Employment in Europe 2000

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Employment in Europe 2000

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Overview and summary

The employment performance of the EU improved significantly in 1999. Some 2.1 million more jobs were created and the employment rate rose to 62.1%. Over the past three years, more than 4 million new jobs have been created in Europe. The strong performance of the economy and the progressive implementation of the Employment Strategy — led by the Employment Guidelines — have played their part in this improvement.

In Lisbon, earlier this year, the Heads of State and Government decided to take a further major step: they endorsed a new strategic goal to be attained by 2010: *"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."*

Regaining "full employment" is at the core of the new strategy. The European Council set out — as the key indicator of success — that by 2010, the employment rate should rise to close to 70% for the Union as a whole and to over 60% for women. Economic, employment and social policies should be geared together for achieving the conditions for full employment. A sustained, favourable economic outlook, modernising the European social model, implementing the Lisbon programme of structural reforms and preparing the transition to the knowledge based economy and society, provide the keys to achieving this ambitious objective for Europe.

Adapting to new technologies and knowledge is central to creating more and better jobs and preserving social cohesion. Skill-intensive, high-productive jobs are still relatively scarce in most Member States compared with both the US and with those Member States with the highest employment rates. A substantial gender gap and important regional imbalances are still features of the employment performance of the EU.

This Report examines in detail basic elements of the employment challenge renewed in Lisbon. Beyond recent employment trends in 1999, the Report sets out how each Member State is expected to contribute to achieving the Union's employment objectives. It analyses both the nature and quality of jobs being created, with special focus on its gender dimension and the evolution of social and regional imbalances in the EU. In view of the forthcoming enlargement of the Union, the Report also reviews progress in transforming the labour markets in the Central European candidate countries. Finally, the Report assesses the impact of tax and benefit systems on employment, gauging the tax burden on labour and the tax wedge as well as coverage and replacement rates of unemployment benefits and early retirement systems.

Job creation strengthens in 1999

The EU labour market showed better employment performance overall in 1999:

- Employment increased by 1.4%, on top of the 1.3% rise in 1998, bringing the EU employment rate to 62.1% from 61.4% in 1998 (Graph I). Employment growth was stronger than expected in several Member States. This trend is expected to continue in 2000 and 2001.

- Allowing for the lagging response of employment to the change in GDP, the increase in productivity was only just over 1% in both 1998 and 1999, compared with the apparent long

term trend in productivity growth of 1.8% between 1980 and 1995.

- Unemployment continued to fall for the third year in succession, reaching 9.2%. The youth unemployment ratio averaged 8.5% — slightly lower than at the beginning of the decade, but long-term unemployment remains at 4% of the labour force.

- Half the new jobs created since 1994 have been taken by the unemployed, compared to one third in the previous expansion between 1986 and 1990.

- Employment expanded in all Member States, but unevenly. In four countries, employment is still below its 1990 level. In particular, Germany is still below its lowest level of 1994 because of poor job creation — 0.5% — in both 1998 and 1999.

Three laggards depress EU employment rate

Employment rates in 1999 returned, in most countries, back to the levels recorded prior to the job recession of the early nineties.

- The improvement in the employment rate in the Union would have been better had it not been hampered by poor job performance in three of the large Member States, where employment rates rose by only around 1 percentage point or less between 1997 and 1999. In Germany, in particular, which accounts for a quarter of total employment in the EU, the rise in the employment rate was negligible (only 0.2 percentage points).

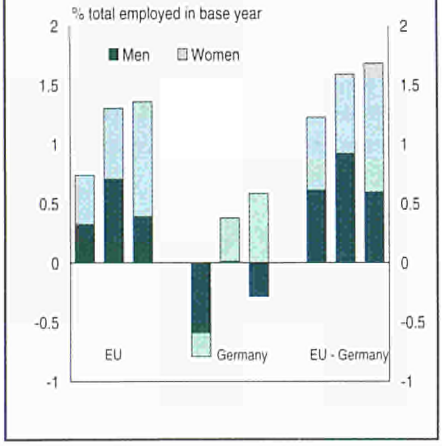
- Employment among women improved in all Member States, noticeably more in those with the lowest female employment rates, such as Italy, where the employment rate for women is only 38% but women accounted for 85% of net new jobs.

- Employment among workers over 55 of both sexes continued to decline in some Member States (Germany, Greece, France and Italy). The Netherlands was the outstanding exception, as the employment rate of men over 55 rose by some 5.5 percentage points. This reversal in the effective retirement age in the Netherlands, as well as significant increases in the employment rates of young people and sizeable creation of part-time work, go far towards explaining why the simple employment rate in the Netherlands has risen to become the second highest in the Union.

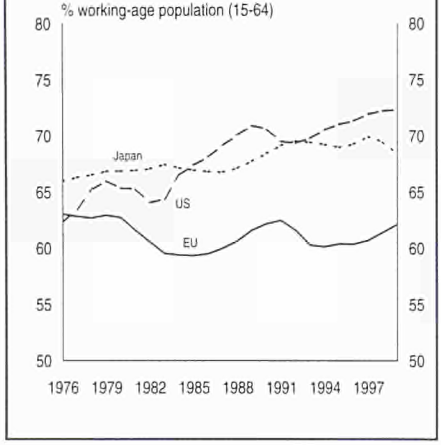
- While Europe has started to catch up in comparison to the US and Japan (Graph II), the age and gender differential between EU and US employment rates remains high for women and workers under 25 and over 55 (Graph III).

- Employment rates improved thanks to strong job creation in services — over 2% with a cumulative rise of 9% since 1994. Employment in services now represents two thirds of total employment in the EU. Noticeably, manufacturing employment also increased in 1999, reversing the previous decline between 1994 and 1997. However, manufacturing employment was still declining in Germany, where the number in work fell by 8% and the

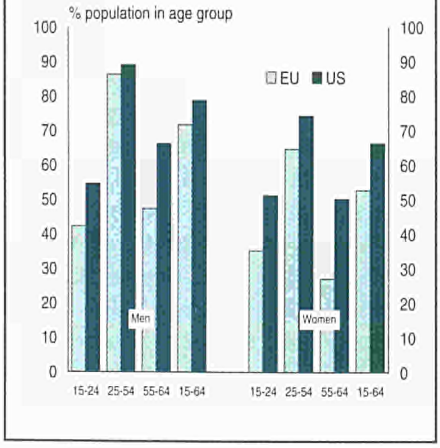
I Change in employment, 1996-97, 1997-98, 1998-99



II Employment rates in the Union, US and Japan, 1976-99



III Employment rates by age group in the Union and US, 1999



employment rate in this sector declined by over 2 percentage points

Changing nature and quality of jobs

1. The growing importance of knowledge for job creation

Knowledge intensity has become a key dimension in job creation. The "knowledge triangle" (i.e. innovation, education, technology) describes the close relationship between skills and educational levels on the one hand and employment on the other. This does not mean that all jobs created are highly skilled but there is evidence that without a strong boost in knowledge based employment and activity, overall job creation remains weak and fragile.

- A highly educated workforce is conducive to strong and sustained employment performance. The high education sectors (those with more than 40% of workers with tertiary education) are relatively small, accounting for only a quarter of total employment, but provide most of the jobs created in the EU (Graph IV). Economies with slow job creation have created few jobs in the high education sectors. The fast growing economies, which created more jobs in the high education sectors, have also experienced strong job creation in other sectors. This seems to indicate that the high education sectors do not only create jobs that require tertiary education but also jobs for people with lower educational levels.

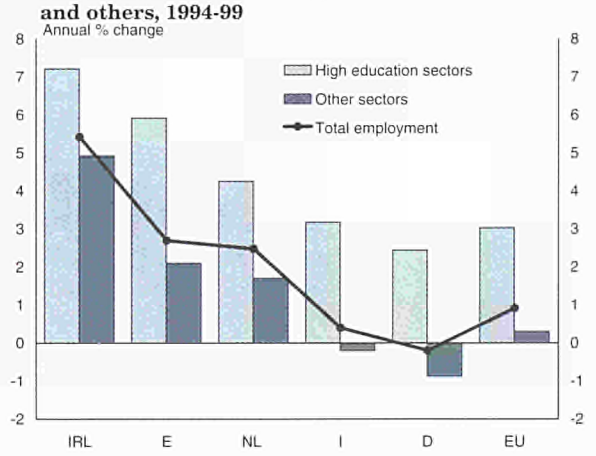
- Economies which create skill-intensive, high quality jobs also create other jobs. Obstacles like the high burden of taxation on labour utilisation and the tax-benefit system are, however, also affecting the nature and substance of jobs created, in particular those with a lower skill content. Only a few Member States have succeeded in addressing this issue.

- The increase in high skilled jobs accounted for almost two-thirds of net employment creation in 1999 and for a similar percentage over the last five years (Graph V). High skilled jobs dominate employment growth in fast and medium growing sectors. In declining and stagnating sectors they are the only jobs being created. In dynamic sectors other types of jobs, including low skilled, non-manual ones, are also on the increase. Manual jobs are increasing in the dynamic sectors but declining strongly in shrinking sectors.

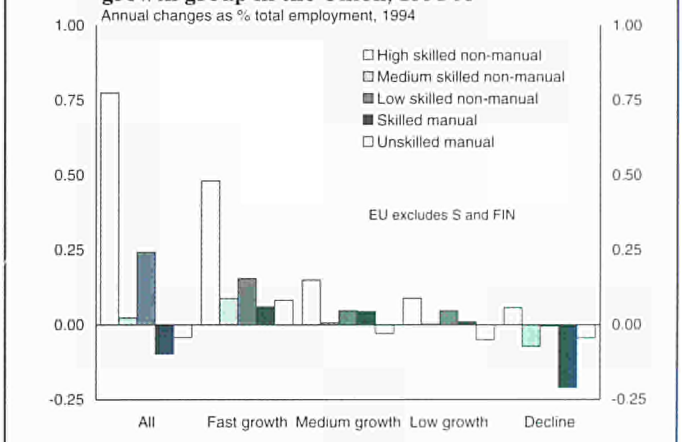
- The occupational structure reflects these findings: over the last five years 90% of net employment creation took place in jobs for managers, professionals and technicians — jobs which are usually perceived as of higher quality and with better career prospects. This is less true for women than for men. While women benefited from higher job creation in knowledge-intensive sectors, they are under-represented in jobs at higher levels of management and pay.

High education sectors and dynamic sectors as defined in the Report include Information and

IV Employment growth in high education sectors and others, 1994-99



V Contribution to change in total employment by growth group in the Union, 1994-99



Communication Technologies (ICT) related business services and Research and Development (R&D) activities but also cover major industries such as computer and office machinery manufacturing, recreational and cultural activities, health and social services. Moreover, the emergence of a new 'knowledge based economy' pervades across practically all sectors and industries.

Policies need to address the labour market situation of workers in a broad range of sectors and not just those who are already highly skilled in a limited number of activities. Improving the educational level of the present and future work force and upgrading the skill level of those already in employment is a key element in the strategy.

2. Flexibility vs. security: a new balance?

A further important dimension of the change in the nature and the quality of jobs is job security and flexibility.

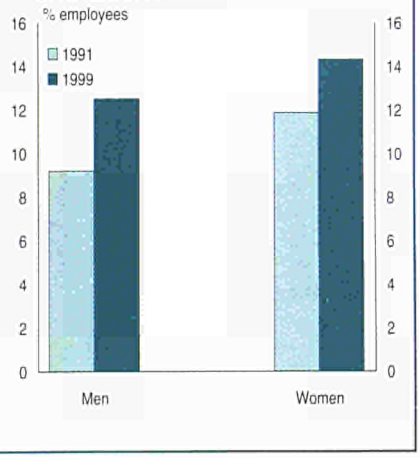
- Recovery is now favouring more stable employment. The proportion of workers on fixed-term contracts (temporary work) in all new jobs created was only slightly over a third in 1999, compared with 50% in previous years. However, fixed-term contracts are significant in many EU labour markets, with just over 13% of all employees working in temporary jobs. The share of men on fixed-term contracts has increased from around 9% in 1991 to 12.5% in 1999 and from 12% to 14% for women (Graph VI). Workers with such contracts are more likely to have low education (Graph VII) and to work in low skill-intensive jobs. There is also a smaller group of temporary workers who have high educational levels and seem to work in high skilled jobs. Few temporary workers have middle level jobs.

- The current job recovery may be linked to jobs of better quality, mirroring the trends in the late 1980s. For the first time since 1990, full-time jobs created — some 63% in 1999 — exceeded the number of part-time jobs created (Graph VIII). Women took most of these new jobs and account for 80% of all those working part-time.

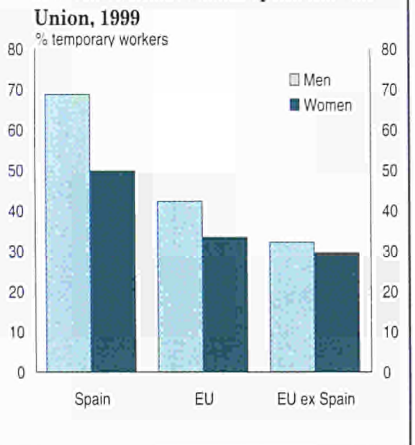
- Most part-time work is voluntary and the share of voluntary part-time working in total employment has increased from about 12% in 1991 to 15% in 1999. There has also been an increase in the share of workers in involuntary part-time work over this period. This type of work has increased for both men and women and is now about 1.5% of total employment for men and over 5% for women. Among workers previously unemployed, the share of involuntary part-time working is particularly high.

In summary, the observed increase of more flexible forms of contractual arrangements in the 1990s may well reflect a better match of the needs of enterprises and the demands of workers. There are signs of employment contracts becoming more stable over the most recent period of the recovery. However, given the simultaneous increase in involuntary part-time working and the skill composition of temporary employment, concerns about security and career development seem to be well founded. Many of these jobs seem not to offer adequate income security to many individuals and households. The challenge is to open human resource and career development for workers in such forms of employment to ensure that they

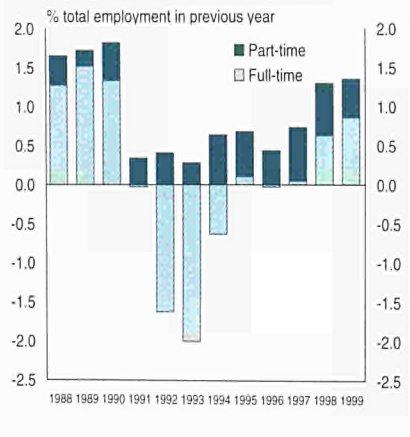
VI Temporary employment in the Union, 1991 and 1999



VII Men and women in temporary jobs with low education levels in Spain and the Union, 1999



VIII Change in part-time and full-time employment in the Union, 1988-99



benefit from the recovery and have access to higher skilled and productive activity.

Women continue to outperform men

The situation of women on EU labour markets continued to improve in 1999.

- Women were the main beneficiaries of employment created in 1999. Women took some 70% of new jobs. Between 1994 and 1999, two-thirds of the 6.8 million new jobs went to women.

- Female employment rates in the EU reached 52.5% in 1999, compared to 71.5% for men. The employment gender gap has thus shrunk to 19 percentage points, compared with 24.5 points at the beginning of the 1990s. However, given that a third of all women in employment work part time, the gender gap in Full-Time Equivalent terms is still just under 30 percentage points (84% of women working part time wish to do so).

- Female employment remains concentrated in a few sectors: in 1999, just over one employed woman in six worked in health and social services, and over 60% work in just 6 sectors, those which have been expanding in the last few years. Most of the sectors employing women also demand a high level of education. Women outnumber men in higher skilled occupations such as professionals and technicians. Even so, there is a larger number of men in supervisory activities than women (Graph IX).

- There is also some evidence that the gap between men's and women's earnings, which is a feature in all Member States and for practically all sectors and occupations to varying degrees, is particularly pronounced at the top end of the scale. This evidence appears to lend some credence to the view that there is a 'glass ceiling' restricting women's career prospects relative to men's.

In summary, the increased participation of women in the labour market gives new impetus to policies promoting the reconciliation of work and family life and accommodating the wish to work shorter hours. There is a new focus on addressing the great concentration of women in employment in a few, albeit expanding, sectors, and opening access to equal levels of seniority, responsibility and pay.

Unemployment falls, but not enough

The rate of unemployment in the Union averaged 9.2% in 1999, the third year in succession that the rate had fallen. It meant that unemployment was some 2 percentage points below its peak of 11.1% in 1994 (Graph X). By August 2000, the rate had fallen further to 8.3%.

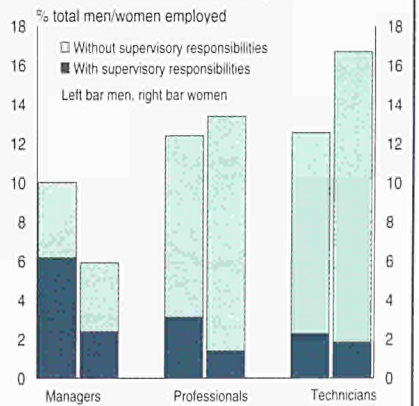
Despite falling unemployment in the Union, rates are still far higher than in the US where unemployment was only around 4% (4.1%) in August 2000 after peaking at 7.5% in mid-1992. In contrast, unemployment in Japan has risen in recent years and stood at 4.5% in August 2000, having almost doubled since 1993.

In August 2000, there were 14.3 million people out of work in the Union, down from the February 1994 peak of 18.7 million. Since 1996, the fall in unemployment has been gaining momentum, reflecting the increased rate of employment growth. Nevertheless, unemployment in the Union in 1999 was still 2 million higher than it had been in 1991.

At 10.8%, unemployment among women in 1999 was still well above that of men's 7.9% (Graph XI). The total declined slightly more than that of men during 1999, reflecting the higher rate of net job creation for women over the year.

During 2000, unemployment for both men and women has continued to fall at much the same rate, down to 7.1% for men and 9.9% for women.

IX Managers, professionals and technicians in the Union, 1999



X Unemployment rates in the Union, US and Japan, 1975-99

Youth employment acquiring momentum

The number of young people unemployed in the Union averaged 8.4% of those in the 15 to 24 age group in 1999. (Expressing youth unemployment in this way takes explicit account of the declining proportion of young people entering the labour force and the parallel increase in the proportion remaining in education and initial vocational training.) This was down from 9.2% in 1998 and from over 10.5% in 1994 and was slightly lower than at the beginning of the decade.

The conventional youth unemployment rate, expressed as a percentage of the labour force, was 17.7% in 1999. This was almost 2 percentage points lower than a year earlier and 4.5 percentage points lower than in 1994 (Graph XII). Youth unemployment has continued to fall during 2000, to 16.5% in August.

Although unemployment fell by similar amounts during 1999 for men and women in this age group (1.8 percentage points), the rate remains much lower for men (15.2% in August 2000) than women (18.0%) at the Union level. Over the recovery period as a whole, the gap between the two has widened (from less than 1.5 percentage points in 1994).

Tough going for long-term unemployed

Although the general situation on the labour market has improved, there is a risk of increasing polarisation, where well-qualified people advance to better positions while the less fortunate find themselves trapped between unemployment and low quality jobs. The risk of this duality depends not only on the individual characteristics of the worker, but also on his or her location.

- The employment recovery has largely created skill-intensive jobs requiring higher educational levels.

- This trend has exacerbated existing structural imbalances in the labour market with pockets of structural unemployment going hand in hand with skill shortages and bottlenecks in labour supply across a wide range of sectors and occupations, and not only in high skilled occupations.

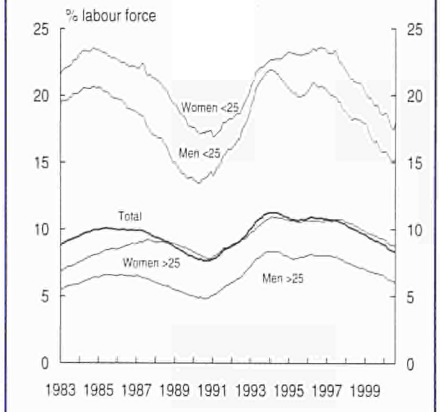
- At the same time, growing numbers of low skilled workers seem to be keeping their jobs only on a more precarious basis: on temporary contracts or in involuntary part time work.

- Progress in reducing long-term unemployment has been slow. Though falling, it still represents 46% of the total unemployed — some 4% of the total labour force have been out of work over twelve months and 2.5% for over 24 months.

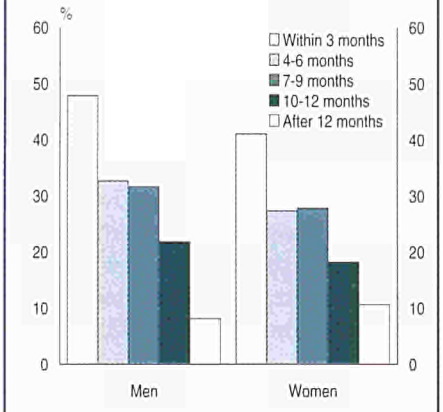
- *Tackling long-term unemployment therefore remains a priority in the EU.* A long spell out of work stands out as the most serious handicap for the unemployed to benefit from the current job recovery. The chances of finding a job diminish quite rapidly the longer a person remains out of work: an estimated 50% for every three months of unemployment spell. Almost half the men (over 40% of the women) found a job within three months of unemployment. But less than half the men who were still

XI Unemployment rates by sex in the Union, 1983 - August 2000

XII Unemployment rates by sex and age in the Union, 1983 - August 2000



XIII Men and women finding employment after job loss, 1993-95



unemployed after six months (only 40% of women) found a job over the following 9 months (Graph XIII). For women and older workers, finding a new job is more difficult.

- Regional disparities in employment within countries (e.g. the employment rate in the top 10% of regions relative to the bottom 10%) are sizeable and have increased over the last ten and more years. While the strong employment growth in 1999 narrowed regional discrepancies a little (Graph XIV), it is clear that without substantive improvements in the low employment regions, achieving high overall employment rates will not be possible.

Regional discrepancies are particularly problematic as there is evidence that the dynamism of the knowledge economy favours regions with a higher knowledge base. There is a serious danger that regional discrepancies, particularly in quality jobs, may increase, which also presents a threat to social cohesion.

Employment developments in candidate countries

Deepening economic and social integration between the candidate countries and the present EU has already linked developments in their labour markets. The Commission has recently released a study on the employment impacts of accession. It concluded that the overall labour market impacts of accession on the present Member States will be limited. The study also demonstrates that synergies between the "old" and "new" Members' labour markets will be best explored when candidate countries develop their employment systems proactively rather than reduce labour supply, invest strongly in their human resources and address some major imbalances in their labour markets and societies.

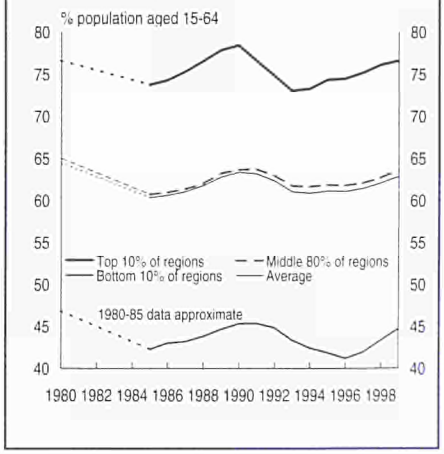
The recovery is now beginning to work through to the labour markets in Central European countries, depending on the extent to which they have re-oriented their economies towards the Union and made progress in the overall economic reform process. Overall, the analysis gives grounds for moderate optimism as the labour markets have — despite strong employment decline in the first half of the 1990s and beyond — remained relatively open to young people and to women (Graph XV). Trends in female employment suggest, however, that the promotion of female activity and equal opportunity require attention. Concerns arise from labour market trends for older workers. Policies to promote the employment of women and men over 55 are urgently required.

The biggest challenge appears to be the inherited educational and skill structure. Contrary to common belief, skill and educational levels in these countries are lower than in the Union and did not much improve in the 1970s, 1980s and up to the early 1990s. The distribution of unemployment by skill level is more uneven than in the Union and there is a large proportion of young people without adequate education. In the 1990s the earnings premium for higher education and skills has increased very substantially and there are already outspoken concerns about a growing divide between the knowledge-rich and knowledge-poor.

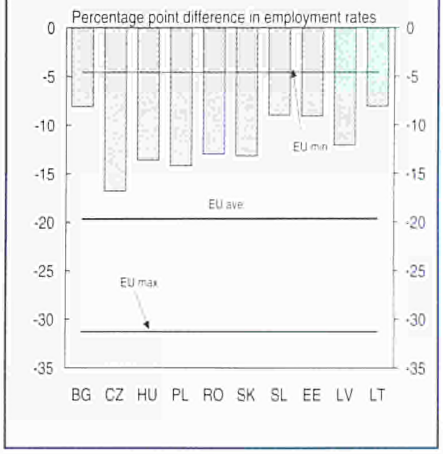
Recognition of this challenge has led to a number of policy responses in candidate countries. Reform efforts are underway: enrollment in general higher education has increased substantially in the more advanced candidate countries, a broadening of curricula in the technical and professional schools is underway. High drop-out rates remain a concern. Upgrading the existing labour force is a major challenge given the failures of the past.

The human resource situation in these countries is a challenge not only for these countries but also for the Union — and not only because of potential migration pressures. The main concern is that persistent low

XIV Average employment rates by region in the Union, 1980-99



XV Gap in female and male employment in Central Europe and the Union, 1998



education and skill levels in the future Member States will slow down economic and social development, thereby weakening their capacity to reduce the income differential with the EU. This would exacerbate already existing major inequalities between regions within these countries and between these regions and the mainstream in the present Union. It is in the common interest of the Union and the candidate countries to encourage and support labour market reform and human resource development as a key component of an economic and social development strategy.

Three Member States are key to 2010 target

Despite the favourable recovery of recent years, the Union still has its work cut out to absorb the cumulated unemployment backlog from past recessions. By late 1999, some 15 million individuals were still looking for work, and the employment rate was still more than 10% lower than in the US.

The Lisbon European Council has set out a quantified target to measure success in regaining full employment: to raise the overall employment rate in the EU to 70% by 2010 — 60% for women. Member States are asked to set themselves national targets in line with these overall objectives.

The Report does not forecast employment rates over the coming 10 years but develops a scenario of how an overall 70% employment rate could be achieved by each Member State increasing its respective employment rate. This scenario is based on carefully defined assumptions about the development and distribution of labour demand in the EU and Member States, the development of labour supply and the distribution of rising labour demand by gender and age group.

According to this scenario the EU economy will achieve an employment rate of 70% by 2010 and will narrow the difference between countries with the highest and the lowest employment rates — from 23 to 16 percentage points.

This scenario depends critically upon future trends in economic growth, employment, population structure, and labour force participation. In particular:

- those large Member States with hitherto poor job creation must succeed in raising their employment rates.

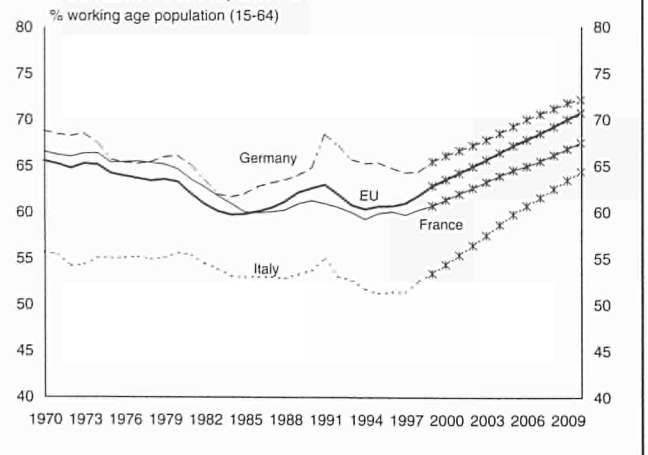
A better performance by large countries with recent poor job creation — Germany, Italy and France — is critical. Raising the three countries' employment rates will account for almost half of the projected increase for the EU15. Should they maintain the current lukewarm performance, the EU employment rate would only slightly exceed 66% in 2010 — more than 3.5 percentage points below target (Graph XVI). Furthermore, three Member States — Spain, Ireland and Greece — with the current lowest employment rates should continue strong job creation (Graph XVII) to raise their employment rates by more than 10% points by 2010.

- Employment across all age groups for both men and women must rise.

Progress in some Member States suggests that the scenario is

XVI Employment rates in the Union and selected Member States, 1970-2010

XVII Employment rates in the Union and selected Member States, 1970-2010



demanding but not unrealistic. Moreover, the scenario also points to the fact that even if Europe achieves an employment rate of 70% in 2010 and the required substantial increase in employment among workers over 55 years overall, adult dependency (the relationship between non-employed adults and employed adults) will still be higher in the Union than in the US.

- The declining trend in employment among young people observed during the 1990s must be reversed.

- Major policy efforts will be necessary to reverse the long-term secular downwards trend in employment among male workers over 55 and to ensure a strong increase among women in the same age bracket.

Looking at the outcomes of the projection exercise, the conclusion is that the Lisbon targets are ambitious but feasible. Feasible, because the necessary improvements in Member States employment performance are not out of their reach, ambitious, because it indeed requires sustained economic growth and some fundamental changes in the structure of labour demand and of labour supply.

Conclusions

1999 was a good year for employment in the EU. Employment growth has been faster and the prospects better than at any time since the late 1980s. Building upon favourable economic foundations, Member States made positive — in some cases, remarkable — progress in creating more and better jobs, reducing unemployment, and raising participation in work. The job recovery has begun to reach all groups in the labour market too, improving both social and regional cohesion in the EU.

The single currency, sound macroeconomics policies and the pursuit of structural economic reforms have combined with revamped labour market policies — under the process agreed by the European Council at Luxembourg in 1997— in underpinning the better performance of the EU labour markets. The latter has, in exchange, boosted overall economic performance and prospects and the implementation of comprehensive market reforms.

It is, however, still a major challenge to correct long-standing problems in the labour market and to address emerging problems. Some 14.4 million individuals are still unemployed. Employment rates, especially among women, are often still lower than in the early 1990s. Long-term unemployment remains a priority while gaps and obsolescence of skills in both active and inactive persons are emerging. Regulations and rigidities in product and labour markets hamper occupational and sectoral mobility. There has been little progress in reforming tax-benefit systems to make work pay. Finally, EU labour markets have to create highly-productive quality jobs.

EU labour markets also face fundamental challenges in the near future. The creation of high-quality productive jobs, and adapting to demographic ageing and to the enlargement of the Union, are good examples of what EU labour markets must be prepared for.

The Employment Strategy agreed at the Luxembourg Council in 1997 has worked well. The recent European Council in Lisbon has set out a new strategy for achieving full employment. Economic, employment and social policies will work together to attain this objective by 2010. Preserving the current favourable economic outlook and modernising the European social model are key courses for action. The European Council in Stockholm — next Spring 2001 — will review the progress made in bringing about the new paradigm for economic, employment and social policies.

The European Employment Strategy and the Social Policy Agenda recently adopted for 2000–2005 give the framework for employment and social policies in the near future. They will help build a sound basis for achieving the Lisbon strategy.

Now is therefore the right time to do it — we must not miss the current favourable outlook — we need to step up our efforts to further strengthen the EU economy and employment to meet the new challenges of the 21st century.

Chapter 1 Section 1 Employment trends in the European Union

Employment in Europe rose by over 2 million in 1999, bringing the employment rate to over 62%. In 1999, the number of full time jobs exceeded the number of part-time jobs created for the first time since 1990. Unemployment fell for the third year running and was under 8.5% in mid-2000, but long-term unemployment, particularly the reintegration of the long-term unemployed, remains a serious problem.

Strong employment growth

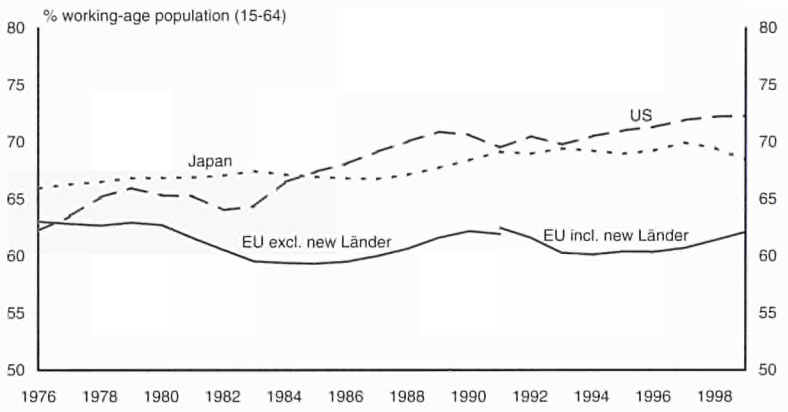
Employment rose again in 1999 following the continued expansion of the European economy: average GDP growth was just under 2.5% for the Union as a whole, some 0.5% less than in 1998. The overall employment rate in the Union (defined as the proportion of the population aged between 15 and 64 in work — see Box) rose to 62.1% in 1999 from 61.4% in 1998 (Graph 1).

Despite the lower economic growth rate, the employed population increased by marginally more in 1999 than in the previous year, 1.4% as opposed to 1.3%. This amounted to a rise of almost 2.1 million jobs in 1999 and 4 million in the two years. Employment growth in both years exceeded official forecasts because productivity growth, at just over 1% a year, was well below assumptions based on the long-term trend of around 1.8% a year over the preceding 20 years (Graph 2).

The effect of the significant employment expansion in 1998 and 1999 was an increase in the overall number of those who had found work in the Union since the beginning of the recovery in 1994 of almost 7 million, an increase of 4.5% over five years. Looking further back for comparison, the number employed in 1999 was almost 2.5 million more than at the onset of recession in 1991.

However, changes in working age population meant that the employment rate was at the same level as

1 Employment rates 15-64 in the Union, US and Japan, 1976-99



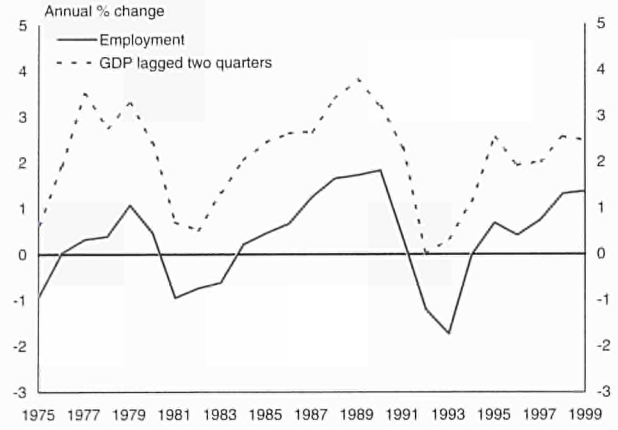
By 1999, the employment rate in the EU (the % of working-age population in work) had almost recovered to its level before the recession of the early 1990s, which in turn was below the level of the late-1970s. The rate in the US rose only marginally in 1999, while the rate in Japan fell but both were still well above the EU rate.

Source: Eurostat, EU LFS and national accounts; labour force statistics for US and Japan.

in 1990 and 2 percentage points higher than when the present recovery began in 1994. The 1999 increase in the rate was higher than the small advance registered in the US, where the number employed rose by much the same as in the EU but where the working-age population grew by much more.

The increase in the Union's rate of full-time equivalent (FTE) employment (adjusting the number employed by the number of hours they work) was below the growth in the simple rate. In 1999, the FTE rate averaged 56.5% of working-age population, slightly more than 1 percentage point higher than in 1994. This was because many of the people entering employment during this period went into part-time jobs, which, as described below, employed over 17.5% of the total number of people in work in 1999, as opposed to 15.5% five years earlier.

2 Growth of GDP and employment in the Union, 1975-99

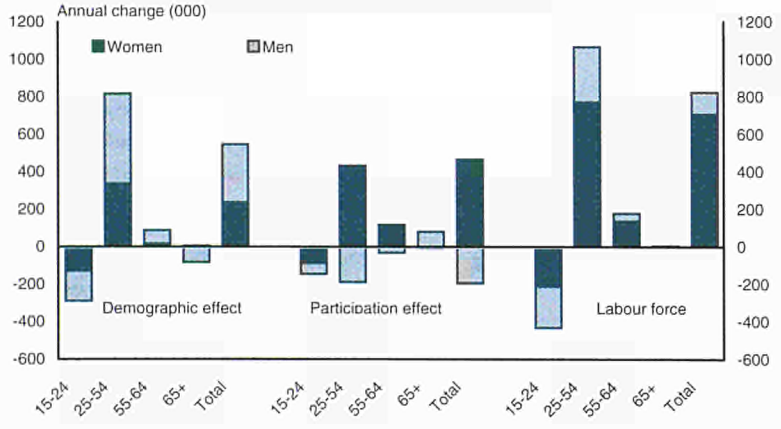


Women boost the labour force

The labour force in the EU (the total of those employed in full or part-time jobs and those seeking employment) increased by some 4 million between 1994 and 1999, a rise of 0.5% a year. Three quarters of this growth is attributable to working-age population growth (those aged 15 to 64) (Graph 3). The rate of participation (the proportion of those aged 15 to 64 in the labour force) rose only modestly from just under 67.5% of working-age population in 1994 to 68.5% in 1999, but this represents a marked change from the recession years of the early 1990s, when it fell.

Women accounted for most of the growth in the EU's labour force over the recovery period, 1994 to 1999 (some 85%). The average participation rate of women rose from 57% to 59% over these 5 years adding 2.5 million to the labour force. Most of the increase occurred among those aged 25 to 54, for whom the average participation rate rose from 68.5% to 71.5% (Graph 4). The increase was widespread across the Union, but was especially marked in countries where the rate was relatively

3 Contribution of changes in population and participation to labour force growth in the Union, 1994-99



Labour force change is decomposed into the effect of population growth and of participation changes in each age group. The former added just over 600,000 a year to the labour force, while higher participation of women added almost 500,000. The two were offset by reduced participation among men.
Source: Eurostat, EU LFS for population and participation; constructed employment series and comparable unemployment series for labour force growth.

Note on employment data

There is no one single source of data which is commonly regarded as the best indicator of the number employed in the Union. In the previous three *Employment in Europe* reports, the so-called 'benchmark series', a set of data based on the source which national statisticians considered as the most reliable for their own particular country, was used. The disadvantage of this series — consisting as it did of the EU LFS in some countries, the average of national LFS data in others, national accounts data in three more and administrative data in two others — was precisely that it was based on different sources and was, therefore, of questionable comparability between Member States. The creation of the benchmark series was an attempt to overcome the absence of a common reliable data source on employment both in any given year and over time. According to most statisticians, this would be a quarterly continuous LFS and until such a series is universally available (it has been introduced in most but not all Member States in recent years, the most notable exceptions being Germany and France), there is no alternative to adopting a second-best approach.

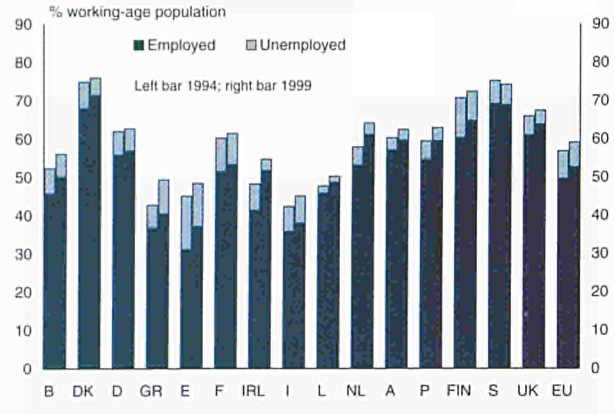
In this year's *Employment in Europe* report, the source of data for comparing the total number employed in individual Member States and in the Union as a whole has been changed from the 'benchmark series' to the EU Labour Force Survey. This has the advantage of applying a common definition to employment across the Union and, therefore, of being comparable between Member States. The disadvantage is that, partly because of modifications in the survey method and partly because of the small size of the sample on which the survey is based, the LFS is not always a reliable indicator of changes in employment over time. Moreover, because the EU LFS relates to the second quarter of each year, it is not necessarily a good guide to the average number employed during a particular year or of the changes in this from one year to the next. These shortcomings were one of the reasons for the creation of the benchmark series.

To overcome these problems, the new national accounts series on employment (based on the ESA 95 system of classification), which relates to the annual average number in work and which is more comparable between Member States than the previous series, has been used to measure changes in employment over time. This should ensure consistency from year to year as well as greater comparability of the data with those for GDP growth when measuring changes in output per person employed, or in productivity. For purposes of analysis, the national accounts data for year-to-year changes in employment have been applied to the figures for the total employed in 1999, as given by the EU LFS, to generate a series for the number in employment in previous years. This series, therefore, gives the same changes in employment over time as the national accounts and the same level of employment in 1999 as the EU LFS. Accordingly, although it remains less than satisfactory because it is based on combining two different data sources, the series is arguably the best indicator of the number employed and of employment developments in the Union.

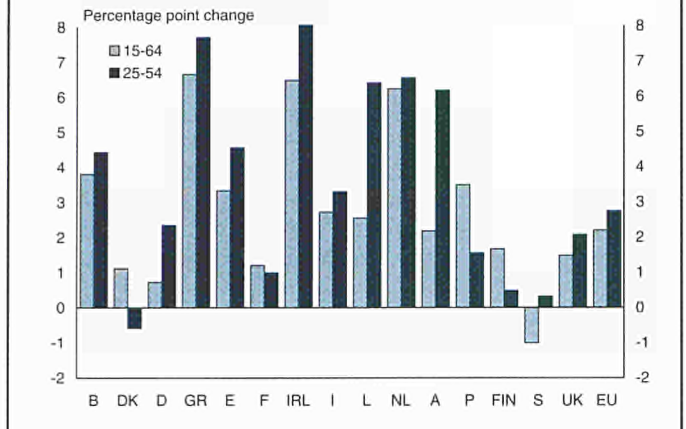
This year's *Employment in Europe* report also adopts a different definition of the employment rate than in previous years — the proportion of those aged 15 to 64 who are in employment rather than the total number in work relative to population 15 to 64 — which is the same measure used to monitor Member State performance in implementing the European Employment Strategy. While the employment rate in the Union and in most Member States is reduced because of this, the reduction is small since there are very few people aged 65 and over in work except in a few countries. (Overall, the reduction is less than 1 percentage point for 1999 and over 1 percentage point only in Greece, Ireland, Portugal and the UK, and only in Portugal — 4 percentage points — is it over 2 percentage points.) This reduction, moreover, is offset by the slightly larger number employed according to the EU LFS as opposed to the old benchmark series, so that the employment rate given in this year's report for the Union in 1998 (61.4%) is much the same as that given in last year's report (61.1%).

The small size of the overall change, however, owes much to a significant upward revision in the figure for employment in Germany because of the different source used (in Germany, the revision in the national accounts — the basis of the old benchmark series — itself results in a large rise in the number in work and a figure closer to that reported by the LFS). This amounts to an increase of 3 percentage points in the employment rate for 1998 as compared with the figure reported in last year's report, which offsets the lower rates reported for most other countries. (These are mostly small, but in Austria and Portugal, the difference amounts to over 2 percentage points and in Denmark to 3½ percentage points.)

4 Participation rates of women aged 15-64 in Member States, 1994 and 1999



5 Change in participation rates of women aged 15-64 and 25-54 in Member States, 1994-99



low, Greece, Spain and Ireland, in all of which it rose by 5–7 percentage points, as well as the Netherlands (Graph 5).

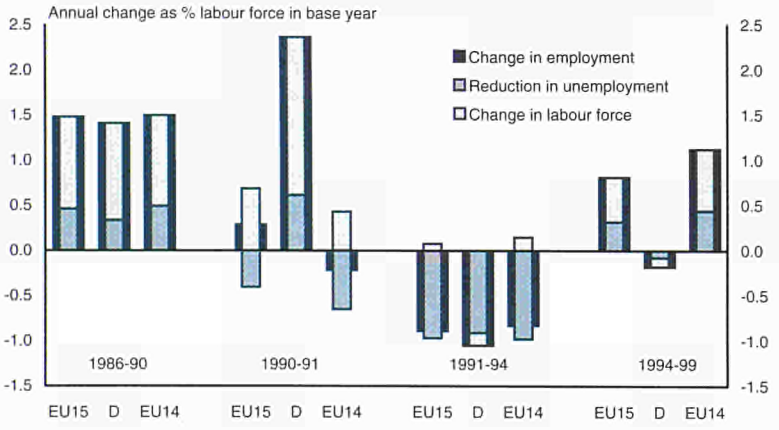
Despite the long-term increase in the proportion of women in the labour force in this age group, participation and employment rates remain low in a number of Member States. In Italy, only around 57% of women aged 25 to 54 were in the labour force in 1999 and in Greece and Spain, only 60–61%, while in Ireland, even though participation is increasing rapidly, the figure was still only 64%.

At the same time, there is also significant scope for labour force — and employment — growth among both men and women aged 55 to 64. In Belgium, Italy and Luxembourg, only around 15% of women in this age group were in the work force in 1999 and in Greece, Spain and the Netherlands, under 25%, less than half the proportion of men in each case.

More young people in the labour force

Encouragingly, the long-term fall in the participation of young people under 25 seems also to have slowed in the most recent period. Indeed, between 1997 and 1999, when employment growth was particularly marked, young people's participation rose. This contrasts with a substantial decline in participation during the recession of the

6 Contribution of changes in labour force and unemployment to employment growth in Germany and the Union, 1986-99



Lower unemployment accounted for 40% of the increase in the number employed in the EU over the years 1994-99, more than over the growth years 1986-90 when the labour force grew by more because of a larger rise in participation. The depressing effect on the labour force of the fall in participation over the recession years moderated the fall in unemployment.

Source: Eurostat, constructed employment series and comparable unemployment data.

early 1990s, which had a much larger depressive effect on the number of young people entering the labour market than demographic trends.

Between 1994 and 1999, the numbers employed outside Germany rose by an average of well over 1% a year and by just under 1% a year if Germany is included. Meanwhile unemployment has come down by almost 2 percentage points. In absolute terms, the rise in employment was around twice the fall in unemployment over this period, which means that half of the increase came from labour force growth rather than from people leaving unemployment. Leaving aside Germany, there was a larger fall in unemployment, though labour force growth still accounted for a larger proportion of the rise in employment, around 60% over these 5 years (Graph 6).

This is still less than during the period of growth at the end of the 1980s, when only around one-third of the new jobs created were taken by the unemployed. Much of the rest was due to a larger rise in participation than in the recent past, rather than higher population growth.

Unemployment

Since 1997 the Union has experienced a continuous fall in unemployment, reaching 8.3%, in August 2000. The decrease in the number of people out of work has affected both men and women across the various age groups. However, unemployment in the Union in 1999 was still 2 million higher than it had been in 1991 — and still markedly higher than in the US (4.2%) and Japan (4.7%).

Unemployment across Member States

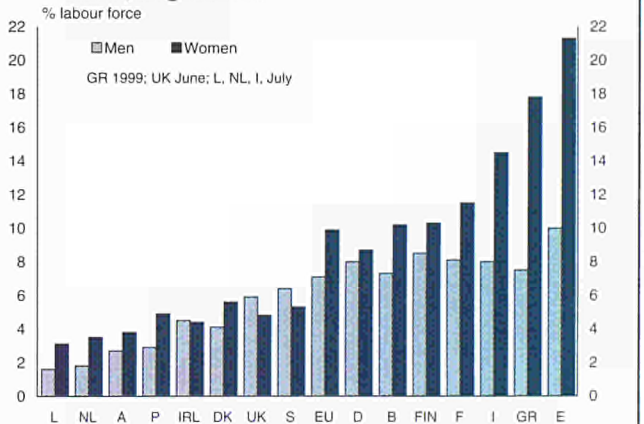
In 1999, the last year for which detailed data exist, Member States benefited from the decrease to different degrees. Unemployment fell in all Member States except Denmark, where the rate remained unchanged. The fall was greatest in Spain (almost 3 percentage points) and Ireland (just under 2 percentage points), in both cases continuing a decline (over 8 percentage points in both) which began in 1994. Nevertheless, unemployment in Spain remained well above that in other Member States (at just under 16%). However, in 1999 the rate was also in double figures in France, Greece, Italy and Finland. For France and Finland, this was no longer the case in the latest month for which data are available (August 2000). In contrast, the unemployment rate was below 2.5% in Luxembourg, around 2.5% in the Netherlands and below 3.5% in Austria.

Despite increasing participation, unemployment of women in the Union was reduced only to a limited extent (from 12.7% to 10.9%) between 1994 and 1999, this reduction accounting for only around 20% of the increase in women's employment. Unemployment rates of women remain higher than men's in all countries apart from Ireland, Sweden and the UK. In Greece, Italy and Spain, three of the four Member States with the highest levels of unemployment in the Union, rates for women are around twice as high as for men, as they are in Luxembourg and the Netherlands, where unemployment is lower than anywhere else (Graph 7).

Youth unemployment falling

The number of young people unemployed in the Union averaged 8.5% of those in the 15 to 24 age group in 1999. (Expressing youth unemployment in this way takes explicit account of the declining proportion of young people entering the labour force and the parallel increase in the proportion remaining in education and initial vocational training.) This was down from 9.2% in 1998 and from over 10.5% in 1994

7 Unemployment rates by gender in Member States, August 2000



and was slightly lower than at the beginning of the decade.

The conventional youth unemployment rate, expressed as a percentage of the labour force, was 17.7% in 1999. This was almost 2 percentage points lower than a year earlier and 4.5 percentage points lower than in 1994 (Graph 8). Youth unemployment has continued to fall in the first part of 2000, to 16.5% in August.

Although unemployment fell by similar amounts during 1999 for men and women in this age group (1.8 percentage points), the rate remains much lower for men (15.2% in August 2000) than women (18.0%) at the Union level. Over the recovery period as a whole, the gap between the two has widened (from less than 1.5 percentage points in 1994).

Long-term unemployment still a challenge

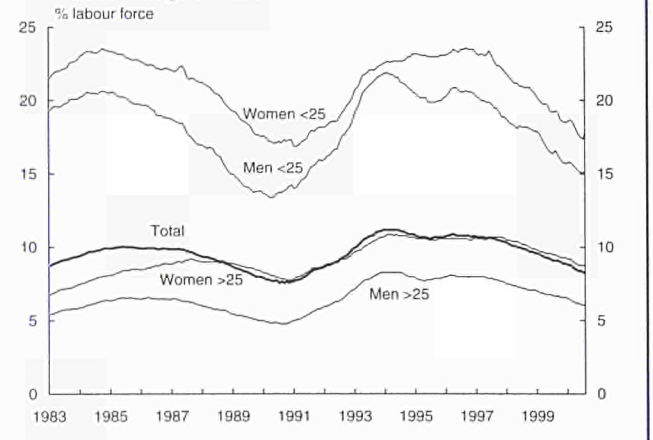
Despite the improvement in the job creation performance of the Union, long-term unemployment remains a serious problem.

It was still the case in 1999 that almost half of those unemployed in the Union (46%) had been out of work for a year or more, equivalent to over 4% of the labour force. Both figures have fallen over the period of recovery since 1994 and were less than in the mid-1980s, but only slightly so (Graph 9). The experience in Member States, however, varies markedly. In Spain and Italy, the number of long-term unemployed amounted to around 7% of the labour force in 1999 and in Greece only slightly below this, higher than anywhere else in the Union, but in Spain, this was much lower than in earlier years. In Italy, by contrast, the rate was slightly higher than in the mid-1980s, while in Greece, as in Germany and Sweden, it was significantly higher, even if, in the latter two, it has fallen since 1994. In the Netherlands, Portugal, Ireland and the UK, on the other hand, the long-term unemployment rate in 1999 was less than half the level 12 years earlier.

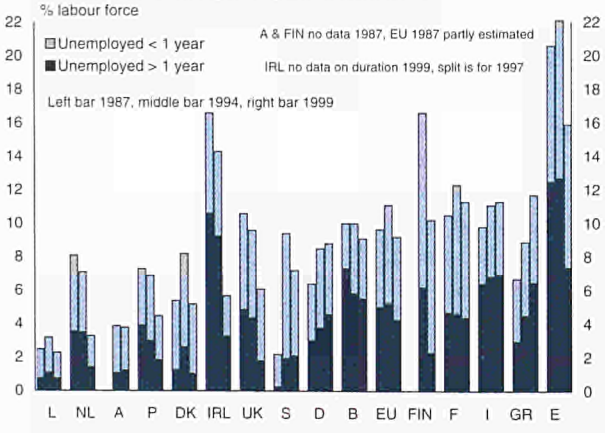
Long-term unemployment — the evidence from the ECHP

The aggregated unemployment rates, as quoted above, show the overall development between different points in time but say nothing about the movements and status of individuals over time. The European Community Household Panel (ECHP), on the other hand, provides data on an individual's employment status in each month of the preceding year. By linking the three waves (ie the three annual surveys) for which data at present exist (1993, 1994 and 1995), it is possible to track the employment status of individual respondents over a continuous period of 36 months. Since employment status is self-assessed, the results may not be fully comparable across Member States. Data are available for 11 Member States, excluding Austria, Finland and Sweden, as well as the Netherlands, where employment status is not provided on a monthly basis.

8 Unemployment rates by sex and age in the Union, 1983 - August 2000



9 Total and long-term unemployment rates in Member States, 1987, 1994 and 1999



Flows into and out of long-term unemployment

The ECHP data indicate how long those who lose their jobs remain unemployed and the proportion of those who find a job rather than leave the labour force completely. The results are analysed in turn for young people aged 16 to 24, those aged 25 to 49 and older workers aged 50 to 64, in each case distinguishing between men and women. In some cases, for Luxembourg, in particular, once the data are disaggregated in this way (which it is important to do to obtain meaningful results), the size of the sample is too small for the findings to be reliable. In these cases, the countries concerned are excluded from the analysis and from the graphs.

