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## Employment in Europe 2001

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## Employment in Europe 2001

### Abstract

[Excerpt] This latest edition of *Employment in Europe* gives a clear picture of recent developments in the EU labour markets and provides an analytical approach to these policy issues. Based on the most recent data available and on thorough analysis, it provides an invaluable basis for future discussions and policy development.

### Keywords

: Europe, European union, growth, jobs, member states, economy, social partner, industry, employer, labour law, worker, globalization, Lisbon, labour market, industrial relations, employment, skills, productivity, international, tax, unemployment benefits, retirement

### Comments

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# Employment in Europe 2001

## Recent Trends and Prospects

**Employment & Social affairs**

Employment and European Social Fund

**European Commission**  
Directorate-General for Employment  
and Social Affairs  
Unit EMPL/A.1

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# Foreword by the Commissioner

The world economy is facing big challenges related to the globalisation process and the introduction of new technologies. The Lisbon Council in March last year responded unanimously to these challenges in a positive and dynamic way, setting up a strategy to return to full employment.

It set a new overarching goal of creating the most competitive knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion and set clear quantitative medium term targets for the Union - an average 70 per employment rate by 2010, with a rate of more than 60 per cent for women.

The European social model is central to these goals. Confidence in the European social model, and its role in economic progress, however, does not mean that the EU can simply stand still. The European social model has to be modernised: to meet the demands of globalisation and the ongoing transition towards a knowledge economy and society; to meet challenges from demographic and social change; and to meet the demands of our citizens in their changing economic and social lives. The key to success in all these actions is to put people at the centre of the Union's policies.

This implies a broad strategy aimed at increasing the participation of all men and women in social and economic life. Life-long learning, increasing skills and mobility at all levels, reduction of gender gaps, reconciliation of working and private life are fundamental to making European labour markets accessible to all, for improving quality and for strengthening social cohesion.

Without investment in both skills and quality, we will not meet our Lisbon goals and risk increasing tensions in our labour markets: with rapidly rising incomes for those with scarce skills, and the likelihood of further falls in income for those in unskilled work. Such a widening need not occur if educational investment is spread across the whole population - as the experience of several EU Member States shows. But that implies a serious and sustained social and financial commitment.

This latest edition of *Employment in Europe* gives a clear picture of recent developments in the EU labour markets and provides an analytical approach to these policy issues. Based on the most recent data available and on thorough analysis, it provides an invaluable basis for future discussions and policy development.

As the report shows, there is room for optimism on several accounts. The Union is well under way towards a knowledge-based economy and society, creating jobs, reducing unemployment, strengthening the skills base, and improving quality.

The European Union can be pleased with its employment performance in recent years. Total employment is now 10 million higher than it was 5 years ago, including the 3 million jobs created last year. And unemployment - at well under 8 per cent - is at its lowest level since 1991, with a female unemployment rate below 10% for the first time in a decade.

The average employment rate was pushed up above 63 per cent, and the rate for women to 54 per cent, thus closing fast on the intermediate 2005 targets subsequently set in Stockholm.

These are solid achievements for the Union and our Member States, reflecting the way in which the European employment strategy focuses the efforts of Member States towards three commitments: to growth; to structural labour market reforms and modernisation; and to social change.

The commitment to growth is fundamental. Productivity in the Union has increased relentlessly at around 2 per cent a year for the past 30 years. It has more than doubled our living standards over the last 40 years. But it means our economies have to grow by a similar amount each year in order to maintain employment.

In all of this, our countries depend heavily on each other in Europe. With trade between us being twice as important as trade with the rest of the world. That inter-dependence is a source of strength. But it needs to be used positively. It requires strong, supportive, economic as well and employment and social policies, now that we have the euro. Policies based on strategic politi-

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cal visions, not just on mechanistic rules. Pursuing a virtuous circle of growth, productivity and rising living standards as we move towards full employment in the knowledge economy.

Despite the positive employment performance in the Union, important challenges remain: to reduce the gender gap in participation and employment; to make full use of the Union's employment potential by promoting higher participation and employment across all age groups and in particular among older people; to reduce unemployment, in particular among the young; and to strengthen regional and social cohesion.

We therefore need to continue the modernisation of the European social model. And to address the

challenges related to the enlargement of the Union. This report presents an analysis of employment and labour market trends in the central and eastern European countries for 2000. As agreed at the Göteborg summit, however, as part of the integration of candidate countries into the Union's economic, social and environmental policies, from 2003 the Commission will incorporate the analysis of trends in candidate countries fully into the report, on the same basis as for existing Member States. This is part of the commitment to the future development of the Union. I commend this report to you.

**Anna Diamantopoulou**

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# Executive Summary

## The year 2000 was good for Europe's employment performance

*The Lisbon and Stockholm Councils: investing in people within European labour markets open to all and accessible to all*

The Lisbon European Council has set the strategic goal for the Union *to become the most dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion*. The upgrading of the skills of the labour force, life long learning, gender equality and quality of jobs are high priorities for a competitive, fully inclusive, knowledge-based economy. The development of pan-European labour markets, by breaking down barriers to labour mobility and promoting skills for all workers, will open European labour markets to all and facilitate a matching of demand and supply of skills.

*Europe continued to improve its job performance in 2000*

Employment expanded by 1.8% in 2000 – more than 3 million people were in jobs than in 1999 – despite the economic slowdown in the second half of the year. Total employment in 2000 was almost 10 million higher than five years ago. The growth of full-time work outpaced the increase in part-time jobs for the third year in a row. In 2000, the proportion of people (mainly women) on part-time contracts stood at 18% of total employment.

*Steady rise in employment rates*

The employment rate reached 63.3% – one percentage point higher than in 1999, having risen by 3.3 percentage points since 1995. Current rates are higher than in the early 1990s in all countries except Germany, Sweden and Finland. Since 1997, Italy, Belgium, Finland, Portugal and Sweden had rapidly increased their employment rates as Spain, Ireland and the Netherlands did since the mid 1990s.

*Europe's return to full employment by 2010 : a feasible challenge*

An overall annual employment growth of 1.1% for the EU would be sufficient to reach the 70% employment target by 2010. This means an employment rate seven percentage points higher – tantamount to creating some 17 million new jobs.

*Employment more dynamic in highly educated and high- technology sectors*

Between 1995 and 2000, 1.5 million jobs were created in the high-tech sector; the corresponding figure for the high-education sectors was 5.5 million. High-skilled non-manual occupations – professionals, technicians, managers, legislators, senior officials – accounted for over 60% of jobs created. Job creation in fast-growing sectors, such as those which are relatively more intensive in knowledge and education, accounted for more than two thirds of new high- and medium-skilled jobs and for practically all the employment growth among the low-skilled. As the employment rate for low- or medium-skilled workers is lower than for high skilled ones, the enhancement of skills at all levels will facilitate the attainment of the employment rates targets.

*Decreasing unemployment ...*

Some 14.5 million individuals were unemployed in 2000 – 1.5 million less than a year earlier – the largest fall for a decade. Unemployment decreased most in countries with the highest rates, making the EU unemployment rate now stand at slightly over 8% – the lowest since 1991. Male unemployment rates were below 10% in all Member States for the first time in almost two decades. Youth unemployment also continued to fall, dropping by 25% since 1995 to 16.1%, but it is still twice as high as the overall unemployment rate.

*... with steady progress in combating long-term unemployment*

Long-term unemployment continued to decline in most Member States falling to 3.7% for the Union as a whole. The decline was more significant among women – but a gender gap remains with 4.5% of women unemployed for more than 12 months compared with 3.1% of men. Proactive employment policies in recent years appeared, to be playing their part in reintegrating the long-term unemployed into the world of work.

*Women: main beneficiaries of job creation*

Women took more than half of the jobs created in 2000 – some 60% of the 10 million since 1995. In 2000, the employment rate of women reached 54% and the gender gap declined to 18.6 percentage points. In 2000, almost 1 million women joined the labour force increasing the participation rate to 59.9% an increase of 3 percentage points or 4.5 million women since 1995. Despite these increases, female participation remains 18 percentage points lower than among men. The unemployment rate fell below 10% but it is still higher than for men and varies significantly across countries. Employment in high-tech and high-education sectors is gender biased, with men taking up two thirds of the high-skilled jobs.

*Keeping older people in employment*

Activity rates among older people still vary greatly among Member States, from 69.4% in Sweden to 27% in Belgium. Despite the recent positive employment performance for older people, reforms are needed to keep older people in employment. Promoting longer working life has moved up in the policy agenda. The Stockholm European Council set a target of raising the employment rate for older workers to 50% by 2010.

*Continued moderation of wages and unit labour costs*

Sustained wage moderation and gains in productivity have helped to resist cost pressures driven by the surge in energy prices and the weak Euro since late 1999. There were also increases in real wages compatible with a slight fall in real unit labour costs (-0.2%). This continues a trend that began in the mid 1990s, and contributed to Europe's high capital profitability, investment and improved trade performance.

*The EU employment performance has improved, but key employment problems persist*

The Union has laid the foundations for a virtuous circle of high GDP and employment growth, rising labour productivity, low inflation and declining unemployment. Yet, important challenges remain to be tackled. In the EU, the unemployment rate is twice that of the US and employment rates are lower. One in every six young people is unemployed, with marked differences across countries. Labour shortages in some regions or occupations may rise if strong job creation continues. As low skilled people are more likely to be unemployed, promoting skills at all levels and enhancing labour mobility is important to reduce unemployment and avoid labour mismatches.

*Reasons to be optimistic on the employment prospects in the EU*

The EU employment rate may reach 65% in 2002. Women will take up most of the jobs and the gender gap is expected to fall to 17.5 percentage points. Such positive scenarios depend on whether economic growth will remain close to the potential despite the current economic slowdown and whether the EU Employment Strategy is vigorously pursued, promoting employment especially among women, youth and older workers.

### **European labour markets for a knowledge-based economy**

*A new emerging economy based on innovation and knowledge*

Innovation and technological change, supported with intense investment in human capital, are driving forces for job creation. Technological progress and investment in ICT are estimated to have contributed 0.5 to 0.7 percentage points yearly to EU GDP growth of about 2.5% since 1995. Net job creation has been particularly strong in knowledge-intensive sectors like computer and related services (1 million jobs), business services (2.5 million jobs), and health, education and social services (4 million jobs).

*New patterns of employment and growth in the European labour markets*

EU labour markets have become more integrated. Economic expansion creates jobs more than before and, in many countries, it is triggered at lower levels of GDP growth. Employment content of growth has risen since 1995 – an elasticity of employment growth to GDP growth twice that of the 1980s. Across Member States, employment growth is following a more similar pace, especially for the big five EU economies. Wage developments seem to be consistent with a stability oriented environment and productivity developments.

*European labour markets open to all and accessible to all*

There remain marked variations in employment rates and growth across regions, both between and within Member States. Removing the barriers to mobility and enhancing skill levels through lifelong learning is essential to ensure regional convergence and to build a competitive fully inclusive knowledge-based economy.

*Skills and regional employment performance*

Differences in employment growth across regions are explained mainly by differences in the level of skills and education and in the mobility and adaptability of the workforce. A highly skilled labour force and innovative high-technology firms generating strong demand for knowledge-intensive jobs appear essential for a positive employment performance at the regional level.

In backward regions, improving employment performance will be largely dependent on the mobilisation of their potential labour resources and also on their ability to attract and increase human capital. This is particularly important in the light of population ageing, which puts further pressure on those already in the workforce to increase their skill levels to cope with new technology challenges.

*Non-EU labour inflow – still low – is on the rise too*

Non-EU immigrants have increased the EU population by 0.2% per year since 1995. For all Member States, except France, Finland, Ireland and the Netherlands, their contribution to overall population expansion was greater than natural demographic growth and even offset the negative demographic trends in Germany, Italy and Sweden. However, the activity rate of non-EU nationals is some 10 percentage points lower than for EU nationals. A higher contribution of non-EU immigrants to labour supply calls for a comprehensive strategy to support and integrate more non-EU nationals into the EU labour market.

### **Europe's move towards high-productivity employment**

*Higher employment at the expense of lower labour productivity?*

Recent job creation coincided with declining labour productivity growth per employee. Labour productivity growth per EU employee fell to 1.3% in the 1990s compared with 1.9% in the 1980s. By contrast, labour productivity growth per US employee rose to 2.4% in the 1990s, up from 1.3% in the 1980s. Some fear that intense job creation implies a switch towards low-productivity jobs. This trade-off between job creation and labour productivity has less bearing than is often argued.

*Another look at past trends of labour productivity – The decline in the number of hours worked in the EU*

Working time trends give a more accurate indication of the decline in productivity growth per employee. If calculated per hour worked, labour productivity has actually accelerated in some Member States in the 1990s. The number of hours worked per employee continued to decline in the second half of the 1990s, driven by the push of part-time work and the cuts in working time.

*The pattern of labour productivity growth is changing: destructive in the 1980s, positive in the 1990s*

In the 1980s, labour productivity growth per employee rose as enterprises reduced their workforces and invested heavily in labour-saving technology. From the early 1990s onwards, the pattern has become "healthier", as firms continue to renew their capital stock in search of higher total factor productivity. Increased employment in services and the spread of part-time work may also explain the slow rise of the capital/labour ratio.

*Changes of sectoral employment as key to productivity trends – The role of industrial and competition policies*

The sectoral composition of employment in Europe is undergoing profound changes. Some 60% of the 10 million jobs created in 1995-2000 were in health care, education and social work, general business, and computer and related services – sectors where productivity is often less easy to gauge. However, this cannot account for Europe's drop in labour productivity growth per head in the 1990s, which reflects sector-specific productivity trends. The fact that labour productivity responds more to productivity trends within sectors than to changes in the sectoral composition of employment suggests that industrial and competition policies will also have at least an equal bearing as employment policy in boosting labour productivity. Active labour market policies may exert their full potential in building a knowledge-based economy if supported by industrial and competition policies.

### **The importance of raising labour skills**

*A more skilled and mobile workforce to meet new demands for labour*

Europe's strong technology-driven growth in labour demand is putting pressure on the labour supply to meet surging demand for tangible and intangible capital and greater mobility to reallocate labour to thriving regions, sectors and occupations.

*Skills in Europe continue to be on the rise*

The average skill level of the workforce continues to rise, especially among women. In 2000, a quarter of the EU labour force had attained tertiary education levels and almost 70% had at least secondary education. The proportion of the workforce with less than secondary education has fallen by 8 percentage points since 1995 to about 30% in 2000. Such aggregate figures conceal, though, marked differences in the skill profile of labour across countries.

*Low-skilled need better opportunities*

Low-skilled labour also must be encouraged to participate in the knowledge-based economy. In the EU over 40% of the unemployed have less than secondary level education. In the total active population, the rate is lower (28%) – but still too high. To offer low-skilled workers a route out of unemployment and to enable them to take up more knowledge-intensive jobs, it is crucial to upgrade their skills.

*Active policies begin to pay off – Need for comprehensive strategy for lifelong learning*

Europe's proactive policies to upgrade labour skills and support search for work among the unemployed are beginning to pay off. Over 60% of jobs created in 2000 were taken by individuals previously unemployed. Since 1995, the take-up rate was a third of the 10 million jobs created. Public intervention must be combined with action by the social partners to build a comprehensive strategy to boost and constantly update the average skill profile of the labour supply.

### **Europe's path towards quality in work**

*Overall satisfaction at work in Europe*

The Social Policy Agenda provides a comprehensive and coherent approach for the EU to confront the new challenges resulting from Europe's transition to a knowledge-based economy. The promotion of high quality in work is central to this approach. More than 80% of EU workers describe themselves as satisfied with their job. This satisfaction rises with job tenure, skills, age, work specialisation and employer-provided training. Also, a move to a job in the services sector or from an atypical to a more stable job, and good career prospects, contribute to job satisfaction.

*Fear of "bad jobs" spreading in Europe can be dispelled ...*

Fears that the trend of increasing employment in the service sector would lead to a proliferation of low quality jobs have not materialised. Taking account of pay and productivity, job security, and career prospects, a third of the employed population have good quality jobs against almost a quarter who have low quality jobs. Structures of job quality are found to differ greatly between Member States.

*... but good job quality for all is to be warranted yet*

There are indications that working conditions are not necessarily improving for everyone in the EU. While satisfaction with overall working conditions is generally high, new types of employment relationships often lead to increased stress, health problems and other symptoms of unfavourable working conditions. Problems of health and safety at work are more common among employees in precarious employment relationships and low-skilled manual jobs. There are signs of labour market segmentation to the disadvantage of those on the margins of the labour market.

*Europe's need to improve everyone's access to good-quality jobs ...*

Whereas two thirds of the EU population are satisfied with their own work status, some 30% are dissatisfied. Women, young people and, especially, the unemployed are likely to be dissatisfied. Lack of job protection, low pay, and inflexible or atypical working hours are the main reasons for job dissatisfaction. Among the unemployed, over 70% are dissatisfied with their situation. This result does not support the view that most of unemployment is voluntary.

*... also for older people*

Older workers report higher than average job satisfaction. They participate considerably less in training than prime-age employees. The recent increase in participation has been accompanied by more older workers opting for part-time work. Together with evidence presented in *Employment in Europe 1999* this suggests that more flexible working time arrangements and improving working and health conditions are essential elements in a strategy to maintain employment of an ageing workforce at a high level.

*Expansion of part-time work ...*

The share of part-time jobs in total employment has continued to rise to level off at around 18%. In all Member States most part-time workers are women. Part-time jobs may function as a form of voluntary flexible employment. Part-time workers report similar rates of job satisfaction as full-time workers. More than half of those in part-time work continue to be so one year later. But their quality – in terms of earnings, job protection and career prospects – is mixed. While a majority of all part-time jobs are of relatively good quality, transition rates into unemployment are significantly higher than for full-time workers. Prospects are less favourable for involuntary part-time workers of which only one in ten enjoys job security and career prospects. Transitions into unemployment of involuntary part-time workers are three times as high as those of all part-time workers.

*... also for young people*

Between 1995 and 2000, the proportion of young people working part-time increased by almost 4 percentage points to 23%. In 2000, 61% of young people choosing part-time work did so to combine education and work experience. This pattern seems to be shared by most Member States.

*Temporary contracts as a stepping stone to stable employment?*

The share of jobs on temporary contracts has increased steadily over the last five years by almost 2 percentage points, to reach an average rate of 13.2% of total employees. Temporary work may be a way for low-skilled or those without work experience to enter the labour market or to gain a stable employment relationship. Almost a third of those in temporary contracts move into a permanent job within a year. However, not all employed on temporary contracts benefit from such upward mobility: half of those in temporary contracts stay there from one year to another and more than 20% move into unemployment or inactivity. Transition rates out of temporary jobs also vary considerably by gender and age group. While transition rates from temporary to permanent jobs are higher for prime-age men, both young and older workers on temporary contracts are at significantly higher risk of becoming unemployed.

*The perils of low-quality jobs*

Atypical work can cause economic inefficiency and eventually lead to deteriorating job quality. Productivity can be impaired by high turnover costs, decreasing worker motivation, and costly deterioration of health and safety standards. People on low-quality jobs are more likely to drift into unemployment or inactivity. In some countries, outflows of disaffected workers can reach up to a quarter of those in low quality jobs.

*The persistence of low quality jobs may lead to poverty traps and social exclusion*

Single parents, involuntary part-timers, and the less-educated are over-represented among those in low-paid work. Their mobility up the ladder is low. For instance, half of those in a low-paid job had not moved up the ladder a year later. Policies are needed to address persistent job precariousness, otherwise a two-tier labour market could emerge and possibly threaten social cohesion in the EU.

### **Promoting labour mobility**

*Higher labour mobility – one new feature of Europe's labour markets*

Continued job creation and fast changing labour demand is generating a need for increased labour mobility in the EU. Labour mobility is still low but appears to be growing fast, especially among the young. For instance, some 10% of high-skilled workers changed jobs in 1998 and 1999 in the EU. Job stability remains high: about three quarters of the EU employed in 2000 stayed with their employer for more than two years.

*Labour mobility in Europe – traditionally low – is on the rise : a closer look*

Geographical mobility is on the rise, though still low. About a quarter of a million people moved to another EU country in 2000. In the US about 6.7 million people per year moved across state borders during the 1990s, equivalent to just above 2.5% of the total population. Geographic mobility between regions and the incidence of commuting are high and becoming increasingly important in Europe. Commuters who live in one EU country but work in another totalled 600,000 equivalent to 0.4% of the EU employed population. This figure exceeded 1% of the employed population in Austria, Belgium, France and Luxembourg. The number of commuters working in a region other than where they live is much higher and totals 7.5 million, equivalent to 5% of the EU employed population. It is particularly commonplace in Belgium, Austria and Germany.

*Limited evidence of labour shortage*

Labour and skill shortages exist in some regions, others have an excess labour supply. Employer-based surveys also point to poor market demand, administrative or legal rules, as obstacles to business expansion as significant as labour shortage. The number of businesses citing labour shortage as a limiting factor increased in the second half of 1999, particularly in the investment goods sector. In 1999, employers considered that three quarters of their employees had the appropriate skills for their job. Overall, one in four employers saw lack of qualified labour as an obstacle to business expansion although it was one in three in Germany, France, Ireland, Luxembourg, Finland and Denmark. In many countries, labour costs do not accelerate in response to reported tightness in the labour market. Unfilled job vacancies – mainly, technicians and industry-related occupations – rose in all countries except Denmark.

*Policy responses to tackle bottlenecks in the labour markets*

Against the background of changes in the skill composition and demographic trends, labour shortages may, however, increase in the near future if co-ordinated policies to improve labour supply, facilitate job matching, and support labour mobility and job relocation are not put in place. Policies to support labour mobility – either geographical or occupational – need to be reassessed to remove current barriers related to vocational training, age, occupational reclassification, housing, family reasons, etc.

### **Employment Performance in Accession Countries**

*The job performance challenge of the CEECs in 2000 was rather lacklustre*

The economies of Central and Eastern Europe (CEECs) are still undergoing severe restructuring. Employment declined further by 1.4% equivalent to 600,000 lost jobs. Unemployment continued to rise reaching more than 12% in 2000. Youth unemployment also rose – to a rate twice that of the EU average. The increase in unemployment was slower among adults. The gap between activity and employment rates of the CEECs and the EU widened in 2000.

*The employment challenges ahead are still considerable*

The CEECs face major employment challenges. Employment and activity rates are lower and unemployment now substantially higher than in the EU. Around 3 million new jobs are needed to bring the CEECs employment rate up to the EU average. Job losses in agriculture and manufacturing will continue. The employment gap in services – three-quarters of the EU average – is important and overall employment growth will depend on job creation in services, particularly financial, business and personal services.

# Introduction

Europe has set itself the ambitious goal of becoming the "most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion". The strategy launched at the Lisbon Council and reinforced at the Stockholm Council is designed to help Europe regain the conditions for full employment, with economic, employment and social aims seen as interdependent and mutually reinforcing.

Moving towards this strategic goal during the next decade will involve the ongoing modernisation of the European social model and of the shape of European labour markets. These changes will depend on the implementation of a broad range of policies requiring the participation of all economic and social players. New and better jobs must be created, new skills must be learnt on a life-long basis, and all parts of society must be empowered to participate to their full potential in the workforce.

To move successfully towards a knowledge-based economy, policies are required that improve social cohesion and stimulate both innovation and the upgrading of the skills of workforce within a stable macroeconomic framework so as to raise productivity and competitiveness on a lasting basis.

To drive progress towards this goal, the Lisbon European Council in 2000 drew up employment targets for 2010, which were augmented by intermediate targets for 2005 agreed by the Stockholm European Council a year later. The EU's Member States agreed unanimously that employment and economic policies should have the overall aim of raising the employment rate from an average in Europe of 63% in 2000 to as close to 70% as possible by 2010. Related targets include:

- increasing the number of women in employment from an average of 54% in 2000 to more than 60% by 2010,
- achieving an employment rate across the Union as a whole in 2005

of 67% overall and 57% for women, – increasing the average EU employment rate for older people (the 55-64 age group) from below 38% to 50% by 2010.

The Stockholm Council called for increased action on skills and mobility to remove barriers to the emerging pan-European labour markets. The Lisbon and Stockholm European Councils have described a vision of where the EU should be in 2010 and set some challenging targets. As the EU starts the first decade of the 21st century, it can take heart from some encouraging signs in current economic and employment trends. Chapter 1 sets out where Europe is starting from on this 10-year journey.

Structural economic change is necessary to support the transition to a knowledge-based economy. The ICT revolution together with the overarching challenges of globalisation, social and demographic change is altering the way labour, product and financial markets operate. New technologies speed up the transmission of information, allow an easier manipulation of data and lead to a new spatial division of labour. A knowledge-based economy does not only suppose the use of information technologies. It is a wider concept that is related to the increasing importance of knowledge in the production processes and as a vehicle to increase social inclusion.

Chapter 2 examines whether EU labour markets are changing in such a way as to support the transformation to a knowledge-based economy. A knowledge-based economy needs to be able to draw on a workforce with a high level of basic and advanced skills, particularly ICT and digital skills, and a culture of lifelong learning. It needs an adaptable and mobile workforce and an environment which stimulates enterprise and entrepreneurship. Demand among employers for employees with high educational attainment is growing. Boosting skills, driving up educational standards, and increasing mobility is therefore a key challenge for the future if skill shortages are to be

avoided and if the European workforce is to meet the demand for higher skills.

Another challenge for Europe in its drive towards full employment is to reduce gender gaps and increase activity rates in all sectors of the workforce. This is important for both social and economic reasons. Paid employment is the best route out of social exclusion for individuals and contributes to the sustainability of social security systems and public finances overall. It will also be key if Europe is to meet the demographic challenge it faces with the working age population due to start declining from 2010. As the European population ages, the numbers of people leaving the workforce through retirement will increase so it is important that Member States introduce structural reforms aimed at keeping the prime aged of today in the workforce longer.

In 2001 the US is probably furthest down this road having undergone a transformation of its economy in the 1990s. Its experience suggests that a number of macroeconomic conditions characterise the emergence of a new economy. Chapter 3 looks at the issue of whether such changes can also be detected in the EU in relationships between the major macroeconomic variables. It also discusses the relationship between productivity growth and employment growth and the effect on productivity growth of the change in the sectoral composition of employment.

The European social model is at the heart of the construction of the European Union. The concept of quality in work is central to the implementation of the Social Agenda and to the goals set by the Lisbon and Stockholm Councils. Chapter 4 provides a detailed analysis of job quality in the EU and its crucial role for social inclusion. Access to training, continued investment in new skills and adaptability to changing labour market conditions clearly remain prerequisites of improvements in job quality in the EU. Making use of the full European employment potential implies the need for

improvements in job quality. Improvements are necessary to both increase employment and strengthen social cohesion, especially for those workers that risk being consigned to the margins of the labour market.

Although current employment trends are encouraging at the EU and Member States level, there are still worrying disparities at regional level. Increasing regional disparities

may lead to vicious cycles of low or inadequate skills hampering the achievement of an inclusive knowledge-based economy. A clear challenge remains for the EU to reduce the performance gap between Europe's most and least dynamic regions, if full employment and social inclusion are to be realised. Chapter 5 looks at the employment patterns at regional level focussing on the sectoral, the occupational and the skill structure.

Finally, Chapter 6 broadens the view of European labour markets by discussing the recent employment performance in the accession countries. Most of these countries still face a painful transition with declining employment and high unemployment rates which are due in part to significant differences in the sectoral employment structure.



# Chapter 1: Panorama of the European Labour Markets

## Introduction

At the start of the 21st century Europe's employment performance was encouraging. This chapter sets out where the EU is starting from as it seeks to translate into reality the strategic goals for 2010 agreed at the Lisbon and Stockholm Councils.

Real GDP grew by 3.3% in the EU in 2000, while labour costs only rose by 1.3%. EU employment increased by 1.8% or more than 3 million jobs. Compared to 1995, the activity rate rose by 1.7 percentage points mainly due to a strong pick-up in female participation.

The EU is on course to meet the overall employment targets set by the Lisbon and Stockholm Summits as goals of the strategy for reaching full employment in the knowledge-based economy. However, four important challenges remain: to narrow the gender gaps in participation and employment rates; to reduce the differences in participation and employment rates across age groups with particular effort needed to boost participation among older people; to increase skills at all levels as the low educated also have a low employment rate and finally to cut the unemployment rate especially for younger workers.

## Sustained strong employment growth in the EU

In 2000, economic activity accelerated in the European Union with real

1 Economic and employment performance			
	2000	1999	av. 1995-98
<b>GDP</b>	3.3	2.6	2.4
<b>Employment</b>	1.8	1.6	0.9
<b>Labour productivity</b>	1.6	1.1	1.5
<b>Growth in nominal compensation per employee</b>	2.9	2.7	2.8
	2000	1999	1995
<b>Employment</b>	63.3	62.3	60.0
<b>Activity</b>	69.0	68.7	67.3
<b>Unemployment</b>	8.2	9.1	10.7

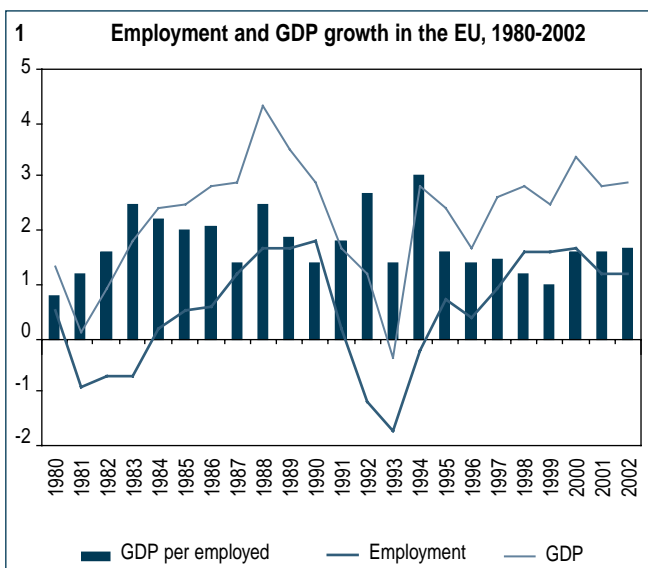
Source: Commission Services

GDP rising by 3.3% – the fastest growth rate since 1990 – after an increase of 2.6% one year earlier (Chart 1 and Table 1). This was despite a moderate slowdown in the second half of the year following drops in real household incomes resulting from the prolonged surge in oil prices. At the same time, the United States economy enjoyed its ninth year of sustained growth, with GDP increasing by 5%. Since 1995, productivity growth in the US has been particularly strong, easing inflationary pressures at a time of high resource utilisation. In Japan, the uncertainties surrounding its recovery persisted as continuing deflation and weak consumer and business confidence kept the rate of growth of private consumption subdued.

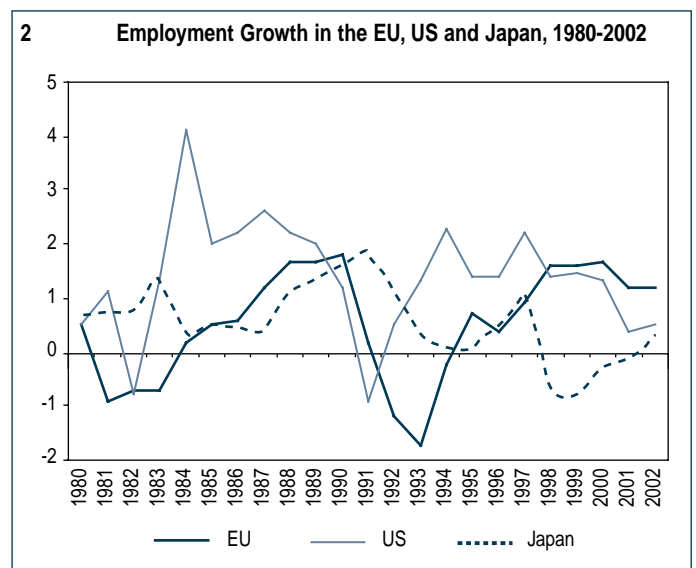
Despite the oil shock, labour costs did not accelerate significantly in

the Union during the year. The combined effect of wage moderation and of productivity gains limited the increase in unit labour costs to 1.3%. Moreover, the anti-inflationary reputation of the common monetary policy appears to have led wage- and price-setters to appreciate the advantages of price stability ensuring that the oil price hikes did not lead to a price-wage spiral. In the US, nominal compensation per employee rose by 4.8%, compared to 4.0% in 1999. However, an acceleration in productivity meant that unit labour cost rose by only 1.1% in 2000, compared to 1.6% in 1999.

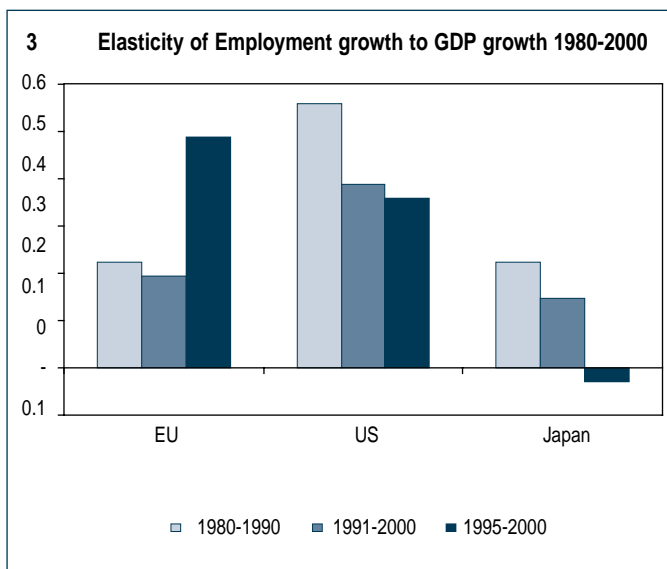
In the second half of 2000, the slowing down of the US economy spread to the EU but the effect was less pronounced as Europe's trade exposure with the US is modest and the employment growth boosted consumer confidence. However, it is



Source: Commission Services

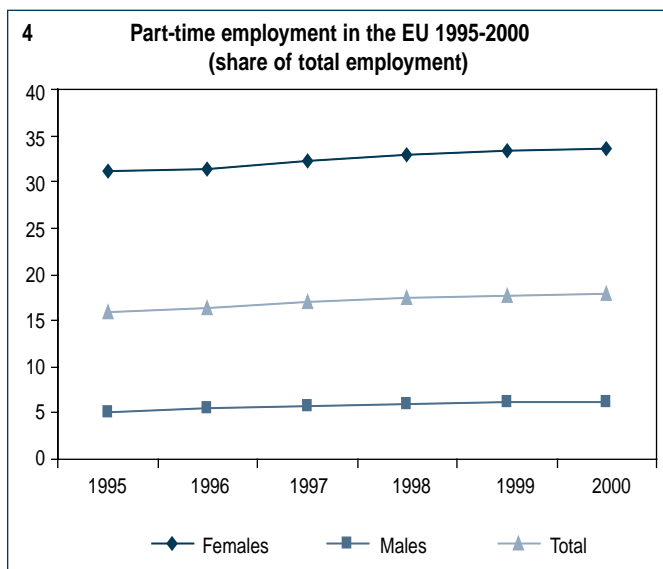


Source: Commission Services



Source: Commission Services

Note: The elasticity of employment growth to output growth is calculated as the ratio of employment growth to GDP growth. It provides a measure of how much economic growth translates into employment growth.



Source: Eurostat, LFS

unclear whether the US slowdown will be short-lived and whether the decline in the stock market will have relevant wealth effects for European firms and households.

In 2000, job creation in the EU was greater than in the US and Japan (Chart 2). Employment in the EU expanded by 1.8% in 2000, while in the US and Japan it grew at rates of 1.3% and -0.2%, respectively. On the back of economic expansion, more than 3 million new jobs were created in Europe. The figure for full-time equivalents is slightly lower (2.7 million) because of the ongoing significant increase in part-time employment of around one million.

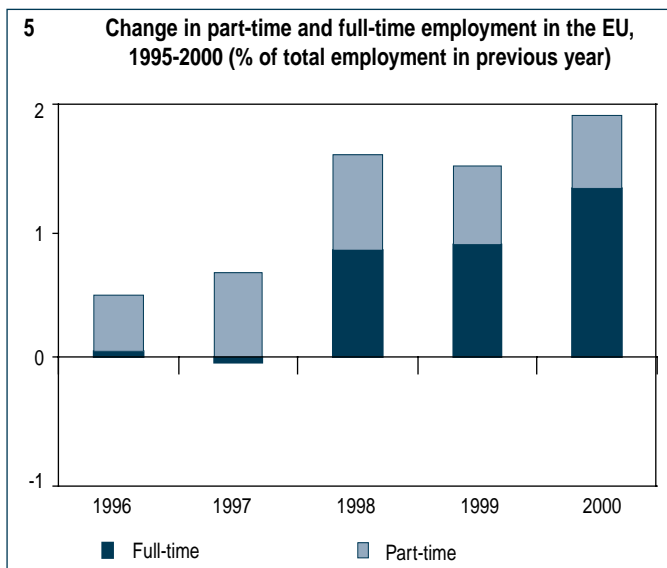
The pick-up in economic activity has generated 10 million new jobs since 1995, an increase of 6.8% over the five years and equal to an average yearly employment growth rate of 1.3%. The employment intensity of growth increased markedly over the last five years (Chart 3). The greater responsiveness of employment to GDP growth may be linked to measures taken to sustain employment and to structural reforms of the labour markets.

*Part-time work and temporary contracts*

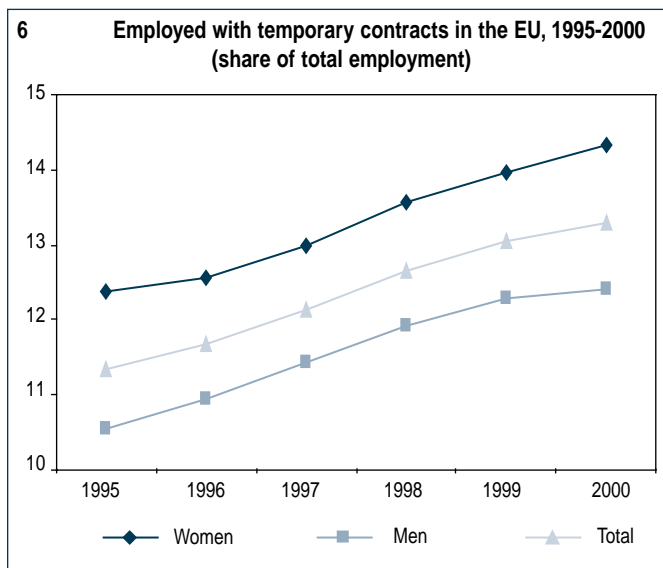
Over the period 1995-2000, employment creation was strongest for

women, with a net of 6.2 million jobs created for women, compared to 4.3 million for men. Of the 3 million net jobs created in 2000, more than 1.6 million were taken up by women. Net job creation for women was still dominated, however, by part-time jobs. Over the last five years, the share of part-time jobs in total employment increased slightly to 18%, one third of all employed women and 6% of all employed men (Chart 4).

In 2000, for the third year in a row, more full-time jobs than part-time jobs were created (more than 2 million). Full-time jobs accounted for almost 70% of all net jobs created,



Source: Eurostat, LFS



Source: Eurostat, LFS

after 54% in 1998 and 60% in 1999 (Chart 5).

The share of employed people in jobs with temporary contracts has also increased steadily in Europe over the last five years (Chart 6) with a cumulative rise of almost 2 percentage points to 13.2%, with 14.5% of women and 12.5% of men in temporary contracts in 2000.

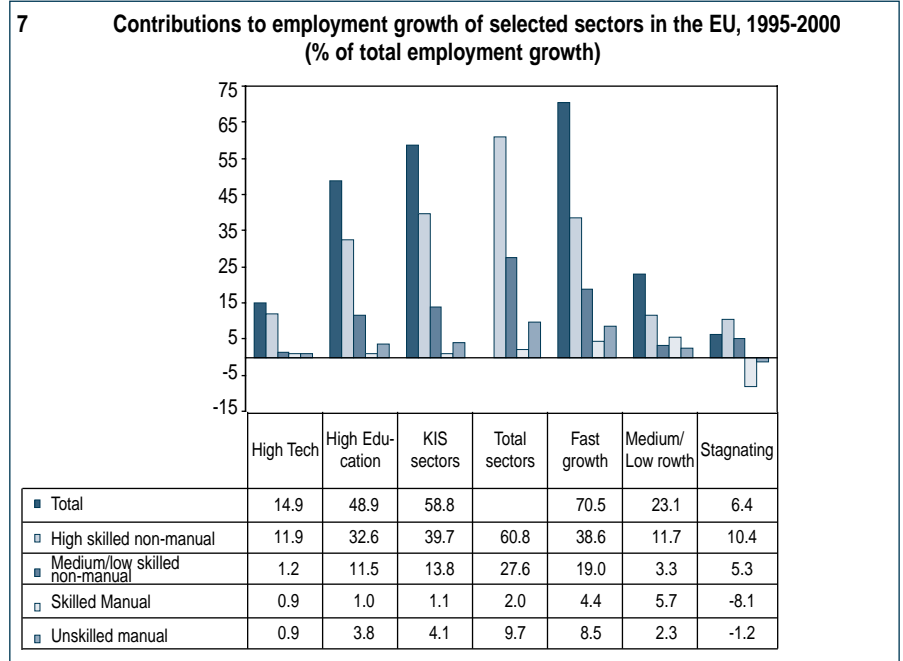
### *High tech-sectors drive job creation*

Job creation remained concentrated in high-technology and knowledge-intensive sectors of the economy. These contributed to more than 60% of total job creation between 1995 and 2000. While job creation continued to be strongest for high-skilled non-manual professions, these fast growing sectors of the economy were the sectors which also created most of new jobs for lower skilled parts of the workforce (Chart 7).

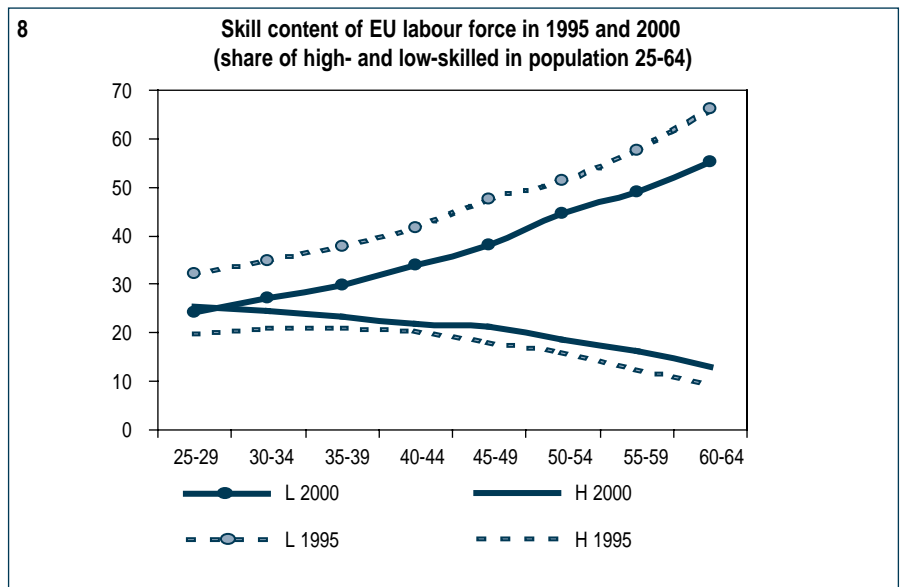
The increasing demand for higher skilled labour could benefit from the continued general up-skilling of the European labour force. The share of low-skilled in the European labour force is significantly lower among younger age groups with less than a quarter having at most secondary education. Only in the 25-29 age group does the share of high-skilled in the labour force outperform that of low-skilled (Chart 8).

### *Activity rates and employment rates*

In 2000, both activity rates and employment rates increased in the Union, with yearly averages of 69% and 63.3% respectively. Compared to 1995, labour force participation increased by 1.7 percentage points, due mainly to a strong pick-up in female participation, which rose by more than 3 percentage points. The increase in activity rates has been highest among prime-age (25-54) and older women (55-64). Activity rates are relatively stable among men. Despite a slight increase in the overall activity rate of older people after a long period of decline, it would be premature to conclude any long-lasting upward trend in activity rates for this age group. When compared to the US and Japan, activity rates in the EU still remain



Source: Eurostat, LFS. Note: The chosen groups of high tech sectors, high education sectors and knowledge-intensive service (KIS) sectors share some common sub-sectors. For a detailed definition of these groups see the section on Demand Trends in chapter 2 and in particular the definitions in boxes 2-4 in that section.

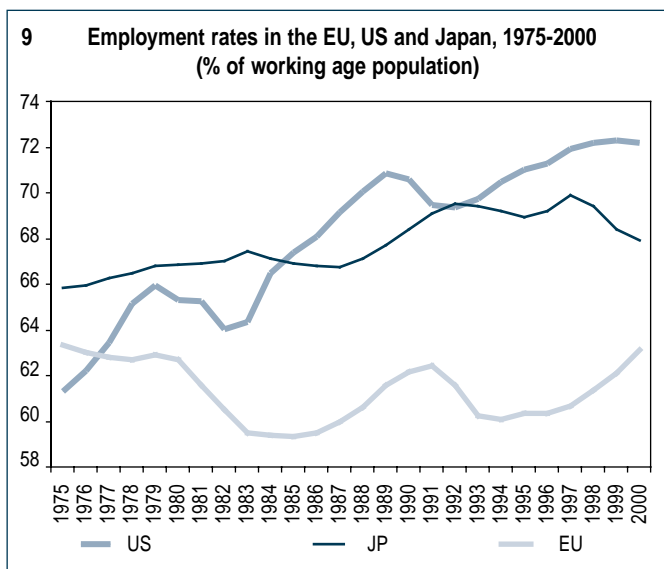


Source: Eurostat, LFS. Note: H1995 and H2000 denote the share of individuals with completed tertiary education - the high-skilled - in the labour force in 1995 and 2000, respectively. L1995 and L2000 denote the share of those with less than upper secondary education - the low-skilled in 1995 and 2000, respectively. For a more detailed discussion see the section on Supply Trends in chapter 2.

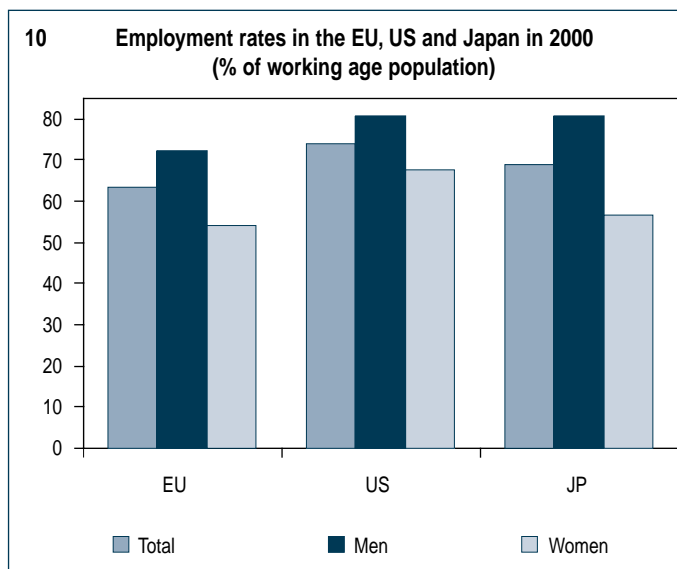
considerably lower, although the gaps are narrowing.

Since the mid-1990s, the employment rate has risen steadily in the EU, narrowing the gap with the rates in the US and Japan. EU employment rates remain significantly below those in the US and Japan particularly for women (Charts 9 and 10). Between 1995 and 2000 the EU employment rate

rose by 3.3 percentage points. The gender gap narrowed by almost 2 percentage points, from 20.5 to 18.5 percentage points, due to a higher increase in employment rates for women (4.3 percentage points) than for men (2.3 percentage points).



Source: Commission Services



Source: Eurostat for the EU, OECD for the US and Japan  
Note: Employment rate for the US refers to persons aged 16 to 64

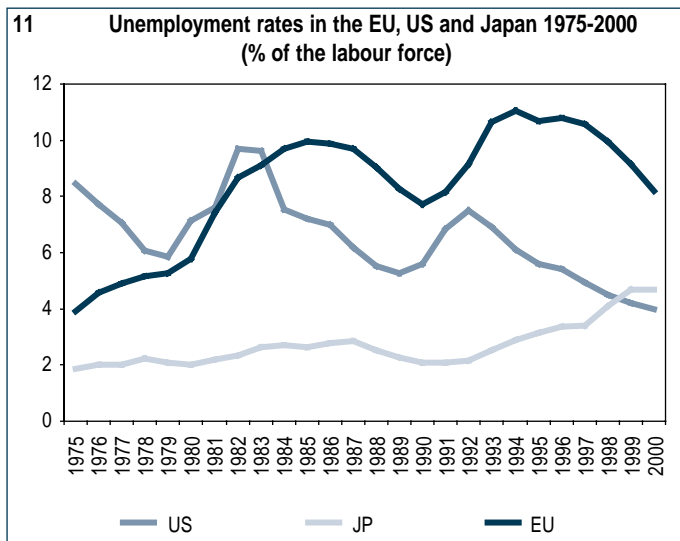
### Unemployment rates

Employment rates in the EU generally grew faster in 2000 than activity rates, leading to a fall in the overall unemployment rate. Europe is, therefore, well on course to meet the targets set at the Stockholm and Lisbon Summits for employment rates of 57% for women and 67% overall in 2005 rising to 60% for women and 70% overall in 2010 (Box 1).

Similarly, progress towards significantly reducing unemployment rates is also encouraging. For the second year in a row, the decline in the unemployment rate in the EU has been more pronounced than in the US, while in Japan, after a decade of strong continuous increase, unemployment stabilised at about 4.5%. Between 1999 and 2000, the number of unemployed in the EU declined by more than 1.5

million, the largest absolute one-year decrease in unemployment for more than a decade. Unemployment levels in the EU fell by about 9% from 1999 to 2000, compared to a decline of about 4% in the US, and an increase in unemployment of just below 1% in Japan. In the period 1995-2000, the number of unemployed decreased from 17.8 to 14.5 million, equivalent to 8.2% of the labour force, bringing the EU unemployment rate back to levels close to those prevailing at the beginning of the 1990s. Unemployment rates in the EU remain, however, twice as high as in the US. (Chart 11)

The female unemployment rate fell from 10.8% in 1999 to 9.7% in 2000, while the male unemployment rate decreased by 0.9 percentage points, from 7.9% to 7.0%, leaving a gender gap of 2.7 percentage points. The youth unemployment rate in the EU



Source: Eurostat, harmonised series on unemployment

### 1 Lisbon and Stockholm employment rate targets

The Lisbon European Council of 2000 set as a new strategic goal for the EU in the 2000-2010 decade "to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion". It specifically stated that the overall aim of employment and economic policies should be "to raise the employment rate from an average of 61% today (i.e. 2000) to as close as possible to 70% by 2010 and to increase the number of women in employment from an average of 51% today to more than 60% by 2010", not least in order to reinforce the sustainability of social protection systems.

In addition to the 2010 Lisbon targets, the Stockholm European Council of 2001 has set intermediate targets for employment rates across the Union as a whole for 2005 of 67% overall and 57% for women. It also set an EU target for increasing the average EU employment rate for older women and men (55-64) to 50% by 2010.

Despite the positive employment performance in Europe, three important challenges remain. Firstly, the gender gap in participation and employment rates at EU-level need to be reduced. Secondly, differences in participation and employment rates across age groups should be reduced with effort required to promote higher participation and employment among older people in the 55-64 age group especially. Finally, the high overall unemployment rate in the EU, and for the young in particular, must be reduced.

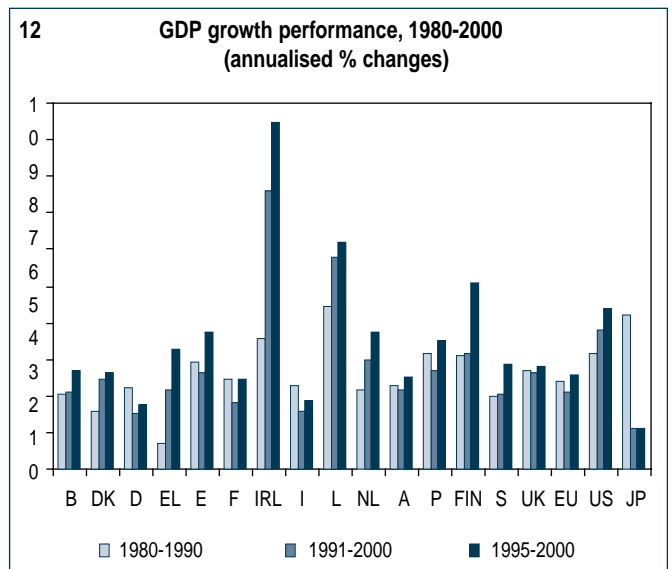
### Encouraging trends at Member State level

Within the Union, all Member States, except Italy and Germany, have experienced sustained GDP and employment growth since 1995 (Charts 12 and 13). Ireland, Spain, the Netherlands and Luxembourg had the highest rate of employment growth. In the second half of the 1990s, Finland, Sweden, Italy and Portugal reversed the negative trend experienced in the first half of the decade.

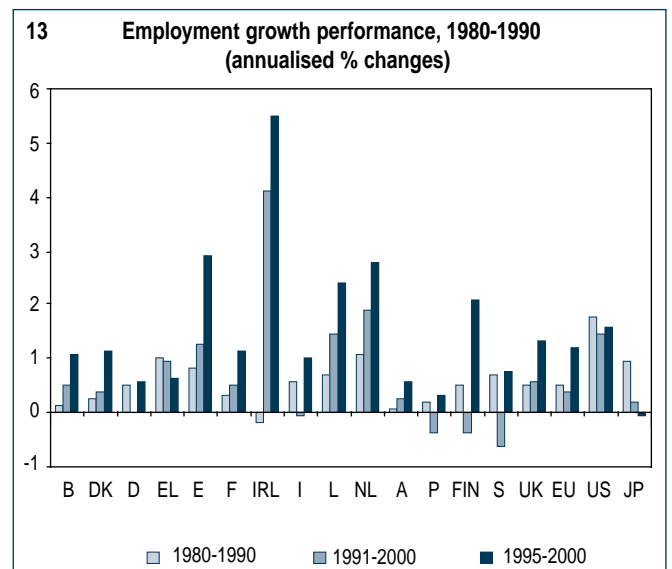
#### *Part-time work and temporary contracts*

Employment growth has been stronger for full-time jobs than for part-time jobs in most countries (chart 14). In the period 1995-2000, at EU level, full-time and part-time jobs contributed almost equally to the observed average annual employment growth of 1.3%. Full-time jobs outperformed part-time jobs in all Member States except Austria, Germany, Italy, Belgium and the Netherlands, in particular in Spain, Ireland, Finland and Sweden. In Germany and Austria, full-time employment declined between 1995 and 2000 while in Belgium, it stagnated. In all three countries, overall employment growth was driven entirely by the creation of part-time jobs. Part-time jobs contributed the bulk of employment creation in the Netherlands. By contrast, the contribution of part-time jobs to net employment creation was negligible in Greece and Denmark and even negative in Sweden.

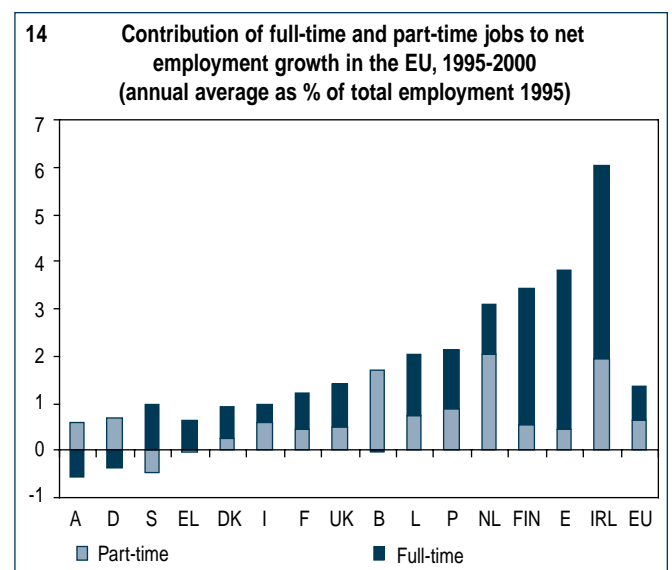
The share of those employed in part-time jobs increased in all countries but Sweden in 2000. More than 40% of all the employed worked part-time in the Netherlands, and between 20-25% in the UK, Sweden and Denmark. In Greece, Spain and Italy, the share of part-time workers remains below 10%. Most part-time workers are women. Indeed, only in France, Ireland and Sweden did men account for more than a third of all part-time workers (Chart 15).



Source: Commission Services

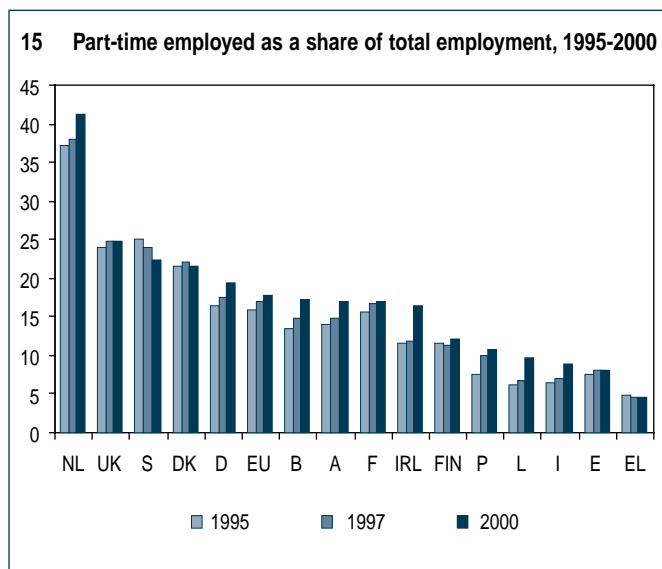


Source: Commission Services

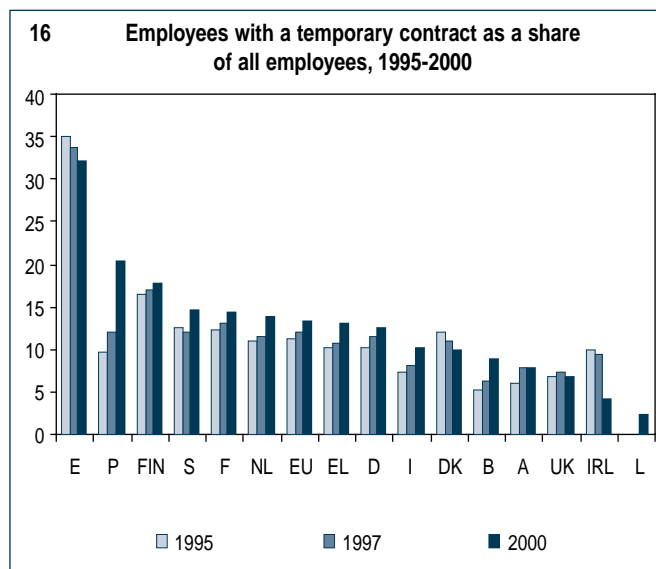


Source: Eurostat, LFS





Source: Eurostat, LFS



Source: Eurostat, LFS

The increase in employment on temporary contracts – both absolute and shares – was observed in all Member States with the exception of Spain, Denmark, Ireland and the UK. It was strongest in Portugal, Italy, Greece, Sweden and the Netherlands (Chart 16).

**Activity rates and employment rates**

In 2000, activity rates continued to increase modestly in most Member States, growing by more than 1 percentage point in Spain, the Netherlands and Ireland, but stagnating or even slightly decreasing in the UK, Greece, Austria and Denmark. Activity rates ranged from 80% in Denmark and more than 75% in Sweden, the UK and the Netherlands to less than 65% in Spain, Greece and Italy. While male activi-

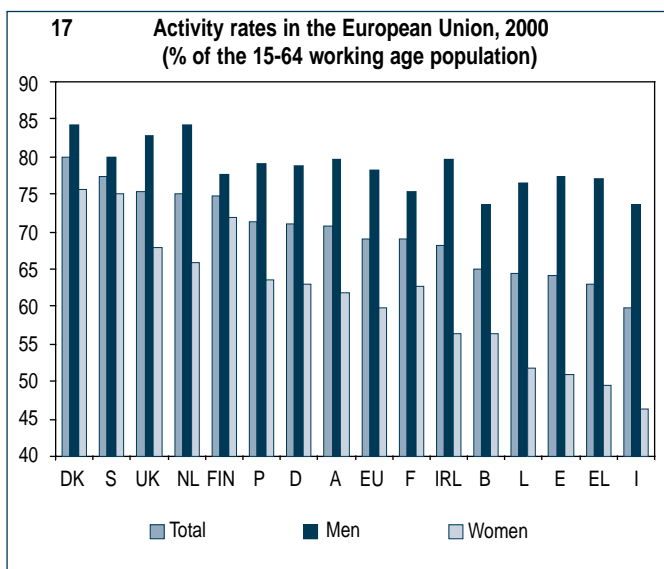
ty rates were relatively similar across Member States, ranging from 80% or more in the Netherlands, Denmark, the UK and Sweden to 73.5% in Italy, female activity rates varied between 75% or more in Denmark and Sweden to less than 50% in Greece and Italy (Chart 17).

Over the last five years, activity rates have increased by 2.5 percentage points or more in most Member States. Increases were strongest in the Netherlands, Spain, Portugal and Belgium. In Germany, Denmark and the UK, activity rates in 2000 were at the same level as in 1995, while they decreased over the period in Austria and Sweden (Chart 18).

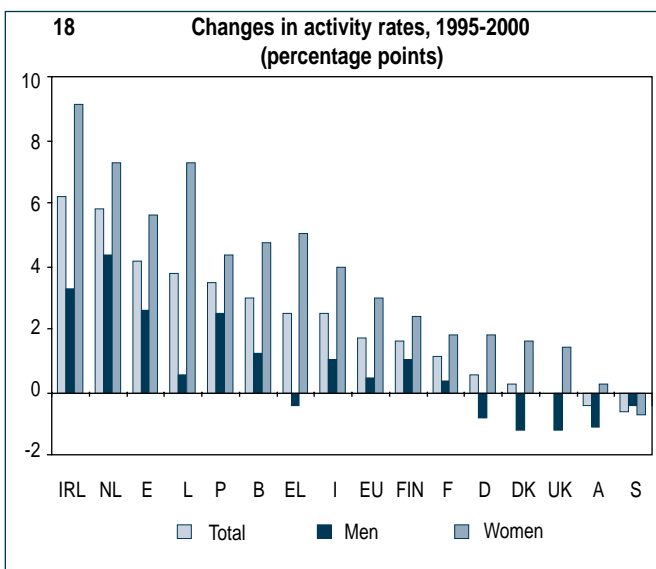
In 2000, all Member States, with the exception of Germany, Sweden and Finland, achieved employment rates

higher than those prevailing in the early 1990s. Male employment rates in 2000 ranged from 67.5% in Italy to 82.4% in the Netherlands, and female employment rates from 39.6% in Italy to 71.6% in Denmark. While the UK, Ireland, Austria and Portugal achieved male employment rates close to the US level only two Member States – the Netherlands and Denmark – exceeded it. Female employment rates comparable to the US rate prevailed in Denmark and Sweden only (Chart 19).

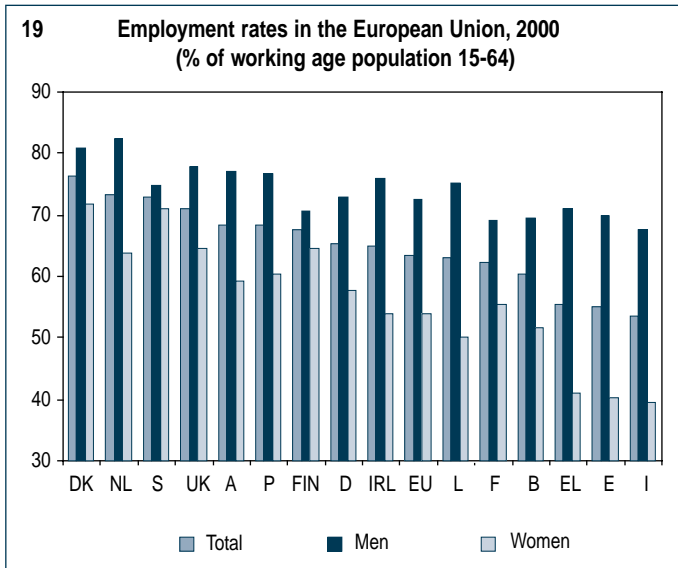
The way in which employment rates have evolved has varied across the Member States. Since the mid 1990s, Spain, Ireland and the Netherlands have experienced the strongest increases in employment. Since 1997, employment rates have also risen considerably in Italy, Belgium, Finland, Sweden and Portu-



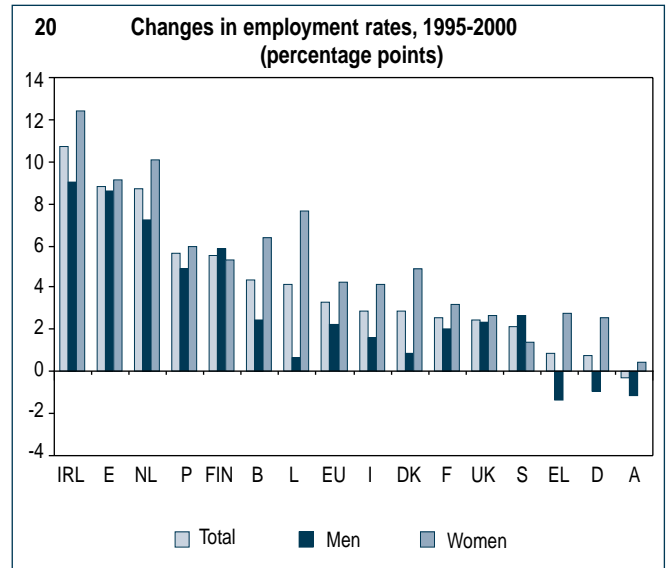
Source: Eurostat, QLFD



Source: Eurostat, QLFD



Source: Eurostat, QLFD



Source: Eurostat, QLFD

gal. Although less spectacular in terms of relative changes, employment rates in France and the UK appear to be following a stable growth path, contributing significantly to the positive trend for the overall EU employment rate (Chart 20).

Between 1995 and 2000, female employment rates increased significantly in all Member States, while male employment rates declined slightly in Germany, Austria and Greece. The gap in employment rates has consequently fallen to 18.5% at EU level and ranges from 3.8% in Sweden to around 30% in Greece and Spain (Chart 21).

*Diverging employment patterns for young people ...*

Employment rates have increased across all age groups, and in 2000 reached 40.3% in the 15-24 age

group, 76.6% in the 25-54 age group, and 37.7% in the 55-64 age group. While cross-country differences in employment rates are narrowing in the prime-age group, differences in the employment rates for young and older people persist or are increasing (Chart 22).

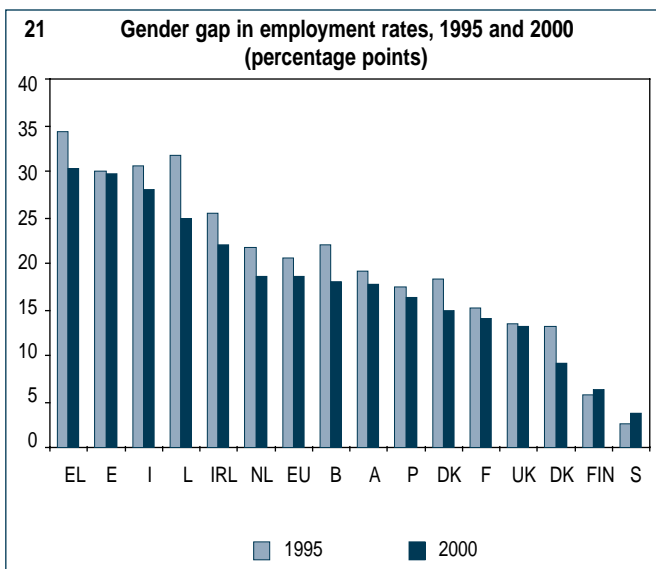
Employment rates of young people have risen significantly in Ireland, Spain, Portugal, Sweden and Finland and, most significantly of all, in the Netherlands. But employment rates among the young in Germany and Austria have actually decreased significantly over the period 1995-2000. The likely explanation for this is an increase in the proportion of young people in higher education. In some countries such as Italy, Belgium and Greece, where youth employment rates have increased by less than the EU average, the rates

for the young remain at levels below 30%.

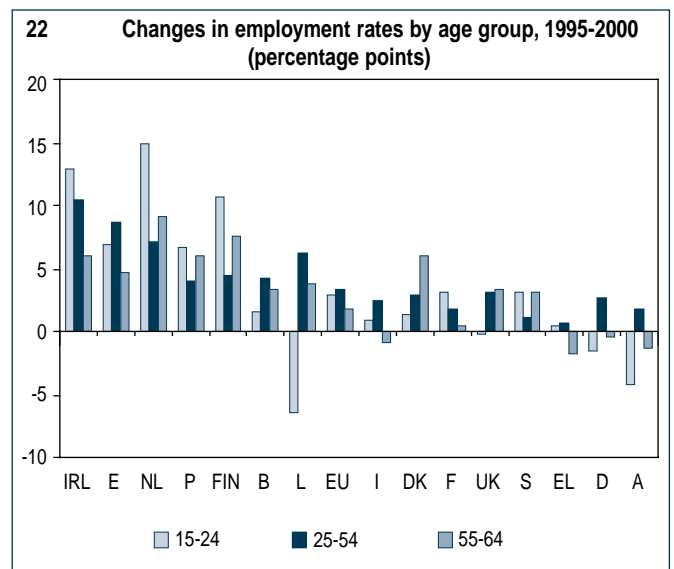
If this diverging pattern of youth employment rates across countries continues, cross-country differences in youth employment rates could reach values of almost 50 percentage points between Member States in the near future.

Between 1995 and 2000, employment rates among older people in the 55-64 age group have increased in all Member States except Germany, Austria, Italy and Greece. Increases have been particularly pronounced in the Netherlands, Finland and Denmark – where rates were already high – and in Belgium, Ireland, Spain, and Portugal which all started from lower levels.

With the exception of the Netherlands, Portugal, the three Scandina-



Source: Eurostat, QLFD



Source: Eurostat, QLFD

2 Activity rates and employment rates of older people 1995 and 2000		55-64				45-54			
		1995		2000		1995		2000	
		ER	AR	ER	AR	ER	AR	ER	AR
COUNTRY									
A	29.0	30.2	29.2	31.4	73.9	77.2	76.7	80.7	
B	23.3	24.2	25.0	25.9	64.7	69.0	68.6	72.2	
D	37.8	42.8	37.4	42.9	75.4	81.9	77.7	84.3	
DK	49.3	53.6	54.6	56.9	80.0	84.9	82.6	85.5	
E	31.8	36.3	36.6	40.7	55.8	64.7	62.1	68.4	
FIN	34.4	39.6	41.2	45.5	74.9	85.0	81.7	88.0	
F	29.4	31.4	29.3	31.6	75.8	82.6	77.5	83.8	
EL	40.5	41.9	39.0	40.6	63.5	66.6	65.9	69.7	
IRL	39.7	43.0	45.1	46.3	57.0	63.5	67.5	70.2	
I	27.0	28.3	27.3	28.6	61.1	64.1	64.3	67.5	
L	24.0	24.0	27.2	27.6	65.8	67.1	71.9	72.7	
NL	28.8	29.9	37.9	38.6	69.0	72.7	75.6	77.5	
P	45.5	47.4	51.7	53.5	73.6	77.4	76.8	79.2	
S	63.1	68.1	64.3	68.4	88.2	93.0	84.3	88.3	
UK	47.6	51.5	50.5	52.8	77.2	82.3	78.7	82.0	
EU	35.7	38.9	37.5	40.6	70.8	76.4	73.7	78.5	

Source: Eurostat, LFS  
 Note: Activity rates (AR) and employment rates (ER) presented in this table are based on the European Community LFS and might therefore differ slightly from those presented in the text which are based on the QLFD series (see Data Sources in the Annex).

vian Member States and the UK, the gap in employment rates between older people in the 55-64 age group and prime-age workers (25-54) has increased over the 1995-2000 period (Chart 23). This is due to a faster increase in the employment rate for prime-age workers than for older people in all countries. In Germany, Italy, Austria and Greece employment rates of older people even declined between 1995 and 2000.

... and older people

With respect to older people in the 55-64 age group, it is unclear whether gaps in employment rates will narrow across the EU countries in the near future. Older workers' employment rates are stabilising in Germany, Austria, Italy and Greece, while

increasing steadily in the Scandinavian countries, the UK, Ireland and Belgium. Rates currently differ from 65.1% in Sweden to 26.3% in Belgium, with an EU average of 37.7%. Projections for the future cast some doubt on whether older workers' employment rates will exceed 40% in the coming years.

However, given the ongoing changes in employment policies for older people prompted by demographic changes, strong labour demand and early signs of regional labour mismatches related to specific skills or occupations, the current high rates of participation and employment among 45-54 age group could well translate into significantly higher employment rates for this age group a decade from

now. For this to happen, though, trends of increasing early retirement in some countries would have to be reversed.

Some evidence about the feasibility of achieving higher employment rates of older people in the future can be gained by comparing the current activity and employment rates in the 55-64 age group with those for the 45-54 age group, the individuals who will form the older workers age group in 2010 (Table 2).

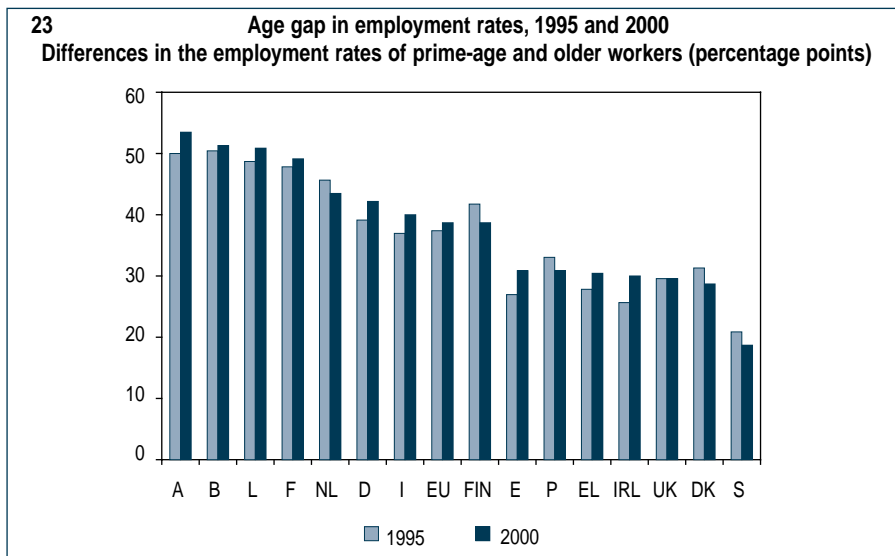
The activity and employment rates of the 45-54 and 55-64 age groups have both increased since 1995. But the activity rate of the 45-54 age group remains almost double that of older people today. Achieving the employment rate target of 50% for the 55-64 age group by 2010 depends crucially on whether those in the 45-54 age group today will remain in employment from now until 2010.

Skills and employment performance

At EU level, the employment rate of those with completed tertiary education, the high-skilled, was 82% in 2000. People with upper secondary education showed an employment rate of about 70%, whereas only one in two individuals with less than upper secondary education, the low-skilled, was at work in 2000. Skills and education appear to be more important for women than for men. In the EU low-skilled women had an employment rate of only 38% in 2000 (Table 3).

Given the current strong demand for qualified labour combined with low levels of labour-related mobility within the EU, the relative importance of skills and education for employment opportunities depends on the distribution of skills within each Member State.

At EU level, in 2000, about 20% of the working-age population had completed tertiary education, while 38% were classified as low-skilled. The share of low-skilled in the population across Member States ranged from around 20% to more than 75% in 2000, and that of high-skilled from 8% to more than 25% (Table 4). Differences in employment rates by educational level across Member States to some extent reflect these large differences in the shares of low-skilled and high-skilled people.



Source: Eurostat, QLFD

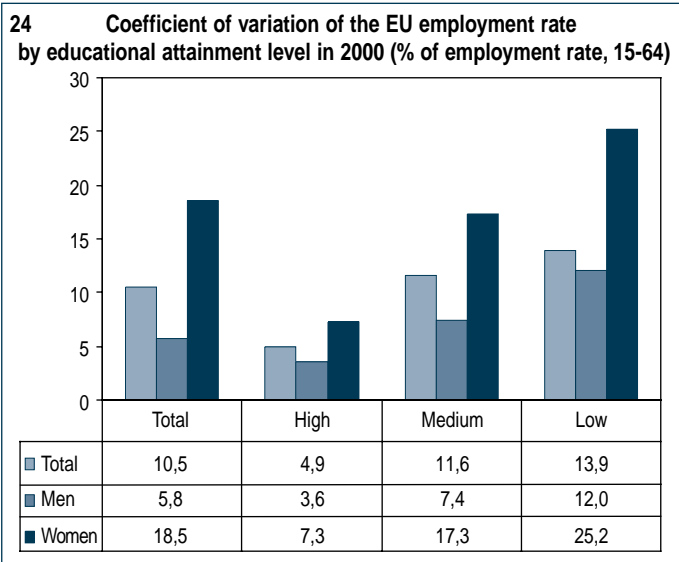


3 Employment, unemployment and activity rates by educational levels in 2000													
	Total education			High			Medium			Low			
	ER	UR	AR	ER	UR	AR	ER	UR	AR	ER	UR	AR	
<b>TOTAL</b>	A	67.9	4.7	71.3	85.8	2.3	87.8	73.7	4.2	77.0	47.8	8.2	52.1
	B	60.9	6.6	65.2	85.4	2.7	87.8	66.0	6.8	70.9	43.4	10.4	48.5
	D	65.3	8.0	71.0	83.0	4.3	86.8	69.9	7.9	76.0	55.3	12.7	63.3
	DK	76.4	4.5	80.0	88.2	2.6	90.6	80.1	4.4	83.8	62.1	6.3	66.3
	E	54.7	14.1	63.7	74.4	11.2	83.8	53.2	14.4	62.1	50.4	15.4	59.5
	FIN	68.1	11.2	76.8	84.0	5.2	88.6	72.4	11.1	81.5	50.0	19.0	61.7
	F	61.7	10.3	68.8	78.7	5.6	83.3	69.0	9.1	76.0	46.1	15.4	54.5
	EL	55.9	11.3	63.0	80.2	7.9	87.1	56.2	15.0	66.1	48.5	9.4	53.5
	IRL	64.5	4.3	67.5	-	-	-	-	-	-	-	-	-
	I	53.4	11.0	59.9	81.0	6.2	86.3	63.5	10.7	71.1	44.1	12.2	50.2
	L	62.7	2.4	64.2	80.3	1.2	81.3	64.3	1.9	65.5	53.7	3.7	55.7
	NL	72.9	2.7	74.9	86.3	1.7	87.8	79.3	2.0	80.9	60.0	4.4	62.8
	P	68.1	4.1	71.0	89.9	2.6	92.4	63.4	4.8	66.6	69.0	4.3	72.1
	S	71.1	5.5	75.3	82.7	3.0	85.3	77.5	5.7	82.2	55.7	8.4	60.8
	UK	71.2	5.6	75.5	87.5	2.5	89.7	77.3	5.8	82.0	51.8	10.8	58.1
EU	<b>63.1</b>	<b>8.4</b>	<b>68.9</b>	<b>82.4</b>	<b>4.9</b>	<b>86.6</b>	<b>69.8</b>	<b>7.9</b>	<b>75.9</b>	<b>50.1</b>	<b>12.1</b>	<b>57.0</b>	
<b>MEN</b>	A	76.2	4.8	80.1	88.5	2.1	90.4	80.6	4.3	84.3	56.2	9.2	61.9
	B	69.8	5.3	73.8	89.8	2.2	91.8	75.9	5.0	79.9	55.0	8.2	59.9
	D	72.7	7.7	78.8	86.3	3.8	89.7	76.1	7.6	82.3	67.8	13.8	78.7
	DK	80.7	4.0	84.0	90.2	2.6	92.7	83.4	3.8	86.8	69.0	5.0	72.7
	E	69.6	9.7	77.1	81.5	7.2	87.9	64.0	9.0	70.3	69.8	11.0	78.4
	FIN	71.1	10.4	79.4	87.3	4.3	91.2	76.3	10.2	85.0	53.8	17.3	65.1
	F	68.8	8.6	75.3	82.7	5.0	87.0	75.9	7.0	81.7	53.9	13.5	62.3
	EL	71.3	7.5	77.1	85.6	4.8	89.9	71.2	9.8	78.9	66.7	6.6	71.5
	IRL	75.6	4.4	79.1	-	-	-	-	-	-	-	-	-
	I	67.6	8.4	73.8	87.5	4.1	91.3	73.6	7.7	79.7	61.5	9.7	68.1
	L	75.0	1.8	76.4	86.2	0.7	86.8	75.8	1.2	76.7	68.3	3.5	70.7
	NL	82.1	2.2	83.9	90.1	1.4	91.4	86.3	1.6	87.7	74.6	3.4	77.2
	P	76.2	3.2	78.8	92.2	2.4	94.5	69.1	2.9	71.1	77.2	3.4	79.9
	S	72.6	6.0	77.2	82.8	3.8	86.1	79.5	5.9	84.5	58.7	8.5	64.2
	UK	77.9	6.2	83.0	89.7	2.7	92.2	81.6	6.1	87.0	57.0	13.7	66.1
EU	<b>72.4</b>	<b>7.3</b>	<b>78.1</b>	<b>86.3</b>	<b>3.9</b>	<b>89.9</b>	<b>76.8</b>	<b>6.8</b>	<b>82.4</b>	<b>63.4</b>	<b>10.4</b>	<b>70.7</b>	
<b>WOMEN</b>	A	59.7	4.6	62.5	82.0	2.5	84.1	66.1	4.0	68.9	42.2	7.3	45.5
	B	51.9	8.3	56.6	81.3	3.1	84.0	56.2	9.1	61.9	31.0	14.3	36.2
	D	57.8	8.3	63.0	77.9	5.2	82.2	63.8	8.3	69.6	46.3	11.5	52.3
	DK	72.1	5.0	75.9	86.3	2.6	88.6	76.5	5.0	80.6	55.5	7.7	60.2
	E	40.3	20.5	50.7	67.3	15.6	79.8	42.7	21.2	54.2	31.7	23.4	41.4
	FIN	65.2	12.0	74.1	81.3	6.0	86.5	68.3	12.2	77.7	45.8	21.1	58.0
	F	54.8	12.3	62.5	75.1	6.2	80.0	61.3	11.9	69.6	39.1	17.7	47.5
	EL	41.3	16.9	49.7	74.1	11.6	83.8	42.6	21.9	54.5	31.7	14.4	37.0
	IRL	53.4	4.2	55.7	-	-	-	-	-	-	-	-	-
	I	39.3	14.9	46.2	74.2	8.6	81.2	53.5	14.5	62.5	26.5	17.6	32.1
	L	50.0	3.2	51.7	72.6	2.0	74.1	51.6	3.1	53.2	41.4	4.0	43.1
	NL	63.4	3.5	65.7	81.4	2.1	83.2	72.1	2.6	74.0	47.0	5.7	49.9
	P	60.4	5.1	63.6	88.4	2.8	90.9	58.5	6.7	62.7	60.1	5.5	63.6
	S	69.7	5.1	73.4	82.7	2.3	84.6	75.3	5.5	79.7	52.0	8.4	56.8
	UK	64.5	4.9	67.8	84.9	2.2	86.8	72.5	5.3	76.6	47.7	7.7	51.6
EU	<b>53.8</b>	<b>9.9</b>	<b>59.8</b>	<b>77.9</b>	<b>6.0</b>	<b>82.9</b>	<b>62.6</b>	<b>9.4</b>	<b>69.1</b>	<b>37.9</b>	<b>14.6</b>	<b>44.4</b>	

Source: Eurostat, LFS. Note: Educational levels are defined as "high" if the individual has completed tertiary education, as "medium" if upper-secondary education, and as "low" if less than upper-secondary education. Employment, unemployment and activity rates in the column "Total education" are calculated on the basis of the LFS for all individuals with non-missing information on the educational attainment level. They might differ from the rates which are calculated on all observations, including those with missing information on the educational attainment level.

4 Share of the population 15-64 by educational attainment levels in 2000												
	TOTAL				MEN				WOMEN			
	Low	Medium	High		Low	Medium	High		Low	Medium	High	
A	28.3	59.4	12.3	A	22.8	62.6	14.6	A	33.7	56.2	10.1	
B	43.0	33.2	23.8	B	44.3	32.9	22.8	B	41.8	33.5	24.7	
D	21.5	57.1	21.4	D	17.7	56.5	25.8	D	25.3	57.7	16.9	
DK	27.0	51.4	21.6	DK	26.0	53.2	20.7	DK	28.0	49.4	22.6	
E	59.7	19.8	20.5	E	59.5	19.9	20.7	E	59.9	19.8	20.2	
FIN	30.8	41.6	27.5	FIN	32.4	42.9	24.7	FIN	29.2	40.4	30.4	
F	40.1	40.1	19.8	F	38.2	42.8	19.0	F	41.9	37.4	20.7	
EL	48.4	37.5	14.1	EL	47.7	36.8	15.5	EL	49.0	38.2	12.8	
IRL	-	-	-	IRL	-	-	-	IRL	-	-	-	
I	55.2	36.7	8.1	I	55.3	36.5	8.2	I	55.1	37.0	7.9	
L	38.5	44.8	16.7	L	34.7	46.5	18.9	L	42.3	43.2	14.5	
NL	36.5	41.5	21.9	NL	34.2	41.7	24.1	NL	38.9	41.4	19.7	
P	77.2	14.7	8.1	P	79.9	13.5	6.5	P	74.4	16.0	9.6	
S	26.3	46.8	26.8	S	28.0	47.5	24.5	S	24.6	46.2	29.2	
UK	18.5	56.2	25.3	UK	16.0	57.4	26.5	UK	21.1	55.0	24.0	
EU	<b>37.9</b>	<b>43.1</b>	<b>19.0</b>	EU	<b>36.2</b>	<b>43.8</b>	<b>20.0</b>	EU	<b>39.6</b>	<b>42.5</b>	<b>17.9</b>	

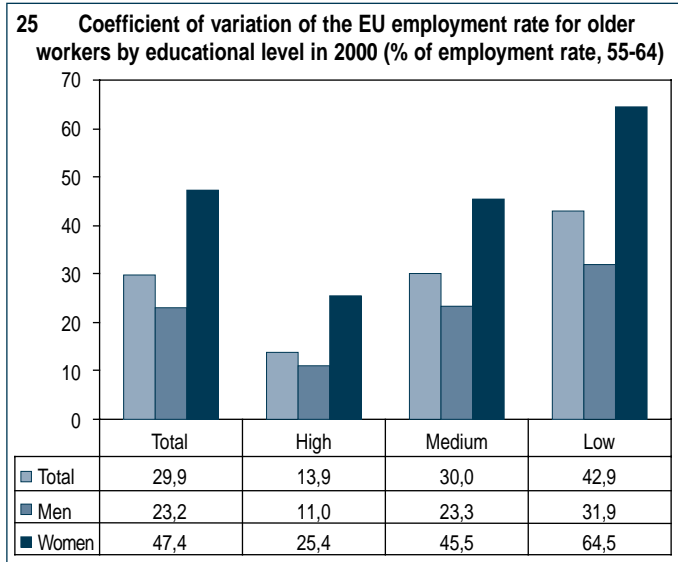
Source: Eurostat, LFS



Source: Eurostat, LFS

While employment rates were significantly higher and unemployment rates lower for people with higher educational levels in all Member States, the variation in employment and unemployment rates across Member States was significantly higher for low-skilled people, in particular for low-skilled women, than for people with higher educational levels (Chart 24). The variation across Member States is also strong for medium-skilled women and for low-skilled men and, in particular, for older workers (Chart 25).

