3	7.0	2.7	4.4	1.4	4.1	15.0	3.3	6.0	2.1	2.0	5.2
2005	3.8	0.7	6.8	2.4	10.2	5.8	2.2	2.4	2.6	12.2	1.5	2.4	2.0	1.9	3.6
2006	8.1	1.7	6.1	2.5	11.1	7.1	2.7	2.6	1.3	10.4	2.3	2.7	2.0	1.9	3.5
RULC															
2003	1.2	2.8	4.5	4.2	2.0	1.9	0.5	2.8	– 3.6	– 6.2	– 2.2	0.8	– 0.3	– 0.1	– 1.3
2004	– 4.0	– 1.9	2.1	– 1.7	– 0.6	0.7	1.4	– 0.2	– 6.0	– 5.2	0.3	– 2.7	– 1.2	– 0.9	– 3.3
2005	– 1.3	– 1.0	– 3.8	– 1.1	4.8	– 2.3	1.0	– 2.4	– 1.7	2.2	0.1	– 1.8	– 0.5	– 0.4	– 0.6
2006	– 3.4	– 1.6	– 0.1	– 0.5	2.4	0.2	0.8	– 3.2	0.1	1.9	– 1.5	– 1.0	– 0.9	– 0.8	– 0.1

Source: Commission services.

Graph 55: **Nominal (left) and real (right) unit labour costs, NMS**
Year-on-year % changes, 1996–2006

(Continued on the next page)

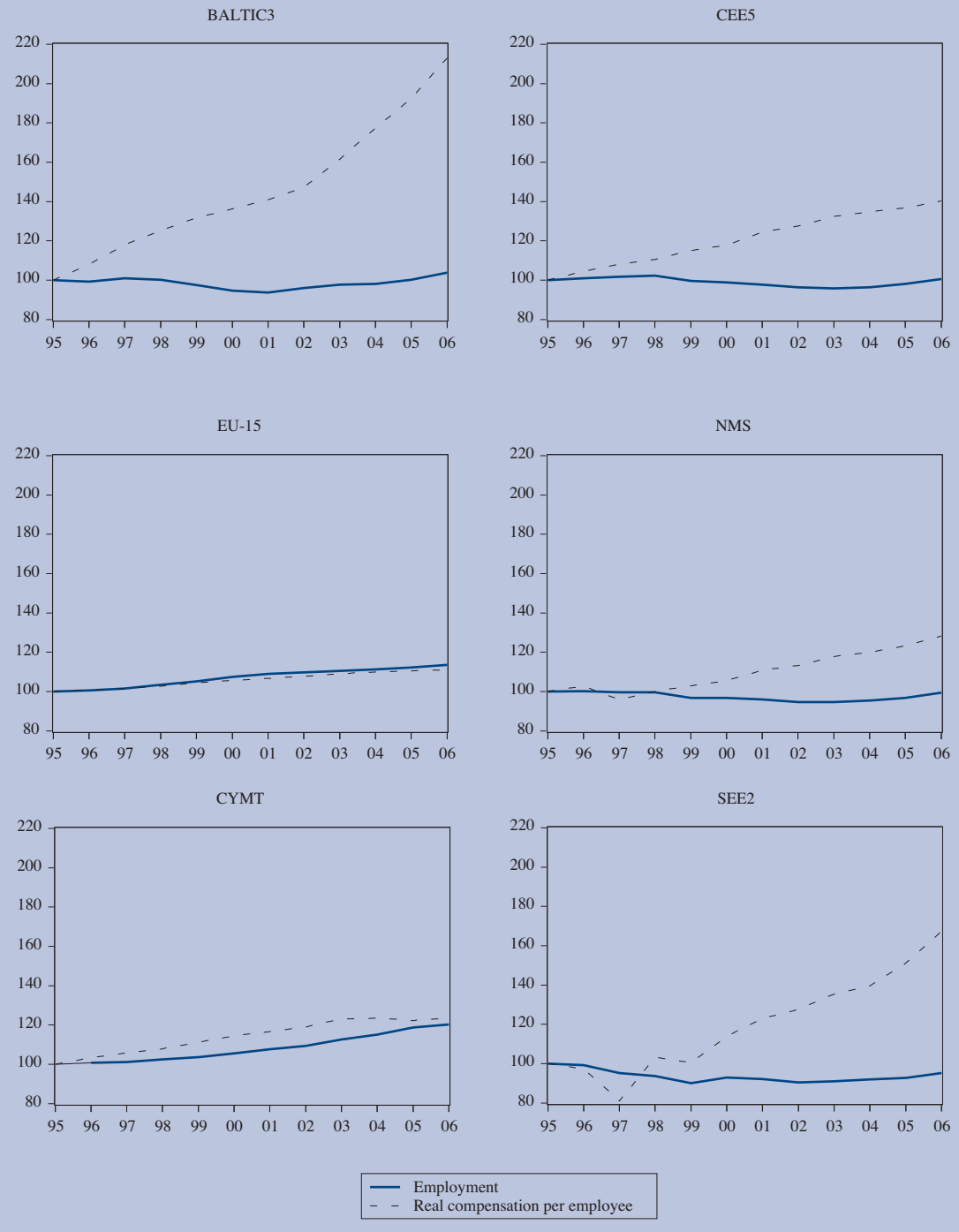
Graph 55 (continued)

Source: Commission services.

Graph 55 (continued)

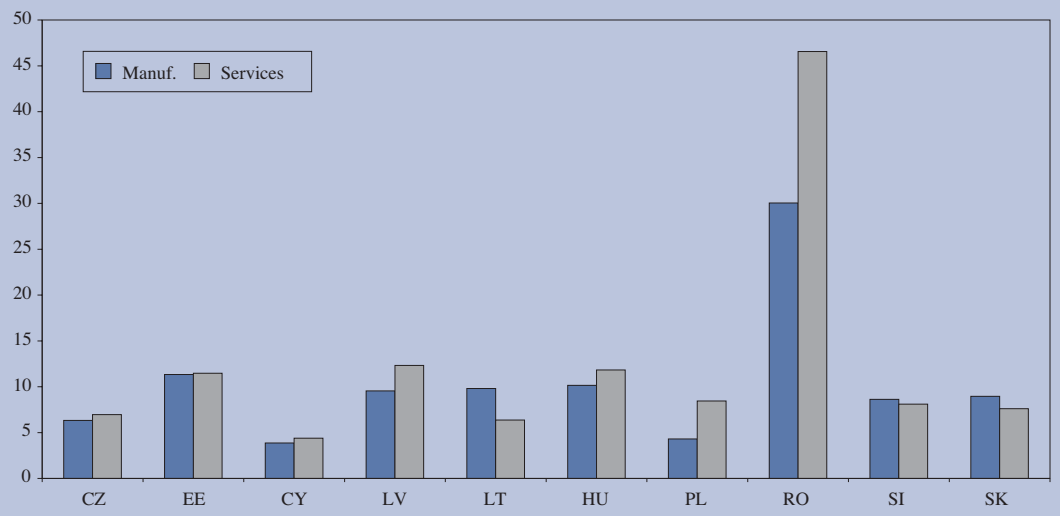
Source: Commission services.

Graph 56: **Comparison of employment and real compensation per employee in NMS and EU-15, 1995–2006**
Index 1995=100



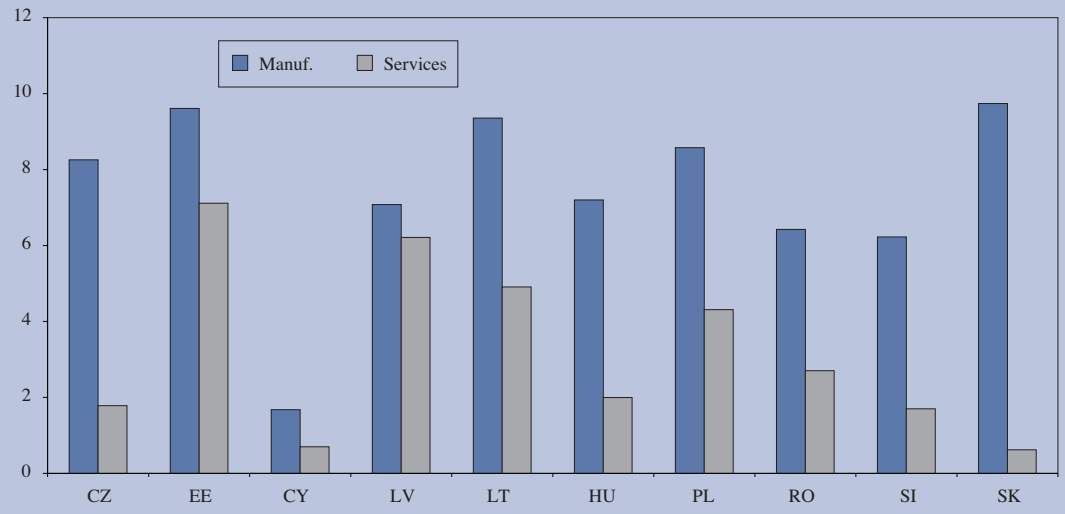
Source: Commission services.

Graph 57: **Nominal compensation per employee in manufacturing and services, NMS**
Average year-on-year % change 2000–06



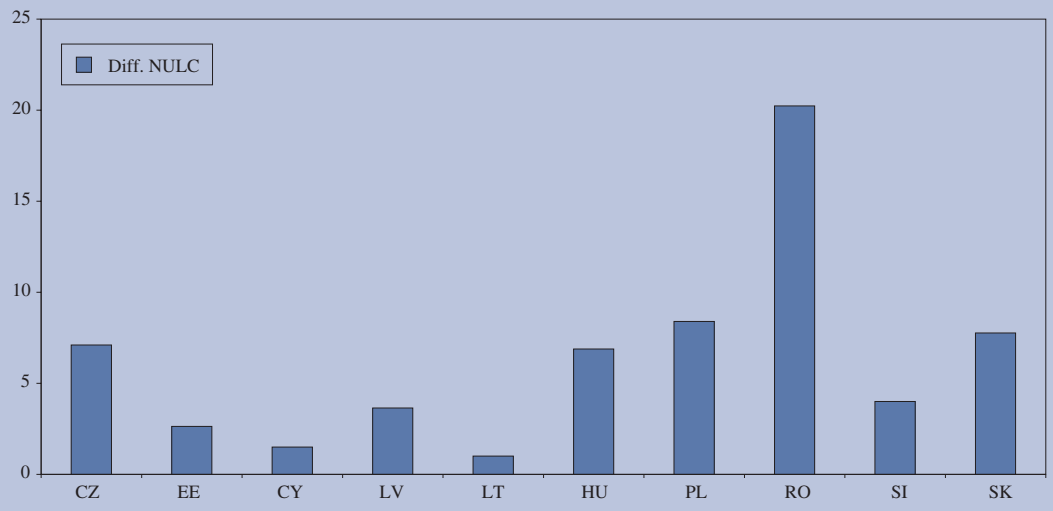
Source: Commission services.

Graph 58: **Labour productivity in manufacturing and services, NMS**
Average year-on-year % change 2000–06



Source: Commission services.

Graph 59: **NULC differential between manufacturing and services, NMS**
Average year-on-year % change, 2000–06



Source: Commission services.

Part II

Special focus

Summary

This special focus examines developments in the relative unit labour costs of euro-area countries at disaggregated (industry) level and provides a preliminary analysis of the sources of the fluctuations of relative unit labour costs, which appear to be driven more by idiosyncratic industry- and country-specific shocks than by aggregate common shocks. This is mainly done by using the EU KLEMS database.

The empirical analysis shows that trends in relative unit labour costs across industries vary substantially from one country to another. Before EMU (1999), industries with an unfavourable relative wage differential prevailed in Portugal, Greece and Germany. Moderate trends in relative labour costs characterised industries in Italy, Finland, France and the Netherlands. After the launch of EMU, several Member States experienced a deterioration of competitiveness, measured on the basis of aggregate unit labour costs, which was generalised across several industries and not concentrated in a few large industries. The opposite occurred in Germany where the number of sectors with a wage differential below the productivity differential (and thus with a gain in competitiveness) represented about 34 % of total value added before the launch of the common currency. After EMU this proportion reached 60 %.

Specific dynamics of the wage and productivity growth differentials led to these different developments across countries and industries over time. After EMU, industries with increasing relative unit labour costs and expanding value added, recorded a loss in competitiveness, caused by the deterioration of relative productivity as well as the increase in the relative wage. And although cost pressures generally resulted from excessive wage growth, this was not the case in Italy and Spain: in these countries, wages grew only at the average of the remaining countries, but a significant worsening of relative productivity growth led to a considerable deterioration in intra-euro-area competitiveness. A comparison between manufacturing and services suggests that countries experiencing competitiveness gains in manufacturing also improved their competitive position in services.

The contribution of wages to the adjustment that followed German reunification did not mean that Germany undercut the wages of all industries of other euro-area countries. Rather, its gains in competitiveness were possible thanks to generalised productivity gains relative to other euro-area countries, especially in more business-oriented services or in manufacturing sectors where Germany had traditionally a comparative advantage.

The empirical analysis shows that the wage growth differential is quite narrow for the large majority of industries. This means that, on average, wages in any specific sector do not persistently deviate between countries. After the introduction of the common currency in 1999, there was a decline in the proportion of industries displaying negative growth in both relative wage and productivity at the same time. In fact, in several countries an improvement in relative productivity has often been accompanied by more moderate relative wage developments (and thus competitiveness gains), which may reflect fiercer competition in monetary union.

Since the launch of the monetary union there has been evidence of an increase in the cyclical response of relative unit labour costs, although it remains rather low, and a decline in their persistence. One explanation for the still insufficient adjustment mechanism is that in a low inflationary environment, one would need downward nominal wage flexibility to change real wages. But nominal wage stickiness prevails because of social norms against wage cuts (Akerlof and Yellen, 1990), past wage levels represent a fall-back position in new negotiations (Holden, 1997) or because of predetermined contract periods due to either the prevalence of legal restrictions (i.e. wages set in contracts lasting for longer periods) or to the high costs of renegotiation in a low inflationary environment.

Industry data suggest that for several countries relative wage growth is centered in a small interval around zero. However, in EMU, downward nominal wage rigidity, especially in large countries, seems to spread to other countries, become pervasive, and generate downward relative wage rigidity in the rest of the area. A swifter response of relative wages will ease the adjustment to asymmetric shocks. It is not obvious whether this faster adjustment can be achieved by a centralised or decentralised wage bargaining system. To the extent that in an integrated monetary union industry specific shocks are more frequent than country specific shocks, it seems that

decentralised wage bargaining is required to ease the adjustment of relatives to industry specific shocks. However, centralised wage bargaining systems allow nominal wage dynamics to be kept consistent with inflation targets. Hence, a two-tier wage bargaining system would require collective agreements that establish nominal wage growth consistent with the ECB inflation target leaving social partners leeway for wage agreements that reflect sectoral or local circumstances.

1. Relative unit labour costs in the euro area: a disaggregated industry-level analysis

1.1. Introduction

Understanding the behaviour and the determinants of costs competitiveness is highly relevant because different costs' dynamics across countries may generate inflation differentials. Inflation differentials may require some time to be reduced at costs of higher unemployment the more persistent and sticky wages are. *The EU economy — 2006 review* thoroughly investigated the cyclical behaviour of unit labour costs for the euro-area countries. In recent years, common and country-specific shocks have tested the flexibility of wages in the euro area. Overall, wage discipline has been preserved. Nevertheless, with wage growth invariant to the cyclical situation, the slowdown in labour productivity growth translated in several countries into a deterioration in costs' competitiveness, namely increases of nominal unit labour costs higher than that of the main trading partners. The recent pickup in productivity growth together with moderate wage claims kept growth in unit labour costs on a moderate path. Yet, these improvements did not significantly alter the trends of costs' competitiveness observed since the mid-1990s, as the recovery appears to be a common feature of many countries. Besides, the moderate growth in both wages and unit labour costs in the euro area as a whole depends greatly on the very low growth in wages and unit labour costs in Germany.

Based on aggregate competitiveness indicators, the evidence suggests that the competitiveness channel has operated differently across euro-area countries ([1]). Countries that failed to keep their unit labour costs in line with cyclical developments before 1999, subsequently experienced a competitive deterioration, because their wages did not adjust to the decline in their productivity relative to the rest of the area. In addition, the response of unit labour costs appears asymmetrical over the cycle, with a stronger response during upturns than during downturns. The more rigid wages are to unemployment, the greater the change in unemployment needed to achieve a change in competitiveness (i.e. the so-called sacrifice ratio). This means that unemployment has to rise more strongly in order to trigger an improvement in cost competitiveness ([2]).

In the 1990s, an increase in the job intensity of growth began to emerge. This higher elasticity has been interpreted as an increase in the labour market flexibility, especially due to the increase in flexible forms of contractual arrangements. However, this may also be due to other factors. For example, the presence of downward nominal wage rigidity together with very low and stable inflation leads to real wage downward rigidity and implies that the response to output shocks occurs largely through employment rather that through real wage adjustments. Indeed, the evidence in this chapter suggests that at low levels of inflation there is evidence of 'grease effect' (see Box 2). The decline in inflation over time has made the response of employment to GDP more sensitive to changes in inflation. This is consistent with the view that inflation facilitates the adjustment to output shocks when nominal wages are rigid downward. It is noteworthy that this effect can be observed only at low levels of inflation. Conversely, at high levels of inflation, changes in the inflation rate distort price and wage signals. Hence, with stable inflation and nominal wage rigidity, shocks are absorbed through changes in quantities. The wage-employment adjustment mix is deter-

([1]) European Commission (2006), 'Market adjustment, the competitive channel'.

([2]) Simple theoretical considerations can be found in Blanchard, O. (2005) 'Adjustment within the Euro. The Difficult Case of Portugal'. An empirical analysis on the wage and labour costs developments can be found in Arpaia, A. and Pichelman K., (2007) 'Nominal and real wage flexibility in the EMU', forthcoming in *European Economy — Economic Papers*.

mined by forms of rigidity that are more binding. Confirming this, estimates of the Phillips curve for the euro-area countries suggest that countries with a lower elasticity of wage inflation to unemployment have a higher volatility of employment (Arpaia and Pichelman, 2007). As far as the competitiveness channel is concerned, countries with relatively more rigid nominal and real wages should have more volatile (i.e. more flexible) unit labour costs.

This focus provides a disaggregate analysis of the competitiveness channel based on an original panel data set across countries and industries with data covering the 1970–2004 period. The availability of information on relevant variables at the industry level makes possible to identify the sources from which changes in aggregate competitiveness originate, and in particular the role of industries belonging to manufacturing or market services. With disaggregate data it is also possible to analyse both the sector-specific and aggregate volatility and persistence of relative unit labour costs. A better hindsight on the wage and productivity developments at the industry level would contribute to the understanding of the sources of costs competitiveness within the euro area.

The chapter proceeds as follows. After outlining the main features of the database and presenting the data on unit labour costs in section 1.3, the analysis of the characteristics of the sectoral distribution and their changes over time are described in Section 1.4. Section 1.5 provides a preliminary evidence of the sources of the aggregate fluctuations in unit labour costs while Section 1.6 estimates the cyclical response of unit labour costs within sectors and countries.

Box 2: **Does inflation reduce the volatility of employment over the cycle? Indirect evidence of downward nominal wage rigidity**

Recent evidence on the individual and industry wage data has found for the OECD countries significant downward nominal wage rigidity (Holden and Wulfsberg, 2007 and Dickens et al., 2006) ([1]). Some have argued that at a low level of inflation downward nominal wage rigidity is more likely to prevail because of fair wage arguments, because price signals are more transparent, or because in a stable inflationary environment there are less incentives to renegotiate wages which are set in contracts that can be changed only by mutual agreement. The presence of downward nominal wage rigidity at a low level of inflation has revamped the interest in Tobin's view that at low levels of inflation wage pressures and high unemployment are more likely to emerge. Inflation facilitates real intermarket price adjustments, 'grease the wheels of the labour markets', reducing the extent to which nominal wage rigidities are binding and costly in terms of output and employment (Groshen and Schweitzer, 1997) ([2]). However, by changing arbitrarily the relative prices inflation creates uncertainty and produces resource misallocation (the so-called sand effect of inflation).

Some authors have noticed that wage rigidities are more important in highly regulated labour markets (Bertola and Jorgeson, 1990, Wyplosz, 2001). In a complete market it would be possible to write contracts that undo legal restrictions that force the making of payments to workers upon dismissals. In this scenario quantity restrictions would be 'paid' by workers as lower wages. Hence, institutions that introduce restrictions in the adjustment of employment can be motivated by the need to reduce labour reallocation when relative wage rigidity prevails. Thus more stringent EPL goes with more wage compression.

The presence of downward nominal wage rigidity at low levels of inflation together with the argument that real and nominal rigidities are complements invite testing whether (a) the decline of inflation has changed the cyclical response of employment and in which direction; (b) the grease effect is indeed more effective in countries with more stringent employment protection legislation, indirect evidence of downward nominal wage rigidity.

([1]) Holden, S. and F. Wulfsberg (2007).
([2]) Groshen, E. L. and Schweitzer M. E. (1997).

(Continued on the next page)

Box 2 (continued)

If the grease effect is valid the adjustment to an output shock should be intermediated by changes in the rate of inflation. The evidence for the industrialised countries confirms that inflation facilitates the adjustment to real shocks when labour market regulations are relatively tight (Loboguerrero and Panizza, 2006). The estimate by Loboguerrero and Panizza (2006) is replicated here for the euro-area countries.

Consider the standard OKUN's relationship establishing a positive relationship between employment and GDP growth:

$$DNit = \gamma it\ DYit + \delta\ DN\ it\text{-}1 + \varepsilon it$$

where DNit and DYit are the growth rate of respectively employment and GDP in country i at time t. We assume that the elasticity of employment growth to output growth changes with the level of inflation and the level of employment protection regulation and the interaction between the inflation rate and EPL. If inflation facilitates the adjustment in highly regulated countries then the Okun coefficient should be low when the adjustment goes through wages and high when it goes through employment. In formal terms this can be expressed as follows $\gamma it = \gamma 1 + \gamma 2\ INFit + \gamma 3\ EPLit + \gamma 4\ INFit * EPLit$.

Substituting the former expression in the equation above we get the final form of the estimated equation:

$$DNit = \gamma 1\ DYit + \gamma 2\ INFit * DYit + \gamma 3\ EPLit * DYit + \gamma 4\ INFit * EPLit * DYit + \delta\ DN\ it\text{-}1 + \varepsilon it$$

Thus each γ gives the differential effect on employment growth of an increase of GDP growth due to high or low inflation, due to tight or loose EPL and due to high inflation in countries with tight or loose EPL. The EPL variable is expressed as deviation from cross-sectional mean, implying that when it is zero for one country the level of regulation is at the mean level.

We should expect the following. If the grease effect prevails then $\gamma_2<0$. If the sand effect prevails then $\gamma_2>0$. The sign of γ_3 is uncertain and depends on how the regulation on employment protection influences the job creation and job destruction process. Finally, if the grease effect prevails in a more regulated labour market $\gamma 4<0$.

The above specification has been estimated on a panel of euro-area countries on yearly data over the period 1970–2005 with FGLS and robust covariance matrix. To control for the endogeneity of the explanatory variables the model is also estimated with Two Stage Least Squares (TSLS). Since the results are not qualitatively different we comment only on the FGLS.

The results of the estimate on the whole 1972–2005 period show that the elasticity of employment growth is positive and significant and implies that an increase in economic growth by 1 % is translated into an increase in employment growth by 0.4 %. The coefficient that captures the effect of the interactions of inflation and GDP growth is negative and significant. This finding implies that when the index of labour market regulation is zero, the effect of GDP growth on employment is reduced when inflation is high. This result can be interpreted as indirect evidence of grease effect of inflation due to downward nominal wage rigidity, i.e. inflation reduces the volatility of employment because facilitates the adjustment of real wages. The coefficient of the interaction between GDP growth and EPL is very imprecisely estimated but, consistently with the expectations (Bertola, 1990) its sign suggests that employment fluctuates less over the cycle in highly regulated markets. The coefficient of the triple interaction between GDP growth inflation and EPL is positive and statistically significant. A positive value for this coefficient suggests that the grease effect of inflation decreases when labour market regulation becomes tight. It implies that inflation becomes neutral at very low levels of regulation (based on the FGLS when EPL=-2. TSLS give that inflation is neutral when EPL=0.75). Finally the negative interaction of inflation and EPL implies that employment growth is lower when inflation is high in highly regulated labour markets.

(Continued on the next page)

Box 2 (continued)

All together the results suggest for the euro-area countries that in the high inflation years there is much more volatility of employment and less employment growth in a highly regulated labour market. This finding is consistent with the prevalence of an insider–outsider model where the costs of adjustment both at low and high frequencie fall mainly on the less protected.

Dependent variable: employment growth				
	FGLS estimator		TSLS	
	Coefficient	t-statistics	Coefficient	t-statistics
DY	0.4	10.5	0.3	4.98
INF*DGDP	– 0.02	– 5.7	– 0.03	– 3.2
EPL*GDP	– 0.01	– 0.4	– 0.06	– 0.4
EPL*INF*GDP	0.01	2.2	0.04	2.7
EPL*INF	– 0.02	– 1.8	– 0.08	– 1.6
Country specific	Yes	Yes		
Coefficient of lagged DN				
R^2	0.76	0.62		
Standard error	1.1	1.4		
Observations	340	310		
Cross sections	10	10		
Sample period	1972–2005	1975–2005		

To check for parameter instability we have recursively added one year at the time starting from the 1972–81 period. Graphs 60 and 61 suggest that there is an increase over time in the cyclical response of employment to GDP and that only in the recent years of a stable inflationary environment is there evidence of a grease effect. Thus inflation contributes to the real wage adjustment, indirect evidence that downward nominal wage rigidity becomes binding at low levels of inflation.

1.2. The data

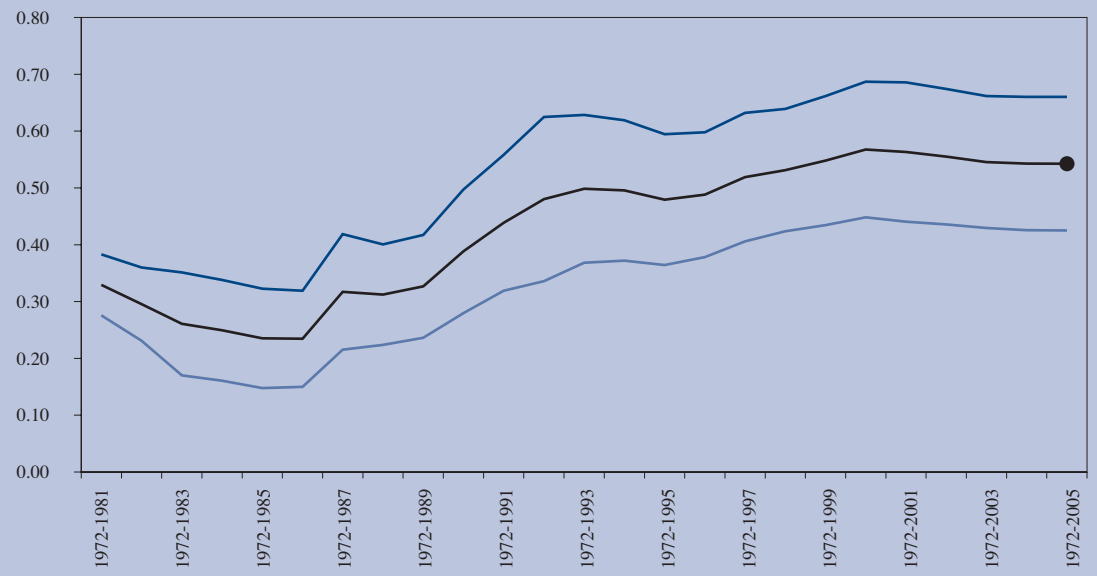
This chapter deals with the functioning of the competitiveness channel within the euro area and considers only euro-area countries ([1]). Our variables of interest are the unit labour costs and the value added for different industries. The measure of competitiveness at the industry level is defined as the unit labour costs of that industry in one specific country relative to the average unit labour costs of the same industry in the remaining euro-area countries. When expressed in terms of growth rates, a positive value of the relative unit labour costs means that unit labour costs in one specific country/industry are growing more than the (unweighted) average of the remaining countries ([2]). Similarly, the growth of value added of a specific industry of one country is expressed as a deviation from the average growth of the same industry of remaining countries.

The level of industry detail in the EU KLEMS database varies across countries and variables. At the lowest level of aggregation, data are collected for 71 industries classified according to the European NACE rev. 1 classification. To have the maximum level of detail for the largest set of countries for the longest period (1978–2004), we combine industries with a low level of aggregation with

([1]) These are all euro-area countries except Slovenia. Data are from the EU KLEMS database. This dataset is part of a research project, financed by the European Commission, to analyse productivity in the European Union at the industry level. The KLEMS database covers all the EU-25 countries plus US and Japan from 1970 to 2004 for the 'old' Member States and from 1995 to 2004 for the new Member States.

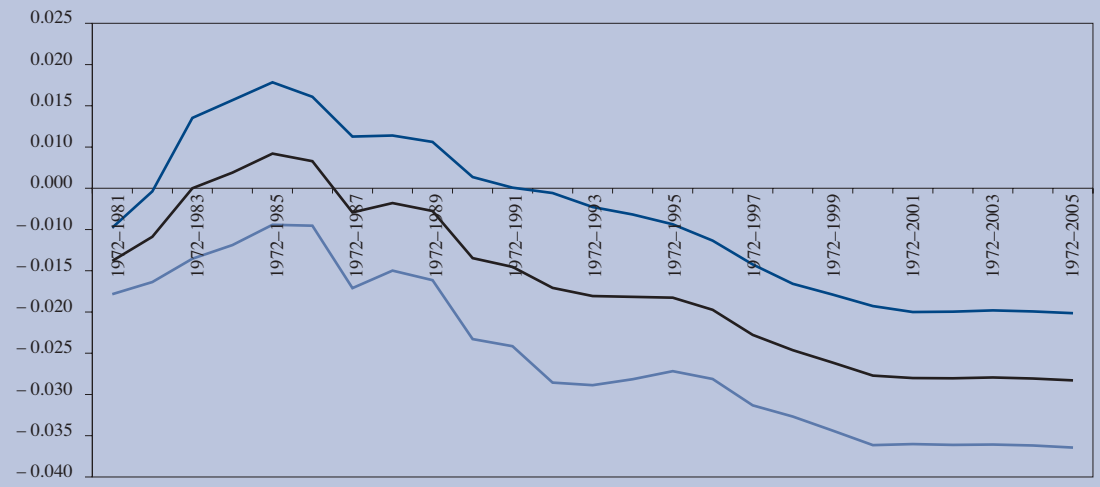
([2]) Since the unit labour costs are defined as nominal compensation per employee divided by GDP per person employed at constant prices, a positive growth rate of the relative unit labour costs implies that wages in one country relative to the average of the remaining countries are growing more than productivity relative to the average productivity in the remaining countries.

Graph 60: **Elasticity of employment to GDP growth: recursive estimates (in %)**



Source: Commission services.

Graph 61: **Evidence of grease effects at a low level of inflation (recursive estimate of the coefficient of inflation*GDP growth (in %))**



Source: Commission services.

those characterised by a higher level ([1]). Table 19 provides a listing of the industries included in our dataset. For data availability mining and quarrying are not included in the dataset.

To build the industry-specific competitiveness indicator for each industry/country we need to compute the ratio between the nominal unit labour costs and a reference aggregate that changes with the specific country and industry considered. In symbols, the relative unit labour costs of country i of industry j at time t ($RULC_{i,j,t}$) are defined as $ULC_{i,j,t}/ULC^{-i}_{j,t}$ where $ULC^{-i}_{j,t}$ is the average unit labour cost of the same industry for the average of all countries but i. For each industry, the country specific aggregate $ULC^{-i}_{j,t}$ is obtained as the ratio of compensation per employee and value added per person employed of the average of all countries except country i ([2]).

With the selected industry classification data are available only over a relatively limited time period. To have a panel data of industries and countries covering the 1978–2004 period, some variables have been extrapolated backwards using the growth rates available at the higher level of aggregation. For example, in the case of Germany, data on gross output price indices needed to compute the industry-specific PPPs required for aggregation of nominal compensation, are available for the industry basic metals (code 27) and fabricated metal (code 28) only since 1991. For the years before we assumed that the indices of these two industries had the same changes as those of the higher group basic metals and fabricated metal (code 27t28). Similarly, the value added of industries 50, 51 and 52 is available for Ireland only since 1994. Data were extrapolated backwards to the year 1977 assuming that the value added of the higher aggregate wholesale and retail trade could be attributed to each sub-industry on the basis of the average composition of the sector of the 1995–2004 period. The final data set includes 11 704 observations distributed across 11 euro-area countries ([3]) and 38 industries in the period 1977–2004.

Table 19

Industry breakdown considered in this study

Industry	code
Agriculture, hunting, forestry and fishing	AtB
Food , beverages and tobacco	15t16
Textiles and textile	17t18
Leather, leather and footwear	19
Wood and of wood and cork	20
Pulp, paper and paper	21
Printing, publishing and reproduction	22
Coke, refined petroleum and nuclear fuel	23
Chemicals and chemical products	24
Rubber and plastics	25
Other non-metallic mineral	26
Basic metals	27
Fabricated metal	28
Machinery, n.e.c	29
Office, accounting and computing machinery	30
Electrical machinery and apparatus, n.e.c.	31
Radio, television and communication equipment	32
Medical, precision and optical instruments	33
Motor vehicles, trailers and semi-trailers	34
Other transport equipment	35
Manufacturing n.e.c; recycling	36t37
Electricity, gas and water supply	E
Construction	F
Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of fuel	50
Wholesale trade and commission trade, except of motor vehicles and motorcycles	51
Retail trade, except of motor vehicles and motorcycles; repair of household goods	52
Hotels and restaurants	H
Other inland transport	60
Other water transport	61
Other air transport	62
Other supporting and auxiliary transport activities; activities of travel agencies	63
Post and telecommunications	64
Financial intermediation	J
Real estate activities	70
Renting of machinery and equipment	71
Computer and related activities	72
Research and development	73
Other business activities	74

Source: KLEMS database, Commission services.

([1]) For example, industry-specific data needed to compute the unit labour costs for textiles (industry code 17) and for wearing apparel, dressing and dying of fur (industry code 18) are not available with the country/year detail chosen, while they are available for leather, leather products and footwear (industry code 19). Hence, industries 17 and 18 are aggregated in the textiles and textile products (code 17t18) which corresponds to a higher level of aggregation in KLEMS. Textiles, textile products, leather and footwear (code 17t19) is split into two industries: textiles and textile products and leather, leather products and footwear.

([2]) Following the KLEMS methodology (Timmer, M., von Moergastel, T., Stuivenwold, E., Ypma, G., 2007), nominal compensation of employees across a set of countries are firstly converted from national prices into industry-specific PPPs relative to Germany (the benchmark country) and then summed together to get an aggregate which excludes one country at the time. Volume measures for country aggregates are obtained with the Tornqvist procedure. For each country the reference aggregate of the remaining countries is obtained with the following steps: (a) The share in the EU value added for each country and industry is calculated; (b) next, the two-year average shares are calculated; (c) these shares are used as weights to compute for each country the reference growth rate of value added.

([3]) Luxembourg is excluded because data are not available with the detailed breakdown chosen.

1.3. Preliminary data analysis

At each point in time, for one specific country industries with growing unit labour costs relative to other countries coexist with industries with slower relative unit labour cost. Of course a growth in unit labour costs in one specific year higher than the average is not necessarily a symptom of structural weakness. Indeed, if the competitiveness works well over short horizons changes in the relative unit labour costs should mirror changes in the relative demand. To highlight the medium-term developments in industries) costs competitiveness, this section focuses on the average growth rates at a medium horizon. However, even in the medium term rising relative unit labour costs for a specific industry can be justified when there is a structural increase in the demand of its output or a structural decline in its supply. The opposite is valid when the relative unit labour costs are growing less than the average.

While not distinguishing between the nature of the shocks, this section provides a preliminary analysis of the adjustment of relative unit labour costs at the industry level, distinguishing industries where relative value added and relative unit labour costs are both growing from industries where they are either both falling or moving in opposite directions. For each possible combination, columns 1 and 2 represent respectively the number of sectors and the share in total value added.

A look at the relative unit labour costs

For the 1992–98 period, sectors with an increasing relative labour cost are prevalent in Greece, Germany, Spain, Belgium and Portugal (Table 20). Industries with a rising unit labour cost despite a growth in the valued added lower than the average, are more common and absorb a high proportion of total value added in Portugal, Greece and Germany (column C). In contrast, industries with a moderate growth in relative unit labour costs prevail in Italy, Finland, France and the Netherlands. For these countries, especially in the former two, sectors with unit labour costs growing less than the average, despite a more dynamic value added (column B), are more frequent and more significant in terms of the value added share.

As suggested by the rising share in the valued added of industries with rising unit labour costs as well as by their rising number, a significant adjustment occurred during the early years of monetary union (Table 21). Deterioration in the competitive position vis-à-vis the euro-area countries was observed for Finland, Italy, the Netherlands and Spain. In contrast, for Germany and Greece data suggest gains in competitiveness generalised across industries, as, compared with the pre-EMU years, the proportion of valued added absorbed by industries with more moderate unit labour costs rises. Finally, in Austria, Belgium and Ireland the competitive advantage observed before EMU is extended after the introduction of the common currency to a larger number of industries.

Table 20

Sectors with declining and/or increasing value added and unit labour costs, 1992–98

	DVA>0 and DULC>0 (A)		DVA>0 and DULC<0 (B)		DVA<0 and DULC>0 (C)		DVA<0 and DULC<0 (D)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Austria	17	57.0	17	30.2	0	0.0	4	12.8
Belgium	22	57.1	12	33.6	1	1.1	3	8.2
Spain	23	60.8	11	26.7	2	2.1	2	10.4
Finland	6	16.6	28	74.9	0	0.0	4	8.5
France	15	29.0	20	61.1	1	7.9	2	2.0
Germany	19	52.4	14	34.0	4	11.6	1	2.0
Greece	24	66.7	10	20.8	3	12.2	1	0.3
Ireland	12	39.0	22	51.9	0	0.0	4	9.1
Italy	10	12.8	24	75.1	0	0.0	4	12.1
Netherlands	14	35.4	20	56.1	1	0.1	3	8.4
Portugal	19	39.3	14	45.8	3	14.0	1	0.8

Note: column 1 shows number of industries; column 2 shows share in total value added of industries belonging to each group.

Source: Commission services' calculations on KLEMS database.

Table 22 reports the changes in the relative unit labour costs for the four groups. It is immediately evident that countries with moderate aggregate relative unit labour costs after EMU gained in competitiveness in the group of industries where value added expands and unit labour costs fall ([1]). The opposite occurred in countries such as Italy, Portugal and Finland. In contrast, the gain in competitiveness in expanding industries with falling relative unit labour costs is stronger in the EMU years for Spain. However, competitiveness worsened in the group of industries where both valued added grew and unit labour costs grew more than the average.

Together these findings suggest that both the increasing number of industries with rising labour costs and the increase in unit labour costs in the group including industries with an already weak competitive position before EMU can be held responsible for the overall deterioration in competitiveness observed after the launch of the euro (Table 22). The competitiveness gains experienced by Germany and Austria after the launch of EMU were mainly due to moderate growth of unit labour costs in those industries that were expanding already before EMU.

([1]) Of course the composition of the two groups may change over the two sub-periods.

Dynamics of the wage and productivity components of the relative unit labour costs

Changes in relative unit labour costs are determined by changes in relative wages and relative productivity. Graphs 62 and 63 report for the pre- and post-euro years the growth in relative value added, relative wages and relative productivity. The following observation can be derived from these charts:

- For the group of industries with value added and unit labour costs growing more than average, the costs increase derive from higher relative wage growth and lower productivity growth, with no major differences between the two periods (Graph 62 panel (a)). The only relevant exceptions seem to be France, Finland and, to a very minor extent, Italy, for which in the first period the productivity gains in expanding industries compensated the excessive wage growth.

- Quite interestingly, in industries with a positive growth in relative unit labour costs but negative growth in value added (Graph 62 panel (c)), the deterioration in competitiveness comes despite the improvements in productivity growth (i.e. based on this metric, wages increases are excessive).

- Within these groups, the deterioration in competitiveness during the early years of monetary union depends on either a significant decline in productivity growth not accompanied by a decline in relative

Table 21

Sectors with declining and/or increasing value added and unit labour costs, 1999–2004

	DVA>0 and DULC>0 (A)		DVA>0 and DULC<0 (B)		DVA<0 and DULC>0 (C)		DVA<0 and DULC<0 (D)	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Austria	11	27.2	21	68.1	1	0.4	5	4.2
Belgium	15	27.6	17	68.6	1	0.1	5	3.7
Spain	24	70.2	8	24.9	3	2.0	3	3.0
Finland	19	59.7	12	30.7	4	8.1	3	1.6
France	17	46.3	16	50.4	2	0.6	3	2.7
Germany	12	38.6	20	59.0	2	1.0	4	1.4
Greece	12	36.5	20	58.4	1	0.3	5	4.8
Ireland	15	30.1	17	63.0	2	1.3	4	5.7
Italy	21	44.0	12	50.1	3	4.5	2	1.5
Netherlands	18	52.3	14	42.6	3	3.5	3	1.6
Portugal	20	56.5	11	35.6	4	6.8	2	1.0

Note: column 1 shows number of industries; column 2 shows share in total value added of industries belonging to each group.

Source: Commission services.

Table 22

Annual average growth rate of unit labour costs, 1992–98 and 1999–2004

	1992–98				1999–2004			
	DVA>0 and DULC>0	DVA>0 and DULC<0	DVA<0 and DULC>0	DVA<0 and DULC<0	DVA>0 and DULC>0	DVA>0 and DULC<0	DVA<0 and DULC>0	DVA<0 and DULC<0
Austria	1.2	– 0.6	0.0	– 0.4	0.4	– 1.7	0.1	– 0.2
Belgium	1.5	– 0.7	0.0	– 0.1	0.4	– 1.1	0.0	– 0.1
Spain	0.7	– 0.4	0.0	– 0.1	1.0	– 0.6	0.0	– 0.1
Finland	0.3	– 2.6	0.0	– 0.1	1.2	– 0.8	0.0	– 0.1
France	0.9	– 1.6	0.1	0.0	0.5	– 0.4	0.0	0.0
Germany	1.0	– 0.4	0.2	– 0.1	0.7	– 1.5	0.0	– 0.1
Greece	1.6	– 0.5	0.1	0.0	2.3	– 1.2	0.0	– 0.1
Ireland	1.8	– 3.0	0.0	– 0.3	1.9	– 2.3	0.1	– 0.1
Italy	0.2	– 2.5	0.0	– 0.1	0.7	– 1	0.1	0.0
Netherlands	0.7	– 0.9	0.0	0.0	0.9	– 0.5	0.1	0.0
Portugal	0.9	– 1.1	0.3	0.0	1.1	– 0.6	0.1	0.0

Notes: column 1 shows number of industries; column 2 shows share in total value added of industries belonging to each group. Industry growth rates are weighted with the share of each sector in total value added.

Source: Commission services.

wages (e.g. Italy and Spain, Graph 63 panel (a)) or form an excessive wage growth despite an unchanged or small productivity differential (e.g. the Netherlands and Portugal).

- Competitive gains in expanding industries owed to a relative modest wage growth prevailing on productivity dynamics for a few countries (e.g. Belgium, Spain and Greece) in the 1992–98 period would have implied a deterioration (Graph 62 panel (b)). For others both productivity and wage developments contributed to the improvements in relative unit labour costs. Comparing the behaviour of these variables before and after EMU, it turns out that the deterioration in competitiveness in the group of industries with some competitive advantage derives from an increase in the growth rate in wages and a decline in the growth rate in productivity relative to the average in Finland, France, Ireland and the Netherlands, from a decline in productivity growth not accompanied by a downward adjustment in relative wage growth in Italy and Portugal. In this group, gains in competitiveness developed from accelerating productivity relative to the average in Greece, Austria, Belgium, and from a decelerating of wage claims and accelerating productivity in Germany.

- Finally, in the group of industries with a declining share of value added relative to the same industries of the remaining countries, better competitiveness patterns in both periods are determined by the productivity dynamics (Graph 62 and Graph 63 panel (d)). The only notable exception concerns Italy where the deceleration of the wage costs prevail over the productivity gains.

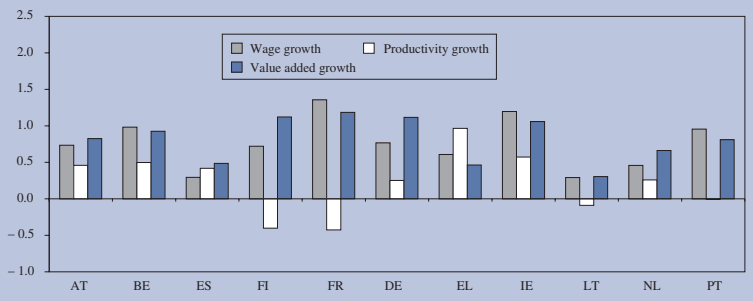
Thus, in the EMU years, in almost all countries costs pressures developed from an excessive wage growth. In Italy and Spain the slowdown in relative productivity growth not accompanied by a comparable downward adjustment of relative wage growth is responsible for the deterioration in competitiveness. In countries gaining in competitiveness after EMU, both an acceleration of productivity and a deceleration of wages were the sources of such gains. Finally, in countries where costs competitiveness worsened between pre- and post-EMU, the fall in productivity growth relative to the average contributed to reduce the competitive advantage in industries which still kept having a growth rate of unity labour costs that were lower than the average.

How generalised to industries are changes in the wage and unit labour costs?

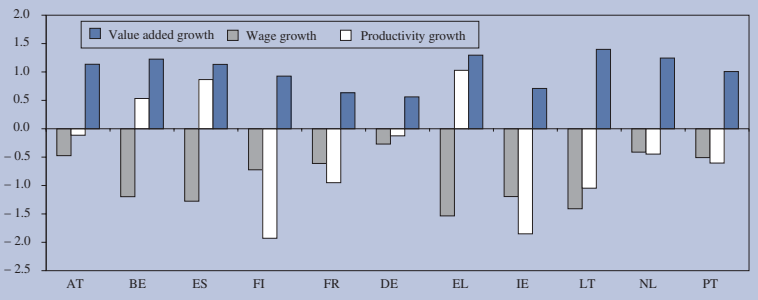
So far we have had only a partial indication of the heterogeneity that characterises the distribution of the relative unit labour costs. In practice, there is a significant heterogeneity in the dispersion and in the average growth of relative unit labour costs over time and across countries. Graphs 64 and 65 show respectively for

Graph 62: **Growth in relative wages, relative productivity and relative value added, in %, 1992–98**

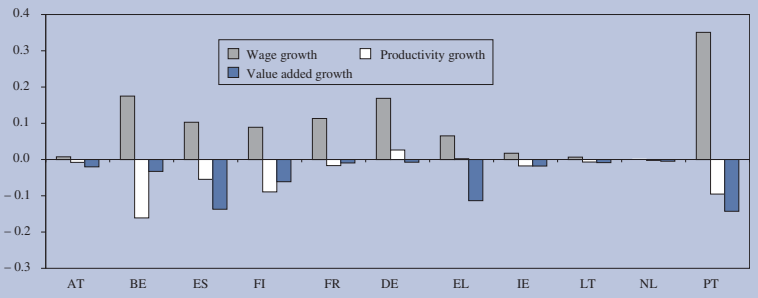
Panel (a) — Average annual growth rates of industries with higher-than-average growth in unit labour costs and value added



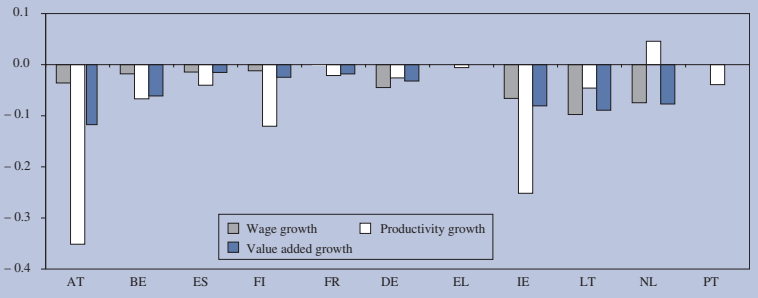
Panel (b) — Average annual growth rates of industries with a lower-than-average growth of unit labour costs and a higher-than-average growth rate of value added



Panel (c) — Average annual growth rates of industries with a lower-than-average growth rate of value added and a higher-than-average growth rate of unit labour costs



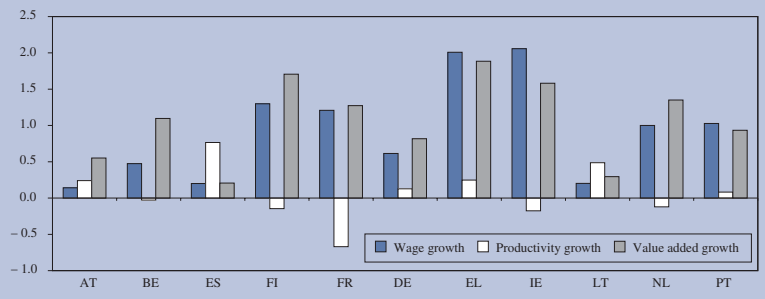
Panel (d) — Average annual growth rates of industries with a lower-than-average growth rate of value added and a lower-than-average growth rate of unit labour costs



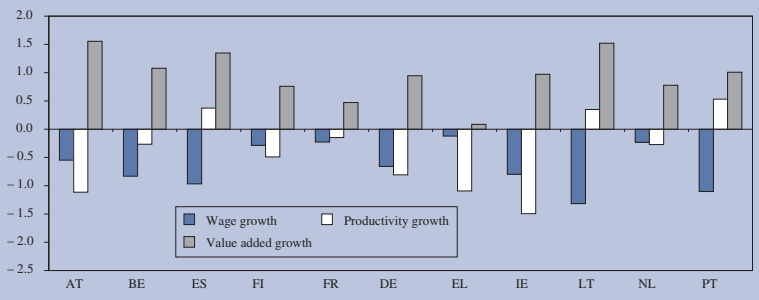
Note: Productivity is negatively signed to show its contribution to unit labour costs.
Source: Commission services.

Graph 63: **Growth in the component of relative unit labour cost and of relative value, in %, 1999–2004**

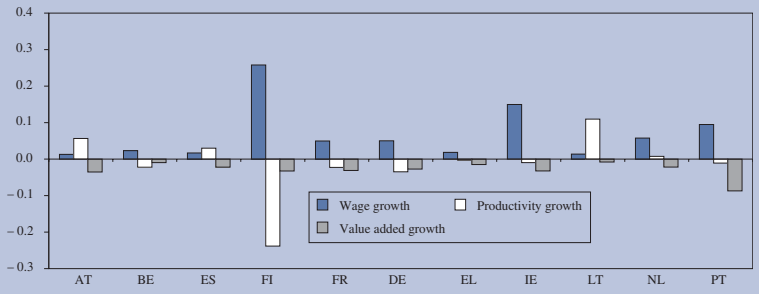
Panel (a) — Average annual growth rates of industries with a higher-than-average growth unit labour costs and value added



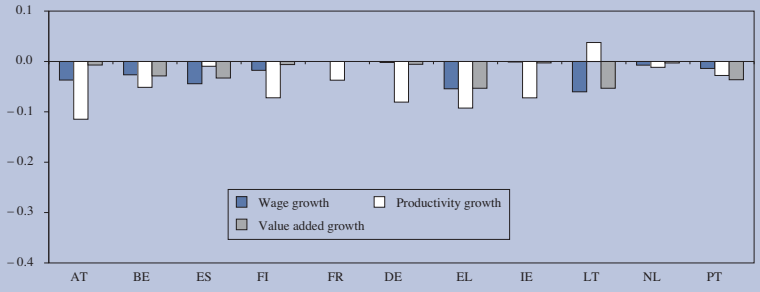
Panel (b) — Average annual growth rates of industries with a lower-than-average growth of unit labour costs and a higher-than-average growth of value added



Panel (c) — Average annual growth rates of industries with a lower-than-average growth of value added and a higher-than-average growth of unit labour costs



Panel (d) — Average annual growth rates of industries with a lower-than-average growth of value added and a lower-than-average growth rate of unit labour costs



Note: Productivity is negatively signed to show its contribution to unit labour costs.
Source: Commission services.

manufacturing and services the box plots of the five year average changes of relative unit labour costs over the 1980–2004 period ([1]).

Graph 64 reveals that in Austria, France, and Ireland (but only until the mid-1990s), the reduction in relative unit labour costs in manufacturing is generalised across all sectors. This pattern is suggested by the median and the mean annual change falling over time. In contrast, the rising central values of the distribution for Spain, Italy and Portugal point towards a generalised deterioration.

After having reached a maximum around the second-half of the 1990s, in several countries the mean and the median declined in the early 2000s. However, it is only in Germany that the decline in the unit labour costs growth make the relative wage growth differential lower than the productivity growth differential, while the opposite occurs for Spain and Portugal. Moreover, the fall in the average growth in German relative unit labour costs with an unchanged dispersion across industries suggests that the entire manufacturing sector adjusted its relative labour costs downward relative to the remaining euro-area countries. In contrast, after the shake-out of the recession of the early 1990s there is an uninterrupted deterioration in Italian competitiveness, which concerns a large majority of industries of the manufacturing sector.

Comparison between manufacturing and services suggest that countries experiencing competitiveness gains in manufacturing also improved their competitive position in services. This is confirmed by the high (pooled) correlation coefficient, at around 0.8, calculated on yearly data over the period 1980–2004 between the means across various industries of the unit labour costs growth for services and manufacturing. Hence, in years where manufacturing industries gain in competitiveness, services sectors also improve their competitive position ([2]).

Box plots for the growth rate of the relative wages, not shown for brevity, reveal that both sectors' changes in the median and the mean growth of relative wages are not infrequent. Since the early 1990s there is a clear shift downwards in the distribution of the annual changes of relative wages, which reflects both the effect of the 1993 recession and the disinflation experience of the run-up to the EMU. For Italy and Austria the median of the distribution falls below zero for several periods, an indication that wages have been growing for several industries systematically less than the average. Moreover, wages contributed to the adjustment of the overshooting which followed German reunification. However, the changes in the distribution by industries of the productivity growth suggest that these gains did not imply undercutting the wages of all industries of other euro-area countries. Indeed, gains in competitiveness were possible thanks to productivity growth higher than the other euro-area countries, especially in sectors where Germany had a traditional comparative advantage (e.g. chemical products, fabricated metal, and electrical machinery) in more business oriented services' industries (e.g. wholesale trade, real estate activities, research and development) or in construction.

1.4. Exploring the presence of downward rigidity in relative wages

Various studies, including recent work done in the context of the international wage flexibility project, have analysed the extent of downward nominal and real wage rigidity in Europe. Based on micro data, these studies have found a spike in the distribution of the growth of nominal wages at zero and at the expected inflation rate (i.e. suggesting respectively downward nominal and real wage resistance) and the prevalence of downward nominal wage rigidity at a low level of inflation ([3]), consistent with the non-linear Phillips curve ([4]). Downward nominal rigidity at the individual level can be less binding at the macro level when firms can circumvent the rigidity by changing the composition of the workforce by turnover (Holden and Wulfsberg, 2004), for example hiring young workers at lower entry wages ([5]). This implies that the degree of downward rigidity measured

([1]) A box-plot summarises the distribution of the relative unit labour costs changes by displaying the mean (represented by the crosses), the median (the line through the centre of the box) and the spread of the data. The box portion of a box-plot represents the 25th and the 75th percentile. When the median is above the mean the distribution is skewed to the right, meaning that it has long tails to the left of the distribution. Similarly when the median is below the mean, the distribution of the annual changes of relative unit labour costs has some industries with growth rates considerably higher than the average. Finally, when the median is below zero, more than 50 % of all sectors have a competitive advantage in costs.