16 to 24 year-olds

Situation one year after becoming unemployed

Some 18% of young men aged 16 to 24 and 18.5% of women who became unemployed over the three years between 1993 and 1995 remained out of work for a year or more. Over 71% of both men and women found work within a year, while 10.5% of men and 8% of women left the labour force, predominantly to go into education or training. The proportion remaining unemployed varies markedly between Member States.

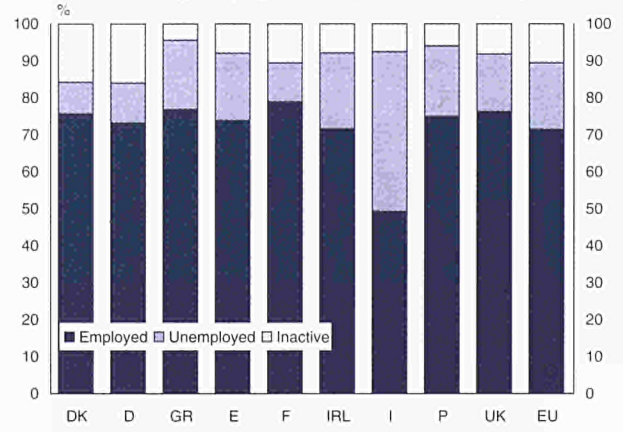
In particular, the proportion of men remaining unemployed for a year or more was much higher in Italy (43%) and lower in Denmark, Germany and France (9–11%) than in other Member States. Apart from Italy, there was rather less variation in the proportion in employment after a year. In some countries with low continuing unemployment — notably Denmark and Germany — a larger proportion of young men left the labour force to return to education or go into training when they became unemployed. Thus, the proportion finding a job within a year was no higher in these countries than in most other Member States (Graph 10).

For women, the picture is noticeably different. Although the relative number remaining unemployed for a year or more was as for men, well above average in Italy (31%), it was similarly high in Greece (32%) and Spain (29%). In addition, unlike for men, the proportion was much lower than average in the UK and Ireland (7% in both) and slightly above average in Germany (19%). At the same time, a significant proportion of women in this age group in Denmark became economically inactive (18%), not only to go into education or training but also to take care of children. Perhaps surprisingly, apart from this country and Ireland, young women were no more likely than young men to leave unemployment for inactivity — indeed in several countries (Germany, France and Italy) female outflows to inactivity were sharply lower than those for young men. Finally, women showed greater cross-country variation in the proportion in employment than was the case for men — ranging from almost 84% in France to approximately 65% in Italy, Greece and Spain (Graph 11).

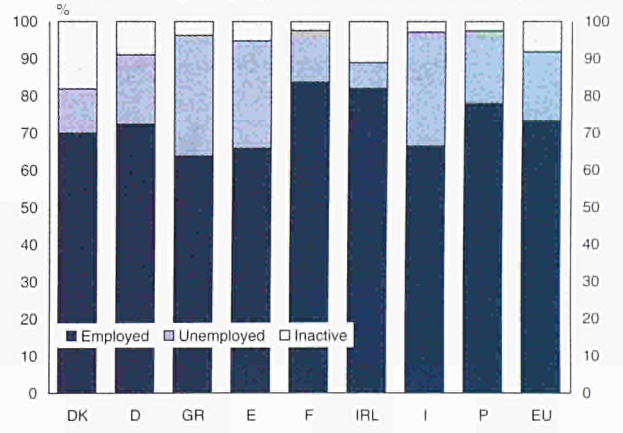
The pattern of re-entry to employment

Even for countries where broadly similar proportions have re-entered employment after 12 months, there

10 **Employment status of men aged 16-24 12 months after losing employment in Member States, 1993-95**



11 **Employment status of women aged 16-24 12 months after losing employment in Member States, 1993-95**



can be significant differences in the pace at which people re-enter during their first year of unemployment.

In the 11 countries covered, on average some 23.5% of young men succeeded in finding a job within one month of becoming unemployed. In France and the UK, as well as in Belgium and Luxembourg, the figure was significantly higher, at around a third. By the time three months had elapsed, the proportion in employment had risen to 47% or more for men in these countries as well as in Denmark, Portugal and Germany. In Spain and Ireland, however, only around a third of men had found a job after three months, less than 30% in Greece and only 18% in Italy. After six months, around 60% of men in the 11 countries had found a job, but this proportion ranged from only 34% in Italy, to over 70% in Denmark, France and the UK. Finally, of the countries with relatively low re-employment at the six-months stage, Spain, Ireland and Portugal (but not Italy) experienced significant "catch-up" on the better-performing countries by the time twelve months had elapsed (Graph 12).

Overall, 22.5% of women had re-entered employment after 1 month, with Denmark, Ireland, and Portugal joining France and the UK among the better performers. After three months, re-employment overall had risen to 45.5% — and to over 60% in the UK and Ireland. After six months, re-employment had reached 59.5% overall, and over 65% in Ireland, the UK and France. As in the case of young men, there was some convergence in re-employment in the period between six and twelve months after becoming unemployed, with significant increases in the level of re-employment in countries such as Italy, Greece, Spain and Portugal (Graph 13).

25 to 49 year-olds

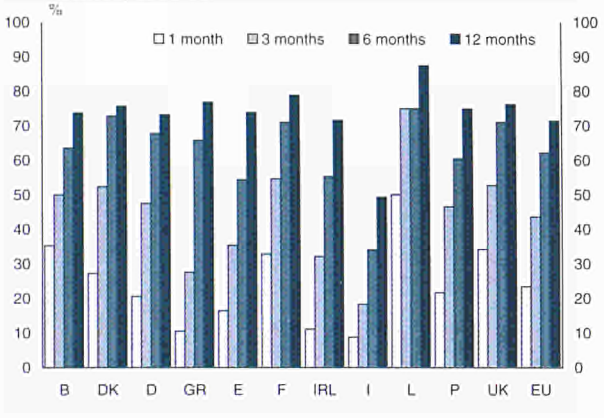
Situation one year after becoming unemployed

For the Union as a whole, the situation for women aged 25–49 one year after becoming unemployed was very similar to that of the younger women. However, a slightly larger proportion is still unemployed after one year (20.5% as compared to 18.5% for the 16–24 year old). In contrast, for men a relatively larger proportion of prime working age men are back in employment after 12 months (79.5% vis-à-vis 71.5%) and hardly anyone has left the labour force (3% as compared to 10.5% among the young men) (Graphs 14 and 15).

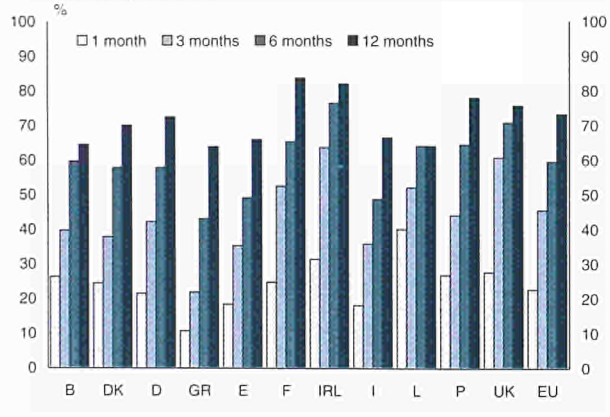
Comparing across Member States there is less difference in the proportion of those becoming unemployed who remained out of work for a year or more. As for young men, the proportion of prime working age men remaining unemployed for this length of time was greater in Italy than elsewhere. However, the difference was much less marked (26% as compared to 17% for the Union overall) and it was also high in Portugal, Spain and Ireland (20% or more). Unlike for young men, the figure was lower in Greece than anywhere else (11%) followed by Denmark (12%) and Germany (14%). Once again, a relatively high share of inactive men in the last two countries, 5–7%, implies that the proportion finding a job within a year is not significantly different from the other countries.

For women aged 25 to 49, the difference between countries is wider

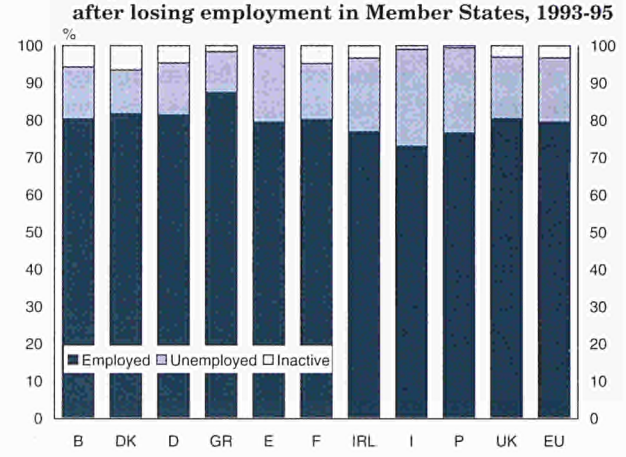
12 **Men aged 16-24 finding employment within 1, 3, 6 and 12 months of losing employment in Member States, 1993-95**



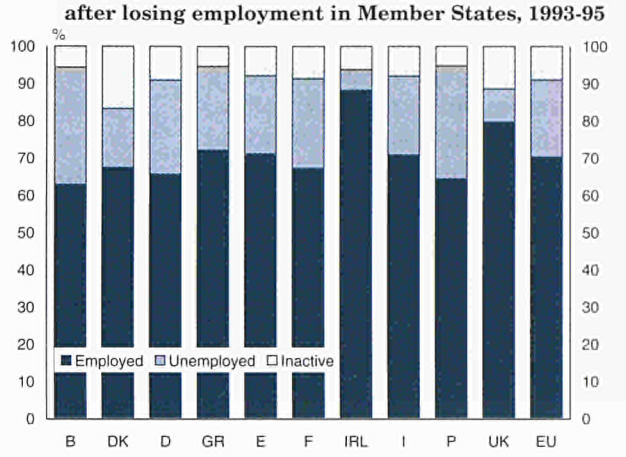
13 **Women aged 16-24 finding employment within 1, 3, 6 and 12 months of losing employment in Member States, 1993-95**



14 **Employment status of men aged 25-49 12 months after losing employment in Member States, 1993-95**



15 **Employment status of women aged 25-49 12 months after losing employment in Member States, 1993-95**



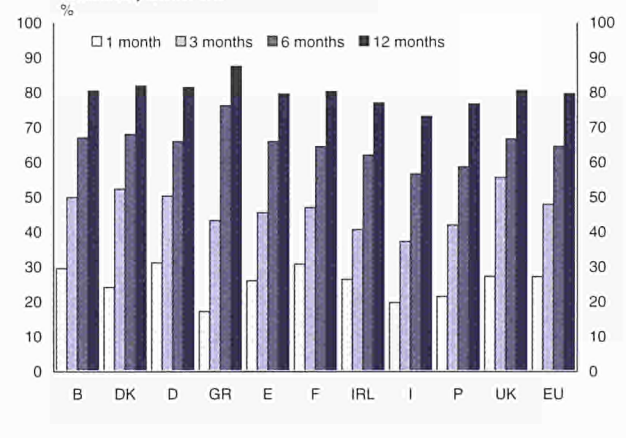
and more similar to the pattern of those under 25. The proportion of those becoming unemployed who take a year or more to find a job was highest in Belgium and Portugal (around 30%) and, as for younger women, lowest in the UK and Ireland (under 10%). In the UK, at the same time, a higher than average proportion of women becoming unemployed leave the labour force completely (11%). The highest proportion of inactive women, however, was found in Denmark (17%), where despite a relatively low number of women remaining unemployed after a year, a smaller than average number (67%) succeed in finding employment within this period.

The pattern of re-entry to employment

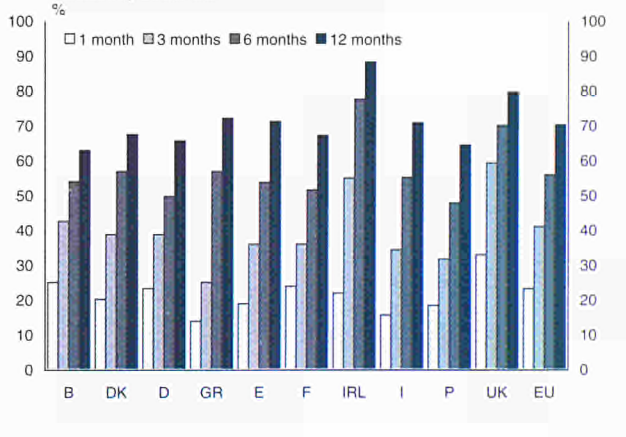
An average of just over a quarter of men (27%) becoming unemployed succeeded in finding a job within a month. In Germany, France and Belgium the figure was around 30%. Despite the small proportion remaining unemployed for a year or more in Greece, less than 20% of men in this age group had found a job within the first month (Graph 16).

After three months of being unemployed, almost half (47.5%) of men had succeeded in finding work in the 11 Member States taken together. The figure varied from 55.5% in the UK, 52% in Denmark, and 50% in Germany, to only 37% in Italy, the only country where the proportion was under 40%.

16 **Men 25-49 finding employment within 1, 3, 6 and 12 months of losing employment in Member States, 1993-95**



17 **Women 25-49 finding employment within 1, 3, 6 and 12 months of losing employment in Member States, 1993-95**



After 6 months, almost two-thirds of men (64%) had on average succeeded in finding work, and only in two countries — Italy and Portugal — was the proportion below 60%. In contrast to three months before, Greece (75%) and Spain (66%) had caught up with countries like Denmark, Belgium and the United Kingdom. After one year, almost 80% of previously unemployed men had found a job — with the exception of Italy (73%) there is little variation across Member States.

Overall, 23% of women had re-entered employment after 1 month — with the UK being the only country where the proportion, at 33%, was more than 25% (Graph 17). After three months, the overall figure had increased to 41%. The proportion was above 40% in only three Member States — Belgium, the UK and Ireland (in the latter two being well over 50%) and below a third in Portugal (32%) and Greece (25%). Not until after 6 months had more than half of previously unemployed women on average found a job (56%) — with the figure for the UK and Ireland still significantly above the other countries. When one year had elapsed seven out of ten women were back in employment overall, in addition to the UK and Ireland, the figures for Italy, Greece and Spain were equal or above average.

With the notable exceptions of the UK and Ireland, and to a lesser extent, Italy, the proportion of women in employment, at any point in time, is lower than that of men. Women becoming unemployed, therefore, seem to have taken longer to find a job than men and more of them left the labour force completely.

For both men and women, the results imply that the chances of finding a job tend to diminish the longer a person has been unemployed. While almost half of men and just over 40% of women found a job within three months, only a third of men and just over a quarter of women remaining unemployed succeeded in obtaining work over the succeeding three months. By the time 12 months had passed, under half of men and only 40% of women remaining unemployed managed to find a job. This general pattern is evident for all Member States, apart from Greece. There, the proportion of men and women finding jobs in the second three months of unemployment is greater than in the first three months, though in both Ireland and Italy there is only a small decline in the proportion. After 6 months of unemployment, the chances of finding work diminish in all Member States.

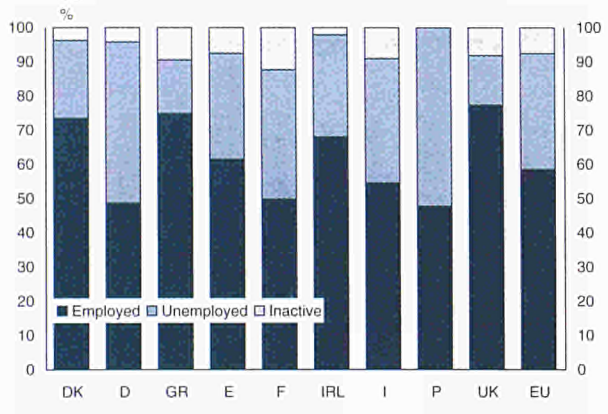
50 to 64 year-olds

Situation one year after becoming unemployed

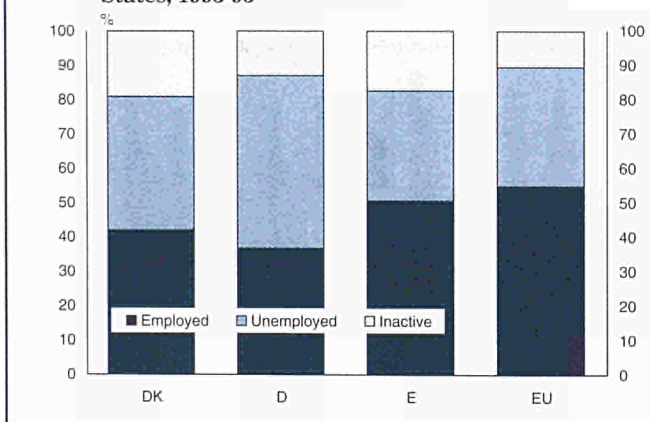
Both men and women of 50 and over take longer to find a job if they become unemployed and are significantly more likely to remain out of work for a long period of time than those in the younger age groups. The differences across age are more notable for women. In the 11 Member States taken together, 34% of men in this age group and 34.5% of women were still unemployed one year after losing their jobs while 7.5% of women and 10.5% of men had left the labour force. Less than 60% therefore had found another job during this period (Graphs 18 and 19).

The risks of men becoming long-term unemployed were particularly

18 **Employment status of men aged 50-64 12 months after losing employment in Member States, 1993-95**



19 **Employment status of women aged 50-64 12 months after losing employment in Member States, 1993-95**



high in Germany, where 47% of men aged 50 to 64 becoming unemployed were still out of work 12 months later. They were also high in Portugal, where 52% of men were still unemployed after a year. These figures were in stark contrast to the position in Greece as well as the UK, where only around 15% of men losing their jobs remained unemployed for a year or more.

For women in this age group, the limited number of observations means that there are problems of data reliability for many countries. Among the three countries for which there are sufficient observations to give meaningful results, the proportion of women losing their jobs going on to become long-term unemployed was well above average in Germany (50%) and Denmark (39%), but below it in Spain (32%). In addition, a larger proportion of women (19%) left the labour force in Denmark than elsewhere, so that just over 40% found a job.

The pattern of re-entry to employment

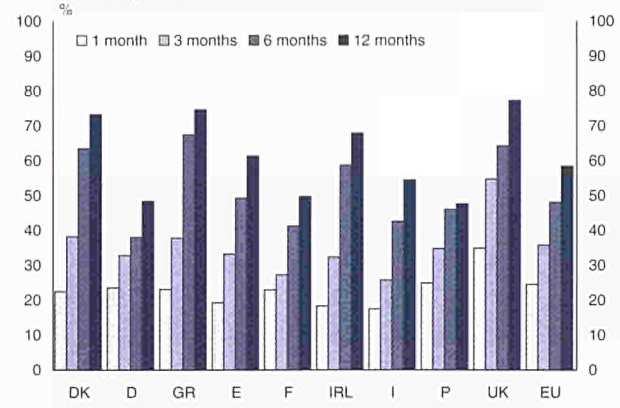
In the 11 Member States taken together, some 24.5% of men in this age group managed to find a job after one month of unemployment (Graph 20). The proportion was under 20% in Spain, Ireland and Italy, the exception being the UK with a figure of around 35%. After three months, an average of another 12% or so had found work in the Union, though only another 4% in France, but 20% in the UK, where, accordingly, some 55% of unemployed men of 50 and over found work within this period. After 6 months, a further 13% of men in the Union had obtained employment — just under half over the 6 months as a whole — but only 5% more in Germany and 8% more in the UK, though over 25% more in Denmark, Greece and Ireland. Over the succeeding 6 months, only another 11% of men succeeded in finding work. In all Member States, therefore, if a job was not found within the first few months of unemployment, the chances of obtaining work diminished significantly. In the UK, though over half of men aged 50 or more losing their job found a new one within 3 months, half of those who failed to do so were still unemployed 9 months later or had left the labour force. In other Member States, the chances declined even faster. In both Germany and Portugal, over 75% of the two-thirds of men who failed to find a job in the first three months were still out of work after a year.

The situation was similar for women. In the 11 Member States taken together, less than 20% obtained a job within the first month of being unemployed — and only around 11% in Spain (Graph 21). After three months, an average of another 13%, like men, had re-entered employment, increasing with another 12% to just under half (44.5%) when six months had elapsed. By the time one year had passed, another 10% of women, or slightly more than half, had succeeded in finding a job — just 5% more in Germany and 3% more in Denmark.

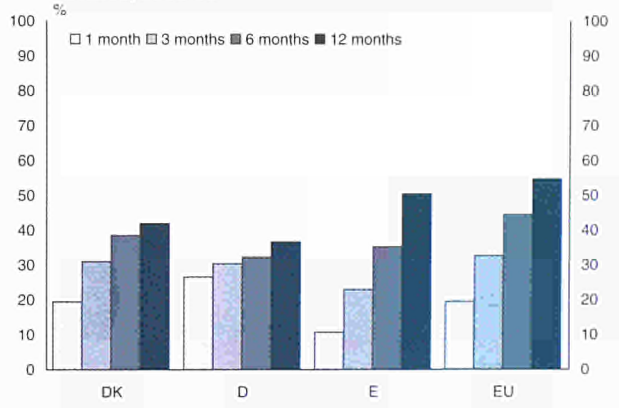
Characteristics of the long-term unemployed

The small number of people covered by the ECHP data limits the analysis which can be undertaken of the kinds of people who become unemployed and the types of job they go into if they succeed in finding work. The

20 Men 50-64 finding employment within 1, 3, 6 and 12 months of losing employment in Member States, 1993-95



21 Women 50-64 finding employment within 1, 3, 6 and 12 months of losing employment in Member States, 1993-95



analysis here relates to those aged 25 and over. Unfortunately there are too few observations to cover those under 25, many of whom in any case may not have completed their education so that their current level of attainment would tend to give a misleading indication of their capabilities. The main concern is to examine the characteristics of those who lost their jobs and became long-term unemployed as compared with those who lost their job but found a new one relatively quickly and those who remained in continuous employment.

Educational attainment

An initial comparison is made between those who were employed for the entire 36-month period covered by the ECHP and all those who experienced any unemployment.

There is a clear pattern, which holds for both men and women: those who experienced unemployment are more likely to have a lower education, and less likely to have either medium or high educational attainment. For men in the 25–49 age group, 32% of the continuously employed had low educational attainment, while for those experiencing unemployment the figure was 44% (Graph 22). By contrast, 39% of those experiencing unemployment had medium-level education as against 41% of those in continuous employment and only 18% of the unemployed had high education as against 27% of those remaining in employment. The same pattern was evident for men aged 50 to 64 both in the EU as a whole and in individual Member States.

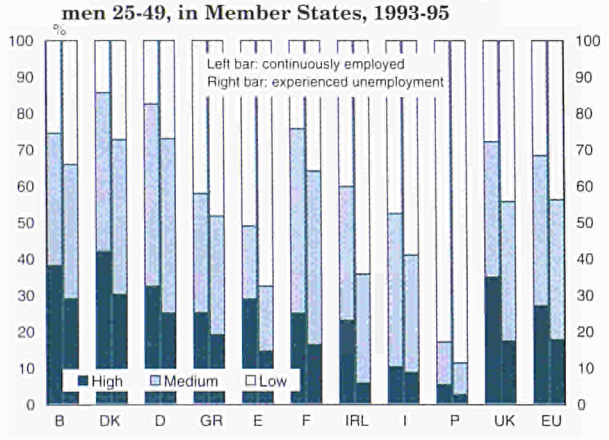
It was also evident for women. Whereas 29% of those aged 25 to 49 in continuous employment had low educational attainment, this was the case for 40% of those experiencing at least one spell of unemployment (Graph 23). While some 27% of those holding on to their jobs had high educational attainment, this was true of just 18% of those becoming unemployed.

There are insufficient observations reliably to compare the educational attainment of the unemployed by duration of their spell out of work across Member States. The analysis is largely confined to a comparison of those aged 25 to 49 unemployed for a year or more and those in this age group who found a job within 3 months.

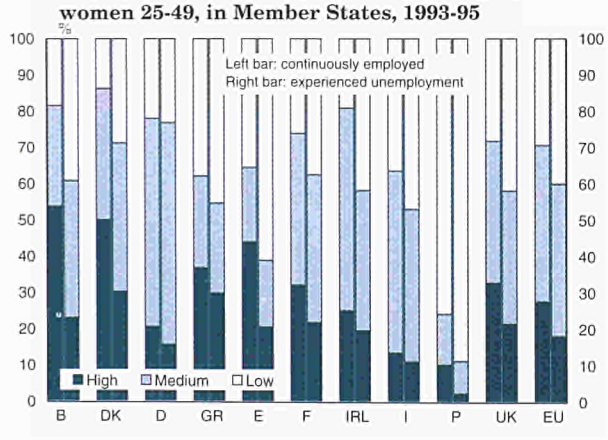
At the EU level, where a more detailed comparison is possible, the relative number of the unemployed with high education declines as duration increases. For men aged 25 to 49, some 22% of those finding a job within 3 months had a high level of education as opposed to 13% of the long-term unemployed (Graph 24). The same general pattern is true for most Member States, the exceptions being Denmark (where 26.5% of the long-term unemployed had high education as against 17.5% of those finding a job within 3 months), Greece and Spain, where there is little difference between the two. In all countries apart from Spain and Italy, the proportion of the long-term unemployed with low education was significantly higher than for those finding a job within 3 months (the average being 52% for the former and 38% for the latter). In the UK, the difference was over 25 percentage points, in Belgium, over 30 and in Ireland, over 40.

The differences in the case of women were even more

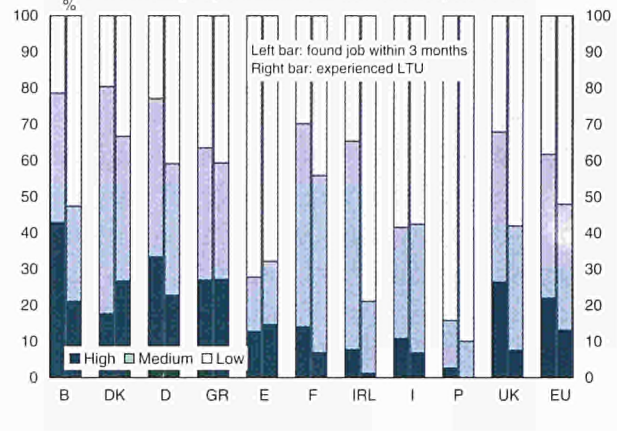
22 Educational attainment of the continuously employed and those experiencing unemployment, men 25-49, in Member States, 1993-95



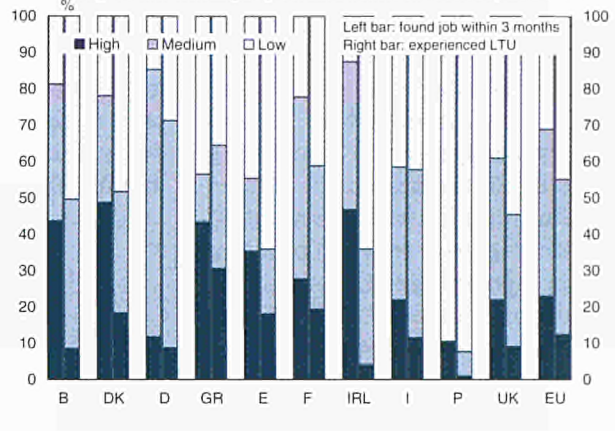
23 Educational attainment of the continuously employed and those experiencing unemployment, women 25-49, in Member States, 1993-95



24 Educational attainment of men aged 25-49 finding jobs within 3 months and those becoming long-term unemployed in Member States, 1993-95



25 Educational attainment of women aged 25-49 finding jobs within 3 months and those becoming long-term unemployed in Member States, 1993-95

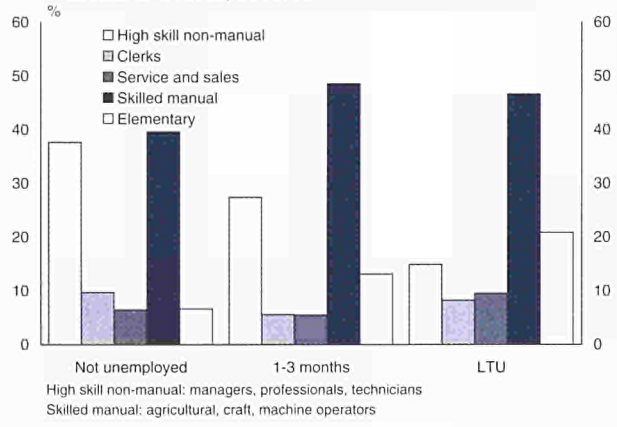


pronounced. In all Member States except Germany, where the difference was relatively small, a significantly lower proportion of women aged 25 to 49 with high educational attainment had been unemployed for a year or more (12.5% on average) than had found a job within 3 months (23%) (Graph 25). In Denmark, the difference was over 30 percentage points, in Belgium, over 35 and in Ireland, over 40. Equally, a much larger proportion of women who were long-term unemployed had a low education level than among those finding work within 3 months (45% as against 31%). Only in Greece was the reverse the case, though in Italy and Portugal, the difference between the two proportions was small.

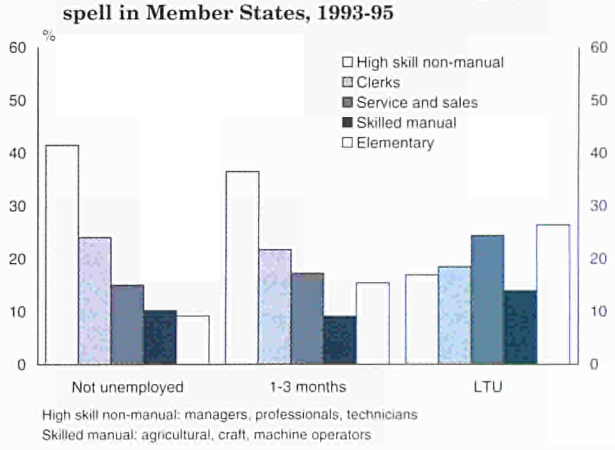
Occupations

The differences in education levels between those experiencing differing lengths of time out of work are associated with similar differences in the types of job which the people concerned do, or at least the types of job which they go into after being unemployed. (Specifically, the analysis is conducted in terms of the occupation performed at the time of the survey, which might, of course, differ from that performed before the person concerned became unemployed.) As would be expected, a disproportionately large number of those who had been long-term unemployed who had subsequently found work were in relatively low skilled jobs and a disproportionately small number of those finding work within 3 months

26 Distribution across occupational groups of men aged 25-64 by duration of unemployment spell in Member States, 1993-95



27 Distribution across occupational groups of women aged 25-64 by duration of unemployment spell in Member States, 1993-95



of becoming unemployed were in high skilled ones.

In the 11 Member States for which data are available, an average of some 21% of men aged 25 to 64 who had experienced a spell of long-term unemployment were in elementary occupations (Graph 26). This is in contrast with the 13% of those finding a job within 3 months, while only 6.5% of those in continuous employment were in such jobs. In addition, some 46.5 % of men who had been long-term unemployed were in skilled manual jobs. This was a smaller proportion than among those who had been unemployed for less than 3 months (48.5%) and not much more than the share of those in continuous employment (39.5%). Nevertheless, it means that over two-thirds of those who had experienced a spell of long-term unemployment were manual workers. In comparison, less than 15% of previously long-term unemployed were in high-skilled non-manual jobs. Hinting at the correlation between skills levels and length of unemployment spells, this was significantly lower than the share finding a high-skilled position within 3 months of unemployment (almost 26%).

For women, the difference in the relative numbers of those in unskilled manual occupations experiencing spells of unemployment was even wider than for men. 26.5% of those who had been long-term unemployed were in elementary occupations, compared with 15.5% of those finding a job in 3 months and 9% of those in continuous employment (Graph 27). In contrast to men, women in skilled manual jobs accounted for only a small proportion of those who had been long-term unemployed (only 14%). This, however, reflects the relatively small number of women employed in such jobs (only around 11% according to the ECHP) rather than a low propensity for such workers to be out of work for a long time. A large proportion of women experiencing long-term unemployment were clerks or sales and service assistants (43%), but again so were those in continuous employment (39%).

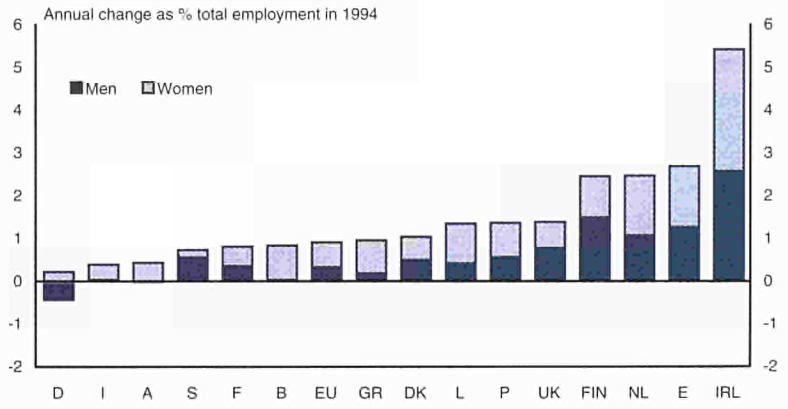
Chapter 1 Section 2 The changing characteristics of jobs and the gender dimension

The economic recovery is now favouring more stable employment for both men and women. As in previous years, women have been the main beneficiaries of job creation, and the employment gender gap is now below 20 percentage points. Services continue to provide the main source of job creation. Since 1994, part-time employment has accounted for nearly 64% of net job creation. While the majority of people working part-time and in temporary jobs do so out of choice, temporary working in particular is gaining in importance. Many of these jobs have low skill requirements, leading to concerns about security and career development.

Progress in closing the gender gap

Over the five years 1994 to 1999, almost two-thirds of the 6.8 million net additional jobs created were taken by women. In all Member States, except Denmark, Sweden, Finland and the UK, women accounted for most of the job growth, and in Germany, Italy, Austria and Belgium, they were responsible for all or nearly all of the increase in employment (Graph 28). In Germany, employment of women increased significantly while that of men continued to decline. Whereas the number of men in work was, therefore, over 3.5% lower in 1999 than in 1994 and 7% lower than in 1991, the number of women was over 2.5% higher than 5 years earlier and only slightly less than in 1991 at the start of the recession.

28 Relative change in employment of men and women in Member States, 1994-99



Women accounted for all or almost all of the growth in employment over the years 1994-99 in Germany, Italy, Austria and Belgium and for less than half the growth only in Finland, Sweden and the UK. Growth of jobs for men seems to be more dependent on the overall rate of net job creation than in the case of women.

Source: Eurostat, EU LFS and national accounts.

In consequence, there was a continuing narrowing of the employment gap between men and women over these 5 years in most Member States, the proportion of women aged 15 to 64 employed in the Union rising from 49.5% in 1994 to 52.5% in 1999, as opposed to an increase for men from 70.5% to 71.5% (Graph 29). The gap was therefore reduced to 19 percentage points, whereas at the beginning of the 1990s, it had stood at some 25 percentage points. In the US, by comparison, the gender gap in 1999 stood at around 12.5 percentage points.

The reduction in the employment gap over this period was particularly marked in Greece and Ireland (by over 4 percentage points), where it is especially wide, though it was also pronounced in Belgium and Germany (again by 4 percentage points or more). The reduction, however, was relatively small in Spain, where employment of both men and women increased substantially (by 5% of working-age population) and where the gap remains above 30 percentage points. In Italy, despite the much higher growth of women's employment than of men's, it still amounts to 29 percentage points.

Part-time working slows growth of full-time equivalent employment

The contribution of full-time jobs to employment growth in the Union in 1999 was greater than that of part-time jobs for the first time since 1990 (Graph 30). Some 63% of employment growth in 1999 was accounted for by full-time jobs (and, therefore, 37% was attributable to an increase in part-time jobs). This suggests that the employment recovery may be developing a firmer base.

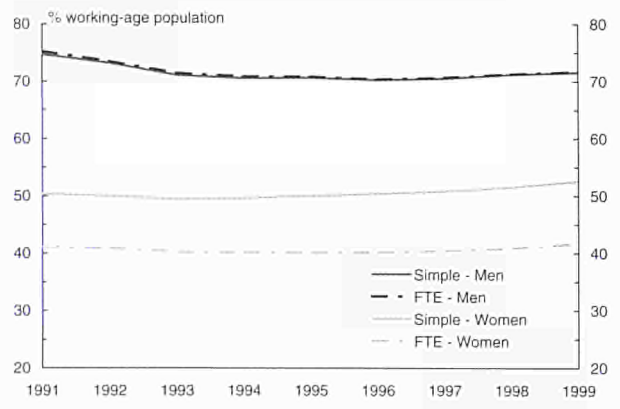
Most of the new jobs created since 1994 have gone to women, who now account for 80% of all those working part-time. In 1999, 47% of the increased number of women in employment worked part-time, and over 70% of the net additional jobs created for women between 1994 and 1999 were part-time ones.

The number of men working part-time has also risen. Among those who moved from unemployment into work in 1999, some 12% went into part-time jobs. This is double the overall percentage of men working part-time, which has climbed from under 4% in 1990 to 5% in 1994 and to over 6% in 1999. No less than half of all of the net additional jobs taken by men between 1994 and 1999 were part-time (Graph 31).

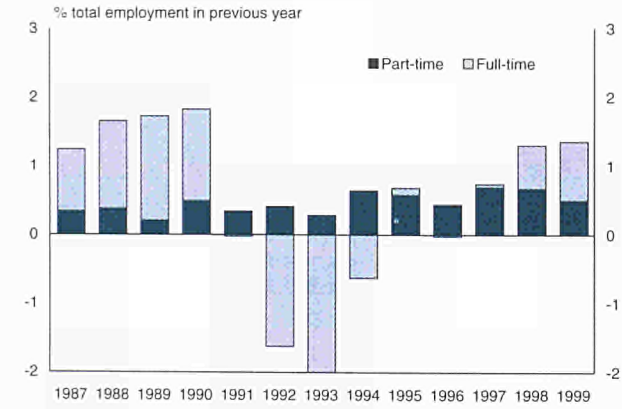
Consequently, while the overall employment rate in the Union rose from 59.9% in 1994 to 62.1% in 1999, growth in FTE employment was only about half of that, from 55.5% to 56.7%. This is explained by the growth of part-time working, especially by women, for whom the FTE rate rose by only around 1.5 percentage points between 1994 and 1999 as opposed to a rise of 3 percentage points in the simple employment rate. Consequently, the employment rate gap between men and women over this period, measured in FTE, narrowed by around half as much (just over 1 percentage point) as in simple terms (by 2 percentage points). Moreover, it remained substantial (30 percentage points) because of the large and growing number of women in part-time jobs.

As a result, in 1999, a third (33.5%) of all women in employment in the

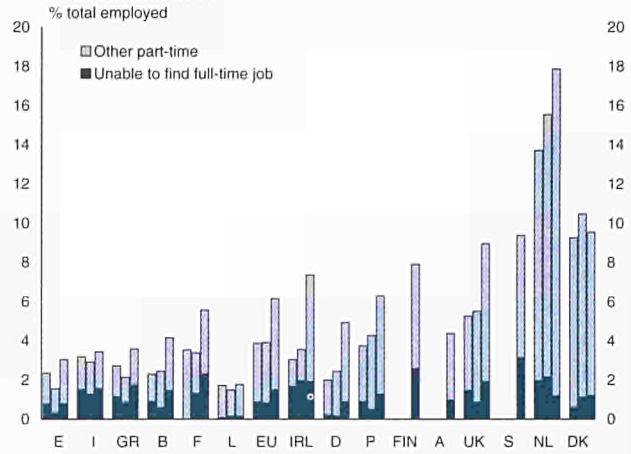
29 Simple and full-time equivalent employment rates of men and women in the Union, 1991-99



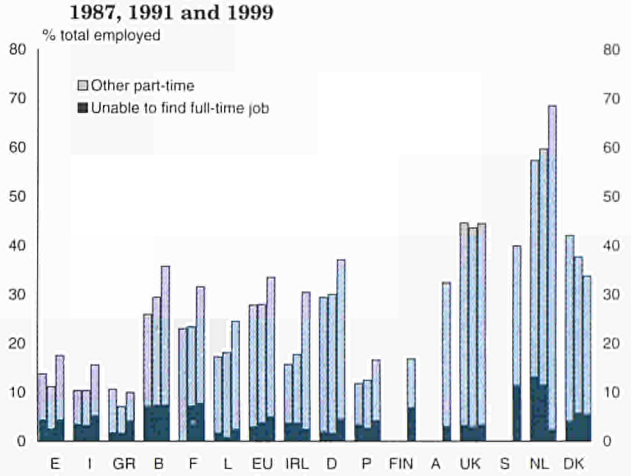
30 Change in part-time and full-time employment in the Union, 1987-99



31 Men employed part-time in Member States, 1987, 1991 and 1999



32 Women employed part-time in Member States, 1987, 1991 and 1999



Union worked part-time as opposed to 28% at the beginning of the decade. A similar increase is evident in most Member States, with the exception of Denmark and Sweden, where the proportion of women working part-time has fallen, and in a number of Member States, part-time jobs were the only or predominant source of employment growth (Graph 33).

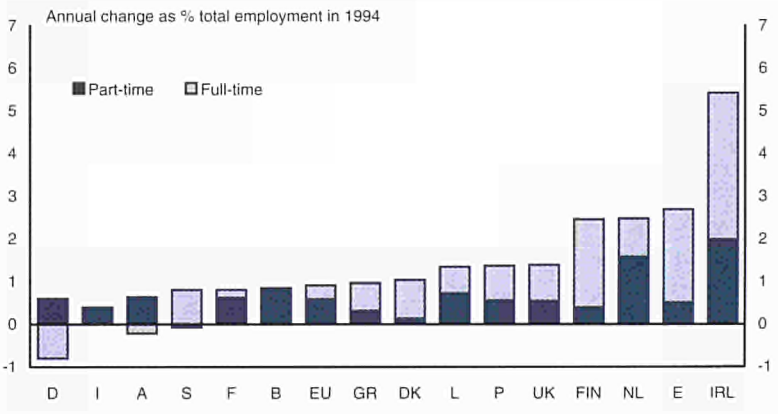
In 1999, of the northern European Member States, only in Luxembourg and Finland was the proportion of women in employment working part-time much less than a third — in the Netherlands, it was close to 70% and in the UK, almost 45%. In all four southern Member States, the proportion remains well below 20%and in Greece, only around 10% (Graph 32).

Over the long-term, the phenomenon of female part-time working explains why the substantial rise in the number of women employed leads to a much smaller rise in the volume of women's employment.

Involuntary part-time working and underemployment

Most of the people working part-time do so out of choice rather than because such jobs are the only ones that they can find. Nevertheless, across the Union, a varying number of people surveyed in 1999 expressed a wish to work more hours than they currently did. The

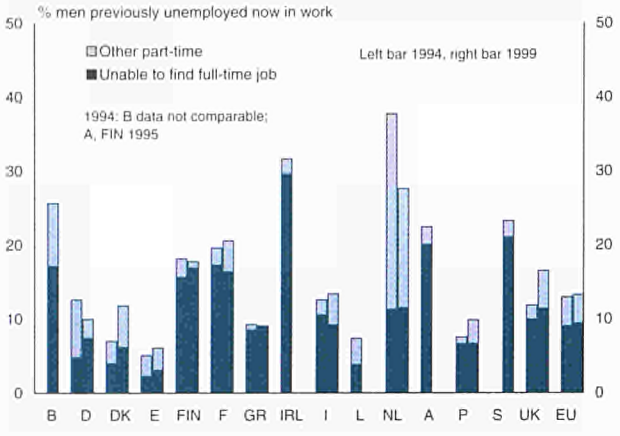
33 Contribution of part-time and full-time jobs to the change in employment in Member States, 1994-99



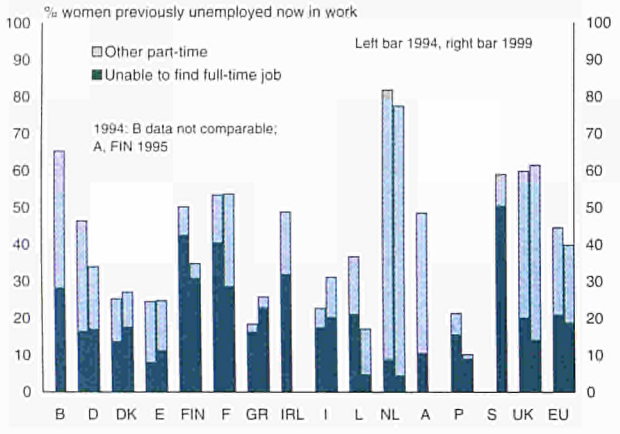
Part-time jobs accounted, in general, for much the same increase in employment over the years 1994-99 in countries with a relatively low rate of net job creation as in those with a high rate. Sweden apart, full-time jobs, therefore, expanded significantly only in countries with above average employment growth.

Source: Eurostat, EU LFS and national accounts.

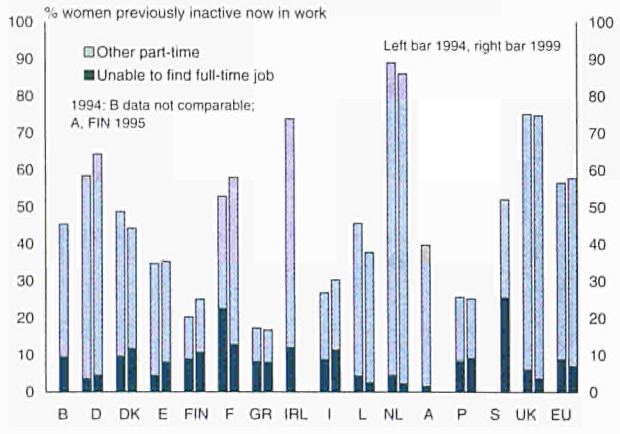
34 Previously unemployed men aged 25-54 now in part-time jobs in Member States, 1994 and 1999



35 Previously unemployed women aged 25-54 now in part-time jobs in Member States, 1994 and 1999



36 Previously inactive women aged 25-54 now in part-time jobs in Member States, 1994 and 1999



proportion of people not capable of finding full time employment when they wish to may be considered a tentative indicator of underemployment — or hidden unemployment.

Among men in particular, a significant proportion worked part-time because they were unable to find full-time jobs: almost a quarter of men employed part-time would have preferred to work full-time (and 36% of those aged 25 to 54), accounting for around 1.5% of all men in work. The overall average of men involuntarily working part-time conceals significant differences across Member States. In Greece, France, Italy, Finland and Sweden, over a third of all men and half of those aged 25 to 54 working part-time did so because they could not find a full-time job. In France and Finland, these amounted to over 2% of men in work, and in Sweden, to over 3%.

The proportion of men who were employed in part-time jobs simply because they could not find full-time ones has risen slightly since 1994 and more significantly since 1991, when the figure was under 1%.

In the case of women, only some 15% working part-time did so because they were unable to find full-time work. These amounted to some 5% of women in employment. Here again there were significant differences among Member States. In Greece and Finland, where comparatively few women worked part-time (10% and 17%, respectively), some 40% — 7% of those in employment in Finland — would have preferred a full-time job. In Italy and Portugal, where the number working part-time was also low, over a quarter would have preferred working full-time. This was also the case in Sweden, where

part-time working is more prevalent, but where 11.5% of all women in employment in 1999 worked part-time because they could not find a full-time job. As was the case for Swedish men, this was by far the highest proportion in the Union, France and Belgium coming next with around 7.5%.

In contrast to men, the proportion working part-time against their wish has fallen slightly since 1994, but is around one third higher than in 1991 and almost twice as high as in 1987.

Taking up part-time work after a period of unemployment

A much higher proportion of both men and women finding a job after being unemployed take up part-time work because they cannot find full-time employment, as compared to those in work overall.

In 1999, of the 13.5% or so of men in the Union aged 25 to 54 (so as to exclude both young people still in education and older workers preparing to retire) finding a job after being unemployed who moved into a part-time one, over 70% did so because they were unable to obtain full-time work (Graph 34). This amounted to some 9.5% of all men in this age group moving from unemployment into employment. In Sweden, the figure was around 21%, followed by Finland, Belgium and France with 16–17%. The proportion for the Union as a whole was much the same as five years earlier at the start of the recovery (the data for Belgium for earlier years are not comparable with those for 1999).

For women the situation was similar though less pronounced. Of the around 40% of women aged 25 to 54 in the Union moving from unemployment into work who took up a part-time job just under half did so because they could not find full-time employment. This was the equivalent to almost 19% of all those obtaining a job after being unemployed (Graph 35). In Sweden, however, this figure was over 50% — corresponding to more than 80% of those finding part-time work — and in Finland, Belgium and France, around 30%. As for men, the figure for the Union as a whole was similar to that in 1994.

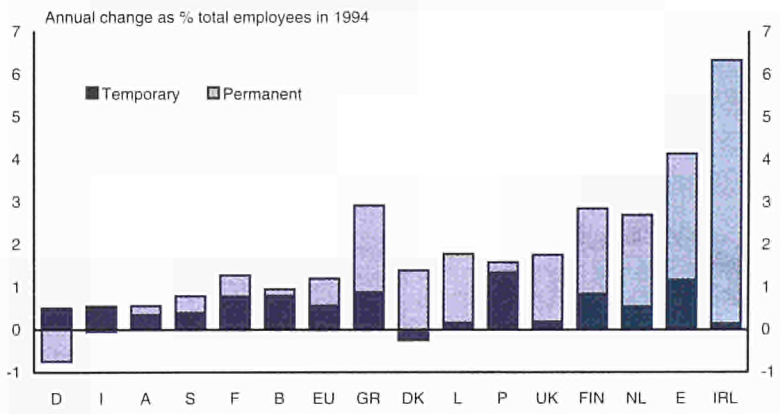
Women taking up part-time work after a period outside the labour force

For women moving into the labour force after a spell of economic inactivity, the situation was different. Not only did a larger proportion go into part-time jobs than women previously unemployed, but most did so because they did not want to work full-time. While 58% of women aged 25 to 54 entering, or in most cases, re-entering, the labour force went into part-time jobs, only 12% of these — or 7% of all those moving into work — would have preferred to work full-time if a job had been available (Graph 36). Once again, the figure was much higher in Sweden (over 25% of those moving into work) than in any of the other Member States.

Temporary working also expanding

The part-time working phenomenon is being accompanied by a growth of temporary working (workers with fixed-term contracts). Overall, almost 40% of the net additional jobs created in 1999 were temporary ones

37 Contribution of temporary jobs to the change in total employees in Member States, 1994-99



The growth of temporary jobs over the years 1994-99 was not closely related to the overall increase in employment, though they made a major contribution to the increase in Greece, Portugal, Spain and Finland. In general, permanent jobs expanded significantly only in countries with high overall employment growth.

Source: Eurostat, EU LFS and national accounts.

and nearly half of those created since 1994. This is broadly in line with the experience of the earlier years of recovery and brings the proportion of employees in temporary jobs from 11.2% in 1994to 13.2% in 1999.

This represents a significant rise for both men and women since 1994 — up from 10.2% to 12.4% for men and from 12.4% to 14.2% for women. Furthermore, the relative growth in temporary working was higher among men than women. Some 44% of the increased number of male employees in 1999 worked in jobs with fixed-term contracts, which means that over the 5 years 1994 to 1999, almost 70%of the net additional jobs created for men were temporary ones. By contrast, temporary jobs accounted for 29% of the increased number of women in employment in 1999 and for only 35% of the additional jobs taken by women between 1994 and 1999.

Substantially more women (and men) in Spain work in temporary jobs than in other Member States (35% of all women employees in 1999). However, the proportion has risen only marginally over the 1990s, while in other countries, the increase has been more marked, especially in Finland and Portugal. In these two countries, the figures were over 20% in 1999 while it was close to 15% in Greece and France.

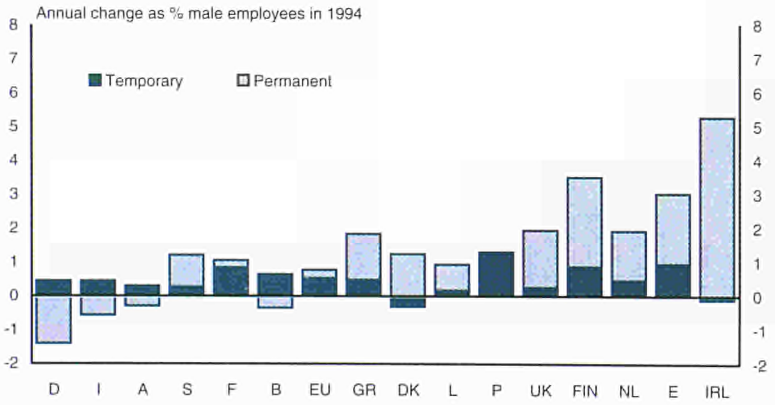
These developments are in line with those over the previous years of recovery, though, in general, they represent some decline in the growth in temporary working. Over the period 1994 to 1999, therefore, the growth in temporary working accounted for almost half of the additional number of people in paid employment (Graph 37). It was, in general, a more important source of job growth for men than women. Around 70% of the increased number of men in paid employment in the Union in 1999 relative to 1994 worked in jobs with fixed term contracts, but only around 35% of the increased number of women. In Germany, Italy, Austria and Belgium, it was the only source of job growth for men, and in France and Portugal, virtually so, and only in Denmark and Ireland did the number working in such jobs decline (Graph 38).