The relative employment position of high-skilled and low-skilled individuals differs significantly in each Member State (Chart 26). At the EU level, there is a gap of 32 percentage points overall, and 40 percentage points for women, between the



Source: Eurostat, LFS

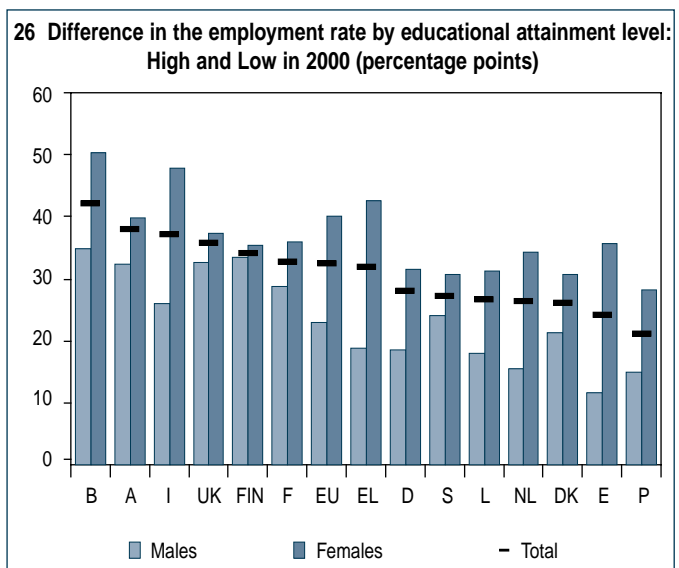
employment rate of people having completed tertiary education and those with less than upper secondary education in 2000. On the one hand, the relative country-specific situation for the low-skilled employed appears most problematic overall in Belgium, Austria and Italy in general and for women in particular in Belgium, Italy and Greece. On the other hand, the employment rate of people with low qualifications deviates less from that of their high-skilled counterparts in Denmark, Spain or Portugal in general and in Denmark, Sweden and Portugal for women.

**Unemployment**

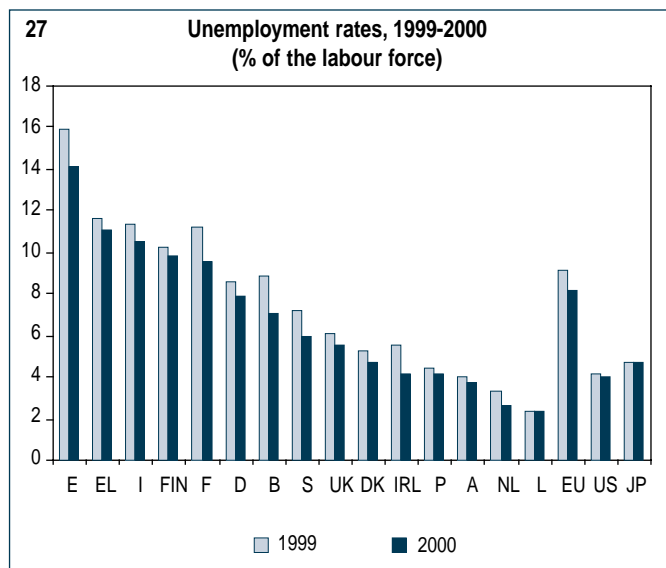
Despite the positive evolution in activity and employment rates, unemployment in the EU remains unacceptably high. Within Europe, policies as set out by the Lisbon

Council and the European Employment Strategy and targeted at growing employment. The reduction of social exclusion, of gender gaps and of unemployment, in particular for young people, is of high priority.

At the country level, Member States with relatively high unemployment levels contributed most to the observed decrease in unemployment rates. Unemployment rates in Spain, France, Belgium and Ireland showed the most rapid decline, reducing unemployment rates between 1999 and 2000 from 15.9% to 14.1% in Spain, from 11.2% to 9.5% in France, from 8.8% to 7% in Belgium and from 5.6% to 4.2% in Ireland. Among the countries where unemployment rates remain relatively high, Germany and Finland experienced the slowest decline. The relatively moderate decrease in the



Source: Eurostat, LFS

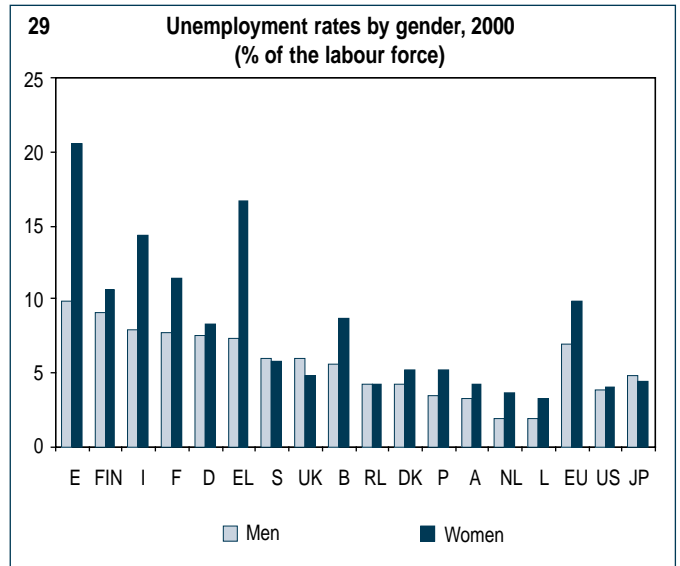


Source: Eurostat, Harmonised series on unemployment



Source: Eurostat, LFS

unemployment rate in Germany reflects, at least in part, a divergence in unemployment trends between the western and eastern parts of the country. Between 1999 and 2000, the unemployment rate increased by 0.2 percentage points in the east. Decreases in unemployment have also been modest in those Member States that already had relatively low unemployment rates, especially Luxembourg, Austria, Portugal and the Netherlands. Unemployment rates continue to vary markedly across Member States, ranging from 2.4% in Luxembourg to 14.1% in Spain, with unemployment rates remaining significantly above the EU average in Spain, Greece, Italy, France and Finland (Chart 27).



Source: Eurostat, LFS

Unemployment rates have decreased for both men and women, giving an EU average female unemployment rate below 10% for the first time in a decade. Despite very considerable decreases in Spain, Italy, France and Finland however, female unemployment rates in these countries remain considerably above 10%, peaking in Spain at 20.6%. Despite a strong decrease in female unemployment rates of more than 2 percentage points, 1.4 million women of working age still remain unemployed in Spain (Chart 28).

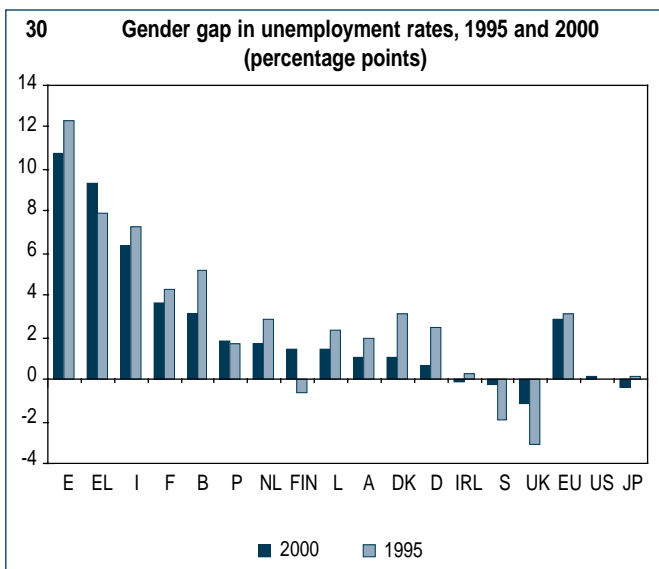
The EU male unemployment rate in 2000 was 7.0%, with all countries having male unemployment rates below 10% for the first time in almost two decades.

Spain also continued to witness the highest gender gap in unemployment in the EU, with the female

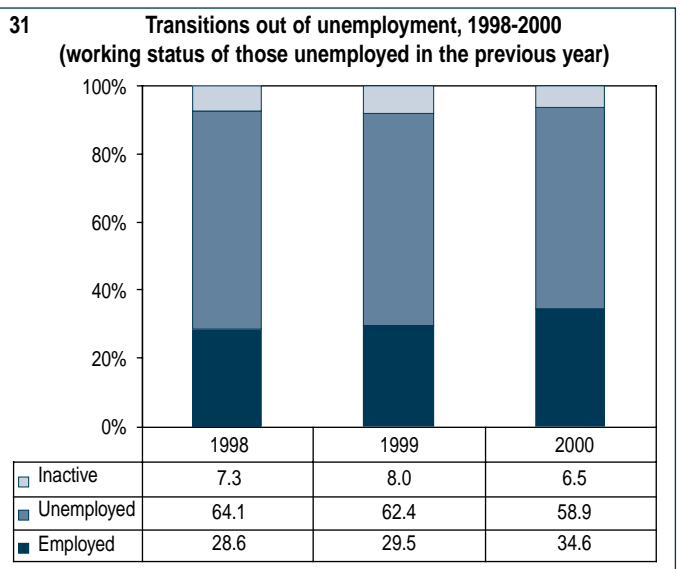
unemployment rate more than double that for men. Other countries showing a marked divide between male and female unemployment rates are Greece, Italy, France and Belgium. In all of these countries female unemployment levels remain persistently higher than for men (Chart 29).

In most countries, the gender gap in the unemployment rate decreased over the period 1995-2000, although it increased slightly in Spain and Finland between 1999 and 2000 (Chart 30). It had disappeared entirely by 2000 in Ireland and Sweden. Male unemployment rates exceed female rates in the UK.

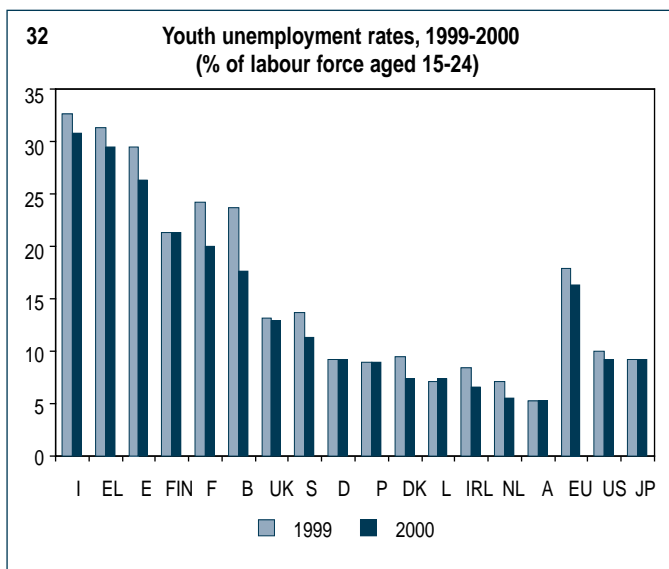
More than half of those unemployed one year ago remained unemployed throughout the year or were in unemployment again one year later. Transition rates into employment,



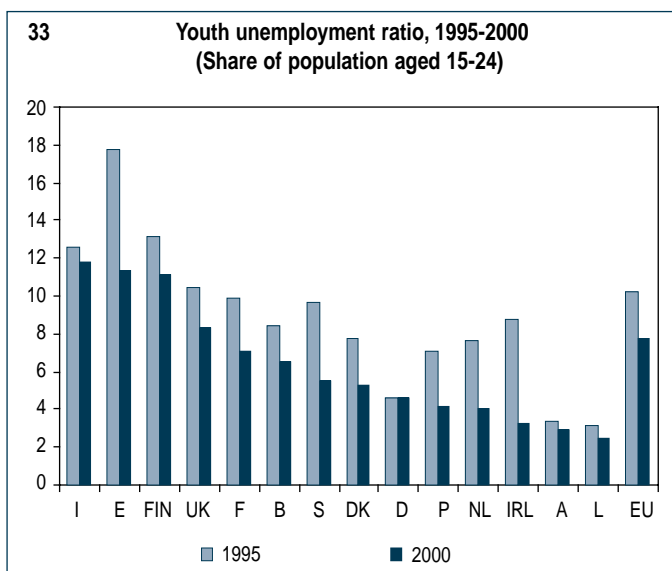
Source: Eurostat, LFS



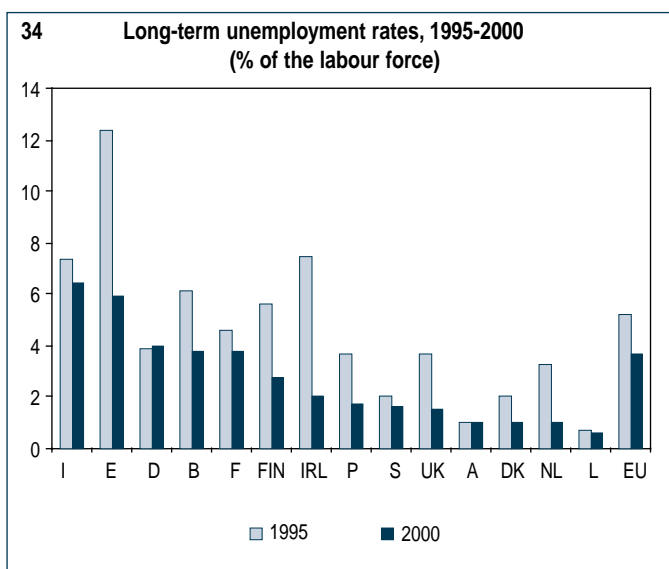
Source: Eurostat, LFS



Source: Eurostat, Harmonised series on unemployment



Source: Eurostat, Harmonised series on unemployment



Source: Eurostat, LFS

however, have been increasing in the recent past, with more than a third of those unemployed in 1999 being in employment in 2000 (Chart 31). These transition rates from unemployment to employment were relatively high in Luxembourg, the UK, Portugal, Spain, France and Italy while remaining low in Belgium, Finland and Greece.

*Youth unemployment*

The youth unemployment rate has decreased by almost a quarter since 1995, and by 1.8 percentage points in 2000 alone, to reach 16.1%. With more than 3.5 million, or one in six 15-24 year Europeans unemployed, high youth unemployment remains one of the major challenges on Europe's road to full employment. The youth unemployment rate in the EU remains more than double that of the US or Japan.

Youth unemployment rates vary markedly across the EU. In Italy and Greece, for example, nearly one in three of the 15-24 age group is unemployed. The youth unemployment rates of around 30% in these countries contrast strongly with the rates of around 5% in the Netherlands and Austria. In France, Spain, Finland and the UK, youth unemployment rates remained significantly higher than overall unemployment rates, indicating structural problems related to the integration of young job seekers into the labour market. On the other hand, youth unemployment rates in the Netherlands, Denmark, Portugal, Luxembourg, Ireland and Austria were close to overall unemployment rates and lower than the US youth unemployment rate of 9.3%. The strongest decreases in youth unemployment in 2000 were observed in Belgium, Spain and France (Chart 32).

The youth unemployment ratio – the population share of unemployed youth – decreased by almost 1 percentage point in 2000 and stood at 7.8%. It has decreased considerably over the last five years in all Member States but Germany and Italy. Decreases were strongest in Ireland, the Netherlands and Sweden where it was at half the level or less of five years ago. In the former two countries and in Luxembourg the youth unemployment ratio in 2000 reached levels below 3%. On the other hand, in Italy, Spain and Finland, the youth unemployment ratio still remained above 10% (Chart 33).

*Long-term unemployment*

Long-term unemployment continued to decrease in all Member States of the European Union, reaching 3.6% in 2000. It dropped by 1.5 percentage points during 1995-2000, with decreases being strongest in Spain and Ireland where the long-term unemployment rate declined by 6.5 percentage points to 5.9% and by 6.1 percentage points to 1.7% in 2000, respectively (Chart 34).

Male long-term unemployment rates are lower than those for women in most EU countries, with the exception of Finland, Ireland, Sweden and the UK. At EU level, the male long-term unemployment rate stood at 3.0% while it was 4.4% for women. The decrease in the long-term unemployment rate has been slightly greater, though, for women; 1.8 percentage points over the period 1995-2000, compared to 1.5 percentage points for men (Chart 35).

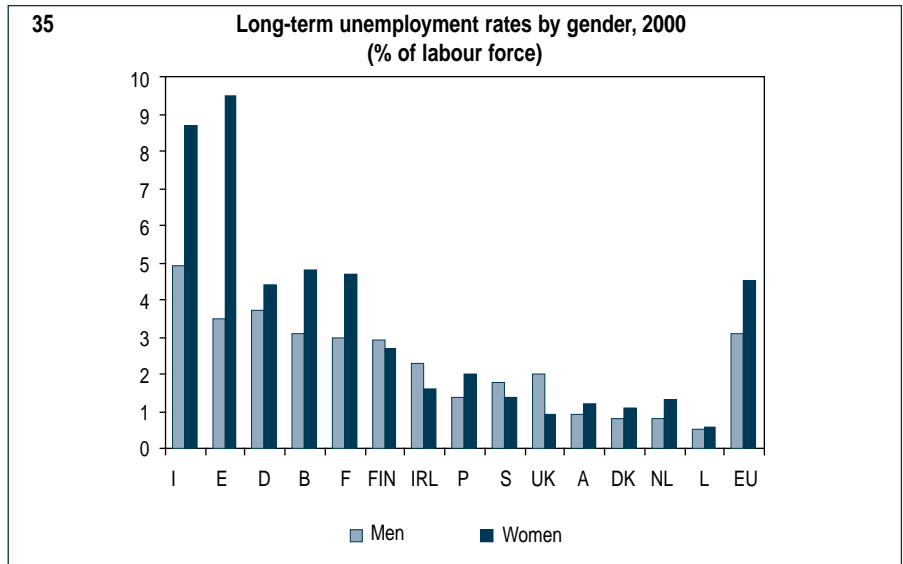
### Employment Prospects 2001/2002

On the basis of the Commission's spring economic forecast, both activity rates and employment rates can be expected to increase further in the near future, although probably less strongly than in the recent past. The encouraging recent employment developments needs to be viewed against the uncertainty of a slowdown in economic activity that has emerged since the last two quarters. The methodology and the assumptions underlying the projections are described in the Annex.

Assuming invariant labour market policies, EU-level activity rates are expected to rise moderately in the next two years to close to 70% overall in 2002 and above 78% for men and 61% for women. Increases in participation will be strongest among women, leading to a likely reduction in the gender gap in participation of one percentage point by 2002.

The overall employment rate at EU level may come close to 65% in 2002; 73.5% for men and 56% for women, compared to intermediate targets for 2005 of 67% overall and 57% for women. Like activity rates, employment rates will rise most significantly among women, thus reducing the gender gap in employment rates by 1 percentage point to 17.5 in 2002. Taking into account the projected increases in both activity rates and employment rates, unemployment rates at EU level are expected to fall below 8% by 2002.

Increases in the activity rate will be most pronounced in Spain, Italy, the Netherlands, Ireland and Luxembourg, while activity rates appear to be stagnant in Denmark, Germany, Austria and the UK. Female activity



Source: Eurostat, LFS

rates are likely to increase in all Member States, with the exception of Denmark, Sweden and the UK.

Participation rates are likely to continue to rise further in all age groups. Increases in the participation of older people is likely to be strongest in Spain, the Netherlands and Belgium, while older people activity rates appear to be stagnating in Austria, Germany, the UK and Denmark. By 2002, activity rates among older people are expected to remain significantly below the EU average in Belgium, Luxembourg, Italy, Austria and France. Activity rates among young people are expected to rise slightly faster than overall activity rates, and most strongly in Ireland, the Netherlands and Finland.

With the possible exceptions of Denmark, Germany, Austria, the UK and Portugal, employment rates are likely to increase considerably over the coming years, and in most countries this growth is expected to be stronger for women than for men.

Like activity rates, employment rates will increase across all age groups, with increases being similar across age groups. According to the projections, activity rates for those between 55-64 will rise from 40.1% in 1998 to 41.5% in 2002 and employment rates from 36.6% in 1998 to 37.7% in 2000 and 38.8% in 2002. Despite the higher increase in employment rates in all age groups, these increases may prove insuffi-

cient to reach the EU-wide target of 50% in 2010.

In the 55-64 age group, particularly strong increases are expected in Spain, Finland, the Netherlands and Sweden. For young people, employment rates are likely to increase strongly in Spain, Ireland, Finland, Luxembourg, France and Sweden.

### Meeting the Lisbon and Stockholm targets

Both recent employment developments and projections for the coming years are generally in line with targets set at the Lisbon and Stockholm Summits.

*Employment in Europe 2000* presented a scenario based on assumptions of an average 3% GDP growth in the EU in the period 2000-2010, showing both the sustainability of the most recent positive trends and the feasibility of the Lisbon employment rate targets. Despite some recent signs of an economic slowdown, the most recent employment rate trends for most countries are still in line with this scenario. The trend continues to be encouraging, supported by positive developments in the largest Member States and in Spain and Italy in particular. A more pronounced and lasting slowdown, however, could cast doubt on the feasibility of achieving the Lisbon targets.

This report provides projections of activity rates and employment rates

for the next two years. Denmark, the Netherlands, Sweden and the UK have already reached the overall employment rate target for 2010. The same countries plus Portugal and Finland have reached the female employment rate target of 60%. Several other Member States such as France, Italy and Belgium have recently shown a pick-up in employment rates. Employment performance in Greece, Austria, Germany and Portugal seems to remain stagnant, or to be only moderately improving, in the latter three countries at a comparatively high level.

Meeting the newly set target for the employment of older people, howev-

er, will depend crucially on both the overall economic development in Europe and the introduction of significant changes in employment policies in some countries. Even if good progress is made on both these fronts, the target remains challenging. More favourable performances than those currently observed and projected for the next two years may be needed to move decisively towards the target rate of 50% by 2010. However, the participation rates in the 45-54 age group in 2000 show that the target is achievable if the high participation rates in this cohort can be maintained.

Despite differences in the levels and in the evolution of the employment

rate across countries, the overall employment rate at EU level could reach 65% in 2002. However, in the Union the gender and age gaps still persist in most of the Member States, and are particularly wide for those countries with a low overall employment rate. For these Member States, the achievement of the Stockholm and Lisbon targets may require particularly large increases in the employment rates for women and older people. Moreover, the fact that the employment rate is higher for high-skilled workers than for low- or medium-skilled ones highlights the importance of upgrading workers' skills.



## Chapter 2: Employment challenges in the knowledge-based economy: a sectoral and occupational analysis

### Introduction

The Lisbon European Council has set the strategic goal for the Union *to become the most dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion*. The strategy launched at the Lisbon Council is designed to regain the conditions for full employment in a knowledge-based economy. The upgrading of the labour force's skills, life-long learning and job quality are high priorities for fully reaping the economic and social benefits of a knowledge-based economy. Lisbon puts great emphasis on human resources and investing in people.

In the transition to a knowledge-based economy, structural change related to the introduction of new technologies leads to a rapid increase in the demand for skilled workers. This then demands a quantitative and, above all, a qualitative improvement of the labour supply.

This chapter considers the impact of new technologies on employment and on skills requirements. It examines the evolution of labour demand and labour supply focussing on the job creation performance of the high tech sectors, the growing demand for skills and the relative supply of skilled workers. Updating the labour force to keep pace with the effects of technology on labour demand is a key challenge for EU. Since new technologies are characterised by intangible capital-deepening, labour productivity growth may be related to the knowledge accumulated by workers as well as to the match between skills and jobs. The increase in the skill content of the labour force may enhance productivity growth in the near future.

### Demand Trends

Technical progress has an undoubtedly positive effect on growth but its impact on employment is more

uncertain. Innovations destroy production activities and create new ones asymmetrically. Innovation processes are usually labour-saving, but product innovations create new sectors which can have a positive effect on labour demand. With the knowledge-based economy emerging, it becomes important that the skills of workers change so they are able to adapt to the technology-related shifts in the labour demand. Skills, including basic skills, need to increase across the whole workforce. This applies equally to technical knowledge and ICT skills as well as to social skills and an improved capacity of problem-solving, communication and cooperation. To adopt new technologies, firms need a highly educated workforce. This section will focus on employment in high-tech and knowledge intensive sectors. It further examines the impact of part-time employment and of temporary or fixed-term working contracts on job creation in the new European labour markets.

In the period 1995-2000, net job creation in the EU amounted to almost 10 million. The sectors with the strongest employment growth at EU level actually are either high-technology and ICT-related jobs ("high-tech sectors") or characterised by high knowledge intensity as reflected in the high educational levels of the workforce ("high-education sectors"), or both. In 2000 alone, these sectors created 1.6 million net jobs in the EU.

As in previous years, employment growth generally continued to be strongest in the service sector and in high-skilled non-manual occupational groups. 9.8 million jobs were created in the service sector and almost 1 million jobs in industry (0.92 million) of which half were in the construction sector. On the other hand, job destruction continued to be pronounced in the agricultural sector, which lost more jobs over the period 1995-2000 than industry created (1.06 million).

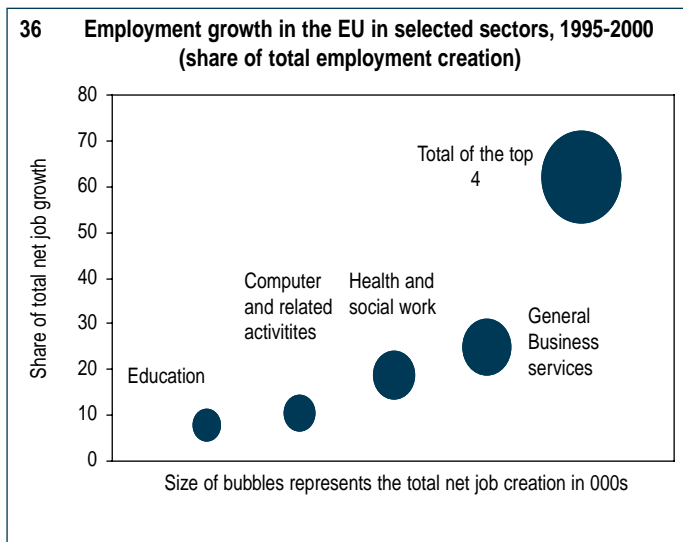
Demand for labour continues to be strongest for high-skilled workers in high-tech and high-education sectors which accounted for more than a third of total net job creation. However, employment growth also continues in these sectors for workers with lower skill levels while in other sectors of the economy demand for this sub-group is stagnating or even declining. Thus, there are strong spill-over effects confirming the conclusions of *Employment in Europe 2000*.

Employment in 2000 grew most strongly in high-skilled non-manual professions, with employment growth rates of 6% for professionals, 3.5% for technicians and 2.5% for managers, legislators, and senior officials. In other occupations such as "service, shop and market sales workers" employment grew only moderately, while decreasing for workers in agriculture or elementary occupations.

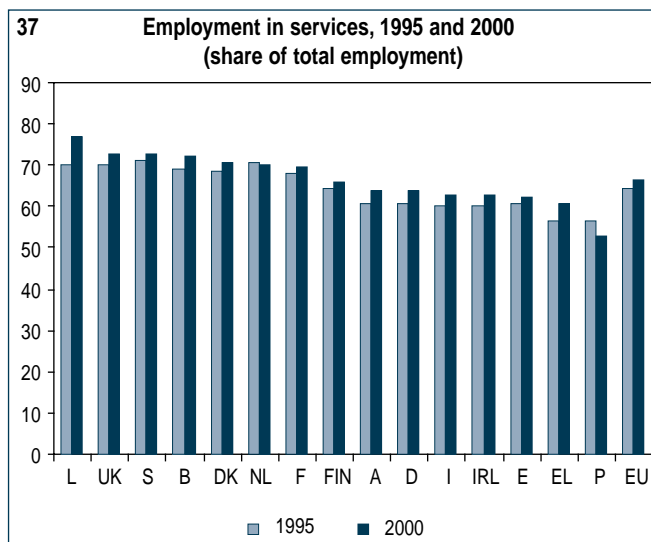
Despite positive trends in labour demand, employment remains highly segregated by gender. Over the 1995-2000 period gender gaps declined only in a few sectors such as wholesale and retail and financial intermediation. High-tech sectors are dominated by men who account for almost two thirds of total employment in the sector. Occupational segregation is still high even in the fast growing high-skilled non-manual occupations.

### *Employment growth by sector*

Employment creation in the fastest growing sectors accounted for almost two thirds of total employment creation between 1995 and 2000. Of the 10 million jobs created in the period, more than 40% were created in health care, education and social work, more than 25% in general business services and around 10% in the sector of computer and related services (chart 36).



Source: Eurostat, LFS



Source: Eurostat, LFS

All sectors characterised by either high-technology and high shares in ICT-related jobs ("high-tech sectors") or a high knowledge intensity as reflected in high educational levels of the workforce ("high-education sectors"), or both, had the strongest employment growth at the EU level. Employment in "computer and related services" grew at rates above 13%, in "general business services" – including real estate, renting and other business activities – recorded rates of 6% and "education, health and social work" rates of 2.1%.

Following the strong record of the service sector in employment creation, the sectoral distribution of total employment continued its evolution towards higher employment shares in services at the expense of industry and agriculture (Chart 37). In 1999, about two thirds of the European workforce were employed in the service sector, ranging from 55% in Portugal to 75% in Luxembourg. Increases in the employment share of the service sector have been particularly strong in Luxembourg, Greece, Austria, Germany and Ireland, while actually declining between 1995 and 2000 in Portugal.

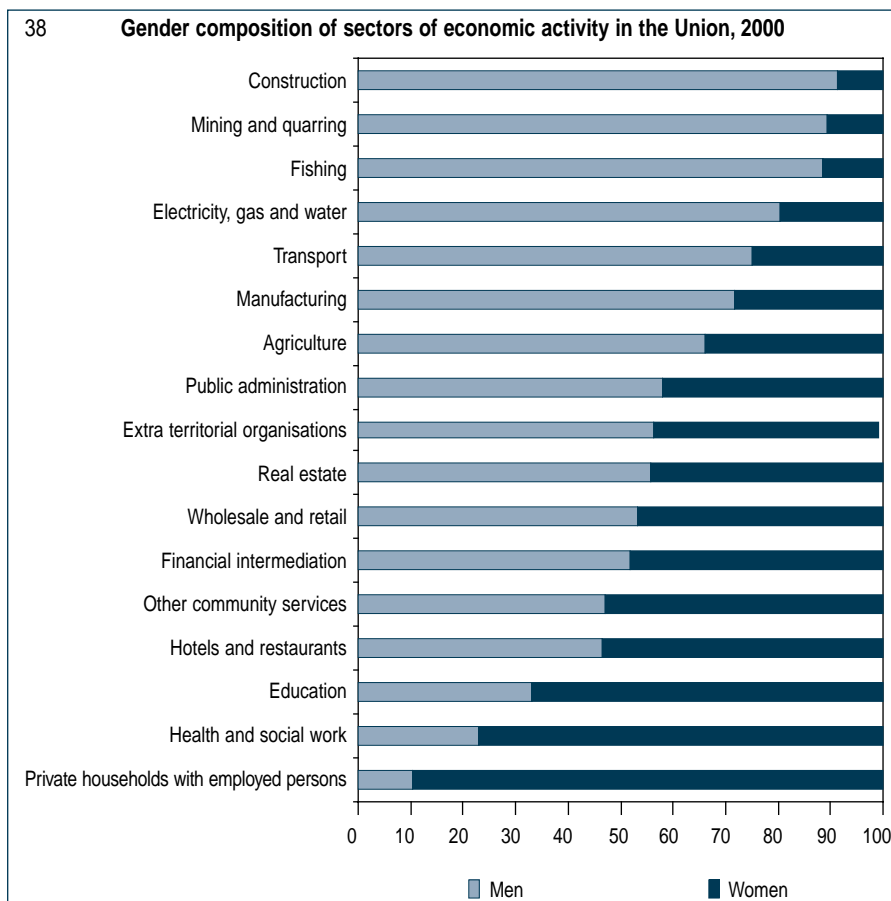
Employment across sectors remains highly segregated by gender, with men over-represented in agriculture, industry and financial services, and women over-represented in other services, including health care, education and private households (Chart 38). Over the period 1995-2000, employment segregation by gender has evolved differently across the various sectors with gender gaps declining in only few sec-

tors such as wholesale and retail, financial intermediation, transport and electricity (Chart 39).

Highly educated employed people clearly remain over-represented in the service sector. In 2000, 55% of all low-skilled employees were employed in services, whereas medium- and high-skilled workers recorded significantly higher employment shares in services – 66% and 80%, respectively (Chart 40). In general, the shares of

employment in agriculture and industry fall as educational attainment increases for both men and women.

Female employment remains very much concentrated in the service sector at all skill levels, with employment shares ranging from 70% for low-educated women to 90% for high-skilled women. Low-skilled women are mainly employed in the health and social work sector and in hotels and restaurants while high-



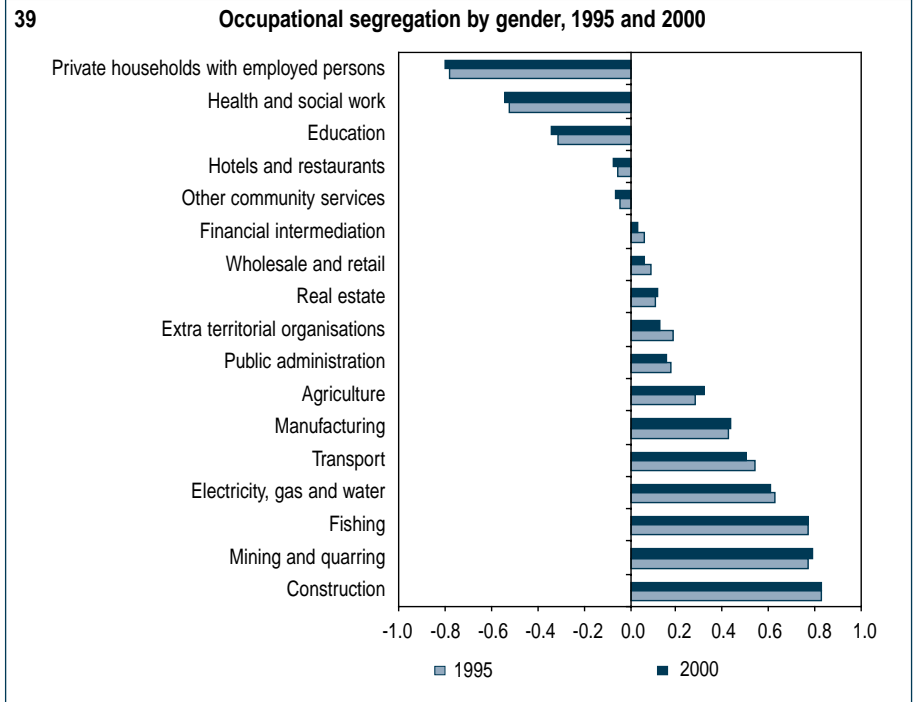
Source: Eurostat, LFS



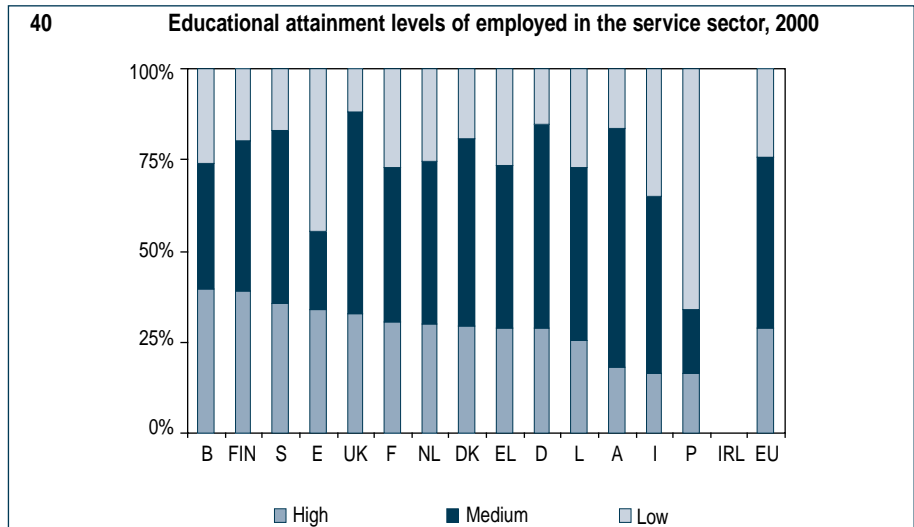
skilled women are mainly employed in education and in the health and social work sector. Male employment rates remain more balanced between industry and services, with the employment share of high-skilled men reaching 72% in services, while that of male workers with low qualifications was 45% in services and continue to remain higher in industry. As well as in the wholesale and retail trade, low-skilled male workers remain concentrated in manufacturing, construction and agriculture.

*Job creation in high-tech sectors*

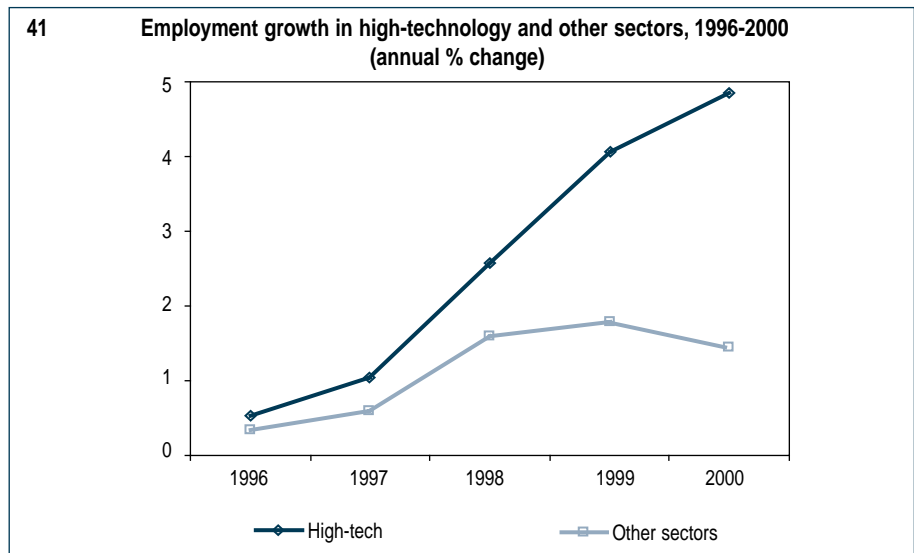
As in previous years, high-tech sectors remained one of the major contributors to employment growth. The high-tech sectors in the EU created almost 1.5 million net jobs in the period 1995-2000, equivalent to an employment increase in the high-tech sectors between 1995 and 2000 of 14% or 2.6% per annum (Charts 41 and 42). Net employment creation in high-tech sectors thus amounted to 16% of total net employment creation in the EU. While employment growth rates in other sectors have actually decreased slightly in 2000 compared to 1999, employment growth in high-tech sectors continued to be strong for the fifth year in a row, reaching growth rates of almost 5% in 2000.



Source: Eurostat, LFS  
 Note: Occupational segregation by gender is measured as the difference between the share of men in employment and that of women for a given occupational category. A value of -1 indicates that only women are working in this occupation, while a value of +1 indicates that only men are working on it. A value of 0 indicates that employment in an occupation is equally distributed across men and women.



Source: Eurostat, LFS  
 Note: For Ireland, no data on educational attainment (ISCED) have been available in the LFS since 1997.



Source: Eurostat, LFS

## 2 Defining high-tech sectors

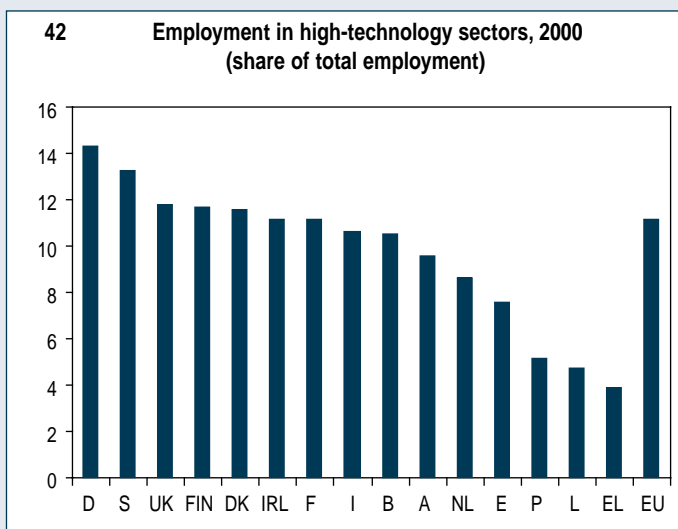
On the basis of NACE rev.1, Eurostat defines the following sectors as high-tech sectors:

- 24 Manufacturing of chemicals and chemical products
- 29 Manufacturing of machinery and equipment
- 30 Manufacturing of office machinery
- 31 Manufacturing of electrical equipment
- 32 Manufacturing of radio, television and communication equipment
- 33 Manufacturing of medical, precision and optical instruments
- 34 Manufacturing of motor vehicles
- 35 Manufacturing of other transport equipment
- 64 Post and telecommunications
- 72 Computer and related activities
- 73 Research and development

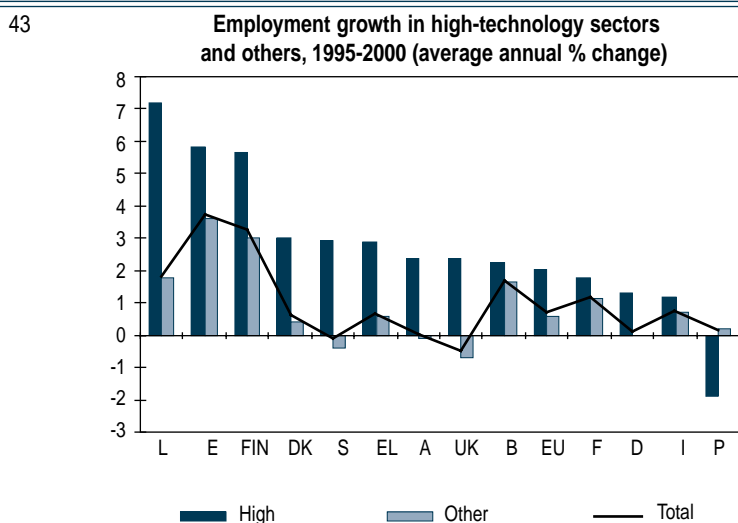
The manufacturing sectors included in the group of high-tech sectors are generally referred to as "research-intensive industries", while the service sectors included can be considered as "high-tech services". All of these sectors have in common a relatively high research intensity and a high share of R&D.

11.7% of the European workforce, or 17 million people, were employed in high-tech sectors in 2000, ranging from 3.9% in Greece to 14.3% in Germany. In Belgium, Denmark, Finland, Sweden, France, Ireland, Italy and the UK, more than every tenth person employed was working in high-tech sectors. High-tech sectors created 570,000 net jobs in 2000, accounting for 20% of total employment growth in the EU.

With the exception of Portugal, employment growth in all Member States has been much stronger in high-tech sectors than in the rest of the economy (Chart 43). Employment growth in the high-tech sector was especially strong in countries with overall strong employment growth during the last years: Luxembourg, the Netherlands, Ireland, Spain and Finland.



Source: Eurostat, LFS



Source: Eurostat, LFS

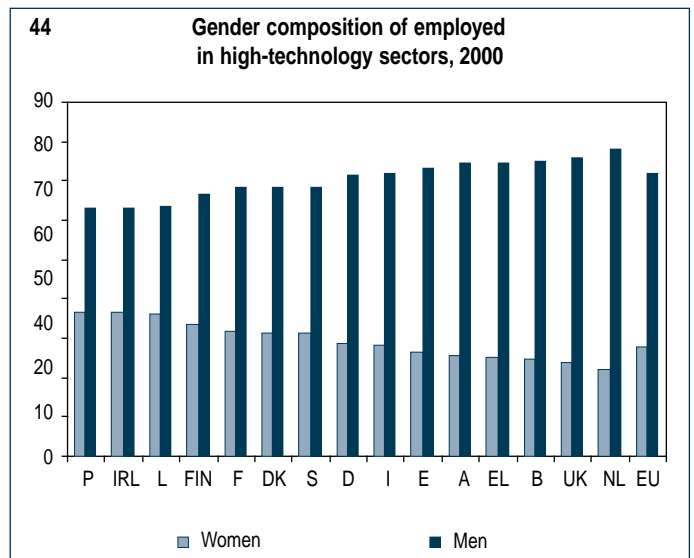
Employment in high-tech sectors remains dominated by men, who account for almost two thirds of total employment in these sectors. Gender gaps in employment shares range from 25% in Portugal to above 50% in Greece, Belgium, the UK and the Netherlands (Chart 44).

In all EU Member States, the fraction of high-skilled employed in 2000 was significantly higher in high-tech sectors than in other sectors of the economy (Chart 45). Almost 30% of those employed in the EU's high-tech sectors were highly educated, compared to 23% in other sectors of the economies. In Finland and Spain more than 40% of those employed in these fast growing sectors are high-skilled.

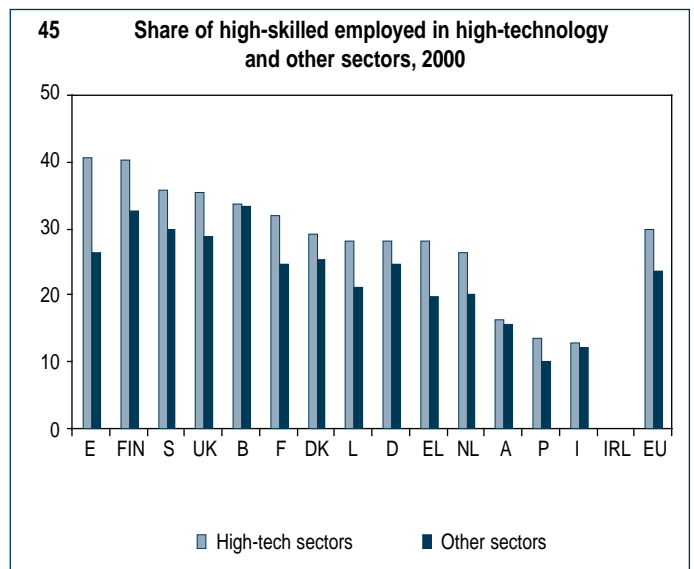
In Austria and the Benelux countries, similar fractions of highly educated and low-educated people work in high-tech sectors, suggesting that high-tech sectors in these countries are creating relatively more jobs for the low-skilled or that other factors, besides high skills alone, determine job creation in these sectors. Finally, Portugal and Italy are the only countries in the EU in which the high-tech sectors employ significantly more low-educated people than high-educated.

*Job creation in high-education and knowledge-intensive sectors*

Together with these high-tech sectors, employment growth in the EU over the years 1995-2000 has been highest in knowledge-intensive high-education sectors, i.e. those sectors of the economy which display a high degree of knowledge intensity and which require high educational attainment levels of their workforce (see Box 4 on knowledge intensive sectors). Between 1995 and 2000, employment growth in high-education sectors was 3% per year, compared to 1% in other sectors, and 6.8% per year in knowledge-intensive service sectors, compared to 1.3% in other service sectors (Chart 46).

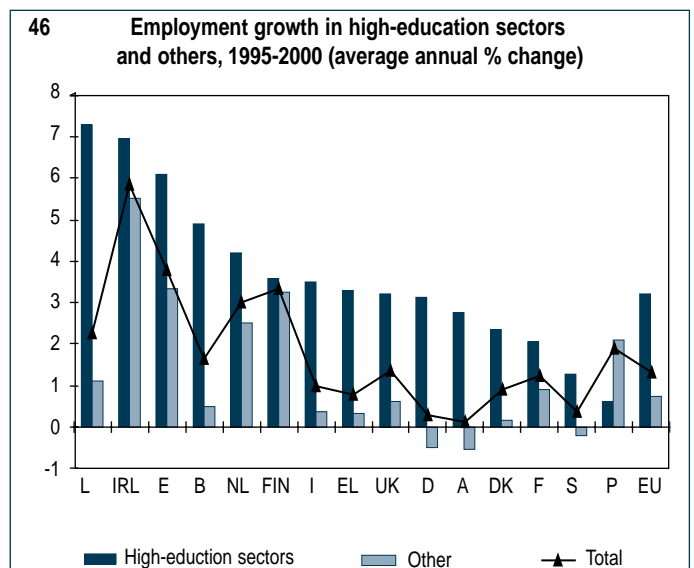


Source: Eurostat, LFS



Source: Eurostat, LFS

Note: For Ireland, no data on educational attainment (ISCED) have been available in the LFS since 1997.



Source: Eurostat, LFS

### 3 Defining high-education sectors

On the basis of NACE rev.1, the following sectors have been defined as high-education sectors (cf. Employment in Europe 2000):

30 Manufacture of office machinery and equipment

72 Computer and related activities

73 Research and development

74 Other business activities

80 Education

85 Health and social work

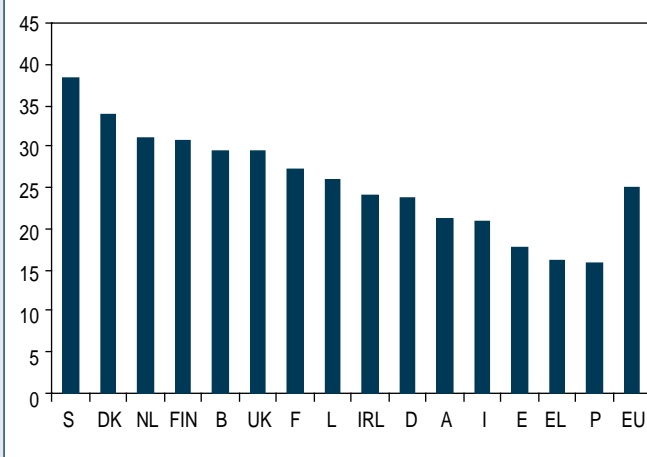
91 Activities of membership organisations

99 Extra territorial organisations and bodies

Sectors 30, 72, 73, and 74 are common to high-tech and high-education sectors.

One quarter of the European workforce in 2000 was employed in high-education sectors, ranging from 15.7% in Portugal to 38.3% in Sweden (Chart 47). In the Netherlands, Sweden, the UK and Ireland every tenth person employed was working in high-education, ICT-related sectors, as opposed to below 5% in Portugal and Greece. Employment growth in high-education sectors between 1999 and 2000 accounted for 35% of total employment growth in the EU, with almost 1 million net jobs created in high-education sectors in 2000.

47 Employment in high-education sectors, 2000  
(share of total employment)



Source: Eurostat, LFS

While countries like Ireland, Finland, Spain and the Netherlands are clearly experiencing employment growth in all sectors of the economy, it is strongest in the high-education sectors. In other countries such as Germany, Austria and Sweden,

employment growth has been positive only in high-education sectors and actually negative in other sectors.

This confirms the conclusions of the Employment in Europe 2000 report

### 4 Defining knowledge-intensive services (KIS)

On the basis of NACE rev.1, the following sectors are defined by Eurostat as knowledge-intensive services:

61 Water transport

62 Air transport

64 Post and telecommunications

65 Financial intermediation, except insurance and pension funding

66 Insurance and pension funding, except compulsory social security

67 Activities auxiliary to financial intermediation

70 Real estate activities

71 Renting of machinery/equipment without operator and of personal and household goods

72 Computer and related activities

73 Research and development

74 Other business activities

80 Education

85 Health and social work

92 Recreational, cultural and sporting activities

Sectors 72, 73, 74, 80 and 85 are both high-education sectors and knowledge-intensive services.

About 50 million Europeans, i.e. a third of the European workforce, were employed in knowledge-intensive services in 2000, ranging from 19.7% in Portugal to 45.9% in Sweden (Chart 48). Employment growth in knowledge-intensive services between 1999 and 2000 amounted to 1.3 million jobs, almost half of the total employment growth in the EU.

48 Employment in knowledge-intensive sectors, 2000  
(share of total employment)



Source: Eurostat, LFS

that the employment dynamics in the high-education sectors contributes decisively to the overall employment dynamics of the European labour markets.

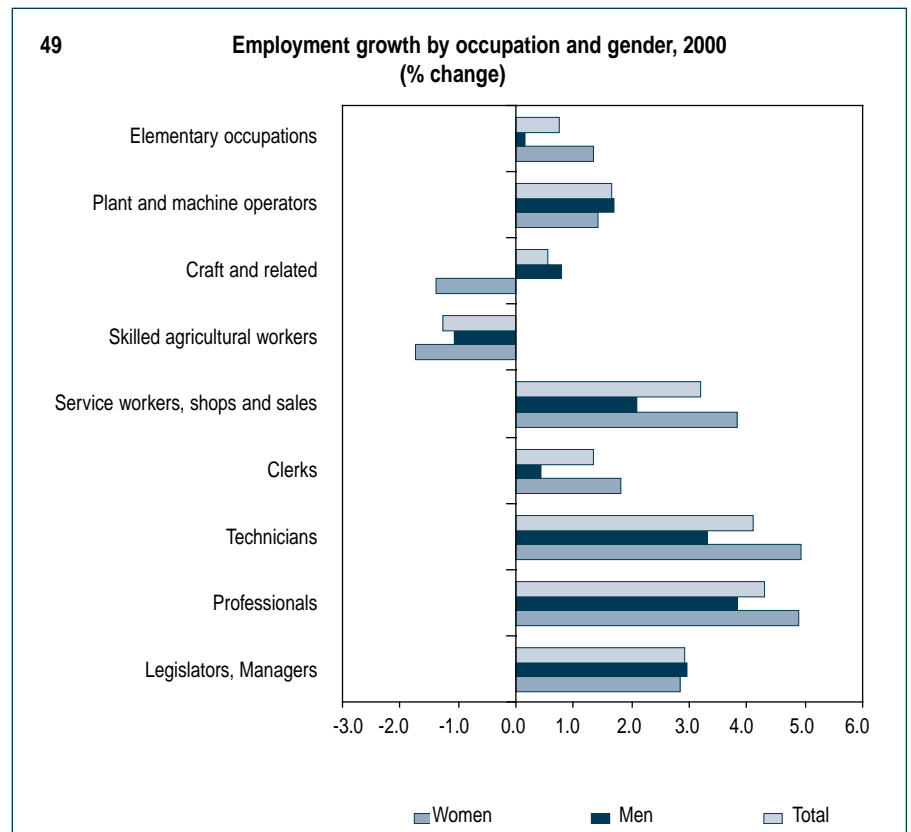
### Employment growth by occupation

In the period 1995-2000, more than 60% of all new jobs were created in high-skilled, non-manual occupations and 30% in low- and medium-skilled, non-manual occupations. The remaining 10% of new jobs were predominantly unskilled manual jobs. The occupational pattern of employment growth was similar between men and women (Chart 49), with the exception of craft and related occupations and elementary occupations, but differed dramatically across educational background.

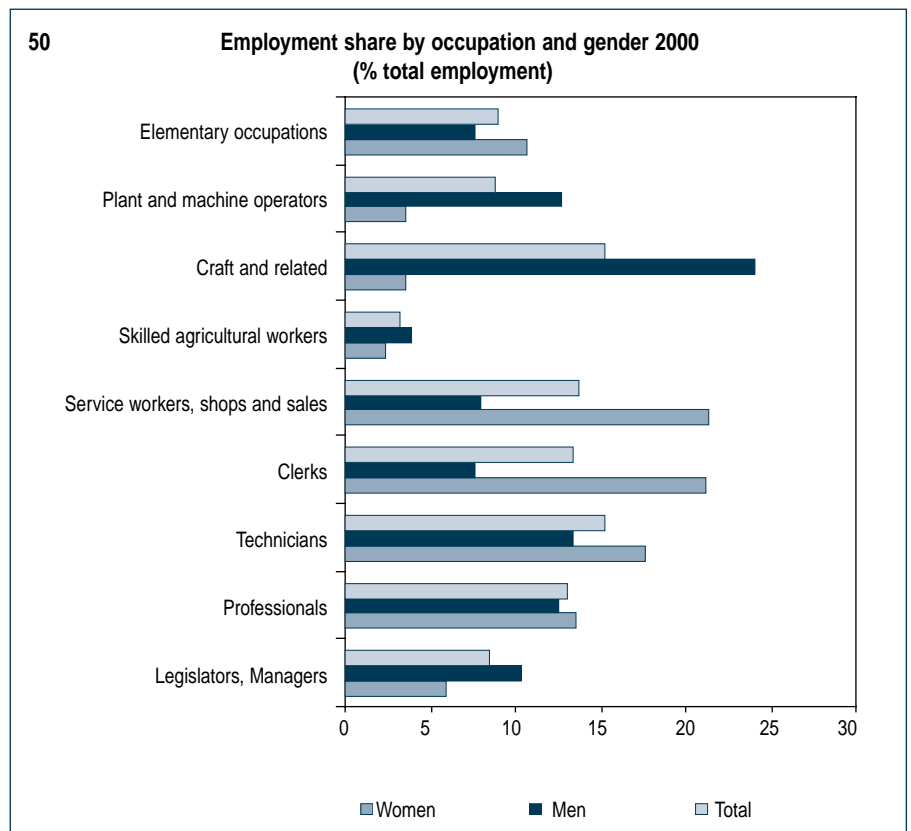
Female employment has risen, albeit from low levels, in elementary occupations, but decreased among craft workers. However, employment growth has been strongest for men and women in the same occupational categories, with employment growth for women generally being significantly stronger among professionals, technicians, sales workers and clerks than for men.

Occupational segregation by gender remained at high levels especially among sales workers and clerks on the one hand, and machine operators and craft workers on the other, with gender gaps in employment shares of 15% or more (Chart 50). In these occupations the traditional gender gaps are still widening.

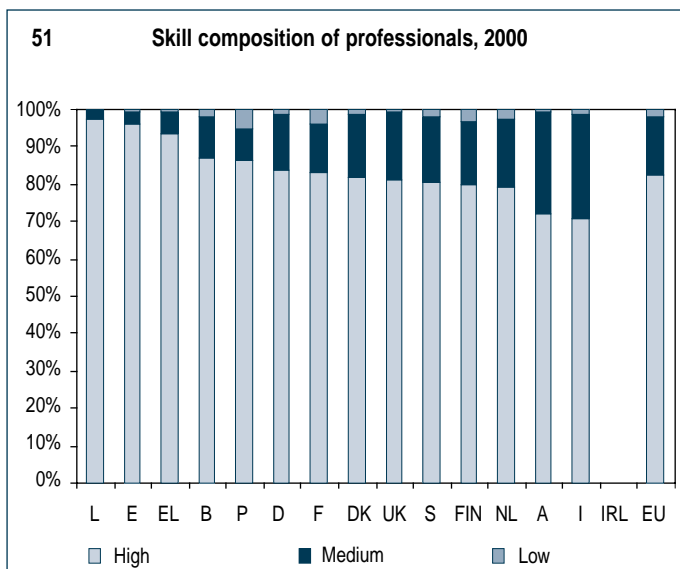
Occupational segregation by gender can also be observed among some of the fast growing high-skilled non-manual occupations. For example, in the case of men, the share of "managers, legislators and senior officials" is almost double (10.1%) that for women (5.8%). In this occupational category, net job creation has been stronger for men than for women, thus widening the occupational gender gap. As a consequence of the stronger employment growth for women, occupational segregation by gender, however, has continued to decrease in other occupational categories, especially among professionals.



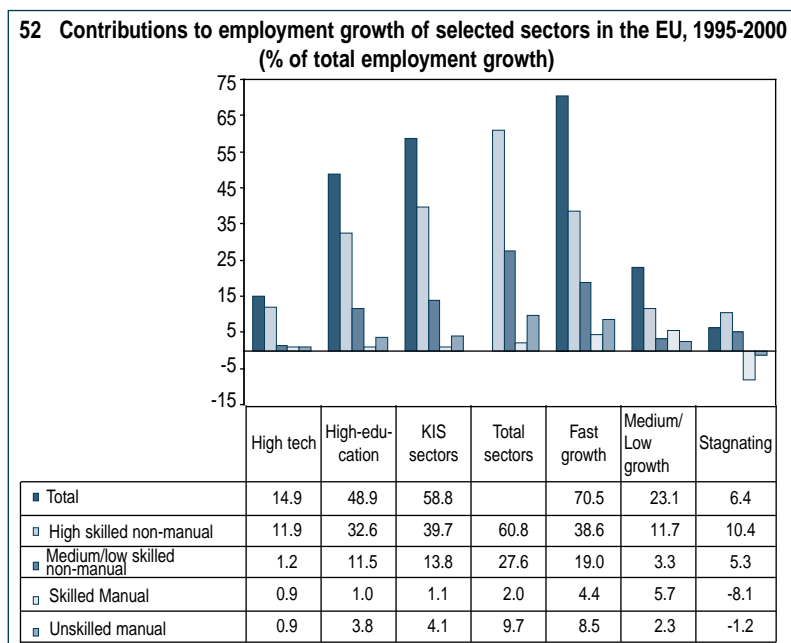
Source: Eurostat, LFS



Source: Eurostat, LFS



Source: Eurostat, LFS  
 Note: For Ireland, no data on educational attainment (ISCED) have been available in the LFS since 1997.



Source: Eurostat, LFS

With regards to educational attainment, not only were the majority of total net jobs created in the period 1995-2000 for high-skilled individuals, but also the share of high-skilled individuals entering into occupational categories with an already high concentration of highly educated workers, was generally above average rates (Chart 51). The fraction of high-skilled jobs among total jobs created within an occupation was highest among professionals – the occupational group with the highest share of highly educated persons employed. More than 80% of the new jobs created in this group in 2000 were taken up by high-skilled individuals. By comparison, at EU level, in 2000, 26.0% of all employed

had attained tertiary education, ranging from 11.6% in Portugal to 37.3% in Finland.

Shares of low-educated persons employed, on the other hand, amounted to 28.0% at EU level and ranged from 12.9% in the UK to 75.6% in Portugal. Employed people with low educational backgrounds were generally over-represented in agriculture, unskilled manual or elementary professions.

*Skill content of employment growth*

Employment growth in the period 1995-2000 has been strongest among high-skilled, non-manual occupations in high-tech and high-

education sectors of the economy. While non-manual, high-skilled occupations experienced high growth rates in all sectors of the economy, employment in low- and medium-skilled occupations only grew in fast growing sectors of the economy and actually stagnated or declined in other sectors. Employment creation for the high-skilled in the fast growing sectors of the economy also triggers employment creation for the low- and medium-skilled, most significantly in high-education sectors. These sectors contribute up to 40% of total net job creation for the low- and medium-skilled and to more than half of total net job creation for the high-skilled.

When dividing sectors in the economy into quartiles according to their overall employment growth over the period 1995-2000, it is clear that in sectors with low employment growth, non-manual high-skilled and low-skilled occupations are actually the only occupations with growing employment (Chart 52). Employment in manual and low- and medium-skilled occupations is actually stagnating or declining. Employment creation in the fastest growing sectors of the economy has contributed more than two thirds of total net job creation for both the high-skilled and the medium-skilled, while actually accounting for almost all of the total employment growth among the low-skilled. The decline in employment of skilled manual workers in the lower quartile may reflect job losses of skilled agricultural workers throughout the Union.

In 2000, high- and medium-skilled workers in high-tech sectors contributed to a net job creation of almost 1.8 million jobs. By contrast, employment of the low-skilled in both high-education sectors and in other sectors declined by more than 1 million jobs.

**Supply trends**

Technological innovations make some workers' skills obsolete. An increase in the relative supply of skilled workers may lead firms to adopt new technologies helping them to sustain higher productivity growth. This section analyses the evolution of labour supply looking at the gender, age and skill dimensions.



In recent years, employment performance was particularly good, but some problems still persist. Employment in the EU increased by 10 million over 1995-2000, two-thirds of which were accounted for by the increase in the labour force and a third by unemployment reduction. The rise in participation rates was mainly due to the strong increase in the female activity rates in all the age groups, while for men participation increased only modestly. The strong pick-up in female participation rates together with a stationary or falling male activity rates reduced the gender gap. Despite a reduction in the gender gap at EU level, substantial differences remain between countries. For young people, activity rates started to rise after 1997, indicative of a growing trend of combining part-time work and education together with increasing skill levels. These have increased across all age groups. Over the last five years there has been an increase in the skill content of the labour force.

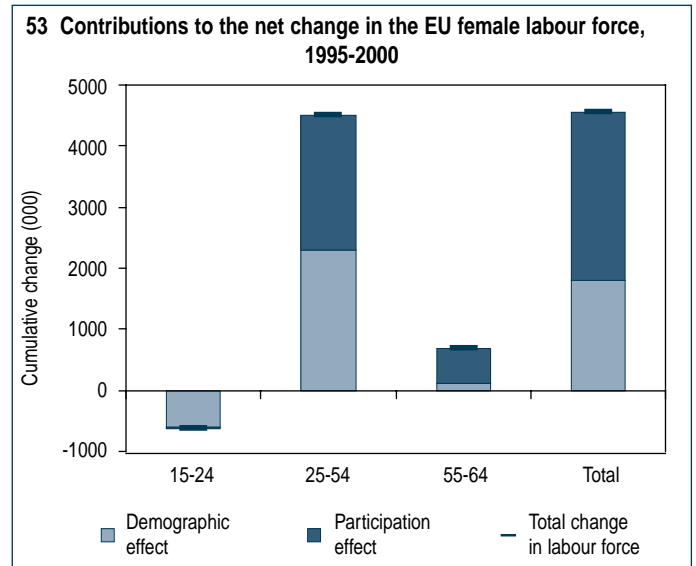
Activity rates have also increased for older workers in many Member States, although the momentum needs to be consolidated. In other Member States action should be taken if the EU is to reach its employment rate target of 50% for older men and women by 2010. This is particularly important in the light of rapid ageing. Migration to the EU has become the main component of population change but the working-age population is expected to fall in the coming years in a few countries, as Europe grows older. The up-skilling of the labour force together with increasing demand for skills in the knowledge economy will help alleviate the pressure of labour market adjustment of those in employment.

The European labour force grew by about 6.5 million between 1995-2000 accounting for two thirds of the strong increase in employment witnessed during the period. Simultaneously, unemployment dropped by some 3.5 million bringing the total increase in employment to almost 10 million.

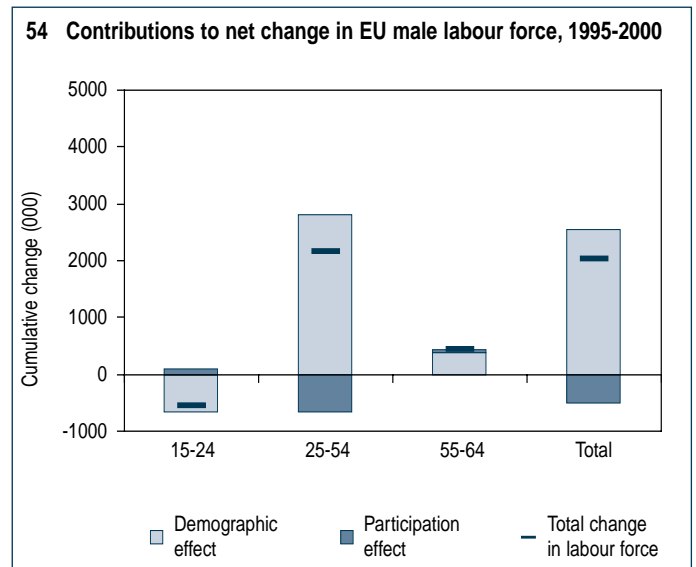
The contribution of lower unemployment to the increase in employment of about one third between 1995 and 2000 was significantly higher than during the expansionary period of the late 1980s. Particularly in 2000, more than half of net employment creation was due to the strong reduction in unemployment.

For each age group, the expansion of the labour force can further be broken down into two main components: the increase in activity rates (participation effect) and the increase in the population of each age group (demographic effect). The latter is the result of the net balance from migration and of the natural increase in the population (Charts 53 and 54).

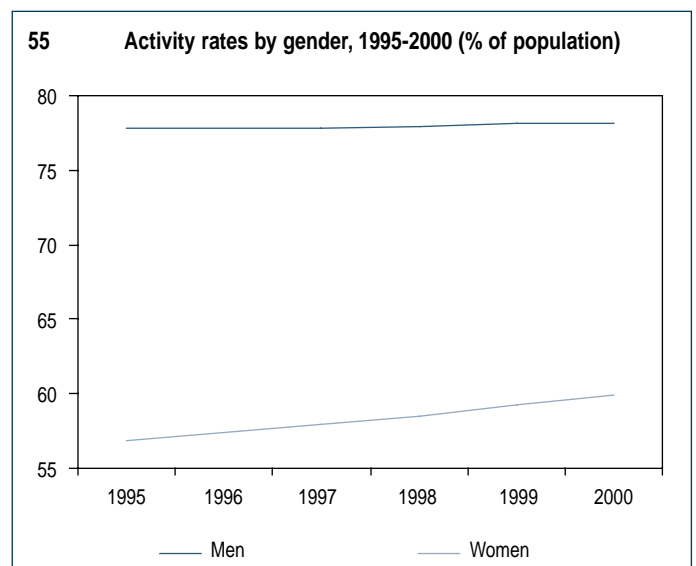
Over the period 1995-2000, the rapid growth in the EU labour force was mainly the result of very strong increases in the participation of women, particularly in the prime-age and older-age groups. Almost 2.8 million women have entered the labour force from inactivity since 1995 (Chart 53). This represents about 60% of the total net increase in the female labour force of 4.5 million between 1995 and 2000, with the remaining 40% due to a demographic push resulting from population ageing.



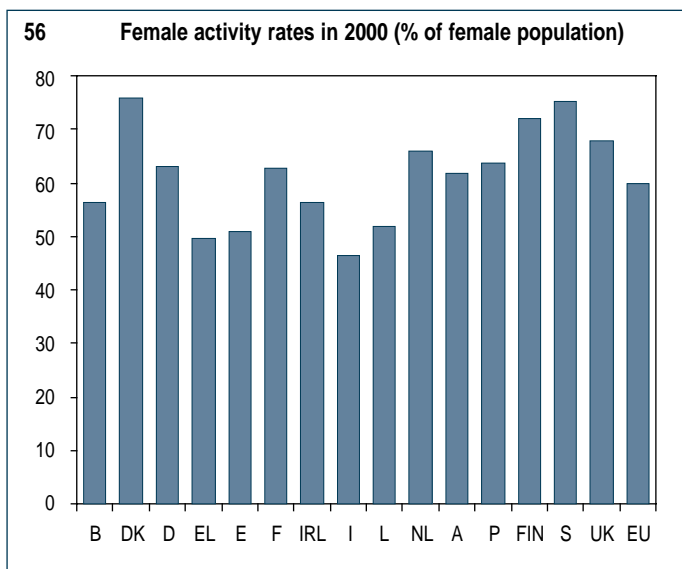
Source: Eurostat, LFS



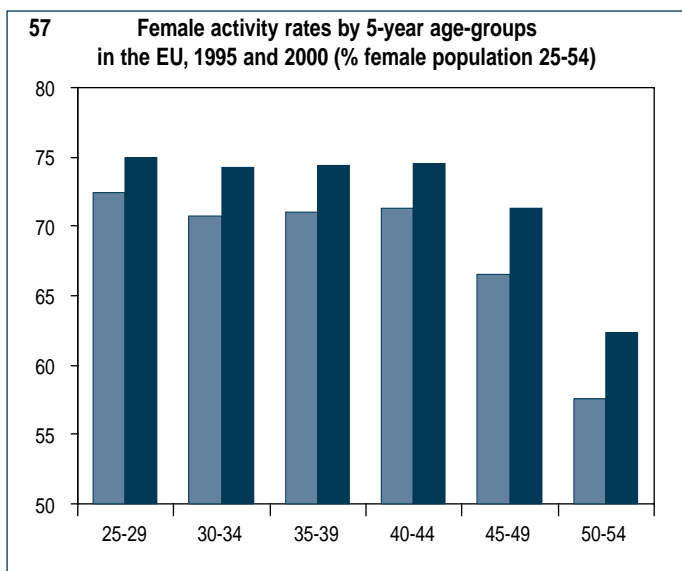
Source: Eurostat, LFS



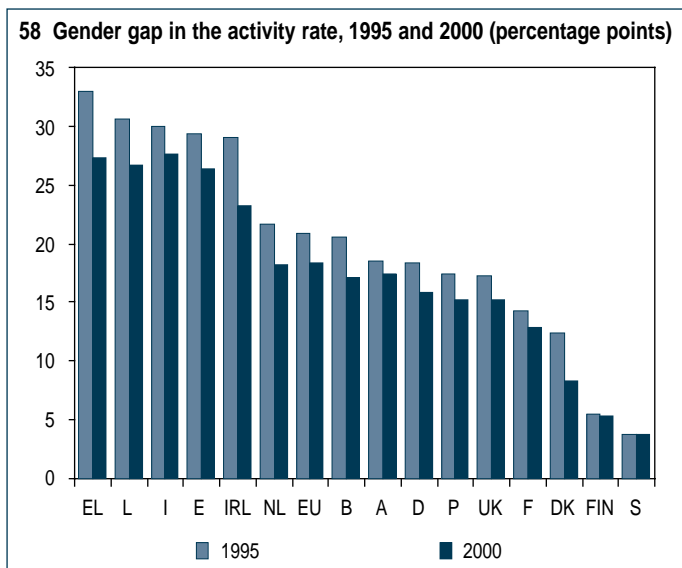
Source: Eurostat, QLFD



Source: Eurostat, QLFD



Source: Eurostat, LFS



Source: Eurostat, QLFD

For men, the increase in the labour force over 1995-2000 is fully accounted for by the demographic effects while the participation effect has actually been negative (Chart 54). Only the young and older age groups showed a slight increase in male participation during this period.

*Women account for most of the rise in participation rates*

Over the 1995-2000 period participation rates increased significantly, rising by almost 2 percentage points to the level of 69% in 2000. The bulk of this increase is accounted for by a very strong rise in the activity rate of about 3 percentage points to 59.9% for women (Chart 55). For men, there was a modest rise in activity rates of about 0.3 percentage point over the last five years, bringing the rate to 78.1% in 2000

For women, the largest increases occurred in the 25-54 prime-age group and then in the 55-64 age group. Participation rates for young women in the 15-24 grouping remained broadly the same in 2000 as in 1995. The participation rate of prime-age men, by contrast, remained basically unchanged over this period and the modest increase was fully accounted for by the young and older-age groups.

*Female participation*

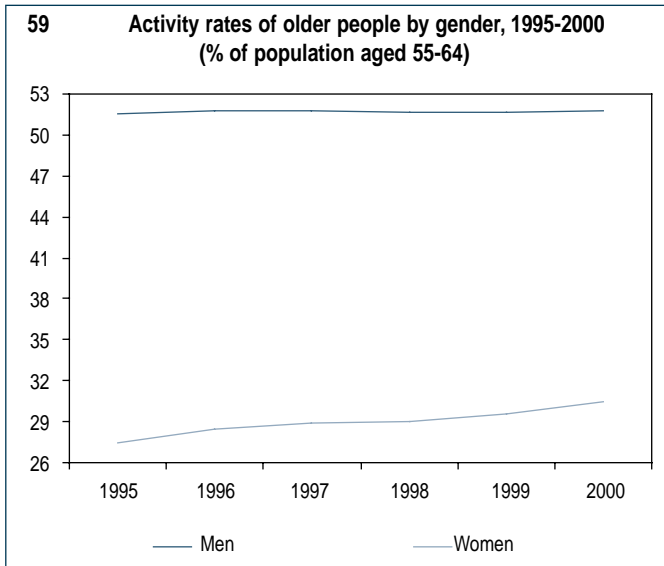
The large influx of new female entrants into the labour market has been one of the most significant developments in European labour supply during the last five years. Rapid increases in the female participation rate are a common feature across virtually all the Member States (except for Sweden). The Nordic countries, Denmark, Sweden and Finland, have the highest female participation rates in the EU, with about three quarters of all women active in the labour force (Chart 56).

The high female activity rates in the Nordic countries compare with much lower rates in Luxembourg and the southern Member States (Spain, Greece and Italy), where only every second woman is active. Nevertheless, significant progress has been made in these countries over the past five years, with female activity rates increasing between 4 percentage points in Italy and 5.6 percentage points in Spain.

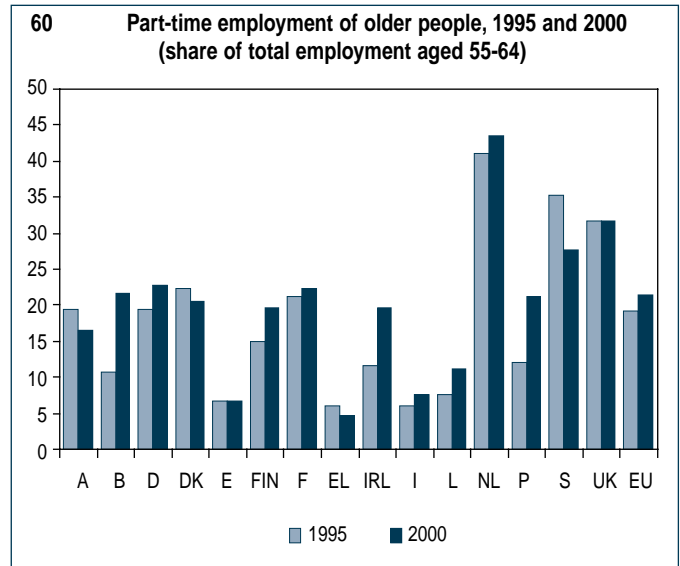
Female prime-age participation rates in the EU rose strongly in all age groups over the period 1995-2000. The biggest increases occurred in the 45-49 and 50-54 age groups, with increases of about 5 percentage points in each (Chart 57). Female participation rates in the other age groups rose by 2.5 to 3.5 percentage points (Chart 57). Male prime-age participation rates in the EU labour force stood at 92.7% in 2000, exhibiting relatively small variations across Member States – with a difference of less than 6 percentage points between Greece and France, on the one hand, and Sweden on the other.

The strong increases in female participation together with stationary or falling male activity rates in the prime-age group have led to a further reduction in the gender gap. Despite this movement, differences in overall participation between men and women remain





Source: Eurostat, QLFD



Source: Eurostat, QLFD

substantial in most of the southern Member States, Luxembourg and Ireland compared to the Nordic Member States (Chart 58).

The strong increase in female participation can be explained by a demand pull on the one hand, and an acceleration of the generational shift, on the other. This shift reflects changes in the female activity pattern, with successive generations of women showing markedly diverse levels of participation. Increasingly, young women do not leave the labour market when they get married or have children as they did in the past but remain in activity longer. This generational shift can be observed in all Member States but appears more evident in countries where female participation is relatively low.

On the other hand, it appears that the demand-pull resulting from a prolonged strong employment performance has benefited women more than men. This is due, firstly, to stronger employment growth in the female dominated service sector, and secondly, to an apparent stabilisation of the prime-age male activity rate.

Not only were women in a better position to benefit from their gender-specific employment distribution – their over-representation in service sector activities – but also higher female participation overall stimulates demand for a range of services previously supplied within

households by non-working women. Furthermore, the need for care provision, which becomes ever more important in the light of increasing female participation, and population ageing, which exerts further pressure on recreational activities and health care respectively, should also be put in the context of increasing demand for services.

These factors are not only changing labour supply but also the structure of production of the economy by increasing the demand for service activities. Arguably, they could have a major impact on the overall sectoral employment distribution.

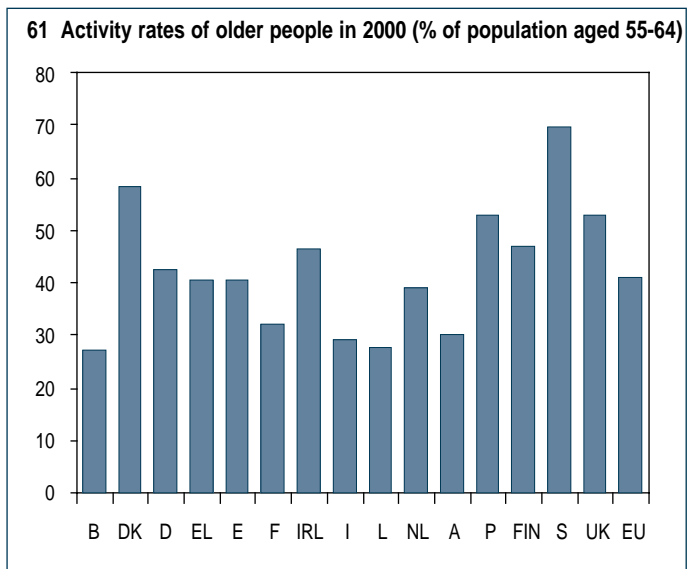
#### *Improving participation of older workers is a priority*

Another significant development of recent years has been the increased participation of older workers in the labour force (particularly for women). Encouraging the continuation of this trend will become increasingly important over the coming years as Europe's population becomes older, placing further pressure on social security systems. In addition, increasing participation among older workers is a condition for sustainable growth, as it will reduce the economic dependency of the non-employed on the employed population.

In 2000, the overall activity rate for older workers in the 55-64 age bracket, reached 40.8%. This represents an increase of 1.5 percentage points

compared to 1995. The bulk of this increase was borne by women – 2.8 percentage points (Chart 59). The participation rate for men was relatively stable during the same period at EU level, reflecting, partly, the fall in participation of older male-workers in Germany which was down more than 2 percentage points.

A possible explanation for the recent increase in activity rates of older workers in most Member States is a change in early retirement behaviour, reflecting increased life expectancy. In 2000, this had reached 81.1 years for women, up from 79.4 years in 1990. For men, estimates suggest that it rose from 72.8 years to 74.7 years during the decade. Another reason for deferring retirement could be that a higher proportion of older workers have succeeded in negotiating working arrangements that suit them better especially involving working fewer hours. Indeed, the proportion of part-timers among older workers has risen successively in the period 1995-2000 in all EU Member States except Austria, Denmark, Greece and Sweden, where part-time work appears to have fallen (Chart 60).



Source: Eurostat, QLFD

At the Member State level, there are striking differences in the rate of participation among older workers, ranging from 69.4% in Sweden to just 27.2% in Belgium (Chart 61). Between the top and bottom levels, current activity for older workers is very low in Austria, France, Italy and Luxembourg (28% to 32%). In the Netherlands, Germany, Spain, Greece, Finland and Ireland between 39% and 47% of older workers are participating in the labour force. Finally, participation is relatively high in the UK, Portugal and Denmark, with rates ranging from 53% to 58%. Female participation rates of older workers are especially low in Italy, Austria, Luxembourg and Belgium, all of which had activity rates for older women of below 20% in 2000.

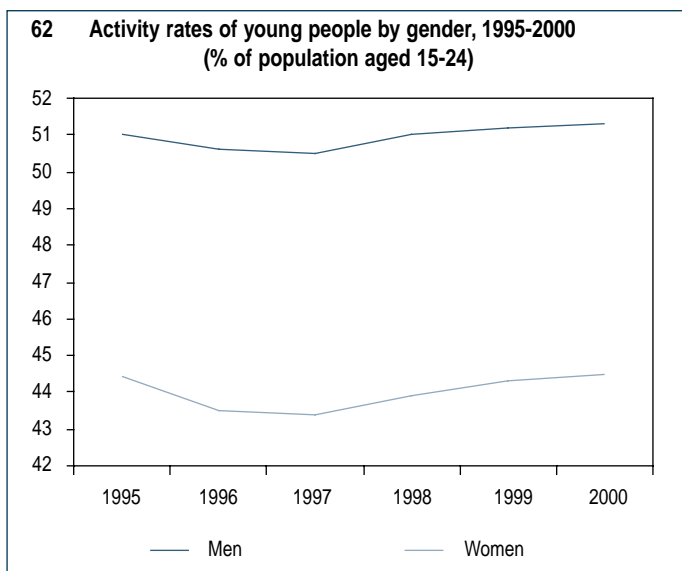
*Younger workers more likely to combine work and education*

From 1997 onwards, the EU-level activity rate for young workers began to rise after several years of decline in the 1990s (Chart 62).

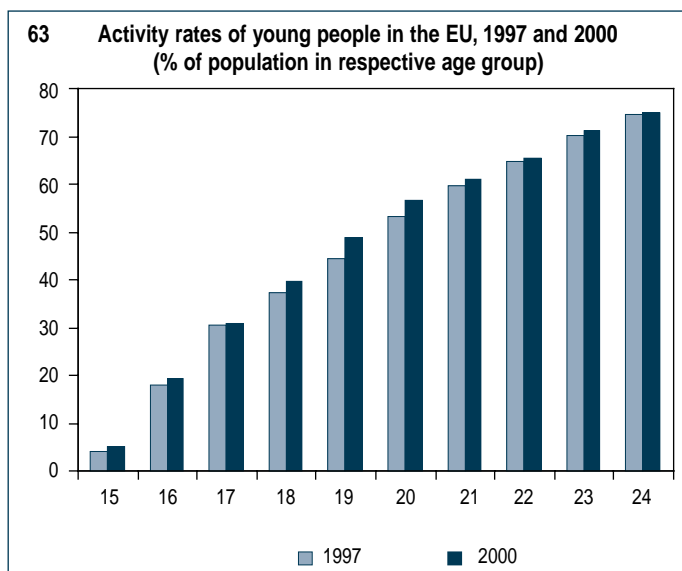
An increase occurred for each of the individual ages in the 15-24 bracket and was particularly significant for those aged 18, 19 and 20. In these age groups, participation rates increased by more than 3 percentage points on average over the period 1995 to 2000 (Chart 63).

There are two possible explanations for this recovery. Firstly, young people could be leaving education earlier because of good employment prospects resulting from the sustained EU economic expansion. Secondly, there could be an increase in the proportion of those who, while not leaving education earlier, choose to combine studying with some kind of part-time work. The latter would result in a lengthening of the time taken to complete education if part-time studying has gained importance over full-time education.

The share of young people who have completed tertiary education (categorised as "high-skilled") has increased over time (Chart 64). Simultaneously the number of those in the labour force considered to be low-skilled (that is those with less than upper secondary education) appears to be falling. On average, young Europeans do not drop out earlier from education despite the favourable employment prospects.



Source: Eurostat, QLFD



Source: Eurostat, QLFD

On the other hand, the share of young people with a part-time job increased markedly over the 1995-2000 period (Chart 65). In 1995, part-timers accounted for 18.8% of the employed population aged 15-24. Preliminary estimates suggest this share has risen by almost 4 percentage points to about 23% in 2000. In addition, some 48% of young workers in 1995 said the main reason for being in part-time rather than full-time employment was because of continuing participation in school education or training. This proportion of part-timers had risen to about 61% in the EU as a whole by 2000, suggesting that good employment prospects have resulted in more young people joining the labour force without necessarily dropping out of education.

