

Services in Europe



Data 1995-1997



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THEME 4
Industry,
trade and
services

4

Foreword

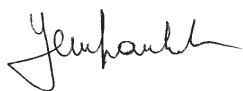


The standard of living within the European Union has increased at a dramatic pace, more than doubling since the 1950s. One of the fundamental reasons for this increase has been the performance of the service sector of the European economy that has taken on an increasingly important role. EU services account for some 67% of the wealth created within the fifteen Member States. Perhaps of even greater relevance, services now provide work for almost 100 million persons within the EU and the employment potential seems far from being completely exploited.

The EU is the world's leading exporter and investor in services, accounting for over a quarter of the world's services' exports in 1996. Still existing barriers to trade in financial services, telecommunications, insurance and information services are being eliminated through trade agreements (notably the GATS), which should lead to innovation, price competition and a higher quality of services. Furthermore, new technologies are creating a business environment whereby international borders are rendered meaningless, with many services being traded in a "virtual marketplace". These technologies shape not only the workplace, but also the home creating the possibilities of working at home, shopping at home, and establishing "virtual companies" whose employees are scattered world-wide.

This report aims to provide a detailed picture of the European services' sector. The information presented in Services in Europe is largely a result of data collected by the Member States under Council Regulation (EC, EURATOM) No. 58/97 of 20 December 1996 concerning structural business statistics. The Regulation foresees data on a broad range of structural variables, which allow the calculation of indicators to help us understand the structure, performance and competitiveness of the EU services' economy,. Indeed, the main line of analysis within Services in Europe remains a broad descriptive analysis of the structure of EU service activities. Nevertheless, data has been collected from a wide range of Eurostat databases in order to provide information within this publication. In order to achieve this, many disparate sources have been combined from business statistics to National Accounts data to social statistics into this single report. Within the thematic analysis, information ranging from productivity measures and wage growth, to changing work patterns, to the growing importance of non-standard employment arrangements, to skills and education within the labour force is presented.

We hope that the information provided within Services in Europe gives a comprehensive guide to the services sector in Europe. This information is available in both electronic and paper formats. The former provides an information tool that contains not only the economic analysis (presented in the paper publication), but also valuable information on the sources and legal basis for the collection of the data, as well as the underlying data-set itself.



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Executive summary



Chapter 1

Executive summary

Introduction

As the new millennium is dawning, it is clear that the service sector of the economy has an important role to play in the economic future of the European Union, as well as the welfare of its citizens. Measures to promote business competitiveness and to ensure that the Single Market works correctly have been put in place. As such the cross-border provision of services within the EU should be facilitated enormously, allowing individuals to set-up as entrepreneurs in other Member States. At the same time, negotiations within the framework of GATS (General Agreement on Trade and Services) should lead to a far clearer policy as regards trade in services on a global basis, vis-à-vis Europe's main competitors. These negotiations will start again in the year 2000 and should result in a higher degree of liberalisation of service sector markets, which will allow firms to be sure that they are being treated in the same way as their foreign counterparts.

The EU has one of the most liberalised and open markets for services in the areas of trade and investment. Indeed, the EU is the world's leading exporter and investor in services, accounting for over a quarter of the world's services' exports in 1996. It is hoped that the successful completion of the next round of GATS will further liberalise service markets and allow innovation, price competition and a higher quality of services to be enjoyed by all.

However, probably the most important reason to encourage growth in the service sector of the economy is the need to support a sector that has provided job creation and increased economic welfare in Europe in recent decades. Services are a key sector of the economy that not only account for a considerable share of value added and employment, providing many provisions to other sectors of the economy.

Main findings of the publication

Services in Europe has been designed to provide readers with a detailed picture of the European services' sector. The data presented within this publication are drawn from a number of disparate sources. However, the vast majority of data that is presented comes from official sources, collected by different units within Eurostat.

The overview and structural sections that cover the main trends in the service sector of the economy, present figures drawn from National Accounts' sources. These sections of the publication aim to provide the reader with a general overview of how important services are compared to other areas of the economy, before looking in more detail at a breakdown between six market services' branches, tracing their evolution over time, in terms of value added and employment.