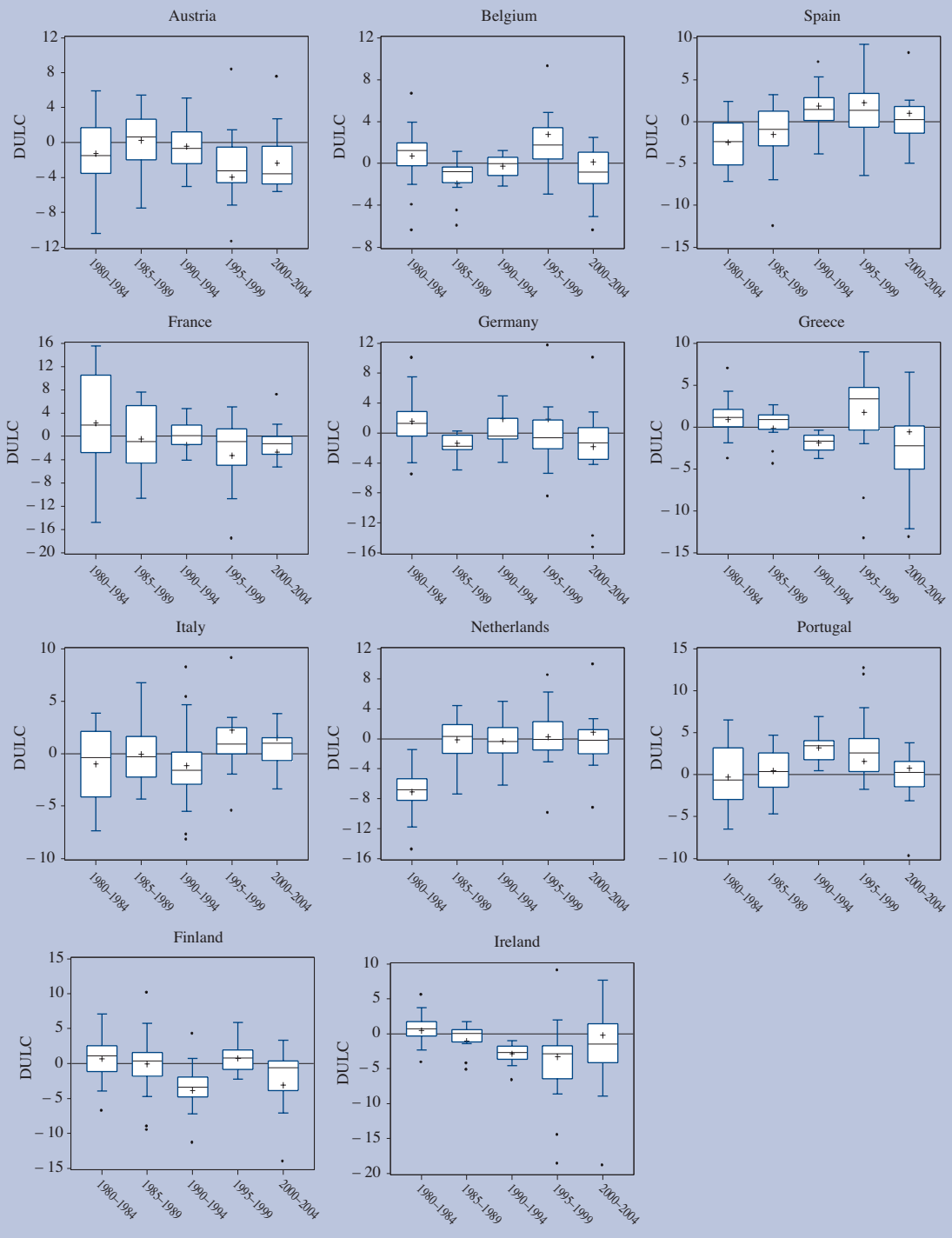
([2]) The correlation between the means at 0.5 is lower but still statistically significant at standard significance levels.

([3]) Holden S. (2004), 'Wage formation under low inflation' reviews the literature on the effects of low inflation on wage formation. Dickens et al (2006) provide micro evidence of wage changes at the individual level.

([4]) An application to the UK can be found in Nickell, S. and Quintini G. (2003).

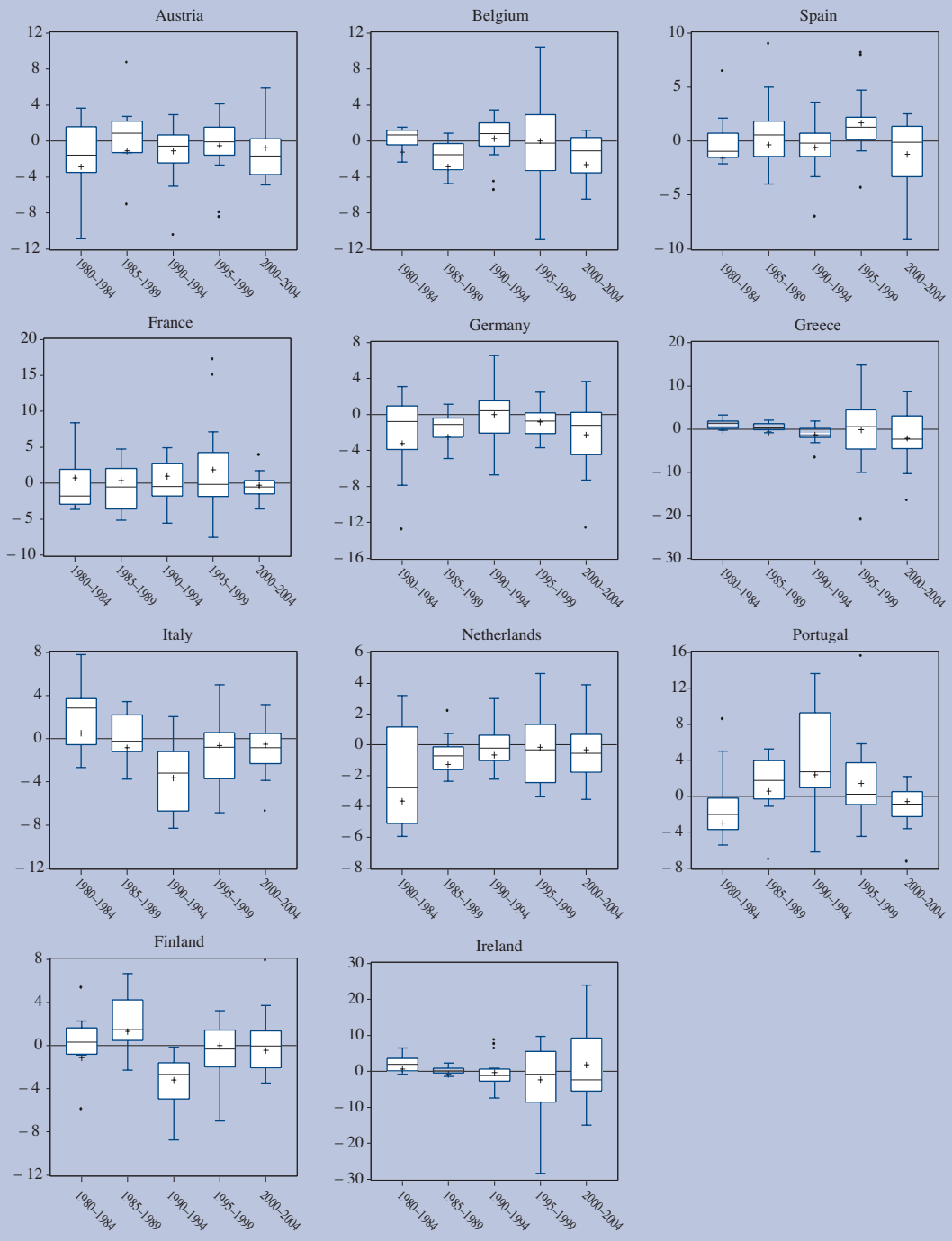
([5]) Holden S. and Wulfsberg F. (2004).

Graph 64: **Box plot of the annual average growth rate (%) of relative unit labour costs in manufacturing, euro-area countries**



Source: Commission services.

Graph 65: **Box plot of the annual average growth rate (%) of relative unit labour costs in services, euro-area countries**



Note: A box-plot summarises the distribution of the relative unit labour costs changes by displaying the mean, the median and the spread of the data. The box portion of a box-plot represents the 25th and the 75th percentile, and the difference between them represents the inter-quartile range. The median is the line through the centre of the box, while the mean is represented by crosses; the whiskers are informative of the tail of the distribution while black dots represent outliers.

Source: Commission services.

on micro data may give a biased estimation of the rigidity that is transferred at the macro level. To circumvent this identification problem, Holden and Wulfsberg (2004, 2007) ([1]) investigate downward nominal and real wage rigidity by looking at the distribution of the nominal wage cuts at the industry level.

Common to these studies is the construction of a notional wage change distribution (i.e. the distribution of wage changes that would prevail with no downward wage rigidity). The comparison between notional and empirical changes provides an indication of the downward wage rigidity. For example, Nickell and Quintini (2003) defined the notional distribution assuming that the probability of a nominal wage cut depends on the median and the dispersion of the wage changes. Holden and Wulfsberg assume that downward nominal and real wage rigidity is not binding at high growth rates of nominal and real wage growth. Consequently, they construct the notional distribution on the basis of country-year samples with high median changes of nominal or real wages growth.

Since our concern is competitiveness, it is simpler to find a benchmark for the distribution of wage changes. For each country we define as competitiveness-neutral the relative wage changes if the associated change in the relative unit labour costs is zero. Hence, the distribution of the changes in productivity differential is our notional distribution against which compare the actual wage changes. Wage changes are neutral if they reflect the productivity differential. Relative wage changes below the notional changes are competitiveness-improving. Similarly, relative wage changes worsen competitiveness when they are above the notional changes. Before comparing the empirical and the notional distribution, this section describes the characteristics of the distribution of the relative wage changes.

Graph 66 shows this distribution for three periods, the 1980s, the years that precede the monetary union and the 1999–2004 period. There are spikes around zero, suggesting that for these countries wages grew at the same pace as the other euro-area countries. Spikes are more distinct in the EMU years for all countries considered but Germany. In the euro-years spikes at zero are less marked for Germany, as its wage changes are considerably below average. It is worth noting the similarity with the Italian distribution before the monetary union and the fewer 'cuts' in relative wages in Portugal during the 1990s with respect to the 1980s.

For each country, Table 23 reports the percentage of industries that in each sub-period has wage changes within specified intervals. For example, the interval (-2;2] implies that the change in wages is in an interval between -2 % and 2 % around the wage changes of the other countries. For several countries the proportion of changes that fall within this interval represents the majority of wage changes and, more importantly, it is higher in the EMU-years. What do these findings suggest? The presence of non-linearities in wage adjustment when inflation is low has been evidenced by many authors (e.g. Nickell and Quintini, 2003, Holden and Wulfsberg, 2004, 2006). In a low inflationary environment, downward nominal wage rigidity implies that real wages cannot be adjusted downwards leading to wage pressures and unemployment. In an open economy, these pressures influence the overall competitiveness. More transparent price comparisons, allowed by the common currency and the stable inflationary environment, make wage changes in one country not deviate too much from the average. However, this link makes wage rigidity pervasive in a large number of countries/industries. This also implies that national or sectoral bargaining in one country might influence the pattern of wage adjustment in the euro-area. The issue is to what extent such diffusion is able to account for the heterogeneity of shocks that may hit specific industries located in different national jurisdictions ([2]).

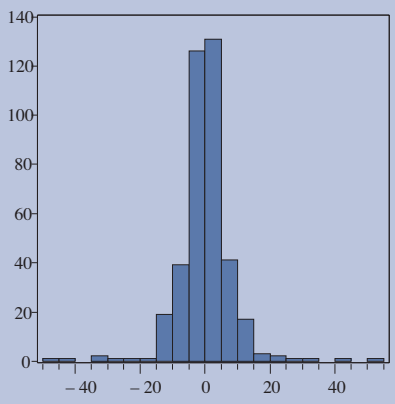
1.4.1. Relative wage cuts

In our sample there are 5 604 negative changes in relative wage growth, amounting to 48 % of all total changes. The largest numbers of cuts in relative wages are found in agriculture, medical precision and optical instruments, coke refined petroleum and nuclear fuel, office accounting and computing machinery, real estate activities and research and development. The lowest in renting of machinery and equipment, computer and related activities, other water transport, other air transport, food beverages and tobacco. Over time cuts in relative wages are more frequent during recessions than during upturns. In the 1980–2004 period, a comparatively high number of cuts in relative wages are found in

([1]) Holden S. and Wulfsberg F. (2007).

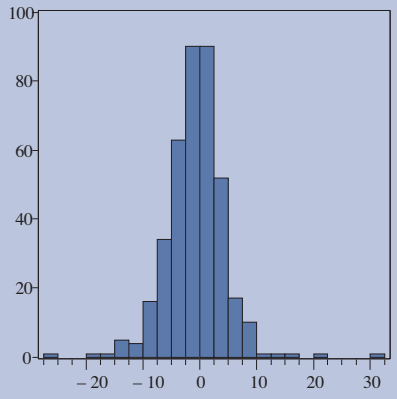
([2]) Evidence on the response of the relative unit labour shocks to common industry or country-specific shocks is provided in section 5.5

Graph 66: **The distribution of relative wage changes for selected euro-area countries**



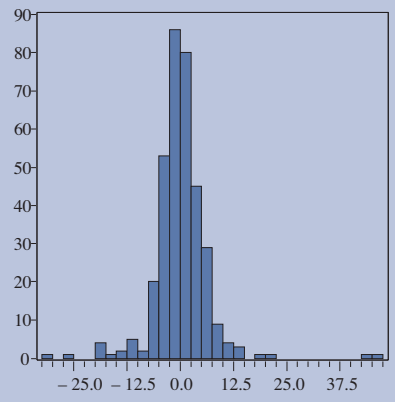
Spain
(1980–1989)
Observation: 389

Mean	0.098
Median	0.10
Maximum	50.98
Minimum	– 47.58
Std. dev.	8.22
Skewness	0.06
Kurtosis	13.24



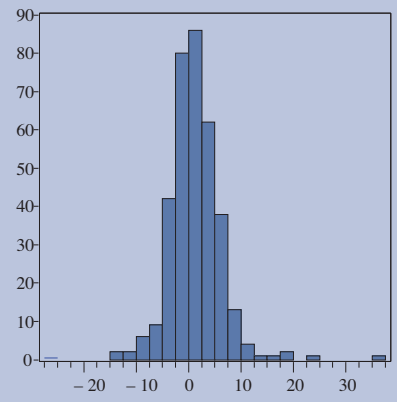
Germany
(1980–1989)
Observation: 389

Mean	– 0.748896
Median	– 0.606116
Maximum	31.53071
Minimum	– 26.71368
Std. dev.	5.156268
Skewness	0.244562
Kurtosis	9.077700



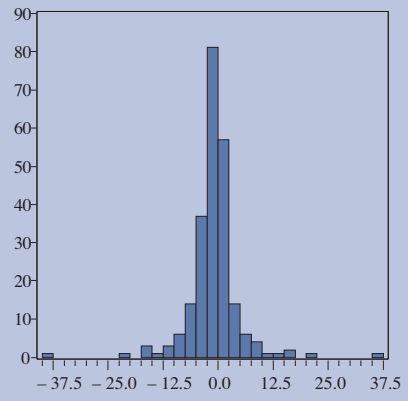
Spain
(1990–1998)
Observation: 349

Mean	0.084
Median	– 0.001
Maximum	46.60
Minimum	– 32.39
Std. dev.	6.48
Skewness	1.25
Kurtosis	18.49



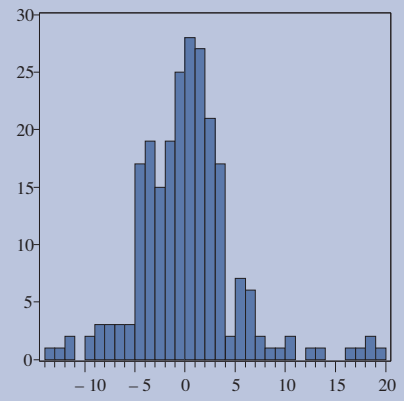
Germany
(1990–1998)
Observation: 351

Mean	1.257307
Median	0.880902
Maximum	36.25091
Minimum	– 27.18126
Std. dev.	5.168813
Skewness	0.778708
Kurtosis	12.13453



Spain
(1999–2004)
Observation: 234

Mean	– 1.014
Median	– 0.85
Maximum	36.48
Minimum	– 37.56
Std. dev.	5.89
Skewness	0.17
Kurtosis	16.97

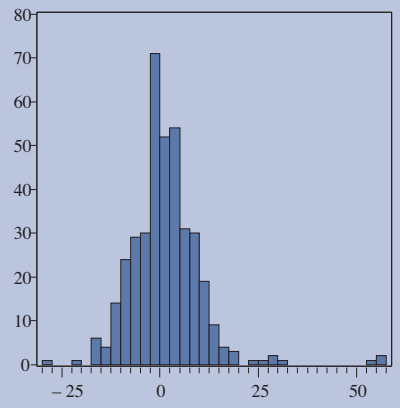


Germany
(1999–2004)
Observation: 234

Mean	0.188550
Median	0.148094
Maximum	19.76045
Minimum	– 13.84798
Std. dev.	4.861450
Skewness	0.839492
Kurtosis	6.225755

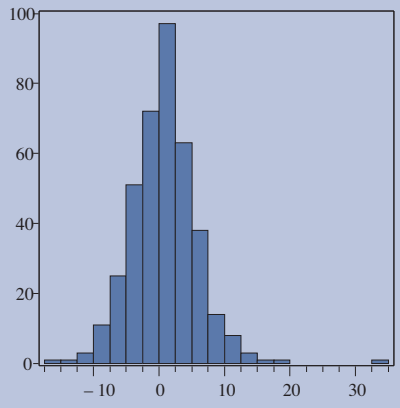
(Continued on the next page)

Graph 66 (continued)



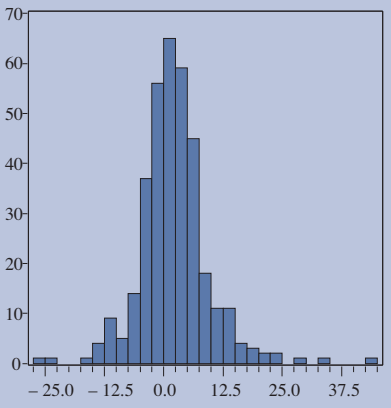
Portugal
(1980–1989)
Observation: 390

Mean	1.402195
Median	0.752645
Maximum	56.50477
Minimum	– 28.86147
Std. dev.	9.036831
Skewness	1.720880
Kurtosis	12.29458



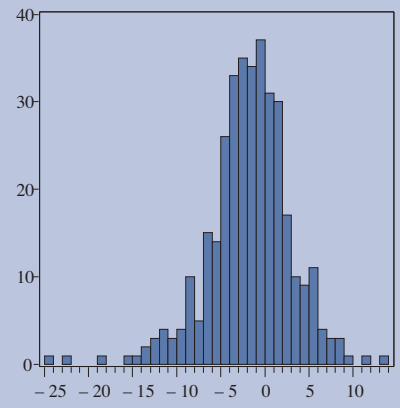
Italy
(1980–1989)
Observation: 390

Mean	0.822213
Median	0.914659
Maximum	32.95105
Minimum	– 16.06973
Std. dev.	5.038483
Skewness	0.710614
Kurtosis	7.343119



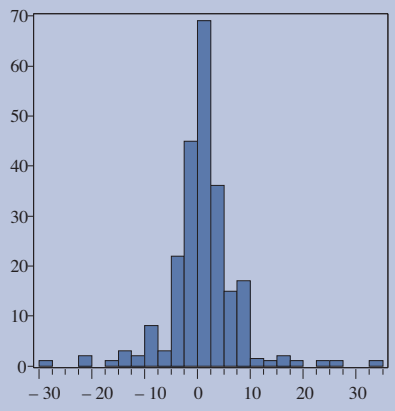
Portugal
(1990–1998)
Observation: 351

Mean	2.200551
Median	1.903122
Maximum	44.55899
Minimum	– 25.45710
Std. dev.	7.274985
Skewness	0.808504
Kurtosis	8.132555



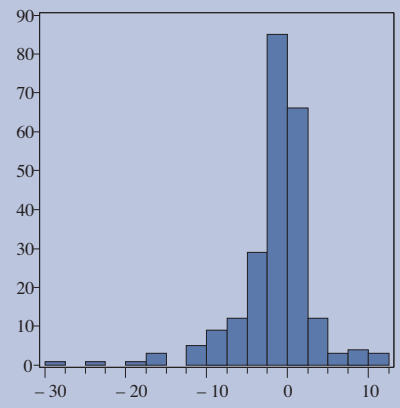
Italy
(1990–1998)
Observation: 351

Mean	– 1.778413
Median	– 1.454951
Maximum	13.18393
Minimum	– 24.52508
Std. dev.	4.770613
Skewness	– 0.681014
Kurtosis	5.542042



Portugal
(1999–2004)
Observation: 234

Mean	1.174030
Median	1.249737
Maximum	32.50553
Minimum	– 28.93048
Std. dev.	6.494964
Skewness	0.011522
Kurtosis	8.573158



Italy
(1999–2004)
Observation: 234

Mean	– 1.443344
Median	– 0.786498
Maximum	12.35306
Minimum	– 29.86488
Std. dev.	4.856388
Skewness	– 1.738350
Kurtosis	10.98707

Source: Commission services.

the Netherlands and Italy. Finland, Ireland and Portugal have the lowest number of relative wage cuts.

Table 24 reports for each country the main descriptive statistics of the overall numbers of relative wage cuts over the 1980–2004 period. The mean and the median are pretty close which suggest an asymmetric distribution of the relative wage cuts. The coefficient of variation across industries (i.e. the ratio of the standard deviations and the mean) is the highest for France, Finland,

Table 23

Distribution of relative wage changes as a proportion of all changes in each period

	<=-14	(-14;10]	(-10;-6]	(-6;-2]	(-2;<=2]	(2;<6]	(6;10]	(10;14]	>14
Austria									
1980–1989	0.0	1.0	2.8	18.5	45.1	23.8	6.2	2.1	0.5
1990–1998	0.6	0.6	4.0	19.1	55.3	16.5	3.4	0.3	0.3
1999–2004	0.0	0.0	4.3	21.4	58.1	11.5	2.6	1.3	0.9
Belgium									
1980–1989	3.6	3.6	8.2	17.2	26.4	18.5	10.0	5.6	6.9
1990–1998	4.8	4.6	5.7	17.9	31.9	17.9	8.0	4.6	4.6
1999–2004	1.3	2.1	1.7	17.1	39.3	28.6	7.3	0.9	1.7
Spain									
1980–1989	2.6	4.4	7.7	18.2	33.3	20.3	6.9	3.8	2.8
1990–1998	2.3	2.0	4.0	21.9	39.9	21.1	5.4	2.0	1.4
1999–2004	2.6	1.3	7.3	23.5	49.1	11.1	2.6	0.9	1.7
Finland									
1980–1989	0.8	0.8	1.8	10.5	32.3	35.1	12.3	4.4	2.1
1990–1998	2.8	6.0	7.7	16.2	34.2	23.1	6.0	2.3	1.7
1999–2004	2.6	0.4	1.3	15.4	46.6	25.2	3.8	2.1	2.6
France									
1980–1989	0.3	2.3	11.0	18.7	25.1	23.3	11.0	2.8	5.4
1990–1998	0.9	1.1	6.3	22.5	33.9	20.8	8.3	3.4	2.8
1999–2004	2.1	0.9	3.4	20.5	42.3	20.5	7.3	1.7	1.3
Germany									
1980–1989	1.3	1.8	8.7	25.9	36.7	19.5	4.6	0.5	1.0
1990–1998	0.3	1.1	2.6	16.8	39.0	26.5	10.8	1.4	1.4
1999–2004	0.0	1.7	4.7	23.1	42.3	20.1	4.3	1.7	2.1
Greece									
1980–1989	3.3	5.1	11.8	23.1	25.6	16.9	6.7	4.9	2.6
1990–1998	4.8	6.6	15.1	17.7	22.5	18.2	8.8	3.4	2.8
1999–2004	4.3	3.0	3.4	9.8	34.2	28.2	12.8	2.6	1.7
Ireland									
1980–1989	4.6	5.1	8.2	14.4	19.2	14.4	12.6	9.2	12.3
1990–1998	7.1	6.3	10.0	21.4	17.4	17.1	10.8	3.1	6.8
1999–2004	6.8	3.4	5.1	11.5	25.2	22.2	12.0	5.6	8.1
Italy									
1980–1989	0.3	1.0	6.9	19.0	36.2	24.6	8.5	2.6	1.0
1990–1998	1.4	3.4	9.7	30.8	37.6	13.4	3.1	0.6	0.0
1999–2004	2.6	2.1	5.1	20.5	58.5	7.7	2.1	1.3	0.0
Netherlands									
1980–1989	2.8	7.7	20.0	30.5	18.2	8.7	4.6	5.4	2.1
1990–1998	1.7	1.4	7.1	26.8	37.3	19.9	4.3	1.1	0.3
1999–2004	0.4	0.9	3.0	13.2	47.4	28.6	3.8	1.3	1.3
Portugal									
1980–1989	2.6	4.1	10.5	13.8	24.9	20.8	12.3	7.2	3.8
1990–1998	1.1	3.4	2.8	16.0	27.6	27.4	11.4	5.4	4.8
1999–2004	1.7	2.1	3.8	12.4	38.0	26.5	11.1	1.7	2.6

Source: Commission services.

Germany, Austria and Greece. In these countries industries characterised by large positive changes coexist with sectors with large negative changes.

Some claim that downward nominal wage rigidity should prevail at low levels of inflation. This prediction is confirmed only partially by the data (Table 25).

Compared with the high inflation years of the 1980s, more frequent relative wage cuts are observed in some countries during the 1990–98 period (Austria, Belgium, Finland and Italy). However, since 1999 relative wage cuts appear less frequent. Hence, when one looks at the relative wages, the binding downward nominal wage rigidity found by many authors in periods of low inflation translates also into fewer relative wages cuts. It has been argued that in an environment of low (actual and expected) inflation the incentives to shorten contract duration are weak because wages need to be adjusted less frequently (Calmfors, 1988). As far as the competitiveness channel is concerned, our finding suggests that downward adjustment in relative wages are less likely in the context of the widespread stable inflationary environment generated by the common currency.

1.4.2. How do relative wage changes relate to relative productivity changes?

The results of Table 23 show that a large majority of changes in relative wages occur within a small interval centred on zero, but it begs the question of whether these changes are competitiveness neutral. This sub-section gives an answer by comparing the distribution of relative wage changes with the distribution of the productivity growth differential.

Table 26 reports the number of changes in relative wages when both changes in relative wages and in relative productivity are below zero (columns 1 to 3), when the change in relative wage is below zero but the relative productivity growth is above zero (columns 4 to 6); when the change in relative wage growth is above zero but the productivity growth differential is below zero (columns 7 to 9); when both the relative wage and productivity growth differential are above zero (columns 10 to 12). Hence, each combination represents different groups of industries with different competitiveness dynamics.

For all countries, the largest number of cuts in relative wages is observed in the case of industries with productivity growth below the average (column 2). There are differences over time and across countries. For example, cuts in relative wages associated with a negative productivity growth differential (column 3) are less recurrent after the introduction of the common currency in 1999. In contrast, for several countries these wage cuts are more frequent in periods of rising productivity differential, which may reflect the fiercer competition in monetary union. There are few significant exceptions to these patterns. The proportion of wage cuts in industries where the productivity growth differential is positive (i.e. they do perform better than the others) remain unchanged in Italy, the Netherlands and Spain, and even declined in Portugal, all

Table 24

Main characteristics of the distribution by industries of the relative wage cuts

	AT	BE	ES	FI	FR	DE	EL	IE	IT	NL	PT	All
Mean	13.5	12.6	14.2	10.8	12.6	13.1	13.5	11.6	14.7	15.4	11.8	143.7
Median	13.0	13.0	14.0	11.0	12.0	14.0	14.0	11.0	15.0	16.0	12.0	143.0
St.dev	3.9	2.5	2.1	3.5	5.2	4.3	3.9	2.4	3.2	2.8	2.1	12.6
min	5.0	6.0	9.0	4.0	1.0	1.0	6.0	8.0	7.0	9.0	7.0	116.0
Max	20.0	18.0	18.0	20.0	21.0	22.0	20.0	21.0	20.0	22.0	18.0	166.0

Source: Commission services.

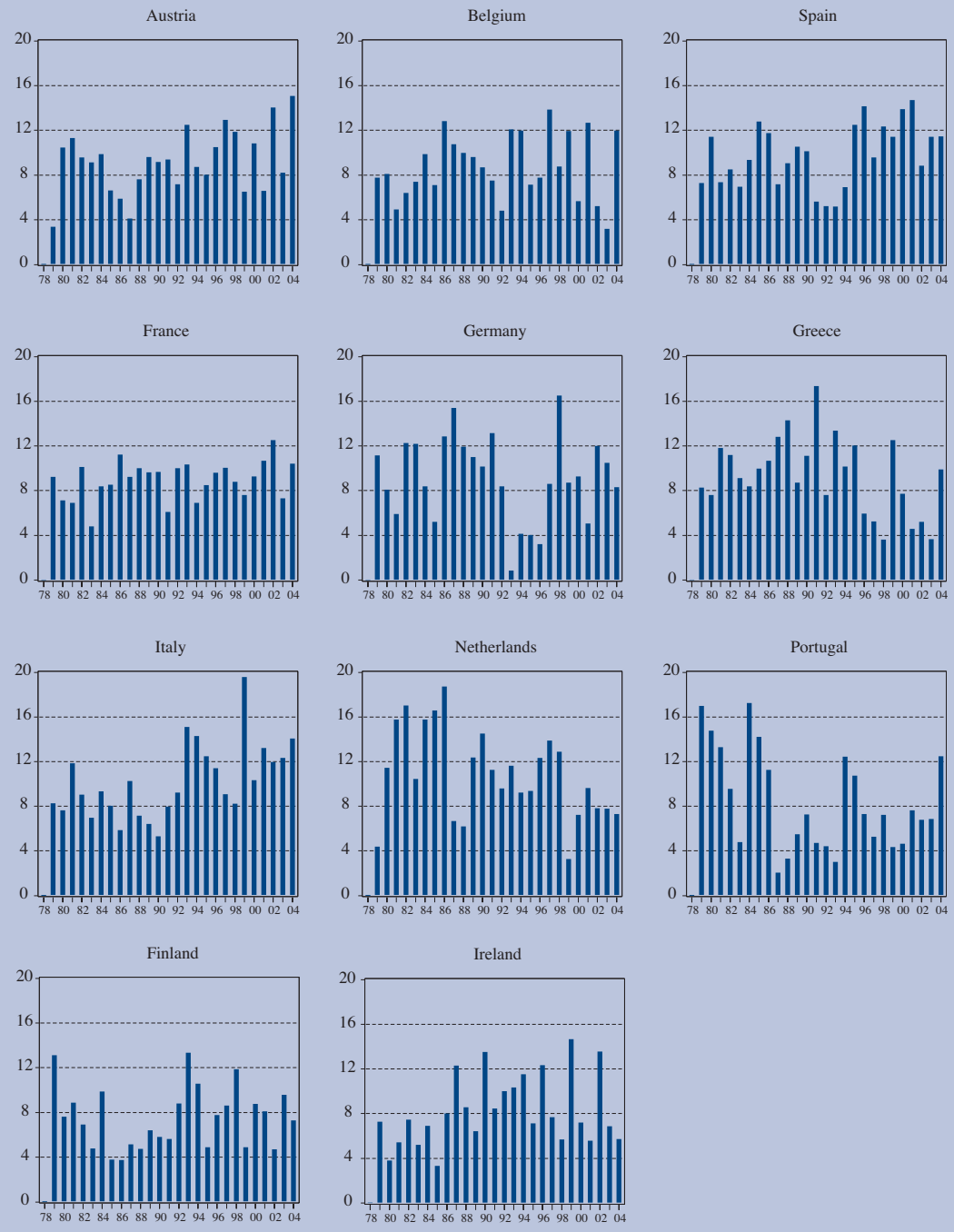
Table 25

Relative wage cuts over time

	AT	BE	ES	FI	FR	DE	EL	IE	IT	NL	PT	All
1980–1989	171	179	192	123	180	215	221	157	164	273	180	2 055
1990–1998	189	183	176	166	169	142	190	189	230	203	128	1 965
1999–2004	136	96	147	89	107	113	81	83	146	93	87	1 178

Source: Commission services.

Graph 67: **Number of industries with cuts in relative wages**
% of total industries with negative growth of relative wages in each year



Source: Commission services.

countries that experienced a deterioration in cost competitiveness within the monetary union. In the case of industries with a positive relative wage growth differential, the large proportion of these changes occurs when also the productivity growth differential is positive (columns (10 to 12)). Finally one should expect that a productivity growth comparatively lower than in the other countries should be associated with a more moderate growth in the relative wages. This is the case for many countries where about one third of all positive changes in the relative wage growth occurs in industries with a worsening productivity differential. However there are countries, namely Spain, Italy and Ireland, where this proportion is much higher. Finally, it is worth mentioning that for Austria and Germany, countries with significant competitiveness gains in the EMU years, this proportion declines over time.

To get a measure of the downward rigidity of relative wages we follow Holden and Wulfsbeg (2007) in comparing the incidence of relative wage cuts in the empirical and notional distribution (as in Holden and Wulfsbeg, 2007). In our case the notional distribution is the empirical distribution of the productivity growth differential by industries and countries. Formally, this can be done as follows:

- calculating the number of relative wage cuts as a proportion of total wage changes (this proportion is called q_{it});
- calculating the number of cases when productivity growth differential is negative as a proportion of total productivity changes (q^*_{it});
- the fraction of relative wage cuts prevented by downward relative wage rigidity ($FRWCP_{it}$) is defined as $1\text{-}q_{it}/q^*_{it}$;

FRWCP equals 1 when there are no changes in the relative wages (i.e. the relative rigidity is high) and 0 when there is no relative wage rigidity. The value of the index is negative when the number of wage cuts prevails on the number of productivity cuts.

Aggregating countries and years (i.e. pooling the observations over country and time), the fraction of relative wage cuts prevented equals -0.07, implying that for a generic industry/country pair wage changes below the average are 7 % more frequent than productivity changes below the average. These pooled statistics conceal a great deal of heterogeneity across countries and time. Table 27 reports the value of the *FRWCP* index for several countries over time. It is very frequent to find that wage growth differential is below the productivity growth differential. In the post-EMU period, the incidence of industries with the wage growth differential below the productivity growth differential is the highest in Austria, Germany, France and Spain, while it declines in Italy. In contrast, in Irish, Finnish and Dutch industries there is a greater likelihood of finding cases where the growth of relative wages is above

Table 26

Average number of wage cuts (or wage increases) as percentage of all wage cuts (or increases)

	DCOMP<0 and DPROD<0			DCOMP<0 and DPROD>0			DCOMP>0 and DPROD<0			DCOMP>0 and DPROD>0		
	1980–89	1990–98	1999–2004	1980–89	1990–98	1999–2004	1980–89	1990–98	1999–2004	1980–89	1990–98	1999–2004
AT	61	53	38	39	47	62	31	36	28	69	64	72
BE	75	70	45	25	30	55	14	25	33	86	75	67
ES	60	63	64	40	38	36	30	46	41	70	54	59
FI	54	52	60	46	48	40	32	30	37	68	70	63
FR	53	52	50	47	48	50	25	32	29	75	68	71
DE	69	42	51	31	58	49	36	37	33	64	63	67
EL	81	75	46	19	25	54	27	35	38	73	65	62
IE	85	61	54	15	39	46	15	28	39	85	72	61
IT	56	58	64	44	42	36	39	40	40	61	60	60
NL	56	61	56	44	39	44	28	39	34	72	61	66
PT	51	58	72	46	40	25	31	41	31	67	57	67
All	64	59	55	36	41	45	28	35	35	72	64	65

Source: Commission services.

the growth of relative productivity. Finally, in Greece and Portugal the fraction of industries with a growth of relative wages below the growth in relative productivity in the euro-years is rising over time and reaches respectively 14 % and 21 %.

1.5. Are relative unit labour costs more volatile and persistent at the industry level?

The effectiveness of the competitive channel depends also on how frequently relative unit labour costs change in response to changes in the cyclical conditions. The more persistent relative unit labour costs are, the greater the change in unemployment needs to be to trigger an adequate adjustment in relative prices. In contrast, more flexible, i.e. more frequent changes in the relative unit labour cost, contribute to a faster and easier adjustment to shocks.

Recent studies on the volatility and persistence of inflation (Bils and Klenow for the US) ([1]) have shown that persistent adjustment processes at the macro level are consistent with faster and more volatile adjustment at the disaggregated levels, reconciling the apparent puzzle that consumer price changes are more volatile at the disaggregated level than at the aggregate level. Altissimo et al (2007) ([2]) have shown for the euro-area that inflation rates for individual categories are more volatile and less persistent than aggregate inflation rates and display wide heterogeneity across categories. Boivin et al. (2007) find similar results for the US. In addition, they show that most of the fluctuations of inflation at the disaggregate level are due to sector-specific shocks while sectoral inflation rates are persistent, but this persistence is mainly driven by common macroeconomic shocks.

Does the difference between micro and macro adjustment documented for the price inflation extend also to the growth of the relative unit labour costs? If relative unit labour costs were more responsive to industry-specific shocks (e.g. because of idiosyncratic productivity shocks) than to aggregate common shocks, then a wage-setting system characterised by a predominantly central bargaining (either national or macro-sectoral level) would be less able to cope with such shocks. In contrast, strong co-movement in relative unit labour within sectors of different countries would imply that centralised bargaining at the national level would probably play a more important role in dampening such an industry common shock. Finally, to the extent that shocks are common to industries of different countries, a super-national

([1]) Bils M. and Klenow P. J. (2004).

([2]) F. Altissimo, Mojon B. and Zaffaroni P. (2007).

Table 27

Fraction of relative wage cuts prevented (FRWP) at 0 and proportion of industries with the relative wage differential lower than the relative productivity differential

	FRWCP			Number of industries where relative wage changes are less than relative productivity changes		
	1980–89	1990–99	1999–2004	1980–89	1990–99	1999–2004
AT	0.0	– 19.0	– 73.1	0.49	0.55	0.64
BE	– 8.5	– 7.0	– 8.0	0.52	0.60	0.54
ES	– 9.2	7.4	– 13.1	0.61	0.64	0.75
FI	19.6	– 16.1	17.3	0.46	0.59	0.42
FR	– 21.6	– 15.8	– 16.9	0.56	0.54	0.55
DE	– 1.9	– 4.4	– 15.3	0.65	0.54	0.57
EL	2.2	4.5	14.0	0.72	0.67	0.46
IE	6.5	– 17.5	18.8	0.44	0.63	0.44
IT	9.4	– 26.4	– 13.3	0.58	0.76	0.64
NL	– 47.6	– 12.8	7.1	0.83	0.68	0.45
PT	– 10.1	24.8	21.3	0.66	0.52	0.41

Source: Commission services.

coordination of bargaining may be needed to avoid coordination failures (e.g. nobody is taking the first move of revising the wage because everybody waits for the action of others). This section provides preliminary evidence of the persistence and volatility of relative unit labour costs at industry level.

In our dataset there are three sources of variation at industry level. Relative unit labour costs may change in response to industry specific shocks (i.e. common shock to the same industry of different countries), to country specific shocks (i.e. shocks that are common to all industries of one specific country) or to idiosyncratic shocks (i.e. country and industry-specific shocks). These common components are proxied by taking the average over countries and over industries of the real unit labour costs growth. In formal terms, we have:

$\Delta ULC_{i,j,t} = \beta_i \Delta \overline{ULC}_{j,t} + \gamma \Delta \overline{ULC}_{i,t} + \varepsilon_{i,j,t}$ where

$\Delta ULC_{i,j,t}$: growth rate of unit labour costs at time *t* in the industry *j* of country ([1]) i ;

$\Delta \overline{ULC}_{j,t} = \frac{\sum \Delta ULC_{i,j,t}}{11}$: relative unit labour costs of industry *j* averaged over the 11 euro-area countries;

$\Delta \overline{ULC}_{i,t} = \frac{\sum \Delta ULC_{i,j,t}}{38}$: relative unit labour costs of country *I* averaged over 38 industries;

To identify the source of fluctuations and persistence of unit labour costs we proceed in three steps.

(1) We estimate the parameters β_i and γ.

(2) We build the common and the idiosyncratic components, respectively $\hat{\beta}_i \Delta \overline{ULC}_{j,t} + \hat{\gamma} \Delta \overline{ULC}_{i,t}$ and $\hat{\varepsilon}_{i,j,t} = \Delta ULC_{i,j,t} - \hat{\beta}_i \Delta \overline{ULC}_{j,t} - \gamma \Delta \overline{ULC}_{j,t}$ where ^ symbolises the estimated values.

(3) For both components we compute the standard deviation and the autocorrelation coefficient.

To compare aggregate with disaggregate data a similar approach is applied to the aggregate relative unit labour costs. The change in the aggregate relative unit labour costs can be decomposed in a component which is common to all countries, proxied by the average of relative unit labour costs for each country, and one that is country specific. The common component has a differential effect on each country. We estimate the following expression on aggregate data $\Delta ULC_{i,t} = \beta_i \Delta \overline{ULC}_t + \varepsilon_{it}$. The common component is $\hat{\beta}_i \Delta \overline{ULC}_t$ and the idiosyncratic $\hat{\varepsilon}_{it} = \Delta ULC_{i,t} - \hat{\beta}_i \Delta \overline{ULC}_t$. For each component we calculate the standard deviation and the autocorrelation coefficient.

Table 28 reports the standard deviation and the auto-correlation coefficient (i.e. the persistency for the aggregate relative unit labour costs). The common factor that drives the change in the relative unit labour costs is captured either with the average over the countries or taking the first principal component of the covariance matrix across countries of the changes in relative unit labour costs ([2]).

In five out of 11 countries, the volatility of relative unit labour costs is very similar. Greece and Portugal have the highest variability while Austria, Belgium and the Netherlands the lowest. In Italy, Greece and Portugal the common component explains more than 50 % of the fluctuations in the relative unit labour costs. In terms of persistence, Austria and Belgium have the lowest persistence while Germany, Spain, Italy and the Netherlands the highest. For several countries, namely Greece, France, Spain, the Netherlands and Italy, the common

([1]) We assume that the growth in relative unit labour costs can be decomposed in a common (both to industries and countries) and in an idiosyncratic component. If these components were uncorrelated and the number of countries is sufficiently large, the OLS estimator of each component is approximated by the average relative labour costs calculated respectively over countries and industries. If each country's and industry's shocks had different variances or were correlated across units, the OLS estimator would not be optimal while the GLS would. To deal with this problem we estimate bi and g with feasible GLS that allow for cross-section heteroskedasticity.

([2]) Principal components are linear combinations of the data that explain the maximal variance of the data. These linear combinations are derived in such a way that they are independent (i.e. orthogonal). If the idiosyncratic components are stationary, the principal components are a consistent estimate of the common factor when the number of countries is large, independently of whether some factors are stationary or not. A discussion can be found in Bai, J. and Ng S. (2004). In choosing the number of principal we used the scree test, namely to find the number of principal components by looking at the place where the smooth decrease of eigenvalues appears to level off.

and the idiosyncratic components calculated from the simple averages have the similar degree of persistency. In contrast, in Belgium, Germany, Finland and Ireland, the idiosyncratic component is less persistent than the aggregate component. Finally, in Austria the idiosyncratic component is more persistent than the aggregate and the common components.

When the common components are calculated with the first principal components (Table 28, panel (b)), the volatility in the relative unit labour costs accounted by aggregate fluctuations is higher for a few countries only (i.e. Austria, Germany and Italy). Idiosyncratic shocks only for three countries (i.e. Germany, Portugal and Greece). Thus, with both methods, the volatility of relative unit labour costs growth is accounted more by idiosyncratic than common shocks. However, based on the principal components, there is much more persistence in the common than in the idiosyncratic component.

Turning to disaggregate data, Table 29 reveals that for several countries relative unit labour costs changes more frequently at the industry than at aggregate level. The only exceptions are Greece and Italy, where fluctuations in relative unit labour costs at the disaggregate level are respectively less frequent and as frequent as those at the aggregate level. Comparison of columns 2 and 3 reveals that for all countries but the Netherlands, disaggregate

Table 28

Volatility and persistence of changes in relative unit labour costs: aggregate data

	Growth in relative unit labour costs: aggregate competitiveness indicator Common component: filtering average changes in relative unit labour costs by countries and industries						
	Standard deviation				Persistence		
	RULC	Common	Idiosyncratic	R2	RULC	Common	Idiosyncratic
Austria	1.8	0.6	1.7	0.07	0.09	0.6	– 0.79
Belgium	1.7	0.2	1.7	0.01	0.27	0.6	– 0.02
Germany	3.0	2.0	2.2	0.42	0.78	0.6	– 0.31
Greece	6.4	4.6	4.5	0.50	0.56	0.6	– 0.61
Spain	3.1	1.8	2.6	0.30	0.78	0.6	– 0.67
Finland	3.2	1.8	2.6	0.30	0.51	0.6	– 0.37
France	2.1	1.4	1.6	0.43	0.67	0.6	– 0.57
Ireland	3.4	1.4	3.1	0.15	0.56	0.6	– 0.13
Italy	3.7	2.5	2.7	0.50	0.75	0.6	– 0.54
Netherlands	2.3	1.3	1.9	0.30	0.76	0.6	– 0.52
Portugal	5.9	5.0	3.0	0.72	0.50	0.6	– 0.50
	Growth in relative unit labour costs: aggregate competitiveness indicator Common component: first principal components of changes in relative unit labour costs						
	Standard deviation				Persistence		
	RULC	Common	Idiosyncratic	R2	RULC	Common	Idiosyncratic
Austria	1.8	0.9	1.5	0.27	0.09	0.8	– 0.12
Belgium	1.7	0.1	1.7	0.01	0.27	0.8	0.28
Germany	3.0	2.9	0.7	0.94	0.78	0.8	0.24
Greece	6.4	1.0	6.3	0.02	0.56	0.8	0.54
Spain	3.1	1.5	2.8	0.22	0.78	0.8	0.67
Finland	3.2	1.8	2.7	0.32	0.51	0.8	0.39
France	2.1	1.6	1.4	0.57	0.67	0.8	0.24
Ireland	3.4	2.3	2.5	0.44	0.56	0.8	0.31
Italy	3.7	3.0	2.1	0.70	0.75	0.8	0.55
Netherlands	2.3	0.5	2.2	0.05	0.76	0.8	0.75
Portugal	5.9	3.1	5.0	0.27	0.50	0.8	0.43

Source: Commission services.

fluctuations reflect the high fluctuations of the idiosyncratic component (i.e. both country and industry-specific shocks) ([1]). This is also corroborated by the low R^2, which on average does not explain more than 40 % of variability across time of the growth rate of unit labour costs. Moreover, it is noteworthy to mention the heterogeneity across sectors and countries in the fluctuations of the relative unit labour costs. In several countries labour costs of the construction sector fluctuate relatively the least compared to the remaining euro-area. The opposite occurs for coke, refined petroleum and nuclear fuel where changes in labour costs are relatively more frequent for a large number of countries. In half of the countries, office, accounting and computing machinery is the industry with the higher volatility of relative unit labour costs.

Boivin et al. (2007) report for the US a positive correlation between the volatility of the idiosyncratic shocks and the volatility of the common component of the personal consumption expenditure and the produce price indices ([2]). This relation implies that industries with volatile idiosyncratic shocks respond more strongly to macroeconomic shocks. According to the authors, this correlation suggests that firms in industries with volatile idiosyncratic shocks (i.e. adjusting prices more frequently) take these changes also as an opportunity to respond to macroeconomic shocks. For each country, Graph 68 reports the scatter plot of the standard deviation of the common and of the idiosyncratic component (respectively on the horizontal and vertical axes). It is clear that the association between the two standard deviations found for the US for the price changes is also evident for the changes in the relative unit labour costs. This positive correlation implies that firms in industries more frequently hit by industry-specific shocks and requiring changes in labour costs also adjust more often relative unit labour costs in response to aggregate shock.

As far as persistence is concerned, changes in relative unit labour costs are on average more persistent at the aggregate level than at the disaggregate level (compare columns 5–7 of Tables 28 and 29). However, there is a significant cross-country heterogeneity in the persistency over time of the relative unit labour costs (Table 30). The persistence is the highest common component for Austria, Belgium, Spain, Finland, France, Ireland and Italy. In contrast idiosyncratic shocks are more persistent in Germany, Greece, and the Netherlands ([3]). Finally, only for Finland, France and Germany is a (negative) correlation between persistence and volatility of relative unit labour costs observed while for the other countries this correlation is not significantly different from zero.

1.6. The cyclical response of relative unit labour costs: do disaggregate industry data make a difference?

In a monetary union the loss of monetary autonomy implies that adjustment to asymmetric shocks could be achieved only through an adequate response of relative costs to changes in the relative cyclical conditions. Countries with depressed cyclical conditions relative to the rest of the area should experience less inflationary pressures, and, consequently, a downward adjustment in their relative prices and wages.

The empirical evidence available so far suggests that the competitiveness channel worked in the early years of monetary union ([4]). However, there is no apparent increase in the cyclical response of relative unit labour cost after the monetary union. Moreover, in some countries (i.e. Spain, Italy, and Portugal) the wage response was not sufficient to keep unchanged their competitive position vis-à-vis the rest of the euro area. In Italy and Spain, the wage differential with the rest of the area remain unchanged (i.e. domestic wages grew as much as foreign wages) against a deterioration of the productivity differential. In Portugal, the deterioration in competitiveness was driven by both a wage and productivity growth respectively higher and lower than the average. For these countries, the significant wage adjustment undertaken by Germany together with the likely appearance, at a low level of inflation, of binding downward wage rigidity may have made it more difficult to introduce the wage adjustment required by the decline in productivity.

([1]) This is valid also when one looks at the median of the distribution across industries of the standard deviation. For the Netherlands, the standard deviation of the growth rate in the relative unit labour costs, does not differ for the three different components.

([2]) Remember that the common component is the same across industries of different countries (i.e. there is a industry specific shock for each country), but we allow for a differential effect across countries (i.e. the β_i captures this differential effect.

([3]) Idiosyncratic shocks are also persistent for France but less than the common shocks.

([4]) European Commission (2006), 'Market adjustment, the competitive channel'.

Table 29

Volatility and persistence of changes in relative unit labour costs: disaggregate data

	Growth in relative unit labour costs: sectoral competitiveness indicator						
	Standard deviation				Persistence		
	RULC	Common	Idiosyncratic	R2	RULC	Common	Idiosyncratic
Austria							
Average	9.1	5.3	7.1	0.4	– 0.02	– 0.15	0.02
Median	6.8	3.7	5.7	0.4	– 0.01	– 0.16	0.02
Min	3.5	1.4	2.2	0	– 0.43	– 0.55	– 0.48
Max	28.2	18.6	27.7	0.8	0.6	0.39	0.58
Coeff. of var. (1)	0.7	0.7	0.75	0.5	0.23	0.21	0.25
Belgium							
Average	6.8	4.4	5.1	0.4	– 0.04	– 0.21	0.09
Median	5.7	3.5	4.2	0.5	– 0.04	– 0.26	0.13
Min	2.7	1.4	1.8	– 0.1	– 0.33	– 0.54	– 0.28
Max	21	17.5	15.9	0.8	0.48	0.3	0.46
Coeff. of var.	0.6	0.7	0.6	0.6	0.2	0.19	0.19
Spain							
Average	8.4	4.9	6.5	0.4	– 0.02	– 0.13	0
Median	6.1	3.3	4.5	0.4	– 0.07	– 0.15	– 0.01
Min	3.2	1.3	1.5	0	– 0.44	– 0.53	– 0.38
Max	41	29.1	28.7	0.8	0.54	0.39	0.42
Coeff. of var.	0.9	1	0.9	0.5	0.24	0.21	0.18
Finland							
Average	8.8	5.3	6.7	0.4	0.02	– 0.07	0.02
Median	7.2	4.3	5	0.4	0.07	– 0.06	0.05
Min	3.7	1.9	2.7	– 0.4	– 0.5	– 0.52	– 0.44
Coeff. of var.	54.5	26.4	46.9	0.7	0.54	0.35	0.4
SD	1	0.8	1.1	0.6	0.25	0.23	0.19
France							
Average	8.3	4	6.9	0.3	0.01	– 0.2	0.19
Median	6.5	3.5	5.5	0.3	– 0.03	– 0.21	0.16
Min	2.5	0.8	2.4	0	– 0.58	– 0.6	– 0.32
Max	48	12.1	46	0.8	0.61	0.28	0.63
Coeff. of var.	0.9	0.7	1.1	0.7	0.27	0.19	0.26
Germany							
Average	8.4	4.3	7.1	0.3	0.05	0.01	0.05
Median	6.1	2.6	5.1	0.3	0.06	0.01	0.06
Min	2.5	1.9	2.6	0	– 0.52	– 0.5	– 0.42
Max	65.6	34.7	55.3	0.7	0.49	0.37	0.78
Coeff. of var.	1.2	1.3	1.2	0.6	0.22	0.24	0.24
Greece							
Average	4.3	5.4	7.7	0.3	0	– 0.01	– 0.03
Median	3.1	4.6	6.3	0.3	0.04	– 0.01	– 0.05
Min	0	1.6	2.8	– 0.1	– 1.01	– 0.47	– 1.3
Max	32.6	18.2	21.7	0.7	0.68	0.35	0.55
Coeff. of var.	1.3	0.7	0.6	0.6	0.33	0.23	0.35
Ireland							
Average	10.9	6.6	10	0.3	– 0.15	– 0.18	– 0.13
Median	7.4	5.3	8.8	0.3	– 0.16	– 0.18	– 0.12
Min	0.5	2.4	2.4	– 0.2	– 0.57	– 0.56	– 0.5
Max	66.1	19.3	30.8	0.8	0.36	0.35	0.6
Coeff. of var.	1.1	0.6	0.6	0.6	0.23	0.22	0.23
Italy							
Average	4	4.9	6.1	0.4	– 0.01	– 0.07	0.03
Median	2.9	3.8	4.8	0.4	0.01	– 0.1	– 0.04
Min	0	2	2.6	0	– 0.52	– 0.5	– 0.37
Max	16.7	17.8	23	0.8	0.48	0.32	0.56
Coeff. of var.	0.9	0.7	0.7	0.6	0.23	0.17	0.24
Netherlands							
Average	5.5	5.4	5.3	0.4	0.1	0.02	0.11
Median	3.9	4.4	4.3	0.5	0.09	– 0.01	0.13
Min	0.1	2.5	3.1	– 0.7	– 0.24	– 0.42	– 0.28
Max	20.9	17.5	18.2	0.9	0.53	0.41	0.44
Coeff. of var.	1	0.6	0.5	0.9	0.19	0.19	0.19

(Continued on the next page)

Table 29 (continued)

Portugal							
Average	8.4	6.2	10.1	0.4	0.15	0.07	– 0.01
Median	4.4	5.3	8.8	0.4	0.16	0.09	– 0.02
Min	0.1	3.4	4	– 0.1	– 0.26	– 0.33	– 0.47
Max	49.5	13.5	29.2	0.8	0.55	0.48	0.32
Coeff. of var.	1.2	0.4	0.5	0.5	0.18	0.22	0.19

(1) For the persistence, standard deviation of the autocorrelation coefficients.

Source: Commission services.