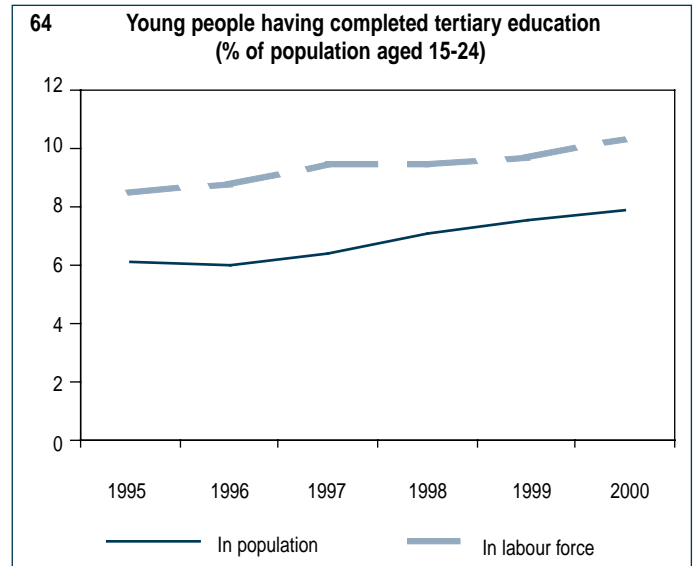
This pattern of combining part-time work with further education appears to be a common feature across most of the EU except Finland, France and Sweden, where the share of young people in part-time work seems to have fallen over the period under review. While this pattern is not new in Member States like the Netherlands, Denmark and Sweden, part-time work among the young is becoming increasingly important in others such as Spain, Italy and Belgium.

In some countries young people are more inclined to combine part-time work with studies than in others. At the Member State level, Belgium, France, Greece, Italy and Luxembourg had participation rates of young workers of less than 40% in 2000. By contrast, rates in the Netherlands or Denmark were above 70% (Chart 66). As shown by the simultaneous increase in both the level of educational attainment and the participation of young people in the labour force in several Member States, increases in part-time work among the young do not necessarily conflict with increasing schooling levels.

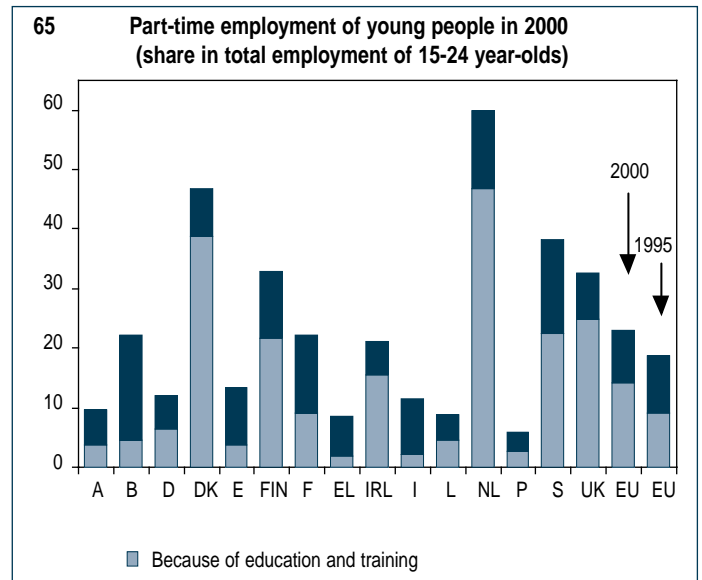
### *New entrants are better qualified than ever*

The goal set out at the Lisbon Council is based on a strategy that put people at the centre of the Union's policies. Investing in people is up on the policy agenda both for the achievement of a knowledge-based economy and for ensuring that the low-skilled do not fall into an unemployment trap.

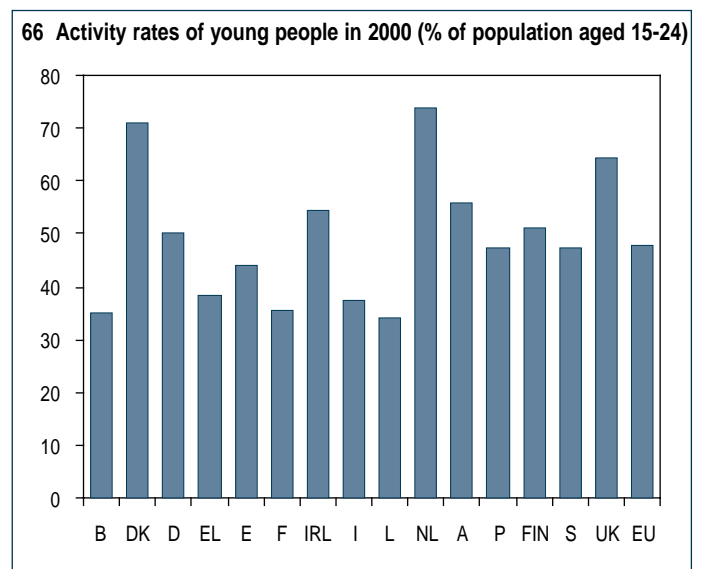
As with age- and gender-specific patterns of activity, the structure and developments in participation across different groups of individuals also vary by educational attainment and skills. The most important development is the continued increase in the skill level of the labour force, generally referred to as "upskilling".



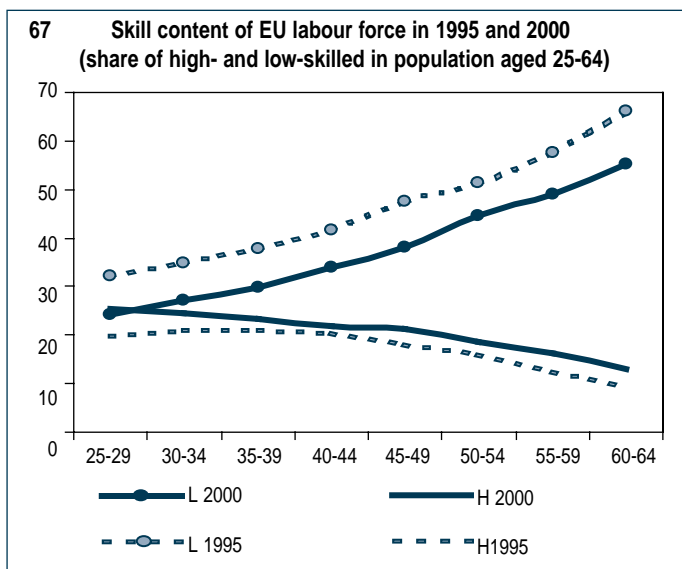
Source: Eurostat, QLFD



Source: Eurostat, QLFD

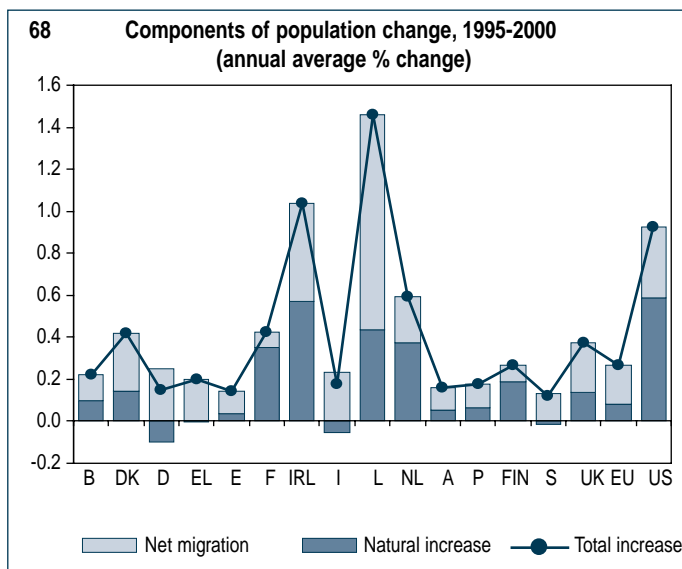


Source: Eurostat, QLFD



Source: Eurostat, QLFD

In 1995, about 36% of the labour force had completed lower secondary education or less and were, therefore, considered low-skilled. By 2000, the proportion of low-skilled people in the labour force had fallen by about 7 percentage points to 29%. By contrast, the proportion of medium-skilled workers, those who have completed upper secondary education, grew by 5 percentage points in the same five-year period. There was also a 4 percentage point increase in the share of actives who had completed tertiary education – the "high-skilled" – in 2000 than five years before. The increase in the skill content of the labour force over the period 1995 to 2000 appears to be more pronounced for women than for men. Furthermore, not only is the share of low-skilled women in the labour force lower than that of low-skilled men, but also the share of high-skilled women is higher than that of high-skilled men. The highest levels of tertiary and upper secondary education in the labour force at the EU level are found in the 25-29 age group (Chart 67). Average skill levels decline with age and illiteracy is less common in younger generations. Furthermore, the proportion of high-skilled was lower and that of low-skilled higher in 1995 than in 2000 for all age groups.



Source: Eurostat, QLFD

*Demographic patterns: migration, mobility, and population ageing*

The Stockholm Council has stressed the importance of policies aimed at reducing barriers to mobility across Member States in order to create new European labour markets open to all and to promote the acquisition of skills by European workers.

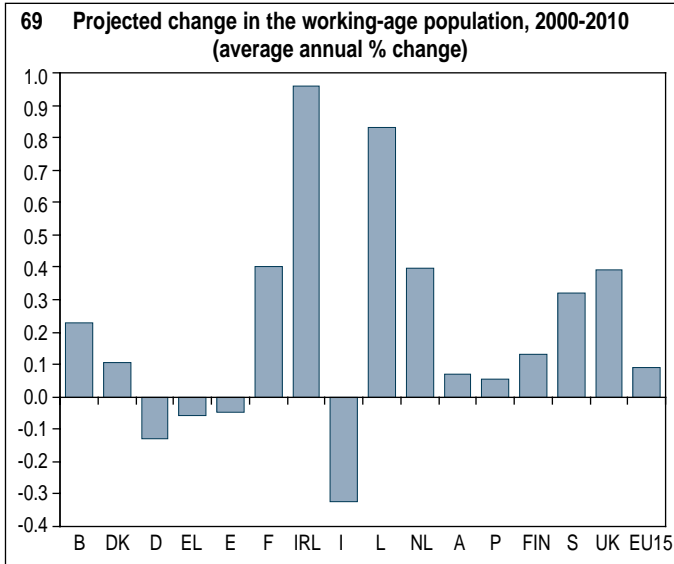
The main component of population change in the EU economies during the 1995-2000 period was positive net migration which boosted the population of the Union by 0.2% per year. It has contributed significantly to the increase in labour supply, although to a lesser extent than the increase in female participation. Germany, Italy and Sweden have actually witnessed an average, natural decrease in their populations that was more than offset by positive net migration. With the exception of France, Ireland, Finland and the Netherlands, the effect of positive net migration on population growth has been stronger than that of the natural increase in the population in all EU Member States (Chart 68).

	Total immigration	% of working-age population	From another EU country % of total	From outside the EU % of total
A	72723	1.4%	35.0%	65.0%
B	68466	1.0%	56.5%	43.5%
D	874023	1.6%	38.4%	61.6%
DK	51372	1.5%	59.4%	40.6%
E	81227	0.3%	56.9%	43.1%
FIN	14744	0.4%	56.5%	43.5%
F	100014	0.3%	6.1%	93.9%
EL	12630	0.2%	77.1%	22.9%
IRL	40711	1.6%	83.0%	17.0%
I (1996)	171967	0.4%	22.1%	77.9%
L	12794	4.5%	72.1%	27.9%
NL	119151	1.1%	51.4%	48.6%
P	14476	0.2%	31.6%	68.4%
S	49839	0.9%	48.4%	51.6%
UK	354077	0.9%	50.1%	49.9%
EU-15	2038214	0.8%	41.3%	58.7%

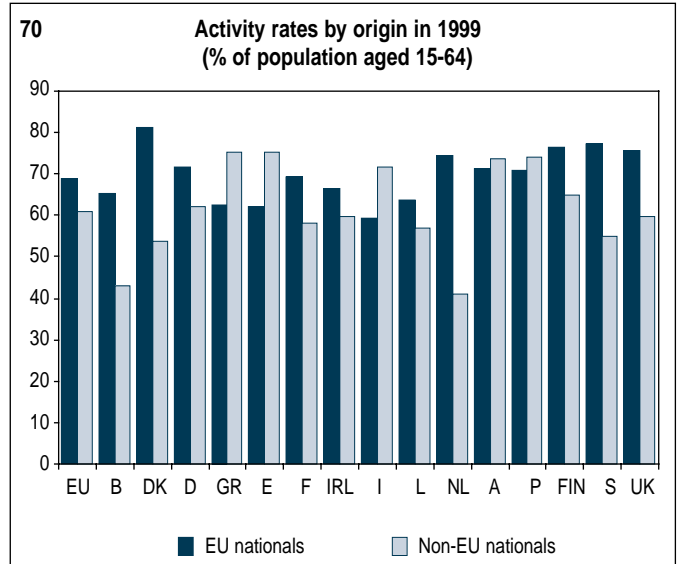
Source: Eurostat

Both immigration to Europe and geographical mobility within the EU, remain relatively low compared to the US<sup>1</sup>. On the basis of the latest available comparable data, immigration flows to the EU are estimated at 2 million (Table 5) of which 40% are EU citizens either moving from another EU Member State or nationals returning to their home countries. The remaining 60% are made up of people from outside the EU. The total inflow represents 0.8% of the current EU working-age population (0.5% of the total population). About 1.2 million of the total inflow to the EU were non-EU nationals. This compares with about 1.4 million people who entered the United States from abroad in 1999 (0.8% of their working-age population, or 0.5% of their total population).

<sup>1</sup>There is some recent evidence, however, that the contribution of work-related mobility to total mobility in the US could be overstated. See "An Overview of Labour Mobility in the United States; F. W. Horvath, Jr. Office of Employment and Unemployment Statistics. US Bureau of Labor Statistics.



Source: Eurostat, QLFD



Source: Eurostat, QLFD

About 6.7 million people per year crossed state borders in the US during the 1990s, equivalent to just above 2.5% of the total population. Mobility in the US is lower today than it was 10 years ago, however, largely due to the ageing of the population. In the EU, despite a far more rapidly ageing population, data suggest a slight increase in cross-border mobility within the EU over the past five years in most Member States. Thus, although they remain low, intra-EU migratory inflows have been rising in a number of Member States in the past few years, with the notable exception of Germany. The size of the slowdown in immigration to Germany from other EU countries, due to the strong demand for labour in many Member States and a relatively lower employment growth in Germany, resulted in static cross-border mobility at the aggregate EU level.

Some of the reasons for the observed increase can be attributed to social and demographic change and the processes of European integration, on the one hand, and to an increase in the skill content of the labour force and a change in the sectoral composition of employment towards the services sector, on the other.

Not only is net inward migration to the EU relatively less important than in the US, but the natural increase in the total population is also significantly lower in the EU. Immigration to European countries will become increasingly important to offset the reduction in the work-

ing-age population, at least partially. Despite the positive effects of immigration, the working-age population is expected to decline in some Member States (Germany, Greece, Spain, Italy) and to grow at much lower rates than before in others (Chart 69). There are some signs of a recovery in fertility rates. However, the impact of this will only be felt in the long term.

#### *Participation of non-EU nationals*

The participation rate among the approximately 8.7 million non-EU nationals aged 15-64 resident in the EU stands at 60.8% and is, therefore, significantly lower than among EU-nationals (69%) in all Member States except Spain, Greece and Italy (Chart 70). Citizens from the 10 Central and Eastern European candidate countries (CEECs) account for 5% of the population of non-EU nationals in the EU. Two thirds of these are resident in Germany and Austria, which have participation rates for non-EU nationals comparable to those for EU-nationals.

#### *Prospective patterns in labour supply*

The number of employees leaving the labour force through retirement will increase markedly over the coming years as a result of the ageing of the European population. The proportion of those aged 55-64 in the total working-age population is forecast to rise from 16.5% in 2000 to

19% in 2010, an increase of around 1.3% a year. The ratio of those aged 65 and above to those of working age in the population will increase significantly between 2000 and 2010 from about 26% to 29%, thus further increasing the burden on public pension systems. The level of labour market participation of those aged 65 and above remains one of the main differences between the US and the EU: individuals aged 65 and over account for only 3% of the overall labour force in the EU compared to almost 12% in the US.

The rapid ageing of the EU population results in a continuous change in the balance between those in employment, compared to those not in employment. Population ageing is indeed increasing the ratio of the non-working to working in the population, as a result of which economic dependency is further increased. Future developments will be largely determined by the success or otherwise of economic and labour-market policies in raising the employment rate across all age groups. If these policies are successful they will help to offset the "automatic" increase in dependency resulting from demographic change.

A simple model shows that to achieve the 70% employment target in 2010, as agreed in the Lisbon European Council, with sustainable economic growth of 3% of GDP, an annual employment growth of about 1.1% EU-wide would be enough to compensate for the effects of demo-



graphic ageing. This would equate to an increase of about 7 percentage points in the employment rate or the creation of about 17.3 million jobs between 2000 and 2010. Both reductions in unemployment and increases in labour force participation would inevitably accompany employment growth on the scale envisaged. The continuation of accompanying structural reforms will be vital to guarantee the necessary increases in participation.

Structural reforms aimed at keeping older workers in the labour force longer will be particularly crucial if an increase in the employment rate from the current level of 37.7% to

50% in 2010, as agreed at the Stockholm Council, is to be achieved. Increasing participation for older workers (the 55-64 age group) means keeping today's middle-aged workers (45-54) in the labour force longer over the next 10 years (Chart 71).

Activity developments for older workers over the last five years are particularly worrying in a few countries where current participation is particularly low, such as Italy, Austria, Belgium and France. In the latter two, however, over the last few years there has been some improvement. In Germany, which has a comparatively high participation

rate compared to the aforementioned countries, a steady fall in the activity rate of older workers is underway (Chart 72).

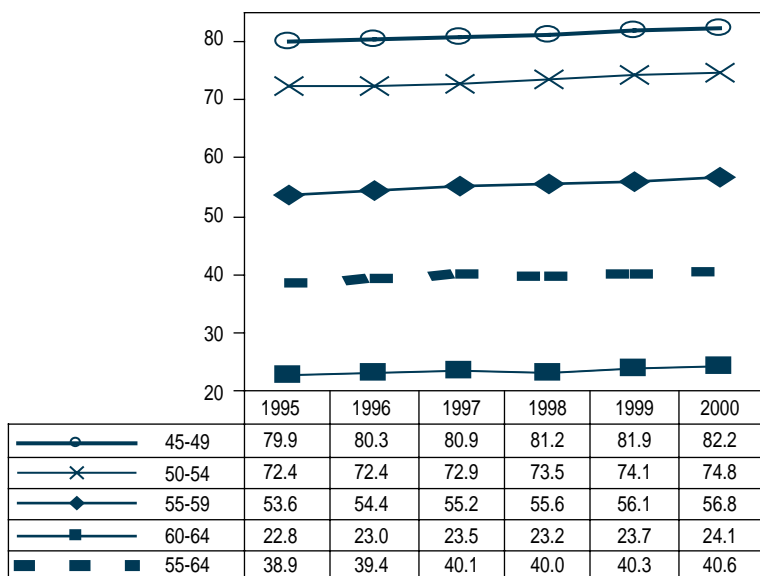
As already mentioned, very large increases in activity for older workers will be required in some Member States to achieve not only the 50% employment rate target, but also to address mounting concerns about the future of public pensions systems. Significant improvement in major Member States where rates are currently very low is a condition for achieving the older workers' EU target. For women this would imply a moderate acceleration of an existing trend. For men, however, the observed recent changes reversing a long-term fall in employment for older workers must be maintained and consolidated.

*Concluding remarks*

Over the past five years, demographic change and up-skilling have emerged as among the most significant developments in the labour market. It is clear that the ageing of the EU's population will lead to a marked increase in the numbers leaving the labour force in the coming years. Consolidating the current upward-trend in participation rates for older workers, therefore, must be a particular priority for the Member States over the next years. Furthermore, since the in-flow of new entrants into the labour force is declining, a higher premium on flexibility and adaptability will be placed on those already in employment.

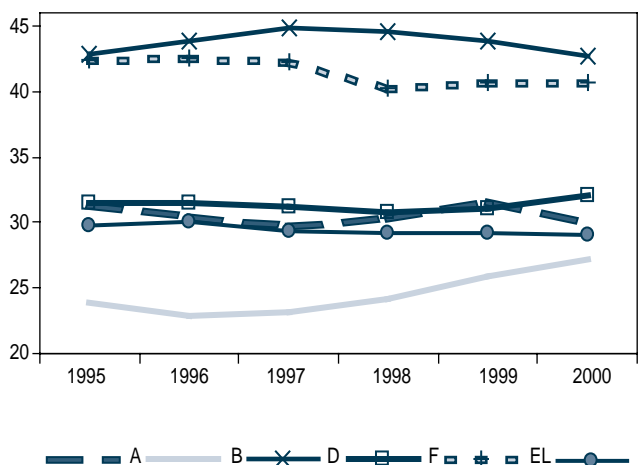
If the EU can build on the current encouraging trend and continue to increase the skills and educational levels of the labour force, it will be better placed to handle these labour market adjustments. In 1995, 54% of the population equivalent to 62% of the labour force, had at least upper-secondary educational attainment levels; by 2000, the share had risen to 62% of the population, or almost 70% of the labour force. This is mainly the result of younger generations joining the labour force having completed tertiary education. However, it is important to bear in mind that an important fraction of the younger age group still only possess lower secondary education and, in addition, are no longer

71 Activity rates of 45-64 year olds in the EU, 1995-2000 (% of working age population)



Source: Eurostat, QLFD

72 Activity rates of older people in selected Member States 1995-2000 (% of population aged 55-64)



Source: Eurostat, QLFD

in either education or in training. Although "drop-out" rates have fallen significantly in a number of Member States, they still represent about 18% of the EU's population aged 18-24. Similarly, while the share of low-skilled in the 25-29 age group has fallen significantly over the last five years, almost a quarter have not completed upper secondary education (Chart 73).

The improvement in skills observable on the supply side coincides with strong and growing demand for higher skills in the knowledge economy. It remains to be seen how well these trends match and how the economy in general, and firms and employees in particular, can benefit from this potentially virtuous circle.

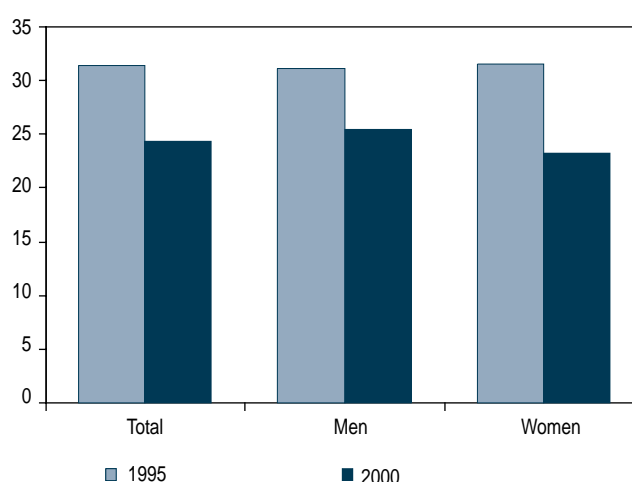
### Labour market mismatches: unemployment, labour shortages, skills deficiencies, and the role of labour mobility

With the shift towards a knowledge-based economy skill deficiencies and labour shortages may emerge if the existing barriers reduce the mobility of workers. The Stockholm Council has thus set out the need for policies that break down such barriers.

As shown in the previous sections a general up-skilling of the European labour force is going hand-in-hand with a strong concentration of job creation in high-tech and knowledge-intensive sectors and in professions which require relatively high levels of both formal education and informal, general and specific skills, particularly ICT skills. Improving basic skills such as ICT skills is clearly a top priority for the EU if it is to become the most competitive and knowledge-based economy in the world.

It is debatable whether the diverging tendencies in employment performance between the group of relatively low-skilled individuals on the one hand, and the high-skilled on the other, are symptomatic of demand-driven, skill-biased technological progress or more supply-driven skill-technology complementarities that make use efficiently of the recent dramatic general up-skilling of Europe's workforce. This ongoing debate notwithstanding, questions regarding labour shortages and skills deficiencies have recently

73 Low-skilled young Europeans 1995-2000 (share of young people with secondary education or less in total population 25-29)



Source: Eurostat, LFS

gained momentum. This suggests that both exist despite the high unemployment levels that remain and that such labour market mismatches may seriously limit Europe's capacity for further growth. This section looks at labour market mismatches in the EU.

### The skill composition of unemployment

Structural changes in labour demand towards higher skill and education jobs in services are also reflected in the sectoral, occupational and skill composition of the pool of the unemployed.

With regard to the sectoral composi-

tion of unemployed people's previous jobs, there is a relatively high share who were previously employed in industry, suggesting that the likelihood of becoming unemployed remains higher in the industrial sector (Table 6). The share of the employed in the industrial sector among all employed amounts to less than 30% compared to a share of 35% of the unemployed who previously worked in this sector (Table 7). For the service sector, the opposite relationship holds with more than 65% of all those employed working in this sector as opposed to 60% of the unemployed who were employed in this sector before becoming unemployed. Besides differences in the

### 6 Unemployed by sector of previous employment 1999

(share of all unemployed who one year ago where employed)

	Agriculture	Industry	Services
A			
B	0.4	35	64.6
D	4.1	41.6	54.3
DK	6.4	37.1	56.4
E	7.2	32.7	60.1
FIN	3.0	27.4	69.5
F	2.5	27.2	70.4
EL	2.8	39.1	58.1
IRL			
I	9.4	38	52.6
L			
NL	3.5	21.9	74.6
P	6.7	44.9	48.4
S	1.4	26.4	72.2
UK	1.5	32.9	65.7
EUR	4.5	34.5	60.9

Source: Eurostat, LFS

### 7 Employed by broad sectors of economic activity 1999

(share of total employment)

	Agriculture	Industry	Services
A			
B	2.5	26.2	71.3
D	2.9	34.7	62.4
DK	3.5	27.5	69.0
E	7.7	30.1	62.2
FIN	6.6	28.3	65.0
F	4.3	26.8	68.9
EL	17.6	23	59.4
IRL			
I	5.2	32.5	62.3
L			
NL	3.2	23	73.8
P	13.3	35.5	51.2
S	3.6	25.2	71.3
UK	1.7	26.9	71.4
EUR	4.5	29.8	65.6

Source: Eurostat, LFS

8 Growth in the number of vacancies by countries and comparable sectors					
	Agri	Industry	Construction	Services	Total
A	●	↑	na	↑	↑
D	na	●	●	↑	↑
DK	●	↓	↓	↓	↓
E	↑	↑	↑	↑	↑
FIN	●	↑	●	↑	↑
F	●	●	●	●	●
IRL	↑	↑	↑	↑	↑
I	na	na	na	na	na
NL	●	↑	↑	↑	↑
S	↑	↑	↑	↑	↑
UK	na	na	na	na	↑

National sources, sectors compiled by DG employment and social affairs  
 ● Vacancies remains stable      ↓ Decrease in vacancies  
 ↑ Increase in vacancies              na Not applicable or no data

likelihood of displacement across sectors of employment, these figures also reflect differences in turnover rates and differences in job finding probabilities across sectors.

Country-specific data suggest, though, that there are big differences between Member States in inflows into unemployment and the sectoral origin of the unemployed. Higher rates of unemployment originating from the service sector in France, the Netherlands, Finland and Sweden, for example, are likely to reflect stronger fluctuations in the labour force due to higher degrees of temporary contracts in the service sectors of these countries. By contrast, Germany and Portugal display a very high share of unemployed who last worked in the industrial sector indicating ongoing restructuring of these economies towards employment structures more appropriate to new economies in general and higher employment shares in the service sector in particular. In Italy, a surprisingly high share (10%) of the unemployed worked in the agricultural sector one year ago.

Finally, as far as skill level is concerned, high-skilled individuals are the least likely to be unemployed in Europe (Chart 74), while more than 40% of the unemployed are individuals with a low educational attainment level. Almost 7 million Europeans with low education levels were unemployed in 2000.

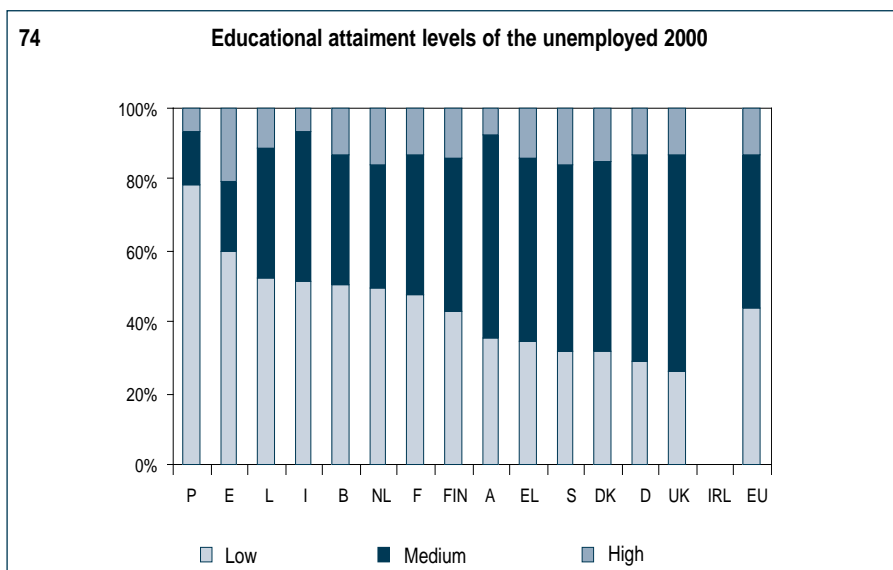
The fraction of the unemployed having high educational attainment varies between 5% in Austria and more than 20% in Spain. In the three Scandinavian Member States, Austria, Greece, the UK and Ireland, the highest fraction of the unemployed is made up of individuals with intermediate educational attainment levels.

*Types of labour market mismatches*

Drawing on previous work by the UK National Skills Task Force, one can distinguish between three different types of labour market mismatch. First, there are labour shortages, which are indicative of a general excess of demand over supply in the economy. Secondly, there are skills mismatches, which are

9 Growth in the number of vacancies by countries and comparable occupations					
	Technicians	Informaticians	Manufacturing	Health	Total
A	↑	na	↑	↓	↑
D	↑	na	↑	↓	↑
DK	na	na	●	↓	↓
E	na	na	na	na	↑
FIN	↑	na	↑	↑	↑
F	●	●	●	●	●
IRL	na	na	na	na	↑
I	na	na	na	na	na
NL	↑	na	↑	na	↑
S	↑	↑	↑	↑	↑
UK	na	na	na	na	↑

National sources, sectors compiled by DG employment and social affairs  
 ● Vacancies remains stable      ↓ Decrease in vacancies  
 ↑ Increase in vacancies              na Not applicable or no data



Source: Eurostat, LFS  
 Note: For Ireland, no data on educational attainment (ISCED) have been available in the LFS since 1997.



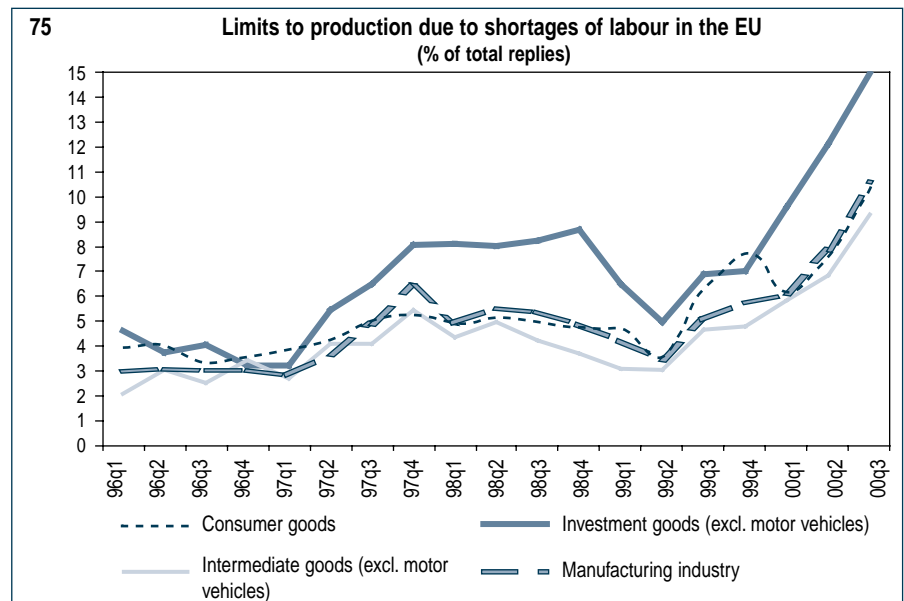
defined as inadequate skill levels of the labour force to meet the skill requirements of available jobs. Finally, skill gaps are defined as insufficient or obsolete skills of the existing workforce. All three notions of labour market mismatches have to be understood as relative to both prevailing wage levels and the current provision of education and further training by the respective state as well as by employers.

Clearly, these three types of labour market mismatches display different symptoms and require different policy responses. The achievement of pan-European labour markets by breaking down the existing barriers to mobility will reduce the emergence of such mismatches. True labour shortages would lead to an overall rise in wages and inflation, while skill deficiencies would be reflected in significant sectoral or regional wage increases. True labour shortages call for increases in participation to activate additional labour supply or increased regional mobility and migration. Skill mismatches, call for long-term structural adjustments in the labour market through appropriate education, continuous training, and life-long learning to provide those skills that are in demand and allow occupational mobility and general adaptability of the workforce. They can sometimes be mitigated in the short run by regional mobility and migration.

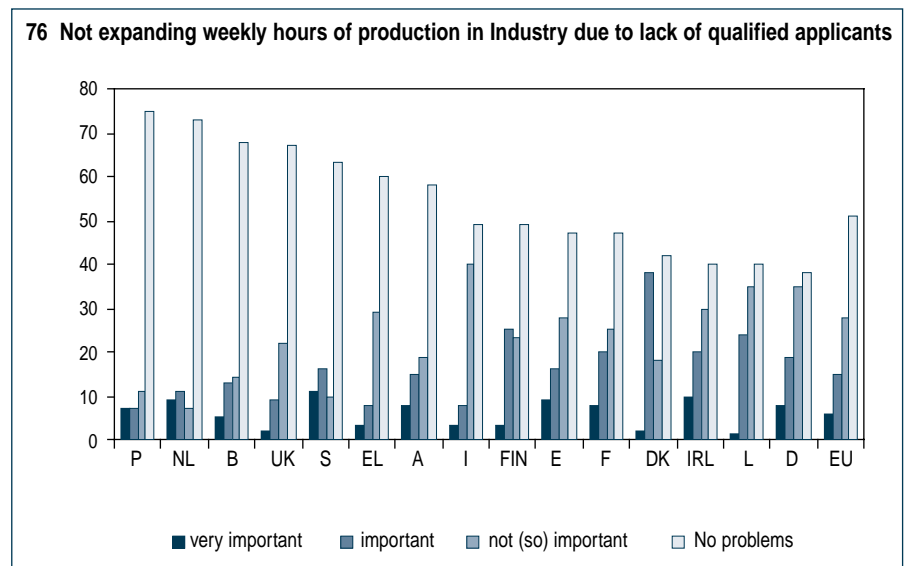
To investigate labour market mismatches, there are three main sources of information to examine: register-based national vacancy statistics; specific enterprise surveys; and wage statistics. The evidence on employment trends across sectors and occupations provided in the previous section should further help to interpret the findings.

#### *Evidence from register-based national vacancy data*

National vacancy data are available for 11 Member States, although at different levels of disaggregation. The table above presents the recent evolution of national statistics on vacancies by sector of employment.



Source: Commission Services, Joint Harmonised Programme of Business and Consumer Surveys



Source: Commission Services, Joint Harmonised Programme of Business and Consumer Surveys

In most countries, with the exception of Denmark, the number of vacancies is actually increasing, especially in the service sector, allowing the tentative conclusion that labour markets are becoming tighter despite parallel increases in overall labour market participation (Table 8).

Such labour market tightening based on evidence from national vacancy statistics appears to apply to all sectors of the economy in the Netherlands, Sweden, Ireland and Spain. Together with the overall evolution of unemployment rates in these countries, national vacancy data thus provide some evidence of

general labour shortages in the Netherlands and Ireland, while Spain and, to a lower degree, Sweden seem to suffer from skills mismatches related to some sectors.

When looking at national vacancy statistics by occupational category (table 9), increases in the number of vacancies are observed especially for technicians and occupations relating to manufacturing. Increased labour demand can be observed in the health care sector, particularly in the Nordic countries. There is a marked increase in vacancies in ICT-related occupations which have led some countries including Germany to set up ad hoc initiatives to

<sup>2</sup> "Performance of the European labour market, Joint harmonised EU programme of business and consumer surveys", European Economy No. 4, European Commission, 2000.

10 Prospective skill trends of employment in industry								
	Skilled employees				Unskilled employees			
	increase	remain constant	decrease	don't know	increase	remain constant	decrease	don't know
B	36	41	20	3	3	27	46	24
DK	14	59	26	1	11	39	49	1
D	27	55	13	5	5	41	41	13
EL	28	28	39	5	15	22	33	30
E	39	41	9	11	15	34	31	19
F	30	46	20	3	14	50	32	4
IRL	43	43	8	7	23	44	14	20
I	15	40	44	1	5	55	38	2
L	23	55	22	0	13	29	58	0
NL	54	37	3	5	13	34	5	4
A	30	54	12	4	8	60	28	5
P	22	43	21	14	7	37	26	30
FIN	38	43	15	4	2	24	51	23
S	36	47	16	1	9	51	38	2
UK	21	59	18	1	12	49	37	2
EU	27	49	20	4	9	45	36	8

Source: Commission Services, Joint Harmonised Programme of Business and Consumer Surveys

11 Prospective skill trends of employment in services								
	Skilled employees				Unskilled employees			
	increase	remain constant	decrease	don't know	increase	remain constant	decrease	don't know
B	55	28	5	12	13	38	16	33
DK	:	:	:	:	:	:	:	:
D	36	45	14	5	4	37	13	46
EL	39	15	7	39	16	19	7	58
E	27	57	1	15	7	76	1	16
F	28	58	9	4	19	59	14	8
IRL	22	44	3	31	11	33	1	55
I	63	11	26	0	54	15	31	0
L	:	:	:	:	:	:	:	:
NL	:	:	:	:	:	:	:	:
A	43	45	10	2	11	73	11	6
P	22	32	7	39	11	27	3	59
FIN	80	11	1	8	14	21	50	15
S	77	15	7	1	20	56	20	4
UK	22	66	3	9	6	71	3	20
EU	39	43	11	7	17	47	15	22

Source: Commission Services, Joint Harmonised Programme of Business and Consumer Surveys

promote immediate immigration of ICT experts from outside the Union to fill empty jobs where there are perceived skills mismatches.

As well as sector-specific mismatches discussed above, there is also evidence of occupation-specific mismatches. Again the Netherlands, Sweden, Ireland and probably also Spain, record increases in the number of vacancies for most of occupations analysed. The situation differs significantly between Member States, however, with increases in vacancies being particularly strong in health-care occupations in Sweden, for example, and tourism-related occupations in Austria, while remaining stable across occupations in Germany and France.

It must be taken into account, though, that the high increase in

vacancies for health-care occupations in Sweden and Finland probably reflects the relatively uncompetitive wage levels in these occupations, more than structural skill mismatches.

#### *Evidence from enterprise surveys*

A second way to analyse problems of labour market skills mismatches is to look at enterprise surveys which ask companies if they are experiencing any negative impact on their production and, if so, whether it is due to labour shortages or a lack of appropriate skills among applicants.

This section draws on results from recent Joint Harmonised Labour Market Surveys for the period 1996-2001<sup>2</sup> in which a representative sample of companies across the EU

were surveyed regularly about the importance of skills mismatches in limiting their production and the skill composition of their workforce. They were also asked to forecast the likely skill content of future labour demand. Unfortunately, these surveys provide only limited information on labour shortages and skill-mismatches in the service sector where problems related to labour shortages and skills mismatches are most commonly reported.

Employers have recently been reporting mounting concerns about labour shortages, increasingly since the second half of 1999 (Chart 75). Moreover this development applies to all sectors analysed, but is most serious in the investment goods producing sector.

The upward trend in limitations to production can be observed for Belgium, France, Italy, the Netherlands, Austria, Portugal and, to a lesser extent, the UK. In the remaining Member States, including the high employment growth economies of Ireland and Spain, the way employers perceive labour shortages as a factor limiting production seems erratic and unsystematic. It is not possible to draw any conclusions regarding the development of labour shortages or skills gaps from the employers' perspective in these countries.

In Ireland and Spain, the years of strong employment growth has led to a strong reduction in the unemployment rate with, surprisingly, no accompanying signs of labour shortages affecting industrial activity according to employers. This appears to contradict the evidence discussed earlier of some serious labour market bottlenecks or skills mismatches in these two countries based on national vacancy data.

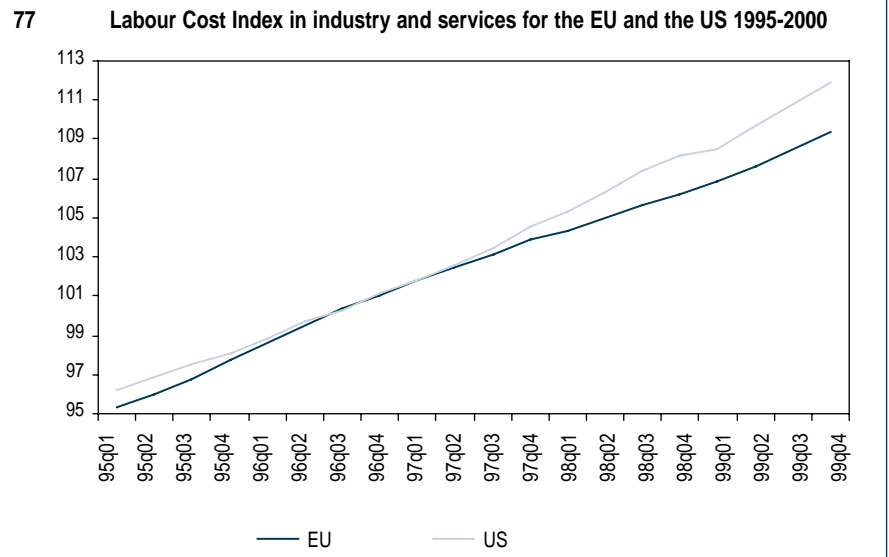
According to the Joint Harmonised Business Surveys, for the first quarter of 2001, a third of EU industrial companies say that they would like to increase weekly operating hours (Chart 76). Among these, about a quarter declared that the lack of qualified applicants was an important or very important factor limiting their ability to expand weekly operating hours while a third did not considering the lack of qualified applicants an important factor. Lack

of qualified applicants thus cannot necessarily be interpreted, on the basis of the Business Survey results, as a major impediment for employers to expand weekly operating hours in total industry at the EU level.

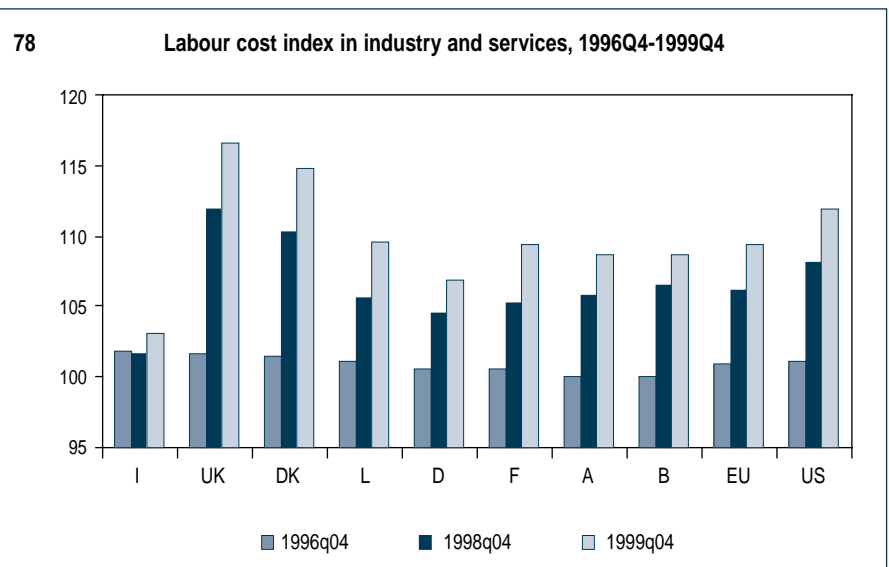
When asked about skills adequacy of their current workforce, employers said that almost 75% of European employees meet their skills requirements (Table 10). In industry, employers declared that their workforce was made up of 72% skilled employees against 28% unskilled. Regarding the future skill composition of employment in industry, 27% of employers expected the number of skilled employees to increase over a period of 12 to 24 months, while 20% of employers said their number would decrease.

In the service sector, a significantly higher fraction (39%) of all employers forecast that the number of skilled employees in the service sector would increase over the next two years, while only 11% expected a fall (Table 11).

To sum up, although labour shortages and skills mismatches or skills gaps are not the main reason for companies limiting their production, its importance has grown in the last years. While at EU level, the "lack of qualified applicants" cannot be interpreted as the major impediment to employers who are seeking to expand weekly operating hours in industry as a whole, skills mismatches are seriously hampering expansion in some Member States. A clearer message appears regarding future trends in labour demand. While the demand for unskilled workers is likely to decline in all sectors and countries, skilled labour supply will remain in high demand, especially in the service sector. The development of pan-European labour markets, by increasing labour mobility and the level and the transferability of skills across Member States, will ensure that the new European labour markets will be open to all by 2005. Pan-European labour markets will also ensure the utilisation of the potential European workforce, in order to attain a more effective matching between demand and supply of skills.



Source: Eurostat, Labour Cost Index series



Source: Eurostat, Labour Cost Index series

#### *Evidence from wage and labour costs statistics*

Unfortunately, recent wages and labour cost statistics by sectors of economic activity and occupations are scarce at the European level. In their absence the Eurostat quarterly labour cost index is the best available evidence of the evolution of labour costs in general and hence of wages in industry and services. If major labour shortages were to occur at EU-level, one would observe an upward trend in wages as mirrored by the labour cost index. There is, however, no clear-cut evidence of a recent acceleration in overall labour costs in Europe, rather it has followed a stable upward trend (Chart 77), equivalent to an overall

increase in labour costs of 15% between 1995 and 2000.

Data by country show, however, that the evolution in the labour cost index varies considerably across Member States, with labour costs increasing most strongly, and faster than in the US, in the UK and Denmark (Chart 78). Both countries have low unemployment, which could indicate a certain level of labour market tightening, but the results of wage bargains or changes in the tax and benefit systems could also be factors. In the remaining countries, the labour cost index between 1996 and 1999 has shown moderate increases of between 5% and 10%, thus below US growth rates, suggesting that the continu-

<b>12 Mobility rates of high-skilled in science and technology 1995 and 1999*, by gender</b>				
	<b>Women 1995</b>	<b>Women 1999*</b>	<b>Men 1995</b>	<b>Men 1999*</b>
<b>B</b>	6.8	7.8	5.8	7.4
<b>DK</b>	11.4	12.6	11.2	11.8
<b>D</b>	6.5	7.8	5.5	7.2
<b>EL</b>	4.6	5.6	3.6	4.9
<b>E</b>	16.2	17.2	12.6	12.0
<b>F</b>	6.5	9.1	6.5	8.0
<b>IRL</b>	11.0	11.8	8.1	9.8
<b>I</b>	3.4	5.4	2.4	4.4
<b>L</b>	6.3	6.5	3.7	5.9
<b>NL</b>	7.8	9.6	6.5	8.8
<b>A</b>	5.9	6.3	5.6	5.9
<b>P</b>	:	7.6	:	7.9
<b>FIN</b>	:	12.3	:	11.9
<b>S</b>	:	8	:	10.2
<b>UK</b>	10.6	12.2	9.5	11.9

Source: Eurostat, European Commission (2001), Statistics on Science and Technology in Europe, 2000 Edition, Data 1985-1999, Luxembourg

Note: Mobility rates report the fraction of individuals employed in two subsequent years who changed job ("job-to-job mobility"); transitions into or out of the labour force were not taken into account when calculating these rates. Data in the columns marked by \* refer to 1998 for Greece and Spain, 1997 for Ireland and to 1996 for Austria.

ing need to focus attention on facilitating both geographical and occupational mobility for all workers. The emerging new European labour markets give opportunities to individuals and also helps ensure the effective economic operation of European labour markets in their basic role of matching labour supply and demand.

While occupational mobility and job turnover in the EU clearly remain lower than in the US<sup>3</sup>, at least in the group of high-skilled employees, job-to-job mobility has been increasing over the past years. In both 1998 and 1999, around 10% of all high-skilled employed changed jobs, ranging from 12% or more in the UK, Denmark, Finland and Spain to less than 5% in Italy. Job-to-job mobility rates among the high-skilled were, moreover, slightly higher for women than for men (Table 12).

With respect to geographic mobility, too, there is strong evidence for increasing mobility in the EU. As in the US, the young and the high-skilled in Europe particularly are becoming increasingly mobile. This mobility is not restricted to student mobility which increased strongly over the last years (Table 13) but also applies to highly qualified workers.

Table 13 shows the number of students studying abroad in tertiary education across the EU. Student mobility has been rising strongly, partly as a result of the introduction of the Erasmus programme. The number of participants to this programme has been increasing by almost 10% a year in the course of the 1990s. While only 27,000 students took part in it in 1989/90, the number of participating students had risen to 181,000 10 years later. The number of students abroad, however, still amounts to less than 2% of the 12 million students currently enrolled in higher education in the EU.

Although firm conclusions about future labour mobility can not be drawn from student mobility, it is likely to increase the overall willingness to be mobile and improves the

<b>13 Student mobility in the EU: studies abroad and the Erasmus programme</b>				
	<b>Studies abroad (96/97)</b>		<b>Erasmus (97/98)</b>	
	<b>Outgoing students</b>	<b>Incoming students</b>	<b>Outgoing students</b>	<b>Incoming students</b>
<b>B</b>	6550	18 670	7 590	8 070
<b>DK</b>	3880	1 890	3 960	4 260
<b>D</b>	30 600	45 560	30 540	25 960
<b>E</b>	17 480	15 230	23 160	21 230
<b>EL</b>	42 020		4 080	4 330
<b>F</b>	29 300	29 310	30 680	31 540
<b>IRL</b>	16 210	3 000	3 570	4 610
<b>I</b>	28 360	10 640	16 560	14 720
<b>L</b>	4 730	480	40	30
<b>NL</b>	10 180	3 070	10 000	10 530
<b>A</b>	8 840	14 080	3 780	4 030
<b>P</b>	9 350	1 150	4 480	4 700
<b>FIN</b>	6 070	900	6 340	5 720
<b>S</b>	5 510	5 090	6 570	6 640
<b>UK</b>	13 020	83 020	26 910	31 790
<b>EU</b>	232 100	232 090	178 260	178 160

Note: The Erasmus total refers to the number of students selected not to the actual number of outgoing or incoming students. The mobility of these students is different from that of students abroad, since Erasmus participants remain enrolled in their home universities and are not recorded as studying abroad.

Source: Eurostat

ing relatively high levels of labour supply are keeping labour costs down.

### *The role of increased labour mobility in the EU*

As mentioned above, both occupational and geographic - regional and cross-border - labour mobility in the EU plays a major role in overcoming

labour market mismatches and increasing the effectiveness of labour market adjustment processes. Most of the available evidence suggests, however, that the relatively low degree of labour mobility in the EU is one of the main reasons why Europe lags behind the US in terms of long term employment performance. Therefore, there is press-

<sup>3</sup> While the US is generally considered a highly mobile country, the contribution of work-related mobility to total mobility in the US appears to be overstated according to the BLS study "An Overview of Labour Mobility in the United States" by F.W. Horvath, Jr. Office of Employment and Unemployment Statistics. US Bureau of Labour Statistics. According to this study, family-related reasons and housing are the main determinants of geographic mobility in the US and far more important than labour mobility.



possibilities for younger workers to find jobs in other Member States. Overseas study can enable students to acquire additional language skills, for example, the lack of which can seriously restrain geographic mobility.

Geographic mobility between EU Member States remains relatively low, with 225,000 people - or 0.1% of the total EU population - changing official residence between two countries in 2000. But geographic mobility between regions and the incidence of commuting are high and becoming increasingly important, with about 1.2% of the total EU population changing official residence to another region within one EU Member State in 1999. Furthermore, some 2 million workers aged 15-64 have changed residence between regions, representing about 1.4% of the EU employed population. (Table 14). By comparison, in the US, 5.9% of the total population changed residence between counties in 1999. Regional mobility of workers with a change of residence is highest in Austria, France, the Netherlands, and the UK<sup>4</sup>, while it is lowest in Spain, Greece and Belgium.

These estimates may understate the extent of the total volume of regional or even cross-border mobility as the survey refers only to changes of residence. They do not take into account workers commuting between regions or Member States.

About 600,000 people, or 0.4% of the total EU employed population, work in a country different from the country of main residence. The share of cross-border commuters is highest in Austria, Belgium, France and Luxembourg where it exceeds 1% of the employed population. (Table 15). The fraction of workers commuting between regions is significantly higher. About 7.5 million European workers commuted between regions in 2000, representing almost 5% of total employment in the EU. These shares are particularly high in Belgium, Germany and Austria (Table 16).

In the above-mentioned study by the Bureau of Labor, only about 18% of all moves in the US were found to be job-related, and only 2% due to unemployment. In the EU, a similarly low effect of unemployment on geographic mobility is, in part, due

14 Population by residence one year before (1999)				
	In population (0-99)		In employment (15-64)	
	Same region	Other region	Same region	Other region
A	94.8%	5.2%	95.6%	4.4%
B	98.9%	1.1%	99.6%	0.4%
D	99.1%	0.9%	98.9%	1.1%
DK	n.a.	n.a.	n.a.	n.a.
E	99.9%	0.1%	99.9%	0.1%
EL	99.8%	0.2%	99.8%	0.2%
FIN	98.8%	1.2%	98.7%	1.3%
F	98.5%	1.5%	98.5%	1.5%
IRL (1997)	99.1%	0.9%	99.0%	1.0%
I	99.1%	0.9%	98.8%	1.2%
L	n.a.	n.a.	n.a.	n.a.
NL	98.7%	1.3%	98.3%	1.7%
P	99.0%	1.0%	99.1%	0.9%
S	98.3%	1.7%	98.7%	1.3%
UK	98.1%	1.9%	97.7%	2.3%
EU	98.8%	1.2%	98.6%	1.4%

Source: Eurostat

15 Share of cross-border commuters (other than own residence)			
	Total	In a non-EU country	In another EU MS
A	1.1%	0.3%	0.8%
B	1.8%	0.1%	1.7%
D	0.2%	0.1%	0.1%
DK	0.1%	0.1%	0.1%
E	0.2%	0.1%	0.1%
EL	n.a.	n.a.	n.a.
FIN	0.2%	0.0%	0.1%
F	1.2%	0.7%	0.5%
IRL (1997)	n.a.	n.a.	n.a.
I	n.a.	n.a.	n.a.
L	1.0%	0.0%	0.9%
NL	0.2%	0.0%	0.2%
P	0.5%	0.0%	0.5%
S	n.a.	n.a.	n.a.
UK	0.2%	0.2%	0.1%
EU	0.4%	0.2%	0.2%

Source: Eurostat

to remaining cultural differences and language barriers in the EU, which probably help to explain some of the current labour shortages in some Member States. Further reforms of the educational and welfare systems to be more supportive of cross-border mobility as well as job-related training abroad, may prove to be the best means for more integrated European labour markets.

### Conclusions

Employment in the EU increased by 10 million over 1995-2000, two thirds of which were accounted by the increase in the labour force and one third by unemployment reduction. The sectors with the strongest

16 Share of commuting between regions (other than own residence)	
	In another EU region
A	13.1%
B	19.5%
D	8.2%
DK	n.a.
E	1.2%
EL	0.2%
FIN	3.2%
F	4.3%
IRL	n.a.
I	2.9%
L	n.a.
NL	n.a.
P	2.3%
S	n.a.
UK	n.a.
EU	4.9%

Source: Eurostat

<sup>4</sup> No data available for Denmark.

employment growth at EU-level actually are all characterised by either high technology and high shares in ICT-related jobs ("high-tech sectors") or a high knowledge intensity as reflected in high educational levels of the workforce ("high-education sectors"), or both. Despite the positive trends, employment remains highly segregated by gender.

The rapid growth in the EU labour force was mainly the result of very strong increases in the participation of women, particularly in the prime-

age and older-age groups. For young people, activity rates started to rise after 1997 showing a growing pattern of combining part-time work and education together with increasing skill levels. These have increased across all age groups. Activity rates have also increased for older workers in many Member States, although the momentum needs to be consolidated. In other Member States action should be taken if the EU is to reach its employment rate target of 50% by 2010, particularly in the light of

rapid ageing. Migration to the EU has become the main component of population change but the working-age population is expected to fall in the coming years in a few countries, as Europe grows older. The upskilling of the labour force together with increasing demand for skills in the knowledge economy will help alleviate the pressure of labour market adjustment of those in employment.

# Chapter 3: Heading to a knowledge-based economy: the macroeconomic framework and the prospects for employment

## Introduction

The strategy launched at the Lisbon Council, which was strengthened and broadened by the Stockholm Council, is designed to regain the conditions for full employment in a knowledge-based society. Attaining full employment and the growth potential of the knowledge-based economy requires a broad range of policies and the participation of all economic and social players. The success of a knowledge-based economy rests on the full exploitation of market dynamism. It requires not just a quantitative change but a qualitative one. Policies aimed at improving social cohesion should be integrated with policies designed to stimulate innovation within a context of macroeconomic stability.

A knowledge-based economy generating sustainable growth, full employment and greater social inclusion requires a permanent increase in the employment content of growth coupled with improvements in the adaptability and in the level of education of the workforce. Moreover, while a more homogeneous employment performance across the Member States is not the only condition for fostering social inclusion, an unequal distribution of the employment growth across countries or regions may threaten it.

The concurrence of high GDP and labour productivity growth, stable inflation and historically low unemployment rates in the US have led many to talk about the emergence of a new economic paradigm. While there is a lively debate about whether such a new paradigm exists and whether it has made the economic rules of the "old economy" irrelevant, there is agreement that a structural change did occur in the US economy in the 1990s. This change was related to important modifications in the way the labour, product and financial markets work and affected the ways in which the "old economy" applied new technolo-

gies. More specifically, the change is related to the effects of the information and communication technologies (ICT) revolution on the supply side of the US economy. The widespread use of new technologies in the production process appears to have brought about a strong acceleration in productivity growth, leading to a strong non-inflationary growth and a permanent reduction in the US unemployment rate. During the second half of 2000, the slowdown of the US economy was sharper than expected. However, the economic downturn may be only temporary and it does not seem to have changed the growth potential of the US economy.

In the US, the impressive performance characterised by high productivity growth, low unemployment and stable inflation suggests that the relationships between the macroeconomic variables have changed. This section analyses changes in the macroeconomic framework along the lines that have characterised the US macroeconomic performance. It considers whether European labour markets are becoming more similar in their macroeconomic performance. The analysis suggests that the European labour markets are indeed changing and that the Union seems to be benefiting from policies that support higher growth and are consistent with limited inflationary pressures. The labour markets are more integrated, at least with respect to the employment performance of the Member States, and less inflation-prone than before. Moreover, the employment content of growth has also increased. These changes are related to modifications in the macroeconomic context, in the production structure and in the ways in which technical progress interacts with changing products and labour markets.

High or low productivity growth does not necessarily lead to low or high employment growth or vice-

versa. In the Union there appears to be a change in the relationship between employment growth and hourly productivity growth. While in the 1980s productivity growth was higher in those Member States with low employment growth, in the 1990s, and especially in the second half, those Member States with higher productivity growth also experienced higher employment growth, while those with low productivity growth also displayed low employment growth.

Europe faces the challenge of how to promote technological innovations that are employment-friendly. The shift of resources – measured by sectoral employment shares – towards services, where productivity growth is generally lower, may limit the long-term growth rate if there are limited productivity improvements in this sector.

The finding that aggregate productivity growth has been driven more by productivity improvements within sectors than by changes in the sectoral composition of employment supports the idea that industrial and competition policies will also have at least the same bearing as employment policy in boosting labour productivity. The technological improvements available from the new economy are effective tools to increase growth rates in the long-term, but they require investment that supports human capital accumulation.

In the transition to a knowledge-based economy, a structural change related to the introduction of the new technologies occurs. The technologies introduced by the ICT revolution have important distinctive features compared to the past. While traditional technological developments involved huge changes in the organisation and use of physical capital, ICT is much more far-reaching and greatly affects the use of both tangible and intangible assets (in the form of



human capital, information technology and intellectual property). ICT capital changes the way things are done and the employment content embedded in them.

The share of ICT investment in total investment is smaller in the EU than in the US. Several studies have shown the importance of investment in ICT capital in explaining the sources of growth experienced by the US in the 1990s. The low share of ICT investment in Europe compared to the US may be related to a lower innovation intensity with European firms relying more on the defence of market shares, with reductions of costs and process innovations, than on product development and market expansion by enhancing its technological competitiveness. The initiatives taken by the Lisbon and Stockholm Councils tackling the issues of lifelong learning, skills upgrading, increase mobility of workers and innovation intensity are designed to reshape European markets and institutions to fully exploit the potential of new technologies.

**The Union is growing and is more integrated ...**

The developments of the last five years show that the European economy is gaining momentum, with all Member States benefiting from this dynamism. Despite differences in the employment performances across countries, there is conver-

**17 Trend components in GDP and employment growth in the EU and US (annual rate of growth)**

	European Union			US		
	GDP growth	Employment growth	Elasticity	GDP growth	Employment growth	Elasticity
1980-1990	2.2	0.4	0.19	3.0	1.8	0.59
1991-2000	2.3	0.6	0.27	3.1	1.3	0.43
1995-2000	2.4	0.8	0.33	3.4	1.3	0.38

Source: Eurostat

gence in employment growth within the EU. Chart 79 plots the weighted standard deviation of employment growth for the EU, the five big Member States and the smaller countries. The falling standard deviation points to convergence. For the five largest Member States the dispersion of employment growth around the mean is even smaller than that for all Member States.

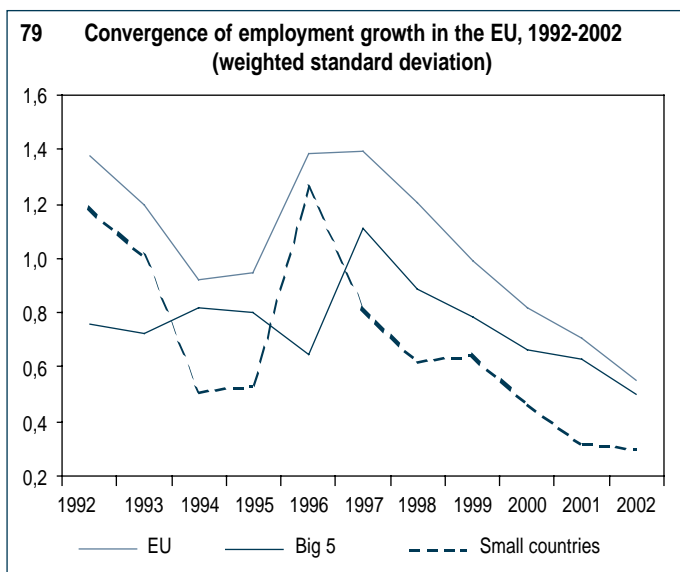
*... with a greater employment content of growth ...*

The employment intensity of growth has increased markedly in the last five years. The good employment performance of the Union is highlighted by an employment growth per unit of output growth (elasticity of employment growth to output growth)<sup>5</sup> that has been following an upward trend since 1995 in all Member States except Greece (Chart 80).

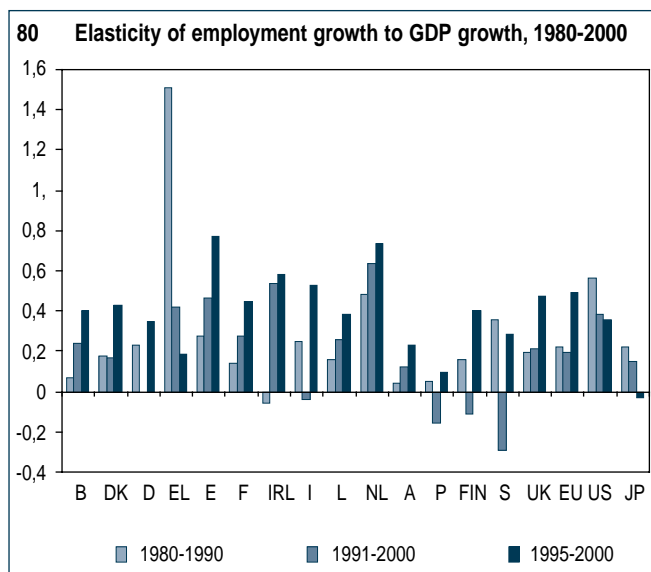
The change in the elasticity of

employment growth to output growth seems to be related to a structural shift rather than to cyclical developments (Table 17). To identify changes in the long run elasticity, potential output growth and the growth in the employment trend can be examined<sup>6</sup>. There is an upward trend in the average of both GDP growth and employment growth, with a stronger increase in employment growth than in economic growth leading to an increase in the "long-run" elasticity of employment growth to output growth.

Table 17 shows two important results. Firstly, the US displays a higher employment content of growth compared to the EU. Secondly, this difference has narrowed in recent years, because employment elasticity increased in the EU and decreased in the US. A weak employment content of growth in the EU compared to the US may result from stronger productivity growth in the EU, which could

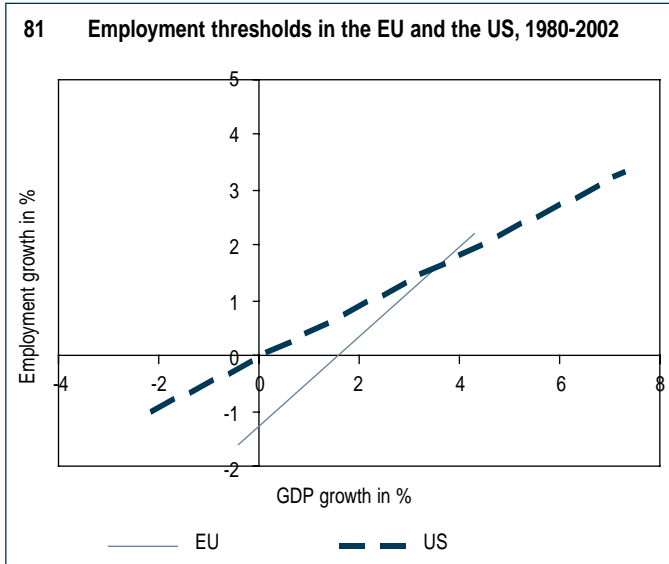


Source: Commission Services

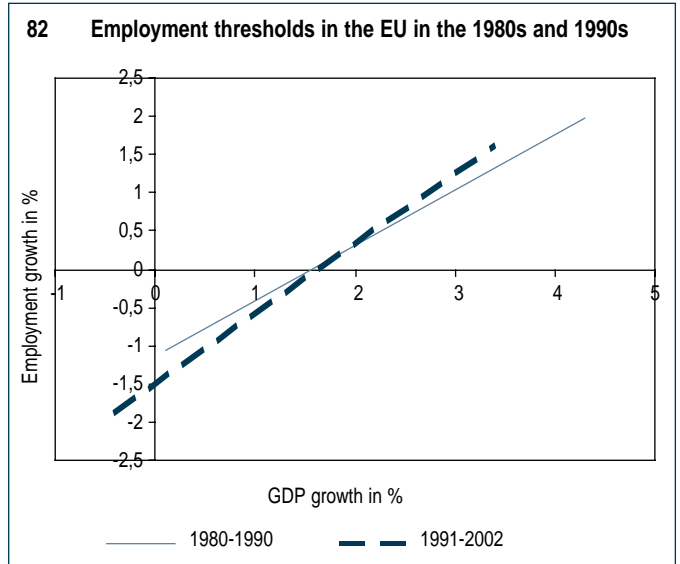


Note: elasticity = employment growth/output growth  
Source: Commission Services

<sup>5</sup> The elasticity of employment growth to output growth is calculated as the ratio of employment growth to GDP growth. It provides a measure of how much economic growth translates into employment growth.  
<sup>6</sup>For the potential output the series used is that calculated by Commission Services. The employment trend component is obtained applying the Hodrick-Prescott filter, which decomposes an economic time series in a cyclical and a trend component.



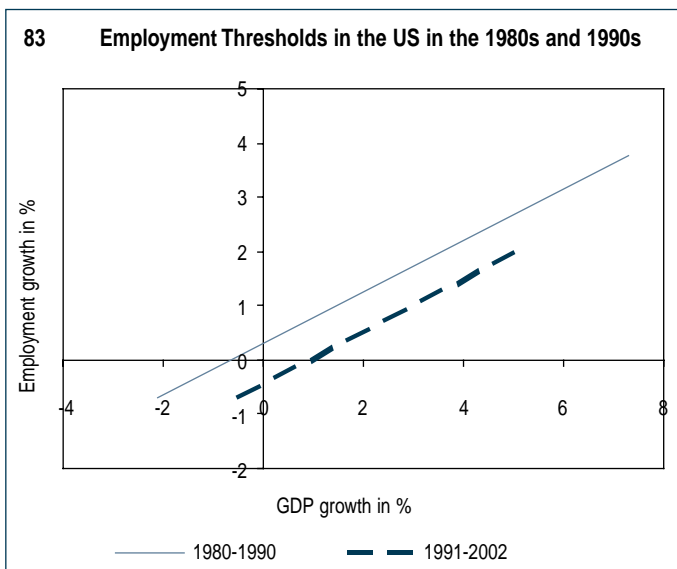
Source: Commission Services



Source: Commission Services

lead to higher GDP growth. The stability of the difference between the US and the EU output growth (about 1 percentage point over the periods considered) does not, however, imply that the recent improvements in the European employment content of growth have been realised at the expense of lower growth.

The higher expansion of employment in the US compared to the EU is clearly related to higher growth in the US. But it is more than just that. In the US, even small increases in GDP growth seem to translate into an increase in employment growth (Box 5). This is not the case for the EU, where higher economic growth is required to achieve the same increase in employment as in the US (Chart 81). There seems to be a change in the relation between employment growth and GDP growth for both the US and Europe (Charts 82 and 83). For the US, it appears that more growth was needed in the 1990s than the 1980s to achieve the same increase in employment growth. In Europe, on the other hand, the level of GDP growth triggering employment growth appears to have remained unchanged, but the sensitivity of employment growth to GDP growth seems to have increased. This implies that an equal increase in the rate of growth may have led to higher employment growth in the 1990s than the 1980s.

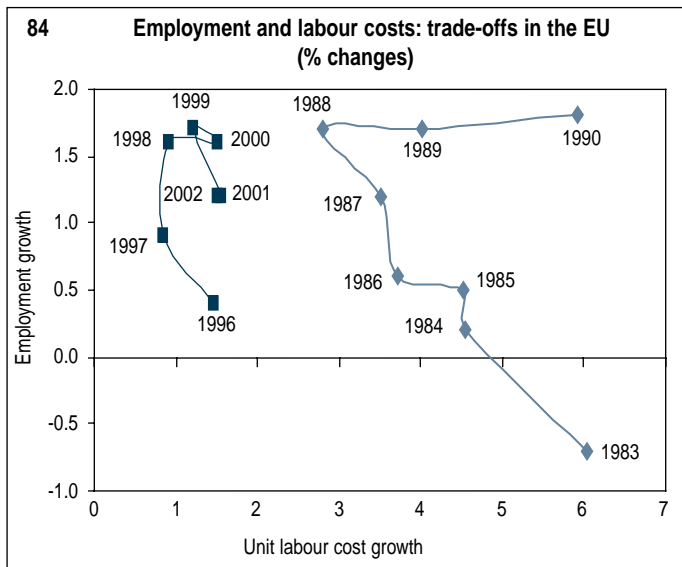


Source: Commission Services

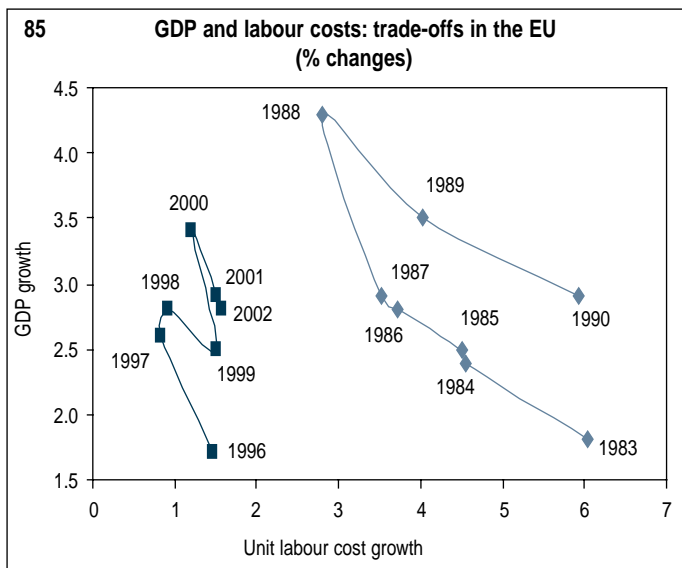
## 5 Employment thresholds

Employment grows when GDP growth is higher than the employment threshold, which is defined as the value of GDP growth that triggers employment growth. Charts 81 to 83 plot the regression lines that fit the EU and the US data over the period 1980-2002<sup>7</sup> and the sub-periods 1980-1990 and 1991-2002. Over the two decades, the US line crosses the GDP growth axis at zero, implying that, on average, growth in the US is matched by an increase in employment. In the EU, the threshold is higher, indicating that higher economic growth is needed to achieve the same employment growth as in the US. However, the Union employment-GDP growth line is steeper than that of the US. When the 1990s are compared to the 1980s, the employment threshold seems to increase for the US, with no change in the slope of the employment-GDP growth line. By contrast, it remains constant for the EU with a change in the slope. These results suggest that, in Europe, much more growth is needed to trigger employment growth, but once the threshold has been reached, employment may increase in the Union more than in the US. Moreover, in the last decade there are signs both of a higher employment threshold in the US, implying that more GDP growth is required to achieve employment growth, and of a higher elasticity in the Union. This suggests that, once a certain GDP growth was achieved, employment benefited more from expansion in Europe in the 1990s than it did in the 1980s

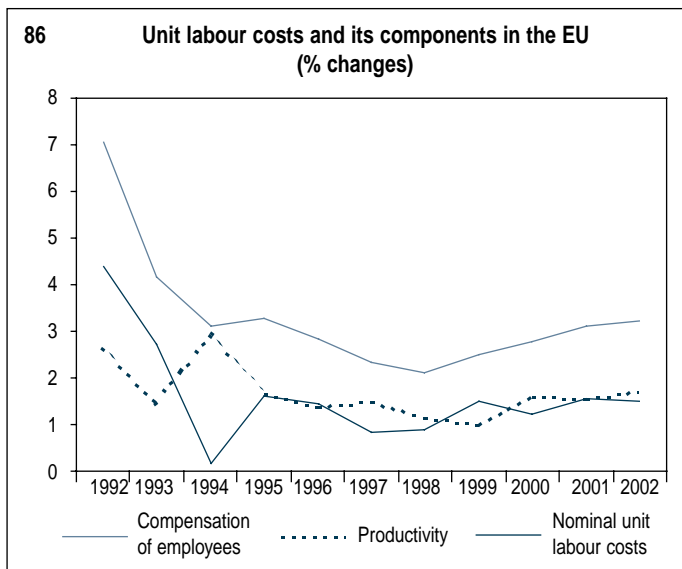
<sup>7</sup> For 2001 and 2002 Commission Services spring forecast.



Source: Commission Services



Source: Commission Services



Source: Commission Services

... and less inflation-prone labour markets

Labour cost moderation and the recent dynamism of economic activity is partly related to structural changes in the functioning of labour and products markets. In the last two years, wage moderation helped to counter-balance external inflationary pressures. After taking into account changes in productivity, the impact of labour costs on production costs has been low. Nominal unit labour costs inflation in the EU declined between 1999 and 2000 from 1.5% to 1.2%, with headline consumer price inflation rising from 1.1% to 2.1% and the GDP deflator growing at about 1.4% in both years. However, moderate cost pressures characterised all the 1990s, suggesting that the macroeconomic trade-off between unit labour costs growth on the one hand, and GDP and employment growth on the other, improved during the current cyclical upturn compared to the previous one.

Chart 84 shows that in the second half of the 1990s there was a clear improvement in the trade-off between employment growth and the growth in unit labour cost. A similar change occurred in the relationship between output growth and unit labour cost growth (Chart 85). For any decrease in unit labour costs growth, the change in the employment and output growth is higher in the late 1990s than in the 1980s. By producing a recovery in profit margins, these developments may have improved business confidence and created the conditions for the recent sustained expansion of investment <sup>8</sup>.

To explain the improved trade-off, the determinants of unit labour costs must be considered. Unit labour costs are calculated as the ratio of nominal compensation per employee to labour productivity. Therefore, low unit labour cost pressures may reflect moderate average labour cost inflation, high labour productivity or both. The distinction between these two components is of particular interest because of their link to different sets of policies. Since 1996, nominal unit labour costs in the Union have been rising within a bandwidth of 1% to 1.5%, with both compensation of employees and productivity growth following a downward trend (Chart 86). In 1998, there was a pick-up in compensation per employee, followed in 1999 by an increase in productivity growth that led to unit labour cost growing at 1 to 1.5%.

As mentioned before, the changes detected in the employment content of growth and in the link between employment growth and unit labour cost growth are related to modifications in the macroeconomic context, and to changes in the way product and labour markets work. As far as the macroeconomic framework is concerned, several studies (Commission (2000) and OECD(2000)) have shown that macroeconomic stability supports investment, job creation and growth. Moreover, the reduction of social security contributions and income taxes in several Members States may have led to higher after-tax wages without increasing labour costs. However, as was highlighted by the *Joint Employment Report 2000*, the developments of comprehensive reforms addressing the combined incentive impact of tax and benefit schemes remains a priority for most Member States.

<sup>8</sup>The periods have been chosen to cover the troughs and peaks of the output-gap so that they cover the entire current and previous cyclical upturn.

Changes in the sectoral composition of employment may also have restrained labour cost pressures as employment relocated to sectors with a low wage share and/or high productivity growth. Table 18 shows trends in the sectoral composition of employment indicating that the employment structure of the EU has

shifted towards those services with a low wage share, and to financial services in particular. There is also evidence that the profit share has been increasing in the Union. Data on real unit labour costs mirror the evolution of the wage share, and thus of the profit share (Chart 87). There is a clear downward trend in

the wage share for the EU, Japan and, to a lesser extent, the US. The EU and Japan have experienced a cumulative decline of over 15% since 1980, compared to a drop of 5% for the US.

18	Wage share and employment share in the European Union									
	Agriculture		Industry excl. B&C		Building and construction		Total industry		Services	
	Wage <sup>1</sup>	Employment	Wage <sup>1</sup>	Employment	Wage <sup>1</sup>	Employment	Wage <sup>1</sup>	Employment	Wage <sup>1</sup>	Employment
1991	77.1	5.4	69.5	23.3	75.3	7.4	70.6	30.7	66.0	63.9
1992	78.4	5.1	70.7	22.4	75.0	7.4	71.5	29.8	65.7	65.1
1993	77.1	5.0	71.3	21.6	77.7	7.3	72.6	28.9	65.2	66.1
1994	72.9	4.8	69.4	21.1	77.0	7.3	70.9	28.4	64.2	66.8
1995	70.0	4.6	68.1	20.8	78.1	7.4	70.1	28.2	64.1	67.2
1996	65.9	4.4	67.8	20.6	78.4	7.2	69.8	27.8	64.0	67.9
1997	64.9	4.3	67.1	20.3	78.7	7.1	69.3	27.4	63.8	68.3
1998	64.9	4.2	66.7	20.3	78.3	7.0	68.8	27.3	63.3	68.6
1999	66.0	4.0	68.5	19.9	77.4	7.0	70.1	26.8	63.5	69.2

<sup>1</sup> % of sectoral value added

Source: Commission Services

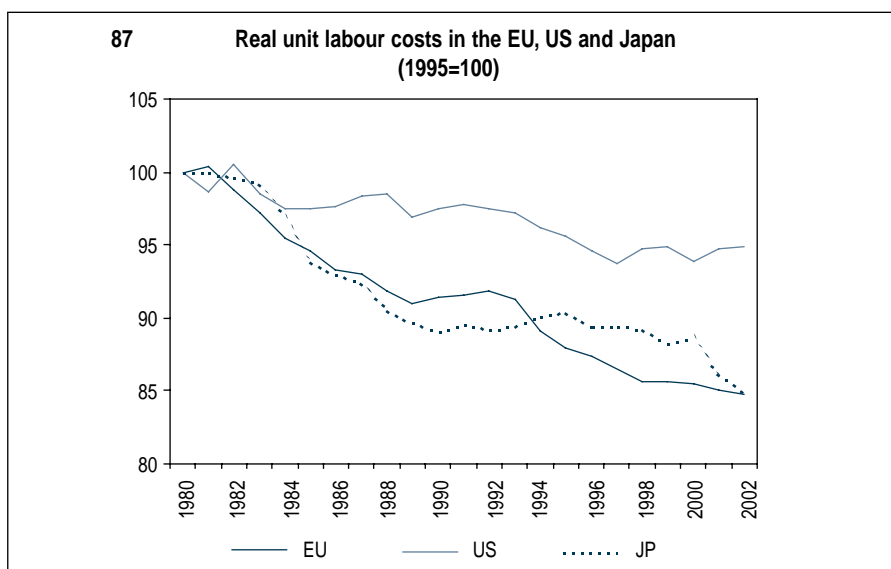
In the EU, production structures are experiencing important modifications mirroring what happened in the US in the early 1990s. As a result of the Single European Act, European products markets have become more integrated and more competitive. Greater competition and stronger trade links increasing the efficiency and the innovation activities of firms may have led to higher productivity and higher growth. Moreover, there is strong evidence that new technologies support growth. The Commission esti-

ated that technological improvements in the ICT sector and the accumulation of ICT capital contributed about 0.5 to 0.7 percentage points to output growth in Europe in the second half of the 1990s, and that it is still lagging behind the US (AER 2000). Stronger trade links may support innovation in new technologies by allowing greater diffusion of knowledge and market scale effects. In the transition towards a knowledge-based economy, information technologies represent a new technological base on which produc-

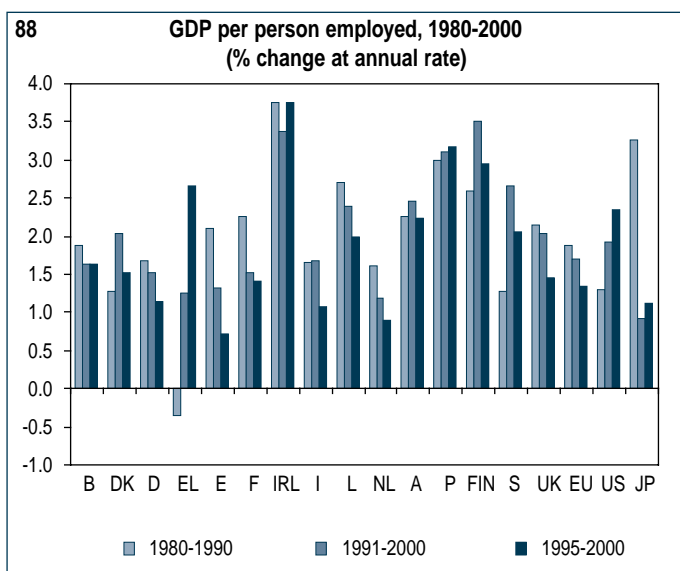
tion and distribution processes can be built. Heading to a knowledge based economy is a challenge that requires policies that aim beyond simply achieving more flexible product and labour markets. They should strengthen the innovative capacity of the Member States and improve non-price competitiveness by increasing skills levels and the adaptability of workers, access to knowledge and the diffusion of innovations.

The importance for growth of technological progress is closely linked to developments in the labour markets. The accumulation of human capital is important because high skills can foster labour productivity growth. As in previous years, the high-tech sector remained one of the major contributors to employment growth in the EU, creating almost 1.5 million net jobs in the period 1995-2000. This is equivalent to an increase in employment in the high-tech sectors over the period of 14% (see Chapter 2).

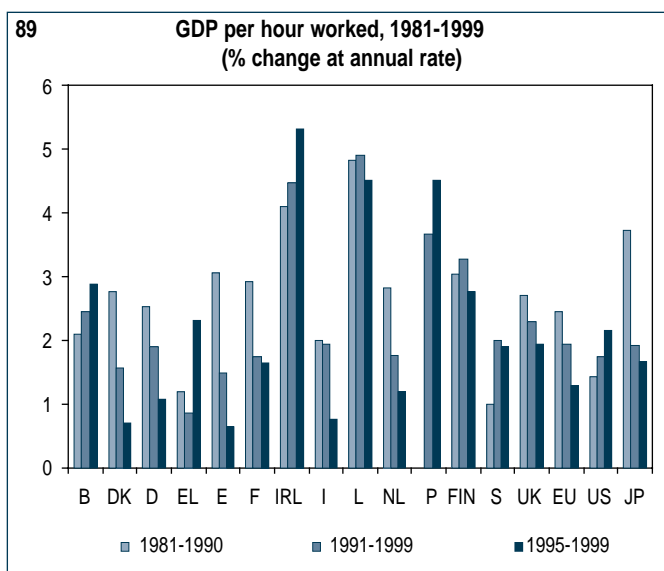
The next two sections will look at the evolution of productivity at Member State level and will identify the effect of changes in the sectoral composition of employment on aggregate productivity.







Source: Commission Services



1983-1998 for the EU-15 (excl A & P)  
 1983-1999 for Belgium, Denmark, Greece and Ireland and Luxembourg  
 1981-1998 for France and Japan  
 Source: Commission Services

**The relationship between productivity and employment**

In the last two decades, the rate of growth of GDP per person employed fell in the Union, while it picked up remarkably in the US. After growing at 1.9% per year in the 1980s, apparent labour productivity in the EU – measured as GDP per employed – fell to 1.3% per year from 1995 to 2000. In the US, on the other hand, in the same period it jumped to 2.4% per year, having grown at 1.3% during the 1980s.

The EU productivity developments hide important disparities at the Member State level (Chart 88). Several countries – Germany, Spain, France, Luxembourg, the Netherlands and the UK – experienced a slowdown of productivity growth over the 1980s and 1990s. For others the slowdown began in 1995. This group includes Denmark, Austria, Finland and Sweden, which had above-EU-average rates of productivity growth in the 1990s, and Italy where productivity growth matched the EU average. Ireland and Portugal have experienced a recent acceleration in productivity, while in Greece a significant pick-up in productivity growth was recorded in the 1990s after the slack dynamics of the 1980s.