Temporary jobs also accounted for most of the increased number of women in paid employment over this period in Germany, Belgium and Portugal and for almost half the number in Italy and France (Graph 39). The relative growth of temporary working among women was highest in Sweden, where the number in fixed-term jobs increased while the number in permanent ones declined. As for men, the number of women working in temporary jobs fell in Denmark, the only country in the Union where it did so, and in Ireland, such jobs made only a small contribution to the overall increase in the number of women in paid employment.

The employment characteristics of temporary workers

The growing number of temporary workers (those with fixed-term contracts) has given rise to concern. Job insecurity, lack of career prospects, having limited access to training may all be associated with such forms of contract. While there are no data as such on these aspects of working life, the skill level of workers with fixed-term contracts may give an indication

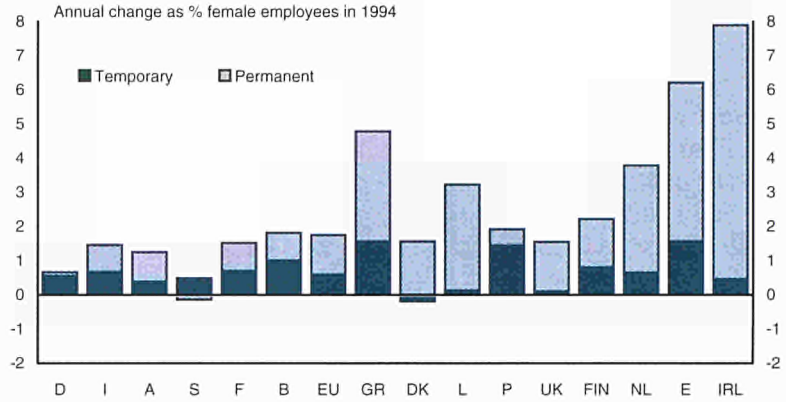
38 Contribution of temporary jobs to the change in male employees in Member States, 1994-99



All or almost all of the net additional jobs created for men over the years 1994-99 were temporary ones in Germany, Italy, Austria, Belgium, France and Portugal. The number of men working in such jobs declined only in Denmark and Ireland and rose relative to those employed in permanent jobs everywhere else in the EU.

Source: Eurostat, EU LFS and national accounts.

39 Contribution of temporary jobs to the change in female employees in Member States, 1994-99



Temporary jobs accounted for all of the increased number of women in paid employment over the years 1994-99 in Sweden, almost all in Germany and for most in Belgium and Portugal. The number working in fixed-term jobs rose relative to those employed in permanent ones in most other countries.

Source: Eurostat, EU LFS and national accounts.

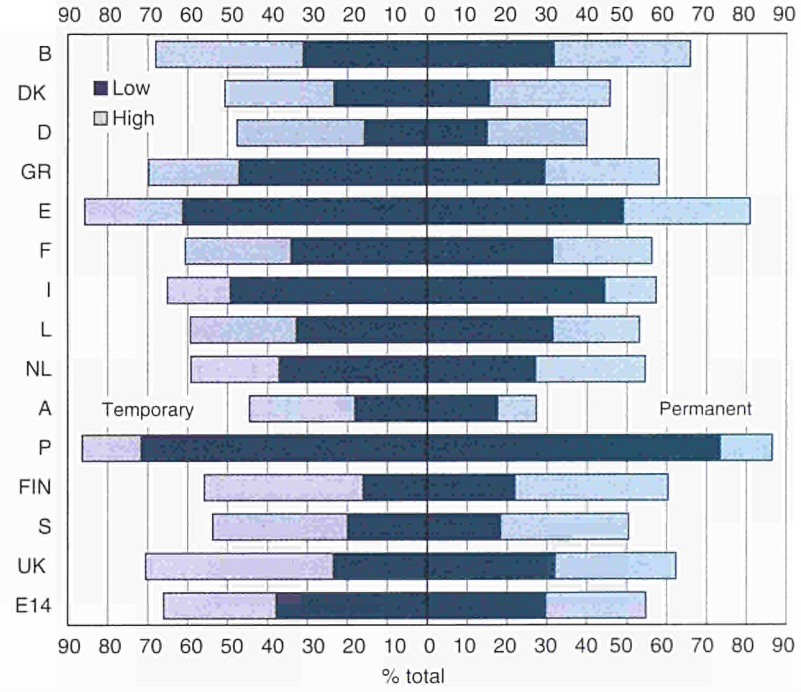
of their relative position in the labour market.

A disproportionate number of employees in the Union working in temporary jobs have low education levels. In 1999, some 38% of those aged 25 to 64 in jobs with fixed-term contracts (ie excluding most of those still completing their education or initial training) had no qualifications beyond compulsory schooling. This compares with under 30% of those in permanent jobs (Graph 40). At the same time, a slightly larger proportion of temporary employees than permanent ones had high education levels (university degrees or the equivalent), 28% as opposed to 25%. Temporary working is, therefore, a feature at both ends of the skill spectrum.

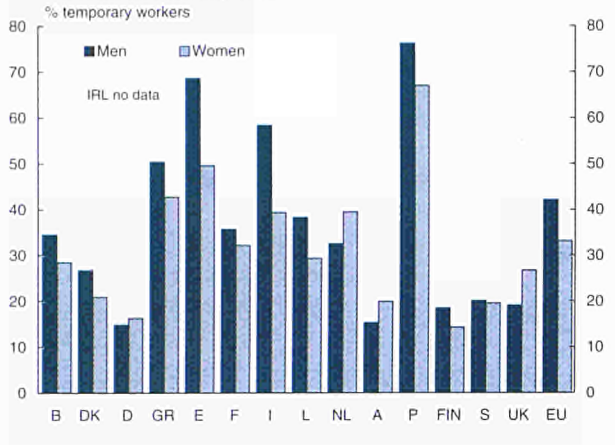
These figures are affected significantly by the pattern of temporary working in Spain, where jobs with fixed-term contracts are much more prevalent than in the rest of the Union (around 35% of all employees have temporary jobs as compared with an EU average of 13%) and where most (61%) are performed by people with low education. Nevertheless, even if Spain is excluded, those with low education still accounted for over 30% of all temporary workers in the Union in 1999. In Greece, almost half of temporary jobs were held by workers with only basic schooling as against under 30% of permanent jobs, in the Netherlands, 37% as against 27% and in Denmark, 23% as against 15%. In Portugal, Finland and the UK, on the other hand, a significantly smaller proportion of temporary workers had low education levels than permanent employees, but these were the only countries in the Union where this was the case.

Education levels of temporary workers differ significantly

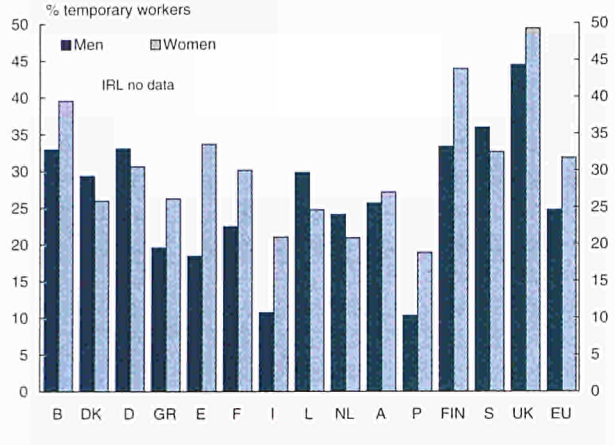
40 Temporary and permanent workers with low and high education levels in Member States, 1999



41 Temporary workers with low education levels in Member States, 1999

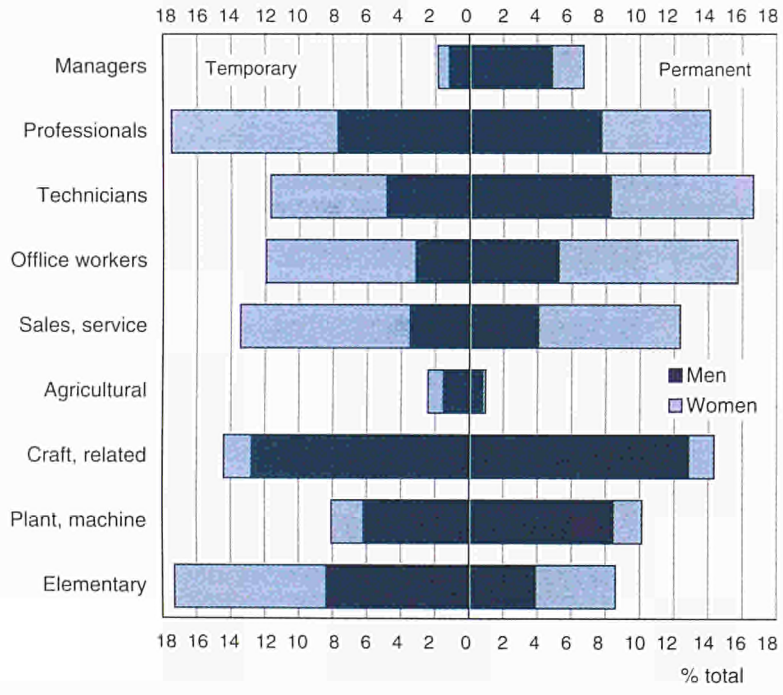


42 Temporary workers with high education levels in Member States, 1999



between men and women. A larger proportion of men in jobs with fixed-term contracts in the Union have a low level of education (42% in 1999) than women (33%) (Graph 41). The difference is particularly marked in Spain (69% as against 50%) and Italy (57% as against 39%). Indeed, if Spain is excluded, there were as many women with low education levels in temporary jobs than men, reflecting the fact that the number of women temporary workers was almost 10% higher than that of men. As a corollary, proportionately more women than men in temporary jobs had a high education level (32% as against 25%) and significantly more in numerical terms (26% more) (Graph 42).

43 Distribution of temporary and permanent workers by occupation in the EU, 1999



The implication of the above is that a disproportionate number of temporary jobs held by those aged 25 to 64 are low-skilled manual ones — over 17% in the Union as a whole in 1999 as compared with under 9% of permanent jobs (Graph 43). Again, this figure owes much to the large number of temporary unskilled jobs in Spain (27% of the total), but even excluding Spain, 14½% of temporary jobs in the EU were low-skilled manual ones.

At the same time, however, a similar proportion of temporary jobs in the Union were classified as professional (17½%), or more if Spain is excluded (19½%), which was also larger than the proportion of such jobs which were permanent (14%). Some 11½% of people employed as professionals in the Union, therefore, had jobs with fixed-term contracts, some 13½% of women so employed and 9½% of men.

Given the composition of temporary employment in terms of skills and the kind of jobs performed, concerns about job security, career development and access to training — major aspects of job quality — seem for a significant number of these workers to be well founded. There is also another group, however, workers with much higher skill levels, for whom the lack of job security may mean little because of the ease of finding a new position once a fixed-term contract comes to an end and who, in any event, are compensated by higher earnings. These are all issues which require further analysis.

Services provide the jobs and emphasise importance of skills

As in previous years, virtually all employment growth in the Union in 1999 occurred in services, where the number employed increased by over 2%, bringing the rise over the period since 1994 to almost 9%. By contrast, the number employed in agriculture fell by over 3% (16% since 1994), while in industry, there was only a marginal increase. The pattern of these changes across the Member States is examined in more detail in Chapter 2.

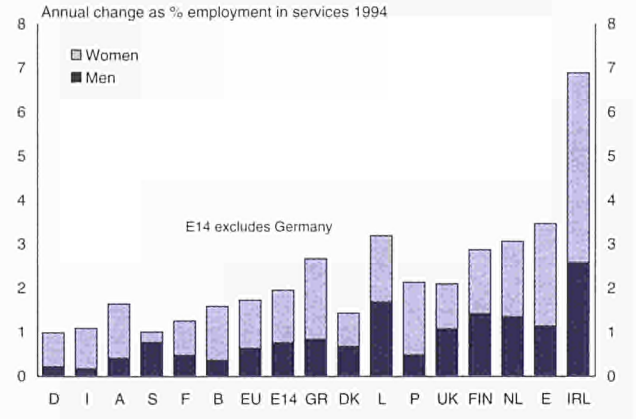
The majority of the net additional jobs created in the service sector went to women. Some 61% of the increased number of people employed in services between 1994 and 1999 were women. Only in Sweden (24%) and Luxembourg (47%) was the proportion less than half and in Germany, Italy, Austria, Belgium and Portugal, it was over 75% (in Italy, 85%) (Graph 44).

This contrasts with the pattern of job creation in industry, where the number of women employed in the Union fell between 1994 and 1999 while the number of men increased, if only marginally. Outside Germany, however, where job losses among men were substantial (the number of men employed fell by 9.5%), the number of men in employment rose more significantly, by almost 5% over the period as a whole, whereas the number of women employed remained unchanged (Graph 45). In the rest of the Union, apart from in Belgium, Austria and Luxembourg, the number of men working in industry rose in all Member States, in all cases, by much more than the number of women.

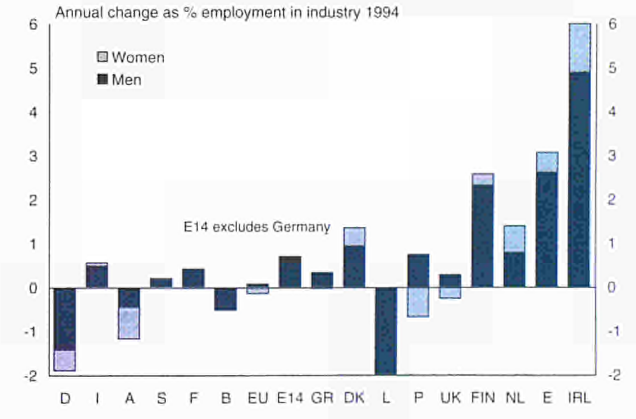
Self-employment declines

The number of self-employed people working in the Union declined in 1999, as it did in 1998, and was only 1% above the level at the beginning of the recovery in 1994. The self-employed, therefore, fell from 15% of the total in work to 14.5% over this period. The entire decline, however, is attributable to the continuing large-scale job loss in agriculture (the number of self-employed in this sector fell by almost 4% in 1999 and by over 16% between 1994 and 1999). This sector apart, the self-employed population would have increased slightly in 1999 (by under 0.5%) and brought the overall increase since 1994 to 4.5% — equal to the growth in the number in waged employment. Accordingly, if agriculture is excluded, the share of the self-employed in total employment remained unchanged over this period at around 12½%, much the

44 Contribution of men and women to the change in employment in services in Member States, 1994-99



45 Contribution of men and women to the change in employment in industry in Member States, 1994-99



same as in 1991 and 1987 (Graph 46).

Women's employment remains highly concentrated in a few sectors

A majority of the women entering jobs in services in recent years have gone into business services or communal services which have been major sources of overall job growth in recent years. A significant proportion, however, have also gone into hotels and restaurants, which is also one of the larger employers of women. As a result, despite some reduction in the relative number of women employed in retailing, traditionally one of the most important sources of jobs for women, the extent to which women are employed in a small number of sectors of activity has risen rather than fallen since 1994. In 1999, almost 17.5% of women in employment in the Union, just over one in every six, worked in health and social services, as compared with just under 16.5% in 1994. Almost 60% were employed in just 6 (of the 60 NACE 2-digit) sectors — health and social services, retailing, education, public administration, business services and hotels and restaurants — which together accounted for 39% of total employment in the economy (Graph 47). This compares with some 58% five years earlier.

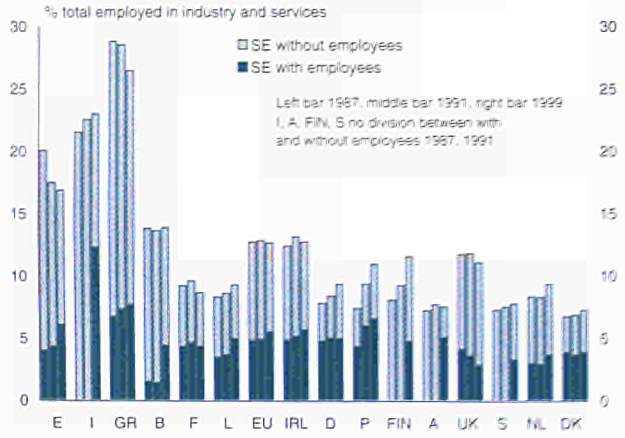
By contrast, the 6 sectors which were the largest employers of men accounted for just under 41% of all men in work in 1999, marginally less than in 1994, largely because of the decline of jobs in agriculture, still the fifth largest sector employing men in the Union. Indeed, apart from business services, all the main sectors employing men (construction, retailing, wholesaling and public administration as well as agriculture) were, in contrast to the main ones employing women, ones in which employment growth has been relatively slow in recent years.

The demand for high skills continues to grow

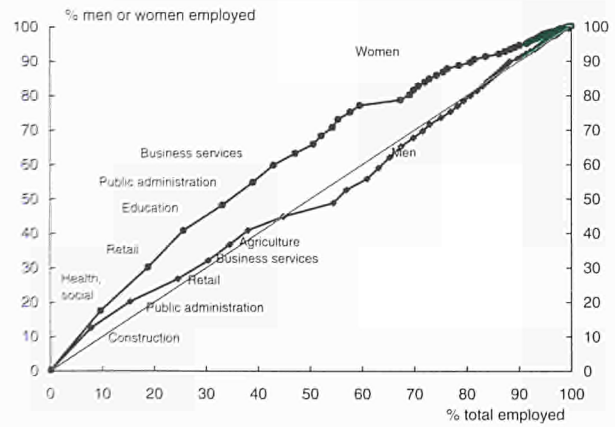
Skilled jobs continued to increase in 1999, particularly among managers, professionals and technicians. Their growth accounted for almost two-thirds of net employment creation in 1999, while jobs for office workers and sales and service staff accounted for the remaining third. Manual jobs rose only marginally during the year. Over half (57%) of skilled jobs went to women and virtually all (91%) of the jobs for office, sales and service staff. The same pattern of relative job growth was broadly repeated in all Member States.

The same pattern is also evident for the 1994–1999 period as a whole. Over these five years, most of the net additional jobs created were for managers, professionals and technicians— the occupational groups with the highest skill levels — and over half of these went to women (who in 1999 accounted for some 43% of all such jobs, about the same as their share of total employment). Numbers in this occupational group grew more than twice as fast as for office workers and sales and service staff (Graph 48). Manual workers in employment declined during the period. Women accounted for over half of the additional number of managers, professionals and technicians in

46 Self-employed in industry and services in Member States, 1987, 1991 and 1999



47 Concentration of men and women in employment by NACE 2-digit sector in the Union, 1999



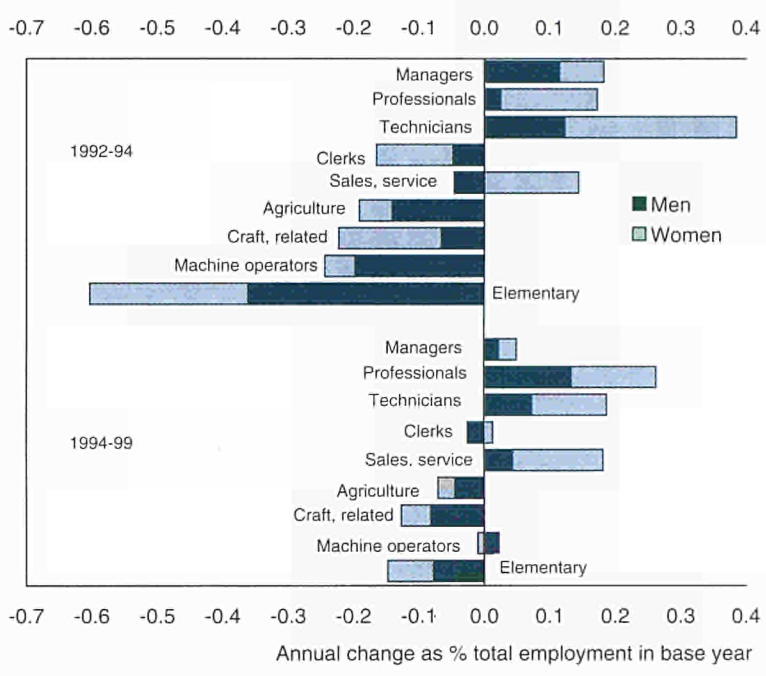
employment and for almost all of office, sales and service staff. In addition, the number of women employed in unskilled manual jobs remained unchanged over the period while the number of men declined, though women were hit slightly more than men by the reduction in jobs for skilled manual workers.

Women in high skilled occupations — but at lower levels

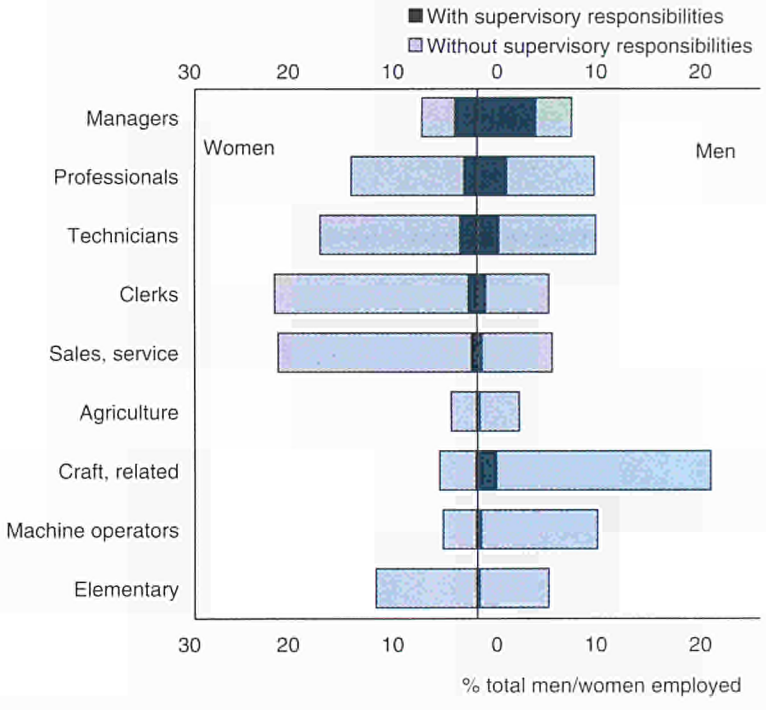
Accordingly, some 37% of women in employment in the Union in 1999 had jobs in the three high level occupational groups, working as managers, professionals or technicians, as opposed to 36% of men, while 43% worked in other non-manual jobs as office staff or sales and service workers, which employed only 15.5% of men. Only 20% of women, therefore, worked in manual jobs, half of them in skilled activities, half in unskilled, as compared with almost half of men, most of them in skilled activities (Graph 49).

Nevertheless, despite the relative concentration of women in non-manual jobs and the slightly higher proportion working in the higher skilled activities, only 6% of women in work were employed as managers as opposed to 10% of men. Moreover, within this occupational group, data from the European Community Household Panel (ECHP) suggest that fewer women than men worked in jobs with supervisory responsibilities, in the sense of having other people working under their supervision and having a say in their pay and promotion. The difference is equally wide in most other occupational groups. Even among office workers and sales and service staff, where

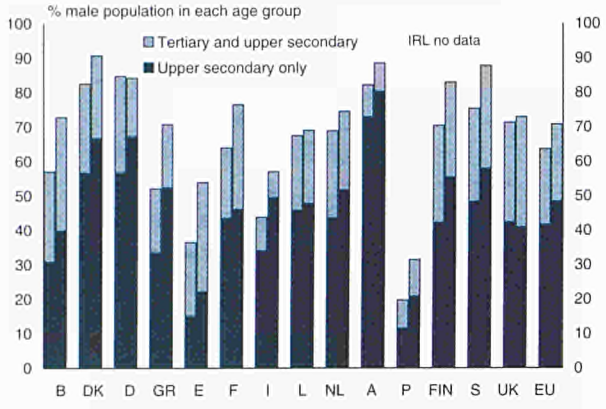
48 Change in employment of men and women by occupation in the Union, 1992-94 and 1994-99



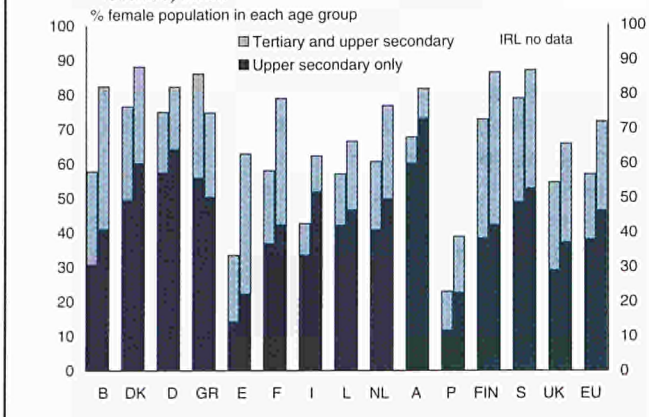
49 Men and women employed with supervisory responsibilities by occupation in the Union, 1999



50 Men aged 25-64 and 25-29 with upper secondary and tertiary education in Member States, 1999



51 Women aged 25-64 and 25-29 with upper secondary and tertiary education in Member States, 1999



women outnumber men by two to one, there are still a larger number of men with supervisory responsibilities than women.

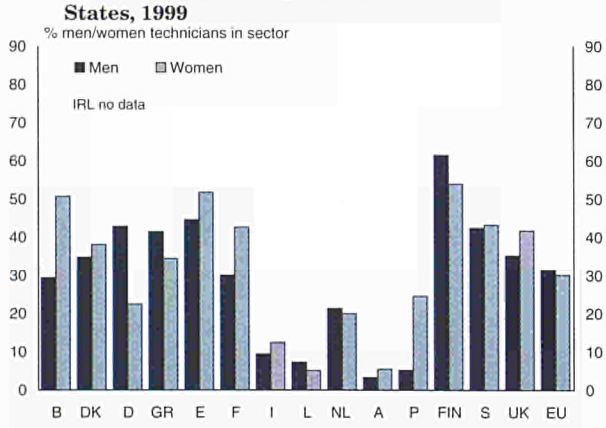
Employed women have higher education levels than men

Although a smaller proportion of women of working age than men in the Union have a high level of education, in the sense of having a university degree or equivalent (19% of those aged 25 to 64 in 1999 as opposed to 22% of men in the same age group), a larger proportion of women in employment have a high level of education than men (just over 25.5% as opposed to 24.5%). Whether a woman is employed or economically inactive, therefore, depends to a significant extent on her educational qualifications. While around 80% of women aged 25 to 64 with university degrees or the equivalent were in employment in the Union in 1999, only just over 40% of those in the same age group with no qualifications beyond basic schooling were in work. (For men, the figures were over 85% and around 70%.)

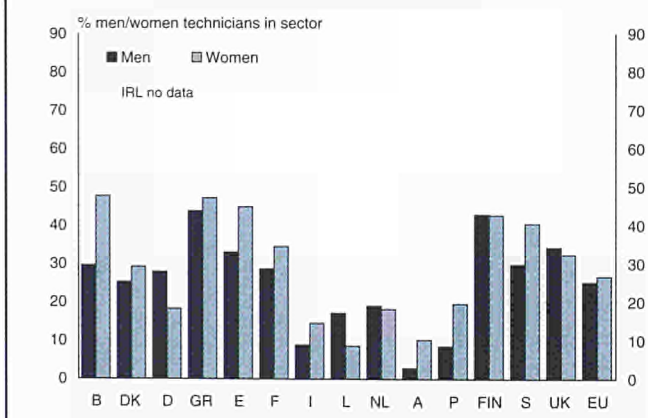
And they are increasing faster

At the same time, the average education level of women is tending to increase faster than for men. Some 26% of women aged 25 to 29 in the Union had a university degree or equivalent in 1999 as against only

52 Men and women technicians in agriculture and industry with tertiary education in Member States, 1999



53 Men and women technicians in basic services with tertiary education in Member States, 1999



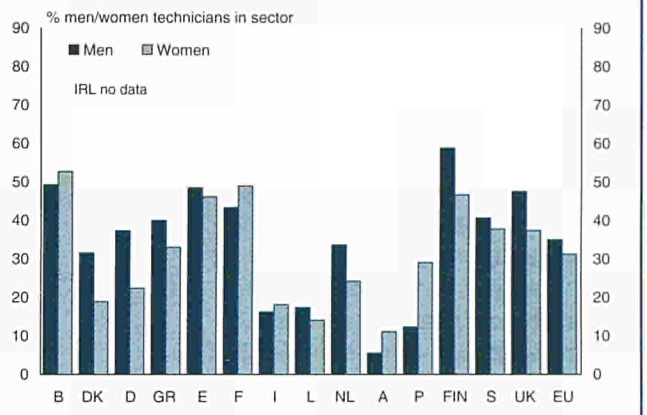
22.5% of men (Graphs 50 and 51). Moreover, 31% of women in employment in this age group had this level of qualification as opposed to just 23.5% of men. Accordingly, there were some 9% more women of this age with high education in the labour force than men — though 11% of them were unemployed (78% of these being in Spain, France and Italy) as against 8% of men (67% in these three countries).

But progress less far in their careers

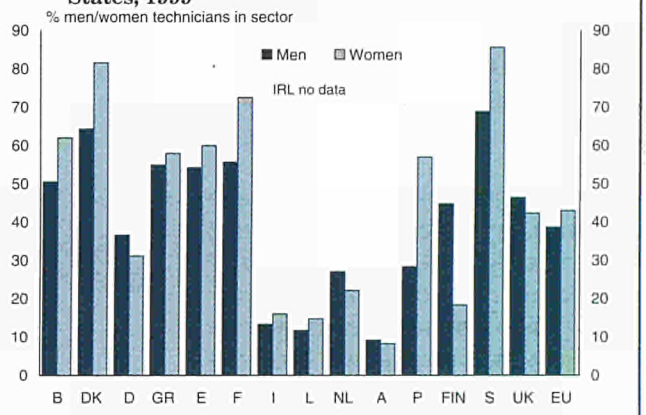
It is often stated that women in general tend to be more qualified than men for the jobs that they do or that the skills and talents of women are being under-used in the Union. In general data from the LFS do not provide much general support for this view; in 1999, a similar proportion of women as men employed in particular occupational groups (restricting the analysis to those aged 25 to 64) had a high level of educational attainment in each broad area of activity (ie dividing the economy into four broad sectors — agriculture and industry, basic services, advanced services (business and financial) and communal services (health, education and so on)). There are a few important exceptions, however. In agriculture and industry and basic services, a higher proportion of women employed as technicians — ie a level below professionals in terms of levels of responsibility — had a high level of education in 9 of the 14 Member States for which data are available, and in communal services, in 8 of the 14, but in advanced services in only 6 of the 14 (Graphs 52 to 55).

These data, moreover, are unlikely to be sufficiently detailed to detect the under-use of women's abilities.

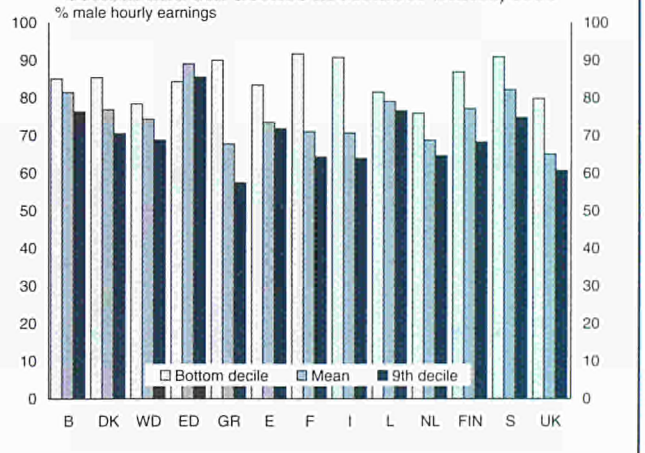
54 Men and women technicians in advanced services with tertiary education in Member States, 1999



55 Men and women technicians in communal services with tertiary education in Member States, 1999



56 Hourly earnings of women relative to men in bottom and 9th deciles in Member States, 1995



The evidence from the ECHP above suggests that women tend to be in less senior positions than men within broad occupational groups and, accordingly, tend to progress less far in their careers. This is supported by evidence from the Structure of Earnings Survey for 1995, which indicates that the gap between men's and women's earnings, which is a feature in all Member States to varying degrees and which applies to virtually all sectors and occupations, is particularly pronounced at the top end of the scale, among the men and women with the highest level of earnings. The top 10% of women wage earners in the Union, therefore, received on average some 35% less than the top 10% of men wage earners, whereas the bottom 10% of women earned around 15% less than men (the average difference for men and women overall was around 27%) (Graph 56).

This evidence appears to lend some credence to the much quoted view that there is a 'glass ceiling' restricting women's career prospects relative to men's and preventing them attaining equal levels of seniority, responsibility and pay.

Chapter 2 Employment performance and future trends

Employment performance of Member States improved further in 1999 on the back of the continuing recovery in activity. Part-time and temporary working also continued to expand, but at a slower rate than in recent years. Trends in employment rates confirm the conclusions of the 1998 Employment Rates Report, and projections for the next 10 years suggest that the targets adopted by the Lisbon European Council in March 2000 are feasible and achievable.

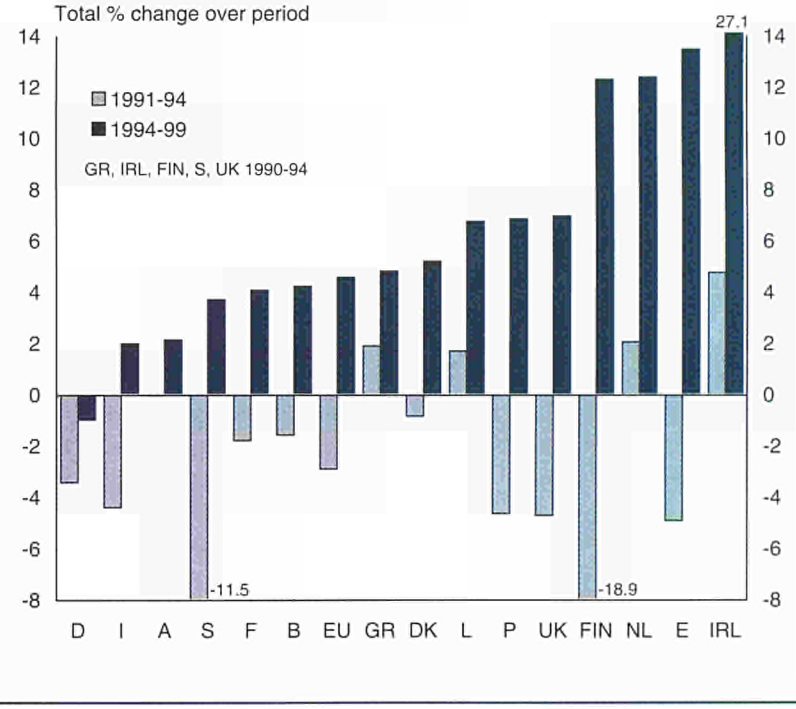
Employment performance in the Member States

The employment performance of Member States in 1999 reflected the improving economic performance of the Union economy combined with a slowdown in the trend rate of productivity growth, such that employment performance was stronger than might have been expected in several Member States.

GDP grew in all Member States in 1999, continuing the gradual recovery which began in 1993–94. As a result, employment also rose everywhere again in 1999. In 6 Member States, however, including Germany, Italy and the UK, GDP growth was less than 2½% in 1999 and in Germany and Italy, only around 1½%, which in these two countries was in line with growth over the preceding 4 years. Furthermore, in only two Member States (Ireland and Finland) did average productivity growth over the two years 1998 and 1999 exceed the apparent long-term trend in the Union (1.8%). In 1999, only three Member States (Greece, Ireland and Austria) showed a rise of more than 1½%. In 8 of the other 12 countries (including Spain, Italy and the UK), the rise was around 1% or less.

In four Member States, Germany, Italy, Finland and Sweden — employment in 1999 was still below its pre-recession level. In the two Nordic countries, the number employed was 8–9% lower than in

57 Changes in employment in Member States, 1991-94 (or 1990-94) and 1994-99



Revisions to GDP and employment data for Germany

Since the *Employment in Europe* report for 1999 was published, there have been significant revisions to the national accounts data for Germany associated with the move to ESA 95. These national accounts were the source of the data for total employment in last year's report. Their revision has resulted in marked differences in this report from the figures published last year in both the number employed in Germany and changes over recent years. The result is, on the one hand, an increase in the total number in work and, on the other, a reduction in the fall in employment over the 1990s. Moreover, since GDP data have also been revised, so that GDP growth is now estimated to have been less than previously reported, the apparent growth of GDP per person employed, or productivity, is now substantially lower than seemed to be the case this time last year.

The LFS reports a slightly lower figure for the total employed than the new national accounts data but a significantly higher figure than the old national accounts data. Using this to measure the employment rate in the present report results in an increase for 1998 from 61.5%, as reported in the 1999 *Employment in Europe* report, to 64.5%. This is the case even after limiting the number employed in the calculation to those aged 15 to 64, which itself reduces the rate by just under 1 percentage point.

The revisions to the data, however, do not alter the fact that employment performance in Germany has been poor over the 1990s, as reported in past *Employment in Europe* reports as well as in the *Employment Rates Report*. On the new estimates the employment rate declined from 69% in 1991 to just under 65% in 1999 and the number employed fell by over 1.6 million between these two years.

Germany: GDP and employment growth on the old and the new estimates, 1991–99

									Growth pa (%)	
GDP	**1991-92**	**1992-93**	**1993-94**	**1994-95**	**1995-96**	**1996-97**	**1997-98**	**1998-99**	**1991-95**	**1995-98**
Mar-99	2.2	-1.2	2.7	1.2	1.3	2.2	2.8		0.7	2.1
Apr-00	2.2	-1.1	2.3	1.7	0.8	1.5	2.2	1.5	0.7	1.5
Difference	0.0	0.1	-0.4	0.5	-0.5	-0.8	-0.7		0.0	-0.6
Employment										
Mar-99	-1.8	-1.7	-0.7	-0.4	-1.3	-1.3	0.0		-0.7	-0.9
Apr-00	-1.6	-1.5	-0.3	-0.1	-0.8	-0.8	0.4	0.3	-0.5	-0.4
Difference	0.2	0.2	0.3	0.3	0.5	0.5	0.4		0.1	0.5
Productivity										
Mar-99	4.1	0.6	3.4	1.6	2.6	3.6	2.8		1.4	3.0
Apr-00	3.9	0.5	2.7	1.8	1.5	2.3	1.8	1.2	1.3	1.9
Difference	-0.2	-0.1	-0.7	0.2	-1.0	-1.3	-1.0		-0.1	-1.1

1990, while in Italy, it was some 2½% lower than in 1991 and in Germany 4½% (Graph 57). In Germany, this translates into over 1½ million fewer people in work than 8 years earlier, most of these (1.3 million) in the new Länder in the east of the country. Indeed, Germany is the only country in the Union where employment in 1999 was lower than in 1994 (by some 350,000) and where the increase in 1998 and 1999 was much less than 1% a year — under ½% in both years.

Nevertheless, recent employment performance in Germany is still much better than appeared to be the case this time last year, partly as a result of changes in the measurement of employment (see Box on Germany and Box on employment data in Chapter 1). Then, the number in employment was estimated at around 1 million lower than in 1994 and the overall job losses since 1991 at 2½ million. As GDP growth since 1994 is now estimated to have been lower than previously thought, the downward revision to the implied growth of productivity has been substantial. Whereas previously productivity growth over the period 1994 to 1999 was estimated at just over 2½% a year, it now seems to have averaged

only just over 1½% a year, a reduction which explains a significant part of the downward revision for the EU as a whole.

The labour productivity figures for 1999 confirm the observations in the Commission Spring 2000 Forecasts and the Annual Economic Report on the deceleration of labour productivity growth in the Union in the second half 1990s. Whether this could be interpreted to mark a longer term trend change towards a more labour intensive pattern of economic growth in the EU is still an open question.

Current and future trends in employment rates

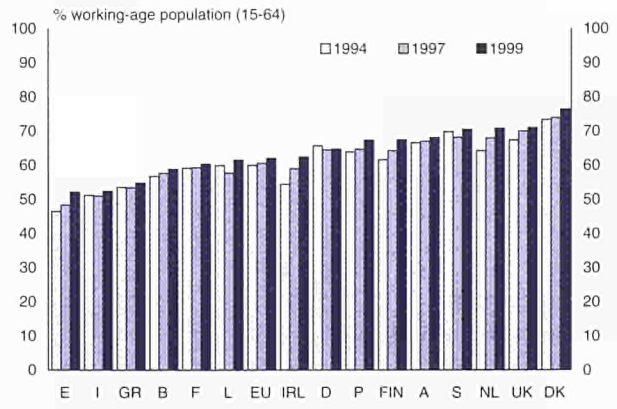
In the report on Employment Performance in the Member States (Employment Rates report) published in 1998, the Commission noted that the lagging employment performance of the Union compared with the United States could be attributed to lower employment rates in the service sector, and among women, young people and older workers. This section focuses on an analysis of these aspects to evaluate progress in these areas since that report was published. In addition, it makes some preliminary estimates of the trends in different Member States which would be consistent with the Union as a whole achieving the target of an overall employment rate of 70% by 2010 agreed at the Lisbon European Council of March 2000.

The four Member States which had the highest employment rates in 1997 (on the new definition, ie the number employed aged 15 to 64 relative to population of this age — see Box in Chapter 1) still had the highest employment rates in 1999, although the ranking has changed slightly (Graph 58). Denmark still had the highest rate, though the Netherlands had risen to second place having overtaken both the UK, which fell from second to third, and Sweden. In four countries — Spain, Ireland, Portugal and Finland — employment rates rose by 3–4% points over the two years, bringing them closer to the leading group. As noted in the Employment Rates report, however, the somewhat lower increase in the Union's employment performance is due to the poorer performance in three of the large Member States, where employment rates rose by around 1 percentage point or less over the period. In Germany, in particular, which accounts for a quarter of total EU employment, the employment rate rose by only 0.2 percentage points between 1997 and 1999. In the remaining Member States, employment rates rose by around 1 percentage point.

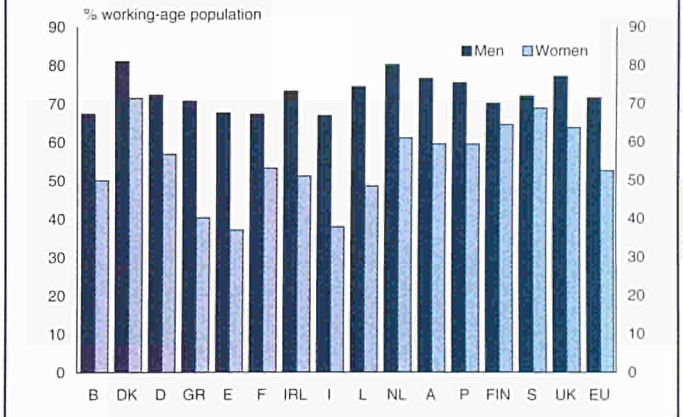
Employment rates of women

The relative growth of women's employment in 1999 was a feature of all Member States and was particularly pronounced in Italy, where the employment rate of women is among the lowest in the Union (only 38% in 1999), but where women accounted for 85% of the net additional jobs created, as well as in Germany, where employment of women increased significantly while that of men continued to decline. Whereas the number of men in work in Germany was therefore lower in 1999 than in 1997 and 7% lower than in 1991, the number

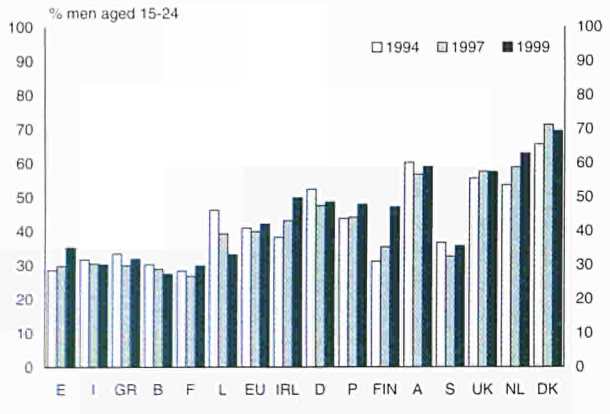
58 Employment rates in Member States, 1994, 1997 and 1999



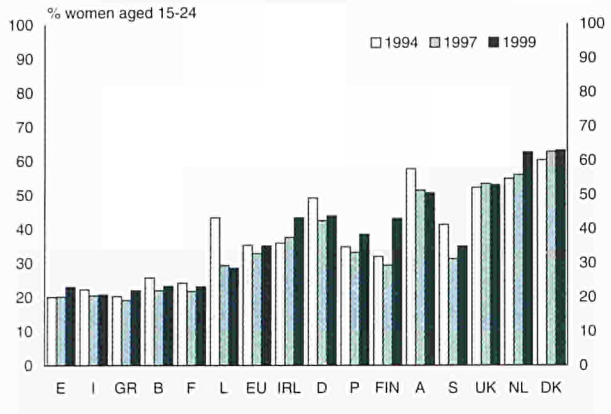
59 Employment rate of men and women aged 15-64 in Member States, 1999



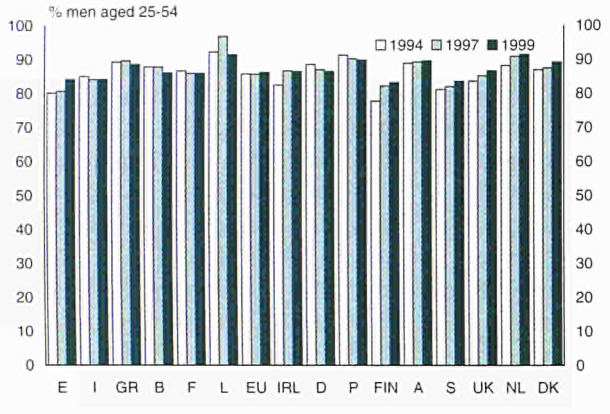
60 Employment rates of men aged 15-24 in Member States, 1994, 1997 and 1999



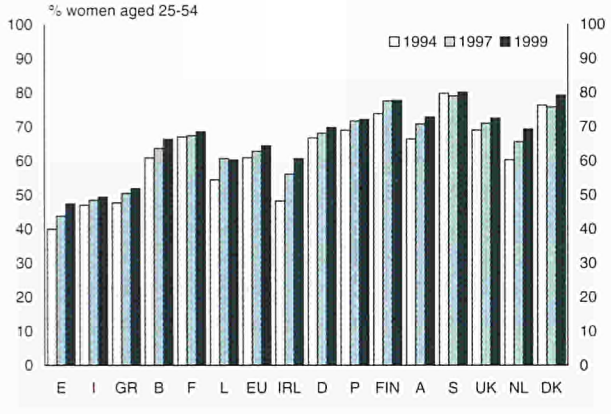
61 Employment rates of women aged 15-24 in Member States, 1994, 1997 and 1999



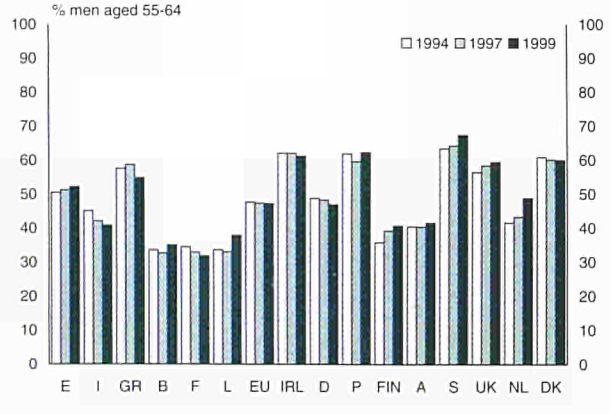
62 Employment rates of men aged 25-54 in Member States, 1994, 1997 and 1999



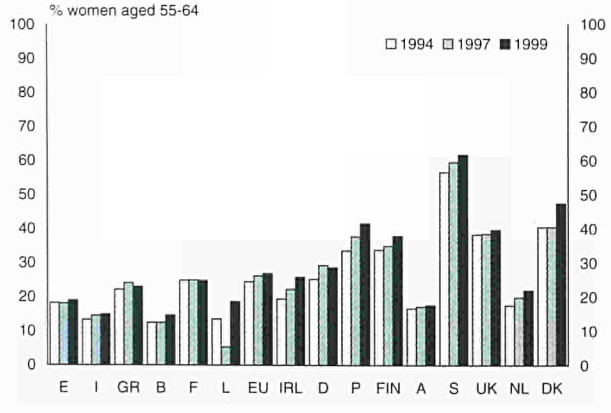
63 Employment rates of women aged 25-54 in Member States, 1994, 1997 and 1999



64 Employment rates of men aged 55-64 in Member States, 1994, 1997 and 1999



65 Employment rates of women aged 55-64 in Member States, 1994, 1997 and 1999



of women was over 2% higher than two years earlier and only slightly less than in 1991 at the start of the recession (Graph 59).

The largest rises in employment rates in the Union over the two years 1997 to 1999 were in the age group 15–24, with a rise of 2.2 percentage points both for women and men (Graphs 60 and 61), followed by women aged 25–54 with a rise of 1.7 percentage points (Graph 63). In some Member States there were substantial rises in employment rates in these groups. In Ireland, and the Netherlands the employment rate of young women and prime age women rose by 4 percentage points or more, and in Spain, Portugal and Sweden there were rises of over 3 percentage points. With few exceptions, there were rises in employment rates of women aged up to 54 in all Member States, though in 6 countries, the employment rate of men of prime working age fell (Graph 62).

Older workers

The Employment Rates report noted that there was considerable employment potential to be gained in the Union from increasing the employment potential of older workers of 55 and over. Changes in this area since 1997 are more mixed across the Member States than for the younger and prime age workers. Some Member States continued to register a significant decline in the employment rate of older men — Germany, Greece, France, and Italy (Graph 64). In Germany, there was also a fall in the employment rate of women in this age group of 0.7% points, reflecting the overall lack of job opportunities in that country (Graph 65). In the Netherlands, however, there was a rise in the employment rate of older men of some 5.5 percentage points, suggesting that there has been some success in reversing the trend towards earlier effective retirement — which often showed up as an increase in the number of people with disabilities — evident in the early 1990s.

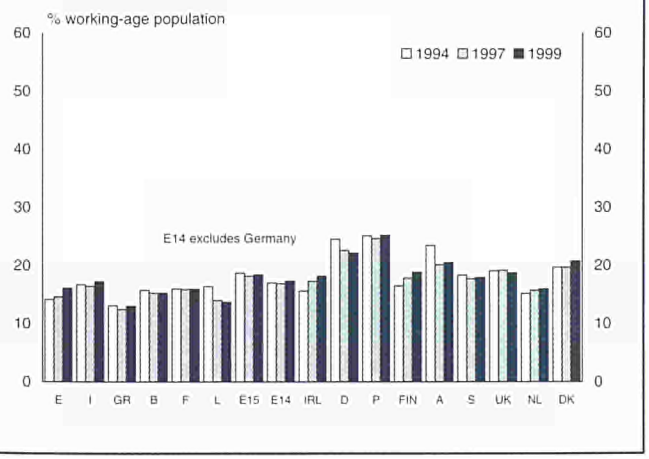
Nevertheless, the conclusion of the Employment Rates report remains valid: increasing the employment potential of the Union depends to a large extent on the performance of some of the larger Member States in increasing employment rates. In addition, it is clear from the trends in those Member States where employment rates have risen the most that raising employment across all age groups and genders is an important factor.

Employment rates by sector

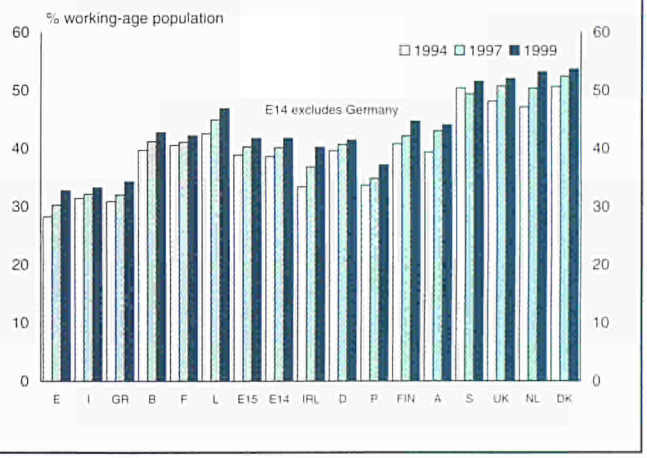
Most of the rise in employment rates since 1997, the last year covered by the Employment Rates report, can be attributed to a growth of jobs in services — the sector identified in that report as offering the greatest potential for increasing employment rates in the Union as a whole. Over the two years 1997 to 1999, all of the additional jobs created were in services which much more than offset a continuing fall of employment in agriculture.

Employment in industry also increased in these two years — unlike in the first three years of the recovery period, 1994 to 1997. In Germany, however, the number employed in the sector declined by over 2% of working-age population

66 Employment rates in industry in Member States, 1994, 1997 and 1999



67 Employment rates in services in Member States, 1994, 1997 and 1999



between 1994 and 1999, adding to the decline of almost 3% of working-age population in the preceding four years (Graph 66). In the rest of the Union, outside Germany, job losses in industry were much smaller between 1994 and 1997. In consequence, whereas the employment rate in industry fell in the EU as a whole over the 5 years 1994 to 1999, if Germany is excluded, there was a rise of ½% in the employment rate.

Nevertheless, employment in services accounted for the bulk of net job creation in all Member States in 1999 as it has done for the last 20–30 years. As a result, the employment rate in the sector averaged 41½% in the EU, some 1½ percentage points higher than in 1997 and almost 3 percentage points higher than in 1994 at the start of the recovery (Graph 67).