Table 30

Industries with the highest and lowest volatility and persistence of the changes in the relative unit labour cost

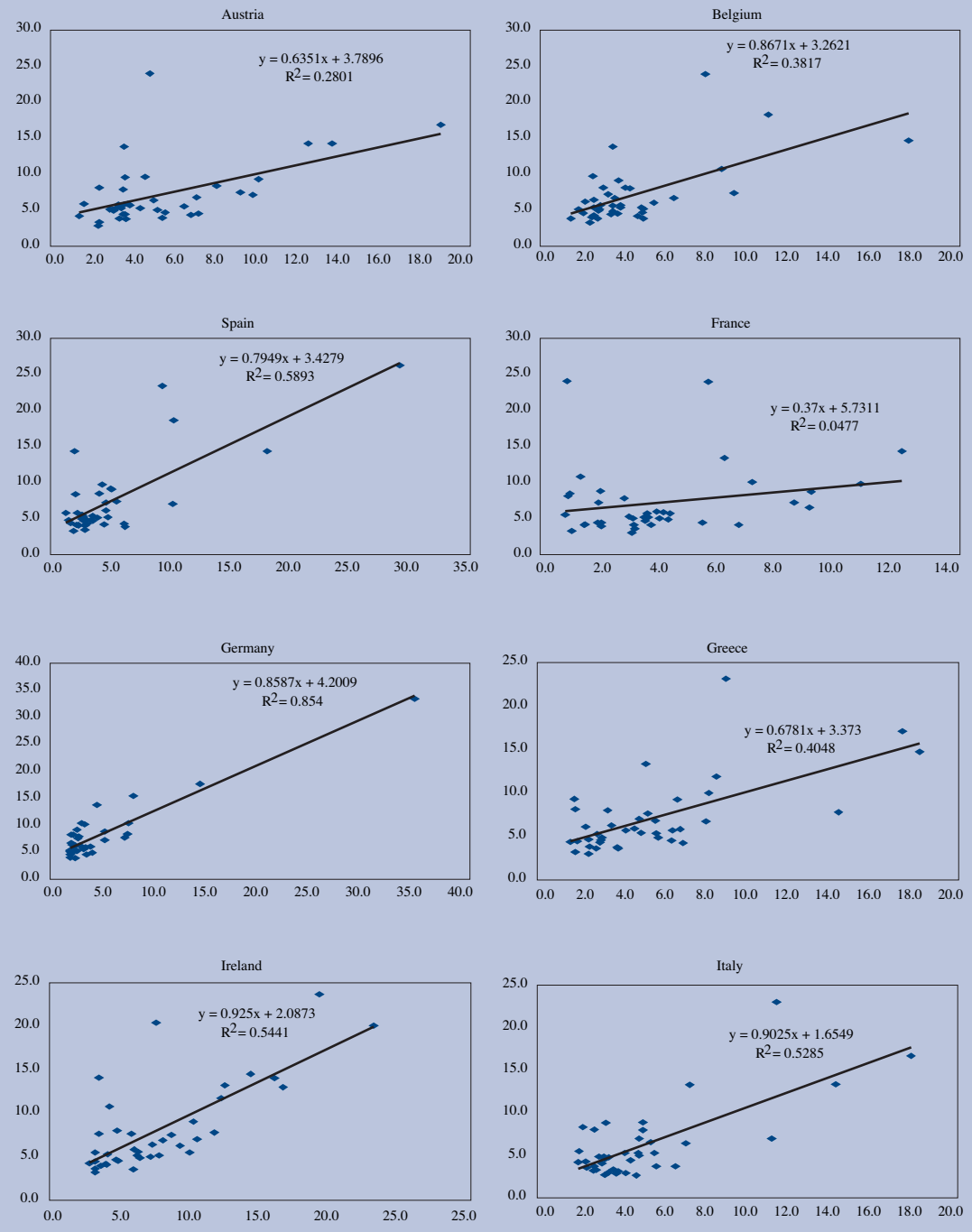
	Lowest volatility	Highest volatility	Zero persistence	Highest positive persistence	Highest negative persistence
Austria	Construction	Coke, refined petroleum and nuclear fuel	Renting of machinery and equipment	Research and development	Electrical machinery and apparatus, n.e.c.
Belgium	Construction	Office, accounting and computing machinery	Other business activities	Fabricated metal	Rubber and plastics
Spain	Hotels and restaurants	Research and development	Radio, television and communication equipment	Financial intermediation	Computer and related activities
Finland	Other supporting and auxiliary transport activities, activities of travel agencies	Office, accounting and computing machinery	Other supporting and auxiliary transport activities, activities of travel agencies	Real estate activities	Office, accounting and computing machinery
France	Other business activities	Office, accounting and computing machinery	Hotels and restaurants	Coke, refined petroleum and nuclear fuel	Radio, television and communication equipment
Germany	Construction	Coke, refined petroleum and nuclear fuel	Medical, precision and optical instruments	Other business activities	Research and development
Greece	Financial intermediation	Office, accounting and computing machinery	Other air transport	Chemicals and chemical products	Leather, leather and footwear
Ireland	Construction	Coke, refined petroleum and nuclear fuel	Construction	Office, accounting and computing machinery	Textiles
Italy	Construction	Coke, refined petroleum and nuclear fuel	Retail trade	Other water transport	Renting of machinery and equipment
Netherlands	Wholesale trade and commission trade	Radio, television and communication equipment	Printing, publishing and reproduction	Other air transport	Other transport equipment
Portugal	Other-non metallic mineral	Coke, refined petroleum and nuclear fuel	Manufacturing n.e.c., recycling	Other air transport	Construction

Source: Commission services.

This section investigates the cyclical behaviour of the relative unit labour costs at the industry level. The availability of a rich dataset makes it possible to explore whether the aggregate evidence is influenced by specific sectors and/or countries. From a technical point of view, the presence of heterogeneity across countries in the cyclical response of relative unit labour costs produces biased and inconsistent estimates of this response. This implies that aggregate estimates of the elasticity of relative unit labour cost to the output gap can be biased (1). Similarly, estimates of persistence of relative unit labour costs may be significantly influenced by the presence of heterogeneity across countries. A solution to this problem proposed in Pesaran and Smith (1995) is to compute the aggregate elasticity by simple average of the country-specific elasticity. Estimates of country-specific elasticities will also be interesting per se as it would highlight countries where relative prices tend to be more sensitive to the cycle.

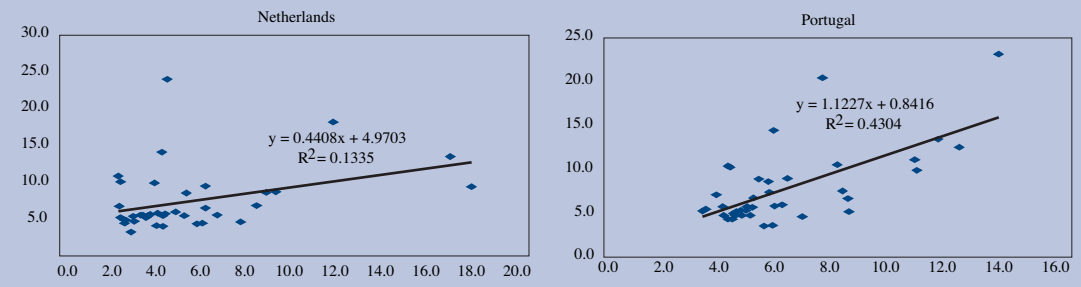
(1) Pesaran, M. H. and Smith, R. (1995).

Graph 68: **Volatility of common and sector-specific component** ([1])



(Continued on the next page)

Graph 68 (continued)



(1) On the horizontal axis, standard deviation of the common component; on the vertical axis, standard deviation of the idiosyncratic component
Source: Commission services.

Another source of bias in the estimates depends on the presence of common shocks as well as unobserved common components that become part of the error term. In light of the wide array of interdependencies and deepened integration among European countries, the lack of any form of interdependence across countries, often implicitly assumed in panel data, is unrealistic. In our case, the relative unit labour costs of one specific industry can be correlated across countries because of a common effect which affect all firms belonging to that specific industry, (e.g. as in the case of common productivity shocks). Similarly, all industries of one specific country may have in common a country-specific component (e.g. a country-specific wage shock that hit all industries) (1). To control for the presence of this interdependence across countries and industries we extend to industry data the Pesaran's (2006) common correlated effect (CCE) estimator developed for aggregate macro panels (2). The approach consists in augmenting the observed regressors by cross-section averages of the dependent variable and the individual specific explanatory regressors.

The above considerations lead to estimate the following relationship between changes in the relative unit labour costs and relative output gap while controlling for convergence in relative unit labour costs:

$$\Delta RULC_{i,j,t} = \alpha + \beta_{ij} + \gamma\, RULC_{i,j,t-1} + \delta\, ogaprel_{i,j,t-1} + \phi\, \overline{\Delta RULC_{i,t}} + \varphi\, \overline{\Delta RULC_{j,t}} + \eta\, \overline{ogaprel_{i,j,t-1}} \varepsilon_{i,j,t}$$

$$\overline{\Delta RULC_{i,t}} = \frac{\sum_{j=i}^{39} \Delta RULC_{i,j,t}}{39}$$

$$\overline{\Delta RULC_{j,t}} = \frac{\sum_{ij=i}^{11} \Delta RULC_{i,j,t}}{11}$$

$$ogaprel_{i,j,t} = (Ygap_{i,j,t} - Ygap_{-i,j,t})$$

$$\overline{ogaprel_{i,j,t-1}} = \frac{\sum_{i=1}^{11}\sum_{j=1}^{39} Ygap_{i,j,t-1} - Ygap_{-i,j,t-1}}{429}$$

where t refers to the time dimension; i refers to the country dimension; j refers to the industry dimension; $\beta_{i,j}$ is a cross-section fixed effect which varies over countries and industries; $ULC_{i,j}$ is the (log of the) unit labour costs for country i and industry j competitiveness indicator vis-à-vis the rest of the euro area; hence, γ measures the speed of convergence of unit labour costs towards the current average unit labour costs prevailing in the remaining countries (3). $Ygap_{-i,j,t-1}$ is the output gap of country i and sector j at time t (4); represents the output gap of all countries but the country i; $ogapreli,j$ is the output gap of country i and industry j relative to the output gap of the same industry of the remaining countries;

(1) The standard approach of cross-sectionally demeaning the data does not solve the problem as common shocks or common unobserved components, may have a different impact on each country and industry.
(2) Pesaran, M. H. (2006)

(3) Formally, the speed of convergence is defined as
$$\gamma = -\frac{d\left[\log(ULC_{i,j,t}) - \log(ULC_{i,j,t-1})\right]}{\log(ULC_{i,j,t}) - \log(ULC_{i,j,t-1})}$$
(4) For each industry the output gap is calculated as the deviation of actual valued added at constant prices from its trend computed with the Hodrick–Prescott filter.

variables with a bar represent the averages across industries and countries; and $\varepsilon_{i,j}$ is an error term.

Thus, the relative unit labour costs of one industry of a specific country vary in response to changes in its cyclical conditions relative to those prevailing in the same industry of the remaining countries. The model, by controlling for the lagged unit labour costs, is able to capture their persistence over time. Hence we are able to detect the response of relative unit labour costs to transitory asymmetric shocks. The rich structure of the panel (industries and countries) makes it possible to interpret the model as capturing both country- and industry-specific factors as well as global unobserved common effects captured by the cross-sectional averages (both over industries and countries) of the relative unit labour costs and the relative output gap. The model estimated is based on annual data covering the period 1980–2004. To check for stability over time, the sample is also split into three sub-periods, 1980–89, 1990–98 and 1999–2004. The differential effect of the manufacturing industries is also checked.

1.6.1. Main results of the empirical analysis

Table 31 reports for all the 39 sectors the results for the entire sample and three different sub-periods. These findings suggest that the response of the relative unit labour costs has increased over time. Pooling the sectors and countries (i.e. disregarding any form of heterogeneity across industries and sectors), it turns out that changes in relative unit labour costs were insensitive to changes in the relative cyclical conditions in the 1980s. In the 1990s, the elasticity of relative unit labour costs to the relative output gap turns out significant but very small. The estimated elasticity implies a change in the relative unit labour costs by only 0.01 % in response to a change in the cyclical conditions (relative to the remaining euro-area countries) by 1 %. This response is stronger in the early years of monetary union. Our estimate suggests that a 1 % improvement in the relative output gap leads to an increase in the relative unit labour costs by about 0.2 %. The adjustment to shocks (the coefficient γ of the log-unit labour costs) becomes significantly faster over time. In the 1980s this was at about 10 %, but it doubled in the pre-EMU years and becomes three times faster in the 1980s. This change is equivalent to an increase in the degree of persistence over time of relative unit labour costs. Hence, in the years of monetary union, one shock hitting the relative unit labour costs in one year is transferred to a much less extent onto the relative unit labour costs of the following year ([1]).

The coefficient of the cross-sectional averages of the growth rates of the relative unit labour costs over industries (i.e. the country-specific component) are usually lower than the coefficient of the cross-sectional averages over countries (the industry-specific components). This implies that the growth rate of the relative unit labour costs of one specific industry is more sensitive to common shocks hitting all firms of that industry located in any country than common shocks hitting all industries of one specific country. Also, the fact that the common components of relative unit labour costs are highly significant and their size more important than the country and industry- specific unit labour costs suggests that regional developments are important in driving a wedge across countries in the relative unit labour costs but that significant spillovers across industries contribute to reduce the divergences that local (domestic) shocks would have otherwise entailed.

Comparison between Tables 31 and 32 reveals that the patterns described above are strongly associated with the developments in the manufacturing sector. What is worth mentioning is that for manufacturing there is no significant difference between the coefficients that represent the effect of common country-specific shocks and the coefficients that represent common industry-specific shocks. This contrasts with the result for all sectors where common industry-specific shocks have a larger effect than common country-specific shocks ([2]).

On one hand it should be expected for industries of the manufacturing sector that the price discipline of the international goods market should translate into a cost discipline, which makes these costs less responsive to domestic common shocks and more responsive to industry-specific common shocks. However, because they are

([1]) In the period 1999–2004 only 70 % of the shock was 'inherited' by the previous year's unit labour costs while, in the 1980s, this percentage was at about 90 %.

([2]) For the EMU years this finding is also robust to the composition of the industries of services included in the sample (i.e. for all industries of the service sector common specific industry shocks are more important than common country specific shocks). Similarly we have recursively excluded one industry of the manufacturing sector at the time and estimated the model on the remaining industries. In all cases, the effect of the industry-specific common shocks are more important than the effects of country-specific common shocks, but the difference between the two is marginal. However, for the manufacturing sector, the difference is relatively small. Estimates not reported for all sectors but manufacturing give a response of relative unit labour costs to common industry-specific shocks which is twice as much as the response to common country-specific shocks, with no major differences between pre- and post-EMU years.

less able to discriminate between the effect of internal and external shocks, their price should not react differently in response to domestic or global industry-specific shocks. In contrast, the imperfect competition of the service sector makes it possible for firms to react much more strongly to industry-specific shocks as they are sheltered from international competitions (i.e. less at risk of losing market share) and able to improve their relative position against firms of other industries located in the same country (i.e. to enjoy an improvement in the internal terms of trade). Finally, the high coefficient of the common industry for specific shocks) declines after EMU. In contrast, the response of the growth rate of the relative unit labour costs to country-specific shocks declines in the 1990–98 period and thereafter picks up again for all sectors but declines firmly for manufacturing industries.

These findings suggest that in recent years differences across countries in the relative unit labour costs are connected to local (i.e. national) sectoral shocks, i.e. the importance of the idiosyncratic component raises. Although not conclusive, these findings point toward the need for more flexible wage bargaining able to cope with the variety of shocks that can arise at the disaggregate (both industry and local) level. The fact that the effect of common shocks (both industry- and country-specific) falls after EMU especially for manufacturing industries does not contradict the need for a wage-setting mechanism more responsive to local/industry shocks.

The country-specific estimates reported in Table 33 show the cross-countries heterogeneity in the cyclical response and persistence of the relative unit labour costs. After EMU, the cyclical response of the unit labour costs increased in several countries, especially for the manufacturing industries. It fell only in Belgium, Spain, the Netherlands and Portugal. The average of the countries' elasticities confirms an increase in the cyclical response over time ([1]). Between the pre- and post-EMU years, the persistence of unit labour shocks falls in Austria, Belgium, Finland, France, Germany, Ireland and, only to a lesser extent uniquely for manufacturing, in Spain and Portugal. ([2])

([1]) The average of all coefficients rises for all the sectors combined and manufacturing respectively from 0.26 to 0.29 and from 0.3 to 0.4.
([2]) The average persistence goes from -0.17 to 0.25 for all the sectors combined and from 0.06 to 19 for manufacturing.

Table 31

The cyclical sensitivity of relative unit labour costs: all sectors
Pool common correlated effect estimator

Sample	1980–2004	1980–89	1990–98	1999–2004
Log(unit labour cost(–1))	– 0.06	– 0.1	– 0.22	– 0.31
	(– 16.77)	(– 16.32)	(– 19.4)	(– 17.4)
Relative output gap (–1)	0.01	0	0.01	0.19
	– 8.28	– 1.15	– 5.9	– 9.76
ΔULC average over industries (i.e. common country-specific shocks)	0.66	0.75	0.53	0.57
	– 20.6	– 16.84	– 10.88	– 6.55
ΔULC average over countries (i.e. common industry-specific shocks)	0.88	0.83	0.81	0.75
	– 49.8	– 28.99	– 27.9	– 20.9
Relative output gap average over countries and industries	– 0.01	– 0.14	0.11	– 0.06
	(– 0.062)	(– 4.9)	– 1.7	(– 1.3)
Fixed effects	Yes	Yes	Yes	Yes
Observations	10 700	4 280	3 852	2 568
Cross-sections	428	428	428	428
R^2 adjusted	0.3	0.47	0.37	0.43
Standard error	9.5	6.1	9.3	11.1

Note: *t*-statistics in parentheses.

Source: Commission services.

Table 32

The cyclical sensitivity of the relative unit labour costs: manufacturing
Pooled common correlated effect estimator

Sample	1980–2004	1980–89	1990–98	1999–2004
Log(unit labour cost (–1))	– 0.05	– 0.17	– 0.15	– 0.28
	(– 10.2)	(– 15.3)	(– 9.8)	(– 11.7)
Relative output gap (-1)	0.02	0.001	0.04	0.21
	– 7.8	– 0.71	– 7.9	– 7.8
ΔULC average over industries (i.e. common country-specific shocks)	0.86	0.82	0.81	0.67
	– 16.9	– 11.45	– 10.8	– 4.9
ΔULC average over countries (i.e. common industry-specific shocks)	0.89	0.81	0.8	0.75
	– 37.1	– 21.7	– 20.9	– 15.2
Relative output gap average over countries and industries	– 0.14	– 0.09	– 0.37	– 0.6
	(– 2.8)	(– 2.2)	(– 3.6)	(– 0.9)
Fixed effect	Yes	Yes	Yes	Yes
Observations	5475	2190	1971	1314
Cross-sections	219	219	219	219
R^2 adjusted	0.32	0.4	0.42	0.43
Standard error	10.5	7.1	9.7	12.9

Note: *t*-statistics in parentheses.

Source: Commission services.

Table 33

The cyclical sensitivity of the relative unit labour costs: country-specific estimates
Pooled common correlated effect estimator

Austria	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	– 0.03	– 0.2	0.01	– 0.19
	(– 0.80)	(– 2.32)	– 0.13	(– 1.42)
Relative output gap (– 1)	0.12	0.39	0.12	0.43
	– 5.4	– 4	– 4.1	– 3.3
ΔULC average over industries	0.58	0.41	0.81	0.33
	– 3.3	– 0.7	– 2.6	– 0.34
ΔULC average over countries	0.81	0.85	0.8	0.71
	– 8.6	– 8.6	– 5	– 5.5
Relative output gap average over countries and industries	– 0.25	– 0.5	– 0.4	– 0.88
	– 1.2	(– 0.40)	(– 1.1)	(– 0.45)
Observations	351	234	180	120
Cross-sections	39	39	20	20
R^2 adjusted	0.34	0.45	0.27	0.41
Standard error	8.9	8.7	10.9	9.1

(Continued on the next page)

Table 33 (continued)

Belgium	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	– 0.14	– 0.24	– 0.16	– 0.25
	(– 3.6)	(– 5.6)	(– 2.57)	(– 5.2)
Relative output gap (– 1)	0.2	0.14	0.27	0.01
	– 4.1	– 2.19	– 4.2	– 0.18
ΔULC average over industries	0.59	0.58	0.81	0.79
	– 4.2	– 3.7	– 3.96	– 4.2
ΔULC average over countries	0.66	0.78	0.54	0.74
	– 10.4	– 10.3	– 6.65	– 9.4
Relative output gap average over countries and industries	0.05	0.25	0.43	– 0.06
	– 0.28	– 0.27	– 1.6	(– 0.06)
Observations	351	234	180	120
Cross-sections	39	39	20	20
R^2 adjusted	0.41	0.65	0.5	0.77
Standard error	6.1	6.8	5.99	5.9

Spain	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	– 0.53	– 0.29	– 0.23	– 0.27
	(– 9.8)	(– 6.4)	(– 4.2)	(– 5.0)
Relative output gap (– 1)	0.19	0.21	0.29	0.37
	– 2.3	– 2.8	– 4.3	– 3.41
ΔULC average over industries	0.2	0.09	0.48	– 0.2
	– 0.7	– 0.26	– 1.8	(– 0.33)
ΔULC average over countries	0.83	0.46	0.78	0.42
	– 7.3	– 7.18	– 8.5	– 4.9
Relative output gap average over countries and industries	0.16	0.03	– 0.12	– 0.06
	– 0.53	– 0.04	(– 0.44)	(– 0.05)
Observations	351	234	180	120
Cross-sections	39	39	20	20
R^2 adjusted	0.41	0.62	0.53	0.67
Standard error	10.9	5.5	6.9	6.4

Finland	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	– 0.19	– 0.4	– 0.19	– 0.43
	(– 5.9)	(– 5.6)	(– 4.64)	(– 4.33)
Relative output gap (– 1)	0.13	0.64	0.11	0.71
	– 5.4	– 5.3	– 5.4	– 4
ΔULC average over industries	0.76	0.2	1.28	0.21
	– 5.8	– 0.73	– 6.4	– 0.42
ΔULC average over countries	0.6	1.07	0.61	1.11
	– 8.7	– 6.85	– 6.49	– 4.5
Relative output gap average over countries and industries	– 0.49	– 0.65	– 0.75	– 0.1
	(– 2.4)	(– 0.35)	(– 2.35)	(– 0.03)
Observations	351	234	180	120
Cross-sections	39	39	20	20
R^2 adjusted	0.44	0.47	0.52	0.5
Standard error	6.8	14.5	7.4	18.9

(Continued on the next page)

Table 33 (continued)

France	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	– 0.14	– 0.49	– 0.14	– 0.36
	(– 6.3)	(– 9.98)	(– 4.7)	(– 4.28)
Relative output gap (– 1)	0.007	0.07	0.02	0.46
	– 3.4	– 1.12	– 4.54	– 2.86
ΔULC average over industries	0.58	0.3	0.98	0.37
	– 4.4	– 0.89	– 4.4	– 0.59
ΔULC average over countries	0.74	1.06	0.66	1.29
	– 8.6	– 8.6	– 5.1	– 6.8
Relative output gap average over countries and industries	– 0.2	0.06	– 0.62	– 0.24
	(– 1.09)	– 0.04	(– 1.89)	(– 0.09)
Observations	351	234	180	120
Cross-sections	39	39	20	20
R^2 adjusted	0.54	0.49	0.58	0.54
Standard error	8.1	11.9	9.2	15.3

Germany	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	0.09	– 0.34	0.18	– 0.35
	– 1.68	(– 5.3)	– 2.3	(– 3.7)
Relative output gap (– 1)	0.9	0.09	1.1	0.08
	– 9.9	– 3.1	– 8	– 2.18
ΔULC average over industries	0.38	0.88	0.07	0.85
	– 1.91	– 2.8	– 0.19	– 1.56
ΔULC average over countries	1.3	0.59	1.65	0.53
	– 10.5	– 5.3	– 8.4	– 3.3
Relative output gap average over countries and industries	– 0.5	0.32	– 0.6	0.6
	(– 1.7)	– 0.23	(– 1.03)	– 0.2
Observations	351	234	180	120
Cross-sections	39	39	20	20
R^2 adjusted	0.51	0.33	0.56	0.27
Standard error	12.1	10.3	15.2	12.9

Greece	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	– 0.18	– 0.21	– 0.09	– 0.07
	(– 3.7)	(– 3.5)	(– 1.58)	(– 0.9)
Relative output gap (– 1)	0.33	0.33	0.32	0.51
	– 7.2	– 2.9	– 5.5	– 2.9
ΔULC average over industries	0.7	0.24	1.02	– 0.035
	– 4.6	– 0.4	– 5.6	(– 0.038)
ΔULC average over countries	0.71	0.81	0.68	0.77
	– 8.4	– 5.5	– 7.6	– 4
Relative output gap average over countries and industries	– 0.02	– 0.27	– 0.04	– 1.4
	(– 0.09)	(– 0.29)	(– 0.16)	(– 0.55)
Observations	351	234	180	120
Cross-sections	39	39	20	20
R^2 adjusted	0.41	0.47	0.55	0.45
Standard error	7.8	13.3	6.6	14.6

(Continued on the next page)

Table 33 (continued)

Ireland	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	– 0.11	– 0.19	0.1	– 0.14
	(– 3.1)	(– 2.3)	– 1.92	(– 1.1)
Relative output gap (– 1)	0.31	0.52	0.37	0.54
	– 7.4	– 4.9	– 7.9	– 3.5
ΔULC average over industries	0.41	0.79	0.5	0.71
	– 2.7	– 2.3	– 2.4	– 1.46
ΔULC average over countries	0.96	1	0.93	0.75
	– 9	– 4.96	– 7.97	– 2.97
Relative output gap average over countries and industries	– 0.21	– 2.07	0.22	0.94
	(– 0.9)	(– 0.89)	– 0.76	– 0.28
Observations	351	234	180	120
Cross-sections	39	39	20	20
R^2 adjusted	0.41	0.35	0.51	0.34
Standard error	10	18.8	8.6	18.9

Italy	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	– 0.15	– 0.13	– 0.14	0.04
	(– 3.7)	(– 2.3)	(– 2.7)	– 0.8
Relative output gap (– 1)	0.25	0.43	0.31	0.54
	– 4.4	– 5.96	– 4.9	– 7.3
ΔULC average over industries	0.69	0.52	0.89	0.63
	– 4.4	– 3.4	– 4.7	– 3.5
ΔULC average over countries	0.86	0.54	0.77	0.73
	– 11.3	– 6.8	– 9.4	– 8.8
Relative output gap average over countries and industries	– 0.47	– 1.52	– 0.7	– 1.94
	(– 1.90)	(– 1.78)	(– 2.5)	(– 1.9)
Observations	351	234	180	120
Cross-sections	39	39	20	20
R^2 adjusted	0.45	0.56	0.57	0.72
Standard error	7.5	6.9	6.4	5.8

Netherlands	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	– 0.16	– 0.07	– 0.07	– 0.04
	(– 4.8)	(– 1.5)	(– 1.54)	(– 0.55)
Relative output gap (– 1)	0.27	0.25	0.36	0.26
	– 6	– 3.7	– 5.98	– 2.7
ΔULC average over industries	0.49	0.53	0.57	0.78
	– 5.1	– 3.3	– 3.6	– 2.8
ΔULC average over countries	0.81	0.82	0.91	0.9
	– 14.3	– 11.7	– 11.4	– 8.97
Relative output gap average over countries and industries	– 0.28	– 1.29	– 0.44	– 1.85
	(– 2.2)	(– 1.54)	(– 2.2)	(– 1.3)
Observations	351	234	180	120
Cross-sections	39	39	20	20
R^2 adjusted	0.59	0.62	0.65	0.65
Standard error	5.3	6.3	5.7	7.8

(Continued on the next page)

Table 33 (continued)

Portugal	All sectors		Manufacturing	
	1990–98	1999–2004	1990–98	1999–2004
Log(unit labour cost (– 1))	– 0.31	– 0.17	0.01	– 0.09
	(– 9.7)	(– 3.97)	– 0.36	(– 1.56)
Relative output gap (– 1)	0.11	0.13	0.3	0.15
	– 2.26	– 2.36	– 6	– 2.28
ΔULC average over industries	0.38	0.59	0.36	0.4
	– 2.2	– 3.92	– 1.67	– 1.75
ΔULC average over countries	0.95	0.67	0.97	0.8
	– 9.1	– 9.9	– 8.34	– 8.7
Relative output gap average over countries and industries	– 0.53	– 0.9	– 0.77	– 1.39
	(– 2.4)	(– 1.26)	(– 2.8)	(– 1.22)
Observations	342	228	171	114
Cross-sections	38	38	19	19
R^2 adjusted	0.49	0.6	0.52	0.64
Standard error	9.3	5.8	7.7	6.3

Note: *t*-statistics in parentheses.

Source: Commission Services.

1.7. Conclusions

This chapter has investigated the behaviour of relative unit labour costs at the disaggregate industry level. The availability of a rich dataset of macroeconomic variables at the detailed industry level (the EU–KLEMS database) makes it possible to focus on the heterogeneity across countries and industries that characterises the distribution of the growth rates of the relative unit labour cost. The analysis has shown that both the gain and the losses in competitiveness observed on the basis of aggregate competitiveness indicators were indeed generalised across most industries. The dynamics of relative unit labour costs is influenced by the developments of the relative wage and productivity growth differential. Industry data suggest that the deterioration in cost competitiveness derive most of the time from a growth in domestic wages in excess of foreign wages. However, in some countries, namely Italy, Spain and Portugal, the unfavourable productivity developments were not accompanied by a downward adjustment in the growth of relative wages.

One explanation for this insufficient adjustment is that a low inflationary environment is characterised by downward wage rigidity either because price signals are more transparent, implying that workers resist changes in relative wages more strongly, or because of legal restrictions that make wages set in contracts last for longer periods and establish them in such a way that they can only be changed only by mutual consent. In an open economy wage pressures matter to the extent that they influence overall competitiveness. In an integrated area the wage developments in one country cannot deviate for too long from the evolution in the rest of the area. Indeed, industry data suggest that in many countries relative wage growth is centred within a small interval around zero. However, because of the link, downward nominal wage rigidity in one country spreads over to other countries, becoming pervasive in a large number of countries/industries. Hence, to the extent that wage setting is centralised, especially in the largest countries, downward nominal wage rigidity in one country produces downward relative wage rigidity in the rest of the area. Hence, more decentralised wage bargaining is required to ease the adjustment of wages to relative shocks. This conclusion is also supported by the analysis of the sources of the fluctuations of relative unit labour costs which appear driven more by idiosyncratic industry- and country-specific shocks than by common shocks.

The analysis has also shown that the traditional divide between the exposed manufacturing sector and the sheltered service sector conceals complex interdependencies. Indeed, disaggregate industry data suggest that countries experiencing competitiveness gains in manufacturing, also improved their competitive position in services. This also holds for the cyclical response of the relative unit labour costs. Countries with a stronger response in the EMU years in manufacturing also experienced an increase in the cyclical response in services.

References

Altissimo, F., Mojon, B. and Zaffaroni, P. (2007), 'Fast micro and slow macro: can aggregation explain the persistence of inflation?', *ECB Working Paper Series,* No 729, European Central Bank.

Arpaia, A. and Pichelman, K. (2007), 'Nominal and real wage flexibility in the EMU', forthcoming in *European Economy — Economic Papers.*

Bai, J. and Ng, S. (2004), 'A panic attack on unit roots and cointegration', *Econometrica*, Vol. 72, pp. 1127–1178.

Benalal, N., Diaz del Hoyo, J. L., Pierluigi, B. and Vidalis, N. (2006), 'Output growth differentials across the Euro-area countries'. *ECB Occasional Paper Series*, No 45, European Central Bank, May.

Benati, P. (2007), 'Drift and breaks in labour productivity', *ECB Working Paper Series*, No 718, European Central Bank.

Bils, M., Klenow and P. J. (2004), 'Some evidence on the importance of sticky prices', *Journal of Political Economy*, Vol. 112, No 5.

Blanchard, O. (2005), 'Adjustment within the euro. The difficult case of Portugal', *Portuguese Economic Journal*, Springer, Vol. 6(1), pp. 1–21, April.

Blanchard, O. and Landier, A. (2001), 'The perverse effects of partial labor market reform: fixed duration contracts in France', *MIT Dept. of Economics Working Papers,* No 01–14, March.

Böwer, U. and Guillemineau, C. (2006), 'Determinants of business-cycle synchronisation across euro-area countries', *ECB Working Paper Series,* No 587, European Central Bank.

Dickens, R. and Manning, A. (2003), 'The impact of the national minimum wage on the wage distribution in a low-wage sector,' Royal Economic Society annual conference 2003, No 60, Royal Economic Society.

Dickens, W., Gotte, L., Groshen, E. L., Holden, S. and Messina, J. (2006) 'How wages change: micro evidence from the international wage flexibility project', *ECB Working Paper Series*, No 697, European Central Bank.

ECB Monthly Bulletin (2006), Box 5: Estimates of housing wealth for households in the euro area, December.

ECB Survey of Professional Forecasters (SPF).

European Commission (2004), 'Labour markets in the EU: an economic analysis of recent performance and prospects', Chapter 3 in 'The EU economy: 2004 review', *European Economy,* No 6'.

European Commission (2005), Communication on integrated guidelines for growth and jobs (2005–08), COM(2005) 141, 12.4.2005.

European Commission (2005), 'Integrated guidelines for growth and jobs (2005–2008)', COM(2005) 141 of 6.4.2005.

European Commission (2005), *Quarterly report on the euro area*, Vol. 5, No 3.

European Commission (2006), 'A year of delivery — the European Commission's 2006 annual progress report on growth and jobs', Communication from the Commission to the spring European Council.

European Commission (2006), Communication on flexicurity, COM(2007) 359 final, 27.6.2007.

European Commission (2006), *Employment in Europe 2006* (Employment DG).

European Commission (2006), 'Joint employment report' evaluating labour market reforms in 2006/2007 undertaken in response to the employment guidelines, within the framework of the integrated guidelines for growth and jobs (2005–08).

European Commission (2006), 'Market adjustment, the competitive channel', Chapter 4, in dynamic adjustment in the euro area: experiences and challenges', 'EU economy: review 2006', *European economy*.

European Commission (2006), *Quarterly report on the euro area*, Vol. 5, No 1.

European Commission (2006), *Structures of the taxation systems in the European Union.*

European Commission (2006), 'The EU economy: 2006 review', *European Economy,* No 6.

European Commission (2007), *European Economy — Economic Forecasts — spring 2007.*

Eurostat (2006), Euro-indicators, News release No 77/2006.

Eurostat (2007), Euro-indicators, News release No 93/207 of 3 July 2007.

Eurostat (2007), News release No 38/2007 of 15 March 2007.

Giannone, D. and Reichlin, L. (2006), 'Does information help recovering structural shocks from past observations?', *ECB Working Paper Series,* No 632, European Central Bank.

Gollin, D. (2002), 'Getting income shares right', *Journal of Political Economy*, Vol. 110, pp. 458–474.

Gomez-Salvador, R., Musso, A., Stocker, M. and Turunen, J. (2006), 'Labour productivity developments in the euro area', *ECB Occasional Paper Series,* No 53, European Central Bank, October.

Groshen, E. L. and Schweitzer, M. E. (1997), 'Identifying inflation's grease and sand effects in the labour market', paper prepared for the NBER conference 'Cost and benefits of achieving price stability', Federal Reserve Bank of New York.

Holden, S. and Wulfsberg, F. (2007), 'Downard nominal wage rigidity in the OECD', mimeo.

Holden, S. and Wulfsberg, F. (2004), 'Downward nominal wage rigidity in Europe', WP No 5, Norgers Bank.

Holden, S. and Wulfsberg, F. (2007), 'Are real wages rigid downward?', WP No 1, Norgers Bank.

Holden, S. (2004), 'Wage formation under low inflation', *CESifo Working Paper Series*, No 1252, CESifo GmbH.

Kravis Irving, B. (1962), 'The structure of income: some quantitative essays'. Philadelphia: University of Philadelphia Press.

Nickell, S. and Quintini, G. (2003), 'Nominal wage rigidity and the rate of inflation', *The Economic Journal*, No 113 pp. 762–781.

Pesaran, M. H. and Smith, R. (1995), 'Estimating long-run relationship from dynamic heterogeneous panel', *Journal of Econometrics*, No 68, pp.79–113.

Pesaran, M. H. (2006), 'Estimation and inference in large heterogeneous panels with a multifactor error structure', *Econometrica*, No 74 (4), pp. 967–1012.

Timmer, M. P., O'Mahony, M. and van Ark, B. (2007), 'EU KLEMS growth and productivity accounts', version I, Part I, Methodology.

Statistical annex

Country tables

Belgium
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	10 310	10 356	10 396	10 477	10 546	0.7	%
2. Population (working age: 15–64)		6 758	6 791	6 818	6 876	6 941	0.9	%
(as % of total population)		65.6	65.6	65.6	65.6	65.8	0.2	p.p.
3. Labour force (15–64)	**1 000 pers.**	4 378	4 409	4 493	4 589	4 616	0.6	%
Male		2 490	2 492	2 528	2 557	2 562	0.2	%
Female		1 888	1 917	1 965	2 032	2 054	1.1	%
4. Activity rate (as % of population 15–64)		64.8	64.9	65.9	66.7	66.5	– 0.2	p.p.
Young (15–24)		35.7	35.0	35.3	35.0	34.7	– 0.3	p.p.
Prime age (25–54)		81.9	82.3	83.4	84.6	84.5	– 0.1	p.p.
Older (55–64)		27.7	28.9	31.2	33.3	33.6	0.3	p.p.
Male		73.2	72.9	73.4	73.9	73.4	– 0.5	p.p.
Young (15–24)		38.9	38.4	37.7	37.6	37.4	– 0.3	p.p.
Prime age (25–54)		91.3	90.9	91.8	92.2	91.9	– 0.3	p.p.
Older (55–64)		37.5	38.9	40.4	43.4	42.7	– 0.7	p.p.
Female		56.3	56.9	58.2	59.5	59.5	0.1	p.p.
Young (15–24)		32.4	31.4	32.8	32.3	31.9	– 0.4	p.p.
Prime age (25–54)		72.4	73.6	74.8	76.8	77.0	0.2	p.p.
Older (55–64)		18.2	19.2	22.1	23.4	24.6	1.3	p.p.
5. Employment rate (as % of population 15–64)		59.9	59.6	60.3	61.1	61.0	– 0.1	p.p.
Young (15–24)		29.4	27.4	27.8	27.5	27.6	0.1	p.p.
Prime age (25–54)		76.5	76.5	77.3	78.3	78.4	0.1	p.p.
Older (55–64)		26.6	28.1	30.0	31.8	32.0	0.2	p.p.
Male		68.3	67.3	67.9	68.3	67.9	– 0.3	p.p.
Young (15–24)		32.2	29.9	30.1	29.7	30.4	0.6	p.p.
Prime age (25–54)		86.1	85.0	85.8	86.1	85.9	– 0.2	p.p.
Older (55–64)		36.0	37.8	39.1	41.7	40.9	– 0.8	p.p.
Female		51.4	51.8	52.6	53.8	54.0	0.2	p.p.
Young (15–24)		26.5	24.7	25.4	25.2	24.7	– 0.5	p.p.
Prime age (25–54)		66.8	67.8	68.5	70.4	70.7	0.4	p.p.
Older (55–64)		17.5	18.7	21.1	22.1	23.2	1.2	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		4 047	4 047	4 114	4 199	4 233	34	Th.
Male (as % of total)		57.4	56.8	56.8	56.2	56.0	– 0.2	p.p.
Female (as % of total)		42.6	43.2	43.2	43.8	44.0	0.2	p.p.
7. Employment growth (%) (national accounts)		–0.1	0.0	0.6	1.0	1.1		p.p.
Employment growth (%) (LFS — age 15–64)		0.4	0.0	1.7	2.1	0.8		p.p.
Male		– 0.3	– 1.0	1.6	1.1	0.4		p.p.
Female		1.3	1.3	1.7	3.4	1.3		p.p.
8. Self employed (% of total employment)		8.7	8.6	8.3	8.5	8.6	0.0	p.p.
Male		10.1	10.0	9.9	10.2	10.4	0.2	p.p.
Female		6.8	6.9	6.2	6.4	6.3	– 0.1	p.p.
9. Temporary employment (as % of total)		8.1	8.4	8.7	8.9	8.7	– 0.2	p.p.
Male		5.7	6.2	6.4	6.8	6.9	0.1	p.p.
Female		11.2	11.1	11.7	11.4	10.9	– 0.5	p.p.
10. Part-time (as % of total employment)		19.0	20.3	21.2	21.7	22.0	0.3	p.p.
Male		5.3	6.1	6.6	7.1	7.0	– 0.1	p.p.
Female		37.4	39.0	40.4	40.4	41.0	0.6	p.p.
11. Unemployment rate (harmonised: 15-74)		7.5	8.2	8.4	8.4	8.2	– 0.2	p.p.
Young (15–24)		17.7	21.8	21.2	21.5	20.5	– 1.0	p.p.
Prime age (25–54)		6.6	7.1	7.4	7.4	7.2	– 0.1	p.p.
Older (55–64)		3.9	2.8	3.7	4.4	4.8	0.3	p.p.
Male		6.7	7.6	7.5	7.6	7.4	– 0.2	p.p.
Young (15–24)		17.2	22.2	20.2	21.0	18.8	– 2.2	p.p.
Prime age (25–54)		5.7	6.5	6.6	6.6	6.5	– 0.1	p.p.
Older (55–64)		3.9	2.7	3.2	3.9	4.2	0.4	p.p.
Female		8.6	8.9	9.5	9.5	9.3	– 0.2	p.p.
Young (15–24)		18.4	21.3	22.4	22.1	22.6	0.5	p.p.
Prime age (25–54)		7.7	7.8	8.4	8.4	8.1	– 0.3	p.p.
Older (55–64)		3.9	2.8	4.8	5.5	5.7	0.2	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		48.8	45.4	49.1	51.7	51.2	– 0.4	p.p.
13. Worked hours (average actual weekly hours)		37.1	36.7	36.5	36.7	36.8	0.3	%
Male		40.3	40.2	40.1	40.1	40.5	0.9	%
Female		32.7	32.0	31.8	32.1	32.1	– 0.2	%
14. Sectoral employment growth								
Agriculture		– 3.0	– 3.4	– 1.9	– 0.2	– 0.5		p.p.
Building and construction		– 2.1	– 0.8	0.0	1.5	3.5		p.p.
Services		0.9	0.8	1.3	1.3	1.3		p.p.
Manufacturing industry		– 3.6	– 2.8	– 2.0	– 0.9	– 0.4		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Belgium
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	3.8	1.6	2.0	2.4	3.2	4.0	3.2	2.6	3.0
Compensation of employees per hour worked	3.9	2.1	3.5	1.6	3.2	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	4.4	1.9	2.2	2.6	2.5	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	2.1	0.6	– 0.3	2.3	1.1	1.2	1.4	1.2	0.8
Real unit labour costs deflated by GDP deflator	0.3	– 1.0	– 2.6	0.3	– 0.8	– 0.4	– 0.5	– 0.3	– 2.0
Wages and salaries	0.9	– 0.6	1.4	3.0	3.9	4.2	3.7	3.3	4.2
Compensation per employee adjusted by total factor productivity	2.8	1.1	0.1	2.7	1.6	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	71.1	70.3	68.7	68.8	68.2	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	32.9	29.0	31.6	30.8	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	67.2	71.0	68.4	69.2	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	54.4	54.4	59.9	60.7	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	57.3	56.4	55.4	55.5	55.4	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	53.1	52.2	51.2	51.3	51.2	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	30.6	28.9	31.1	30.3	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	1.1	0.1	0.5	0.5	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	1.6	1.0	2.3	0.1	2.0	2.7	1.8	1.3	2.3
Hourly labour productivity	1.6	1.4	3.6	– 0.7	2.0	:	:	:	:
GDP	1.5	1.0	3.0	1.1	3.2	3.6	2.8	2.5	3.7
ECFIN NAIRU estimate	7.8	7.8	7.7	7.7	7.6	:	:	:	:
Output gap (%)	0.1	– 0.8	0.1	– 1.0	– 0.5	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	1.6	1.5	1.9	2.5	2.3	2.6	2.6	2.2	1.9
Underlying inflation (excl. energy and unprocessed food)	2.1	1.7	1.4	1.4	1.6	1.4	1.6	1.9	1.6
GDP deflator	1.9	1.6	2.4	2.0	2.0	1.6	1.9	1.6	2.8
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 4.2	7.9	– 2.7	– 6.5	8.3	8.6	7.8	7.0	11.3
Industry excluding construction	1.7	0.1	– 1.9	1.2	0.1	0.0	0.5	0.8	– 0.9
of which: manufacturing	1.0	0.5	– 2.4	1.5	– 0.9	:	:	:	:
Construction	2.4	0.3	– 1.8	1.5	– 1.2	0.0	– 2.8	– 2.2	0.8
Trade, transport and communication	1.9	– 1.4	0.4	4.3	3.4	4.4	4.5	4.0	0.6
Finance and business services	– 0.9	– 0.1	1.9	– 0.3	– 0.3	– 1.1	– 1.0	0.2	1.4
Non-market related services	5.3	2.3	1.0	4.6	2.8	:	:	:	:
Market-related sectors	1.0	– 0.3	0.0	1.2	0.8	0.9	0.9	1.3	0.4
Sectoral breakdown of compensation per employee									
Total industries	3.8	1.6	2.0	2.4	3.2	0.0	0.0	0.0	0.0
Agriculture and fishery	3.3	3.1	5.6	2.0	5.0	5.9	5.3	4.2	8.2
Industry excluding construction	4.4	1.8	3.5	1.8	3.5	4.3	3.2	3.0	3.4
of which: manufacturing	4.1	2.1	3.5	1.9	2.5	:	:	:	:
Construction	3.0	2.1	3.2	0.9	3.0	6.2	1.3	0.2	4.6
Trade, transport and communication	4.8	1.9	1.7	1.8	3.6	4.6	3.9	2.8	3.1
Finance and business services	1.0	1.5	1.6	1.0	1.6	2.7	1.8	0.8	1.6
Non-market related services	4.8	2.0	1.5	4.4	3.5	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	7.8	– 4.4	8.5	9.1	– 3.0	– 2.5	– 2.3	– 2.6	– 2.8
Industry excluding construction	2.7	1.7	5.5	0.6	3.3	4.3	2.7	2.2	4.3
of which: manufacturing	3.0	1.6	6.0	0.4	3.4	:	:	:	:
Construction	0.6	1.8	5.1	– 0.6	4.2	6.2	4.2	2.4	3.8
Trade, transport and communication	2.8	3.4	1.3	– 2.3	0.3	0.2	– 0.7	– 1.1	2.5
Finance and business services	1.9	1.6	– 0.3	1.3	1.9	3.9	2.8	0.6	0.3
Non-market related services	– 0.5	– 0.3	0.5	– 0.2	0.7	0.4	0.7	0.9	1.0
Market-related sectors	2.4	1.8	2.2	0.2	2.2	3.2	2.0	0.8	2.5

Source: AMECO, Eurostat (national accounts), ECB.

Czech Republic
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	10 171	10 179	10 196	10 229	10 265	0.3	%
2. Population (working age: 15–64)		7 149	7 182	7 231	7 270	7 307	0.5	%
(as % of total population)		70.3	70.6	70.9	71.1	71.2	0.1	p.p.
3. Labour force (15–64)	**1 000 pers.**	5 048	5 044	5 063	5 119	5 140	0.4	%
Male		2 799	2 792	2 815	2 857	2 873	0.6	%
Female		2 249	2 252	2 248	2 262	2 267	0.2	%
4. Activity rate (as % of population 15–64)		70.6	70.2	70.0	70.4	70.3	– 0.1	p.p.
Young (15–24)		38.7	36.8	35.2	34.0	33.5	– 0.5	p.p.
Prime age (25–54)		88.2	87.8	87.8	88.3	88.2	– 0.1	p.p.
Older (55–64)		42.4	44.2	45.1	46.9	47.7	0.8	p.p.
Male		78.6	78.0	77.9	78.4	78.3	– 0.1	p.p.
Young (15–24)		42.3	39.6	38.7	38.9	37.7	– 1.1	p.p.
Prime age (25–54)		94.8	94.4	94.6	94.8	94.8	0.0	p.p.
Older (55–64)		59.3	59.9	60.2	62.1	62.7	0.6	p.p.
Female		62.7	62.5	62.2	62.4	62.3	– 0.1	p.p.
Young (15–24)		35.2	34.0	31.5	28.9	29.2	0.3	p.p.
Prime age (25–54)		81.5	81.0	80.9	81.6	81.3	– 0.3	p.p.
Older (55–64)		27.2	30.0	31.3	32.9	34.0	1.1	p.p.
5. Employment rate (as % of population 15–64)		65.4	64.7	64.2	64.8	65.3	0.5	p.p.
Young (15–24)		32.2	30.0	27.8	27.5	27.7	0.2	p.p.
Prime age (25–54)		82.5	81.7	81.4	82.0	82.5	0.6	p.p.
Older (55–64)		40.7	42.3	42.7	44.5	45.2	0.7	p.p.
Male		73.9	73.1	72.3	73.3	73.7	0.4	p.p.
Young (15–24)		35.2	32.3	30.1	31.3	31.4	0.1	p.p.
Prime age (25–54)		90.2	89.7	89.2	89.8	90.4	0.5	p.p.
Older (55–64)		57.2	57.5	57.2	59.3	59.5	0.2	p.p.
Female		57.0	56.3	56.0	56.3	56.8	0.5	p.p.
Young (15–24)		29.2	27.6	25.4	23.4	23.7	0.3	p.p.
Prime age (25–54)		74.7	73.5	73.4	74.0	74.5	0.5	p.p.
Older (55–64)		25.9	28.4	29.4	30.9	32.1	1.2	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		4 677	4 647	4 639	4 710	4 769	59	Th.
Male (as % of total)		56.3	56.4	56.4	56.7	56.7	0.0	p.p.
Female (as % of total)		43.7	43.6	43.6	43.3	43.3	0.0	p.p.
7. Employment growth (%) (national accounts)		0.6	– 1.3	0.1	1.6	1.6		p.p.
Employment growth (%) (LFS — age 15–64)		1.0	– 0.6	– 0.2	1.5	1.3		p.p.
Male		1.4	– 0.5	– 0.2	2.2	1.2		p.p.
Female		0.5	– 0.8	– 0.2	0.7	1.3		p.p.
8. Self employed (% of total employment)		11.3	12.2	12.1	11.4	11.3	– 0.2	p.p.
Male		14.4	15.5	15.5	14.7	14.3	– 0.4	p.p.
Female		7.3	8.0	7.7	7.1	7.3	0.2	p.p.
9. Temporary employment (as % of total)		7.3	8.4	8.4	7.9	8.0	0.0	p.p.
Male		6.1	7.1	7.0	6.9	6.8	– 0.1	p.p.
Female		8.7	10.0	10.0	9.2	9.4	0.2	p.p.
10. Part-time (as % of total employment)		4.3	4.5	4.3	4.4	4.4	0.1	p.p.
Male		1.7	1.7	1.7	1.6	1.7	0.1	p.p.
Female		7.8	8.0	7.7	8.0	8.0	0.1	p.p.
11. Unemployment rate (harmonised: 15-74)		7.3	7.8	8.3	7.9	7.1	– 0.8	p.p.
Young (15–24)		16.9	18.6	21.0	19.2	17.5	– 1.7	p.p.
Prime age (25–54)		6.5	7.0	7.3	7.1	6.4	– 0.8	p.p.
Older (55–64)		4.0	4.4	5.4	5.2	5.3	0.1	p.p.
Male		5.9	6.2	7.1	6.5	5.8	– 0.7	p.p.
Young (15–24)		16.6	18.3	22.2	19.3	16.6	– 2.7	p.p.
Prime age (25–54)		4.9	5.0	5.6	5.3	4.7	– 0.6	p.p.
Older (55–64)		3.5	4.0	4.9	4.5	5.1	0.6	p.p.
Female		9.0	9.9	9.9	9.8	8.8	– 1.0	p.p.
Young (15–24)		17.2	18.8	19.5	19.1	18.7	– 0.4	p.p.
Prime age (25–54)		8.3	9.3	9.3	9.3	8.3	– 1.0	p.p.
Older (55–64)		4.9	5.2	6.1	6.3	5.6	– 0.7	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		50.3	48.7	51.0	53.0	54.3	1.3	p.p.
13. Worked hours (average actual weekly hours)		41.7	41.8	41.7	41.7	41.4	– 0.7	%
Male		43.7	43.9	43.7	43.6	43.3	– 0.7	%
Female		38.9	38.9	39.0	39.1	38.9	– 0.6	%
14. Sectoral employment growth								
Agriculture		– 5.5	– 4.7	– 4.7	1.2	– 4.7		p.p.
Building and construction		2.0	– 0.1	0.5	1.0	– 1.1		p.p.
Services		1.8	– 0.3	0.4	2.1	2.9		p.p.
Manufacturing industry		– 0.6	– 2.7	0.5	1.2	0.9		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Czech Republic
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	7.4	8.8	6.0	4.1	5.7	5.7	6.8	6.0	6.7
Compensation of employees per hour worked	7.6	7.4	5.9	5.5	5.2	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	7.4	5.4	6.8	3.4	6.1	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	6.0	3.6	1.9	– 0.3	1.2	0.0	1.2	0.8	1.7
Real unit labour costs deflated by GDP deflator	3.1	2.7	– 1.6	– 1.0	– 0.5	– 0.4	0.4	– 1.1	– 0.7
Wages and salaries	6.2	5.1	6.0	5.4	:	6.1	5.8	5.4	5.9
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	57.7	59.2	59.0	58.4	57.8	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	28.2	28.2	28.1	27.5	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	71.8	71.8	71.9	72.5	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	62.9	63.0	63.0	63.8	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	42.9	43.2	43.5	43.8	42.6	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	39.9	40.2	40.5	40.5	39.4	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	26.9	26.9	26.9	26.2	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	1.3	1.3	1.2	1.3	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	1.3	5.0	4.1	4.4	4.4	5.7	5.5	5.2	4.9
Hourly labour productivity	2.4	4.9	3.6	4.9	3.8	:	:	:	:
GDP	1.9	3.6	4.2	6.1	6.1	6.6	6.5	6.3	6.1
ECFIN NAIRU estimate	7.5	7.2	6.9	6.5	6.1	:	:	:	:
Output gap (%)	– 2.8	– 2.9	– 2.8	– 1.1	0.4	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	1.4	– 0.1	2.6	1.6	2.1	2.4	2.5	2.4	1.1
Underlying inflation (excl. energy and unprocessed food)	2.0	0.4	2.5	0.9	0.9	0.8	0.9	1.0	1.0
GDP deflator	2.8	0.9	3.5	0.7	1.7	0.4	0.8	2.0	2.4
Sectoral breakdown of unit labour costs									
Agriculture and fishery	8.9	– 7.1	– 3.3	2.2	:	– 1.4	10.4	11.4	27.1
Industry excluding construction	12.3	1.8	– 1.8	– 2.8	:	– 9.4	– 4.1	– 2.3	– 2.4
of which: manufacturing	0.6	5.6	– 1.1	– 9.8	– 5.7	– 11.0	– 5.7	– 4.0	– 5.8
Construction	21.8	2.1	1.8	8.5	:	12.9	1.2	5.0	– 0.8
Trade, transport and communication	12.0	– 2.3	4.5	7.1	:	6.1	– 1.0	– 6.2	– 0.5
Finance and business services	26.8	– 0.1	3.7	11.8	:	4.8	7.5	10.8	7.4
Non-market related services	19.8	4.5	5.3	17.7	:	:	:	:	:
Market-related sectors	4.0	3.2	1.2	– 2.7	:	– 1.0	– 0.2	0.1	1.0
Sectoral breakdown of compensation per employee									
Total industries	18.8	5.3	5.8	11.5	:	0.0	0.0	0.0	0.0
Agriculture and fishery	19.4	1.1	8.8	3.7	:	3.3	5.2	5.1	6.2
Industry excluding construction	18.0	3.9	6.6	11.2	:	5.5	6.6	5.8	6.3
of which: manufacturing	6.7	7.5	6.9	3.9	6.5	5.5	6.5	5.8	6.2
Construction	17.3	5.0	6.8	11.5	:	4.9	6.7	6.9	8.2
Trade, transport and communication	17.3	5.4	6.4	11.3	:	4.4	4.2	3.8	4.5
Finance and business services	16.4	5.1	5.3	11.0	:	5.3	5.7	6.0	6.5
Non-market related services	22.0	6.8	3.6	12.6	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	9.6	8.8	12.6	1.4	:	4.7	– 4.7	– 5.7	– 16.5
Industry excluding construction	5.0	2.1	8.6	14.5	:	16.5	11.2	8.3	8.9
of which: manufacturing	6.0	1.8	8.1	15.2	13.0	18.5	13.0	10.2	12.7
Construction	– 3.7	2.8	4.9	2.8	:	– 7.1	5.5	1.8	9.1
Trade, transport and communication	4.7	7.9	1.8	3.9	:	– 1.6	5.3	10.7	5.1
Finance and business services	– 8.2	5.1	1.5	– 0.7	:	0.5	– 1.7	– 4.3	– 0.8
Non-market related services	1.8	2.2	– 1.6	– 4.3	:	3.1	1.7	2.0	0.7
Market-related sectors	2.3	4.9	5.0	7.2	:	6.4	6.2	5.5	5.3

Source: AMECO, Eurostat (national accounts), ECB.