In the 1990s, in all Member States, except Denmark, Greece, Sweden and Finland, hourly productivity growth was higher than the growth

rate of GDP per person employed. Moreover, in all Member States except Belgium, Ireland, Luxembourg, Finland and Sweden hourly productivity growth declined in the 1990s compared to the 1980s (Chart 89). However, in the second half of the 1990s, Belgium, Greece, Ireland and Portugal experienced a significant acceleration in hourly productivity growth.

Labour productivity may be raised by improving the quality of the labour force through training and education, by equipping workers with more and better capital, and by improving the technology and the way things are done.

The productivity gains experienced by most Member States in the 1980s were determined mainly by employment losses rather than by the capital intensity of the production process. A delay in wage adjustments in response to the oil crises of the late 1970s and early 1980s may have contributed to these developments. In the short run, wage pressures may have led firms to reduce the number of employees, increasing productivity. In the long-term, firms with an excessive capital per worker ratio may have decided to reduce their investments in order to reach a capital-labour ratio consistent with a lower number of employees. At the end of the adjustment process, the economy should have ended up with lower output and lower employment.

In the first half of the 1990s, in most countries the rate of growth of capital per employed (capital intensity) increased, but in some – Italy and Germany – these developments were still driven by job losses. The annual growth rate of capital intensity decreased markedly in the second half of the 1990s in all Member States with the single exception of Greece, while employment picked up strongly and hourly productivity growth increased in only a few Member States (Table 19). Those Member States experiencing a decrease in the growth rate of capital intensity also saw a reduction in hourly productivity growth as well.

The developments observed for most Member States (reduction in the capital intensity and in the hourly productivity growth on the one hand, and increase in employment growth on the other) contrast with the US experience. Over the entire period considered, productivity growth in the US accelerated together with an increase in the growth of the capital intensity of production, while employment continued to grow at a sustained pace.

The difference between the EU and the US may be related to the labour-saving characteristics of the technological progress and higher substitutability between capital and labour in the EU compared to the US. There does, however, appear to have been a change in the employment productivity trade-off in the

19 Productivity, employment and capital intensity									
	1980-1990			1991-1999			1995-1999		
	Hourly labour productivity growth	Employment growth	Change in capital intensity	Hourly labour productivity growth	Employment growth	Change in capital intensity	Hourly labour productivity growth	Employment growth	Change in capital intensity
	B	2.1	0.1	2.0	2.4	0.5	1.8	2.9	1.1
DK	2.8	0.3	1.1	1.6	0.4	1.0	0.7	1.1	0.7
D	2.5	0.5	1.5	1.9	0.0	2.2	1.1	0.6	1.4
EL	1.2	1.0	2.0	0.9	0.9	1.7	2.3	0.6	2.3
E	3.1	0.8	2.2	1.5	1.2	2.1	0.6	2.9	0.6
F	2.9	0.3	2.3	1.7	0.5	1.5	1.6	1.1	0.7
IRL	4.1	-0.2	3.5	4.5	4.1	-0.6	5.3	5.5	-0.9
I	2.0	0.6	2.0	1.9	-0.1	1.9	0.8	1.0	1.1
L	4.8	0.7	0.5	4.9	1.5	1.3	4.5	2.4	0.7
NL	2.8	1.1	1.3	1.8	1.9	0.2	1.2	2.8	-0.5
A	:	0.1	2.6	:	0.3	3.2	:	0.6	2.6
P	:	0.2	4.0	3.7	-0.4	4.0	4.5	0.3	3.7
FIN	3.0	0.5	2.4	2.3	-0.4	0.4	2.8	2.1	-1.4
S	1.0	0.7	1.2	2.0	-0.6	1.2	1.9	0.8	0.0
UK	2.7	0.5	1.2	2.3	0.6	1.2	2.0	1.3	0.9
US	1.4	1.8	0.6	1.7	1.5	1.0	2.2	1.6	1.5

Source: Commission Services

1990s compared to the previous decade. Chart 90 shows the scatter plot of the annual employment growth and the annual hourly productivity growth for the Member States with a regression fit line for the 1980s, the 1990s and the sub-period 1995-2000<sup>9</sup>. The chart shows a positive relationship between employment growth and hourly productivity growth in the 1990s – Member States with higher productivity growth also had higher employment growth and Member States with lower productivity growth also had lower employment growth – with a change in the slope compared to the 1980s.

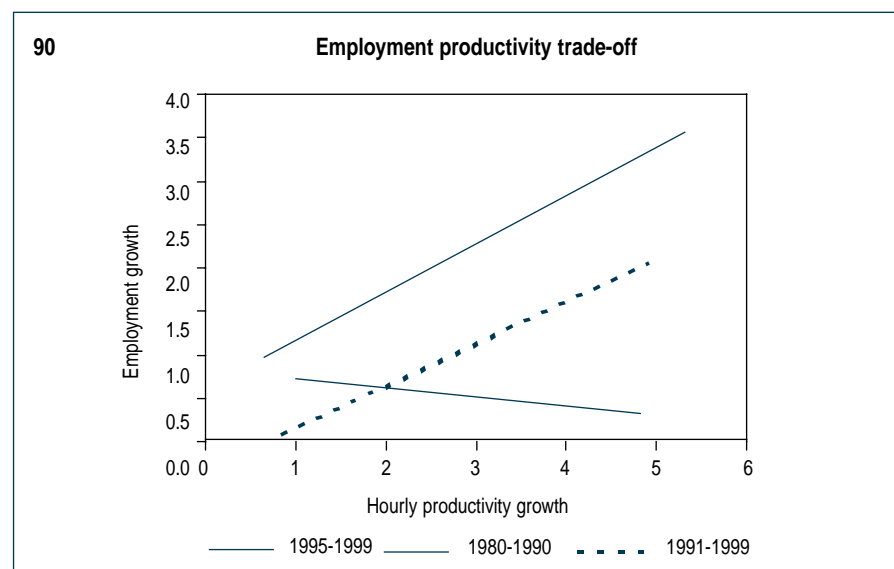
The concurrence of high employment growth, low hourly labour productivity and a deceleration of the capital-labour ratio in the EU can be explained in terms of the inter-relationships between labour market reforms and the changes in the sectoral composition of employment. New contractual arrangements, such as part-time or fixed-term contracts, increased in all Member States, boosting employment growth, particularly in services. The shift of resources (as measured by the employment shares) towards the service sector, which is characterised by a low capital-labour ratio,

may explain the deceleration in the growth of the capital-labour ratio (capital intensity).

The deceleration in capital intensity in the EU may limit the productivity gains arising from the new technologies in the context of a knowledge-based society. In the academic and expert literature there is wide agreement on the view that the stock of knowledge or of human capital may sustain long-term growth. However, physical capital and human capital formation may complement each other today as happened in the past. Investment may also be a channel through which technological advances are diffused within a country and across countries. Therefore, an insufficient degree of capital accumulation may limit the efficiency gains realisable with the introduction of new technologies.

Studies on the sources of US economic growth have shown that in the second half of the 1990s, technological improvements and increases in productive efficiency – total factor productivity (TFP) – accounted for about two fifths of the pick-up of US growth. The accelerating growth of capital and of labour accounted for the rest. ICT capital explains most of the acceleration in the capital contribution to labour productivity

<sup>9</sup>To make the chart readable the single countries' points have been hidden.



Source: Commission Services

growth. The contribution of ICT capital is larger in the late 1990s than in earlier years because ICT capital became a larger share of total capital, increasing the effect of productivity gains in the ICT-producing industries on overall labour productivity growth. ICT capital contributes to growth, and since it is growing faster than labour it contributes to labour productivity by increasing the capital intensity<sup>10</sup>.

In Europe, investment in ICT is still lagging behind the US. According to the OECD and the Commission<sup>11</sup>, the share of ICT investment in total investment in the EU is smaller than in the US. This difference may therefore explain the smaller impact of technological improvements on growth in the EU. Moreover, the Member States that perform better in terms of economic growth are those with higher ICT investment. If, in the EU, the share of ICT investments rises towards that of the US, the contribution of ICT may rise as well.

Whatever the mechanism linking new technologies to growth, innovation, including general enhancing of the skills of the workforce, and technological progress appear to be the twin engines of productivity growth. The quality of education is impor-

tant because new technologies require a well-trained adaptable and flexible labour force. Education is also a vehicle for the development of scientific ideas. The mobility of researchers between countries and between industries and services is also important. High GDP and employment growth therefore requires investments both tangible (in infrastructure as well as in "new" machines) and intangible (in human capital, in base science as well as in social capital).

The following section analyses the importance of sectoral productivity patterns in explaining the aggregate productivity developments. Within a context of rapid structural change, a redistribution of employment across sectors occurs; hence, it becomes necessary to identify the contribution of such changes to the dynamics of aggregate productivity.

#### Interpreting productivity trends: the impact of sectoral shifts on aggregate productivity

The strong acceleration of labour productivity in the US accompanied by strong job creation challenges the conventional view that high employment growth may lead naturally to lower productivity growth. The GDP

growth differential between the US and the EU in the last decade may be related to a shift of resources from low-productivity to high-productivity sectors or vice-versa. Since sectors differ in terms of productivity growth, changes in the economic structure, as measured by sectoral employment shares, could explain aggregate labour productivity dynamics. Indeed, employment shifts toward sectors with high, or low, productivity may affect the evolution of aggregate productivity even when productivity does not change at the sectoral level. The relation between productivity growth and the changing sectoral composition of employment may lead to a slowdown in the growth rate of aggregate productivity if the demand pattern is biased towards those sectors or industries which display low productivity growth.

In the period spanning the 1980s and 1990s, services accounted for a greater share of employment, even though their productivity was lower than that of the other sectors<sup>12</sup>. Abstracting from problems of measurement of output, productivity growth in the period under examination was the lowest in the expanding service sector (Table 20).

20 Sectoral dynamics of productivity and employment share (compounded annual growth rates in %)												
	Germany		Spain		France		Italy		United Kingdom		United States	
	Productivity	Employment	Productivity	Employment	Productivity	Employment	Productivity	Employment	Productivity	Employment	Productivity	Employment
<b>Agriculture</b>												
1980-1990	5.8	-3.9	6.2	-4.8	5.4	-3.9	4.2	-5.4	#N/A	#N/A	5.5	-2.4
1991-1999	8.4	-5.5	4.0	-3.7	5.6	-2.8	6.5	-4.5	1.8	-2.6	1.9	-0.9
1995-1999	6.1	-3.7	4.5	-3.0	5.0	-2.3	6.9	-4.9	1.9	-2.4	5.3	-2.1
<b>Industry (excluding building and construction)</b>												
1980-1990	1.6	-0.7	2.8	-1.5	3.1	-1.8	2.9	-1.8	#N/A	#N/A	3.4	-2.4
1991-1999	3.0	-3.3	1.4	-0.4	3.5	-2.0	2.3	-0.7	3.0	-1.8	4.1	-1.9
1995-1999	1.7	-1.7	0.2	0.7	2.4	-1.3	0.7	-0.7	1.1	-1.6	3.9	-2.1
<b>Building and construction</b>												
1980-1990	0.9	-1.6	2.0	0.6	2.4	-1.7	2.2	-1.8	#N/A	#N/A	-0.3	0.0
1991-1999	-0.1	0.3	0.3	-0.1	-1.4	-2.4	0.1	-0.7	2.5	-2.3	0.4	1.5
1995-1999	0.8	-3.6	-0.9	2.3	-4.0	-2.2	0.9	-1.0	1.3	-1.0	0.0	2.7
<b>Services</b>												
1980-1990	1.6	1.0	0.6	1.7	1.6	1.4	0.1	2.2	#N/A	#N/A	0.5	0.7
1991-1999	1.1	1.6	1.0	0.6	0.4	1.0	1.0	0.8	2.0	0.8	1.9	0.3
1995-1999	1.1	1.2	0.5	-0.2	1.0	0.7	0.2	0.8	1.8	0.5	2.8	0.3

Source: Commission Services

<sup>10</sup>In terms of productivity growth, about a quarter to a third of the acceleration came from increased growth in capital intensity and at least two-thirds from an increase in TFP.

<sup>11</sup>Schreyer (2000) and European Economy Economic Trends No 12, December 2000.



To identify the role of the change in economic structure on productivity growth, a shift-share analysis was performed. The aim of the analysis is to investigate empirically, whether or not changes in the economic structure or variations of sectoral productivity, matter for the dynamics of aggregate productivity growth. The basic idea of the method is to decompose produc-

tivity growth in such a way as to isolate structural change (see Box 6). It is then possible to say something about whether a rise (or fall) of a country's productivity growth is due to (i) a change in the economic structure (i.e. movement of resources into sectors with high or low but unchanged productivity levels); (ii) the fact that productivity growth at

the sectoral level has increased or decreased, assuming that the structure is the same; (iii) the fact that the dynamics of aggregate productivity is driven by the combined effect of both changes in the economic structure and in the sectoral productivity.

The empirical findings point to a greater importance of productivity growth developments at the sectoral

## 6 Decomposing productivity growth

Productivity developments at the aggregate level may be related to different patterns of sectoral employment and productivity growth.

Aggregate productivity growth between 1980 and 2000, where productivity is defined as gross value added per employed, has been decomposed in the sum of three components:

- 1) an intra-sectoral component, that identifies the contribution of sectoral productivity growth with (sectoral) employment shares unchanged
- 2) an inter-sectoral component that explains changes in the aggregate productivity in terms of shifts in the employment composition with (sectoral) rates of productivity level unchanged. This component represents the growth in productivity explained by a shift of resources toward sectors with a low or high productivity level at the beginning of the period. It is positive when labour moves towards sectors with higher productivity levels
- 3) an interaction term between employment shifts across sectors and sectoral productivity changes. This term is positive when sectors with growing (falling) productivity have a growing (falling) employment share. It is negative when sectors with growing productivity decline in size or when sectors with falling productivity grow in size

The rate of change in productivity between time 0 and time t may be expressed as follows:

$$\frac{\pi_t - \pi_0}{\pi_0} = \sum \left[ \frac{\Delta \pi_{it}}{\pi_{i0}} + \frac{\Delta q_{it}}{q_{i0}} + \frac{\Delta \pi_{it}}{\pi_{i0}} \frac{\Delta q_{it}}{q_{i0}} \right] \frac{q_{i0} \pi_{i0}}{\pi_0}$$

with  $\pi_{it}$  productivity in sector i at time t;  $q_{it}$  employment share in sector i at time t. The first term is the intra-sectoral component; the second the inter-sectoral or net-shift effect; the third the interaction effect.

Charts 91 to 93 show that for the five larger Member States and the US changes in productivity growth over the periods considered have been dominated by changes in labour productivity growth within sectors. In the case of Germany, Spain, France and Italy, sectoral productivity growth accounted for more than 90% of the aggregate growth rates in the 1990s. With the exception of the UK and the US, changes in the sectoral employment shares added to the within-sector productivity growth over all periods considered. For the UK and the US, productivity growth would have been higher if there had not been changes in the sectoral composition of employment. This result may be related to the expansion of low productivity jobs in services. For all countries, the effect of changes in the sectoral composition of employment accounted for a higher productivity growth in the 1980s than in the 1990s as jobs were created in the more productive sectors. The effect of the interaction between intra-sectoral productivity growth and inter-sectoral employment shifts (i.e. shifts of resources toward high productivity growth sectors) is small and is not shown.

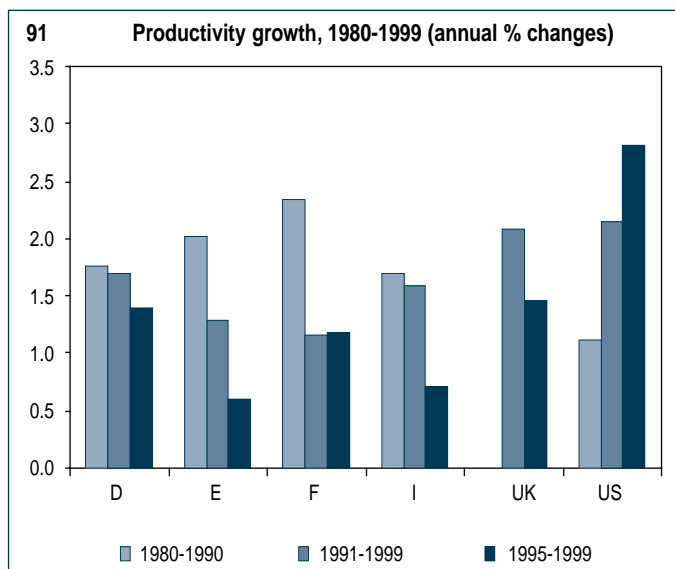
<sup>12</sup>Services are clearly a highly heterogeneous sector, which includes household services and enterprise services. Within this sector, industries with different labour productivity growth coexist. Differences between sectoral productivity growth rates may also be related, at least partially, to difficulties of measurement in sectors with an intangible output such as financial services. The diffusion of ICT may increase such measurement problems and make comparable analysis of productivity patterns across countries more difficult.

level than to a change in the sectoral structure of employment. These results suggest that the bulk of productivity growth is dominated by the within-sector performance. As the demand pattern shifts towards the service sector, productivity growth within this sector should be enhanced by technological innovation or improvements in the general efficiency of the production process. If the shift of resources towards services does not go hand-in-hand with an increase of labour productivity in this sector, the aggregate productivity growth may slow down and, hence, limit the increase of potential output (Charts 91 to 93).

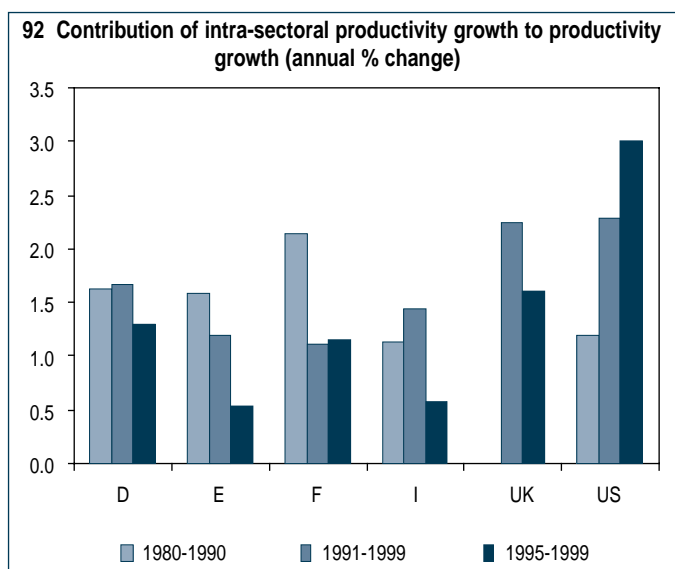
These results do not imply the irrelevance of structural change for productivity growth. Rather they suggest that the slowdown in productivity growth experienced by some Member States is not related to the jobs created in services but to poor productivity growth at the sectoral level, mainly in the service sector. With structural and technological changes occurring, policy measures aimed at enhancing the competitiveness of the Union should take into account the employment dimension of the ongoing changes, especially as the employment content of growth and productivity performance differ across countries and across sectors. Such differences point to differences in the growth potential between countries and may be related to the specialisation in sectors characterised by higher or lower productivity growth, higher or lower rates of innovation and higher or lower human capital accumulation. Given that resources are moving away from the primary and manufacturing sectors towards services, it may be necessary in the service sector to couple employment growth with high productivity growth. The technological improvements related to the new economy may help foster productivity growth in this sector.

Structural rigidities in the functioning of the labour market are often blamed for the EU's poor economic performance compared to the US. However, as a Commission study has shown<sup>13</sup>, the lack of labour market flexibility cannot explain the differential in GDP growth between the EU and the US. Rather, the differences in growth performance could be related to the comparative advantages – i.e. to the advantage related to the qualitative characteristics of the specialisation of the goods produced – of the US in the technology-producing industries and may be detected in differences in the sectoral patterns of productivity.

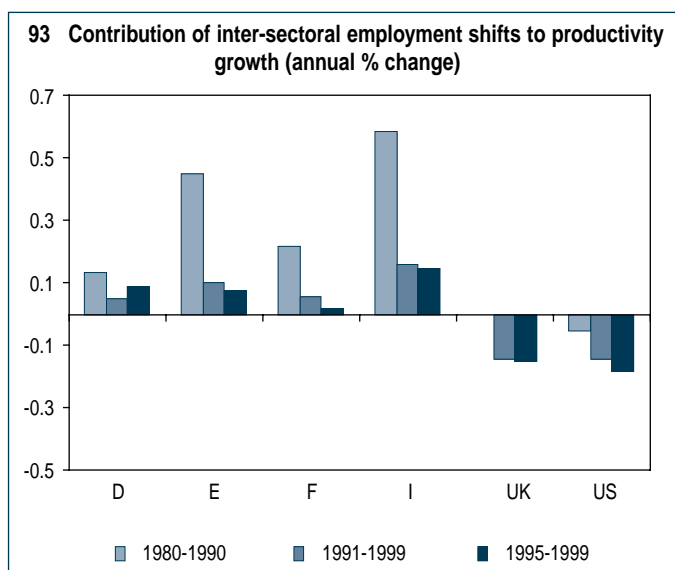
The exploitation of the potential of the knowledge-based economy may make these productivity gains sustainable. The fact that labour productivity responds more to productivity trends within sectors suggests that industrial and competition policies will also have at least the same bearing as employment policy in boosting labour productivity.



Source: Commission Services



Source: Commission Services



Source: Commission Services

<sup>13</sup>European Economy Economic Trends No 12, December 2000

## Conclusions

The EU's economic performance is encouraging and there is evidence that the underlying macroeconomic conditions that may support a knowledge-based economy are falling into place. The employment intensity of growth has increased markedly in the last five years, and

the labour markets are less inflation-prone.

The challenge that Europe has to face is how to couple productivity growth and employment growth. This is important to profit fully from the introduction of new technologies. Mobilising unused human resources and increasing labour pro-

ductivity are crucial in order to increase per capita output. The fact that labour productivity responds more to productivity trends within sectors suggests that industrial and competition policies will have at least the same bearing as employment policy in boosting labour productivity.



## Chapter 4: Quality in work and social inclusion

### Introduction

The Social Policy Agenda<sup>14</sup> provided a comprehensive and coherent approach for the EU to confront the new challenges resulting from Europe's transition to a knowledge-based economy. The promotion of a high quality in work is central to this approach. The European Councils in Stockholm and Nice further stressed the need to raise quality in work throughout Europe. They called for improvements across several dimensions of quality in work: a good working environment for all; equal opportunities and gender equality; flexible work organisation that allows for a better balance between working and personal lives;

lifelong learning; health and safety at work; employee involvement and diversity at work.

The recent years have seen positive trends in labour market performance not only in quantitative but also in qualitative terms. The improvements in the quality of the European labour supply have been met to a large extent by an increasing demand for high quality jobs characterised by high educational and skill requirements, relative job security, access to training and possibilities of career development, high productivity and relatively high pay.

Fears that the trends of increasing employment in the service sector

would lead to a proliferation of dead-end jobs of bad quality have not materialised. As in the US, there is evidence of creation of both "good" and "bad" jobs in the knowledge-based economy. "Non-standard" forms of employment such as part-time work seem to be in many cases the outcome of individual choices.

Nevertheless, some concerns about the job quality and social inclusion of parts of the employed remain. The increasing importance of new and flexible employment patterns is in many cases in conflict with some of the main dimensions of job quality like job security, possibilities of further training and career prospects. There is some evidence that chang-

### 7

#### Data on job quality

Job quality is a relative concept regarding a job-worker-relationship, which takes into account both objective characteristics related to the job and the match between worker characteristics, on the one hand, and job requirements, on the other. It also involves subjective evaluation of these characteristics by the respective worker on the basis of his or her characteristics, experience, and expectations. In the absence of a single composite indicator of job quality, an empirical analysis of job quality necessarily has to be based on data on both objective job and worker characteristics and subjective evaluations of the job-worker match.

Empirical results reported in this section are based on data from the European Community Household Panel (ECHP, 1994-1996), the European Surveys on Working Conditions (European Foundation, 1990, 1995 and 2000), the European Statistics on Accidents at Work (ESAW), Eurostat's Health and Safety Database (HASTE, Eurostat Key Data on Health 2000), and the harmonised Community Labour Force Survey 1995-2000, including an ad hoc module on "accidents at work and occupational diseases" in 1999.

The data available from the ECHP contain information on both the individual and the household level for the years 1994-96, with more than 120,000 observations per year. They include information on the current labour market status, recent job changes, objective job characteristics such as earnings, contract type, working time, job status, and employer-provided training, actual job search behaviour, overall job satisfaction and satisfaction with various specific job aspects such as remuneration, job content, working conditions, job security, working hours, and working time. They also can be used to analyse transitions in the labour market.

The European Surveys on Working Conditions (European Foundation, 1990, 1995 and 2000) provide data on various aspects of job quality such as objective physical working conditions (noise, extreme temperatures, repetitive tasks, etc.) and subjective evaluations regarding work-related health (fatigue, stress, backache, muscular pains) and job satisfaction as well as health-related absenteeism.

The European Statistics on Accidents at Work (ESAW) database contains comparable information on accidents at work, both fatal and non-fatal. Accidents that lead to more than three days of absence are considered. Fatal accidents are defined as accidents that lead to the death of a victim within a year of the accident. The data are part of the Eurostat Health and Safety Database (HASTE). The Eurostat publication Key Data on Health 2000 further includes information on working conditions and health status.

The harmonised Community Labour Force Survey 1995-2000 contains the most recent data on several objective job characteristics such as contractual arrangements, working types, training, occupation and sector of employment, atypical working times, number of working hours, and search behaviour including the self-reported wish to take up a new job or to change working time and hours by main reason. Its 1999 ad hoc module covers "accidents at work and occupational diseases".

<sup>14</sup> Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions, Social Policy Agenda, COM(2000) 379 final.

ing forms of employment and ever-tighter rhythms of work have not allowed working conditions to improve in Europe. Those employed in jobs of poor quality are also at much higher risk of becoming unemployed or of dropping out of the labour force. Together with the ongoing massive job destruction for low-skilled, low-productivity jobs, this points to increasing difficulties in integrating individuals with low skills into the labour market at all. Concerns about job quality are therefore strongly related to concerns about labour market segmentation and social exclusion. While paid employment may remain "the best safeguard against poverty and social exclusion", there is also a close link between job quality and social exclusion.

This section analyses job quality – understood as a relative concept regarding a job-worker-relationship (Box 7) – and related concerns about labour market segmentation and social exclusion from two different viewpoints.

–Firstly, in terms of individuals' self-reported satisfaction with their main activity status (whether it be employment, unemployment, or inactivity). For the employed, satisfaction with their job in general and its specific characteristics such as earnings, job security, working time, working hours, work content, work control, working conditions

and work-related health is analysed. The main factors influencing job satisfaction and their evolution in the period 1995-2000 are also considered.

–Secondly, jobs are classified according to their objective characteristics such as job security, work content, training possibilities and career prospects, and productivity and pay. Transitions between jobs of different quality are analysed to assess improvements of job quality, on the one hand, and vulnerability to job loss and social exclusion on the other.

While an important majority of Europeans report high levels of satisfaction with their activity status in general and, if employed, with their job in particular, almost a quarter of the European workforce are in jobs of low quality. Both upward and downward mobility on the job quality ladder is important. While on average a third of all those employed in jobs of poor quality change to a better job within a year, up to a quarter become unemployed or leave the labour force.

**Satisfaction with main activity status**

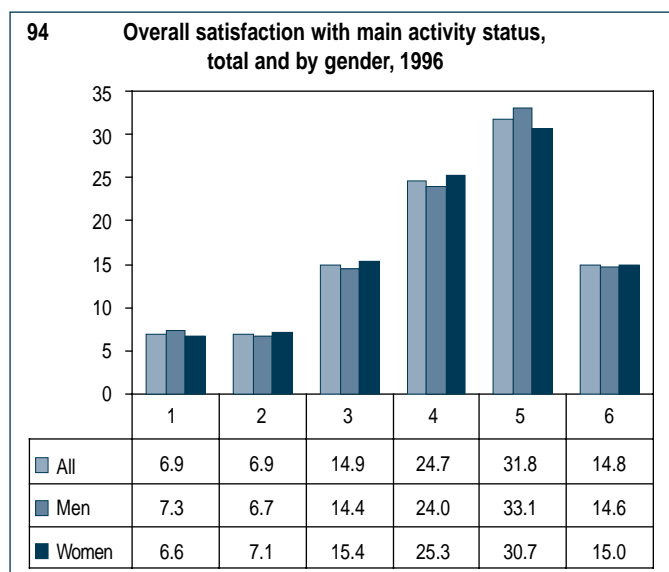
More than 70 % of Europeans are satisfied with their main activity status, compared to less than 30% who declare themselves rather dissatisfied (Chart 94). Rates of dissatisfaction are slightly higher for

women, young workers and inactive individuals and, not surprisingly, dramatically higher for the unemployed. In this latter group, three quarters report themselves dissatisfied or very dissatisfied with their main activity status (Chart 95).

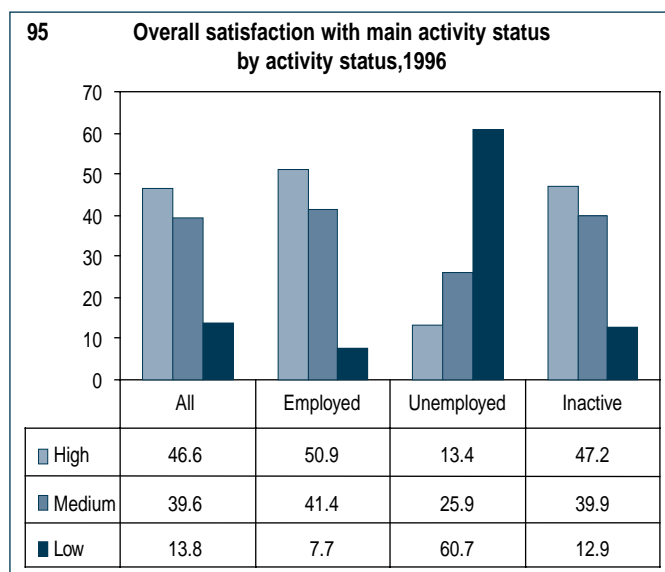
The higher fraction of dissatisfied youth seems to be due to both the relatively high fraction of (dissatisfied) young unemployed as well as lower levels of self-reported job satisfaction of the employed in this age group. Slightly higher levels of dissatisfaction for women are mainly due to their higher share among the group of dissatisfied inactive individuals, while self-reported job satisfaction levels of employed women are – if anything – generally slightly more favourable than those reported by employed men.

Among the inactive, rates of satisfaction with the main activity status are similar between the retired and those who are inactive for other reasons, with low satisfaction reported by 17% and 13%, and high satisfaction levels by 40% and 47%, respectively.

Dissatisfaction with unemployment is especially pronounced among young and highly educated groups of the workforce. Older individuals, on the contrary, tend to report similar satisfaction levels independently of their actual activity status. The young however show higher satisfaction rates when inactive, probably due to being still in education.

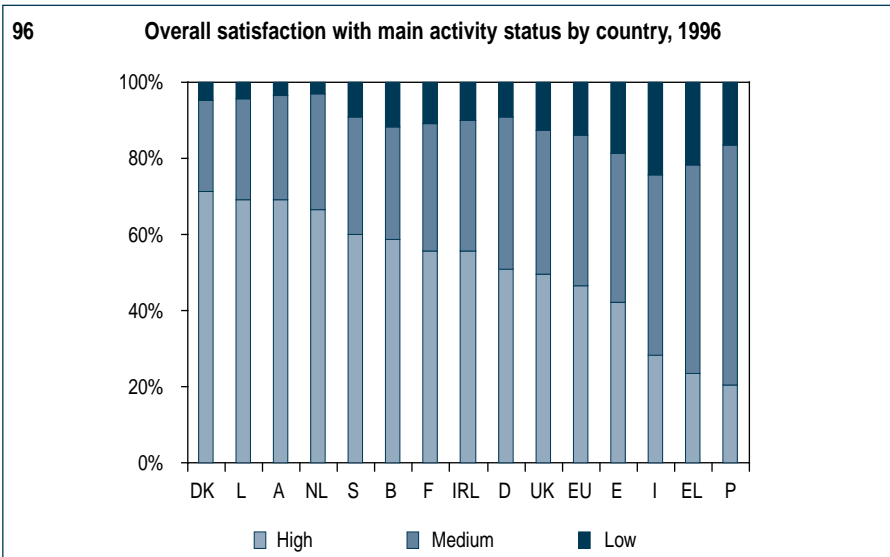


Source: ECHP, wave 3  
 Note: Individuals were asked to rank their satisfaction with the main activity status (employment, unemployment or inactivity) on a scale from 1 to 6, with "1" indicating complete dissatisfaction and "6" complete satisfaction.



Source: ECHP, wave 3 (1996)  
 Note: Based on the individual replies regarding their satisfaction with the main activity status (employment, unemployment or inactivity), self-reported satisfaction levels of 1 and 2 are defined as "low", 3 and 4 as "medium", and 5 and 6 as "high".





Source: ECHP, wave 3 (1996)

This picture is similar across countries, with satisfaction levels highest in Denmark, Luxembourg, Austria and the Netherlands, and lowest in Italy, Greece and Portugal. The picture is different for the unemployed though, who show high rates of discontent of 50% or more in all EU Member States except Denmark and the Netherlands (Chart 96). These country differences cannot necessarily be interpreted as differences in job quality across countries (Box 8). In all countries, significantly lower satisfaction levels are found among both the unemployed and the inactive, with the exceptions

of Austria and Luxembourg, where there do not seem to be differences in the levels of overall satisfaction with the activity status between employed and inactive. Gender differences seem to prevail in some countries with women generally declaring significantly higher rates of satisfaction with their main activity status in Germany, Austria, Ireland, the UK, Spain and Finland, and significantly lower levels of overall satisfaction in Italy, Greece and Portugal<sup>15</sup>.

Changes in the level of satisfaction with the main activity status are

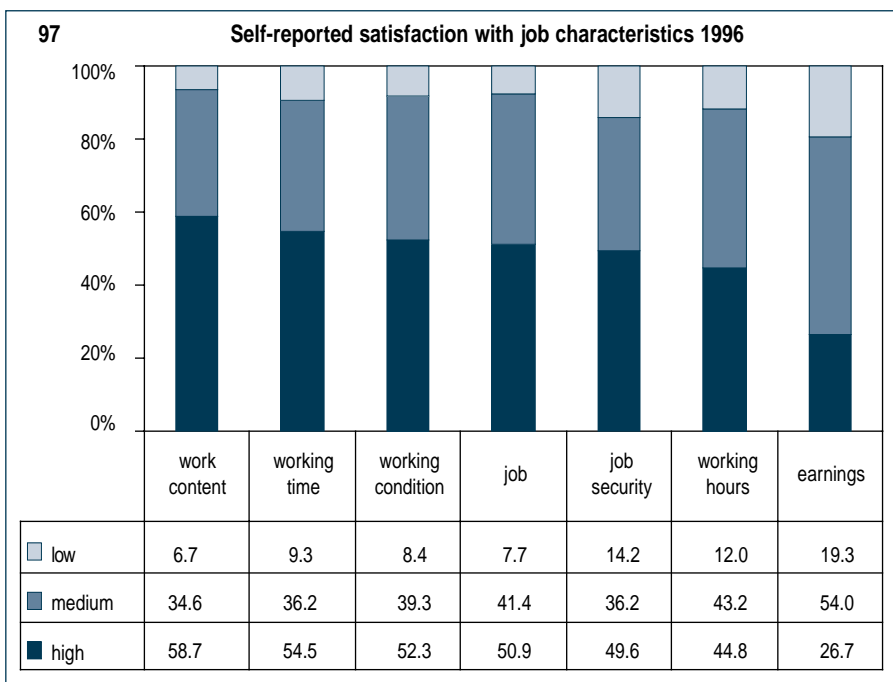
driven predominantly by labour market transitions into or out of unemployment. Transitions into unemployment are linked to decreasing satisfaction levels independently of the labour market state of origin, while transitions out of unemployment either into employment or into inactivity are generally accompanied by increasing levels of self-reported satisfaction.

### Job satisfaction

Among the employed in Europe, a similar picture emerges: while almost 80% of all employed report high or even very high levels of satisfaction with their jobs in general, around 20% are dissatisfied with their current job. Additionally, there are differences in the evaluation of the various job characteristics, with generally higher-than-average satisfaction with work content, working time and working conditions and lower-than-average satisfaction with job security, working hours, and earnings (Chart 97). The highest levels of discontent are found with respect to earnings (44%) and job security (29%). The main factors influencing overall job satisfaction are satisfaction with the general work content, the working conditions and, although to a somewhat lesser extent, working hours, job security and earnings.

There exist considerable differences in job satisfaction across countries and with respect to individual characteristics of the employed.

Among the main determinants of job satisfaction are: high earnings, high tenure on the job, relative job security due to a permanent contract, full-time work, supervisory job status, high-skilled work as professional, technician or manager and legislator, and work in the public and service sectors, including sales workers. On the other hand, low earnings, a precarious job status due to a temporary contract, a low non-supervisory job status and low-skilled or manual or elementary work, especially in agriculture, negatively impact on the quality of a job as measured by self-reported levels of job satisfaction.



Source: ECHP, wave 3 (1996)

<sup>15</sup> The results on the main determinants of satisfaction with the main activity status presented in this section are based on the estimation of an econometric model and are conditional on main worker and job characteristics as well as country-specific effects which were controlled for in the analysis.



Self-reported job satisfaction across gender is similar, but generally, men express slightly higher degrees of dissatisfaction than their female counterparts with working hours, working time and working conditions. Younger workers tend to report lower levels of satisfaction with earnings, job security and work content, but do on the other hand report favourably on working conditions, working times and working hours. Older workers, on average, report higher satisfaction with all of these job characteristics.

The strongest differences in the subjective evaluation of their jobs are found between high and low educated persons employed. The latter report significantly lower levels of satisfaction with all aspects of their jobs and especially with work content, working conditions and earnings. Workers with tertiary education, by contrast, tend to report above-average satisfaction levels with all of these job characteristics. Conditional on the main job and worker characteristics, however, highly educated persons employed are found to report significantly lower levels of satisfaction, probably indicating differences in expectations regarding the job.

Job satisfaction varies strongly across several job characteristics such as contract types and working time arrangements. Temporary workers and involuntary part-time workers report strong degrees of job dissatisfaction. This discontent is not restricted to working hours, job security or earnings alone, but is equally pronounced for other factors, especially work content, suggesting that involuntary part-time workers and temporary contract workers would not only prefer different working hours and contractual arrangements but in many cases an entirely different job.

The highest levels of discontent are expressed by temporary workers and involuntary part-time workers for job security (40% very dissatisfied) and by involuntary part-time workers with regard to both earnings (41%) and – unsurprisingly – working hours (35%). On the other hand, voluntary part-time workers express the highest satisfaction levels with most job characteristics

(77% working hours, 73% working time, 65% work content and working conditions).

Job satisfaction levels for part-time jobs not only differ significantly between countries, but also provide ambiguous evidence. While in countries with large shares of involuntary part-time workers satisfaction levels are very low in general, they are strongly above the country-specific average in countries with high rates of voluntary part-time workers. Evidence from country-specific regressions shows that part-time work actually leads to lower job satisfaction in Greece and Italy, whereas in Germany, Austria, the Benelux countries, France, the UK and Ireland, part-time workers report significantly higher satisfaction levels. Those in part-time work voluntarily, or because of childcare, family reasons or further education, report significantly higher job satisfaction levels than the full-time employed, while those involuntarily in part-time jobs, especially men, report strong dissatisfaction.

While both higher education levels and self-reported over-qualification for the job significantly decrease self-reported satisfaction levels, the need for specific training necessary to perform the current job, reflecting high-skilled work content, and the provision of employer-provided training as a means for up-skilling and career development, lead to significantly higher job satisfaction levels.

Finally, there are clear differences in job satisfaction across the different sectors of employment. Workers in industry and in agriculture report significantly lower levels of satisfaction with earnings, job security, work content and working conditions than those working in the service sector.

Significant changes in job satisfaction are found after job changes or after increases in the remuneration level. Generally, sectoral mobility out of industry or agriculture into the service sector is related to increasing satisfaction levels, possibly indicative of the comparably high quality of the jobs in the service sector. Similar increases in the level of job satisfaction are caused by promotions to a higher job status,

## 8

### Using subjective satisfaction data in employment analysis

The use of individual-level data on satisfaction with various life situations, job characteristics, and future prospects is by now well established, and appropriate models for the analysis of their main determinants are available. Given the lack of comparable matched employer-employee data, it seems a good alternative to make use of individuals' subjective evaluations of the quality of their employment situation and the quality of the match between their own characteristics, experience, and expectations, on the one hand, and the characteristics and requirements related to their job on the other.

Summary statistics presenting average values of job satisfaction by country or by some worker or job characteristic are not strictly comparable and should be interpreted with caution, though. In the extreme case where such country differences in self-reported job satisfaction levels were only due to differences in degrees of general optimism or overall satisfaction with life in general, but not at all related to inherent differences in job quality, satisfaction data would actually not be an adequate basis for analysing qualitative aspects of individuals' labour market situation and jobs. In the opposite case, assuming homogeneity in all (unobservable) characteristics such as optimism, honesty, etc., differences in satisfaction levels would perfectly reflect inherent differences in job quality.

While certainly neither of these two extreme assumptions holds, econometric methods exist that allow one not only to control for factors influencing the way individuals respond to questions about subjective aspects relating to their private and working lives such as e.g. cross-country differences or differences over time, but also to control for phenomena of individual self-selection. When analysing the determinants of job satisfaction, this need to control simultaneously for both job and worker characteristics and country-specific effects as well as, ideally, for potential self-selection bias, thus, has to be taken into account.

and by transitions from atypical forms of work to more standard ones, such as from temporary to permanent contracts or from involuntary part-time jobs to full-time jobs.

### The evolution of job quality determinants in Europe 1995-2000

As shown above, the type of work contract (temporary vs. permanent), working time (full-time vs. part-time) and its nature (voluntary vs. involuntary), job security, the job status (supervisory, intermediate, non-supervisory) and the provision of employer-provided training are important determinants of job satisfaction. This section analyses the structure and evolution of these job characteristics in the period 1995-2000 on the basis of data from the Community LFS as well as the ECHP.

#### Contract types

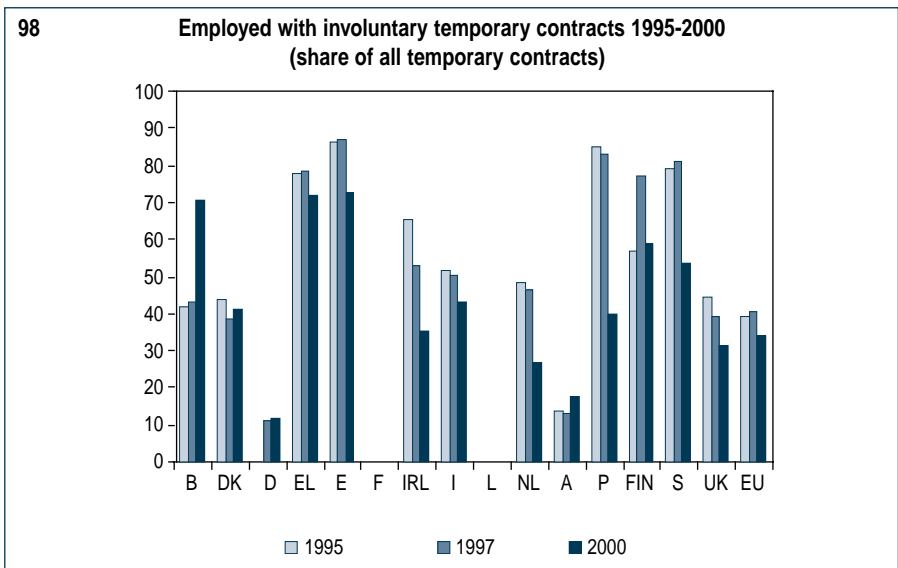
More than a third of temporary contractual relationships can generally be described as involuntary. Despite the rising share of temporary employment contracts in recent years across Europe, the share of involuntary temporary workers among all employed has been decreasing since 1997 from 40% of all employed in temporary contracts to below 35%, equivalent to 4.5% of total employment.

Involuntary temporary contracts seem particularly pronounced in Spain, Greece, Belgium, Portugal, Sweden, and Finland, with more than half of all employed in temporary contracts declaring themselves to be so involuntary. On the other hand, in Austria and Germany - both countries with comparably low shares of employed in temporary contracts - a much smaller fraction of these declares themselves as involuntary. In Spain, every fourth person employed is involuntarily in a temporary contract while in Finland, Greece, Portugal and Sweden it is one in 10 (Charts 98 and 99).

At EU level, almost one third of all those employed in temporary contracts were in a permanent job after a year, whereas more than 20% left the labour force or became unemployed. Almost half of those in temporary contracts a year ago were still in temporary contracts one year

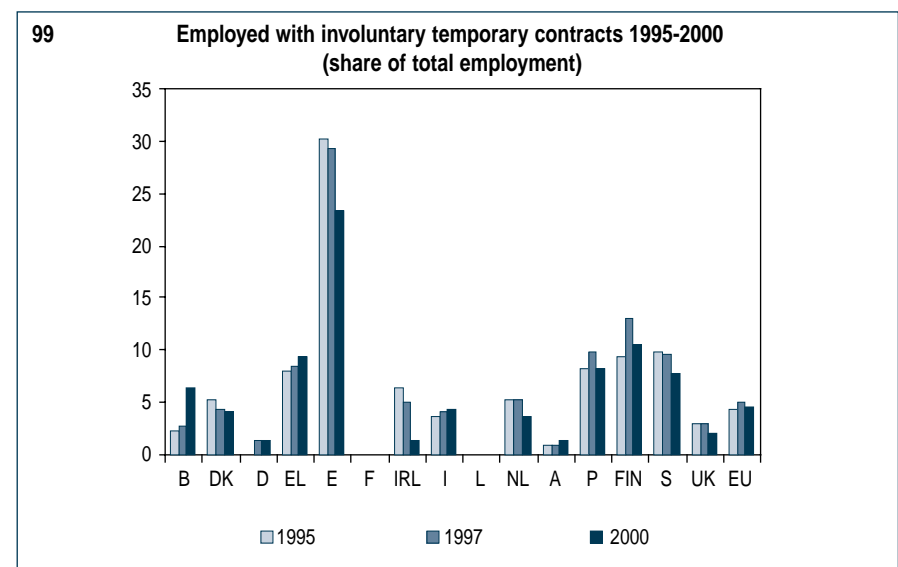
21 Transitions out of permanent and temporary jobs 1995/96 by gender (transition rates in %)						
Job status 1996	Job status 1995					
	Total		Women		Men	
	Perm	Temp	Perm	Temp	Perm	Temp
Permanent	91.5	30.9	90.3	27.7	92.4	32.3
Temporary	3.8	47.1	3.7	47.6	3.9	47.4
Unemployment	1.9	12.6	1.9	12.1	1.8	12.6
Inactivity	2.9	9.5	4.1	12.7	2.0	7.7

Source: ECHP, waves 2 and 3 (1995 and 1996)



Source: Eurostat, LFS

Note: no information available for France; data for Luxembourg are unreliable due to small sample size



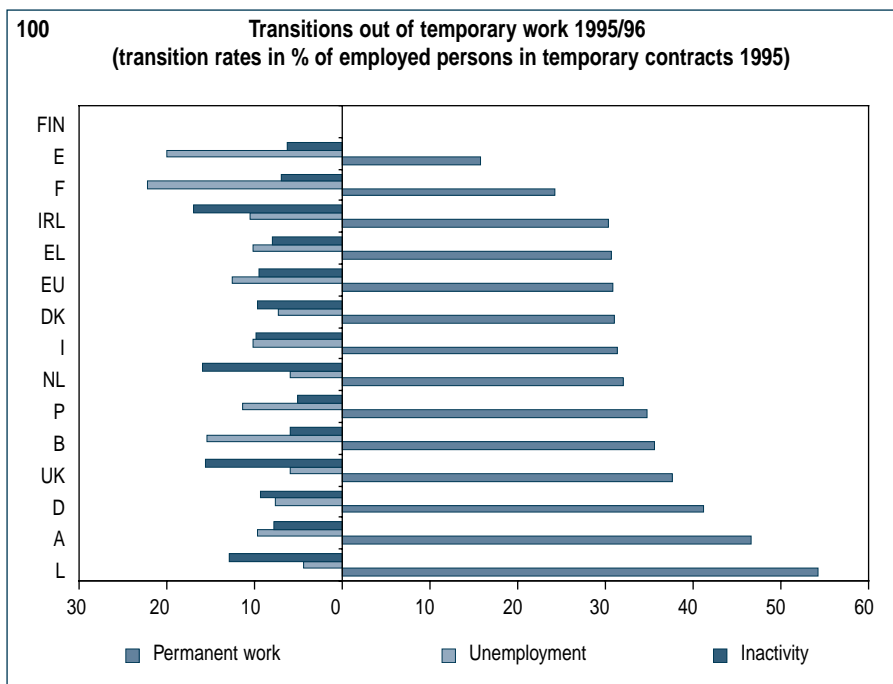
Source: Eurostat, LFS

Note: no information available for France; data for Luxembourg are unreliable due to small sample size

22 Transitions out of permanent and temporary jobs 1995/96 by age group (transition rates in %)						
Job status 1996	Job status 1995					
	15-24		25-54		55-64	
	Perm	Temp	Perm	Temp	Perm	Temp
Permanent	82.2	26.3	93.2	32.2	83.4	30.3
Temporary	7.6	41.5	3.5	49.2	4.2	42.5
Unemployment	4.2	14.9	1.6	11.9	2.7	14.0
Inactivity	6.1	17.4	1.6	6.8	13.2	13.2

Source: ECHP, waves 2 and 3 (1995 and 1996)

later (Table 21). This compares to less than 5% of those employed in permanent contracts who were either unemployed or inactive one year later, and generally low transition rates from permanent to temporary jobs of 4%. More than 90% of all employed in permanent contracts thus enjoyed a relatively stable employment relationship. Transition rates out of temporary jobs into permanent jobs are slightly higher for men and prime-age workers (Table 22). Transitions out of temporary jobs into unemployment or inactivity are most important among both young and older workers, with transitions into inactivity more common among women.

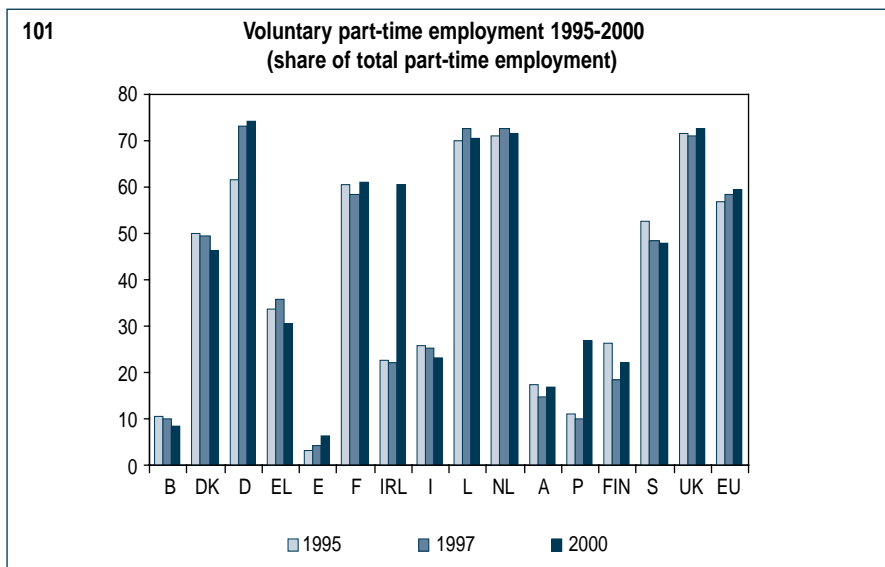


Source: ECHP, waves 2 and 3 (1995 and 1996)  
 Note: to improve visibility, positive transition rates into unemployment or inactivity are presented as bars to the left in the above chart.  
 No data available for Finland in 1995.

Transitions out of temporary work varied considerably across Member States (Chart 100). In Luxembourg, Austria and Germany, for example, more than 40% of those in temporary jobs were in a permanent contract one year later, while such transitions into permanent jobs were much less frequent in Spain and France. In these countries and in Belgium, transitions from temporary contracts into unemployment were the highest in the Union. Transitions into inactivity were particularly important in Ireland, the Netherlands, the UK and Luxembourg.

*Working time*

The share of voluntary part-time workers – those who declare that they do not want to work more hours – has remained stable at the high level of 60% of all part-time workers over the last years in Europe whereas that of involuntary part-time workers has decreased slightly to a level of 15%. Rates of voluntary part-time work are highest in the Netherlands, Luxembourg, Germany and the UK, where actually more than 70% of all part-time workers declare themselves as voluntary. On the other hand, these rates are especially low in Spain and Belgium (Chart 101).



Source: Eurostat, LFS

When expressed as a share of total employment, voluntary part-time work is seen to be important in the Netherlands where almost one in three employed people is a voluntary part-time worker (Chart 102). In the UK, Germany, France, Swe-

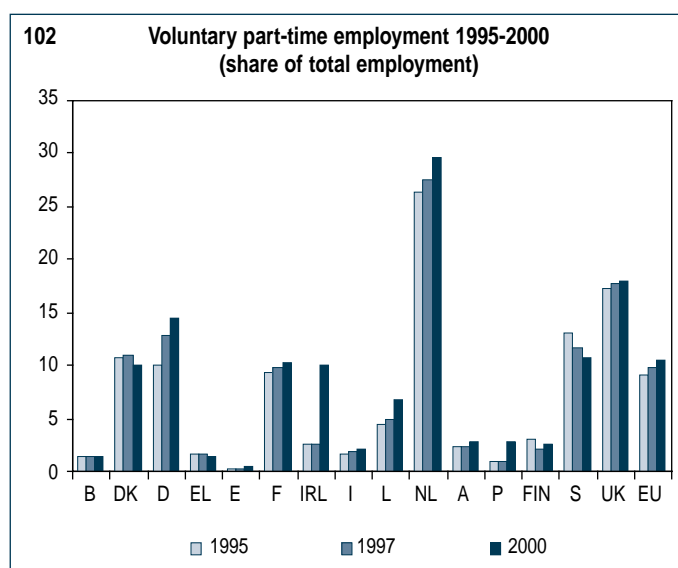
den and Denmark, every tenth person employed is a voluntary part-time worker. The share of voluntary part-time workers in total employment has been further increasing in the Netherlands, Ireland, Portugal, Germany, France, the UK and Luxembourg while decreasing in Sweden (Chart 103). The share of involuntary part-time workers in the European workforce – those who declare that they would like to work more hours but cannot find such a job – remained at a low level of 3%, with shares above EU average in Sweden, France, Finland, Germany, Italy and Denmark (Chart 103).

Part-time employment relationships are relatively stable over time, with almost two thirds of all part-time workers remaining part-timers in two consecutive years, 20% moving into a full-time job, and 16% leaving employment into inactivity or unemployment. Transition rates into both full-time employment and unemployment are further significantly higher among involuntary part-time workers (Table 23). Spain and Greece, the countries with the highest transition rates from part-time to full-time employment, are also the countries with the highest transition rates from part-time work into inactivity (Greece) or unemployment (Spain). In France, transition rates into unemployment are also high, while in Portugal, Italy and Ireland, transitions into inactivity prevail (Charts 104 and 105).

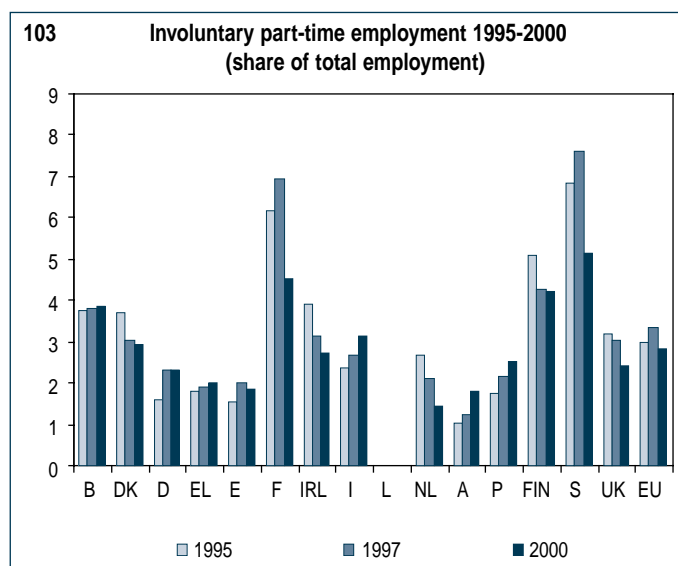
Recent trends in atypical forms of work – temporary working contracts and part-time work – thus show diverging trends, with ambiguous conclusions as to quality improvements of European employment. As shown before, both temporary contracts and – involuntary – part-time jobs are generally related to strong degrees of workers' dissatisfaction with their job. Increases in the incidence of these forms of atypical work could thus be related to decreases in the overall job quality as perceived by the employed. Increases in the incidence of part-time jobs, however, might lead to higher job quality in cases where these part-time jobs are mainly voluntary.

#### *Job security*

Job security as reflected in job tenure was stable between 1995 and 2000, with around three quarters of all the employed having been in their job for more than two years. The share of employed people who have been in their job for less than two years increased between 1995 and 2000. This increase is due to cyclical effects and reflects both massive job creation as well as higher labour turnover due to increased job mobility (Table 24).



Source: Eurostat, LFS

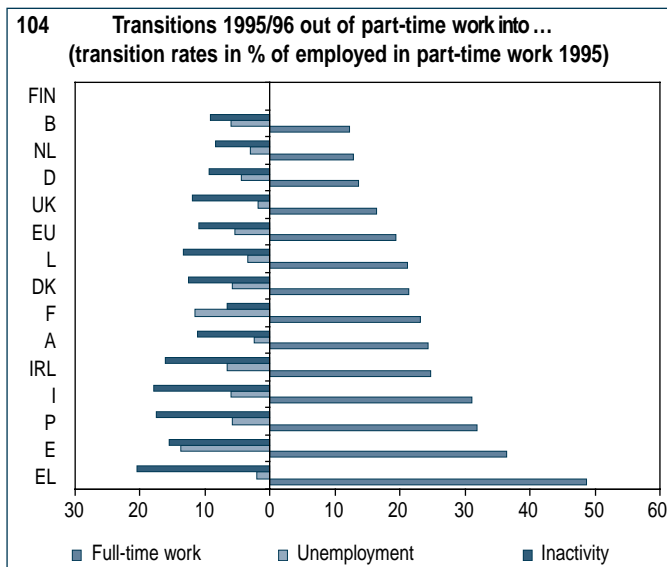


Source: Eurostat, LFS

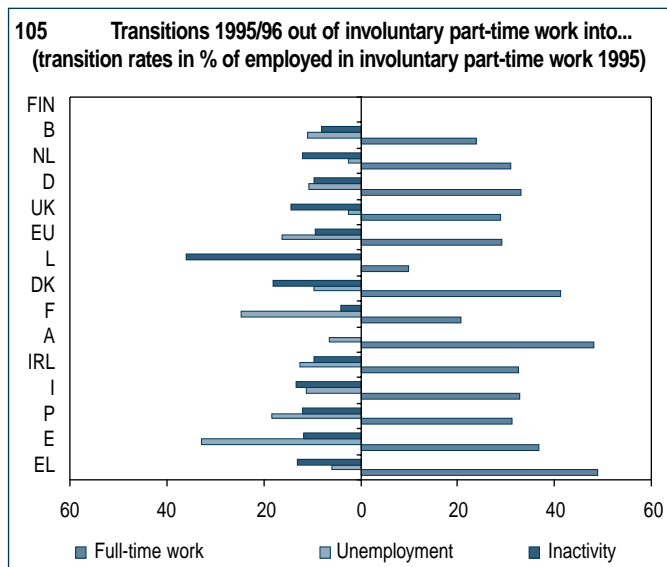
### 23 Transitions out of full-time and part-time jobs 1995/96 (transition rates in %)

Job status 1996	Job status 1995					
	Full-time	Part-time total	Part-time Men	Part-time Women	Invol. PT	Vol. PT
Full-time	91.0	19.4	37.7	16.4	29.1	14.6
Part-time	2.4	64.2	37.4	68.6	45.5	73.7
Unemployment	3.0	5.4	9.4	4.8	16.1	2.2
Inactivity	3.5	11.0	15.6	10.2	9.3	9.5

Source: ECHP, waves 2 and 3 (1995 and 1996)



Source: ECHP, waves 2 and 3 (1995 and 1996)  
 Note: to improve visibility, positive transition rates into unemployment or inactivity are presented as bars to the left in the above chart.  
 No data available for Finland in 1995.



Source: ECHP, waves 2 and 3 (1995 and 1996)  
 Note: to improve visibility, positive transition rates into unemployment or inactivity are presented as bars to the left in the above chart.  
 No data available for Finland in 1995.

**Career prospects and employer-provided training**

51% of all the employed in the EU work for employers who provide training (ECHP, 1996). While high-educated individuals (68%) and those employed in the service sector (57%) are more likely to work for such employers, younger workers (43%), low-educated workers (34%), and workers in industry (41%) and in agriculture (20%) report significantly lower incidence of employer-

provided training. Young employed and low-educated individuals receive less than average training in all sectors, with 41% of all low-skilled in the service sector and only 27% of those in industry benefiting from employer-provided training (Chart 106).

While there are no significant differences in the provision of employer-provided training between full-time employed and those working part-time, young part-time workers

(31%) in particular seem to lack chances for further qualification provided by the employer: less than one in three enjoy training possibilities on their job. Differences in the provision of further training by skill level, however, are more pronounced among full-time employed: while 68% of the high-skilled are in firms that provide training, only 34% of the low-skilled are. These differences are worse for employed with temporary contracts: 29% of all part-

24 Job tenure in the EU in 1995 and 2000						
	Job tenure 1995			Job tenure 2000		
	Less than 1 year	Between 1-2 years	More than 2 years	Less than 1 year	Between 1-2 years	More than 2 years
A	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
B	10.2%	7.6%	82.3%	13.7%	9.3%	77.0%
D	14.5%	9.6%	75.9%	14.5%	9.6%	75.9%
DK	22.7%	11.3%	66.0%	23.2%	13.3%	63.5%
E	28.3%	5.6%	66.1%	20.9%	10.2%	68.9%
FIN	16.4%	6.2%	77.4%	21.7%	8.7%	69.6%
F	13.7%	7.9%	78.4%	15.9%	9.7%	74.5%
EL	8.7%	6.6%	84.7%	9.6%	6.1%	84.3%
IRL	14.4%	10.0%	75.6%	21.9%	12.8%	65.3%
I	6.8%	6.7%	86.5%	11.2%	7.8%	81.0%
L	10.0%	8.1%	81.9%	11.6%	8.6%	79.8%
NL	13.3%	8.9%	77.8%	20.5%	10.7%	68.8%
P	11.0%	8.2%	80.7%	14.7%	9.2%	76.2%
S	14.3%	7.8%	77.9%	15.9%	9.6%	74.5%
UK	18.0%	10.6%	71.3%	19.5%	12.3%	68.3%
EU-15	14.8%	8.5%	76.7%	16.4%	10.1%	73.5%

Source: Eurostat, LFS



time employed on permanent contracts are in firms which offer training compared to 33% of all temporary contract workers in general and to only 18% of all low-skilled temporary workers.

28% of all employed participated in training measures in the year preceding the interview. Training incidence was highest among the young employed (46%) and high-skilled (40%) compared to low-skilled (17%) and older workers (14%). It was slightly higher for women while similar between full-time and part-time employed as well as between employed on permanent or temporary contracts. Training incidence was also significantly higher in the service sector (32%) than in industry (22%) or agriculture (10%).

According to the Third European Survey on Working Conditions in 2000, almost 75% of all employed in the EU learnt new things in their current job, and a third actually benefited from training provided by their company with an average duration of 4.4 days per employee per year.

#### *Job status, job control and work content*

Almost 30% of the employed in the European Union, 36% of all employed men and 20% of all employed women, are in either supervisory or intermediate functions - which is generally indicative of higher job satisfaction. The fraction of individuals in supervisory function is highest among the high-skilled, with 46% of them in supervisory functions as opposed to 17% of the low-skilled. Furthermore, employed on temporary contracts (17%) in part-time jobs (11%), particularly, are less likely to be in jobs with supervisory or intermediate functions.

According to the Third European Survey on Working Conditions job control has slightly increased in recent years, although still one third of all employed declare having no control on either work methods, speed or the order of tasks. Around two thirds of the employed state that they can control their work rhythm and their work methods. A majority of the employed has to do at least some repetitive tasks on

their job, one third of all employed do so all the time.

When asked to assess their skills with respect to their current job, moreover, 58% of all the employed in Europe declare that they have skills to do a more demanding job and thus seem either over-qualified for their job or ambitious to perform more demanding tasks. While this self-assessment is similar across men and women and younger and prime-age workers, full-time and part-time employed as well as workers on permanent and temporary contracts, it differs significantly by sector and educational background: 41% in industry compared to 57% in services and two thirds of the high-skilled declare themselves as "over-qualified" for their current job.

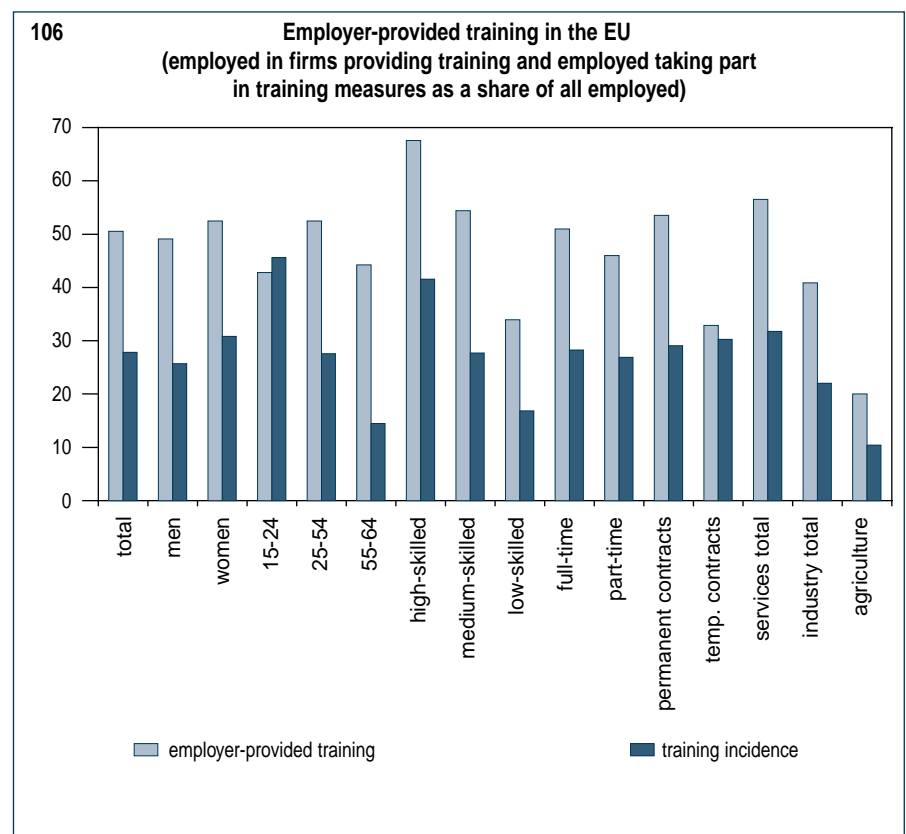
#### *Working conditions and health and safety at the workplace*

The above findings on recent improvements in working conditions seem to be at conflict with results from recent surveys on working conditions and health and safety at the workplace. These suggest that working conditions, including safety at the workplace, have not necessarily

improved in Europe over the last years and that work-related health problems and the incidence of occupational diseases might have increased.

According to the Third European Survey on Working Conditions, more than a quarter of the European workforce consider that their health and safety are at risk because of their work. Despite a slightly decreasing fraction of employees who see their health and safety at risk because of their job (from 30% in 1990 to 27% in 2000), there have been no improvements in the physical working environment over the last decade, with increasing shares of workers exposed to noise, painful or tiring positions and stress. While there were improvements in other areas such as increasing job control and training and support, these improvements do not outweigh the deterioration in other areas.

The main reasons for the deterioration in working conditions are the intensification of work and the increased importance of flexible employment practices. New forms of



Source: ECHP, wave 3 (1996)

Note: Training measures considered above include both employer-provided training and private training measures.

employment relationships and the increased pace of work in the knowledge societies may lead in some cases to increased problems such as stress and fatigue, but also to physical health problems.

The increasing intensification of work has been found to be strongly linked to health disorders and accidents at work. Changing employment patterns and increased flexibility further have important repercussions on workers' family and social lives.

Negative health-related outcomes were found to be more pronounced among employed persons in precarious temporary employment relationships, but in general slightly less pronounced for part-time workers as compared to full-time workers. Working conditions and health-related outcomes were found to be poor in low-skill sectors in both industry ("mining and quarrying and manufacturing") and services ("other services") as well as among clerks and in low-skilled or unskilled manual occupations (craft and trade workers, services and sales workers and elementary occupations). Furthermore, especially temporary agency workers and fixed-term contract workers show significantly higher dissatisfaction with working conditions.

In 1998, 4.7 million accidents which resulted in more than three days absence from work occurred in the EU, equivalent to 41 accidents per 1000 employees, affecting more than 4% of the EU workforce. 29% of all accidents occurred in manufacturing and 18% in construction. The risk of accidents at work was highest for men, young employees and workers in the wood industry and auxiliary transport services as well as in metallurgy and construction. It is significantly lower in firms with more than 250 employees. Finally, one in ten Europeans employed complained of a lack of information on work-related risks.

Despite this rather negative outlook on the recent evolution of working conditions and health and safety in the workplace, it has to be borne in

mind that the results are based on a survey specifically studying working conditions. Even employed who are generally satisfied with their working conditions might record dissatisfaction with particular aspects of work such as stress or fatigue. And indeed, when asked to evaluate their overall working conditions in the same survey, more than 80% of all European employed state high satisfaction levels.

Nevertheless, results clearly indicate that working conditions and health and safety at the workplace have not improved recently. Improving working conditions thus remains on the agenda to increase job quality.

### **Identifying "good" and "bad" jobs in Europe**

Among the main factors which characterise jobs of high or low quality are job security or its absence, access to training and career development. After having highlighted recent trends in these factors, this section analyses in more detail job quality in Europe. It groups jobs according to three main dimensions of job quality: job security, access to training and career development, and hourly wages. Hourly wages are considered as an indication of productivity. While there are undoubtedly other important dimensions of job quality, data availability is in many cases limited. Further work will be needed to integrate other important dimensions such as working conditions into an analysis of job quality.

According to the above factors, four types of jobs are distinguished. These are: "dead-end jobs"; "low pay/productivity jobs"; "jobs of reasonable quality" and finally, "jobs of good quality".

"Dead-end jobs" are either fixed-term or short-term contracts or jobs without formal contract in non-supervisory functions that do not offer any further employer-provided training. They may further be classified according to their pay/productivity as jobs with either low or decent pay and productivity, where

pay/productivity is defined as "low" if below 75% of the country-specific median hourly wage and as "decent" otherwise.

"Low pay/productivity jobs" are defined as those jobs that, despite their low pay of hourly wages below 75% of the country-specific median, offer at least job security or employer-provided training and career prospects. Hourly wages below 75% of the country-specific median indicate that these jobs are jobs of relative low productivity.

"Jobs of reasonable quality" are jobs with at least decent pay/productivity and either relative job security or employer-provided training and career prospects. Finally, those jobs which offer both of these characteristics in addition to decent pay/productivity are defined as "jobs of good quality".

At EU level, three quarters of all jobs are of good or reasonable quality. 38% of all jobs are "jobs of good quality" with job security, career prospects and decent pay/productivity. On the other hand, one quarter of all jobs can be considered as of low quality<sup>16</sup>. Of these, roughly a third are jobs without job security or employer-provided training, representing precarious jobs without any career prospects, half of which are further of low pay/productivity. Despite their low pay/productivity, the other two thirds of jobs of lower quality offer at least some job security or career prospects (Chart 107).

Self-reported levels of job satisfaction clearly vary across these job clusters, with almost 60% of all employed in "jobs of good quality" expressing high levels of job satisfaction as opposed to only 3.5% declaring themselves dissatisfied. Among those employed in jobs with low intrinsic job quality, however, 30% of all employed still report high job satisfaction as opposed to 70% declaring medium or low levels of job satisfaction. Self-reported job satisfaction levels are found to be highest among young and highly educated employed in "jobs of good quality", 65% of which actually declare high or very high levels of job satisfaction.

<sup>16</sup> Due to the lack of information on employer-provided training for France in the ECHP, only the two intermediate categories could be defined for France. At EU level, this results in underestimating the shares of both "jobs of good quality" and "dead-end jobs" and at overestimating the intermediate categories, "jobs of reasonable quality" and "low pay/productivity jobs".



Both women and the young are more likely to be in jobs of low pay/productivity, and the young are also much more likely to be in precarious jobs with low pay and without any further training. Almost two thirds of young Europeans (63%) are in jobs of relatively poor quality due to low pay and precarious employment contracts or lack of further training. 17% of young people are in "dead-end jobs" offering neither job security nor further training (Chart 108).

The gender gap in job quality is biggest in the group of jobs of low pay/productivity. This is indicative of the general gender earnings gap in all European countries which ranges from roughly 10% in Denmark to 30% in Germany (after controlling for both individual and job characteristics in an earnings regression framework).

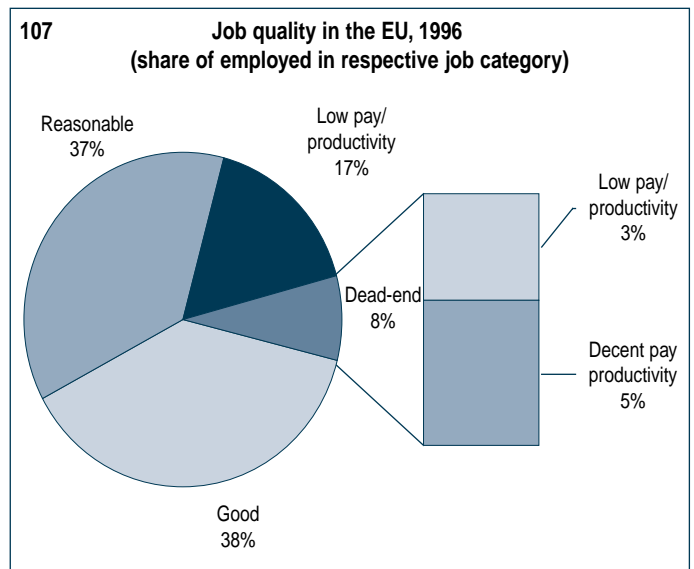
Clear differences also exist across countries, with relatively high proportions of "jobs of good quality" and "jobs of reasonable quality" (80% or more) in Denmark, the Netherlands, Belgium and Finland while these countries plus Germany and Austria record high levels of "jobs of good quality" of at least 50%. "Dead-end jobs" are over-represented (at 10% or more) in Spain, Greece, Portugal, Ireland and Italy, while in Luxembourg, Germany and the UK there are high levels of "low pay/productivity jobs" – 20% or more (Chart 109)

Given the ad hoc definition of job quality above, when analysing these country differences, however, one has to bear in mind the reasons behind such country differences, especially differences in educational systems and employment structures across countries.

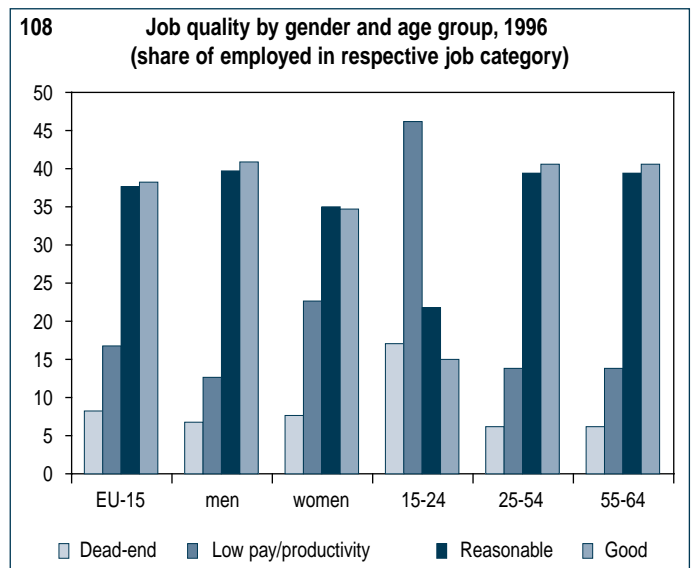
To sum up, structures of job quality are found to vary significantly across countries in the EU: the countries with lowest rates in jobs of poor quality, as defined above, are the Netherlands, Belgium, Denmark, France and Finland. Germany, the UK and Luxembourg show relatively high shares of employed in "low pay/productivity jobs", partly due to the relatively high wage levels in these countries, as opposed to only small employment shares in "dead-end jobs". Spain and Greece particularly, but also Portugal and Ireland, show above average employment shares of individuals in both "low pay/productivity jobs" and "dead-end jobs".

Furthermore, significant differences in job quality are found by educational background, with far fewer "jobs of good quality" and many more "low pay/productivity jobs" (23%) and "dead-end jobs" (12%) among the low-skilled (Chart 110).

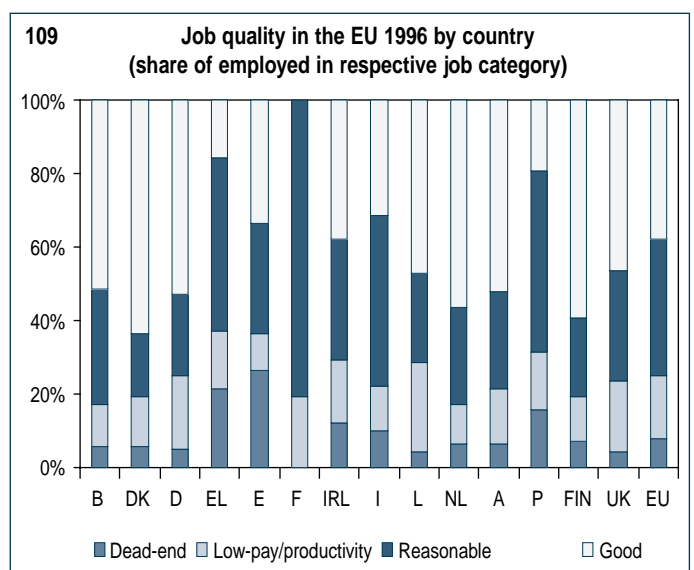
There are no significant differences in job quality between industry and the service sec-



Source: ECHP, wave 3 (1996)



Source: ECHP, wave 3 (1996)



Source: ECHP, wave 3 (1996)

tor, with 23% of all jobs of lower quality, 16% low pay/productivity and around 7% without either job security or training. In agriculture, by contrast, almost 60% of jobs are of relatively low quality, with almost a third of those employed in agriculture in "dead-end jobs", and additionally a quarter in "low pay/productivity jobs".

Clear-cut differences in job quality exist also across occupational

groups: more than a third of low-skilled or unskilled manual jobs are of rather low quality, compared to high-skilled non-manual jobs which are virtually all of good quality - unless badly paid (Chart 111).

When considered by contract type and working time arrangements, the highest share of dead-end jobs of low quality is found among temporary contract workers, and especially among temporary workers in

part-time jobs. More than three quarters of these jobs are of low quality and almost two thirds can be characterised as "dead-end jobs".

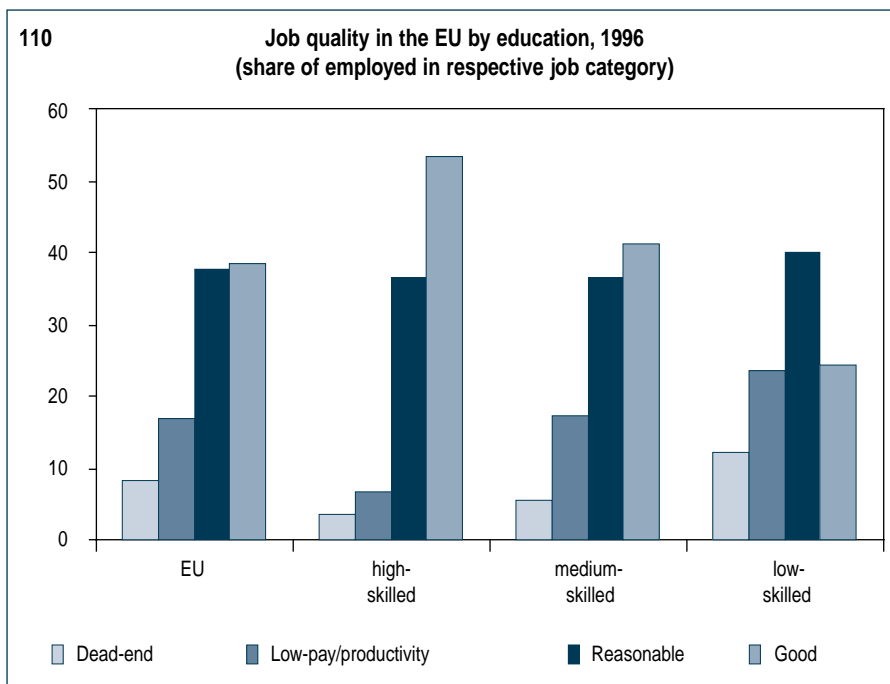
On the other hand, there is ambiguous evidence concerning the quality of part-time jobs. On the one hand, 14% of all part-time jobs are "dead-end jobs" and a quarter are of low pay/productivity but, on the other hand, more than 60% of all part-time jobs are of relatively good quality, offering both decent pay and job security or training possibilities (Chart 112). Clearly, voluntary part-timers are much more likely to be in relatively jobs of good quality, with two thirds in at least "jobs of reasonable quality" as opposed to a third in jobs of poor quality (14% in "dead-end jobs" and 20% in "low pay/productivity jobs"). By contrast, only 43% of involuntary part-time workers are in at least "jobs of reasonable quality" compared to 57% in jobs of poor quality (26% in "dead-end jobs" and 31% in "low pay/productivity jobs").

When looking at job quality of newly created jobs, significantly lower levels of intrinsic job quality are found in jobs with low tenure, due to an over-representation of temporary jobs in this group. Among those having one year or less of tenure, more than 40% have jobs of relatively good quality, a quarter low pay/productivity jobs of intermediate quality, and almost a third are in "dead-end jobs".

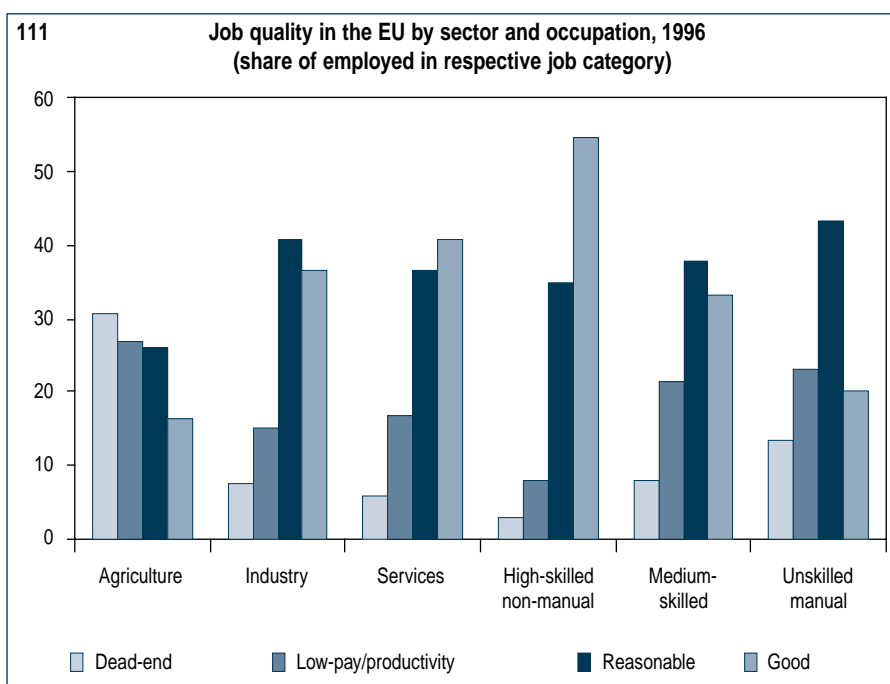
**Quality dynamics, and access to "better" jobs**

One of the main challenges to European labour markets is to open access to jobs in general and to "better jobs" in particular. This section analyses to what extent social exclusion resulting from individuals being trapped in jobs of "poor quality" and exposed to a significant risk of job loss, exists across Europe. It also considers to what extent European labour markets offer possibilities of mobility up the job quality ladder as defined above. To this aim, transitions between the various categories of job quality are analysed, with specific attention drawn to the vulnerability of jobs of poor quality to unemployment or inactivity.

European labour markets do in general exhibit vivid quality dynamics



Source: ECHP, wave 3 (1996)



Source: ECHP, wave 3 (1996)

(Tables 25 and 26). More than a third of those employed in "dead-end jobs" or "low pay/productivity jobs" in 1995 benefited from improved job quality in 1996 (Chart 113). At the same time, however, almost 40% of those employed in dead-end jobs did not benefit from improving job quality, and a quarter actually left employment by 1996 into either unemployment (15%) or inactivity (11%).

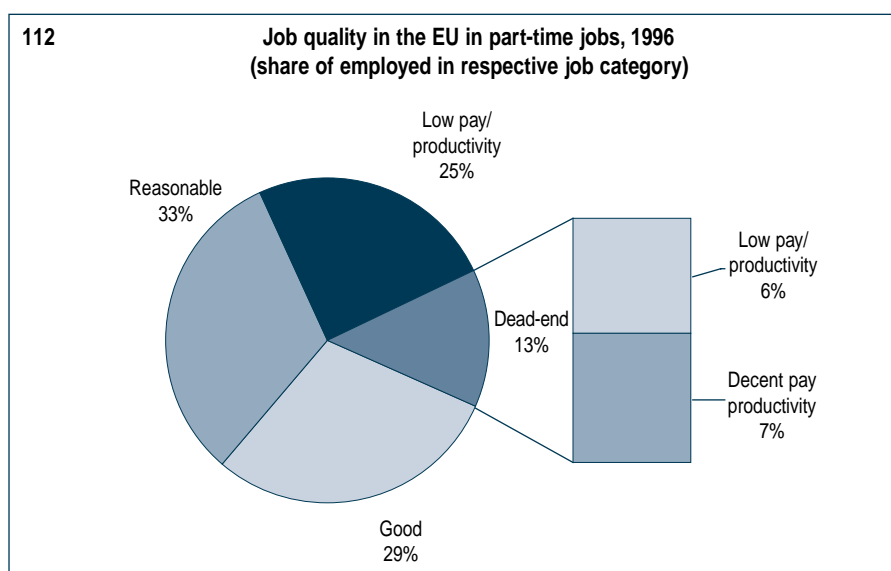
In the group of low pay/productivity jobs, stagnation is more pronounced, with more than half of all employed (52%) remaining in low pay/productivity jobs. Less employed in this group become unemployed (4%) or inactive (6%). Another 5% further experienced a deterioration of job quality due to either decreased job security, demotion, or loss of further training (Chart 114).