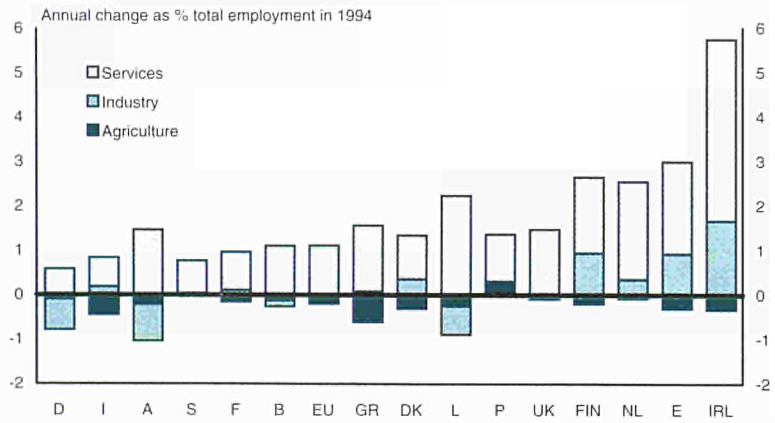
Within services, most of the additional jobs created over the two years 1997 to 1999 were in business activities and communal services — mainly health care and education. This was also the case over the preceding three years, and indeed over a longer period. Over the recovery period 1994 to 1999 as a whole, therefore, the employment rate in the Union in each of these areas increased by over 1 percentage point.

The same pattern of change was common to most Member States. In all of the countries which experienced a high overall rate of employment growth over the period 1994 to 1999, services made the major contribution to net job creation, but employment also increased in industry significantly (in Spain, Ireland and Finland, by 2% or more of working-age population) (Graph 68). The only exception is Portugal where the change in survey methods in 1998 means that there are doubts about the consistency of the LFS data, even though an attempt has made to correct earlier years for this. Equally, in all Member States, business activities and communal services accounted for a substantial part of the additional jobs created within services.

In most of the Member States where the overall employment rate either declined (Germany) over this period or increased by comparatively little (Greece, France, Italy, Austria and Sweden), employment in services rose by significantly less than in other countries. The exceptions are Greece, where job losses in agriculture accounted for most of the low employment growth, and Austria, where there were large-scale losses in both agriculture and industry.

Nevertheless, employment in industry rose in all but 5 Member States (Germany, Austria, Greece, Belgium and Luxembourg), though the rise was marginal in both Sweden and the UK. In Germany, the fall in industrial employment amounted to almost 10% over these 5 years. In six countries, — Denmark, Spain, Ireland, Italy, the Netherlands and Finland — industry contributed significantly to employment growth between 1994 and 1999, in all but the Netherlands, the share of industry in total employment increasing over the period. In four of these countries, this was associated with an overall growth of employment substantially above the EU average (2½% a year or more in each case), but in Denmark, the overall increase was only slightly higher than average and in Italy, it was well below.

68 Contribution of broad sectors to the change in employment in Member States, 1994-99



Services were the main source of job growth throughout the EU over the years 1994-99 and the only source in Germany, Austria and Belgium. Nevertheless, employment in industry rose in all but 4 countries and in 5 (Denmark, Spain, Ireland, Italy and Finland), by enough to increase the share. Jobs in agriculture declined in all countries bar Portugal.

Source: Eurostat, EU LFS and national accounts.

In five of these six Member States — the Netherlands apart — there was much less of gap between the growth of jobs in industry and those in services than elsewhere in the Union. Indeed, in Finland, the number employed in industry increased by more than that in services, the only country in the Union where this was the case. Elsewhere, employment in industry either declined or rose very little, while employment in services went up significantly — by at least 1% a year, even in Germany, where total employment declined, or Italy and Austria, where it rose by under ½% a year.

The pattern of employment growth in the Union over the 5 years 1994 to 1999 was remarkably similar to that over the previous growth period, 1986 to 1990, if Germany is excluded. Services accounted for most of the additional jobs, but industry also made a small contribution. This contrasts, to some degree, with the pattern of change in the US, where employment in industry declined, as it did in agriculture (though less than in Europe) and where, accordingly, all of the additional net jobs created were in services. The Employment Rates report noted that the shortfall in employment rates between the EU and the US could be almost entirely attributed to the difference in employment rates in services.

Again, the recent trends confirm the conclusions of the Employment Rates report: high employment rates in services are associated with high overall employment rates. Recent trends suggest, however, that, in Europe, increasing employment in industry has also contributed to higher employment rates overall.

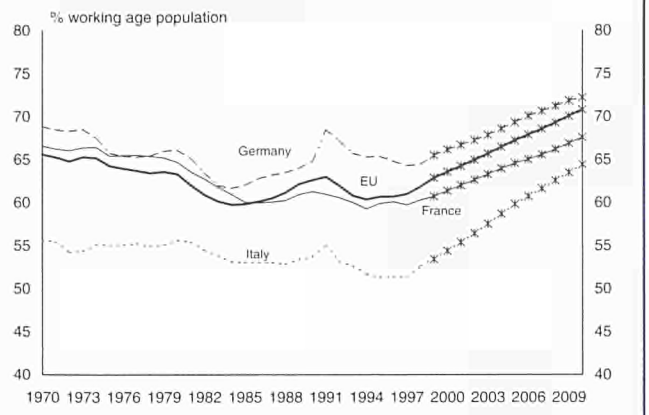
Looking ahead

The European Council at Lisbon has set the Union ambitious targets for raising the overall employment rate in the Union to 70% and that of women to over 60% by 2010.

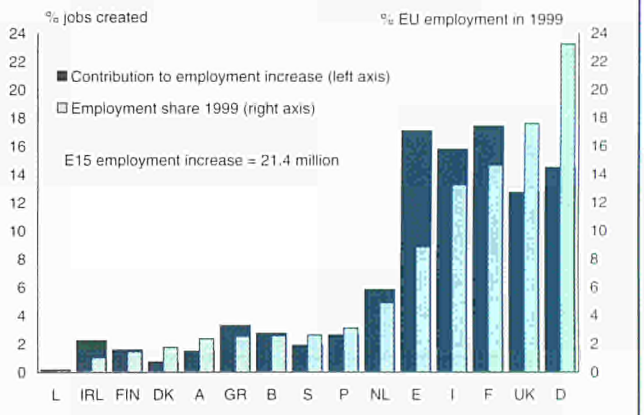
The following section presents the results, developed in the Commission services, of a more detailed analysis of the implications of the 70% employment-rate target set at Lisbon. The analysis has been carried out at the level of each Member State, looking separately at males and females within three broad age-groups — 15–24, 25–54 and 55–64. It should be emphasised that this is not a forecast but a scenario, based on projections of underlying trends in employment, population structure, and labour-force participation (see Box on assumptions underlying the projections). Critically, the scenario is based on projected economic growth in line with the Lisbon Extraordinary Council conclusion that, if the measures agreed at the Council were implemented, 'an average economic growth rate of around 3% should be a realistic prospect for the coming years'.

On the assumptions underlying the scenarios an employment rate of over 70% would indeed be achieved. For the EU as a whole, the rate would rise from 62.1% in 1999 to 70.9% by 2010. Across Member States, the employment rate in 2010 would range from a low of 64% in Italy to a high of 80% in Denmark. Although this difference remains large, the projection nonetheless involves significant convergence, with the gap between the highest and lowest employment

69 Employment rates in the Union and selected Member States, 1970-2010



70 Projected contribution to total employment increase by Member State, 1999-2010



Assumptions underlying the projections

This chapter presents a scenario based on:

- Projections for employment growth to 2010 assume GDP growth of 3% p.a. Employment growth differences across Member States are based on the pattern in the Commission's latest economic forecasts, with adjustments to take account of longer-term underlying trends.
- Projections of the working-age population are based on Eurostat projections for population change, 1999 to 2010, applied to actual LFS population data for 1999.
- Activity rates are projected for 2010 by the Commission services for each gender and age-group for each Member State.

Employment growth

A critical element underpinning the employment scenario for the Union overall is the assumption of 3% average annual growth in GDP. The Lisbon Council identified this as a reasonable prospect only in the context of a strategy aimed at:

- preparing the transition to a knowledge based economy and society by better policies for the information society and R&D, as well as by stepping up the process of structural reform and by completing the internal market;
- modernising the European social model, investing in people and combating social exclusion;
- sustaining favourable growth prospects by applying an appropriate macro-economic policy mix.

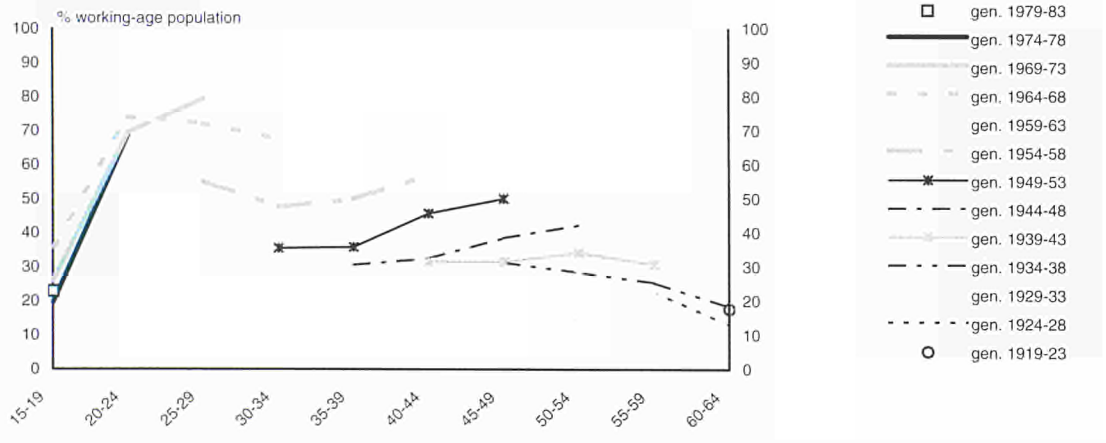
The methodology for projecting employment growth in Member States gives heavy weight to recent relative economic and employment performance. Projected values in those with good recent performance may therefore be proportionally too high.

Labour force participation

The main elements of the assumptions are:

- For men, the activity rates for 25 to 54 year-olds in 1998 or 1999 have been kept constant throughout the scenario. For the other age groups, the change between 1993 (or the most recent year in which the minimum level of activity was reached) and 1998/99 has been linearly extrapolated. This method has been also used to estimate activity rates of women in the age groups 15–19 and 20–24 (and 25–29 if activity is higher in this group).
- Female activity rates in the remaining age-groups have been extrapolated not by age group but by generation. This approach is based on the observation that successive generations of women have shown markedly different levels of participation. Increasingly, young women do not leave the labour market when they get married or have children as older women did but remain in activity longer. This

1B Female activity rate by age, grouped by generation, in Ireland



different "generational shift" is seen most clearly in Ireland (Graph 1B, where the age-specific activity rates of women between 1983 and 1998 have been grouped, not by observation year, but by generation).

This pattern of inter-generational change is widespread across Member States. Only Denmark, Finland, Sweden and the United Kingdom have shown little difference in participation levels across recent generations — but this is primarily because participation of middle-aged and older women had already reached relatively high levels by the early 1980s.

In practice, the age profile of activity is similar among the generations: maximum activity is reached before marriage and childbearing, followed by a fall up to 30–34, a recovery in activity from 35–39 and a final drop from 50–54. The key difference is in the level of activity in the younger age group, which then determines the level in older groups.

Female participation in each 5-year generation in each Member State is projected by assuming that this pattern is repeated by successive generations. Given that the present younger generations are starting from a higher level, this implies a continuing increase in participation for women of all ages in all Member States.

This implies:

- a substantial increase in activity for women aged 55–64
- smaller but still significant increases in activity for women aged 25–54, and for both sexes aged 15–24
- a slight increase in activity of males aged 55–64.
- little change in activity among males aged 25–54.

Finally, it is assumed that participation among those over 65 remains at its 1999 level throughout the projection period.

Disaggregation by gender and age

It is assumed that the reduction in the unemployment rate in each Member State is proportional across age and gender groups. When combined with the disaggregated labour-force projections, this assumption gives the distribution of employment across age and gender groups in each Member State for 2010.

While overall employment growth, therefore, is determined by economic growth and productivity developments, the distribution of employment across age and gender groups is determined by supply developments, which are the result of a combination of demographic trends and the activity-rate projections.

rate falling from 23 percentage points in 1999 to 16 points in 2010.

Some of this variation across countries is due to demographic change — in Italy, for example, the working-age population falls over the projection period, so that the employment rate would rise even if employment remained unchanged. In most countries, however, a substantial part of the projected growth in employment will be required to simply maintain the employment rate at current levels because the working age population is also set to grow significantly.

Two groups of countries are notable for their contribution to the projected outturn.

Significant employment growth in three of the large countries (Germany, Italy, France) whose past employment performance has been relatively weak, will be critical to the achievement of the overall target for the EU (Graph 69). These three countries combined account for almost half of the overall increase in employment projected for the EU-15 between 1999 and 2010. At the extreme, if they were to repeat the employment growth performance of the 1990s rather than the better performance now foreseen, the overall EU employment rate for 2010 would be only slightly over 67% — almost 4 percentage points lower than the baseline projection (Graph 70).

In three other Member States, Spain, Ireland and the Netherlands, employment rates are projected to increase by more than 10 percentage points, continuing a trend which has already been underway for some time (Graph 71). In two of these countries, employment rates in the past were among the lowest in the Union, and

in the Netherlands, much of the expansion in employment has been in part-time jobs.

The supply side

Both reductions in unemployment and increases in labour force participation would inevitably accompany employment growth on the scale envisaged by such a scenario.

Labour force

Labour force projections for the EU and for each Member State have also been developed (see Box for the assumptions). These projections produce an increase of over 4 percentage points to the 1999 activity rate in the EU, which rises to 73.6% by 2010. Male activity is projected to rise from 78.8% to 80.7%, and female activity from 59.6% to 66.4%. Among the Member States, the largest increases in activity are expected in the southern European countries, Ireland and the Netherlands; the smallest increases are expected in the Scandinavian countries and the UK.

Significant variations across countries remain in 2010. For males, the range is from 74.8% in Belgium to 88.5% in Portugal; for females, from 56% in Italy to 78% in Denmark. Some convergence in activity is anticipated — with the gap between the highest and lowest activity falling from 20 percentage points in 1999 to under 15 points in 2010. All of this convergence relates to women, where the gap between the highest and lowest falls from 31 percentage points in 1999 to 22 points in 2010. The greatest degree of convergence is expected for women aged between 55 and 64 (with a decline of 20 percentage points in the gap between the highest and lowest) and women aged between 25 and 54 (a convergence of 10 percentage points).

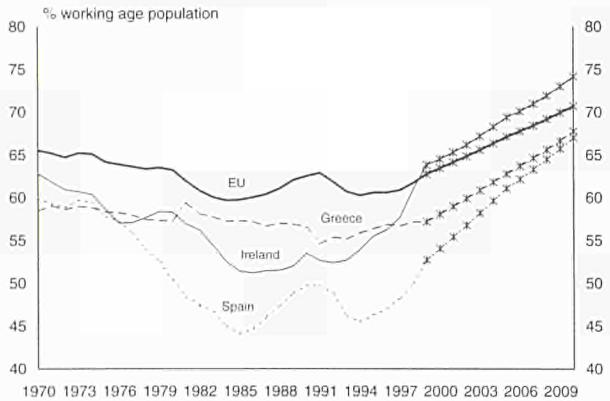
Age and gender

Extending the projections to age groups by gender (Graph 72), the major employment-rate increases relate to women of all ages and to males aged 15–24. For women aged 25–54 and 55–64, these developments would represent continuation of a secular upward trend. For the younger age-groups in both sexes, the increase in the employment rate can be seen as a reversal of a cyclical reduction brought about by the high levels of overall unemployment during the 1990s. For men over 55, even the moderate increase foreseen implies that the recently observed reversal of a long-term secular downwards trend in employment rates for this group will become much more pronounced, with a consequent change in the underlying labour market behaviour of this group. While some change in this direction can be identified in the Netherlands, for example (see above), major policy efforts in this direction would probably be required in most Member States. For other groups, projected employment rate developments are broadly in line with long-term trends.

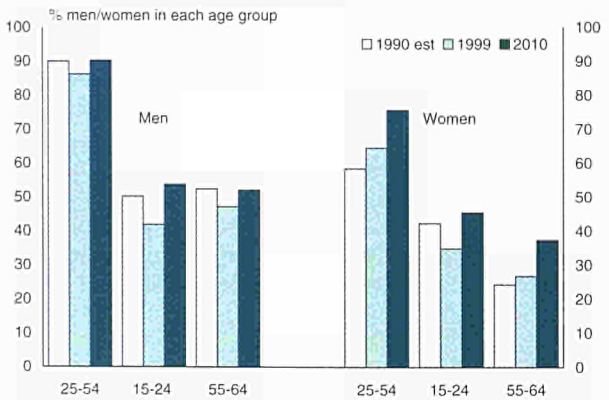
Unemployment

With the employment rate rising by 8 percentage points and an activity rate increase of just over 4 points, the scenario inevitably involves a sharp drop in unemployment — from 9.2% in 1999 to less than 4% in 2010. Such developments would see sharp convergence in unemployment with the gap between the highest and lowest Member States falling to 5

71 Employment rates in the Union and selected Member States, 1970-2010



72 Employment rates by gender and age group in the Union, 1990, 1999 and 2010



EU-US: Employment rates and adult dependency

A comparison with a US projection for 2008 carried out by the US Bureau of Labor Statistics suggests that the US/EU employment rate gap would decline from 10 percentage points in the late 1990s to 3 points a decade later. For males, the gap falls from 7 points to 1 point, and for females from 13 points to 5 points. The BLS projections anticipate little change in activity in the US over this period (the only significant increase relates to females aged 55–64); given already low unemployment in 1998, this leaves little scope for any increase in the employment rate from its 1998 level.[1]

It is interesting to note the high level of employment, both actual and projected, for those aged over 65 in the US relative to Europe — the employment rates for 2010 for this group are 12.7% for the US and 3.3% for Europe. This difference means that the choice of measure of the aggregate employment rate has a large impact on any comparisons between the US and Europe. The extent of this impact can be seen in Table 5, and is summarised below.

Projected EU/US employment rate comparisons (EU 2010, US 2008)

Rate definition ("convention") [2]	US rate	EU rate	Difference
New EU convention — employment aged 15–64 as % of working-age population	72.8	69.9	-2.9
Former EU convention — total employment (all ages) as % of working-age population (15–64)	75.1	70.8	-4.3
US convention — total employment (all ages) as % of population aged 15+	63.5	55.6	-7.9

The high level of US employment for over-65s means that their inclusion in the employment total, as in the old EU definition for measuring the employment rate, tends to increase the reported employment gap between the two areas. The further sharp increase in the gap, if the US definition of measuring the employment rate relative to the entire population aged over 15 years is followed, results from the different demographic composition of the two areas. Some 21% of the population aged 15+ in Europe in 2010 will be aged 65+; this proportion is only 15% in the US 2008 projection. The large EU/US gap using this third concept illustrates the fact that, even with the achievement of a high employment rate within the working-age population, the EU will retain a relatively high adult dependency rate,[3] because of the higher concentration of population in the over-65 age-group.The different implications of the alternative approaches to measuring employment rates will have to be borne in mind in future monitoring of relative employment trends in the two areas.

1 The US activity data are taken from Bureau of Labor Statistics, Labor force projections to 2008: steady growth and changing composition, Monthly Labor Review, November 1999. Employment and unemployment data for 1998 are actual, and the 2008 data are estimated, based on the assumption of no change in unemployment rates by age and gender as compared with 1998. Employment and activity rates, where relevant, have been adjusted from the US convention, which excludes persons aged 15 years, to the EU convention which includes them. In making this adjustment it has been assumed that all US 15-year olds are outside the labour force.

2 Actual US convention is employment and population aged 16+. US data in the table have been adjusted, to include 15-year-olds, as described in the preceding footnote.

3 The adult dependency rate reflects the ratio between the non-employed and those in employment in the adult population as a whole — including those aged over 65 years.

percentage points, compared to 14 percentage points in 1999.

Moreover, for some countries, where unemployment of approximately 1% would be implied by the projections, it seems likely that employment growth on this scale could be accommodated only by activity increases greater than those now projected.

The projected unemployment rate in 2010 is close to levels currently obtained in the US, and to levels last seen in Europe in the 1970s. Whether unemployment can fall to these levels without the appearance of major tensions on the labour market will depend on a number of factors — notably the success of the structural reforms now underway under the Luxembourg process.

Similarly, the question arises as to how the strong increases in employment rates will affect the structure of employment and what policies will be needed to ensure that imbalances in demand and supply of labour do not arise. More generally, the broad structural reforms as outlined by the Lisbon European Council, as well as policies to facilitate an equitable transition to the knowledge based economy, will be of key importance to accommodate strong employment growth.

Chapter 3 Employment in the knowledge based economy

The "knowledge based economy" cuts across all sectors and industries. Production and activity in every industry will be reshaped by the use of information technologies, which will change skills requirements and the nature of jobs. Every industry will need to put a higher premium on education and to increase its rate of innovation. Life-long learning will be the watchword for individuals to keep their skills up to date.

Knowledge already has a profound impact on many goods and services and is destined to shape our jobs and working lives even further. The OECD has estimated that over 50% of GDP in the major OECD economies is now knowledge based and has stressed that output and employment are expanding at the fastest pace in high-technology industries.

Knowledge does not exist until information is collected, processed and given shape. At its best (or possibly at its most advanced), knowledge involves innovation — the invention of new processes or new products — or creation — the design of new ideas, new forms of art or thought. Thus, the knowledge based economy results from the interaction of three dimensions:

- *Information and communication technologies.* Circulation of data and information is improved and boosted by the development of networks. Indeed, these technologies are changing the face of many activities and occupations, which become increasingly dependent upon information processing.
- *Education and human capital.* Use and production of knowledge intensive processes and products requires a skilled workforce. For knowledge based companies, talent and education become the most valuable assets, and decisions they make on the location of knowledge intensive activities are likely to be increasingly linked to the pool of qualified workers into which they can tap.
- *Creation and innovation.* Knowledge (research, design, etc.) becomes a tradable product itself or makes up for a large share of the actual value of many products or services.

The knowledge based economy — data issues

The basic features of the knowledge based economy are changing quickly. For instance, we can see that some countries are already advanced in the use of Information and Communication Technologies (ICTs) and the Internet, while others are catching up at a fast pace. Similarly, in some countries the educational attainment of younger age groups is much higher than that of older ones, which underlines the dramatic improvement in the quality of the workforce underway.

Data available on a comprehensive European basis are sometimes incomplete or have important drawbacks. Firstly, they are often two years old, which is a very long time in the context of a technological revolution. Secondly, we lack recent, comprehensive, data on the penetration of new technologies, as well as on innovation and vocational training, across sectors. Hence, it is not yet possible to complete a comprehensive survey identifying, where the knowledge based economy actually is across sectors according to technology, innovation and human capital indicators; and whether this new economy is actually creating more jobs than other, low knowledge, sectors of the economy.

Although this chapter does not hide the fact that the analysis below is constrained by limited data, it gives first answers to some important questions faced by European economies:

How much are the European economies actually knowledge based? By setting up indicators, based on technology, innovation and education data, it is possible to define benchmarks for knowledge intensity and to identify whether there is a relationship with employment performance.

How is the knowledge based economy changing jobs and how is it affecting skill requirements?

Technology, innovation and human capital

The technology indicators show an overwhelming lead for the three Nordic countries: their population is taking up the Internet fast, which may be reflected in growth of Internet-based businesses (Graph 73). These countries are actually coming very close to the US in the Internet and the new ICTs, and spend almost as much as the US on these technologies as a share of GDP. Other countries like the UK, Belgium and the Netherlands are catching up fast, while the other large countries (Germany, France, Italy and Spain) are still lagging behind. Small countries, for various reasons, appear to enjoy a faster and larger penetration of the Internet and ICTs.

Moreover, these figures also show a large gap between the top and the bottom countries: this gap is not narrowing, as is evident from the relative growth rates for Internet penetration.

Two main conclusions can be drawn from these indicators:

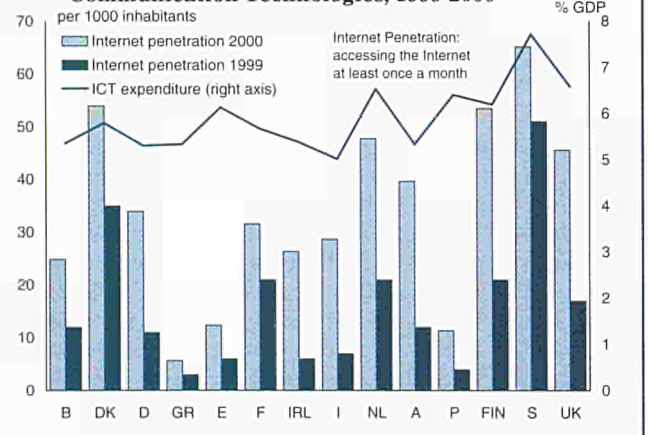
- Sweden, Germany and Finland enjoy strong positions according to most indicators, with a high level of R&D expenditure combined with a large number of patent applications and a high share of the workforce in science and technology (Graphs 74 and 75).

- At the opposite end, some countries (Portugal, Greece and Spain) show poor performances for all these indicators — although they experience large regional disparities, which make it difficult to assess these countries as a whole.

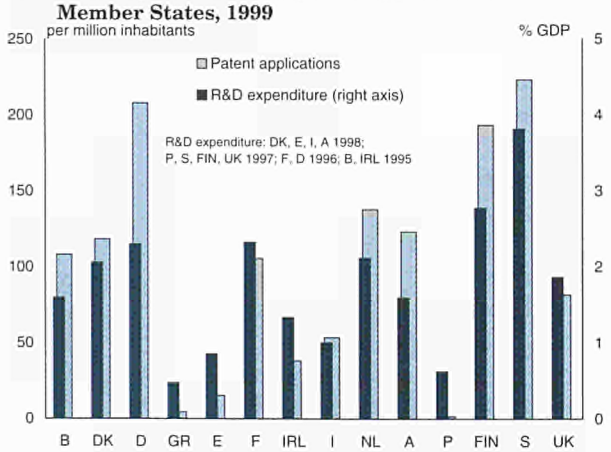
Educational attainment and skills

The knowledge based economy requires not only workers educated to innovate, but a trained and skilled workforce able to adapt to a changing working environment. These changes are due mainly to the faster pace of new technology penetration and to increased competition on product and service markets. Workers in the knowledge based economy should have the ability to *learn*, to *re-learn* (when new technologies are introduced, for instance) but also to *de-learn* (production processes or products made obsolete by new business conditions, for instance). These abilities will indeed become competitive advantages for businesses and economies. The initial acquisition of skills is only one aspect of the story. Lifelong learning to adapt skills and competencies to new

73 The spread of the new Information and Communication Technologies, 1999-2000



74 R&D expenditure and patent applications in Member States, 1999



needs will be critical. They are measured here by three different indicators:

- first, the share of those in employment aged 25-64 with at least upper secondary education level, which gives a good picture of the overall adaptability of the workforce;

- secondly, the share of young workers aged 25 to 34 with this level of education, which hints at the progress achieved over the past decades in upgrading the skills of the workforce;

- thirdly, the share of workers employed in sectors requiring the highest education levels. These are defined here as sectors with at least 40% of the total employed with tertiary education: although they may vary from one country to another, they are made up, at a EU level, of 8 sectors (research and development, education, computers, manufacture of office machinery and computers, general business services, health and social services, activities of membership organisations and extra-territorial organizations, the latter being of small size).

A dynamic indicator is added so as to compare growth in these high-education sectors with that in other sectors.

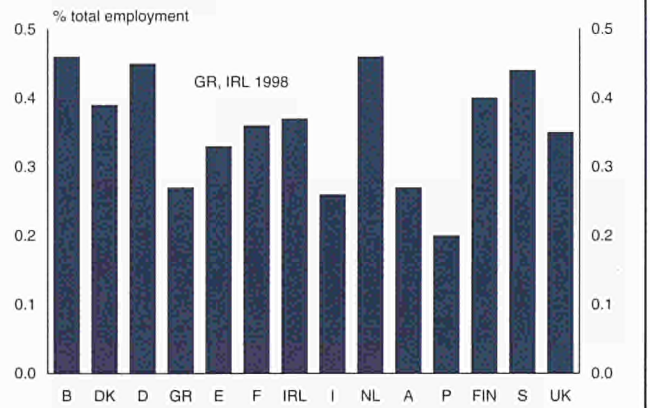
Three main conclusions can be drawn from the human capital indicators (Graph 76):

- Germany, Denmark, Austria, Finland and Sweden have the best educated workforce. In these countries, over 75% of those in employment have at least completed upper secondary education, and this proportion is higher still for the 25–34 age group, which hints at a potential for further improvement. This is a traditional feature for Germany and Austria, where apprenticeship systems have a stronghold over secondary education.

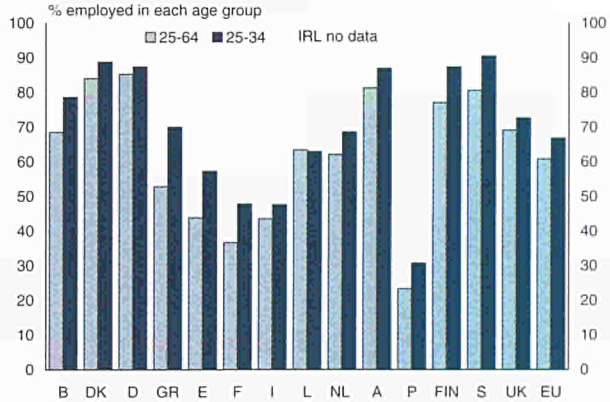
- Denmark and Sweden combine a high general education with the highest share of employment in high-education sectors (Graph 77 — see Box High-tech and high-education sectors). Finland is not far behind. The link between these two indicators is likely to be as much demand-led as supply-driven. Firstly, these sectors demand qualifications of a consistent quality from the educational system, putting some pressure on the system to provide them; secondly, the large pool of highly qualified people may foster the creation and development of businesses using these skills.

- Some countries have in recent years experienced much faster growth in high-education sectors than overall job creation (Graph 78). This is particularly true for Greece, Spain, the Netherlands and Ireland, where the share of such jobs in overall employment is increasing sharply. This trend — whatever its determinants: domestic demand, exports, or upgraded skills themselves — is likely to improve the quality of the workforce. It is particularly striking that in Greece, Spain and the Netherlands, the share of the youngest age group with at least upper secondary education is well above the average

75 Share of employment in science and technology sectors in Member States, 1999



76 Employed people aged 25-64 and 25-34 with upper secondary level education or higher in Member States, 1999



for the overall population, which hints at a large potential for job creation in the leading sectors.

The most knowledge based economies enjoy strong employment performance

Based on the three sets of indicators, information and communication technologies, creation and research, human capital, which have all been equally weighted, the most advanced countries in the transition towards a knowledge based economy appear to be Sweden, Finland and Denmark. They enjoy a higher than average employment rate (71.5%) and a larger share of employment in the high-education sectors (those with the largest share of workers with tertiary education), where job creation has been the most dynamic for the last decade.

Conversely, the least-advanced economies are Greece, Spain, Italy and Portugal. At 55%, their employment rate is much lower than the first three and the EU average, as is their share of employment in high-education sectors.

As for the indicators of ICTs penetration, one can make three observations. First, the most advanced countries in the transition towards the knowledge based economy are relatively small. Second, and conversely, two of the three least-advanced countries are among the largest in the Union (Spain and Italy). Third, with the notable exception of the UK, the remaining large economies of the Union (France and Germany) are not close to the "top three".

A highly educated workforce boosts employment performance

Employment in sectors with the largest share of workers with tertiary education is growing faster.

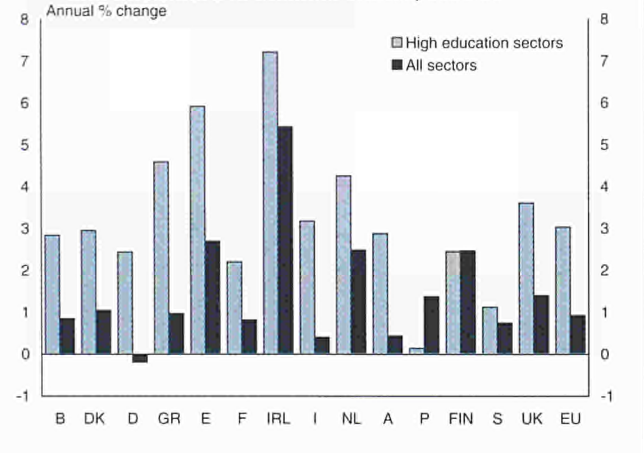
In the EU as a whole, total employment grew by 0.9% a year between 1994 and 1999, but employment in the high-education sectors (or Group 1 sectors) increased much faster — by 3% a year (Graph 79, in which sectors are grouped by the education level of the workforce —see Box on high-tech and high-education sectors). Of the three most advanced countries, Denmark enjoyed a faster growth in high-education sectors (3% a year against 1% for the overall economy) as did Sweden, though at a much lower rate (1% as against 0.5%), while in Finland, these sectors grew at roughly the same pace as overall employment (at just under 2.5%).

Of the least advanced countries, Italy enjoyed a strong employment growth in high-education,sectors (3.2% a year against 0.4% for the overall economy), as did Greece (4.6% as against 1%), whereas in Portugal, the sectors with the lowest share of workers with tertiary education have driven employment growth.

As a consequence, the high-education sectors made by far the largest contribution to overall employment growth between 1994 and 1999 and were responsible for 75% of net job creation, while employment in the low-education sectors did not increase at all (Graph 80). The high-education sectors (Group 1 in the graph) made the largest contribution to employment growth in 11 of the 15 Member States, the low-education sectors (Group 4 in

77 Employment share of the high education sectors in Member States, 1999

78 Employment growth in high education sectors and all sectors in Member States, 1994-99



High-tech and high-education sectors

Eurostat has identified high-tech sectors from the NACE (rev.1) database and the Commission used these figures in its recent Communication on Community policies in support of employment, which was tabled at the Lisbon European Council (March 23–24, 2000). These figures allow not only for a national analysis, but also for a regional breakdown, which is used here. However, for the sake of methodological consistency, this chapter uses the concept of high-education sectors, ie the sectors with the highest share of workers with tertiary education, based on the data from the 1999 Labour Force Survery.

	B	DK	D	GR	E	F	IRL	I	NL	A	P	FIN	S	UK
Employment in high-education sectors, % total employment (1999)	28.5	33.5	23.5	na	18.0	27.4	na	20.2	32.9	20.8	15.2	30.3	37.4	29.4
Employment in high-tech sectors, % total employment (Eurostat, 1998)	10.8	10.2	13.6	3.6	7.1	10.7	9.8	9.9	8.2	8.8	5.1	10.4	12.7	11.2

Goup 1 sectors, which are called here high-education,sectors, employed the largest share of people with tertiary level education — 40% or more at the Union level. They accounted for 25% of total employment in the Union in 1999 and for 50% of all workers with such qualifications. It covers 8 NACE 2-digit sectors: research and development, education, computers, manufacture of office machinery and computers, general business services, health and social services, activities of membership organisations and extra-territorial organisations. Health, education and general business services account for most of those employed. This group is different from the high-tech sectors identified by Eurostat — Chemicals (NACE 24), mechanical and electrical engineering (NACE 29 and 31), office machinery (NACE 30), radio and TV (NACE 32), precision instruments (NACE 33), motor vehicles (NACE 34), other tansport equipment (NACE 35), post and telecommunications (NACE 64), computing (NACE 72) and research and development (NACE 73) — since the latter include many manufacturing industries whereas the former include non-market services and communal services. Although the results show some differences (Germany enjoys very strong positions in high-tech sectors, but is weaker in high-education sectors, and the reverse applies to the Netherlands), they underline the same patterns. The countries with the lowest share of employment in high-education sectors tend to have a fairly low share of employment in high-tech sectors (Spain, Italy, Austria, Portugal), and, conversely, Sweden, the UK, Belgium and France enjoy good positions in both rankings.

Group 2 consists of 16 sectors where the share of those employed with tertiary education is also above average (25%), accounting for 18% of the total number in work in the EU. The sectors cover petroleum refining, radio and television, chemicals, precision instruments, other transport equipment, electricity and gas and water as well as service activities, such as insurance, banking, recreational and cultural activities and public administration (by far the largest sector in the group). While public administration may not have a direct impact on the competitiveness and innovative capacity of economies, its efficient functioning, which may be related to the quality of the people employed, may well have an important indirect effect in providing support.

Group 3 consists of sectors where the proportion of those employed with tertiary education is below average (15–25% of the work force) but not substantially so, which accounted for around 13.5% of the total in work in 1999. These include telecommunications — which provides important support for the ability of other sectors but which does not employ a large number of highly-educated people itself — wholesaling, iron and steel production, tobacco manufacture, mechanical and electrical engineering, motor vehicles and printing and publishing. In the latter three sectors, in particular, innovation and the application of the latest know-how are of critical importance, but the bulk of the work force consists of people with upper secondary education or even just basic schooling.

Group 4 consists of sectors where under 15% of the work force in the Union have tertiary level education. These accounted for 43.5% of total employment and include basic services such as retailing, transport and hotels and restaurants as well as construction, agriculture and various manufacturing industries, such as pulp and paper, food, metal products, wood and furniture and textiles and clothing. In all of these, know-how and high skill levels tend to be a less important attribute of the work force than in other sectors, though they can still make a significant contribution to competitiveness.

the graph) making the smallest contribution in 6 and a negative one in 5 (Austria, Belgium, Germany, Italy and Luxembourg).

The faster pace of employment creation in high-education sectors is all the more important as they account for a much higher share of total employment in the most advanced countries (34.4%) than in the least advanced (18.7%), while the EU average was 24.9%.

Indeed, in 1999, high-education sectors made up 37% of total employment in Sweden and over 30% in Denmark and Finland. In Spain, they accounted for only 18%, in Greece 16%, and in Portugal, just 15%. The share of workers employed in the sectors with the next highest education levels (the Group 2 sectors in the graphs) was also smaller than elsewhere in these two countries (14% and 12% of the total respectively).

By contrast, the lowest-education sectors accounted for a large share of employment in the least knowledge intensive countries. Two thirds of the total employed in Portugal, 60% in Greece and half or more in Spain and Italy, while in Sweden, the figure was only 31%. (Not all sectors are similarly knowledge intensive across Member States. For example, in electrical engineering (NACE 30), the share of those with tertiary education is well above the average in all countries except for Finland and the Netherlands.)

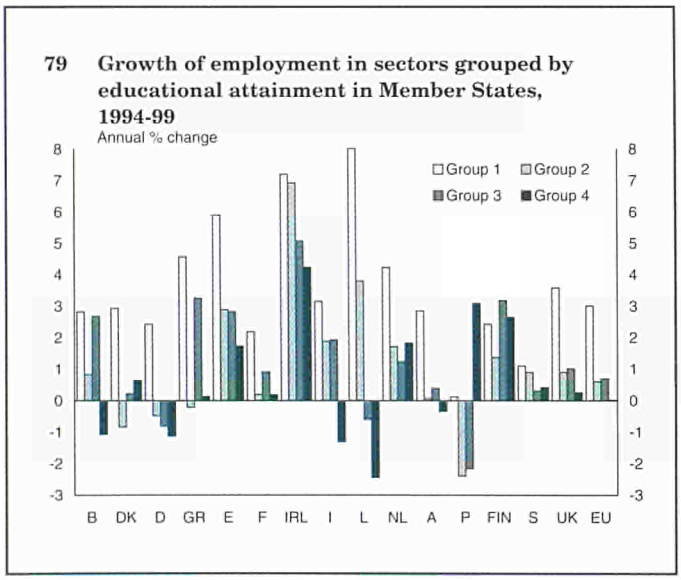
An analysis of the skill composition of the high-education sectors shows that workers with the lowest educational attainment account only for 15% of the workforce (and those with the highest, 48%). Conversely, in the low-education sectors, workers with tertiary education make up a meagre 10% of the workforce, whereas those with the lowest educational attainment account for 43.5%. This suggests that a specialisation in high-education activities tends to raise the overall level of education and training, by increasing demand for skilled workers, including those with a less than tertiary education.

The most advanced countries are more inclusive

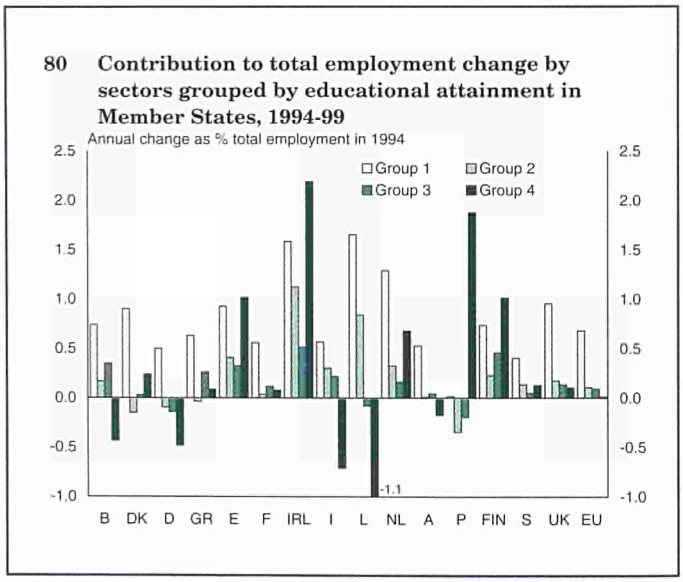
The knowledge-intensity of a country seems to be linked with its level of social cohesion and inclusiveness, indicated by the degree of inequality in the distribution of income. This can be measured in a number of ways, such as by the Gini coefficient (a summary measure of the extent of income dispersion which varies from 0 when all incomes are equal to 1 when all the income goes to a single individual) or more simply by the ratio of the top 20% of income recipients to the bottom 20%. The most advanced countries have an average Gini coefficient of 0.243, significantly lower than the EU average, while the least advanced have a coefficient of 0.343.

These figures may hint at an important dimension of the transition to a knowledge based economy. Greater social cohesion helps a country take on new technologies in various ways. Less income dispersion means that more households are able to purchase the necessary equipment and workers may have more incentives to train and upgrade their skills, because they also have more return on their investment. Conversely, it is striking to see that the three countries with the largest income dispersion

79 Growth of employment in sectors grouped by educational attainment in Member States, 1994-99



80 Contribution to total employment change by sectors grouped by educational attainment in Member States, 1994-99



(Greece, Portugal and Italy) are also lagging behind the knowledge economy — which points to more social exclusiveness with regard to access to new technologies and skills.

Greater social cohesion may also help countries to devote more public resources to educational systems, which entails high costs for public finances. As a consequence, a wider access to education and training and less selection on purely social or economic grounds, with more support to low-income families, help a larger number of people to achieve fairly high levels of education.

Market regulations and institutions, as well as social choices or public policies, may well explain how fast a country embraces new ICTs and the skills required by the new activities, and how it will use them to create new job opportunities and raise employment rates. Social choices and public policies can include educational choices made by families and young people or market regulations on new technologies. This means that the emerging knowledge based economy will only bear its fruits if an integrated agenda of technology, innovation, lifelong learning policies and social policy is implemented.

The gender dimension of the knowledge based economy

Across the Union as a whole, 37% of all women in work were employed in the high-education sectors in 1999 as against only 16% of men. The proportion of both genders employed in the Group 2 sectors was similar. In consequence, many more men than women were employed in the sectors with the least-educated workers (17% of men as against 9% of women in Group 3 and 48% of men as against 37% of women in Group 4).

These relative shares are similar in individual Member States. Women accounted for a much larger proportion of jobs in the most education-based sectors in all countries, the difference reaching 30 percentage points or more in Sweden and Denmark and still being large (15–17 percentage points) in Portugal, Spain, Italy and Austria. A slightly higher share of men than women were employed in Group 2 sectors in all Member States, except Ireland and France, while more men than women were employed in the least knowledge based sectors in all countries.

However, when looking at occupations, the picture is rather different. Overall, the most education-based jobs — managers, professionals and technicians — employed around 36% of both men and women in work in 1999, while the least knowledge based (elementary manual occupations) employed 7.5% of men and 10.5% of women. For the rest, many more men than women were employed in skilled manual jobs and many more women than men were employed in lower skilled non-manual jobs (as office workers and sales assistants, in particular).

The relative number of both men and women employed as managers, professionals and technicians was much larger in the most education-based sectors than elsewhere in the economy (ie most of the jobs

The occupational structure of the knowledge based economy

Occupational data over this period are only available for 12 Member States, which unfortunately exclude Ireland, Finland, and Sweden.

Nearly all employment growth in the Union between 1994 and 1999 took the form of an expansion of jobs for managers, professionals and technicians, these together accounting for an increase of 0.8% a year in total employment (i.e. for almost 90% of the overall growth). The only other area of net job creation was for low skilled non-manual workers (sales assistants and similar), which added 0.2% a year to total employment. Jobs for office workers and unskilled manual workers remained unchanged, while jobs for skilled manual workers declined.

The same pattern of change is repeated in the four sectoral groups. The main feature being the growth of jobs demanding a high level of intellectual understanding — i.e. those for managers, professionals and technicians — even in the least knowledge based sectors, where there was a significant decline in employment of manual workers. Consequently, the same kind of shift towards knowledge based activities that is evident at the sectoral level is also occurring within sectors. The effect is to increase the demand for people with high education levels throughout the economy and to put a premium not only on young people remaining in education longer but also on ensuring access to lifelong learning.

Does the knowledge based economy benefit young people?

Are the most knowledge based sectors employing a higher share of young people than average? Given the importance of educational levels and the fact that the young, since they graduated more recently than their older counterparts, might be expected to have more relevant know-how — which is particularly true for countries like Ireland or Spain — the question deserves to be raised.

The overall evidence is the opposite, suggesting that experience and the capacity to manage is as important as know-how per se. To exclude those who might still be in the education system, the analysis is confined to those 25 and older. At the Union level, those aged 25 to 39 accounted for 46.5% of the total number in work aged 25 and over in 1999, those aged 40 to 54, for just over 42% and those aged 55 to 64 for just over 11%.

At Union level, the two groups of sectors with the highest education levels among the workforce employed slightly more people aged 40 to 54 than average (these accounting for 43.5% of the total). All Group 1 sectors employed fewer younger people and, in the case of the Group 2 sectors, fewer 55 to 64 year olds. The Group 3 sectors, in contrast, employed more of the younger age group (48.5% of the total) and fewer older workers, while the Group 4 sectors employed more older workers aged 55 to 64 (13.5%) and fewer 40 to 54 year olds.

However, there are some striking differences in the age structure of employment in the different groups. There was a larger than average proportion of young people (25 to 39) in Group 1 sectors in Belgium, Spain and Ireland, which are the three countries with the highest share of young people with tertiary education. This was also true in Portugal, Austria and France, but a lower proportion in the UK, Sweden, Italy and Denmark. On the other hand, there was a larger proportion of people in the younger age group in the Group 2 sectors in the UK, Ireland and Luxembourg and a relatively small proportion elsewhere. In addition, there was large number of 55 to 64-year olds in the Group 4 sectors in all Member States.

Age composition (25 and over) of sectors grouped by educational attainment, 1999

		B	DK	D	GR	E	F	IRL	I	L	NL	A	P	FIN	S	UK	EU
Group 1	**25–39**	52.8	41.8	45.3	52.0	51.0	47.6	49.7	45.6	53.2	47.6	54.1	52.0	39.6	37.0	42.4	45.8
	40–54	41.1	45.2	41.4	39.7	39.9	44.9	39.0	44.4	39.7	44.0	39.0	39.5	49.7	45.8	44.4	43.3
	55–64	6.1	13.0	13.3	8.3	9.1	7.5	11.3	10.0	7.1	8.4	7.0	8.5	10.6	17.3	13.3	11.0
Group 2	**25–39**	48.7	42.7	43.8	46.8	45.8	44.1	57.4	46.2	58.6	47.1	51.2	43.1	39.9	38.2	52.0	46.2
	40–54	44.8	43.8	41.9	45.2	43.7	49.0	35.2	44.9	35.4	45.7	40.3	45.3	50.0	44.4	37.9	43.4
	55–64	6.5	13.5	14.3	8.1	10.6	6.9	7.4	8.9	6.0	7.2	8.5	11.6	10.1	17.3	10.2	10.4
Group 3	**25–39**	52.2	49.2	47.2	49.8	47.4	47.6	51.4	51.8	48.4	55.4	53.3	54.2	42.9	44.5	47.8	48.6
	40–54	41.9	40.3	40.5	41.4	41.8	46.6	39.4	40.7	46.0	37.4	39.0	36.1	47.8	39.9	39.0	41.2
	55–64	5.9	10.5	12.3	8.8	10.8	5.8	9.2	7.5	5.7	7.2	7.7	9.8	9.3	15.6	13.2	10.2
Group 4	**25–39**	53.3	44.7	45.7	34.6	43.2	46.7	46.6	50.6	47.6	48.8	51.7	43.1	38.5	39.9	46.6	46.3
	40–54	38.2	40.1	38.4	40.2	40.2	44.9	38.0	37.9	42.5	39.6	39.5	36.4	48.5	40.3	38.9	39.8
	55–64	8.5	15.2	15.9	25.2	16.6	8.4	15.4	11.5	9.9	11.6	8.8	20.5	13.0	19.7	14.5	13.9
All	**25–39**	51.6	43.8	45.4	43.8	46.9	46.5	51.1	48.1	53.7	48.9	52.4	46.7	40.1	39.1	46.5	46.5
	40–54	41.9	43.2	40.8	41.4	41.2	46.3	37.8	42.2	39.5	42.7	39.5	38.9	49.2	43.6	40.9	42.2
	55–64	6.5	13.0	13.8	14.8	11.9	7.2	11.0	9.7	6.8	8.3	8.2	14.5	10.7	17.2	12.6	11.3

performed in these sectors demand a high level of know-how and education). However, some 74% of men working in these sectors were employed in these kinds of job in 1999 but only 56% of women. This lower figure for women reflects the larger proportion of them employed in less intellectually demanding tasks (eg as administrative staff or cleaners in schools and hospitals or as secretaries in business services rather than as teachers or doctors or business analysts). A similar pattern of men's and women's jobs is evident in the Group 2 sectors, as well as the Group 3 ones. In the least knowledge based sectors, women are concentrated in the lower-skilled non manual jobs, men in skilled manual jobs and only a small proportion of both are employed as managers, professional and technicians.

The transition towards a knowledge based economy has two conflicting patterns. First, it stimulates job creation in high-education sectors, where women are numerically superior to men. However, a smaller proportion of these women tend to secure the most highly skilled jobs than men. These patterns call for equal opportunities policies addressing the issue of women's under-representation in these types of jobs.

Regions and the knowledge based economy

Not all the indicators of technologies, innovation and education used to conduct the previous analysis are available on a regional basis. However, two important questions should be raised: is regional knowledge intensity linked to the national rankings? Is the transition towards a knowledge based economy bridging the gap between regions (notably because new technologies allow for a location of activities independent of geography) or, on the contrary, will it increase existing inequalities (because regions endowed with good knowledge structures will attract the new activities and jobs)?

Four indicators will be used to give some first answers to these questions for four large countries (Germany, France, Spain and Italy):

- Share of the workforce with at least upper secondary education (1997)
- Share of high-tech sectors in total employment (1998)
- Gross domestic expenditure on R&D (Germany 1995, Spain estimates 1996, France and Italy 1996)
- Number of patent applications per million active population (1996)

For each of these indicators, the regions of the four countries are benchmarked against the three high-knowledge countries of our index (Sweden, Finland and Denmark). The aggregate rankings, in descending order, are shown in the table below.

- In Germany, 11 regions are above the highest knowledge country, Sweden, 16 above Denmark and 18 above Finland, while 20 rank below. The leading German regions all have all very strong positions in high-tech sectors, innovation activities as measured by patent applications, as well as for the educational level of the workforce.
- France, Sweden and Finland are more knowledge intensive than any region. But Ile-de-France and Rhône-Alpes, with large research and innovation activities and high-tech industries, are well above Denmark, while Alsace and Midi-Pyrénées are close to the leaders. Three regions (Franche-Comté, Alsace and Haute-Normandie) have a higher share of employment in high-tech sectors than Sweden, while Rhône-Alpes and Ile-de-France have a higher share than Finland and Denmark (these two regions being more populated than these countries).
- Whereas all Italian and Spanish regions are below the three high knowledge countries, some of them are undoubtedly much more knowledge intensive than the overall ranking based on national indicators. For instance, in Spain, the Basque Country, the Community of Navarra and Catalunia have a higher share of employment in high-tech sectors than Finland and Denmark (though lower than in Sweden). In Italy, three regions (Piemonte, Lombardy and Emilia-Romagna) are above the three high-knowledge countries for employment in high-tech sectors, and these same regions are very close for patent applications and research expenditures. However, even in the leading Spanish and Italian regions, the educational level of the workforce is much lower than in Sweden, Denmark or Finland. In the Basque Country, 55% of the workforce has completed at least upper secondary education, and 56% in Lazio, against more than 75% in the Nordic countries.