Denmark
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	5 339	5 359	5 379	5 396	5 415	0.3	%
2. Population (working age: 15–64)		3 538	3 548	3 559	3 566	3 569	0.1	%
(as % of total population)		66.3	66.2	66.2	66.1	65.9	– 0.2	p.p.
3. Labour force (15–64)	**1 000 pers.**	2 815	2 820	2 852	2 846	2 875	1.0	%
Male		1 493	1 503	1 511	1 504	1 516	0.8	%
Female		1 322	1 317	1 342	1 341	1 360	1.4	%
4. Activity rate (as % of population 15–64)		79.6	79.5	80.1	79.8	80.6	0.7	p.p.
Young (15–24)		68.6	65.6	67.9	68.1	69.9	1.8	p.p.
Prime age (25–54)		87.8	87.8	88.2	88.1	88.9	0.8	p.p.
Older (55–64)		60.4	63.3	63.9	62.8	63.2	0.4	p.p.
Male		83.6	83.8	84.0	83.6	84.1	0.5	p.p.
Young (15–24)		70.7	67.7	69.7	70.0	70.5	0.5	p.p.
Prime age (25–54)		91.9	91.8	91.5	91.7	92.3	0.6	p.p.
Older (55–64)		67.1	70.4	71.3	68.7	69.6	0.8	p.p.
Female		75.5	75.1	76.2	75.9	77.0	1.0	p.p.
Young (15–24)		66.4	63.5	66.0	66.2	69.3	3.1	p.p.
Prime age (25–54)		83.7	83.7	84.8	84.5	85.4	1.0	p.p.
Older (55–64)		52.9	55.9	56.5	56.8	56.7	– 0.1	p.p.
5. Employment rate (as % of population 15–64)		75.9	75.1	75.7	75.9	77.4	1.5	p.p.
Young (15–24)		63.5	59.6	62.3	62.3	64.6	2.3	p.p.
Prime age (25–54)		84.1	83.5	83.7	84.5	86.1	1.5	p.p.
Older (55–64)		57.9	60.2	60.3	59.5	60.7	1.2	p.p.
Male		80.0	79.6	79.7	79.8	81.2	1.4	p.p.
Young (15–24)		65.5	61.5	63.4	63.9	65.0	1.0	p.p.
Prime age (25–54)		88.4	87.9	87.6	88.3	90.0	1.7	p.p.
Older (55–64)		64.5	67.3	67.3	65.6	67.1	1.5	p.p.
Female		71.7	70.5	71.6	71.9	73.4	1.5	p.p.
Young (15–24)		61.4	57.6	61.1	60.5	64.1	3.6	p.p.
Prime age (25–54)		79.8	79.0	79.8	80.6	82.0	1.4	p.p.
Older (55–64)		50.4	52.9	53.3	53.5	54.3	0.8	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		2 684	2 666	2 693	2 706	2 762	55	Th.
Male (as % of total)		53.2	53.6	53.2	53.1	53.0	0.0	p.p.
Female (as % of total)		46.8	46.4	46.8	46.9	47.0	0.0	p.p.
7. Employment growth (%) (national accounts)		– 0.1	– 1.3	0.0	0.7	1.9		p.p.
Employment growth (%) (LFS — age 15–64)		– 0.6	– 0.7	1.0	0.5	2.0		p.p.
Male		– 0.7	0.0	0.2	0.3	1.9		p.p.
Female		– 0.5	– 1.5	2.0	0.7	2.2		p.p.
8. Self employed (% of total employment)		3.9	4.0	4.1	4.0	4.1	0.0	p.p.
Male		5.5	5.4	5.8	5.3	5.2	0.0	p.p.
Female		2.1	2.3	2.3	2.6	2.7	0.1	p.p.
9. Temporary employment (as % of total)		9.1	9.2	9.4	9.8	8.9	– 0.9	p.p.
Male		7.8	8.1	8.6	8.4	7.9	– 0.5	p.p.
Female		10.3	10.4	10.3	11.3	9.9	– 1.4	p.p.
10. Part-time (as % of total employment)		19.4	20.7	21.5	21.5	22.9	1.5	p.p.
Male		10.2	10.8	11.2	11.7	12.3	0.6	p.p.
Female		29.8	32.1	33.3	32.5	34.9	2.4	p.p.
11. Unemployment rate (harmonised: 15-74)		4.6	5.4	5.5	4.8	3.9	– 0.9	p.p.
Young (15–24)		7.4	9.2	8.2	8.6	7.7	– 0.9	p.p.
Prime age (25–54)		4.2	4.9	5.1	4.1	3.2	– 0.9	p.p.
Older (55–64)		4.2	4.8	5.6	5.2	3.9	– 1.3	p.p.
Male		4.3	4.8	5.1	4.4	3.3	– 1.1	p.p.
Young (15–24)		7.3	9.2	9.0	8.6	7.9	– 0.8	p.p.
Prime age (25–54)		3.8	4.2	4.3	3.7	2.4	– 1.3	p.p.
Older (55–64)		3.8	4.5	5.6	4.6	3.5	– 1.1	p.p.
Female		5.0	6.1	6.0	5.3	4.5	– 0.8	p.p.
Young (15–24)		7.5	9.2	7.4	8.6	7.5	– 1.1	p.p.
Prime age (25–54)		4.6	5.7	5.8	4.5	4.0	– 0.5	p.p.
Older (55–64)		4.8	5.4	5.6	5.8	4.3	– 1.5	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		19.2	20.4	21.6	23.5	20.9	– 2.6	p.p.
13. Worked hours (average actual weekly hours)		35.3	35.0	34.7	35.1	34.9	– 0.8	%
Male		37.9	37.8	37.6	37.9	37.7	– 0.7	%
Female		32.2	31.7	31.3	31.7	31.4	– 0.9	%
14. Sectoral employment growth								
Agriculture		0.0	– 3.3	– 3.4	– 1.2	1.2		p.p.
Building and construction		– 1.8	– 0.6	0.6	5.5	5.8		p.p.
Services		0.6	– 0.5	0.9	1.0	1.9		p.p.
Manufacturing industry		– 2.7	– 4.1	– 2.6	– 1.5	– 0.6		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Denmark
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	3.8	4.0	2.7	3.3	3.8	3.8	3.8	3.9	4.9
Compensation of employees per hour worked	4.0	4.2	2.5	2.4	3.5	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	3.8	3.6	3.3	3.0	2.9	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	3.2	2.3	0.5	0.9	2.4	0.4	2.6	2.7	4.2
Real unit labour costs deflated by GDP deflator	0.9	0.6	– 1.4	– 2.2	0.2	– 0.3	– 0.5	– 0.9	2.8
Wages and salaries	1.6	3.3	1.6	3.9	5.4	5.2	4.7	5.1	6.3
Compensation per employee adjusted by total factor productivity	3.9	3.3	1.1	1.5	2.8	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	67.8	68.1	67.5	66.2	66.5	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	12.6	13.4	13.0	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	87.4	86.6	87.0	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	70.3	69.8	70.6	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	42.6	42.6	41.3	41.4	41.3	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	39.3	39.2	37.9	38.1	37.9	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	10.0	10.6	10.2	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	2.6	2.8	2.8	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	0.5	1.7	2.1	2.4	1.3	3.4	1.1	1.2	0.7
Hourly labour productivity	0.9	1.9	1.8	1.3	1.2	:	:	:	:
GDP	0.5	0.4	2.1	3.1	3.2	5.0	2.3	2.8	2.9
ECFIN NAIRU estimate	4.8	4.6	4.4	4.2	3.9	:	:	:	:
Output gap (%)	– 0.3	– 1.6	– 1.3	– 0.5	0.3	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.4	2.0	0.9	1.7	1.9	2.0	2.0	1.8	1.6
Underlying inflation (excl. energy and unprocessed food)	2.5	2.2	0.9	1.0	1.3	1.3	1.2	1.3	1.5
GDP deflator	2.3	1.6	2.0	3.2	2.2	0.7	3.1	3.6	1.4
Sectoral breakdown of unit labour costs									
Agriculture and fishery	7.2	– 3.3	– 3.4	– 7.1	3.2	– 12.0	12.8	11.1	– 5.1
Industry excluding construction	2.9	1.9	– 3.8	1.8	1.3	– 1.7	0.8	2.8	4.0
of which: manufacturing	3.6	2.4	– 3.7	0.1	– 1.7	:	:	:	:
Construction	2.6	0.0	– 1.7	2.1	1.0	8.3	0.2	– 5.8	2.7
Trade, transport and communication	2.4	0.3	3.2	– 1.8	1.4	– 2.5	1.7	1.2	5.2
Finance and business services	6.7	2.9	2.7	4.2	4.5	1.9	5.3	5.0	6.0
Non-market related services	3.4	4.2	2.9	2.1	2.9	:	:	:	:
Market-related sectors	3.2	1.3	0.7	1.2	2.5	– 0.3	2.9	2.7	4.6
Sectoral breakdown of compensation per employee									
Total industries	4.1	4.0	2.6	3.1	3.7	0.0	0.0	0.0	0.0
Agriculture and fishery	3.2	0.9	3.2	3.1	7.1	4.0	5.8	4.9	6.6
Industry excluding construction	3.5	4.3	3.8	3.6	3.2	3.9	2.3	2.7	4.5
of which: manufacturing	3.3	3.8	2.3	3.2	3.6	:	:	:	:
Construction	3.4	3.6	2.4	2.4	5.1	6.1	3.7	5.2	6.0
Trade, transport and communication	3.8	2.9	1.2	3.3	3.2	3.0	3.3	3.0	3.6
Finance and business services	6.6	3.1	2.4	3.1	3.7	2.0	4.1	3.9	5.5
Non-market related services	3.6	5.0	2.9	2.7	3.7	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	– 3.7	4.4	6.8	11.0	3.7	18.2	– 6.2	– 5.6	12.3
Industry excluding construction	0.5	2.3	7.9	1.8	1.9	5.7	1.4	– 0.1	0.4
of which: manufacturing	– 0.2	1.4	6.2	3.1	5.5	:	:	:	:
Construction	0.8	3.6	4.1	0.3	4.1	– 2.0	3.4	11.7	3.3
Trade, transport and communication	1.4	2.6	– 1.9	5.1	1.7	5.7	1.6	1.8	– 1.5
Finance and business services	– 0.1	0.2	– 0.3	– 1.1	– 0.8	0.1	– 1.2	– 1.0	– 0.5
Non-market related services	0.2	0.8	0.0	0.6	0.7	0.4	0.7	0.7	1.3
Market-related sectors	0.8	2.0	1.9	2.3	1.2	3.6	0.5	0.9	0.2

Source: AMECO, Eurostat (national accounts), ECB.

Germany
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	81 535	81 596	81 563	81 529	81 489	0.0	%
2. Population (working age: 15–64)		54 870	54 695	54 501	54 765	54 532	– 0.4	%
(as % of total population)		67.3	67.0	66.8	67.2	66.9	– 0.3	p.p.
3. Labour force (15–64)	**1 000 pers.**	39 229	39 414	39 280	40 706	41 076	0.9	%
Male		21 770	21 769	21 701	22 210	22 343	0.6	%
Female		17 459	17 644	17 579	18 496	18 733	1.3	%
4. Activity rate (as % of population 15–64)		71.5	72.1	72.1	74.3	75.3	1.0	p.p.
Young (15–24)		50.0	49.5	47.5	49.9	50.3	0.4	p.p.
Prime age (25–54)		85.7	86.1	85.9	87.1	87.6	0.5	p.p.
Older (55–64)		43.2	45.1	47.5	52.1	55.2	3.2	p.p.
Male		78.7	79.0	79.0	80.6	81.3	0.7	p.p.
Young (15–24)		52.8	52.2	50.5	52.5	52.9	0.4	p.p.
Prime age (25–54)		93.3	93.2	92.9	93.6	93.8	0.2	p.p.
Older (55–64)		52.6	54.5	57.2	61.2	64.0	2.8	p.p.
Female		64.2	65.0	65.1	68.0	69.2	1.3	p.p.
Young (15–24)		47.2	46.7	44.4	47.3	47.6	0.3	p.p.
Prime age (25–54)		78.0	78.8	78.8	80.6	81.4	0.8	p.p.
Older (55–64)		33.8	35.8	37.9	43.1	46.6	3.5	p.p.
5. Employment rate (as % of population 15–64)		65.4	64.9	64.3	66.0	67.5	1.6	p.p.
Young (15–24)		45.4	44.0	41.3	42.2	43.4	1.2	p.p.
Prime age (25–54)		78.8	78.1	77.2	78.2	79.3	1.2	p.p.
Older (55–64)		38.4	39.4	41.4	45.4	48.4	3.0	p.p.
Male		71.8	70.9	70.0	71.3	72.8	1.5	p.p.
Young (15–24)		46.9	45.0	42.7	43.7	45.1	1.4	p.p.
Prime age (25–54)		85.7	84.4	83.1	83.7	84.9	1.1	p.p.
Older (55–64)		47.1	47.7	49.8	53.5	56.4	2.9	p.p.
Female		58.8	58.9	58.5	60.6	62.2	1.6	p.p.
Young (15–24)		43.8	43.0	39.8	40.7	41.6	1.0	p.p.
Prime age (25–54)		71.8	71.6	71.1	72.5	73.7	1.2	p.p.
Older (55–64)		29.8	31.2	33.1	37.5	40.6	3.0	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		35 869	35 523	35 023	36 138	36 833	695	Th.
Male (as % of total)		55.4	55.0	54.9	54.4	54.3	0.0	p.p.
Female (as % of total)		44.6	45.0	45.1	45.6	45.7	0.0	p.p.
7. Employment growth (%) (national accounts)		– 0.6	– 1.0	0.4	– 0.1	0.7		p.p.
Employment growth (%) (LFS — age 15–64)		– 0.8	– 1.0	– 1.4	3.2	1.9		p.p.
Male		– 1.4	– 1.6	– 1.5	2.1	1.9		p.p.
Female		0.0	– 0.1	– 1.3	4.5	2.0		p.p.
8. Self employed (% of total employment)		4.8	5.2	5.5	6.0	6.0	– 0.1	p.p.
Male		5.8	6.2	6.7	7.2	7.0	– 0.2	p.p.
Female		3.7	3.9	4.1	4.7	4.7	0.0	p.p.
9. Temporary employment (as % of total)		12.0	12.2	12.5	14.2	14.5	0.3	p.p.
Male		11.8	12.2	12.7	14.5	14.8	0.4	p.p.
Female		12.3	12.3	12.2	13.9	14.2	0.3	p.p.
10. Part-time (as % of total employment)		20.3	21.2	21.9	23.4	25.2	1.8	p.p.
Male		5.2	5.5	5.9	6.9	8.5	1.5	p.p.
Female		39.2	40.4	41.3	43.0	45.1	2.1	p.p.
11. Unemployment rate (harmonised: 15-74)		8.2	9.0	9.5	9.5	8.4	– 1.1	p.p.
Young (15–24)		9.3	11.0	13.0	15.5	13.7	– 1.7	p.p.
Prime age (25–54)		8.0	9.3	10.2	10.3	9.4	– 0.9	p.p.
Older (55–64)		11.2	12.6	12.8	12.8	12.4	– 0.4	p.p.
Male		7.1	8.2	8.7	8.8	7.7	– 1.1	p.p.
Young (15–24)		11.1	13.7	15.4	16.8	14.8	– 2.0	p.p.
Prime age (25–54)		8.1	9.4	10.5	10.6	9.5	– 1.0	p.p.
Older (55–64)		10.6	12.4	12.9	12.6	11.9	– 0.7	p.p.
Female		9.4	10.1	10.5	10.3	9.2	– 1.1	p.p.
Young (15–24)		7.2	8.1	10.2	13.9	12.5	– 1.4	p.p.
Prime age (25–54)		7.9	9.1	9.8	10.0	9.4	– 0.6	p.p.
Older (55–64)		12.1	12.9	12.7	13.0	13.0	0.0	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		47.9	50.0	51.8	53.1	56.5	3.5	p.p.
13. Worked hours (average actual weekly hours)		37.4	36.9	36.9	36.9	36.0	– 2.3	%
Male		41.9	41.4	41.5	41.6	40.8	– 2.0	%
Female		31.7	31.2	31.2	30.9	30.1	– 2.6	%
14. Sectoral employment growth								
Agriculture		– 2.3	– 2.7	– 0.8	– 2.6	– 0.5		p.p.
Building and construction		– 6.1	– 4.8	– 2.9	– 3.9	– 0.4		p.p.
Services		0.5	– 0.1	1.3	0.7	1.3		p.p.
Manufacturing industry		– 2.2	– 2.6	– 1.5	– 1.7	– 1.0		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Germany
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	1.3	1.6	0.4	– 0.1	0.8	0.4	0.5	0.9	1.0
Compensation of employees per hour worked	2.1	1.7	– 0.1	– 0.2	0.8	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	2.2	2.6	1.0	0.6	1.2	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	0.8	0.8	– 0.4	– 1.1	– 1.3	– 2.7	– 0.2	– 0.7	– 1.6
Real unit labour costs deflated by GDP deflator	– 0.6	– 0.3	– 1.3	– 1.7	– 1.5	– 2.8	– 0.3	– 0.8	– 1.8
Wages and salaries	– 0.3	0.0	0.4	– 0.9	0.6	– 0.7	0.4	1.2	1.4
Compensation per employee adjusted by total factor productivity	1.2	1.1	– 0.7	– 1.0	– 1.3	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	65.5	65.5	64.6	63.6	62.8	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	22.7	22.7	22.4	22.1	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	77.3	77.3	77.6	77.9	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	64.2	64.3	65.6	65.7	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	53.6	51.5	53.3	51.8	52.5	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	48.9	47.1	48.8	47.6	48.1	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	22.0	22.1	21.7	21.4	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	0.7	0.7	0.7	0.7	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	0.6	0.8	0.9	1.0	2.1	3.2	0.7	1.6	2.7
Hourly labour productivity	1.5	1.2	0.7	1.3	2.1	:	:	:	:
GDP	0.0	– 0.2	1.2	0.9	2.8	3.2	1.5	2.7	3.7
ECFIN NAIRU estimate	8.4	8.3	8.3	8.2	7.9	:	:	:	:
Output gap (%)	– 0.2	– 1.6	– 1.5	– 1.8	– 0.3	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	1.4	1.0	1.8	1.9	1.8	2.1	2.1	1.6	1.3
Underlying inflation (excl. energy and unprocessed food)	1.6	0.9	1.6	1.0	0.8	0.7	0.8	0.9	1.0
GDP deflator	1.4	1.0	0.9	0.6	0.3	0.1	0.1	0.1	0.2
Sectoral breakdown of unit labour costs									
Agriculture and fishery	0.8	2.2	– 19.9	2.2	4.9	2.8	5.4	7.7	3.4
Industry excluding construction	0.6	– 1.1	– 2.8	– 4.0	– 3.8	– 7.2	– 1.1	– 2.9	– 3.9
of which: manufacturing	1.5	– 1.3	– 2.9	– 4.3	– 4.1	:	:	:	:
Construction	– 0.9	1.5	1.9	– 1.2	– 4.3	– 4.4	– 1.4	– 4.7	– 6.8
Trade, transport and communication	0.7	1.3	– 3.6	– 1.2	– 2.4	– 3.8	– 0.7	– 2.3	– 2.5
Finance and business services	1.1	1.9	2.2	1.7	2.0	1.2	1.8	2.7	2.3
Non-market related services	1.0	1.5	1.4	– 0.4	0.3	:	:	:	:
Market-related sectors	0.2	0.3	– 1.6	– 1.5	– 1.6	– 3.4	– 0.2	– 1.1	– 1.8
Sectoral breakdown of compensation per employee									
Total industries	1.3	1.6	0.4	– 0.1	0.8	0.0	0.0	0.0	0.0
Agriculture and fishery	– 4.1	– 0.1	– 2.3	0.8	1.7	1.3	1.3	2.8	1.4
Industry excluding construction	1.4	2.2	2.0	0.6	2.3	2.2	2.3	3.0	1.7
of which: manufacturing	1.7	2.1	2.0	0.5	2.3	:	:	:	:
Construction	1.8	1.9	0.2	– 0.6	0.6	0.0	0.7	0.3	1.1
Trade, transport and communication	1.0	1.5	– 1.1	0.5	0.6	0.1	0.8	0.6	1.4
Finance and business services	1.6	1.5	– 0.1	1.2	0.5	0.1	0.0	0.9	0.9
Non-market related services	1.8	1.3	0.7	– 1.6	– 0.3	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	– 4.8	– 2.2	21.9	– 1.4	– 3.1	– 1.4	– 3.9	– 4.6	– 2.0
Industry excluding construction	0.8	3.3	5.0	4.7	6.3	10.2	3.5	6.0	5.8
of which: manufacturing	0.2	3.4	5.0	5.0	6.8	:	:	:	:
Construction	2.7	0.4	– 1.6	0.5	5.2	4.6	2.1	5.2	8.5
Trade, transport and communication	0.3	0.2	2.6	1.6	3.1	4.1	1.5	3.0	4.0
Finance and business services	0.5	– 0.4	– 2.2	– 0.5	– 1.5	– 1.1	– 1.8	– 1.7	– 1.4
Non-market related services	0.9	– 0.2	– 0.7	– 1.1	– 0.6	– 0.6	– 0.9	– 0.5	– 0.6
Market-related sectors	1.0	1.4	2.0	2.1	2.8	4.4	1.2	2.6	3.1

Source: AMECO, Eurostat (national accounts), ECB.

Estonia
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	1 356	1 350	1 348	1 343	1 339	– 0.3	%
2. Population (working age: 15–64)		912	911	910	910	913	0.3	%
(as % of total population)		67.3	67.5	67.5	67.7	68.1	0.4	p.p.
3. Labour force (15–64)	**1 000 pers.**	632	639	636	638	661	3.6	%
Male		325	326	322	319	332	3.9	%
Female		307	313	314	319	329	3.4	%
4. Activity rate (as % of population 15–64)		69.3	70.1	70.0	70.1	72.4	2.3	p.p.
Young (15–24)		34.2	36.9	34.7	34.6	35.9	1.3	p.p.
Prime age (25–54)		85.4	85.7	86.5	86.0	89.1	3.1	p.p.
Older (55–64)		55.7	56.3	55.7	59.0	61.0	2.0	p.p.
Male		74.6	75.0	74.4	73.6	75.8	2.2	p.p.
Young (15–24)		40.4	43.2	41.6	39.7	41.2	1.4	p.p.
Prime age (25–54)		90.1	89.6	90.1	89.2	92.8	3.6	p.p.
Older (55–64)		63.7	64.4	60.7	63.0	61.6	– 1.3	p.p.
Female		64.4	65.7	66.0	66.9	69.3	2.4	p.p.
Young (15–24)		27.9	30.7	27.8	29.4	30.6	1.1	p.p.
Prime age (25–54)		81.0	82.1	83.2	83.1	85.8	2.6	p.p.
Older (55–64)		49.8	50.3	51.9	56.0	60.5	4.4	p.p.
5. Employment rate (as % of population 15–64)		62.0	62.9	63.0	64.4	68.1	3.6	p.p.
Young (15–24)		28.2	29.3	27.2	29.2	31.6	2.5	p.p.
Prime age (25–54)		76.8	77.8	78.8	79.6	84.2	4.6	p.p.
Older (55–64)		51.6	52.3	52.4	56.1	58.5	2.4	p.p.
Male		66.5	67.2	66.4	67.1	71.0	4.0	p.p.
Young (15–24)		34.6	35.8	32.8	33.1	37.0	3.9	p.p.
Prime age (25–54)		80.3	81.0	81.6	81.9	87.5	5.7	p.p.
Older (55–64)		58.4	58.9	56.4	59.2	57.5	– 1.7	p.p.
Female		57.9	59.0	60.0	62.1	65.3	3.2	p.p.
Young (15–24)		21.6	22.6	21.6	25.1	26.1	1.0	p.p.
Prime age (25–54)		73.6	74.8	76.2	77.5	81.1	3.7	p.p.
Older (55–64)		46.5	47.3	49.4	53.7	59.2	5.5	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		566	573	573	586	621	35	Th.
Male (as % of total)		51.1	51.0	50.2	49.6	50.0	0.4	p.p.
Female (as % of total)		48.9	49.0	49.8	50.4	50.0	– 0.4	p.p.
7. Employment growth (%) (national accounts)		1.3	1.5	0.0	2.0	5.4		p.p.
Employment growth (%) (LFS — age 15–64)		1.1	1.3	0.1	2.3	5.9		p.p.
Male		1.3	1.1	– 1.5	1.1	6.9		p.p.
Female		0.9	1.5	1.7	3.5	5.0		p.p.
8. Self employed (% of total employment)		4.7	5.6	6.0	5.1	5.2	0.1	p.p.
Male		6.3	7.4	7.7	6.9	7.0	0.1	p.p.
Female		3.1	3.8	4.2	3.4	3.4	0.1	p.p.
9. Temporary employment (as % of total)		2.7	2.5	2.6	2.7	2.7	0.0	p.p.
Male		4.0	3.3	3.5	3.9	3.6	– 0.2	p.p.
Female		2.1	2.5	2.2	2.5	2.7	0.2	p.p.
10. Part-time (as % of total employment)		6.9	7.3	6.9	6.6	6.7	0.1	p.p.
Male		4.5	5.1	4.7	4.2	3.7	– 0.5	p.p.
Female		9.3	9.7	9.1	9.1	9.7	0.6	p.p.
11. Unemployment rate (harmonised: 15-74)		10.3	10.0	9.7	7.9	5.9	– 2.0	p.p.
Young (15–24)		17.6	20.6	21.7	15.8	12.0	– 3.9	p.p.
Prime age (25–54)		10.0	9.3	8.9	7.5	5.5	– 2.0	p.p.
Older (55–64)		7.4	7.1	5.9	5.0	4.1	– 0.8	p.p.
Male		10.8	10.2	10.4	8.8	6.2	– 2.6	p.p.
Young (15–24)		14.4	17.0	21.3	16.6	10.1	– 6.5	p.p.
Prime age (25–54)		10.8	9.6	9.5	8.2	5.6	– 2.5	p.p.
Older (55–64)		8.3	8.5	7.2	5.9	6.7	0.8	p.p.
Female		9.7	9.9	8.9	7.1	5.6	– 1.5	p.p.
Young (15–24)		22.6	26.1	22.4	14.8	14.8	– 0.1	p.p.
Prime age (25–54)		9.2	8.9	8.3	6.8	5.4	– 1.4	p.p.
Older (55–64)		6.7	5.9	4.9	4.2	2.2	– 2.1	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		51.9	46.3	52.5	53.5	48.2	– 5.4	p.p.
13. Worked hours (average actual weekly hours)		40.1	39.7	39.8	39.9	39.9	0.0	%
Male		41.4	41.3	41.3	41.3	41.2	– 0.2	%
Female		38.6	38.0	38.2	38.5	38.5	0.1	%
14. Sectoral employment growth								
Agriculture		1.8	– 9.7	– 5.3	– 7.0	– 2.5		p.p.
Building and construction		– 1.0	10.2	7.8	2.6	25.1		p.p.
Services		4.1	0.8	– 3.4	4.6	7.0		p.p.
Manufacturing industry		– 4.3	4.5	5.0	– 1.3	– 2.3		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Estonia
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	9.1	13.0	12.9	11.2	11.9	8.7	10.2	10.8	13.3
Compensation of employees per hour worked	9.0	11.9	11.3	12.4	9.7	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	12.6	9.1	6.9	10.8	16.6	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	2.3	7.0	4.5	2.6	5.8	3.7	5.1	5.5	8.1
Real unit labour costs deflated by GDP deflator	– 1.4	4.7	2.3	– 3.9	– 0.3	– 1.7	– 1.2	0.8	0.2
Wages and salaries	7.1	9.7	14.4	14.0	11.2	10.8	13.8	6.5	11.8
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	54.5	57.0	58.0	56.3	56.2	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	27.2	26.9	26.7	26.6	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	72.8	73.1	73.3	73.4	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	42.2	42.5	41.3	41.1	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	38.3	38.9	37.0	38.3	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	25.8	25.4	25.3	25.3	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	1.5	1.5	1.4	1.3	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	6.6	5.5	8.1	8.3	5.7	4.8	4.9	5.0	4.8
Hourly labour productivity	6.4	5.5	7.5	7.6	3.7	:	:	:	:
GDP	8.0	7.1	8.1	10.5	11.4	11.7	11.7	11.3	10.9
ECFIN NAIRU estimate	11.0	10.5	9.6	8.6	7.6	:	:	:	:
Output gap (%)	– 0.3	– 1.0	– 1.5	– 0.1	1.7	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	3.6	1.4	3.0	4.1	4.4	4.4	4.5	4.4	4.5
Underlying inflation (excl. energy and unprocessed food)	2.6	1.8	2.5	2.6	3.5	2.8	3.2	3.7	4.4
GDP deflator	3.8	2.3	2.1	6.8	6.1	5.4	6.3	4.7	7.8
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 2.8	– 1.2	18.5	3.0	5.3	8.5	19.4	– 11.3	1.5
Industry excluding construction	4.6	0.4	0.7	0.5	3.8	– 0.5	0.7	2.3	13.2
of which: manufacturing	5.3	1.0	0.2	– 0.1	4.4	0.3	1.0	2.6	12.4
Construction	– 3.1	62.6	3.1	3.4	10.2	20.7	16.5	0.3	14.1
Trade, transport and communication	0.9	1.7	3.7	2.5	5.2	2.0	1.9	8.4	5.5
Finance and business services	0.7	16.0	8.3	– 2.1	15.1	10.9	14.9	20.9	10.4
Non-market related services	6.5	9.9	8.9	8.0	8.3	:	:	:	:
Market-related sectors	1.7	7.2	4.0	1.7	6.7	4.3	5.1	6.5	10.4
Sectoral breakdown of compensation per employee									
Total industries	9.0	13.0	12.9	11.1	12.0	0.0	0.0	0.0	0.0
Agriculture and fishery	2.6	10.7	16.4	12.0	8.9	5.9	5.5	7.2	4.3
Industry excluding construction	17.7	4.1	3.2	14.4	19.3	10.2	19.5	23.9	25.2
of which: manufacturing	19.8	3.4	6.4	14.0	20.5	10.0	20.6	24.2	26.0
Construction	11.0	51.1	3.1	18.5	1.1	19.2	7.6	– 4.6	– 8.2
Trade, transport and communication	5.7	16.4	19.2	8.6	7.8	1.8	– 2.1	9.3	21.3
Finance and business services	– 4.5	24.1	31.2	– 2.0	25.7	21.4	38.9	25.5	16.4
Non-market related services	8.1	6.9	12.2	10.8	6.8	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	5.5	12.0	– 1.7	8.8	3.4	– 2.4	– 11.7	20.9	2.8
Industry excluding construction	12.5	3.7	2.5	13.8	14.9	10.8	18.7	21.2	10.6
of which: manufacturing	13.7	2.3	6.1	14.1	15.4	9.7	19.4	21.1	12.0
Construction	14.6	– 7.1	0.0	14.7	– 8.2	– 1.2	– 7.6	– 4.9	– 19.5
Trade, transport and communication	4.8	14.4	14.9	5.9	2.5	– 0.3	– 3.9	0.9	15.0
Finance and business services	– 5.2	7.0	21.1	0.2	9.3	9.5	20.9	3.8	5.4
Non-market related services	1.6	– 2.8	3.0	2.6	– 1.4	0.0	– 1.4	– 4.2	– 0.9
Market-related sectors	7.6	7.6	8.7	9.4	6.6	5.4	6.6	8.1	6.5

Source: AMECO, Eurostat (national accounts), ECB.

Greece
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	10 542	10 578	10 616	10 657	10 710	0.5	%
2. Population (working age: 15–64)		7 111	7 119	7 129	7 132	7 158	0.4	%
(as % of total population)		67.5	67.3	67.2	66.9	66.8	– 0.1	p.p.
3. Labour force (15–64)	**1 000 pers.**	4 566	4 640	4 740	4 763	4 799	0.8	%
Male		2 739	2 770	2 801	2 811	2 825	0.5	%
Female		1 827	1 870	1 938	1 952	1 974	1.1	%
4. Activity rate (as % of population 15–64)		64.2	65.2	66.5	66.8	67.0	0.3	p.p.
Young (15–24)		36.2	34.6	36.7	33.7	32.4	– 1.3	p.p.
Prime age (25–54)		78.8	79.8	81.1	81.5	82.0	0.5	p.p.
Older (55–64)		40.9	42.7	41.3	43.2	43.9	0.7	p.p.
Male		77.6	78.3	79.0	79.2	79.1	0.0	p.p.
Young (15–24)		39.3	38.1	40.0	37.1	36.1	– 1.0	p.p.
Prime age (25–54)		94.1	94.3	94.6	94.6	94.7	0.1	p.p.
Older (55–64)		58.1	60.6	58.9	60.8	61.0	0.2	p.p.
Female		51.0	52.2	54.1	54.5	55.0	0.5	p.p.
Young (15–24)		33.1	31.2	33.4	30.4	28.7	– 1.8	p.p.
Prime age (25–54)		63.4	65.2	67.6	68.2	69.1	0.9	p.p.
Older (55–64)		25.2	26.4	25.2	27.1	28.0	0.9	p.p.
5. Employment rate (as % of population 15–64)		57.5	58.7	59.4	60.1	61.0	0.9	p.p.
Young (15–24)		26.5	25.3	26.8	25.0	24.2	– 0.7	p.p.
Prime age (25–54)		71.6	72.9	73.5	74.0	75.3	1.3	p.p.
Older (55–64)		39.2	41.3	39.4	41.6	42.3	0.7	p.p.
Male		72.2	73.4	73.7	74.2	74.6	0.4	p.p.
Young (15–24)		31.5	30.9	32.3	30.1	29.7	– 0.4	p.p.
Prime age (25–54)		88.7	89.3	89.3	89.5	90.0	0.5	p.p.
Older (55–64)		55.9	58.7	56.4	58.8	59.2	0.4	p.p.
Female		42.9	44.3	45.2	46.1	47.4	1.3	p.p.
Young (15–24)		21.4	19.8	21.3	19.8	18.7	– 1.1	p.p.
Prime age (25–54)		54.5	56.4	57.6	58.5	60.5	2.0	p.p.
Older (55–64)		24.0	25.5	24.0	25.8	26.6	0.8	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		4 087	4 181	4 235	4 287	4 365	79	Th.
Male (as % of total)		62.4	62.1	61.7	61.5	61.0	– 0.5	p.p.
Female (as % of total)		37.6	37.9	38.3	38.5	39.0	0.5	p.p.
7. Employment growth (%) (national accounts)		0.1	1.3	2.9	1.3	1.5		p.p.
Employment growth (%) (LFS — age 15–64)		2.2	2.3	1.3	1.2	1.8		p.p.
Male		1.4	1.8	0.7	0.9	1.0		p.p.
Female		3.5	3.2	2.2	1.8	3.1		p.p.
8. Self employed (% of total employment)		23.0	23.0	21.7	21.5	21.2	– 0.3	p.p.
Male		26.1	26.2	24.9	24.6	24.1	– 0.5	p.p.
Female		17.9	17.8	16.6	16.6	16.6	0.1	p.p.
9. Temporary employment (as % of total)		11.7	11.2	12.0	11.9	10.7	– 1.2	p.p.
Male		10.5	9.7	10.5	10.1	9.1	– 1.1	p.p.
Female		13.6	13.3	14.1	14.3	13.0	– 1.3	p.p.
10. Part-time (as % of total employment)		4.2	4.0	4.4	4.8	5.5	0.7	p.p.
Male		2.0	2.0	2.0	2.1	2.6	0.5	p.p.
Female		7.8	7.5	8.3	9.0	9.9	0.9	p.p.
11. Unemployment rate (harmonised: 15-74)		10.3	9.7	10.5	9.8	8.9	– 0.9	p.p.
Young (15–24)		26.8	26.9	26.9	26.0	25.2	– 0.8	p.p.
Prime age (25–54)		9.1	8.7	9.5	9.1	8.1	– 1.0	p.p.
Older (55–64)		4.1	3.2	4.5	3.8	3.7	– 0.1	p.p.
Male		6.8	6.2	6.6	6.1	5.6	– 0.5	p.p.
Young (15–24)		19.9	18.9	19.1	18.7	17.7	– 1.1	p.p.
Prime age (25–54)		5.8	5.4	5.7	5.4	5.0	– 0.4	p.p.
Older (55–64)		3.9	3.1	4.2	3.3	3.1	– 0.3	p.p.
Female		15.6	15.0	16.2	15.3	13.6	– 1.7	p.p.
Young (15–24)		35.3	36.6	36.3	34.8	34.7	– 0.1	p.p.
Prime age (25–54)		14.0	13.5	14.8	14.3	12.5	– 1.8	p.p.
Older (55–64)		4.7	3.4	5.0	4.7	5.0	0.3	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		51.4	55.0	53.2	52.1	54.4	2.3	p.p.
13. Worked hours (average actual weekly hours)		41.8	41.9	41.9	41.9	41.5	– 1.0	%
Male		43.4	43.5	43.6	43.8	43.5	– 0.7	%
Female		39.0	39.1	39.0	38.9	38.4	– 1.3	%
14. Sectoral employment growth								
Agriculture		– 3.6	– 3.0	– 3.5	0.4	:		p.p.
Building and construction		3.6	8.6	1.3	3.4	:		p.p.
Services		1.5	2.7	5.9	1.5	:		p.p.
Manufacturing industry		– 3.1	– 2.5	– 1.1	0.4	– 1.6		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Greece
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	10.0	4.6	5.8	6.5	5.9	:	:	:	:
Compensation of employees per hour worked	8.5	5.6	12.8	6.7	5.6	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	7.1	2.7	8.9	0.6	7.8	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	6.0	1.2	4.0	4.1	3.1	:	:	:	:
Real unit labour costs deflated by GDP deflator	2.1	– 2.2	0.6	0.4	– 0.3	:	:	:	:
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	7.2	2.0	4.4	4.9	4.0	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	66.6	64.6	64.6	64.8	66.0	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	21.9	21.2	:	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	78.1	78.8	:	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	71.3	71.7	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	38.4	38.5	39.0	39.5	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	38.7	37.9	38.5	39.0	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	22.1	21.7	:	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	– 0.1	– 0.3	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	3.7	3.4	1.7	2.3	2.7	:	:	:	:
Hourly labour productivity	3.7	3.4	5.0	2.8	2.2	:	:	:	:
GDP	3.8	4.8	4.7	3.7	4.3	:	:	:	:
ECFIN NAIRU estimate	9.8	9.5	9.6	9.3	9.0	:	:	:	:
Output gap (%)	– 0.1	0.6	1.5	1.4	1.7	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	3.9	3.4	3.0	3.5	3.3	3.2	3.4	3.5	3.2
Underlying inflation (excl. energy and unprocessed food)	3.9	3.1	3.4	3.2	2.9	2.5	2.9	2.8	3.4
GDP deflator	3.8	3.5	3.4	3.7	3.4	:	:	:	:
Sectoral breakdown of unit labour costs									
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	1.4	– 0.8	9.0	1.6	2.9	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	:	:	:	:	:	:	:	:	:
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	7.3	5.3	8.7	7.7	5.8	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	5.8	6.2	– 0.3	6.0	2.8	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:

Source: AMECO, Eurostat (national accounts), ECB.

Spain
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	41 063	41 753	42 440	43 141	43 835	1.6	%
2. Population (working age: 15–64)		28 231	28 729	29 227	29 755	30 255	1.7	%
(as % of total population)		68.8	68.8	68.9	69.0	69.0	0.0	p.p.
3. Labour force (15–64)	**1 000 pers.**	18 680	19 428	20 073	20 743	21 435	3.3	%
Male		11 225	11 558	11 834	12 155	12 432	2.3	%
Female		7 456	7 870	8 239	8 587	9 003	4.8	%
4. Activity rate (as % of population 15–64)		66.2	67.6	68.7	69.7	70.8	1.1	p.p.
Young (15–24)		43.7	44.5	45.1	47.7	48.2	0.5	p.p.
Prime age (25–54)		78.2	79.6	80.6	80.9	82.0	1.2	p.p.
Older (55–64)		42.7	43.8	44.4	45.9	46.8	0.8	p.p.
Male		79.1	80.0	80.4	80.9	81.3	0.4	p.p.
Young (15–24)		48.8	49.5	50.2	52.3	52.2	– 0.1	p.p.
Prime age (25–54)		92.1	92.5	92.5	92.4	92.5	0.2	p.p.
Older (55–64)		62.1	62.9	62.7	63.2	63.5	0.3	p.p.
Female		53.1	55.1	56.8	58.3	60.2	1.9	p.p.
Young (15–24)		38.5	39.2	39.8	42.9	43.9	1.1	p.p.
Prime age (25–54)		64.1	66.5	68.3	69.0	71.2	2.1	p.p.
Older (55–64)		24.4	25.7	27.2	29.6	31.0	1.3	p.p.
5. Employment rate (as % of population 15–64)		58.5	59.8	61.1	63.3	64.8	1.5	p.p.
Young (15–24)		34.0	34.4	35.2	38.3	39.5	1.2	p.p.
Prime age (25–54)		70.2	71.4	72.7	74.4	75.8	1.4	p.p.
Older (55–64)		39.6	40.7	41.3	43.1	44.1	1.0	p.p.
Male		72.6	73.2	73.8	75.2	76.1	0.9	p.p.
Young (15–24)		39.7	39.9	40.8	43.5	44.4	0.8	p.p.
Prime age (25–54)		85.7	85.9	86.1	86.9	87.6	0.7	p.p.
Older (55–64)		58.4	59.2	58.9	59.7	60.4	0.7	p.p.
Female		44.4	46.3	48.3	51.2	53.2	2.0	p.p.
Young (15–24)		28.0	28.6	29.3	32.8	34.4	1.6	p.p.
Prime age (25–54)		54.4	56.6	58.9	61.5	63.7	2.2	p.p.
Older (55–64)		21.9	23.3	24.6	27.4	28.7	1.3	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		16 527	17 188	17 861	18 834	19 600	767	Th.
Male (as % of total)		62.3	61.6	60.8	60.0	59.4	– 0.6	p.p.
Female (as % of total)		37.7	38.4	39.2	40.0	40.6	0.6	p.p.
7. Employment growth (%) (national accounts)		2.4	3.1	3.5	3.8	3.3		p.p.
Employment growth (%) (LFS — age 15–64)		3.0	4.0	3.9	5.4	4.1		p.p.
Male		2.2	2.8	2.7	4.0	3.1		p.p.
Female		4.5	6.0	5.9	7.8	5.6		p.p.
8. Self employed (% of total employment)		11.7	11.1	11.0	11.2	10.9	– 0.4	p.p.
Male		13.4	12.6	12.6	12.8	12.6	– 0.2	p.p.
Female		8.9	8.7	8.6	8.9	8.4	– 0.5	p.p.
9. Temporary employment (as % of total)		31.9	31.8	32.5	33.4	34.1	0.7	p.p.
Male		29.9	30.0	30.6	31.7	32.1	0.4	p.p.
Female		34.9	34.6	35.2	35.7	36.8	1.1	p.p.
10. Part-time (as % of total employment)		7.9	8.1	8.7	12.2	11.8	– 0.4	p.p.
Male		2.5	2.5	2.7	4.3	4.1	– 0.2	p.p.
Female		16.8	17.0	17.9	24.0	23.0	– 1.0	p.p.
11. Unemployment rate (harmonised: 15-74)		11.1	11.1	10.6	9.2	8.5	– 0.7	p.p.
Young (15–24)		22.3	22.7	22.0	19.7	17.9	– 1.7	p.p.
Prime age (25–54)		10.2	10.3	9.8	8.0	7.5	– 0.4	p.p.
Older (55–64)		7.2	7.0	7.1	6.1	5.7	– 0.4	p.p.
Male		8.1	8.2	8.0	7.0	6.3	– 0.7	p.p.
Young (15–24)		18.5	19.5	18.7	16.7	15.0	– 1.7	p.p.
Prime age (25–54)		6.9	7.1	6.9	5.9	5.4	– 0.5	p.p.
Older (55–64)		6.0	5.9	6.0	5.4	4.8	– 0.6	p.p.
Female		15.7	15.3	14.3	12.2	11.6	– 0.6	p.p.
Young (15–24)		27.3	27.0	26.4	23.4	21.6	– 1.8	p.p.
Prime age (25–54)		15.1	14.8	13.8	10.9	10.5	– 0.4	p.p.
Older (55–64)		10.1	9.4	9.4	7.5	7.4	– 0.1	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		33.7	33.7	32.0	24.5	21.7	– 2.8	p.p.
13. Worked hours (average actual weekly hours)		38.5	38.4	38.2	38.6	38.6	– 0.2	%
Male		40.3	40.2	40.2	41.3	41.2	– 0.2	%
Female		35.5	35.3	35.1	34.6	34.7	0.2	%
14. Sectoral employment growth								
Agriculture		– 1.7	– 0.9	– 1.4	0.1	– 0.7		p.p.
Building and construction		3.2	4.7	5.8	7.7	7.6		p.p.
Services		3.1	3.9	4.1	4.2	3.5		p.p.
Manufacturing industry		0.8	0.6	0.9	0.8	0.0		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Spain
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	3.4	2.8	2.2	2.0	3.2	2.8	3.1	3.3	3.6
Compensation of employees per hour worked	4.0	4.3	3.4	3.5	3.4	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	5.4	4.8	4.1	3.7	4.0	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	3.1	2.9	2.5	2.3	2.7	2.8	2.7	2.7	2.4
Real unit labour costs deflated by GDP deflator	– 1.2	– 1.2	– 1.4	– 1.8	– 1.1	– 1.4	– 1.0	– 0.8	– 1.2
Wages and salaries	3.0	2.6	2.6	1.3	4.0	2.9	3.9	5.0	4.0
Compensation per employee adjusted by total factor productivity	3.7	2.9	2.3	2.2	3.0	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	63.8	63.2	62.6	61.8	61.3	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	26.3	26.4	26.6	26.6	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	73.7	73.6	73.4	73.4	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	66.9	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	39.1	38.5	38.7	39.0	39.1	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	37.7	37.1	37.4	37.7	37.8	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	25.0	25.0	24.9	24.9	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	1.2	1.4	1.7	1.7	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	0.3	– 0.1	– 0.2	– 0.3	0.5	– 0.1	0.4	0.5	1.2
Hourly labour productivity	0.6	0.8	0.7	0.9	0.5	:	:	:	:
GDP	2.7	3.0	3.2	3.5	3.9	3.5	4.0	3.6	4.2
ECFIN NAIRU estimate	11.3	10.6	9.9	9.2	8.5	:	:	:	:
Output gap (%)	1.1	0.1	– 0.6	– 1.2	– 1.1	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	3.6	3.1	3.1	3.4	3.6	4.1	4.0	3.6	2.6
Underlying inflation (excl. energy and unprocessed food)	3.9	3.0	2.8	2.7	3.0	3.1	3.2	3.1	2.7
GDP deflator	4.3	4.1	4.0	4.1	3.8	4.3	3.8	3.6	3.6
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 0.5	– 1.2	0.2	11.9	2.6	8.2	7.3	2.9	– 5.6
Industry excluding construction	2.6	2.4	1.7	2.7	0.2	2.4	0.4	– 1.7	– 0.5
of which: manufacturing	3.1	3.0	2.0	3.2	– 0.3	:	:	:	:
Construction	3.5	4.1	4.7	6.5	5.7	6.5	5.2	5.3	6.0
Trade, transport and communication	3.6	2.6	1.9	– 0.2	3.3	2.3	3.3	3.9	3.7
Finance and business services	3.9	3.7	2.2	0.9	3.2	2.2	2.6	4.5	3.5
Non-market related services	3.6	3.9	3.7	3.1	3.2	:	:	:	:
Market-related sectors	3.2	2.9	2.2	2.5	2.9	3.1	3.0	2.8	2.5
Sectoral breakdown of compensation per employee									
Total industries	3.4	2.8	2.2	2.0	3.2	0.0	0.0	0.0	0.0
Agriculture and fishery	1.7	– 1.0	3.5	0.6	3.6	2.3	3.7	4.2	4.6
Industry excluding construction	1.8	3.0	1.2	2.4	2.8	3.4	2.7	2.6	2.4
of which: manufacturing	1.8	3.2	1.4	2.7	3.0	:	:	:	:
Construction	6.6	4.5	4.0	4.2	3.4	4.4	3.3	3.1	3.0
Trade, transport and communication	3.0	0.3	0.5	– 0.1	3.3	3.0	3.9	3.6	2.9
Finance and business services	2.9	4.2	1.3	2.0	0.9	– 0.3	0.9	0.4	2.4
Non-market related services	3.7	3.8	3.9	2.4	3.9	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	2.2	0.2	3.4	– 10.1	1.1	– 5.5	– 3.3	1.3	10.8
Industry excluding construction	– 0.8	0.6	– 0.5	– 0.3	2.6	1.0	2.3	4.4	2.9
of which: manufacturing	– 1.2	0.2	– 0.6	– 0.5	3.3	:	:	:	:
Construction	3.0	0.4	– 0.7	– 2.2	– 2.2	– 1.9	– 1.9	– 2.1	– 2.8
Trade, transport and communication	– 0.6	– 2.2	– 1.4	0.1	0.0	0.7	0.6	– 0.3	– 0.8
Finance and business services	– 0.9	0.4	– 0.9	1.1	– 2.2	– 2.5	– 1.7	– 3.9	– 1.0
Non-market related services	0.1	– 0.1	0.2	– 0.7	0.6	– 0.7	0.0	2.1	1.1
Market-related sectors	0.1	– 0.5	– 0.7	– 0.7	0.0	– 0.3	– 0.1	0.1	0.5

Source: AMECO, Eurostat (national accounts), ECB.

France
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	57 908	58 738	58 850	59 322	59 797	0.8	%
2. Population (working age: 15–64)		37 787	38 336	38 451	38 749	39 129	1.0	%
(as % of total population)		65.3	65.3	65.3	65.3	65.4	0.1	p.p.
3. Labour force (15–64)	**1 000 pers.**	26 060	26 653	26 736	26 928	27 142	0.8	%
Male		14 102	14 312	14 305	14 359	14 450	0.6	%
Female		11 957	12 341	12 432	12 569	12 692	1.0	%
4. Activity rate (as % of population 15–64)		69.0	69.5	69.5	69.5	69.4	– 0.1	p.p.
Young (15–24)		36.9	38.3	38.5	38.4	37.9	– 0.5	p.p.
Prime age (25–54)		86.1	86.3	86.5	86.7	87.0	0.3	p.p.
Older (55–64)		35.6	38.8	39.6	40.0	39.9	– 0.1	p.p.
Male		75.5	75.5	75.3	75.1	74.8	– 0.3	p.p.
Young (15–24)		41.0	42.2	42.5	42.5	42.2	– 0.2	p.p.
Prime age (25–54)		93.9	93.5	93.5	93.5	93.5	0.0	p.p.
Older (55–64)		40.5	43.2	43.5	43.1	42.7	– 0.4	p.p.
Female		62.6	63.6	63.9	64.1	64.1	0.0	p.p.
Young (15–24)		32.7	34.4	34.4	34.3	33.4	– 0.9	p.p.
Prime age (25–54)		78.6	79.3	79.8	80.2	80.7	0.5	p.p.
Older (55–64)		31.0	34.6	35.9	37.1	37.3	0.1	p.p.
5. Employment rate (as % of population 15–64)		62.9	63.3	63.1	63.1	63.0	– 0.1	p.p.
Young (15–24)		29.9	30.6	30.4	30.1	29.3	– 0.8	p.p.
Prime age (25–54)		79.4	79.5	79.6	79.8	80.2	0.4	p.p.
Older (55–64)		33.8	36.8	37.3	37.9	37.6	– 0.3	p.p.
Male		69.6	69.4	69.0	68.8	68.5	– 0.3	p.p.
Young (15–24)		33.9	34.0	34.0	33.9	33.3	– 0.6	p.p.
Prime age (25–54)		87.6	87.1	86.9	87.0	87.0	0.1	p.p.
Older (55–64)		38.1	40.9	41.0	40.7	40.1	– 0.5	p.p.
Female		56.4	57.2	57.4	57.6	57.7	0.1	p.p.
Young (15–24)		25.9	27.1	26.7	26.3	25.2	– 1.1	p.p.
Prime age (25–54)		71.5	72.0	72.5	72.9	73.6	0.7	p.p.
Older (55–64)		29.6	32.9	33.8	35.2	35.2	0.0	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		23 784	24 252	24 277	24 467	24 668	201	Th.
Male (as % of total)		54.7	54.2	54.0	53.8	53.7	– 0.2	p.p.
Female (as % of total)		45.3	45.8	46.0	46.2	46.3	0.2	p.p.
7. Employment growth (%) (national accounts)		0.6	0.1	0.1	0.4	0.8		p.p.
Employment growth (%) (LFS — age 15–64)		0.8	2.0	0.1	0.8	0.8		p.p.
Male		0.1	1.2	– 0.3	0.4	0.5		p.p.
Female		1.7	2.9	0.6	1.2	1.2		p.p.
8. Self employed (% of total employment)		5.4	5.7	5.4	5.5	5.9	0.4	p.p.
Male		7.0	7.3	6.8	7.0	7.4	0.4	p.p.
Female		3.6	3.9	3.7	3.7	4.0	0.3	p.p.
9. Temporary employment (as % of total)		14.1	12.7	12.9	13.3	13.5	0.2	p.p.
Male		12.5	11.4	11.8	12.6	13.0	0.3	p.p.
Female		16.0	14.2	14.0	14.0	14.0	0.1	p.p.
10. Part-time (as % of total employment)		16.1	16.4	16.5	17.1	17.1	0.0	p.p.
Male		4.9	5.2	5.1	5.4	5.5	0.0	p.p.
Female		29.6	29.7	30.0	30.6	30.5	– 0.1	p.p.
11. Unemployment rate (harmonised: 15-74)		8.7	9.5	9.6	9.7	9.5	– 0.2	p.p.
Young (15–24)		18.9	20.2	21.0	21.5	22.6	1.1	p.p.
Prime age (25–54)		7.8	7.9	8.0	8.0	7.8	– 0.2	p.p.
Older (55–64)		5.3	5.2	5.7	5.4	5.8	0.3	p.p.
Male		7.8	8.5	8.8	8.8	8.7	– 0.1	p.p.
Young (15–24)		17.5	19.5	20.0	20.1	21.2	1.1	p.p.
Prime age (25–54)		6.7	6.8	7.0	7.0	6.9	– 0.1	p.p.
Older (55–64)		5.8	5.3	5.7	5.6	5.9	0.3	p.p.
Female		9.8	10.6	10.6	10.7	10.4	– 0.3	p.p.
Young (15–24)		20.8	21.1	22.4	23.2	24.5	1.3	p.p.
Prime age (25–54)		9.0	9.2	9.1	9.1	8.8	– 0.3	p.p.
Older (55–64)		4.6	5.0	5.8	5.2	5.6	0.4	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		32.7	39.4	40.5	41.3	42.4	1.1	p.p.
13. Worked hours (average actual weekly hours)		37.6	36.4	36.6	36.8	36.8	0.0	%
Male		40.6	39.3	39.6	39.9	39.8	– 0.1	%
Female		33.9	32.7	32.9	33.0	33.1	0.2	%
14. Sectoral employment growth								
Agriculture		– 1.8	– 1.7	– 0.7	– 1.6	:		p.p.
Building and construction		1.4	0.5	1.5	3.0	:		p.p.
Services		1.2	0.7	0.6	0.9	:		p.p.
Manufacturing industry		– 1.9	– 2.3	– 2.9	– 2.6	– 2.6		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

France
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	3.4	2.8	3.4	3.1	3.1	:	:	:	:
Compensation of employees per hour worked	6.3	3.2	1.8	3.7	3.0	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	4.0	2.4	4.4	3.2	3.3	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	3.0	1.8	1.1	1.8	1.8	:	:	:	:
Real unit labour costs deflated by GDP deflator	0.6	– 0.1	– 0.5	0.0	– 0.4	:	:	:	:
Wages and salaries	3.0	1.5	3.3	2.6	:	3.0	3.0	2.9	3.4
Compensation per employee adjusted by total factor productivity	3.7	2.4	1.8	2.4	2.4	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	66.3	66.2	66.2	66.4	66.1	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	32.9	33.0	33.0	33.0	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	67.1	67.0	67.0	67.1	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	58.5	58.9	59.2	59.7	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	49.8	49.8	49.8	50.1	50.2	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	45.8	46.0	46.2	46.4	46.5	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	28.5	28.6	28.7	28.7	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	4.5	4.4	4.4	4.3	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	0.4	1.0	2.4	1.3	1.2	:	:	:	:
Hourly labour productivity	3.1	1.4	0.8	2.0	1.2	:	:	:	:
GDP	1.0	1.1	2.5	1.7	2.0	2.2	1.7	2.0	2.1
ECFIN NAIRU estimate	9.6	9.5	9.3	9.2	9.0	:	:	:	:
Output gap (%)	0.9	– 0.1	0.1	– 0.8	– 1.0	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	1.9	2.2	2.3	1.9	1.9	2.0	2.2	1.9	1.5
Underlying inflation (excl. energy and unprocessed food)	2.2	2.2	2.4	1.2	1.3	1.2	1.3	1.3	1.4
GDP deflator	2.4	1.9	1.6	1.7	2.3	1.8	2.2	2.5	2.6
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 0.1	20.2	– 14.8	10.0	:	8.3	3.4	0.0	– 1.3
Industry excluding construction	0.8	– 1.9	0.3	– 1.4	:	– 2.0	0.3	– 0.1	1.0
of which: manufacturing	2.0	– 2.0	0.0	– 2.0	– 0.7	:	:	:	:
Construction	6.5	5.8	4.6	4.6	:	6.2	6.1	6.1	4.8
Trade, transport and communication	2.9	3.0	2.0	1.7	:	1.2	1.5	1.1	1.7
Finance and business services	3.0	0.2	1.2	2.5	:	2.9	2.7	2.6	2.2
Non-market related services	4.3	3.1	1.6	2.7	:	:	:	:	:
Market-related sectors	2.4	1.5	0.8	1.7	:	1.7	2.1	1.7	1.8
Sectoral breakdown of compensation per employee									
Total industries	3.4	2.8	3.4	3.1	3.1	0.0	0.0	0.0	0.0
Agriculture and fishery	6.8	3.7	3.3	5.4	:	3.7	3.0	2.5	2.2
Industry excluding construction	3.3	2.3	4.2	2.2	:	3.4	3.6	3.1	3.9
of which: manufacturing	3.4	2.0	4.2	1.9	3.7	:	:	:	:
Construction	3.7	4.2	4.7	5.1	:	5.2	4.5	3.9	3.7
Trade, transport and communication	3.4	2.6	3.4	3.0	:	3.4	2.9	2.4	2.7
Finance and business services	3.0	3.4	3.6	3.0	:	3.5	3.1	2.5	2.7
Non-market related services	3.7	2.8	2.9	3.2	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	6.9	– 13.8	21.3	– 4.2	:	– 4.2	– 0.4	2.5	3.6
Industry excluding construction	2.5	4.2	3.9	3.7	:	5.5	3.2	3.3	2.8
of which: manufacturing	1.4	4.1	4.2	4.0	4.4	:	:	:	:
Construction	– 2.7	– 1.4	0.2	0.4	:	– 1.0	– 1.5	– 2.1	– 1.1
Trade, transport and communication	0.4	– 0.3	1.3	1.3	:	2.2	1.4	1.3	1.0
Finance and business services	0.1	3.3	2.4	0.5	:	0.6	0.3	0.0	0.5
Non-market related services	– 0.6	– 0.3	1.4	0.5	:	0.5	– 0.6	0.1	0.6
Market-related sectors	0.8	1.3	2.9	1.3	:	1.9	1.2	1.1	1.3

Source: AMECO, Eurostat (national accounts), ECB.