Table 1.1: structure of services' value added in the Triad, 1997 (billion ECU)

	EU-15 (1)	EUR-11 (1)	Japan	USA (2)
Market services, of which	3 484,9	2 488,1	2 059,6	3 298,6
Communication services	4,5%	4,4%	2,4%	4,9%
Distributive trades	24,7%	25,0%	24,0%	26,0%
Financial services	10,6%	10,1%	6,5%	9,2%
Horeca	5,6%	5,5%	12,5%	5,6%
Other market services	46,5%	47,5%	45,1%	48,2%
Transport services	8,1%	7,5%	9,5%	6,3%
Non-market services	1 002,1	736,4	297,2	1 113,4
Total economy	6 660,2	4 836,0	3 780,5	6 024,5

(1) Earlier years had to be used for some countries for the breakdown of market services.

(2) 1996.

For further information: National Accounts

Services are the only sector of the European economy that have generated jobs during the last two decades, as industry and agriculture have seen a reduction in the number of persons they employ. Nevertheless, we find that the United States recorded faster growth in jobs than in Europe. In 1997, services reported a net gain of over one million new jobs in the EU, with a share in total employment equivalent to 68%. However, services were responsible for an additional 2.4 million jobs in the American economy in 1997. Furthermore, services accounted for 76% of total employment in the USA.

It would appear that the main driving force behind increased wealth in Europe was labour productivity, as opposed to an increase in the hiring of labour. In the USA, increased wealth in services seems to be a result of a rise in the total number of hours worked. Whilst the gap in labour productivity has closed between the EU and the USA, this would appear to be the result of substituting capital for labour, rather than an increase in the number of hours worked.

Table 1.2: ranking of most important market services by number of persons employed, 1996 (1)

	First	Second	Third
B	Other market services	Distributive trades	Transport services
DK	Distributive trades	Other market services	Transport services
D	Other market services	Distributive trades	Horeca
EL	Distributive trades	Other market services	Horeca
E	Other market services	Distributive trades	Horeca
F	Other market services	Distributive trades	Transport services
IRL	Distributive trades	Other market services	Horeca
I	Distributive trades	Other market services	Transport services
L	Other market services	Distributive trades	Financial services
NL	Distributive trades	Other market services	Transport services
A	Distributive trades	Other market services	Horeca
P	Distributive trades	Other market services	Horeca
FIN	Distributive trades	Other market services	Transport services
S	Other market services	Distributive trades	Transport services
UK	Other market services	Distributive trades	Horeca

(1) Earlier years had to be used for some countries; for Ireland and the United Kingdom number of wage and salaried earners.

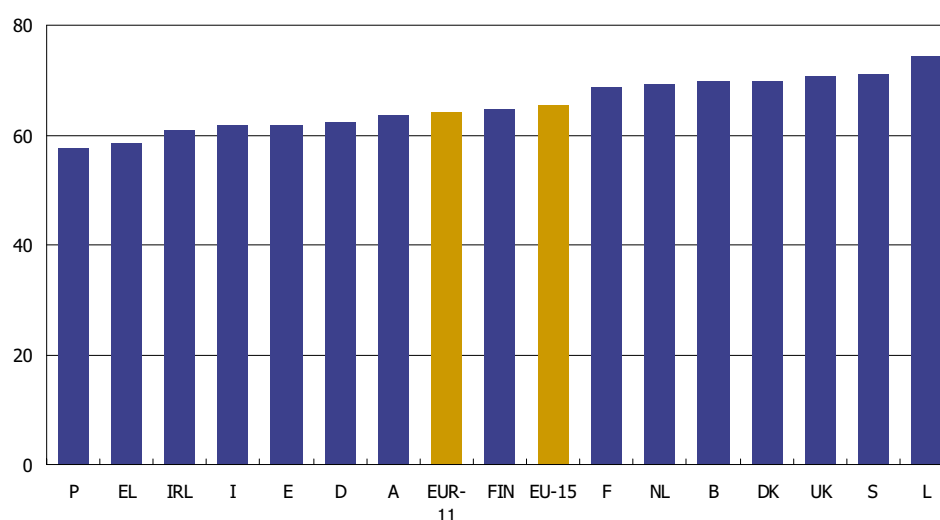
For further information: National Accounts

Looking at the breakdown of wealth within services we find that the most important sector of the economy is usually that of other market services (the main component of which is business services). In terms of employment, distributive trades accounted for more persons employed than other market services in the majority of countries.