18% of those already employed in "jobs of reasonable quality" in 1995 showed upward mobility towards "jobs of good quality" due to either increased job security, new provision of employer-provided training or promotion to a job with supervisory functions, while more than two thirds experienced unchanged job quality and 9% a deterioration. In this group, only 5% went into unemployment or inactivity from employment.

In both groups of intermediate job quality, the shares of those employed who experienced an improvement in job quality between 1995 and 1996 are significantly higher than those experiencing a deterioration.

In the group of "jobs of good quality", finally, three quarters of those in a job of good quality remain in such a job, while at most 20% experience a worsening in job quality. Transition rates are very similar across all Member States. The fractions of those employed in "jobs of good quality" who experience transitions into jobs of poor quality or into unemployment or inactivity remain at a low level of around 4% each (Chart 115).

Finally, transitions out of employment are highest among those employed in "dead-end jobs" in all countries, with 20% or more of them becoming unemployed in the UK,



Source: ECHP, wave 3 (1996)

**25 Quality dynamics, 1995/96 (transition rates in %)**

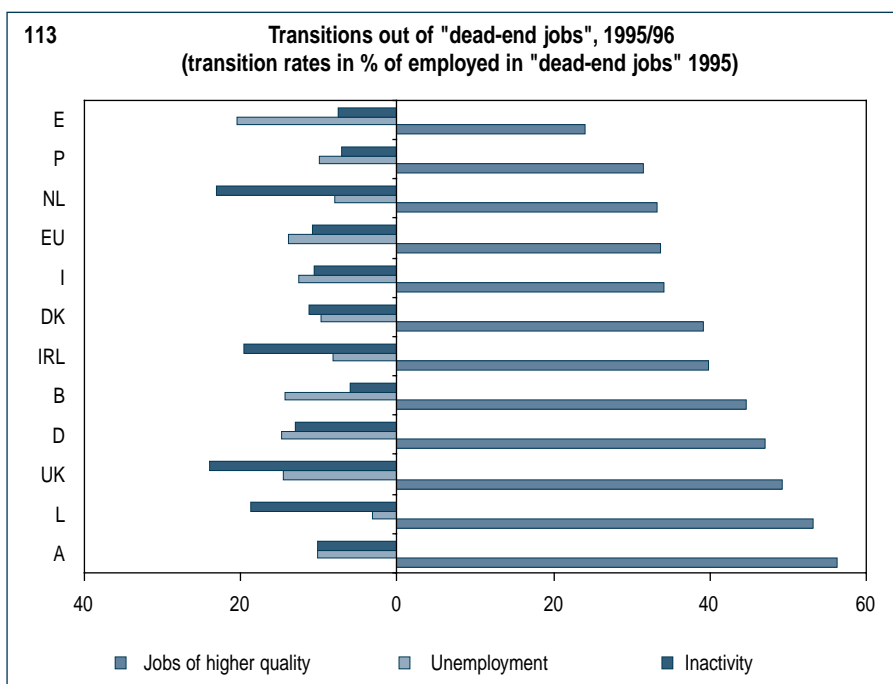
Job status 1996	Job status 1995				
	Good quality	Reasonable quality	Low pay/productivity	Dead-end jobs	Unemployment
Job of good quality	75.5	17.9	14.3	4.6	1.9
Job of reasonable quality	16.4	67.9	18.6	19.8	4.8
Low pay / productivity job	4.1	6.2	52.2	13.7	6.5
Dead-end job	0.6	2.8	4.8	36.3	7.8
Unemployment	1.1	2.3	4.4	14.9	57.9
Inactivity	2.5	2.9	5.7	10.7	21.1

Source: ECHP, waves 2 and 3 (1995 and 1996)

**26 Quality dynamics, 1995/96: Transitions out of dead-end jobs**

Job status 1996	Total	Men	Women	Young	Low-skilled	High-skilled
Job of good quality	4.6	4.9	4.3	3.3	2	8.5
Job of reasonable quality	19.8	23.9	15.1	10.2	16.9	35.3
Low pay / productivity job	13.7	11.4	16.4	17.5	11.7	10.8
Dead-end job	36.3	37.6	34.8	34.4	41.9	29.9
Unemployment	14.9	15.5	14.2	16.7	17.8	12.2
Inactivity	10.7	6.7	15.3	18	9.7	3.4

Source: ECHP, waves 2 and 3 (1995 and 1996)



Source: ECHP, waves 2 and 3 (1995 and 1996)

Note: to improve visibility, positive transition rates into unemployment or inactivity are presented as bars to the left in the above chart.

the Netherlands and Ireland, and the same fraction moving into inactivity in Spain.

In all countries, transitions out of employment were most pronounced among those employed in jobs of poor quality. Transition rates from either "dead-end jobs" or "low pay/productivity jobs" to unemployment or inactivity were particularly important in the UK, the Netherlands, Ireland, Luxembourg, Germany and Spain. More than a quar-

ter of those employed in "dead-end jobs" or "low pay/productivity jobs" in 1995 in these countries were in unemployment or inactive one year later. In the UK and Germany, however, transition rates into jobs of better quality were above EU average.

**Quality in work and the risk of social exclusion**

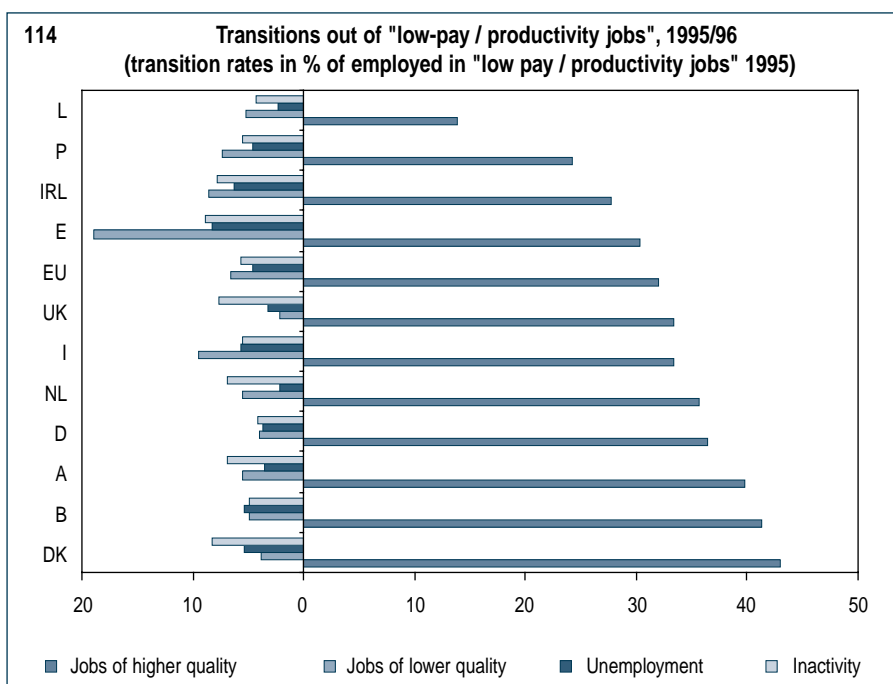
Those employed in jobs of poor quality, in general, and in "dead-end jobs", in particular, are clearly at

higher risk of social exclusion than others due to relatively low chances of job quality improvements and a significantly higher risk of becoming unemployed. A closer look into the composition of the workforce in such jobs of poor quality therefore is warranted.

Women, young workers, low-educated individuals, workers in agriculture, unskilled manual workers, and workers in elementary professions are clearly more likely to be in "dead-end jobs" (after controlling for other individual and job characteristics as well as country-specific effects in a regression framework). These patterns are comparable across countries as illustrated in the charts below (Chart 116).

On the other hand, older workers, workers with high tenure on the job, and workers in the fast growing occupations of professionals and managers, legislators and senior officials are less likely to be in "dead-end jobs". Most importantly, those who declare that they needed specific training or education to take up their job and those who declare themselves over-qualified are significantly less likely to be found in jobs of poor quality.

Transition rates out of jobs of poor quality into jobs of higher quality remain low compared to the relatively high stability of job quality for those in "jobs of reasonable quality" or "jobs of good quality". Transition rates out of unemployment are also relatively low. Of those previously unemployed who take up a job, two thirds take up a job of relatively poor quality. In the absence of improvements in job quality, those employed in jobs of poor quality thus remain at relatively high risk of unemployment and social exclusion. A similar reasoning might apply to the transitions between jobs of poor quality and inactivity although the link between inactivity and social exclusion is less clear than that between unemployment and social exclusion. In contrast to the retired or those still in education, discouraged workers certainly are at higher risk of social exclusion, too.



Source: ECHP, waves 2 and 3 (1995 and 1996)

Note: to improve visibility, positive transition rates into jobs of lower quality, unemployment or inactivity are presented as bars to the left in chart 114 and 115.

quality dynamics and hence the risk of social exclusion seem to vary considerably with individual characteristics as well as across countries. Transition rates out of "dead-end jobs" into jobs of relatively higher quality reached almost 40% at EU level. At Member State level the figures range from high transition rates of around 50% or more in the UK, Germany and Austria to below-average rates in Spain, Italy, Portugal and Ireland – which were also countries with above EU average shares of "dead-end jobs" – as well as the Netherlands (Chart 117). While above average for young workers particularly in Germany and Austria and also in Portugal, Ireland and Denmark, transition rates for the low-educated are below average in most countries except the UK and Ireland, and particularly in Germany and the Netherlands.

**Conclusions**

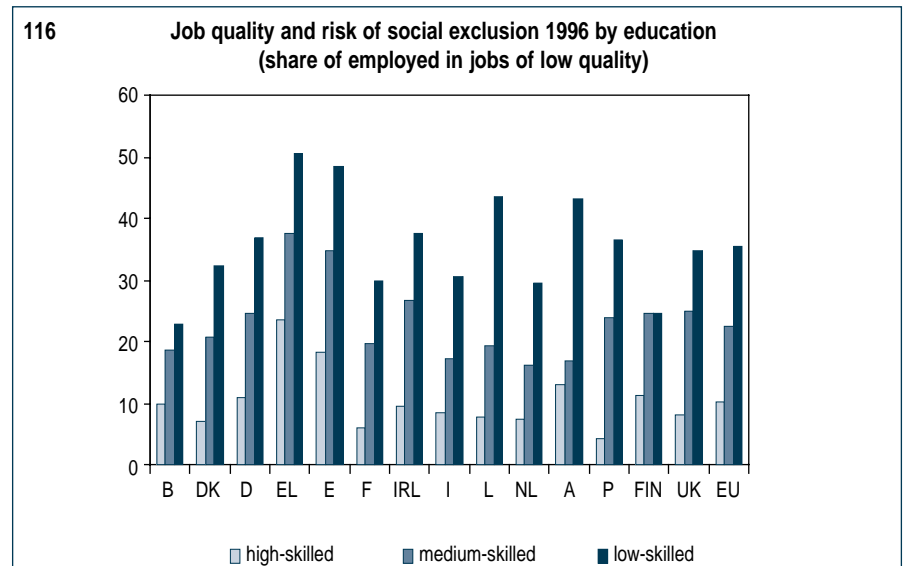
The evolution of job quality in the EU in recent years was generally positive, with the exception of working conditions which do not seem to have improved. Accidents at the workplace and occupational diseases remain a challenge to the EU economies, with direct and indirect costs due to work-related health risks and accidents at work estimated to amount to between 2.6% and 3.8% of GNP in the EU. Total direct costs related to accidents at work are estimated at 20 billion euro per year and there are indirect costs associated with an estimated 400 million working days lost per year in the EU, equivalent to almost three days per worker.

There is some evidence of the existence of a two-tier labour market, where the first tier is made up of jobs subject to decent pay, relative job security and career prospects, involving generally good working conditions. The second tier comprises not only the unemployed and discouraged workers, but also those employed in jobs of low quality which have low pay, precarious employment relationships or lack of further education and career development prospects.

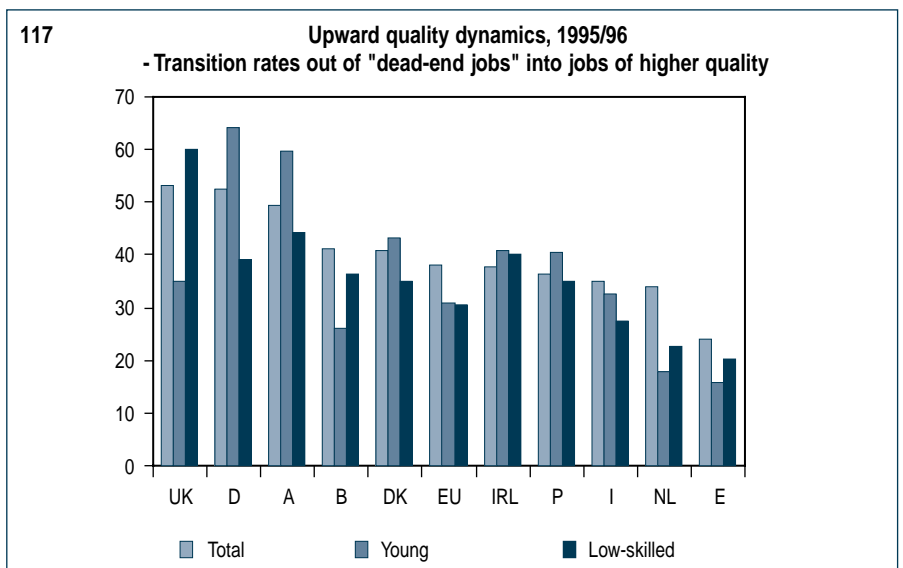
While there is clear evidence of upward quality mobility especially for young workers, future employment and development prospects



Source: ECHP, waves 2 and 3 (1995 and 1996)



Source: ECHP, wave 3 (1996)



Source: ECHP, waves 2 and 3 (1995 and 1996)

seem much less favourable for low-educated individuals in jobs of poor quality. Transition rates into unemployment or inactivity, too, are highest among those currently in jobs of poor quality and may affect women and low-skilled disproportionately.

In line with previous findings, those employed in precarious temporary contracts and in involuntary part-time jobs are especially at risk of social exclusion because of either job loss or stagnation in their job. Temporary part-timers generally declare the highest levels of over-qualification with respect to their job tasks as well as lowest rates of employer-provided training.

Those individuals at highest risk of social exclusion are thus not only low-skilled individuals in (long-term) unemployment but also those employed in insecure employment relationships that do not offer any further training or career development. Conversely, a high level of educational attainment and specific job-related training clearly are the best way to avoid such jobs of poor quality. These jobs, while possibly a preliminary to future recruitment in combination with improvements in job quality, are in many cases a prelude to unemployment or inactivity, especially because of still very unfavourable transitions out of low-quality jobs.

To improve job quality in Europe in a sustainable way, labour market policies and regulatory frameworks have to be designed to help people – in particular, the currently disadvantaged, trapped in low quality jobs – move up into jobs of better quality, rather than fall into unemployment or leave the labour force. Concerted effort to promote qualifications and (life-long) training, to ease young workers' access to the labour market, to open up possibilities for career advancement, and to strengthen measures that help reconcile work and private and family lives would be conducive to further improvements in the quality of jobs in Europe.



# Chapter 5: Regional trends in European employment

## Introduction

One of the goals for the European Union agreed upon in the Lisbon European Council is to regain the conditions for full employment and to strengthen regional cohesion. Furthermore, the European Council held at Nice approved the European Social Agenda, which specifies that achieving full employment involves continued structural reform and ambitious policies to reduce regional disparities.

The favourable economic and employment performance over the past years at the Member State level have resulted in a reduction of EU-wide national disparities in the employment rate. Between 1995 and 2000, the gap in employment rates at Member State level has been reduced by 5 percentage points to 23 in 2000. Changes in female employ-

ment rates have contributed more to this reduction than changes in male employment rates. The relatively strong convergence of employment rates at the country level hides significant variations in regional employment patterns within the Member States themselves, though.

This section analyses regional employment developments in the European Union looking at the roles of the sectoral, occupational, and skill composition of the workforce.

The relative performance of regions due to differences in sector-specific or occupation/skill-specific employment growth appears decisive for job creation, even more than the mere sectoral composition of the economy. High employment growth seems to go hand-in-hand with a highly dynamic service sector and with strong employment demand for

high- and medium-skilled employees, particularly in knowledge intensive sectors. During 1996-2000, employment increased strongly for all those workers with educational attainment levels of upper secondary and tertiary education for every group of regions. However, employment fell in those occupations/skills characterised by levels of educational attainment equal to, or lower than, secondary education. A highly skilled labour force together with strong demand for knowledge-intensive jobs would appear to be decisive for a positive employment performance at the regional level.

## Regions with comparable employment performance

Regions have been classified into groups of comparable employment performance on the basis of their employment rate in 2000 and their employment growth in the period 1996-2000 (Box 9).

At the regional level, there is a positive correlation between regional employment rates and participation rates among young and older workers, shares of voluntary part-time work, and average educational and skill levels in the labour force. Regional employment rates are negatively correlated to gender gaps (in activity, employment and unemployment rates), shares of employment in agriculture, shares of involuntary part-time work and temporary employment and to overall unemployment rates.

In general, the employment rate is higher in regions with a more educated workforce, that is with higher human capital intensity. In the group of regions with the highest employment rates only a fifth of the employed has secondary education or less. On the other hand, in the group of regions with the lowest employment rates almost 45% of those in employment can be characterised as low-skilled.

In the two groups of regions with high employment rates, employment growth between 1996 and 2000 increased by 2.8% per year, in the first group, whereas it stagnated in the second group. In 2000, the

### 9 Defining regions with comparable employment performance

Regions at NUTS-2 level are grouped in terms of comparable employment performance on the basis of two indicators: first, the employment rate in 2000, and second, employment growth between 1996 and 2000.

On the basis of the employment rate in 2000, regions are classified into three groups: the quartile with the highest employment rates in the Union (on average around 74%), the group of regions with intermediate employment rates comprised of the two intermediate quartiles (on average around 64%), and the quartile with the lowest employment rates (on average around 52%).

On the basis of the employment growth in the period 1996-2000, regions are further classified into two sub-groups with employment growth above and below the median employment growth in the respective employment rate category.

The grouping of regions of comparable employment performance is summarised in the following table.

27 Regional clusters: Employment rates and employment growth rates			
Employment growth rate 1996/2000	Employment rate in 2000		
	Quartile of regions with "highest" employment rates	Half of regions with "medium" employment rates	Quartile of regions with "lowest" employment rates
High	"high rate/high growth"	"medium rate/high growth"	"low rate/high growth"
Low	"high rate/low growth"	"medium rate/low growth"	"low rate/low growth"

Tables 28 to 30 contain summary statistics on the main characteristics of these groups of regions as well as on their sectoral and occupational composition of employment. The distribution of European regions across these clusters is illustrated in the map and in Table 31.



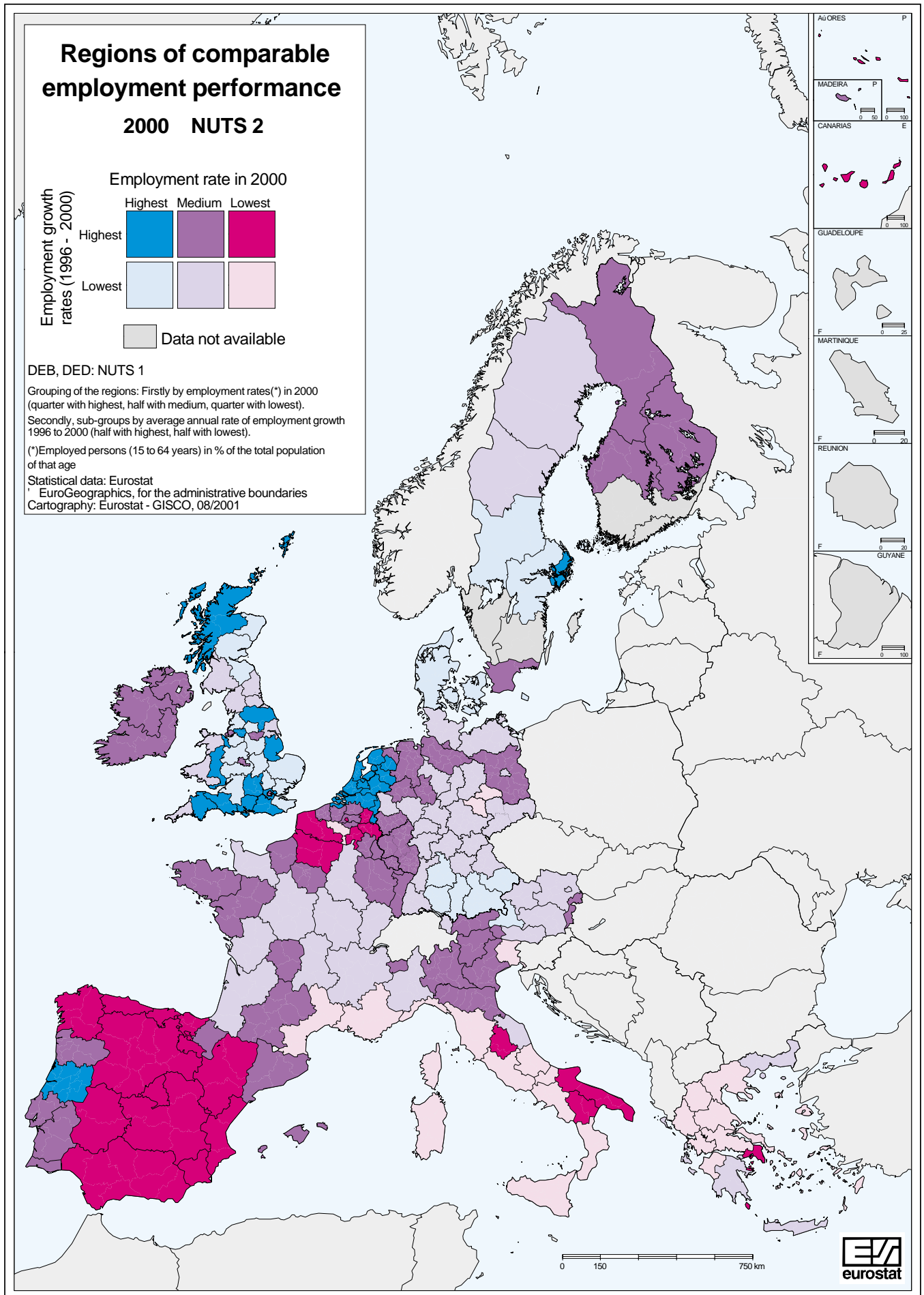
Lisbon and Stockholm targets for these group of regions have already been met. The overall employment rate reached 74%, the female employment rate stood at 67% and 50% of older people were at work in 2000. Both groups of regions share a highly skilled workforce, around 75% of which have completed upper secondary or tertiary education. They also both witness high levels of (voluntary) part-time work that corresponds to the relatively important shares of young and older workers as well as women in total employment (Table 28). The most significant difference between these two clusters is the sectoral composition of employment. In the high rate/high growth regions, almost three out of four employed people work in the service sector, whereas the employment share in services is significantly lower in the high rate/low growth regions to the benefit of a stronger industrial component (Table 29).

In the high rate/high growth regions, there is a higher share of individuals working in the "real estate and business" sector, includ-

ing "computer and related activities" and "research and development", whereas the proportion of those classified in the "manufacturing" sector is relatively small. This is also reflected in higher employment shares of "legislators and managers" and "professionals", on the one hand, and lower shares of "craft workers", "plant and machine operators" and "elementary occupations", on the other (Table 30). These differences in the sectoral and occupational composition of employment have contributed to the differences in employment growth across these two regional clusters, given that employment creation over the period 1996-2000 took place mainly in the service sector and in the occupational categories of "professionals", "technicians" and "legislators and managers".

In the two groups of regions with low employment rates, employment grew at 4% per year in one group but stagnated in the other. These two clusters of regions are characterised by generally lower activity rates among younger and older workers as well as among women, in combi-

nation with lower shares of part-time work and higher shares of temporary contracts. In 2000, the overall employment rate stood at about 52% and only 38% of women and 32% of older people were at work in that year, well below the Lisbon and Stockholm targets. The unemployment rate is also high, at about 15%. In addition, both groups of regions show relatively low average skill levels, with more than 40% of the workforce having less than upper secondary education (i.e. low-skilled). Employment shares in industry are lower and those in services higher in low rate/low growth regions than in low rate/high growth regions, where the latter difference is due solely to differences in the employment share in "public administration". One of the reasons why low rate/high growth regions have performed better in terms of employment creation is that, in contrast to all other regional clusters, employment creation for the highly skilled has gone hand-in-hand with employment creation for the lower educated (despite higher number of temporary contracts).



28 Characteristics of regions with comparable employment performance						
	Quarter with highest employment rates		Half with 'medium' employment rates		Quarter with lowest employment rates	
	High growth	Low growth	High growth	Low growth	High growth	Low growth
Average employment growth per year	2.82	0.06	2.23	0.52	3.99	-0.04
Employment rate (in %)						
women and men						
- between 15 and 64 years	74	73	64	64	53	50
- between 15 and 24 years	62	57	39	42	28	21
- between 25 and 54 years	83	83	78	79	66	64
- between 55 and 64 years	49	51	35	34	33	31
- women between 15 and 64 years	66	67	56	57	39	37
- men between 15 and 64 years	81	80	73	72	67	64
Activity rates (in %)						
women and men						
- between 15 and 64 years	77	77	69	70	62	60
- between 15 and 24 years	67	63	45	48	39	35
- between 25 and 54 years	85	86	84	85	76	74
- between 55 and 64 years	51	54	37	39	36	34
- women between 15 and 64 years	69	70	60	62	49	47
- men between 15 and 64 years	84	84	77	78	75	73
Unemployment rate (in %)						
women and men						
- between 15 and 64 years	3.6	4.3	7.0	8.4	14.8	15.7
- between 15 and 24 years	7.7	8.2	13.0	12.5	29.2	38.9
- between 25 and 54 years	2.9	3.5	6.0	7.3	12.8	13.4
- between 55 and 64 years	2.9	5.0	7.0	11.2	9.6	8.4
- women between 15 and 64 years	3.7	4.3	8.1	9.2	20.9	20.3
- men between 15 and 64 years	3.6	4.4	6.1	7.7	10.7	12.6
Temporary employees (in % of all employed)						
women and men						
- between 15 and 64 years	9	8	11	11	21	10
- between 15 and 24 years	24	24	38	43	54	34
- between 25 and 54 years	7	5	8	7	18	9
- between 55 and 64 years	5	4	4	4	7	4
- women between 15 and 64 years	11	9	12	12	23	12
- men between 15 and 64 years	7	7	9	10	19	9
Persons working part-time (in % of all employed)						
women and men						
- between 15 and 64 years	30	23	15	18	9	11
- between 15 and 24 years	45	29	17	16	14	16
- between 25 and 54 years	26	21	14	18	9	11
- between 55 and 64 years	35	28	19	22	8	9
- women between 15 and 64 years	52	42	29	35	20	21
- men between 15 and 64 years	13	7	5	5	3	5
Educational level of the workforce						
All in employment	100	100	100	100	100	100
- third level	26	25	22	22	25	18
- upper secondary level	47	53	41	53	27	42
- less than upper secondary level	22	16	30	22	48	40
- no response	5	6	6	3	0	1

Source: Eurostat, LFS

29 Sectoral composition of employment across regions with comparable employment performance							
High rate/high growth	Total	Women	Men	High rate/low growth	Total	Women	Men
All in employment	100	100	100	All in employment	100	100	100
Agriculture (A to B)	3	2	3	Agriculture (A to B)	2	2	3
Industry (C to F)	22	10	31	Industry (C to F)	31	16	42
Mining and quarrying (C)	0	0	0	Mining and quarrying (C)	0	0	1
Manufacturing (D)	14	9	19	Manufacturing (D)	22	14	29
Electricity, gas, water supply (E)	1	0	1	Electricity, gas, water supply (E)	1	0	1
Construction (F)	7	1	11	Construction (F)	7	2	12
Services (G to Q)	72	84	63	Services (G to Q)	67	82	55
Wholesale and retail, repairs (G)	15	16	15	Wholesale and retail, repairs (G)	15	16	13
Hotels and restaurants (H)	4	5	3	Hotels and restaurants (H)	4	5	3
Transports, communications (I)	7	4	9	Transports, communications (I)	6	4	8
Financial intermediation (J)	4	5	4	Financial intermediation (J)	4	5	3
Real estate, business activities (K)	12	11	13	Real estate, business activities (K)	9	9	10
Public administration (L)	6	5	7	Public administration (L)	6	6	6
Other services (M to Q)	24	38	13	Other services (M to Q)	23	38	12
Non-responses	3	4	3	Non-responses	0	0	0
Medium rate/high growth	Total	Women	Men	Medium rate/low growth	Total	Women	Men
All in employment	100	100	100	All in employment	100	100	100
Agriculture (A to B)	3	2	4	Agriculture (A to B)	4	3	4
Industry (C to F)	31	17	41	Industry (C to F)	32	17	43
Mining and quarrying (C)	0	0	1	Mining and quarrying (C)	0	0	1
Manufacturing (D)	22	15	27	Manufacturing (D)	23	14	29
Electricity, gas, water supply (E)	1	0	1	Electricity, gas, water supply (E)	1	0	1
Construction (F)	8	2	13	Construction (F)	8	2	13
Services (G to Q)	66	80	55	Services (G to Q)	64	80	52
Wholesale and retail, repairs (G)	14	16	13	Wholesale and retail, repairs (G)	14	16	12
Hotels and restaurants (H)	4	5	3	Hotels and restaurants (H)	4	5	3
Transports, communications (I)	6	4	8	Transports, communications (I)	6	4	8
Financial intermediation (J)	4	4	3	Financial intermediation (J)	3	4	3
Real estate, business activities (K)	9	9	8	Real estate, business activities (K)	8	8	7
Public administration (L)	7	7	7	Public administration (L)	8	8	8
Other services (M to Q)	22	35	11	Other services (M to Q)	22	35	12
Non-responses	0	0	0	Non-responses	0	0	0
Low rate/high growth	Total	Women	Men	Low rate/low growth	Total	Women	Men
All in employment	100	100	100	All in employment	100	100	100
Agriculture (A to B)	6	5	7	Agriculture (A to B)	7	6	7
Industry (C to F)	29	14	38	Industry (C to F)	24	12	31
Mining and quarrying (C)	0	0	1	Mining and quarrying (C)	0	0	1
Manufacturing (D)	18	12	21	Manufacturing (D)	14	10	17
Electricity, gas, water supply (E)	1	0	1	Electricity, gas, water supply (E)	1	0	1
Construction (F)	10	1	15	Construction (F)	8	1	12
Services (G to Q)	65	82	55	Services (G to Q)	69	82	62
Wholesale and retail, repairs (G)	16	18	15	Wholesale and retail, repairs (G)	16	16	15
Hotels and restaurants (H)	5	7	5	Hotels and restaurants (H)	4	5	4
Transports, communications (I)	6	3	8	Transports, communications (I)	6	3	8
Financial intermediation (J)	3	3	3	Financial intermediation (J)	3	3	3
Real estate, business activities (K)	7	9	6	Real estate, business activities (K)	7	8	7
Public administration (L)	8	8	8	Public administration (L)	12	11	12
Other services (M to Q)	19	34	11	Other services (M to Q)	22	36	13
Non-responses	0	0	0	Non-responses	0	0	0

Source: Eurostat, LFS

<b>30 Occupational composition of employment across regions with comparable employment performance</b>							
<b>High rate/high growth</b>	<b>Total</b>	<b>Women</b>	<b>Men</b>	<b>High rate/low growth</b>	<b>Total</b>	<b>Women</b>	<b>Men</b>
All in employment	100	100	100	All in employment	100	100	100
Legislators and Managers	14	9	17	Legislators and Managers	11	7	14
Professionals (scientists, academics)	17	16	17	Professionals (scientists, academics)	14	13	15
Technicians	13	14	12	Technicians	14	16	12
Clerks	14	23	7	Clerks	14	23	7
Services and sales workers	14	22	8	Services and sales workers	14	23	6
Agriculture / fishery workers	2	2	2	Agriculture / fishery workers	2	1	2
Craft / related trade workers	10	2	17	Craft / related trade workers	14	3	23
Plant and machine operators	6	2	10	Plant and machine operators	8	3	12
Elementary occupations	8	8	7	Elementary occupations	9	10	7
Armed forces	1	0	1	Armed forces	0	0	1
Non-responses	2	2	2	Non-responses	0	0	0
<b>Medium rate/high growth</b>	<b>Total</b>	<b>Women</b>	<b>Men</b>	<b>Medium rate/low growth</b>	<b>Total</b>	<b>Women</b>	<b>Men</b>
All in employment	100	100	100	All in employment	100	100	100
Legislators and Managers	8	6	9	Legislators and Managers	6	4	8
Professionals (scientists, academics)	12	13	12	Professionals (scientists, academics)	11	11	12
Technicians	16	18	14	Technicians	17	21	14
Clerks	14	22	8	Clerks	13	21	7
Services and sales workers	13	21	8	Services and sales workers	13	21	6
Agriculture / fishery workers	3	2	4	Agriculture / fishery workers	4	3	4
Craft / related trade workers	16	4	25	Craft / related trade workers	16	4	27
Plant and machine operators	9	4	13	Plant and machine operators	9	4	13
Elementary occupations	9	11	7	Elementary occupations	8	10	6
Armed forces	1	0	1	Armed forces	1	0	1
Non-responses	0	0	0	Non-responses	1	1	1
<b>Low rate/high growth</b>	<b>Total</b>	<b>Women</b>	<b>Men</b>	<b>Low rate/low growth</b>	<b>Total</b>	<b>Women</b>	<b>Men</b>
All in employment	100	100	100	All in employment	100	100	100
Legislators and Managers	8	6	9	Legislators and Managers	6	4	7
Professionals (scientists, academics)	12	16	10	Professionals (scientists, academics)	12	16	10
Technicians	11	12	10	Technicians	15	18	14
Clerks	11	17	7	Clerks	13	19	9
Services and sales workers	14	21	9	Services and sales workers	16	20	13
Agriculture / fishery workers	4	3	5	Agriculture / fishery workers	5	5	6
Craft / related trade workers	17	4	24	Craft / related trade workers	16	5	22
Plant and machine operators	10	4	14	Plant and machine operators	7	2	10
Elementary occupations	13	17	11	Elementary occupations	9	10	9
Armed forces	1	0	1	Armed forces	0	0	1
Non-responses	0	0	0	Non-responses	0	0	0

Source: Eurostat, LFS

## The role of sectoral employment composition

A further exploration of the differences in the composition of employment growth can be achieved by means of a sectoral standardisation, or shift-share analysis (Box 10). This shows to what extent differences in employment performance across regions can be attributed to their sectoral composition, on the one hand, and/or to the relative performance of their sectors in terms of employment creation (independent of the regional sectoral composition), on the other.

Although the sectoral composition of regional employment impacts significantly on employment growth it is by no means the only determinant. The general patterns in employment growth also differ strongly across regions. That is, not only the relative importance of the sectors, in terms of their employment shares, varies significantly from region to region, but also their contribution to overall employment creation is not homogeneous. In the high growth regions, the annual change in employment was on average 1.3, 0.7 and 2.5 percentage points, respectively, higher than the overall EU growth rate of 1.5%. Conversely, average employment creation every year remained at 1.5, 1.0 and 1.6 percentage points, respectively, below the EU employment growth rate in the low growth regions (Chart 118).

The weight-standardised growth rates show that the differences in the sectoral composition of employment across the six regional clusters only have a limited impact on employment growth. While positive in the regions with high employment rates, the sectoral effect is negative in the regions with low employment rates.

The bulk of total job creation is accounted for by the "relative performance" effect. The latter is strongly positive in the regions with high overall employment growth and negative in those regions with low employment growth. The service sector in all groups of regions is responsible for the main part of the variation in total employment growth across regions (Chart 119).

### 10

## Sectoral standardisation

The aim of the sectoral standardisation is to show how the sectoral composition of employment influences regional employment performance. For that purpose, sector-specific weights and employment growth rates are calculated for all groups of regions and at the EU level. The sectoral weights reflect the shares of the respective sector in total employment, while the growth rates show the variation in employment in the respective sector between 1996 and 2000.

At both the regional level and the EU level, the contribution of each sector to the overall rate of employment growth is calculated by multiplying its employment growth rate and its employment share ("sectoral weight"). An aggregation across all sectors gives the overall growth rate of employment.

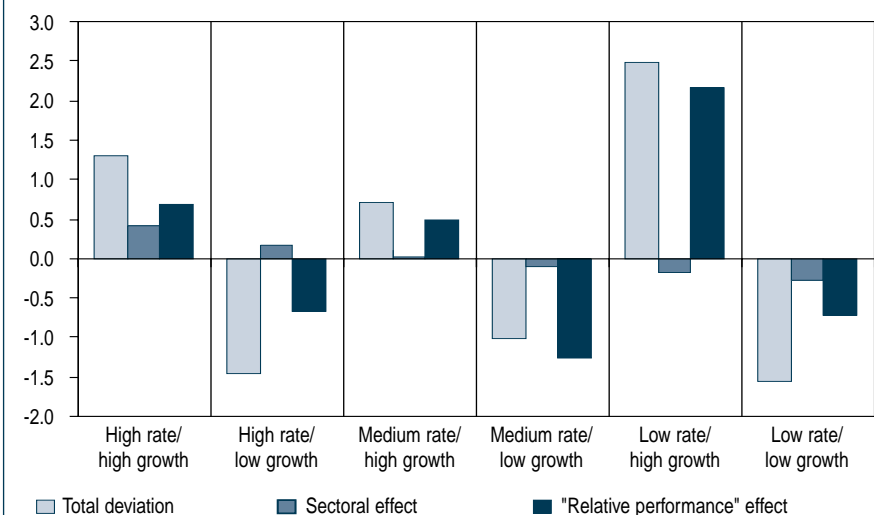
In order to explore the effect of the sectoral employment composition on employment growth, two types of counterfactual overall growth rates of employment are calculated for each regional cluster: first, weight-standardised rates of employment growth by replacing the regional employment shares by their EU-average ("weight standardisation"), and second, growth-standardised rates of employment growth by replacing the regional employment growth rates by their EU-average ("growth standardisation").

When compared to the actual growth rates, the weight-standardised growth rates then show the effect of the sectoral composition of regional employment on employment growth ("sectoral effect"). The growth-standardised rates show the relative regional employment performance, independently of the differences in the sectoral composition of regional employment ("relative performance effect"):

If in a group of regions, there is a disproportionately high employment share of sectors with high employment growth, the weight standardisation will trim down the actual employment growth rate. Consequently, the weight-standardised growth rate will be below the actual rate. The comparison of the two rates allows the effect of the sectoral composition of regional employment on employment growth to be identified.

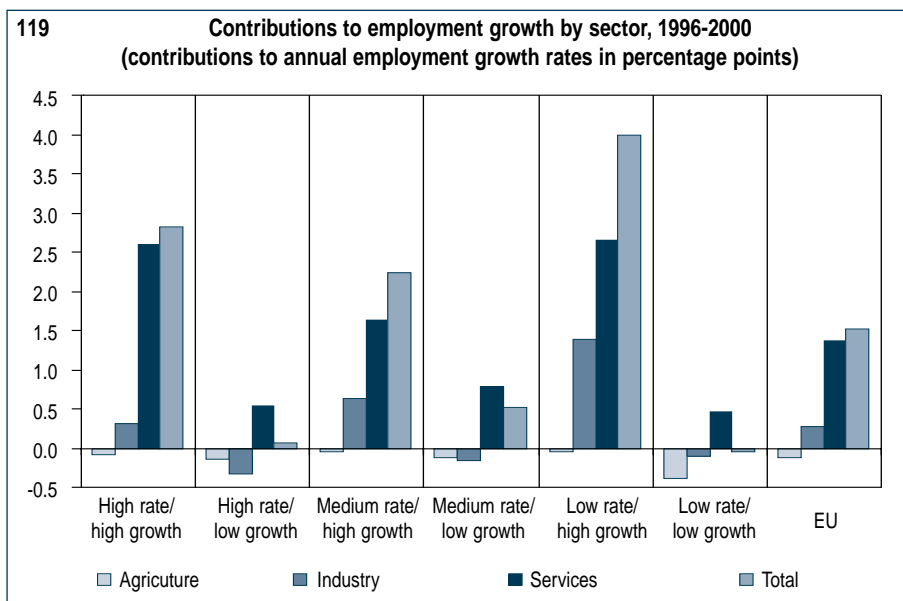
On the other hand, the same sector might have enjoyed a much stronger growth in one region than in another. Assuming a uniform growth pattern across all sectors, the growth-standardised rate of employment growth will be below the actual rate if the sectors in that region generally perform better than the EU-average for reasons other than the sectoral composition of regional employment.

118 Employment growth by regional cluster, 1996-2000  
(deviations from EU average, sectoral effects, and relative performance effects)

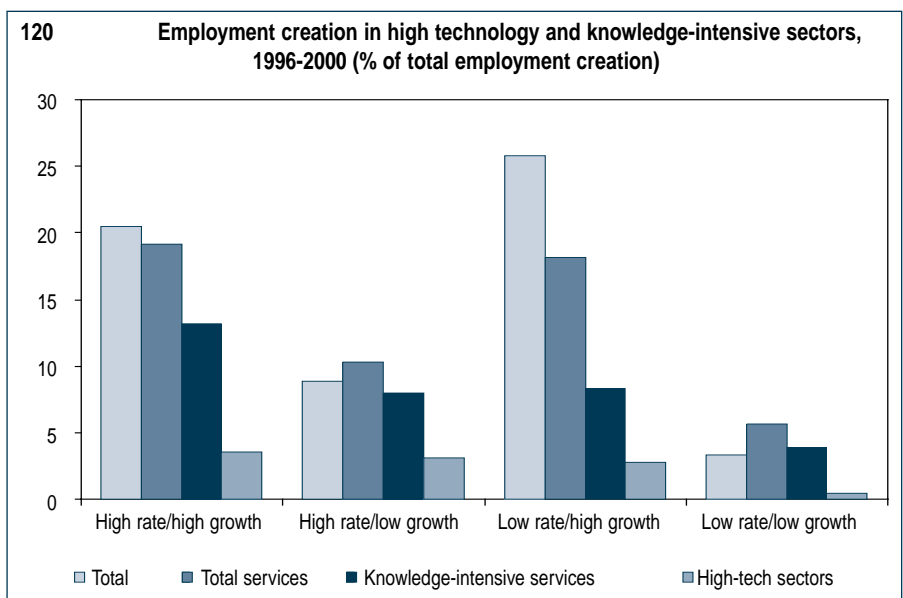


Source: Eurostat, LFS





Source: Eurostat, LFS



Source: Eurostat, LFS

Employment in the service sector has increased strongly in all six regional clusters. However, employment in industry has only increased in high growth regions but has fallen in all three low-growth regions. Employment in agriculture has further declined in all regional clusters. Only in the low rate/low growth regions was the positive employment contribution of the service sector unable to offset the employment losses in agriculture and industry.

The contribution of the service sector to total job creation for the three top-growth regions is the highest in the high rate/high growth regions (92%), whereas the low rate/high growth regions displayed the highest contribution of the service sector to overall employment growth during 1996 to 2000 (+2.7 percentage points annually). In the low growth regions, the service sector was the only sector with positive net employment creation during this period, with employment growth in high technology and knowledge-intensive sectors being stronger than overall employment growth.

Knowledge intensive sectors (KIS) accounted for almost 2/3 of the total net employment creation between 1996-2000. High-tech sectors created almost 1/5 of the jobs during that period. In the high rate/high growth regions, the contribution of KIS and high-tech sectors to total employment creation in the EU was higher than in the low rate/high growth regions, despite the latter having higher net employment creation during 1996-2000 (Chart 120). Even in regions with low growth, the net positive balance in terms of employment creation is largely due to stronger job creation in KIS. The fact that KIS job creation is higher for regions with a higher skilled workforce suggests that education/skills do reflect the success of some regions in developing their human capital potential.

**The role of the occupational and skill structure**

In addition to the effects on total employment growth of the sectoral regional performance, the occupational and skill structure of the workforce also played a major role as an explanatory variable of the differences in total employment cre-

**11 Defining occupation-skill clusters**

Occupational categories have been further disaggregated by skill level, giving 30 possible combinations of occupation (ISCO-1) and level of educational attainment (ISCED). In the text, these occupation-skill clusters are denoted by a letter indicating the skill level and a number indicating the occupational category. For example, "M3" thus denotes "medium-skilled technicians".

Professional occupations (ISCO 1 digit):

- Armed forces (0)
- Legislators and managers (1)
- Professionals (2)
- Technicians (3)
- Clerks (4)
- Services and sales workers (5)
- Agriculture/fishery workers (6)
- Crafts and related trades workers (7)
- Plant and machinery operators (8)
- Elementary occupations (9)

Educational attainment levels (ISCED)

- Less than upper secondary level (L = low)
- Upper secondary level (M = medium)
- Third level (H = high)

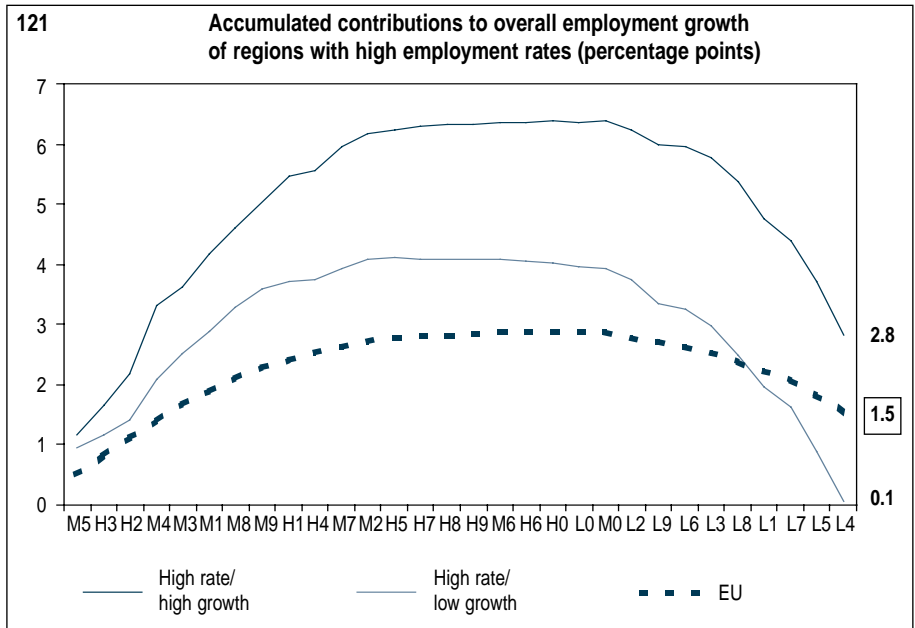
ation in each group of regions during 1996-2000.

Charts 121 to 123 illustrate the accumulated contributions of various occupation-skill combinations (Box 11) to the average annual rate of employment growth in the six groups of regions as compared to the EU average. In these graphs, occupation-skill combinations are ordered in descending order according to their contribution to average employment growth at the EU-level.

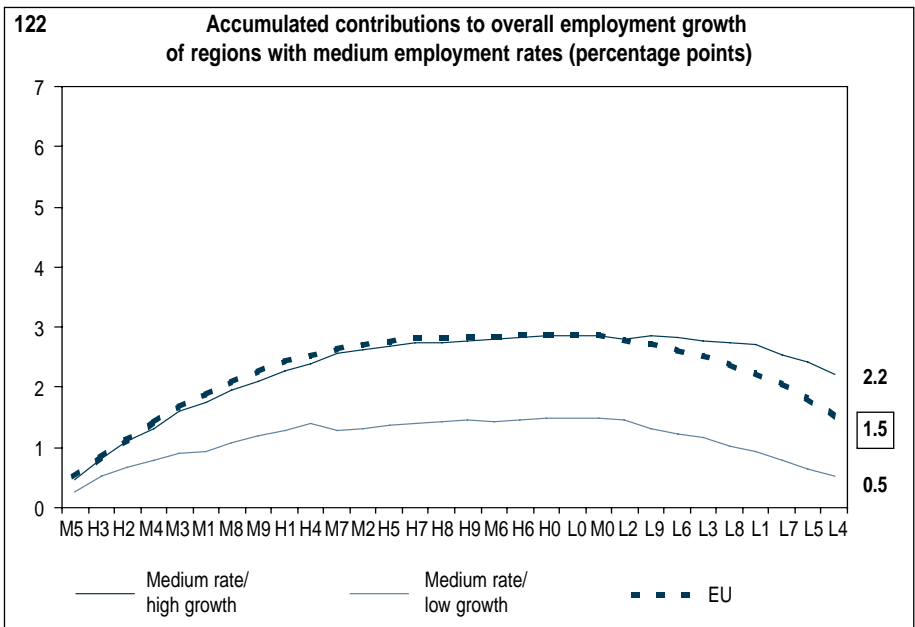
During 1996-2000, in all regions employment increased strongly for all those workers with educational attainment levels of upper secondary and tertiary education. Employment fell in occupations/ skills characterised by levels of educational attainment equal to or lower than secondary education. Only in one group, the low rate/high growth regions, was there a net employment creation for the low-skilled.

At the EU level, the first 10 occupation-skill combinations (M5-H4) showed annual employment growth rates of 4.8% per year, creating 15.5 million new net jobs over the period 1996-2000. Their accumulated contributions to employment growth amounts to 2.5 percentage points per year. The next 10 occupation-skill combinations (M7-L0) together displayed an employment growth of 2.5% per year, equivalent to a net job creation of 2.4 million between 1996 and 2000. In relation to total employment, they contributed 0.3 percentage points to the average yearly employment growth rate. The last 10 occupation-skill combinations (M0-L4), virtually all characterised by low educational levels, experienced a decline in employment and caused a reduction of the EU-level employment growth to its observed rate of 1.5% per year in 1996-2000. In this period, 8.2 million net jobs of these occupation-skill combinations were destroyed, equivalent to a decrease in employment of 3.7% per year.

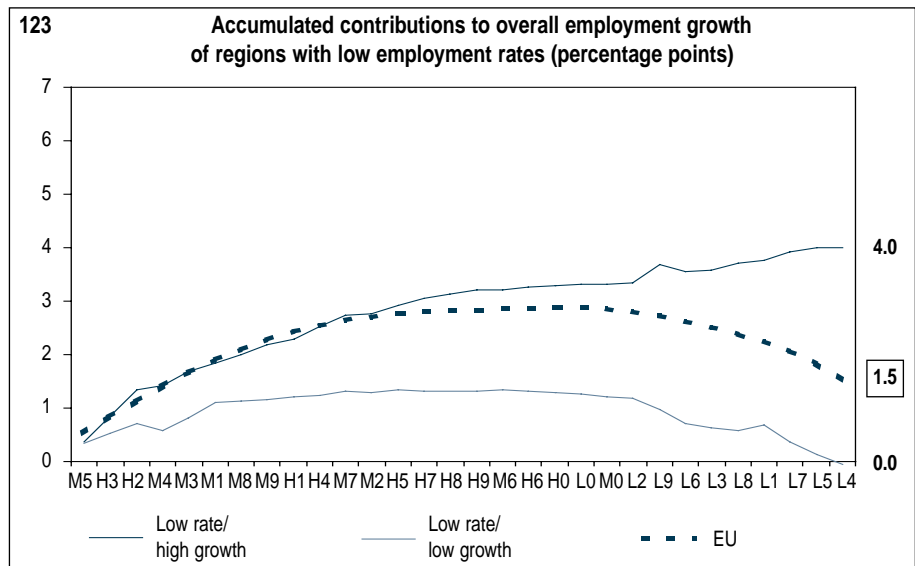
There are clear differences in the relative importance of occupations and skills for employment growth across the six regional clusters. In the case of the high rate/low growth regions, job losses for the low-skilled appear to have completely offset job gains in the occupations in most



Source: Eurostat, LFS



Source: Eurostat, LFS



Source: Eurostat, LFS

demand, as a result of which overall employment stagnated over the period. In the high rate/high growth regions, job losses have also been substantial also for the low-skilled. However, overall employment increased significantly since job creation for jobs requiring higher skill levels has been considerably stronger.

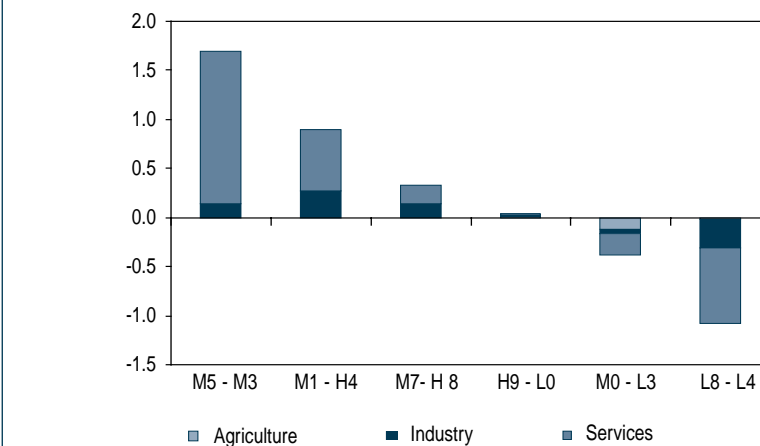
The curves for those regions with medium employment rates are flatter, indicating a more equal distribution of employment growth across occupations and skills in these two groups. Both the accumulated increase in employment for the most demanded skills and the decline for the low-skilled in these regions, however, are much lower than that experienced by the high employment rate regions.

A substantial part of the impressive employment growth for the low rate/high growth regions is due to the fact that, in striking contrast to all other regions, there has been positive net job creation for the lower educated (most Spanish regions belong to this category). In addition, employment creation for those having the most demanded skills has not been significantly above the EU average level. This contrasts with the employment performance of the low rate/low growth regions. In these, not only has job creation for the high-skilled been well below the EU average, but also job losses for the low-educated have resulted in an overall stagnation in employment during 1996-2000.

The contribution of the service sector to employment growth is strongest for medium- and high-skilled non-manual occupations, while at the same time markedly negative for low-skilled manual and non-manual occupations. The contributions to total employment growth arising from industry are higher for the intermediate occupation-skill combinations while also strongly negative for low-skilled occupations (Chart 124).

The employment contributions of the three sectors to overall employment growth, by occupation and skill level, are similar across all regional clusters, with the exception of the low rate/high growth regions in which all occupation-skill cate-

124 Sectoral contributions to annual employment growth in the EU by skills, 1996-2000



Note: The 30 original occupation-skill combinations were aggregated to 6 groups with five observations each. Employment growth in the 6 resulting groups was then broken down by sectors of economic activity.

Source: Eurostat, LFS

gories have experienced positive net job creation. The contribution of industry to this positive employment performance has been disproportionately high, especially among the lower-skilled.

### Conclusions

To sum up, although the sectoral and occupational composition of employment matters for regional employment performance, differences in employment growth across the six regional clusters defined above are explained mainly by "relative performance effects". These effects reflect sources other than just variations in the composition of employment, such as inherent differences in the skills and education of the workforce, its mobility and adaptability, as well as differences in productivity, innovative capacity, and technology adoption. In line with the findings of the previous section, a highly skilled labour force, on the one hand, and innovative high-technology firms generating strong demand for knowledge-intensive jobs, on the other hand, are prerequisites for a positive employment performance at the regional level.

In those regions lagging behind, improving employment performance will be largely dependent on how well they will be able to maximise their potential labour resources and also in their ability to attract new human capital. In the low employment growth group of regions, the working age population contracted at about 0.2% per year over

1996/2000, whereas in the high growth regions the population increased at an annual rate of 0.5%. These dynamics are also reflected in an increase of the average skills which has been more rapid for those regions where employment and population growth have been comparatively higher. Still in 2000, more than half of the population in working age in the low employment rate regions have less than upper secondary education (low-skilled), compared to less than 25% for the high employment rate group of regions. Where young new entrants are significantly better educated nowadays, the observed slowdown in the growth of the working-age population will put further pressure on those already in to increase their skill levels and particularly more so for those in regions where the population is already contracting.

31 Regions with comparable employment performance in the EU				
Employment growth rate 1996/2000	Quartile of regions with "highest" employment rates	Half of regions with "medium" employment rates		Quartile of regions with "lowest" employment rates
<b>High</b>	Berkshire Bucks Oxfordshire Stockholm Surrey East-West Sussex Flevoland Hampshire Isle of Wight Utrecht Dorset Somerset North Yorkshire Lincolnshire Centro(P) Zuid-Holland Noord-Brabant Gelderland Noord-Holland Overijssel Outer London Highlands Islands Zeeland Devon East Wales Drenthe Greater Manchester Friesland Limburg(NL)	Tirol Groningen Sydsverige Algarve Norte Burgenland Vlaams Brabant Detmold Lisboa e Vale do Tejo West-Vlaanderen Alsace Hamburg Rheinland-Pfalz West Midlands South Yorkshire Ile de France Southern and Eastern Vali-Suomi Oost-Vlaanderen Islas Baleares Lüneburg Valle d Aosta Trentino-Alto Adige Emilia-Romagna Alentejo Pays de la Loire	Limousin Weser-Ems Inner London Köln Brabant Wallon Luxembourg (B) Madeira Comunidad Foral de Navarra Merseyside Haute-Normandie Pohjois-Suomi Midi-Pyrénées Bretagne Münster Cataluna Northern Ireland Brandenburg Antwerpen Luxembourg Veneto Lorraine Ita-Suomi Saarland Border Midlands and Western Lombardia	Picardie Aragon Limburg (B) Açores La Rioja Umbria Comunidad Valenciana Namur Liège Comunidad de Madrid Pais Vasco Region de Murcia Rég. Bruxelles-Capitale Galicia Castilla la Mancha Attiki Castilla y Leon Canarias Nord-Pas de Calais Cantabria Extremadura Principado de Asturias Basilicata Andalucia Ceuta y Melilla Puglia
<b>Low</b>	Avon Gloucester&Wiltshire Nth Somerset Ahvenanmaa/Åland Bedfordshire Hertfordshire North Eastern Scotland Danmark Leicestershire Northamptonshire Hereford & Worcestershire and Warks East Anglia Kent Cheshire Shropshire Staffordshire Essex Oberbayern Tübingen Ostra Mellansverige Lancashire West Yorkshire Eastern Scotland Salzburg Schwaben Derbyshire Nottinghamshire Niederbayern Stuttgart Norra Mellansverige	Mellersta Norrland Oberösterreich Vorarlberg East riding and North Lincolnshire Mittelfranken Cumbria Oberfranken Niederösterreich Freiburg Oberplats Ovre Norrland Darmstadt Wien Unterfranken Karlsruhe Schleswig-Holstein Kassel Kriti Hannover Giessen Tees Valley and Durham Thüringen Steiermark Centre Berlin-Ost	South Western Scotland Cornwall and Isles of Scilly Kärnten Rhone-Alpes Ionia Nisia Poitou-Chrentes Franche-Comté Northumberland Tyne and Wear West Wales and the Valleys Braunschweig Peloponnisos Basse-Normandie Sachsen Düsseldorf Mecklenburg-Vorpommern Bourgogne Bremen Arnsberg Champagne-Ardenne Piemonte Aquitaine Auvergne Magdeburg Anatoloiki Makedonia Thraki Marche	Friuli-Venezia Giulia Dessau Toscana Notio Aigaio Berlin-West Halle Provence-Alpes-Cote d Azur Dytiki Ellada Thessalia Liguria Ipeiros Kentriki Makedonia Languedoc-Roussillon Sterea Ellada Hainaut Abruzzo Dytiki Makedonia Lazio Voreio Aigaio Molise Sardegna Campania Sicilia Calabria Corse



## Chapter 6: Employment performance in accession countries

### Introduction

Enlargement of the Union to embrace the countries of Central and Eastern Europe will change the composition and characteristics of the EU labour market radically. This chapter considers how the labour markets of the accession countries are performing and how far they have to change to converge, in performance terms, with those of the existing Member States.

It is clear that the painful transition underway in the Central and Eastern European candidate countries (CEECs) has some way to run before completion. But after the slowdown of the late 1990s, there are welcome signs of economic recovery, although this has yet to filter through to impact on employment rates. GDP growth in the CEECs overall accelerated from 2.2% in 1999 to approximately 4% in 2000. Similar growth is expected in 2001 and 2002. There remain, however, large differences between countries with some recording growth of over 5% in 2000. Despite improved growth, employment continued to deteriorate, falling 1.4% in the region overall, although the rate of decline appears to have slowed in the later part of 2000. Unemployment continued to rise in most countries and exceeded

14% in Poland, Slovakia, Bulgaria and the Baltic countries.

Most of the CEECs have higher male than female unemployment with the male/female gap being greatest in the Baltic countries. Youth unemployment across the region was over 26% in 2000, compared to 16% in the EU, with Bulgaria, Poland and Slovakia recording rates in excess of 35%.

The CEECs would have required a rise in employment of 7% to match the EU's employment rate in 2000 – and converging with Western European rates will become harder as the EU progresses towards its own ambitious targets. Compared to the EU, the CEECs have an over-dependence on agriculture for employment and while employment in industry is close to the EU average, it is particularly under-developed in the service sector.

### Transition economies still face painful transformation

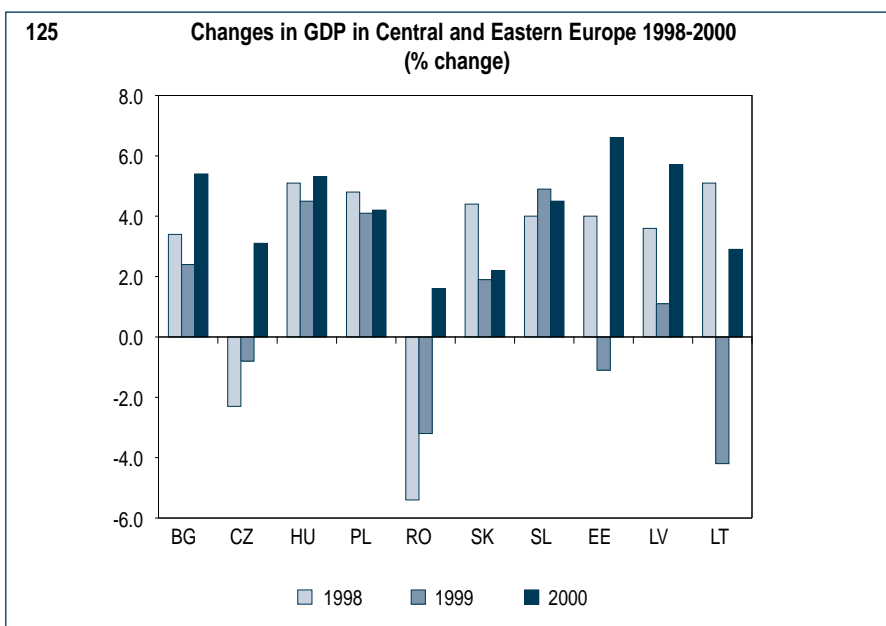
Employment fell by 1.4% in 2000 across the Central and Eastern European region despite a recovery in economic growth after the sharp slowdown of the late 1990s. The aggregate GDP trends suggest the region is emerging from the problems caused by the Russian crisis in

1999 and the Kosovo war, but that recovery is patchy. It has yet to halt the decline in employment that has been a trend in the region since transition in 1994, although the rate of decline appears to be slowing.

The transition economies of Central and Eastern Europe have already undergone substantial transformation, and this process continues to have major implications for employment and the labour market. Generally, different skills are now in demand, and some sectors are growing healthily while there have been large-scale job-losses in others, and unemployment is high.

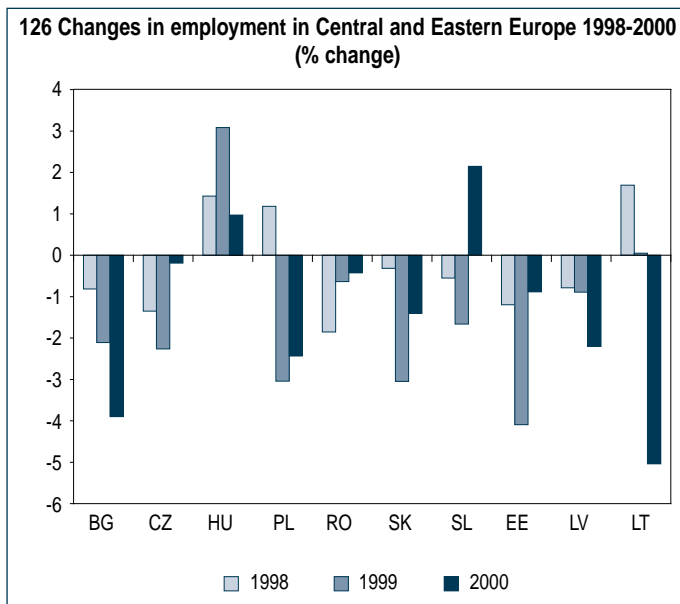
Having fallen from 3.5% in 1997 to 2.6% in 1998, GDP growth in the CEECs overall slowed further, to 2.2%, in 1999. Several factors contributed to this, including the Russian crisis, the economic effects of the Kosovo conflict, and lower growth in the EU. Recovery from this slowdown began as early as mid-1999 in some countries, and overall GDP growth for the CEECs in 2000 is estimated at 4.0%. Similar growth is forecast for 2001 and 2002.

The aggregate growth figures hide large differences between countries (Chart 125). GDP change in 2000 ranged from 1.6% in Romania to over 5% in Bulgaria, Estonia, Latvia and Hungary. Compared to 1999, the turnaround was sharpest in the Baltic countries – a reflection of the severe impact of the Russian crisis in this region in 1999. The acceleration in growth in Bulgaria was also relatively marked, and the growth recorded in Romania and the Czech Republic contrasted with actual declines in GDP in these countries in 1999. Poland, Hungary and Slovenia emerged relatively unscathed from the problems of the region in 1999, but did not share the sharp growth acceleration in 2000. The result was significant convergence in GDP growth across countries in the most recent period.

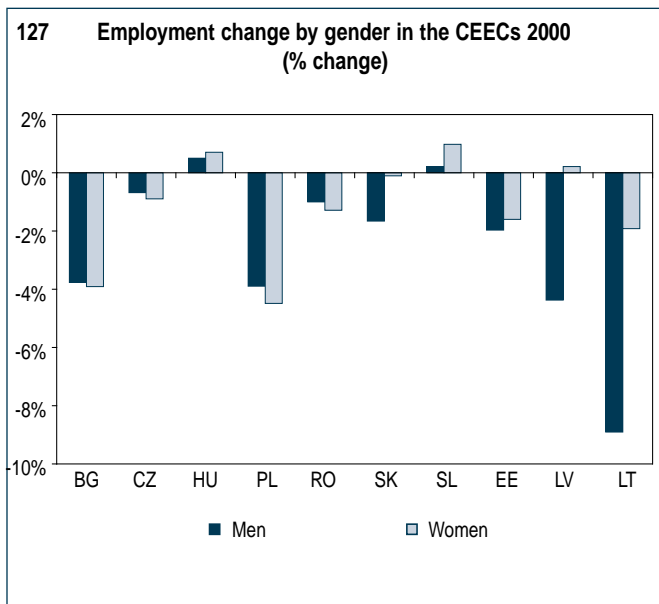


Note: Estimates in this chapter are based on available national LFS data





Note: Data are based on estimated average employment for the year



Note: Data are for QII, except Poland (QI)

Despite the growth turnaround, the area overall saw a continued deterioration in employment in 2000 (Chart 126) – only Hungary and Slovenia had higher employment levels in 2000 than in 1999. The pace of employment decline slowed in Poland, Romania, Slovakia, Estonia and the Czech Republic but accelerated in Latvia and Lithuania, reflecting a delayed employment impact of the economic slowdown in 1999, and also in Bulgaria. Overall, in the 10 countries covered in Chart 126, employment fell by 1.4% in 2000, equivalent to a net loss of approximately 600,000 jobs. The pace of employment decline appeared to slow in the later part of 2000, and with continuing economic recovery should show only a small further decline in 2001 in most countries, and stabilise during 2002.

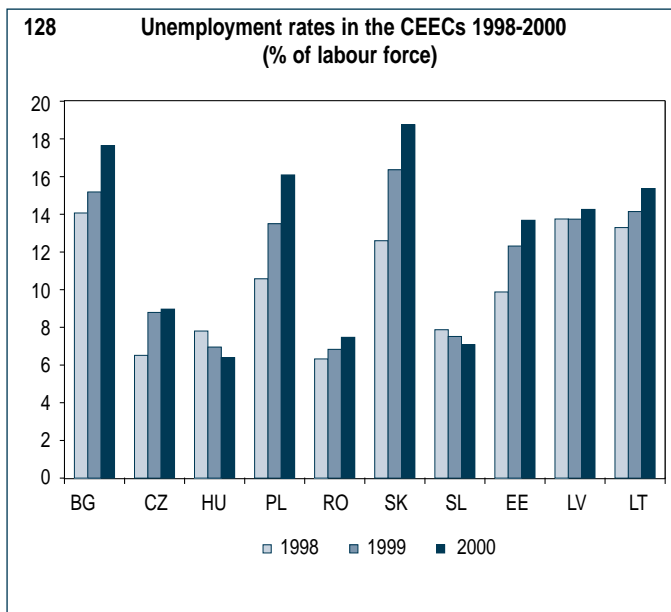
Unlike 1999, when employment decline affected men more severely than women, in 2000 the impact was broadly the same for both (Chart 127). The main exceptions were in Latvia and Lithuania, where the decline in male employment was particularly sharp.

The rise in unemployment in most countries that began in 1999 continued in 2000 (Chart 128). The largest increases were seen in Poland, Slovakia and Bulgaria. These three countries, along with the Baltic countries where unemployment also rose in 2000, now have unemployment rates of 14% or more. The remaining countries (Hungary, Romania, Slovenia and the Czech Republic) have unemployment closer to the EU average. Unemployment continued to fall in

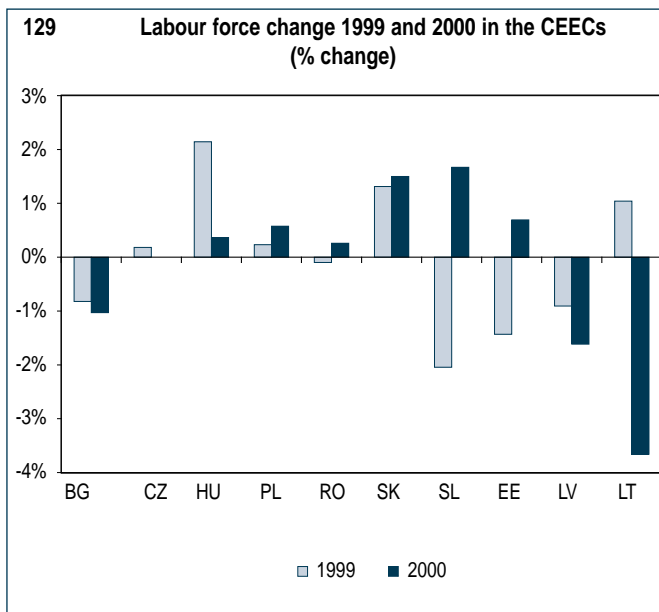
Hungary and Slovenia, and showed signs of stabilising in the Czech Republic during 2000.

Changes in unemployment are, of course, affected both by developments in employment and in the size of the labour force. As can be seen in Chart 129, the labour force grew in a number of countries in 2000, with the largest increases in Slovenia and Slovakia. Elsewhere, notably in Bulgaria, Latvia and Lithuania, employment decline was accompanied by reductions in the size of the labour force – without which unemployment would have risen even more sharply last year.

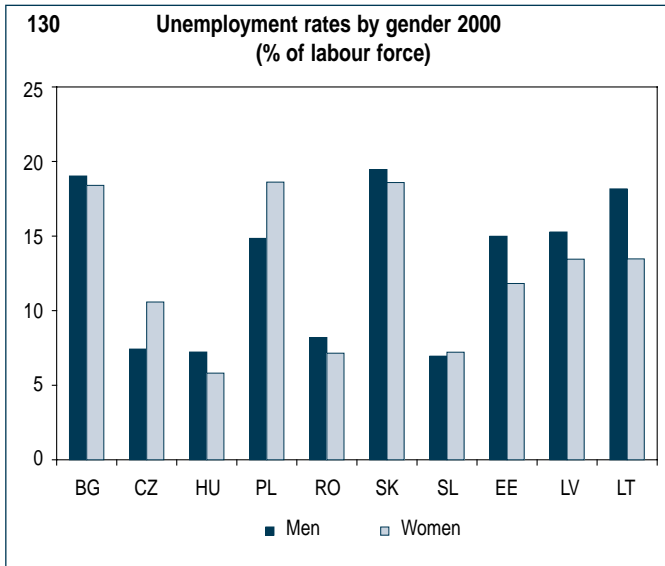
In contrast to the EU pattern where unemployment is typically higher for women than for men, most of the CEECs had higher male unemploy-



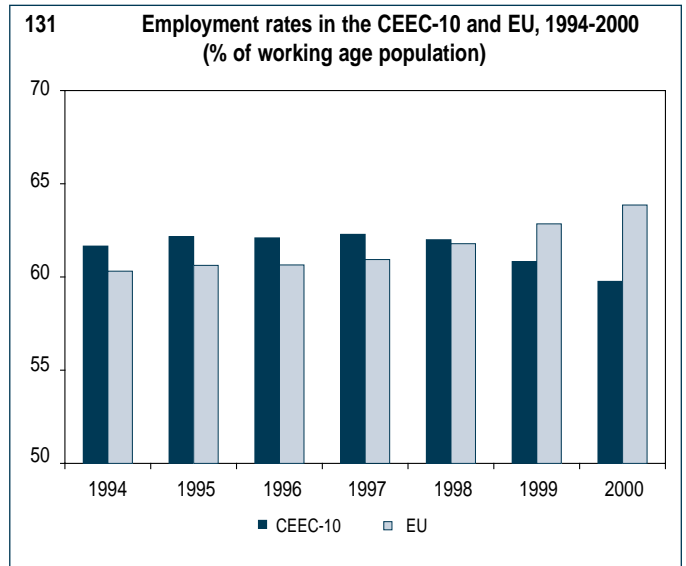
Note: Data are annual averages of quarterly data



Note: Data are estimated annual averages



Note: Data are QII, except Poland (QI)



Note: CEEC-10 estimated annual averages; EU data are QII

ment in 2000 (Chart 130). The male/female gap was greatest in the Baltic countries. Only in Poland and the Czech Republic was male unemployment significantly lower than the female rate. Unlike the previous year, in most countries unemployment among young people rose less rapidly in 2000 than for adult workers. Youth unemployment nonetheless is relatively high – the average rate across the CEECs in 2000 was over 26% compared to 16% in the EU. The problem is particularly acute in Bulgaria, Poland and Slovakia, all of which have youth unemployment rates above 35%.

**Substantial differences remain, compared to EU trends**

These national-level trends over the last few years need to be seen in a broader context. It may be useful

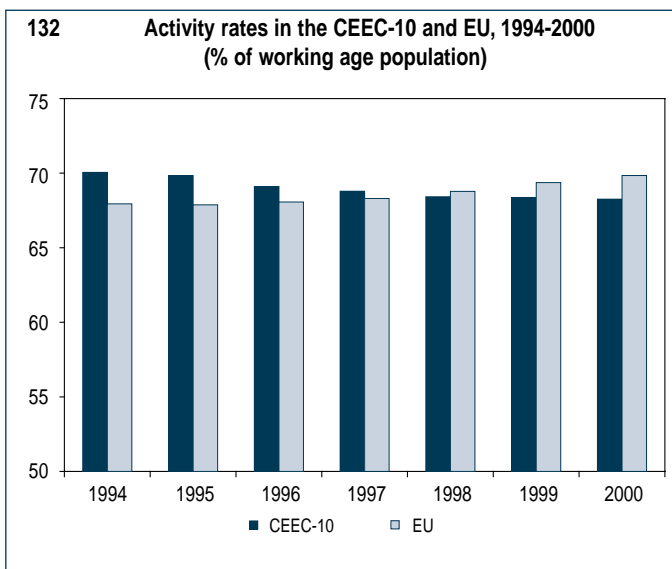
therefore to examine how the overall labour market aggregates for the CEECs have moved relative to the EU over a slightly longer period.

Movements in the employment rate are shown in Chart 131. In 1994, although employment in the 10 CEECs had fallen significantly from the extremely high pre-transition levels, the employment rate, at almost 62%, remained above the EU level. This gap remained for several years, as the rising employment trends in the CEECs and the EU were broadly similar between 1994 and 1997. Since then, however, the employment rate has fallen below 60% in the CEECs, reflecting in part the particular effects of the 1998 Russian crisis but also the impact of an acceleration of restructuring in some countries. At the same time,

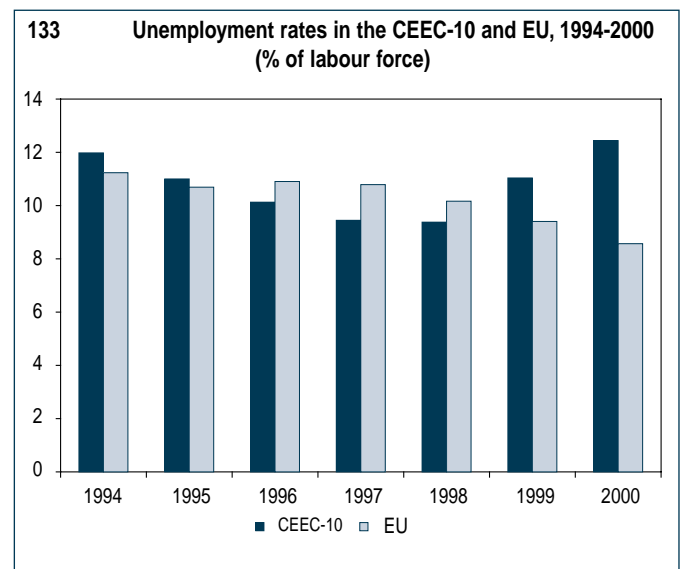
this period has seen a continuing rise in employment in the EU. As a result, the CEEC employment rate fell below that in the EU for the first time in 1999 and the gap widened further in 2000.

Labour force participation also was relatively high in the CEECs in 1994 (Chart 132). Activity has, however, continued to fall since then from 70% in 1994 to 68% in 2000. Over the same period, employment growth in the EU has been accompanied by a slight rise in labour force participation. As a result, the overall activity rate in the CEECs fell below the EU level for the first time in 1998, and the gap has widened over the last two years.

The impact of these employment and activity trends on the level of unemployment can be seen in Chart 133.



Note: CEEC-10 estimated annual averages; EU data are QII



Note: CEEC-10 estimated annual averages; EU data are QII

Unemployment in the CEECs rose sharply in the early 1990s, so that by 1994 the unemployment rate, at 12%, was slightly above the EU level of that year. Rising employment combined with a continuing decline in activity over the next few years saw the CEEC unemployment rate fall to just over 9% in 1997, while EU unemployment fell only marginally to just under 11%. Since 1997, this relative trend has been reversed. Employment fell more sharply than activity in the CEECs, so that unemployment rose to over 12% in 2000. At the same time, unemployment in the EU fell significantly, to less than 9% in 2000.

It should be noted that comparisons between the CEECs and the EU are heavily affected by trends in one country – Romania. Labour market developments in Romania have been unique in recent years. Decline in urban employment there has been reflected in a massive job growth in agriculture (much of it of a subsistence nature) rather than in declining activity or rising unemployment. Reported employment and activity rates therefore, remain much higher than in the other CEECs, with the reported unemployment rate remaining relatively low. Given Romania's relative size – accounting for over 20% of the population of the 10 CEECs – this has a substantial effect on the labour-market aggregates for the CEECs as a whole. Excluding Romania, the employment and activity rates for the remaining CEECs, at 57% and 66% respectively, are now significantly below the EU average, while unemployment in these countries stood at 14% in 2000, compared with less than 9% in the EU.

### **Sectoral structure of employment shows over-reliance on agriculture**

These comparisons underline the scale of the employment challenge still facing the CEECs. Raising the employment rate to the level reached in the EU in 2000 would require employment to rise by 7%, representing 3 million additional jobs. The requirements for convergence will be greater to the extent that the EU achieves its own ambitious employment targets for the coming years. In

response to this challenge, the CEECs are already moving towards adopting a strategic approach to employment policy in line with Member States' practice under the EU's European Employment Strategy. As part of this process, national authorities in the CEECs, together with the Commission, are engaged in the drafting of a series of Joint Assessments of Employment Policy (JAPs). These are designed to help identify policy priorities for human resources development and labour market programmes and institutions. A number of JAPs have already been completed and published, and the rest will be finished by the end of 2001.

A particular feature of the CEECs is the employment restructuring process they have undergone in recent years – particularly in manufacturing and agriculture, but also in public utilities, transport and communications. Countries vary in the pace at which this process has taken place, and thus in the extent to which further structural change can be expected in the sectors concerned. This in turn has implications for the required pace of employment growth in the expanding sectors of their economies.

Employment rates by sector in 2000 are shown for nine of the CEECs in Chart 134 (data for Bulgaria are not available). For these countries overall, the main difference with the EU relates to continued dependence on agriculture as a source of employment (13% of the working-age population in the CEECs compared to less than 3% in the EU) and the underdevelopment of the services sector (28% as against 43%). The employment rate in industry is just over 18% in both regions. The chart, however, also shows that there are significant differences within the CEECs.

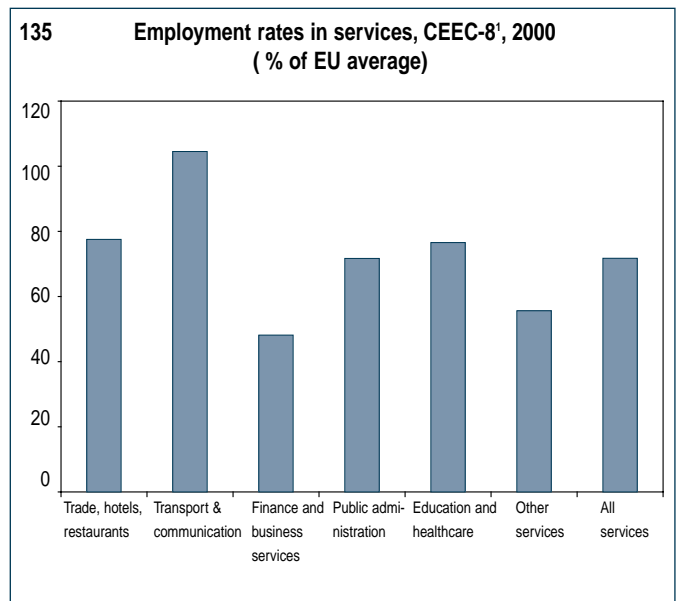
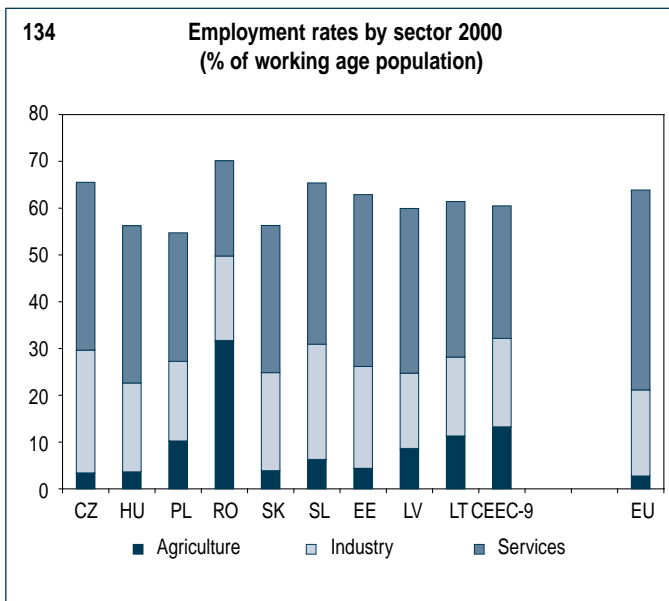
In terms of the employment rate, over-dependence on agriculture is clearly most acute in Romania, but is also substantial in Lithuania and Poland where the agricultural employment rate is over 10%. (Within the EU, only Greece and Portugal have comparable concentrations of employment in this sector.) Even when allowance is made for differences in population density – low-density countries will tend to have a

higher agricultural employment rate even where employment relative to land area has been equalised – Romania, Poland and Lithuania seem likely to face further significant declines in agricultural employment in the years ahead. In the case of Poland, for example, a halving of the gap with the EU average, in terms of employment relative to land area, would see a reduction of approximately 1 million jobs in agriculture. Elsewhere in the CEECs, the employment impact of further agricultural restructuring is likely to be more limited.

While the employment rate in industry for the CEECs overall is close to the EU average, high rates are still recorded in a number of countries – the Czech Republic (26%) Slovenia (25%) Estonia (22%) and Slovakia (21%). Even these rates are not substantially out of line with those in highly developed EU Member States such as Germany (22%) and Austria (21%). Overall, the data suggest that industrial employment in the CEECs has reached a sustainable level. This is not to say that further restructuring will not occur in individual sub-sectors of manufacturing, but rather that there is scope for compensating employment growth in other parts of the sector.

An examination of more detailed service sector employment patterns shows which services are particularly under-developed in the CEECs – areas where, therefore, growth can be expected to compensate for restructuring elsewhere in the economy. Employment rates for individual service sector components, relative to the EU average are shown in Chart 135 (Romania has been excluded from the data because the extremely low services employment rate for that country would distort the overall comparison). For the countries covered, the overall services employment rate is just under three-quarters of the EU level.

In three sub-sectors – public administration, education and healthcare, and trade, hotels and restaurants – the employment-rate gap is close to that for services overall. The pace of employment growth in these areas is likely to be driven by overall economic growth as well as by developments



<sup>1</sup>CEEC-8 excludes Bulgaria and Romania

in public fiscal balances. Relative under-employment is greatest in finance and business services, together with "other" (mainly personal) services, and developments here will almost certainly be an important source of future employment growth.

By contrast, employment in transport and communications is already at or above EU levels in most countries. While in some cases this may be due to the importance of transit trade through the countries concerned (particularly the Baltic states), elsewhere it reflects the as yet incomplete re-structuring of these activities, suggesting that their potential contribution to employment growth in the medium term will be relatively limited.

### Conclusions

Over the last two years, the continuing employment transformation of the CEECs has taken place against a backdrop of difficult external economic conditions. As a result, employment has fallen further and unemployment has reached high levels. The short-term outlook is for employment to stabilise in 2001-2002 in the area as a whole, with small increases in some countries.

In the medium-term, these countries still face significant employment challenges. Employment and activity rates have fallen below the EU average and unemployment is substantially above it. Further re-structuring is to be expected in agri-

culture and parts of the industrial sector, so that overall employment growth will be heavily dependant on trends in the services sector – particularly financial, business and personal services.