Ireland
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	3 926	3 991	4 059	4 149	4 253	2.5	%
2. Population (working age: 15–64)		2 661	2 711	2 761	2 831	2 913	2.9	%
(as % of total population)		67.8	67.9	68.0	68.2	68.5	0.3	p.p.
3. Labour force (15–64)	**1 000 pers.**	1 824	1 866	1 919	2 004	2 092	4.4	%
Male		1 059	1 079	1 108	1 149	1 198	4.3	%
Female		765	787	810	854	893	4.6	%
4. Activity rate (as % of population 15–64)		68.6	68.8	69.5	70.8	71.8	1.0	p.p.
Young (15–24)		52.0	52.3	52.4	53.3	54.7	1.4	p.p.
Prime age (25–54)		79.1	79.1	79.9	80.9	81.5	0.6	p.p.
Older (55–64)		49.3	50.2	50.8	53.1	54.4	1.3	p.p.
Male		79.2	79.3	79.9	80.6	81.5	0.9	p.p.
Young (15–24)		55.7	56.0	55.9	56.6	59.0	2.3	p.p.
Prime age (25–54)		91.2	91.1	91.8	92.1	92.1	0.0	p.p.
Older (55–64)		66.7	66.3	66.9	67.7	68.7	1.0	p.p.
Female		57.8	58.3	59.0	60.8	61.9	1.1	p.p.
Young (15–24)		48.1	48.5	48.8	49.9	50.2	0.4	p.p.
Prime age (25–54)		66.9	67.2	68.0	69.6	70.7	1.1	p.p.
Older (55–64)		31.6	33.8	34.4	38.2	40.0	1.8	p.p.
5. Employment rate (as % of population 15–64)		65.5	65.5	66.3	67.6	68.6	1.0	p.p.
Young (15–24)		47.6	47.5	47.7	48.7	50.0	1.2	p.p.
Prime age (25–54)		76.1	75.9	76.8	77.9	78.4	0.5	p.p.
Older (55–64)		48.0	49.0	49.5	51.6	53.1	1.5	p.p.
Male		75.4	75.2	75.9	76.9	77.7	0.9	p.p.
Young (15–24)		50.6	50.5	50.7	51.5	53.6	2.1	p.p.
Prime age (25–54)		87.4	87.0	87.8	88.4	88.4	0.0	p.p.
Older (55–64)		65.0	64.6	65.0	65.7	67.0	1.4	p.p.
Female		55.4	55.7	56.5	58.3	59.3	1.0	p.p.
Young (15–24)		44.5	44.4	44.7	45.9	46.2	0.3	p.p.
Prime age (25–54)		64.7	64.8	65.8	67.3	68.3	1.0	p.p.
Older (55–64)		30.8	33.1	33.7	37.3	39.1	1.8	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		1 742	1 776	1 830	1 915	1 999	84	Th.
Male (as % of total)		57.9	57.6	57.5	57.2	57.2	0.0	p.p.
Female (as % of total)		42.1	42.4	42.5	42.8	42.8	0.0	p.p.
7. Employment growth (%) (national accounts)		1.8	2.0	3.1	4.6	4.2		p.p.
Employment growth (%) (LFS — age 15–64)		1.7	2.0	3.1	4.6	4.4		p.p.
Male		0.6	1.5	2.9	4.0	4.3		p.p.
Female		3.3	2.5	3.3	5.5	4.5		p.p.
8. Self employed (% of total employment)		10.4	10.2	10.3	9.9	9.5	– 0.4	p.p.
Male		15.2	14.9	15.1	14.6	14.1	– 0.4	p.p.
Female		3.8	3.9	3.8	3.7	3.4	– 0.3	p.p.
9. Temporary employment (as % of total)		5.3	5.1	4.1	3.7	3.3	– 0.3	p.p.
Male		4.5	4.4	3.7	3.1	2.9	– 0.3	p.p.
Female		6.3	6.0	4.7	4.3	3.9	– 0.4	p.p.
10. Part-time (as % of total employment)		16.3	16.5	16.5	16.5	:	:	p.p.
Male		6.0	6.1	5.6	5.7	:	:	p.p.
Female		30.4	30.8	31.2	30.8	:	:	p.p.
11. Unemployment rate (harmonised: 15-74)		4.5	4.7	4.5	4.3	4.4	0.1	p.p.
Young (15–24)		8.5	9.2	8.9	8.6	8.6	0.0	p.p.
Prime age (25–54)		3.8	4.0	3.8	3.7	3.8	0.1	p.p.
Older (55–64)		2.5	2.5	2.6	2.8	2.4	– 0.4	p.p.
Male		4.7	5.0	4.9	4.6	4.6	0.0	p.p.
Young (15–24)		9.2	9.8	9.3	9.1	9.1	0.0	p.p.
Prime age (25–54)		4.1	4.4	4.3	4.0	4.0	0.1	p.p.
Older (55–64)		2.5	2.6	2.8	3.0	2.4	– 0.6	p.p.
Female		4.1	4.3	4.1	4.0	4.1	0.1	p.p.
Young (15–24)		7.6	8.4	8.5	7.9	8.0	0.1	p.p.
Prime age (25–54)		3.3	3.5	3.2	3.2	3.4	0.2	p.p.
Older (55–64)		2.5	2.2	2.1	2.5	2.4	– 0.1	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		30.2	32.9	35.0	33.6	32.4	– 1.2	p.p.
13. Worked hours (average actual weekly hours)		38.0	37.5	37.3	37.3	37.1	– 0.6	%
Male		42.2	41.6	41.5	41.5	41.1	– 0.9	%
Female		32.0	31.6	31.4	31.4	31.3	– 0.3	%
14. Sectoral employment growth								
Agriculture		– 1.6	– 3.2	– 2.6	– 0.9	1.5		p.p.
Building and construction		2.4	4.8	10.4	14.2	9.7		p.p.
Services		3.6	3.1	3.6	5.0	4.6		p.p.
Manufacturing industry		– 4.0	– 1.9	– 1.6	– 2.9	– 1.0		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Ireland
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	5.5	5.0	6.6	5.0	4.9	:	:	:	:
Compensation of employees per hour worked	6.6	6.6	6.9	6.2	5.9	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	4.0	5.5	5.0	4.4	4.5	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	1.2	2.7	5.4	4.1	3.1	:	:	:	:
Real unit labour costs deflated by GDP deflator	– 3.5	0.2	3.5	0.6	0.2	:	:	:	:
Wages and salaries	0.2	2.8	5.4	4.9	:	2.0	2.6	3.8	:
Compensation per employee adjusted by total factor productivity	2.4	3.8	6.3	4.6	4.0	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	52.5	52.9	55.2	55.6	56.6	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	:	:	:	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	:	:	:	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	24.5	24.2	26.2	26.2	23.1	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	20.9	19.3	21.5	21.4	17.8	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	4.2	2.3	1.2	0.9	1.7	2.2	1.1	3.2	0.4
Hourly labour productivity	5.0	3.5	1.4	1.2	1.8	:	:	:	:
GDP	6.0	4.3	4.3	5.5	6.0	5.9	5.6	7.6	5.0
ECFIN NAIRU estimate	4.5	4.1	3.9	3.9	3.9	:	:	:	:
Output gap (%)	3.3	1.6	0.1	– 0.3	– 0.4	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	4.7	4.0	2.3	2.2	2.7	2.7	2.9	2.8	2.5
Underlying inflation (excl. energy and unprocessed food)	5.1	4.3	2.1	1.5	2.2	1.8	2.1	2.3	2.6
GDP deflator	5.0	2.5	1.8	3.5	2.9	3.9	1.4	5.6	1.4
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 1.8	3.1	9.5	14.6	:	– 4.5	– 1.1	14.5	11.0
Industry excluding construction	– 9.8	– 0.8	0.0	3.6	:	– 3.1	– 8.7	– 2.9	1.7
of which: manufacturing	– 9.8	2.1	1.5	– 0.4	– 3.5	:	:	:	:
Construction	8.2	4.7	5.2	12.2	:	2.8	3.1	6.9	8.3
Trade, transport and communication	0.5	7.7	7.9	3.7	:	2.9	4.0	3.5	1.8
Finance and business services	2.2	1.6	– 1.3	– 0.4	:	1.2	3.6	4.7	12.0
Non-market related services	11.8	9.2	12.8	7.8	:	:	:	:	:
Market-related sectors	– 2.0	3.1	2.9	6.3	:	1.3	– 0.7	2.8	5.9
Sectoral breakdown of compensation per employee									
Total industries	5.4	5.0	6.6	5.0	:	0.0	0.0	0.0	:
Agriculture and fishery	– 2.1	6.9	12.9	1.2	:	0.0	0.2	1.4	3.1
Industry excluding construction	3.9	3.5	6.2	5.0	:	1.9	3.0	3.4	5.2
of which: manufacturing	2.9	5.6	7.1	4.4	3.7	:	:	:	:
Construction	9.8	5.0	3.1	5.5	:	0.8	0.2	2.6	2.2
Trade, transport and communication	1.6	4.7	4.7	3.0	:	3.2	4.4	5.7	7.4
Finance and business services	2.9	4.8	6.1	4.8	:	6.7	5.8	7.0	8.6
Non-market related services	8.8	6.0	7.7	4.9	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	– 0.3	3.7	3.1	– 11.7	:	4.8	1.3	– 11.4	– 7.1
Industry excluding construction	15.2	4.4	6.2	1.4	:	5.2	12.7	6.5	3.4
of which: manufacturing	14.1	3.4	5.6	4.8	7.4	:	:	:	:
Construction	1.4	0.3	– 2.0	– 6.0	:	– 2.0	– 2.8	– 4.1	– 5.6
Trade, transport and communication	1.1	– 2.8	– 3.0	– 0.7	:	0.3	0.4	2.1	5.4
Finance and business services	0.6	3.2	7.5	5.2	:	5.5	2.1	2.2	– 3.1
Non-market related services	– 2.7	– 2.9	– 4.6	– 2.7	:	– 0.6	– 0.7	0.9	– 0.2
Market-related sectors	6.0	1.3	2.9	– 1.2	:	1.8	4.0	1.9	0.5

Source: AMECO, Eurostat (national accounts), ECB.

Italy
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	57 382	57 399	57 442	58 077	58 435	0.6	%
2. Population (working age: 15–64)		38 676	38 692	38 292	38 588	38 726	0.4	%
(as % of total population)		67.4	67.4	66.7	66.4	66.3	– 0.2	p.p.
3. Labour force (15–64)	**1 000 pers.**	23 631	23 797	24 014	24 099	24 287	0.8	%
Male		14 344	14 429	14 274	14 360	14 445	0.6	%
Female		9 287	9 368	9 740	9 739	9 842	1.1	%
4. Activity rate (as % of population 15–64)		61.1	61.5	62.7	62.5	62.7	0.3	p.p.
Young (15–24)		35.5	34.6	36.1	33.8	32.5	– 1.3	p.p.
Prime age (25–54)		75.7	76.3	77.5	77.4	77.8	0.4	p.p.
Older (55–64)		30.2	31.5	31.8	32.6	33.4	0.9	p.p.
Male		74.3	74.7	74.9	74.6	74.6	0.0	p.p.
Young (15–24)		39.9	39.2	40.5	38.7	37.8	– 0.9	p.p.
Prime age (25–54)		91.0	91.5	91.4	91.2	91.3	0.1	p.p.
Older (55–64)		43.0	44.4	44.0	44.3	45.0	0.7	p.p.
Female		47.9	48.3	50.6	50.4	50.8	0.4	p.p.
Young (15–24)		31.0	29.9	31.7	28.7	26.9	– 1.7	p.p.
Prime age (25–54)		60.3	60.9	63.6	63.6	64.3	0.7	p.p.
Older (55–64)		18.1	19.3	20.4	21.5	22.5	1.0	p.p.
5. Employment rate (as % of population 15–64)		55.5	56.1	57.6	57.6	58.4	0.8	p.p.
Young (15–24)		25.8	25.2	27.6	25.7	25.5	– 0.2	p.p.
Prime age (25–54)		70.1	70.7	72.2	72.3	73.3	1.0	p.p.
Older (55–64)		28.9	30.3	30.5	31.4	32.5	1.0	p.p.
Male		69.1	69.6	70.1	69.9	70.5	0.6	p.p.
Young (15–24)		30.3	29.7	32.1	30.4	30.6	0.2	p.p.
Prime age (25–54)		86.0	86.5	86.7	86.6	87.2	0.6	p.p.
Older (55–64)		41.3	42.8	42.2	42.7	43.7	1.0	p.p.
Female		42.0	42.7	45.2	45.3	46.3	1.0	p.p.
Young (15–24)		21.3	20.6	23.1	20.8	20.1	– 0.7	p.p.
Prime age (25–54)		54.0	54.9	57.8	57.9	59.3	1.4	p.p.
Older (55–64)		17.3	18.5	19.6	20.8	21.9	1.1	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		21 478	21 710	22 060	22 214	22 618	404	Th.
Male (as % of total)		62.1	61.9	60.5	60.6	60.3	– 0.3	p.p.
Female (as % of total)		37.9	38.1	39.5	39.4	39.7	0.3	p.p.
7. Employment growth (%) (national accounts)		1.7	1.5	0.4	0.3	1.7		p.p.
Employment growth (%) (LFS — age 15–64)		1.5	1.1	1.6	0.7	1.8		p.p.
Male		1.0	0.8	– 0.6	0.8	1.4		p.p.
Female		2.2	1.6	5.2	0.5	2.5		p.p.
8. Self employed (% of total employment)		11.0	10.7	17.7	17.1	16.9	– 0.2	p.p.
Male		13.1	12.7	19.9	19.4	19.1	– 0.3	p.p.
Female		7.5	7.4	14.2	13.6	13.5	– 0.1	p.p.
9. Temporary employment (as % of total)		9.9	9.9	11.8	12.3	13.1	0.8	p.p.
Male		8.4	8.2	9.9	10.5	11.2	0.7	p.p.
Female		12.0	12.2	14.5	14.7	15.8	1.1	p.p.
10. Part-time (as % of total employment)		8.5	8.4	12.5	12.7	13.1	0.4	p.p.
Male		3.3	3.0	4.4	4.3	4.3	0.1	p.p.
Female		16.9	17.3	24.9	25.6	26.4	0.8	p.p.
11. Unemployment rate (harmonised: 15-74)		8.6	8.4	8.0	7.7	6.8	– 0.9	p.p.
Young (15–24)		27.2	27.1	23.5	24.0	21.6	– 2.4	p.p.
Prime age (25–54)		7.5	7.2	6.9	6.7	5.9	– 0.8	p.p.
Older (55–64)		4.1	3.8	4.1	3.5	2.9	– 0.6	p.p.
Male		6.7	6.5	6.4	6.2	5.4	– 0.8	p.p.
Young (15–24)		24.0	24.2	20.6	21.5	19.1	– 2.3	p.p.
Prime age (25–54)		5.6	5.4	5.2	5.1	4.5	– 0.5	p.p.
Older (55–64)		4.0	3.6	4.1	3.6	2.8	– 0.8	p.p.
Female		11.5	11.3	10.5	10.1	8.8	– 1.3	p.p.
Young (15–24)		31.4	30.9	27.2	27.4	25.3	– 2.2	p.p.
Prime age (25–54)		10.5	10.0	9.2	8.9	7.8	– 1.1	p.p.
Older (55–64)		4.4	4.3	4.0	3.2	2.9	– 0.3	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		59.6	58.1	49.2	49.9	49.7	– 0.3	p.p.
13. Worked hours (average actual weekly hours)		38.4	38.3	38.1	38.1	38.0	– 0.3	%
Male		40.5	40.5	41.0	41.0	40.8	– 0.4	%
Female		34.6	34.5	33.5	33.5	33.5	– 0.1	%
14. Sectoral employment growth								
Agriculture		– 2.8	– 6.5	1.3	– 2.2	1.4		p.p.
Building and construction		2.5	3.0	2.1	3.7	0.4		p.p.
Services		2.2	2.2	0.7	0.7	2.1		p.p.
Manufacturing industry		0.8	0.7	– 0.9	– 1.7	1.2		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Italy
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	2.2	2.4	3.3	2.8	2.4	4.7	5.0	3.9	– 1.0
Compensation of employees per hour worked	3.5	2.7	3.1	4.9	3.6	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	3.2	3.8	2.4	3.5	2.0	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	3.6	3.9	2.5	3.0	2.3	3.5	5.6	4.1	– 2.3
Real unit labour costs deflated by GDP deflator	0.2	0.9	– 0.4	0.7	0.5	1.9	2.8	1.3	– 3.4
Wages and salaries	1.9	0.9	3.1	4.0	3.2	5.8	6.0	3.8	– 1.6
Compensation per employee adjusted by total factor productivity	3.5	3.5	2.9	3.1	2.2	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	61.6	61.9	61.7	62.4	63.1	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	31.0	:	:	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	69.0	:	:	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	62.7	:	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	46.0	45.0	45.4	43.4	43.2	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	43.6	42.8	43.2	43.2	43.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	29.5	:	:	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	1.5	:	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	– 1.3	– 1.4	0.8	– 0.2	0.1	1.2	– 0.5	– 0.2	1.4
Hourly labour productivity	– 0.7	– 1.1	0.7	0.4	1.0	:	:	:	:
GDP	0.3	0.0	1.2	0.1	1.9	2.1	1.4	1.3	2.7
ECFIN NAIRU estimate	8.9	8.5	8.1	7.7	7.1	:	:	:	:
Output gap (%)	1.0	– 0.3	– 0.4	– 1.6	– 1.3	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.6	2.8	2.3	2.2	2.2	2.2	2.3	2.3	2.0
Underlying inflation (excl. energy and unprocessed food)	2.8	2.7	2.3	2.0	1.8	1.7	1.8	1.8	1.9
GDP deflator	3.4	3.1	2.9	2.2	1.8	1.5	2.7	2.7	1.1
Sectoral breakdown of unit labour costs									
Agriculture and fishery	1.9	3.5	– 10.0	6.8	5.9	10.0	6.6	7.5	3.7
Industry excluding construction	4.0	5.1	3.9	2.3	1.5	0.9	4.6	2.4	– 1.3
of which: manufacturing	4.3	5.4	4.5	3.1	0.5	0.5	3.8	1.2	– 2.9
Construction	3.1	3.8	4.8	4.6	1.4	2.5	– 1.7	2.0	3.0
Trade, transport and communication	3.8	5.3	0.9	0.6	1.0	2.2	3.7	– 0.4	– 1.1
Finance and business services	4.2	2.0	4.5	5.0	3.4	6.4	2.5	5.4	– 0.1
Non-market related services	3.3	4.6	2.5	3.2	3.6	:	:	:	:
Market-related sectors	3.5	4.1	2.6	2.4	2.0	3.2	3.3	2.3	– 0.3
Sectoral breakdown of compensation per employee									
Total industries	2.2	2.4	3.3	2.8	2.4	0.0	0.0	0.0	0.0
Agriculture and fishery	1.5	5.3	0.3	4.4	1.1	– 0.5	– 0.3	2.6	2.5
Industry excluding construction	2.3	2.1	4.0	2.2	2.8	4.3	2.7	2.3	2.7
of which: manufacturing	2.2	2.1	4.1	2.3	2.9	4.4	2.9	2.3	2.7
Construction	2.9	3.5	3.6	1.6	2.6	4.5	0.3	1.7	4.0
Trade, transport and communication	2.6	2.4	3.4	2.2	1.4	3.1	2.5	0.4	– 0.2
Finance and business services	1.4	0.8	2.1	2.7	1.6	3.5	– 0.4	3.0	0.9
Non-market related services	2.0	2.6	3.4	4.0	3.2	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	– 0.4	1.8	11.5	– 2.2	– 4.6	– 9.6	– 6.5	– 4.6	– 1.1
Industry excluding construction	– 1.6	– 2.8	0.1	– 0.1	1.3	3.3	– 1.8	– 0.1	4.0
of which: manufacturing	– 2.1	– 3.1	– 0.4	– 0.8	2.4	3.8	– 0.9	1.1	5.7
Construction	– 0.2	– 0.2	– 1.2	– 2.9	1.2	2.0	2.0	– 0.2	1.0
Trade, transport and communication	– 1.1	– 2.8	2.5	1.5	0.3	0.9	– 1.2	0.8	0.9
Finance and business services	– 2.7	– 1.2	– 2.4	– 2.2	– 1.7	– 2.7	– 2.8	– 2.2	1.0
Non-market related services	– 1.3	– 1.9	0.9	0.8	– 0.4	0.7	0.1	– 0.8	– 1.4
Market-related sectors	– 1.1	– 1.7	0.6	– 0.3	0.0	0.4	– 1.5	– 0.5	1.7

Source: AMECO, Eurostat (national accounts), ECB.

Cyprus
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	679	688	711	727	737	1.3	%
2. Population (working age: 15–64)		448	458	476	494	500	1.3	%
(as % of total population)		65.9	66.6	66.9	67.9	67.9	0.0	p.p.
3. Labour force (15–64)	**1 000 pers.**	317	331	345	357	365	2.2	%
Male		175	181	191	199	202	1.5	%
Female		143	150	155	159	164	3.1	%
4. Activity rate (as % of population 15–64)		70.9	72.2	72.6	72.4	73.0	0.6	p.p.
Young (15–24)		39.7	41.2	41.7	42.6	41.5	– 1.1	p.p.
Prime age (25–54)		84.6	85.6	86.1	85.7	86.2	0.5	p.p.
Older (55–64)		51.0	52.6	52.7	52.4	55.5	3.0	p.p.
Male		81.0	82.1	83.0	82.9	82.7	– 0.2	p.p.
Young (15–24)		40.9	42.5	45.7	46.6	44.9	– 1.7	p.p.
Prime age (25–54)		95.2	95.3	95.4	95.3	95.3	0.1	p.p.
Older (55–64)		69.0	72.6	74.4	73.2	74.1	0.9	p.p.
Female		61.6	63.1	62.9	62.5	63.8	1.3	p.p.
Young (15–24)		38.6	40.0	38.3	39.0	38.3	– 0.7	p.p.
Prime age (25–54)		74.6	76.7	77.4	76.5	77.4	0.9	p.p.
Older (55–64)		33.7	33.2	32.0	32.7	37.8	5.1	p.p.
5. Employment rate (as % of population 15–64)		68.5	69.2	69.1	68.5	69.6	1.2	p.p.
Young (15–24)		36.7	37.5	37.3	36.7	37.4	0.7	p.p.
Prime age (25–54)		82.2	82.5	82.7	81.8	82.6	0.8	p.p.
Older (55–64)		49.2	50.3	50.1	50.6	53.6	3.0	p.p.
Male		78.8	78.8	80.0	79.2	79.5	0.3	p.p.
Young (15–24)		37.7	38.5	41.4	40.5	41.0	0.5	p.p.
Prime age (25–54)		93.2	92.4	92.8	91.8	92.0	0.2	p.p.
Older (55–64)		66.9	68.8	71.0	70.8	71.7	0.9	p.p.
Female		59.0	60.2	59.0	58.4	60.3	1.9	p.p.
Young (15–24)		35.8	36.5	33.6	33.3	34.0	0.7	p.p.
Prime age (25–54)		71.9	73.5	73.1	72.2	73.6	1.4	p.p.
Older (55–64)		32.3	32.7	30.4	31.4	36.6	5.3	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		307	317	329	338	348	10	Th.
Male (as % of total)		55.4	54.8	55.9	56.1	55.6	– 0.5	p.p.
Female (as % of total)		44.7	45.3	44.1	43.9	44.4	0.5	p.p.
7. Employment growth (%) (national accounts)		2.1	3.8	3.8	3.6	1.5		p.p.
Employment growth (%) (LFS — age 15–64)		1.8	3.4	3.7	2.9	3.0		p.p.
Male		0.0	2.2	5.9	3.1	2.1		p.p.
Female		4.2	4.8	0.9	2.5	4.3		p.p.
8. Self employed (% of total employment)		13.2	13.4	12.8	12.4	12.1	– 0.2	p.p.
Male		17.2	18.1	16.6	15.1	14.5	– 0.5	p.p.
Female		8.2	7.8	8.1	8.9	9.1	0.2	p.p.
9. Temporary employment (as % of total)		9.1	12.6	13.0	14.0	13.2	– 0.8	p.p.
Male		5.7	8.1	8.6	9.0	7.9	– 1.1	p.p.
Female		12.8	17.1	17.6	19.5	19.0	– 0.5	p.p.
10. Part-time (as % of total employment)		6.3	7.6	7.4	7.6	6.6	– 1.0	p.p.
Male		2.7	3.6	3.2	3.2	2.8	– 0.4	p.p.
Female		10.8	12.5	12.7	13.2	11.3	– 1.9	p.p.
11. Unemployment rate (harmonised: 15-74)		3.6	4.1	4.6	5.2	4.6	– 0.6	p.p.
Young (15–24)		7.6	9.0	10.6	13.9	10.0	– 3.9	p.p.
Prime age (25–54)		2.8	3.6	4.0	4.5	4.1	– 0.4	p.p.
Older (55–64)		3.5	4.4	4.8	3.6	3.3	– 0.2	p.p.
Male		2.9	3.6	3.6	4.3	4.0	– 0.3	p.p.
Young (15–24)		7.9	9.3	9.3	13.0	8.8	– 4.3	p.p.
Prime age (25–54)		2.1	3.0	2.7	3.6	3.5	– 0.1	p.p.
Older (55–64)		3.1	5.3	4.7	3.3	3.2	– 0.1	p.p.
Female		4.5	4.8	6.0	6.5	5.4	– 1.1	p.p.
Young (15–24)		7.3	8.7	12.3	14.5	11.2	– 3.3	p.p.
Prime age (25–54)		3.6	4.2	5.5	5.6	4.9	– 0.7	p.p.
Older (55–64)		4.3	1.7	5.0	4.1	3.2	– 0.9	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		20.1	24.0	27.4	23.4	19.6	– 3.7	p.p.
13. Worked hours (average actual weekly hours)		38.3	38.0	39.7	39.2	39.2	– 0.1	%
Male		40.1	40.0	41.9	41.3	41.1	– 0.5	%
Female		36.0	35.6	36.9	36.3	36.7	1.1	%
14. Sectoral employment growth								
Agriculture		10.2	– 6.7	3.2	– 5.8	:		p.p.
Building and construction		4.8	9.7	5.9	5.9	:		p.p.
Services		1.8	4.1	3.7	4.4	:		p.p.
Manufacturing industry		– 1.8	2.9	2.7	0.6	– 1.5		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Cyprus
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	4.9	7.4	2.0	1.6	4.2	:	:	:	:
Compensation of employees per hour worked	7.2	7.9	2.8	3.4	4.2	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	5.6	6.2	4.6	4.6	4.9	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	5.1	9.5	1.6	1.3	1.9	:	:	:	:
Real unit labour costs deflated by GDP deflator	3.9	4.2	– 1.7	– 1.1	– 0.5	:	:	:	:
Wages and salaries	4.1	6.1	1.6	0.3	3.6	2.7	1.8	3.3	4.1
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	64.3	69.0	68.7	68.6	69.1	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	13.8	15.4	15.5	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	86.2	84.6	84.5	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	86.2	84.6	84.5	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	17.3	18.5	18.6	19.0	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	17.3	16.6	16.8	17.2	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	13.8	15.4	15.5	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	0.0	0.0	0.0	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	– 0.1	– 1.9	0.4	0.3	2.3	:	:	:	:
Hourly labour productivity	1.2	– 0.8	1.0	1.4	2.3	:	:	:	:
GDP	2.0	1.8	4.2	3.9	3.8	3.8	4.2	3.5	3.6
ECFIN NAIRU estimate	4.2	4.3	4.5	4.7	4.8	:	:	:	:
Output gap (%)	1.4	– 0.5	– 0.7	– 1.2	– 1.0	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.8	4.0	1.9	2.0	2.2	2.3	2.6	2.6	1.5
Underlying inflation (excl. energy and unprocessed food)	2.1	3.1	0.8	0.8	0.8	0.4	0.3	1.4	1.0
GDP deflator	1.2	5.1	3.3	2.4	2.5	2.9	3.1	3.4	3.8
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 1.8	45.9	– 7.6	– 1.2	11.0	– 5.7	0.0	19.0	– 12.9
Industry excluding construction	1.3	– 0.3	6.4	3.0	4.0	2.4	2.7	4.6	1.5
of which: manufacturing	3.4	1.7	4.4	2.5	2.8	:	:	:	:
Construction	3.0	– 1.2	2.3	– 0.4	2.9	– 4.8	– 3.2	4.9	7.5
Trade, transport and communication	5.6	3.5	1.4	2.3	– 0.6	1.6	– 2.1	– 0.4	– 1.4
Finance and business services	11.3	6.9	9.5	0.2	0.0	– 3.3	– 2.7	3.4	6.3
Non-market related services	4.2	11.1	0.6	2.4	1.4	:	:	:	:
Market-related sectors	6.4	6.1	3.2	1.1	– 0.2	– 1.3	– 2.2	0.9	0.6
Sectoral breakdown of compensation per employee									
Total industries	5.1	5.7	2.2	2.7	2.0	0.0	0.0	0.0	0.0
Agriculture and fishery	– 6.4	41.0	– 12.7	6.9	27.1	8.2	13.9	52.9	3.6
Industry excluding construction	4.2	0.3	5.5	3.5	2.8	3.1	2.8	3.7	0.1
of which: manufacturing	6.2	1.2	2.6	1.6	4.2	:	:	:	:
Construction	1.2	– 1.2	1.3	– 1.1	2.2	– 1.9	– 1.7	5.1	5.2
Trade, transport and communication	4.9	0.3	5.1	2.4	0.7	2.4	1.1	– 0.3	– 0.2
Finance and business services	10.1	3.5	7.3	– 0.1	2.7	– 0.2	– 0.9	3.1	5.4
Non-market related services	4.5	11.3	– 0.4	1.2	3.8	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	– 4.7	– 3.3	– 5.5	8.2	14.5	14.7	13.9	28.5	18.9
Industry excluding construction	2.8	0.7	– 0.8	0.5	– 1.2	0.8	0.2	– 0.8	– 1.4
of which: manufacturing	2.7	– 0.5	– 1.6	– 0.9	1.4	:	:	:	:
Construction	– 1.8	0.1	– 1.0	– 0.7	– 0.7	3.1	1.6	0.2	– 2.2
Trade, transport and communication	– 0.7	– 3.2	3.7	0.1	1.4	0.8	3.3	0.0	1.2
Finance and business services	– 1.1	– 3.2	– 2.0	– 0.3	2.7	3.2	1.9	– 0.2	– 0.9
Non-market related services	0.3	0.2	– 1.0	– 1.1	2.4	2.4	1.7	1.9	0.3
Market-related sectors	– 0.7	– 2.3	0.7	0.7	1.9	2.8	3.2	1.6	1.3

Source: AMECO, Eurostat (national accounts), ECB.

Latvia
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	2 344	2 330	2 319	2 305	2 294	– 0.5	%
2. Population (working age: 15–64)		1 590	1 588	1 587	1 583	1 580	– 0.2	%
(as % of total population)		67.8	68.1	68.4	68.7	68.9	0.2	p.p.
3. Labour force (15–64)	**1 000 pers.**	1 094	1 099	1 105	1 101	1 126	2.3	%
Male		564	564	568	567	581	2.4	%
Female		529	535	538	534	545	2.1	%
4. Activity rate (as % of population 15–64)		68.8	69.2	69.6	69.6	71.3	1.7	p.p.
Young (15–24)		39.1	38.4	37.3	37.7	40.8	3.2	p.p.
Prime age (25–54)		85.7	86.2	86.3	85.6	86.4	0.7	p.p.
Older (55–64)		46.3	47.9	52.3	53.8	57.1	3.3	p.p.
Male		74.1	74.1	74.3	74.4	76.2	1.8	p.p.
Young (15–24)		44.6	44.5	43.3	43.8	47.8	4.0	p.p.
Prime age (25–54)		89.2	89.7	89.7	89.4	90.0	0.6	p.p.
Older (55–64)		57.1	56.1	60.4	61.0	64.4	3.4	p.p.
Female		63.9	64.7	65.3	65.1	66.7	1.6	p.p.
Young (15–24)		33.4	32.1	31.0	31.3	33.6	2.3	p.p.
Prime age (25–54)		82.3	83.0	83.1	82.0	82.9	0.9	p.p.
Older (55–64)		38.2	41.9	46.1	48.5	51.6	3.1	p.p.
5. Employment rate (as % of population 15–64)		60.4	61.8	62.3	63.3	66.3	3.0	p.p.
Young (15–24)		31.0	31.5	30.5	32.6	35.9	3.3	p.p.
Prime age (25–54)		76.1	77.7	77.9	78.4	81.1	2.7	p.p.
Older (55–64)		41.7	44.1	47.9	49.5	53.3	3.8	p.p.
Male		64.3	66.1	66.4	67.6	70.4	2.8	p.p.
Young (15–24)		36.4	37.1	36.4	38.7	42.8	4.1	p.p.
Prime age (25–54)		78.1	80.7	80.5	81.7	83.7	2.0	p.p.
Older (55–64)		50.5	51.3	55.8	55.2	59.5	4.3	p.p.
Female		56.8	57.9	58.5	59.3	62.4	3.1	p.p.
Young (15–24)		25.4	25.7	24.4	26.3	28.7	2.4	p.p.
Prime age (25–54)		74.3	74.9	75.5	75.3	78.6	3.3	p.p.
Older (55–64)		35.2	38.8	41.9	45.3	48.7	3.4	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		960	982	988	1 002	1 047	45	Th.
Male (as % of total)		51.0	51.3	51.3	51.4	51.3	– 0.2	p.p.
Female (as % of total)		49.0	48.7	48.7	48.6	48.7	0.2	p.p.
7. Employment growth (%) (national accounts)		1.6	1.7	1.1	1.7	4.6		p.p.
Employment growth (%) (LFS — age 15–64)		2.4	2.2	0.7	1.4	4.5		p.p.
Male		3.2	2.8	0.7	1.7	4.2		p.p.
Female		1.6	1.6	0.7	1.0	4.9		p.p.
8. Self employed (% of total employment)		5.9	5.7	6.0	5.6	6.3	0.7	p.p.
Male		6.4	6.7	6.9	6.4	7.3	1.0	p.p.
Female		5.4	4.8	5.1	4.8	5.2	0.4	p.p.
9. Temporary employment (as % of total)		13.8	11.2	9.5	8.4	7.2	– 1.2	p.p.
Male		16.9	13.2	11.6	10.6	8.9	– 1.7	p.p.
Female		10.6	9.1	7.3	6.2	5.4	– 0.8	p.p.
10. Part-time (as % of total employment)		9.0	9.6	9.7	7.6	5.8	– 1.8	p.p.
Male		7.0	7.3	7.1	5.6	4.3	– 1.4	p.p.
Female		11.1	12.0	12.4	9.7	7.4	– 2.3	p.p.
11. Unemployment rate (harmonised: 15-74)		12.2	10.5	10.4	8.9	6.8	– 2.1	p.p.
Young (15–24)		20.8	18.0	18.1	13.6	12.2	– 1.4	p.p.
Prime age (25–54)		11.1	9.9	9.7	8.4	6.1	– 2.3	p.p.
Older (55–64)		9.9	7.9	8.4	8.0	6.6	– 1.4	p.p.
Male		13.3	10.6	10.6	9.1	7.4	– 1.7	p.p.
Young (15–24)		18.4	16.6	16.0	11.8	10.5	– 1.3	p.p.
Prime age (25–54)		12.5	10.0	10.3	8.6	7.0	– 1.6	p.p.
Older (55–64)		11.6	8.6	7.6	9.4	7.6	– 1.8	p.p.
Female		11.0	10.4	10.2	8.7	6.2	– 2.5	p.p.
Young (15–24)		24.1	20.0	21.3	16.1	14.7	– 1.4	p.p.
Prime age (25–54)		9.8	9.8	9.2	8.2	5.2	– 3.0	p.p.
Older (55–64)		8.0	7.2	9.1	6.7	5.7	– 1.0	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		45.1	41.6	43.7	45.8	35.9	– 9.9	p.p.
13. Worked hours (average actual weekly hours)		41.8	41.7	41.0	41.4	41.3	– 0.2	%
Male		43.5	43.1	42.6	43.0	42.8	– 0.5	%
Female		40.1	40.1	39.3	39.6	39.7	0.2	%
14. Sectoral employment growth								
Agriculture		3.6	– 8.9	– 10.0	0.5	0.2		p.p.
Building and construction		– 11.4	23.5	16.9	4.6	20.2		p.p.
Services		3.9	1.7	2.5	3.3	3.7		p.p.
Manufacturing industry		– 2.7	4.7	– 2.5	– 3.6	1.9		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Latvia
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	4.0	11.3	14.3	25.5	21.7	17.0	22.5	18.8	27.4
Compensation of employees per hour worked	5.8	11.2	17.6	27.7	21.5	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	7.7	9.9	11.6	15.2	23.3	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	– 0.8	5.6	6.4	15.5	13.8	7.6	14.7	13.8	19.8
Real unit labour costs deflated by GDP deflator	– 4.2	2.0	– 0.6	4.8	2.4	– 2.2	4.3	3.0	5.2
Wages and salaries	0.5	18.6	17.5	26.0	32.8	22.4	37.9	27.9	36.5
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	50.0	51.4	51.0	53.6	55.1	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	22.1	21.4	21.4	21.5	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	77.9	78.6	78.6	78.5	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	71.7	72.4	73.4	73.4	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	42.9	42.2	42.5	42.2	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	38.7	37.3	38.1	37.5	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	21.8	20.8	20.5	20.7	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	0.3	0.7	0.8	0.8	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	4.8	5.4	7.5	8.7	7.0	8.7	6.7	4.4	6.4
Hourly labour productivity	5.2	4.4	10.5	9.0	6.7	:	:	:	:
GDP	6.5	7.2	8.7	10.6	11.9	13.1	11.1	11.9	11.7
ECFIN NAIRU estimate	12.6	11.7	10.6	9.3	7.8	:	:	:	:
Output gap (%)	– 0.5	– 1.0	– 1.0	– 0.2	1.4	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.0	2.9	6.2	6.9	6.6	7.0	6.5	6.6	6.2
Underlying inflation (excl. energy and unprocessed food)	1.6	2.9	5.8	5.5	5.1	5.6	4.8	4.7	5.4
GDP deflator	3.6	3.6	7.0	10.2	11.1	10.1	10.0	10.6	13.9
Sectoral breakdown of unit labour costs									
Agriculture and fishery	8.5	– 7.1	1.7	11.0	8.7	– 7.7	5.8	3.9	17.5
Industry excluding construction	– 7.0	– 5.3	– 0.3	8.1	15.5	9.6	20.3	14.3	19.4
of which: manufacturing	– 5.4	5.7	3.2	13.0	16.6	10.5	22.2	13.8	19.4
Construction	– 14.8	1.2	11.9	63.5	35.6	23.8	38.0	32.7	36.3
Trade, transport and communication	– 10.3	– 1.9	– 2.5	6.8	8.3	7.7	7.0	8.4	12.7
Finance and business services	1.9	– 5.7	10.2	12.7	15.7	6.2	12.1	18.4	23.3
Non-market related services	2.8	0.1	8.4	9.4	17.6	:	:	:	:
Market-related sectors	– 3.2	5.7	5.1	16.7	15.3	8.5	14.7	14.5	19.1
Sectoral breakdown of compensation per employee									
Total industries	0.3	1.0	10.2	19.6	22.0	0.0	0.0	0.0	0.0
Agriculture and fishery	9.4	– 0.6	17.3	20.4	8.3	– 9.2	– 5.1	– 8.0	17.7
Industry excluding construction	2.8	– 2.8	7.8	18.6	18.9	11.8	21.3	29.0	27.7
of which: manufacturing	5.9	7.1	12.9	24.2	21.5	13.6	26.1	29.0	31.3
Construction	5.6	– 7.0	8.9	80.2	28.1	44.3	55.2	16.7	7.8
Trade, transport and communication	– 4.5	2.4	4.6	18.2	18.7	19.2	19.0	15.9	24.0
Finance and business services	3.0	– 4.2	19.2	35.5	– 0.6	– 0.1	– 12.7	4.0	11.3
Non-market related services	– 0.2	6.6	12.3	9.0	31.4	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	0.9	7.0	15.3	8.4	– 0.3	– 1.7	– 10.3	– 11.5	0.2
Industry excluding construction	10.5	2.6	8.2	9.7	2.9	2.1	0.8	12.9	6.9
of which: manufacturing	11.9	1.3	9.4	9.9	4.2	2.8	3.1	13.3	9.9
Construction	24.0	– 8.1	– 2.7	10.2	– 5.5	16.6	12.5	– 12.1	– 20.9
Trade, transport and communication	6.5	4.3	7.2	10.6	9.6	10.7	11.3	6.9	10.0
Finance and business services	1.1	1.6	8.2	20.2	– 14.0	– 6.0	– 22.1	– 12.1	– 9.7
Non-market related services	– 2.9	6.4	3.5	– 0.4	11.8	6.9	16.0	6.7	28.8
Market-related sectors	7.3	3.7	8.2	10.6	3.2	7.7	3.7	2.6	2.6

Source: AMECO, Eurostat (national accounts), ECB.

Lithuania
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	3 453	3 445	3 434	3 424	3 403	– 0.6	%
2. Population (working age: 15–64)		2 303	2 305	2 310	2 322	2 321	0.0	%
(as % of total population)		66.7	66.9	67.3	67.8	68.2	0.4	p.p.
3. Labour force (15–64)	**1 000 pers.**	1 602	1 610	1 596	1 587	1 565	– 1.4	%
Male		813	814	811	807	790	– 2.1	%
Female		789	797	786	780	775	– 0.7	%
4. Activity rate (as % of population 15–64)		69.6	69.9	69.1	68.4	67.4	– 0.9	p.p.
Young (15–24)		30.9	30.0	26.2	25.1	26.3	1.2	p.p.
Prime age (25–54)		88.5	88.8	88.7	87.9	86.2	– 1.7	p.p.
Older (55–64)		46.9	50.5	52.6	52.8	52.9	0.1	p.p.
Male		73.6	73.5	72.8	72.1	70.5	– 1.6	p.p.
Young (15–24)		35.2	34.1	30.9	29.5	29.3	– 0.2	p.p.
Prime age (25–54)		90.5	90.5	90.7	90.1	88.7	– 1.4	p.p.
Older (55–64)		59.8	62.0	63.7	63.8	59.9	– 3.9	p.p.
Female		65.8	66.5	65.6	64.9	64.6	– 0.3	p.p.
Young (15–24)		26.6	25.8	21.4	20.5	23.1	2.6	p.p.
Prime age (25–54)		86.7	87.2	86.8	85.8	83.8	– 2.0	p.p.
Older (55–64)		37.2	41.8	44.3	44.4	47.6	3.1	p.p.
5. Employment rate (as % of population 15–64)		59.9	61.1	61.2	62.6	63.6	1.0	p.p.
Young (15–24)		23.8	22.5	20.3	21.2	23.7	2.5	p.p.
Prime age (25–54)		76.9	78.9	79.4	81.0	81.7	0.8	p.p.
Older (55–64)		41.6	44.7	47.1	49.2	49.6	0.5	p.p.
Male		62.7	64.0	64.7	66.1	66.3	0.2	p.p.
Young (15–24)		27.1	26.3	24.0	24.8	26.4	1.6	p.p.
Prime age (25–54)		78.0	79.8	81.7	83.3	84.1	0.8	p.p.
Older (55–64)		51.5	55.2	57.6	59.1	55.6	– 3.5	p.p.
Female		57.2	58.4	57.8	59.4	61.0	1.6	p.p.
Young (15–24)		20.5	18.5	16.5	17.4	20.8	3.5	p.p.
Prime age (25–54)		75.8	78.0	77.3	78.8	79.5	0.7	p.p.
Older (55–64)		34.1	36.7	39.3	41.7	45.1	3.4	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		1 379	1 408	1 413	1 454	1 476	22	Th.
Male (as % of total)		50.2	50.3	51.0	50.9	50.4	– 0.5	p.p.
Female (as % of total)		49.8	49.7	49.0	49.1	49.6	0.5	p.p.
7. Employment growth (%) (national accounts)		3.6	2.2	0.0	2.5	1.7		p.p.
Employment growth (%) (LFS — age 15–64)		4.1	2.1	0.3	2.9	1.5		p.p.
Male		6.4	2.4	1.6	2.7	0.5		p.p.
Female		1.9	1.9	– 1.0	3.1	2.6		p.p.
8. Self employed (% of total employment)		14.2	14.4	12.9	11.9	11.0	– 0.9	p.p.
Male		17.0	17.3	15.2	14.2	13.1	– 1.2	p.p.
Female		11.3	11.5	10.4	9.5	8.9	– 0.6	p.p.
9. Temporary employment (as % of total)		7.3	7.2	6.3	5.6	4.5	– 1.1	p.p.
Male		9.8	9.7	8.8	7.6	6.5	– 1.2	p.p.
Female		4.9	4.8	3.9	3.6	2.7	– 0.9	p.p.
10. Part-time (as % of total employment)		10.6	9.2	8.3	6.8	9.5	2.7	p.p.
Male		9.3	7.1	6.4	4.9	7.5	2.6	p.p.
Female		11.9	11.4	10.3	8.8	11.5	2.7	p.p.
11. Unemployment rate (harmonised: 15-74)		13.5	12.4	11.4	8.3	5.6	– 2.7	p.p.
Young (15–24)		23.1	25.1	22.7	15.7	9.8	– 5.9	p.p.
Prime age (25–54)		13.2	11.2	10.4	7.8	5.2	– 2.7	p.p.
Older (55–64)		11.3	11.5	10.4	6.8	6.1	– 0.7	p.p.
Male		14.2	12.7	11.0	8.2	5.8	– 2.4	p.p.
Young (15–24)		23.1	22.9	22.6	15.9	9.9	– 6.0	p.p.
Prime age (25–54)		13.8	11.8	9.9	7.5	5.2	– 2.3	p.p.
Older (55–64)		13.9	11.0	9.7	7.4	7.2	– 0.2	p.p.
Female		12.8	12.2	11.8	8.3	5.4	– 2.9	p.p.
Young (15–24)		23.0	28.2	22.9	15.2	9.6	– 5.6	p.p.
Prime age (25–54)		12.6	10.6	11.0	8.2	5.1	– 3.1	p.p.
Older (55–64)		8.2	12.0	11.2	6.1	5.2	– 0.9	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		53.3	48.2	51.4	52.2	44.0	– 8.2	p.p.
13. Worked hours (average actual weekly hours)		37.8	37.4	37.9	38.1	38.1	0.0	%
Male		38.8	38.5	38.9	39.4	39.2	– 0.5	%
Female		36.6	36.2	36.7	36.7	37.1	1.0	%
14. Sectoral employment growth								
Agriculture		6.8	2.5	– 11.5	– 9.3	– 10.0		p.p.
Building and construction		9.1	15.2	8.9	14.1	12.5		p.p.
Services		1.9	0.9	3.6	4.1	3.5		p.p.
Manufacturing industry		7.2	1.5	– 3.7	3.3	0.8		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Lithuania
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	5.0	8.9	10.9	8.5	13.4	9.6	10.1	16.7	16.5
Compensation of employees per hour worked	6.2	9.5	12.0	7.0	16.1	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	4.3	3.9	4.5	11.5	18.4	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	1.7	0.9	3.3	3.4	7.3	3.5	3.4	11.7	10.0
Real unit labour costs deflated by GDP deflator	1.7	1.9	0.7	– 2.3	0.2	– 2.7	– 2.4	3.3	1.7
Wages and salaries	13.2	12.5	10.7	8.0	22.0	15.3	23.7	26.0	22.1
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	54.8	55.4	55.1	53.7	54.0	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	28.2	28.2	28.5	28.5	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	71.8	71.8	71.5	71.5	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	66.6	66.5	66.3	66.5	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	44.6	43.4	43.7	40.1	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	44.6	42.6	42.9	40.1	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	27.7	27.8	28.2	28.1	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	0.4	0.4	0.3	0.3	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	3.2	7.9	7.3	5.0	5.7	5.9	6.5	4.5	5.9
Hourly labour productivity	4.8	8.9	6.0	1.5	6.6	:	:	:	:
GDP	6.9	10.3	7.3	7.6	7.5	8.8	8.5	5.9	6.9
ECFIN NAIRU estimate	14.1	13.2	11.7	9.7	7.6	:	:	:	:
Output gap (%)	– 1.0	2.1	1.7	1.4	1.3	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	0.3	– 1.1	1.2	2.7	3.8	3.3	3.6	4.0	4.2
Underlying inflation (excl. energy and unprocessed food)	0.6	0.7	0.7	1.3	2.4	1.6	1.9	2.7	3.3
GDP deflator	0.1	– 0.9	2.7	5.8	7.1	6.3	5.9	8.1	8.2
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 11.0	6.6	7.3	3.8	– 4.7	– 13.8	– 14.2	– 1.6	– 3.0
Industry excluding construction	– 0.9	0.0	2.5	3.6	2.6	– 2.1	– 3.5	6.6	10.1
of which: manufacturing	– 3.6	4.1	3.0	1.7	6.2	:	:	:	:
Construction	4.1	– 2.1	14.7	14.8	15.1	6.8	11.4	18.1	18.3
Trade, transport and communication	13.8	1.0	5.8	3.6	11.1	3.0	18.0	9.9	11.5
Finance and business services	9.6	4.3	2.7	9.0	17.1	15.6	18.6	19.2	19.8
Non-market related services	5.3	2.8	7.1	5.5	8.2	:	:	:	:
Market-related sectors	1.9	1.5	3.1	3.6	7.4	1.6	5.7	9.6	9.8
Sectoral breakdown of compensation per employee									
Total industries	8.6	9.1	10.9	8.5	13.5	0.0	0.0	0.0	0.0
Agriculture and fishery	– 9.9	12.1	20.7	15.3	– 2.2	– 9.3	– 4.4	– 8.3	17.2
Industry excluding construction	– 0.6	14.5	16.8	8.2	10.4	9.8	6.2	14.4	11.4
of which: manufacturing	– 5.6	17.1	19.7	7.2	13.8	:	:	:	:
Construction	8.3	4.1	12.3	12.6	21.8	15.0	9.5	29.1	30.9
Trade, transport and communication	21.8	7.3	8.3	13.3	10.1	4.4	16.6	6.8	11.1
Finance and business services	– 12.0	12.0	9.7	4.1	5.8	– 2.9	– 1.9	13.7	17.4
Non-market related services	12.2	6.4	8.0	4.2	19.2	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	1.2	5.2	12.5	11.1	2.6	5.2	11.5	– 6.8	20.8
Industry excluding construction	0.3	14.5	14.0	4.5	7.6	12.2	10.0	7.3	1.2
of which: manufacturing	– 2.0	12.5	16.2	5.4	7.1	:	:	:	:
Construction	4.0	6.4	– 2.1	– 2.0	5.8	7.7	– 1.7	9.4	10.6
Trade, transport and communication	7.0	6.2	2.3	9.3	– 1.0	1.4	– 1.1	– 2.8	– 0.3
Finance and business services	– 19.7	7.4	6.8	– 4.5	– 9.6	– 16.0	– 17.2	– 4.6	– 2.0
Non-market related services	6.6	3.5	0.8	– 1.2	10.1	7.1	11.9	10.7	9.8
Market-related sectors	1.2	8.6	8.9	6.5	3.2	4.4	3.3	2.4	4.6

Source: AMECO, Eurostat (national accounts), ECB.