The fastest growing branches of the market services' economy were communication services and other market services. These two branches had some of the highest levels of labour productivity in the EU (along with financial services). On the other hand the slowest areas of growth were transport services and distributive trades, the latter of which (together with Horeca) had some of the lowest levels of labour productivity.

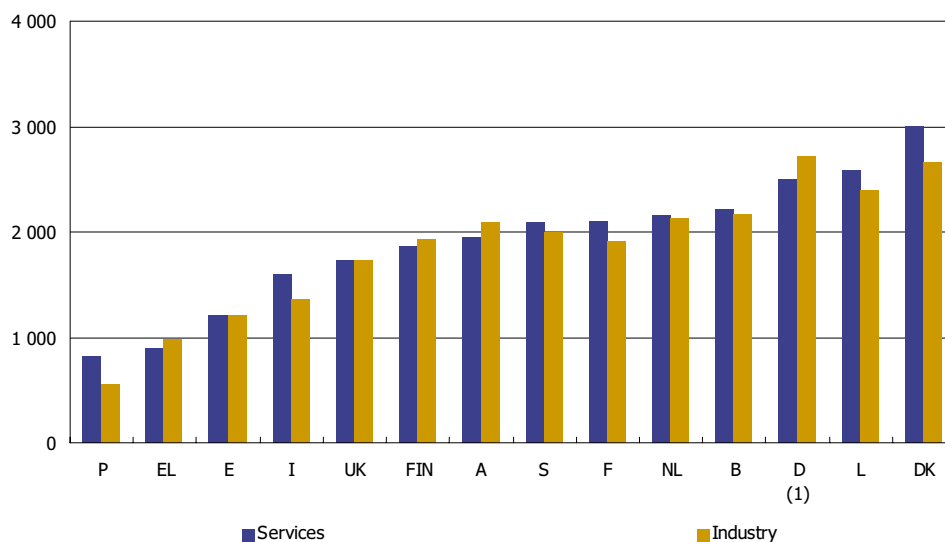
The thematic analysis contained within Services in Europe draws largely on social statistics as the main source of information. A variety of sources are employed, such as the Labour Force Survey, Labour Cost Survey and the Structure of Earnings Survey. The aim of this section of the publication is to give the reader a grounding in thematic areas relating to services. This edition of Services in Europe looks at the subject of competitiveness and measurement problems related to creating indicators specific to the service sector of the economy. It is clear that intangible investment plays a crucial role in determining the competitiveness of a national economy or an enterprise. A quantitative approach to competitiveness needs to be balanced with awareness of the key factors that influence different aspects of the services' economy. For example, in transport and communication activities, the fragmentation of markets has put a brake on the development of competitiveness in Europe, which is being redressed through the development of trans-European networks, as well as a single European market. National rules and regulations sometimes hinder the development within important areas such as business services, where it is often difficult for professionals to practice in a foreign country. These barriers are being removed, resulting in higher labour productivity in business services.

Figure 1.1: share of the EU labour force employed in services, 1997 (%)