Conversely, large inequalities within each country show up in all four

Comparison of knowledge based indicators for regions of four large countries with high knowledge benchmark countries

Germany	Spain	France	Italy
Darmstadt	**Sweden**	**Sweden**	**Sweden**
Stuttgart	**Finland**	**Finland**	**Finland**
Karlsruhe	**Denmark**	**Ile de France**	**Denmark**
Oberbayern	Pais Vasco	Rhône-Alpes	Lombardia
Braunschweig	Comunidad Foral de Navarra	**Denmark**	Piemonte
Rheinhessen-Pfalz	Comunidad de Madrid	Alsace	Emilia-Romagna
Köln	Cataluña	Midi-Pyrénées	Friuli-Venezia Giulia
Tübingen	Aragón	Franche-Comté	Lazio
Mittelfranken	Cantabria	Bourgogne	Liguria
Gießen	Comunidad Valenciana	Provence-Alpes-Côte d'Azur	Abruzzo
Freiburg	Principado de Asturias	Haute-Normandie	Veneto
Sweden	La Rioja	Centre	Umbria
Berlin	Castilla y León	Bretagne	Toscana
Düsseldorf	Galicia	Aquitaine	Trentino-Alto Adige
Unterfranken	Andalucia	Lorraine	Campania
Bremen	Murcia	Auvergne	Marche
Hannover	Canarias	Languedoc-Roussillon	Molise
Denmark	Castilla-la Mancha	Picardie	Basilicata
Sachsen	Baleares	Pays de la Loire	Sicilia
Arnsberg	Extremadura	Basse-Normandie	Sardegna
Finland		Poitou-Charentes	Calabria
Münster		Limousin	Puglia
Schwaben		Nord - Pas-de-Calais	
Thüringen		Champagne-Ardenne	
Detmold			
Oberpfalz			
Halle			
Hamburg			
Saarland			
Brandenburg			
Koblenz			
Magdeburg			
Oberfranken			
Kassel			
Mecklenburg-Vorpommern			
Schleswig-Holstein			
Dessau			
Lüneburg			
Trier			
Niederbayern			
Weser-Ems			

indicators. For instance, in Germany, while 91% of the workforce has achieved at least upper secondary education, only 77% have done so in Oberpfalz — a 14 percentage point gap. In France, the gap between the top and bottom regions (Alsace and Picardie) is 11.6 percentage points (71.9% and 60.3%). However, the inequalities in the educational attainment of the workforce are more striking in Italy and Spain, with a gap respectively of 19 points between Lazio (55.9%) and Sardegna (36.6%) and 24 points between the Basque Country (55.1%) and Castilla-la-Mancha (31.7%).

The differences are larger still with the other indicators set out in the table.

Conclusion

Over the 1994–1999 period, employment had grown much faster in the high-education sectors than in the overall economy. These sectors made the largest contribution to job creation in the EU as a whole and they helped the countries with poor employment performances to withstand the negative effects of this slow growth. Although robust growth benefits all sectors, including those with the lowest educational attainment, it is clear that high education levels — based on a good basic education in the youngest ages — entail better employment performance. This trend may be demand-led: many jobs or occupations which used to require manual skills and little command of abstract knowledge, are now using new processes based on ICTs, which put a premium on such knowledge. It may be also supply-led: educated people tend to adapt better to new processes, which means they can be employed in the production of fast-growing goods and services.

Women are over-represented in high-education sectors and, within these sectors, in less skilled occupations than men. The former feature obviously narrows the gender gap in employment, but the latter is an obstacle that should be addressed by policies promoting women into the highest-skilled occupations. Since knowledge intensive activities give a higher premium to educational attainment, these policies should seek to correct the selection processes in the educational system, where young girls and young women may be often under-represented in some courses (sciences, computer engineering and so on).

The need to enhance educational levels, while addressing unequal opportunities between the genders in education, calls for integrated policies aimed at greater inclusiveness. Equal access to education and training enables people with less cultural or social capital (due for instance to their family background) to achieve higher attainment. It also increases the return on education which those people could expect over their career. Low access costs to new technologies, starting with the Internet, help bridge the social gap in penetration of ICTs. These arguments call for an integrated agenda of inclusion, based on the definition of specific rights (to education, to lifelong learning, to new technologies and new sources of knowledge) secured by all actors involved, with public authorities at the forefront.

	Germany		France		Spain		Italy	
Educational attainment (% active population with at least upper secondary level)	Sachsen: 91.1	Oberpfalz: 76.8	Alsace: 71.9	Picardie: 60.3	Pais Vasco: 55.1	Castilla-la Mancha: 31.7	Lazio: 55.9	Sardegna: 36.6
Employment in high tech sectors (% total employment)	Stuttgart: 23.1	Mecklenburg-Vorpommern: 4.8	Franche-Comté: 17.7	Languedoc-Roussillon: 5.3	Pais Vasco: 12.3	Extremadura: 1.8	Piemonte: 17.1	Calabria: 3.5
Research expenditure (% GDP)	Oberbayern: 4.7	Niederbayern: 0.4	Midi-Pyrénées: 3.3	Champagne-Ardenne: 0.4	Comunidad de Madrid: 1.7	Baleares: 0.2	Lazio: 2.0	Calabria: 0.3
Patent applications (per million active population)	Rheinhessen-Pfalz: 803.9	Mecklenburg-Vorpommern: 24.8	Ile de France: 439.2	Limousin: 73.4	Navarra: 100.4	Extremadura: 5.9	Emilia-Romagna: 221.8	Calabria: 6.4

Chapter 4 Employment trends in Central European Countries

The transition economies of Central Europe have already undergone substantial transformation, but they still face significant structural change. This will have major effects on the labour market and the demand for different skills. The challenge is to achieve higher rates of economic growth and avoid further increases in unemployment.

As reported in *Employment in Europe 1999*, although substantial transformation has already occurred in the transition economies of Central Europe, the countries concerned still face significant further structural change. This process has had major implications for employment and the labour market: different skills are now in demand, some sectors are growing healthily while there has been large scale job-losses in others, and unemployment is high. Throughout 1999, moreover, this transition has continued against the background of a sharp slowdown in overall economic growth across most of the CEC area.

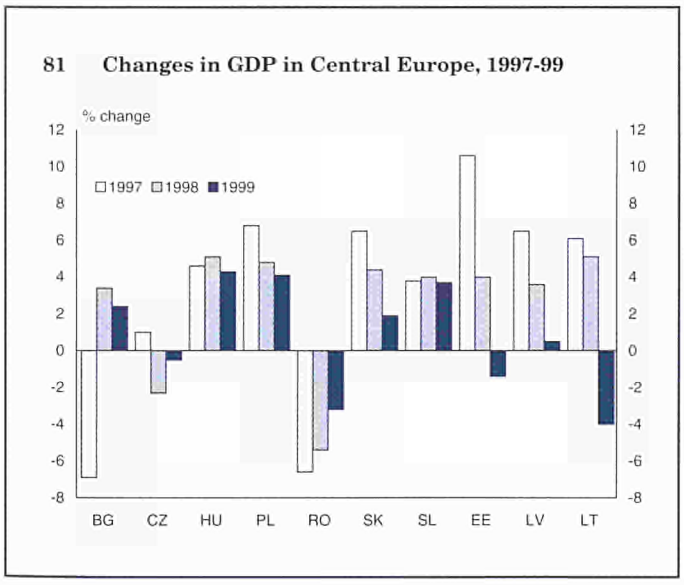
The following section is divided into two parts. The first reviews recent developments in employment and unemployment across different countries. The second takes a more structural approach, examining the operation of labour markets in the CECs, and the role of different employment systems in supporting the transition process.

Recent developments

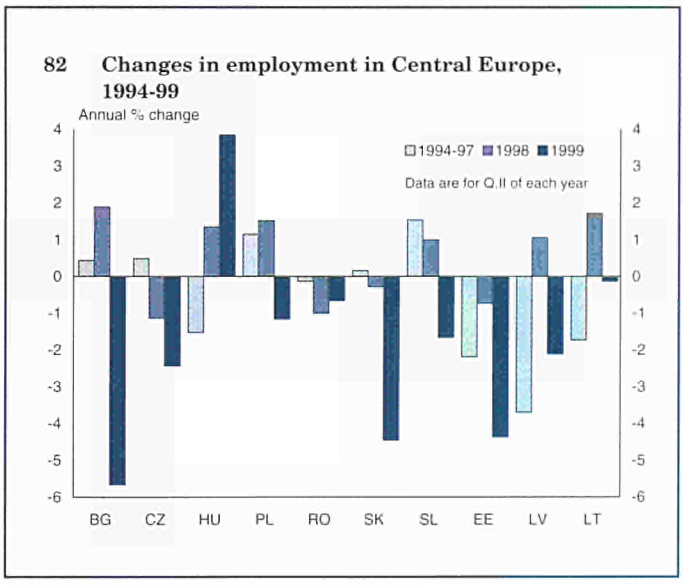
Having fallen from 3.5% in 1997 to 2.6% in 1998, GDP growth in the CECs overall slowed further, to 2.1%, in 1999. Several factors contributed to this slowdown, including the Russian crisis, the economic effects of the Kosovo conflict, and lower growth in the EU.

Recent GDP trends are shown in Graph 81. The aggregate growth figures hide large differences between countries. GDP change in 1999 ranged from a decline of 4.0%

81 Changes in GDP in Central Europe, 1997-99



82 Changes in employment in Central Europe, 1994-99



in Lithuania to growth of over 4% in Poland and Hungary. The sharpest reduction in GDP growth occurred in the Baltic countries (Estonia, Latvia and Lithuania), reflecting the severe impact of the Russian crisis in this region. Having grown by between 4% and 5% in 1998, these countries registered either very low growth (Latvia) or reductions in GDP in 1999. At the other end of the range Poland, Hungary and Slovenia emerged relatively unscathed from the problems of the region, with growth rates typically 1% or less below 1998 levels. While GDP continued to decline in both Romania and, to a lesser extent, the Czech Republic, in both cases the decline was less than in1998.

The growth figures for 1999 and 1998 compare the two years as a whole. In fact, most of the economic slowdown actually occurred in late 1998 and during the first half of 1999. Where quarterly or half-year data are available, they suggest that a recovery commenced in mid-1999 in many of the CECs, and GDP growth of approximately 4% is expected for the region as a whole in the years 2000 and 2001.

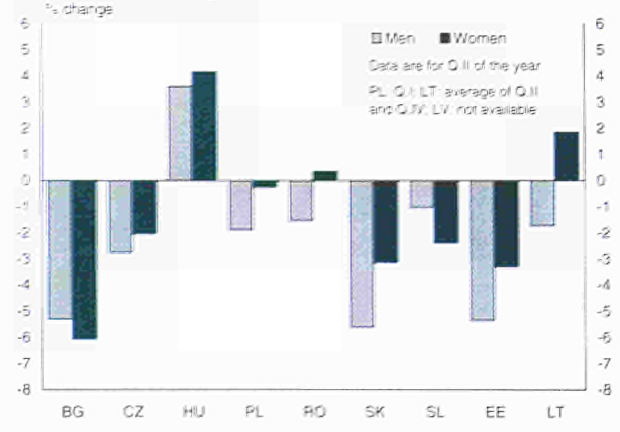
These economic trends were reflected in a marked deterioration in employment. Only Hungary had higher employment levels in 1999 than in 1998. Countries such as Poland, Bulgaria, Latvia, Lithuania and Slovenia, where employment had grown by 1% or more in 1998, suffered sharp reversals in 1998–99. (For 1999 as a whole, Lithuanian employment was broadly unchanged over 1998 levels. However, this appears to have reflected a delayed impact of the Russian crisis. By late 1999, employment was down by more than 3% on year-earlier levels.) In Estonia, Slovakia and the Czech Republic, where employment had already been declining in 1998, the pace of decline accelerated in 1999. Employment also continued to fall in Romania in 1999, but at a marginally slower rate than in the previous year. Overall, in the 10 countries covered in Graph 82, employment fell by 1.3% in 1999, representing a net loss of almost 570,000 jobs.

In line with the economic recovery foreseen for this year and next, employment is likely to stabilise in 2000 in a number of the countries where declines ocurred in 1999, with employment growth expected for the majority of countries during 2001.

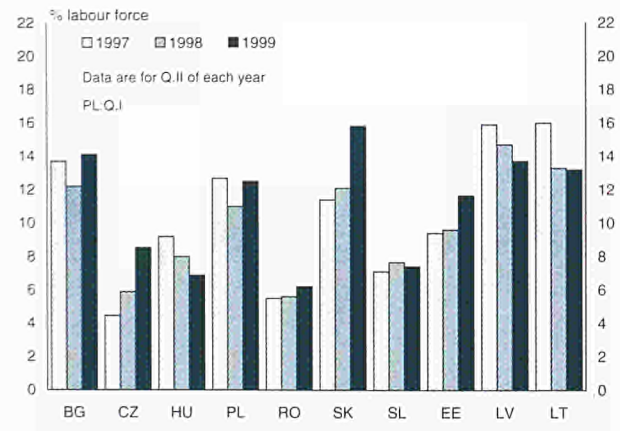
Where sectoral data are available for 1999 (Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia), they indicate that services sector employment was stable or rising, even in countries where aggregate employment declined. The main source of strength in this sector was the continued growth of employment in wholesale and retail distribution activities. However, with the exception of Hungary, the pace of services sector growth slowed somewhat compared with the previous year. The fall in agricultural employment continued in 1999 in all countries for which data are available, with the exception of Romania. Industrial employment increased only in Hungary; it declined in Poland after the increase of 1998, and elsewhere, the pace of decline tended to quicken. As a result of these trends, there was a further generalised increase in the services-sector share of employment.

Over most of the CECs, employment trends were rather less

83 Changes in employment of men and women in Central Europe, 1999



84 Unemployment rates in Central Europe, 1997-99



negative for women than for men in 1999 (see Graph 83). Only in Bulgaria and Slovenia was the fall in women's employment greater than in men's. In Hungary, where employment rose, the rise for women was relatively greater than for men. Over the region as a whole, male employment fell by almost 2%, while female employment fell by only 0.5%. The result was a further small rise in the female share of total employment, which now stands at just under 46%.

Unemployment rose sharply in a number of countries in 1999 — most notably Slovakia, the Czech Republic, and Estonia (see Graph 84). Less dramatic rises in unemployment were seen in Poland, Romania, Lithuania and Bulgaria. Finally, there was some fall in unemployment in Hungary, Latvia and Slovenia.

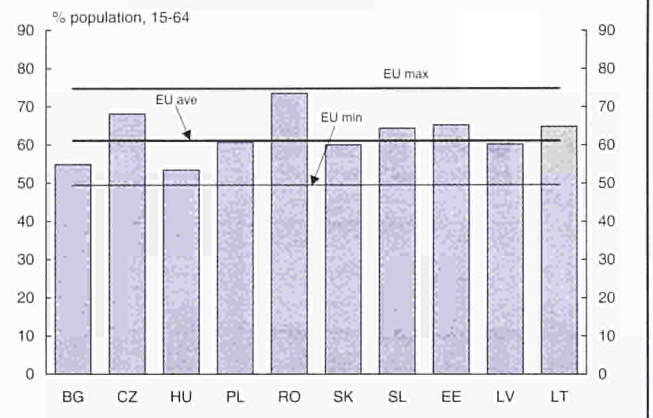
Changes in unemployment were largely a result of employment trends — activity rates in most countries showed little change from 1998 levels. The exceptions to this overall pattern were Latvia and Slovenia, where falling employment was reflected in reductions in activity rates rather than increased unemployment. In all countries where unemployment increased in 1999, male unemployment rose more rapidly than female unemployment. Where unemployment fell — in Hungary and Slovenia — the fall was greater for men. Only limited data are available on changes in unemployment among young people. But they indicate that youth unemployment rose particularly sharply in Poland and Estonia. Elsewhere it appears to have risen in line with, or below, the increase in aggregate unemployment.

Functioning of labour markets

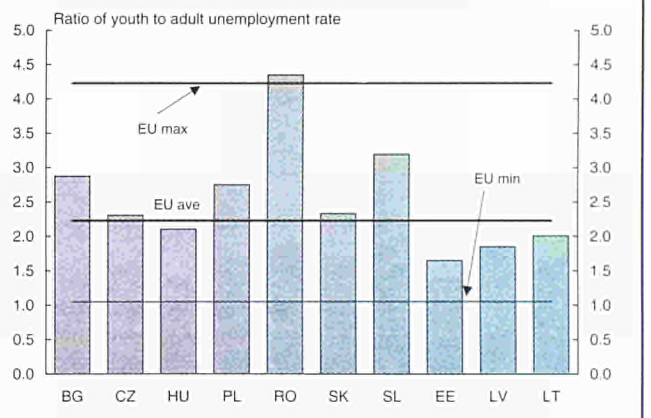
There are many influences on the employment and unemployment performances of the CECs. For example, the transition has made redundant much of these countries' existing capital stock, creating large deficits in physical capital. Reforms in product and financial markets, and completion of the necessary legal/regulatory structure for a market economy are still necessary. The impact of the events of 1998–99 (Russian crisis and war in Kosovo) also shows that the CECs are vulnerable to a variety of external shocks. All of these factors have a major influence on economic performance, and thus on employment, unemployment and inactivity.

Nonetheless it is arguable that the way in which the labour market operates can contribute to, or hinder, the transition process. For example, structural aspects of the employment system may hinder access to jobs for groups such as young people and women, thus depressing overall employment. Inappropriate systems of wage formation may prevent wages from developing in line with productivity trends, either in aggregate or for specific regions or occupations. Rigidities due to regulation, or to the impact of benefit systems, may slow the redeployment of workers from declining to growing parts of the economy. Finally, insufficient or inappropriate investment in human resources development can mean that countries lack the skills needed to compete in newly opened foreign and domestic markets. The following section examines a

85 Average employment rate in Central Europe and the Union, average 1996-99



86 Gap in youth and adult unemployment in Central Europe and the Union, average 1994-98



number of indicators that can shed light on these aspects of CEC labour markets.

Mobilising human resources

Data on outcomes

One important measure of success in mobilising human resources is the aggregate employment rate — the level of total employment as a proportion of the population aged 15–64. Increasing this rate is now a central objective of EU employment policies. Graph 85 shows the average employment rate over the period 1996–99 for the CECs. Rates for the EU-15, and for the highest and lowest Member States are shown for comparison. Despite the major reductions in employment experienced during the transition, eight of the ten CEC countries still have employment rates at or above the EU-15 average. Only in Hungary and Bulgaria are the rates below the EU average. (However, for some of the CECs, a comparison of this type should take account of the high levels of reported employment in agriculture, much of which represents under-employment. This is particularly true of Romania and Poland, whose relative position is therefore over-stated in Graph 85.)

A more detailed analysis of the annual data, rather than the period averages, suggests that the structural decline in employment rates, associated with the transition process, has bottomed out in a number of countries. Between 1996 and 1998, employment rates were either stable or rising in seven countries — the exceptions being the Czech Republic, Slovakia and Romania. In 1999 the employment rate fell everywhere except in Hungary. However, there are grounds for believing that the 1999 decline was a temporary response to the Russian crisis and other external shocks and will be reversed in the next few years in most of the countries that achieved stability between 1996 and 1998.

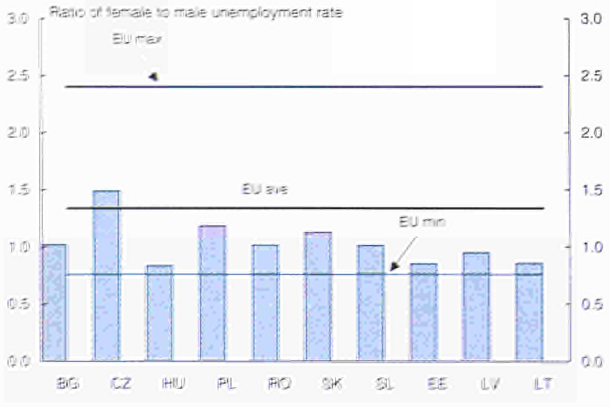
Variations in the aggregate employment rate may reflect barriers to employment for individual groups within the working-age population. Across the EU countries, for example, the widest variations relate to the employment situation of young people and women — differences in the employment situation of male workers in the prime age-groups tend to be much smaller.

One indicator of the relative labour market situation of a specific group is the ratio of its unemployment rate to that of other groups. Graph 86 shows the ratio of the youth unemployment rate to the rate for persons aged over 25 years for CECs. The data are averages for the years 1994–98, and minimum, maximum and average EU-15 ratios are again shown for comparison.

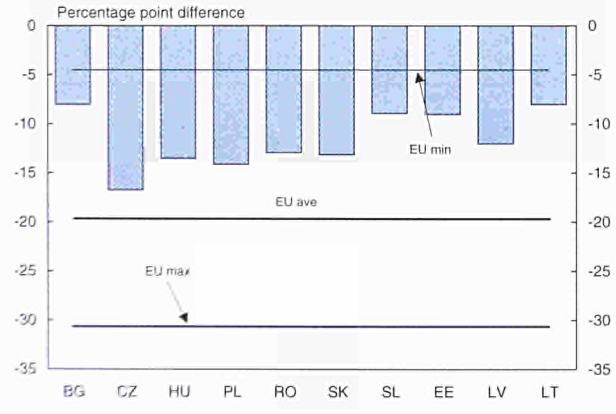
As measured by this indicator, the relative situation of young people in CEC labour markets is generally better than that of their EU-country counterparts — only in Romania is the youth-adult gap in unemployment above the average for the EU. This suggests that structural barriers to young people's entry into the workforce are not a major feature of CEC labour markets.

A similar comparison is possible for gender-differences in unemployment, as shown in Graph 87. In most CECs, the ratio of female to male unemployment is lower than the average for the EU. Indeed the

87 Gap in female and male unemployment in Central Europe and the Union, average 1996-99



88 Gap in female and male employment rates in Central Europe and the Union, 1998



female unemployment rate is below the male in five of the ten CECs, compared to three of the fifteen EU Member States. Moreover, generally speaking, the size of the gender-gap in unemployment rates (disregarding the direction of the gap) is smaller in the CECs than in the EU. For the former, the average difference between the female and male rates represents about 14% of the male rate; the equivalent figure for the EU-15 is 46%.

That the gender gap is relatively small in the CECs is borne out by an examination of employment rates, as shown in Graph 88. While female employment rates are lower than male rates, the gap is below the EU average in all cases. Indeed the pattern of male-female employment differentials across Central Europe is close to that of the Scandinavian countries, where the gap ranges from approximately 6 percentage points in Sweden and Finland to 11 percentage points in Denmark.

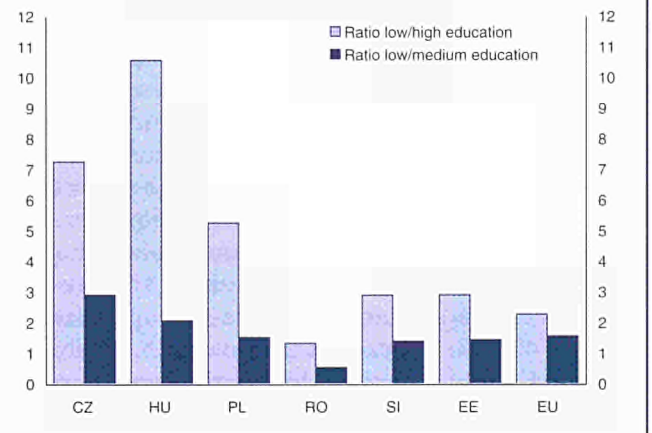
Finally, labour market outcomes tend to be differentiated, to a greater or lesser degree, by level of education. Graphs 89 and 90 respectively show the ratio of unemployment and long-term unemployment among the least educated, to unemployment among those with medium and higher levels of education, for a number of CECs and for the EU-15. In general it is clear that, relative to the unemployment situation of those with high levels of education, the least educated tend to fare worse in the CECs than their counterparts in the EU. The unemployment gap between those with low and medium education levels is more varied; the pattern in Poland, Slovenia and Estonia is broadly in line with the EU, but the relative disadvantage of the least educated appears greater in Hungary and the Czech Republic. Only Romania appears to present an exception to these overall patterns, with relatively little differentiation of unemployment by educational level. However this is likely to be related to the high reported levels of employment in agriculture in that country.

Policy/institutional influences

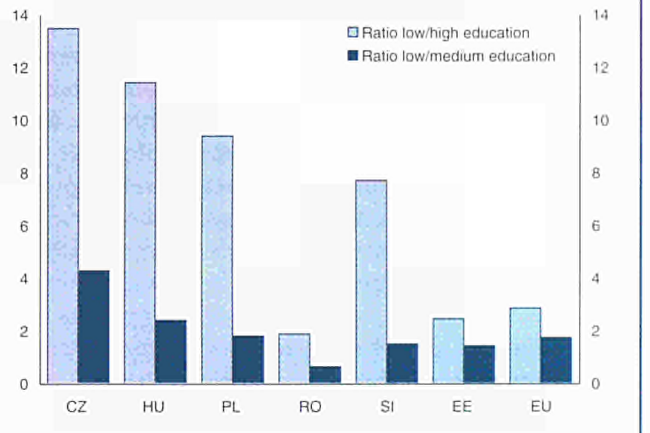
In summary, even in the difficult circumstances of prolonged transition, most CECs have succeeded in stabilising the employment rate at a level close to or above the EU-15 average, and there are grounds for optimism about their ability to increase employment further in the years ahead. In addition, CEC labour markets have remained relatively open to young people and to women. However, the evidence suggests that labour-market outcomes for the least educated, relative to those with higher levels of education, are significantly less favourable than in the EU. While it is impossible to be precise about the policy and institutional factors underlying these outcomes, a number of observations can be made.

First, most of the CECs have had "employment-friendly" wage developments in recent years. Between 1993 and 1998, unit wage costs fell in seven of the countries under discussion. This is likely to have contributed to the stabilisation of employment at the aggregate level. At least two factors appear to have contributed to this trend in the wage-productivity relationship. First, while trade unions remain strong in traditional and declining economic sectors, this has not been true of expanding sectors,

89 **Unemployment rate gap by education level in Central Europe and the EU, 1999**



90 **Long-term unemployment rate gap by education level in Central Europe and the EU, 1999**



dominated as they are by small-scale enterprises. Nor, in general, do institutional wage-formation arrangements involve spill-over from unionised to non-unionised sectors. Second, while the tax-wedge on labour (i.e., tax and social contributions as a proportion of earnings plus employers' contributions) for a worker on average earnings is typically in line with the EU average, both unemployment benefits and minimum wages are relatively low. In aggregate it is likely that the combined effect of these potential institutional sources of upward pressure on wages is somewhat weaker in the CECs than in Western Europe.

One important contributor to the relative performance of young people may be differences in the level (and relevance to modern demands) of educational attainment between generations. Given the speed of change in education and training systems in recent years, this inter-generation education gap is likely to be greater in the CECs than is typical of EU Member States. A second factor relates to the wage formation system as it affects young people — in particular, the level and structure of minimum wages. As already noted, typically the minimum wage in the CECs is low — between 20% and 30% of average earnings; the only exceptions to this overall pattern are Poland and Lithuania, where the minimum is equivalent to 40% of average earnings. Minimum wages at the generally prevailing CEC levels are unlikely to cause problems for the integration of young people (e.g. by imposing a wage floor that is high relative to their productivity).

While elements of the wage formation system may also provide part of the explanation for the relatively high levels of gender-equality in CEC labour markets, longer-term "cultural" factors are also involved. High female labour-force participation has been a feature of these countries for several decades, supported by patterns of institutional childcare and pre-school education. Even though female employment fell sharply in some countries in the early years of the transition, it appears to have stabilised at a level higher than is typical of many EU Member States. Once established, the pattern of high female integration into the labour market has proven quite robust, even in the face of the major economic and social changes of the 1990s.

Differentiation by level of education is the main area where labour markets are more unequal in the CECs than in the EU. The reasons for this are likely to be complex. First, those with higher levels of education are likely to have been better positioned (by being more adaptable) to respond to rapid changes in labour demand and work organisation. There is some evidence to support this view from micro-wage data. These show that increases in "returns to education", in the form of earnings, have been greater in relation to general rather than to vocational education.

Second, although the tax-wedge on labour for the average worker tends to be in line with the EU average, this is not true of its impact at different points in the earnings distribution. In the CECs, the wedge remains relatively large even at earnings well below the average for the economy as a whole. For example, in 1998, for a single worker at a wage level of two-thirds average earnings, the tax wedge (as defined above) was 47% in Hungary, 42% in Poland and 41% in the Czech Republic. In all cases this was above the comparable figure of 39% for the EU overall, and significantly above the level for several EU Member States — most notably Ireland, the UK, Portugal and Spain. The relatively high wedge at low earnings levels in the CECs reflects the fact that basic individual exemptions in the personal income tax code are relatively small, and that social contributions tend to be high and strictly proportional to earnings. The difference in relative outcomes for the least educated between the two zones suggests that the pattern of taxation and contributions in the CECs may be raising barriers (on both the demand and supply sides) to the creation of low-skilled jobs.

Raising human capital

Policies and institutions can ease the process of moving workers from declining to expanding sectors of the economy, thus contributing to increases in productivity and living standards. They can also help to maximise the activity of the working-age population at each stage of transition, thus promoting social inclusion and support for necessary reforms. Over the longer term, however, enhancing productivity and living standards will require an increase in the general level of human resources in the CECs.

Recognition of this challenge has led to widespread awareness in the CECs of the need for education reform. The main focus has been on trying to increase participation in upper secondary and higher education. At the same time, it has been necessary to reform the vocational element of late-teenage education. Pre-transition vocational education tended to be rigid, with a large number of courses for narrowly defined occupations and little scope

for subsequent mobility between occupations.

Country developments

Available data allow some examination of progress to date.

In Poland, participation in upper-secondary education has increased little in recent years. Actual student numbers increased by almost 20% between 1990 and 1998, but this increase was broadly in line with the growth of the late-teenage population over the same period. There has, however, been a significant change in the composition of enrolment. General and technical education now accounts for 70% of students, up from less than 60% in 1990. Enrolment in basic vocational courses has fallen. Reflecting these changes, the progression rate to higher education has also risen substantially. Enrolment in higher education in 1990 was equivalent to 17% of the then population in the 20–24 age group. By 1998, this figure had risen to 34%.

In Estonia, similarly, upper-second-level enrolment rates have not changed significantly — student numbers were equivalent to 63% of the population aged 15–19 in 1990 and 65% in 1998. While enrolment in general courses has risen, this has been at the expense of technical and professional courses and enrolment in basic vocational education has been broadly stable. However, Estonia is engaged in a major reform of basic vocational education, designed to reduce the number of specialities, increase mobility, and increase relevance to labour-market demand through involvement of the social partners. As in Poland, the progression rate to higher education appears to have risen sharply. 1990 enrolment in this sector was equivalent to 24% of the population aged 20–24, a figure that rose to 39% in 1998.

Upper-secondary enrolment rates have risen substantially in Slovenia — from about 60% of the late-teenage population in 1990 to 80% in 1998. In the latter year, over two-thirds of students were in general and technical courses and the remainder in basic vocational courses. (The nature of the educational reforms of recent years means that strictly comparable data on the composition of enrolment are not available for the early 1990s). The growth in secondary enrolment has been reflected in rapid increases in participation in higher education — where student numbers were equivalent to 17% of the 20–24 population in 1990 and 34% in 1998.

Data on second-level student numbers in a number of other countries — the Czech Republic, Hungary, Slovakia and Romania — are indicative of a broadly similar trend, with enrolment in general secondary education expanding at the expense of enrolment in basic vocational education.

Future challenges

The environment facing those responsible for human resource development policies in the CECs poses two sets of challenges. First, there is the need to re-orient education systems towards the demands of democratic societies and market-driven economies. Second, these changes are being implemented at a time when the demands placed on education systems in Western Europe are themselves changing rapidly in the face of the move towards a knowledge based society. This move is placing a premium on high-quality general education as a platform for mobility and flexibility in later life and as a foundation for vocational training and lifelong learning.

On the available evidence, many CECs are conscious of these challenges and are responding to them. There is an increased focus on quality general education at secondary level, and significant effort is also being devoted to necessary reforms in late-teenage basic vocational training. In addition, there has been rapid growth in enrolment in further and higher education. Thus, those young people who continue their studies beyond the compulsory minimum are increasingly likely to be well prepared for the changing demands of life and work in the years ahead.

There remain grounds for concern, however, that significant numbers of young people do not stay in the education system long enough to avail themselves of these opportunities. It is clear, for example, that increasing the rate of transition from compulsory to post-compulsory education has proven difficult in both Poland and Estonia. High dropout rates at this stage of education remain a concern in a number of other CECs as well.

Similar, if less marked, trends in parts of the EU-15 have already led to concern about the possible emergence of new forms of social exclusion — divisions between those who are "knowledge-rich" and those who are "knowledge-poor". Thus, Community-level priority has been given to reducing levels of dropout and increasing compensatory provision for those who do leave education early. At its Lisbon Summit the European Council called on Member States to ensure that "the number of 18–24 year olds with only lower-secondary level education, who are not in further education

and training, should be halved by 2010".

For the CECs, responding to this challenge will require a dual approach. Clearly, existing efforts to improve quality and relevance in post-compulsory education will need to be continued and intensified. But equally critical will be policies to ensure that more and more young people actually make the transition to the post-compulsory stage. These are likely to include reforms to improve the quality of education during the years of compulsory schooling as well as measures aimed at dealing with problems related to the transition from compulsory to subsequent stages in the education system.

Chapter 5 Taxes, benefits and employment

Taxes on labour and social benefits influence workers' decisions about supplying their labour and firms' decisions about how much labour to employ. Personal taxes and social security contributions can reduce the attractions of returning to work. Increases in employers' social security contributions tend to encourage the substitution of labour by capital. A reduction in the tax burden on labour, therefore, may increase both the supply of and the demand for labour.

The 2000 Employment Guidelines ask Member States to consider reducing both the fiscal pressure on labour and non-wage labour costs as well as the overall tax burden. They also request Member States to review and refocus their tax/benefit systems so as to provide incentives for unemployed or inactive people to seek and take up work, together with measures to enhance their employability. Subsequently, the Lisbon European Council called for efforts to promote the transition to a knowledge based economy by establishing an overall strategy aimed at, among other things, modernising the European social model, investing in people and combating social exclusion. The Council also raised the issue of tax reform as a means of fostering training and employment.

This chapter addresses the tax burden on labour and examines the main trends in Member States' taxation policies over the last two decades. The analysis also investigates the distribution of taxes among workers at different earnings levels, especially those at the lower end of the pay scale. This aspect is at least as important as the overall level of taxes and charges on labour. The concluding section is an overview of the calculations of replacement rates and effective marginal tax rates of the social protection schemes prevailing in most EU Member States.

Taxation on labour

While the average tax burden is a useful indicator of the weight of taxes on labour in the economy, it does not give a clear enough view of the wedge that taxes impose on any factor income. A more helpful macroeconomics concept is captured by using the "implicit" or "effective" tax rate on labour (see Box for further details). The implicit tax rate is defined as the total amount of taxes on employed labour divided by compensation of employees. The latter consists of gross wages and includes social insurance contributions and taxes on wages. The implicit tax rate measures the burden of taxation and other charges on labour in the economy and is an imputed measure as it is based on national accounts.

A second concept is microeconomic and refers to the tax wedge as defined by the difference between total labour costs to firms and net wages actually received by workers. From this viewpoint, the tax wedge measures the burden of taxation on individual workers and changes in this burden.

The implicit or effective tax rate

The evolution from 1970 to 1997

High taxes on labour are often cited as one of the main culprits responsible for European unemployment. Analyses of the structure of tax revenues in the EU between 1987 and 1997 show a small shift away from taxes on employment income. Their share in total tax revenues fell by half a percentage point and was compensated by a relative increase in taxes on capital. In 1997, taxes and contributions on income from employment accounted for a shade under half of total receipts in the EU, with social contributions representing 70% of these. Taxes on capital accounted for almost 23% and other taxes for just over 27% (Graph 91) and proportions were similar in most Member States.

Concepts and definitions of Tax Wedge

Two concepts may be used to analyse the structure and development of tax systems.

Firstly, the tax wedge is a microeconomic concept that refers to the difference between total labour costs to firms and net wages actually received by workers. The tax wedge measures the burden of taxation on individual workers.

Secondly, the implicit tax rate on labour is a macro-economic concept defined as the total amount of taxes on employed labour divided by compensation of employees. It measures the total burden of taxation and other charges on labour in the economy or an individual sector.

From a macroeconomic point of view, the average or implicit tax rate (ITR) is calculated by associating particular tax revenues with the corresponding tax bases obtained from national accounts (ESA 1979). According to Eurostat's "Structures of the Taxation Systems in the European Union", the ITRs are defined as follows:

- ITR consumption = Taxes on Consumption divided by private consumption on the economic territory plus government consumption net of government salaries.
- ITR labour employed = Taxes on Employed Labour divided by Compensation of Employees
- ITR other factors of production = Taxes on Self-employed Persons plus Taxes on Capital divided by Net Operating Surplus of the Economy plus consolidated government interest payments.

The Commission uses a different methodology to calculate the tax wedge, from a macroeconomic point of view, the effective tax rate on labour. This differs from the implicit tax rate on labour of Eurostat/TAXUD in that Eurostat uses the ESA 79 accounting system whereas the Commission uses the AMECO database which is based on ESA 95.

The"effective tax rate on labour is the ratio of the sum of non-wage labour costs *plus* the personal income tax revenues attributable to the pre-tax labour income. The latter is total gross wages, thus including gross wages imputed to the self-employed, while the second component of the tax revenues can be estimated by multiplying the personal income effective tax rate by the net wages, once non-wage labour costs have been discounted.

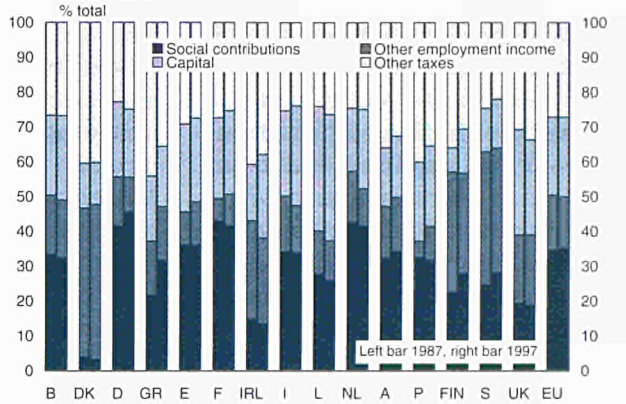
On the one hand, since it is not possible from AMECO to distinguish between SSC paid by employers, employees or those paid by the self-employed, the Commission needs to use OECD data to obtain the share of SSC paid by the self-employed which, in turn, has to be subtracted in the numerator to calculate non-wage labour costs. It is, however, worth noting that the Commission's definition includes the self-employed whereas Eurostat's definition of implicit tax rate on labour excludes the self-employed.

On the other hand, it is not yet feasible in AMECO to either obtain the effective tax rate on income or the GDP share of taxes on personal income from labour, which instead has to be estimated from OECD databanks. Personal labour income is defined as gross wages less non-wage labour costs by assuming that only the net wage (take-home pay) is subject to the personal income tax. In the OECD's Revenue Statistics, direct taxes can be further decomposed into taxes on personal income from labour, taxes on personal income from capital, taxes on corporate income and taxes on property and wealth. The OECD share of taxes on personal income from labour in total direct taxes applied to AMECO's direct taxes plus NWLC (previously calculated) yields the effective tax rate on labour, as defined by the Commission.

But the evolution in time of the share of the various tax receipts does not tell us where the burden of taxation falls. In fact, the implicit tax rates on employed labour rose from 28.8% in 1970 for EU-6 to 41.9% in 1997 for EU-15 (Graph 92). The GDP-share of total compensation of employees, which includes gross wages and employer contributions, increased first from 51.9% in 1970 to 56.9% in 1975 but fell to 50.8% in 1997. Tax revenues on employed labour, however, increased steadily from 14.6% of GDP in 1970 to 21.4% in 1995/1996 and fell slightly in 1997. Hence, the actual tax burden as measured in the implicit tax rate, has to increase steeply.

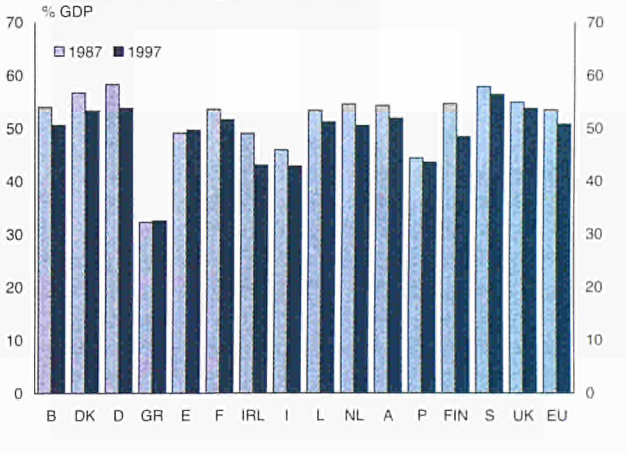
To correct the previous data for the influence of the business cycle we have compared two years (1987 and 1997) in which the European economy was in similar cyclical situations. Between these two years the GDP share of total compensation of employees in the EU fell from 52.9% of GDP to 50.8% (Graph 93), a ratio considerably lower than in either the US (56.8%) or Japan (56.2%). As before, given the behaviour of taxes on employment relative to GDP, this general fall in the wage share means that the implicit tax rate increased over this period. In the EU as a whole, the implicit tax rate on employed labour rose from 38.5% in 1987 to 42% in 1997 (Graph 94). Two thirds of the rise was the result of higher social contributions, which rose from 23.9% to 25.9% of employment income over the period. Direct taxes on wages and salaries rose only from 14.8% to 15.8% of employment income. These figures exclude the effect of any subsidies to employers which, though small, may have increased over this period. The increase in the overall rate was common to most Member States.

91 Government revenue from taxes and contributions on labour, capital and other in Member States, 1987 and 1997



92 Implicit tax rates on income from employment and capital in the Union, 1970-1997

93 Compensation of employees as a share of GDP in Member States, 1987 and 1997



Although the rate declined in three countries (Ireland, Luxembourg and the Netherlands) and rose slightly in two (Belgium and the UK), the rise was significant in all the others.

Whether the rise in taxes on labour has been completely shifted backward into lower consumption wages for workers is still an open question. The above graphs seem to suggest that during the period under consideration most of the tax increases have been borne by labour. The systematic rise of real wages net of taxes below productivity since the mid-1970s together with the increase of real wages (as deflated by CPI) below productivity since the early 1990s provide a similar picture (Graph 95). In any case, a more formal analysis would be required to establish this hypothesis firmly. Finally, there is an important interaction between wage bargaining and the tax incidence, which might also help to explain why labour markets in some countries with rather high labour taxes are apparently doing quite well.

Although the bulk of spending on social protection is by the public sector, a significant part of it is funded by employers by means of company or occupational pensions and access to private health care. This expenditure is also part of labour costs. However, the difference between the social charges levied by government and those borne directly by employers is that the latter are voluntary. In practice, however, this distinction may have little significance if the contributions concerned become an accepted element of pay, which employees expect to receive and employers regard as an integral part of the overall compensation package offered.

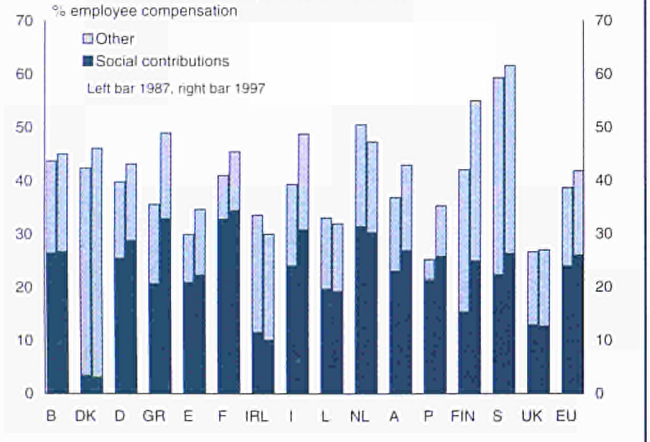
Voluntary contributions are especially important outside Europe in countries where state systems of social protection are less extensive, such as the US and Japan. Although employers pay much lower statutory contributions in these two countries than in Europe, the difference is very small once voluntary contributions are included. According to the latest data from the Eurostat Labour Cost Survey, in 1996 social security payments made by employers in industry in the US amounted to just under 22.5% of total labour costs, while in the EU as a whole the figure was just over 22.5% (Graph 96). If non-statutory contributions are left out of the picture, international comparisons of the level of social protection in Europe and elsewhere and the potential effect on labour costs are liable to be misleading. This is particularly true for large enterprises, while social security payments paid by SMEs in the EU do differ from those in other countries.

Recent developments and outlook

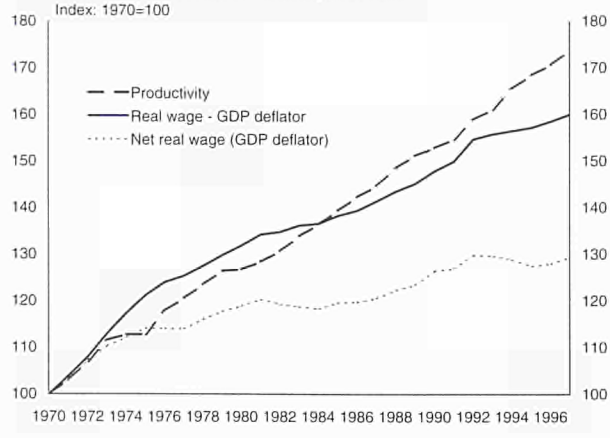
Until now the burden of taxation has been increasingly concentrated on labour rather than on capital or on consumption. It is extremely important to reverse this trend if job creation is to be strengthened. The lack of more recent statistics, however, does not allow for an accurate analysis of the current situation, although 1996 seems to constitute the starting point for a reversal of the trend (Graph 92 above).

The Commission's Directorate General for Economic and Financial

94 Implicit rate of tax on income from employment in Member States, 1987 and 1997



95 Real productivity, real wages and net real wages after taxes in the Union, 1970-97



Affairs (ECFIN) has produced longer and more recent data series for effective tax rates on labour — a concept very similar to the implicit tax rate used by Eurostat. It has also made projections up to the year 2001 for all EU Member States. This data and forecasts indicate a clear consolidation of the reversal of trend mentioned above (Graph 93 above). From 1996 (turning point) to 2001, the "effective" tax rate on labour is expected to be reduced in all EU countries, with the exception of Greece, Portugal, Sweden and the UK. For countries such as Spain, France, Ireland, Italy, Luxembourg, Netherlands, and Finland, the declining trend is confirmed in 1997–98, while in Belgium, Denmark, Germany and Austria the trend reversal is expected to start in 2000 or in 2001.

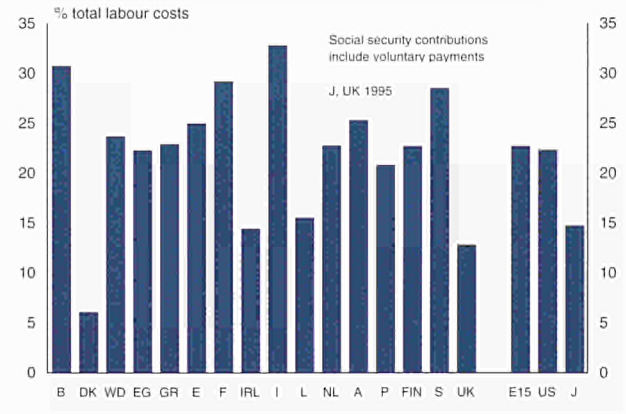
Tax wedge at micro level: taxes on labour at different earnings levels

The implicit tax rates described above record the average tax rate on employed labour across the EU. To investigate the rates that apply to jobs at different earnings levels and the charges levied on low-paid jobs, it is necessary to examine the schedules and changes of tax and contributions on individuals in Member States, including the effects of policy changes affecting taxes on labour. This is done below by estimating the tax wedge — i.e., the amount of the total costs of employment which go in taxes and social contributions, here limited to the statutory amounts — at different wage levels.

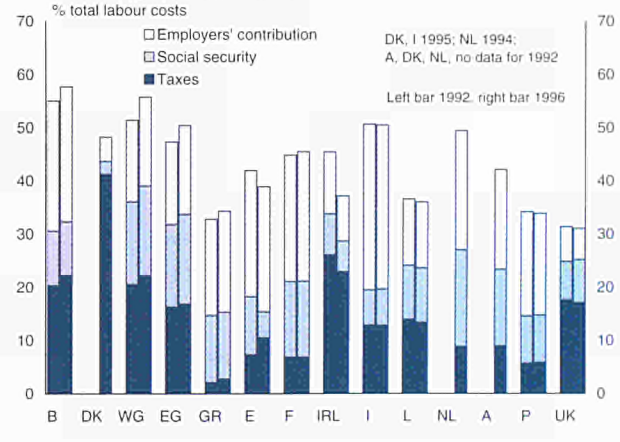
The estimates of the tax wedge are derived here from two different models. The first is based on data compiled by Eurostat on the gross and net earnings of a "representative" manual worker at the average wage, at 80% of the average and at 125%. These figures are provided by Member States on the basis of tax schedules in force. The second is based on two models that have been constructed in the recent past to represent the tax system in different EU countries: one developed by the Central Planning Bureau in the Hague in 1995 ('Net Replacement Rates: A Transatlantic View', Working Paper no. 80, CPB), the other by Alphametrics in 1998 for a study for Eurostat on old-age replacement rates for 8 Member States. Eurostat's estimates relate, for most Member States, to 1996 and earlier years. The tax model estimates — which allow an assessment of the tax wedge of those on earnings below 80% of the average — only refer to 1993 and 1996 and do not cover all Member States.

For a male manual worker without children on average wages, the tax wedge (tax and other social payments as a percentage of total employer's costs) in 1996 was largest in Belgium (57.8%) and in the former West Germany (55.8%). According to the tax model, the tax wedge was around 57% in Sweden, although this country, together with Finland, is not included in the Eurostat data. In Belgium and West Germany, the net pay received by the worker concerned was under 45% of total labour costs for the employer. In each case, the largest component of the wedge was social contributions, accounting for around 60% of the total wedge, just under half being paid by employers in Germany and over two-thirds in Belgium and Sweden (Graph 97). Moreover, in both Belgium and Germany, as noted below, the

96 Social security contributions as a share of total labour costs in industry for the Union, the US and Japan, 1996



97 Composition of overall tax wedges in Member States, 1992 and 1996



wedge has increased in recent years. In both Italy and the new Länder in Germany, the tax wedge at the average wage for a single person amounted to just over half of labour costs. In Italy, over 60% come from employers' contributions, while in the Netherlands and Denmark, it was just under half, taxes being by far the largest element in the latter. At the other extreme, the wedge was only one third of labour costs in Greece and Portugal and around 31% in the UK, the lowest in the EU. In general, differences between the two estimates reflect the structure of the tax system in different countries and the way that the effective rate varies with income and family circumstances. Workers with children pay substantially lower taxes than those with no dependents in some Member States and, in addition, receive family allowances (Graph 98).

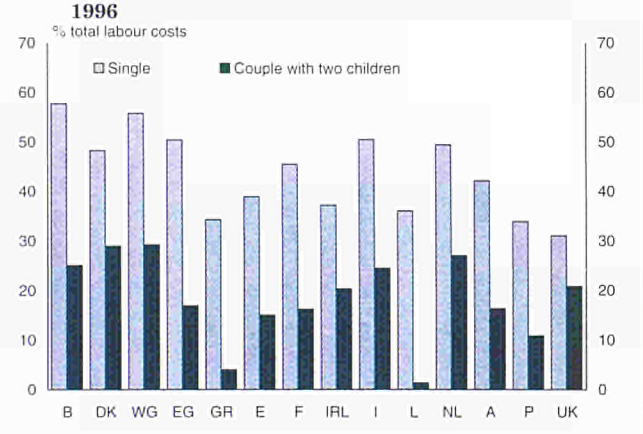
As expected, in all Member States the tax wedge at lower levels of income is lower than at the average wage, although the extent of the difference varies. Since 1992, the tax wedge at 80% of average earnings has kept broadly in step with the wedge at average earnings in most Member States. The two exceptions are Spain, where the wedge reduction seems concentrated on workers on average earnings or above, and Ireland, where the reverse occurred and the wedge at 80% of the average has been reduced by more than the wedge at the average wage. Someone earning 80% of the average wage of male manual workers, however, cannot really be regarded as being low paid, particularly as the average wage for women is less in many Member States.

Estimates available from tax models indicate that at 50% of average earnings, the wedge is reduced further but remains substantial in some countries. Data relating in most cases to 1996 indicate that for a single person without children the tax wedge at 50% of earnings amounted to over 45% of labour costs in Belgium, Western Germany, Italy and Sweden. In Denmark and France it was over 40% and slightly under 40% in the Netherlands. In the other six Member States, the tax wedge was less than a third of labour costs and only 22% in the UK. It should be emphasised, however, that at all levels of earnings the tax wedge is reduced considerably if workers have dependents. In most countries where the wedge is relatively large, it is reduced to below 20% of labour costs, and even lower in countries where the wedge for single people on low pay is relatively small. Estimates for changes in the tax wedge at 50% of average earnings are available for only seven Member States. These show that in most cases the wedge diminished in size between 1993 and 1996 — by over 3% of labour costs in Greece, the Netherlands and the UK — but increased in Germany and Spain where the wedge for average earnings per worker was reduced.