Luxembourg
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	435	443	446	450	456	1.5	%
2. Population (working age: 15–64)		295	300	301	304	307	1.0	%
(as % of total population)		67.7	67.7	67.5	67.6	67.2	– 0.4	p.p.
3. Labour force (15–64)	**1 000 pers.**	193	193	198	202	205	1.1	%
Male		114	114	115	116	115	– 1.4	%
Female		78	79	83	86	90	4.5	%
4. Activity rate (as % of population 15–64)		65.3	64.6	65.8	66.6	66.7	0.1	p.p.
Young (15–24)		34.6	30.3	28.1	28.8	27.8	– 1.0	p.p.
Prime age (25–54)		81.0	80.4	83.0	83.9	84.5	0.6	p.p.
Older (55–64)		28.0	30.7	30.8	32.4	33.7	1.3	p.p.
Male		77.0	75.5	75.6	76.0	75.3	– 0.7	p.p.
Young (15–24)		38.2	31.0	29.3	32.2	30.5	– 1.6	p.p.
Prime age (25–54)		95.0	94.1	95.3	95.5	95.3	– 0.2	p.p.
Older (55–64)		37.6	40.3	38.8	39.7	38.8	– 1.0	p.p.
Female		53.5	53.4	55.9	57.0	58.2	1.2	p.p.
Young (15–24)		31.2	29.6	26.2	25.4	24.8	– 0.6	p.p.
Prime age (25–54)		66.7	66.5	70.4	72.2	73.8	1.5	p.p.
Older (55–64)		18.4	21.1	22.6	25.1	28.7	3.6	p.p.
5. Employment rate (as % of population 15–64)		63.6	62.2	62.5	63.6	63.5	0.0	p.p.
Young (15–24)		32.4	27.1	23.2	25.0	23.2	– 1.7	p.p.
Prime age (25–54)		79.1	77.9	79.3	80.6	81.0	0.4	p.p.
Older (55–64)		27.8	30.3	30.3	31.8	33.1	1.3	p.p.
Male		75.5	73.2	72.8	73.3	72.7	– 0.6	p.p.
Young (15–24)		36.3	28.2	26.2	28.4	25.6	– 2.8	p.p.
Prime age (25–54)		93.3	91.7	92.2	92.8	92.7	– 0.2	p.p.
Older (55–64)		37.6	39.8	38.4	38.1	38.8	0.7	p.p.
Female		51.5	50.9	51.8	53.7	54.6	0.9	p.p.
Young (15–24)		28.3	26.0	20.6	21.5	21.4	– 0.1	p.p.
Prime age (25–54)		64.5	63.8	66.2	68.4	69.4	1.0	p.p.
Older (55–64)		18.0	20.6	22.1	24.7	27.9	3.3	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		188	186	188	193	195	2	Th.
Male (as % of total)		59.8	59.4	58.9	58.1	56.8	– 1.3	p.p.
Female (as % of total)		40.1	40.6	41.1	41.9	43.2	1.3	p.p.
7. Employment growth (%) (national accounts)		2.9	1.8	2.3	2.9	3.7		p.p.
Employment growth (%) (LFS — age 15–64)		1.4	– 0.7	1.0	2.8	0.9		p.p.
Male		1.1	– 1.4	0.2	1.4	– 1.3		p.p.
Female		1.8	0.5	2.1	4.8	4.1		p.p.
8. Self employed (% of total employment)		2.1	6.0	4.9	4.9	:	:	p.p.
Male		2.5	6.2	5.4	5.0	:	:	p.p.
Female		1.5	5.7	4.3	4.8	:	:	p.p.
9. Temporary employment (as % of total)		4.3	3.1	4.8	5.3	6.1	0.8	p.p.
Male		4.0	2.4	4.1	4.9	5.7	0.8	p.p.
Female		4.7	4.2	5.8	5.8	6.6	0.8	p.p.
10. Part-time (as % of total employment)		11.6	13.4	16.3	17.4	17.1	– 0.3	p.p.
Male		1.7	1.5	2.3	2.4	2.6	0.2	p.p.
Female		26.3	30.7	36.4	38.2	36.2	– 2.0	p.p.
11. Unemployment rate (harmonised: 15-74)		2.7	3.7	5.1	4.5	4.7	0.2	p.p.
Young (15–24)		6.4	10.5	17.6	13.4	16.4	3.0	p.p.
Prime age (25–54)		2.4	3.2	4.5	3.9	4.1	0.2	p.p.
Older (55–64)		0.8	1.4	1.4	2.0	1.8	– 0.1	p.p.
Male		2.0	3.0	3.7	3.5	3.5	0.0	p.p.
Young (15–24)		5.2	9.0	10.7	11.9	16.3	4.3	p.p.
Prime age (25–54)		1.8	2.6	3.3	2.8	2.8	– 0.1	p.p.
Older (55–64)		0.0	1.1	1.1	4.2	0.0	– 4.2	p.p.
Female		3.7	4.7	7.1	5.8	6.2	0.4	p.p.
Young (15–24)		9.1	12.2	21.5	15.4	13.8	– 1.5	p.p.
Prime age (25–54)		3.3	4.0	6.0	5.3	5.9	0.6	p.p.
Older (55–64)		2.5	2.1	2.0	1.7	2.8	1.1	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		27.4	24.7	21.0	26.4	29.5	3.1	p.p.
13. Worked hours (average actual weekly hours)		38.6	37.9	38.2	37.9	37.6	– 0.8	%
Male		41.7	40.7	41.4	41.2	40.8	– 1.0	%
Female		33.9	33.6	33.3	33.0	33.0	0.0	%
14. Sectoral employment growth								
Agriculture		0.0	0.0	0.0	0.0	2.8		p.p.
Building and construction		3.3	2.1	1.7	3.8	4.1		p.p.
Services		3.5	2.5	2.8	3.3	4.1		p.p.
Manufacturing industry		– 0.6	– 2.4	– 0.3	0.3	0.3		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Luxembourg
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	3.6	1.9	4.2	3.7	2.3	:	:	:	:
Compensation of employees per hour worked	4.3	3.3	6.7	3.8	3.4	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	3.9	3.8	2.5	4.1	2.5	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	2.7	2.4	2.8	2.6	– 0.2	:	:	:	:
Real unit labour costs deflated by GDP deflator	– 0.1	– 2.4	1.1	– 2.0	– 5.7	:	:	:	:
Wages and salaries	1.1	– 1.2	2.2	2.2	5.5	5.1	5.3	6.0	3.9
Compensation per employee adjusted by total factor productivity	4.1	4.3	4.2	3.5	0.1	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	59.7	58.1	59.4	58.1	54.4	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	15.6	15.6	15.6	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	84.4	84.4	84.4	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	71.6	71.6	71.5	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	31.9	32.4	32.9	33.6	34.8	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	23.4	24.1	24.7	25.5	27.2	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	14.1	14.1	14.2	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	0.9	– 0.5	1.3	1.0	2.4	:	:	:	:
Hourly labour productivity	1.5	0.8	3.7	0.9	3.3	:	:	:	:
GDP	3.8	1.3	3.6	4.0	6.2	7.8	6.2	5.8	5.0
ECFIN NAIRU estimate	3.2	3.5	3.9	4.0	4.2	:	:	:	:
Output gap (%)	1.3	– 1.8	– 2.2	– 2.5	– 0.8	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.1	2.5	3.2	3.8	3.0	3.9	3.7	2.8	1.5
Underlying inflation (excl. energy and unprocessed food)	2.8	2.8	2.5	2.5	2.3	2.5	2.2	2.3	2.3
GDP deflator	2.7	4.9	1.7	4.7	5.9	8.5	8.4	4.7	2.6
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 5.6	21.2	6.8	– 2.1	16.5	0.7	– 1.8	– 2.0	7.9
Industry excluding construction	– 1.2	4.4	– 1.8	4.3	– 2.7	– 4.0	– 1.3	– 1.4	– 3.8
of which: manufacturing	1.8	1.8	– 1.3	5.2	0.5	:	:	:	:
Construction	– 4.6	2.7	6.7	6.9	3.5	0.7	6.5	3.3	3.7
Trade, transport and communication	1.3	1.4	3.7	3.2	– 0.1	– 0.9	– 1.5	2.2	0.2
Finance and business services	3.2	1.1	3.8	1.3	– 0.9	– 3.1	– 1.1	– 0.3	0.6
Non-market related services	6.5	3.9	3.3	5.1	0.9	:	:	:	:
Market-related sectors	1.7	2.3	2.2	2.8	– 0.4	– 2.7	– 1.1	– 0.1	– 0.2
Sectoral breakdown of compensation per employee									
Total industries	3.5	2.0	4.0	4.0	2.1	0.0	0.0	0.0	0.0
Agriculture and fishery	0.0	6.7	0.6	6.0	16.9	3.2	– 4.6	– 4.4	– 2.8
Industry excluding construction	3.7	5.3	3.3	3.9	2.5	3.2	2.7	0.2	1.5
of which: manufacturing	4.1	4.3	3.8	3.6	2.7	:	:	:	:
Construction	2.3	1.3	8.3	2.1	– 0.8	1.7	2.3	1.6	1.3
Trade, transport and communication	3.9	1.6	6.1	3.2	1.8	3.0	1.6	3.5	0.8
Finance and business services	2.7	– 0.3	4.0	4.3	1.7	2.4	2.3	2.4	0.5
Non-market related services	2.6	2.7	3.8	3.0	2.8	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	6.0	– 11.9	– 5.8	8.3	0.3	2.5	– 2.8	– 2.4	– 9.9
Industry excluding construction	4.9	0.8	5.2	– 0.4	5.3	7.6	4.1	1.7	5.6
of which: manufacturing	2.3	2.5	5.2	– 1.5	2.2	:	:	:	:
Construction	7.3	– 1.4	1.6	– 4.5	– 4.2	1.0	– 3.9	– 1.7	– 2.4
Trade, transport and communication	2.6	0.3	2.4	0.0	1.8	3.9	3.2	1.3	0.6
Finance and business services	– 0.5	– 1.4	0.2	3.0	2.6	5.7	3.4	2.7	– 0.1
Non-market related services	– 3.6	– 1.2	0.5	– 2.0	1.9	3.9	1.8	2.0	– 1.8
Market-related sectors	1.9	– 0.8	1.9	1.1	2.7	5.9	3.7	2.6	1.4

Source: AMECO, Eurostat (national accounts), ECB.

Hungary
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	10 012	9 980	9 944	9 931	9 921	– 0.1	%
2. Population (working age: 15–64)		6 849	6 836	6 826	6 815	6 816	0.0	%
(as % of total population)		68.4	68.5	68.6	68.6	68.7	0.1	p.p.
3. Labour force (15–64)	**1 000 pers.**	4 090	4 142	4 127	4 180	4 222	1.0	%
Male		2 239	2 251	2 239	2 260	2 286	1.2	%
Female		1 851	1 890	1 888	1 920	1 936	0.8	%
4. Activity rate (as % of population 15–64)		59.7	60.6	60.5	61.3	62.0	0.6	p.p.
Young (15–24)		32.6	30.9	27.9	27.1	26.8	– 0.3	p.p.
Prime age (25–54)		77.0	77.8	77.9	78.7	79.6	0.9	p.p.
Older (55–64)		26.4	29.8	32.0	34.3	34.9	0.6	p.p.
Male		67.1	67.6	67.2	67.9	68.7	0.8	p.p.
Young (15–24)		36.0	34.6	31.4	30.3	30.1	– 0.2	p.p.
Prime age (25–54)		84.3	84.8	85.0	85.5	86.5	1.0	p.p.
Older (55–64)		36.9	38.9	39.7	42.4	43.1	0.8	p.p.
Female		52.7	53.9	54.0	55.1	55.5	0.4	p.p.
Young (15–24)		29.3	27.3	24.3	23.8	23.4	– 0.4	p.p.
Prime age (25–54)		69.9	71.0	70.9	72.1	72.9	0.8	p.p.
Older (55–64)		18.0	22.4	25.8	27.7	28.2	0.5	p.p.
5. Employment rate (as % of population 15–64)		56.2	57.0	56.8	56.9	57.3	0.4	p.p.
Young (15–24)		28.5	26.8	23.6	21.8	21.7	– 0.2	p.p.
Prime age (25–54)		73.0	73.7	73.6	73.7	74.2	0.5	p.p.
Older (55–64)		25.6	28.9	31.1	33.0	33.6	0.6	p.p.
Male		62.9	63.5	63.1	63.1	63.8	0.6	p.p.
Young (15–24)		31.2	29.8	26.3	24.4	24.5	0.1	p.p.
Prime age (25–54)		79.7	80.1	80.5	80.3	81.0	0.6	p.p.
Older (55–64)		35.4	37.8	38.4	40.6	41.4	0.9	p.p.
Female		49.8	50.9	50.7	51.0	51.1	0.2	p.p.
Young (15–24)		25.8	23.8	20.8	19.2	18.8	– 0.5	p.p.
Prime age (25–54)		66.5	67.4	67.0	67.2	67.6	0.4	p.p.
Older (55–64)		17.6	21.8	25.0	26.7	27.1	0.4	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		3 850	3 897	3 875	3 879	3 906	27	Th.
Male (as % of total)		54.6	54.2	54.2	54.2	54.3	0.2	p.p.
Female (as % of total)		45.4	45.8	45.8	45.8	45.7	– 0.2	p.p.
7. Employment growth (%) (national accounts)		0.0	1.3	– 0.7	0.0	0.7		p.p.
Employment growth (%) (LFS — age 15–64)		0.0	1.2	– 0.6	0.1	0.7		p.p.
Male		– 0.1	0.6	– 0.5	0.0	1.0		p.p.
Female		0.1	2.0	– 0.7	0.3	0.4		p.p.
8. Self employed (% of total employment)		7.8	7.6	7.7	7.3	6.6	– 0.6	p.p.
Male		9.6	9.4	9.5	8.8	8.1	– 0.7	p.p.
Female		5.7	5.4	5.7	5.5	4.9	– 0.6	p.p.
9. Temporary employment (as % of total)		7.2	7.5	6.8	7.0	6.7	– 0.4	p.p.
Male		7.8	8.3	7.5	7.5	7.3	– 0.2	p.p.
Female		6.6	6.6	6.1	6.4	6.0	– 0.4	p.p.
10. Part-time (as % of total employment)		3.1	3.7	4.4	3.9	3.8	– 0.1	p.p.
Male		1.8	2.2	3.0	2.4	2.4	– 0.1	p.p.
Female		4.6	5.6	6.0	5.6	5.4	– 0.2	p.p.
11. Unemployment rate (harmonised: 15-74)		5.8	5.9	6.1	7.2	7.5	0.3	p.p.
Young (15–24)		12.7	13.3	15.5	19.4	19.1	– 0.3	p.p.
Prime age (25–54)		5.2	5.3	5.4	6.4	6.8	0.4	p.p.
Older (55–64)		3.1	2.8	3.1	3.9	3.9	0.1	p.p.
Male		6.2	6.1	6.1	7.0	7.2	0.2	p.p.
Young (15–24)		13.2	13.8	16.3	19.6	18.5	– 1.1	p.p.
Prime age (25–54)		5.5	5.5	5.3	6.0	6.4	0.4	p.p.
Older (55–64)		3.9	2.9	3.3	4.2	4.0	– 0.2	p.p.
Female		5.4	5.6	6.1	7.4	7.8	0.4	p.p.
Young (15–24)		11.9	12.9	14.4	19.1	19.8	0.7	p.p.
Prime age (25–54)		4.9	5.0	5.6	6.8	7.2	0.5	p.p.
Older (55–64)		1.9	2.7	2.8	3.5	3.9	0.4	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		43.4	41.3	44.0	45.1	45.1	0.1	p.p.
13. Worked hours (average actual weekly hours)		41.0	40.8	40.6	40.3	40.2	– 0.3	%
Male		42.2	42.3	41.9	41.5	41.3	– 0.5	%
Female		39.3	39.1	39.0	38.8	38.8	0.0	%
14. Sectoral employment growth								
Agriculture		– 1.2	– 10.8	– 4.9	– 4.9	– 1.2		p.p.
Building and construction		0.0	10.9	3.1	1.7	1.5		p.p.
Services		0.5	3.9	0.5	1.1	1.1		p.p.
Manufacturing industry		– 0.2	– 3.6	– 3.6	– 2.8	– 0.6		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Hungary
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	12.7	9.4	11.6	7.4	7.0	:	:	:	:
Compensation of employees per hour worked	13.0	11.6	10.5	8.1	8.5	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	13.6	6.1	8.7	7.2	8.8	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	8.0	6.4	5.7	3.1	3.6	:	:	:	:
Real unit labour costs deflated by GDP deflator	0.2	0.6	1.3	0.8	0.0	:	:	:	:
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	60.6	61.5	62.4	62.6	62.7	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	31.5	30.7	30.6	30.1	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	68.5	69.3	69.4	69.9	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	65.8	65.7	66.0	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	53.7	50.8	51.8	50.5	51.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	48.0	45.1	46.4	45.2	45.4	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	28.5	28.1	27.8	27.3	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	2.9	2.6	2.8	2.8	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	4.3	2.8	5.5	4.1	3.2	4.5	2.6	3.5	2.4
Hourly labour productivity	4.0	4.3	5.6	4.3	3.4	:	:	:	:
GDP	4.4	4.2	4.8	4.1	3.9	4.9	3.7	3.9	3.3
ECFIN NAIRU estimate	5.6	5.6	5.8	6.2	6.8	:	:	:	:
Output gap (%)	– 0.8	– 0.7	0.1	0.5	1.0	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	5.2	4.7	6.8	3.5	4.0	2.4	2.7	4.6	6.4
Underlying inflation (excl. energy and unprocessed food)	5.8	4.9	6.4	2.7	2.5	1.1	1.4	2.8	4.6
GDP deflator	7.8	5.8	4.4	2.2	3.7	0.4	3.2	4.0	3.4
Sectoral breakdown of unit labour costs									
Agriculture and fishery	16.5	– 16.4	– 26.4	1.4	:	:	:	:	:
Industry excluding construction	5.5	– 3.1	4.9	4.3	:	:	:	:	:
of which: manufacturing	– 1.9	– 0.5	4.3	1.0	0.5	:	:	:	:
Construction	9.5	0.4	19.0	9.1	:	:	:	:	:
Trade, transport and communication	5.6	5.0	12.5	1.1	:	:	:	:	:
Finance and business services	26.3	1.4	13.0	9.1	:	:	:	:	:
Non-market related services	26.6	8.4	8.0	5.2	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	18.9	4.9	13.4	8.9	:	:	:	:	:
Agriculture and fishery	6.4	– 6.4	18.6	5.3	:	:	:	:	:
Industry excluding construction	8.1	6.9	13.0	10.7	:	:	:	:	:
of which: manufacturing	2.0	10.7	12.6	9.5	9.8	:	:	:	:
Construction	23.6	– 12.7	19.4	10.9	:	:	:	:	:
Trade, transport and communication	11.4	10.3	17.7	1.5	:	:	:	:	:
Finance and business services	31.7	– 4.5	12.2	16.2	:	:	:	:	:
Non-market related services	30.0	5.5	8.6	9.9	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	– 8.6	12.0	61.1	3.8	– 3.8	– 3.7	– 4.2	– 2.4	– 4.3
Industry excluding construction	2.4	10.3	7.8	6.2	8.8	15.3	7.6	8.1	5.2
of which: manufacturing	4.0	11.2	8.0	8.4	9.2	:	:	:	:
Construction	12.9	– 13.0	0.3	1.6	– 4.7	7.1	– 10.5	– 5.4	– 5.9
Trade, transport and communication	5.5	5.1	4.6	0.4	2.0	– 0.3	2.3	3.0	2.9
Finance and business services	4.3	– 5.8	– 0.7	6.5	3.4	3.8	4.6	4.2	2.2
Non-market related services	2.8	– 2.6	0.5	4.4	0.4	– 0.7	– 0.4	1.5	1.1
Market-related sectors	4.0	4.6	7.8	3.7	4.0	6.3	3.1	3.7	2.5

Source: AMECO, Eurostat (national accounts), ECB.

Malta
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	396	399	400	402	405	0.8	%
2. Population (working age: 15–64)		269	271	272	274	276	0.9	%
(as % of total population)		68.0	68.0	68.1	68.1	68.2	0.1	p.p.
3. Labour force (15–64)	**1 000 pers.**	157	159	158	159	163	2.6	%
Male		108	109	110	109	111	1.7	%
Female		49	50	49	50	53	4.7	%
4. Activity rate (as % of population 15–64)		58.5	58.6	58.2	58.2	59.2	1.0	p.p.
Young (15–24)		58.8	56.4	55.3	54.4	53.3	– 1.1	p.p.
Prime age (25–54)		64.9	65.4	65.3	65.7	68.0	2.3	p.p.
Older (55–64)		30.7	33.3	32.3	31.9	30.8	– 1.1	p.p.
Male		80.1	80.2	80.2	79.1	79.7	0.6	p.p.
Young (15–24)		61.0	58.8	59.9	56.3	57.3	1.0	p.p.
Prime age (25–54)		93.3	93.5	93.3	93.2	94.1	0.9	p.p.
Older (55–64)		52.0	55.5	54.8	53.1	51.6	– 1.4	p.p.
Female		36.7	36.8	36.0	36.9	38.3	1.4	p.p.
Young (15–24)		56.5	54.0	50.6	52.4	49.1	– 3.3	p.p.
Prime age (25–54)		36.1	36.8	36.8	37.6	41.2	3.6	p.p.
Older (55–64)		11.0	13.0	12.0	12.5	11.7	– 0.8	p.p.
5. Employment rate (as % of population 15–64)		54.4	54.2	54.0	53.9	54.8	1.0	p.p.
Young (15–24)		50.5	47.2	46.2	45.4	44.7	– 0.6	p.p.
Prime age (25–54)		61.6	61.8	62.1	62.4	64.4	2.0	p.p.
Older (55–64)		30.1	32.6	31.5	30.8	30.1	– 0.7	p.p.
Male		74.7	74.5	75.0	73.8	74.5	0.6	p.p.
Young (15–24)		51.9	49.1	50.3	46.6	47.4	0.7	p.p.
Prime age (25–54)		88.5	88.4	88.8	88.9	89.8	0.9	p.p.
Older (55–64)		50.8	53.8	53.5	50.8	50.4	– 0.4	p.p.
Female		33.9	33.6	32.7	33.7	34.9	1.2	p.p.
Young (15–24)		49.2	45.3	41.7	43.9	42.0	– 1.8	p.p.
Prime age (25–54)		34.2	34.7	34.8	35.4	38.4	3.0	p.p.
Older (55–64)		10.9	13.0	11.5	12.5	11.3	– 1.3	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		147	147	147	148	152	4	Th.
Male (as % of total)		69.1	69.2	69.8	68.9	68.4	– 0.6	p.p.
Female (as % of total)		30.9	30.8	30.2	31.1	31.6	0.6	p.p.
7. Employment growth (%) (national accounts)		0.6	1.0	– 0.8	1.8	0.9		p.p.
Employment growth (%) (LFS — age 15–64)		0.2	0.2	0.0	0.5	2.7		p.p.
Male		– 1.5	0.4	0.9	– 0.7	1.8		p.p.
Female		4.2	– 0.1	– 2.0	3.3	4.6		p.p.
8. Self employed (% of total employment)		9.6	9.3	9.3	9.0	9.1	0.1	p.p.
Male		12.0	11.0	11.5	11.2	11.5	0.3	p.p.
Female		4.2	5.5	4.1	6.0	3.9	– 2.1	p.p.
9. Temporary employment (as % of total)		4.2	3.6	3.8	4.5	3.8	– 0.6	p.p.
Male		3.3	3.4	3.4	3.6	2.7	– 1.0	p.p.
Female		6.0	4.8	5.7	6.2	6.0	– 0.2	p.p.
10. Part-time (as % of total employment)		7.9	8.8	8.3	9.4	9.9	0.5	p.p.
Male		3.3	3.4	3.7	4.2	4.4	0.3	p.p.
Female		18.2	21.1	19.0	20.9	21.8	0.9	p.p.
11. Unemployment rate (harmonised: 15-74)		7.5	7.6	7.4	7.3	7.3	0.0	p.p.
Young (15–24)		14.2	16.3	16.5	16.6	16.1	– 0.5	p.p.
Prime age (25–54)		5.1	5.5	5.0	5.0	5.3	0.3	p.p.
Older (55–64)		2.0	2.2	2.3	3.4	2.4	– 1.1	p.p.
Male		6.6	6.9	6.6	6.5	6.5	0.0	p.p.
Young (15–24)		15.0	16.5	15.9	17.2	17.3	0.1	p.p.
Prime age (25–54)		5.1	5.4	4.8	4.6	4.6	0.0	p.p.
Older (55–64)		2.2	3.0	2.3	4.3	2.4	– 1.9	p.p.
Female		9.3	9.1	9.0	9.0	8.9	– 0.1	p.p.
Young (15–24)		12.9	16.1	17.6	16.3	14.4	– 1.9	p.p.
Prime age (25–54)		5.4	5.6	5.5	5.9	7.0	1.0	p.p.
Older (55–64)		1.1	0.0	3.9	0.0	4.0	4.0	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		44.1	41.6	46.7	46.4	40.2	– 6.2	p.p.
13. Worked hours (average actual weekly hours)		39.8	37.7	40.0	39.2	38.7	– 1.3	%
Male		41.5	39.9	41.6	41.2	40.3	– 2.1	%
Female		35.7	32.8	36.2	34.4	34.8	1.3	%
14. Sectoral employment growth								
Agriculture		:	:	:	:	:		p.p.
Building and construction		:	:	:	:	:		p.p.
Services		:	:	:	:	:		p.p.
Manufacturing industry		:	:	:	:	:		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Malta
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	3.1	4.6	1.8	0.9	2.3	3.6	2.2	1.8	1.8
Compensation of employees per hour worked	2.3	5.1	– 0.3	4.2	2.3	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	3.7	7.2	– 0.8	1.3	3.2	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	1.0	6.0	0.9	– 0.6	0.0	0.8	– 0.9	– 0.2	0.2
Real unit labour costs deflated by GDP deflator	– 2.1	3.0	– 0.8	– 4.2	– 3.0	– 2.7	– 2.9	– 2.9	– 9.1
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	58.0	59.2	60.2	57.7	56.3	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	8.1	7.7	7.9	8.0	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	91.9	92.3	92.1	92.0	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	27.7	27.7	29.1	30.2	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	27.4	27.7	28.8	30.2	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	8.1	7.7	7.9	8.0	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	2.0	– 1.3	0.9	1.4	2.3	2.7	3.0	2.1	1.6
Hourly labour productivity	1.3	– 0.5	– 1.0	4.8	2.4	:	:	:	:
GDP	2.6	– 0.3	0.1	3.3	3.3	3.4	3.6	2.9	3.1
ECFIN NAIRU estimate	7.4	7.5	7.5	7.5	7.4	:	:	:	:
Output gap (%)	2.0	– 2.1	– 3.4	– 2.5	– 1.5	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.6	1.9	2.7	2.5	2.6	2.6	3.4	3.2	1.1
Underlying inflation (excl. energy and unprocessed food)	2.7	1.9	2.8	2.0	1.6	1.5	2.0	1.8	0.9
GDP deflator	3.2	3.0	1.7	3.8	3.1	3.6	2.1	2.8	10.2
Sectoral breakdown of unit labour costs									
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	1.4	0.2	1.1	0.7	2.6	0.0	0.0	0.0	0.0
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:

Source: AMECO, Eurostat (national accounts), ECB.

Netherlands
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	15 964	16 037	16 119	16 107	16 142	0.2	%
2. Population (working age: 15–64)		10 871	10 920	10 960	10 943	10 964	0.2	%
(as % of total population)		68.1	68.1	68.0	67.9	67.9	0.0	p.p.
3. Labour force (15–64)	**1 000 pers.**	8 319	8 350	8 398	8 414	8 484	0.8	%
Male		4 651	4 644	4 650	4 618	4 636	0.4	%
Female		3 668	3 706	3 747	3 796	3 848	1.4	%
4. Activity rate (as % of population 15–64)		76.5	76.5	76.6	76.9	77.4	0.5	p.p.
Young (15–24)		73.7	72.9	71.6	71.0	70.8	– 0.2	p.p.
Prime age (25–54)		84.8	85.3	85.9	86.5	87.1	0.7	p.p.
Older (55–64)		43.3	45.5	46.9	48.1	49.6	1.5	p.p.
Male		84.5	84.0	83.9	83.7	83.9	0.2	p.p.
Young (15–24)		74.5	73.5	72.0	71.2	71.5	0.3	p.p.
Prime age (25–54)		93.6	93.5	93.7	93.8	94.1	0.3	p.p.
Older (55–64)		55.8	58.2	59.1	59.5	60.4	0.9	p.p.
Female		68.3	68.7	69.2	70.0	70.7	0.8	p.p.
Young (15–24)		73.0	72.3	71.1	70.8	70.1	– 0.8	p.p.
Prime age (25–54)		75.7	77.0	78.0	79.0	80.1	1.1	p.p.
Older (55–64)		30.6	32.6	34.4	36.5	38.6	2.1	p.p.
5. Employment rate (as % of population 15–64)		74.4	73.6	73.1	73.2	74.3	1.1	p.p.
Young (15–24)		70.0	68.3	65.9	65.2	66.2	1.0	p.p.
Prime age (25–54)		82.8	82.6	82.5	82.9	84.2	1.3	p.p.
Older (55–64)		42.3	44.3	45.2	46.1	47.7	1.5	p.p.
Male		82.4	81.1	80.2	79.9	80.9	1.0	p.p.
Young (15–24)		70.6	68.9	66.3	65.5	67.2	1.7	p.p.
Prime age (25–54)		91.8	90.6	90.2	90.3	91.4	1.1	p.p.
Older (55–64)		54.6	56.7	56.9	56.9	58.0	1.0	p.p.
Female		66.2	66.0	65.8	66.4	67.7	1.2	p.p.
Young (15–24)		69.5	67.8	65.4	64.9	65.1	0.2	p.p.
Prime age (25–54)		73.6	74.4	74.6	75.5	77.0	1.5	p.p.
Older (55–64)		29.9	31.8	33.4	35.2	37.2	2.1	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		8 089	8 042	8 014	8 013	8 152	139	Th.
Male (as % of total)		56.1	55.7	55.5	55.0	54.8	– 0.2	p.p.
Female (as % of total)		43.9	44.3	44.5	45.0	45.2	0.2	p.p.
7. Employment growth (%) (national accounts)		0.5	– 0.5	– 0.9	0.0	1.2		p.p.
Employment growth (%) (LFS — age 15–64)		1.1	– 0.6	– 0.3	0.0	1.7		p.p.
Male		0.2	– 1.2	– 0.7	– 0.8	1.4		p.p.
Female		2.1	0.3	0.1	1.0	2.2		p.p.
8. Self employed (% of total employment)		7.1	7.1	7.3	7.5	7.8	0.3	p.p.
Male		7.8	8.0	8.1	8.4	8.8	0.4	p.p.
Female		6.2	5.9	6.4	6.5	6.7	0.2	p.p.
9. Temporary employment (as % of total)		14.2	14.4	14.6	15.4	16.4	1.1	p.p.
Male		11.9	12.7	13.3	14.1	15.2	1.1	p.p.
Female		17.0	16.3	16.3	16.9	17.9	1.0	p.p.
10. Part-time (as % of total employment)		43.6	44.6	45.1	45.7	45.8	0.1	p.p.
Male		20.5	21.3	21.5	21.8	22.1	0.3	p.p.
Female		73.0	74.0	74.6	75.0	74.5	– 0.5	p.p.
11. Unemployment rate (harmonised: 15-74)		2.8	3.7	4.6	4.7	3.9	– 0.8	p.p.
Young (15–24)		5.0	6.3	8.0	8.2	6.6	– 1.7	p.p.
Prime age (25–54)		2.3	3.3	4.0	4.1	3.3	– 0.8	p.p.
Older (55–64)		2.1	2.6	3.5	4.1	3.8	– 0.3	p.p.
Male		2.5	3.5	4.3	4.4	3.5	– 0.9	p.p.
Young (15–24)		5.2	6.3	7.9	8.0	6.1	– 2.0	p.p.
Prime age (25–54)		2.0	3.1	3.7	3.8	2.9	– 0.8	p.p.
Older (55–64)		2.1	2.6	3.8	4.4	4.1	– 0.3	p.p.
Female		3.1	3.9	4.8	5.1	4.4	– 0.7	p.p.
Young (15–24)		4.8	6.3	8.1	8.4	7.1	– 1.3	p.p.
Prime age (25–54)		2.8	3.4	4.2	4.5	3.8	– 0.6	p.p.
Older (55–64)		2.2	2.4	2.9	3.6	3.4	– 0.2	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		26.0	27.6	34.1	40.3	42.9	2.6	p.p.
13. Worked hours (average actual weekly hours)		31.6	31.5	31.5	31.6	31.9	0.9	%
Male		36.9	36.8	36.8	37.0	37.2	0.7	%
Female		24.7	24.6	24.5	24.7	25.1	1.5	%
14. Sectoral employment growth								
Agriculture		0.0	– 1.6	– 3.6	– 2.5	– 0.2		p.p.
Building and construction		– 0.4	– 3.9	– 3.6	– 0.4	– 0.2		p.p.
Services		1.0	0.3	– 0.3	0.5	1.7		p.p.
Manufacturing industry		– 2.3	– 3.2	– 3.1	– 2.1	– 1.5		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Netherlands
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	4.3	3.4	3.2	1.1	0.8	0.1	0.4	1.0	1.7
Compensation of employees per hour worked	5.6	3.5	3.4	1.5	1.5	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	5.1	4.5	3.5	2.0	:	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	4.8	2.5	0.3	– 0.4	– 0.8	– 2.4	– 1.1	– 0.5	0.7
Real unit labour costs deflated by GDP deflator	0.9	0.3	– 0.5	– 2.0	– 2.3	– 4.3	– 2.7	– 1.7	– 0.7
Wages and salaries	– 0.5	– 1.2	– 0.4	0.4	2.3	1.5	1.7	2.7	3.6
Compensation per employee adjusted by total factor productivity	4.8	2.9	0.9	0.0	– 0.7	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	66.6	66.9	66.8	65.7	64.2	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	21.9	22.6	23.5	23.1	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	78.1	77.4	76.5	76.9	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	67.6	67.1	66.3	66.6	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	37.4	37.1	38.6	38.6	44.4	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	34.7	34.4	35.5	35.5	41.5	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	20.1	20.6	21.4	21.0	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	1.8	2.0	2.1	2.1	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	– 0.4	0.8	2.9	1.5	1.6	2.5	1.6	1.6	1.0
Hourly labour productivity	0.7	0.9	3.5	2.2	2.1	:	:	:	:
GDP	0.1	0.3	2.0	1.5	2.9	3.4	2.5	2.8	2.7
ECFIN NAIRU estimate	2.9	3.0	3.2	3.3	3.3	:	:	:	:
Output gap (%)	– 0.1	– 1.7	– 1.5	– 1.8	– 1.0	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	3.9	2.2	1.4	1.5	1.7	1.6	1.8	1.7	1.5
Underlying inflation (excl. energy and unprocessed food)	3.9	2.1	1.3	0.6	0.8	0.6	0.8	0.9	1.1
GDP deflator	3.8	2.2	0.7	1.7	1.5	2.0	1.6	1.2	1.3
Sectoral breakdown of unit labour costs									
Agriculture and fishery	10.1	– 0.7	– 7.1	– 1.0	– 0.3	0.3	– 1.5	1.0	0.6
Industry excluding construction	2.0	2.2	– 2.1	0.5	– 1.6	– 5.4	– 1.3	0.6	0.5
of which: manufacturing	2.6	1.9	– 1.5	– 0.8	– 2.5	:	:	:	:
Construction	8.2	5.6	2.1	– 0.8	– 3.9	– 7.3	– 4.2	– 3.2	– 0.8
Trade, transport and communication	2.8	– 0.8	– 1.4	– 2.1	– 3.3	– 4.5	– 4.8	– 2.9	– 1.2
Finance and business services	6.4	2.4	0.6	– 1.1	2.4	3.8	1.4	1.8	3.3
Non-market related services	4.2	3.8	2.7	1.1	– 0.4	:	:	:	:
Market-related sectors	4.3	1.4	– 1.0	– 1.0	– 0.8	– 1.9	– 1.7	– 0.4	0.9
Sectoral breakdown of compensation per employee									
Total industries	4.3	3.4	3.2	1.1	0.8	0.0	0.0	0.0	0.0
Agriculture and fishery	8.5	5.2	2.1	2.4	– 0.6	– 1.1	– 0.5	– 0.3	0.3
Industry excluding construction	5.2	4.1	3.5	1.4	0.8	0.2	0.6	1.1	1.5
of which: manufacturing	5.1	4.1	3.4	1.5	1.1	:	:	:	:
Construction	5.0	4.0	4.1	1.4	0.7	0.0	0.1	0.9	1.9
Trade, transport and communication	3.2	2.5	3.6	1.2	1.0	0.5	0.7	1.1	1.9
Finance and business services	5.3	4.6	3.0	0.2	0.9	0.2	0.8	1.1	2.0
Non-market related services	4.0	2.9	2.9	1.4	0.2	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	– 1.5	6.0	9.9	3.4	– 0.3	– 1.3	1.0	– 1.2	– 0.3
Industry excluding construction	3.1	1.9	5.7	0.9	2.4	5.9	1.9	0.5	1.0
of which: manufacturing	2.4	2.2	4.9	2.4	3.7	:	:	:	:
Construction	– 2.9	– 1.5	1.9	2.2	4.8	7.9	4.5	4.2	2.7
Trade, transport and communication	0.3	3.3	5.1	3.3	4.5	5.1	5.7	4.1	3.2
Finance and business services	– 1.1	2.1	2.4	1.3	– 1.5	– 3.5	– 0.5	– 0.6	– 1.3
Non-market related services	– 0.1	– 0.8	0.2	0.3	0.7	1.7	– 1.4	1.3	1.2
Market-related sectors	0.1	2.2	4.3	2.0	1.8	2.3	2.5	1.6	1.0

Source: AMECO, Eurostat (national accounts), ECB.

Austria
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	7 893	7 998	8 045	8 109	8 155	0.6	%
2. Population (working age: 15–64)		5 356	5 459	5 485	5 516	5 532	0.3	%
(as % of total population)		67.9	68.3	68.2	68.0	67.8	– 0.2	p.p.
3. Labour force (15–64)	**1 000 pers.**	3 835	3 933	3 911	3 994	4 077	2.1	%
Male		2 111	2 171	2 141	2 177	2 215	1.7	%
Female		1 723	1 762	1 770	1 816	1 862	2.5	%
4. Activity rate (as % of population 15–64)		71.6	72.0	71.3	72.4	73.7	1.3	p.p.
Young (15–24)		55.1	55.0	57.4	59.2	59.4	0.3	p.p.
Prime age (25–54)		86.6	87.3	86.3	86.4	87.1	0.7	p.p.
Older (55–64)		30.8	32.0	29.9	33.0	36.8	3.8	p.p.
Male		79.6	79.9	78.5	79.3	80.5	1.1	p.p.
Young (15–24)		59.9	60.3	61.7	63.6	63.9	0.3	p.p.
Prime age (25–54)		94.3	94.6	92.9	92.8	93.2	0.4	p.p.
Older (55–64)		42.1	42.9	40.6	43.0	47.3	4.3	p.p.
Female		63.7	64.3	64.2	65.6	67.0	1.4	p.p.
Young (15–24)		50.3	49.8	53.3	54.8	55.1	0.3	p.p.
Prime age (25–54)		79.0	79.9	79.6	79.9	80.9	1.0	p.p.
Older (55–64)		20.1	21.7	19.9	23.5	26.9	3.4	p.p.
5. Employment rate (as % of population 15–64)		68.7	68.9	67.8	68.6	70.2	1.5	p.p.
Young (15–24)		51.7	51.1	51.9	53.1	54.0	1.0	p.p.
Prime age (25–54)		83.6	84.0	82.6	82.6	83.5	0.9	p.p.
Older (55–64)		29.1	30.3	28.8	31.8	35.5	3.7	p.p.
Male		76.4	76.4	74.9	75.4	76.9	1.5	p.p.
Young (15–24)		56.0	55.7	56.0	56.8	58.2	1.4	p.p.
Prime age (25–54)		91.1	91.1	89.4	89.1	89.9	0.8	p.p.
Older (55–64)		39.6	40.4	38.9	41.3	45.3	4.0	p.p.
Female		61.3	61.6	60.7	62.0	63.5	1.5	p.p.
Young (15–24)		47.4	46.5	47.9	49.4	49.9	0.6	p.p.
Prime age (25–54)		76.2	76.9	75.8	76.0	77.0	1.0	p.p.
Older (55–64)		19.3	20.8	19.3	22.9	26.3	3.4	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		3 682	3 763	3 716	3 786	3 881	95	Th.
Male (as % of total)		55.0	55.2	55.0	54.7	54.6	– 0.1	p.p.
Female (as % of total)		45.0	44.8	45.0	45.3	45.4	0.1	p.p.
7. Employment growth (%) (national accounts)		– 0.4	– 0.2	0.6	1.1	1.4		p.p.
Employment growth (%) (LFS — age 15–64)		– 0.4	2.2	– 1.3	1.9	2.5		p.p.
Male		– 1.9	2.5	– 1.6	1.3	2.3		p.p.
Female		1.6	1.9	– 0.8	2.6	2.7		p.p.
8. Self employed (% of total employment)		5.2	5.7	7.0	6.9	6.8	– 0.1	p.p.
Male		5.5	6.1	7.7	7.3	7.3	0.0	p.p.
Female		4.8	5.3	6.3	6.4	6.3	– 0.2	p.p.
9. Temporary employment (as % of total)		7.5	6.9	9.7	9.1	9.0	– 0.1	p.p.
Male		7.6	7.1	10.2	9.3	9.1	– 0.2	p.p.
Female		7.3	6.8	9.0	8.8	9.0	0.1	p.p.
10. Part-time (as % of total employment)		18.5	18.4	19.4	20.8	21.3	0.5	p.p.
Male		4.6	4.3	4.5	5.6	5.8	0.2	p.p.
Female		35.4	35.8	37.7	39.1	39.9	0.8	p.p.
11. Unemployment rate (harmonised: 15-74)		4.2	4.3	4.8	5.2	4.7	– 0.5	p.p.
Young (15–24)		6.2	7.0	9.7	10.3	9.1	– 1.2	p.p.
Prime age (25–54)		3.5	3.8	4.2	4.4	4.1	– 0.3	p.p.
Older (55–64)		5.4	5.3	3.8	3.6	3.6	0.0	p.p.
Male		4.0	4.0	4.4	4.9	4.4	– 0.5	p.p.
Young (15–24)		6.5	7.5	9.3	10.7	8.9	– 1.8	p.p.
Prime age (25–54)		3.4	3.7	3.8	4.0	3.6	– 0.4	p.p.
Older (55–64)		6.1	5.9	4.2	4.1	4.3	0.2	p.p.
Female		4.4	4.7	5.3	5.5	5.2	– 0.3	p.p.
Young (15–24)		5.8	6.5	10.1	9.9	9.3	– 0.6	p.p.
Prime age (25–54)		3.6	3.9	4.8	4.9	4.8	– 0.1	p.p.
Older (55–64)		4.1	4.4	3.1	2.7	2.3	– 0.4	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		27.6	26.6	27.5	25.2	27.5	2.3	p.p.
13. Worked hours (average actual weekly hours)		38.9	38.5	39.3	38.7	38.5	– 0.5	%
Male		42.1	41.7	43.3	42.7	42.6	– 0.1	%
Female		34.7	34.3	34.0	33.5	33.2	– 0.9	%
14. Sectoral employment growth								
Agriculture		– 0.5	– 2.1	– 3.2	– 4.6	– 1.7		p.p.
Building and construction		– 3.1	4.4	– 1.6	2.0	0.9		p.p.
Services		1.0	0.2	0.9	0.9	2.4		p.p.
Manufacturing industry		– 2.6	– 1.5	– 0.8	– 0.1	0.2		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Austria
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	2.1	2.2	1.0	1.6	2.4	3.0	3.2	3.3	3.2
Compensation of employees per hour worked	1.8	1.6	1.6	2.1	3.0	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	2.8	1.6	– 1.5	3.1	2.5	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	0.8	0.9	– 0.8	0.7	0.7	0.2	1.0	1.3	1.6
Real unit labour costs deflated by GDP deflator	– 0.6	– 0.4	– 2.5	– 1.2	– 0.8	– 0.4	– 0.6	0.1	– 0.2
Wages and salaries	:	:	:	:	:	1.6	2.6	2.6	:
Compensation per employee adjusted by total factor productivity	1.8	2.0	– 0.4	1.1	0.8	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	66.5	65.8	64.2	63.4	62.7	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	:	:	:	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	:	:	:	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	47.1	47.4	47.5	47.4	48.1	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	41.6	42.0	42.2	42.2	43.2	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	1.3	1.3	1.9	0.9	1.7	2.9	2.2	2.0	1.5
Hourly labour productivity	0.9	0.5	1.9	1.2	1.8	:	:	:	:
GDP	0.9	1.1	2.4	2.0	3.1	3.2	3.2	3.2	2.8
ECFIN NAIRU estimate	4.2	4.3	4.4	4.6	4.6	:	:	:	:
Output gap (%)	– 0.5	– 1.6	– 1.2	– 1.1	– 0.2	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	1.7	1.3	2.0	2.1	1.7	1.5	2.0	1.8	1.5
Underlying inflation (excl. energy and unprocessed food)	2.0	1.3	1.6	1.5	1.3	0.8	1.5	1.3	1.5
GDP deflator	1.4	1.3	1.7	1.9	1.6	0.6	1.6	1.1	1.8
Sectoral breakdown of unit labour costs									
Agriculture and fishery	:	:	:	:	:	– 4.1	– 5.2	0.6	:
Industry excluding construction	:	:	:	:	:	– 4.9	– 3.8	– 6.2	:
of which: manufacturing	– 0.3	1.4	0.1	1.2	– 2.7	:	:	:	:
Construction	:	:	:	:	:	– 4.3	0.9	– 2.6	:
Trade, transport and communication	:	:	:	:	:	0.9	0.7	2.5	:
Finance and business services	:	:	:	:	:	4.4	4.3	6.6	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	:	:	:	:	:	– 0.7	– 0.1	0.0	:
Sectoral breakdown of compensation per employee									
Total industries	2.1	2.2	1.0	1.6	2.4	0.0	0.0	0.0	0.0
Agriculture and fishery	:	:	:	:	:	5.1	4.8	4.8	:
Industry excluding construction	:	:	:	:	:	1.8	2.2	2.2	:
of which: manufacturing	2.8	3.0	3.2	3.9	4.2	:	:	:	:
Construction	:	:	:	:	:	2.2	2.8	2.5	:
Trade, transport and communication	:	:	:	:	:	1.5	2.0	2.2	:
Finance and business services	:	:	:	:	:	1.5	1.5	0.8	:
Non-market related services	:	:	:	:	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	:	:	:	:	:	9.6	10.5	4.2	:
Industry excluding construction	:	:	:	:	:	7.0	6.3	8.9	:
of which: manufacturing	3.0	1.6	3.1	2.7	7.1	:	:	:	:
Construction	:	:	:	:	:	6.8	1.9	5.2	:
Trade, transport and communication	:	:	:	:	:	0.6	1.3	– 0.3	:
Finance and business services	:	:	:	:	:	– 2.7	– 2.6	– 5.4	:
Non-market related services	:	:	:	:	:	– 0.2	– 0.7	– 0.9	:
Market-related sectors	:	:	:	:	:	2.8	2.6	2.3	:

Source: AMECO, Eurostat (national accounts), ECB.

Poland
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	31 063	30 952	31 123	31 258	37 446	19.8	%
2. Population (working age: 15–64)		26 159	26 031	26 142	26 211	26 325	0.4	%
(as % of total population)		84.2	84.1	84.0	83.9	70.3	– 13.6	p.p.
3. Labour force (15–64)	**1 000 pers.**	16 893	16 644	16 727	16 873	16 679	– 1.2	%
Male		9 126	9 006	9 077	9 191	9 127	– 0.7	%
Female		7 767	7 638	7 651	7 682	7 552	– 1.7	%
4. Activity rate (as % of population 15–64)		64.6	63.9	64.0	64.4	63.4	– 1.0	p.p.
Young (15–24)		37.8	36.4	35.9	35.7	34.2	– 1.5	p.p.
Prime age (25–54)		81.5	81.4	81.9	82.5	81.7	– 0.8	p.p.
Older (55–64)		29.1	30.1	29.6	30.5	30.7	0.1	p.p.
Male		70.6	70.0	70.1	70.8	70.1	– 0.7	p.p.
Young (15–24)		41.6	40.5	39.7	39.5	37.5	– 1.9	p.p.
Prime age (25–54)		87.2	87.1	87.8	88.7	88.2	– 0.6	p.p.
Older (55–64)		38.7	39.7	39.1	40.9	42.6	1.7	p.p.
Female		58.7	58.0	57.9	58.1	56.8	– 1.3	p.p.
Young (15–24)		34.1	32.2	32.0	31.8	30.7	– 1.1	p.p.
Prime age (25–54)		75.8	75.8	76.0	76.4	75.4	– 1.0	p.p.
Older (55–64)		20.9	22.0	21.4	21.5	20.3	– 1.2	p.p.
5. Employment rate (as % of population 15–64)		51.5	51.2	51.7	52.8	54.5	1.7	p.p.
Young (15–24)		21.7	21.2	21.7	22.5	24.0	1.5	p.p.
Prime age (25–54)		67.4	67.5	68.2	69.6	71.8	2.2	p.p.
Older (55–64)		26.1	26.9	26.2	27.2	28.1	0.8	p.p.
Male		56.9	56.5	57.2	58.9	60.9	2.0	p.p.
Young (15–24)		24.2	23.9	24.8	25.4	26.9	1.5	p.p.
Prime age (25–54)		73.0	73.0	73.9	76.1	78.3	2.2	p.p.
Older (55–64)		34.5	35.2	34.1	35.9	38.4	2.5	p.p.
Female		46.2	46.0	46.2	46.8	48.2	1.4	p.p.
Young (15–24)		19.3	18.4	18.6	19.6	21.0	1.4	p.p.
Prime age (25–54)		61.9	62.1	62.6	63.1	65.3	2.2	p.p.
Older (55–64)		18.9	19.8	19.4	19.7	19.0	– 0.6	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		13 470	13 324	13 504	13 834	14 338	504	Th.
Male (as % of total)		54.6	54.6	54.8	55.2	55.3	0.0	p.p.
Female (as % of total)		45.4	45.4	45.2	44.8	44.7	0.0	p.p.
7. Employment growth (%) (national accounts)		– 3.0	– 1.2	1.3	2.3	3.3		p.p.
Employment growth (%) (LFS — age 15–64)		– 2.9	– 1.1	1.3	2.4	3.6		p.p.
Male		– 3.2	– 1.1	1.8	3.3	3.7		p.p.
Female		– 2.5	– 1.1	0.8	1.4	3.6		p.p.
8. Self employed (% of total employment)		18.3	17.4	16.7	16.0	15.3	– 0.7	p.p.
Male		20.7	20.3	19.3	18.6	17.9	– 0.8	p.p.
Female		15.4	14.0	13.5	12.8	12.2	– 0.5	p.p.
9. Temporary employment (as % of total)		15.3	19.3	22.6	25.6	27.2	1.7	p.p.
Male		16.3	20.7	23.6	26.4	28.4	2.0	p.p.
Female		14.3	17.8	21.5	24.6	25.9	1.3	p.p.
10. Part-time (as % of total employment)		9.6	9.4	9.8	9.8	8.9	– 0.9	p.p.
Male		7.4	7.2	7.2	7.0	6.2	– 0.7	p.p.
Female		12.3	12.1	12.9	13.3	12.2	– 1.1	p.p.
11. Unemployment rate (harmonised: 15-74)		19.9	19.6	19.0	17.7	13.8	– 3.9	p.p.
Young (15–24)		42.5	41.9	39.5	36.9	29.8	– 7.1	p.p.
Prime age (25–54)		17.3	17.1	16.7	15.7	12.2	– 3.5	p.p.
Older (55–64)		10.2	10.7	11.4	10.8	8.5	– 2.3	p.p.
Male		19.1	19.0	18.2	16.6	13.0	– 3.6	p.p.
Young (15–24)		41.9	40.9	37.7	35.7	28.3	– 7.4	p.p.
Prime age (25–54)		16.3	16.2	15.8	14.3	11.2	– 3.1	p.p.
Older (55–64)		10.8	11.3	12.6	12.2	9.8	– 2.4	p.p.
Female		20.9	20.4	19.9	19.1	14.9	– 4.2	p.p.
Young (15–24)		43.3	43.1	42.0	38.3	31.6	– 6.7	p.p.
Prime age (25–54)		18.4	18.0	17.7	17.4	13.4	– 4.0	p.p.
Older (55–64)		9.2	9.9	9.4	8.4	6.2	– 2.3	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		54.8	56.0	54.1	57.7	56.2	– 1.5	p.p.
13. Worked hours (average actual weekly hours)		40.2	40.4	40.4	40.3	40.3	0.0	%
Male		42.4	42.6	42.7	42.5	42.5	– 0.1	%
Female		37.6	37.6	37.5	37.4	37.5	0.3	%
14. Sectoral employment growth								
Agriculture		– 3.0	– 1.2	1.3	2.3	3.3		p.p.
Building and construction		– 3.0	– 1.2	1.3	2.3	3.2		p.p.
Services		– 3.0	– 1.2	1.3	2.3	3.3		p.p.
Manufacturing industry		– 4.5	– 1.2	1.5	1.4	3.3		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Poland
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	2.2	1.7	1.8	2.1	3.9	:	:	:	:
Compensation of employees per hour worked	1.8	2.7	2.6	2.9	3.8	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	2.2	3.6	3.5	4.1	5.4	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	– 2.2	– 3.2	– 2.1	0.9	1.4	:	:	:	:
Real unit labour costs deflated by GDP deflator	– 4.4	– 3.6	– 6.0	– 1.7	0.1	:	:	:	:
Wages and salaries	3.1	0.7	2.1	1.9	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	62.6	60.3	56.1	55.8	55.3	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	23.2	:	19.8	19.8	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	76.8	:	80.2	80.2	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	74.2	74.2	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	42.9	43.1	43.3	43.6	43.7	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	42.9	43.1	43.3	43.6	43.7	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	15.5	:	16.6	16.6	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	7.8	:	3.3	3.3	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	4.5	5.1	4.0	1.2	2.4	2.9	1.8	2.2	:
Hourly labour productivity	4.3	4.8	4.0	0.6	2.3	:	:	:	:
GDP	1.4	3.8	5.3	3.5	5.8	5.4	5.5	6.3	7.2
ECFIN NAIRU estimate	17.2	17.8	17.6	16.6	14.7	:	:	:	:
Output gap (%)	– 2.1	– 1.3	0.3	– 0.4	0.1	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	1.9	0.7	3.6	2.2	1.3	0.9	1.4	1.5	1.3
Underlying inflation (excl. energy and unprocessed food)	2.0	0.6	2.8	1.2	0.6	0.2	0.4	0.7	1.0
GDP deflator	2.2	0.4	4.1	2.6	1.3	– 0.1	0.5	1.0	2.4
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 11.8	– 16.2	– 1.7	22.0	:	:	:	:	:
Industry excluding construction	– 8.4	– 18.5	– 9.0	8.7	:	:	:	:	:
of which: manufacturing	– 7.4	– 8.3	– 5.1	– 4.7	– 2.3	:	:	:	:
Construction	– 8.2	– 23.3	5.5	4.7	:	:	:	:	:
Trade, transport and communication	– 10.5	– 10.5	– 8.2	18.8	:	:	:	:	:
Finance and business services	– 4.3	– 17.8	– 2.4	14.7	:	:	:	:	:
Non-market related services	– 1.8	– 12.9	– 0.5	16.2	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	– 2.7	– 10.8	– 1.1	14.8	:	0.0	0.0	:	:
Agriculture and fishery	– 8.2	– 12.9	3.6	16.5	:	:	:	:	:
Industry excluding construction	– 6.0	– 11.1	– 0.7	10.3	:	:	:	:	:
of which: manufacturing	– 2.0	2.5	5.4	– 1.8	4.0	:	:	:	:
Construction	– 13.8	– 24.6	6.1	9.7	:	:	:	:	:
Trade, transport and communication	– 3.5	– 8.4	– 4.6	20.2	:	:	:	:	:
Finance and business services	0.0	– 13.4	– 0.1	16.6	:	:	:	:	:
Non-market related services	3.4	– 8.2	– 0.8	15.7	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	4.1	4.0	5.5	– 4.5	3.4	:	:	:	:
Industry excluding construction	2.6	9.2	9.1	1.5	4.3	:	:	:	:
of which: manufacturing	5.8	11.8	11.1	3.0	6.5	:	:	:	:
Construction	– 6.1	– 1.7	0.5	4.8	10.8	:	:	:	:
Trade, transport and communication	7.7	2.4	3.8	1.2	5.2	:	:	:	:
Finance and business services	4.5	5.4	2.4	1.7	– 3.0	:	:	:	:
Non-market related services	5.3	5.4	– 0.3	– 0.4	– 1.7	:	:	:	:
Market-related sectors	4.1	5.1	5.4	1.1	3.8	:	:	:	:

Source: AMECO, Eurostat (national accounts), ECB.