For further information: Labour Force Survey

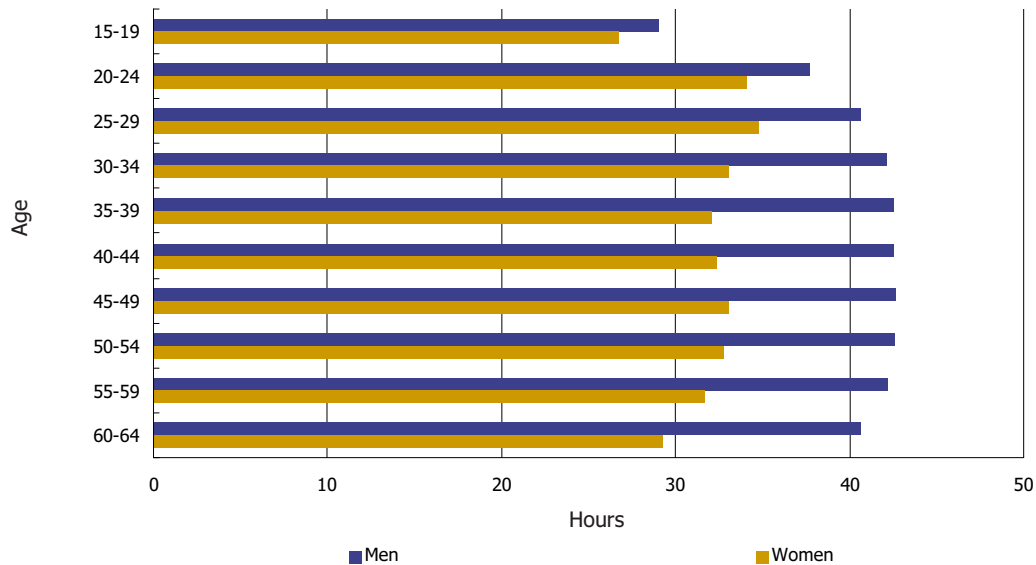
Figure 1.2: average monthly earnings, 1995 (ECU)



(1) Former West Germany only.
For further information: Structure of Earnings Survey

Labour is of great importance to many service activities. Indeed, it is the main input for a large variety of service activities, with low levels of capital required to start-up businesses. Services in Europe presents three studies on labour-related issues. The first looks at the subject of earnings, where we find that average earnings were higher in industry than in services. The development of earnings for women were of particular interest as they barely rose between the age of 30 and retirement. On the other hand, there was some evidence that equality between the sexes was progressing, as six Member States reported that they had higher average part-time earnings for women than for men. When studying the size of local units, women were more likely to receive higher earnings when working for a local unit with between 250 and 499 employees, whilst men received higher earnings when working in larger enterprises, with a thousand or more employees.

Figure 1.3: number of hours usually worked in services in the EU by age group, 1998 (hours)



For further information: Labour Force Survey

The Labour Force Survey gives a detailed breakdown of the structure of employment in market services. Germany and the United Kingdom were the only two Member States to report that they had more than 10 million persons employed in market services.

Looking at the structure of employment within the EU, we find that almost half of the persons employed in Greece were not employees (i.e. they were self-employed, family workers or working from home). This figure could be contrasted with the majority of the Member States, where the share of employees was between 80% and 90%. Only two activities reported a high number of family workers, they were hotels and restaurants (5.5%) and distributive trades (3.3%). All other service Sections within NACE Rev. 1 had a share of family workers below 1% of the total number of persons employed.

Services offered their workforce greater flexibility in the number of hours that were worked. The longest working hours tended to be recorded in Greece, whilst the countries with the lowest average hours per week were Belgium and France.

The division of employment between the sexes showed that more men than women worked full-time, even in service activities traditionally associated with female employment. Indeed, women working full-time in services accounted for only 52% of the total number of men working full-time. We can see that the shift of employment towards service sectors of the economy has been fuelled by the increase in part-time work, which is far more prevalent in services than in other areas of the economy. Part-time work offers employers and employees greater flexibility. On the one hand, it allows employers to meet the demands of customers (for example, weekend and evening opening of stores). On the other hand, the flexibility for employees is valuable in attracting personnel who have private commitments (for example, family commitments).

The share of women working on a part-time basis was equal to 32.4% of all women in 1997. Within services these shares rose even higher, for example, in market services there were more than 50% of all women in the Netherlands working on a part-time basis. However, in Greece, no service activity reported that more than 10% of the women employed were working on a part-time basis.

For men, the share working part-time did not rise above 10% in any EU economy, even in market services where the highest share of men working part-time was recorded. At a more specific level of detail, we find that the part-time workforce within the activity of hotels and restaurants accounted for more than 10% of total male employment.