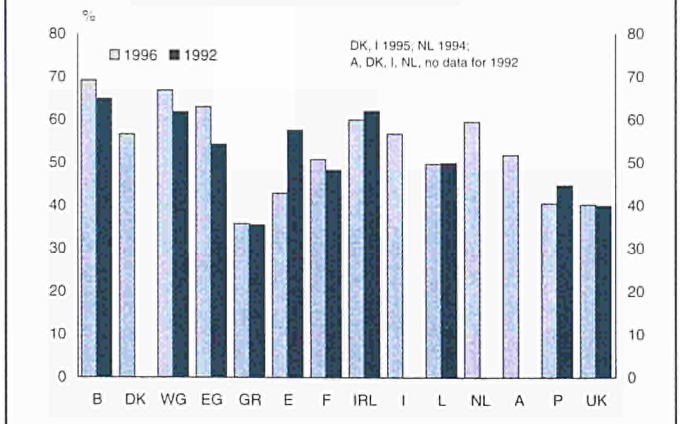
Marginal deduction rates

The rate at which tax and social charges increase as income rises is as important for work incentives as the average rate, particularly for those already employed, though this aspect is often neglected in the debate about tax rates on labour. The greater the proportion of an increase in labour costs that goes to the State, rather than to the worker, the greater the cost to employers of increasing net pay. Correspondingly,

98 Tax wedges for a single person and a couple with children on average earnings in Member States, 1996



99 Marginal rates of deduction at 80% of average wage in Member States, 1992 and 1996



there are fewer incentives for employees to seek to improve their position by working longer hours, assuming more responsibilities or looking for a better job. There is, however, a potential conflict between reducing such disincentive effects and maintaining or increasing the progressive nature of the tax system, as required for income redistribution purposes.

Marginal deduction rates — which measure the increase in taxes and social charges associated with a given rise in earnings — are generally higher than average rates at most levels of pay and, in some countries, significantly so. In 1996, the marginal deduction rate in Belgium was around 70% for a single person at 80% of the average wage and it was 67% in the former Federal Republic of Germany (Graph 99). Therefore, less than one third of a rise in labour costs went to increase workers' net pay and two-thirds to the State. In Ireland and the Netherlands, the marginal rate was about 60% and markedly higher in the former than the average rate at this level of income, reflecting the progressive tax system. In Denmark and Italy it was around 55% and just over 50% in Austria and France. To sum up, in eight of the thirteen EU countries more than half of an increase in labour costs at 80% of the average wage went to the State.

In practice, very little correlation is apparent between implicit taxes on labour and employment rates across Member States because these rates are likely to be affected by other economic and institutional factors. In contrast, some association is evident between reductions in the implicit tax rate between 1987 and 1997 and employment growth (Graph 100). However, this does not necessarily imply that lower implicit tax rates were responsible for the increase in the number in work that occurred. Countries experiencing the largest rise in employment tend to be those growing fast (e.g. Ireland and the Netherlands) and, therefore, able to reduce taxes on labour without facing budget constraints.

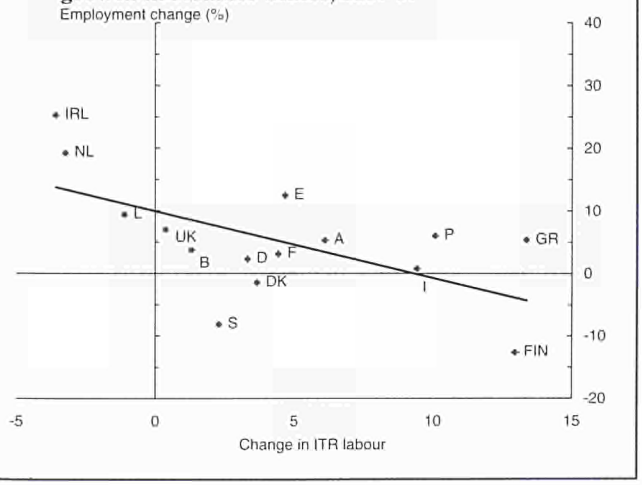
Measuring social protection

But taxes on labour are not the only institutional element influencing supply and demand; income benefits derived from the social protection systems act as subsidies on leisure and may represent an additional disincentive to work. Net replacement rates (NRRs) analyse the effect on work incentives of the tax/benefit system, as they include not only taxes but also family and housing benefits. Research undertaken to measure the scope and generosity of the social protection system employs stylised and empirical approaches.

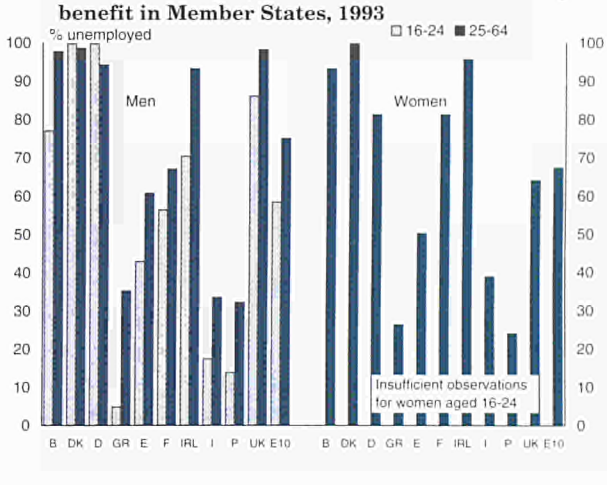
The stylised approach consists in standard simulation calculations for a set of stylised households under specific assumptions. The group of studies following this approach are based on *ex ante* calculations of NRRs that result from comparing the earnings of the stylised family before and after being unemployed. However, this approach has been criticised because of the wide variety of results obtained from country to country, the difficulties it had in capturing real life situations and the high sensitivity to several implicit assumptions.

On the basis of European Community Household Panel (ECHP) data the empirical approach

100 Change in implicit tax on labour and employment growth in Member States, 1987-97



101 Share of unemployed men and women receiving benefit in Member States, 1993



characterises social protection systems by using empirical NRRs for unemployed persons and for persons on early retirement. In principle, the size of the sample is large enough to produce robust results in statistical terms. However, the ECHP has a closer look at specific types of NRRs and reduces the successive sub-samples more and more until they become too small to be statistically significant.

Unemployment insurance

There is a group of studies following the stylised approach which are based on *ex ante* calculations of NRRs that result from comparing the earnings of the stylised family before and after being unemployed. These studies make cross-country comparisons by using as a benchmark the average wage of a production worker (APW). However, the empirical approach seems more reliable than the stylised one when it comes to replacement rates on unemployment benefits. A major reason for this lies in the fact that the OECD stylised approach has been methodologically constructed using data about those who have been working for a long period but are now unemployed. However, as time goes by, the labour market composition changes with new arrivals that are not taken into account in the stylised approach. This only considers those unemployed who were previously employed for very long periods, and partly explains why the OECD NRRs overvalue the generosity of the benefits most of the time.

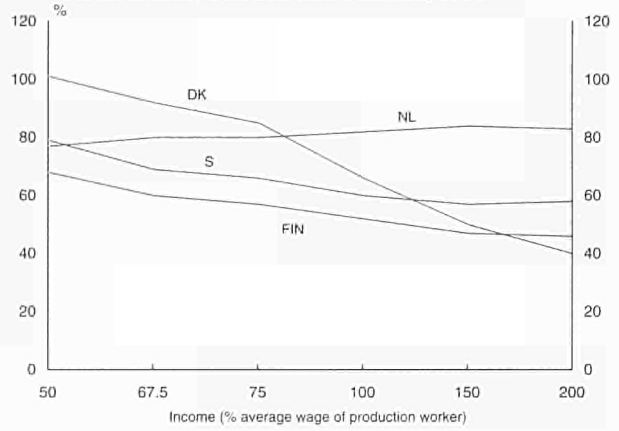
To cope with these methodological shortcomings, a study for DG Employment and Social Policy published in *Social Protection in Europe, 1997* calculated NRRs based on empirical data provided by the ECHP for 1993. The study was restricted to those unemployed who were out of work for at least three months and those in full-time employment for at least one month of 1993. The study included all unemployment benefits, whether insurance-based or social assistance, but left out family-related benefits, including housing allowances. According to the ECHP, about 25% of the men aged 25 and over who were unemployed for at least three months and fully-employed for one month or more in 1993 did not receive any unemployment benefits at all, whereas the figure was halved for those under 25. The coverage rate of unemployment benefits varied markedly between Member States and the study concludes that unemployment benefits do not represent a disincentive to work as many of the unemployed are not covered by any type of unemployment insurance (Graph 101). NRRs calculated in terms of the monthly payment received by the unemployed entitled to benefit are considerably lower than in previous studies. They have to be interpreted with caution because the people concerned may be receiving other transfers and because they do not take account of benefits in kind such as housing allowances. In any case, DG Employment's study showed that coverage rates of unemployed benefits were very high or close to 100% for both men and women of all ages in Denmark, Belgium, Ireland and Germany, but only for men in the UK. France and Spain rank in the middle and they are rather low in Portugal, Italy and Greece. In turn, average NRRs on unemployment insurance relative to earnings were 48% and 58% for men and women, respectively. Greece, the UK and Italy show below average NRRs, while for Germany, Belgium and Spain they were around 50% and those of Ireland, Denmark, France and Ireland were between 60 and 70%.

The empirical approach has its drawbacks and a word of warning needs to be given about the sample size. In principle, the sample is large enough to bring about robust results in statistical terms. However, the fact that the ECHP has a closer look at specific types of NRRs makes the successive sub-samples more and more reduced until they become too small to be statistically valid. To avoid sub-samples which are too small would require very costly and regular surveys with larger samples. A pragmatic solution to monitor the evolution of coverage and net replacement rates over time would be to produce *ad hoc* studies following the stylised approach. On the one hand, this will avoid concentrating on only a small part of the labour supply as the OECD does now and, on the other, it will be less costly than ECHP surveys.

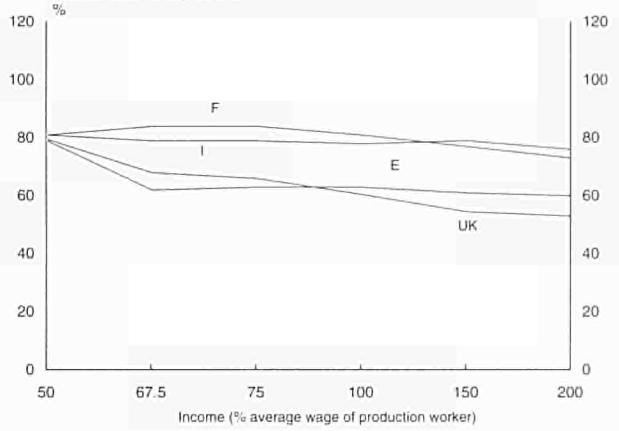
Early retirement

Early retirement schemes can also act as work disincentives. Just as high benefits may restrict willingness to take up a job, early retirement schemes may also reduce labour supply. On this issue, the Eight-Country Study Group (1998) followed the stylised approach and studied income benefits for early exit from the labour market. The study reveals the existence of high NRRs in a number of countries, especially at the lower end of the income scale, and this is perhaps an indication of inadequate work incentives. It also provides evidence that the impact of complex welfare provisions on work incentives goes well beyond unemployment benefits and that it is important to consider the effect of taxes, family supplements, means-tested benefits and income-related childcare fees. The study shows that countries have used these schemes as a labour market instrument to reduce labour supply and calculates NRRs on early retirement from two

102 Replacement rates for a single person in early retirement, take-home pay in Denmark, the Netherlands, Sweden and Finland, 1996



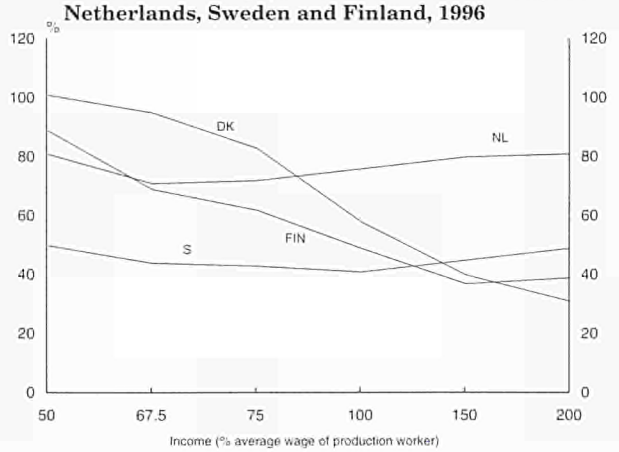
103 Replacement rates for a single person in early retirement, take-home pay in France, Italy, Spain and the UK, 1996



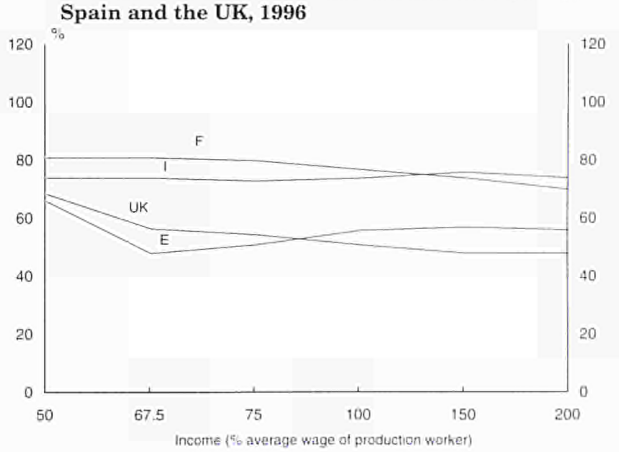
different situations: a person who retires from former employment, and a person who retires from being unemployed. It uses two different income concepts: the take-home pay and the family purse income.

NRRs calculated when early retirement takes place from a situation of former employment use the take-home pay and the family purse income concepts. Using the take-home concept, Danish NRRs are very high at low earning levels and very low at high earning levels. Dutch, British, Italian, Finnish, French and Spanish profiles are typically income-related and the Swedish and Finnish are in between (Graph 102 and 103). Using the family purse income concept (Graph 104 and 105), the pattern of NRRs, although somewhat lower, is not very different from that based upon the take-home pay concept. At the 100% APW income level and above, NRRs are lower than in the calculations based in the take-home pay concept, while they are higher in several of the income brackets below 100% of APW, notably in Finland. In cases where entry into early retirement schemes is from former unemployment, the calculation is carried out by dividing the usual NRR for the early-retired person by the usual NRR for the unemployed. Calculations obtained by using the family purse income concept suggest that it is preferable to be on an early retirement scheme than receiving unemployment benefits (Graph 106). Calculations using a take-home pay concept also indicate that

104 Replacement rates for a single person in early retirement, family purse income in Denmark, the Netherlands, Sweden and Finland, 1996



105 Replacement rates for a single person in early retirement, family purse income in France, Italy, Spain and the UK, 1996



it is better, and in some cases much better, to benefit from early retirement than to remain in the unemployment benefits system (Graph 107).

Creation of low paid jobs may be handicapped

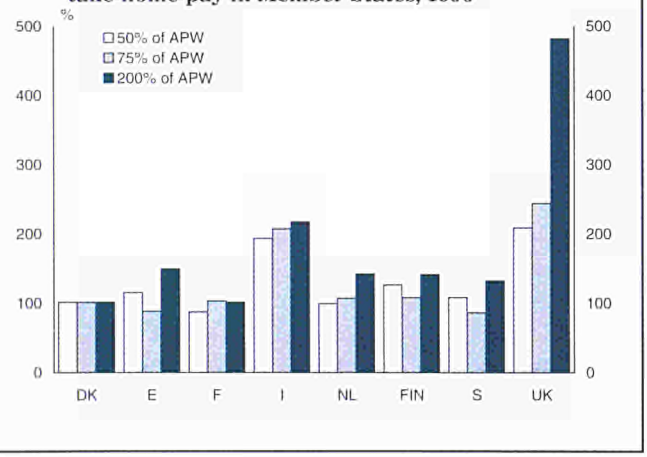
The most recent statistics on these issues refer to the years 1995–97 and, sometimes, to 1993. Although this is an important drawback in making rigorous policy recommendations, it can be said that in practice most Member States have found it difficult to reduce taxes on employment. This is partly because they are a large source of revenue compared to others and partly out of a desire to avoid increasing the taxes levied on capital for fear of deterring investment and affecting employment. The difficulty also stems from the central role played by social contributions — the main element of revenue from employment income — in defining entitlement to social protection in many EU countries where the system is based primarily on insurance principles.

The behaviour of the average rate of tax-cum-social contribution on employment income, however, is only one aspect of any assessment of policy in this area. It is equally important to consider the relative incidence of taxes and contributions on jobs carrying different levels of pay and, accordingly, demanding different levels of skill. This is particularly the case in view of the growing concern about the jobs available for the less skilled, among whom unemployment in most parts of the EU is substantially higher than for the rest of the work force. In practice, the tax wedge on low paid jobs is large in a number of Member States, most especially in Belgium, Germany, Italy and Sweden. This could effectively impose a relatively high floor on the overall cost to the employer of such jobs, given that net earnings cannot fall below a certain minimum level. The overall impact could be a deterrent to job creation.

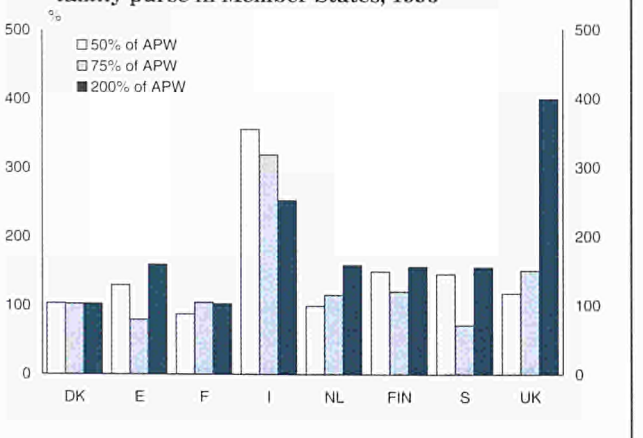
On the other hand, there is an urgent need to monitor social protection schemes on a regular basis to help EU Member States to address properly the Employment Guideline on the reform of their tax-benefit systems. However, the weaknesses of the existing approaches make them inappropriate for a such a task. Using average replacement rates alone does not provide an accurate perception of the level of social protection. Coverage rates and how replacement rates are distributed (i.e., how many people benefit from high or very high replacement rates) also matter in assessing the level of a country's social protection. Therefore, there is a need for a study to calculate a substantial number of indicators. These include replacement rates and coverage rates for unemployment insurance, early retirement schemes, social assistance and minimum wages, as well as effective tax wedges, etc., aimed at measuring the work disincentives provided by the tax benefit system in EU Member States.

Finally, one should not forget that the quality of the tests are necessary elements of the analysis as strict benefit eligibility criteria may offset, or even reverse, the disincentive effects of high replacement rates. Moreover, the institutional realities and national traditions among EU Member States make it difficult to identify the optimum methodology for each analytical objective.

106 Replacement rates relative to unemployment benefit for a single person in early retirement, take-home-pay in Member States, 1996



107 Replacement rates relative to unemployment benefit for a single person in early retirement, family purse in Member States, 1996



Key employment indicators in the European Union (E15)

	Excl. the new German Länder				Incl. the new German Länder					
Total	**1975**	**1985**	**1990**	**1991**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	332391	342153	348398	350307	366217	370888	373060	374162	374830	375593
Population of working-age (15-64) (000)	206477	224122	229683	231411	242023	244180	245927	246284	246826	247296
Total employment (000)	133925	134906	144761	145219	153142	148699	150332	151443	153416	155499
Annual change in employment (%)	-	0.1	1.4	0.3	na	-1.0	0.4	0.7	1.3	1.4
Employment rate (% working-age population)	63.3	59.3	62.2	61.9	62.4	60.1	60.3	60.7	61.4	62.1
FTE employment rate (% working-age population)	na	0.0	0.0	0.0	58.0	55.5	55.3	55.5	56.0	56.6
Self-employed (% total employment)	15.8	15.1	15.4	15.2	14.7	15.0	15.0	14.9	14.7	14.4
Employed part-time (% total employment)	na	13.1	13.8	14.1	13.8	15.6	16.4	17.0	17.4	17.7
Employed on fixed term contracts (%)	na	8.3	10.3	10.2	10.3	11.1	11.9	12.4	12.8	13.2
Share of employment in agriculture (%)	11.1	8.3	6.7	6.3	6.3	5.5	5.1	5.0	4.7	4.4
Share of employment in industry (%)	39.5	34.4	33.3	32.9	33.3	30.7	29.9	29.6	29.6	29.3
Share of employment in services (%)	49.4	57.3	60.1	60.8	60.3	63.7	65.0	65.4	65.7	66.3
Activity rate (% working-age population)	67.2	66.7	68.2	68.1	68.8	68.3	68.4	68.6	68.9	69.2
Total unemployed (000)	5094	14783	12035	12663	13568	18409	18086	17851	16909	15763
Unemployment rate (%)	3.7	9.9	7.7	8.0	8.2	11.1	10.8	10.6	9.9	9.2
Youth unemployed (% population 15-24)	na	11.7	8.2	8.5	8.5	10.7	10.3	9.8	9.2	8.4
Long-term unemployment rate (% labour force)	na	5.2	3.7	3.6	3.5	5.3	5.3	5.3	4.8	4.3
Men	1975	1985	1990	1991	1991	1994	1996	1997	1998	1999
Total population (000)	161670	166349	169734	170773	178379	180961	182143	182762	183115	183527
Population of working-age (15-64) (000)	101674	110521	114049	115070	120282	121781	122679	122896	123282	123478
Total employment (000)	86971	83436	87246	87003	91192	87252	87529	88011	89076	89669
Annual change in employment (%)	-	-0.4	0.9	-0.3	na	-1.5	-0.1	0.6	1.2	0.7
Employment rate (% working-age population)	83.4	74.3	75.3	74.5	74.7	70.6	70.3	70.5	71.2	71.6
FTE employment rate (% working-age population)	na	0.0	0.0	0.0	75.2	70.8	70.4	70.6	71.2	71.6
Self-employed (% total employment)	na	18.8	19.1	18.9	18.3	18.9	18.9	18.8	18.5	18.3
Employed part-time (% total employment)	na	3.7	4.0	4.2	4.1	4.9	5.1	5.8	6.1	6.1
Employed on fixed term contracts (%)	na	7.5	9.2	9.0	9.2	10.2	11.2	11.7	12.0	12.4
Share of employment in agriculture (%)	na	8.7	7.1	6.8	6.9	6.1	5.7	5.7	5.4	5.1
Share of employment in industry (%)	na	42.8	42.1	42.0	42.5	40.1	39.6	39.4	39.5	39.3
Share of employment in services (%)	na	48.5	50.7	51.2	50.7	53.7	54.7	55.0	55.1	55.6
Activity rate (% working-age population)	88.4	82.6	81.5	81.0	81.3	79.4	78.8	78.8	78.9	78.8
Total unemployed (000)	2967	8002	5796	6334	6697	9566	9232	8982	8357	7746
Unemployment rate (%)	3.3	8.8	6.2	6.8	7.0	10.0	9.6	9.3	8.6	7.9
Youth unemployed (% population 15-24)	na	11.9	7.9	8.4	8.4	11.1	10.3	9.8	9.2	8.4
Long-term unemployment rate (% labour force)	na	4.6	2.9	2.9	2.8	4.5	4.4	4.3	3.9	3.5
Women										
Total population (000)	170720	175805	178665	179534	187838	189927	190917	191400	191715	192066
Population of working-age (15-64) (000)	104803	113601	115634	116341	121741	122398	123258	123387	123541	123818
Total employment (000)	46954	51470	57516	58216	61950	61449	62802	63432	64340	65829
Annual change in employment (%)	-	0.9	2.2	1.2	na	-0.3	1.2	1.0	1.4	2.3
Employment rate (% working-age population)	43.8	44.7	49.1	49.5	50.3	49.7	50.4	50.8	51.5	52.6
FTE employment rate (% working-age population)	na	0.0	0.0	0.0	41.1	40.2	40.1	40.4	40.8	41.7
Self-employed (% total employment)	na	9.3	9.6	28.9	28.2	9.4	9.5	9.5	9.4	14.4
Employed part-time (% total employment)	na	28.1	28.7	28.7	26.7	30.8	31.7	32.5	33.2	33.5
Employed on fixed term contracts (%)	na	9.7	11.8	11.8	11.9	12.4	12.9	13.3	13.8	14.2
Share of employment in agriculture (%)	na	7.7	5.9	5.6	5.6	4.6	4.2	4.0	3.7	3.5
Share of employment in industry (%)	na	20.9	19.8	19.4	20.0	17.3	16.4	16.0	16.0	15.6
Share of employment in services (%)	na	71.6	74.2	75.0	74.5	78.1	79.4	80.0	80.3	80.9
Activity rate (% working-age population)	46.7	51.2	55.0	55.4	56.4	57.3	58.0	58.5	58.9	59.6
Total unemployed (000)	2128	6782	6239	6329	6872	8843	8855	8869	8552	8018
Unemployment rate (%)	4.3	11.6	9.8	9.8	10.0	12.7	12.4	12.3	11.7	10.9
Youth unemployed (% population 15-24)	na	11.5	8.6	8.5	8.6	10.3	10.2	9.8	9.2	8.4
Long-term unemployment rate (% labour force)	na	6.2	4.9	4.7	4.4	6.0	6.1	6.1	5.6	5.0

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.
Figures for temporary working 1985-94 are for E14 excluding A for which no data are available.
Figures for long-term unemployment 1985-94 are for E13 excluding A and FIN for which no data are available.

Key employment indicators in Belgium

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	9795	9858	9967	10005	10116	10157	10181	10203	10225
Population of working-age (15-64) (000)	6080	6610	6628	6625	6688	6695	6702	6703	6711
Total employment (000)	3846	3707	3883	3887	3826	3864	3896	3942	3987
Annual change in employment (%)	-	-0.4	0.9	0.1	-0.5	0.3	0.8	1.2	1.1
Employment rate (% working-age population)	62.9	55.8	58.3	58.4	56.9	57.4	57.8	58.6	58.9
FTE employment rate (% working-age population)	na	54.7	56.4	56.2	54.0	54.1	54.3	54.7	54.5
Self-employed (% total employment)	14.8	15.9	16.1	14.9	15.3	15.4	14.9	15.4	14.8
Employed part-time (% total employment)	na	9.4	11.9	12.8	14.0	15.3	16.1	17.2	17.5
Employed on fixed term contracts (%)	na	9.1	7.0	6.7	6.8	7.8	8.3	10.3	10.3
Share of employment in agriculture (%)	3.8	3.9	3.5	2.9	3.1	3.0	2.9	2.4	2.4
Share of employment in industry (%)	39.6	30.4	29.3	29.1	27.5	26.4	26.3	26.0	25.8
Share of employment in services (%)	56.5	65.6	67.2	67.9	69.3	70.6	70.8	71.6	71.8
Activity rate (% working-age population)	65.7	62.2	62.5	62.6	63.4	63.8	64.1	64.9	65.3
Total unemployed (000)	136	406	261	262	416	409	399	408	395
Unemployment rate (%)	3.8	10.4	6.7	6.6	10.0	9.7	9.4	9.5	9.0
Youth unemployed (% population 15-24)	na	9.8	5.5	5.5	8.7	7.8	7.6	7.8	8.4
Long-term unemployment rate (% labour force)	na	7.1	4.5	4.1	5.8	5.9	5.7	5.9	5.5
Men									
Total population (000)	4794	4812	4870	4890	4948	4965	4977	4988	4999
Population of working-age (15-64) (000)	3035	3301	3314	3317	3367	3373	3375	3374	3380
Total employment (000)	2639	2407	2429	2394	2300	2313	2311	2320	2306
Annual change in employment (%)	-	-0.9	0.2	-1.4	-1.3	0.1	-0.1	0.4	-0.6
Employment rate (% working-age population)	86.4	72.5	72.9	71.8	67.9	68.1	68.0	68.5	67.5
FTE employment rate (% working-age population)	na	75.0	75.3	74.1	69.3	69.1	68.9	69.2	68.4
Self-employed (% total employment)	16.5	18.6	19.2	17.9	18.7	18.7	18.2	18.5	17.8
Employed part-time (% total employment)	na	2.2	2.4	2.4	3.0	3.5	3.9	4.2	4.2
Employed on fixed term contracts (%)	na	6.2	4.3	4.0	4.5	5.9	6.0	7.7	7.7
Share of employment in agriculture (%)	4.5	3.9	3.9	3.0	3.4	3.1	3.0	2.7	2.7
Share of employment in industry (%)	47.9	38.8	38.3	39.0	37.4	36.1	36.2	36.2	36.2
Share of employment in services (%)	47.6	57.3	57.8	57.9	59.2	60.8	60.8	61.1	61.1
Activity rate (% working-age population)	89.2	77.7	76.2	75.3	74.1	74.1	73.9	74.5	74.0
Total unemployed (000)	60	158	98	103	194	186	183	193	194
Unemployment rate (%)	2.2	6.5	4.1	4.3	7.9	7.6	7.4	7.8	7.8
Youth unemployed (% population 15-24)	na	7.3	4.1	4.5	8.6	7.1	6.9	7.8	9.0
Long-term unemployment rate (% labour force)	na	4.1	2.6	2.5	4.2	4.5	4.4	4.7	4.7
Women									
Total population (000)	5001	5046	5097	5115	5168	5191	5204	5215	5225
Population of working-age (15-64) (000)	3045	3309	3314	3308	3321	3325	3327	3327	3331
Total employment (000)	1207	1300	1454	1493	1527	1552	1585	1622	1682
Annual change in employment (%)	-	0.7	2.3	2.6	0.8	0.6	2.1	2.3	3.7
Employment rate (% working-age population)	39.5	39.1	43.7	45.0	45.8	46.4	47.4	48.6	50.2
FTE employment rate (% working-age population)	na	34.3	37.6	38.4	38.5	38.8	39.4	40.1	40.4
Self-employed (% total employment)	10.8	10.9	10.8	29.5	10.2	10.4	10.1	10.9	14.8
Employed part-time (% total employment)	na	22.8	27.8	27.4	30.5	32.9	33.8	35.8	35.8
Employed on fixed term contracts (%)	na	14.4	11.3	10.9	9.9	10.5	11.3	13.7	13.7
Share of employment in agriculture (%)	2.6	4.0	2.9	2.8	2.7	2.8	2.7	2.0	2.0
Share of employment in industry (%)	23.7	14.9	14.2	13.2	12.6	11.8	11.8	11.4	11.4
Share of employment in services (%)	73.8	81.2	82.9	83.9	84.6	85.4	85.5	86.6	86.6
Activity rate (% working-age population)	42.3	46.8	48.8	49.9	52.7	53.4	54.1	55.2	56.5
Total unemployed (000)	76	248	163	159	222	223	215	215	201
Unemployment rate (%)	6.0	16.7	10.7	10.0	12.9	12.7	12.1	11.8	10.7
Youth unemployed (% population 15-24)	na	12.2	6.9	6.5	8.9	8.5	8.3	7.8	7.7
Long-term unemployment rate (% labour force)	na	12.0	7.4	6.4	8.1	8.1	7.4	7.5	6.6

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.

Key employment indicators in Denmark

Total	1975	1985	1990	1991	1994	1996	1997	1998	1999
Total population (000)	5060	5114	5140	5154	5205	5262	5284	5301	5320
Population of working-age (15-64) (000)	3212	3357	3445	3461	3478	3512	3511	3520	3521
Total employment (000)	2376	2573	2611	2596	2574	2603	2629	2681	2708
Annual change in employment (%)	-	0.8	0.3	-0.6	-0.3	0.7	1.0	2.0	1.0
Employment rate (% working-age population)	72.3	74.9	74.1	73.5	73.5	73.4	74.0	75.4	76.5
FTE employment rate (% working-age population)	na	65.6	65.5	65.4	65.7	65.6	65.8	66.9	68.7
Self-employed (% total employment)	13.9	9.9	9.5	9.0	8.4	8.3	8.3	8.4	8.3
Employed part-time (% total employment)	na	24.3	23.3	23.1	21.2	21.5	22.3	22.3	20.7
Employed on fixed term contracts (%)	na	12.3	10.8	11.9	12.0	11.2	11.1	10.1	10.2
Share of employment in agriculture (%)	9.8	6.7	5.6	5.7	5.0	3.9	3.8	3.7	3.3
Share of employment in industry (%)	31.5	27.9	27.4	27.6	26.5	26.4	26.2	26.5	26.9
Share of employment in services (%)	58.7	65.4	67.0	66.7	68.4	69.7	70.0	69.8	69.8
Activity rate (% working-age population)	76.9	82.5	82.2	82.0	80.6	79.6	79.4	80.4	81.1
Total unemployed (000)	92	197	220	242	229	192	159	148	148
Unemployment rate (%)	3.9	7.2	7.7	8.4	8.2	6.8	5.6	5.2	5.2
Youth unemployed (% population 15-24)	na	8.5	8.3	8.4	7.8	7.9	6.2	5.7	7.1
Long-term unemployment rate (% labour force)	na	2.3	2.2	2.6	2.6	1.8	1.5	1.4	1.0
Men									
Total population (000)	2506	2519	2533	2540	2568	2598	2610	2619	2629
Population of working-age (15-64) (000)	1613	1689	1741	1749	1756	1774	1772	1781	1787
Total employment (000)	1396	1419	1412	1399	1396	1433	1435	1450	1460
Annual change in employment (%)	-	0.2	-0.1	-1.0	-0.1	0.1	0.1	1.1	0.7
Employment rate (% working-age population)	84.1	81.4	78.7	77.9	78.8	79.9	79.8	80.3	81.2
FTE employment rate (% working-age population)	na	79.4	75.6	75.1	76.1	76.9	76.3	77.1	78.4
Self-employed (% total employment)	na	15.2	14.9	14.0	12.1	11.7	12.1	12.3	11.9
Employed part-time (% total employment)	na	8.4	10.4	10.5	10.0	10.8	12.1	10.9	9.6
Employed on fixed term contracts (%)	na	11.6	10.6	11.0	11.1	10.8	10.6	9.3	9.2
Share of employment in agriculture (%)	na	9.4	7.9	7.9	7.1	5.3	5.4	5.3	4.9
Share of employment in industry (%)	na	37.7	37.2	37.2	36.1	35.6	36.0	36.4	36.7
Share of employment in services (%)	na	52.9	54.9	54.9	56.8	59.1	58.6	58.3	58.3
Activity rate (% working-age population)	89.9	89.2	87.4	86.6	85.8	85.5	84.9	84.9	85.5
Total unemployed (000)	52	87	108	115	110	85	71	62	68
Unemployment rate (%)	3.6	5.8	7.0	7.5	7.3	5.5	4.6	4.1	4.5
Youth unemployed (% population 15-24)	na	8.0	8.6	8.2	7.7	6.8	5.3	5.3	7.0
Long-term unemployment rate (% labour force)	na	1.8	1.9	2.1	2.3	1.5	1.2	1.0	0.9
Women									
Total population (000)	2554	2595	2607	2614	2637	2664	2674	2683	2692
Population of working-age (15-64) (000)	1600	1668	1704	1713	1722	1738	1739	1740	1734
Total employment (000)	980	1155	1199	1197	1178	1170	1194	1231	1248
Annual change in employment (%)	-	1.7	0.8	-0.1	-0.5	1.4	2.0	3.1	1.3
Employment rate (% working-age population)	60.5	68.3	69.5	69.1	68.0	66.9	68.2	70.4	71.6
FTE employment rate (% working-age population)	na	51.7	55.2	55.5	55.2	54.1	55.2	56.4	58.6
Self-employed (% total employment)	na	3.3	3.2	37.8	4.1	4.2	3.7	3.9	8.3
Employed part-time (% total employment)	na	43.9	38.4	37.8	34.4	34.6	34.5	35.8	33.9
Employed on fixed term contracts (%)	na	13.1	11.0	12.9	12.9	11.8	11.6	11.0	11.3
Share of employment in agriculture (%)	na	3.4	2.8	3.1	2.6	2.1	1.7	1.8	1.4
Share of employment in industry (%)	na	15.8	16.0	16.4	15.1	15.1	14.6	14.7	15.4
Share of employment in services (%)	na	80.8	81.2	80.5	82.3	82.8	83.8	83.5	83.1
Activity rate (% working-age population)	63.9	75.8	76.9	77.3	75.3	73.5	73.8	75.8	76.5
Total unemployed (000)	41	110	112	127	119	108	89	87	80
Unemployment rate (%)	4.0	8.7	8.4	9.4	9.3	8.3	6.8	6.6	6.0
Youth unemployed (% population 15-24)	na	9.1	8.1	8.6	7.8	8.9	7.3	6.1	7.2
Long-term unemployment rate (% labour force)	na	2.9	2.6	3.3	3.0	2.1	1.9	2.0	1.2

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.

Key employment indicators in Germany

	Excl. the new German Länder				Incl. the new German Länder					
Total	**1975**	**1985**	**1990**	**1991**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	61829	61024	63254	64074	79984	81422	81896	82052	82029	82009
Population of working-age (15-64) (000)	39921	42002	43212	43478	54090	54936	55042	54943	55219	55147
Total employment (000)	26581	27060	29093	29818	37741	36448	36134	35847	35982	36089
Annual change in employment (%)	-	0.2	1.5	2.5	na	-1.2	-0.8	-0.8	0.4	0.3
Employment rate (% working-age population)	65.0	63.7	66.7	67.9	69.2	65.8	65.0	64.6	64.5	64.8
FTE employment rate (% working-age population)	na	60.3	62.1	63.1	64.3	60.5	59.3	58.5	58.0	58.0
Self-employed (% total employment)	9.4	9.2	8.9	9.2	8.2	9.3	9.6	9.9	10.0	10.0
Employed part-time (% total employment)	na	12.8	15.2	15.5	14.1	15.8	16.5	17.5	18.3	19.0
Employed on fixed term contracts (%)	na	10.0	10.5	9.5	10.1	10.3	11.1	11.7	12.3	13.1
Share of employment in agriculture (%)	6.8	5.2	3.7	3.5	4.2	3.3	2.9	2.9	2.8	2.9
Share of employment in industry (%)	45.4	41.0	40.1	40.1	40.3	37.0	35.3	34.7	34.4	33.8
Share of employment in services (%)	47.8	53.8	56.2	56.4	55.5	59.7	61.8	62.4	62.8	63.3
Activity rate (% working-age population)	68.8	69.2	70.7	71.5	73.8	72.4	71.9	72.3	71.8	71.7
Total unemployed (000)	912	2026	1464	1276	2182	3306	3462	3870	3685	3434
Unemployment rate (%)	3.5	7.2	4.8	4.2	5.6	8.4	8.9	9.9	9.4	8.7
Youth unemployed (% population 15-24)	na	6.1	2.7	2.3	3.5	4.8	5.0	5.4	5.0	4.6
Long-term unemployment rate (% labour force)	na	3.4	2.2	1.9	1.7	3.7	4.3	5.0	4.9	4.5
Men										
Total population (000)	29499	29181	30569	31052	38658	39576	39888	39989	39992	40004
Population of working-age (15-64) (000)	19515	20672	21744	21940	27153	27811	27765	27767	27884	27821
Total employment (000)	16570	16503	17343	17717	21906	21150	20684	20472	20475	20372
Annual change in employment (%)	-	-0.0	1.0	2.2	na	-1.2	-1.7	-1.0	0.0	-0.5
Employment rate (% working-age population)	82.9	78.9	79.0	80.0	80.0	75.3	73.7	72.9	72.6	72.4
FTE employment rate (% working-age population)	na	78.4	78.1	79.2	79.2	75.1	73.5	72.5	72.0	71.7
Self-employed (% total employment)	12.6	11.7	11.3	11.5	10.5	11.8	12.3	12.6	12.7	12.8
Employed part-time (% total employment)	na	2.0	2.6	2.7	2.4	3.2	3.8	4.2	4.7	4.9
Employed on fixed term contracts (%)	na	9.2	9.8	8.8	9.4	9.8	11.0	11.5	12.1	12.8
Share of employment in agriculture (%)	5.3	4.5	3.5	3.4	4.2	3.4	3.2	3.2	3.1	3.3
Share of employment in industry (%)	54.7	50.8	50.1	50.3	50.7	48.5	47.1	46.5	46.1	45.7
Share of employment in services (%)	40.1	44.7	46.4	46.3	45.1	48.1	49.7	50.3	50.8	51.1
Activity rate (% working-age population)	87.5	84.9	83.1	83.8	84.5	81.8	81.0	81.1	80.5	79.8
Total unemployed (000)	513	1052	722	665	1027	1613	1816	2051	1962	1832
Unemployment rate (%)	3.0	6.2	4.0	3.7	4.6	7.2	8.2	9.2	8.8	8.3
Youth unemployed (% population 15-24)	na	5.9	2.7	2.3	3.4	5.0	5.7	6.3	5.7	5.2
Long-term unemployment rate (% labour force)	na	3.0	1.9	1.8	1.6	3.0	3.6	4.3	4.4	4.1
Women										
Total population (000)	32330	31843	32685	33023	41327	41846	42008	42063	42037	42005
Population of working-age (15-64) (000)	20406	21330	21468	21538	26937	27125	27277	27176	27335	27327
Total employment (000)	10011	10557	11750	12101	15835	15298	15450	15376	15507	15717
Annual change in employment (%)	-	0.5	2.2	3.0	na	-1.1	0.5	-0.5	0.9	1.4
Employment rate (% working-age population)	47.9	48.9	54.2	55.6	58.3	56.0	56.2	56.1	56.3	57.1
FTE employment rate (% working-age population)	na	43.0	46.2	47.3	49.6	45.6	44.8	44.2	43.9	44.0
Self-employed (% total employment)	4.4	5.4	5.4	34.3	30.1	5.8	6.2	6.4	6.3	10.0
Employed part-time (% total employment)	na	29.6	33.8	34.3	30.1	33.1	33.6	35.1	36.4	37.2
Employed on fixed term contracts (%)	na	11.1	11.6	10.4	10.9	11.0	11.2	12.1	12.5	13.4
Share of employment in agriculture (%)	9.3	6.3	4.1	3.7	4.2	3.1	2.6	2.6	2.3	2.4
Share of employment in industry (%)	30.5	25.6	25.2	25.1	25.9	21.1	19.5	18.9	18.9	18.5
Share of employment in services (%)	60.2	68.1	70.7	71.2	69.9	75.8	77.9	78.5	78.7	79.1
Activity rate (% working-age population)	51.0	54.1	58.2	59.0	63.1	62.6	62.7	63.3	63.0	63.4
Total unemployed (000)	399	974	743	611	1155	1693	1646	1819	1723	1602
Unemployment rate (%)	3.8	8.7	6.0	4.9	6.9	10.1	9.8	10.7	10.1	9.3
Youth unemployed (% population 15-24)	na	6.4	2.7	2.2	3.7	4.5	4.4	4.6	4.3	3.9
Long-term unemployment rate (% labour force)	na	3.9	2.6	2.1	1.9	4.8	5.1	5.7	5.6	5.0

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.

Key employment indicators in Greece

Total	**1977**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	9309	9934	10161	10247	10426	10476	10497	10516	10527
Population of working-age (15-64) (000)	5671	6259	6571	6638	6769	6796	6792	6933	6922
Total employment (000)	3170	3560	3689	3603	3759	3778	3765	3893	3940
Annual change in employment (%)	-	1.5	0.7	-2.3	1.4	-0.4	-0.3	3.4	1.2
Employment rate (% working-age population)	55.3	54.7	54.4	52.6	53.7	53.6	53.6	54.6	55.0
FTE employment rate (% working-age population)	na	54.5	54.4	52.7	53.6	53.6	53.4	54.1	54.8
Self-employed (% total employment)	37.7	36.0	34.8	35.2	34.4	33.7	33.3	32.5	32.0
Employed part-time (% total employment)	na	5.2	4.1	3.8	4.8	5.3	4.6	6.0	6.1
Employed on fixed term contracts (%)	na	14.7	11.5	10.2	10.3	11.0	10.9	13.0	12.8
Share of employment in agriculture (%)	33.2	28.9	23.9	22.2	20.8	20.3	19.8	17.7	17.0
Share of employment in industry (%)	29.2	25.7	25.9	25.7	23.6	22.9	22.5	23.0	22.9
Share of employment in services (%)	37.5	45.4	50.2	52.1	55.6	56.9	57.7	59.2	60.1
Activity rate (% working-age population)	58.6	61.2	60.0	58.4	61.0	61.6	61.6	63.1	64.4
Total unemployed (000)	67	269	255	276	370	411	421	483	521
Unemployment rate (%)	2.1	7.0	6.4	7.0	8.9	9.6	9.8	10.9	11.7
Youth unemployed (% population 15-24)	na	8.8	8.3	8.7	10.2	11.4	11.2	11.8	12.4
Long-term unemployment rate (% labour force)	na	3.0	3.2	3.3	4.5	5.4	5.5	6.0	6.5
Men									
Total population (000)	4558	4887	5004	5050	5148	5169	5178	5183	5187
Population of working-age (15-64) (000)	2717	3002	3173	3221	3268	3271	3261	3387	3371
Total employment (000)	2219	2352	2390	2387	2432	2410	2383	2457	2466
Annual change in employment (%)	-	0.7	0.3	-0.1	0.6	-0.9	-1.1	3.1	0.3
Employment rate (% working-age population)	80.7	75.3	72.8	71.7	71.7	70.9	70.3	70.3	70.2
FTE employment rate (% working-age population)	na	77.3	75.4	74.4	74.5	74.0	73.4	73.0	73.9
Self-employed (% total employment)	44.9	44.1	42.6	42.9	42.6	41.8	41.7	39.7	38.8
Employed part-time (% total employment)	na	2.8	2.2	2.2	3.1	15.6	2.6	3.3	3.6
Employed on fixed term contracts (%)	na	15.1	11.7	10.2	10.2	10.5	10.2	12.0	11.6
Share of employment in agriculture (%)	26.8	24.3	20.5	19.9	18.6	18.2	18.0	16.3	15.6
Share of employment in industry (%)	33.9	30.4	30.5	29.9	28.8	28.1	27.7	29.3	29.0
Share of employment in services (%)	39.3	45.3	49.0	50.2	52.6	53.7	54.3	54.4	55.4
Activity rate (% working-age population)	85.2	82.5	78.4	77.6	79.2	78.5	78.2	78.2	77.0
Total unemployed (000)	35	125	99	111	157	159	166	190	201
Unemployment rate (%)	1.5	5.0	3.9	4.4	6.0	6.1	6.4	7.1	7.5
Youth unemployed (% population 15-24)	na	7.7	6.4	6.9	8.2	8.6	8.8	9.3	9.2
Long-term unemployment rate (% labour force)	na	1.6	1.5	1.6	2.5	2.9	2.9	3.2	3.6
Women									
Total population (000)	4751	5047	5157	5197	5278	5307	5320	5333	5340
Population of working-age (15-64) (000)	2954	3257	3397	3417	3501	3527	3531	3546	3551
Total employment (000)	951	1208	1299	1216	1327	1368	1382	1436	1473
Annual change in employment (%)	-	3.0	1.5	-6.4	3.0	0.5	1.0	3.9	2.6
Employment rate (% working-age population)	32.0	35.8	37.2	34.6	36.9	37.6	38.1	39.6	40.4
FTE employment rate (% working-age population)	na	33.4	34.7	32.2	34.1	34.6	35.0	36.0	36.5
Self-employed (% total employment)	22.3	20.0	20.3	7.2	19.5	19.4	18.7	20.0	32.0
Employed part-time (% total employment)	na	10.0	7.6	7.2	8.0	8.9	8.1	10.5	10.1
Employed on fixed term contracts (%)	na	13.8	11.2	10.2	10.5	11.9	11.9	14.7	14.8
Share of employment in agriculture (%)	48.1	37.9	30.3	26.7	24.8	23.9	23.1	20.3	19.3
Share of employment in industry (%)	18.4	16.5	17.3	17.5	14.1	13.7	13.4	12.3	12.7
Share of employment in services (%)	33.5	45.6	52.4	55.8	61.0	62.4	63.5	67.4	68.0
Activity rate (% working-age population)	34.2	41.5	42.8	40.4	44.0	45.9	46.4	48.8	48.9
Total unemployed (000)	32	144	156	166	213	252	254	293	320
Unemployment rate (%)	3,3	10.6	10.8	11.8	13.7	15.2	15.2	16.7	17.8
Youth unemployed (% population 15-24)	na	9.7	10.2	10.3	12.0	13.8	13.5	14.3	14.3
Long-term unemployment rate (% labour force)	na	5.6	6.0	6.3	7.9	9.5	9.5	10.3	10.6

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1977-85 and for 1990 to the average change 1985-90.
Data for 1975 not available.

Key employment indicators in Spain

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	35515	38420	38851	38920	39150	39270	39323	39371	39418
Population of working-age (15-64) (000)	21517	24102	25289	25359	25770	26253	26282	26302	26104
Total employment (000)	12665	10773	12645	12765	12137	12518	12862	13320	13773
Annual change in employment (%)	-	-1.6	3.3	1.0	-1.7	1.3	2.8	3.6	3.4
Employment rate (% working-age population)	57.0	44.0	49.5	49.8	46.6	47.2	48.6	50.3	52.3
FTE employment rate (% working-age population)	na	42.7	48.1	48.5	44.8	45.2	46.4	48.0	50.0
Self-employed (% total employment)*	21.0	22.6	20.9	20.4	22.1	21.5	20.9	20.2	19.3
Employed part-time (% total employment)+	na	5.8	4.9	4.7	6.9	8.0	8.2	8.1	8.3
Employed on fixed term contracts (%)+	na	15.6	29.8	32.2	33.7	33.6	33.6	32.9	32.7
Share of employment in agriculture (%)*	22.1	16.2	12.0	10.9	9.9	8.6	8.3	7.9	7.4
Share of employment in industry (%)*	38.3	31.9	33.6	33.0	30.1	29.4	29.9	30.4	30.6
Share of employment in services (%)*	39.7	52.0	54.5	56.1	60.0	62.0	61.8	61.7	62.0
Activity rate (% working-age population)	62.4	56.9	59.6	60.1	61.6	61.1	61.7	62.3	62.7
Total unemployed (000)	580	2937	2439	2469	3734	3535	3351	3055	2605
Unemployment rate (%)	4.4	21.6	16.2	16.4	24.1	22.2	20.8	18.8	15.9
Youth unemployed (% population 15-24)	na	22.0	15.3	14.2	19.4	17.2	16.0	14.6	12.4
Long-term unemployment rate (% labour force)*	na	12.6	8.3	8.1	12.7	11.7	10.8	9.4	7.4
Men									
Total population (000)	17381	18851	19032	19060	19165	19215	19235	19253	19270
Population of working-age (15-64) (000)	10561	11830	12421	12467	12757	12977	13020	12993	12832
Total employment (000)	9201	7615	8617	8646	8013	8141	8332	8600	8779
Annual change in employment (%)	-	-1.9	2.5	0.3	-2.5	0.5	2.3	3.2	2.1
Employment rate (% working-age population)	84.5	63.4	68.7	68.6	62.2	62.2	63.5	65.7	67.8
FTE employment rate (% working-age population)	na	63.2	69.0	68.9	62.2	62.1	63.4	65.8	68.0
Self-employed (% total employment)*	23.0	24.7	23.2	22.7	24.9	24.1	23.6	22.9	22.3
Employed part-time (% total employment)+	na	2.4	1.6	1.6	2.6	8.6	3.2	3.0	3.0
Employed on fixed term contracts (%)+	na	14.4	27.8	29.3	31.4	31.9	32.4	32.1	31.4
Share of employment in agriculture (%)*	22.7	17.2	12.8	11.7	11.0	9.8	9.5	9.2	8.6
Share of employment in industry (%)*	42.6	38.1	41.0	40.9	38.2	37.9	38.7	39.5	40.3
Share of employment in services (%)*	34.7	44.7	46.3	47.4	50.8	52.3	51.8	51.3	51.1
Activity rate (% working-age population)	92.9	80.5	78.8	78.9	77.8	76.0	76.1	76.7	77.0
Total unemployed (000)	470	1906	1165	1194	1911	1723	1580	1363	1102
Unemployment rate (%)	4.9	20.1	12.0	12.3	19.8	17.6	16.0	13.8	11.2
Youth unemployed (% population 15-24)	na	24.3	13.8	13.1	19.3	16.1	14.8	13.1	10.7
Long-term unemployment rate (% labour force)*	na	11.1	5.2	5.0	9.2	8.1	7.3	6.1	4.5
Women									
Total population (000)	18134	19569	19820	19860	19984	20055	20088	20118	20148
Population of working-age (15-64) (000)	10956	12272	12868	12892	13013	13276	13262	13309	13272
Total employment (000)	3464	3158	4028	4119	4124	4376	4530	4720	4994
Annual change in employment (%)	-	-0.9	5.0	2.3	0.0	2.8	3.5	4.2	5.8
Employment rate (% working-age population)	30.4	25.2	30.9	31.6	31.3	32.6	33.9	35.2	37.3
FTE employment rate (% working-age population)	na	22.8	27.9	28.8	27.8	28.6	29.6	30.7	32.5
Self-employed (% total employment)*	15.8	17.5	16.0	11.2	16.7	16.7	15.8	15.2	19.3
Employed part-time (% total employment)+	na	13.9	12.1	11.2	15.2	17.0	17.4	17.2	17.6
Employed on fixed term contracts (%)+	na	18.4	34.2	38.2	37.9	36.7	35.8	34.4	34.9
Share of employment in agriculture (%)*	20.5	13.9	10.2	9.2	7.9	6.4	6.1	5.6	5.3
Share of employment in industry (%)*	26.8	16.8	17.7	16.6	14.4	13.6	13.6	13.8	13.6
Share of employment in services (%)*	52.7	69.3	72.1	74.2	77.7	79.9	80.3	80.7	81.1
Activity rate (% working-age population)	33.1	34.1	41.2	41.8	45.7	46.6	47.5	48.2	49.0
Total unemployed (000)	109	1031	1275	1275	1823	1812	1771	1692	1503
Unemployment rate (%)	3.1	25.0	24.2	23.8	31.4	29.5	28.3	26.5	23.0
Youth unemployed (% population 15-24)	na	19.7	16.9	15.4	19.5	18.4	17.2	16.1	14.1
Long-term unemployment rate (% labour force)*	na	16.1	14.1	13.6	18.7	17.6	16.2	14.4	11.7

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.
** 1985 data relate to 1986.*
\+ 1985 data relate to 1987.