Portugal
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	10 357	10 435	10 504	10 563	10 586	0.2	%
2. Population (working age: 15–64)		6 992	7 038	7 084	7 114	7 116	0.0	%
(as % of total population)		67.5	67.4	67.4	67.4	67.2	– 0.1	p.p.
3. Labour force (15–64)	**1 000 pers.**	5 082	5 133	5 170	5 222	5 258	0.7	%
Male		2 753	2 759	2 768	2 778	2 796	0.6	%
Female		2 329	2 374	2 403	2 443	2 462	0.8	%
4. Activity rate (as % of population 15–64)		72.7	72.9	73.0	73.4	73.9	0.5	p.p.
Young (15–24)		47.7	45.4	43.8	43.0	42.7	– 0.3	p.p.
Prime age (25–54)		85.3	85.9	86.3	87.1	87.7	0.7	p.p.
Older (55–64)		53.4	54.0	53.2	53.8	53.5	– 0.3	p.p.
Male		80.0	79.6	79.1	79.0	79.5	0.4	p.p.
Young (15–24)		53.0	49.2	47.9	47.0	46.6	– 0.4	p.p.
Prime age (25–54)		92.5	92.3	92.2	92.4	92.9	0.4	p.p.
Older (55–64)		64.3	65.2	62.8	62.4	62.7	0.3	p.p.
Female		65.6	66.5	67.0	67.9	68.4	0.5	p.p.
Young (15–24)		42.4	41.5	39.5	38.8	38.7	– 0.1	p.p.
Prime age (25–54)		78.4	79.7	80.6	81.8	82.7	0.9	p.p.
Older (55–64)		43.8	44.0	44.8	46.1	45.1	– 1.0	p.p.
5. Employment rate (as % of population 15–64)		68.8	68.1	67.8	67.5	67.9	0.4	p.p.
Young (15–24)		42.2	38.8	37.1	36.1	35.8	– 0.3	p.p.
Prime age (25–54)		81.5	80.9	81.1	80.8	81.3	0.5	p.p.
Older (55–64)		51.4	51.6	50.3	50.5	50.1	– 0.4	p.p.
Male		76.5	75.0	74.2	73.4	73.9	0.5	p.p.
Young (15–24)		47.8	43.1	41.5	40.5	39.8	– 0.7	p.p.
Prime age (25–54)		89.2	87.8	87.4	86.7	87.4	0.7	p.p.
Older (55–64)		61.9	62.1	59.1	58.1	58.2	0.1	p.p.
Female		61.4	61.4	61.7	61.7	62.0	0.3	p.p.
Young (15–24)		36.5	34.4	32.5	31.4	31.6	0.2	p.p.
Prime age (25–54)		74.0	74.3	74.9	74.9	75.3	0.4	p.p.
Older (55–64)		42.2	42.4	42.5	43.7	42.8	– 0.9	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		4 812	4 792	4 806	4 800	4 830	30	Th.
Male (as % of total)		54.7	54.2	54.0	53.8	53.9	0.1	p.p.
Female (as % of total)		45.3	45.8	46.0	46.2	46.2	– 0.1	p.p.
7. Employment growth (%) (national accounts)		0.5	– 0.4	0.1	0.0	0.7		p.p.
Employment growth (%) (LFS — age 15–64)		0.3	– 0.4	0.3	– 0.1	0.6		p.p.
Male		0.2	– 1.3	– 0.1	– 0.6	0.8		p.p.
Female		0.5	0.6	0.8	0.4	0.4		p.p.
8. Self employed (% of total employment)		15.1	15.1	14.4	14.1	13.6	– 0.5	p.p.
Male		14.7	14.6	14.1	13.5	13.2	– 0.3	p.p.
Female		15.5	15.7	14.7	14.7	14.0	– 0.7	p.p.
9. Temporary employment (as % of total)		21.5	20.6	19.9	19.6	20.6	1.0	p.p.
Male		19.9	19.0	18.7	18.7	19.6	0.8	p.p.
Female		23.5	22.4	21.2	20.5	21.7	1.3	p.p.
10. Part-time (as % of total employment)		8.3	8.7	8.2	8.2	8.1	– 0.1	p.p.
Male		4.1	4.2	3.9	3.8	4.1	0.3	p.p.
Female		13.3	14.0	13.2	13.2	12.7	– 0.6	p.p.
11. Unemployment rate (harmonised: 15-74)		5.0	6.3	6.7	7.6	7.7	0.1	p.p.
Young (15–24)		11.6	14.5	15.3	16.1	16.3	0.2	p.p.
Prime age (25–54)		4.5	5.8	6.1	7.3	7.3	0.1	p.p.
Older (55–64)		3.7	4.3	5.6	6.2	6.3	0.2	p.p.
Male		4.1	5.5	5.8	6.7	6.5	– 0.2	p.p.
Young (15–24)		9.8	12.4	13.5	13.6	14.5	0.9	p.p.
Prime age (25–54)		3.5	4.9	5.1	6.2	5.8	– 0.3	p.p.
Older (55–64)		3.7	4.7	5.9	6.9	7.3	0.4	p.p.
Female		6.0	7.2	7.6	8.7	9.0	0.3	p.p.
Young (15–24)		14.0	17.0	17.6	19.1	18.4	– 0.7	p.p.
Prime age (25–54)		5.6	6.7	7.1	8.4	9.0	0.5	p.p.
Older (55–64)		3.6	3.7	5.1	5.3	5.2	– 0.1	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		34.8	34.9	44.2	48.1	50.2	2.1	p.p.
13. Worked hours (average actual weekly hours)		38.6	38.2	38.4	38.4	38.3	– 0.3	%
Male		40.5	40.0	40.2	40.2	40.0	– 0.6	%
Female		36.4	36.0	36.1	36.3	36.3	0.2	%
14. Sectoral employment growth								
Agriculture		– 2.4	0.8	– 3.7	– 1.9	– 0.4		p.p.
Building and construction		6.8	– 5.6	– 6.1	1.1	– 0.2		p.p.
Services		1.6	1.8	3.0	1.4	1.0		p.p.
Manufacturing industry		– 4.0	– 3.2	– 1.6	– 3.4	1.2		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Portugal
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	4.0	2.8	2.6	2.9	2.4	:	:	:	:
Compensation of employees per hour worked	4.5	4.0	2.8	4.3	3.9	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	5.4	2.4	3.3	2.0	1.7	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	3.7	3.2	1.4	2.4	1.8	:	:	:	:
Real unit labour costs deflated by GDP deflator	– 0.2	0.1	– 1.3	– 0.4	– 1.1	:	:	:	:
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	4.8	4.2	2.2	3.1	2.1	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	74.5	74.9	73.2	73.4	73.3	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	21.3	21.9	22.5	22.5	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	78.7	78.1	77.5	77.5	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	71.5	71.5	71.6	71.6	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	36.8	37.0	37.1	36.4	36.5	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	34.3	34.5	34.5	33.9	34.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	20.3	20.7	21.2	21.2	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	1.0	1.1	1.3	1.3	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	0.3	– 0.4	1.2	0.5	0.6	:	:	:	:
Hourly labour productivity	0.2	0.8	0.3	1.0	0.6	:	:	:	:
GDP	0.8	– 0.7	1.3	0.5	1.3	:	:	:	:
ECFIN NAIRU estimate	5.6	5.9	6.1	6.4	6.7	:	:	:	:
Output gap (%)	1.3	– 1.1	– 1.3	– 2.1	– 2.1	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	3.7	3.3	2.5	2.1	3.0	3.2	3.6	2.9	2.5
Underlying inflation (excl. energy and unprocessed food)	4.5	3.3	2.6	1.7	2.4	2.4	2.7	2.2	2.3
GDP deflator	3.9	3.1	2.7	2.8	2.9	:	:	:	:
Sectoral breakdown of unit labour costs									
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	2.7	3.1	3.5	1.1	2.4	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	4.2	3.1	:	:	:	:	:	:	:
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	6.2	5.4	5.3	2.9	2.8	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	3.5	2.2	1.7	1.7	0.4	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:

Source: AMECO, Eurostat (national accounts), ECB.

Slovenia
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	1 995	1 996	1 997	1 999	2 006	0.3	%
2. Population (working age: 15–64)		1 401	1 405	1 405	1 402	1 407	0.3	%
(as % of total population)		70.3	70.4	70.4	70.1	70.1	0.0	p.p.
3. Labour force (15–64)	**1 000 pers.**	950	943	981	991	997	0.7	%
Male		515	512	530	535	537	0.3	%
Female		435	431	450	456	461	1.1	%
4. Activity rate (as % of population 15–64)		67.8	67.1	69.8	70.7	70.9	0.2	p.p.
Young (15–24)		36.6	35.2	40.4	40.5	40.6	0.1	p.p.
Prime age (25–54)		88.1	87.5	88.6	88.8	89.0	0.2	p.p.
Older (55–64)		25.2	24.3	29.9	32.1	33.4	1.4	p.p.
Male		72.5	72.0	74.5	75.1	74.9	– 0.2	p.p.
Young (15–24)		40.5	39.9	45.1	44.5	44.4	– 0.1	p.p.
Prime age (25–54)		91.2	90.6	91.0	91.1	91.0	0.0	p.p.
Older (55–64)		36.7	34.5	42.5	45.4	45.8	0.4	p.p.
Female		63.0	62.1	65.0	66.1	66.7	0.7	p.p.
Young (15–24)		32.5	30.3	35.3	36.3	36.4	0.2	p.p.
Prime age (25–54)		84.9	84.3	86.1	86.4	87.0	0.6	p.p.
Older (55–64)		14.5	15.0	18.1	18.9	21.4	2.5	p.p.
5. Employment rate (as % of population 15–64)		63.4	62.6	65.3	66.0	66.6	0.6	p.p.
Young (15–24)		30.5	29.1	33.8	34.1	35.0	0.9	p.p.
Prime age (25–54)		83.4	82.5	83.8	83.8	84.2	0.4	p.p.
Older (55–64)		24.5	23.5	29.0	30.7	32.6	1.9	p.p.
Male		68.2	67.4	70.0	70.4	71.1	0.7	p.p.
Young (15–24)		34.4	33.7	38.8	38.1	39.2	1.2	p.p.
Prime age (25–54)		86.7	85.7	86.4	86.4	87.1	0.7	p.p.
Older (55–64)		35.4	33.2	40.9	43.1	44.5	1.4	p.p.
Female		58.6	57.6	60.5	61.3	61.8	0.5	p.p.
Young (15–24)		26.5	24.3	28.6	29.8	30.3	0.4	p.p.
Prime age (25–54)		80.0	79.3	81.2	81.1	81.2	0.2	p.p.
Older (55–64)		14.2	14.7	17.8	18.5	20.9	2.4	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		889	879	917	925	937	12	Th.
Male (as % of total)		54.4	54.5	54.3	54.3	54.4	0.1	p.p.
Female (as % of total)		45.6	45.5	45.7	45.7	45.6	– 0.1	p.p.
7. Employment growth (%) (national accounts)		1.5	– 0.4	0.5	0.3	1.2		p.p.
Employment growth (%) (LFS — age 15–64)		– 0.4	– 1.1	4.4	0.8	1.3		p.p.
Male		– 0.6	– 1.0	4.0	0.7	1.5		p.p.
Female		– 0.3	– 1.3	4.9	1.0	1.0		p.p.
8. Self employed (% of total employment)		6.9	6.2	5.9	6.1	6.8	0.7	p.p.
Male		9.4	8.3	7.8	8.2	9.5	1.3	p.p.
Female		3.9	3.6	3.6	3.5	3.6	0.0	p.p.
9. Temporary employment (as % of total)		14.1	13.6	17.6	17.2	17.1	– 0.1	p.p.
Male		12.4	12.4	16.4	15.4	15.2	– 0.2	p.p.
Female		16.0	14.9	18.9	19.2	19.1	0.0	p.p.
10. Part-time (as % of total employment)		5.4	5.5	7.9	7.8	8.0	0.2	p.p.
Male		4.2	4.4	6.5	6.1	6.0	– 0.1	p.p.
Female		6.7	6.8	9.7	9.8	10.4	0.5	p.p.
11. Unemployment rate (harmonised: 15-74)		6.3	6.7	6.3	6.5	6.0	– 0.5	p.p.
Young (15–24)		16.6	17.3	16.2	16.0	13.9	– 2.1	p.p.
Prime age (25–54)		5.3	5.7	5.4	5.6	5.4	– 0.2	p.p.
Older (55–64)		2.9	3.3	3.2	4.2	2.6	– 1.6	p.p.
Male		5.9	6.3	5.8	6.1	4.9	– 1.2	p.p.
Young (15–24)		15.1	15.5	13.9	14.6	11.6	– 2.9	p.p.
Prime age (25–54)		4.9	5.4	5.1	5.2	4.4	– 0.8	p.p.
Older (55–64)		3.6	3.8	3.8	5.0	2.7	– 2.3	p.p.
Female		6.8	7.1	6.8	7.0	7.2	0.2	p.p.
Young (15–24)		18.5	19.8	19.1	17.8	16.9	– 0.9	p.p.
Prime age (25–54)		5.8	6.0	5.8	6.2	6.6	0.4	p.p.
Older (55–64)		1.8	2.0	1.7	2.4	2.3	– 0.1	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		55.6	53.0	51.4	47.5	49.4	1.9	p.p.
13. Worked hours (average actual weekly hours)		40.8	40.8	40.2	40.2	39.5	– 1.7	%
Male		41.7	41.8	41.3	41.4	40.5	– 2.2	%
Female		39.7	39.6	38.9	38.7	38.2	– 1.3	%
14. Sectoral employment growth								
Agriculture		– 2.6	– 3.5	– 2.4	– 2.4	– 3.0		p.p.
Building and construction		– 1.0	– 0.1	– 0.5	4.2	7.5		p.p.
Services		4.9	1.2	2.1	1.4	2.5		p.p.
Manufacturing industry		– 1.9	– 2.2	– 0.9	– 1.9	– 1.7		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Slovenia
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	8.5	6.6	7.6	5.4	4.8	:	:	:	:
Compensation of employees per hour worked	9.8	6.6	10.2	5.6	4.0	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	4.2	8.1	7.3	5.0	6.3	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	6.5	3.5	3.6	1.6	0.8	:	:	:	:
Real unit labour costs deflated by GDP deflator	– 1.3	– 2.2	0.3	0.1	– 1.5	:	:	:	:
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	75.3	73.5	73.3	73.4	71.8	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	19.4	19.3	17.5	17.8	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	80.6	80.7	82.5	82.2	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	65.2	65.3	65.8	65.6	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	42.5	42.5	42.6	42.4	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	40.1	40.1	40.2	39.2	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	14.6	14.3	13.0	13.2	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	4.8	5.0	4.5	4.6	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	1.9	3.1	3.9	3.7	4.0	4.3	3.8	4.2	3.7
Hourly labour productivity	3.1	2.6	6.3	3.6	3.0	:	:	:	:
GDP	3.5	2.7	4.4	4.0	5.2	5.0	4.7	5.6	5.5
ECFIN NAIRU estimate	6.3	6.2	6.0	5.9	5.9	:	:	:	:
Output gap (%)	– 0.6	– 1.7	– 1.2	– 0.9	0.2	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	7.5	5.7	3.7	2.5	2.5	2.3	3.1	2.5	2.3
Underlying inflation (excl. energy and unprocessed food)	8.4	6.3	3.7	1.3	1.5	1.1	1.7	1.3	2.1
GDP deflator	7.9	5.8	3.3	1.5	2.3	1.6	2.4	2.5	2.7
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 4.4	11.5	– 10.2	3.5	:	:	:	:	:
Industry excluding construction	– 0.9	– 2.1	1.0	1.3	:	:	:	:	:
of which: manufacturing	2.4	0.9	3.0	1.5	– 3.5	:	:	:	:
Construction	5.3	– 0.7	8.2	2.1	:	:	:	:	:
Trade, transport and communication	5.1	– 2.5	5.3	1.2	:	:	:	:	:
Finance and business services	11.5	0.5	1.7	2.5	:	:	:	:	:
Non-market related services	1.7	2.2	0.7	1.8	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	4.7	3.1	5.2	5.1	:	:	:	:	:
Agriculture and fishery	11.5	– 3.1	7.1	1.4	:	:	:	:	:
Industry excluding construction	5.7	3.7	6.0	6.1	:	:	:	:	:
of which: manufacturing	9.4	7.3	8.1	6.3	5.4	:	:	:	:
Construction	7.5	2.9	9.7	1.6	:	:	:	:	:
Trade, transport and communication	7.9	1.2	7.2	5.6	:	:	:	:	:
Finance and business services	– 5.3	1.9	3.6	5.9	:	:	:	:	:
Non-market related services	3.7	3.1	2.8	3.4	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	16.6	– 13.1	19.3	– 2.0	– 1.2	– 1.8	– 1.4	– 1.3	– 1.2
Industry excluding construction	6.7	5.9	4.9	4.8	8.8	10.2	6.8	9.4	7.8
of which: manufacturing	6.8	6.3	5.0	4.8	9.3	:	:	:	:
Construction	2.0	3.6	1.3	– 0.5	4.2	– 2.7	– 2.5	6.9	13.5
Trade, transport and communication	2.7	3.8	1.7	4.3	3.7	5.1	3.6	3.5	3.2
Finance and business services	– 15.0	1.4	1.8	3.3	0.1	– 0.6	0.9	0.7	0.3
Non-market related services	2.0	0.8	2.0	1.6	0.8	1.1	0.8	0.3	0.6
Market-related sectors	2.6	3.7	4.3	3.9	5.0	5.1	4.0	5.6	5.4

Source: AMECO, Eurostat (national accounts), ECB.

Slovak Republic
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	5 384	5 389	5 370	5 379	5 389	0.2	%
2. Population (working age: 15–64)		3 728	3 733	3 792	3 824	3 862	1.0	%
(as % of total population)		69.2	69.3	70.6	71.1	71.7	0.6	p.p.
3. Labour force (15–64)	**1 000 pers.**	2 605	2 614	2 642	2 636	2 650	0.5	%
Male		1 413	1 417	1 437	1 452	1 468	1.1	%
Female		1 192	1 198	1 205	1 184	1 182	– 0.2	%
4. Activity rate (as % of population 15–64)		69.9	70.0	69.7	68.9	68.6	– 0.3	p.p.
Young (15–24)		43.4	41.1	39.3	36.7	35.3	– 1.3	p.p.
Prime age (25–54)		88.6	89.5	88.9	88.0	87.6	– 0.4	p.p.
Older (55–64)		26.9	28.5	31.7	35.0	36.7	1.7	p.p.
Male		76.7	76.7	76.5	76.5	76.4	– 0.1	p.p.
Young (15–24)		47.5	44.9	42.9	40.7	39.7	– 1.1	p.p.
Prime age (25–54)		93.4	94.1	93.8	93.8	94.0	0.2	p.p.
Older (55–64)		46.3	48.1	51.9	55.1	55.2	0.1	p.p.
Female		63.2	63.5	63.0	61.5	60.9	– 0.6	p.p.
Young (15–24)		39.2	37.2	35.7	32.4	30.8	– 1.6	p.p.
Prime age (25–54)		83.9	84.8	84.1	82.1	81.2	– 0.9	p.p.
Older (55–64)		11.1	12.4	14.8	18.1	20.9	2.8	p.p.
5. Employment rate (as % of population 15–64)		56.8	57.7	57.0	57.7	59.4	1.7	p.p.
Young (15–24)		27.0	27.4	26.3	25.6	25.9	0.3	p.p.
Prime age (25–54)		75.0	76.0	74.7	75.3	77.2	1.9	p.p.
Older (55–64)		22.8	24.6	26.8	30.3	33.1	2.8	p.p.
Male		62.4	63.3	63.2	64.6	67.0	2.4	p.p.
Young (15–24)		28.7	29.3	28.0	28.1	29.2	1.1	p.p.
Prime age (25–54)		79.5	80.5	80.0	81.4	84.1	2.8	p.p.
Older (55–64)		39.1	41.0	43.8	47.8	49.8	2.0	p.p.
Female		51.4	52.2	50.9	50.9	51.9	1.0	p.p.
Young (15–24)		25.3	25.4	24.6	23.1	22.5	– 0.5	p.p.
Prime age (25–54)		70.6	71.5	69.3	69.2	70.2	1.1	p.p.
Older (55–64)		9.5	11.2	12.6	15.6	18.9	3.3	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		2 118	2 154	2 160	2 207	2 295	88	Th.
Male (as % of total)		54.2	54.3	54.9	55.6	56.1	0.5	p.p.
Female (as % of total)		45.8	45.7	45.1	44.4	43.9	– 0.5	p.p.
7. Employment growth (%) (national accounts)		– 0.5	1.8	– 0.3	1.4	2.3		p.p.
Employment growth (%) (LFS — age 15–64)		0.1	1.7	0.3	2.2	4.0		p.p.
Male		0.9	1.8	1.4	3.4	4.9		p.p.
Female		– 0.7	1.6	– 1.1	0.6	2.8		p.p.
8. Self employed (% of total employment)		6.1	6.8	8.5	9.3	9.4	0.1	p.p.
Male		8.4	9.1	11.4	12.8	12.6	– 0.2	p.p.
Female		3.3	4.1	5.0	5.0	5.4	0.4	p.p.
9. Temporary employment (as % of total)		4.7	4.7	5.4	4.9	5.0	0.1	p.p.
Male		5.0	5.0	5.8	5.0	4.9	– 0.1	p.p.
Female		4.4	4.4	4.9	4.8	5.0	0.3	p.p.
10. Part-time (as % of total employment)		1.8	2.2	2.5	2.4	2.7	0.3	p.p.
Male		1.0	1.1	1.3	1.2	1.2	0.0	p.p.
Female		2.7	3.6	4.0	3.9	4.5	0.6	p.p.
11. Unemployment rate (harmonised: 15-74)		18.7	17.6	18.2	16.3	13.4	– 2.9	p.p.
Young (15–24)		37.7	33.4	33.1	30.1	26.6	– 3.4	p.p.
Prime age (25–54)		15.3	15.1	16.1	14.5	11.9	– 2.6	p.p.
Older (55–64)		15.3	13.5	15.4	13.4	9.8	– 3.7	p.p.
Male		18.6	17.4	17.4	15.5	12.3	– 3.2	p.p.
Young (15–24)		39.5	34.8	34.7	31.0	26.4	– 4.6	p.p.
Prime age (25–54)		14.9	14.5	14.7	13.3	10.5	– 2.8	p.p.
Older (55–64)		15.6	14.7	15.6	13.2	9.9	– 3.3	p.p.
Female		18.7	17.7	19.2	17.2	14.7	– 2.5	p.p.
Young (15–24)		35.5	31.7	31.1	28.8	27.0	– 1.9	p.p.
Prime age (25–54)		15.8	15.7	17.6	15.8	13.5	– 2.3	p.p.
Older (55–64)		14.3	9.9	15.0	14.0	9.5	– 4.5	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		65.3	65.2	64.8	72.1	76.4	4.3	p.p.
13. Worked hours (average actual weekly hours)		40.8	40.6	40.8	41.0	40.1	– 2.0	%
Male		41.6	41.4	41.8	42.0	41.3	– 1.7	%
Female		39.9	39.6	39.5	39.7	38.6	– 2.8	%
14. Sectoral employment growth								
Agriculture		– 7.1	– 8.5	– 2.3	– 15.0	– 0.8		p.p.
Building and construction		0.7	7.4	6.1	– 4.0	9.3		p.p.
Services		0.5	2.3	– 0.5	4.1	2.4		p.p.
Manufacturing industry		– 1.8	2.0	– 0.7	– 0.3	0.9		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Slovak Republic
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	9.3	8.1	9.2	5.1	7.7	4.2	5.2	6.1	6.7
Compensation of employees per hour worked	12.2	11.6	4.4	2.3	7.2	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	16.3	9.8	6.0	8.3	8.1	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	4.4	5.6	3.2	0.5	1.7	1.2	2.9	0.4	0.7
Real unit labour costs deflated by GDP deflator	– 0.2	0.8	– 2.7	– 1.8	– 1.0	– 2.6	– 2.2	– 2.1	– 13.9
Wages and salaries	10.4	10.3	8.7	8.7	12.6	9.7	14.6	13.9	13.0
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	49.5	49.4	48.2	47.9	46.9	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	26.4	26.4	26.3	24.7	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	73.6	73.6	73.7	75.3	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	62.6	61.9	62.8	65.1	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	42.5	42.9	42.5	38.3	38.5	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	41.3	40.3	38.1	33.8	34.1	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	25.4	25.5	25.1	23.7	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	1.0	0.9	1.2	0.9	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	4.7	2.3	5.8	4.6	5.8	2.9	2.2	5.8	5.9
Hourly labour productivity	7.8	6.8	3.6	2.6	5.4	:	:	:	:
GDP	4.1	4.2	5.4	6.0	8.3	6.7	6.7	9.8	9.6
ECFIN NAIRU estimate	18.1	17.6	16.7	15.5	14.2	:	:	:	:
Output gap (%)	– 2.5	– 2.8	– 2.5	– 2.4	– 0.4	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	3.5	8.4	7.5	2.8	4.3	4.2	4.6	4.8	3.5
Underlying inflation (excl. energy and unprocessed food)	4.5	7.4	6.5	1.7	2.1	1.5	1.9	2.6	2.5
GDP deflator	4.6	4.7	6.0	2.4	2.7	3.9	5.3	2.5	17.0
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 17.0	5.9	3.0	– 21.6	4.2	– 0.9	1.6	– 0.6	– 2.8
Industry excluding construction	8.5	– 4.5	1.0	– 3.9	0.7	– 0.5	– 3.3	– 4.5	– 3.8
of which: manufacturing	9.3	– 2.9	– 1.5	– 12.3	– 3.5	– 2.5	– 3.6	– 4.0	– 4.2
Construction	– 18.7	32.2	15.7	– 2.6	4.8	7.7	7.0	4.3	– 10.1
Trade, transport and communication	25.1	10.9	13.6	6.6	0.8	– 7.7	2.4	4.0	– 10.8
Finance and business services	– 6.1	7.6	3.5	48.9	3.6	– 2.7	– 0.7	8.4	– 4.5
Non-market related services	9.2	21.8	23.7	6.5	7.5	:	:	:	:
Market-related sectors	5.3	2.2	2.3	1.2	– 1.2	– 0.8	0.8	1.1	– 6.0
Sectoral breakdown of compensation per employee									
Total industries	10.9	11.2	13.1	9.0	11.6	0.0	0.0	0.0	0.0
Agriculture and fishery	3.7	17.3	17.8	7.4	6.9	2.3	2.1	0.9	3.9
Industry excluding construction	11.2	12.9	11.1	12.2	10.5	4.2	7.0	6.9	7.4
of which: manufacturing	9.0	9.7	7.0	7.6	5.9	2.7	6.0	6.1	7.8
Construction	1.9	16.7	11.7	6.0	5.5	2.0	4.4	4.6	– 3.5
Trade, transport and communication	10.0	10.6	20.4	– 2.0	12.8	7.6	10.3	8.0	10.1
Finance and business services	14.0	0.3	– 2.3	30.3	8.6	6.5	4.6	6.2	2.6
Non-market related services	13.0	12.0	14.3	7.5	15.1	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	24.9	10.7	14.4	37.0	2.6	3.3	0.6	1.5	6.9
Industry excluding construction	2.5	18.2	10.0	16.8	9.8	4.7	10.6	11.9	11.7
of which: manufacturing	– 0.3	12.9	8.7	22.7	9.8	5.3	9.9	10.5	12.6
Construction	25.3	– 11.7	– 3.4	8.8	0.7	– 5.4	– 2.4	0.3	7.3
Trade, transport and communication	– 12.0	– 0.3	6.0	– 8.1	11.9	16.6	7.7	3.9	23.4
Finance and business services	21.5	– 6.7	– 5.6	– 12.5	4.9	9.4	5.3	– 2.1	7.4
Non-market related services	3.6	– 8.0	– 7.6	1.0	7.1	8.6	2.3	4.8	12.8
Market-related sectors	3.0	5.4	6.4	4.3	7.8	6.4	6.3	5.5	13.3

Source: AMECO, Eurostat (national accounts), ECB.

Finland
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	5 180	5 192	5 205	5 224	5 242	0.3	%
2. Population (working age: 15–64)		3 458	3 464	3 467	3 476	3 484	0.2	%
(as % of total population)		66.8	66.7	66.6	66.5	66.5	– 0.1	p.p.
3. Labour force (15–64)	**1 000 pers.**	2 591	2 580	2 574	2 597	2 620	0.9	%
Male		1 339	1 337	1 332	1 338	1 350	0.9	%
Female		1 252	1 243	1 242	1 259	1 270	0.9	%
4. Activity rate (as % of population 15–64)		74.9	74.5	74.2	74.7	75.2	0.5	p.p.
Young (15–24)		51.5	50.7	49.7	50.7	51.8	1.1	p.p.
Prime age (25–54)		88.0	87.5	87.4	87.7	87.8	0.1	p.p.
Older (55–64)		52.1	53.7	54.9	56.6	58.5	1.9	p.p.
Male		77.0	76.8	76.4	76.6	77.1	0.5	p.p.
Young (15–24)		52.1	51.4	50.5	50.9	52.6	1.7	p.p.
Prime age (25–54)		90.5	90.1	90.1	90.3	90.3	0.0	p.p.
Older (55–64)		53.0	55.3	55.6	56.9	58.8	2.0	p.p.
Female		72.8	72.2	72.0	72.8	73.3	0.4	p.p.
Young (15–24)		50.9	50.0	48.9	50.4	51.0	0.6	p.p.
Prime age (25–54)		85.4	84.8	84.5	85.1	85.3	0.2	p.p.
Older (55–64)		51.2	52.2	54.3	56.4	58.2	1.8	p.p.
5. Employment rate (as % of population 15–64)		68.1	67.7	67.6	68.4	69.3	0.9	p.p.
Young (15–24)		40.7	39.7	39.4	40.5	42.1	1.6	p.p.
Prime age (25–54)		81.6	81.1	81.0	81.7	82.4	0.7	p.p.
Older (55–64)		47.8	49.6	50.9	52.7	54.5	1.8	p.p.
Male		70.0	69.7	69.7	70.3	71.4	1.1	p.p.
Young (15–24)		41.1	40.1	39.4	40.4	42.6	2.2	p.p.
Prime age (25–54)		83.8	83.3	83.8	84.4	85.2	0.7	p.p.
Older (55–64)		48.5	51.0	51.4	52.8	54.8	2.0	p.p.
Female		66.2	65.7	65.6	66.5	67.3	0.8	p.p.
Young (15–24)		40.3	39.2	39.4	40.6	41.6	1.0	p.p.
Prime age (25–54)		79.2	78.9	78.2	78.9	79.6	0.7	p.p.
Older (55–64)		47.2	48.3	50.4	52.7	54.3	1.6	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		2 354	2 345	2 345	2 378	2 416	39	Th.
Male (as % of total)		51.7	51.7	51.8	51.6	51.7	0.1	p.p.
Female (as % of total)		48.3	48.3	48.2	48.4	48.3	– 0.1	p.p.
7. Employment growth (%) (national accounts)		1.0	0.1	0.4	1.4	1.4		p.p.
Employment growth (%) (LFS — age 15–64)		0.2	– 0.4	0.0	1.4	1.6		p.p.
Male		– 0.9	– 0.3	0.1	1.1	1.7		p.p.
Female		1.4	– 0.5	– 0.1	1.7	1.5		p.p.
8. Self employed (% of total employment)		7.9	7.9	7.9	8.0	8.1	0.1	p.p.
Male		9.7	9.7	9.8	9.9	10.2	0.3	p.p.
Female		6.1	5.9	5.9	5.9	5.7	– 0.2	p.p.
9. Temporary employment (as % of total)		16.0	16.3	16.1	16.4	16.3	– 0.1	p.p.
Male		12.5	12.6	12.6	12.8	12.5	– 0.3	p.p.
Female		19.5	20.0	19.5	20.0	20.0	0.1	p.p.
10. Part-time (as % of total employment)		12.4	12.6	13.2	13.2	13.5	0.2	p.p.
Male		7.8	8.0	8.4	8.6	8.6	0.0	p.p.
Female		17.3	17.4	18.3	18.2	18.7	0.5	p.p.
11. Unemployment rate (harmonised: 15-74)		9.1	9.0	8.8	8.4	7.7	– 0.7	p.p.
Young (15–24)		21.0	21.8	20.7	20.1	18.7	– 1.3	p.p.
Prime age (25–54)		7.3	7.2	7.3	6.8	6.1	– 0.7	p.p.
Older (55–64)		8.2	7.6	7.3	6.9	6.8	– 0.1	p.p.
Male		9.1	9.2	8.7	8.2	7.4	– 0.8	p.p.
Young (15–24)		21.2	21.9	22.0	20.6	19.0	– 1.6	p.p.
Prime age (25–54)		7.4	7.5	7.0	6.5	5.6	– 0.8	p.p.
Older (55–64)		8.5	7.7	7.4	7.2	6.9	– 0.3	p.p.
Female		9.1	8.9	8.9	8.6	8.1	– 0.5	p.p.
Young (15–24)		20.8	21.6	19.3	19.5	18.4	– 1.1	p.p.
Prime age (25–54)		7.3	7.0	7.6	7.2	6.6	– 0.6	p.p.
Older (55–64)		7.8	7.6	7.1	6.6	6.7	0.1	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		25.2	25.5	24.3	26.1	25.6	– 0.5	p.p.
13. Worked hours (average actual weekly hours)		37.2	37.1	37.0	37.1	36.9	– 0.5	%
Male		39.5	39.5	39.2	39.2	39.2	0.0	%
Female		34.7	34.5	34.5	34.6	34.3	– 0.9	%
14. Sectoral employment growth								
Agriculture		– 3.7	– 1.8	– 2.0	– 0.4	– 1.2		p.p.
Building and construction		0.7	0.5	2.3	4.6	2.2		p.p.
Services		2.3	1.0	1.3	1.5	1.6		p.p.
Manufacturing industry		– 2.0	– 2.4	– 2.5	0.5	1.0		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Finland
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	1.8	2.8	3.6	3.8	3.4	4.6	5.0	2.5	3.0
Compensation of employees per hour worked	2.3	3.3	3.4	4.2	2.9	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	4.7	3.9	2.3	5.3	3.0	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	1.1	1.1	0.2	2.2	– 0.6	0.8	0.5	0.5	– 3.7
Real unit labour costs deflated by GDP deflator	– 0.1	1.5	– 0.4	2.0	– 1.9	– 1.1	– 1.4	– 2.4	– 3.9
Wages and salaries	1.1	2.2	2.8	4.1	2.6	3.5	2.4	1.8	2.9
Compensation per employee adjusted by total factor productivity	1.3	1.6	0.7	2.3	– 0.4	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	61.1	62.4	62.0	63.4	62.1	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	22.7	22.2	22.2	21.9	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	77.4	77.9	77.8	78.1	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	66.5	67.0	65.8	66.2	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	45.9	45.0	44.5	44.6	44.1	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	42.6	41.9	41.3	41.5	41.1	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	21.1	20.6	21.0	20.6	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	1.5	1.5	1.2	1.2	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	0.7	1.7	3.3	1.5	4.0	3.7	4.4	2.0	6.9
Hourly labour productivity	1.0	2.1	3.1	1.9	3.8	:	:	:	:
GDP	1.6	1.8	3.7	2.9	5.5	5.2	5.2	3.6	7.8
ECFIN NAIRU estimate	8.6	8.0	7.6	7.3	7.0	:	:	:	:
Output gap (%)	– 0.1	– 1.7	– 1.3	– 1.6	0.4	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.0	1.3	0.1	0.8	1.3	1.2	1.6	1.2	1.2
Underlying inflation (excl. energy and unprocessed food)	2.2	1.3	– 0.1	0.3	0.8	0.6	0.8	0.7	1.1
GDP deflator	1.3	– 0.4	0.6	0.2	1.3	2.0	1.9	2.9	0.2
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 0.1	4.7	– 0.8	– 2.2	4.7	26.8	– 1.1	– 6.4	7.3
Industry excluding construction	– 4.0	– 2.5	– 2.8	0.2	– 6.2	– 1.1	– 5.2	– 4.8	– 12.5
of which: manufacturing	– 4.0	– 2.7	– 2.9	– 0.6	– 7.1	:	:	:	:
Construction	2.7	0.8	1.8	5.2	3.3	– 5.8	3.4	1.9	12.7
Trade, transport and communication	1.5	0.1	– 1.3	0.9	– 1.0	– 2.5	– 4.4	1.6	1.0
Finance and business services	5.4	5.7	0.9	4.7	– 5.0	– 13.3	– 7.2	6.4	– 6.3
Non-market related services	5.3	5.2	4.5	4.1	1.4	:	:	:	:
Market-related sectors	– 0.1	0.4	– 1.0	1.6	– 3.6	– 3.6	– 4.3	– 0.4	– 4.7
Sectoral breakdown of compensation per employee									
Total industries	1.8	2.8	3.6	3.7	1.9	0.0	0.0	0.0	0.0
Agriculture and fishery	5.1	– 0.2	2.3	1.8	4.5	1.6	2.1	5.3	9.8
Industry excluding construction	1.6	2.6	4.6	3.8	3.0	2.2	4.8	0.7	5.3
of which: manufacturing	1.5	2.5	4.7	3.2	2.0	:	:	:	:
Construction	1.6	2.8	2.9	2.7	6.6	6.8	9.4	4.0	5.0
Trade, transport and communication	1.9	2.4	2.8	3.3	3.4	3.7	3.0	3.3	3.3
Finance and business services	0.8	3.5	3.9	3.7	– 5.4	– 9.5	– 9.2	7.7	– 11.0
Non-market related services	2.8	3.4	3.5	4.1	2.0	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	5.2	– 4.7	3.1	4.1	– 0.2	– 19.8	3.2	12.4	2.3
Industry excluding construction	5.8	5.2	7.7	3.7	9.8	3.4	10.5	5.8	20.3
of which: manufacturing	5.6	5.3	7.8	3.8	9.8	:	:	:	:
Construction	– 1.1	1.9	1.1	– 2.4	3.2	13.3	5.8	2.0	– 6.8
Trade, transport and communication	0.3	2.4	4.1	2.4	4.5	6.3	7.8	1.7	2.3
Finance and business services	– 4.4	– 2.1	3.0	– 1.0	– 0.4	4.4	– 2.1	1.2	– 5.0
Non-market related services	– 2.3	– 1.7	– 1.0	0.0	0.6	2.1	0.8	– 5.6	5.1
Market-related sectors	1.6	2.1	4.7	1.9	5.6	4.5	6.3	4.0	6.1

Source: AMECO, Eurostat (national accounts), ECB.

Sweden
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	8 930	8 969	9 006	9 041	9 084	0.5	%
2. Population (working age: 15–64)		5 776	5 821	5 855	5 898	5 951	0.9	%
(as % of total population)		64.7	64.9	65.0	65.2	65.5	0.3	p.p.
3. Labour force (15–64)	**1 000 pers.**	4 482	4 501	4 519	4 614	4 687	1.6	%
Male		2 330	2 341	2 353	2 411	2 452	1.7	%
Female		2 153	2 160	2 165	2 203	2 235	1.5	%
4. Activity rate (as % of population 15–64)		77.6	77.3	77.2	78.2	78.8	0.5	p.p.
Young (15–24)		49.1	47.7	47.2	49.9	51.3	1.4	p.p.
Prime age (25–54)		87.7	87.7	87.7	88.8	89.4	0.6	p.p.
Older (55–64)		71.2	71.9	72.7	72.7	72.8	0.1	p.p.
Male		79.4	79.2	79.1	80.5	81.2	0.7	p.p.
Young (15–24)		48.5	47.3	47.1	49.0	50.8	1.8	p.p.
Prime age (25–54)		89.8	89.9	90.0	91.7	92.5	0.8	p.p.
Older (55–64)		74.3	74.9	75.6	76.4	76.0	– 0.3	p.p.
Female		75.8	75.4	75.2	75.9	76.3	0.4	p.p.
Young (15–24)		49.7	48.3	47.3	50.8	51.9	1.1	p.p.
Prime age (25–54)		85.5	85.4	85.3	85.9	86.3	0.4	p.p.
Older (55–64)		68.2	68.9	69.7	69.0	69.6	0.6	p.p.
5. Employment rate (as % of population 15–64)		73.6	72.9	72.1	72.3	73.1	0.8	p.p.
Young (15–24)		42.8	41.2	39.2	39.0	40.3	1.3	p.p.
Prime age (25–54)		84.1	83.5	82.9	83.5	84.7	1.2	p.p.
Older (55–64)		68.0	68.5	69.1	69.5	69.6	0.1	p.p.
Male		74.9	74.2	73.6	74.3	75.5	1.2	p.p.
Young (15–24)		41.8	40.4	38.6	38.2	40.2	2.0	p.p.
Prime age (25–54)		85.9	85.3	85.0	86.1	87.8	1.6	p.p.
Older (55–64)		70.4	70.8	71.2	72.4	72.3	0.0	p.p.
Female		72.2	71.5	70.5	70.2	70.7	0.5	p.p.
Young (15–24)		43.8	42.1	39.7	39.7	40.4	0.7	p.p.
Prime age (25–54)		82.4	81.7	80.9	80.8	81.5	0.7	p.p.
Older (55–64)		65.6	66.3	67.0	66.7	66.9	0.3	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		4 252	4 242	4 220	4 263	4 352	89	Th.
Male (as % of total)		51.7	51.7	51.9	52.2	52.4	0.2	p.p.
Female (as % of total)		48.3	48.3	48.1	47.8	47.6	– 0.2	p.p.
7. Employment growth (%) (national accounts)		0.2	– 0.3	– 0.6	0.4	1.8		p.p.
Employment growth (%) (LFS — age 15–64)		0.1	– 0.2	– 0.5	1.0	2.1		p.p.
Male		– 0.4	– 0.2	– 0.2	1.6	2.5		p.p.
Female		0.6	– 0.3	– 0.8	0.4	1.6		p.p.
8. Self employed (% of total employment)		5.8	5.7	6.0	6.0	6.0	0.0	p.p.
Male		7.9	7.9	8.4	8.2	8.1	– 0.1	p.p.
Female		3.6	3.4	3.4	3.5	3.6	0.1	p.p.
9. Temporary employment (as % of total)		14.9	14.9	15.3	15.7	17.0	1.3	p.p.
Male		12.4	12.5	13.3	13.6	15.0	1.4	p.p.
Female		17.3	17.2	17.3	17.6	18.9	1.3	p.p.
10. Part-time (as % of total employment)		20.0	22.0	22.8	23.5	23.6	0.2	p.p.
Male		9.7	10.0	10.8	10.4	10.3	– 0.1	p.p.
Female		31.1	34.9	35.7	37.7	38.3	0.6	p.p.
11. Unemployment rate (harmonised: 15-74)		4.9	5.6	6.3	7.4	7.1	– 0.3	p.p.
Young (15–24)		12.8	13.7	17.0	21.9	21.5	– 0.4	p.p.
Prime age (25–54)		4.0	4.8	5.4	6.0	5.3	– 0.7	p.p.
Older (55–64)		4.5	4.7	4.9	4.4	4.4	0.0	p.p.
Male		5.3	6.0	6.5	7.5	6.9	– 0.6	p.p.
Young (15–24)		13.8	14.5	18.0	22.0	21.0	– 1.0	p.p.
Prime age (25–54)		4.4	5.1	5.6	6.0	5.2	– 0.9	p.p.
Older (55–64)		5.2	5.5	5.8	5.2	4.9	– 0.4	p.p.
Female		4.6	5.2	6.1	7.3	7.2	– 0.1	p.p.
Young (15–24)		11.8	12.8	16.0	21.8	22.0	0.2	p.p.
Prime age (25–54)		3.7	4.4	5.2	5.9	5.5	– 0.4	p.p.
Older (55–64)		3.8	3.8	4.0	3.4	3.8	0.4	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		19.9	17.7	19.3	15.6	15.3	– 0.3	p.p.
13. Worked hours (average actual weekly hours)		35.9	35.4	35.4	35.6	35.5	– 0.4	%
Male		38.4	37.9	37.9	38.3	38.1	– 0.5	%
Female		32.8	32.4	32.4	32.4	32.4	– 0.1	%
14. Sectoral employment growth								
Agriculture		– 2.4	– 3.9	– 4.9	– 2.0	– 3.0		p.p.
Building and construction		0.8	– 1.5	1.0	3.3	6.8		p.p.
Services		0.9	0.2	– 0.2	0.8	2.1		p.p.
Manufacturing industry		– 2.7	– 2.6	– 2.6	– 2.2	– 0.7		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Sweden
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	2.9	3.0	3.7	3.2	2.0	2.6	1.9	1.9	1.6
Compensation of employees per hour worked	4.6	4.5	2.2	3.0	2.3	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	3.3	4.9	3.2	3.2	1.6	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	1.0	1.0	– 1.0	0.7	– 0.4	– 2.0	– 0.3	0.6	0.1
Real unit labour costs deflated by GDP deflator	– 0.6	– 1.0	– 1.1	– 0.5	– 2.1	– 3.7	– 1.9	– 1.5	– 2.0
Wages and salaries	1.0	1.1	2.1	3.5	3.8	4.3	4.0	3.6	3.4
Compensation per employee adjusted by total factor productivity	1.4	1.6	– 0.2	1.2	– 0.3	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	70.6	70.2	69.3	68.8	67.4	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	33.5	33.5	:	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	66.5	66.5	:	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	57.5	57.5	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	47.8	48.2	48.4	47.9	47.9	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	44.8	45.3	45.5	45.2	44.8	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	29.6	29.6	:	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	3.9	3.9	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	1.8	2.0	4.7	2.5	2.4	4.6	2.2	1.3	1.5
Hourly labour productivity	3.3	3.2	3.3	2.3	2.7	:	:	:	:
GDP	2.0	1.7	4.1	2.9	4.2	5.7	3.7	3.6	3.8
ECFIN NAIRU estimate	5.7	5.7	5.7	5.8	5.6	:	:	:	:
Output gap (%)	– 0.7	– 1.8	– 0.7	– 0.8	0.2	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	1.9	2.3	1.0	0.8	1.5	1.2	1.9	1.5	1.4
Underlying inflation (excl. energy and unprocessed food)	1.7	1.3	0.8	0.2	0.5	0.3	0.6	0.6	0.6
GDP deflator	1.6	2.0	0.2	1.2	1.8	1.8	1.7	2.1	2.1
Sectoral breakdown of unit labour costs									
Agriculture and fishery	0.3	– 3.3	– 6.9	9.9	– 5.9	1.5	– 8.6	– 10.9	– 5.6
Industry excluding construction	– 2.5	– 0.5	– 7.6	– 4.6	– 2.0	– 6.4	– 2.5	– 0.4	0.2
of which: manufacturing	– 4.9	– 2.4	– 7.9	– 3.5	– 4.0	:	:	:	:
Construction	5.0	2.7	– 0.3	1.8	0.5	– 1.0	– 0.5	2.5	– 0.7
Trade, transport and communication	1.9	0.2	– 1.5	– 1.7	– 2.3	– 5.3	– 0.8	– 2.2	– 1.8
Finance and business services	1.4	– 1.2	1.8	1.0	0.7	0.3	0.7	0.1	0.8
Non-market related services	5.4	4.9	2.0	0.6	2.2	:	:	:	:
Market-related sectors	– 0.7	– 0.9	– 3.1	0.4	– 1.3	– 3.6	– 1.0	– 0.8	– 0.3
Sectoral breakdown of compensation per employee									
Total industries	3.9	3.4	3.7	1.4	2.3	0.0	0.0	0.0	0.0
Agriculture and fishery	6.1	0.4	5.5	5.1	1.8	6.4	0.9	0.6	3.0
Industry excluding construction	4.6	4.4	4.4	0.8	2.8	2.8	1.9	2.0	3.1
of which: manufacturing	3.5	3.9	4.2	2.7	2.0	:	:	:	:
Construction	3.7	1.0	3.5	4.4	1.7	3.0	0.6	0.0	2.0
Trade, transport and communication	4.3	3.7	4.1	1.1	1.1	0.3	1.2	0.6	1.4
Finance and business services	1.2	1.8	4.7	2.2	1.8	3.1	1.1	0.1	1.6
Non-market related services	5.3	4.7	3.0	1.0	2.7	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	5.8	3.9	13.3	– 4.4	8.2	4.9	10.4	12.9	9.2
Industry excluding construction	7.3	4.9	12.9	5.7	4.9	9.8	4.5	2.4	2.8
of which: manufacturing	8.8	6.4	13.2	6.4	6.2	:	:	:	:
Construction	– 1.3	– 1.6	3.8	2.6	1.2	4.1	1.1	– 2.4	2.7
Trade, transport and communication	2.4	3.5	5.7	2.8	3.5	5.9	2.1	2.9	3.3
Finance and business services	– 0.1	3.1	2.8	1.1	1.0	2.7	0.4	0.0	0.8
Non-market related services	– 0.1	– 0.3	1.0	0.5	0.4	0.8	0.2	0.5	0.3
Market-related sectors	3.2	3.5	7.6	3.0	3.0	6.0	2.5	1.7	2.5

Source: AMECO, Eurostat (national accounts), ECB.

United Kingdom
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	57 964	58 135	58 285	58 421	58 588	0.3	%
2. Population (working age: 15–64)		37 991	38 177	38 364	38 529	38 777	0.6	%
(as % of total population)		65.5	65.7	65.8	66.0	66.2	0.2	p.p.
3. Labour force (15–64)	**1 000 pers.**	28 574	28 715	28 846	28 997	29 293	1.0	%
Male		15 423	15 503	15 514	15 545	15 667	0.8	%
Female		13 151	13 212	13 332	13 452	13 626	1.3	%
4. Activity rate (as % of population 15–64)		75.2	75.2	75.2	75.3	75.5	0.3	p.p.
Young (15–24)		63.7	63.0	62.9	61.9	61.9	0.0	p.p.
Prime age (25–54)		83.7	83.7	83.7	84.1	84.5	0.4	p.p.
Older (55–64)		55.3	57.2	57.9	58.5	59.1	0.7	p.p.
Male		82.3	82.3	82.0	81.9	82.1	0.2	p.p.
Young (15–24)		66.7	66.0	65.4	64.7	64.3	– 0.4	p.p.
Prime age (25–54)		91.3	91.3	91.0	91.1	91.6	0.6	p.p.
Older (55–64)		65.3	67.4	68.1	68.3	68.4	0.1	p.p.
Female		68.3	68.3	68.6	68.8	69.2	0.4	p.p.
Young (15–24)		60.7	60.0	60.5	59.1	59.4	0.3	p.p.
Prime age (25–54)		76.4	76.4	76.7	77.4	77.6	0.3	p.p.
Older (55–64)		45.6	47.3	47.9	49.0	50.2	1.3	p.p.
5. Employment rate (as % of population 15–64)		71.3	71.5	71.6	71.7	71.5	– 0.2	p.p.
Young (15–24)		56.1	55.3	55.4	54.0	53.2	– 0.8	p.p.
Prime age (25–54)		80.4	80.6	80.8	81.2	81.1	– 0.1	p.p.
Older (55–64)		53.4	55.4	56.2	56.9	57.4	0.5	p.p.
Male		77.6	77.7	77.8	77.6	77.3	– 0.3	p.p.
Young (15–24)		57.6	56.9	56.6	55.3	54.1	– 1.2	p.p.
Prime age (25–54)		87.4	87.6	87.7	87.8	87.9	0.1	p.p.
Older (55–64)		62.6	64.8	65.7	66.0	66.0	0.0	p.p.
Female		65.2	65.3	65.6	65.9	65.8	– 0.1	p.p.
Young (15–24)		54.5	53.7	54.1	52.5	52.2	– 0.3	p.p.
Prime age (25–54)		73.7	73.8	74.2	74.8	74.6	– 0.2	p.p.
Older (55–64)		44.5	46.3	47.0	48.1	49.1	1.0	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		27 097	27 277	27 485	27 610	27 711	101	Th.
Male (as % of total)		53.7	53.7	53.6	53.4	53.3	– 0.1	p.p.
Female (as % of total)		46.3	46.3	46.4	46.6	46.7	0.1	p.p.
7. Employment growth (%) (national accounts)		0.8	1.0	1.0	0.9	0.8		p.p.
Employment growth (%) (LFS — age 15–64)		0.4	0.7	0.8	0.5	0.4		p.p.
Male		0.1	0.7	0.5	0.1	0.2		p.p.
Female		0.8	0.7	1.0	0.9	0.6		p.p.
8. Self employed (% of total employment)		8.6	9.2	9.3	9.4	9.6	0.2	p.p.
Male		11.6	12.3	12.6	12.6	12.8	0.2	p.p.
Female		5.2	5.6	5.5	5.7	5.9	0.3	p.p.
9. Temporary employment (as % of total)		6.3	6.0	5.9	5.6	5.6	0.0	p.p.
Male		5.5	5.2	5.3	5.1	5.0	– 0.1	p.p.
Female		7.1	6.7	6.4	6.2	6.3	0.1	p.p.
10. Part-time (as % of total employment)		24.5	24.8	24.9	24.4	24.4	0.0	p.p.
Male		8.5	8.9	9.1	9.1	9.2	0.1	p.p.
Female		43.1	43.3	43.2	41.9	41.8	– 0.1	p.p.
11. Unemployment rate (harmonised: 15-74)		5.1	4.9	4.7	4.8	5.3	0.5	p.p.
Young (15–24)		12.0	12.3	12.0	12.8	14.1	1.2	p.p.
Prime age (25–54)		4.0	3.8	3.5	3.4	4.0	0.6	p.p.
Older (55–64)		3.4	3.2	2.8	2.7	3.0	0.3	p.p.
Male		5.6	5.5	5.0	5.1	5.7	0.6	p.p.
Young (15–24)		13.7	13.9	13.3	14.5	15.9	1.4	p.p.
Prime age (25–54)		4.3	4.1	3.7	3.6	4.1	0.5	p.p.
Older (55–64)		4.2	4.0	3.5	3.4	3.5	0.1	p.p.
Female		4.5	4.3	4.2	4.3	4.9	0.6	p.p.
Young (15–24)		10.2	10.5	10.6	11.0	12.1	1.1	p.p.
Prime age (25–54)		3.6	3.4	3.2	3.2	3.9	0.6	p.p.
Older (55–64)		2.4	2.0	1.9	1.9	2.3	0.5	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		21.7	21.4	20.4	21.0	22.3	1.4	p.p.
13. Worked hours (average actual weekly hours)		35.9	35.7	35.7	35.7	35.7	– 0.2	%
Male		40.9	40.7	40.5	40.4	40.3	– 0.3	%
Female		29.9	29.8	29.9	30.2	30.2	0.2	%
14. Sectoral employment growth								
Agriculture		– 9.4	– 4.9	2.6	:	:		p.p.
Building and construction		0.4	4.6	4.7	:	:		p.p.
Services		2.0	1.8	1.5	:	:		p.p.
Manufacturing industry		– 4.9	– 4.6	– 3.7	– 5.1	– 2.3		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

United Kingdom
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	3.3	4.9	4.3	4.6	4.2	5.4	3.9	3.8	:
Compensation of employees per hour worked	4.4	5.2	4.4	4.4	4.5	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	4.4	4.2	6.4	3.2	3.5	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	2.0	3.1	2.0	3.6	2.2	3.4	2.0	1.7	:
Real unit labour costs deflated by GDP deflator	– 1.1	0.0	– 0.6	1.3	– 0.2	1.3	0.0	– 1.3	:
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	2.5	3.6	2.5	4.2	3.0	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	73.6	73.5	73.0	73.8	73.7	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	18.5	19.7	20.0	20.8	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	81.5	80.3	80.0	79.2	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	69.0	69.0	69.0	70.2	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	31.9	33.3	33.4	33.5	33.9	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	28.5	30.9	31.0	31.2	31.6	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	16.1	17.6	18.1	18.4	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	2.4	2.1	2.0	2.5	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	1.3	1.7	2.2	1.0	1.9	1.9	1.9	2.1	:
Hourly labour productivity	2.4	2.8	2.5	0.7	2.6	:	:	:	:
GDP	2.1	2.7	3.3	1.9	2.8	2.7	2.7	2.7	2.9
ECFIN NAIRU estimate	5.2	5.0	4.8	4.8	4.8	:	:	:	:
Output gap (%)	0.1	0.0	0.5	– 0.3	– 0.4	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	1.3	1.4	1.3	2.0	2.3	2.0	2.2	2.4	2.7
Underlying inflation (excl. energy and unprocessed food)	1.5	1.3	1.1	1.4	1.4	1.3	1.2	1.4	1.7
GDP deflator	3.1	3.1	2.6	2.2	2.4	2.0	2.0	3.0	2.9
Sectoral breakdown of unit labour costs									
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	2.3	0.3	– 0.3	6.0	0.4	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	2.1	– 4.7	6.4	3.8	4.5	0.0	0.0	0.0	0.0
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	4.8	5.3	5.6	10.5	4.3	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	:	:	:	:	:	:	:	:	:
Industry excluding construction	:	:	:	:	:	:	:	:	:
of which: manufacturing	2.5	5.0	6.0	4.3	3.9	:	:	:	:
Construction	:	:	:	:	:	:	:	:	:
Trade, transport and communication	:	:	:	:	:	:	:	:	:
Finance and business services	:	:	:	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:

Source: AMECO, Eurostat (national accounts), ECB.