In addressing these problems, the CEECs are moving to align their employment policies and processes with existing EU practice. The pre-accession employment policy reviews, being carried out jointly with the Commission, are designed to support this movement and to help the CEECs to identify the most pressing priorities for policy action.



## Annex: Short-term projections of key employment indicators

### Projecting Key Employment Indicators

The projections of key employment indicators presented in this section are based on two main sources: first, the most recent Commission economic forecasts (Spring Forecasts) of GDP growth and employment growth, and second, annual key labour market indicators for the period 1991-2000 from the Eurostat Quarterly Labour Force Data (QLFD) series.

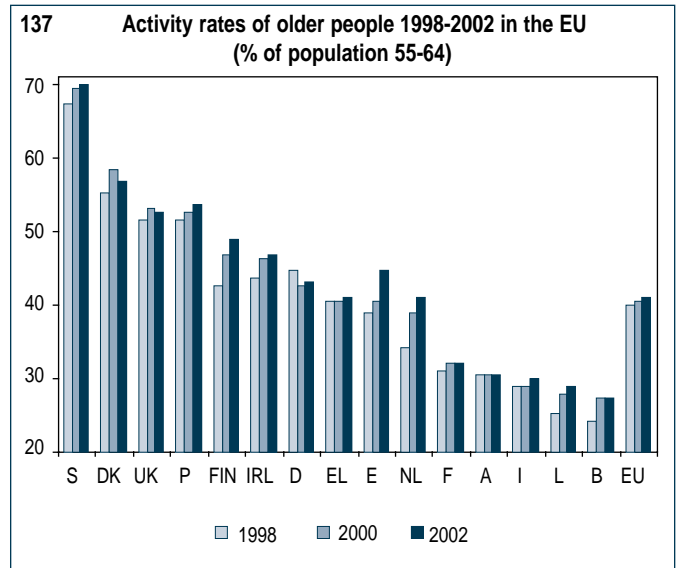
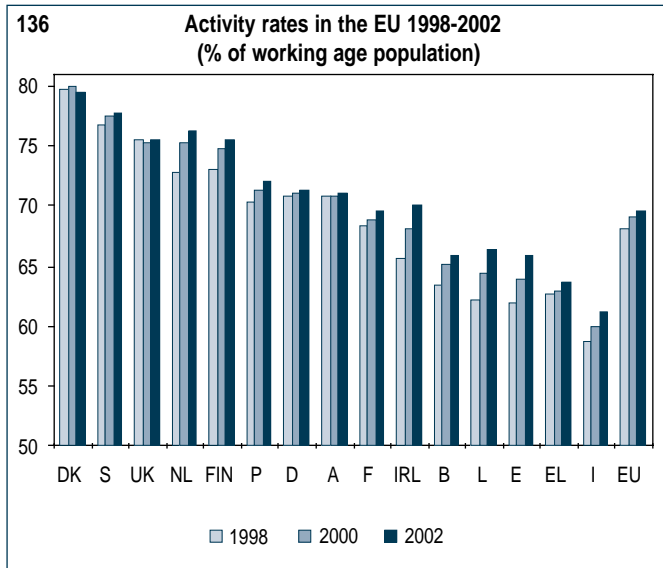
Activity rates and employment rates have been projected simultaneously on the basis of a dynamic panel data model of the changes in these rates, allowing to model the effect of overall economic growth on labour market participation and employment, while taking into account recent country-specific trends and ensuring consistency among the projections. The model component for changes in the employment rates takes the employment growth projections as given and translates them into projections of employment rates. Further breakdowns of the projections by gender and age group are based on separate models specific to the sub-population of interest, taking the overall evolution of GDP, participation and employment as given.

Since the projections are model-based they imply unchanged labour market policies throughout the projection period 2001-2002. If there were important changes in labour market policies over this period - bringing about structural breaks in the analysed relationships between economic growth, participation behaviour, and employment growth - the evolution of activity, employment and unemployment rates might well differ from that projected. This could apply especially to the projected employment rates for older workers (55-64) the evolution of which could be more favourable than that projected if in the coming years, labour market policies stimulating older workers' participation and reducing the incidence of early retirement were significantly different from those during the 1990s.

32 Commission's Economic Spring Forecasts 2001/2002										
	GDP growth					Employment growth				
	1995-98	1999	2000	2001	2002	1995-98	1999	2000	2001	2002
<b>A</b>	2.1	2.8	3.2	2.5	2.6	0.2	1.4	0.9	0.5	0.4
<b>B</b>	2.4	2.7	4.0	3	3.1	0.8	1.3	1.8	1.3	1.2
<b>D</b>	1.5	1.6	3	2.2	2.6	0.1	1.1	1.5	0.6	0.9
<b>DK</b>	2.7	2.1	2.9	2.1	2.4	1.2	0.9	0.8	0.5	0.5
<b>E</b>	3.4	4	4.1	3.2	3.3	2.4	3.5	3.3	2.2	2.2
<b>EL</b>	2.8	3.4	4.1	4.4	4.8	0.9	-0.7	1.2	1.4	1.6
<b>F</b>	2.0	2.9	3.1	2.9	2.8	0.6	1.8	2	1.7	1.5
<b>FIN</b>	4.9	4.2	5.7	4	3.6	2.1	2.1	1.5	1.5	1.1
<b>I</b>	2.0	1.6	2.9	2.5	2.7	0.4	1.3	1.5	1.3	1.1
<b>IRL</b>	9.2	9.8	10.7	7.5	7.1	5.4	6.1	4.7	2.9	2.4
<b>L</b>	4.7	7.6	8.5	5.6	5.5	1.3	2.2	5.5	3.9	3.6
<b>NL</b>	3.3	3.9	3.9	3.4	3.1	2.5	2.8	2.5	2	1.8
<b>P</b>	3.6	3.3	3.3	2.6	2.6	-0.6	1.8	1.7	0.9	0.7
<b>S</b>	2.6	4.1	3.6	2.7	3	0.2	2.3	2.2	1.5	0.8
<b>UK</b>	2.9	2.3	3	2.7	3	1.5	1.1	1	0.5	0.7
<b>EU</b>	2.4	2.5	3.3	2.8	2.9	0.9	1.6	1.8	1.2	1.2

Source: European Commission 2001 Spring Forecasts



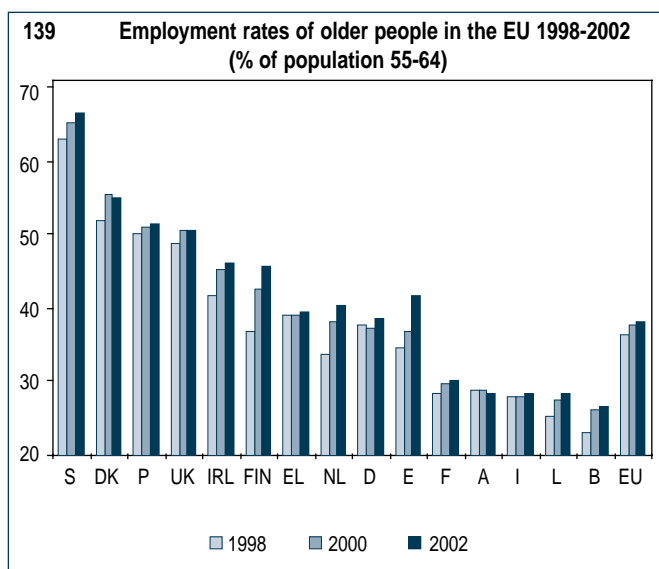
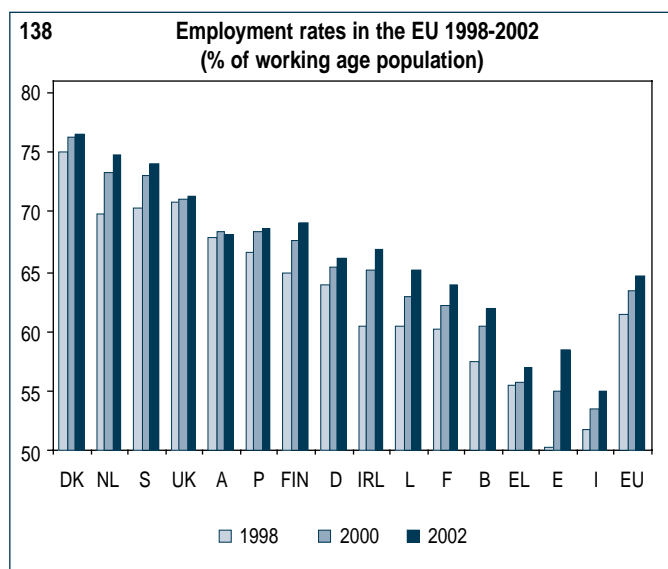


33 Short-term projections of activity rates, by gender															
	All					Men					Women				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
A	70.8	71.1	70.8	70.9	71.1	80.0	80.2	79.6	79.5	79.5	61.5	61.8	61.8	62.1	62.6
B	63.5	64.9	65.1	65.5	65.9	72.8	73.4	73.7	73.9	74.1	54.0	56.3	56.4	57.1	57.9
D	70.8	71.1	71.0	71.2	71.3	79.2	79.2	78.8	78.7	78.7	62.2	62.9	63.1	63.5	63.9
DK	79.7	80.6	80.0	79.7	79.6	83.7	84.9	84.2	84.0	83.7	75.6	76.1	75.6	75.2	74.9
EL	62.6	63.0	62.9	63.2	63.7	77.3	77.1	77.1	77.2	77.5	48.6	49.7	49.6	50.3	51.2
E	61.8	62.6	64.0	65.1	66.0	76.0	76.7	77.4	78.1	78.6	47.8	48.9	50.8	52.3	53.5
F	68.4	68.8	68.9	69.2	69.5	75.2	75.4	75.3	75.3	75.4	61.8	62.3	62.6	63.1	63.7
FIN	73.1	74.2	74.8	75.2	75.5	76.5	77.1	77.6	77.8	77.9	69.7	71.2	72.0	72.5	72.9
IRL	65.6	67.0	68.1	69.2	70.1	78.2	79.0	79.7	80.4	80.9	52.9	55.0	56.4	57.8	59.1
I	58.7	59.3	59.9	60.5	61.2	72.9	73.2	73.5	73.8	74.1	44.6	45.5	46.3	47.3	48.4
L	62.1	63.2	64.4	65.5	66.5	75.9	75.9	76.6	77.3	77.9	48.1	50.3	51.9	53.4	54.7
NL	72.8	73.9	75.2	76.0	76.3	82.4	82.8	84.2	84.8	85.0	63.0	64.6	65.9	66.9	67.4
P	70.3	70.7	71.3	71.8	72.1	79.0	79.0	79.2	79.3	79.4	62.0	62.8	63.7	64.4	64.9
S	76.8	77.1	77.5	77.7	77.8	79.3	79.5	79.8	79.8	79.7	74.2	74.7	75.1	75.3	75.3
UK	75.6	75.5	75.4	75.4	75.5	83.5	83.2	82.8	82.7	82.5	67.6	67.7	68.0	68.2	68.3
EU	68.2	68.7	69.0	69.4	69.7	77.9	78.1	78.1	78.2	78.3	58.5	59.3	59.9	60.5	61.1

Source: Commission Services

34 Short-term projections of activity rates, by age group															
	15-24					25-54					55-64				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
A	57.5	56.9	55.8	55.7	55.8	84.2	84.6	84.9	85.2	85.4	30.3	31.7	30.5	30.2	30.3
B	33.9	35.7	35.3	35.6	36.1	81.2	82.3	82.4	82.8	83.1	24.1	25.9	27.1	27.4	27.4
D	50.1	50.6	50.4	50.6	50.9	84.6	85.2	85.5	85.8	85.9	44.5	43.9	42.7	42.7	43.0
DK	71.2	72.3	70.7	70.0	69.4	87.7	88.2	87.9	87.8	87.6	55.1	57.5	58.2	57.4	57.0
EL	40.5	39.4	38.4	38.6	39.2	76.7	77.4	77.3	77.7	78.2	40.3	40.7	40.7	40.8	41.1
E	42.5	43.3	43.9	44.4	44.7	75.6	76.2	77.4	78.4	79.2	38.8	38.7	40.7	43.0	44.9
F	34.9	35.9	35.7	36.0	36.4	86.4	86.4	86.4	86.5	86.7	30.8	31.1	32.0	32.2	32.1
FIN	46.3	49.7	51.1	52.3	53.1	88.0	88.4	88.5	88.6	88.7	42.5	44.3	47.0	48.6	49.0
IRL	51.5	53.6	54.3	56.0	57.5	76.2	77.3	78.4	79.5	80.4	43.9	45.5	46.5	46.5	47.0
I	38.0	37.5	37.6	37.8	38.2	73.1	73.7	74.2	74.9	75.6	29.2	29.2	29.1	29.4	29.8
L	35.2	34.1	34.0	34.4	35.0	76.9	78.5	80.0	81.2	82.1	25.3	26.7	27.9	28.5	29.0
NL	66.5	68.5	72.9	73.8	74.3	82.5	83.1	83.7	84.1	84.3	34.4	36.8	39.0	40.5	41.0
P	48.4	48.1	47.5	47.1	46.8	83.9	84.1	84.9	85.3	85.6	51.7	52.4	52.7	53.1	53.4
S	45.3	46.1	47.2	47.8	48.1	88.0	88.0	88.1	88.1	88.0	67.5	68.6	69.4	69.8	70.1
UK	67.2	65.0	64.2	63.8	63.6	83.4	83.9	84.0	84.1	84.2	51.5	52.1	52.9	52.9	52.8
EU	47.5	47.8	47.9	48.1	48.3	81.7	82.1	82.5	82.8	83.2	40.1	40.4	40.7	41.1	41.5

Source: Commission Services



### 35 Short-term projections of employment rates, by gender

	All					Men					Women				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
A	67.8	68.4	68.3	68.2	68.0	76.8	77.2	77.0	76.7	76.1	58.6	59.4	59.4	59.6	59.7
B	57.5	59.3	60.5	61.4	62.0	67.1	68.1	69.5	70.1	70.3	47.6	50.4	51.5	52.7	53.7
D	63.9	64.8	65.4	65.8	66.2	71.9	72.4	72.8	73.1	73.2	55.8	57.1	57.9	58.6	59.2
DK	75.1	76.0	76.3	76.5	76.6	79.9	80.8	80.8	81.3	81.3	70.2	71.1	71.6	71.6	71.6
EL	55.5	55.3	55.6	56.3	57.0	71.6	70.8	71.1	71.6	71.9	40.2	40.6	40.9	41.7	42.8
E	50.2	52.7	55.0	56.9	58.5	65.6	68.2	69.9	71.4	72.7	35.0	37.6	40.3	42.6	44.6
F	60.1	60.9	62.2	63.2	64.0	67.3	68.0	69.3	70.1	70.6	53.1	54.0	55.3	56.5	57.5
FIN	64.8	66.6	67.5	68.4	69.1	68.3	69.6	70.6	71.5	72.3	61.3	63.5	64.4	65.3	65.9
IRL	60.5	63.2	65.1	66.2	66.9	72.0	74.4	76.1	76.7	77.0	49.0	51.9	54.0	55.6	56.8
I	51.7	52.5	53.5	54.3	55.1	66.2	66.7	67.5	68.0	68.3	37.3	38.3	39.6	40.8	42.0
L	60.5	61.7	62.9	64.1	65.1	74.5	74.5	75.1	75.8	76.3	46.2	48.6	50.3	51.9	53.3
NL	69.8	71.3	73.2	74.3	74.8	79.8	80.7	82.4	83.2	83.6	59.5	61.7	63.7	65.1	65.9
P	66.6	67.5	68.3	68.6	68.7	75.7	75.8	76.6	76.6	76.4	58.0	59.4	60.3	60.9	61.2
S	70.3	71.6	73.0	73.7	74.0	72.2	73.5	74.8	75.4	75.7	68.2	69.7	71.0	71.7	71.9
UK	70.8	70.9	71.2	71.3	71.4	77.6	77.6	77.8	77.8	77.7	63.8	64.1	64.6	64.8	65.0
EU	61.3	62.3	63.3	64.0	64.6	71.0	71.8	72.5	73.1	73.4	51.6	52.8	54.0	55.0	55.9

Source: Commission Services

### 36 Short-term projections of employment rates, by age group

	15-24					25-54					55-64				
	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002
A	54.5	54.2	53.1	52.5	51.8	80.8	81.6	82.2	82.3	82.1	29.0	30.1	28.9	28.5	28.4
B	26.8	28.2	29.1	30.0	30.5	74.3	76.2	77.4	78.3	78.9	22.9	24.6	26.3	26.6	26.8
D	45.3	46.1	46.1	46.5	47.0	77.2	78.4	79.5	80.1	80.5	37.7	37.7	37.3	37.8	38.4
DK	65.4	65.5	66.0	65.9	65.2	83.1	83.9	84.2	84.7	84.8	52.0	54.5	55.7	55.2	55.0
EL	28.0	26.8	26.8	27.4	28.3	69.7	69.6	69.5	70.3	71.0	39.0	39.1	39.2	39.1	39.5
E	28.0	30.9	32.7	34.0	35.2	63.1	65.6	67.8	69.6	71.2	34.8	34.9	36.8	39.3	41.5
F	25.7	27.2	29.0	30.1	30.8	77.1	77.7	78.8	79.8	80.6	28.3	28.7	29.7	30.1	30.2
FIN	35.5	39.2	40.2	41.6	42.8	79.8	81.0	81.5	82.1	82.6	36.9	39.8	42.7	45.1	45.8
IRL	45.6	49.0	50.6	52.1	53.1	70.9	73.4	75.4	76.6	77.3	41.6	43.7	45.3	45.6	46.2
I	25.1	25.2	25.9	26.4	26.8	66.2	66.9	67.9	68.8	69.6	27.8	27.8	27.8	28.1	28.5
L	32.9	31.8	31.9	32.5	33.2	75.1	76.9	78.4	79.8	80.7	25.1	26.4	27.4	28.1	28.5
NL	60.9	63.8	69.2	70.0	70.2	79.6	80.8	81.8	82.5	82.9	33.6	35.8	38.3	39.9	40.6
P	43.6	44.0	43.5	42.8	42.2	80.2	80.8	81.9	82.2	82.2	50.0	50.8	51.0	51.3	51.5
S	37.7	39.6	41.6	42.6	43.0	81.3	82.6	83.8	84.4	84.6	63.0	64.0	65.1	65.8	66.4
UK	58.1	56.5	56.2	55.6	55.3	79.2	79.9	80.4	80.6	80.7	49.0	49.6	50.8	50.8	50.7
EU	38.3	39.3	40.3	40.8	41.2	74.5	75.6	76.6	77.4	77.9	36.6	37.1	37.7	38.3	38.8

Source: Commission Services



**Macroeconomic indicators (annual percentage change)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>European Union</b>												
Real GDP	1.7	1.2	-0.4	2.8	2.4	1.7	2.6	2.9	2.6	3.3	2.8	2.9
Occupied population	0.2	-1.2	-1.7	-0.2	0.7	0.4	1.0	1.6	1.6	1.8	1.2	1.2
Labour productivity	1.6	2.6	1.5	3.0	1.7	1.5	1.6	1.3	1.1	1.6	1.6	1.8
Annual average hours worked	:	-0.4	-0.7	0.5	-0.1	-0.1	-0.3	-0.5	:	:	:	:
Productivity per hour worked **	:	2.9	2.0	2.7	2.1	1.2	1.5	1.2	:	:	:	:
Harmonised CPI	5.2	4.0	3.4	2.8	2.8	2.4	1.7	1.3	1.2	2.1	2.1	1.8
Price deflator GDP	5.4	4.3	3.5	2.7	3.0	2.5	1.9	2.0	1.5	1.5	2.1	2.0
Nominal compensation per employee	7.2	7.2	4.4	3.2	3.4	3.2	2.7	2.1	2.7	2.9	3.2	3.3
Real compensation per employee (GDP deflator)	1.7	2.8	0.8	0.5	0.4	0.6	0.7	0.2	1.2	1.4	1.1	1.3
Real compensation per employee (priv. cons. defl.)	1.3	2.5	0.2	-0.1	0.2	0.4	0.5	0.5	1.4	0.9	1.1	1.5
Nominal unit labour costs	5.6	4.5	2.8	0.2	1.6	1.7	1.0	0.9	1.6	1.3	1.6	1.5
Real unit labour costs	0.2	0.3	-0.7	-2.4	-1.3	-0.8	-0.9	-1.1	0.1	-0.2	-0.5	-0.4
<b>Belgium</b>												
Real GDP	1.9	1.6	-1.5	3.0	2.6	1.2	3.4	2.4	2.7	4.0	3.0	3.1
Occupied population	0.1	-0.5	-0.7	-0.4	0.7	0.4	0.8	1.2	1.3	1.8	1.3	1.2
Labour productivity	1.8	2.1	-0.8	3.4	1.9	0.8	2.6	1.2	1.4	2.2	1.7	2.0
Annual average hours worked	-1.9	-1.0	-2.4	0.1	1.9	-1.7	0.8	0.4	-4.8	:	:	:
Productivity per hour worked	3.8	3.2	1.6	3.2	0.0	2.5	1.8	0.8	6.6	:	:	:
Harmonised CPI	:	2.3	2.5	2.4	1.3	1.8	1.5	0.9	1.1	2.7	1.9	1.7
Price deflator GDP	2.8	3.6	3.7	1.8	1.8	1.2	1.3	1.6	1.0	1.2	2.3	1.9
Nominal compensation per employee	7.5	5.8	3.7	4.0	2.4	1.6	2.9	2.0	2.3	2.6	3.1	3.0
Real compensation per employee (GDP deflator)	4.6	2.1	0.0	2.2	0.6	0.4	1.5	0.4	1.3	1.4	0.7	1.1
Real compensation per employee (priv. cons. defl.)	4.8	3.8	1.0	1.5	0.7	-0.6	1.2	1.0	1.1	0.1	1.3	1.4
Nominal unit labour costs	5.6	3.7	4.5	0.7	0.5	0.8	0.2	0.8	0.9	0.4	1.4	1.0
Real unit labour costs	2.7	0.0	0.8	-1.2	-1.2	-0.4	-1.1	-0.8	-0.1	-0.8	-1.0	-0.9
<b>Denmark</b>												
Real GDP	1.1	0.6	0.0	5.5	2.8	2.5	3.0	2.8	2.1	2.9	2.1	2.4
Occupied population	-0.6	-0.9	-1.5	-0.4	0.7	1.3	1.3	1.4	0.9	0.8	0.5	0.5
Labour productivity	1.7	1.5	1.5	5.9	2.0	1.2	1.6	1.4	1.3	2.1	1.6	1.9
Annual average hours worked	-0.5	1.3	-2.3	4.8	-2.5	0.5	0.7	-0.4	1.8	:	:	:
Productivity per hour worked	2.2	0.2	3.8	1.1	4.6	0.6	0.9	1.8	-0.5	:	:	:
Harmonised CPI	2.2	1.9	0.9	1.8	2.0	2.1	1.9	1.3	2.1	2.7	2.1	2.1
Price deflator GDP	2.8	2.9	1.4	1.7	1.8	2.5	2.2	1.9	3.0	3.7	2.3	2.5
Nominal compensation per employee	3.9	4.2	2.3	3.5	3.5	3.3	3.5	3.8	4.2	3.9	3.6	3.7
Real compensation per employee (GDP deflator)	1.1	1.2	0.9	1.8	1.7	0.8	1.3	1.8	1.2	0.3	1.2	1.2
Real compensation per employee (priv. cons. defl.)	1.1	2.2	0.4	0.5	1.5	1.2	1.3	1.9	1.6	0.8	1.5	1.6
Nominal unit labour costs	2.2	2.6	0.9	-2.2	1.5	2.1	1.9	2.4	2.9	1.8	2.0	1.7
Real unit labour costs	-0.6	-0.3	-0.5	-3.9	-0.3	-0.4	-0.3	0.4	-0.1	-1.8	-0.4	-0.7
<b>Germany</b>												
Real GDP	5.0	2.2	-1.1	2.3	1.7	0.8	1.4	2.1	1.6	3.0	2.2	2.6
Occupied population	1.7	-1.6	-1.4	-0.2	0.1	-0.3	-0.2	0.9	1.1	1.5	0.6	0.9
Labour productivity	2.5	3.8	0.3	2.5	1.5	1.1	1.6	1.1	0.5	1.4	1.6	1.7
Annual average hours worked	:	0.3	-1.3	-0.4	-1.1	-0.7	0.1	0.5	0.3	:	:	:
Productivity per hour worked	:	3.6	1.7	3.0	2.7	1.8	1.5	0.6	0.2	:	:	:
Harmonised CPI	:	:	:	:	:	1.2	1.5	0.6	0.6	2.1	2.0	1.5
Price deflator GDP	3.9	5.0	3.7	2.5	2.0	1.0	0.8	1.1	0.9	-0.4	0.9	0.9
Nominal compensation per employee	5.9	10.5	4.1	3.0	3.6	1.3	0.8	1.1	1.1	1.2	1.7	2.5
Real compensation per employee (GDP deflator)	1.9	5.2	0.4	0.5	1.6	0.3	0.0	0.0	0.2	1.6	0.8	1.5
Real compensation per employee (priv. cons. defl.)	2.1	5.8	0.2	0.4	1.7	-0.4	-1.1	0.0	0.8	-0.2	-0.1	1.2
Nominal unit labour costs	3.3	6.4	3.8	0.5	2.1	0.2	-0.8	0.0	0.6	-0.1	0.2	0.8
Real unit labour costs	-0.6	1.3	0.2	-2.0	0.1	-0.8	-1.6	-1.1	-0.3	0.2	-0.7	-0.1
<b>Greece</b>												
Real GDP	3.1	0.7	-1.6	2.0	2.1	2.4	3.5	3.1	3.4	4.1	4.4	4.8
Occupied population	-2.3	1.4	1.0	1.9	0.9	-0.4	-0.3	3.4	-0.7	1.2	1.4	1.6
Labour productivity	5.6	-0.7	-2.5	0.1	1.2	2.8	3.9	-0.3	4.1	2.9	3.0	3.2
Annual average hours worked	0.2	1.5	1.0	-1.6	-0.5	0.9	-0.8	0.3	0.8	:	:	:
Productivity per hour worked	5.3	-2.2	-3.5	1.8	1.7	1.9	4.7	-0.6	3.3	:	:	:
Harmonised CPI	:	:	:	:	8.9	7.9	5.4	4.5	2.1	2.9	2.6	2.3
Price deflator GDP	19.8	14.8	14.5	11.2	9.8	7.4	6.8	5.2	2.9	2.9	2.9	2.7
Nominal compensation per employee	15.4	11.8	9.8	10.9	12.9	8.8	13.6	6.0	4.8	5.0	5.4	5.7
Real compensation per employee (GDP deflator)	-3.7	-2.6	-4.0	-0.4	2.8	1.4	6.3	0.8	1.8	2.0	2.4	3.0
Real compensation per employee (priv. cons. defl.)	-3.7	-3.3	-3.8	-0.2	3.7	0.6	7.7	1.5	2.4	1.9	2.6	3.2
Nominal unit labour costs	9.3	12.6	12.7	10.7	11.5	5.9	9.3	6.4	0.6	2.0	2.3	2.4
Real unit labour costs	-8.8	-1.9	-1.5	-0.5	1.6	-1.4	2.3	1.2	-2.2	-0.9	-0.6	-0.2

Source: Commission Services, AMECO. Latest updates to Commission's 2001 Spring forecasts. OECD for annual hours worked.  
 Note: \*\* For reasons of comparability across time, productivity per hour excludes Austria for which no data are available before 1997.

## Macroeconomic indicators (annual percentage change)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Spain</b>												
Real GDP	2.5	0.9	-1.0	2.4	2.8	2.4	3.9	4.3	4.0	4.1	3.2	3.3
Occupied population	1.0	-1.5	-2.9	-0.5	1.8	1.2	2.8	3.7	3.5	3.3	2.2	2.2
Labour productivity	1.6	2.5	2.0	2.9	0.9	1.2	0.7	0.5	0.4	0.8	0.9	1.0
Annual average hours worked	0.4	-0.4	-0.5	0.0	-0.1	-0.2	0.1	1.2	-0.3			
Productivity per hour worked	1.1	3.0	2.5	2.9	1.0	1.4	1.0	-0.6	0.9			
Harmonised CPI	:	:	4.9	4.6	4.6	3.6	1.9	1.8	2.2	3.5	3.2	2.3
Price deflator GDP	6.9	6.7	4.5	3.9	4.9	3.5	2.2	2.3	2.9	3.5	3.4	2.5
Nominal compensation per employee	10.3	11.3	7.4	3.7	3.6	4.5	2.1	2.8	2.8	4.0	4.1	2.9
Real compensation per employee (GDP deflator)	3.1	4.3	2.7	-0.1	-1.2	1.0	-0.1	0.5	-0.1	0.6	0.7	0.4
Real compensation per employee (priv. cons. defl.)	3.6	4.4	2.0	-1.1	-1.1	1.0	-0.3	0.8	0.3	0.4	0.9	0.6
Nominal unit labour costs	8.5	8.5	5.3	0.8	2.7	3.3	1.4	2.2	2.3	3.2	3.1	1.9
Real unit labour costs	1.5	1.7	0.8	-3.0	-2.1	-0.2	-0.8	0.0	-0.5	-0.2	-0.3	-0.6
<b>France</b>												
Real GDP	1.0	1.5	-0.9	2.1	1.7	1.1	1.9	3.4	2.9	3.1	2.9	2.8
Occupied population	0.2	-0.5	-1.2	0.0	0.8	0.3	0.5	1.3	1.8	2.0	1.7	1.5
Labour productivity	1.0	2.3	0.8	2.4	1.2	1.3	1.6	2.4	1.3	1.1	1.1	1.3
Annual average hours worked	-0.7	0.1	-0.2	-0.2	-1.5	-0.4	-0.2	-0.1	:			
Productivity per hour worked	1.6	1.9	0.6	2.3	2.4	1.2	1.8	2.3	:			
Harmonised CPI	3.4	2.4	2.2	1.7	1.8	2.1	1.3	0.7	0.6	1.8	1.3	1.6
Price deflator GDP	3.0	2.0	2.3	1.7	1.7	1.4	1.3	0.9	0.5	0.9	1.4	1.6
Nominal compensation per employee	4.1	4.4	3.0	2.1	2.6	2.7	2.3	2.3	2.4	1.9	2.7	3.1
Real compensation per employee (GDP deflator)	1.1	2.4	0.7	0.4	0.9	1.2	1.0	1.4	1.9	1.0	1.3	1.4
Real compensation per employee (priv. cons. defl.)	0.6	1.8	0.6	0.0	0.6	0.8	0.8	1.6	2.0	0.4	1.3	1.5
Nominal unit labour costs	3.0	2.1	2.2	-0.3	1.4	1.3	0.6	-0.1	1.1	0.8	1.5	1.8
Real unit labour costs	0.1	0.1	-0.2	-2.0	-0.3	-0.1	-0.7	-1.0	0.6	-0.1	0.1	0.1
<b>Ireland</b>												
Real GDP	1.9	3.3	2.7	5.8	9.7	7.7	10.7	8.6	9.8	10.7	7.5	7.1
Occupied population	0.0	1.0	0.6	3.1	5.1	3.6	6.1	6.9	6.1	4.7	2.9	2.4
Labour productivity	1.9	2.4	2.1	2.6	4.5	3.9	4.3	1.5	3.5	5.6	4.5	4.6
Annual average hours worked	-1.6	-2.5	-0.7	0.2	0.0	0.1	-2.1	-4.3	-1.2			
Productivity per hour worked	3.5	5.0	2.7	2.4	4.5	3.9	6.6	6.1	4.8			
Harmonised CPI	:	:	:	:	2.8	2.2	1.2	2.1	2.5	5.3	4.0	3.6
Price deflator GDP	1.8	2.8	5.2	1.7	3.0	2.3	4.4	5.8	3.8	6.2	5.8	5.2
Nominal compensation per employee	4.3	7.0	6.4	2.5	2.0	3.5	3.6	4.4	5.1	7.9	9.8	8.8
Real compensation per employee (GDP deflator)	2.5	4.1	1.1	0.8	-1.0	1.2	-0.8	-1.3	1.2	1.6	3.8	3.4
Real compensation per employee (priv. cons. defl.)	1.6	3.9	4.1	-0.2	-0.7	0.9	1.0	0.5	1.7	1.9	4.8	4.4
Nominal unit labour costs	2.3	4.5	4.2	-0.1	-2.3	-0.4	-0.7	2.8	1.5	2.2	5.1	4.0
Real unit labour costs	0.5	1.7	-0.9	-1.8	-5.2	-2.7	-4.9	-2.8	-2.2	-3.8	-0.7	-1.1
<b>Italy</b>												
Real GDP	1.4	0.8	-0.9	2.2	2.9	1.1	2.0	1.8	1.6	2.9	2.5	2.7
Occupied population	1.9	-0.3	-2.9	-1.8	-0.5	1.0	0.3	0.9	1.3	1.5	1.3	1.1
Labour productivity	0.6	1.4	2.2	3.2	2.9	0.8	1.6	0.8	0.8	1.4	1.2	1.6
Annual average hours worked	-0.4	-2.2	0.4	-0.2	0.1	0.1	0.2	-0.1	-0.2			
Productivity per hour worked	-0.1	3.3	1.7	4.3	3.3	0.1	1.5	1.0	0.5			
Harmonised CPI	6.2	5.0	4.5	4.2	5.4	4.0	1.9	2.0	1.7	2.6	2.2	1.9
Price deflator GDP	7.6	4.5	3.9	3.5	5.0	5.3	2.4	2.7	1.6	2.2	2.8	2.4
Nominal compensation per employee	8.8	5.8	4.6	3.0	4.2	6.1	4.0	-1.5	2.4	2.9	3.0	2.9
Real compensation per employee (GDP deflator)	1.1	1.2	0.6	-0.4	-0.8	0.8	1.6	-4.1	0.8	0.7	0.2	0.5
Real compensation per employee (priv. cons. defl.)	1.7	0.3	-0.9	-1.8	-1.7	1.7	1.7	-3.6	0.3	0.0	0.4	0.8
Nominal unit labour costs	8.1	4.3	2.3	-0.2	1.2	5.3	2.3	-2.3	1.6	1.5	1.8	1.3
Real unit labour costs	0.5	-0.2	-1.6	-3.5	-3.6	0.0	0.0	-4.8	0.0	-0.7	-0.9	-1.1
<b>Luxembourg</b>												
Real GDP	6.1	4.5	8.7	4.2	3.8	2.9	7.3	5.0	7.6	8.5	5.6	5.5
Occupied population	1.4	0.2	-0.2	0.7	0.7	1.0	1.3	2.1	2.2	5.5	3.9	3.6
Labour productivity	2.0	1.9	6.8	1.6	1.3	0.2	4.0	0.6	2.5	2.8	1.7	1.8
Annual average hours worked	-1.2	-1.1	-0.1	-1.2	0.9	-1.3	-0.1	-0.5	-0.2			
Productivity per hour worked	6.0	5.4	9.0	4.7	2.1	3.2	6.0	3.4	5.5			
Harmonised CPI	:	:	:	:	:	1.2	1.4	1.0	1.0	3.8	2.2	1.8
Price deflator GDP	1.5	4.3	0.7	5.3	0.7	1.7	3.3	1.5	2.2	4.1	3.6	3.3
Nominal compensation per employee	6.5	5.3	5.4	4.0	2.3	2.3	3.1	0.9	3.1	5.1	4.6	3.7
Real compensation per employee (GDP deflator)	4.9	0.9	4.6	-1.3	1.6	0.6	-0.2	-0.6	0.9	0.9	0.9	0.4
Real compensation per employee (priv. cons. defl.)	3.6	1.8	1.2	1.6	0.2	0.6	1.4	-0.8	1.7	2.0	2.1	1.7
Nominal unit labour costs	4.4	3.3	-1.4	2.3	1.0	2.1	-0.9	0.3	0.6	2.2	2.9	1.9
Real unit labour costs	2.9	-0.9	-2.1	-2.9	0.3	0.4	-4.1	-1.2	-1.6	-1.8	-0.8	-1.4

Source: Commission Services, AMECO. Latest updates to Commission's 2001 Spring forecasts. OECD for annual hours worked.

**Macroeconomic indicators (annual percentage change)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Netherlands</b>												
Real GDP	2.3	2.0	0.8	3.2	2.3	3.0	3.8	4.1	3.9	3.9	3.4	3.1
Occupied population	1.8	1.5	0.0	0.5	1.4	2.3	3.2	3.0	2.8	2.5	2.0	1.8
Labour productivity	0.9	1.0	0.9	3.6	0.8	0.5	0.7	1.0	0.9	1.3	1.4	1.3
Annual average hours worked	-1.9	-2.4	-2.1	2.0	-1.9	1.6	-0.5	-0.9	-1.5			
Productivity per hour worked	2.3	2.9	2.9	0.7	2.8	-0.9	1.1	2.0	2.6			
Harmonised CPI	3.1	2.8	1.7	2.2	1.6	1.4	1.9	1.8	2.0	2.3	4.3	2.9
Price deflator GDP	2.7	2.3	1.9	2.3	1.8	1.2	2.0	2.0	1.7	3.2	4.5	2.9
Nominal compensation per employee	4.5	4.7	3.3	2.8	1.9	1.4	2.2	2.8	3.0	3.8	4.5	4.5
Real compensation per employee (GDP deflator)	1.7	2.3	1.4	0.4	0.0	0.3	0.2	0.8	1.3	0.6	0.0	1.6
Real compensation per employee (priv. cons. defl.)	1.4	1.6	1.1	-0.3	0.8	-0.4	0.2	1.0	1.1	0.9	0.3	1.5
Nominal unit labour costs	3.5	3.7	2.5	-0.8	1.0	1.0	1.6	1.8	2.1	2.4	3.1	3.2
Real unit labour costs	0.8	1.4	0.5	-3.1	-0.8	-0.2	-0.4	-0.2	0.4	-0.7	-1.4	0.3
<b>Austria</b>												
Real GDP	3.3	2.3	0.4	2.6	1.6	2.0	1.3	3.3	2.8	3.2	2.5	2.6
Occupied population	1.4	0.2	-0.6	-0.1	0.0	-0.6	0.5	0.8	1.4	0.9	0.5	0.4
Labour productivity	1.8	2.1	1.8	2.9	4.2	2.5	1.2	3.0	2.2	2.3	2.0	2.1
Annual average hours worked	:	:	:	:	:	:	3.0	-5.7	0.7			
Productivity per hour worked	:	:	:	:	:	:	-2.1	8.7	0.7			
Harmonised CPI	3.1	3.5	3.2	2.7	1.6	1.8	1.2	0.8	0.5	2.0	1.6	1.4
Price deflator GDP	3.8	3.6	2.9	2.7	2.5	1.3	1.2	0.7	0.9	1.2	1.3	1.1
Nominal compensation per employee	6.2	5.8	5.3	3.8	5.0	1.5	1.3	3.4	2.9	2.1	2.7	2.0
Real compensation per employee (GDP deflator)	2.4	2.1	2.3	1.1	2.4	0.2	0.0	2.7	2.0	0.9	1.4	0.9
Real compensation per employee (priv. cons. defl.)	2.7	1.8	1.7	1.0	2.9	-0.5	-0.2	2.9	2.2	0.3	1.0	0.4
Nominal unit labour costs	4.3	3.5	3.4	0.9	0.8	-1.0	0.1	0.4	0.7	-0.2	0.7	-0.1
Real unit labour costs	0.5	-0.1	0.5	-1.7	-1.7	-2.3	-1.1	-0.4	-0.2	-1.4	-0.6	-1.2
<b>Portugal</b>												
Real GDP	2.3	2.5	-1.1	2.2	2.9	3.7	3.8	3.8	3.3	3.3	2.6	2.6
Occupied population	2.8	-1.6	-2.0	-1.0	-0.7	-5.9	1.7	2.7	1.8	1.7	0.9	0.7
Labour productivity	-0.4	4.2	1.0	3.3	3.6	10.3	2.1	1.1	1.5	1.6	1.6	1.9
Annual average hours worked	-3.9	-0.6	-0.5	-0.2	2.1	-1.3	-2.2	-1.1	1.0			
Productivity per hour worked	3.6	4.9	1.5	3.5	1.5	11.7	4.3	2.3	0.5			
Harmonised CPI	11.4	8.9	5.9	5.0	4.0	2.9	1.9	2.2	2.2	2.8	3.5	2.3
Price deflator GDP	12.2	10.0	6.7	6.3	5.1	3.0	3.7	3.8	3.3	3.2	4.2	2.7
Nominal compensation per employee	18.1	16.3	6.0	5.6	7.2	4.9	3.7	3.7	4.2	5.6	5.8	4.2
Real compensation per employee (GDP deflator)	5.3	5.7	-0.7	-0.7	2.0	1.8	0.0	0.0	0.9	2.3	1.5	1.5
Real compensation per employee (priv. cons. defl.)	5.2	6.0	-0.6	0.0	2.6	1.2	0.8	1.1	1.9	2.6	2.2	1.8
Nominal unit labour costs	18.6	11.6	5.0	2.2	3.5	-4.9	1.6	2.6	2.7	3.9	4.1	2.3
Real unit labour costs	5.8	1.5	-1.6	-3.9	-1.6	-7.7	-2.0	-1.1	-0.6	0.8	-0.2	-0.4
<b>Finland</b>												
Real GDP	-6.3	-3.3	-1.1	4.0	3.8	4.0	6.3	5.3	4.2	5.7	4.0	3.6
Occupied population	-5.6	-7.2	-6.3	-1.1	1.6	1.4	3.3	2.1	2.1	1.5	1.5	1.1
Labour productivity	-0.7	4.2	5.4	5.1	2.2	2.6	2.9	3.2	2.0	4.1	2.5	2.5
Annual average hours worked	-1.3	1.2	-1.3	2.2	-0.2	0.9	-0.5	-1.1	0.3			
Productivity per hour worked	0.6	3.0	6.8	2.9	2.4	1.6	3.5	4.3	1.7			
Harmonised CPI	4.5	3.3	3.3	1.6	0.4	1.1	1.2	1.4	1.3	3.0	2.4	2.0
Price deflator GDP	1.8	0.9	2.3	2.0	4.1	-0.2	2.1	3.0	0.5	2.9	1.4	1.2
Nominal compensation per employee	6.4	2.2	0.9	3.1	3.9	2.7	1.7	4.1	2.7	4.0	4.0	3.5
Real compensation per employee (GDP deflator)	4.4	1.3	-1.4	1.1	-0.2	2.9	-0.3	1.1	2.1	1.1	2.6	2.3
Real compensation per employee (priv. cons. defl.)	0.5	-1.9	-2.9	2.1	3.5	1.3	0.4	2.3	1.3	0.8	1.8	1.6
Nominal unit labour costs	7.1	-1.9	-4.3	-2.0	1.7	0.1	-1.1	0.9	0.6	-0.1	1.5	1.0
Real unit labour costs	5.1	-2.8	-6.5	-3.9	-2.3	0.4	-3.1	-2.0	0.1	-2.9	0.1	-0.2
<b>Sweden</b>												
Real GDP	-1.1	-1.4	-2.2	4.1	3.7	1.1	2.1	3.6	4.1	3.6	2.7	3.0
Occupied population	-1.5	-4.4	-5.2	-0.8	1.3	-0.6	-1.1	1.2	2.3	2.2	1.5	0.8
Labour productivity	0.4	3.2	3.2	4.9	2.3	1.6	3.2	2.3	1.8	1.4	1.3	2.2
Annual average hours worked	-0.8	1.2	1.0	2.5	0.4	0.6	0.1	0.2	0.4			
Productivity per hour worked	1.2	2.0	2.1	2.4	1.9	1.0	3.1	2.1	1.4			
Harmonised CPI	:	:	:	:	:	0.8	1.8	1.0	0.6	1.3	1.5	1.5
Price deflator GDP	7.6	1.0	2.6	2.4	3.5	1.4	1.7	0.9	0.5	0.8	1.9	2.1
Nominal compensation per employee	6.8	3.9	4.4	4.8	2.8	6.8	3.8	3.3	1.3	7.0	3.9	4.0
Real compensation per employee (GDP deflator)	-0.8	2.9	1.7	2.4	-0.7	5.3	2.1	2.4	0.8	6.1	1.9	1.8
Real compensation per employee (priv. cons. defl.)	-3.2	1.7	-1.2	2.0	-0.1	5.3	1.5	2.2	0.5	6.0	2.4	2.4
Nominal unit labour costs	6.4	0.8	1.2	-0.1	0.5	5.1	0.6	0.9	-0.4	5.6	2.6	1.8
Real unit labour costs	-1.1	-0.3	-1.4	-2.4	-2.9	3.6	-1.1	0.1	-1.0	4.7	0.7	-0.3

Source: Commission Services, AMECO. Latest updates to Commission's 2001 Spring forecasts. OECD for annual hours worked.



## Macroeconomic indicators (annual percentage change)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>United Kingdom</b>												
Real GDP	-1.5	0.1	2.3	4.4	2.8	2.6	3.5	2.6	2.3	3.0	2.7	3.0
Occupied population	-3.0	-2.3	-1.4	0.7	1.5	1.1	2.0	1.4	1.1	1.0	0.5	0.7
Labour productivity	1.6	2.5	3.8	3.6	1.2	1.4	1.5	1.2	1.2	2.0	2.2	2.3
Annual average hours worked	-1.5	0.0	-0.9	1.2	0.3	-0.6	0.4	-0.8	-1.4			
Productivity per hour worked	3.1	2.5	4.7	2.4	0.9	2.1	1.1	2.0	2.6			
Harmonised CPI	7.5	4.2	2.5	2.0	2.6	2.5	1.8	1.6	1.3	0.8	1.4	1.7
Price deflator GDP	6.7	4.0	2.7	1.5	2.5	3.3	2.9	3.0	2.3	1.8	2.1	2.5
Nominal compensation per employee	9.0	5.3	4.4	3.4	2.6	3.7	4.4	4.9	5.2	4.1	4.2	4.4
Real compensation per employee (GDP deflator)	2.2	1.3	1.6	1.9	0.1	0.4	1.5	1.8	2.8	2.3	2.0	1.8
Real compensation per employee (priv. cons. defl.)	1.0	0.6	0.9	1.1	-0.3	0.5	1.9	2.4	3.5	3.3	2.8	2.6
Nominal unit labour costs	7.3	2.8	0.6	-0.2	1.4	2.2	2.9	3.6	3.9	2.1	2.0	2.0
Real unit labour costs	0.6	-1.1	-2.1	-1.7	-1.1	-1.0	0.0	0.5	1.6	0.3	-0.1	-0.4
<b>United States</b>												
Real GDP	-0.5	3.1	2.7	4.1	2.7	3.6	4.5	4.4	4.3	5.0	1.6	3.0
Occupied population	-0.9	0.5	1.3	2.3	1.4	1.4	2.2	1.4	1.5	1.3	0.4	0.5
Labour productivity	0.6	3.2	0.6	1.5	0.2	1.7	2.0	2.1	2.3	3.7	1.2	2.4
Annual average hours worked	-0.6	-0.5	0.9	0.6	0.8	-0.1	0.5	0.8	0.2			
Productivity per hour worked	1.0	3.0	0.5	1.2	0.5	2.3	1.7	2.1	2.6			
National CPI	4.2	3.0	3.0	2.6	2.8	2.9	2.3	1.6	2.2	3.3	2.7	2.1
Price deflator GDP	3.6	2.4	2.4	2.1	2.2	1.9	2.0	1.3	1.5	2.1	2.5	2.0
Nominal compensation per employee	4.6	5.3	2.8	2.4	1.8	2.5	3.1	4.4	4.0	4.8	4.7	4.7
Real compensation per employee (GDP deflator)	1.0	2.8	0.4	0.4	-0.4	0.6	1.1	3.1	2.4	2.7	2.1	2.6
Real compensation per employee (priv. cons. defl.)	0.8	2.2	0.4	0.4	-0.5	0.4	1.2	3.3	2.2	2.3	2.3	2.7
Nominal unit labour costs	4.0	2.0	2.2	1.0	1.6	0.8	1.1	2.3	1.6	1.1	3.4	2.2
Real unit labour costs	0.3	-0.4	-0.2	-1.1	-0.6	-1.1	-0.9	1.0	0.1	-1.0	0.9	0.2
<b>Japan</b>												
Real GDP	3.1	0.9	0.4	1.0	1.6	3.5	1.8	-1.1	0.8	1.5	1.0	1.3
Occupied population	2.0	1.1	0.4	0.1	0.2	0.5	1.1	-0.7	-0.8	-0.2	-0.1	0.3
Labour productivity	1.1	-0.1	0.0	0.9	1.4	3.0	0.7	-0.4	1.6	1.8	1.1	1.0
Annual average hours worked	-1.6	-1.7	-3.1	-0.4	-0.7	0.4	-1.5	-1.2	:			
Productivity per hour worked	2.8	1.5	3.2	1.2	2.2	2.6	2.2	0.8	:			
National CPI	3.3	1.7	1.3	0.7	-0.1	0.2	1.7	0.6	-0.3	-0.7	-0.3	0.6
Price deflator GDP	3.0	1.7	0.6	0.1	-0.4	-0.8	0.4	-0.1	-1.4	-1.6	0.6	0.5
Nominal compensation per employee	4.6	1.3	0.8	1.8	1.3	1.1	1.0	-0.6	-0.9	0.7	-1.2	-0.1
Real compensation per employee (GDP deflator)	1.6	-0.4	0.1	1.7	1.7	1.9	0.6	-0.5	0.5	2.4	-1.8	-0.6
Real compensation per employee (priv. cons. defl.)	1.8	-0.3	-0.2	1.3	1.6	1.2	0.0	-0.5	-0.2	1.8	-1.0	-0.7
Nominal unit labour costs	3.4	1.4	0.7	0.9	-0.1	-1.8	0.3	-0.2	-2.4	-1.0	-2.2	-1.1
Real unit labour costs	0.4	-0.3	0.1	0.8	0.3	-1.0	-0.1	-0.1	-1.1	0.6	-2.8	-1.5
<b>Bulgaria</b>												
Real GDP	:	-7.3	-1.5	1.8	2.9	-10.1	-7.0	3.5	2.4	5.4	5.2	4.9
Occupied population	-13.0	-8.1	-1.6	0.6	1.3	0.1	-2.7	-1.9	-3.8	-3.5	-1.0	0.0
Labour productivity	:	1.0	0.1	1.2	1.6	-10.2	-4.5	5.5	6.4	9.2	6.3	4.9
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	:	59.6	51.1	72.7	62.8	121.0	949.1	22.2	3.1	5.4	5.2	5.2
Nominal compensation per employee	:	:	:	:	:	:	:	:	:	:	:	:
Real compensation per employee (GDP deflator)	:	:	:	:	:	:	:	:	:	:	:	:
Real compensation per employee (priv. cons. defl.)	:	:	:	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	:	:	:	:	:	:	:	:	:	:	:	:
Real unit labour costs	:	:	:	:	:	:	:	:	:	:	:	:
<b>Cyprus</b>												
Real GDP	0.7	9.7	0.7	5.9	6.1	1.9	2.4	5.0	4.5	4.8	3.4	4.7
Occupied population	:	:	:	:	3.4	1.0	-0.2	1.8	1.0	1.0	1.0	1.0
Labour productivity	:	:	:	:	2.6	0.9	2.7	3.9	3.3	:	:	:
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	:	:	:	5.3	3.0	1.9	2.5	2.1	1.1	:	:	:
Nominal compensation per employee	:	:	:	:	7.4	:	:	:	:	:	:	:
Real compensation per employee (GDP deflator)	:	:	:	:	4.2	:	:	:	:	:	:	:
Real compensation per employee (priv. cons. defl.)	:	:	:	:	4.9	:	:	:	:	:	:	:
Nominal unit labour costs	:	:	:	:	4.6	:	:	:	:	:	:	:
Real unit labour costs	:	:	:	:	1.5	:	:	:	:	:	:	:

Source: Commission Services, AMECO. Latest updates to Commission's 2001 Spring forecasts. OECD for annual hours worked.

**Macroeconomic indicators (annual percentage change)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Czech Republic</b>												
Real GDP	-11.6	-0.5	0.1	2.2	5.9	4.8	-1.0	-2.2	-0.8	3.1	3.5	4.0
Occupied population	:	:	-0.2	1.1	0.7	0.2	-0.7	-1.4	-2.1	-0.6	-0.4	0.0
Labour productivity	:	:	0.2	1.1	5.2	4.6	-0.3	-0.8	1.4	3.7	3.9	4.0
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	36.2	12.4	21.0	13.4	10.2	8.2	8.3	11.3	1.0	3.7	4.3	4.5
Nominal compensation per employee	:	:	3.8	19.1	19.3	16.4	7.2	8.2	8.7	5.4	5.7	6.3
Real compensation per employee (GDP deflator)	:	:	-14.2	5.1	8.3	7.6	-1.0	-2.8	7.7	1.7	1.4	1.7
Real compensation per employee (priv. cons. defl.)	:	:	-11.1	8.2	9.3	6.8	-0.7	-2.1	8.5	1.3	1.4	1.9
Nominal unit labour costs	:	:	3.5	17.8	13.5	11.3	7.6	9.1	7.3	1.7	1.7	2.2
Real unit labour costs	:	:	-14.5	3.9	2.9	2.8	-0.7	-2.1	6.2	-2.0	-2.5	-2.2
<b>Estonia</b>												
Real GDP	:	:	:	-2.0	4.3	3.9	10.6	4.7	-1.1	6.6	5.9	5.7
Occupied population	-2.3	-5.2	-7.5	-2.2	-5.3	-1.6	0.4	-1.3	-4.1	-0.3	-0.1	0.0
Labour productivity	:	:	:	0.2	10.1	5.6	10.2	6.0	3.1	6.9	6.0	5.7
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	:	:	:	39.8	31.9	24.0	10.9	8.9	3.9	9.0	4.7	4.3
Nominal compensation per employee	:	:	:	53.8	40.5	23.3	19.7	13.6	7.1	11.1	10.4	10.1
Real compensation per employee (GDP deflator)	:	:	:	10.0	6.6	-0.5	8.0	4.4	3.1	1.9	5.5	5.5
Real compensation per employee (priv. cons. defl.)	:	:	:	8.0	12.7	0.5	9.2	5.0	3.6	6.5	6.2	6.3
Nominal unit labour costs	:	:	:	53.5	27.6	16.8	8.7	7.2	3.8	4.0	4.2	4.1
Real unit labour costs	:	:	:	9.8	-3.2	-5.8	-2.0	-1.6	0.0	-4.7	-0.4	-0.1
<b>Hungary</b>												
Real GDP	-11.9	-2.1	-0.6	2.9	1.5	1.3	4.6	4.9	4.5	5.3	4.6	5.0
Occupied population	:	:	-6.3	-2.0	-1.9	-0.8	0.0	1.4	3.1	1.0	1.0	1.0
Labour productivity	:	:	6.0	5.0	3.5	2.2	4.6	3.4	1.4	4.2	3.6	3.9
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	25.4	20.3	21.3	19.5	26.7	21.2	18.5	12.6	8.5	6.7	8.0	6.2
Nominal compensation per employee	:	:	23.1	17.9	21.5	20.2	20.8	13.9	6.1	7.6	8.6	6.0
Real compensation per employee (GDP deflator)	:	:	1.5	-1.4	-4.1	-0.8	2.0	1.1	-2.2	0.8	0.6	-0.2
Real compensation per employee (priv. cons. defl.)	:	:	2.1	-1.3	-4.8	-2.6	2.4	0.5	-5.9	-2.2	-1.3	-0.5
Nominal unit labour costs	:	:	16.1	12.3	17.4	17.6	15.5	10.2	4.7	3.2	4.8	2.0
Real unit labour costs	:	:	-4.3	-6.1	-7.3	-3.0	-2.5	-2.2	-3.5	-3.3	-2.9	-3.9
<b>Latvia</b>												
Real GDP	-10.4	-34.9	-14.9	0.6	-0.8	3.3	8.6	3.9	0.1	5.7	5.5	5.5
Occupied population	-0.8	-7.3	-6.9	-10.1	-3.5	-2.7	1.9	0.6	-0.5	0.0	1.0	1.0
Labour productivity	-9.6	-29.7	-8.6	12.0	2.7	6.2	6.6	3.3	0.6	5.7	4.5	4.5
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	156.2	975.9	71.5	38.3	16.0	16.5	6.6	5.5	2.0	5.0	2.5	2.7
Nominal compensation per employee	:	:	138.3	54.3	23.9	24.2	15.2	7.0	11.1	4.3	4.3	4.4
Real compensation per employee (GDP deflator)	:	:	38.9	11.5	6.8	6.6	8.1	1.4	9.0	-0.6	1.8	1.6
Real compensation per employee (priv. cons. defl.)	:	:	13.4	2.2	-0.7	5.3	6.1	7.1	8.1	2.0	2.6	1.3
Nominal unit labour costs	:	:	160.6	37.7	20.6	17.0	8.1	3.6	10.5	-1.3	-0.2	-0.1
Real unit labour costs	:	:	51.9	-0.4	4.0	0.4	1.4	-1.8	8.4	-6.0	-2.6	-2.7
<b>Lithuania</b>												
Real GDP	-5.7	-21.3	-16.2	-9.8	3.3	4.7	7.3	5.1	-4.1	2.9	3.5	4.0
Occupied population	2.4	-2.2	-4.2	-5.8	-1.9	0.9	0.6	-0.8	-0.5	-3.3	-0.7	0.2
Labour productivity	-7.9	-19.5	-12.6	-4.2	5.3	3.7	6.6	5.9	-3.6	6.4	4.2	3.8
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	227.9	943.0	306.2	61.6	38.0	25.1	13.2	6.7	3.4	1.4	2.1	3.1
Nominal compensation per employee	:	:	:	67.7	61.5	29.4	24.1	19.9	7.6	4.8	2.6	3.8
Real compensation per employee (GDP deflator)	:	:	:	3.7	17.0	3.4	9.6	12.4	4.1	3.4	0.5	0.7
Real compensation per employee (priv. cons. defl.)	:	:	:	:	:	10.8	13.9	14.7	5.9	3.6	0.6	1.0
Nominal unit labour costs	:	:	:	75.1	53.4	24.7	16.4	13.2	11.6	-1.5	-1.5	0.1
Real unit labour costs	:	:	:	8.3	11.1	-0.3	2.8	6.1	8.0	-2.8	-3.5	-3.0

Source: Commission Services, AMECO. Latest updates to Commission's 2001 Spring forecasts. OECD for annual hours worked.

## Macroeconomic indicators (annual percentage change)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Malta</b>												
Real GDP	:	:	4.5	5.7	6.2	4.0	4.9	3.4	4.0	4.1	4.3	4.0
Occupied population	1.7	1.6	1.1	-1.5	3.3	1.6	0.3	-0.2	0.7	1.8	0.1	0.3
Labour productivity	:	:	3.4	7.3	2.8	2.4	4.6	3.6	3.3	:	:	:
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	:	:	2.8	3.5	4.9	0.8	2.3	2.3	2.1	:	:	:
Nominal compensation per employee	9.7	6.3	9.9	8.4	8.8	6.1	3.1	5.6	4.3	:	:	:
Real compensation per employee (GDP deflator)	:	:	6.9	4.7	3.7	5.2	0.8	3.2	2.2	:	:	:
Real compensation per employee (priv. cons. defl.)	:	:	:	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	:	:	6.3	1.0	5.8	3.7	-1.4	1.9	0.9	:	:	:
Real unit labour costs	1.6	-0.3	3.4	-2.5	0.9	2.8	-3.6	-0.4	-1.1	:	:	:
<b>Poland</b>												
Real GDP	-7.0	2.5	3.7	5.3	7.0	6.0	6.8	4.8	4.2	4.2	4.3	4.6
Occupied population	:	:	-2.4	1.0	1.8	1.9	2.8	2.3	-2.2	-0.3	-0.6	0.1
Labour productivity	:	:	6.2	4.2	5.1	4.0	3.9	2.4	6.5	4.5	4.9	4.5
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	55.3	38.6	30.6	37.2	28.0	18.7	14.1	11.9	7.0	9.4	6.4	5.4
Nominal compensation per employee	:	73.4	33.0	40.4	34.0	28.4	20.6	16.0	12.4	14.3	10.4	9.1
Real compensation per employee (GDP deflator)	:	25.1	1.8	2.3	4.7	8.1	5.7	3.7	5.0	4.5	3.7	3.5
Real compensation per employee (priv. cons. defl.)	:	20.1	1.1	1.8	5.3	7.0	5.1	4.0	4.8	3.9	3.3	3.4
Nominal unit labour costs	:	:	25.1	34.7	27.5	23.4	16.1	13.3	5.6	9.4	5.2	4.4
Real unit labour costs	:	:	-4.2	-1.8	-0.4	4.0	1.8	1.3	-1.4	0.0	-1.1	-1.0
<b>Romania</b>												
Real GDP	-12.9	-8.8	1.5	3.9	7.1	3.9	-6.1	-5.4	-3.2	1.6	1.8	2.3
Occupied population	-0.5	-3.0	-3.8	-0.5	-5.2	-1.2	-3.8	-2.3	-0.6	-0.8	-0.8	-0.3
Labour productivity	-12.5	-5.9	5.5	4.5	13.0	5.2	-2.3	-3.2	-2.6	2.5	2.6	2.6
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	195.0	199.9	227.3	139.0	35.3	45.3	147.2	53.9	46.4	48.7	34.0	16.3
Nominal compensation per employee	127.4	187.8	207.6	132.6	54.3	53.5	103.4	75.7	46.5	41.6	28.7	24.1
Real compensation per employee (GDP deflator)	-22.9	-4.0	-6.0	-2.7	14.1	5.7	-17.7	14.1	0.1	-4.8	-3.9	6.7
Real compensation per employee (priv. cons. defl.)	-19.6	-5.8	-8.0	-3.8	12.8	7.0	-20.8	17.3	2.0	-2.4	-1.0	0.9
Nominal unit labour costs	159.8	205.9	191.5	122.7	36.5	45.9	108.3	81.4	50.4	38.2	25.5	21.0
Real unit labour costs	-11.9	2.0	-10.9	-6.8	0.9	0.4	-15.7	17.8	2.7	-7.0	-6.3	4.0
<b>Slovak Republic</b>												
Real GDP	:	:	1.9	4.9	6.7	6.2	6.2	4.1	1.9	2.2	3.0	3.8
Occupied population	:	:	:	:	2.1	3.3	-1.1	1.5	-3.2	-1.4	0.2	0.4
Labour productivity	:	:	:	:	4.0	2.2	5.4	5.4	3.6	3.8	2.2	2.6
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	:	:	15.4	13.8	9.7	4.5	6.6	5.1	6.6	6.5	6.9	5.4
Nominal compensation per employee	:	:	:	:	:	:	:	:	5.8	6.0	7.5	7.2
Real compensation per employee (GDP deflator)	:	:	:	:	:	:	:	:	-0.7	-0.5	0.6	1.7
Real compensation per employee (priv. cons. defl.)	:	:	:	:	:	:	:	:	-4.0	-4.8	0.3	2.1
Nominal unit labour costs	:	:	:	:	:	:	:	:	2.2	2.1	5.2	4.5
Real unit labour costs	:	:	:	:	:	:	:	:	-4.1	-4.1	-1.5	-0.9
<b>Slovenia</b>												
Real GDP	-8.9	-5.5	2.8	5.3	4.1	3.5	4.6	3.8	5.0	4.8	4.3	4.3
Occupied population	:	:	:	:	:	:	:	:	-1.7	0.9	0.8	0.8
Labour productivity	:	:	:	:	:	:	:	:	:	:	:	:
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	94.9	208.2	37.1	22.6	15.2	11.1	8.8	7.8	6.4	8.9	7.4	5.4
Nominal compensation per employee	:	:	:	:	:	:	:	:	:	:	:	:
Real compensation per employee (GDP deflator)	:	:	:	:	:	:	:	:	:	:	:	:
Real compensation per employee (priv. cons. defl.)	:	:	:	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	:	:	:	:	:	:	:	:	:	:	:	:
Real unit labour costs	:	:	:	:	:	:	:	:	:	:	:	:

Source: Commission Services, AMECO. Latest updates to Commission's 2001 Spring forecasts. OECD for annual hours worked.

**Macroeconomic indicators (annual percentage change)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
<b>Turkey</b>												
Real GDP	0.9	6.0	8.0	-5.5	7.2	7.0	7.5	3.1	-5.0	5.8	-2.0	3.3
Occupied population	0.6	0.5	-0.2	2.4	3.7	2.0	-2.5	2.8	2.2	2.7	2.5	2.6
Labour productivity	0.4	5.5	8.2	-7.7	3.4	4.9	10.3	0.3	-7.1	3.0	-4.4	0.7
National CPI	:	:	:	:	:	:	:	:	:	:	:	:
Price deflator GDP	58.8	63.7	67.8	106.5	87.2	77.8	81.5	75.7	56.0	59.4	60.8	28.1
Nominal compensation per employee	90.9	63.1	75.2	61.8	68.1	101.2	115.9	73.9	45.0	59.3	51.8	31.6
Real compensation per employee (GDP deflator)	20.2	-0.4	4.5	-21.6	-10.2	13.1	18.9	-1.0	-7.1	-0.1	-5.6	2.8
Real compensation per employee (priv. cons. defl.)	18.7	-1.5	5.6	-22.5	-12.7	19.9	18.7	-5.2	-10.2	2.2	-6.3	2.0
Nominal unit labour costs	90.2	54.6	61.9	75.3	62.6	91.8	95.8	73.4	56.0	54.7	58.7	30.7
Real unit labour costs	19.7	-5.6	-3.5	-15.1	-13.1	7.9	7.8	-1.3	0.0	-3.0	-1.3	2.1

Source: Commission Services, AMECO. Latest updates to Commission's 2001 Spring forecasts. OECD for annual hours worked.

## Key employment indicators European Union

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	*360705	*362509	366911	367902	368754	369978	370917	*372036	371590	371884	372163	372508
2. Population aged 15-64	*242258	*243340	245631	246401	246855	247558	248057	*248640	248465	248563	248717	248815
3. Total employment (000)	*157491	*155890	154419	155272	156717	159205	161772	*164702	162378	164326	166034	166071
4. Population in employment aged 15-64	*150571	*148703	147296	148200	149420	151739	154518	*157351	155598	156985	158374	158448
5. Employment rate (% pop. aged 15-64)	* 62.2	*61.1	60	60.1	60.5	61.3	62.3	63.3	62.6	63.2	63.7	63.7
6. Employment rate (% pop. aged 15-24)	* 45.3	*42.5	37.5	36.9	37.2	38.3	39.3	*40.3	39.4	40.1	41.3	40.6
7. Employment rate (% pop. aged 25-54)	* 74.7	*73.9	73.3	73.5	73.8	74.5	75.6	*76.6	76	76.5	76.8	77
8. Employment rate (% pop. aged 55-64)	* 37.1	*36.3	35.9	36.2	36.3	36.6	37.1	*37.7	37.2	37.5	38	38.1
9. FTE employment rate (% pop. aged 15-64)	:	:	55.5	55.3	55.5	56.1	57.1	57.9	:	:	:	:
10. Self-employed (% total employment)	* 15.6	*15.8	15.8	15.7	15.6	15.4	15	*14.8	14.9	14.8	14.7	14.7
11. Part-time employment (% total employment)	* 13.9	*14.5	16	16.4	16.9	17.3	17.6	*17.7	17.7	17.7	17.6	17.6
12. Fixed term contracts (% total employment)	* 9.2	*9.4	10	10.2	10.6	11	11.3	*11.4	11.2	11.4	11.6	11.4
13. Employment in Services (% total employment)	* 62.7	*63.9	66.3	66.8	67.3	67.6	68.3	*68.8	68.7	68.8	68.7	68.8
14. Employment in Industry (% total employment)	* 31.3	*30.4	28.6	28.2	27.8	27.6	27.2	*26.9	26.9	26.9	26.9	26.8
15. Employment in Agriculture (% total employment)	* 6.0	*5.7	5.2	5	4.9	4.7	4.5	*4.4	4.4	4.4	4.4	4.4
16. Activity rate (% pop. aged 15-64)	* 67.7	*67.3	67.3	67.5	67.8	68.2	68.7	*69.0	68.7	68.9	69.3	69.1
17. Total unemployment (000)	:	15259	17795	18109	17866	16903	15725	14185	15306	14034	13793	13607
18. Unemployment rate (% labour force 15+)	:	:	10.7	10.8	10.6	9.9	9.1	8.2	8.9	8.1	7.9	7.8
19. Youth unemployment rate (% labour force 15-24)	:	:	21.5	21.9	21.1	19.5	17.9	16.1	17.1	15.8	16	15.8
20. Long term unemployment rate (% labour force)	:	:	5.2	5.3	5.2	4.7	4.1	3.6	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	9.2	10.2	10.2	9.7	9.2	8.6	7.8	:	:	:	:
<b>Male</b>												
1. Total population (000)	* 75286	*176379	178882	179421	179901	180542	181049	*181717	181431	181637	181791	182008
2. Population aged 15-64	*120679	*121369	122742	123120	123433	123831	124052	*124374	124266	124321	124420	124490
3. Total employment (000)	* 93786	*92389	90646	90731	91362	92539	93443	*94746	93482	94519	95524	95460
4. Population in employment aged 15-64	* 89521	*87948	86214	86353	86845	87949	89008	*90233	89329	90034	90823	90746
5. Employment rate (% pop. aged 15-64)	* 74.2	*72.5	70.2	70.1	70.4	71	71.8	*72.5	71.9	72.4	73	72.9
6. Employment rate (% pop. aged 15-24)	* 49.0	*45.9	40.7	40.2	40.7	41.8	42.8	*43.8	42.7	43.4	44.9	44
7. Employment rate (% pop. aged 25-54)	* 88.8	*87.3	85.3	85.1	85.2	85.7	86.4	*87.2	86.6	87.2	87.5	87.6
8. Employment rate (% pop. aged 55-64)	* 51.3	*49.4	47.2	47.2	47.1	47.3	47.5	*47.9	47.4	47.7	48.3	48.3
9. FTE employment rate (% pop. aged 15-64)	:	:	69.1	68.6	68.7	69.5	70.3	71	:	:	:	:
10. Self-employed (% total employment)	* 18.0	*18.2	18.5	18.5	18.4	18.1	17.9	*17.6	17.7	17.6	17.5	17.5
11. Part-time employment (% total employment)	* 4.1	*4.4	5.2	5.5	5.8	6	6.1	*6.2	6.2	6.2	6.1	6.1
12. Fixed term contracts (% total employment)	* 8.0	*8.3	9.1	9.3	9.7	10.1	10.3	*10.3	10.1	10.3	10.5	10.3
13. Employment in Services (% total employment)	* 53.1	*54.2	56.3	56.8	57.1	57.4	57.8	*58.3	58.3	58.3	58.3	58.4
14. Employment in Industry (% total employment)	* 40.3	*39.5	37.9	37.6	37.3	37.2	36.9	*36.6	36.6	36.6	36.6	36.5
15. Employment in Agriculture (% total employment)	* 6.6	*6.3	5.8	5.7	5.6	5.4	5.2	*5.1	5.1	5.1	5.1	5.1
16. Activity rate (% pop. aged 15-64)	* 79.6	*78.8	77.7	77.7	77.7	77.9	78.1	*78.1	77.9	78	:	:
17. Total unemployment (000)	:	7745	9030	9247	8991	8355	7719	6881	7610	6814	6564	6538
18. Unemployment rate (% labour force 15+)	:	:	9.4	9.6	9.3	8.6	7.9	7	7.8	7	6.7	6.6
19. Youth unemployment rate (% labour force 15-24)	:	:	20.1	20.7	19.7	18.2	16.6	14.9	16	14.6	14.6	14.4
20. Long term unemployment rate (% labour force)	:	:	4.5	4.5	4.4	3.9	3.5	3.0	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	9.4	10.1	10.3	9.7	9.2	8.5	7.7	:	:	:	:
<b>Female</b>												
1. Total population (000)	* 185420	*186129	188030	188482	188853	189436	189868	*190320	190159	190247	190373	190500
2. Population aged 15-64	* 121584	*121977	122894	123285	123426	123728	124004	*124267	124199	124242	124298	124328
3. Total employment (000)	* 63707	*63505	63775	64542	65356	66665	68328	*69956	68897	69807	70509	70611
4. Population in employment aged 15-64	* 61056	*60757	61084	61849	62575	63789	65510	*67120	66269	66951	67553	67707
5. Employment rate (% pop. aged 15-64)	* 50.2	*49.8	49.7	50.2	50.7	51.6	52.8	*54.0	53.4	53.9	54.3	54.5
6. Employment rate (% pop. aged 15-24)	* 41.5	*39.1	34.2	33.4	33.7	34.8	35.8	*36.8	36	36.6	37.6	37
7. Employment rate (% pop. aged 25-54)	* 60.5	*60.5	61.1	61.8	62.4	63.3	64.7	*65.9	65.3	65.8	66.1	66.4
8. Employment rate (% pop. aged 55-64)	* 23.9	*24.0	25.2	25.8	26.1	26.3	27.1	*27.9	27.4	27.8	28.1	28.4
9. FTE employment rate (% pop. aged 15-64)	:	:	42.3	42.4	42.6	43.1	44.3	45.3	:	:	:	:
10. Self-employed (% total employment)	* 12.3	*12.3	12	11.8	11.7	11.6	11.2	*10.9	11	10.9	11	10.8
11. Part-time employment (% total employment)	* 28.3	*29.1	31.2	31.6	32.3	32.9	33.2	*33.3	33.3	33.4	33.2	33.2
12. Fixed term contracts (% total employment)	* 10.8	*10.9	11.4	11.5	11.9	12.3	12.7	*12.9	12.7	12.9	13	12.8
13. Employment in Services (% total employment)	* 76.4	*77.7	80	80.7	81.2	81.5	82.1	*82.5	82.5	82.6	82.5	82.5
14. Employment in Industry (% total employment)	* 18.3	*17.3	15.6	15.2	14.8	14.7	14.3	*14.0	14.1	14	14.1	14
15. Employment in Agriculture (% total employment)	* 5.3	*5.0	4.4	4.1	4	3.8	3.6	*3.4	3.4	3.4	3.5	3.5
16. Activity rate (% pop. aged 15-64)	* 55.8	*55.9	56.9	57.3	57.8	58.5	59.3	*59.9	59.5	59.8	:	:
17. Total unemployment (000)	:	7514	8765	8862	8875	8549	8006	7304	7697	7220	7229	7069
18. Unemployment rate (% labour force 15+)	:	:	12.5	12.4	12.3	11.7	10.8	9.7	10.3	9.7	9.6	9.4
19. Youth unemployment rate (% labour force 15-24)	:	:	23.1	23.4	22.8	21.1	19.3	17.6	18.3	17.2	17.6	17.4
20. Long term unemployment rate (% labour force)	:	:	6.2	6.3	6.3	5.7	5	4.4	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	9.1	10.2	10.1	9.7	9.2	8.6	7.9	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators Belgium

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	9927	9968	10103	10126	10152	10175	10214	10239	10239	10239	10239	10239
2. Population aged 15-64	6625	6636	6697	6696	6700	6702	6710	6719	6719	6719	6719	6719
3. Total employment (000)	3748	3731	3714	3729	3757	3802	3851	3895	3893	3900	3923	3864
4. Population in employment aged 15-64	3701	3735	3757	3767	3809	3851	3980	4068	4022	4093	4108	4047
5. Employment rate (% pop. aged 15-64)	55.9	56.3	56.1	56.3	56.9	57.5	59.3	60.5	59.9	60.9	61.1	60.2
6. Employment rate (% pop. aged 15-24)	32.6	32	27.6	26.9	26.4	26.8	28.2	29.1	27.4	30.3	29.6	29.2
7. Employment rate (% pop. aged 25-54)	72.7	73.1	73.2	73.5	74.1	74.3	76.2	77.4	76.9	77.9	77.9	76.8
8. Employment rate (% pop. aged 55-64)	21.7	22.2	22.9	21.9	22.1	22.9	24.6	26.3	25.8	25	27.6	26.8
9. FTE employment rate (% pop. aged 15-64)	54	54.5	53.4	53.3	53.8	53.9	58.7	60.5	:	:	:	:
10. Self-employed (% total employment)	18.2	18.4	18.8	18.9	18.6	18.2	17.9	17.7	17.7	17.6	17.5	18.1
11. Part-time employment (% total employment)	13.6	14.2	15.7	16.3	17.2	18.4	20.3	20.8	20.8	20.7	21	20.7
12. Fixed term contracts (% total employment)	4.2	4.1	4.4	4.8	5.3	6.7	8.1	7.5	7.6	7.4	7.5	7.6
13. Employment in Services (% total employment)	70.7	71.1	72.4	73.1	73.7	73.9	74.2	74.3	74.4	74.4	74.2	74.3
14. Employment in Industry (% total employment)	26.8	26.5	25.2	24.7	24.2	24	23.7	23.5	23.6	23.6	23.7	23
15. Employment in Agriculture (% total employment)	2.5	2.4	2.4	2.2	2.1	2.1	2.1	2.2	2	2	2.1	2.6
16. Activity rate (% pop. aged 15-64)	60.2	60.7	62.1	62.3	62.7	63.5	64.9	65.1	64.6	65.2	65.9	64.7
17. Total unemployment (000)	262	294	416	409	398	408	385	311	325	291	320	309
18. Unemployment rate (% labour force 15+)	6.6	7.2	9.9	9.7	9.4	9.5	8.8	7	7.4	6.6	7.2	7
19. Youth unemployment rate (% labour force 15-24)	14.9	16.1	23.9	23.2	23.1	23.2	23.7	17.7	18.4	15.3	18.7	18.2
20. Long term unemployment rate (% labour force)	4	4.2	6.1	6	5.7	5.8	5	3.8	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	5.5	5.9	8.4	7.8	7.6	7.8	8.2	6.5	:	:	:	:
<b>Male</b>												
1. Total population (000)	4838	4862	4944	4954	4966	4977	4994	5006	5006	5006	5006	5006
2. Population aged 15-64	3317	3325	3373	3372	3374	3375	3380	3384	3384	3384	3384	3384
3. Total employment (000)	2312	2268	2234	2235	2234	2239	2231	2253	2262	2251	2269	2232
4. Population in employment aged 15-64	2280	2269	2259	2257	2264	2266	2302	2351	2335	2362	2373	2333
5. Employment rate (% pop. aged 15-64)	68.7	68.2	67	66.9	67.1	67.1	68.1	69.5	69	69.8	70.1	68.9
6. Employment rate (% pop. aged 15-24)	35.1	33.9	30.7	30.9	30.4	30.5	31.2	32.8	31	33.7	33.3	33
7. Employment rate (% pop. aged 25-54)	88.6	87.7	86.2	86.1	86	85.6	86.3	87.3	87.1	87.9	87.9	86.5
8. Employment rate (% pop. aged 55-64)	33.5	33.6	33.5	31.8	31.7	32.1	33.8	36.4	36.6	35.1	37.6	36.3
9. FTE employment rate (% pop. aged 15-64)	70.1	69.7	67.2	67	67.1	66.9	72.3	74.4	:	:	:	:
10. Self-employed (% total employment)	19.5	19.5	20.1	20.4	20.3	19.9	19.3	19.6	19.2	19.4	19.2	20.5
11. Part-time employment (% total employment)	2.3	2.4	3.2	3.4	3.8	4.3	5.3	5.8	5.9	5.9	5.5	5.7
12. Fixed term contracts (% total employment)	2.4	2.5	3.1	3.5	3.8	4.8	5.9	5.4	4.8	5.3	5.7	5.8
13. Employment in Services (% total employment)	61.2	61.4	62.8	63.5	64	63.9	63.6	63.9	64.2	63.9	63.9	63.7
14. Employment in Industry (% total employment)	36	35.8	34.4	33.9	33.5	33.6	33.8	33.3	33.2	33.5	33.3	32.9
15. Employment in Agriculture (% total employment)	2.9	2.8	2.8	2.6	2.5	2.6	2.6	2.8	2.6	2.6	2.8	3.3
16. Activity rate (% pop. aged 15-64)	72.2	72	72.5	72.4	72.5	72.8	73.4	73.7	73.7	73.8	74.4	73.1
17. Total unemployment (000)	103	126	191	186	183	193	188	143	152	134	145	142
18. Unemployment rate (% labour force 15+)	4.3	5.2	7.7	7.6	7.4	7.8	7.5	5.7	6	5.3	5.7	5.6
19. Youth unemployment rate (% labour force 15-24)	11.9	14.2	21.6	19.5	19.4	21.2	23.1	15.1	16.3	12.9	15.6	15.4
20. Long term unemployment rate (% labour force)	2.5	2.8	4.7	4.5	4.4	4.5	4.2	3.1	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	4.5	5.3	8	7.1	6.9	7.8	8.7	5.9	:	:	:	:
<b>Female</b>												
1. Total population (000)	5089	5106	5159	5172	5187	5198	5220	5233	5233	5233	5233	5233
2. Population aged 15-64	3308	3311	3324	3324	3326	3327	3330	3336	3336	3336	3336	3336
3. Total employment (000)	1437	1464	1481	1494	1523	1564	1620	1642	1631	1649	1654	1633
4. Population in employment aged 15-64	1420	1466	1499	1510	1546	1585	1678	1717	1687	1731	1735	1714
5. Employment rate (% pop. aged 15-64)	42.9	44.3	45.1	45.4	46.5	47.6	50.4	51.5	50.6	51.9	52	51.4
6. Employment rate (% pop. aged 15-24)	29.9	30	24.3	22.9	22.4	23.1	25.1	25.4	23.6	26.7	25.7	25.4
7. Employment rate (% pop. aged 25-54)	56.4	58.1	60	60.7	61.8	62.8	65.8	67.2	66.6	67.8	67.6	66.8
8. Employment rate (% pop. aged 55-64)	10.6	11.4	12.9	12.4	12.9	14	15.7	16.6	15.5	15.4	18	17.7
9. FTE employment rate (% pop. aged 15-64)	38	39.3	39.6	39.7	40.5	40.9	45.3	46.6	:	:	:	:
10. Self-employed (% total employment)	16.2	16.7	16.9	16.5	16.2	15.9	16	15.2	15.7	15.2	15.3	14.8
11. Part-time employment (% total employment)	31	31.9	33.8	34.7	35.9	37.7	40.2	40.5	40.8	39.9	41.3	40
12. Fixed term contracts (% total employment)	7	6.5	6.4	6.9	7.7	9.4	11.1	10.4	11.4	10.3	9.9	10
13. Employment in Services (% total employment)	85.2	85.3	86.4	86.7	87.1	87.6	88.2	88.2	88.1	88.3	87.9	88.4
14. Employment in Industry (% total employment)	12.8	12.8	11.9	11.6	11.3	10.9	10.3	10.5	10.7	10.5	10.8	10
15. Employment in Agriculture (% total employment)	1.9	1.9	1.8	1.7	1.6	1.5	1.5	1.3	1.2	1.2	1.3	1.6
16. Activity rate (% pop. aged 15-64)	48.2	49.4	51.7	52.1	52.9	54	56.3	56.4	55.3	56.6	57.3	56.3
17. Total unemployment (000)	159	168	225	223	215	215	198	168	173	157	175	167
18. Unemployment rate (% labour force 15+)	10	10.2	12.9	12.7	12.1	11.8	10.5	8.8	9.1	8.3	9.1	8.8
19. Youth unemployment rate (% labour force 15-24)	18	18.2	26.7	27.5	27.5	25.5	24.5	20.8	20.9	18.2	22.5	21.6
20. Long term unemployment rate (% labour force)	6.4	6.2	8.2	8.0	7.5	7.4	6.1	4.8	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	6.5	6.6	8.7	8.6	8.3	7.8	7.8	7.0	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.