Key employment indicators in France

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	52699	55284	56735	57055	57900	58375	58610	58851	59096
Population of working-age (15-64) (000)	31047	34825	35733	36304	36677	36968	37126	37300	37506
Total employment (000)	20945	21219	22236	22266	21866	22102	22170	22427	22755
Annual change in employment (%)	-	0.1	0.9	0.1	-0.6	0.3	0.3	1.2	1.5
Employment rate (% working-age population)	65.5	60.4	61.8	60.9	59.3	59.4	59.4	59.8	60.4
FTE employment rate (% working-age population)	na	58.1	59.0	58.2	56.2	56.2	56.2	56.6	57.0
Self-employed (% total employment)	14.4	12.6	12.9	12.6	11.8	11.3	11.2	10.9	10.6
Employed part-time (% total employment)	na	10.9	11.9	12.1	14.9	16.0	16.8	17.3	17.2
Employed on fixed term contracts (%)	na	4.7	10.5	10.2	11.0	12.6	13.1	13.9	14.0
Share of employment in agriculture (%)	10.3	8.2	6.4	6.0	5.2	4.8	4.6	4.4	4.3
Share of employment in industry (%)	38.6	32.4	30.4	30.0	26.9	26.5	26.6	26.4	26.3
Share of employment in services (%)	51.1	59.4	63.2	63.9	67.9	68.6	68.8	69.2	69.4
Activity rate (% working-age population)	71.0	67.9	68.3	67.7	68.0	68.2	68.1	68.2	68.4
Total unemployed (000)	864	2411	2169	2312	3058	3126	3126	3022	2894
Unemployment rate (%)	3.9	10.2	9.0	9.5	12.3	12.4	12.3	11.8	11.3
Youth unemployed (% labour force 15-24)	na	13.2	8.5	8.7	10.8	10.4	10.1	9.1	8.2
Long-term unemployment rate (% labour force)	na	4.5	3.6	3.7	4.6	4.7	4.9	4.9	4.4
Men									
Total population (000)	25807	26946	27623	27784	28195	28423	28538	28657	28778
Population of working-age (15-64) (000)	15270	17088	17592	17868	18057	18207	18296	18389	18535
Total employment (000)	13048	12394	12793	12671	12193	12278	12307	12411	12577
Annual change in employment (%)	-	-0.5	0.6	-1.0	-1.3	0.1	0.2	0.8	1.3
Employment rate (% working-age population)	83.1	71.9	72.2	70.4	67.1	67.0	66.9	67.1	67.5
FTE employment rate (% working-age population)	na	73.5	73.8	72.0	68.8	68.4	68.6	68.8	69.0
Self-employed (% total employment)	na	17.1	17.0	16.4	15.8	15.1	14.9	14.6	14.3
Employed part-time (% total employment)	na	3.2	3.3	3.4	4.6	5.3	5.5	5.7	5.6
Employed on fixed term contracts (%)	na	4.8	9.4	8.7	9.7	11.5	12.1	13.0	13.3
Share of employment in agriculture (%)	na	8.9	7.3	6.8	6.2	5.9	5.7	5.5	5.3
Share of employment in industry (%)	na	41.7	39.8	39.7	36.1	36.2	36.3	36.0	36.0
Share of employment in services (%)	na	49.4	52.9	53.5	57.7	57.9	58.0	58.5	58.8
Activity rate (% working-age population)	88.8	79.1	77.9	76.5	75.4	75.4	75.3	75.1	75.1
Total unemployed (000)	372	1130	914	996	1424	1450	1466	1391	1335
Unemployment rate (%)	2.8	8.3	6.8	7.3	10.5	10.5	10.6	10.0	9.6
Youth unemployed (% population 15-24)	na	12.3	7.4	7.7	10.2	10.0	9.9	8.9	8.3
Long-term unemployment rate (% labour force)	na	3.3	2.5	2.6	3.9	3.8	4.0	4.1	3.6
Women									
Total population (000)	26892	28338	29112	29272	29704	29952	30072	30194	30318
Population of working-age (15-64) (000)	15776	17736	18141	18436	18620	18763	18830	18913	18972
Total employment (000)	7897	8826	9444	9595	9674	9824	9862	10016	10177
Annual change in employment (%)	-	1.1	1.4	1.6	0.3	0.5	0.4	1.6	1.6
Employment rate (% working-age population)	48.5	49.3	51.7	51.8	51.7	52.1	52.2	52.8	53.5
FTE employment rate (% working-age population)	na	43.1	44.7	44.7	44.1	44.3	44.2	44.7	45.3
Self-employed (% total employment)	na	6.4	7.2	23.5	6.8	6.6	6.5	6.3	10.6
Employed part-time (% total employment)	na	21.8	23.6	23.5	27.8	29.5	30.9	31.6	31.7
Employed on fixed term contracts (%)	na	4.6	12.0	12.0	12.4	13.9	14.3	15.0	14.8
Share of employment in agriculture (%)	na	7.1	5.2	5.0	4.0	3.5	3.4	3.1	3.0
Share of employment in industry (%)	na	19.3	17.8	17.3	15.2	14.4	14.5	14.4	14.4
Share of employment in services (%)	na	73.6	77.0	77.7	80.8	82.0	82.2	82.5	82.6
Activity rate (% working-age population)	53.7	57.0	59.0	59.2	60.7	61.3	61.2	61.6	61.9
Total unemployed (000)	492	1281	1255	1316	1634	1676	1660	1631	1559
Unemployment rate (%)	5.9	12.6	11.9	12.1	14.5	14.5	14.4	14.0	13.3
Youth unemployed (% population 15-24)	na	14.0	9.6	9.6	11.4	10.8	10.4	9.2	8.0
Long-term unemployment rate (% labour force)	na	6.0	5.0	4.9	5.5	5.8	5.9	5.9	5.3

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.

Key employment indicators in Ireland

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	3177	3540	3506	3526	3586	3626	3661	3705	3746
Population of working-age (15-64) (000)	1807	2079	2120	2152	2236	2324	2378	2450	2494
Total employment (000)	1132	1133	1196	1196	1253	1367	1443	1515	1593
Annual change in employment (%)	-	0.0	1.1	0.0	1.6	3.8	5.6	5.0	5.1
Employment rate (% working-age population)	59.3	52.7	54.7	53.9	54.5	57.4	59.1	60.4	62.5
FTE employment rate (% working-age population)	na	50.7	52.1	51.2	51.1	53.4	55.5	56.0	58.2
Self-employed (% total employment)	24.4	21.5	22.6	21.5	21.0	19.8	19.5	18.8	17.8
Employed part-time (% total employment)	na	6.5	8.1	8.4	11.4	11.6	12.3	16.7	16.7
Employed on fixed term contracts (%)	na	7.3	8.5	8.3	9.5	9.2	9.4	7.7	7.7
Share of employment in agriculture (%)	22.4	16.5	15.3	14.0	12.6	11.2	10.8	9.1	8.6
Share of employment in industry (%)	31.8	29.9	28.8	29.0	27.9	27.3	28.5	28.9	28.5
Share of employment in services (%)	45.8	53.6	55.9	57.0	59.6	61.5	60.7	62.1	62.9
Activity rate (% working-age population)	67.3	64.9	64.7	64.7	65.1	66.3	67.1	66.9	67.7
Total unemployed (000)	83	217	176	197	203	174	153	124	96
Unemployment rate (%)	7.2	16.8	13.4	14.7	14.3	11.7	9.9	7.6	5.7
Youth unemployed (% population 15-24)	na	13.8	9.6	10.8	10.7	8.0	7.1	5.5	4.2
Long-term unemployment rate (% labour force)	na	10.5	8.6	8.8	9.2	6.9	5.7	na	na
Men									
Total population (000)	1597	1771	1743	1753	1783	1800	1817	1839	1860
Population of working-age (15-64) (000)	920	1053	1079	1091	1120	1168	1194	1230	1251
Total employment (000)	820	783	799	792	787	843	881	912	948
Annual change in employment (%)	-	-0.5	0.4	-0.9	-0.2	2.6	4.4	3.6	3.9
Employment rate (% working-age population)	84.1	71.7	71.4	69.9	67.8	69.9	71.4	71.9	73.5
FTE employment rate (% working-age population)	na	73.6	73.7	71.9	69.9	71.6	74.0	74.3	76.6
Self-employed (% total employment)	na	27.8	29.8	28.5	28.9	27.0	27.0	26.2	24.9
Employed part-time (% total employment)	na	2.3	3.4	3.6	5.1	12.7	5.4	7.8	7.4
Employed on fixed term contracts (%)	na	5.5	6.6	6.1	8.0	7.1	7.1	5.9	5.9
Share of employment in agriculture (%)	na	20.6	20.6	19.2	17.9	15.9	15.7	13.3	12.7
Share of employment in industry (%)	na	34.7	33.6	34.5	34.1	34.2	35.8	37.1	37.3
Share of employment in services (%)	na	44.6	45.8	46.3	48.0	49.9	48.6	49.7	49.9
Activity rate (% working-age population)	95.5	87.8	84.4	83.9	81.5	81.3	81.5	80.4	80.5
Total unemployed (000)	56	142	112	124	126	106	93	77	59
Unemployment rate (%)	6.3	16.0	12.9	14.2	14.2	11.5	9.9	7.8	5.8
Youth unemployed (% population 15-24)	na	15.6	10.9	12.3	12.3	9.0	8.0	6.1	4.5
Long-term unemployment rate (% labour force)	na	10.5	9.1	9.3	9.7	7.4	6.2	na	na
Women									
Total population (000)	1580	1769	1763	1772	1803	1826	1843	1866	1886
Population of working-age (15-64) (000)	888	1026	1041	1061	1115	1156	1184	1221	1242
Total employment (000)	311	349	397	404	466	523	562	603	645
Annual change in employment (%)	-	1.2	2.6	1.9	4.9	5.9	7.4	7.3	6.9
Employment rate (% working-age population)	33.5	33.3	37.5	37.5	41.2	44.7	46.7	48.7	51.4
FTE employment rate (% working-age population)	na	27.2	29.6	29.9	32.5	35.1	36.9	37.7	39.8
Self-employed (% total employment)	na	7.4	8.0	17.8	8.0	8.2	7.5	7.6	17.8
Employed part-time (% total employment)	na	15.5	17.6	17.8	21.8	22.2	23.2	30.1	30.6
Employed on fixed term contracts (%)	na	10.6	11.3	11.5	11.4	11.8	12.1	9.9	9.9
Share of employment in agriculture (%)	na	7.1	4.7	3.8	3.8	3.8	3.6	2.7	2.5
Share of employment in industry (%)	na	19.1	19.0	18.4	17.2	16.2	17.2	16.6	15.5
Share of employment in services (%)	na	73.8	76.4	77.8	79.0	80.0	79.2	80.7	82.0
Activity rate (% working-age population)	38.2	41.4	44.3	45.0	48.7	51.2	52.6	53.3	55.0
Total unemployed (000)	27	75	64	73	77	68	60	47	38
Unemployment rate (%)	8.0	18.5	14.6	15.8	14.6	11.8	9.9	7.3	5.5
Youth unemployed (% population 15-24)	na	12.0	8.3	9.2	9.0	7.0	6.2	4.9	3.9
Long-term unemployment rate (% labour force)	na	10.0	8.1	8.4	8.4	5.9	4.7	na	na

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.

Key employment indicators in Italy

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	55441	56593	56719	56751	57204	57397	57512	57569	57618
Population of working-age (15-64) (000)	35058	38048	38642	39090	38751	38978	39071	38707	38635
Total employment (000)	18169	19878	20760	21148	20216	20271	20298	20421	20618
Annual change in employment (%)	-	0.9	0.9	1.9	-1.5	0.4	0.1	0.6	1.0
Employment rate (% working-age population)	50.9	51.4	52.8	53.2	51.4	51.2	51.2	52.0	52.5
FTE employment rate (% working-age population)	na	49.6	50.8	51.1	50.2	49.9	49.8	50.5	50.8
Self-employed (% total employment)	29.5	24.1	24.3	24.3	24.1	24.8	24.5	24.4	24.4
Employed part-time (% total employment)	na	5.3	4.9	5.5	6.2	6.6	7.1	7.4	7.9
Employed on fixed term contracts (%)	na	4.8	5.2	5.4	7.3	7.5	8.2	8.5	9.8
Share of employment in agriculture (%)	15.8	11.0	9.0	8.5	7.7	6.7	6.5	5.8	5.4
Share of employment in industry (%)	38.5	33.5	32.4	32.2	32.1	32.2	31.7	32.7	32.4
Share of employment in services (%)	45.7	55.5	58.6	59.3	60.2	61.1	61.8	61.5	62.2
Activity rate (% working-age population)	56.6	57.2	59.2	59.3	58.8	59.0	59.0	59.9	60.2
Total unemployed (000)	964	1881	2112	2052	2568	2729	2743	2749	2649
Unemployment rate (%)	4.7	8.3	9.0	8.7	11.4	12.0	12.0	11.9	11.3
Youth unemployed (% population 15-24)	na	13.4	12.3	11.2	12.7	12.8	12.2	13.1	12.4
Long-term unemployment rate (% labour force)	na	5.4	6.2	5.8	7.0	7.9	8.0	7.1	6.9
Men									
Total population (000)	27072	27501	27538	27548	27765	27855	27922	27952	27969
Population of working-age (15-64) (000)	17113	18601	19000	19282	19139	19310	19352	19239	19204
Total employment (000)	12980	13479	13659	13801	13084	12993	12980	13090	13119
Annual change in employment (%)	-	0.4	0.3	1.0	-1.8	-0.3	-0.1	0.8	0.2
Employment rate (% working-age population)	74.3	71.2	70.5	70.3	67.2	66.2	65.9	66.9	67.1
FTE employment rate (% working-age population)	na	71.6	71.2	71.0	68.9	67.8	67.5	68.4	68.6
Self-employed (% total employment)	29.3	28.0	28.3	28.3	28.4	29.2	28.9	29.0	28.9
Employed part-time (% total employment)	na	3.0	2.4	2.9	2.8	5.9	3.3	3.5	3.4
Employed on fixed term contracts (%)	na	3.6	3.9	4.0	6.1	6.6	7.3	7.4	8.5
Share of employment in agriculture (%)	14.4	10.7	8.8	8.3	7.7	6.8	6.9	6.2	5.9
Share of employment in industry (%)	42.8	37.8	37.2	37.5	37.7	38.1	37.5	39.0	38.8
Share of employment in services (%)	42.8	51.5	54.0	54.2	54.6	55.1	55.6	54.8	55.2
Activity rate (% working-age population)	81.6	77.1	76.9	76.4	74.9	74.2	73.9	74.9	74.9
Total unemployed (000)	461	857	956	934	1254	1326	1320	1315	1260
Unemployment rate (%)	3.4	5.8	6.4	6.2	8.8	9.3	9.3	9.1	8.7
Youth unemployed (% population 15-24)	na	12.9	11.9	11.1	12.9	12.5	11.9	13.0	12.4
Long-term unemployment rate (% labour force)	na	3.7	4.3	4.1	5.3	6.0	6.2	5.5	5.4
Women									
Total population (000)	28369	29093	29182	29203	29439	29542	29590	29617	29649
Population of working-age (15-64) (000)	17945	19447	19642	19808	19612	19668	19719	19467	19430
Total employment (000)	5189	6399	7101	7347	7132	7277	7318	7330	7499
Annual change in employment (%)	-	2.1	2.1	3.5	-1.0	1.6	0.6	0.2	2.3
Employment rate (% working-age population)	28.6	32.5	35.6	36.6	35.9	36.5	36.7	37.2	38.1
FTE employment rate (% working-age population)	na	28.7	31.2	31.9	32.0	32.4	32.3	32.7	33.3
Self-employed (% total employment)	30.2	15.8	16.5	10.4	16.3	16.9	16.7	16.2	24.4
Employed part-time (% total employment)	na	10.1	9.6	10.4	12.4	12.7	13.7	14.4	15.7
Employed on fixed term contracts (%)	na	7.0	7.6	7.7	9.3	8.9	9.7	10.2	11.8
Share of employment in agriculture (%)	18.1	11.5	9.4	8.8	7.9	6.4	5.9	5.1	4.5
Share of employment in industry (%)	28.5	24.5	23.2	22.2	21.8	21.7	21.4	21.5	21.1
Share of employment in services (%)	53.3	64.0	67.4	69.0	70.4	72.0	72.7	73.4	74.4
Activity rate (% working-age population)	32.9	38.2	42.0	42.7	43.1	44.1	44.3	45.0	45.7
Total unemployed (000)	503	1024	1156	1117	1313	1404	1423	1434	1389
Unemployment rate (%)	8.8	13.2	13.6	13.0	15.8	16.4	16.5	16.3	15.6
Youth unemployed (% population 15-24)	na	13.9	12.7	11.3	12.5	13.1	12.6	13.2	12.5
Long-term unemployment rate (% labour force)	na	8.9	9.5	8.9	10.0	11.0	10.9	9.6	9.5

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.

Key employment indicators in Luxembourg

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	359	367	382	387	404	416	421	398	403
Population of working-age (15-64) (000)	234	250	264	266	272	277	280	282	286
Total employment (000)	145	148	157	162	165	165	169	171	176
Annual change in employment (%)	-	0.2	1.3	3.3	0.6	2.5	2.4	0.9	3.2
Employment rate (% working-age population)	61.4	58.5	59.1	60.8	60.0	58.8	57.8	59.8	61.6
FTE employment rate (% working-age population)	na	56.6	57.2	58.4	57.5	57.1	57.1	57.4	58.8
Self-employed (% total employment)	15.8	9.4	9.5	9.2	9.7	9.1	8.3	8.8	8.5
Employed part-time (% total employment)	na	7.2	7.0	7.5	7.9	7.9	8.3	9.4	10.8
Employed on fixed term contracts (%)	na	4.7	3.4	3.3	2.9	2.6	2.1	2.9	3.4
Share of employment in agriculture (%)	6.8	4.6	3.7	3.5	3.1	2.4	2.4	2.9	1.7
Share of employment in industry (%)	43.6	32.0	29.4	28.9	27.0	23.0	23.2	21.8	22.3
Share of employment in services (%)	49.6	63.5	66.9	67.6	69.9	74.5	74.4	75.3	76.0
Activity rate (% working-age population)	62.2	60.8	60.6	62.2	62.7	61.4	62.1	62.2	63.1
Total unemployed (000)	0.6	4.5	2.7	2.8	5.4	5.1	4.8	4.8	4.2
Unemployment rate (%)	1.1	2.9	1.7	1.7	3.2	3.0	2.7	2.7	2.3
Youth unemployed (% population 15-24)	na	3.9	1.8	1.6	3.3	3.3	3.1	2.5	2.2
Long-term unemployment rate (% labour force)	na	na	na	na	na	na	na	na	na
Men									
Total population (000)	178	178	187	190	198	204	207	195	198
Population of working-age (15-64) (000)	117	124	134	135	138	140	141	142	144
Total employment (000)	103	97	103	105	104	105	106	107	107
Annual change in employment (%)	-	-0.6	1.1	1.9	-0.3	1.0	0.8	0.8	0.7
Employment rate (% working-age population)	87.3	77.4	76.4	77.3	74.7	75.0	72.0	73.7	74.6
FTE employment rate (% working-age population)	na	77.5	76.7	78.0	76.5	76.5	77.1	76.7	76.5
Self-employed (% total employment)	na	11.0	10.8	10.5	10.6	10.5	9.5	10.8	9.3
Employed part-time (% total employment)	na	2.6	1.9	1.9	1.0	1.9	0.9	1.9	1.9
Employed on fixed term contracts (%)	na	3.5	2.6	2.3	2.0	2.4	1.8	2.4	2.8
Share of employment in agriculture (%)	na	4.9	3.9	3.8	2.9	2.9	2.9	3.8	1.9
Share of employment in industry (%)	na	43.4	40.3	39.4	37.9	32.4	33.3	30.2	31.8
Share of employment in services (%)	na	51.7	55.7	56.9	59.2	64.8	63.8	66.0	66.4
Activity rate (% working-age population)	88.3	79.9	78.0	78.7	77.5	76.7	76.4	76.6	75.9
Total unemployed (000)	0.4	2.2	1.3	1.4	2.9	2.4	2.2	2.1	1.9
Unemployment rate (%)	0.4	2.2	1.2	1.3	2.7	2.2	2.0	1.9	1.7
Youth unemployed (% population 15-24)	na	3.9	1.6	1.9	3.8	3.6	2.9	2.5	2.0
Long-term unemployment rate (% labour force)	na	na	na	na	na	na	na	na	na
Women									
Total population (000)	181	188	195	197	206	212	214	203	205
Population of working-age (15-64) (000)	117	126	130	131	134	137	139	140	141
Total employment (000)	42	50	54	57	61	60	63	64	69
Annual change in employment (%)	-	1.9	1.5	6.0	2.0	5.3	5.4	1.1	7.5
Employment rate (% working-age population)	35.5	39.7	41.4	43.6	44.9	42.3	43.4	45.7	48.7
FTE employment rate (% working-age population)	na	35.9	37.1	38.3	38.7	37.9	39.6	38.5	41.2
Self-employed (% total employment)	na	6.3	7.4	17.9	8.2	6.7	6.3	5.6	8.5
Employed part-time (% total employment)	na	16.0	16.7	17.9	19.7	18.3	20.6	22.2	24.6
Employed on fixed term contracts (%)	na	7.0	4.9	4.9	4.4	3.1	2.7	3.7	4.4
Share of employment in agriculture (%)	na	3.8	3.3	2.9	3.3	1.7	1.6	1.6	1.4
Share of employment in industry (%)	na	10.1	8.6	9.9	8.2	6.7	6.3	6.3	7.2
Share of employment in services (%)	na	86.1	88.1	87.2	88.5	91.7	92.1	92.1	91.3
Activity rate (% working-age population)	36.0	41.9	42.8	45.0	47.5	45.8	47.5	47.6	50.4
Total unemployed (000)	0.3	2.3	1.4	1.4	2.5	2.7	2.6	2.7	2.3
Unemployment rate (%)	0.6	4.4	2.5	2.3	4.1	4.3	4.0	4.0	3.3
Youth unemployed (% population 15-24)	na	3.9	2.1	1.7	2.9	3.3	3.3	2.5	2.5
Long-term unemployment rate (% labour force)	na	na	na	na	na	na	na	na	na

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.

Key employment indicators in the Netherlands

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	13666	14492	14952	15070	15383	15531	15609	15707	15814
Population of working-age (15-64) (000)	8561	9744	10157	10234	10427	10509	10552	10593	10647
Total employment (000)	5542	5819	6510	6630	6767	7020	7241	7420	7605
Annual change in employment (%)	-	0.5	2.3	1.8	0.7	2.3	3.1	2.5	2.5
Employment rate (% working-age population)	63.8	59.3	63.3	64.1	64.3	66.2	68.0	69.5	70.9
FTE employment rate (% working-age population)	na	51.8	51.2	51.9	51.4	52.4	54.1	55.3	56.3
Self-employed (% total employment)	10.3	9.1	10.0	9.8	11.1	11.2	11.3	10.8	10.7
Employed part-time (% total employment)*	na	29.4	31.7	32.5	36.4	38.1	38.0	38.8	39.4
Employed on fixed term contracts (%)	na	7.5	7.6	7.7	10.9	12.0	11.4	12.7	12.0
Share of employment in agriculture (%)	5.7	5.3	4.7	4.4	4.0	3.8	3.7	3.5	3.2
Share of employment in industry (%)	34.9	28.2	26.3	25.6	23.3	23.2	22.9	22.8	22.3
Share of employment in services (%)	59.4	66.5	69.1	70.1	72.7	73.1	73.4	73.8	74.5
Activity rate (% working-age population)	64.5	64.5	68.2	68.7	69.9	71.3	72.4	73.0	73.9
Total unemployed (000)	205	467	414	397	517	468	395	312	261
Unemployment rate (%)	4.3	8.3	6.2	5.8	7.1	6.3	5.2	4.0	3.3
Youth unemployed (% population 15-24)	na	6.0	5.0	4.9	6.9	7.2	6.0	5.2	4.8
Long-term unemployment rate (% labour force)	na	4.7	2.9	2.5	3.5	3.2	2.6	1.9	1.4
Men									
Total population (000)	6804	7167	7389	7450	7607	7680	7717	7767	7820
Population of working-age (15-64) (000)	4312	4907	5121	5169	5279	5331	5352	5370	5393
Total employment (000)	4042	3833	4046	4087	4013	4138	4246	4331	4374
Annual change in employment (%)	-	-0.5	1.1	1.0	-0.6	2.2	2.6	2.0	1.0
Employment rate (% working-age population)	92.3	77.5	77.9	78.0	75.2	76.7	78.5	79.8	80.4
FTE employment rate (% working-age population)	na	76.0	71.7	71.8	69.7	70.7	72.4	73.5	74.1
Self-employed (% total employment)	na	11.6	11.3	11.0	12.9	13.2	13.4	12.9	12.6
Employed part-time (% total employment)*	na	13.7	14.9	15.5	16.1	3.9	17.0	18.1	17.9
Employed on fixed term contracts (%)	na	5.9	6.1	5.9	7.9	9.1	8.8	10.2	9.4
Share of employment in agriculture (%)	na	6.4	5.4	5.2	5.0	4.8	4.6	4.2	3.9
Share of employment in industry (%)	na	36.7	35.6	34.8	32.7	32.1	32.1	31.6	31.4
Share of employment in services (%)	na	56.9	59.0	60.0	62.3	63.1	63.2	64.1	64.7
Activity rate (% working-age population)	93.4	83.3	82.4	82.3	81.1	81.6	82.5	83.2	83.0
Total unemployed (000)	149	254	176	169	268	214	170	138	101
Unemployment rate (%)	3.6	6.9	4.3	4.1	6.3	4.9	3.9	3.1	2.3
Youth unemployed (% population 15-24)	na	5.7	4.4	4.4	7.5	6.8	5.3	5.2	3.3
Long-term unemployment rate (% labour force)	na	4.1	2.2	2.1	3.2	2.7	2.0	1.6	1.1
Women									
Total population (000)	6862	7325	7563	7620	7776	7851	7891	7941	7994
Population of working-age (15-64) (000)	4248	4837	5036	5065	5148	5178	5201	5223	5253
Total employment (000)	1500	1986	2465	2544	2755	2882	2995	3090	3231
Annual change in employment (%)	-	2.8	4.4	3.2	2.7	2.5	3.9	3.2	4.6
Employment rate (% working-age population)	34.9	40.9	48.6	49.8	53.2	55.5	57.3	59.0	61.3
FTE employment rate (% working-age population)	na	27.3	30.4	31.6	32.7	33.6	35.3	36.6	38.1
Self-employed (% total employment)	na	4.3	7.7	59.8	8.5	8.2	8.3	7.8	10.7
Employed part-time (% total employment)*	na	57.5	59.5	59.8	66.0	68.5	67.9	67.9	68.6
Employed on fixed term contracts (%)	na	10.8	10.2	10.6	15.0	15.9	14.9	16.1	15.4
Share of employment in agriculture (%)	na	3.1	3.4	3.0	2.5	2.3	2.4	2.4	2.3
Share of employment in industry (%)	na	11.9	11.1	10.8	9.5	9.6	9.4	10.0	9.6
Share of employment in services (%)	na	85.0	85.5	86.1	87.9	88.1	88.3	87.6	88.1
Activity rate (% working-age population)	35.2	45.5	53.7	54.7	58.3	60.6	61.9	62.5	64.5
Total unemployed (000)	56	213	238	228	249	254	225	174	160
Unemployment rate (%)	3.6	10.7	9.1	8.4	8.3	8.1	7.0	5.3	4.7
Youth unemployed (% population 15-24)	na	6.2	5.6	5.4	6.4	7.7	6.9	5.3	6.4
Long-term unemployment rate (% labour force)	na	5.6	3.8	3.1	4.1	3.8	3.4	2.4	1.9

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.
** 1985 data relate to 1987*

Key employment indicators in Austria

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	7579	7578	7729	7813	8030	8059	8072	8078	8086
Population of working-age (15-64) (000)	4627	5042	5130	5218	5306	5314	5320	5331	5344
Total employment (000)	3389	3411	3544	3602	3601	3588	3607	3640	3678
Annual change in employment (%)	-	0.1	0.8	1.6	-0.0	-0.6	0.5	0.9	1.0
Employment rate (% working-age population)	72.9	67.3	68.8	68.8	66.6	66.8	67.1	67.7	68.2
FTE employment rate (% working-age population)	na	63.7	65.1	65.1	63.1	62.4	62.7	62.9	62.9
Self-employed (% total employment)	13.7	11.3	11.3	11.0	10.8	10.8	10.8	11.0	10.9
Employed part-time (% total employment)	na	11.1	13.3	12.9	13.9	14.9	14.7	15.8	16.8
Employed on fixed term contracts (%)*	na	na	na	na	6.0	8.0	7.8	7.8	7.5
Share of employment in agriculture (%)	12.5	9.0	7.9	7.8	7.4	7.4	6.9	6.5	6.2
Share of employment in industry (%)	40.9	38.0	36.8	37.2	34.5	30.3	29.6	29.6	29.8
Share of employment in services (%)	46.5	52.3	55.3	55.0	58.0	62.3	63.5	64.0	64.0
Activity rate (% working-age population)	68.2	70.1	71.3	71.5	70.7	70.6	70.9	71.5	71.5
Total unemployed (000)	52	121	114	128	152	165	167	170	143
Unemployment rate (%)	1.7	3.6	3.2	3.4	4.0	4.3	4.4	4.5	3.7
Youth unemployed (% population 15-24)	na	na	na	3.3	3.5	3.7	3.9	3.7	2.9
Long-term unemployment rate (% labour force)*	na	na	na	na	1.1	1.1	1.3	1.3	1.2
Men									
Total population (000)	3581	3599	3711	3763	3892	3910	3917	3920	3924
Population of working-age (15-64) (000)	2265	2471	2553	2612	2655	2659	2657	2661	2663
Total employment (000)	2089	2064	2097	2126	2065	2029	2035	2044	2063
Annual change in employment (%)	-	-0.1	0.3	1.4	-1.0	-0.9	0.3	0.4	0.9
Employment rate (% working-age population)	91.8	83.1	81.8	81.1	76.5	75.4	75.7	76.1	76.7
FTE employment rate (% working-age population)	na	83.5	82.2	81.5	76.8	74.8	75.2	75.7	76.1
Self-employed (% total employment)	na	12.4	13.1	12.5	12.3	12.4	12.6	12.8	12.5
Employed part-time (% total employment)	na	3.4	4.3	4.0	4.0	5.7	4.0	4.4	4.4
Employed on fixed term contracts (%)*	na	na	na	na	5.7	8.1	7.3	8.0	7.3
Share of employment in agriculture (%)	na	8.4	6.9	7.1	6.7	6.5	6.2	5.9	5.7
Share of employment in industry (%)	na	48.5	48.3	48.4	43.2	41.6	41.2	41.5	42.0
Share of employment in services (%)	na	43.2	44.8	44.6	50.1	51.9	52.6	52.6	52.3
Activity rate (% working-age population)	85.6	86.5	84.6	83.4	80.3	79.2	79.5	79.8	80.0
Total unemployed (000)	26	74	63	53	66	78	78	80	67
Unemployment rate (%)	1.2	3.5	2.9	2.4	3.1	3.7	3.7	3.8	3.1
Youth unemployed (% population 15-24)	na	na	na	2.4	3.4	3.2	3.3	3.0	2.3
Long-term unemployment rate (% labour force)*	na	na	na	na	0.8	0.9	1.1	1.0	0.9
Women									
Total population (000)	3998	3980	4018	4050	4138	4149	4155	4158	4162
Population of working-age (15-64) (000)	2362	2571	2577	2606	2651	2656	2663	2669	2681
Total employment (000)	1299	1347	1447	1476	1536	1559	1572	1596	1615
Annual change in employment (%)	-	0.4	1.4	2.0	1.3	-0.1	0.8	1.5	1.2
Employment rate (% working-age population)	54.7	52.1	55.9	56.4	56.8	58.1	58.4	59.2	59.7
FTE employment rate (% working-age population)	na	45.3	48.6	49.0	49.4	50.0	50.3	50.1	49.9
Self-employed (% total employment)	na	9.7	8.9	24.9	8.8	8.8	8.4	8.7	10.9
Employed part-time (% total employment)	na	23.1	25.4	24.9	26.9	28.8	29.0	30.3	32.6
Employed on fixed term contracts (%)*	na	na	na	na	6.3	7.9	8.4	7.7	7.8
Share of employment in agriculture (%)	na	10.6	9.3	8.7	8.2	8.6	7.8	7.2	6.9
Share of employment in industry (%)	na	22.4	21.3	22.3	17.6	15.6	14.6	14.3	14.1
Share of employment in services (%)	na	66.9	69.3	68.9	74.3	75.8	77.6	78.5	79.0
Activity rate (% working-age population)	51.5	54.2	58.1	59.5	61.2	62.0	62.4	63.2	63.1
Total unemployed (000)	26	47	51	75	85	87	89	91	76
Unemployment rate (%)	2.0	3.4	3.4	4.8	5.3	5.2	5.4	5.4	4.5
Youth unemployed (% population 15-24)	na	na	na	4.2	3.7	4.1	4.4	4.4	3.5
Long-term unemployment rate (% labour force)*	na	na	na	na	1.6	1.5	1.5	1.8	1.6

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.
** 1994 data relate to 1995.*

Key employment indicators in Portugal

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	9094	10011	9896	9867	9902	9927	9946	9968	9991
Population of working-age (15-64) (000)	5857	6537	6781	6814	6750	6728	6706	6740	6771
Total employment (000)	4529	4375	4612	4741	4520	4553	4624	4744	4830
Annual change in employment (%)	-	-0.3	1.1	2.8	-1.6	1.5	1.6	2.6	1.8
Employment rate (% working-age population)	72.2	64.0	64.9	66.3	64.0	64.0	64.8	66.5	67.4
FTE employment rate (% working-age population)	na	62.8	63.7	64.9	62.1	62.3	62.7	63.5	64.6
Self-employed (% total employment)*	27.7	26.2	25.8	26.4	25.3	26.8	26.9	25.9	24.9
Employed part-time (% total employment)*	na	6.7	6.7	7.9	9.0	9.7	11.1	11.0	11.0
Employed on fixed term contracts (%)*	na	13.8	17.5	15.7	13.4	15.1	17.4	17.4	18.6
Share of employment in agriculture (%)*	33.9	22.2	18.7	18.0	12.2	12.6	13.7	13.7	12.6
Share of employment in industry (%)*	33.8	39.0	39.2	39.2	37.5	36.1	35.7	35.8	35.3
Share of employment in services (%)*	32.3	38.8	42.1	42.9	50.3	51.3	50.6	50.5	52.1
Activity rate (% working-age population)	71.8	73.3	71.3	72.5	71.9	72.9	73.9	74.2	74.7
Total unemployed (000)	189	414	224	201	331	349	331	258	229
Unemployment rate (%)	4.6	9.2	4.8	4.2	6.9	7.3	6.8	5.2	4.5
Youth unemployed (% population 15-24)	na	12.4	5.6	4.6	6.7	7.2	6.7	5.1	4.3
Long-term unemployment rate (% labour force)*	na	4.9	2.1	1.6	3.0	3.9	3.8	2.3	1.9
Men									
Total population (000)	4306	4828	4771	4756	4769	4781	4789	4800	4811
Population of working-age (15-64) (000)	2813	3140	3259	3270	3233	3247	3231	3288	3307
Total employment (000)	2799	2647	2680	2716	2524	2522	2544	2629	2651
Annual change in employment (%)	-	-0.6	0.3	1.3	-2.4	1.5	0.9	3.3	0.8
Employment rate (% working-age population)	92.4	80.4	78.2	78.6	74.2	72.9	73.5	75.4	75.6
FTE employment rate (% working-age population)	na	81.2	79.7	80.4	12.9	75.4	75.6	76.0	76.2
Self-employed (% total employment)*	na	25.9	25.7	26.5	27.0	28.9	28.3	27.6	26.4
Employed part-time (% total employment)*	na	3.7	3.7	4.3	5.1	11.2	6.1	6.1	6.3
Employed on fixed term contracts (%)*	na	12.5	15.5	13.7	12.0	14.4	16.5	16.5	17.1
Share of employment in agriculture (%)*	na	19.6	16.6	15.6	11.4	11.8	12.3	12.3	11.2
Share of employment in industry (%)*	na	45.0	44.9	45.8	44.1	43.4	44.6	44.6	44.4
Share of employment in services (%)*	na	35.4	38.6	38.6	44.5	44.8	43.1	43.1	44.4
Activity rate (% working-age population)	91.9	89.9	84.9	85.4	83.0	82.9	83.7	83.4	83.4
Total unemployed (000)	103	175	87	76	160	170	162	113	108
Unemployment rate (%)	3.6	6.7	3.3	2.8	6.1	6.5	6.1	4.1	3.9
Youth unemployed (% population 15-24)	na	11.3	5.1	3.9	6.5	6.8	5.9	4.3	3.6
Long-term unemployment rate (% labour force)*	na	3.2	1.2	0.9	2.6	3.3	3.3	1.8	1.5
Women									
Total population (000)	4788	5183	5125	5110	5133	5147	5157	5168	5180
Population of working-age (15-64) (000)	3044	3397	3522	3544	3517	3482	3475	3451	3465
Total employment (000)	1729	1728	1932	2025	1997	2031	2080	2114	2179
Annual change in employment (%)	-	-0.0	2.3	4.8	-0.5	1.5	2.4	1.7	3.1
Employment rate (% working-age population)	53.6	48.8	52.7	54.9	54.7	55.7	56.7	58.1	59.6
FTE employment rate (% working-age population)	na	45.7	48.8	50.5	49.1	50.1	50.9	51.7	53.4
Self-employed (% total employment)*	na	26.6	25.9	12.6	23.1	24.2	25.1	23.7	24.9
Employed part-time (% total employment)*	na	11.4	10.7	11.0	13.8	15.0	17.2	17.2	16.7
Employed on fixed term contracts (%)*	na	15.6	20.1	18.2	15.1	16.0	18.5	18.5	20.4
Share of employment in agriculture (%)*	na	26.2	21.6	21.1	13.2	13.6	15.4	15.4	14.4
Share of employment in industry (%)*	na	29.9	31.5	30.4	29.2	26.9	24.8	24.8	24.1
Share of employment in services (%)*	na	43.9	47.0	48.5	57.6	59.5	59.8	59.8	61.5
Activity rate (% working-age population)	53.2	57.9	58.7	60.7	61.6	63.5	64.7	65.5	66.4
Total unemployed (000)	86	239	137	125	171	179	169	146	120
Unemployment rate (%)	4.7	12.7	6.8	5.9	8.0	8.3	7.7	6.4	5.2
Youth unemployed (% population 15-24)	na	13.5	6.0	5.3	6.9	7.6	7.6	5.9	4.9
Long-term unemployment rate (% labour force)*	na	7.3	3.3	2.4	3.5	4.5	4.4	3.0	2.2

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.
** 1985 data relate to 1986.*

Key employment indicators in Finland

Total	1975	1985	1990	1991	1994	1996	1997	1998	1999
Total population (000)	4711	4902	4986	5014	5088	5125	5140	5154	5166
Population of working-age (15-64) (000)	3104	3266	3282	3305	3331	3384	3400	3415	3438
Total employment (000)	2403	2522	2560	2415	2077	2141	2211	2255	2333
Annual change in employment (%)	-	0.5	0.3	-5.6	-4.9	1.4	3.3	2.0	3.5
Employment rate (% working-age population)	74.7	75.9	77.0	72.2	61.7	62.7	64.3	65.5	67.5
FTE employment rate (% working-age population)	na	71.3	72.4	67.8	58.0	59.1	61.2	62.0	63.6
Self-employed (% total employment)	na	13.9	14.1	14.1	15.0	15.1	14.4	14.0	13.0
Employed part-time (% total employment)	na	11.5	9.5	10.3	11.8	11.6	11.4	11.7	12.2
Employed on fixed term contracts (%)*	na	10.4	na	11.8	16.5	17.3	17.1	17.7	18.2
Share of employment in agriculture (%)	14.9	11.0	8.2	8.2	8.1	7.9	7.8	7.1	6.4
Share of employment in industry (%)	36.1	31.8	30.9	29.5	26.4	27.1	27.4	28.2	27.7
Share of employment in services (%)	49.0	56.9	60.9	62.3	65.4	65.0	64.8	64.6	65.9
Activity rate (% working-age population)	75.8	81.9	80.5	78.2	74.6	74.0	74.3	74.4	75.4
Total unemployed (000)	57	152	82	169	408	363	314	285	261
Unemployment rate (%)	2.4	6.0	3.2	6.6	16.6	14.6	12.7	11.4	10.2
Youth unemployed (% population 15-24)	na	5.5	5.3	9.4	14.4	12.1	11.6	11.2	10.9
Long-term unemployment rate (% labour force)*	na	na	na	na	5.7	5.2	3.8	3.2	2.3
Men									
Total population (000)	2278	2374	2420	2435	2476	2496	2505	2513	2520
Population of working-age (15-64) (000)	1540	1624	1643	1655	1669	1707	1707	1713	1727
Total employment (000)	1279	1304	1338	1248	1069	1117	1163	1186	1223
Annual change in employment (%)	-	0.2	0.5	-6.7	-5.1	2.7	4.1	1.9	3.2
Employment rate (% working-age population)	79.3	78.9	80.3	74.3	63.2	64.8	67.1	68.5	70.3
FTE employment rate (% working-age population)	na	78.0	79.4	73.5	62.5	64.3	67.8	68.7	70.0
Self-employed (% total employment)	na	16.7	17.7	18.1	19.6	19.9	19.6	19.1	16.8
Employed part-time (% total employment)	na	6.2	5.8	7.0	8.1	8.2	7.6	6.9	7.9
Employed on fixed term contracts (%)*	na	9.6	na	9.8	13.4	14.1	15.3	13.3	15.2
Share of employment in agriculture (%)	15.4	13.6	10.1	10.2	10.0	9.9	10.0	9.4	8.2
Share of employment in industry (%)	48.0	43.1	43.4	41.9	39.6	39.2	39.6	40.1	40.0
Share of employment in services (%)	36.6	43.3	46.5	47.9	50.4	51.0	50.4	50.6	51.8
Activity rate (% working-age population)	81.3	85.2	84.4	81.8	78.1	76.4	77.5	77.6	78.4
Total unemployed (000)	30	79	49	106	235	186	160	143	130
Unemployment rate (%)	2.3	6.1	3.6	8.0	18.1	14.3	12.3	10.9	9.8
Youth unemployed (% population 15-24)	na	5.5	6.0	11.1	16.2	13.5	12.4	11.4	10.9
Long-term unemployment rate (% labour force)*	na	na	na	na	6.6	5.8	4.0	3.5	2.3
Women									
Total population (000)	2434	2529	2567	2579	2612	2628	2635	2641	2646
Population of working-age (15-64) (000)	1564	1641	1640	1649	1663	1677	1693	1701	1711
Total employment (000)	1124	1218	1222	1167	1009	1024	1047	1069	1109
Annual change in employment (%)	-	0.8	0.1	-4.5	-4.7	0.1	2.3	2.1	3.8
Employment rate (% working-age population)	70.1	73.1	73.8	70.0	60.2	60.6	61.5	62.5	64.7
FTE employment rate (% working-age population)	na	64.7	65.4	62.0	53.3	53.8	54.8	55.3	57.1
Self-employed (% total employment)	na	10.9	10.2	13.9	10.2	9.8	8.7	8.4	13.0
Employed part-time (% total employment)	na	17.2	13.5	13.9	15.7	15.7	15.7	16.9	17.0
Employed on fixed term contracts (%)*	na	11.2	na	13.6	19.5	20.5	18.9	21.9	21.2
Share of employment in agriculture (%)	14.3	8.8	6.0	6.1	5.3	5.7	5.3	4.7	4.4
Share of employment in industry (%)	22.5	19.7	17.3	16.2	14.9	13.9	13.9	15.1	14.2
Share of employment in services (%)	63.2	71.5	76.7	77.7	79.8	80.3	80.8	80.2	81.4
Activity rate (% working-age population)	70.4	78.7	76.5	74.5	71.1	71.6	71.0	71.2	72.5
Total unemployed (000)	27	73	33	62	174	176	154	142	131
Unemployment rate (%)	2.4	6.0	2.7	5.1	14.8	14.9	13.0	12.0	10.7
Youth unemployed (% population 15-24)	na	5.5	4.6	7.7	12.5	10.7	10.9	10.9	10.9
Long-term unemployment rate (% labour force)*	na	na	na	na	4.8	4.6	3.5	2.8	2.3

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.
**1994 data relate to 1995.*

Key employment indicators in Sweden

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	8193	8350	8559	8617	8781	8841	8846	8851	8858
Population of working-age (15-64) (000)	5163	5295	5415	5434	5502	5636	5647	5660	5664
Total employment (000)	3983	4195	4417	4350	3909	3939	3916	3966	4054
Annual change in employment (%)	-	0.5	1.0	-1.5	-3.5	-0.6	-0.6	1.3	2.2
Employment rate (% working-age population)	75.7	78.9	80.7	78.9	69.9	68.8	68.3	69.0	70.6
FTE employment rate (% working-age population)	na	70.8	72.4	70.8	62.7	61.4	61.2	62.0	63.1
Self-employed (% total employment)*	7.2	9.5	9.3	9.2	11.1	11.7	11.2	10.9	11.0
Employed part-time (% total employment)*	na	25.6	23.6	23.8	25.0	24.5	24.4	23.9	23.8
Employed on fixed term contracts (%)*	na	na	10.0	9.8	12.5	11.8	12.1	12.9	13.9
Share of employment in agriculture (%)*	6.4	na	3.7	3.6	3.3	3.3	3.2	3.0	3.0
Share of employment in industry (%)*	36.5	na	28.9	28.0	25.8	25.9	25.6	25.9	25.0
Share of employment in services (%)*	57.1	na	67.3	68.3	71.0	70.9	71.2	71.1	72.0
Activity rate (% working-age population)	78.2	81.6	83.0	82.7	78.5	77.4	77.1	76.6	77.2
Total unemployed (000)	72	128	80	143	412	426	437	368	319
Unemployment rate (%)	1.7	2.9	1.7	3.1	9.4	9.6	9.9	8.3	7.2
Youth unemployed (% population 15-24)	na	4.2	3.0	4.9	11.7	9.4	9.3	7.4	6.1
Long-term unemployment rate (% labour force)	na	0.3	0.1	0.1	1.9	1.8	3.4	3.1	2.1
Men									
Total population (000)	4075	4124	4228	4257	4339	4368	4371	4374	4378
Population of working-age (15-64) (000)	2616	2684	2748	2759	2794	2864	2870	2875	2878
Total employment (000)	2297	2222	2297	2256	2014	2039	2047	2099	2123
Annual change in employment (%)	-	-0.3	0.7	-1.8	-3.7	-0.9	0.4	2.5	1.2
Employment rate (% working-age population)	85.7	82.0	82.4	80.0	70.2	69.7	69.7	71.2	72.1
FTE employment rate (% working-age population)	na	80.1	80.5	78.1	68.6	67.3	67.4	68.7	69.4
Self-employed (% total employment)*	10.4	13.3	13.4	13.5	16.2	16.9	16.0	15.2	15.7
Employed part-time (% total employment)*	na	6.8	7.4	7.6	9.1	4.3	9.3	9.2	9.4
Employed on fixed term contracts (%)*	na	na	7.3	7.4	10.5	10.1	10.1	10.6	11.2
Share of employment in agriculture (%)*	8.2	na	5.5	5.3	4.8	4.7	4.7	4.4	4.3
Share of employment in industry (%)*	49.3	na	42.8	41.9	38.9	38.8	38.2	37.7	37.3
Share of employment in services (%)*	42.4	na	51.7	52.8	56.3	56.5	57.1	57.9	58.4
Activity rate (% working-age population)	88.7	85.4	85.1	84.8	80.9	79.4	79.6	79.9	79.6
Total unemployed (000)	35	70	42	83	248	236	238	199	169
Unemployment rate (%)	1.5	3.0	1.7	3.4	10.8	10.1	10.2	8.6	7.2
Youth unemployed (% population 15-24)	na	4.3	3.1	5.4	13.3	9.9	9.7	7.7	6.0
Long-term unemployment rate (% labour force)	na	0.3	0.1	0.1	1.3	2.2	3.6	3.5	2.3
Women									
Total population (000)	4118	4227	4331	4360	4442	4473	4475	4477	4480
Population of working-age (15-64) (000)	2547	2611	2667	2675	2708	2773	2778	2785	2786
Total employment (000)	1687	1974	2120	2094	1896	1901	1869	1867	1931
Annual change in employment (%)	-	1.6	1.4	-1.2	-3.3	-0.2	-1.6	-0.1	3.4
Employment rate (% working-age population)	65.5	75.6	78.9	77.7	69.5	67.9	66.8	66.6	69.0
FTE employment rate (% working-age population)	na	61.5	64.1	63.2	56.5	55.3	54.8	55.0	56.5
Self-employed (% total employment)*	2.8	5.2	4.8	41.8	5.8	6.1	6.0	6.0	11.0
Employed part-time (% total employment)*	na	46.6	41.8	41.8	42.2	41.8	41.4	40.7	40.0
Employed on fixed term contracts (%)*	na	na	12.7	12.2	14.4	13.4	14.0	15.2	16.6
Share of employment in agriculture (%)*	4.0	na	1.8	1.9	1.6	1.7	1.7	1.5	1.5
Share of employment in industry (%)*	19.0	na	13.8	13.0	11.6	12.1	11.7	12.7	11.5
Share of employment in services (%)*	77.1	na	84.3	85.1	86.8	86.2	86.6	85.8	87.0
Activity rate (% working-age population)	67.4	77.8	80.9	80.6	76.0	75.4	74.5	73.1	74.7
Total unemployed (000)	37	58	38	60	164	190	199	168	150
Unemployment rate (%)	2.1	2.8	1.7	2.8	7.8	9.0	9.5	8.1	7.1
Youth unemployed (% population 15-24)	na	4.0	2.9	4.4	10.0	8.9	8.8	7.1	6.1
Long-term unemployment rate (% labour force)	na	0.3	0.1	0.1	0.7	1.4	3.0	2.7	1.7

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.
** 1985 data relate to 1987.*

Key employment indicators in the United Kingdom

Total	**1975**	**1985**	**1990**	**1991**	**1994**	**1996**	**1997**	**1998**	**1999**
Total population (000)	56226	56685	57561	57808	58293	58704	59009	59128	59318
Population of working-age (15-64) (000)	34765	36706	37016	37034	37286	37511	37572	37671	38106
Total employment (000)	25050	24534	26848	26037	25580	26288	26766	27039	27361
Annual change in employment (%)	-	-0.2	1.8	-3.0	-0.6	1.2	1.8	1.0	1.2
Employment rate (% working-age population)	70.8	65.7	71.3	69.1	67.5	69.0	70.1	70.6	70.6
FTE employment rate (% working-age population)	na	57.6	62.2	60.1	57.6	58.7	59.5	60.1	60.6
Self-employed (% total employment)	8.1	11.6	13.5	13.2	12.9	12.6	12.4	12.1	11.7
Employed part-time (% total employment)	na	21.2	21.7	22.2	23.8	24.6	24.9	24.9	24.8
Employed on fixed term contracts (%)	na	7.0	5.2	5.3	6.5	7.1	7.4	7.1	6.8
Share of employment in agriculture (%)	2.8	2.4	2.2	2.3	2.1	2.0	1.9	1.7	1.6
Share of employment in industry (%)	40.4	34.6	32.3	31.2	27.8	27.4	26.9	26.7	26.0
Share of employment in services (%)	56.8	63.0	65.5	66.5	70.1	70.6	71.2	71.6	72.4
Activity rate (% working-age population)	73.7	74.8	77.3	76.5	75.3	75.7	76.0	76.0	76.3
Total unemployed (000)	821	3152	2021	2537	2737	2346	2026	1830	1766
Unemployment rate (%)	3.2	11.5	7.0	8.8	9.6	8.2	7.0	6.3	6.1
Youth unemployed (% population 15-24)	na	13.0	7.7	10.1	11.2	10.2	9.4	9.1	8.8
Long-term unemployment rate (% labour force)	na	5.6	2.3	2.5	4.4	3.3	2.7	2.1	1.8
Men									
Total population (000)	27361	27611	28118	28246	28533	28792	28990	29063	29181
Population of working-age (15-64) (000)	17337	18333	18528	18535	18740	18886	18899	18956	19185
Total employment (000)	15488	14319	15243	14658	14111	14484	14770	14964	15101
Annual change in employment (%)	-	-0.8	1.3	-3.8	-1.3	0.7	2.0	1.3	0.9
Employment rate (% working-age population)	87.7	76.7	80.7	77.6	73.9	75.3	76.7	77.5	77.2
FTE employment rate (% working-age population)	na	77.4	81.2	77.8	73.1	74.2	75.2	75.9	75.9
Self-employed (% total employment)	10.6	14.9	18.1	17.8	17.6	17.1	16.9	16.1	15.8
Employed part-time (% total employment)	na	4.4	5.3	5.5	7.1	2.2	8.8	8.8	8.9
Employed on fixed term contracts (%)	na	5.7	3.7	3.9	5.5	6.0	6.5	6.0	6.2
Share of employment in agriculture (%)	3.6	3.1	3.0	3.2	2.9	2.6	2.5	2.4	2.2
Share of employment in industry (%)	49.8	45.5	43.7	42.5	38.8	38.5	38.0	37.7	37.0
Share of employment in services (%)	46.5	51.4	53.3	54.3	58.3	58.9	59.5	59.9	60.8
Activity rate (% working-age population)	92.0	87.7	88.0	87.0	84.2	84.1	84.1	84.2	84.1
Total unemployed (000)	608	1894	1207	1608	1800	1530	1263	1128	1082
Unemployment rate (%)	3.8	11.8	7.4	9.9	11.2	9.5	7.9	7.0	6.7
Youth unemployed (% population 15-24)	na	15.0	9.0	12.4	13.7	12.6	11.2	10.7	10.4
Long-term unemployment rate (% labour force)	na	6.4	3.0	3.2	5.7	4.4	3.5	2.7	2.3
Women									
Total population (000)	28865	29074	29443	29562	29760	29912	30019	30065	30137
Population of working-age (15-64) (000)	17428	18373	18488	18499	18547	18625	18673	18714	18922
Total employment (000)	9562	10216	11605	11379	11469	11804	11996	12074	12260
Annual change in employment (%)	-	0.7	2.6	-1.9	0.3	1.8	1.6	0.7	1.5
Employment rate (% working-age population)	54.1	54.8	61.9	60.7	61.0	62.5	63.4	63.6	63.9
FTE employment rate (% working-age population)	na	37.8	43.1	42.2	41.9	42.9	43.7	44.0	45.1
Self-employed (% total employment)	4.1	6.9	7.5	43.7	7.2	7.0	7.2	7.2	11.7
Employed part-time (% total employment)	na	44.8	43.2	43.7	44.4	44.8	44.9	44.8	44.4
Employed on fixed term contracts (%)	na	8.8	7.0	7.0	7.5	8.2	8.4	8.3	7.5
Share of employment in agriculture (%)	1.5	1.3	1.1	1.1	1.2	1.2	1.1	0.9	0.8
Share of employment in industry (%)	25.5	19.5	17.3	16.7	14.2	13.9	13.2	13.0	12.6
Share of employment in services (%)	73.1	79.2	81.5	82.2	84.6	85.0	85.7	86.1	86.7
Activity rate (% working-age population)	55.6	61.9	66.6	66.0	66.3	67.2	67.7	67.7	68.3
Total unemployed (000)	213	1258	814	930	936	816	763	701	683
Unemployment rate (%)	2.2	11.1	6.6	7.5	7.5	6.5	6.0	5.5	5.3
Youth unemployed (% population 15-24)	na	11.0	6.4	7.7	8.5	7.7	7.6	7.4	7.1
Long-term unemployment rate (% labour force)	na	4.4	1.5	1.6	2.6	1.8	1.7	1.3	1.1

Notes: See Sources at the end of these tables.
The annual change in employment for 1985 relates to the average change 1975-85 and for 1990 to the average change 1985-90.