European Union (25 countries)
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	441 374	443 370	444 686	447 662	455 938	1.8	%
2. Population (working age: 15–64)		300 973	302 269	302 820	305 144	306 660	0.5	%
(as % of total population)		68.2	68.2	68.1	68.2	67.3	– 0.9	p.p.
3. Labour force (15–64)	**1 000 pers.**	207 429	209 440	210 554	214 357	216 515	1.0	%
Male		115 851	116 578	116 784	118 387	119 308	0.8	%
Female		91 578	92 862	93 770	95 971	97 208	1.3	%
4. Activity rate (as % of population 15–64)		68.9	69.3	69.5	70.2	70.6	0.4	p.p.
Young (15–24)		45.4	44.8	44.6	45.2	45.1	– 0.2	p.p.
Prime age (25–54)		82.8	83.3	83.5	84.0	84.4	0.4	p.p.
Older (55–64)		41.1	42.9	43.8	45.5	46.5	1.0	p.p.
Male		77.3	77.4	77.4	77.8	78.0	0.2	p.p.
Young (15–24)		49.0	48.3	48.1	48.7	48.4	– 0.2	p.p.
Prime age (25–54)		91.8	91.9	91.8	92.1	92.2	0.2	p.p.
Older (55–64)		52.0	53.7	54.3	55.5	56.3	0.8	p.p.
Female		60.6	61.2	61.7	62.7	63.2	0.5	p.p.
Young (15–24)		41.7	41.3	41.1	41.7	41.6	– 0.1	p.p.
Prime age (25–54)		73.9	74.6	75.2	76.0	76.5	0.6	p.p.
Older (55–64)		30.7	32.7	33.8	36.0	37.3	1.2	p.p.
5. Employment rate (as % of population 15–64)		62.8	62.9	63.0	63.9	64.7	0.9	p.p.
Young (15–24)		37.4	36.7	36.4	36.8	37.3	0.5	p.p.
Prime age (25–54)		76.3	76.5	76.6	77.3	78.3	0.9	p.p.
Older (55–64)		38.4	40.0	40.7	42.5	43.6	1.1	p.p.
Male		71.0	70.8	70.6	71.3	72.0	0.8	p.p.
Young (15–24)		40.6	39.5	39.2	39.7	40.3	0.5	p.p.
Prime age (25–54)		85.4	85.2	85.0	85.5	86.3	0.8	p.p.
Older (55–64)		48.6	50.1	50.5	51.8	52.8	1.0	p.p.
Female		54.6	55.1	55.4	56.5	57.4	1.0	p.p.
Young (15–24)		34.3	33.8	33.4	33.9	34.2	0.4	p.p.
Prime age (25–54)		67.3	67.8	68.2	69.1	70.2	1.1	p.p.
Older (55–64)		28.8	30.6	31.4	33.7	34.9	1.2	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		188 948	190 213	190 851	194 886	198 505	3 620	Th.
Male (as % of total)		56.3	56.1	55.9	55.6	55.5	– 0.1	p.p.
Female (as % of total)		43.7	43.9	44.1	44.4	44.5	0.1	p.p.
7. Employment growth (%) (national accounts)		0.4	0.4	0.8	1.0	1.5		p.p.
Employment growth (%) (LFS — age 15–64)		0.5	0.7	0.3	2.1	1.9		p.p.
Male		0.0	0.2	0.0	1.7	1.6		p.p.
Female		1.1	1.2	0.8	2.6	2.1		p.p.
8. Self employed (% of total employment)		9.0	9.1	9.9	9.9	9.8	– 0.1	p.p.
Male		10.9	11.1	12.0	11.9	11.8	– 0.1	p.p.
Female		6.5	6.6	7.2	7.2	7.2	0.0	p.p.
9. Temporary employment (as % of total)		12.9	12.9	13.5	14.4	14.9	0.4	p.p.
Male		12.1	12.2	12.9	14.0	14.4	0.4	p.p.
Female		13.8	13.7	14.3	14.9	15.5	0.5	p.p.
10. Part-time (as % of total employment)		16.1	16.5	17.2	17.7	18.0	0.3	p.p.
Male		5.8	6.0	6.3	6.6	6.9	0.3	p.p.
Female		29.3	29.9	31.0	31.7	31.9	0.2	p.p.
11. Unemployment rate (harmonised: 15-74)		8.7	9.0	9.0	8.7	7.9	– 0.8	p.p.
Young (15–24)		17.5	18.1	18.5	18.6	17.2	– 1.4	p.p.
Prime age (25–54)		7.9	8.1	8.3	8.0	7.3	– 0.7	p.p.
Older (55–64)		6.4	6.7	7.0	6.6	6.3	– 0.3	p.p.
Male		7.7	8.1	8.1	7.9	7.1	– 0.8	p.p.
Young (15–24)		17.2	18.1	18.4	18.4	16.8	– 1.5	p.p.
Prime age (25–54)		7.0	7.3	7.5	7.1	6.4	– 0.7	p.p.
Older (55–64)		6.5	6.7	7.0	6.7	6.3	– 0.4	p.p.
Female		9.9	10.1	10.2	9.8	9.0	– 0.8	p.p.
Young (15–24)		17.8	18.2	18.7	18.9	17.7	– 1.2	p.p.
Prime age (25–54)		9.0	9.1	9.3	9.0	8.2	– 0.7	p.p.
Older (55–64)		6.3	6.5	6.9	6.4	6.3	– 0.1	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		43.9	44.6	44.1	45.4	45.0	– 0.4	p.p.
13. Worked hours (average actual weekly hours)		37.4	37.4	37.4	37.5	37.3	– 0.5	%
Male		40.6	40.6	40.8	41.0	40.7	– 0.7	%
Female		33.2	33.1	33.0	33.1	32.9	– 0.5	%
14. Sectoral employment growth								
Agriculture		:	:	:	:	:		p.p.
Building and construction		:	:	:	:	:		p.p.
Services		:	:	:	:	:		p.p.
Manufacturing industry		:	:	:	:	:		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

European Union (25 countries)
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	3.2	3.1	2.9	2.5	2.7	:	:	:	:
Compensation of employees per hour worked	4.2	3.5	2.8	2.9	2.9	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	3.8	3.4	3.5	2.8	2.8	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	2.3	2.0	1.1	1.5	1.2	:	:	:	:
Real unit labour costs deflated by GDP deflator	– 0.4	– 0.3	– 1.1	– 0.5	– 0.8	:	:	:	:
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	66.8	66.6	66.1	66.0	65.6	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	:	:	:	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	:	:	:	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	45.0	44.7	45.2	44.5	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	41.5	41.4	41.9	41.5	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	0.9	1.0	1.8	1.0	1.6	2.0	0.9	1.2	1.7
Hourly labour productivity	1.7	1.5	1.7	1.1	1.7	:	:	:	:
GDP	1.2	1.4	2.6	1.9	3.1	3.1	2.5	2.8	3.4
ECFIN NAIRU estimate	8.7	8.6	8.4	8.1	7.7	:	:	:	:
Output gap (%)	0.3	– 0.7	– 0.5	– 1.1	– 0.6	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.1	1.9	2.1	2.2	2.2	2.2	2.4	2.2	2.0
Underlying inflation (excl. energy and unprocessed food)	2.3	1.9	2.0	1.5	1.5	1.3	1.4	1.5	1.7
GDP deflator	2.8	2.3	2.2	2.0	2.0	1.9	1.6	1.5	2.4
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 0.4	3.7	– 6.8	7.5	6.3	:	:	:	:
Industry excluding construction	4.2	0.7	2.1	3.6	2.4	:	:	:	:
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	0.6	– 1.5	1.1	– 1.3	– 1.9	:	:	:	:
Trade, transport and communication	1.1	0.6	1.3	3.3	2.9	:	:	:	:
Finance and business services	2.1	– 0.9	1.3	0.9	0.4	:	:	:	:
Non-market related services	3.5	1.5	3.5	2.3	2.7	:	:	:	:
Market-related sectors	1.7	– 0.6	0.4	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	2.9	0.8	3.0	2.2	2.7	:	:	:	:
Agriculture and fishery	2.4	1.4	4.1	4.0	4.7	:	:	:	:
Industry excluding construction	5.8	3.1	5.9	6.1	6.0	:	:	:	:
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	1.0	– 1.8	0.8	– 2.2	– 0.8	:	:	:	:
Trade, transport and communication	2.1	1.2	3.6	4.5	4.7	:	:	:	:
Finance and business services	2.1	0.4	1.8	1.2	0.4	:	:	:	:
Non-market related services	3.6	1.1	3.2	2.2	2.6	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	2.8	– 2.2	11.7	– 3.2	– 1.5	– 1.8	– 2.6	– 2.3	0.7
Industry excluding construction	1.6	2.4	3.7	2.4	3.5	5.4	1.9	3.0	3.7
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	0.5	– 0.4	– 0.3	– 0.9	1.1	1.7	0.2	0.9	1.6
Trade, transport and communication	1.0	0.6	2.2	1.2	1.8	2.4	1.0	1.7	2.2
Finance and business services	0.0	1.3	0.5	0.3	0.0	– 0.3	– 0.1	– 0.2	0.5
Non-market related services	0.1	– 0.5	– 0.3	– 0.1	0.0	– 0.1	– 0.4	0.1	0.2
Market-related sectors	1.1	1.3	2.3	1.1	1.7	2.4	0.9	1.5	2.2

Source: AMECO, Eurostat (national accounts), ECB.

European Union (15 countries)
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	374 568	376 629	377 888	380 663	382 733	0.5	%
2. Population (working age: 15–64)		250 224	251 561	251 915	254 041	255 354	0.5	%
(as % of total population)		66.8	66.8	66.7	66.7	66.7	0.0	p.p.
3. Labour force (15–64)	**1 000 pers.**	174 019	176 181	177 305	180 716	182 946	1.2	%
Male		97 784	98 620	98 743	100 091	101 001	0.9	%
Female		76 235	77 561	78 562	80 625	81 945	1.6	%
4. Activity rate (as % of population 15–64)		69.5	70.0	70.4	71.1	71.6	0.5	p.p.
Young (15–24)		47.4	47.0	47.2	47.9	47.8	0.0	p.p.
Prime age (25–54)		82.8	83.2	83.6	84.1	84.6	0.5	p.p.
Older (55–64)		42.4	44.3	45.3	47.1	48.3	1.2	p.p.
Male		78.3	78.5	78.5	78.9	79.2	0.3	p.p.
Young (15–24)		50.9	50.4	50.5	51.1	51.1	0.0	p.p.
Prime age (25–54)		92.4	92.5	92.3	92.5	92.7	0.2	p.p.
Older (55–64)		53.0	55.0	55.7	56.8	57.6	0.8	p.p.
Female		60.9	61.6	62.3	63.4	64.1	0.8	p.p.
Young (15–24)		43.8	43.6	43.8	44.5	44.4	0.0	p.p.
Prime age (25–54)		73.2	74.0	74.8	75.6	76.4	0.8	p.p.
Older (55–64)		32.2	34.1	35.3	37.8	39.3	1.5	p.p.
5. Employment rate (as % of population 15–64)		64.2	64.3	64.5	65.3	66.0	0.8	p.p.
Young (15–24)		40.4	39.7	39.5	39.9	40.1	0.3	p.p.
Prime age (25–54)		77.1	77.2	77.4	78.0	78.8	0.8	p.p.
Older (55–64)		39.8	41.5	42.2	44.1	45.3	1.2	p.p.
Male		72.8	72.6	72.4	72.9	73.5	0.6	p.p.
Young (15–24)		43.6	42.5	42.4	42.7	43.1	0.3	p.p.
Prime age (25–54)		86.9	86.5	86.2	86.6	87.2	0.6	p.p.
Older (55–64)		49.8	51.4	52.0	53.2	54.1	0.9	p.p.
Female		55.5	56.1	56.6	57.7	58.6	0.9	p.p.
Young (15–24)		37.2	36.9	36.6	36.9	37.1	0.2	p.p.
Prime age (25–54)		67.3	67.9	68.5	69.5	70.5	1.0	p.p.
Older (55–64)		30.2	31.9	32.9	35.4	36.8	1.4	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		160 535	161 793	162 418	165 803	168 616	2 812	Th.
Male (as % of total)		56.7	56.4	56.1	55.8	55.6	– 0.2	p.p.
Female (as % of total)		43.3	43.6	43.9	44.2	44.4	0.2	p.p.
7. Employment growth (%) (national accounts)		0.6	0.5	0.8	0.8	1.3		p.p.
Employment growth (%) (LFS — age 15–64)		0.8	0.8	0.4	2.1	1.7		p.p.
Male		0.2	0.3	– 0.1	1.5	1.4		p.p.
Female		1.5	1.4	1.0	2.8	2.0		p.p.
8. Self employed (% of total employment)		8.2	8.4	9.3	9.4	9.4	0.0	p.p.
Male		10.1	10.2	11.4	11.4	11.4	0.0	p.p.
Female		5.8	5.9	6.7	6.9	6.9	0.0	p.p.
9. Temporary employment (as % of total)		13.2	13.0	13.4	14.2	14.7	0.5	p.p.
Male		12.3	12.1	12.6	13.6	14.0	0.4	p.p.
Female		14.4	14.1	14.4	15.0	15.5	0.5	p.p.
10. Part-time (as % of total employment)		17.7	18.2	19.0	19.6	20.0	0.4	p.p.
Male		6.0	6.2	6.6	6.9	7.3	0.4	p.p.
Female		33.0	33.6	34.8	35.5	35.9	0.4	p.p.
11. Unemployment rate (harmonised: 15-74)		7.5	7.9	8.0	7.9	7.4	– 0.5	p.p.
Young (15–24)		14.7	15.6	16.2	16.7	16.1	– 0.7	p.p.
Prime age (25–54)		6.9	7.3	7.4	7.2	6.8	– 0.4	p.p.
Older (55–64)		6.2	6.5	6.8	6.4	6.2	– 0.1	p.p.
Male		6.5	7.0	7.1	7.0	6.6	– 0.4	p.p.
Young (15–24)		14.4	15.6	16.0	16.5	15.7	– 0.7	p.p.
Prime age (25–54)		6.0	6.4	6.6	6.5	6.0	– 0.4	p.p.
Older (55–64)		6.2	6.6	6.8	6.4	6.1	– 0.3	p.p.
Female		8.8	9.2	9.2	8.9	8.4	– 0.5	p.p.
Young (15–24)		15.1	15.5	16.4	17.0	16.4	– 0.6	p.p.
Prime age (25–54)		8.0	8.3	8.4	8.1	7.8	– 0.4	p.p.
Older (55–64)		6.3	6.3	6.8	6.3	6.4	0.1	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		40.1	41.4	40.9	41.7	42.1	0.5	p.p.
13. Worked hours (average actual weekly hours)		36.8	36.8	36.8	36.9	36.7	– 0.5	%
Male		40.2	40.3	40.5	40.7	40.4	– 0.8	%
Female		32.2	32.1	32.0	32.1	31.9	– 0.5	%
14. Sectoral employment growth								
Agriculture		– 2.4	– 2.6	– 1.4	:	:		p.p.
Building and construction		0.1	0.7	1.3	:	:		p.p.
Services		1.5	1.2	1.4	:	:		p.p.
Manufacturing industry		– 1.9	– 2.0	– 1.7	– 1.9	– 0.7		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

European Union (15 countries)
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	2.9	2.9	2.7	2.4	2.6	:	:	:	:
Compensation of employees per hour worked	3.9	3.2	2.5	2.9	2.8	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	:	:	:	:	:	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	2.4	2.2	1.1	1.6	1.1	:	:	:	:
Real unit labour costs deflated by GDP deflator	– 0.3	– 0.1	– 0.9	– 0.4	– 0.8	:	:	:	:
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	2.9	2.6	1.4	1.9	1.4	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	67.0	66.9	66.4	66.3	66.0	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	:	:	:	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	:	:	:	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	45.1	44.7	45.2	44.5	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	41.5	41.4	41.9	41.6	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	0.5	0.7	1.5	0.8	1.4	2.0	0.9	1.3	1.7
Hourly labour productivity	1.4	1.2	1.5	1.2	1.7	:	:	:	:
GDP	1.1	1.2	2.3	1.6	2.8	3.0	2.3	2.6	3.2
ECFIN NAIRU estimate	7.8	7.7	7.5	7.3	7.0	:	:	:	:
Output gap (%)	0.3	– 0.6	– 0.5	– 1.1	– 0.6	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.1	2.0	2.0	2.1	2.2	2.2	2.4	2.2	1.9
Underlying inflation (excl. energy and unprocessed food)	2.3	1.8	1.8	1.5	1.5	1.3	1.5	1.5	1.6
GDP deflator	2.7	2.3	2.0	2.0	1.9	1.8	1.4	1.6	2.3
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 0.2	4.7	– 7.9	6.9	5.1	:	:	:	:
Industry excluding construction	0.9	– 1.1	– 0.3	– 0.6	– 0.5	:	:	:	:
of which: manufacturing	1.7	0.5	– 0.4	– 0.1	– 1.8	:	:	:	:
Construction	3.3	1.8	3.5	3.9	1.5	:	:	:	:
Trade, transport and communication	1.7	– 0.1	0.5	0.8	0.6	:	:	:	:
Finance and business services	2.3	– 0.4	2.2	1.8	2.3	:	:	:	:
Non-market related services	3.3	1.7	3.5	2.0	2.5	:	:	:	:
Market-related sectors	1.7	– 0.3	0.5	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	2.6	0.8	2.9	2.0	2.6	:	:	:	:
Agriculture and fishery	2.6	1.7	2.5	3.5	3.8	:	:	:	:
Industry excluding construction	2.3	1.0	3.4	1.8	3.0	:	:	:	:
of which: manufacturing	2.8	2.8	3.2	2.9	2.8	:	:	:	:
Construction	3.8	1.8	3.2	2.7	2.6	:	:	:	:
Trade, transport and communication	2.4	0.3	2.6	2.2	2.5	:	:	:	:
Finance and business services	2.3	1.0	2.7	2.1	2.5	:	:	:	:
Non-market related services	3.0	1.0	3.1	1.9	2.4	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	2.8	– 2.8	11.3	– 3.2	– 1.2	– 3.6	– 2.5	– 1.2	2.0
Industry excluding construction	1.4	2.2	3.7	2.4	3.5	5.5	2.1	3.0	3.5
of which: manufacturing	1.1	2.2	3.7	2.9	4.6	:	:	:	:
Construction	0.5	0.1	– 0.2	– 1.2	1.1	1.7	0.3	0.8	1.6
Trade, transport and communication	0.7	0.4	2.1	1.4	1.8	2.6	1.2	1.7	1.9
Finance and business services	0.0	1.3	0.5	0.3	0.1	– 0.1	0.1	– 0.1	0.6
Non-market related services	– 0.3	– 0.7	– 0.4	0.0	– 0.1	– 0.1	– 0.3	0.2	0.0
Market-related sectors	0.9	1.1	2.2	1.1	1.7	2.4	1.1	1.5	2.0

Source: AMECO, Eurostat (national accounts), ECB.

Euro area
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	302 362	304 197	305 265	307 805	309 646	0.6	%
2. Population (working age: 15–64)		202 977	204 045	204 184	206 048	207 057	0.5	%
(as % of total population)		67.1	67.1	66.9	66.9	66.9	– 0.1	p.p.
3. Labour force (15–64)	**1 000 pers.**	138 253	140 223	141 184	144 259	146 091	1.3	%
Male		78 619	79 308	79 431	80 630	81 367	0.9	%
Female		59 634	60 916	61 753	63 629	64 724	1.7	%
4. Activity rate (as % of population 15–64)		68.1	68.7	69.1	70.0	70.6	0.5	p.p.
Young (15–24)		44.1	43.9	44.0	44.7	44.5	– 0.2	p.p.
Prime age (25–54)		82.4	82.9	83.3	83.9	84.4	0.5	p.p.
Older (55–64)		38.8	40.6	41.6	43.7	45.0	1.3	p.p.
Male		77.4	77.7	77.8	78.2	78.5	0.2	p.p.
Young (15–24)		47.9	47.5	47.6	48.2	48.1	– 0.1	p.p.
Prime age (25–54)		92.7	92.7	92.7	92.8	92.9	0.1	p.p.
Older (55–64)		49.8	51.5	52.3	53.6	54.6	1.0	p.p.
Female		58.8	59.7	60.5	61.8	62.6	0.8	p.p.
Young (15–24)		40.3	40.3	40.2	41.0	40.7	– 0.3	p.p.
Prime age (25–54)		72.0	73.0	73.9	74.9	75.7	0.9	p.p.
Older (55–64)		28.2	30.1	31.3	34.2	35.8	1.6	p.p.
5. Employment rate (as % of population 15–64)		62.4	62.5	62.7	63.7	64.6	0.9	p.p.
Young (15–24)		37.1	36.5	36.2	36.7	37.1	0.4	p.p.
Prime age (25–54)		76.2	76.3	76.5	77.2	78.1	0.9	p.p.
Older (55–64)		36.1	37.6	38.3	40.4	41.7	1.3	p.p.
Male		71.8	71.5	71.3	71.9	72.6	0.7	p.p.
Young (15–24)		40.7	39.7	39.4	40.0	40.6	0.6	p.p.
Prime age (25–54)		86.8	86.3	86.0	86.3	87.0	0.7	p.p.
Older (55–64)		46.5	47.8	48.4	49.7	50.8	1.1	p.p.
Female		52.9	53.6	54.2	55.5	56.6	1.1	p.p.
Young (15–24)		33.3	33.2	32.8	33.3	33.5	0.2	p.p.
Prime age (25–54)		65.5	66.1	66.9	68.0	69.2	1.2	p.p.
Older (55–64)		26.0	27.7	28.6	31.5	33.0	1.5	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		126 558	127 629	128 083	131 224	133 792	2 567	Th.
Male (as % of total)		57.6	57.2	56.8	56.4	56.3	– 0.2	p.p.
Female (as % of total)		42.4	42.8	43.2	43.6	43.7	0.2	p.p.
7. Employment growth (%) (national accounts)		0.6	0.4	0.8	0.8	1.4		p.p.
Employment growth (%) (LFS — age 15–64)		0.9	0.8	0.4	2.5	2.0		p.p.
Male		0.3	0.2	– 0.2	1.7	1.6		p.p.
Female		1.7	1.8	1.1	3.4	2.4		p.p.
8. Self employed (% of total employment)		8.3	8.4	9.6	9.6	9.6	– 0.1	p.p.
Male		9.9	10.0	11.4	11.4	11.3	– 0.1	p.p.
Female		6.2	6.2	7.2	7.4	7.3	0.0	p.p.
9. Temporary employment (as % of total)		14.8	14.6	15.2	16.2	16.7	0.4	p.p.
Male		13.8	13.6	14.2	15.5	15.9	0.4	p.p.
Female		16.2	15.8	16.3	17.0	17.6	0.6	p.p.
10. Part-time (as % of total employment)		16.1	16.5	17.4	18.4	18.9	0.5	p.p.
Male		5.3	5.4	5.8	6.3	6.7	0.4	p.p.
Female		30.8	31.4	32.8	34.1	34.5	0.4	p.p.
11. Unemployment rate (harmonised: 15-74)		8.2	8.7	8.8	8.6	7.9	– 0.7	p.p.
Young (15–24)		16.0	16.9	17.8	17.8	16.6	– 1.2	p.p.
Prime age (25–54)		7.5	8.0	8.2	8.0	7.4	– 0.6	p.p.
Older (55–64)		7.1	7.5	7.9	7.5	7.2	– 0.2	p.p.
Male		6.8	7.3	7.6	7.4	6.8	– 0.6	p.p.
Young (15–24)		14.9	16.4	17.2	17.0	15.7	– 1.3	p.p.
Prime age (25–54)		6.3	6.9	7.2	7.0	6.4	– 0.6	p.p.
Older (55–64)		6.7	7.3	7.6	7.3	6.9	– 0.4	p.p.
Female		10.0	10.4	10.5	10.1	9.3	– 0.8	p.p.
Young (15–24)		17.2	17.5	18.5	18.8	17.7	– 1.0	p.p.
Prime age (25–54)		9.0	9.4	9.5	9.2	8.6	– 0.6	p.p.
Older (55–64)		7.7	7.8	8.5	7.8	7.8	0.0	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		42.8	44.3	43.7	44.5	45.5	1.0	p.p.
13. Worked hours (average actual weekly hours)		37.1	37.2	37.3	37.3	37.0	– 0.7	%
Male		40.2	40.4	40.7	40.9	40.6	– 0.8	%
Female		32.7	32.8	32.6	32.5	32.3	– 0.7	%
14. Sectoral employment growth								
Agriculture		– 2.1	– 2.5	– 1.5	– 1.6	:		p.p.
Building and construction		0.1	0.3	0.9	2.6	:		p.p.
Services		1.5	1.2	1.5	1.3	:		p.p.
Manufacturing industry		– 1.4	– 1.5	– 1.4	– 1.4	– 0.5		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Euro area
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	2.8	2.4	2.2	1.8	2.2	:	:	:	:
Compensation of employees per hour worked	3.8	2.7	2.1	2.5	2.5	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	3.5	3.2	2.6	2.4	2.4	:	:	:	:
Negotiated wages (euro area only)	2.7	2.4	2.1	2.1	2.2	2.1	2.4	2.0	2.4
Nominal unit labour costs	2.5	2.0	1.0	1.1	0.9	:	:	:	:
Real unit labour costs deflated by GDP deflator	– 0.2	– 0.2	– 1.0	– 0.8	– 0.9	:	:	:	:
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	65.2	65.1	64.6	64.3	63.9	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	:	:	:	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	:	:	:	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	:	:	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	:	:	:	:	:	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	0.3	0.4	1.3	0.7	1.3	:	:	:	:
Hourly labour productivity	1.2	0.7	1.2	1.2	1.5	:	:	:	:
GDP	0.9	0.8	2.1	1.5	2.8	:	:	:	:
ECFIN NAIRU estimate	8.5	8.3	8.1	7.9	7.6	:	:	:	:
Output gap (%)	0.5	– 0.7	– 0.7	– 1.3	– 0.8	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.2	2.1	2.1	2.2	2.2	2.3	2.5	2.1	1.8
Underlying inflation (excl. energy and unprocessed food)	2.5	2.0	2.1	1.5	1.5	1.4	1.5	1.5	1.6
GDP deflator	2.7	2.2	2.0	1.9	1.8	:	:	:	:
Sectoral breakdown of unit labour costs									
Agriculture and fishery	0.6	5.8	– 9.3	7.1	5.3	:	:	:	:
Industry excluding construction	0.9	0.3	– 0.5	– 0.9	– 1.4	:	:	:	:
of which: manufacturing	1.8	0.7	– 0.1	– 1.0	– 1.9	:	:	:	:
Construction	3.1	3.2	3.2	3.5	1.1	:	:	:	:
Trade, transport and communication	2.2	2.1	– 0.4	0.4	0.6	:	:	:	:
Finance and business services	2.8	1.5	2.1	1.9	2.5	:	:	:	:
Non-market related services	3.4	2.8	2.7	2.0	2.2	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	2.6	2.1	2.1	1.7	2.2	:	:	:	:
Agriculture and fishery	2.1	2.3	2.2	3.2	3.7	:	:	:	:
Industry excluding construction	2.1	2.1	2.7	1.4	2.5	:	:	:	:
of which: manufacturing	2.5	2.4	2.9	1.6	2.7	:	:	:	:
Construction	3.2	2.8	2.6	2.3	2.7	:	:	:	:
Trade, transport and communication	2.5	1.9	1.5	1.6	2.1	:	:	:	:
Finance and business services	2.5	2.4	1.9	2.1	1.6	:	:	:	:
Non-market related services	3.1	2.1	2.3	1.9	2.1	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	1.4	– 3.3	12.7	– 3.6	– 1.5	:	:	:	:
Industry excluding construction	1.2	1.8	3.2	2.4	3.9	:	:	:	:
of which: manufacturing	0.7	1.7	3.0	2.7	4.7	:	:	:	:
Construction	0.2	– 0.4	– 0.6	– 1.2	1.6	:	:	:	:
Trade, transport and communication	0.3	– 0.2	1.9	1.2	1.5	:	:	:	:
Finance and business services	– 0.3	0.9	– 0.3	0.1	– 0.8	:	:	:	:
Non-market related services	– 0.3	– 0.7	– 0.4	– 0.1	– 0.1	:	:	:	:
Market-related sectors	0.6	0.7	1.8	0.9	1.5	:	:	:	:

Source: AMECO, Eurostat (national accounts), ECB.

Bulgaria
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005–06 (1)	in
1. Population (total)	**1 000 pers.**	7 877	7 821	7 786	7 747	7 706	– 0.5	%
2. Population (working age: 15–64)		5 357	5 308	5 306	5 283	5 238	– 0.9	%
(as % of total population)		68.0	67.9	68.1	68.2	68.0	– 0.2	p.p.
3. Labour force (15–64)	**1 000 pers.**	3 316	3 233	3 277	3 281	3 376	2.9	%
Male		1 754	1 712	1 741	1 751	1 782	1.8	%
Female		1 562	1 522	1 535	1 530	1 595	4.2	%
4. Activity rate (as % of population 15–64)		61.9	60.9	61.8	62.1	64.5	2.4	p.p.
Young (15–24)		30.9	28.8	28.9	27.9	28.9	1.0	p.p.
Prime age (25–54)		80.7	79.1	79.9	80.2	82.3	2.0	p.p.
Older (55–64)		31.8	33.9	36.2	38.0	43.0	5.0	p.p.
Male		66.4	65.4	66.4	67.0	68.8	1.8	p.p.
Young (15–24)		34.2	31.5	31.8	31.1	31.3	0.2	p.p.
Prime age (25–54)		83.0	81.8	82.9	83.3	85.1	1.9	p.p.
Older (55–64)		43.7	45.6	47.2	49.9	53.6	3.7	p.p.
Female		57.5	56.5	57.2	57.3	60.2	2.9	p.p.
Young (15–24)		27.6	26.1	25.9	24.5	26.4	1.8	p.p.
Prime age (25–54)		78.4	76.4	76.8	77.2	79.4	2.2	p.p.
Older (55–64)		21.5	23.8	26.8	27.8	33.9	6.1	p.p.
5. Employment rate (as % of population 15–64)		50.6	52.5	54.2	55.8	58.6	2.9	p.p.
Young (15–24)		19.4	20.7	21.5	21.6	23.2	1.6	p.p.
Prime age (25–54)		67.6	69.2	71.2	73.0	75.7	2.7	p.p.
Older (55–64)		27.0	30.0	32.5	34.7	39.6	4.9	p.p.
Male		53.7	56.0	57.9	60.0	62.8	2.8	p.p.
Young (15–24)		20.5	21.7	23.2	23.9	25.4	1.5	p.p.
Prime age (25–54)		69.0	71.4	73.5	75.7	78.6	2.9	p.p.
Older (55–64)		37.0	40.5	42.1	45.5	49.5	4.0	p.p.
Female		47.5	49.0	50.6	51.7	54.6	3.0	p.p.
Young (15–24)		18.4	19.6	19.6	19.4	21.0	1.6	p.p.
Prime age (25–54)		66.1	67.1	68.8	70.3	72.8	2.5	p.p.
Older (55–64)		18.2	21.0	24.2	25.5	31.1	5.6	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		2 708	2 785	2 877	2 947	3 072	125	Th.
Male (as % of total)		52.4	52.6	52.8	53.2	52.9	– 0.3	p.p.
Female (as % of total)		47.6	47.4	47.2	46.8	47.1	0.3	p.p.
7. Employment growth (%) (national accounts)		0.2	3.0	2.6	2.7	2.4		p.p.
Employment growth (%) (LFS — age 15–64)		1.4	2.8	3.3	2.4	4.2		p.p.
Male		1.7	3.4	3.6	3.2	3.7		p.p.
Female		1.0	2.2	2.9	1.5	4.9		p.p.
8. Self employed (% of total employment)		8.9	8.6	8.5	8.2	7.6	– 0.7	p.p.
Male		10.8	10.5	10.5	9.9	9.1	– 0.8	p.p.
Female		6.9	6.4	6.3	6.3	5.9	– 0.4	p.p.
9. Temporary employment (as % of total)		5.2	6.4	7.3	6.3	6.1	– 0.2	p.p.
Male		5.8	6.9	7.7	6.6	6.2	– 0.4	p.p.
Female		4.7	6.0	6.9	6.1	6.0	0.0	p.p.
10. Part-time (as % of total employment)		2.2	1.9	2.0	1.8	1.7	– 0.1	p.p.
Male		1.7	1.5	1.7	1.5	1.2	– 0.2	p.p.
Female		2.7	2.3	2.4	2.2	2.2	0.0	p.p.
11. Unemployment rate (harmonised: 15-74)		18.1	13.7	12.0	10.1	9.0	– 1.1	p.p.
Young (15–24)		37.2	28.2	25.8	22.3	19.5	– 2.8	p.p.
Prime age (25–54)		16.3	12.5	10.9	9.0	8.0	– 1.0	p.p.
Older (55–64)		15.3	11.5	10.3	8.6	7.9	– 0.8	p.p.
Male		18.9	14.1	12.5	10.3	8.6	– 1.7	p.p.
Young (15–24)		40.2	31.0	27.0	23.4	18.9	– 4.5	p.p.
Prime age (25–54)		16.8	12.7	11.3	9.1	7.7	– 1.4	p.p.
Older (55–64)		15.4	11.1	10.7	8.8	7.6	– 1.3	p.p.
Female		17.3	13.2	11.5	9.8	9.3	– 0.5	p.p.
Young (15–24)		33.5	24.8	24.3	21.0	20.3	– 0.7	p.p.
Prime age (25–54)		15.7	12.2	10.4	9.0	8.3	– 0.6	p.p.
Older (55–64)		15.2	12.1	9.6	8.3	8.3	0.0	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		66.0	65.5	59.5	59.9	55.8	– 4.2	p.p.
13. Worked hours (average actual weekly hours)		40.9	40.5	40.6	40.6	41.1	1.1	%
Male		41.4	41.0	41.1	41.1	41.6	1.4	%
Female		40.4	40.1	40.1	40.2	40.4	0.6	%
14. Sectoral employment growth								
Agriculture		– 0.5	– 0.8	– 0.8	– 1.5	– 1.3		p.p.
Building and construction		0.5	2.1	7.3	17.0	10.5		p.p.
Services		0.2	6.4	4.2	3.7	2.8		p.p.
Manufacturing industry		1.0	– 0.2	1.7	1.9	3.2		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Bulgaria
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	5.9	5.1	4.9	5.9	8.2	5.2	8.8	7.8	10.4
Compensation of employees per hour worked	6.1	6.5	3.7	7.3	8.0	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	3.1	7.3	5.5	5.1	4.7	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	0.5	3.0	1.0	2.4	4.5	3.0	4.0	6.6	11.8
Real unit labour costs deflated by GDP deflator	– 2.7	1.2	– 4.0	– 1.3	– 3.4	– 3.2	– 5.2	– 4.9	– 4.2
Wages and salaries	8.0	– 1.0	7.6	13.9	11.3	8.2	12.0	10.2	13.9
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	55.6	57.0	56.0	56.0	54.6	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	27.1	27.0	27.5	24.9	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	73.0	73.0	72.5	75.1	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	61.2	62.3	61.9	65.3	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	39.6	44.4	38.9	38.9	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	35.4	39.9	38.9	32.4	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	25.8	25.8	25.2	24.0	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	1.3	1.1	2.3	0.9	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	5.3	2.0	3.9	3.5	3.6	2.1	4.7	1.1	– 1.2
Hourly labour productivity	5.4	2.7	2.5	3.8	3.3	:	:	:	:
GDP	5.6	5.0	6.6	6.2	6.1	5.3	6.7	3.3	1.3
ECFIN NAIRU estimate	15.8	14.5	12.9	11.2	9.7	:	:	:	:
Output gap (%)	0.0	0.0	1.1	1.2	1.0	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	5.8	2.3	6.1	6.0	7.4	8.7	8.6	6.7	5.7
Underlying inflation (excl. energy and unprocessed food)	5.8	1.8	5.9	3.6	8.1	8.3	8.9	7.8	7.6
GDP deflator	3.3	1.8	5.1	3.8	8.1	6.4	9.6	12.1	16.7
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 2.1	7.4	2.1	21.1	5.5	:	:	:	:
Industry excluding construction	0.9	– 5.1	0.4	4.9	2.5	:	:	:	:
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	4.8	5.9	– 5.1	3.0	14.4	:	:	:	:
Trade, transport and communication	1.8	8.2	0.4	0.6	5.9	:	:	:	:
Finance and business services	1.7	4.0	12.1	12.7	4.4	:	:	:	:
Non-market related services	4.3	13.1	7.4	2.6	8.8	:	:	:	:
Market-related sectors	1.1	1.9	0.9	5.8	5.0	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	5.8	5.1	4.7	5.8	8.2	0.0	0.0	0.0	0.0
Agriculture and fishery	2.5	5.7	5.4	11.2	4.8	– 3.9	5.5	– 1.5	22.4
Industry excluding construction	2.3	1.1	1.5	6.6	7.1	6.6	8.6	6.2	7.4
of which: manufacturing	2.3	1.2	1.7	6.7	7.2	:	:	:	:
Construction	4.7	5.9	– 1.0	– 3.3	14.3	9.7	13.9	13.7	20.4
Trade, transport and communication	7.8	8.3	1.6	5.0	7.8	5.8	10.6	10.8	4.6
Finance and business services	3.6	5.2	6.7	18.7	13.6	3.4	19.7	13.6	16.9
Non-market related services	9.1	5.6	9.8	3.6	7.3	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	4.7	– 1.6	3.2	– 8.1	– 0.7	:	:	:	:
Industry excluding construction	1.4	6.5	1.0	1.6	4.5	:	:	:	:
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	– 0.1	0.0	4.2	– 6.1	– 0.1	:	:	:	:
Trade, transport and communication	5.9	0.1	1.1	4.4	1.9	:	:	:	:
Finance and business services	1.9	1.2	– 4.8	5.3	8.8	:	:	:	:
Non-market related services	4.6	– 6.6	2.3	0.9	– 1.4	:	:	:	:
Market-related sectors	3.5	2.6	1.7	1.3	3.7	:	:	:	:

Source: AMECO, Eurostat (national accounts), ECB.

Romania
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005–06 (1)	in
1. Population (total)	**1 000 pers.**	22 309	21 686	21 638	21 609	21 575	– 0.2	%
2. Population (working age: 15–64)		15 327	14 933	14 964	15 021	15 035	0.1	%
(as % of total population)		68.7	68.9	69.2	69.5	69.7	0.2	p.p.
3. Labour force (15–64)	**1 000 pers.**	9 717	9 293	9 434	9 355	9 566	2.2	%
Male		5 332	5 125	5 195	5 180	5 287	2.1	%
Female		4 385	4 168	4 239	4 176	4 278	2.5	%
4. Activity rate (as % of population 15–64)		63.4	62.2	63.0	62.3	63.6	1.3	p.p.
Young (15–24)		37.4	32.9	35.8	31.2	30.6	– 0.7	p.p.
Prime age (25–54)		78.6	78.0	78.3	78.2	79.9	1.6	p.p.
Older (55–64)		37.9	38.8	37.9	40.4	42.8	2.4	p.p.
Male		70.4	69.3	70.0	69.4	70.7	1.3	p.p.
Young (15–24)		41.5	37.5	40.5	35.9	35.1	– 0.8	p.p.
Prime age (25–54)		86.4	85.8	85.7	85.8	87.1	1.4	p.p.
Older (55–64)		43.9	44.6	44.9	48.4	52.0	3.6	p.p.
Female		56.6	55.3	56.2	55.3	56.6	1.4	p.p.
Young (15–24)		33.4	28.2	31.0	26.5	25.9	– 0.6	p.p.
Prime age (25–54)		70.8	70.1	70.9	70.7	72.6	1.9	p.p.
Older (55–64)		32.8	33.6	31.9	33.5	34.8	1.3	p.p.
5. Employment rate (as % of population 15–64)		57.6	57.6	57.7	57.6	58.8	1.2	p.p.
Young (15–24)		28.7	26.4	27.9	24.9	24.0	– 0.9	p.p.
Prime age (25–54)		72.7	73.1	72.9	73.3	74.7	1.5	p.p.
Older (55–64)		37.3	38.1	36.9	39.4	41.7	2.3	p.p.
Male		63.6	63.8	63.4	63.7	64.6	0.9	p.p.
Young (15–24)		31.4	29.9	30.7	28.2	27.3	– 0.9	p.p.
Prime age (25–54)		79.6	80.1	79.2	80.0	80.8	0.8	p.p.
Older (55–64)		42.7	43.5	43.1	46.7	50.0	3.3	p.p.
Female		51.8	51.5	52.1	51.5	53.0	1.5	p.p.
Young (15–24)		26.1	22.9	25.1	21.6	20.6	– 0.9	p.p.
Prime age (25–54)		65.9	66.0	66.6	66.5	68.6	2.2	p.p.
Older (55–64)		32.6	33.3	31.4	33.1	34.5	1.4	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		8 833	8 602	8 635	8 651	8 838	186	Th.
Male (as % of total)		54.5	54.8	54.5	55.0	54.7	– 0.3	p.p.
Female (as % of total)		45.5	45.2	45.5	45.0	45.3	0.3	p.p.
7. Employment growth (%) (national accounts)		– 2.7	– 0.3	0.4	0.2	2.8		p.p.
Employment growth (%) (LFS — age 15–64)		– 7.3	– 2.6	0.4	0.2	2.2		p.p.
Male		– 5.8	– 2.1	– 0.3	1.2	1.6		p.p.
Female		– 9.0	– 3.3	1.2	– 1.0	2.9		p.p.
8. Self employed (% of total employment)		18.0	18.2	16.0	17.2	16.6	– 0.6	p.p.
Male		22.6	23.6	21.4	22.7	21.9	– 0.8	p.p.
Female		12.5	11.7	9.6	10.5	10.3	– 0.2	p.p.
9. Temporary employment (as % of total)		1.0	2.0	2.5	2.4	1.8	– 0.6	p.p.
Male		1.1	2.2	2.9	2.8	2.0	– 0.8	p.p.
Female		0.8	1.7	2.1	1.9	1.6	– 0.3	p.p.
10. Part-time (as % of total employment)		10.1	10.2	9.5	9.2	8.6	– 0.6	p.p.
Male		9.4	9.8	9.3	9.1	8.7	– 0.4	p.p.
Female		10.9	10.7	9.8	9.2	8.5	– 0.8	p.p.
11. Unemployment rate (harmonised: 15-74)		8.4	7.0	8.1	7.2	7.3	0.1	p.p.
Young (15–24)		23.2	19.6	21.9	20.2	21.4	1.2	p.p.
Prime age (25–54)		7.5	6.3	6.9	6.4	6.4	0.1	p.p.
Older (55–64)		1.7	1.7	2.8	2.5	2.6	0.1	p.p.
Male		9.1	7.6	9.1	7.8	8.2	0.4	p.p.
Young (15–24)		24.3	20.3	24.2	21.5	22.3	0.8	p.p.
Prime age (25–54)		7.9	6.7	7.6	6.7	7.2	0.6	p.p.
Older (55–64)		2.7	2.5	4.0	3.4	3.8	0.4	p.p.
Female		7.7	6.4	6.9	6.4	6.1	– 0.3	p.p.
Young (15–24)		21.8	18.7	18.9	18.4	20.2	1.8	p.p.
Prime age (25–54)		7.0	5.8	6.2	6.0	5.5	– 0.5	p.p.
Older (55–64)		0.6	0.9	1.3	1.2	0.9	– 0.3	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		54.3	62.1	58.9	56.7	57.7	1.1	p.p.
13. Worked hours (average actual weekly hours)		39.8	39.8	40.0	40.1	39.8	– 0.7	%
Male		41.2	41.0	41.0	41.0	40.7	– 0.9	%
Female		38.3	38.5	38.7	39.0	38.8	– 0.5	%
14. Sectoral employment growth								
Agriculture		– 13.9	– 4.2	:	:	:		p.p.
Building and construction		7.6	8.2	:	:	:		p.p.
Services		4.5	4.9	:	:	:		p.p.
Manufacturing industry		7.3	– 2.1	2.6	0.0	– 0.6		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

Romania
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	25.9	22.7	17.8	19.3	17.8	:	:	:	:
Compensation of employees per hour worked	:	:	:	:	:	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	26.7	16.4	16.4	12.0	20.3	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	16.5	16.3	9.0	14.7	12.5	:	:	:	:
Real unit labour costs deflated by GDP deflator	– 5.6	– 6.2	– 5.2	2.2	1.9	:	:	:	:
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	79.7	75.2	70.6	73.1	73.9	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	31.0	27.4	26.0	26.5	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	69.0	72.6	74.0	73.5	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	66.8	66.4	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	45.3	44.4	44.1	43.0	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	39.8	38.7	39.3	37.1	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	25.8	24.8	23.1	25.0	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	5.1	2.6	2.9	1.5	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	8.1	5.5	8.0	3.9	4.7	:	:	:	:
Hourly labour productivity	:	:	:	:	:	:	:	:	:
GDP	5.1	5.2	8.5	4.1	7.7	6.7	7.7	8.2	7.6
ECFIN NAIRU estimate	5.3	5.8	6.3	6.7	6.9	:	:	:	:
Output gap (%)	– 3.8	– 2.7	0.7	– 0.5	0.9	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	22.5	15.3	11.9	9.1	6.6	8.7	7.2	5.9	4.8
Underlying inflation (excl. energy and unprocessed food)	19.0	15.1	12.2	6.3	5.8	5.9	5.4	6.1	5.7
GDP deflator	23.4	24.0	15.0	12.2	10.4	12.2	11.0	8.6	11.4
Sectoral breakdown of unit labour costs									
Agriculture and fishery	55.1	– 44.7	2.4	:	:	:	:	:	:
Industry excluding construction	– 4.8	– 6.9	4.7	:	:	:	:	:	:
of which: manufacturing	21.2	15.6	13.4	– 2.2	5.6	:	:	:	:
Construction	– 5.7	– 6.6	8.6	:	:	:	:	:	:
Trade, transport and communication	– 4.4	– 9.2	– 2.6	:	:	:	:	:	:
Finance and business services	– 5.1	0.5	9.2	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	:	:	:	:	:	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	7.9	2.4	9.9	:	:	:	:	:	:
Agriculture and fishery	107.5	– 44.4	40.6	:	:	:	:	:	:
Industry excluding construction	– 3.1	4.7	5.5	:	:	:	:	:	:
of which: manufacturing	18.9	24.1	17.5	0.0	13.5	:	:	:	:
Construction	2.0	2.9	3.3	:	:	:	:	:	:
Trade, transport and communication	9.3	2.3	2.3	:	:	:	:	:	:
Finance and business services	– 4.7	– 19.2	6.6	:	:	:	:	:	:
Non-market related services	16.6	20.2	20.4	:	:	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	33.8	0.6	37.4	:	:	:	:	:	:
Industry excluding construction	1.7	12.4	0.7	:	:	:	:	:	:
of which: manufacturing	– 1.8	7.4	3.7	2.3	7.5	:	:	:	:
Construction	8.1	10.2	– 4.8	:	:	:	:	:	:
Trade, transport and communication	14.3	12.7	5.1	:	:	:	:	:	:
Finance and business services	0.4	– 19.7	– 2.4	:	:	:	:	:	:
Non-market related services	:	:	:	:	:	:	:	:	:
Market-related sectors	22.4	5.5	12.8	:	:	:	:	:	:

Source: AMECO, Eurostat (national accounts), ECB.

European Union (27 countries)
Work status of persons

		2002	2003	2004	2005	2006 (1)	Changes 2005-06 (1)	in
1. Population (total)	**1 000 pers.**	471 574	472 901	474 127	477 019	485 220	1.7	%
2. Population (working age: 15–64)		321 688	322 510	323 079	325 448	326 933	0.5	%
(as % of total population)		68.2	68.2	68.1	68.2	67.4	– 0.8	p.p.
3. Labour force (15–64)	**1 000 pers.**	220 643	222 180	223 445	226 994	229 457	1.1	%
Male		123 002	123 508	123 799	125 318	126 376	0.8	%
Female		97 641	98 672	99 646	101 676	103 081	1.4	%
4. Activity rate (as % of population 15–64)		68.6	68.9	69.2	69.7	70.2	0.4	p.p.
Young (15–24)		44.7	43.9	43.9	44.2	44.0	– 0.2	p.p.
Prime age (25–54)		82.7	83.0	83.3	83.7	84.1	0.5	p.p.
Older (55–64)		40.8	42.7	43.4	45.2	46.3	1.2	p.p.
Male		76.8	76.9	76.9	77.3	77.5	0.3	p.p.
Young (15–24)		48.3	47.5	47.4	47.7	47.4	– 0.2	p.p.
Prime age (25–54)		91.5	91.5	91.5	91.7	91.9	0.2	p.p.
Older (55–64)		51.5	53.3	53.9	55.2	56.1	1.0	p.p.
Female		60.4	61.0	61.5	62.3	62.9	0.6	p.p.
Young (15–24)		41.0	40.3	40.3	40.6	40.5	– 0.1	p.p.
Prime age (25–54)		73.9	74.5	75.1	75.7	76.4	0.7	p.p.
Older (55–64)		30.7	32.6	33.6	35.8	37.1	1.3	p.p.
5. Employment rate (as % of population 15–64)		62.4	62.6	62.7	63.4	64.4	0.9	p.p.
Young (15–24)		36.7	35.9	35.7	35.9	36.3	0.4	p.p.
Prime age (25–54)		76.1	76.3	76.4	77.1	78.1	1.0	p.p.
Older (55–64)		38.2	39.9	40.4	42.3	43.5	1.2	p.p.
Male		70.4	70.3	70.2	70.8	71.6	0.8	p.p.
Young (15–24)		39.7	38.8	38.5	38.8	39.3	0.5	p.p.
Prime age (25–54)		84.9	84.8	84.6	85.1	85.9	0.8	p.p.
Older (55–64)		48.2	49.7	50.1	51.5	52.6	1.1	p.p.
Female		54.5	54.9	55.3	56.2	57.2	1.0	p.p.
Young (15–24)		33.5	32.9	32.8	32.9	33.3	0.3	p.p.
Prime age (25–54)		67.3	67.8	68.3	69.0	70.2	1.2	p.p.
Older (55–64)		28.9	30.6	31.3	33.5	34.8	1.3	p.p.
6. Employed persons (age 15–64, 1 000 pers.)		200 683	201 796	202 560	206 484	210 415	3 931	Th.
Male (as % of total)		56.2	56.0	55.7	55.6	55.4	– 0.1	p.p.
Female (as % of total)		43.8	44.0	44.3	44.4	44.6	0.1	p.p.
7. Employment growth (%) (national accounts)		0.3	0.4	0.8	1.0	1.6		p.p.
Employment growth (%) (LFS — age 15–64)		0.1	0.6	0.4	1.9	1.9		p.p.
Male		– 0.2	0.2	0.0	1.6	1.7		p.p.
Female		0.6	1.0	0.9	2.3	2.2		p.p.
8. Self employed (% of total employment)		9.4	9.5	10.1	10.1	10.0	– 0.1	p.p.
Male		11.4	11.6	12.4	12.4	12.2	– 0.1	p.p.
Female		6.9	6.8	7.3	7.4	7.3	0.0	p.p.
9. Temporary employment (as % of total)		12.4	12.5	13.1	13.9	14.3	0.4	p.p.
Male		11.7	11.8	12.5	13.5	13.9	0.4	p.p.
Female		13.2	13.2	13.8	14.4	14.9	0.5	p.p.
10. Part-time (as % of total employment)		15.6	16.0	16.7	17.1	17.4	0.2	p.p.
Male		5.9	6.1	6.4	6.6	6.9	0.2	p.p.
Female		28.1	28.7	29.6	30.3	30.4	0.2	p.p.
11. Unemployment rate (harmonised: 15-74)		8.8	9.0	9.0	8.7	7.9	– 0.8	p.p.
Young (15–24)		17.9	18.3	18.8	18.7	17.4	– 1.3	p.p.
Prime age (25–54)		8.0	8.1	8.2	7.9	7.2	– 0.7	p.p.
Older (55–64)		6.3	6.5	6.9	6.4	6.2	– 0.3	p.p.
Male		8.0	8.1	8.2	7.9	7.2	– 0.7	p.p.
Young (15–24)		17.7	18.3	18.8	18.6	17.1	– 1.5	p.p.
Prime age (25–54)		7.2	7.4	7.5	7.1	6.5	– 0.6	p.p.
Older (55–64)		6.5	6.7	7.0	6.6	6.2	– 0.4	p.p.
Female		10.0	10.0	10.1	9.7	8.8	– 0.9	p.p.
Young (15–24)		18.2	18.3	18.7	18.9	17.8	– 1.0	p.p.
Prime age (25–54)		9.0	9.0	9.1	8.9	8.1	– 0.7	p.p.
Older (55–64)		6.1	6.4	6.7	6.2	6.1	– 0.1	p.p.
12. Long-term unemployment rate								
(as % of total unemployment)		45.2	45.7	44.9	46.0	45.7	– 0.3	p.p.
13. Worked hours (average actual weekly hours)		37.6	37.6	37.6	37.7	37.5	– 0.6	%
Male		40.7	40.7	40.9	41.0	40.7	– 0.6	%
Female		33.6	33.5	33.4	33.5	33.3	– 0.4	%
14. Sectoral employment growth								
Agriculture		:	:	:	:	:		p.p.
Building and construction		:	:	:	:	:		p.p.
Services		:	:	:	:	:		p.p.
Manufacturing industry		:	:	:	:	:		p.p.

(1) 2006: preliminary figures.

Source: Eurostat (labour force survey).

European Union (27 countries)
Indicator board on wage developments

	Annual percentage change								
	2002	2003	2004	2005	2006	06-Q1	06-Q2	06-Q3	06-Q4
Different measures of wage/labour costs:									
Compensation per employee	3.5	3.3	3.0	2.7	2.9	:	:	:	:
Compensation of employees per hour worked	:	:	:	:	:	:	:	:	:
Hourly labour costs (Eurostat labour cost index)	3.9	3.5	3.5	2.7	2.9	:	:	:	:
Negotiated wages (euro area only)	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	2.4	2.2	1.1	1.6	1.3	:	:	:	:
Real unit labour costs deflated by GDP deflator	– 0.7	– 0.4	– 1.3	– 0.5	– 0.9	:	:	:	:
Wages and salaries	:	:	:	:	:	:	:	:	:
Compensation per employee adjusted by total factor productivity	:	:	:	:	:	:	:	:	:
Adjusted wages share (% of GDP at current market prices)	66.8	66.6	66.1	66.0	65.6	:	:	:	:
Structure of labour costs									
Share of indirect costs in total labour costs	:	:	:	:	:	:	:	:	:
Total wages (as a percentage of total labour costs) annual	:	:	:	:	:	:	:	:	:
Direct remuneration and bonuses (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with no children, 100% and 100% of AW	45.0	44.7	45.2	44.5	0.0	:	:	:	:
Total tax wedge (including employers' SSC) — Married couple with 2 children, 100% and 100% of AW	41.5	41.4	41.9	41.5	0.0	:	:	:	:
Employers' social security contributions (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Other indirect costs (as a percentage of total labour costs)	:	:	:	:	:	:	:	:	:
Memo items: determinants or benchmarks according to which wage developments can be assessed									
Labour productivity (GDP/person employed)	1.1	1.1	1.9	1.0	1.6	1.9	0.9	1.3	1.8
Hourly labour productivity	:	:	:	:	:	:	:	:	:
GDP	1.3	1.5	2.7	2.0	3.2	3.1	2.5	2.9	3.5
ECFIN NAIRU estimate	8.7	8.6	8.4	8.1	7.7	:	:	:	:
Output gap (%)	0.2	– 0.7	– 0.5	– 1.1	– 0.6	:	:	:	:
Headline inflation (harmonised consumer price index 1996=100)	2.5	2.1	2.3	2.3	2.3	2.3	2.5	2.3	2.1
Underlying inflation (excl. energy and unprocessed food)	2.6	2.0	2.1	1.5	1.6	1.4	1.5	1.6	1.7
GDP deflator	3.1	2.6	2.4	2.2	2.1	2.3	1.8	2.2	2.3
Sectoral breakdown of unit labour costs									
Agriculture and fishery	– 3.6	0.0	– 8.3	13.7	6.1	:	:	:	:
Industry excluding construction	4.1	0.7	2.1	3.7	2.6	:	:	:	:
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	0.4	– 1.5	1.2	– 1.2	– 1.9	:	:	:	:
Trade, transport and communication	1.1	0.6	1.3	3.4	2.8	:	:	:	:
Finance and business services	2.1	– 0.9	1.3	0.9	0.5	:	:	:	:
Non-market related services	3.4	1.5	3.5	2.4	2.8	:	:	:	:
Sectoral breakdown of compensation per employee									
Total industries	3.0	0.7	2.9	2.4	2.6	:	:	:	:
Agriculture and fishery	7.8	– 3.8	5.7	9.6	5.2	:	:	:	:
Industry excluding construction	5.4	3.4	5.5	6.2	6.0	:	:	:	:
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	0.9	– 1.7	0.6	– 2.4	– 1.0	:	:	:	:
Trade, transport and communication	2.4	1.3	3.4	4.5	4.6	:	:	:	:
Finance and business services	2.1	0.1	1.6	1.5	0.1	:	:	:	:
Non-market related services	3.6	1.2	3.3	2.2	2.8	:	:	:	:
Sectoral breakdown of labour productivity									
Agriculture and fishery	11.9	– 3.8	15.3	– 3.5	– 0.9	– 2.2	– 2.4	– 1.0	2.2
Industry excluding construction	1.3	2.7	3.3	2.4	3.3	5.2	1.7	2.8	3.6
of which: manufacturing	:	:	:	:	:	:	:	:	:
Construction	0.5	– 0.2	– 0.7	– 1.2	0.9	1.4	0.0	0.6	1.4
Trade, transport and communication	1.3	0.7	2.1	1.1	1.8	2.3	0.9	1.7	2.2
Finance and business services	0.0	1.1	0.4	0.6	– 0.3	– 0.5	– 0.5	– 0.6	0.2
Non-market related services	0.3	– 0.3	– 0.3	– 0.2	0.0	– 0.2	– 0.4	0.2	0.3
Market-related sectors	2.1	1.3	2.5	1.1	1.6	2.2	0.8	1.5	2.3

Source: AMECO, Eurostat (national accounts), ECB.

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