## Key employment indicators Denmark

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	5117	5111	5197	367902	5232	5255	5277	5298	5297	5298	5295	5303
2. Population aged 15-64	3465	3471	3496	246401	3516	3523	3525	3532	3536	3528	3528	3537
3. Total employment (000)	2621	2600	2611	155272	2659	2693	2722	2763	2755	2766	2758	2772
4. Population in employment aged 15-64	2572	2558	2567	148200	2633	2646	2680	2694	2673	2696	2698	2707
5. Employment rate (% pop. aged 15-64)	74.2	73.7	73.4	60.1	74.9	75.1	76	76.3	75.6	76.4	76.5	76.5
6. Employment rate (% pop. aged 15-24)	63.4	61.7	64.6	36.9	66.6	65.4	65.5	66	64.8	67.1	66.3	65.7
7. Employment rate (% pop. aged 25-54)	82.7	82.2	81.3	73.5	82.4	83.1	83.9	84.2	83.3	84.3	84.3	84.6
8. Employment rate (% pop. aged 55-64)	52.8	53	49.8	36.2	51.7	52	54.5	55.7	56.2	54.6	55.8	56.3
9. FTE employment rate (% pop. aged 15-64)	65.8	67	66.8	55.3	68.1	67.8	69.7	69.3	:	:	:	:
10. Self-employed (% total employment)	9.1	9.3	8.2	15.7	7.8	7.4	7.2	6.9	7	7.2	7	6.5
11. Part-time employment (% total employment)	23.3	23	21.8	16.4	22.5	22.3	21.6	21.3	21.9	21.7	20.3	21.3
12. Fixed term contracts (% total employment)	10.3	9.7	10.6	10.2	9.8	9.1	8.9	9.1	9.1	9.4	9.5	8.2
13. Employment in Services (% total employment)	70.2	70.6	71.5	66.8	72.3	72.7	73.3	73.5	73.7	73.8	73.1	73.3
14. Employment in Industry (% total employment)	24.5	24.2	24.1	28.2	23.6	23.5	23.1	23	22.5	22.5	23.4	23.6
15. Employment in Agriculture (% total employment)	5.3	5.2	4.4	5	4.1	3.8	3.7	3.5	3.7	3.7	3.5	3
16. Activity rate (% pop. aged 15-64)	82.7	82.5	79.8	67.5	79.8	79.7	80.6	80	79.9	80	80	79.9
17. Total unemployment (000)	242	265	203	18109	159	148	148	135	151	127	134	127
18. Unemployment rate (% labour force 15+)	8.4	9.2	7.2	10.8	5.6	5.2	5.2	4.7	5.3	4.5	4.7	4.5
19. Youth unemployment rate (% labour force 15-24)	11.6	12.7	10.6	21.9	8.4	8	9.6	7.3	8.6	6.8	6.9	6.7
20. Long term unemployment rate (% labour force)	2.5	2.5	2	5.3	1.5	1.3	1.1	1.0	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	8.5	9.1	7.8	10.2	6.2	5.7	7	5.3	:	:	:	:
<b>Male</b>												
1. Total population (000)	2512	2513	2560	179421	2578	2584	2609	2620	2619	2619	2620	2624
2. Population aged 15-64	1752	1756	1766	123120	1774	1780	1783	1783	1786	1782	1779	1784
3. Total employment (000)	1409	1390	1439	90731	1446	1453	1466	1480	1461	1477	1491	1492
4. Population in employment aged 15-64	1373	1359	1411	86353	1428	1423	1441	1441	1415	1438	1456	1453
5. Employment rate (% pop. aged 15-64)	78.4	77.4	79.9	70.1	80.5	79.9	80.8	80.8	79.2	80.7	81.8	81.4
6. Employment rate (% pop. aged 15-24)	64.1	61.1	67.5	40.2	68.5	64.9	68.2	68.5	64.1	70.3	71	68.5
7. Employment rate (% pop. aged 25-54)	86.4	85.8	87	85.1	88.3	88.5	88.6	88.5	87.1	88.3	89.5	89.1
8. Employment rate (% pop. aged 55-64)	64.1	63.9	64.7	47.2	62.7	61.3	62.6	64.1	65.3	61.9	63.7	65.7
9. FTE employment rate (% pop. aged 15-64)	73.7	74.9	76.6	68.6	76.9	76.2	77.6	76.9	:	:	:	:
10. Self-employed (% total employment)	12	12.3	10.7	18.5	10.3	9.8	9.7	9.2	9.6	9.5	9.3	8.5
11. Part-time employment (% total employment)	10.8	10.7	10.8	5.5	12.2	11.1	10.4	10.2	10.3	10	10.1	10.4
12. Fixed term contracts (% total employment)	9.4	8.6	9.6	9.3	9.2	8.3	7.8	7.7	8	7.9	7.7	7.2
13. Employment in Services (% total employment)	58.6	58.7	60.6	56.8	61.1	61.4	62	62.3	62.6	62.4	62.3	61.8
14. Employment in Industry (% total employment)	33.9	33.8	33.4	37.6	33	33	32.5	32.8	32.1	32.3	32.7	33.9
15. Employment in Agriculture (% total employment)	7.5	7.5	6.1	5.7	6	5.6	5.5	4.9	5.2	5.3	5	4.3
16. Activity rate (% pop. aged 15-64)	86.4	85.8	85.4	77.7	84.8	83.7	84.9	84.2	83.5	84	84.8	84.6
17. Total unemployment (000)	115	127	89	9247	71	62	69	64	76	62	60	59
18. Unemployment rate (% labour force 15+)	7.5	8.3	5.8	9.6	4.6	4.1	4.5	4.2	5	4.1	4	3.9
19. Youth unemployment rate (% labour force 15-24)	11	12.2	8.5	20.7	7	7.3	9.1	7	8.6	6.6	6.4	6.3
20. Long term unemployment rate (% labour force)	2.1	2.1	1.8	4.5	1.2	0.9	1.0	0.9	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	8.3	8.9	6.5	10.3	5.4	5.3	6.7	5.0	:	:	:	:
<b>Female</b>												
1. Total population (000)	2605	2598	2638	188482	2654	2671	2669	2678	2678	2679	2675	2679
2. Population aged 15-64	1715	1718	1733	123285	1744	1743	1743	1749	1746	1746	1750	1752
3. Total employment (000)	1212	1209	1172	64542	1212	1239	1256	1282	1294	1289	1267	1280
4. Population in employment aged 15-64	1199	1198	1157	61849	1205	1223	1239	1253	1258	1258	1243	1254
5. Employment rate (% pop. aged 15-64)	69.9	69.8	66.7	50.2	69.1	70.2	71.1	71.6	71.9	72.1	71	71.5
6. Employment rate (% pop. aged 15-24)	62.5	62.1	61.4	33.4	64.2	65.8	62.7	63.3	65.5	64	61.1	62.5
7. Employment rate (% pop. aged 25-54)	79	78.6	75.4	61.8	76.7	77.6	79.2	79.8	79.6	80.4	79.2	80.1
8. Employment rate (% pop. aged 55-64)	42.3	42.5	35.9	25.8	40.3	42	45.8	46.6	45.9	46.2	47.3	46.7
9. FTE employment rate (% pop. aged 15-64)	58.4	59.5	57.3	42.4	59.7	59.8	62.1	62.2	:	:	:	:
10. Self-employed (% total employment)	5.7	6	5.2	11.8	4.7	4.6	4.4	4.3	4.1	4.5	4.4	4.2
11. Part-time employment (% total employment)	37.8	37.1	35.4	31.6	34.9	35.5	34.7	34.1	35.1	35.2	32.3	34
12. Fixed term contracts (% total employment)	11.4	10.9	11.9	11.5	10.5	10.1	10.2	10.6	10.4	11.1	11.7	9.3
13. Employment in Services (% total employment)	83.2	83.9	84.4	80.7	85.4	85.4	85.9	85.9	85.6	86.3	85.4	86.3
14. Employment in Industry (% total employment)	14.1	13.5	13.1	15.2	12.8	12.8	12.5	12.2	12.2	11.7	12.8	12.1
15. Employment in Agriculture (% total employment)	2.8	2.7	2.5	4.1	1.8	1.8	1.6	1.9	2.1	2	1.8	1.6
16. Activity rate (% pop. aged 15-64)	78.9	78.9	74	57.3	74.7	75.6	76.1	75.6	76.2	75.9	75.2	75.2
17. Total unemployment (000)	127	137	114	8862	89	87	79	70	75	66	73	67
18. Unemployment rate (% labour force 15+)	9.4	10.1	8.9	12.4	6.8	6.6	6	5.3	5.6	4.9	5.5	5
19. Youth unemployment rate (% labour force 15-24)	12.2	13.2	12.9	23.4	10.1	8.6	10.1	7.5	8.5	7	7.5	7.1
20. Long term unemployment rate (% labour force)	3.1	2.9	2.3	6.3	1.9	1.8	1.3	1.2	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	8.7	9.4	9.1	10.1	7.2	6.2	7.2	5.5	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators Germany

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	*78797	79464	80594	80712	80645	80895	80946	*81132	81058	81107	:	:
2. Population aged 15-64	*54130	54486	54838	55007	55001	55188	55139	*55082	55095	55077	:	:
3. Total employment (000)	38457	37880	37384	37275	37194	37537	37944	38534	37896	38419	38771	39051
4. Population in employment aged 15-64	*36642	36161	35433	35238	35015	35281	35752	*36014	35919	35977	:	:
5. Employment rate (% pop. aged 15-64)	*67.7	66.4	64.6	64.1	63.7	63.9	64.8	*65.4	65.2	65.3	:	:
6. Employment rate (% pop. aged 15-24)	*56.9	54.4	47.7	45.5	44.6	45.3	46.1	*46.1	46.1	46.1	:	:
7. Employment rate (% pop. aged 25-54)	*78.8	77.9	76.9	76.7	76.6	77.2	78.4	*79.5	79.1	79.3	:	:
8. Employment rate (% pop. aged 55-64)	*38.1	36.2	37.7	37.9	38.1	37.7	37.7	*37.3	37.5	37.4	:	:
9. FTE employment rate (% pop. aged 15-64)	63	62	59.7	58.7	57.9	57.7	58.3	58.6	:	:	:	:
10. Self-employed (% total employment)	9.3	9.6	10.3	10.3	10.5	10.6	10.4	10.2	10.4	10.3	10.2	10.1
11. Part-time employment (% total employment)	14.1	14.5	16.3	16.7	17.6	18.4	19	19.4	19.3	19.4	19.4	19.4
12. Fixed term contracts (% total employment)	9.2	9.4	9.4	10	10.5	11.1	11.6	11.4	11.5	11.4	11.4	11.4
13. Employment in Services (% total employment)	59.2	61.2	64.3	65.4	66.2	66.7	67.5	68.1	68.1	68.1	68	68.2
14. Employment in Industry (% total employment)	36.7	35.3	32.7	31.9	31.2	30.6	30	29.4	29.4	29.4	29.4	29.2
15. Employment in Agriculture (% total employment)	4	3.5	3	2.7	2.7	2.6	2.6	2.5	2.4	2.6	2.6	2.5
16. Activity rate (% pop. aged 15-64)	*71.6	71	70.5	70.4	70.6	70.8	71.1	*71.0	71	71	:	:
17. Total unemployment (000)	:	2575	3194	3482	3882	3684	3416	3133	3445	3085	3033	2970
18. Unemployment rate (% labour force 15+)	:	:	8.2	8.9	9.9	9.3	8.6	7.9	8.7	7.8	7.6	7.4
19. Youth unemployment rate (% labour force 15-24)	:	:	8.8	10	10.8	9.8	9.1	9.1	9.7	8.5	9.7	8.4
20. Long term unemployment rate (% labour force)	:	:	3.9	4.3	5.0	4.8	4.4	4.0	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	:	4.6	5	5.4	5.0	4.7	4.6	:	:	:	:
<b>Male</b>												
1. Total population (000)	*38020	38482	39184	39275	39283	39426	39493	*39588	39551	39576	:	:
2. Population aged 15-64	*27187	27476	27709	27761	27789	27865	27813	*27755	27772	27755	:	:
3. Total employment (000)	22337	22066	21563	21340	21229	21332	21413	21671	21328	21601	21799	21956
4. Population in employment aged 15-64	*21276	21063	20426	20158	19970	20027	20150	*20196	20179	20188	:	:
5. Employment rate (% pop. aged 15-64)	*78.3	76.7	73.7	72.6	71.9	71.9	72.4	*72.8	72.7	72.7	:	:
6. Employment rate (% pop. aged 15-24)	*58.8	56.5	49.6	47.9	47	47.8	48.5	*48.6	48.6	48.6	:	:
7. Employment rate (% pop. aged 25-54)	*90.3	89.4	87	86.1	85.7	85.8	86.7	*87.5	87.2	87.4	:	:
8. Employment rate (% pop. aged 55-64)	*53.0	49.4	48.5	47.8	47.5	47.2	46.8	*46.1	46.4	46.2	:	:
9. FTE employment rate (% pop. aged 15-64)	77.5	76.4	73.2	71.7	70.6	70.3	70.8	71.1	:	:	:	:
10. Self-employed (% total employment)	10.5	10.9	11.9	12.2	12.6	12.7	12.6	12.5	12.7	12.5	12.4	12.3
11. Part-time employment (% total employment)	2.5	2.7	3.6	3.8	4.3	4.7	4.9	5	5	5	5	5
12. Fixed term contracts (% total employment)	8.5	8.9	8.9	9.7	10.1	10.6	11.1	10.9	11	10.9	10.9	10.9
13. Employment in Services (% total employment)	48.8	50.2	52.8	53.7	54.4	55	55.7	56.3	56.4	56.3	56.2	56.5
14. Employment in Industry (% total employment)	47.1	46.2	44	43.3	42.6	42	41.3	40.7	40.7	40.7	40.7	40.5
15. Employment in Agriculture (% total employment)	4.1	3.6	3.2	3	3	3	3	3	2.9	3	3.1	3
16. Activity rate (% pop. aged 15-64)	*82.0	80.9	79.6	79.3	79.2	79.2	79.2	*78.8	78.9	78.8	:	:
17. Total unemployment (000)	:	1162	1579	1830	2057	1964	1831	1687	1909	1661	1595	1581
18. Unemployment rate (% labour force 15+)	:	:	7.1	8.2	9.2	8.8	8.2	7.6	8.6	7.5	7.2	7.1
19. Youth unemployment rate (% labour force 15-24)	:	:	8.9	10.6	11.7	10.6	9.8	9.8	11	9.3	10.1	8.9
20. Long term unemployment rate (% labour force)	:	:	3.2	3.7	4.4	4.3	4	3.7	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	:	4.8	5.7	6.3	5.7	5.3	5.3	:	:	:	:
<b>Female</b>												
1. Total population (000)	*40777	40982	41410	41437	41362	41469	41453	*41544	41506	41531	:	:
2. Population aged 15-64	*26943	27011	27129	27246	27212	27324	27326	*27327	27323	27322	:	:
3. Total employment (000)	16120	15814	15821	15935	15965	16205	16531	16863	16568	16818	16972	17095
4. Population in employment aged 15-64	*15367	15098	15007	15080	15044	15254	15602	*15818	15739	15789	:	:
5. Employment rate (% pop. aged 15-64)	*57.0	55.9	55.3	55.3	55.3	55.8	57.1	*57.9	57.6	57.8	:	:
6. Employment rate (% pop. aged 15-24)	*54.9	52.4	45.7	43	42.1	42.7	43.7	*43.6	43.7	43.6	:	:
7. Employment rate (% pop. aged 25-54)	*67.0	66.1	66.4	67	67.3	68.3	70	*71.3	70.8	71.1	:	:
8. Employment rate (% pop. aged 55-64)	*24.0	23.5	27.1	28.2	28.7	28.3	28.7	*28.6	28.7	28.7	:	:
9. FTE employment rate (% pop. aged 15-64)	48.7	47.6	46.1	45.8	45.2	45	45.8	46.1	:	:	:	:
10. Self-employed (% total employment)	7.6	7.7	8	7.7	7.8	7.8	7.5	7.4	7.5	7.4	7.3	7.3
11. Part-time employment (% total employment)	30.2	30.9	33.7	33.9	35.3	36.4	37.3	37.9	37.8	37.9	37.9	37.9
12. Fixed term contracts (% total employment)	10.1	10.2	10.2	10.5	11.1	11.6	12.3	12.1	12.1	12.1	12.1	12.1
13. Employment in Services (% total employment)	73.2	75.9	79.3	80.5	81.2	81.4	82	82.4	82.5	82.4	82.3	82.5
14. Employment in Industry (% total employment)	22.9	20.8	17.9	17.1	16.6	16.4	15.9	15.6	15.6	15.6	15.6	15.5
15. Employment in Agriculture (% total employment)	3.9	3.3	2.8	2.3	2.2	2.2	2	2	1.9	2	2	2
16. Activity rate (% pop. aged 15-64)	*61.2	61	61.3	61.4	61.8	62.2	62.9	*63.1	63	63	:	:
17. Total unemployment (000)	:	1413	1615	1652	1824	1719	1585	1447	1536	1424	1438	1389
18. Unemployment rate (% labour force 15+)	:	:	9.6	9.8	10.7	10	9.1	8.3	8.9	8.2	8.2	7.9
19. Youth unemployment rate (% labour force 15-24)	:	:	8.7	9.2	9.8	9	8.4	8.2	8.3	7.5	9.2	7.8
20. Long term unemployment rate (% labour force)	:	:	4.9	5.1	5.7	5.4	4.8	4.3	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	:	4.3	4.4	4.6	4.3	4	3.9	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators Greece

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	9918	9974	10238	10255	10269	10292	10310	*10325	10321	10321	:	:
2. Population aged 15-64	6628	6651	6772	6788	6812	6924	6922	*6878	6887	6875	:	:
3. Total employment (000)	3659	3696	3820	3805	3792	3921	3929	*3920	3893	3943	:	:
4. Population in employment aged 15-64	3538	3570	3702	3732	3753	3841	3830	*3822	3794	3840	:	:
5. Employment rate (% pop. aged 15-64)	53.4	53.7	54.7	55	55.1	55.5	55.3	*55.6	55.1	55.9	:	:
6. Employment rate (% pop. aged 15-24)	29.1	28.3	26.3	25.3	25.3	28	26.8	*26.8	26.4	26.9	:	:
7. Employment rate (% pop. aged 25-54)	66.9	67.6	68.9	69.5	69.7	69.7	69.6	*69.5	69.1	70.2	:	:
8. Employment rate (% pop. aged 55-64)	39.7	39.8	41	41.2	41	39	39.1	*39.2	38.9	39	:	:
9. FTE employment rate (% pop. aged 15-64)	52.1	53.7	54.2	54.6	54.4	55	54.5	55.3	:	:	:	:
10. Self-employed (% total employment)	46.7	46.9	45.8	45.7	45.4	45.1	44.4	*44.0	44.3	43.8	:	:
11. Part-time employment (% total employment)	3.9	4.5	4.8	5	4.8	5.6	5.8	*4.3	4.6	4.6	:	:
12. Fixed term contracts (% total employment)	6.8	5.1	5.1	5.5	5.6	6.7	6.7	*7.0	6.4	7.4	:	:
13. Employment in Services (% total employment)	51.8	52.8	55.9	56	56.9	57.3	57.5	*58.0	57.7	58.3	:	:
14. Employment in Industry (% total employment)	26.8	26.3	24.5	24.7	24.2	24.2	23.7	*23.3	23.7	23.4	:	:
15. Employment in Agriculture (% total employment)	21.4	20.9	19.6	19.4	18.9	18.5	18.9	*18.7	18.6	18.3	:	:
16. Activity rate (% pop. aged 15-64)	58	58.5	60.4	61	61.3	62.6	63	*62.9	62.8	63	:	:
17. Total unemployment (000)	276	317	386	411	421	483	515	493	:	491	:	:
18. Unemployment rate (% labour force 15+)	7	7.9	9.2	9.6	9.8	10.9	11.6	11.1	:	11.1	:	:
19. Youth unemployment rate (% labour force 15-24)	22.9	25.1	28.5	31	30.8	30.1	31.3	29.6	:	29.5	:	:
20. Long term unemployment rate (% labour force)	:	:	:	:	:	:	:	:	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	:	:	:	:	:	:	:	:	:	:	:
<b>Male</b>												
1. Total population (000)	4815	4830	4928	4928	4943	5006	4998	*4998	4986	4997	:	:
2. Population aged 15-64	3205	3204	3255	3259	3276	3374	3368	*3336	3339	3339	:	:
3. Total employment (000)	2411	2408	2445	2421	2397	2473	2458	*2444	2435	2455	:	:
4. Population in employment aged 15-64	2327	2321	2361	2368	2363	2415	2386	*2372	2363	2381	:	:
5. Employment rate (% pop. aged 15-64)	72.6	72.4	72.5	72.7	72.1	71.6	70.8	*71.1	70.8	71.3	:	:
6. Employment rate (% pop. aged 15-24)	36.1	35.5	33	31.4	31.1	34.1	31.9	*32.0	31.6	31.9	:	:
7. Employment rate (% pop. aged 25-54)	90.3	90.1	89.8	90.2	89.7	88.8	88.2	*88.0	87.7	88.6	:	:
8. Employment rate (% pop. aged 55-64)	58.7	58.8	59.6	59.8	59.1	55.8	55.4	*55.6	55.3	55.3	:	:
9. FTE employment rate (% pop. aged 15-64)	71.7	73.4	72.8	73.2	72.3	72.1	71	71.5	:	:	:	:
10. Self-employed (% total employment)	47.4	47.7	47.1	46.9	47	46.6	46.1	*45.9	46	45.7	:	:
11. Part-time employment (% total employment)	2.2	2.6	2.7	3	2.6	3.1	3.3	*2.4	2.6	2.6	:	:
12. Fixed term contracts (% total employment)	6.9	5.1	4.8	5.2	5.2	6.1	5.8	*5.8	5.3	6.2	:	:
13. Employment in Services (% total employment)	49.9	50.6	52.5	52.6	53.1	52.5	52.9	*53.4	53.1	53.5	:	:
14. Employment in Industry (% total employment)	31.2	30.9	29.9	30.1	29.9	30.6	29.9	*29.5	29.9	29.7	:	:
15. Employment in Agriculture (% total employment)	19	18.6	17.6	17.3	17	16.9	17.2	*17.0	17	16.8	:	:
16. Activity rate (% pop. aged 15-64)	76.4	76.4	77.5	77.5	77.2	77.3	77.1	*77.1	77	77.1	:	:
17. Total unemployment (000)	111	127	161	159	166	189	200	194	:	193	:	:
18. Unemployment rate (% labour force 15+)	4.4	5	6.2	6.1	6.4	7.1	7.5	7.3	:	7.3	:	:
19. Youth unemployment rate (% labour force 15-24)	16	17.4	19.8	21.5	22	21.7	22.8	22.2	:	22.1	:	:
20. Long term unemployment rate (% labour force)	:	:	:	:	:	:	:	:	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	:	:	:	:	:	:	:	:	:	:	:
<b>Female</b>												
1. Total population (000)	5104	5144	5310	5327	5326	5286	5312	*5327	5334	5324	:	:
2. Population aged 15-64	3423	3447	3517	3529	3536	3550	3553	*3541	3548	3536	:	:
3. Total employment (000)	1248	1287	1375	1384	1395	1448	1471	*1476	1458	1488	:	:
4. Population in employment aged 15-64	1211	1249	1341	1364	1391	1426	1443	*1450	1431	1460	:	:
5. Employment rate (% pop. aged 15-64)	35.4	36.2	38.1	38.7	39.3	40.2	40.6	*40.9	40.3	41.3	:	:
6. Employment rate (% pop. aged 15-24)	22.6	21.8	20.3	20	20	22.1	21.9	*21.9	21.5	22	:	:
7. Employment rate (% pop. aged 25-54)	44.8	46.4	49.1	49.9	50.8	51.4	51.8	*52.0	51.3	52.6	:	:
8. Employment rate (% pop. aged 55-64)	21.5	22	24.1	24.3	24.6	23.4	24	*24.7	24	24.4	:	:
9. FTE employment rate (% pop. aged 15-64)	33.7	35.3	36.9	37.4	37.8	38.6	38.9	40	:	:	:	:
10. Self-employed (% total employment)	45.4	45.4	43.7	43.5	42.8	42.5	41.5	*40.9	41.4	40.6	:	:
11. Part-time employment (% total employment)	7.4	8.1	8.4	8.7	8.5	10	9.9	*7.4	8	7.9	:	:
12. Fixed term contracts (% total employment)	6.7	5.2	5.7	6	6.3	7.7	8.2	*8.9	8.1	9.3	:	:
13. Employment in Services (% total employment)	55.5	56.9	61.9	62	63.4	65.6	65.2	*65.7	65.5	66.2	:	:
14. Employment in Industry (% total employment)	18.4	17.8	14.9	15	14.3	13.2	13.1	*12.9	13.2	12.9	:	:
15. Employment in Agriculture (% total employment)	26	25.3	23.2	23.1	22.2	21.3	21.7	*21.4	21.3	20.9	:	:
16. Activity rate (% pop. aged 15-64)	40.7	41.8	44.6	45.8	46.6	48.6	49.7	*49.6	49.5	49.7	:	:
17. Total unemployment (000)	166	191	225	252	254	293	316	299	:	298	:	:
18. Unemployment rate (% labour force 15+)	11.8	13	14.1	15.2	15.2	16.7	17.6	16.7	:	16.7	:	:
19. Youth unemployment rate (% labour force 15-24)	31.3	34.3	38.3	41	40.4	39.7	40.4	37.9	:	37.7	:	:
20. Long term unemployment rate (% labour force)	:	:	:	:	:	:	:	:	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	:	:	:	:	:	:	:	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators Spain

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	38756	38816	38917	39016	39069	39117	39164	39211	39193	39205	39217	39229
2. Population aged 15-64	25601	25716	26128	26398	26449	26363	26229	26271	26295	26283	26298	26208
3. Total employment (000)	13966	13772	13571	13745	14135	14664	15173	15671	15421	15643	15791	15829
4. Population in employment aged 15-64	12697	12423	12075	12444	12817	13222	13822	14443	14205	14425	14578	14562
5. Employment rate (% pop. aged 15-64)	49.6	48.3	46.2	47.1	48.5	50.2	52.7	55	54	54.9	55.4	55.6
6. Employment rate (% pop. aged 15-24)	33.7	31.1	25.7	25.6	26.7	28	30.9	32.7	31.4	32.6	34	32.9
7. Employment rate (% pop. aged 25-54)	61.4	60.3	59.2	60.3	61.6	63.1	65.6	67.8	67.1	67.8	68	68.5
8. Employment rate (% pop. aged 55-64)	36.2	35.7	32.1	33	33.5	34.8	34.9	36.8	35.4	36.6	37.3	37.7
9. FTE employment rate (% pop. aged 15-64)	48	46.9	44.2	44.7	46	47.6	50.2	52.5	:	:	:	:
10. Self-employed (% total employment)	18.8	19.3	18.7	18.9	18.1	17.8	17.1	16.6	16.7	16.5	16.6	16.3
11. Part-time employment (% total employment)	4.6	5.9	7.4	7.7	8	7.9	8.1	8	8.2	8.2	8	7.8
12. Fixed term contracts (% total employment)	26.2	27	28.3	27.4	27.5	27.2	27.2	26.7	26.4	26.8	27	26.5
13. Employment in Services (% total employment)	60.2	61.6	64	63.9	63.7	63.5	63.4	63.5	63.5	63.6	63.7	63.1
14. Employment in Industry (% total employment)	30.4	29.5	28.2	28.3	28.6	29.1	29.6	30	29.8	29.8	30	30.3
15. Employment in Agriculture (% total employment)	9.4	8.9	7.9	7.9	7.7	7.5	7	6.6	6.8	6.6	6.4	6.6
16. Activity rate (% pop. aged 15-64)	59.2	59.1	59.9	60.5	61.1	61.8	62.6	64	63.6	63.8	64.3	64.3
17. Total unemployment (000)	2469	2790	3579	3535	3351	3058	2606	2381	2527	2364	2318	2315
18. Unemployment rate (% labour force 15+)	16.4	18.4	22.9	22.2	20.8	18.8	15.9	14.1	15.1	14.1	13.7	13.7
19. Youth unemployment rate (% labour force 15-24)	31.1	34.5	42.5	41.9	38.9	35.4	29.5	26.2	28.2	25.6	25.2	26.1
20. Long term unemployment rate (% labour force)	7.9	8.2	12.4	11.7	10.9	9.4	7.3	5.9	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	14.3	15.4	17.7	17.3	16.1	14.7	12.5	11.4	:	:	:	:
<b>Male</b>												
1. Total population (000)	18904	18937	19028	19064	19102	19027	19002	19082	19046	19081	19092	19109
2. Population aged 15-64	12701	12782	12996	13137	13168	13069	12958	13008	13005	13001	13031	12994
3. Total employment (000)	9459	9222	8892	8947	9154	9458	9653	9838	9697	9808	9935	9913
4. Population in employment aged 15-64	8667	8387	7973	8158	8353	8568	8834	9092	8966	9073	9193	9135
5. Employment rate (% pop. aged 15-64)	68.2	65.6	61.3	62.1	63.4	65.6	68.2	69.9	68.9	69.8	70.5	70.3
6. Employment rate (% pop. aged 15-24)	41.8	38.2	31.5	31.4	32.8	34.5	37.7	39	37.5	38.5	40.6	39.3
7. Employment rate (% pop. aged 25-54)	84.9	82.1	78.5	79	80.1	82	84.2	85.4	84.9	85.5	85.7	85.5
8. Employment rate (% pop. aged 55-64)	56.2	54.7	48	49.9	50.5	52.1	52.4	55	53.2	54.8	55.6	56.2
9. FTE employment rate (% pop. aged 15-64)	67.3	65.4	60.4	60.7	62	64.3	67.2	69	:	:	:	:
10. Self-employed (% total employment)	18.8	19.6	19.5	20	19.5	19.1	18.7	18.3	18.4	18.3	18.3	18.1
11. Part-time employment (% total employment)	1.5	2.1	2.8	3	3.1	2.9	2.9	2.8	2.8	2.9	2.8	2.7
12. Fixed term contracts (% total employment)	23.8	24.7	26.7	25.9	26.1	26	25.6	25	24.7	25	25.4	24.9
13. Employment in Services (% total employment)	51.7	52.9	54.7	54.4	53.7	53.1	52.6	52.7	52.8	52.8	52.9	52.3
14. Employment in Industry (% total employment)	38	37.4	36.5	36.6	37.4	38.2	39.2	39.6	39.4	39.5	39.5	40
15. Employment in Agriculture (% total employment)	10.3	9.8	8.8	9	8.8	8.7	8.2	7.7	7.8	7.7	7.6	7.7
16. Activity rate (% pop. aged 15-64)	77.6	76.4	74.8	75.2	75.4	76	76.7	77.4	77	77.2	77.8	77.7
17. Total unemployment (000)	1194	1386	1753	1723	1580	1364	1105	985	1063	974	944	960
18. Unemployment rate (% labour force 15+)	12.3	14.3	18.2	17.6	16	13.8	11.2	9.8	10.6	9.7	9.3	9.5
19. Youth unemployment rate (% labour force 15-24)	25.7	29.7	36.9	36.3	33.1	29	23.2	20.6	22.2	19.9	19.8	20.5
20. Long term unemployment rate (% labour force)	4.8	5.1	8.8	8.2	7.5	6	4.5	3.5	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	13.1	14.7	16.6	16.2	14.8	13.2	10.8	9.8	:	:	:	:
<b>Female</b>												
1. Total population (000)	19853	19879	19889	19952	19967	20090	20162	20130	20148	20124	20125	20121
2. Population aged 15-64	12901	12935	13132	13260	13281	13294	13270	13263	13290	13281	13267	13214
3. Total employment (000)	4505	4550	4680	4798	4981	5205	5520	5833	5724	5835	5856	5916
4. Population in employment aged 15-64	4030	4036	4102	4286	4464	4654	4988	5351	5239	5352	5385	5427
5. Employment rate (% pop. aged 15-64)	31.2	31.2	31.2	32.3	33.6	35	37.6	40.3	39.4	40.3	40.6	41.1
6. Employment rate (% pop. aged 15-24)	25.2	23.5	19.6	19.3	20.3	21.2	23.9	26.2	25.2	26.4	27.1	26.1
7. Employment rate (% pop. aged 25-54)	38.4	38.8	40.2	41.9	43.4	44.8	47.6	50.7	49.9	50.6	50.7	51.8
8. Employment rate (% pop. aged 55-64)	17.9	18.6	17.6	17.8	18	18.8	19.1	20.1	19.1	19.9	20.4	20.7
9. FTE employment rate (% pop. aged 15-64)	29.2	29	28.4	29.2	30.3	31.5	33.8	36.6	:	:	:	:
10. Self-employed (% total employment)	18.6	18.8	17.3	16.9	15.6	15.3	14.3	13.7	13.9	13.7	13.9	13.4
11. Part-time employment (% total employment)	11.2	13.5	16.2	16.6	17.1	16.9	17.1	16.9	17.4	17.2	16.7	16.3
12. Fixed term contracts (% total employment)	31.2	31.6	31.4	30.3	30	29.3	30	29.5	29.2	29.8	29.6	29.2
13. Employment in Services (% total employment)	77.4	78.6	81	81.2	81.6	81.9	81.9	81.3	81.3	81.4	81.7	81
14. Employment in Industry (% total employment)	15	14.2	12.8	13	12.8	12.9	13.2	13.9	13.7	13.9	13.9	14.2
15. Employment in Agriculture (% total employment)	7.7	7.2	6.1	5.8	5.6	5.3	4.9	4.7	5.1	4.7	4.3	4.8
16. Activity rate (% pop. aged 15-64)	41.1	42	45.2	46	47	47.8	48.9	50.8	50.4	50.7	51	51.2
17. Total unemployment (000)	1275	1404	1826	1812	1771	1693	1501	1396	1465	1390	1374	1356
18. Unemployment rate (% labour force 15+)	23.8	25.6	30.5	29.5	28.3	26.6	23	20.6	21.7	20.5	20.2	19.9
19. Youth unemployment rate (% labour force 15-24)	37.9	40.6	49	48.8	46	43.3	37.2	33.3	35.3	32.6	32	33.1
20. Long term unemployment rate (% labour force)	13.4	13.7	18.3	17.3	16.1	14.5	11.5	9.5	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	15.4	16	18.9	18.4	17.3	16.2	14.2	13.1	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.



## Key employment indicators France

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	55292	55605	56425	56665	56930	57229	57547	*57894	57763	:	:	:
2. Population aged 15-64	36335	36443	36896	37028	37192	37378	37594	*37829	37740	:	:	:
3. Total employment (000)	22092	22030	21925	21994	22097	22376	22782	23317	22942	23282	23504	23541
4. Population in employment aged 15-64	21934	21833	21982	22059	22165	22472	22898	*23538	23293	:	:	:
5. Employment rate (% pop. aged 15-64)	60.4	59.9	59.6	59.6	59.6	60.1	60.9	*62.2	61,7	:	:	:
6. Employment rate (% pop. aged 15-24)	31.7	30.1	25.9	25.1	24.6	25.7	27.2	*29.0	28,3	:	:	:
7. Employment rate (% pop. aged 25-54)	77.6	77.2	77.1	76.9	76.7	77.1	77.7	*78.8	78,4	:	:	:
8. Employment rate (% pop. aged 55-64)	30.3	29.8	29.3	29	28.7	28.3	28.7	*29.7	29,3	:	:	:
9. FTE employment rate (% pop. aged 15-64)	57.7	57.4	56.5	56.7	56.4	56.9	57.2	58.7	:	:	:	:
10. Self-employed (% total employment)	9.7	9.4	8.5	8.3	8.1	7.9	7.7	7.4	7,6	7,4	7,3	7,3
11. Part-time employment (% total employment)	12.3	13.1	15.8	16.3	17	17.3	17.1	16.9	16,9	16,9	16,9	16,9
12. Fixed term contracts (% total employment)	9.3	9.6	11.4	11.7	12.3	12.9	13.3	13.8	13,8	13,8	13,8	13,9
13. Employment in Services (% total employment)	65.9	67	69.4	70	70.7	71.1	71.6	72.1	71,9	72,1	72,1	72,2
14. Employment in Industry (% total employment)	28.2	27.4	25.4	24.9	24.4	24.1	23.7	23.5	23,6	23,5	23,5	23,5
15. Employment in Agriculture (% total employment)	5.9	5.7	5.2	5	4.9	4.8	4.6	4.4	4,5	4,4	4,4	4,3
16. Activity rate (% pop. aged 15-64)	66.8	67.1	67.8	68.1	68.1	68.4	68.8	*68.9	68,8	:	:	:
17. Total unemployment (000)	2312	2553	2921	3126	3126	3019	2893	2456	2711	2386	2363	2363
18. Unemployment rate (% labour force 15+)	9.5	10.4	11.7	12.4	12.3	11.8	11.2	9.5	10,4	9,3	9,2	9,2
19. Youth unemployment rate (% labour force 15-24)	21.3	23.3	27.5	29.1	29.2	26.5	24.3	20.1	21,7	18	19,2	21,4
20. Long term unemployment rate (% labour force)	3.5	3.5	4.6	4.8	5	4.8	4.4	3.8	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	8.7	9.3	9.9	10.4	10.1	9.2	8.6	7.1	:	:	:	:
<b>Male</b>												
1. Total population (000)	26736	26885	27298	27417	27555	27725	27918	*28112	28039	:	:	:
2. Population aged 15-64	17874	17919	18166	18240	18331	18443	18586	*18723	18670	:	:	:
3. Total employment (000)	12556	12439	12196	12215	12252	12377	12584	12865	12658	12846	12968	12989
4. Population in employment aged 15-64	12454	12315	12219	12240	12279	12420	12639	*12968	12842	:	:	:
5. Employment rate (% pop. aged 15-64)	69.7	68.7	67.3	67.1	67	67.3	68	*69.3	68,8	:	:	:
6. Employment rate (% pop. aged 15-24)	34.8	33	28.5	27.7	27.1	28.5	30.4	*32.0	31,4	:	:	:
7. Employment rate (% pop. aged 25-54)	89.3	88.2	86.7	86.3	86	86.1	86.5	*87.8	87,3	:	:	:
8. Employment rate (% pop. aged 55-64)	36.2	35.7	33.5	33.1	32.9	32.4	32.2	*33.1	32,8	:	:	:
9. FTE employment rate (% pop. aged 15-64)	69.7	69.3	67.4	67.4	67.2	67.7	67.8	69.2	:	:	:	:
10. Self-employed (% total employment)	11.2	10.9	10.1	10	9.8	9.6	9.4	9.1	9,3	9,2	9,1	9
11. Part-time employment (% total employment)	3.5	3.8	5.1	5.3	5.5	5.6	5.5	5.4	5,4	5,4	5,4	5,4
12. Fixed term contracts (% total employment)	7.9	8.1	10.3	10.6	11.2	11.8	12.4	13	12,9	13	13	13
13. Employment in Services (% total employment)	55.7	56.7	59.1	59.5	60.3	60.7	61.3	61.6	61,4	61,6	61,6	61,7
14. Employment in Industry (% total employment)	37.6	36.8	34.7	34.3	33.6	33.3	32.9	32.8	32,9	32,8	32,8	32,8
15. Employment in Agriculture (% total employment)	6.7	6.5	6.2	6.2	6.1	6	5.8	5.6	5,8	5,6	5,6	5,5
16. Activity rate (% pop. aged 15-64)	75.4	75.3	75	75.3	75.2	75.2	75.4	*75.3	75,3	:	:	:
17. Total unemployment (000)	996	1128	1325	1450	1466	1390	1327	1098	1234	1064	1038	1055
18. Unemployment rate (% labour force 15+)	7.3	8.3	9.7	10.5	10.6	10	9.5	7.8	8,8	7,6	7,4	7,6
19. Youth unemployment rate (% labour force 15-24)	18	20.1	23.9	26.3	26.7	24.3	22.4	18.2	20,1	16,2	17,1	19,3
20. Long term unemployment rate (% labour force)	2.5	2.5	3.7	3.9	4.2	4	3.6	3.0	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	7.7	8.4	9	10	9.9	9	8.7	7.0	:	:	:	:
<b>Female</b>												
1. Total population (000)	28555	28720	29126	29248	29375	29504	29629	*29782	29725	:	:	:
2. Population aged 15-64	18461	18524	18731	18788	18861	18935	19008	*19107	19069	:	:	:
3. Total employment (000)	9536	9591	9729	9779	9845	9999	10198	10452	10284	10436	10536	10552
4. Population in employment aged 15-64	9481	9519	9763	9819	9885	10052	10259	*10569	10450	:	:	:
5. Employment rate (% pop. aged 15-64)	51.4	51.4	52.1	52.3	52.4	53.1	54	*55.3	54,8	:	:	:
6. Employment rate (% pop. aged 15-24)	28.8	27.3	23.3	22.5	22.2	23	24	*26.0	25,2	:	:	:
7. Employment rate (% pop. aged 25-54)	66.1	66.4	67.6	67.7	67.7	68.3	69	*70.0	69,6	:	:	:
8. Employment rate (% pop. aged 55-64)	24.9	24.4	25.4	25.2	24.7	24.4	25.3	*26.5	26	:	:	:
9. FTE employment rate (% pop. aged 15-64)	46	46.1	46.1	46.4	46.1	46.6	47.1	48.7	:	:	:	:
10. Self-employed (% total employment)	7.8	7.4	6.5	6.2	6	5.7	5.5	5.3	5,4	5,3	5,2	5,2
11. Part-time employment (% total employment)	23.9	25.2	29.1	30	31.2	31.6	31.4	31	31	31	31	31
12. Fixed term contracts (% total employment)	11.1	11.5	12.7	13.2	13.7	14.1	14.3	14.9	14,9	14,9	14,9	14,9
13. Employment in Services (% total employment)	79.1	80	82.2	82.9	83.4	83.7	84.1	84.6	84,5	84,6	84,6	84,7
14. Employment in Industry (% total employment)	16.1	15.4	14	13.4	13.1	13	12.7	12.4	12,4	12,4	12,4	12,4
15. Employment in Agriculture (% total employment)	4.8	4.6	3.9	3.6	3.5	3.3	3.2	3	3,1	3	3	3
16. Activity rate (% pop. aged 15-64)	58.5	59.2	60.8	61.2	61.2	61.8	62.3	*62.6	62,5	:	:	:
17. Total unemployment (000)	1316	1425	1595	1676	1660	1629	1566	1358	1477	1322	1325	1309
18. Unemployment rate (% labour force 15+)	12.1	13	14	14.5	14.4	13.9	13.3	11.5	12,4	11,2	11,2	11,1
19. Youth unemployment rate (% labour force 15-24)	24.8	26.8	31.3	32.2	32	29	26.5	22.3	23,6	20,1	21,6	23,9
20. Long term unemployment rate (% labour force)	4.8	4.7	5.7	5.9	5.9	5.7	5.3	4.7	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	9.7	10.2	10.7	10.9	10.4	9.4	8.5	7.3	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators Ireland

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	3476	3492	3543	3572	3630	3713	3754	3799	3783	3787	3799	3829
2. Population aged 15-64	2159	2190	2282	2332	2390	2456	2503	2549	2532	2539	2550	2576
3. Total employment (000)	1170	1182	1302	1349	1432	1531	1619	1696	1654	1674	1741	1714
4. Population in employment aged 15-64	1109	1120	1241	1291	1375	1487	1582	1660	1618	1637	1707	1679
5. Employment rate (% pop. aged 15-64)	51.4	51.2	54.4	55.4	57.5	60.5	63.2	65.1	63.9	64.5	66.9	65.2
6. Employment rate (% pop. aged 15-24)	38.9	36.9	37.6	37.5	41.4	45.6	49	50.6	47.9	48.2	57	49.4
7. Employment rate (% pop. aged 25-54)	60.1	60.4	64.9	66.5	68.1	70.9	73.4	75.4	74.6	75.3	75.6	75.9
8. Employment rate (% pop. aged 55-64)	38	37.9	39.2	39.7	40.3	41.6	43.7	45.3	45	45.2	45.3	45.8
9. FTE employment rate (% pop. aged 15-64)	48.9	48.3	50.8	51.5	53.2	55.5	58.6	60.6	:	:	:	:
10. Self-employed (% total employment)	21.7	21.9	20.2	19.6	19.1	18.3	17.5	17	17.6	17.4	16.4	16.6
11. Part-time employment (% total employment)	8.3	9.1	11.6	11.4	13.6	16.5	16.4	16.4	16.5	16.8	16	16.3
12. Fixed term contracts (% total employment)	6.6	6.9	8	7.5	7.3	5.9	4.1	3.8	3.8	3.8	3.9	3.9
13. Employment in Services (% total employment)	58.3	59.6	61.5	62.3	62.6	63.2	63.4	63.9	63.6	64	63.9	64
14. Employment in Industry (% total employment)	29.2	28.3	28.1	28	28.4	28.7	28.6	29	28.8	28.7	29	29.3
15. Employment in Agriculture (% total employment)	12.4	12.1	10.5	9.7	9	8.2	8.1	7.2	7.6	7.3	7	6.7
16. Activity rate (% pop. aged 15-64)	60.9	60.4	61.9	62.5	64.1	65.6	67	68.1	67.1	67.4	70	67.9
17. Total unemployment (000)	197	209	177	174	152	123	95	74	81	74	74	65
18. Unemployment rate (% labour force 15+)	14.7	15.4	12.3	11.7	9.9	7.5	5.6	4.2	4.7	4.3	4.2	3.8
19. Youth unemployment rate (% labour force 15-24)	22.4	24.4	19.5	18.2	15.4	11.3	8.4	6.5	7.1	6.5	6.7	5.7
20. Long term unemployment rate (% labour force)	9.9	9.4	7.8	7.1	6.1	3.9	2.6	1.7	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	10.8	11.5	8.8	8	7.1	5.5	4.3	3.3	:	:	:	:
<b>Male</b>												
1. Total population (000)	1739	1742	1762	1779	1807	1843	1863	1887	1878	1881	1887	1901
2. Population aged 15-64	1093	1103	1145	1171	1200	1232	1256	1280	1271	1274	1280	1293
3. Total employment (000)	772	764	812	832	870	920	963	1002	982	992	1025	1009
4. Population in employment aged 15-64	727	718	768	790	829	888	935	974	953	963	999	982
5. Employment rate (% pop. aged 15-64)	66.5	65.1	67.1	67.5	69.1	72	74.4	76.1	74.9	75.6	78	76
6. Employment rate (% pop. aged 15-24)	41.1	38.7	39.6	39.8	43.8	48.7	52.2	54.4	51.4	52.7	60.6	52.9
7. Employment rate (% pop. aged 25-54)	80.1	78.6	81	81.8	82.5	84.8	86.9	88.2	87.7	88.1	88.5	88.4
8. Employment rate (% pop. aged 55-64)	60.2	59.5	59.7	59	58.7	60.1	61.7	63.3	63.1	63	63.4	63.8
9. FTE employment rate (% pop. aged 15-64)	65.4	63.4	65.2	65.2	67	70	73.6	75.8	:	:	:	:
10. Self-employed (% total employment)	28.1	28.7	27.1	26.3	25.8	24.8	24	23.5	24.1	23.8	22.9	23.2
11. Part-time employment (% total employment)	3.5	3.8	5.1	4.9	6	7.5	7.2	6.9	7.1	7.2	6.7	6.8
12. Fixed term contracts (% total employment)	4.5	4.8	6.1	5.3	5.1	4.2	2.9	2.7	2.8	2.7	2.8	2.8
13. Employment in Services (% total employment)	47.7	48.7	50.1	50.6	50.7	50.8	50.5	50.9	51	51	50.7	50.8
14. Employment in Industry (% total employment)	35	34.2	34.9	35.4	36.1	37.1	37.5	38.3	37.6	37.9	38.6	39
15. Employment in Agriculture (% total employment)	17.3	17.1	15	13.9	13.1	12.1	12.1	10.8	11.4	11.1	10.7	10.2
16. Activity rate (% pop. aged 15-64)	78.6	76.8	76.4	76.2	77	78.2	79	79.7	78.8	79.1	81.6	79.2
17. Total unemployment (000)	124	132	109	106	93	76	58	44	49	44	43	39
18. Unemployment rate (% labour force 15+)	14.2	15.1	12.2	11.5	9.9	7.7	5.7	4.3	4.8	4.3	4.2	3.8
19. Youth unemployment rate (% labour force 15-24)	23.6	25.7	20.8	19	16	11.6	8.3	6.1	6.8	6.1	6.1	5.4
20. Long term unemployment rate (% labour force)	10.2	9.7	8.2	7.6	6.6	4.7	3.2	2.1	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	12.3	13	10.1	9	7.9	6.1	4.5	3.4	:	:	:	:
<b>Female</b>												
1. Total population (000)	1737	1749	1781	1792	1824	1870	1891	1913	1905	1906	1912	1928
2. Population aged 15-64	1065	1087	1137	1160	1190	1223	1247	1269	1261	1264	1270	1283
3. Total employment (000)	397	418	490	517	562	611	656	694	672	682	717	705
4. Population in employment aged 15-64	383	403	473	501	546	599	648	686	665	674	708	697
5. Employment rate (% pop. aged 15-64)	35.9	37.1	41.6	43.2	45.9	49	51.9	54	52.8	53.3	55.8	54.3
6. Employment rate (% pop. aged 15-24)	36.5	35.1	35.5	35.2	38.8	42.4	45.7	46.8	44.3	43.7	53.3	45.8
7. Employment rate (% pop. aged 25-54)	39.9	42.3	49	51.3	53.7	57	60	62.6	61.6	62.7	62.7	63.3
8. Employment rate (% pop. aged 55-64)	16.2	16.5	18.6	20.2	21.7	23.1	25.5	27.2	26.7	27.1	27.1	27.8
9. FTE employment rate (% pop. aged 15-64)	32.1	33.1	36.4	37.8	39.3	41	43.6	45.2	:	:	:	:
10. Self-employed (% total employment)	9.5	9.7	8.9	8.9	8.9	8.6	8.1	7.7	8.2	8.1	7.3	7.3
11. Part-time employment (% total employment)	17.6	18.7	22.4	22	25.4	30	30	30.1	30.3	30.7	29.3	30
12. Fixed term contracts (% total employment)	10.5	10.7	11.1	10.9	10.7	8.5	5.7	5.5	5.5	5.4	5.5	5.5
13. Employment in Services (% total employment)	78.5	79.1	80	80.6	80.6	81.6	82.2	82.5	81.8	82.7	82.7	82.7
14. Employment in Industry (% total employment)	18.2	17.9	16.9	16.3	16.7	16.1	15.6	15.6	16.1	15.3	15.5	15.5
15. Employment in Agriculture (% total employment)	3.3	3.1	3.1	3.1	2.8	2.3	2.2	1.9	2.1	2	1.8	1.8
16. Activity rate (% pop. aged 15-64)	42.9	43.8	47.3	48.7	51.1	52.9	55	56.4	55.3	55.7	58.2	56.4
17. Total unemployment (000)	73	78	68	68	60	47	38	30	32	30	31	26
18. Unemployment rate (% labour force 15+)	15.8	16	12.5	11.8	9.9	7.3	5.5	4.2	4.6	4.2	4.3	3.7
19. Youth unemployment rate (% labour force 15-24)	20.8	22.7	17.9	17.2	14.6	11	8.6	7	7.5	6.9	7.4	6.2
20. Long term unemployment rate (% labour force)	9.6	8.9	7.1	6.5	5.3	2.8	1.9	1	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	9.2	9.9	7.5	7	6.2	5	4	3.3	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.



## Key employment indicators Italy

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	:	:	56746	56836	56955	57054	57098	57189	57124	57184	57212	57236
2. Population aged 15-64	:	:	38907	38867	38864	38856	38802	38784	38787	38786	38782	38780
3. Total employment (000)	23032	22920	21993	22131	22215	22448	22686	23059	22649	22980	23278	23328
4. Population in employment aged 15-64	:	:	19697	19792	19838	20087	20354	20749	20297	20616	20987	21095
5. Employment rate (% pop. aged 15-64)	:	:	50.6	50.9	51	51.7	52.5	53.5	52.3	53.2	54.1	54.4
6. Employment rate (% pop. aged 15-24)	:	:	25.1	24.7	24.7	25.1	25.2	25.9	24.8	25.5	26.8	26.4
7. Employment rate (% pop. aged 25-54)	:	:	65.4	65.6	65.6	66.2	66.9	67.9	66.8	67.6	68.4	68.8
8. Employment rate (% pop. aged 55-64)	:	:	28.6	28.8	28.1	27.8	27.8	27.8	27	27.4	28.3	28.4
9. FTE employment rate (% pop. aged 15-64)	52.9	51.5	49.5	49.5	49.3	50.5	51	51.7	:	:	:	:
10. Self-employed (% total employment)	27.5	27.3	26.9	26.9	26.7	26.6	26.3	26.2	26.1	26.2	26.3	26.2
11. Part-time employment (% total employment)	6	6	6.3	6.5	6.8	7.3	7.9	8.4	8	8.8	8.5	8.5
12. Fixed term contracts (% total employment)	5.2	5.2	5.4	5.4	5.8	6.3	7	7.5	7	7.5	7.6	7.8
13. Employment in Services (% total employment)	61.1	61.8	63	63.8	64	64.3	64.9	65.5	65.6	65.8	65.4	65.4
14. Employment in Industry (% total employment)	31.8	31.3	31	30.5	30.4	30.4	30.1	29.7	29.7	29.5	29.7	29.8
15. Employment in Agriculture (% total employment)	7.1	6.9	6	5.7	5.6	5.3	5	4.8	4.7	4.7	4.9	4.8
16. Activity rate (% pop. aged 15-64)	:	:	57.4	57.7	57.9	58.7	59.3	59.9	59.1	59.7	60.3	60.5
17. Total unemployment (000)	2052	2084	2641	2663	2690	2746	2648	2466	2600	2487	2380	2397
18. Unemployment rate (% labour force 15+)	8.6	8.8	11.6	11.7	11.7	11.8	11.3	10.5	11.2	10.6	10	10
19. Youth unemployment rate (% labour force 15-24)	25.9	27	33.7	34	33.8	33.8	32.7	30.8	32.1	31.3	30	29.6
20. Long term unemployment rate (% labour force)	5.7	5.3	7.4	7.7	7.9	7.1	6.9	6.4	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	11.2	11.1	12.6	12.2	11.7	13	12.5	11.8	:	:	:	:
<b>Male</b>												
1. Total population (000)	:	:	27562	27603	27671	27727	27745	27796	27758	27795	27808	27823
2. Population aged 15-64	:	:	19382	19371	19389	19399	19375	19374	19368	19374	19376	19377
3. Total employment (000)	15052	14978	14298	14299	14309	14379	14427	14566	14372	14518	14695	14680
4. Population in employment aged 15-64	:	:	12781	12764	12749	12837	12917	13072	12850	12989	13209	13241
5. Employment rate (% pop. aged 15-64)	:	:	65.9	65.9	65.8	66.2	66.7	67.5	66.3	67	68.2	68.3
6. Employment rate (% pop. aged 15-24)	:	:	29.1	28.9	28.9	29.4	28.9	29.5	28.5	29	30.6	30.1
7. Employment rate (% pop. aged 25-54)	:	:	84.2	83.9	83.6	83.8	84.2	84.7	83.7	84.4	85.2	85.5
8. Employment rate (% pop. aged 55-64)	:	:	44.9	44.2	42.3	41.6	41.5	41.1	40.2	40.5	42.1	41.6
9. FTE employment rate (% pop. aged 15-64)	70.8	69	65.5	65.1	64.7	66.3	66.7	67	:	:	:	:
10. Self-employed (% total employment)	29.6	29.4	29.6	29.8	29.7	29.7	29.4	29.7	29.5	29.7	29.7	29.8
11. Part-time employment (% total employment)	2.8	2.8	2.9	3	3.1	3.4	3.5	3.7	3.5	3.9	3.7	3.8
12. Fixed term contracts (% total employment)	4.1	4.1	4.3	4.5	4.8	5.3	5.8	6.1	5.8	6.2	6.3	6.4
13. Employment in Services (% total employment)	55.3	56.1	57.2	57.7	58	58.1	58.2	58.8	58.9	58.9	58.7	58.7
14. Employment in Industry (% total employment)	37.7	37.2	36.7	36.3	36.1	36.3	36.4	36	35.8	35.9	36	36.1
15. Employment in Agriculture (% total employment)	6.9	6.7	6.1	6	5.9	5.6	5.4	5.2	5.2	5.2	5.3	5.2
16. Activity rate (% pop. aged 15-64)	:	:	72.5	72.5	72.4	72.9	73.2	73.5	73	73.2	73.9	74.1
17. Total unemployment (000)	932	962	1282	1296	1293	1313	1260	1162	1249	1166	1108	1123
18. Unemployment rate (% labour force 15+)	6.1	6.4	8.9	9	9	9.1	8.7	8	8.7	8.1	7.6	7.7
19. Youth unemployment rate (% labour force 15-24)	22.7	23.6	29.6	29.7	29.4	29.8	29.1	27.2	28.8	27.8	26.2	26.2
20. Long term unemployment rate (% labour force)	4	3.8	5.6	5.8	6.1	5.6	5.4	4.9	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	11	10.8	12.3	12	11.5	12.9	12.4	11.4	:	:	:	:
<b>Female</b>												
1. Total population (000)	:	:	29183	29233	29284	29327	29353	29393	29366	29389	29404	29413
2. Population aged 15-64	:	:	19525	19496	19475	19457	19428	19410	19419	19411	19406	19404
3. Total employment (000)	7981	7942	7695	7831	7906	8069	8259	8493	8277	8462	8583	8648
4. Population in employment aged 15-64	:	:	6916	7027	7089	7250	7437	7677	7447	7628	7778	7854
5. Employment rate (% pop. aged 15-64)	:	:	35.4	36	36.4	37.3	38.3	39.6	38.3	39.3	40.1	40.5
6. Employment rate (% pop. aged 15-24)	:	:	20.9	20.4	20.3	20.7	21.3	22.1	21.1	22	22.9	22.7
7. Employment rate (% pop. aged 25-54)	:	:	46.6	47.3	47.6	48.5	49.6	50.9	49.7	50.7	51.5	51.9
8. Employment rate (% pop. aged 55-64)	:	:	13.5	14.5	14.8	15	15	15.3	14.7	15.2	15.4	16
9. FTE employment rate (% pop. aged 15-64)	35.5	34.7	33.8	34.3	34.3	35	35.7	36.7	:	:	:	:
10. Self-employed (% total employment)	23.5	23.4	21.9	21.8	21.4	21.2	20.8	20.3	20.2	20.3	20.5	20.3
11. Part-time employment (% total employment)	11.8	11.8	12.7	12.9	13.4	14.3	15.6	16.5	15.6	17.4	16.6	16.4
12. Fixed term contracts (% total employment)	7.2	7.2	7.2	6.9	7.4	8.1	9.1	9.7	9	9.7	9.9	10.1
13. Employment in Services (% total employment)	71.6	72.2	73.6	74.7	74.7	75.1	76.4	76.8	76.9	77.3	76.6	76.5
14. Employment in Industry (% total employment)	20.9	20.5	20.5	20.1	20.2	20.1	19.4	19.2	19.3	18.8	19.3	19.3
15. Employment in Agriculture (% total employment)	7.5	7.2	5.9	5.3	5.1	4.7	4.2	4	3.8	3.9	4.2	4.2
16. Activity rate (% pop. aged 15-64)	:	:	42.3	43	43.5	44.6	45.5	46.3	45.3	46.2	46.7	47
17. Total unemployment (000)	1120	1122	1359	1367	1396	1433	1389	1304	1351	1320	1272	1274
18. Unemployment rate (% labour force 15+)	13	13.1	16.2	16.1	16.3	16.3	15.6	14.4	15.2	14.6	13.9	13.8
19. Youth unemployment rate (% labour force 15-24)	29.9	31.3	38.9	39.5	39.5	39	37.1	35.1	36.3	35.7	34.6	33.8
20. Long term unemployment rate (% labour force)	8.8	7.9	10.5	10.8	10.9	9.8	9.5	8.8	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	11.4	11.3	12.8	12.5	12	13.1	12.6	11.9	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators Luxembourg

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	384	384	404	411	416	420	425	*431	429	430	:	:
2. Population aged 15-64	265	266	275	278	280	282	285	*287	286	287	:	:
3. Total employment (000)	:	*190	214	220	227	237	249	*262	:	:	:	:
4. Population in employment aged 15-64	161	163	162	165	168	171	176	*181	179	180	:	:
5. Employment rate (% pop. aged 15-64)	60.8	61.4	58.7	59.2	59.9	60.5	61.7	*62.9	62.4	62.7	:	:
6. Employment rate (% pop. aged 15-24)	50.8	48.9	38.3	36.6	34.5	32.9	31.8	*31.9	31.8	31.9	:	:
7. Employment rate (% pop. aged 25-54)	73	73.9	72.2	73.3	74.4	75.1	76.9	*78.4	77.8	78.2	:	:
8. Employment rate (% pop. aged 55-64)	23.8	24.9	23.7	22.9	23.9	25.1	26.4	*27.4	27	27.2	:	:
9. FTE employment rate (% pop. aged 15-64)	58.6	59.6	56.6	57.4	58.3	58	59.1	60.4	:	:	:	:
10. Self-employed (% total employment)	:	*8.1	7.9	7.8	7.5	7.3	7	*6.8	:	:	:	:
11. Part-time employment (% total employment)	:	*6.5	8.5	8	8.2	9.1	9.8	*10.5	:	:	:	:
12. Fixed term contracts (% total employment)	:	*3.1	4.6	3.9	3.8	4.6	4.8	*4.9	:	:	:	:
13. Employment in Services (% total employment)	:	*69.0	70	70.9	71.9	72.7	73.7	*74.6	:	:	:	:
14. Employment in Industry (% total employment)	:	*28.7	27.6	26.8	25.9	25.2	24.4	*23.6	:	:	:	:
15. Employment in Agriculture (% total employment)	:	*2.3	2.4	2.3	2.2	2.1	1.9	*1.8	:	:	:	:
16. Activity rate (% pop. aged 15-64)	61.8	62.7	60.6	61.2	61.6	62.1	63.2	*64.4	63.9	64.2	:	:
17. Total unemployment (000)	3	4	5	5	5	5	4	4	5	4	4	5
18. Unemployment rate (% labour force 15+)	1.7	2.1	2.9	3	2.7	2.7	2.4	2.4	2.6	2.4	2.3	2.5
19. Youth unemployment rate (% labour force 15-24)	3.2	4	7.4	8.5	8.1	7.1	7.1	7.3	8	6.5	6.8	7.9
20. Long term unemployment rate (% labour force)	0.4	0.4	0.7	0.8	0.9	0.9	0.7	0.6	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	1.7	2	3.1	3.4	3.1	2.5	2.4	2.5	:	:	:	:
<b>Male</b>												
1. Total population (000)	188	189	199	203	206	208	210	*212	211	212	:	:
2. Population aged 15-64	135	135	140	140	141	142	144	*146	145	145	:	:
3. Total employment (000)	:	*121	140	142	145	149	158	*165	:	:	:	:
4. Population in employment aged 15-64	104	104	104	104	105	106	107	*109	109	109	:	:
5. Employment rate (% pop. aged 15-64)	77.1	76.5	74.4	74.3	74.3	74.5	74.5	*75.1	74.9	75	:	:
6. Employment rate (% pop. aged 15-24)	53.2	49.9	39.6	38.3	36.9	34.9	34.1	*35.5	34.9	35.3	:	:
7. Employment rate (% pop. aged 25-54)	94.2	93.7	92.2	92.1	92.1	92.8	92.8	*92.8	92.8	92.8	:	:
8. Employment rate (% pop. aged 55-64)	34.6	35.1	35.1	35.5	35.4	35.2	35.8	*38.2	37.2	37.9	:	:
9. FTE employment rate (% pop. aged 15-64)	77	76.3	74.7	74.6	75	74.9	74.7	75.9	:	:	:	:
10. Self-employed (% total employment)	:	*7.9	8.3	8.4	8.1	8	7.4	*7.7	:	:	:	:
11. Part-time employment (% total employment)	:	*1.0	1.4	1.1	1	1.5	1.5	*2.0	:	:	:	:
12. Fixed term contracts (% total employment)	:	*2.4	4.3	3.7	3.2	4.4	4.8	*4.0	:	:	:	:
13. Employment in Services (% total employment)	:	*57.4	59.6	60.2	60.8	62.4	63.2	*64.0	:	:	:	:
14. Employment in Industry (% total employment)	:	*39.9	37.8	37	36.4	35.2	34.8	*33.8	:	:	:	:
15. Employment in Agriculture (% total employment)	:	*2.7	2.6	2.8	2.8	2.4	2	*2.2	:	:	:	:
16. Activity rate (% pop. aged 15-64)	78	77.8	76.1	76.1	75.8	75.9	75.9	*76.6	76.2	76.4	:	:
17. Total unemployment (000)	1	2	2	2	2	2	2	2	2	2	2	2
18. Unemployment rate (% labour force 15+)	1.3	1.7	2.1	2.2	2	1.9	1.8	1.9	2	1.8	1.7	1.9
19. Youth unemployment rate (% labour force 15-24)	3.3	4.2	7	8.5	6.9	6.9	6.5	6.5	7.3	5.7	5.7	7.3
20. Long term unemployment rate (% labour force)	0.4	0.4	0.6	0.7	0.7	0.7	0.7	0.5	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	1.8	2.2	3	3.6	2.7	2.6	2.4	2.4	:	:	:	:
<b>Female</b>												
1. Total population (000)	195	194	204	208	210	212	214	*219	217	218	:	:
2. Population aged 15-64	131	131	136	138	139	140	141	*142	141	142	:	:
3. Total employment (000)	:	*69	74	78	82	88	91	*97	:	:	:	:
4. Population in employment aged 15-64	57	60	58	60	63	65	69	*71	70	71	:	:
5. Employment rate (% pop. aged 15-64)	44	45.7	42.6	43.8	45.3	46.2	48.6	*50.3	49.7	50	:	:
6. Employment rate (% pop. aged 15-24)	48.3	47.8	36.9	34.8	32.1	30.8	29.4	*28.2	28.6	28.3	:	:
7. Employment rate (% pop. aged 25-54)	50.8	53	51.4	53.9	56.1	56.9	60.5	*63.4	62.3	63	:	:
8. Employment rate (% pop. aged 55-64)	13.5	15	12.6	10.8	12.9	15.5	17.2	*16.8	17	16.8	:	:
9. FTE employment rate (% pop. aged 15-64)	39.8	42.4	38.1	39.9	41.3	41.2	43.5	44.6	:	:	:	:
10. Self-employed (% total employment)	:	*8.4	7.1	6.5	6.5	5.9	6.1	*5.3	:	:	:	:
11. Part-time employment (% total employment)	:	*16.2	21.8	20.5	21	22	24	*25.0	:	:	:	:
12. Fixed term contracts (% total employment)	:	*4.3	5.2	4.4	4.7	4.9	4.9	*6.8	:	:	:	:
13. Employment in Services (% total employment)	:	*88.8	89.5	90.2	90.8	90	91.4	*92.3	:	:	:	:
14. Employment in Industry (% total employment)	:	*9.4	8.6	8.4	7.8	8.4	7	*6.5	:	:	:	:
15. Employment in Agriculture (% total employment)	:	*1.8	2	1.4	1.3	1.6	1.6	*1.2	:	:	:	:
16. Activity rate (% pop. aged 15-64)	45	47.1	44.6	45.9	47.1	48.1	50.3	*51.9	51.3	51.7	:	:
17. Total unemployment (000)	1	2	3	3	3	3	2	2	3	2	2	2
18. Unemployment rate (% labour force 15+)	2.3	2.8	4.4	4.3	4	4	3.4	3.3	3.4	3.2	3.1	3.3
19. Youth unemployment rate (% labour force 15-24)	3.1	3.6	7.8	8.4	9.5	7.3	7.9	8.3	8.9	7.5	8.1	8.6
20. Long term unemployment rate (% labour force)	0.5	0.6	1	1.1	1.3	1.1	0.9	0.6	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	1.5	1.8	3.1	3.2	3.4	2.4	2.5	2.6	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators Netherlands

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	14743	14859	15192	15269	15359	15459	15567	*15683	15636	15667	:	:
2. Population aged 15-64	10249	10311	10481	10520	10562	10606	10659	*10722	10695	10711	:	:
3. Total employment (000)	6733	6891	7098	7310	7542	7766	7984	8182	8092	8178	8220	8236
4. Population in employment aged 15-64	6402	6560	6764	6937	7181	7398	7599	*7843	7743	7807	:	:
5. Employment rate (% pop. aged 15-64)	62.5	63.6	64.5	65.9	68	69.8	71.3	*73.2	72.4	72.9	:	:
6. Employment rate (% pop. aged 15-24)	54.2	55.5	54.4	54.8	57.8	60.9	63.8	*69.2	66.9	68.4	:	:
7. Employment rate (% pop. aged 25-54)	72.4	73.5	74.7	76.3	78.2	79.6	80.8	*81.8	81.4	81.7	:	:
8. Employment rate (% pop. aged 55-64)	28.5	28.7	29.1	30.3	31.8	33.6	35.8	*38.3	37.3	37.9	:	:
9. FTE employment rate (% pop. aged 15-64)	50	51.9	51.4	52.1	54.1	55.6	56.8	57.2	:	:	:	:
10. Self-employed (% total employment)	14.9	14.9	16.3	15.8	15.7	15.2	14.7	14.3	14.5	14.3	14.3	14.2
11. Part-time employment (% total employment)	33.1	34.6	37.5	38.1	38.2	39	39.8	41.1	40.8	41.2	41.2	41.2
12. Fixed term contracts (% total employment)	7	8.3	9.3	10	9.9	10.6	10.5	11.9	11.5	12	12	12
13. Employment in Services (% total employment)	72.3	73.3	74.7	74.8	75.2	75.8	76.3	76.7	76.7	76.6	76.6	76.7
14. Employment in Industry (% total employment)	23.3	22.7	21.4	21.2	20.9	20.6	20.3	20	20	20	20	19.9
15. Employment in Agriculture (% total employment)	4.4	4.1	3.9	4	3.9	3.6	3.4	3.4	3.3	3.4	3.4	3.4
16. Activity rate (% pop. aged 15-64)	67.1	67.5	69.4	70.3	71.8	72.8	73.9	*75.2	74.6	74.9	:	:
17. Total unemployment (000)	397	393	508	468	395	312	264	221	247	205	216	217
18. Unemployment rate (% labour force 15+)	5.8	5.6	6.9	6.3	5.2	4	3.3	2.7	3.1	2.5	2.7	2.7
19. Youth unemployment rate (% labour force 15-24)	8.3	8.5	12.1	11.7	9.5	8	7.1	5.1	5.4	4.7	5.4	4.7
20. Long term unemployment rate (% labour force)	2.5	2.6	3.3	3.1	2.5	1.7	1.2	0.8	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	5	5.2	7.6	7.3	6	5.3	4.8	3.6	:	:	:	:
<b>Male</b>												
1. Total population (000)	7301	7363	7545	7585	7630	7678	7730	*7791	7767	7783	:	:
2. Population aged 15-64	5177	5212	5315	5336	5356	5376	5400	*5431	5418	5426	:	:
3. Total employment (000)	4132	4164	4204	4303	4417	4515	4586	4678	4632	4674	4698	4708
4. Population in employment aged 15-64	3920	3954	3995	4070	4194	4288	4357	*4473	4425	4456	:	:
5. Employment rate (% pop. aged 15-64)	75.7	75.9	75.2	76.3	78.3	79.8	80.7	*82.4	81.7	82.1	:	:
6. Employment rate (% pop. aged 15-24)	54.8	55.6	54.9	55.4	59.2	62	64.2	*71.0	68.2	69.9	:	:
7. Employment rate (% pop. aged 25-54)	89.3	89.1	87.9	89	90.4	91.1	91.6	*92.3	92	92.2	:	:
8. Employment rate (% pop. aged 55-64)	42.4	41.9	40.1	41.3	43.8	46.9	49	*50.1	49.6	49.9	:	:
9. FTE employment rate (% pop. aged 15-64)	68.5	70.5	69	69.7	71.7	73.1	73.8	74.6	:	:	:	:
10. Self-employed (% total employment)	15.1	16.1	17.6	17.5	17.5	17	16.3	16	16.1	16	15.9	15.9
11. Part-time employment (% total employment)	15.6	15.4	16.8	17	17.3	18	18.1	19.2	18.9	19.3	19.3	19.3
12. Fixed term contracts (% total employment)	5.2	5.8	7.2	7.4	7.6	8.3	8.2	9.6	9.2	9.7	9.7	9.7
13. Employment in Services (% total employment)	62.6	63.8	65.1	65.1	65.6	66.6	67	67.4	67.5	67.4	67.4	67.5
14. Employment in Industry (% total employment)	32	31.1	29.9	29.8	29.6	29	28.8	28.5	28.5	28.5	28.5	28.4
15. Employment in Agriculture (% total employment)	5.3	5.1	5.1	5.1	4.9	4.4	4.2	4.1	4	4.1	4.1	4.1
16. Activity rate (% pop. aged 15-64)	79.9	79.4	79.9	80.3	81.7	82.4	82.8	*84.2	83.6	83.9	:	:
17. Total unemployment (000)	169	179	246	214	170	138	104	91	116	85	84	79
18. Unemployment rate (% labour force 15+)	4.1	4.3	5.8	4.9	3.9	3.1	2.3	2	2.5	1.9	1.8	1.7
19. Youth unemployment rate (% labour force 15-24)	7.5	8.5	11.3	11	8.2	7.8	5.1	3.8	5.3	3.5	3.9	2.5
20. Long term unemployment rate (% labour force)	2.0	2.1	3.0	2.7	1.9	1.4	0.9	0.7	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	4.5	5.2	7.2	7	5.3	5.3	3.5	3.5	:	:	:	:
<b>Female</b>												
1. Total population (000)	7442	7497	7647	7685	7729	7781	7837	*7891	7870	7884	:	:
2. Population aged 15-64	5072	5099	5166	5184	5206	5230	5259	*5290	5277	5285	:	:
3. Total employment (000)	2601	2727	2894	3007	3125	3250	3397	3503	3460	3504	3522	3528
4. Population in employment aged 15-64	2482	2606	2770	2866	2987	3110	3243	*3371	3318	3351	:	:
5. Employment rate (% pop. aged 15-64)	48.9	51.1	53.6	55.3	57.4	59.5	61.7	*63.7	62.9	63.4	:	:
6. Employment rate (% pop. aged 15-24)	53.7	55.5	53.9	54.2	56.3	59.8	63.3	*67.3	65.7	66.7	:	:
7. Employment rate (% pop. aged 25-54)	54.7	57.3	61	63.1	65.6	67.7	69.7	*71.1	70.5	70.9	:	:
8. Employment rate (% pop. aged 55-64)	15.2	16.1	18.3	19.5	19.8	20.3	22.7	*26.5	24.9	25.8	:	:
9. FTE employment rate (% pop. aged 15-64)	31.6	33.3	33.8	34.5	36.6	38.3	40	40.1	:	:	:	:
10. Self-employed (% total employment)	14.6	13.1	14.4	13.4	13.3	12.8	12.5	12.1	12.3	12.1	12	12
11. Part-time employment (% total employment)	60.9	64	67.6	68.3	67.9	68.1	69	70.5	70.1	70.6	70.6	70.6
12. Fixed term contracts (% total employment)	9.9	12.3	12.5	13.6	13.2	13.9	13.7	15	14.6	15.1	15.1	15.1
13. Employment in Services (% total employment)	87.3	87.8	88.8	89	88.9	88.7	88.9	89	89.1	89	88.9	89
14. Employment in Industry (% total employment)	9.8	9.7	8.9	8.7	8.6	8.9	8.6	8.6	8.6	8.6	8.6	8.6
15. Employment in Agriculture (% total employment)	2.9	2.5	2.3	2.4	2.5	2.5	2.4	2.4	2.3	2.4	2.5	2.4
16. Activity rate (% pop. aged 15-64)	54	55.4	58.6	60	61.6	63	64.6	*65.9	65.4	65.7	:	:
17. Total unemployment (000)	228	214	262	254	225	174	160	130	131	119	132	139
18. Unemployment rate (% labour force 15+)	8.4	7.6	8.6	8.1	7	5.3	4.7	3.7	3.8	3.4	3.8	4
19. Youth unemployment rate (% labour force 15-24)	9.2	8.4	12.9	12.4	10.9	8.1	9.2	6.4	5.6	6	7	7
20. Long term unemployment rate (% labour force)	3.2	3.3	3.7	3.8	3.3	2.1	1.6	1.1	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	5.4	5.1	8	7.6	6.8	5.3	6.2	4.6	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators Austria

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	:	:	8045	8058	8070	8077	8083	8103	8103	8103	8103	8103
2. Population aged 15-64	:	:	5415	5425	5438	5447	5458	5483	5484	5483	5483	5483
3. Total employment (000)	3950	3959	3928	3906	3926	3956	4011	4046	3981	4048	4118	4035
4. Population in employment aged 15-64	:	:	3715	3673	3681	3690	3732	3743	3713	3742	3765	3753
5. Employment rate (% pop. aged 15-64)	:	:	68.6	67.7	67.7	67.8	68.4	68.3	67.7	68.2	68.7	68.4
6. Employment rate (% pop. aged 15-24)	:	:	57.4	55.7	54.9	54.5	54.2	53.1	53.2	52	54.4	52.7
7. Employment rate (% pop. aged 25-54)	:	:	80.4	80	80.6	80.8	81.6	82.2	81.3	82.4	82.7	82.6
8. Employment rate (% pop. aged 55-64)	:	:	30.2	29.1	28.5	29	30.1	28.9	29.3	29.3	28.1	28.8
9. FTE employment rate (% pop. aged 15-64)	:	:	65.8	63.6	63.5	63.8	63.9	63.5	:	:	:	:
10. Self-employed (% total employment)	22.3	21.8	20.4	20	19.7	19.5	19.2	18.9	19.2	18.9	18.8	18.8
11. Part-time employment (% total employment)	14	14	14.1	14	14.7	15.7	16.4	16.3	17	16.2	15.8	16.4
12. Fixed term contracts (% total employment)	6.2	6.3	6.4	6.3	6.3	6.3	6.4	6.4	6.4	6.4	6.4	6.4
13. Employment in Services** (% total employment)	:	:	:	:	:	:	:	:	:	:	:	:
14. Employment in Industry** (% total employment)	:	:	:	:	:	:	:	:	:	:	:	:
15. Employment in Agriculture** (% total employment)	:	:	:	:	:	:	:	:	:	:	:	:
16. Activity rate (% pop. aged 15-64)	:	:	71.2	70.7	70.7	70.8	71.1	70.8	71.1	70.5	70.9	70.8
17. Total unemployment (000)	:	:	149	165	167	171	152	142	184	135	114	135
18. Unemployment rate (% labour force 15+)	:	:	3.9	4.4	4.4	4.5	3.9	3.7	4.7	3.5	3	3.5
19. Youth unemployment rate (% labour force 15-24)	:	:	5.5	6.2	6.7	6.4	5.3	5.2	6.4	4.8	4.3	5.4
20. Long term unemployment rate (% labour force)	:	:	1	1.1	1.2	1.3	1.1	1	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	:	3.4	3.7	3.9	3.7	3.1	2.9	:	:	:	:
<b>Male</b>												
1. Total population (000)	:	:	3901	3909	3916	3919	3923	3935	3935	3935	3935	3935
2. Population aged 15-64	:	:	2737	2740	2745	2746	2749	2761	2761	2761	2761	2761
3. Total employment (000)	2244	2249	2242	2224	2225	2237	2262	2279	2228	2291	2327	2271
4. Population in employment aged 15-64	:	:	2138	2109	2108	2109	2122	2125	2094	2134	2144	2129
5. Employment rate (% pop. aged 15-64)	:	:	78.1	77	76.8	76.8	77.2	77	75.8	77.3	77.7	77.1
6. Employment rate (% pop. aged 15-24)	:	:	61.5	59.9	59.3	58.6	59.3	58.3	57.8	57.4	59.8	58.3
7. Employment rate (% pop. aged 25-54)	:	:	90.4	89.6	89.9	90	90.1	90.6	89	91.1	91.4	90.9
8. Employment rate (% pop. aged 55-64)	:	:	42.7	41.6	40.6	40.9	43	41.2	41.3	42.1	40.7	40.7
9. FTE employment rate (% pop. aged 15-64)	:	:	78.3	76	75.9	76.4	76.9	76.2	:	:	:	:
10. Self-employed (% total employment)	22.4	21.9	20.7	20.2	20.3	20.1	20.1	19.9	20.2	20.1	19.6	19.9
11. Part-time employment (% total employment)	4.5	4.5	4.1	3.7	4.1	4.3	4.2	4.1	4.3	3.9	3.8	4.2
12. Fixed term contracts (% total employment)	6.3	6.3	6.4	6.2	6	6.4	6.3	6.1	6	6.1	6.1	6.1
13. Employment in Services** (% total employment)	:	:	:	:	:	:	:	:	:	:	:	:
14. Employment in Industry** (% total employment)	:	:	:	:	:	:	:	:	:	:	:	:
15. Employment in Agriculture** (% total employment)	:	:	:	:	:	:	:	:	:	:	:	:
16. Activity rate (% pop. aged 15-64)	:	:	80.7	80.1	80	80	80.2	79.6	79.7	79.5	79.8	79.6
17. Total unemployment (000)	:	:	66	78	78	81	72	69	105	63	49	60
18. Unemployment rate (% labour force 15+)	:	:	3.1	3.7	3.7	3.8	3.4	3.2	4.8	3	2.3	2.8
19. Youth unemployment rate (% labour force 15-24)	:	:	4.4	5.2	5.6	5	4.3	4.8	7	4.2	3.4	4.5
20. Long term unemployment rate (% labour force)	:	:	0.8	1	1.1	1.1	1	1	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	:	2.8	3.2	3.4	3	2.7	2.8	:	:	:	:
<b>Female</b>												
1. Total population (000)	:	:	4144	4149	4154	4158	4160	4168	4168	4168	4168	4168
2. Population aged 15-64	:	:	2679	2685	2693	2701	2708	2722	2722	2722	2722	2722
3. Total employment (000)	1706	1710	1685	1681	1700	1717	1749	1766	1753	1756	1790	1764
4. Population in employment aged 15-64	:	:	1577	1564	1573	1582	1610	1618	1619	1608	1621	1624
5. Employment rate (% pop. aged 15-64)	:	:	58.9	58.2	58.4	58.6	59.4	59.4	59.5	59.1	59.5	59.7
6. Employment rate (% pop. aged 15-24)	:	:	53.1	51.4	50.4	50.2	48.8	47.6	48.3	46.4	48.9	46.8
7. Employment rate (% pop. aged 25-54)	:	:	70	70.2	70.9	71.2	72.9	73.6	73.4	73.4	73.8	74.1
8. Employment rate (% pop. aged 55-64)	:	:	18.5	17.4	17.2	17.7	17.9	17.2	17.8	17.2	16.1	17.6
9. FTE employment rate (% pop. aged 15-64)	:	:	51.2	51.3	51.3	51	51	:	:	:	:	:
10. Self-employed (% total employment)	22.2	21.7	20.1	19.8	19.1	18.7	18.2	17.6	17.9	17.3	17.8	17.5
11. Part-time employment (% total employment)	26.5	26.5	27.4	27.6	28.5	30.4	32.2	32.2	33	32.2	31.4	32.1
12. Fixed term contracts (% total employment)	6.2	6.2	6.3	6.5	6.6	6.3	6.6	6.9	6.9	6.9	6.9	6.9
13. Employment in Services** (% total employment)	:	:	:	:	:	:	:	:	:	:	:	:
14. Employment in Industry** (% total employment)	:	:	:	:	:	:	:	:	:	:	:	:
15. Employment in Agriculture** (% total employment)	:	:	:	:	:	:	:	:	:	:	:	:
16. Activity rate (% pop. aged 15-64)	:	:	61.6	61	61.3	61.5	61.8	61.8	62.4	61.3	61.8	61.8
17. Total unemployment (000)	:	:	83	87	89	91	80	73	79	72	66	76
18. Unemployment rate (% labour force 15+)	:	:	5	5.2	5.4	5.4	4.7	4.3	4.6	4.3	3.9	4.5
19. Youth unemployment rate (% labour force 15-24)	:	:	6.7	7.3	7.9	7.9	6.5	5.7	5.6	5.4	5.3	6.4
20. Long term unemployment rate (% labour force)	:	:	1.3	1.3	1.4	1.6	1.3	1	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	:	:	4	4.2	4.4	4.4	3.5	3	:	:	:	:

Source: Eurostat

Note: \*\* In the case of Austria, employment in agriculture - as derived from national accounts - includes a significant number of persons with occasional or small jobs. When calculated on the basis of the LFS and limited to the main job, the share of agriculture in employment is found to be significantly lower (6% in 2000) compared to 64% in services and 30% in industry. Due to these substantial differences in the estimates of sectoral employment shares, no data can be provided. Q1-Q4 indicate the quarterly estimates for the year 2000.