Macroeconomic indicators: output, employment, productivity and labour costs

Annual average % change

	1975-85	1985-90	1990-99	1990-94	1994-99	1994-95	1995-96	1996-97	1997-98	1998-99
European Union										
GDP growth	2.3	3.2	1.8	1.3	2.3	2.3	1.6	2.5	2.6	2.3
Number employed	0.1	1.4	0.2	-0.7	0.9	0.7	0.4	0.7	1.3	1.4
Average hours worked	-	-0.4	-0.3	-0.3	-0.3	-0.2	-0.1	-0.2	-0.3	-0.5
GDP/number employed	2.2	1.7	1.6	1.9	1.3	1.6	1.1	1.7	1.3	0.9
GDP/total hours worked	-	2.1	1.9	2.3	1.6	1.8	1.2	2.0	1.6	1.4
Consumer prices	10.3	4.4	3.0	4.1	2.1	3.1	2.5	2.1	1.8	1.3
Average earnings	11.6	6.4	4.1	5.5	3.0	3.5	3.4	3.0	2.4	2.7
Average real earnings	1.2	1.9	1.1	1.4	0.8	0.4	0.9	0.9	0.7	1.4
Average real labour costs	1.5	1.4	1.1	0.8	0.8	0.4	0.9	1.0	0.4	1.1
Real unit labour costs	-1.1	-0.8	-0.7	-0.7	-0.7	-1.3	-0.5	-0.9	-0.9	0.1
Belgium										
GDP growth	1.9	3.0	1.9	1.2	2.4	2.5	1.0	3.5	2.7	2.3
Number employed	-0.4	0.9	0.3	-0.4	0.8	0.7	0.3	0.8	1.2	1.1
Average hours worked	-	-0.7	-0.3	-0.8	0.1	0.2	-0.5	0.2	1.2	-0.5
GDP/number employed	2.3	2.0	1.6	1.6	1.6	1.8	0.7	2.7	1.5	1.2
GDP/total hours worked	-	2.7	1.9	2.4	1.5	1.6	1.2	2.5	0.3	1.7
Consumer prices	6.7	2.1	2.0	2.7	1.4	1.5	2.1	1.6	1.0	1.1
Average earnings	7.9	4.0	3.5	5.3	2.1	2.3	1.2	2.8	2.1	2.1
Average real earnings	1.2	1.8	1.5	2.5	0.6	0.8	-0.9	1.2	1.1	0.9
Average real labour costs	2.1	0.8	1.4	2.2	0.7	0.5	0.0	1.4	0.5	1.0
Real unit labour costs	-0.2	-1.2	-0.2	0.6	-0.9	-1.3	-0.6	-1.2	-0.9	-0.2
Denmark										
GDP growth	2.6	1.2	2.2	1.8	2.5	2.8	2.5	3.1	2.5	1.6
Number employed	0.8	0.3	0.4	-0.4	1.0	0.5	0.7	1.0	2.0	1.0
Average hours worked	-	-0.7	0.1	0.4	-0.2	-1.1	-0.3	-0.6	-0.0	1.3
GDP/number employed	1.8	0.9	1.8	2.1	1.5	2.3	1.9	2.1	0.5	0.6
GDP/total hours worked	-	1.6	1.7	1.7	1.6	3.4	2.2	2.8	0.6	-0.7
Consumer prices	9.2	3.9	2.1	1.9	2.2	2.1	2.1	2.2	1.8	2.5
Average earnings	8.9	5.1	3.4	2.9	3.7	3.8	4.1	3.5	3.2	4.1
Average real earnings	-0.2	1.1	1.3	1.0	1.5	1.6	2.0	1.3	1.3	1.5
Average real labour costs	0.7	0.7	1.2	0.7	1.6	2.0	1.6	1.8	1.1	1.4
Real unit labour costs	-1.1	-0.2	-0.6	-1.4	0.1	-0.3	-0.3	-0.3	0.6	0.8
Germany										
GDP growth	2.2	3.4	1.8	2.1	1.5	1.7	0.8	1.5	2.2	1.5
Number employed	0.2	1.5	-0.2	-0.3	-0.2	-0.1	-0.8	-0.8	0.4	0.3
Average hours worked	-	-0.9	-0.4	-0.5	-0.3	-0.5	0.5	-0.5	-0.7	-0.4
GDP/number employed	2.0	1.9	2.0	2.4	1.7	1.8	1.5	2.3	1.8	1.2
GDP/total hours worked	-	2.8	2.4	2.9	2.0	2.3	1.1	2.8	2.5	1.5
Consumer prices	4.0	1.4	2.5	4.0	1.3	1.7	1.4	1.9	1.0	0.6
Average earnings	5.1	3.5	3.8	6.0	2.1	3.9	2.2	1.4	1.4	1.9
Average real earnings	1.1	2.1	1.3	1.9	0.8	2.1	0.8	-0.4	0.4	1.3
Average real labour costs	1.4	1.0	1.5	2.1	1.0	1.8	1.1	0.6	0.3	0.9
Real unit labour costs	-0.6	-0.8	-0.5	-0.3	-0.7	0.0	-0.4	-1.6	-1.4	-0.3
Greece										
GDP growth	2.1	1.2	2.1	1.0	3.0	2.1	2.4	3.4	3.7	3.5
Number employed	1.2	0.7	0.7	0.5	0.9	0.9	-0.4	-0.3	3.4	1.2
Average hours worked	-	-0.4	-0.1	0.0	-0.1	-0.4	0.1	-0.7	-0.1	0.5
GDP/number employed	1.0	0.5	1.4	0.6	2.0	1.2	2.8	3.8	0.3	2.2
GDP/total hours worked	-	1.0	1.4	0.5	2.2	1.6	2.7	4.5	0.4	1.8
Consumer prices	18.5	17.4	10.0	15.1	6.1	9.3	8.5	5.5	4.8	2.6
Average earnings	21.8	16.8	10.2	11.9	8.9	12.9	8.8	12.4	5.8	4.8
Average real earnings	2.8	-0.5	0.2	-2.8	2.6	3.3	0.3	6.5	1.0	2.1
Average real labour costs	2.2	-0.3	0.1	-2.7	2.4	2.8	1.4	5.4	0.8	1.8
Real unit labour costs	1.2	-0.8	-1.2	-3.2	0.4	1.6	-1.4	1.6	0.6	-0.4
Spain										
GDP growth	1.7	4.5	2.3	1.0	3.3	2.7	2.3	3.8	4.0	3.7
Number employed	-1.6	3.3	1.0	-1.0	2.6	1.8	1.3	2.8	3.6	3.4
Average hours worked	-	-0.2	-0.2	-0.3	-0.2	-0.3	-0.5	0.1	0.2	-0.4
GDP/number employed	3.3	1.2	1.3	2.0	0.7	0.9	1.0	1.1	0.4	0.3
GDP/total hours worked	-	1.4	1.6	2.4	0.9	1.1	1.6	1.0	0.2	0.7
Consumer prices	15.4	6.5	3.9	5.3	2.9	4.7	3.5	2.0	1.9	2.3
Average earnings	17.2	7.9	4.9	7.3	3.0	2.9	4.0	2.7	2.8	2.4
Average real earnings	1.6	1.4	0.9	2.0	0.1	-1.7	0.4	0.8	0.9	0.1
Average real labour costs	2.1	0.5	0.6	1.7	-0.2	-1.8	0.5	0.6	0.5	-0.7
Real unit labour costs	-1.1	-0.7	-0.7	-0.4	-0.9	-2.6	-0.6	-0.5	0.3	-1.1

Macroeconomic indicators: output, employment, productivity and labour costs

Annual average % change

	1975-85	1985-90	1990-99	1990-94	1994-99	1994-95	1995-96	1996-97	1997-98	1998-99
France										
GDP growth	2.4	3.1	1.6	0.9	2.1	1.7	1.1	2.0	3.2	2.8
Number employed	0.1	0.9	0.3	-0.4	0.8	0.8	0.3	0.3	1.2	1.5
Average hours worked	-	-0.4	-0.2	-0.0	-0.4	-0.6	-0.3	-0.2	-0.2	-0.6
GDP/number employed	2.2	2.2	1.3	1.3	1.3	0.9	0.8	1.7	2.0	1.3
GDP/total hours worked	-	2.6	1.6	1.3	1.7	1.5	1.1	1.8	2.2	2.0
Consumer prices	10.1	3.1	1.7	2.3	1.2	1.8	2.0	1.2	0.7	0.6
Average earnings	12.1	4.0	2.8	3.3	2.4	2.6	2.7	2.2	2.6	1.9
Average real earnings	1.8	0.9	1.1	1.0	1.1	0.8	0.6	1.0	1.9	1.3
Average real labour costs	2.3	0.6	1.2	1.1	1.2	0.9	1.2	0.8	1.6	1.5
Real unit labour costs	-0.1	-1.6	-0.4	-0.5	-0.4	-0.3	-0.1	-1.1	-0.5	0.2
Ireland										
GDP growth	3.5	4.6	6.5	3.4	9.0	9.5	7.7	10.7	8.9	8.3
Number employed	0.0	1.1	3.2	1.2	4.9	5.1	3.8	5.6	5.0	5.1
Average hours worked	-	-0.1	-0.9	-1.0	-0.9	-0.2	-0.2	-0.9	-2.2	-1.0
GDP/number employed	3.5	3.5	3.1	2.2	3.9	4.2	3.7	4.9	3.7	3.0
GDP/total hours worked	-	3.5	4.1	3.2	4.8	4.4	3.9	5.8	6.0	4.0
Consumer prices	13.2	3.3	2.2	2.5	2.0	2.6	1.7	1.5	2.4	1.7
Average earnings	15.4	5.6	4.7	5.0	4.5	1.8	3.4	5.6	4.7	7.0
Average real earnings	2.0	2.2	2.5	2.5	2.5	-0.8	1.7	4.1	2.2	5.2
Average real labour costs	2.3	2.3	1.4	2.1	0.9	-0.9	1.1	2.0	-0.9	3.3
Real unit labour costs	-1.1	-1.1	-1.8	-0.1	-3.1	-4.9	-2.7	-2.7	-4.5	-0.6
Italy										
GDP growth	3.0	2.9	1.4	0.9	1.8	2.9	1.1	1.8	1.5	1.4
Number employed	0.9	0.9	-0.1	-0.7	0.4	-0.1	0.4	0.1	0.6	1.0
Average hours worked	-	-0.0	0.1	0.4	-0.2	-0.3	0.3	-0.5	0.1	-0.4
GDP/number employed	2.1	2.0	1.4	1.5	1.4	3.0	0.7	1.7	0.9	0.5
GDP/total hours worked	-	2.0	1.4	1.2	1.5	3.3	0.4	2.2	0.9	0.9
Consumer prices	15.2	5.7	3.8	5.0	2.9	5.2	4.0	2.0	1.9	1.7
Average earnings	17.5	8.5	4.0	5.5	2.9	4.2	6.1	4.1	-1.8	1.9
Average real earnings	2.0	2.7	0.2	0.5	-0.1	-0.9	2.1	2.1	-3.6	0.2
Average real labour costs	1.4	1.3	0.0	0.6	-0.5	-0.8	0.8	1.7	-4.3	0.4
Real unit labour costs	-0.7	-0.8	-1.5	-1.2	-1.7	-3.6	0.0	0.2	-4.7	-0.0
Luxembourg										
GDP growth	2.4	6.4	5.3	5.9	4.8	3.8	2.9	7.3	5.0	5.0
Number employed	0.2	1.3	1.3	1.2	1.3	-2.4	2.5	2.4	0.9	3.2
Average hours worked	-	-0.1	-0.3	-0.3	-0.3	0.2	-0.8	-0.6	-1.0	0.5
GDP/number employed	2.2	5.1	3.9	4.6	3.4	6.4	0.4	4.7	4.0	1.7
GDP/total hours worked	-	5.2	4.2	4.9	3.8	6.2	1.2	5.3	5.1	1.1
Consumer prices	6.7	1.7	2.1	3.0	1.3	1.9	1.4	1.4	0.9	1.0
Average earnings	7.6	5.3	3.4	5.2	2.1	2.2	2.3	2.8	0.5	2.5
Average real earnings	0.9	3.5	1.3	2.1	0.7	0.3	0.8	1.4	-0.4	1.5
Average real labour costs	1.1	3.0	1.2	2.2	0.4	1.5	0.6	-0.5	-1.0	1.4
Real unit labour costs	-1.1	-0.2	-0.8	-0.9	-0.8	0.2	0.4	-4.3	-1.6	1.2
Netherlands										
GDP growth	1.9	3.1	2.7	2.1	3.2	2.3	3.0	3.8	3.7	3.5
Number employed	0.5	2.3	1.7	1.0	2.4	1.4	2.3	3.1	2.5	2.5
Average hours worked	-	-0.8	-0.2	-0.1	-0.3	-0.5	-0.4	0.0	-0.7	-0.2
GDP/number employed	1.4	0.8	1.0	1.1	0.9	0.8	0.7	0.6	1.2	1.0
GDP/total hours worked	-	1.7	1.2	1.2	1.2	1.4	1.1	0.6	1.8	1.2
Consumer prices	5.1	0.8	2.5	3.1	2.1	1.9	2.1	2.3	2.0	2.2
Average earnings	5.1	1.7	3.0	3.8	2.3	1.9	1.4	2.1	2.5	3.7
Average real earnings	-0.0	0.8	0.4	0.7	0.2	-0.1	-0.6	-0.2	0.5	1.4
Average real labour costs	0.5	0.8	1.0	1.5	0.6	0.0	0.3	0.1	0.6	2.1
Real unit labour costs	-1.5	-0.3	-0.2	-0.1	-0.2	-0.8	-0.2	-0.9	-0.4	1.1
Austria										
GDP growth	2.4	3.2	2.0	1.9	2.0	1.7	2.0	1.2	2.9	2.3
Number employed	0.1	0.8	0.4	0.4	0.4	0.2	-0.6	0.5	0.9	1.0
Average hours worked	-	-0.4	-0.3	-0.4	-0.2	0.0	-0.5	0.4	-0.2	-0.8
GDP/number employed	2.3	2.4	1.5	1.5	1.6	1.5	2.6	0.7	1.9	1.3
GDP/total hours worked	-	2.8	1.8	1.9	1.8	1.5	3.0	0.3	2.2	2.1
Consumer prices	5.1	2.2	2.3	3.5	1.4	2.3	1.8	1.3	0.9	0.6
Average earnings	7.4	4.5	3.4	5.0	2.1	2.9	1.1	0.6	2.9	2.8
Average real earnings	2.2	2.3	1.0	1.5	0.7	0.6	-0.7	-0.7	2.0	2.2
Average real labour costs	2.4	2.0	1.1	1.5	0.7	0.6	-0.2	-1.0	2.3	1.7
Real unit labour costs	0.1	-0.4	-0.5	0.0	-0.9	-0.9	-2.7	-1.6	0.3	0.5

Macroeconomic indicators: output, employment, productivity and labour costs

Annual average % change

	1975-85	1985-90	1990-99	1990-94	1994-99	1994-95	1995-96	1996-97	1997-98	1998-99
Portugal										
GDP growth	3.0	5.5	2.4	1.5	3.2	2.8	3.2	3.5	3.5	2.9
Number employed	-0.3	1.1	0.5	-0.5	1.3	-0.7	1.5	1.6	2.6	1.8
Average hours worked	-	-0.5	-0.9	-0.8	-1.0	0.6	-0.1	-2.2	-2.0	-1.1
GDP/number employed	3.3	4.4	1.9	2.0	1.8	3.6	1.7	1.9	0.9	1.1
GDP/total hours worked	-	4.9	2.8	2.8	2.8	3.0	1.8	4.2	3.0	2.2
Consumer prices	22.7	11.3	5.0	7.9	2.8	4.1	3.1	1.8	2.8	2.3
Average earnings	22.1	16.7	7.7	11.3	4.9	7.2	4.9	3.7	3.7	5.1
Average real earnings	-0.5	4.8	2.6	3.2	2.0	2.9	1.7	1.9	0.9	2.7
Average real labour costs	0.5	2.9	1.7	2.4	1.2	2.0	1.9	0.4	-0.4	2.1
Real unit labour costs	-2.7	-1.4	-0.2	0.4	-0.6	-1.6	0.2	-1.5	-1.2	1.0
Finland										
GDP growth	2.9	3.3	1.7	-1.8	4.5	3.8	4.0	6.3	5.0	3.5
Number employed	0.5	0.3	-1.0	-5.1	2.3	1.6	1.4	3.3	2.0	3.5
Average hours worked	-	-0.2	0.2	-0.1	0.5	0.0	1.2	2.2	-0.6	-0.2
GDP/number employed	2.4	3.0	2.7	3.5	2.1	2.2	2.6	2.9	3.0	0.1
GDP/total hours worked	-	3.3	2.5	3.6	1.6	2.2	1.4	0.8	3.6	0.3
Consumer prices	9.6	4.9	1.8	2.6	1.1	1.0	0.6	1.2	1.4	1.2
Average earnings	11.0	8.7	3.1	3.1	3.1	3.9	2.7	1.8	4.7	2.4
Average real earnings	1.3	3.6	1.3	0.5	2.0	2.9	2.0	0.6	3.2	1.2
Average real labour costs	1.7	2.9	1.2	1.3	1.1	-0.2	2.9	-0.3	1.7	1.4
Real unit labour costs	-0.7	-0.1	-1.5	-2.1	-1.0	-2.3	0.3	-3.1	-1.2	1.3
Sweden										
GDP growth	1.5	2.3	1.4	-0.2	2.7	3.7	1.1	2.0	3.0	3.8
Number employed	0.5	1.0	-0.9	-3.0	0.7	1.3	-0.6	-0.6	1.3	2.2
Average hours worked	-	0.3	-0.4	-1.0	0.1	0.0	-0.3	0.9	-0.0	-0.3
GDP/number employed	1.0	1.2	2.4	2.9	1.9	2.3	1.7	2.6	1.7	1.5
GDP/total hours worked	-	1.0	2.8	3.9	1.9	2.3	2.0	1.6	1.7	1.9
Consumer prices	9.7	6.2	2.4	4.6	0.8	2.5	0.5	0.5	-0.1	0.4
Average earnings	9.9	9.2	4.1	5.0	3.5	2.8	6.8	3.0	3.3	1.4
Average real earnings	0.1	2.8	1.6	0.4	2.7	0.3	6.3	2.5	3.4	1.0
Average real labour costs	0.5	2.0	1.7	1.5	1.8	-0.6	5.3	1.8	2.0	0.9
Real unit labour costs	-0.5	0.8	-0.6	-1.3	-0.1	-2.9	3.6	-0.8	0.3	-0.6
UK										
GDP growth	1.9	3.3	2.0	1.3	2.6	2.8	2.6	3.5	2.2	2.1
Number employed	-0.2	1.8	0.2	-1.2	1.4	1.5	1.2	1.8	1.0	1.2
Average hours worked	-	0.2	-0.4	-0.6	-0.2	0.5	-0.6	0.0	-0.3	-0.8
GDP/number employed	2.2	1.5	1.8	2.5	1.2	1.2	1.3	1.7	1.1	0.9
GDP/total hours worked	-	1.2	2.2	3.2	1.5	0.8	1.9	1.6	1.4	1.7
Consumer prices	10.7	5.9	3.1	3.4	2.8	3.4	2.5	3.1	3.4	1.6
Average earnings	11.8	8.4	4.8	5.5	4.2	2.6	3.4	4.6	5.6	4.7
Average real earnings	0.9	2.4	1.7	2.1	1.4	-0.7	1.0	1.5	2.1	3.0
Average real labour costs	0.9	2.4	1.4	1.7	1.2	0.1	0.2	1.7	2.4	1.7
Real unit labour costs	-1.2	0.9	-0.4	-0.8	-0.1	-1.1	-1.2	0.0	1.2	0.8

Labour market indicators in Bulgaria

	1996	1997	1998	1999
Total				
Population (000)	8368	8312	8257	na
Working-age population (000)	5631	5594	5599	na
Employment (000)	3137	3090	3149	2971
Employment growth % pa		-1.5	1.9	-5.7
Employment rate (%)	55.3	54.7	54.2	na
Employment in agriculture (%)	24.4	25.3	26.2	na
Employment in industry	32.6	32.0	30.6	na
Employment in services	43.0	42.6	43.2	na
Activity rate (%)	64.0	63.9	63.1	na
Unemployment rate (%)	13.5	13.7	12.2	14.1
Youth unemployed as % pop 15-24	na	na	na	na
Long-term unemployment rate	8.0	8.1	7.5	na
Men				
Population (000)	4093	4061	4030	na
Working-age population (000)	2781	2768	2767	na
Employment (000)	1658	1643	1671	1582
Employment growth % pa		-1.0	1.7	-5.3
Employment rate (%)	59.2	58.9	58.3	na
Employment in agriculture (%)	0.0	0.0	0.0	na
Employment in industry	0.0	0.0	0.0	na
Employment in services	0.0	0.0	0.0	na
Activity rate (%)	68.6	68.7	68.0	na
Unemployment rate (%)	13.5	13.9	12.6	14.0
Youth unemployed as % pop 15-24	na	na	na	na
Long-term unemployment rate	8.0	8.1	7.8	na
Women				
Population (000)	4275	4251	4227	na
Working-age population (000)	2850	2826	2833	na
Employment (000)	1479.0	1447.8	1478.2	1388.6
Employment growth % pa		-2.1	2.1	-6.1
Employment rate (%)	51.4	50.6	50.2	na
Employment in agriculture (%)	0.0	0.0	0.0	na
Employment in industry	0.0	0.0	0.0	na
Employment in services	0.0	0.0	0.0	na
Activity rate (%)	59.5	59.2	58.3	na
Unemployment rate (%)	13.4	13.5	11.8	14.1
Youth unemployed as % pop 15-24	na	na	na	na
Long-term unemployment rate	7.9	8.1	7.2	na

Note: Employment and activity rates are calculated as total employed and total labour force as % population 15-64

Labour market indicators in the Czech Republic

	1996	1997	1998	1999
Total				
Population (000)	10314	10304	10294	10277
Working-age population (000)	7027	7050	7070	7087
Employment (000)	4924	4905	4834	4716
Employment growth % pa		-0.4	-1.5	-2.4
Employment rate (%)	69.1	68.6	67.5	65.6
Employment in agriculture (%)	6.1	5.8	5.5	5.3
Employment in industry	42.2	41.8	41.7	40.9
Employment in services	51.6	52.4	52.7	53.8
Activity rate (%)	71.7	71.7	71.7	71.8
Unemployment rate (%)	3.6	4.3	5.9	8.5
Youth unemployed as % pop 15-24	na	3.2	5.0	7.6
Long-term unemployment rate	1.1	1.3	1.8	3.1
Men				
Population (000)	5014	5010	5007	4996
Working-age population (000)	3494	3508	3517	3523
Employment (000)	2757	2750	2721	2644
Employment growth % pa		-0.3	-1.0	-2.8
Employment rate (%)	77.6	77.1	76.1	74.0
Employment in agriculture (%)	7.2	6.9	6.6	6.4
Employment in industry	51.3	51.5	51.5	50.7
Employment in services	41.5	41.6	41.8	42.8
Activity rate (%)	80.1	80.0	79.8	79.7
Unemployment rate (%)	3.1	3.6	4.6	7.2
Youth unemployed as % pop 15-24	na	3.6	4.9	8.3
Long-term unemployment rate	0.9	1.1	1.4	2.3

Women				
Population (000)	5014	5010	5007	5001
Working-age population (000)	3533	3542	3553	3564
Employment (000)	2168	2156	2113	2071
Employment growth % pa		-0.5	-2.0	-2.0
Employment rate (%)	60.6	60.2	58.9	57.4
Employment in agriculture (%)	4.8	4.3	4.1	3.9
Employment in industry	30.8	29.5	29.2	28.3
Employment in services	64.5	66.2	66.6	67.8
Activity rate (%)	63.3	63.4	63.7	63.9
Unemployment rate (%)	4.2	5.1	7.5	10.1
Youth unemployed as % pop 15-24	na	2.8	5.1	6.9
Long-term unemployment rate	1.4	1.7	2.3	4.1

Labour market indicators in Hungary

	1996	1997	1998	1999
Total				
Population (000)	10196	10155	10114	10069
Working-age population (000)	6838	6845	6807	6788
Employment (000)	3585	3580	3641	3785
Employment growth % pa		-0.1	1.7	4.0
Employment rate (%)	52.0	52.0	53.2	55.4
Employment in agriculture (%)	8.1	7.7	7.3	6.9
Employment in industry	32.9	33.3	34.9	34.5
Employment in services	59.0	58.9	57.8	58.6
Activity rate (%)	57.8	57.1	58.4	59.6
Unemployment rate (%)	10.0	9.0	8.9	6.9
Youth unemployed as % pop 15-24	na	5.8	6.0	4.9
Long-term unemployment rate	5.3	4.2	4.4	3.3
Men				
Population (000)	4876	4853	4830	4807
Working-age population (000)	3319	3336	3325	3314
Employment (000)	1986	1997	2006	2081
Employment growth % pa		0.6	0.4	3.8
Employment rate (%)	59.4	59.6	60.0	62.4
Employment in agriculture (%)	11.2	10.5	10.1	9.6
Employment in industry	39.3	40.1	42.2	42.3
Employment in services	49.6	49.3	47.7	48.2
Activity rate (%)	66.6	66.0	66.3	67.5
Unemployment rate (%)	10.8	9.9	9.6	7.5
Youth unemployed as % pop 15-24	na	7.5	7.7	6.0
Long-term unemployment rate	6.1	4.8	4.8	3.7
Women				
Population (000)	5321	5302	5284	5262
Working-age population (000)	3519	3509	3482	3473
Employment (000)	1598	1582	1635	1703
Employment growth % pa		-1.0	3.3	4.2
Employment rate (%)	45.1	44.8	46.8	48.8
Employment in agriculture (%)	4.3	4.2	3.8	3.6
Employment in industry	24.9	24.8	25.9	25.0
Employment in services	70.8	71.0	70.2	71.4
Activity rate (%)	49.5	48.6	50.8	52.0
Unemployment rate (%)	9.0	7.9	8.1	6.2
Youth unemployed as % pop 15-24	na	4.0	4.3	3.7
Long-term unemployment rate	4.4	3.6	4.0	2.9

Labour market indicators in Poland

	1996	1997	1998	1999
Total				
Population (000)	38636	38650	38663	na
Working-age population (000)	24688	24902	25145	25252
Employment (000)	14920	15133	15364	14940
Employment growth % pa		1.4	1.5	-2.8
Employment rate (%)	58.5	58.8	59.2	57.5
Employment in agriculture (%)	22.1	20.5	19.1	na
Employment in industry	31.7	31.9	32.1	na
Employment in services	46.2	47.6	48.9	na
Activity rate (%)	66.6	66.2	65.9	65.8
Unemployment rate (%)	12.0	11.0	9.9	12.3
Youth unemployed as % pop 15-24	na	8.2	7.5	10.2
Long-term unemployment rate	5.7	5.1	4.7	5.1

Men				
Population (000)	19059	18799	18542	na
Working-age population (000)	12155	12269	12397	12457
Employment (000)	8170	8391	8492	8164
Employment growth % pa		2.7	1.2	-3.9
Employment rate (%)	65.0	66.2	66.3	63.6
Employment in agriculture (%)	22.2	20.7	19.2	na
Employment in industry	41.0	41.1	41.3	na
Employment in services	36.8	38.3	39.5	na
Activity rate (%)	73.0	73.1	72.5	72.1
Unemployment rate (%)	10.7	9.3	8.4	11.5
Youth unemployed as % pop 15-24	0.0	8.1	7.5	10.5
Long-term unemployment rate	4.6	3.8	3.5	4.2
Women				
Population (000)	19059	18799	18542	na
Working-age population (000)	12534	12633	12749	12795
Employment (000)	6750	6742	6872	6776
Employment growth % pa		-0.1	1.9	-1.4
Employment rate (%)	52.1	51.6	52.2	51.6
Employment in agriculture (%)	22.0	20.3	18.8	na
Employment in industry	20.3	20.6	20.7	na
Employment in services	57.7	59.1	60.5	na
Activity rate (%)	60.4	59.5	59.4	59.6
Unemployment rate (%)	13.5	13.0	11.8	13.2
Youth unemployed as % pop 15-24	na	8.3	7.5	9.9
Long-term unemployment rate	7.0	6.6	6.1	6.2

Labour market indicators in Romania

	1996	1997	1998	1999
Total				
Population (000)	22608	22546	22503	22463
Working-age population (000)	15155	15154	15195	15190
Employment (000)	11271	11200	11097	11022
Employment growth % pa	0.0	-0.6	-0.9	-0.7
Employment rate (%)	67.6	67.2	65.9	65.0
Employment in agriculture (%)	34.2	35.2	35.8	37.7
Employment in industry	34.4	33.3	31.8	30.2
Employment in services	31.4	31.5	32.3	32.2
Activity rate (%)	77.0	71.5	70.3	69.8
Unemployment rate (%)	5.9	5.5	5.6	6.2
Youth unemployed as % pop 15-24	na	8.0	7.5	7.4
Long-term unemployment rate	3.1	2.6	2.5	2.8
Men				
Population (000)	11081	11041	11012	10984
Working-age population (000)	7460	7457	7485	7477
Employment (000)	6009	5962	5901	5808
Employment growth % pa	0.0	-0.8	-1.0	-1.6
Employment rate (%)	73.9	73.4	71.9	70.4
Employment in agriculture (%)	31.0	31.9	32.9	34.9
Employment in industry	40.3	39.7	37.9	36.0
Employment in services	28.7	28.4	29.3	29.0
Activity rate (%)	78.7	77.7	76.7	76.1
Unemployment rate (%)	5.6	5.2	5.8	6.9
Youth unemployed as % pop 15-24	na	8.0	8.3	9.0
Long-term unemployment rate	2.8	2.3	2.4	2.9
Women				
Population (000)	11527	11505	11491	11479
Working-age population (000)	7694	7696	7710	7713
Employment (000)	5261	5238	5196	5214
Employment growth % pa	0.0	-0.4	-0.8	0.3
Employment rate (%)	61.4	61.1	60.1	59.7
Employment in agriculture (%)	38.1	39.0	39.3	40.8
Employment in industry	27.4	25.8	24.8	23.4
Employment in services	34.5	35.2	35.9	35.8
Activity rate (%)	63.7	65.4	64.0	63.7
Unemployment rate (%)	6.3	5.9	5.5	5.5
Youth unemployed as % pop 15-24	na	8.1	6.8	5.8
Long-term unemployment rate	3.6	3.0	2.5	2.8

Labour market indicators in Slovakia

	1996	1997	1998	1999
Total				
Population (000)	5368	5379	5388	na
Working-age population (000)	3585	3617	3648	na
Employment (000)	2218	2207	2201	2103
Employment growth % pa		-0.5	-0.3	-4.5
Employment rate (%)	61.9	61.0	60.3	na
Employment in agriculture (%)	8.9	9.2	8.2	7.2
Employment in industry	39.5	39.3	39.5	38.4
Employment in services	51.6	51.5	52.3	54.4
Activity rate (%)	69.7	68.9	68.7	na
Unemployment rate (%)	11.2	11.4	12.1	15.8
Youth unemployed as % pop 15-24	na	na	na	na
Long-term unemployment rate	5.8	5.9	6.3	na
Men				
Population (000)	2614	2618	2622	na
Working-age population (000)	1775	1792	1809	na
Employment (000)	1231	1216	1212	1144
Employment growth % pa		-1.2	-0.3	-5.6
Employment rate (%)	69.4	67.9	67.0	na
Employment in agriculture (%)	10.9	11.4	10.4	9.4
Employment in industry	48.4	49.0	49.7	48.8
Employment in services	40.7	39.6	39.9	41.9
Activity rate (%)	77.2	75.9	76.1	na
Unemployment rate (%)	10.2	10.5	11.7	15.7
Youth unemployed as % pop 15-24	na	na	na	na
Long-term unemployment rate	5.3	5.3	5.8	na
Women				
Population (000)	2754	2760	2766	na
Working-age population (000)	1810	1825	1840	na
Employment (000)	986	991	990	959
Employment growth % pa		0.5	-0.1	-3.1
Employment rate (%)	54.5	54.3	53.8	na
Employment in agriculture (%)	6.4	6.4	5.7	4.8
Employment in industry	28.5	27.4	27.0	26.3
Employment in services	65.2	66.2	67.3	68.9
Activity rate (%)	62.2	62.0	61.5	na
Unemployment rate (%)	12.4	12.5	12.5	16.0
Youth unemployed as % pop 15-24	na	na	na	na
Long-term unemployment rate	6.5	6.7	7.0	na

Note: Employment and activity rates are calculated as total employed and total labour force as % population 15-64

Labour market indicators in Slovenia

	1996	1997	1998	1999
Total				
Population (000)	1993	1973	1969	1966
Working-age population (000)	1388	1384	1382	1379
Employment (000)	871	893	905	889
Employment growth % pa	0.0	2.6	1.3	-1.8
Employment rate (%)	61.7	62.8	63.5	62.5
Employment in agriculture (%)	8.1	10.1	9.8	8.5
Employment in industry	43.5	41.4	40.6	38.8
Employment in services	49.0	48.4	49.6	52.7
Activity rate (%)	7.5	67.4	68.8	67.6
Unemployment rate (%)	6.9	6.6	7.4	7.3
Youth unemployed as % pop 15-24	na	7.5	7.7	7.5
Long-term unemployment rate	3.5	3.4	3.4	3.1
Men				
Population (000)	964	962	961	959
Working-age population (000)	692	698	699	698
Employment (000)	464	480	486	480
Employment growth % pa	0.0	3.3	1.3	-1.2
Employment rate (%)	66.0	67.1	67.5	66.8
Employment in agriculture (%)	8.9	10.2	9.9	8.7
Employment in industry	52.1	50.1	49.1	47.5
Employment in services	38.9	39.7	41.0	43.8
Activity rate (%)	71.1	71.8	73.0	72.2
Unemployment rate (%)	7.1	6.4	7.3	7.2
Youth unemployed as % pop 15-24	na	7.0	7.9	7.2
Long-term unemployment rate	3.7	3.5	3.3	3.3

Women				
Population (000)	1029	1011	1008	1007
Working-age population (000)	696	685	683	681
Employment (000)	407	413	419	409
Employment growth % pa	0.0	1.7	1.2	-2.4
Employment rate (%)	57.5	58.4	59.5	58.1
Employment in agriculture (%)	7.2	10.1	9.8	8.3
Employment in industry	33.5	31.2	30.7	28.5
Employment in services	59.3	58.7	59.5	63.2
Activity rate (%)	61.5	62.9	64.4	63.0
Unemployment rate (%)	6.6	7.0	7.5	7.5
Youth unemployed as % pop 15-24	na	8.1	7.6	7.7
Long-term unemployment rate	3.2	3.4	3.5	2.8

Labour market indicators in Estonia

	1996	**1997**	**1998**	**1999**
Total				
Population (000)	1470	1460	1450	1441
Working-age population (000)	944	938	963	966
Employment (000)	620	623	643	615
Employment growth % pa	0.0	0.4	3.1	-4.3
Employment rate (%)	64.2	64.9	65.3	62.0
Employment in agriculture (%)	10.5	9.9	9.4	8.8
Employment in industry	33.8	33.7	33.5	32.2
Employment in services	55.7	56.4	57.1	59.0
Activity rate (%)	64.2	72.7	72.4	70.3
Unemployment rate (%)	10.8	10.6	9.6	11.7
Youth unemployed as % pop 15-24	na	8.3	6.1	8.3
Long-term unemployment rate	5.2	4.2	4.4	5.0
Men				
Population (000)	685	680	675	671
Working-age population (000)	451	448	463	464
Employment (000)	317	319	333	315
Employment growth % pa	0.0	0.6	4.4	-5.3
Employment rate (%)	68.7	69.7	70.3	66.3
Employment in agriculture (%)	12.9	12.5	12.1	11.0
Employment in industry	41.0	41.6	42.1	40.7
Employment in services	46.1	45.9	45.8	48.3
Activity rate (%)	68.7	78.8	78.7	76.2
Unemployment rate (%)	11.8	11.5	10.5	13.0
Youth unemployed as % pop 15-24	na	10.9	8.0	9.8
Long-term unemployment rate	7.2	4.9	4.7	5.7
Women				
Population (000)	685	680	675	671
Working-age population (000)	493	490	500	502
Employment (000)	303	304	310	300
Employment growth % pa		0.3	1.8	-3.3
Employment rate (%)	60.0	60.6	60.7	58.0
Employment in agriculture (%)	8.3	7.2	6.5	6.5
Employment in industry	26.4	25.3	24.3	23.3
Employment in services	65.3	67.5	69.2	70.3
Activity rate (%)	60.0	67.1	66.5	64.8
Unemployment rate (%)	9.7	9.7	8.6	10.2
Youth unemployed as % pop 15-24	na	5.7	4.2	6.9
Long-term unemployment rate	3.4	3.4	4.1	4.2

Labour market indicators in Latvia

	1996	**1997**	**1998**	**1999**
Total				
Population (000)	2502	2480	2458	2440
Working-age population (000)	1672	1674	1666	1627
Employment (000)	960	1007	1004	998
Employment growth % pa	na	4.8	-0.2	-0.6
Employment rate (%)	55.9	58.5	58.7	59.5
Employment in agriculture (%)	16.7	19.2	17.5	16.4
Employment in industry	28.1	28.2	27.6	26.1
Employment in services	55.2	52.6	55.0	57.4
Activity rate (%)	71.9	69.6	68.8	69.1
Unemployment rate (%)	22.0	15.7	14.5	13.7
Youth unemployed as % pop 15-24	na	na	11.2	10.2
Long-term unemployment rate	na	na	8.0	7.3

Men				
Population (000)	1158	1148	1139	1131
Working-age population (000)	799	801	798	783
Employment (000)	502	518	519	526
Employment growth % pa	0.0	3.2	0.0	1.5
Employment rate (%)	61.4	63.3	63.5	65.4
Employment in agriculture (%)	20.4	21.9	20.0	18.5
Employment in industry	34.7	35.3	34.5	33.4
Employment in services	44.9	42.8	45.5	48.0
Activity rate (%)	79.3	75.7	75.2	76.2
Unemployment rate (%)	22.3	16.2	15.4	14.1
Youth unemployed as % pop 15-24	na	na	12.7	13.2
Long-term unemployment rate	na	na	8.4	7.3
Women				
Population (000)	1343	1332	1320	1309
Working-age population (000)	873	874	868	843
Employment (000)	458	488	486	472
Employment growth % pa	na	6.6	-0.5	-2.9
Employment rate (%)	50.9	54.2	54.2	54.1
Employment in agriculture (%)	12.8	16.4	14.7	14.1
Employment in industry	21.2	20.8	20.1	17.9
Employment in services	66.0	62.8	65.1	68.0
Activity rate (%)	65.1	64.0	62.9	62.6
Unemployment rate (%)	21.6	15.2	13.6	13.3
Youth unemployed as % pop 15-24	na	na	9.5	7.0
Long-term unemployment rate	na	na	7.6	7.2

Labour market indicators in Lithuania

	1996	1997	1998	1999
Total				
Population (000)	3709	3706	3703	na
Working-age population (000)	2437	2439	2442	2435
Employment (000)	1495	1567	1564	1613
Employment growth % pa		4.8	-0.2	3.2
Employment rate (%)	60.3	63.1	62.9	65.0
Employment in agriculture (%)	na	19.7	20.1	20.8
Employment in industry	na	29.6	28.7	26.8
Employment in services	na	50.7	51.3	52.4
Activity rate (%)	74.9	73.3	72.1	72.6
Unemployment rate (%)	19.2	13.6	12.5	10.2
Youth unemployed as % pop 15-24	na	na	10.6	9.1
Long-term unemployment rate	na	na	7.8	3.9
Men				
Population (000)	1750	1748	1746	na
Working-age population (000)	1178	1180	1182	1183
Employment (000)	789	815	815	831
Employment growth % pa		3.2	0.0	2.0
Employment rate (%)	65.7	67.7	67.6	68.9
Employment in agriculture (%)	na	21.8	22.9	24.7
Employment in industry	na	36.0	34.6	31.9
Employment in services	na	42.2	42.5	43.4
Activity rate (%)	83.1	79.8	78.9	77.7
Unemployment rate (%)	20.6	14.9	14.1	11.2
Youth unemployed as % pop 15-24	na	na	14.6	11.2
Long-term unemployment rate	na	na	8.8	4.5
Women				
Population (000)	1750	1748	1746	na
Working-age population (000)	1259	1259	1260	1251
Employment (000)	706	753	749	782
Employment growth % pa		6.6	-0.5	4.5
Employment rate (%)	55.2	58.9	58.5	61.4
Employment in agriculture (%)	na	17.3	17.1	16.6
Employment in industry	na	22.3	22.2	21.4
Employment in services	na	60.4	60.8	62.0
Activity rate (%)	67.1	67.1	65.7	67.7
Unemployment rate (%)	17.5	12.1	10.8	9.2
Youth unemployed as % pop 15-24	na	na	6.5	7.0
Long-term unemployment rate	na	na	6.6	3.3

Sources

The data on which this Report is based come predominantly from the Statistical Office of the European Communities (Eurostat), statisticians from which have cooperated closely in the preparation of the Report. Without their assistance the analysis would not have been possible.

The main source of data is the EU Labour Force Survey (LFS), which relates to the second quarter of each year throughout the Union. This provides the only statistics on employment, unemployment and related variables which are comparable and, except for a few items, complete for all Member States and which enable structural features of the Union's work force to be analysed on a consistent basis. Since it is based on a survey of households and uses a common set of questions and methodology, the LFS abstracts from national differences in definitions, methods of classification and administrative procedures and regulations. Data from national sources may, therefore, differ from the figures presented in this Report. This is particularly so for unemployment statistics, which in individual countries are based largely on registrations at labour offices, the coverage of which varies significantly between Member States.

The LFS has been carried out annually since 1983. Data for Spain and Portugal, however, are available only from 1986 (1987 for some data) and for Austria, Finland and Sweden, only from 1995. For the most part, the data analysed have been specially extracted from the LFS by statisticians at Eurostat who have given considerable help and advice in so doing.

The LFS is the source of all the employment-related data for 1999. For earlier years, though it remains the basic source, the LFS data have been adjusted to be consistent with the change in the total number employed as shown by the national accounts (compiled according to the ESA 95 system of classification), which is regarded as the most reliable source of changes over time. Specifically, a series for total employment for the years before 1999 has been generated by applying the annual rate of change in each year indicated by the national accounts data to the LFS figures for 1999 (see Box on employment data in Chapter 1 above). The detailed LFS data on the structural features of employment in each year have then been constrained to equal the figure for total employment in each Member State. The percentage division of employment between, say, men and women, full-time and part-time workers, self-employed and employees, and so on, is, therefore, the same as in the LFS in all cases, though the absolute numbers may be slightly different. This means that the figures for employment rates in the years before 1999 will tend to be different from those indicated by the LFS at the time (since population data have not been adjusted), though the difference in most cases is relatively small.

While the data for employment relate to the second quarter of each year, the data for total unemployment and for unemployment of men and women are, except where explicitly stated otherwise, annual average figures taken from the harmonised series, which is the primary source of unemployment figures (and which itself is based on the LFS). Data on unemployment by age group and by duration from the LFS are then aligned with these totals. The labour force throughout is, therefore, defined as the sum of these two generated series.

Full-time equivalent employment

Full-time equivalent employment (FTE) is calculated as the total hours usually worked by those employed in each Member State, including in second jobs, divided by the average hours worked by those employed full-time in the same country. The latter includes both men and women and is taken as a common measure of full-time employment when estimating FTE figures for men and women separately or for different age groups. The use of a common measure rather than one which is specific to men or women avoids a shift in employment between the two causing a change in the FTE estimate unless the total hours worked also change. Note that the measure of full-time employment varies between countries. Note also that for the years before 1992, the estimates of total hours worked are based on hours worked in first jobs alone.

Belgium

The survey method was changed for Belgium in 1999 in order to improve the coverage of the LFS and as a result more part-time and temporary workers and more people employed in services were recorded than in earlier years. In addition, no part-time working was recorded for the self-employed. In order to avoid a break in the series, the LFS data for earlier years have been adjusted to be approximately consistent with those for 1999, which in turn have been adjusted to include estimates of part-time working among the self-employed on the basis of the 1998 data. Since no details of the effect of the change in survey method are available, the 1998 data were adjusted by simply applying the structural division of employment (between part-time and full-time and so on) in 1999 (which effectively assumes that there was no change in the structural pattern of employment between the two years). Figures for earlier years were estimated by assuming the same adjustment factor as in 1998.

Germany

The data for Germany include the new Länder so far as possible. Since data are not available for unified Germany before 1991 — and would be difficult to interpret if they were — the analysis for the years before 1991 relates to the former West Germany. Where the analysis spans years before and after unification, the change for West Germany up to 1991 is in most cases linked to the change for total Germany from 1991 on. The same procedure has been adopted for the changes shown for the Union as a whole in order to ensure approximate consistency in the data over time.

Luxembourg

The total number employed is based on LFS data in all years back to 1985 for Luxembourg (before which OECD data are used) because of the large number of people working in Luxembourg and living elsewhere who appear to be included in the national accounts data.

Portugal

The sampling method used for the LFS was changed in Portugal in 1998, with the result that the structural details of employment were not comparable with those for earlier years. The same method of adjusting the latter data has been used as described above for Belgium. In this case, the structural division of employment in 1998 was applied to the 1997 data and the figures for earlier years estimated from the results.

Austria, Finland and Sweden

The data for detailed analysis of the structure of the labour force and employment in Austria, Finland and Sweden before 1995 come from national sources as well as OECD statistics and are not necessarily consistent with the data from 1995 on. Longer-term changes for these countries and comparisons of periods before and after 1995 should, therefore, be interpreted with caution. It should be emphasised that for Finland, the LFS data for 1999 are not fully comparable with those for earlier years because of a change in the timing of the survey. Specifically, because the data were collected in June, this led to significantly more temporary workers being recorded who were acting as replacements for permanent employees on holiday who were also included in the employment figures. In other words, in a number of cases, two people are recorded as being employed in the same job. Since there is no easy way of adjusting the data for this, no attempt has been made to make the detailed structural figures for 1999 more consistent with those for previous years (the figures for total employment are not affected because of the use of national accounts data for the change between 1998 and 1999).

European Community Household Panel

The ECHP, which is the source of the analysis of the long-term unemployed in Chapter 1 and which is used to throw light on the supervisory responsibilities of women in employment relative to men, is an annual longitudinal survey of a representative panel of households and the individuals who live in them, covering living conditions,

employment status, health, education and income. The aim is to interview the same households and individuals over a number of consecutive years so that changes in their circumstances over time can be monitored. The survey is based on a harmonised questionnaire, drawn up by Eurostat, and subsequently adapted by the national agencies responsible for collecting data in each of the countries to take account of their own institutional features.

The first three waves of the ECHP, which at the time of preparation of this report are the only three for which data are available, were conducted in 1994, 1995 and 1996. A virtually complete set of data for these three years is available for 12 Member States, excluding Austria, Finland and Sweden, though by 1996, all countries except Sweden were covered. The data for all three waves cover some 60,000 households in total across the Union and around 130,000 individuals. (For a detailed description of the ECHP methodology, see *The European Community Household Panel (ECHP): Volume 1 — Survey methodology and Implementation*, Eurostat, Luxembourg, 1996.)

In the section on educational attainment in Chapter 1, "high" education refers to someone who has achieved tertiary level (ie university or equivalent) qualifications, "medium" to someone with upper secondary level qualifications and "low" to someone with only lower secondary education and who has not progressed beyond compulsory schooling.

Sources of data in the Tables of employment indicators

Total population comes from demographic statistics and working-age population from the EU LFS; total employment for 1999 is taken from the EU LFS and for earlier years (except for Luxembourg — see above) is generated on the basis of the changes shown by the national accounts as described above; the employment rate is calculated as the number employed aged 15 to 64, as derived from the EU LFS and adjusted to be consistent with the generated series for total employment, as a percentage of population of this age; FTE employment, again confined to those aged 15 to 64, is calculated as described above and related to population 15 to 64; the activity rate is calculated as employed plus unemployed aged 15 to 64 as a percentage of population of this age; total unemployed is taken from the Eurostat harmonised series, as is the unemployment rate, and both relate to those aged 15 and over; youth unemployed are those aged 15 to 24 as a percentage of population of this age, the former figures coming from the Eurostat harmonised unemployment series, the latter from the LFS; the long-term unemployment rate is calculated as the proportion of the unemployed out of work for a year or more applied to the harmonised unemployment rate.

Sources of data in the Tables of macroeconomic indicators

GDP growth and the number employed are from national accounts statistics, as given in the DG Economics and Financial Affairs, AMECO database (as published in April 2000); average hours worked are derived from the EU LFS data on average usual weekly hours and for the years from 1992 on include estimates of hours worked in second jobs (for earlier years, they include only those worked in first jobs); average earnings relate to average compensation per employee as derived from the national accounts; average real earnings are average compensation per employee deflated by the consumer price index, again taken from the national accounts; average real labour costs are average compensation per employee deflated by the GDP deflator as a measure of costs; real unit labour costs are average real labour costs per unit of GDP, adjusted for self-employment (ie imputing average labour costs to the self-employed). Figures for average hours worked for 1985 for Portugal are for 1986 and for Spain and the Netherlands, for 1987; for Austria, Finland and Sweden, they are estimates from national sources before 1995, which are then linked to LFS data.

Sources of data in the Tables of employment indicators in the CEE countries

All the data come from Eurostat, most being derived from Labour Force Surveys in the countries in question. The data for the Czech Republic, Hungary, Poland, Romania, Slovenia, Estonia, Latvia and Lithuania were, for the most part, especially supplied by Eurostat and for each year come from the second quarter LFS conducted in these countries. The data for Bulgaria and Slovakia come from Eurostat, *Central European countries' employment and labour market review*, No.2, January 2000. This is also the source of population data for all of the countries and for

the division of employment by broad sector for Poland. For population, the figure for 1999 in each of the countries is estimated on the basis of LFS data. All the figures for employment and unemployed for 1996 for the Czech Republic, Poland, Romania and Estonia, and for both 1996 and 1997 for Latvia and Lithuania, are estimated from the data in Eurostat, *Central European countries' employment and labour market review*, *op cit*, which are adjusted to be (approximately) consistent with the LFS data for later years. All the figures for employment and unemployment for all the countries relate to the second quarter of each year. The data for population are approximate annual averages.

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