## Key employment indicators Portugal

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	9895	9870	9897	9920	9936	9968	9988	10008	9994	10000	10015	10024
2. Population aged 15-64	6568	6717	6821	6791	6737	6752	6781	6798	6787	6793	6803	6809
3. Total employment (000)	4691	4647	4515	4538	4615	4739	4818	4913	4881	4903	4934	4935
4. Population in employment aged 15-64	4470	4459	4274	4265	4317	4498	4575	4643	4617	4632	4661	4663
5. Employment rate (% pop. aged 15-64)	68.1	66.4	62.7	62.8	64.1	66.6	67.5	68.3	68	68.2	68.5	68.5
6. Employment rate (% pop. aged 15-24)	52.4	47.5	36.9	36.7	38.7	43.6	44	43.5	43.7	42.7	44.1	43.4
7. Employment rate (% pop. aged 25-54)	79.5	79.1	78	77.9	78.6	80.2	80.8	81.9	81.4	81.9	82	82.4
8. Employment rate (% pop. aged 55-64)	49.3	47	45	46.3	47.3	50	50.8	51	51.1	51.6	51	50.4
9. FTE employment rate (% pop. aged 15-64)	65.5	65.5	61.9	61.8	62.5	64.8	65.7	66.6	:	:	:	:
10. Self-employed (% total employment)	26.5	26.9	29.2	29.6	29.4	29.4	28.4	27.5	27.6	27.5	27.4	27.4
11. Part-time employment (% total employment)	7.9	7.6	8.1	9.3	10.7	10.9	10.9	10.8	10.9	10.7	10.7	10.7
12. Fixed term contracts (% total employment)	10.8	10	8.7	9.7	11.1	12.4	13.6	14.8	14.4	14.8	15.1	14.9
13. Employment in Services (% total employment)	53.5	54.9	55.9	56.3	55.8	56	57.7	58	58.3	58.1	57.9	57.5
14. Employment in Industry (% total employment)	34	33.2	32.2	31.5	32	32.1	31.3	31.2	31.1	31.1	31.2	31.5
15. Employment in Agriculture (% total employment)	12.5	11.9	11.9	12.2	12.2	12	11	10.8	10.6	10.8	11	11
16. Activity rate (% pop. aged 15-64)	71.1	69.3	67.8	68	69	70.3	70.7	71.3	71.3	71	71.6	71.3
17. Total unemployment (000)	201	202	346	349	331	258	228	215	229	201	211	220
18. Unemployment rate (% labour force 15+)	4.2	4.3	7.3	7.3	6.8	5.2	4.5	4.2	4.5	3.9	4.1	4.3
19. Youth unemployment rate (% labour force 15-24)	9.5	10.4	16.6	16.8	15.1	10.6	9	9	9.6	8.5	8.6	9.2
20. Long term unemployment rate (% labour force)	1.6	1.4	3.7	4	3.7	2.2	1.7	1.7	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	5.1	5.3	7.1	7.2	6.8	5	4.3	4.2	:	:	:	:
<b>Male</b>												
1. Total population (000)	4777	4734	4776	4791	4763	4800	4809	4819	4812	4815	4823	4827
2. Population aged 15-64	3164	3208	3289	3269	3251	3298	3317	3329	3324	3326	3332	3334
3. Total employment (000)	2679	2635	2529	2537	2569	2628	2650	2697	2680	2689	2708	2710
4. Population in employment aged 15-64	2533	2494	2356	2338	2359	2496	2515	2550	2535	2540	2560	2565
5. Employment rate (% pop. aged 15-64)	80	77.7	71.7	71.5	72.6	75.7	75.8	76.6	76.3	76.4	76.8	76.9
6. Employment rate (% pop. aged 15-24)	59.6	54	41.8	42	44.3	48.3	49.1	49.8	49.9	49	50.5	49.7
7. Employment rate (% pop. aged 25-54)	92.3	91.5	88.3	87.6	87.5	90	89.8	90.3	89.8	90.2	90.3	90.9
8. Employment rate (% pop. aged 55-64)	66.4	62.1	58.1	58.9	58.8	63.4	62.1	62.5	62.1	62.4	63.1	62.3
9. FTE employment rate (% pop. aged 15-64)	78.7	78.3	72.2	72.1	72.8	75.8	75.8	76.6	:	:	:	:
10. Self-employed (% total employment)	27.7	28.4	31.5	31.7	30.9	30.4	29.5	28.5	28.8	28.7	28.4	28.3
11. Part-time employment (% total employment)	4.1	4.1	4.1	5.1	5.8	6	6.2	6.2	6.1	6.1	6.3	6.3
12. Fixed term contracts (% total employment)	9.3	8.4	7.6	8.9	10.1	11.4	12.4	13.4	13.1	13.2	13.7	13.7
13. Employment in Services (% total employment)	48.3	49.3	49.1	49.7	48.4	48.3	49.9	49.6	49.8	49.6	49.6	49.3
14. Employment in Industry (% total employment)	39.9	39.4	39.3	38.6	40.3	40.7	40.2	40.6	40.6	40.6	40.4	40.7
15. Employment in Agriculture (% total employment)	11.8	11.4	11.6	11.8	11.3	11	9.9	9.9	9.6	9.8	10	10.1
16. Activity rate (% pop. aged 15-64)	82.3	80.5	76.7	76.7	77.5	79	79	79.2	79.3	78.8	79.4	79.4
17. Total unemployment (000)	76	94	170	170	162	113	109	94	105	87	90	93
18. Unemployment rate (% labour force 15+)	2.8	3.6	6.5	6.5	6.1	4.1	3.9	3.4	3.8	3.1	3.2	3.3
19. Youth unemployment rate (% labour force 15-24)	6.6	8.9	15.1	14.3	12	8.3	7.2	7.1	7.4	5.8	6.8	8.1
20. Long term unemployment rate (% labour force)	0.9	1	3.2	3.4	3.1	1.7	1.5	1.4	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	3.9	5	7.1	6.8	5.9	4.3	3.7	3.5	:	:	:	:
<b>Female</b>												
1. Total population (000)	5117	5136	5121	5128	5173	5168	5179	5189	5182	5185	5193	5197
2. Population aged 15-64	3407	3512	3534	3524	3487	3454	3464	3469	3463	3466	3472	3475
3. Total employment (000)	2014	2013	1987	2002	2046	2111	2168	2216	2201	2213	2225	2225
4. Population in employment aged 15-64	1938	1967	1917	1927	1957	2002	2059	2093	2082	2092	2101	2099
5. Employment rate (% pop. aged 15-64)	56.9	56	54.3	54.7	56.1	58	59.4	60.3	60.1	60.3	60.5	60.4
6. Employment rate (% pop. aged 15-24)	44.7	40.8	31.8	30.9	32.9	38.8	38.7	37.1	37.5	36.2	37.6	36.9
7. Employment rate (% pop. aged 25-54)	67.9	67.8	68.8	69.2	70.3	70.7	72.1	73.9	73.3	73.8	74.1	74.3
8. Employment rate (% pop. aged 55-64)	34.6	34	33.3	35.3	37.2	38.4	41.1	41.1	41.6	42.3	40.5	40
9. FTE employment rate (% pop. aged 15-64)	53.5	54	52.3	52.2	53.1	54.5	56.1	57.1	:	:	:	:
10. Self-employed (% total employment)	25	24.9	26.3	27	27.6	28.1	27.2	26.2	26.1	26	26.1	26.4
11. Part-time employment (% total employment)	13	12.3	13.1	14.7	16.8	17.1	16.7	16.3	16.8	16.4	16.1	16
12. Fixed term contracts (% total employment)	12.9	12.2	10.2	10.7	12.3	13.7	15.1	16.5	15.9	16.8	16.7	16.4
13. Employment in Services (% total employment)	60.1	62	64.1	64.4	64.9	65.2	66.9	67.8	68.3	68.1	67.5	67.2
14. Employment in Industry (% total employment)	26.5	25.4	23.6	22.8	21.8	21.7	20.9	20.3	20	19.9	20.4	20.7
15. Employment in Agriculture (% total employment)	13.4	12.6	12.3	12.8	13.2	13.1	12.2	12	11.8	12	12.1	12.1
16. Activity rate (% pop. aged 15-64)	60.6	59.1	59.4	60	61.1	62	62.8	63.7	63.7	63.5	64	63.6
17. Total unemployment (000)	125	108	176	179	169	145	120	121	124	114	121	126
18. Unemployment rate (% labour force 15+)	5.9	5.2	8.2	8.3	7.7	6.4	5.2	5.2	5.3	4.9	5.2	5.4
19. Youth unemployment rate (% labour force 15-24)	12.8	12.2	18.5	19.9	19	13.1	11.1	11.5	12.3	11.9	10.9	10.7
20. Long term unemployment rate (% labour force)	2.4	1.9	4.4	4.6	4.3	2.8	2.0	2.0	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	6.2	5.6	7.2	7.7	7.7	5.8	4.9	4.8	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators Finland

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	5009	5037	5105	5123	5138	5153	5164	5174	5171	5173	5175	5176
2. Population aged 15-64	3367	3383	3409	3416	3426	3441	3455	3465	3462	3464	3466	3467
3. Total employment (000)	2337	2168	2042	2072	2139	2184	2230	2264	2199	2298	2321	2239
4. Population in employment aged 15-64	2382	2216	2112	2144	2178	2231	2302	2339	2248	2370	2413	2324
5. Employment rate (% pop. aged 15-64)	70.7	65.5	62	62.8	63.6	64.8	66.6	67.5	64.9	68.4	69.6	67
6. Employment rate (% pop. aged 15-24)	44.7	35.9	29.6	30.3	33.7	35.5	39.2	40.2	33.7	44.4	47.1	35.9
7. Employment rate (% pop. aged 25-54)	85	80.2	77.1	77.9	78.3	79.8	81	81.5	80	81.8	82.5	81.7
8. Employment rate (% pop. aged 55-64)	41.3	38	35.2	36.2	36.3	36.9	39.8	42.7	40.4	41.9	43.5	44.9
9. FTE employment rate (% pop. aged 15-64)	:	:	56.5	57.5	59.5	60.6	64.2	64.9	:	:	:	:
10. Self-employed (% total employment)	12.9	13.2	12.8	12.8	12.6	11.8	11.8	11.5	11.5	11.4	11.7	11.6
11. Part-time employment (% total employment)	10.1	10.4	11.7	11.5	11	11.4	12.1	12.3	12.7	12.2	11.4	12.8
12. Fixed term contracts (% total employment)	15.9	15.8	15.9	15.9	15.9	15.4	14.8	14.4	12.4	15.6	16.5	13
13. Employment in Services (% total employment)	62.3	63.5	64.7	65.3	65.4	65.5	65.6	65.9	66.8	65.4	65	66.3
14. Employment in Industry (% total employment)	28.7	27.5	27.2	27.1	27.5	27.9	27.9	27.8	27.1	28.2	28.4	27.5
15. Employment in Agriculture (% total employment)	9	9	8.1	7.6	7.2	6.6	6.5	6.3	6.1	6.4	6.6	6.2
16. Activity rate (% pop. aged 15-64)	75.8	74.2	73.2	73.4	72.8	73.1	74.2	74.8	72.9	76.9	76	73.4
17. Total unemployment (000)	168	292	382	363	314	285	261	253	277	295	221	220
18. Unemployment rate (% labour force 15+)	6.6	11.7	15.4	14.6	12.7	11.4	10.2	9.8	11	11.1	8.4	8.6
19. Youth unemployment rate (% labour force 15-24)	16.3	26.4	29.7	28	25.2	23.5	21.4	21.4	24.7	28.3	14.1	17.2
20. Long term unemployment rate (% labour force)	2.5	4.3	5.6	5.1	4	3.9	2.9	2.8	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	9.6	13.9	13.2	12	11.5	11.1	10.8	11.2	:	:	:	:
<b>Male</b>												
1. Total population (000)	2432	2448	2486	2495	2505	2513	2519	2524	2522	2523	2524	2525
2. Population aged 15-64	1696	1704	1720	1724	1731	1739	1746	1751	1749	1751	1751	1751
3. Total employment (000)	1204	1111	1068	1089	1125	1154	1171	1190	1149	1208	1226	1178
4. Population in employment aged 15-64	1238	1146	1115	1137	1155	1187	1216	1235	1181	1251	1282	1227
5. Employment rate (% pop. aged 15-64)	73	67.2	64.8	66	66.7	68.3	69.6	70.6	67.5	71.5	73.2	70.1
6. Employment rate (% pop. aged 15-24)	43.8	34.6	30.7	31.2	34.8	36.9	40.1	40.6	32.8	45.2	48	36.3
7. Employment rate (% pop. aged 25-54)	87.7	82.5	80.5	81.7	81.9	83.8	84.8	85.5	83.6	85.8	87	85.6
8. Employment rate (% pop. aged 55-64)	44.6	40.1	36.3	38.6	39	39.4	41.2	44.5	42.4	43	45.8	46.8
9. FTE employment rate (% pop. aged 15-64)	:	:	59.1	60.5	63.5	64.8	68.4	69.3	:	:	:	:
10. Self-employed (% total employment)	16.5	17.3	16.7	16.5	16.3	15	15.3	15	15.1	15.1	15	14.9
11. Part-time employment (% total employment)	6.7	7.3	8.2	8	7.1	7.4	7.7	8	8.4	8	7.2	8.4
12. Fixed term contracts (% total employment)	13	12.8	12.9	13	13	12.3	11.7	10.9	8.6	12.3	13.1	9.6
13. Employment in Services (% total employment)	48.2	49.5	50.6	51.3	51.1	51.6	51.5	51.6	52.4	51	50.9	52
14. Employment in Industry (% total employment)	40.6	39	39.1	39.1	39.7	40.1	40.1	40.1	39.3	40.5	40.7	39.9
15. Employment in Agriculture (% total employment)	11.2	11.5	10.3	9.6	9.2	8.3	8.4	8.3	8.3	8.5	8.4	8.1
16. Activity rate (% pop. aged 15-64)	79.3	77.7	76.6	76.8	76	76.5	77.1	77.6	75.5	79.6	78.9	76.1
17. Total unemployment (000)	106	178	204	186	160	143	130	122	140	143	100	106
18. Unemployment rate (% labour force 15+)	8	13.6	15.7	14.3	12.3	10.9	9.8	9.1	10.7	10.3	7.3	8
19. Youth unemployment rate (% labour force 15-24)	19	30.1	30.7	29.5	25.4	22.8	20.8	21.1	26.2	27.3	13.2	17.2
20. Long term unemployment rate (% labour force)	3.3	5.7	6.4	5.6	4.2	4.2	3.1	2.8	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	11.7	16.7	13.7	12.4	11.7	11.3	10.9	10.9	:	:	:	:
<b>Female</b>												
1. Total population (000)	2577	2590	2619	2627	2634	2640	2645	2650	2649	2650	2650	2651
2. Population aged 15-64	1671	1679	1689	1691	1695	1702	1709	1714	1712	1714	1715	1715
3. Total employment (000)	1134	1058	975	983	1014	1030	1059	1074	1050	1090	1095	1061
4. Population in employment aged 15-64	1144	1071	997	1007	1023	1044	1086	1103	1067	1118	1131	1097
5. Employment rate (% pop. aged 15-64)	68.4	63.8	59.1	59.5	60.4	61.3	63.5	64.4	62.3	65.3	66	63.9
6. Employment rate (% pop. aged 15-24)	45.8	37.2	28.3	29.3	32.6	34	38.2	39.9	34.5	43.6	46.1	35.4
7. Employment rate (% pop. aged 25-54)	82.3	77.9	73.5	74	74.6	75.7	77.1	77.4	76.3	77.7	77.9	77.7
8. Employment rate (% pop. aged 55-64)	38.3	36	34.1	33.9	33.8	34.6	38.4	41	38.6	41	41.3	43
9. FTE employment rate (% pop. aged 15-64)	:	:	53.8	54.3	55.5	56.4	60.2	60.5	:	:	:	:
10. Self-employed (% total employment)	9.1	8.9	8.6	8.7	8.7	8.2	8.1	7.7	7.6	7.4	8	7.9
11. Part-time employment (% total employment)	13.6	13.7	15.4	15.3	15.3	15.9	16.9	17	17.5	16.9	16	17.7
12. Fixed term contracts (% total employment)	19.1	19.1	19.2	19.1	19.1	18.8	18.2	18.2	16.3	19.3	20.3	16.8
13. Employment in Services (% total employment)	77.3	78.3	80.1	80.8	81.2	81.1	81.3	81.9	82.6	81.5	81	82.4
14. Employment in Industry (% total employment)	16	15.4	14.2	13.8	13.9	14.3	14.4	14.1	13.7	14.4	14.5	13.6
15. Employment in Agriculture (% total employment)	6.7	6.3	5.7	5.3	4.9	4.6	4.3	4.1	3.6	4	4.6	4
16. Activity rate (% pop. aged 15-64)	72.2	70.6	69.6	69.9	69.5	69.7	71.2	72	70.3	74.1	73	70.6
17. Total unemployment (000)	62	114	178	176	154	142	131	131	137	152	121	114
18. Unemployment rate (% labour force 15+)	5.1	9.6	15.1	14.9	13	12	10.7	10.6	11.3	11.9	9.6	9.4
19. Youth unemployment rate (% labour force 15-24)	13.4	22.5	28.6	26.3	25	24.3	22.1	21.6	23.3	29.2	15	17.3
20. Long term unemployment rate (% labour force)	1.7	3	4.7	4.4	3.8	3.5	2.7	2.7	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	7.4	10.9	12.6	11.6	11.3	10.9	10.7	11.4	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.



## Key employment indicators Sweden

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	8617	8668	8830	8846	8851	8856	8861	8872	8866	8870	8873	8878
2. Population aged 15-64	5529	5548	5625	5639	5649	5663	5679	5700	5690	5697	5703	5711
3. Total employment (000)	4485	4294	4088	4065	4022	4071	4166	4271	4172	4239	4351	4323
4. Population in employment aged 15-64	4396	4209	3986	3963	3922	3979	4068	4159	4046	4178	4218	4191
5. Employment rate (% pop. aged 15-64)	79.5	75.9	70.9	70.3	69.4	70.3	71.6	73	71.1	73.3	74	73.4
6. Employment rate (% pop. aged 15-24)	55.1	47.5	38.4	36.5	35.9	37.7	39.6	41.6	36.6	43.4	45.8	40.7
7. Employment rate (% pop. aged 25-54)	89.9	86.9	82.6	81.8	80.6	81.3	82.6	83.8	82.5	84	84.2	84.6
8. Employment rate (% pop. aged 55-64)	69.3	67	61.9	63.4	62.7	63	64	65.1	64.6	64.8	65.3	65.8
9. FTE employment rate (% pop. aged 15-64)	:	:	66.6	62.8	61.9	62.4	63.8	65.1	:	:	:	:
10. Self-employed (% total employment)	4.6	5	5.6	5.5	5.6	5.5	5.6	5.6	5.6	5.4	5.7	5.8
11. Part-time employment (% total employment)	24.2	24.8	25.2	24.6	24.4	23.8	23.7	22.6	23.4	22.8	21.8	22.6
12. Fixed term contracts (% total employment)	7.7	8.3	11	10.8	11.3	12	12.6	13.1	11.9	13.9	14	12.6
13. Employment in Services (% total employment)	70.5	72.1	72.4	72.6	72.8	72.8	73	73.2	73.1	72.9	73.3	73.7
14. Employment in Industry (% total employment)	26.1	24.4	24.4	24.4	24.3	24.3	24.2	24.1	24	24.5	24.1	23.8
15. Employment in Agriculture (% total employment)	3.4	3.4	3.1	3	2.9	2.8	2.8	2.7	2.9	2.6	2.6	2.6
16. Activity rate (% pop. aged 15-64)	82.2	80.6	78.1	78.1	77.3	76.8	77.1	77.5	76.2	78	78.4	77.3
17. Total unemployment (000)	143	252	391	426	437	368	319	265	298	271	259	229
18. Unemployment rate (% labour force 15+)	3.1	5.6	8.8	9.6	9.9	8.3	7.2	5.9	6.8	6	5.7	5.1
19. Youth unemployment rate (% labour force 15-24)	7.6	13.2	19.1	20.5	20.6	16.6	13.6	11.3	13.1	12.5	9.7	10
20. Long term unemployment rate (% labour force)	0.6	1.1	2	2.9	3.4	2.9	2.1	1.3	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	5.2	8.1	9.7	9.5	9.3	7.6	6.6	5.5	:	:	:	:
<b>Male</b>												
1. Total population (000)	4258	4283	4363	4371	4374	4377	4380	4385	4382	4384	4386	4389
2. Population aged 15-64	2807	2817	2857	2864	2870	2877	2886	2896	2891	2894	2897	2902
3. Total employment (000)	2318	2202	2107	2107	2104	2149	2182	2229	2171	2209	2275	2261
4. Population in employment aged 15-64	2278	2164	2061	2058	2042	2078	2121	2167	2102	2174	2203	2189
5. Employment rate (% pop. aged 15-64)	81.2	76.8	72.1	71.8	71.1	72.2	73.5	74.8	72.7	75.1	76	75.4
6. Employment rate (% pop. aged 15-24)	54.8	45.9	37.9	36.9	36.5	38.4	40.4	42.2	37.5	43.8	46.2	41.3
7. Employment rate (% pop. aged 25-54)	91.5	87.9	84	83.4	82.6	83.4	84.5	85.8	84	85.9	86.5	86.9
8. Employment rate (% pop. aged 55-64)	73.6	70.6	64.4	66.1	64.7	65.8	67.1	67.8	67	67.4	68.2	68.4
9. FTE employment rate (% pop. aged 15-64)	:	:	72.7	67.9	67.3	68.5	69.3	70	:	:	:	:
10. Self-employed (% total employment)	6.7	7.4	8.1	8	8	7.8	8.1	8.2	8.3	7.9	8.3	8.3
11. Part-time employment (% total employment)	7.3	8.1	9	9.1	9.2	9.1	9.8	10.6	10.7	10.7	10	11
12. Fixed term contracts (% total employment)	5.6	6.2	9.1	8.7	9	9.5	9.9	10.6	9.4	11.4	11.4	10.2
13. Employment in Services (% total employment)	55.6	57.7	58.3	58.6	59.1	59.8	59.6	60	59.9	59.7	60.1	60.5
14. Employment in Industry (% total employment)	39.7	37.6	37.2	37	36.6	36.1	36.2	36	35.8	36.5	36.1	35.7
15. Employment in Agriculture (% total employment)	4.7	4.7	4.5	4.4	4.3	4.2	4.1	3.9	4.3	3.8	3.8	3.8
16. Activity rate (% pop. aged 15-64)	84.2	82.5	80.2	80.3	79.6	79.3	79.5	79.8	78.5	80.3	80.8	79.7
17. Total unemployment (000)	83	156	225	236	238	199	169	142	165	146	136	122
18. Unemployment rate (% labour force 15+)	3.4	6.6	9.7	10.1	10.2	8.6	7.2	6	7.1	6.2	5.7	5.2
19. Youth unemployment rate (% labour force 15-24)	8.3	15.7	20.4	21.3	21.1	16.8	13.1	10.7	12.2	12	10	8.8
20. Long term unemployment rate (% labour force)	0.8	1.6	2.5	3.4	3.7	3.3	2.3	1.4	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	5.7	9.7	10.4	10	9.7	7.9	6.5	5.4	:	:	:	:
<b>Female</b>												
1. Total population (000)	4359	4385	4466	4475	4477	4479	4482	4486	4484	4485	4487	4489
2. Population aged 15-64	2722	2730	2768	2774	2779	2786	2794	2804	2799	2802	2806	2809
3. Total employment (000)	2168	2093	1981	1958	1918	1922	1985	2043	2001	2030	2076	2063
4. Population in employment aged 15-64	2118	2045	1925	1905	1880	1901	1947	1992	1945	2004	2016	2002
5. Employment rate (% pop. aged 15-64)	77.8	74.9	69.6	68.7	67.7	68.2	69.7	71	69.5	71.5	71.8	71.3
6. Employment rate (% pop. aged 15-24)	55.5	49.1	39	36.2	35.3	36.9	38.7	41	35.5	43	45.4	40.1
7. Employment rate (% pop. aged 25-54)	88.2	85.8	81.1	80.1	78.6	79.1	80.6	81.7	80.9	81.9	81.8	82.2
8. Employment rate (% pop. aged 55-64)	65.2	63.5	59.5	60.8	60.7	60.3	61	62.5	62.1	62.1	62.4	63.1
9. FTE employment rate (% pop. aged 15-64)	:	:	60.8	57.8	56.7	56.4	58.5	60.2	:	:	:	:
10. Self-employed (% total employment)	2.5	2.6	3.2	3	3	3.1	3.1	2.9	2.9	2.8	2.9	3.1
11. Part-time employment (% total employment)	42.8	43.1	43	41.9	41.4	40.5	39.3	36	37.4	36.3	34.8	35.7
12. Fixed term contracts (% total employment)	10	10.3	12.9	12.8	13.6	14.7	15.4	15.7	14.4	16.4	16.7	15.2
13. Employment in Services (% total employment)	86	86.8	87.2	87.3	87.4	87.1	87.5	87.5	87.3	87.2	87.6	88
14. Employment in Industry (% total employment)	12	11.1	11	11.1	11.2	11.5	11.1	11.1	11.2	11.5	11	10.8
15. Employment in Agriculture (% total employment)	2	2.1	1.8	1.5	1.4	1.4	1.4	1.3	1.4	1.3	1.3	1.2
16. Activity rate (% pop. aged 15-64)	80.1	78.6	75.8	75.8	75	74.2	74.7	75.1	73.9	75.7	75.9	74.8
17. Total unemployment (000)	60	95	166	190	199	168	150	122	133	126	123	108
18. Unemployment rate (% labour force 15+)	2.8	4.4	7.8	9	9.5	8.1	7.1	5.8	6.4	5.9	5.7	5.1
19. Youth unemployment rate (% labour force 15-24)	6.8	10.7	17.7	19.8	20.1	16.3	14.2	11.9	14.2	13	9.4	11.3
20. Long term unemployment rate (% labour force)	0.4	0.7	1.4	2.4	3.1	2.5	1.8	1.1	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	4.6	6.6	9	9	8.8	7.3	6.6	5.7	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators United Kingdom

All	1991	1992	1995	1996	1997	1998	1999	2000	Q1	Q2	Q3	Q4
1. Total population (000)	56904	57102	57676	57885	58103	58314	58519	58679	58614	58650	58684	58768
2. Population aged 15-64	37378	37445	37589	37704	37839	37977	38317	38540	38471	38521	38543	38626
3. Total employment (000)	26357	25933	26215	26508	26967	27282	27610	27910	27693	27793	28118	28036
4. Population in employment aged 15-64	25989	25534	25830	26137	26567	26884	27168	27458	27232	27336	27668	27595
5. Employment rate (% pop. aged 15-64)	69.5	68.2	68.7	69.3	70.2	70.8	70.9	71.2	70.8	71	71.8	71.4
6. Employment rate (% pop. aged 15-24)	60.9	57.8	56.4	57.1	57.9	58.1	56.5	56.2	55.7	55	57.9	56.2
7. Employment rate (% pop. aged 25-54)	77.6	76.5	77.2	77.7	78.6	79.2	79.9	80.4	80	80.4	80.6	80.6
8. Employment rate (% pop. aged 55-64)	48.7	47.6	47.5	47.8	48.3	49	49.6	50.8	50	50.5	51.2	51.4
9. FTE employment rate (% pop. aged 15-64)	60.4	59.3	59.2	59.4	60.2	60.7	61.2	61.7	:	:	:	:
10. Self-employed (% total employment)	13	13.1	13.4	13.2	13	12.4	12.1	11.8	11.9	11.7	11.8	11.7
11. Part-time employment (% total employment)	22.6	23.3	24.3	24.8	24.9	24.7	24.8	25	25	25.1	25	24.9
12. Fixed term contracts (% total employment)	5	5.2	6.3	6.5	6.7	6.5	6.2	6.2	6.2	6	6.5	6.1
13. Employment in Services (% total employment)	66.4	67.5	70.5	70.7	71.2	71.6	72.5	73.2	73	73.1	73.3	73.5
14. Employment in Industry (% total employment)	31.3	30.4	27.4	27.3	26.9	26.7	26	25.3	25.6	25.4	25.1	25
15. Employment in Agriculture (% total employment)	2.3	2.2	2.1	1.9	1.9	1.7	1.5	1.5	1.5	1.5	1.6	1.5
16. Activity rate (% pop. aged 15-64)	76.3	75.8	75.4	75.5	75.6	75.6	75.5	75.4	75.1	75.1	76	75.5
17. Total unemployment (000)	2537	2873	2493	2346	2026	1834	1781	1632	1738	1603	1672	1514
18. Unemployment rate (% labour force 15+)	8.8	10	8.7	8.2	7	6.3	6.1	5.5	5.9	5.5	5.6	5.1
19. Youth unemployment rate (% labour force 15-24)	14.4	16.7	15.9	15.5	14.2	13.6	13.2	12.8	13.1	12.1	13.7	12.1
20. Long term unemployment rate (% labour force)	2.7	3.7	3.7	3.3	2.6	2.1	1.8	1.5	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	10.1	11.4	10.4	10.2	9.4	9	8.7	8.3	:	:	:	:
<b>Male</b>												
1. Total population (000)	27790	27973	28344	28473	28605	28733	28857	28961	28919	28942	28965	29020
2. Population aged 15-64	18702	18774	18893	18962	19037	19114	19293	19418	19383	19402	19420	19469
3. Total employment (000)	14781	14372	14475	14597	14884	15074	15240	15388	15264	15336	15491	15461
4. Population in employment aged 15-64	14561	14141	14249	14379	14646	14840	14966	15107	14981	15049	15214	15184
5. Employment rate (% pop. aged 15-64)	77.9	75.3	75.4	75.8	76.9	77.6	77.6	77.8	77.3	77.6	78.3	78
6. Employment rate (% pop. aged 15-24)	63.1	59.4	58.5	58.9	59.8	60.2	58.6	58.3	57.5	57.2	60.3	58.1
7. Employment rate (% pop. aged 25-54)	86.9	84.6	84.7	84.8	85.8	86.6	87	87.5	87.1	87.5	87.6	87.7
8. Employment rate (% pop. aged 55-64)	61.2	58.2	56.3	57.2	58.5	59.1	59.7	60.1	59.3	59.8	60.7	60.7
9. FTE employment rate (% pop. aged 15-64)	75.7	73.1	72.2	72.1	73.1	73.8	73.9	74.4	:	:	:	:
10. Self-employed (% total employment)	17.8	17.6	18.2	17.8	17.2	16.3	15.9	15.4	15.5	15.3	15.3	15.4
11. Part-time employment (% total employment)	6.2	6.9	8.1	8.6	8.8	8.7	9.1	9.1	9.1	9.2	9.1	8.9
12. Fixed term contracts (% total employment)	3.6	4.1	5.3	5.3	5.6	5.5	5.4	5.2	5.2	5	5.6	5.1
13. Employment in Services (% total employment)	54.1	55.3	58.9	59	59.5	59.9	60.9	61.7	61.4	61.5	61.8	62.1
14. Employment in Industry (% total employment)	42.7	41.7	38.3	38.4	38	37.8	36.9	36.2	36.6	36.3	36	35.8
15. Employment in Agriculture (% total employment)	3.2	3.1	2.8	2.6	2.5	2.3	2.2	2.1	2.1	2.2	2.2	2.1
16. Activity rate (% pop. aged 15-64)	86.4	85.4	84	83.9	83.7	83.5	83.2	82.8	82.6	82.6	83.3	82.7
17. Total unemployment (000)	1608	1916	1619	1530	1263	1130	1089	983	1044	983	986	920
18. Unemployment rate (% labour force 15+)	9.9	11.8	10.1	9.5	7.9	7	6.7	6	6.4	6	6	5.6
19. Youth unemployment rate (% labour force 15-24)	16.6	19.8	18	18	15.9	15.2	14.7	13.7	14	13.5	14.3	13.2
20. Long term unemployment rate (% labour force)	3.4	4.8	4.9	4.4	3.4	2.6	2.3	2	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	12.5	14.4	12.6	12.6	11.2	10.7	10.2	9.4	:	:	:	:
<b>Female</b>												
1. Total population (000)	29114	29129	29331	29411	29498	29582	29662	29718	29696	29708	29719	29748
2. Population aged 15-64	18677	18671	18696	18742	18802	18863	19024	19122	19088	19119	19123	19157
3. Total employment (000)	11576	11561	11740	11911	12082	12208	12369	12522	12430	12457	12627	12575
4. Population in employment aged 15-64	11429	11393	11581	11758	11921	12043	12202	12350	12251	12286	12454	12410
5. Employment rate (% pop. aged 15-64)	61.2	61	61.9	62.7	63.4	63.8	64.1	64.6	64.2	64.3	65.1	64.8
6. Employment rate (% pop. aged 15-24)	58.6	56.1	54.1	55.2	55.9	55.9	54.3	54	53.7	52.7	55.3	54.2
7. Employment rate (% pop. aged 25-54)	68.2	68.5	69.6	70.5	71.3	71.8	72.7	73.2	72.7	73.1	73.5	73.3
8. Employment rate (% pop. aged 55-64)	36.8	37.4	39	38.7	38.5	39.2	39.9	41.7	41	41.4	42	42.3
9. FTE employment rate (% pop. aged 15-64)	46.1	46.4	47	47.4	48	48.3	49.2	49.7	:	:	:	:
10. Self-employed (% total employment)	6.9	7.5	7.6	7.6	7.8	7.7	7.4	7.4	7.5	7.4	7.4	7.3
11. Part-time employment (% total employment)	43.5	43.7	44.4	44.7	44.6	44.5	44.2	44.6	44.6	44.6	44.4	44.6
12. Fixed term contracts (% total employment)	6.9	6.7	7.6	7.9	8.1	7.9	7.3	7.4	7.3	7.2	7.7	7.4
13. Employment in Services (% total employment)	82	82.6	84.8	85.1	85.7	86.1	86.7	87.3	87.2	87.3	87.4	87.4
14. Employment in Industry (% total employment)	16.9	16.3	14	13.7	13.2	13	12.5	11.9	12.1	12	11.8	11.8
15. Employment in Agriculture (% total employment)	1.1	1.1	1.2	1.1	1	0.9	0.8	0.8	0.7	0.8	0.9	0.8
16. Activity rate (% pop. aged 15-64)	66.3	66.1	66.6	67.1	67.5	67.6	67.7	68	67.6	67.5	68.5	68.1
17. Total unemployment (000)	930	957	874	816	763	704	691	649	695	620	686	593
18. Unemployment rate (% labour force 15+)	7.5	7.7	7	6.5	6	5.5	5.3	4.9	5.3	4.7	5.2	4.5
19. Youth unemployment rate (% labour force 15-24)	11.8	13.1	13.3	12.5	12.2	11.8	11.4	11.6	12	10.5	13	10.9
20. Long term unemployment rate (% labour force)	1.7	2.2	2.2	1.8	1.6	1.3	1.1	0.9	:	:	:	:
21. Youth unemployment ratio (% pop. aged 15-24)	7.7	8.2	8.1	7.7	7.6	7.3	7.1	7.2	:	:	:	:

Source: Eurostat

Note: \* indicates Eurostat estimation. Q1-Q4 indicate the quarterly estimates for the year 2000.

## Key employment indicators in Bulgaria

All	1996	1997	1998	1999	2000
1. Total population (000)					6832.2
2. Population aged 15-64					5501.9
3. Total employment (000)					2872.4
4. Population in employment aged 15-64					2834.2
5. Employment rate (% population aged 15-64)					51.5
6. Employment rate (% population aged 15-24)					20.5
7. Employment rate (% population aged 25-54)					69.7
8. Employment rate (% population aged 55-64)					22.1
9. FTE employment rate (% population aged 15-64)					:
10. Self-employed (% total employment)					14.7
11. Part-time employment (% total employment)					:
12. Fixed term contracts (% total employment)					:
13. Employment in Services (% total employment)					54
14. Employment in Industry (% total employment)					32.8
15. Employment in Agriculture (% total employment)					13.2
16. Activity rate (% population aged 15-64)					61.6
17. Total unemployment (000)					556
18. Unemployment rate (% labour force 15+)					16.2
19. Youth unemployment rate (% labour force 15-24)					33.3
20. Long term unemployment rate (% labour force)					9.5
21. Youth unemployment ratio (% population aged 15-24)					10.2
<b>Male</b>					
1. Total population (000)					3266.4
2. Population aged 15-64					2687.3
3. Total employment (000)					1531.8
4. Population in employment aged 15-64					1506.4
5. Employment rate (% population aged 15-64)					56.1
6. Employment rate (% population aged 15-24)					23
7. Employment rate (% population aged 25-54)					72.1
8. Employment rate (% population aged 55-64)					34.9
9. FTE employment rate (% population aged 15-64)					:
10. Self-employed (% total employment)					18.3
11. Part-time employment (% total employment)					:
12. Fixed term contracts (% total employment)					:
13. Employment in Services (% total employment)					46.9
14. Employment in Industry (% total employment)					37.7
15. Employment in Agriculture (% total employment)					15.4
16. Activity rate (% population aged 15-64)					67.4
17. Total unemployment (000)					304.2
18. Unemployment rate (% labour force 15+)					16.6
19. Youth unemployment rate (% labour force 15-24)					36.1
20. Long term unemployment rate (% labour force)					9.7
21. Youth unemployment ratio (% population aged 15-24)					13
<b>Female</b>					
1. Total population (000)					3565.8
2. Population aged 15-64					2814.7
3. Total employment (000)					1340.6
4. Population in employment aged 15-64					1327.8
5. Employment rate (% population aged 15-64)					47.2
6. Employment rate (% population aged 15-24)					18
7. Employment rate (% population aged 25-54)					67.4
8. Employment rate (% population aged 55-64)					11.2
9. FTE employment rate (% population aged 15-64)					:
10. Self-employed (% total employment)					10.6
11. Part-time employment (% total employment)					:
12. Fixed term contracts (% total employment)					:
13. Employment in Services (% total employment)					62.1
14. Employment in Industry (% total employment)					27.3
15. Employment in Agriculture (% total employment)					10.6
16. Activity rate (% population aged 15-64)					56.1
17. Total unemployment (000)					251.9
18. Unemployment rate (% labour force 15+)					15.8
19. Youth unemployment rate (% labour force 15-24)					29.6
20. Long term unemployment rate (% labour force)					9.2
21. Youth unemployment ratio (% population aged 15-24)					7.6

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.

## Key employment indicators in Cyprus

All	1996	1997	1998	1999	2000
1. Total population (000)				638.9	643.7
2. Population aged 15-64				411.8	414.9
3. Total employment (000)				269.9	279.2
4. Population in employment aged 15-64				264.3	271.7
5. Employment rate (% population aged 15-64)				64.2	65.5
6. Employment rate (% population aged 15-24)				36.6	34.4
7. Employment rate (% population aged 25-54)				75.9	78.2
8. Employment rate (% population aged 55-64)				47	49
9. FTE employment rate (% population aged 15-64)				63.2	64.1
10. Self-employed (% total employment)				21.6	21.4
11. Part-time employment (% total employment)				6.4	8.3
12. Fixed term contracts (% total employment)				7.7	7.9
13. Employment in Services (% total employment)				70.7	70.5
14. Employment in Industry (% total employment)				24.6	24.1
15. Employment in Agriculture (% total employment)				4.7	5.4
16. Activity rate (% population aged 15-64)				68.3	69
17. Total unemployment (000)				16.9	14.5
18. Unemployment rate (% labour force 15+)				5.9	4.9
19. Youth unemployment rate (% labour force 15-24)				11.9	10.5
20. Long term unemployment rate (% labour force)				1.3	1.3
21. Youth unemployment ratio (% population aged 15-24)				4.9	4
<b>Male</b>					
1. Total population (000)				313.9	316.5
2. Population aged 15-64				202.2	204
3. Total employment (000)				163.7	166.7
4. Population in employment aged 15-64				159.1	161
5. Employment rate (% population aged 15-64)				78.7	78.9
6. Employment rate (% population aged 15-24)				40	38.3
7. Employment rate (% population aged 25-54)				91.7	92.5
8. Employment rate (% population aged 55-64)				66.3	67.1
9. FTE employment rate (% population aged 15-64)				79.2	79.3
10. Self-employed (% total employment)				28.5	29.2
11. Part-time employment (% total employment)				3.3	4.4
12. Fixed term contracts (% total employment)				5.7	5.3
13. Employment in Services (% total employment)				63.6	62.7
14. Employment in Industry (% total employment)				31.4	31.4
15. Employment in Agriculture (% total employment)				5	5.9
16. Activity rate (% population aged 15-64)				82.5	81.6
17. Total unemployment (000)				7.7	5.5
18. Unemployment rate (% labour force 15+)				4.5	3.2
19. Youth unemployment rate (% labour force 15-24)				11.7	6.7
20. Long term unemployment rate (% labour force)				0.8	0.5
21. Youth unemployment ratio (% population aged 15-24)				5.3	2.8
<b>Female</b>					
1. Total population (000)				325	327.2
2. Population aged 15-64				209.6	211
3. Total employment (000)				106.3	112.5
4. Population in employment aged 15-64				105.2	110.7
5. Employment rate (% population aged 15-64)				50.2	52.5
6. Employment rate (% population aged 15-24)				33.7	31
7. Employment rate (% population aged 25-54)				60.1	63.8
8. Employment rate (% population aged 55-64)				28.8	31.9
9. FTE employment rate (% population aged 15-64)				47.9	49.6
10. Self-employed (% total employment)				11	9.9
11. Part-time employment (% total employment)				11.2	14.1
12. Fixed term contracts (% total employment)				10.7	11.7
13. Employment in Services (% total employment)				81.8	82
14. Employment in Industry (% total employment)				14.1	13.2
15. Employment in Agriculture (% total employment)				4.2	4.8
16. Activity rate (% population aged 15-64)				54.6	56.7
17. Total unemployment (000)				9.1	8.9
18. Unemployment rate (% labour force 15+)				7.9	7.4
19. Youth unemployment rate (% labour force 15-24)				12	14.2
20. Long term unemployment rate (% labour force)				2.1	2.4
21. Youth unemployment ratio (% population aged 15-24)				4.6	5.1

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.

## Key employment indicators in the Czech Republic

All	1996	1997	1998	1999	2000
1. Total population (000)		10270.1	10254.4	10236.9	10222.1
2. Population aged 15-64		7049.8	7070.3	7086.7	7111.4
3. Total employment (000)		4905.5	4833.9	4715.5	4675.1
4. Population in employment aged 15-64		4835.7	4770.2	4652.4	4617.3
5. Employment rate (% population aged 15-64)		68.6	67.5	65.6	64.9
6. Employment rate (% population aged 15-24)		42.7	41.3	38.3	36.4
7. Employment rate (% population aged 25-54)		85.2	84	82	81.5
8. Employment rate (% population aged 55-64)		38.5	37.5	37.6	36.1
9. FTE employment rate (% population aged 15-64)		67.8	66.6	64.8	64.1
10. Self-employed (% total employment)		11.8	13	13.9	14.5
11. Part-time employment (% total employment)		6.1	5.9	5.7	5.4
12. Fixed term contracts (% total employment)		6.9	5.8	6.4	6.9
13. Employment in Services (% total employment)		52.6	52.9	54.1	54.8
14. Employment in Industry (% total employment)		41.6	41.5	40.6	39.9
15. Employment in Agriculture (% total employment)		5.8	5.6	5.3	5.2
16. Activity rate (% population aged 15-64)		71.7	71.7	71.8	71.2
17. Total unemployment (000)		218.9	303.3	437.4	449
18. Unemployment rate (% labour force 15+)		4.3	5.9	8.5	8.8
19. Youth unemployment rate (% labour force 15-24)		7	10.8	16.6	17
20. Long term unemployment rate (% labour force)		1.3	1.8	3.1	4.3
21. Youth unemployment ratio (% population aged 15-24)		3.2	5	7.6	7.5
<b>Male</b>					
1. Total population (000)		4975.6	4966.9	4955.7	4948.2
2. Population aged 15-64		3508.1	3517.3	3523.2	3535.1
3. Total employment (000)		2749.6	2720.8	2644.4	2622.7
4. Population in employment aged 15-64		2705.1	2677.3	2607	2585.3
5. Employment rate (% population aged 15-64)		77.1	76.1	74	73.1
6. Employment rate (% population aged 15-24)		49.5	47.6	42.7	39.3
7. Employment rate (% population aged 25-54)		92.3	91.4	89.5	89.2
8. Employment rate (% population aged 55-64)		54.8	53.4	53.2	51.6
9. FTE employment rate (% population aged 15-64)		77.3	76.2	74	73.2
10. Self-employed (% total employment)		15.3	16.7	18	18.8
11. Part-time employment (% total employment)		2.9	2.7	2.5	2.2
12. Fixed term contracts (% total employment)		6	4.8	5	5.7
13. Employment in Services (% total employment)		41.9	42.2	43.2	43.8
14. Employment in Industry (% total employment)		51.1	51.2	50.4	49.9
15. Employment in Agriculture (% total employment)		6.9	6.6	6.4	6.3
16. Activity rate (% population aged 15-64)		80	79.8	79.7	79
17. Total unemployment (000)		102.5	130.7	204.2	207.5
18. Unemployment rate (% labour force 15+)		3.6	4.6	7.2	7.3
19. Youth unemployment rate (% labour force 15-24)		6.8	9.3	16.3	17.4
20. Long term unemployment rate (% labour force)		1.1	1.4	2.3	3.5
21. Youth unemployment ratio (% population aged 15-24)		3.6	4.9	8.3	8.3
<b>Female</b>					
1. Total population (000)		5294.5	5287.5	5281.2	5273.9
2. Population aged 15-64		3541.7	3552.9	3563.5	3576.3
3. Total employment (000)		2155.9	2113.1	2071.1	2052.4
4. Population in employment aged 15-64		2130.6	2092.9	2045.4	2032
5. Employment rate (% population aged 15-64)		60.2	58.9	57.4	56.8
6. Employment rate (% population aged 15-24)		35.9	35.1	33.9	33.6
7. Employment rate (% population aged 25-54)		78.1	76.4	74.3	73.7
8. Employment rate (% population aged 55-64)		24	23.2	23.6	22.1
9. FTE employment rate (% population aged 15-64)		58.5	57.2	55.7	55.2
10. Self-employed (% total employment)		7.3	8.2	8.7	9
11. Part-time employment (% total employment)		10.3	10	9.9	9.5
12. Fixed term contracts (% total employment)		8.2	7.1	8.1	8.5
13. Employment in Services (% total employment)		66.3	66.8	68	68.9
14. Employment in Industry (% total employment)		29.3	29	28.1	27.3
15. Employment in Agriculture (% total employment)		4.3	4.2	3.9	3.8
16. Activity rate (% population aged 15-64)		63.4	63.7	63.9	63.5
17. Total unemployment (000)		116.4	172.6	233.2	241.5
18. Unemployment rate (% labour force 15+)		5.1	7.5	10.1	10.5
19. Youth unemployment rate (% labour force 15-24)		7.2	12.7	16.9	16.4
20. Long term unemployment rate (% labour force)		1.7	2.3	4.1	5.3
21. Youth unemployment ratio (% population aged 15-24)		2.8	5.1	6.9	6.6

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.



## Key employment indicators in Estonia

All	1996	1997	1998	1999	2000
1. Total population (000)		1072.8	1445.2	1436.4	1430.5
2. Population aged 15-64		937.5	963.1	966.1	972.1
3. Total employment (000)		623	642.6	614.8	604.4
4. Population in employment aged 15-64		608.7	629.3	598.8	588.8
5. Employment rate (% population aged 15-64)		64.9	65.3	62	60.6
6. Employment rate (% population aged 15-24)		35.4	35.3	29.2	27.4
7. Employment rate (% population aged 25-54)		78.9	79.9	77.3	76.8
8. Employment rate (% population aged 55-64)		48.8	50.2	47.9	43
9. FTE employment rate (% population aged 15-64)		64.1	65.2	61.7	59.8
10. Self-employed (% total employment)		6.2	8	8.2	8.1
11. Part-time employment (% total employment)		10.3	7.3	7.1	6.7
12. Fixed term contracts (% total employment)		2	1.5	1.8	2.1
13. Employment in Services (% total employment)		56.7	57.4	59.4	58.3
14. Employment in Industry (% total employment)		33.4	33.1	31.8	34.7
15. Employment in Agriculture (% total employment)		9.9	9.5	8.8	7
16. Activity rate (% population aged 15-64)		72.7	72.4	70.3	70
17. Total unemployment (000)		73.9	67.9	81.2	92
18. Unemployment rate (% labour force 15+)		10.6	9.6	11.7	13.2
19. Youth unemployment rate (% labour force 15-24)		19	14.8	22.1	23.7
20. Long term unemployment rate (% labour force)		4.2	4.4	5	6.3
21. Youth unemployment ratio (% population aged 15-24)		8.3	6.1	8.3	8.5
<b>Male</b>					
1. Total population (000)		495.3	670.7	666.6	663.4
2. Population aged 15-64		447.7	463.3	464.1	469.7
3. Total employment (000)		318.8	332.8	315.1	309.3
4. Population in employment aged 15-64		311.8	325.7	307.5	301.9
5. Employment rate (% population aged 15-64)		69.7	70.3	66.3	64.3
6. Employment rate (% population aged 15-24)		40.3	39.4	34.1	31.4
7. Employment rate (% population aged 25-54)		81.7	83.6	79.4	79.5
8. Employment rate (% population aged 55-64)		59.6	60.9	59.2	50.2
9. FTE employment rate (% population aged 15-64)		69.7	71.4	66.6	64.3
10. Self-employed (% total employment)		9.2	10.7	10.6	9.7
11. Part-time employment (% total employment)		8.2	4.6	5.2	4.2
12. Fixed term contracts (% total employment)		2.3	1.7	2.1	2.8
13. Employment in Services (% total employment)		46.3	46.1	48.9	44.9
14. Employment in Industry (% total employment)		41.3	41.7	40.2	46.5
15. Employment in Agriculture (% total employment)		12.4	12.1	10.9	8.7
16. Activity rate (% population aged 15-64)		78.8	78.7	76.2	75.6
17. Total unemployment (000)		41.4	38.9	47	53.2
18. Unemployment rate (% labour force 15+)		11.5	10.5	13	14.7
19. Youth unemployment rate (% labour force 15-24)		21.4	16.9	22.2	24.7
20. Long term unemployment rate (% labour force)		4.9	4.7	5.7	7.1
21. Youth unemployment ratio (% population aged 15-24)		10.9	8	9.8	10.3
<b>Female</b>					
1. Total population (000)		577.5	774.5	769.7	767.1
2. Population aged 15-64		489.9	499.8	502	502.4
3. Total employment (000)		304.3	309.8	299.6	295.1
4. Population in employment aged 15-64		296.9	303.6	291.3	287
5. Employment rate (% population aged 15-64)		60.6	60.7	58	57.1
6. Employment rate (% population aged 15-24)		30.5	31	24.4	23.2
7. Employment rate (% population aged 25-54)		76.2	76.4	75.2	74.2
8. Employment rate (% population aged 55-64)		40.5	42	39.3	37.5
9. FTE employment rate (% population aged 15-64)		59	59.5	57.2	55.6
10. Self-employed (% total employment)		3.1	5.1	5.6	6.4
11. Part-time employment (% total employment)		12.6	10.2	9	9.3
12. Fixed term contracts (% total employment)		1.6	1.2	1.6	1.3
13. Employment in Services (% total employment)		67.6	69.4	70.5	72.5
14. Employment in Industry (% total employment)		25.2	23.9	22.9	22.3
15. Employment in Agriculture (% total employment)		7.2	6.7	6.7	5.2
16. Activity rate (% population aged 15-64)		67.1	66.5	64.8	64.8
17. Total unemployment (000)		32.5	29	34.2	38.8
18. Unemployment rate (% labour force 15+)		9.7	8.6	10.2	11.6
19. Youth unemployment rate (% labour force 15-24)		15.8	11.8	21.9	22.4
20. Long term unemployment rate (% labour force)		3.4	4.1	4.2	5.4
21. Youth unemployment ratio (% population aged 15-24)		5.7	4.2	6.9	6.7

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.



## Key employment indicators in Hungary

All	1996	1997	1998	1999	2000
1. Total population (000)	10099.8	10086.9	10020.2	9975.8	9927.1
2. Population aged 15-64	6838.3	6845.2	6806.6	6787.6	6759.8
3. Total employment (000)	3584.8	3579.5	3640.5	3784.8	3806.6
4. Population in employment aged 15-64	3556.4	3559.8	3623	3762.4	3781.5
5. Employment rate (% population aged 15-64)	52	52	53.2	55.4	55.9
6. Employment rate (% population aged 15-24)	27.4	28.6	33.6	34.9	33.1
7. Employment rate (% population aged 25-54)	70.2	69.8	69.8	72.2	72.8
8. Employment rate (% population aged 55-64)	17.6	17.9	16.7	19.1	21.9
9. FTE employment rate (% population aged 15-64)	52.1	52	53.1	55.4	56
10. Self-employed (% total employment)	16.8	16.3	15.2	14.9	14.6
11. Part-time employment (% total employment)	3.2	3.7	3.8	3.9	3.6
12. Fixed term contracts (% total employment)	0	5.5	5.6	5.2	5.8
13. Employment in Services (% total employment)	58.5	59	57.9	58.7	59.8
14. Employment in Industry (% total employment)	33.2	33.2	34.8	34.4	33.8
15. Employment in Agriculture (% total employment)	8.2	7.8	7.3	7	6.5
16. Activity rate (% population aged 15-64)	57.8	57.1	58.4	59.6	59.9
17. Total unemployment (000)	399.3	353.6	356.8	281.8	267.4
18. Unemployment rate (% labour force 15+)	10	9	8.9	6.9	6.6
19. Youth unemployment rate (% labour force 15-24)	19.4	16.9	15.2	12.3	12.3
20. Long term unemployment rate (% labour force)	5.3	4.2	4.4	3.3	3.1
21. Youth unemployment ratio (% population aged 15-24)	6.6	5.8	6	4.9	4.6
<b>Male</b>					
1. Total population (000)	4800.4	4806	4775.4	4752.5	4727.3
2. Population aged 15-64	3319	3336.4	3324.7	3314.3	3312.3
3. Total employment (000)	1986.4	1997.4	2005.9	2081.5	2091.6
4. Population in employment aged 15-64	1970.3	1986.9	1994.8	2067.5	2076.9
5. Employment rate (% population aged 15-64)	59.4	59.6	60	62.4	62.7
6. Employment rate (% population aged 15-24)	30.8	32.4	37.3	38.6	37
7. Employment rate (% population aged 25-54)	77.7	77.7	76.3	78.8	79
8. Employment rate (% population aged 55-64)	27.1	27.1	26.3	29.3	33
9. FTE employment rate (% population aged 15-64)	60.1	60.4	60.5	63.2	63.6
10. Self-employed (% total employment)	21.3	20.7	19.1	18.8	18.7
11. Part-time employment (% total employment)	2.1	2	2.4	2.5	2.1
12. Fixed term contracts (% total employment)	0	5.5	5.9	5.2	5.9
13. Employment in Services (% total employment)	48.9	49.4	47.8	48.3	49.8
14. Employment in Industry (% total employment)	39.7	40	42	42	41.1
15. Employment in Agriculture (% total employment)	11.4	10.6	10.2	9.7	9
16. Activity rate (% population aged 15-64)	66.6	66	66.3	67.5	67.6
17. Total unemployment (000)	240.6	218.6	212.9	168.9	162
18. Unemployment rate (% labour force 15+)	10.8	9.9	9.6	7.5	7.2
19. Youth unemployment rate (% labour force 15-24)	21	18.8	17.1	13.5	13.7
20. Long term unemployment rate (% labour force)	6.1	4.8	4.8	3.7	3.6
21. Youth unemployment ratio (% population aged 15-24)	8.2	7.5	7.7	6	5.9
<b>Female</b>					
1. Total population (000)	5299.4	5280.9	5244.8	5223.3	5199.8
2. Population aged 15-64	3519.3	3508.8	3481.9	3473.2	3447.6
3. Total employment (000)	1598.4	1582.1	1634.6	1703.3	1715
4. Population in employment aged 15-64	1586.1	1572.9	1628.2	1694.9	1704.6
5. Employment rate (% population aged 15-64)	45.1	44.8	46.8	48.8	49.4
6. Employment rate (% population aged 15-24)	24	24.7	29.9	31.2	29.2
7. Employment rate (% population aged 25-54)	62.9	62.1	63.5	65.8	66.7
8. Employment rate (% population aged 55-64)	10.2	10.7	9.3	11.1	13
9. FTE employment rate (% population aged 15-64)	44.5	43.9	46	47.9	48.7
10. Self-employed (% total employment)	11.1	10.8	10.5	10.2	9.6
11. Part-time employment (% total employment)	4.4	5.6	5.4	5.6	5.3
12. Fixed term contracts (% total employment)	0	5.5	5.1	5.2	5.7
13. Employment in Services (% total employment)	70.5	71	70.2	71.4	71.9
14. Employment in Industry (% total employment)	25.2	24.7	25.9	25	24.8
15. Employment in Agriculture (% total employment)	4.3	4.3	3.9	3.7	3.3
16. Activity rate (% population aged 15-64)	49.5	48.6	50.8	52	52.5
17. Total unemployment (000)	158.7	135	143.9	112.9	105.3
18. Unemployment rate (% labour force 15+)	9	7.9	8.1	6.2	5.8
19. Youth unemployment rate (% labour force 15-24)	17.3	14.1	12.6	10.6	10.4
20. Long term unemployment rate (% labour force)	4.4	3.6	4	2.9	2.5
21. Youth unemployment ratio (% population aged 15-24)	5	4	4.3	3.7	3.4

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.

## Key employment indicators in Latvia

All	1996	1997	1998	1999	2000
1. Total population (000)			2458.3	2439.6	2424.1
2. Population aged 15-64			1666.5	1626.6	1636.5
3. Total employment (000)			1004.2	997.9	975.7
4. Population in employment aged 15-64			977.8	968	952.2
5. Employment rate (% population aged 15-64)			58.7	59.5	58.2
6. Employment rate (% population aged 15-24)			30.1	33.2	30.4
7. Employment rate (% population aged 25-54)			76	74.8	74.2
8. Employment rate (% population aged 55-64)			37	36.6	35.4
9. FTE employment rate (% population aged 15-64)			57	57.9	56.4
10. Self-employed (% total employment)			11.6	11.2	10.6
11. Part-time employment (% total employment)			12.3	11.9	10.8
12. Fixed term contracts (% total employment)			6.7	6.2	5.7
13. Employment in Services (% total employment)			54.2	57	58.7
14. Employment in Industry (% total employment)			27.1	25.8	26.8
15. Employment in Agriculture (% total employment)			18.7	17.2	14.4
16. Activity rate (% population aged 15-64)			68.8	69.1	68
17. Total unemployment (000)			170.4	158.6	160.6
18. Unemployment rate (% labour force 15+)			14.5	13.7	14.1
19. Youth unemployment rate (% labour force 15-24)			27.1	23.4	21.2
20. Long term unemployment rate (% labour force)			8	7.3	7.9
21. Youth unemployment ratio (% population aged 15-24)			11.2	10.2	8.2
<b>Male</b>					
1. Total population (000)			1135.6	1127.7	1122.8
2. Population aged 15-64			798.1	783.4	788
3. Total employment (000)			518.6	526.2	502.7
4. Population in employment aged 15-64			506.9	512	491.2
5. Employment rate (% population aged 15-64)			63.5	65.4	62.3
6. Employment rate (% population aged 15-24)			34	37.6	35.2
7. Employment rate (% population aged 25-54)			79.2	78.7	75.4
8. Employment rate (% population aged 55-64)			49.2	50.3	48.3
9. FTE employment rate (% population aged 15-64)			62	63.9	61.3
10. Self-employed (% total employment)			13.5	12.9	12.5
11. Part-time employment (% total employment)			11.9	10.9	9.5
12. Fixed term contracts (% total employment)			8.2	8.3	7.4
13. Employment in Services (% total employment)			45.1	47.7	49.7
14. Employment in Industry (% total employment)			34.1	33.2	34.4
15. Employment in Agriculture (% total employment)			20.8	19.1	16
16. Activity rate (% population aged 15-64)			75.2	76.2	73.6
17. Total unemployment (000)			94.1	86.1	88.6
18. Unemployment rate (% labour force 15+)			15.4	14.1	15
19. Youth unemployment rate (% labour force 15-24)			27.3	26.1	21.1
20. Long term unemployment rate (% labour force)			8.4	7.3	8.4
21. Youth unemployment ratio (% population aged 15-24)			12.7	13.2	9.4
<b>Female</b>					
1. Total population (000)			1322.6	1311.9	1301.2
2. Population aged 15-64			868.3	843.2	848.5
3. Total employment (000)			485.6	471.7	473
4. Population in employment aged 15-64			470.8	456	461
5. Employment rate (% population aged 15-64)			54.2	54.1	54.3
6. Employment rate (% population aged 15-24)			25.9	28.7	25.6
7. Employment rate (% population aged 25-54)			73	71.2	73
8. Employment rate (% population aged 55-64)			28.1	26.4	25.9
9. FTE employment rate (% population aged 15-64)			52.4	52.3	51.8
10. Self-employed (% total employment)			9.7	9.2	8.6
11. Part-time employment (% total employment)			12.7	12.9	12.2
12. Fixed term contracts (% total employment)			5.1	3.9	3.9
13. Employment in Services (% total employment)			63.9	67.3	68.5
14. Employment in Industry (% total employment)			19.7	17.6	18.7
15. Employment in Agriculture (% total employment)			16.4	15.1	12.8
16. Activity rate (% population aged 15-64)			62.9	62.6	62.8
17. Total unemployment (000)			76.3	72.6	72
18. Unemployment rate (% labour force 15+)			13.6	13.3	13.2
19. Youth unemployment rate (% labour force 15-24)			26.9	19.5	21.3
20. Long term unemployment rate (% labour force)			7.6	7.3	7.3
21. Youth unemployment ratio (% population aged 15-24)			9.5	7	6.9

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.

## Key employment indicators in Lithuania

All	1996	1997	1998	1999	2000
1. Total population (000)			2941.9	2957.8	2967.1
2. Population aged 15-64			2441.7	2434.7	2472.1
3. Total employment (000)			1563.6	1613.3	1524.7
4. Population in employment aged 15-64			1536.2	1583.6	1486
5. Employment rate (% population aged 15-64)			62.9	65	60.1
6. Employment rate (% population aged 15-24)			34	33.8	26.7
7. Employment rate (% population aged 25-54)			78.9	81.5	76
8. Employment rate (% population aged 55-64)			40.2	42.6	42.2
9. FTE employment rate (% population aged 15-64)			:	:	60
10. Self-employed (% total employment)			16.3	17	15.9
11. Part-time employment (% total employment)			:	:	8.6
12. Fixed term contracts (% total employment)			5.1	4.2	3.1
13. Employment in Services (% total employment)			50.9	52.1	54.2
14. Employment in Industry (% total employment)			28.4	26.5	27.4
15. Employment in Agriculture (% total employment)			20.7	21.4	18.4
16. Activity rate (% population aged 15-64)			72.1	72.6	71.5
17. Total unemployment (000)			224	183.5	281
18. Unemployment rate (% labour force 15+)			12.5	10.2	15.6
19. Youth unemployment rate (% labour force 15-24)			23.7	21.3	27.5
20. Long term unemployment rate (% labour force)			7.8	4	8.2
21. Youth unemployment ratio (% population aged 15-24)			10.6	9.1	10.1
<b>Male</b>					
1. Total population (000)			1361	1373.1	1369.7
2. Population aged 15-64			1181.5	1183.3	1198.5
3. Total employment (000)			815	831.3	757.5
4. Population in employment aged 15-64			799.1	815.1	740.9
5. Employment rate (% population aged 15-64)			67.6	68.9	61.8
6. Employment rate (% population aged 15-24)			39.9	38.3	30.2
7. Employment rate (% population aged 25-54)			80.1	82.4	75.1
8. Employment rate (% population aged 55-64)			57	56.7	52.2
9. FTE employment rate (% population aged 15-64)			:	:	62.4
10. Self-employed (% total employment)			19.1	20.3	19.2
11. Part-time employment (% total employment)			:	:	7.6
12. Fixed term contracts (% total employment)			6.3	5.5	3.9
13. Employment in Services (% total employment)			42.3	43.3	44
14. Employment in Industry (% total employment)			34.2	31.4	33.7
15. Employment in Agriculture (% total employment)			23.5	25.3	22.3
16. Activity rate (% population aged 15-64)			78.9	77.7	75.5
17. Total unemployment (000)			133.4	104.5	165
18. Unemployment rate (% labour force 15+)			14.1	11.2	17.9
19. Youth unemployment rate (% labour force 15-24)			26.8	22.7	27.6
20. Long term unemployment rate (% labour force)			8.8	4.7	10
21. Youth unemployment ratio (% population aged 15-24)			14.6	11.2	11.5
<b>Female</b>					
1. Total population (000)			1580.9	1584.7	1597.4
2. Population aged 15-64			1260.2	1251.4	1273.6
3. Total employment (000)			748.6	782.1	767.2
4. Population in employment aged 15-64			737.1	768.4	745.2
5. Employment rate (% population aged 15-64)			58.5	61.4	58.5
6. Employment rate (% population aged 15-24)			28	29.2	23.2
7. Employment rate (% population aged 25-54)			77.8	80.7	76.8
8. Employment rate (% population aged 55-64)			27.4	31.8	34.5
9. FTE employment rate (% population aged 15-64)			:	:	57.7
10. Self-employed (% total employment)			13.3	13.4	12.7
11. Part-time employment (% total employment)			:	:	9.6
12. Fixed term contracts (% total employment)			3.8	2.7	2.3
13. Employment in Services (% total employment)			60.3	61.5	64.2
14. Employment in Industry (% total employment)			22	21.2	21.2
15. Employment in Agriculture (% total employment)			17.7	17.3	14.6
16. Activity rate (% population aged 15-64)			65.7	67.7	67.6
17. Total unemployment (000)			90.6	79	116.1
18. Unemployment rate (% labour force 15+)			10.8	9.2	13.1
19. Youth unemployment rate (% labour force 15-24)			18.8	19.3	27.4
20. Long term unemployment rate (% labour force)			6.6	3.3	6.2
21. Youth unemployment ratio (% population aged 15-24)			6.5	7	8.8

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.

## Key employment indicators in Poland

All	1996	1997	1998	1999	2000
1. Total population (000)		29562.7	29887.5	30136.2	30535.3
2. Population aged 15-64		24902.1	25145.2	25252.2	25652.3
3. Total employment (000)		15132.8	15364.2	14939.8	14517.6
4. Population in employment aged 15-64		14636.5	14878.4	14522.5	14145.4
5. Employment rate (% population aged 15-64)		58.8	59.2	57.5	55.1
6. Employment rate (% population aged 15-24)		27.8	27.8	24.3	24.1
7. Employment rate (% population aged 25-54)		74.3	75.3	73.7	71
8. Employment rate (% population aged 55-64)		35.5	33.3	32.5	29
9. FTE employment rate (% population aged 15-64)		:	:	:	:
10. Self-employed (% total employment)		23.3	22.8	22.8	22.5
11. Part-time employment (% total employment)		10.7	10.4	10.2	10.6
12. Fixed term contracts (% total employment)		4	3.9	3.5	4.2
13. Employment in Services (% total employment)		:	:	:	50.3
14. Employment in Industry (% total employment)		:	:	:	31.1
15. Employment in Agriculture (% total employment)		:	:	:	18.7
16. Activity rate (% population aged 15-64)		66.2	65.9	65.8	66.1
17. Total unemployment (000)		1863.5	1694.9	2093.3	2829.9
18. Unemployment rate (% labour force 15+)		11	9.9	12.3	16.3
19. Youth unemployment rate (% labour force 15-24)		22.8	21.3	29.6	35.7
20. Long term unemployment rate (% labour force)		5.1	4.7	5.1	7.3
21. Youth unemployment ratio (% population aged 15-24)		8.2	7.5	10.2	13.4
<b>Male</b>					
1. Total population (000)		14060.5	14221.8	14342.8	14551.1
2. Population aged 15-64		12269.1	12396.6	12456.8	12670.4
3. Total employment (000)		8390.7	8492.1	8163.9	7975
4. Population in employment aged 15-64		8119.7	8224.8	7925	7750
5. Employment rate (% population aged 15-64)		66.2	66.3	63.6	61.2
6. Employment rate (% population aged 15-24)		32	31.1	27.2	26.4
7. Employment rate (% population aged 25-54)		82	82.9	79.8	77.5
8. Employment rate (% population aged 55-64)		44.5	42.7	41.8	37.4
9. FTE employment rate (% population aged 15-64)		:	:	.	.
10. Self-employed (% total employment)		26.2	25.7	26.1	25.9
11. Part-time employment (% total employment)		8.5	8.3	7.8	8.4
12. Fixed term contracts (% total employment)		4.4	4.2	3.6	4.7
13. Employment in Services (% total employment)		:	:	:	40
14. Employment in Industry (% total employment)		:	:	:	41.1
15. Employment in Agriculture (% total employment)		:	:	:	18.9
16. Activity rate (% population aged 15-64)		73.1	72.5	72.1	71.8
17. Total unemployment (000)		857	774.6	1065.7	1362.2
18. Unemployment rate (% labour force 15+)		9.3	8.4	11.5	14.6
19. Youth unemployment rate (% labour force 15-24)		20.1	19.5	27.9	34.3
20. Long term unemployment rate (% labour force)		3.8	3.5	4.2	5.9
21. Youth unemployment ratio (% population aged 15-24)		8.1	7.5	10.5	13.8
<b>Female</b>					
1. Total population (000)		15502.2	15665.7	15793.4	15984.2
2. Population aged 15-64		12633	12748.6	12795.4	12981.9
3. Total employment (000)		6742.1	6872.1	6776	6542.6
4. Population in employment aged 15-64		6516.9	6653.7	6597.5	6395.4
5. Employment rate (% population aged 15-64)		51.6	52.2	51.6	49.3
6. Employment rate (% population aged 15-24)		23.6	24.5	21.5	21.9
7. Employment rate (% population aged 25-54)		66.7	67.8	67.6	64.5
8. Employment rate (% population aged 55-64)		27.7	25.2	24.5	21.8
9. FTE employment rate (% population aged 15-64)		:	:	:	:
10. Self-employed (% total employment)		19.8	19.1	19	18.4
11. Part-time employment (% total employment)		13.5	13	13.1	13.2
12. Fixed term contracts (% total employment)		3.4	3.5	3.4	3.6
13. Employment in Services (% total employment)		:	:	:	62.7
14. Employment in Industry (% total employment)		:	:	:	18.9
15. Employment in Agriculture (% total employment)		:	:	:	18.4
16. Activity rate (% population aged 15-64)		59.5	59.4	59.6	60.5
17. Total unemployment (000)		1006.6	920.3	1027.6	1467.7
18. Unemployment rate (% labour force 15+)		13	11.8	13.2	18.3
19. Youth unemployment rate (% labour force 15-24)		26.1	23.5	31.6	37.2
20. Long term unemployment rate (% labour force)		6.6	6.1	6.2	8.9
21. Youth unemployment ratio (% population aged 15-24)		8.3	7.5	9.9	13

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.

## Key employment indicators in Romania

All	1996	1997	1998	1999	2000
1. Total population (000)		22327.1	22396.9	22357.6	22338.3
2. Population aged 15-64		15153.6	15195.2	15190.4	15213.4
3. Total employment (000)		11200	11097.1	11022	10897.6
4. Population in employment aged 15-64		10175.6	10013.3	9869.7	9765
5. Employment rate (% population aged 15-64)		67.2	65.9	65	64.2
6. Employment rate (% population aged 15-24)		38.1	37.4	35.3	34
7. Employment rate (% population aged 25-54)		82.2	80.3	79.6	78.6
8. Employment rate (% population aged 55-64)		55	54.7	52.9	52
9. FTE employment rate (% population aged 15-64)		67.5	65.6	64.5	63.8
10. Self-employed (% total employment)		22.4	23.2	23.8	25.4
11. Part-time employment (% total employment)		15.2	16.3	16.5	16.4
12. Fixed term contracts (% total employment)		1.8	1.7	1.7	1.6
13. Employment in Services (% total employment)		28.8	29.3	28.9	29
14. Employment in Industry (% total employment)		30.3	28.8	27.1	25.8
15. Employment in Agriculture (% total employment)		40.9	42	44	45.2
16. Activity rate (% population aged 15-64)		71.5	70.3	69.8	69.6
17. Total unemployment (000)		653.6	661.9	733.2	816.1
18. Unemployment rate (% labour force 15+)		5.5	5.6	6.2	7
19. Youth unemployment rate (% labour force 15-24)		17.4	16.8	17.3	17.8
20. Long term unemployment rate (% labour force)		2.6	2.5	2.8	3.4
21. Youth unemployment ratio (% population aged 15-24)		8	7.5	7.4	7.4
<b>Male</b>					
1. Total population (000)		10864.2	10897.9	10870.2	10862.8
2. Population aged 15-64		7457.3	7485.3	7477	7499.1
3. Total employment (000)		5961.6	5900.8	5807.6	5750
4. Population in employment aged 15-64		5470.8	5380	5261	5211.6
5. Employment rate (% population aged 15-64)		73.4	71.9	70.4	69.5
6. Employment rate (% population aged 15-24)		42.1	41.6	38.8	36.9
7. Employment rate (% population aged 25-54)		88.6	86.4	85.2	84.6
8. Employment rate (% population aged 55-64)		62.8	61.9	59.4	57.4
9. FTE employment rate (% population aged 15-64)		75.6	73.3	71.3	70.5
10. Self-employed (% total employment)		26.6	28	30.1	32.6
11. Part-time employment (% total employment)		12.5	13.6	14	14.3
12. Fixed term contracts (% total employment)		1.9	1.8	1.8	1.7
13. Employment in Services (% total employment)		26.3	26.8	26.5	26.6
14. Employment in Industry (% total employment)		36.5	34.6	32.7	30.7
15. Employment in Agriculture (% total employment)		37.2	38.6	40.8	42.8
16. Activity rate (% population aged 15-64)		77.7	76.7	76.1	75.7
17. Total unemployment (000)		326	361.2	427.8	465.5
18. Unemployment rate (% labour force 15+)		5.2	5.8	6.9	7.5
19. Youth unemployment rate (% labour force 15-24)		15.9	16.7	18.8	19.3
20. Long term unemployment rate (% labour force)		2.3	2.4	2.9	3.8
21. Youth unemployment ratio (% population aged 15-24)		8	8.3	9	8.8
<b>Female</b>					
1. Total population (000)		11462.9	11499	11487.4	11475.4
2. Population aged 15-64		7696.3	7709.9	7713.4	7714.2
3. Total employment (000)		5238.4	5196.3	5214.4	5147.5
4. Population in employment aged 15-64		4704.9	4633.2	4608.7	4553.4
5. Employment rate (% population aged 15-64)		61.1	60.1	59.7	59
6. Employment rate (% population aged 15-24)		34.2	33.3	31.9	31.1
7. Employment rate (% population aged 25-54)		75.8	74.3	74.1	72.7
8. Employment rate (% population aged 55-64)		48.2	48.4	47.3	47.3
9. FTE employment rate (% population aged 15-64)		59.6	58.2	57.9	57.3
10. Self-employed (% total employment)		17.6	17.7	16.8	17.4
11. Part-time employment (% total employment)		18.3	19.4	19.2	18.6
12. Fixed term contracts (% total employment)		1.7	1.7	1.7	1.5
13. Employment in Services (% total employment)		31.7	32	31.7	31.7
14. Employment in Industry (% total employment)		23.3	22.2	20.8	20.4
15. Employment in Agriculture (% total employment)		45	45.8	47.6	47.9
16. Activity rate (% population aged 15-64)		65.4	64	63.7	63.6
17. Total unemployment (000)		327.7	300.7	305.4	350.5
18. Unemployment rate (% labour force 15+)		5.9	5.5	5.5	6.4
19. Youth unemployment rate (% labour force 15-24)		19.2	16.9	15.5	15.9
20. Long term unemployment rate (% labour force)		3	2.5	2.8	3.1
21. Youth unemployment ratio (% population aged 15-24)		8.1	6.8	5.8	5.9

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.



## Key employment indicators in Slovakia

All	1996	1997	1998	1999	2000
1. Total population (000)				5369.1	5377
2. Population aged 15-64				3657	3692.4
3. Total employment (000)				2128.3	2083.4
4. Population in employment aged 15-64				2121.2	2078.3
5. Employment rate (% population aged 15-64)				58	56.3
6. Employment rate (% population aged 15-24)				31.1	28.3
7. Employment rate (% population aged 25-54)				75.9	74.2
8. Employment rate (% population aged 55-64)				22.2	21.5
9. FTE employment rate (% population aged 15-64)				58	56.4
10. Self-employed (% total employment)				7.4	7.8
11. Part-time employment (% total employment)				2.1	1.9
12. Fixed term contracts (% total employment)				3.4	3.7
13. Employment in Services (% total employment)				54.3	55.8
14. Employment in Industry (% total employment)				38.4	37.3
15. Employment in Agriculture (% total employment)				7.2	6.9
16. Activity rate (% population aged 15-64)				69	69.5
17. Total unemployment (000)				403.8	490.7
18. Unemployment rate (% labour force 15+)				15.9	19.1
19. Youth unemployment rate (% labour force 15-24)				32	36.9
20. Long term unemployment rate (% labour force)				7.4	10.3
21. Youth unemployment ratio (% population aged 15-24)				14.7	16.5
<b>Male</b>					
1. Total population (000)				2599.5	2603.5
2. Population aged 15-64				1801.9	1821.5
3. Total employment (000)				1159.1	1125.4
4. Population in employment aged 15-64				1154	1121.6
5. Employment rate (% population aged 15-64)				64	61.6
6. Employment rate (% population aged 15-24)				33.1	28.7
7. Employment rate (% population aged 25-54)				81.3	79.1
8. Employment rate (% population aged 55-64)				36.4	35.2
9. FTE employment rate (% population aged 15-64)				65.2	62.7
10. Self-employed (% total employment)				10.1	10.9
11. Part-time employment (% total employment)				1.1	1
12. Fixed term contracts (% total employment)				3.4	3.4
13. Employment in Services (% total employment)				42	43.6
14. Employment in Industry (% total employment)				48.7	47.3
15. Employment in Agriculture (% total employment)				9.3	9.2
16. Activity rate (% population aged 15-64)				76.3	76.5
17. Total unemployment (000)				220.5	271.6
18. Unemployment rate (% labour force 15+)				16	19.4
19. Youth unemployment rate (% labour force 15-24)				33.1	40
20. Long term unemployment rate (% labour force)				6.9	10.4
21. Youth unemployment ratio (% population aged 15-24)				16.4	19.1
<b>Female</b>					
1. Total population (000)				2769.6	2773.5
2. Population aged 15-64				1855	1870.9
3. Total employment (000)				969.2	958.1
4. Population in employment aged 15-64				967.2	956.7
5. Employment rate (% population aged 15-64)				52.1	51.1
6. Employment rate (% population aged 15-24)				29.1	27.9
7. Employment rate (% population aged 25-54)				70.5	69.3
8. Employment rate (% population aged 55-64)				10.6	10.2
9. FTE employment rate (% population aged 15-64)				51	50.2
10. Self-employed (% total employment)				4.2	4.2
11. Part-time employment (% total employment)				3.2	2.9
12. Fixed term contracts (% total employment)				3.5	4.1
13. Employment in Services (% total employment)				69.1	70.2
14. Employment in Industry (% total employment)				26.1	25.5
15. Employment in Agriculture (% total employment)				4.8	4.3
16. Activity rate (% population aged 15-64)				62	62.8
17. Total unemployment (000)				183.3	219.1
18. Unemployment rate (% labour force 15+)				15.9	18.6
19. Youth unemployment rate (% labour force 15-24)				30.8	33.3
20. Long term unemployment rate (% labour force)				8.1	10.1
21. Youth unemployment ratio (% population aged 15-24)				13	13.9

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.



## Key employment indicators in Slovenia

All	1996	1997	1998	1999	2000
1. Total population (000)	1991.2	1986.4	1983.4	1979.7	1988.2
2. Population aged 15-64	1387.9	1383.7	1381.8	1379.3	1393.1
3. Total employment (000)	871.1	893.4	904.7	888.7	893.6
4. Population in employment aged 15-64	856.9	868.7	878	862.5	872.9
5. Employment rate (% population aged 15-64)	61.7	62.8	63.5	62.5	62.7
6. Employment rate (% population aged 15-24)	35.5	38.5	36.2	32.9	31.2
7. Employment rate (% population aged 25-54)	82	81.3	82.2	82.2	82.6
8. Employment rate (% population aged 55-64)	19.9	22.7	25.9	23.4	22.3
9. FTE employment rate (% population aged 15-64)	60.5	60.9	61.8	60.8	61.5
10. Self-employed (% total employment)	12.6	12	12.5	12.6	11.2
11. Part-time employment (% total employment)	6.8	8.2	7.6	6.6	6.1
12. Fixed term contracts (% total employment)	7	11.6	9.2	8.8	10.8
13. Employment in Services** (% total employment)	47.8	47.4	48.4	51.4	52.7
14. Employment in Industry** (% total employment)	42	40.5	39.5	37.8	37.7
15. Employment in Agriculture** (% total employment)	10.2	12.1	12.1	10.8	9.6
16. Activity rate (% population aged 15-64)	66.3	67.4	68.8	67.6	67.4
17. Total unemployment (000)	64.6	63.6	72.2	70.2	66.4
18. Unemployment rate (% labour force 15+)	6.9	6.6	7.4	7.3	6.9
19. Youth unemployment rate (% labour force 15-24)	16.6	16.3	17.6	18.5	16.4
20. Long term unemployment rate (% labour force)	3.5	3.4	3.4	3.1	4.3
21. Youth unemployment ratio (% pop. aged 15-24)	7.1	7.5	7.7	7.5	6.1
<b>Male</b>					
1. Total population (000)	964.7	969.1	966.7	964.3	970.5
2. Population aged 15-64	691.6	698.4	699.1	698.4	704
3. Total employment (000)	464.5	480	486.1	480.1	481.1
4. Population in employment aged 15-64	456.7	468.7	471.8	466.8	469.7
5. Employment rate (% population aged 15-64)	66	67.1	67.5	66.8	66.7
6. Employment rate (% population aged 15-24)	37.1	42.6	38.4	34.7	34.7
7. Employment rate (% population aged 25-54)	85.4	84.3	85.7	85.6	85.5
8. Employment rate (% population aged 55-64)	28.1	29.8	32.8	32.2	31
9. FTE employment rate (% population aged 15-64)	65.5	65.8	66.2	65.5	66.1
10. Self-employed (% total employment)	16.9	15.8	16.7	16.6	15.3
11. Part-time employment (% total employment)	5.2	6.7	6.7	5.6	4.7
12. Fixed term contracts (% total employment)	6.2	10.8	7.9	7.9	10.1
13. Employment in Services (% total employment)	38.8	39	40.3	42.9	44.8
14. Employment in Industry (% total employment)	50.4	49.2	47.8	46.4	45.7
15. Employment in Agriculture (% total employment)	10.7	11.8	11.9	10.7	9.5
16. Activity rate (% population aged 15-64)	71.1	71.8	73	72.2	71.7
17. Total unemployment (000)	35.7	32.7	38.4	37.2	35.1
18. Unemployment rate (% labour force 15+)	7.1	6.4	7.3	7.2	6.8
19. Youth unemployment rate (% labour force 15-24)	16.7	14.1	17	17.2	14.8
20. Long term unemployment rate (% labour force)	3.7	3.5	3.3	3.3	4.4
21. Youth unemployment ratio (% population aged 15-24)	7.4	7	7.9	7.2	6
<b>Female</b>					
1. Total population (000)	1026.4	1017.4	1016.7	1015.4	1017.7
2. Population aged 15-64	696.3	685.3	682.7	680.9	689
3. Total employment (000)	406.6	413.5	418.5	408.6	412.5
4. Population in employment aged 15-64	400.2	400	406.2	395.7	403.1
5. Employment rate (% population aged 15-64)	57.5	58.4	59.5	58.1	58.5
6. Employment rate (% population aged 15-24)	34	34.3	34	31.2	27.4
7. Employment rate (% population aged 25-54)	78.5	78.1	78.5	78.6	79.6
8. Employment rate (% population aged 55-64)	12.9	16.4	19.4	14.9	14.3
9. FTE employment rate (% population aged 15-64)	55.6	55.9	57.2	56.1	56.8
10. Self-employed (% total employment)	7.7	7.5	7.7	8	6.5
11. Part-time employment (% total employment)	8.6	9.9	8.7	7.8	7.7
12. Fixed term contracts (% total employment)	7.9	12.6	10.8	9.9	11.7
13. Employment in Services (% total employment)	58.1	57.1	57.8	61.3	62
14. Employment in Industry (% total employment)	32.3	30.4	29.9	27.8	28.4
15. Employment in Agriculture (% total employment)	9.6	12.5	12.3	11	9.7
16. Activity rate (% population aged 15-64)	61.5	62.9	64.4	63	63.1
17. Total unemployment (000)	29	30.9	33.8	33	31.4
18. Unemployment rate (% labour force 15+)	6.6	7	7.5	7.5	7.1
19. Youth unemployment rate (% labour force 15-24)	16.5	19.1	18.2	19.8	18.5
20. Long term unemployment rate (% labour force)	3.2	3.4	3.5	2.8	4.3
21. Youth unemployment ratio (% population aged 15-24)	6.7	8.1	7.6	7.7	6.2

Source: Eurostat

Note: For reasons of consistency, no data are presented for the years in which data from the Labour Force Survey are not available.

# Data Sources

Most of the data used in this report originates from Eurostat, the Statistical Office of the European Communities. The main data sources used are:

- the European Community Labour Force Survey (LFS)
- the Eurostat Quarterly Labour Force Data (QLFD) series
- the European Community Household Panel (ECHP)
- the Eurostat harmonised series on unemployment
- the Annual Macroeconomic Database (AMECO)

**The European Community Labour Force Survey (LFS)** is the EU's harmonised survey on labour market developments. The survey has been carried out since 1983 in the EU Member States. Some Member States provide quarterly results from a continuous labour force survey, others conduct a single annual survey in the spring. If not mentioned otherwise, results based on the LFS refer to surveys conducted in the spring ("second quarter") of each year.

**The Quarterly Labour Force Data (QLFD)** series is a harmonised series of quarterly employment statistics based on LFS and on national sources where applicable. It covers all EU Member States for the period of 1991 to present. All key employment indicators except the full-time equivalent employment rate, the unemployment rates and the youth unemployment ratio are based on the QLFD series. They present yearly averages if not stated otherwise. Where the QLFD series does not provide the relevant breakdowns the original LFS data were used in this report.

The QLFD consist of two sets of quarterly series: 1) population, employment and unemployment by sex and age, mainly based on the community LFS results, and 2) employment by economic activity and employment status (mainly based on the ESA-1995 national accounts employment data), further broken down by sex and by some job characteristics.

## 1) Population, employment and unemployment by sex and age

The community LFS results (provided by the National Statistical Offices in accordance with Council Regulation n° 577/1998) are made consistent over time (to eliminate breaks in the series) and completed (by estimates based on national employment data or on other sources) when quarterly community LFS results are not available. Data include the population living in private households only (collective households are excluded) and refer to the place of residence (national concept). They are provided by aggregate age-group breakdowns (15-24, 25-54, 55-64, 15-64). For Bulgaria, Lithuania and Poland total population excludes those aged below 15 due to lack of data in the LFS. In 1997, population and employment data for Estonia refer to the age group 15-75.

The employment data by sex and age are further broken down by civilian employment and armed forces. The unemployment data by sex and age are further broken down by job search duration (less than 6 months, 6-11, 12-23, 24 or more)

## 2) Employment by economic activity and employment status

The ESA-1995 employment data (provided by the National Statistical Offices in accordance with Council Regulation n° 2223/1996) are available by NACE, rev.1-A6 and by employment status (employees/self-employed persons). They are made consistent over time where necessary and completed (by estimates based on LFS results or national employment data sources) when quarterly ESA-1995 data are not available. Data cover all people employed in resident producer units (domestic concept), including persons living in collective households. They are further broken down by sex, full-time/part-time, permanent/temporary contracts (using a top-down approach with LFS or other national data).

**The European Community Household Panel (ECHP)** is an annual longitudinal survey of a representative panel of households launched in 1994, covering living conditions, employment status, health, education and income. Data were available for the first three waves of the panel (1994-1996) at the time of publication of this report. The survey is based on a harmonised questionnaire from Eurostat and subsequently adapted by national agencies. Data are accessible to the public by means of the ECHP user database. Results on quality in work and on transitions between labour market states or job characteristics are based on this database.

For the unemployment related indicators, the main source is the Eurostat **Harmonised series on unemployment**. This is a data set on unemployment collected by Eurostat comprising of yearly averages, quarterly and monthly data. It is based on LFS and register data on unemployment from national sources. Monthly data from national surveys or from registers of the public employment services are used to extrapolate the LFS data and to compile monthly unemployment estimates. This data set does not cover skills, sectors or occupations for the analysis of which the LFS was used instead.

Macroeconomic indicators are obtained from the Economic and Financial Affairs DG **Annual Macroeconomic Database (AMECO)** and are based on ESA 95 national accounts. The database comprises inter alia information on GDP, productivity, real unit labour costs and employment growth. The data is collected by Eurostat from the Member States' National Statistical Offices. Besides regular weekly updates this database is revised twice a year in the framework of the Commission's Spring and Autumn Economic Forecasts.

### Definitions and Data Sources of Macroeconomic Indicators

Sources: AMECO and national accounts (ESA 95)  
OECD for annual average hours worked

1. Real GDP, Gross Domestic Product at 1995 market prices, annual change
2. Occupied population, Occupied population total economy, annual change
3. Labour productivity, GDP at 1995 market prices per person employed.
4. Annual average hours worked (source: OECD)
5. Productivity per hours worked, Gross domestic product per hours worked, annual change
6. Harmonised CPI, Harmonised consumer price index, annual change
7. Price deflator GDP, Price deflator Gross domestic product at market prices, annual change
8. Nominal compensation per employee total economy, annual change
9. Real compensation per employee deflator Gross domestic product, total economy, annual change
10. Real compensation per employee total economy (private consumption deflator), annual change
11. NULC, Nominal unit labour costs total economy, annual change.
12. RULC, Real unit labour costs total economy, annual change

### Definitions and Data Sources of Key Employment Indicators

Sources: QLFD, LFS, Eurostat harmonised series on unemployment

1. Total population in 000s (source: Eurostat, QLFD)
2. Total Population aged 15-64 in 000s (source: Eurostat, QLFD)
3. Population in employment aged 15+ in 000s (source: Eurostat, QLFD)
4. Population in employment aged 15-64 in 000s (source: Eurostat, QLFD)
- 5-8. Employment rate, Employed divided by population in the corresponding age bracket (source: Eurostat, QLFD)
9. Full-time equivalent employment rates.  
The full-time equivalent employment rate is calculated by dividing the full-time equivalent employment by the total population in the 15-64 age-group. Full-time equivalent employment is defined as total hours worked divided by the average annual number of hours worked in full-time jobs within the economic territory (European System of Accounts 1995). The data for making this calculation is obtained from the LFS which contains information on the hours worked in a person's main employment (first job) and also, for persons with more than one job, those worked in a second job. To obtain the total number of hours worked, the hours worked in the second job were added to those worked in the first job.
10. Self-employed in total employment, Number of self-employed as the share of total employment (source: Eurostat, QLFD)
11. Part-time employment in total employment, Number of part-time employed as a share of total employment (source: Eurostat, QLFD)
12. Fixed term contracts in total employment (total employees), Number of employees with contracts of limited duration as a share of total employees (source: Eurostat, QLFD)
13. Employment in services, Employed in services as a share of total employment (source: Eurostat, QLFD)
14. Employment in industry, Employed in industry as a share of total employment (source: Eurostat, QLFD)
15. Employment in agriculture, Employed in agriculture as a share of total employment (source: Eurostat, QLFD)
16. Activity rate, Labour force (employed and unemployed) as a share of total population aged 15-64 (source: Eurostat, QLFD)
17. Total Unemployment in 000s (source: Eurostat harmonised series on unemployment)
- 18-19. Unemployment rates, Unemployed as a share of the labour force (employed and unemployed) in the corresponding age bracket (source: Eurostat harmonised series on unemployment)
20. Long-term unemployment rate, Unemployed with a duration of 12 months or more as a share of the labour force (source: Eurostat harmonised series on unemployment)
21. Youth unemployment ratio, young unemployed (aged 15-24) as a share of total population in the same age bracket (source: Eurostat harmonised series on unemployment)

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