The final thematic analysis looks at an area that is forecast by all commentators to grow exponentially in the next few years, e-commerce. Europe is witnessing the emergence of an information society, growing with the Internet and telecommunications as its backbone. However, the analysis presented provides evidence that Europe is playing catch-up on the USA in this area. A large number of indicators are provided, such as the number of Internet hosts or the penetration rate of PCs into households. Almost all of these indicators showed that information technologies are penetrating American workplaces and households at a faster rate than in Europe. It is generally agreed that technological change contributes positively to employment and that knowledge-based activities stimulate demand for services and ways of providing such demand.

Looking at service activities within Europe based on the NACE Rev. 1 classification of economic activities it is possible to obtain a wide cross-section of information on a large number of activities. Data are generally presented at the 2-digit level of detail, taken from the SBS (Structural Business Statistics) database. Some highlights from the report include:

- Total employment in wholesale trade in the European Union reached over 5.3 million persons in 1997, representing almost 10% of the total number of persons employed in the service sector of the EU. Some 82.6% of those employed were employees, a somewhat higher share than the service sector average (78%).
- When comparing different countries for the activity of retail trade, Italy had the lowest average (2.1 persons employed per enterprise), with a very high number of small, family-owned retail outlets. Using the same measure, Germany and the United Kingdom had the largest enterprises, approaching 10 persons on average per enterprise.
- The share of part-time employment in the activity of hotels and restaurants was one of the highest in the service sector at 27%, just behind retail trade (28%). However, the ratios varied significantly between countries. In Luxembourg, Portugal and Greece the share of those working part-time was below 10%, whereas in the Netherlands it approached the 60% mark.
- Personnel costs per employee were higher in air transport than in any other NACE Rev. 1 transport Division, averaging almost 50 thousand ECU amongst those countries for which data was available. In France personnel costs per employee rose to as high as 55 thousand ECU per employee. There was little diversity between countries, as Denmark recorded the lowest figures, 42 thousand ECU per employee.
- The Labour Force Survey estimates that 2.6 million persons were employed in the post and telecommunications sector in the European Union in 1997. This represented some 5% of total employment in the European Union service sector. The share of employees was very high, exceeding 97%.
- The presence of women in the financial intermediation workforce was equivalent to almost one half. Women accounted for more than 47% of the number of persons employed. Finland boasted a far higher female participation rate, equivalent to around 80% of the total number of persons employed. Six other EU countries recorded more women than men within the activity of financial intermediation.

- Earnings in computer services were the highest of all service activities (except for research and development) at 2.2 thousand ECU per employee in 1995 (ranging from 1.2 thousand ECU in Portugal to 3.9 thousand ECU in Denmark).
- A very large share of other business activities is accounted for by activities such as legal, accounting or management consultancy services. These represented in 1995/96 well over a quarter of the number of persons employed and over a third of the turnover generated in the whole of other business activities in the majority of Member States. The high number of enterprises meant that only 3 to 4 persons worked on average in each enterprise.
- Official statistics indicate that industrial cleaning services are very labour intensive with a low turnover per capita. They accounted for as much as one quarter of the other business activities' workforce in Denmark and Luxembourg in 1995/96, whilst generating less than a tenth of total turnover.

The final section of the publication provides standardised country information, again from the SBS database. Country reports are included for each EU country (subject to data availability) covering a wide range of services in quite extensive detail, 2- and 3-digits of the NACE Rev. 1 classification. There are unfortunately still some gaps in the database, which result in country coverage sometimes being poor or certain variables not being covered.

Services in Europe describes in detail the structure and performance of the service sector of the European economy. Given that services offer the brightest possibility for tackling unemployment and that many SMEs are found in this area of the economy, services would appear fundamental to the economic success of Europe. European policies to promote the service sector need to focus not only on the jobs, but equally on a Single Market that works, as well as in a wider context trade in services that is fair across the globe. If these changes are coupled with an efficient infrastructure to enable services to be traded and distributed across Europe then the competitiveness of European services can be expected to improve.

Overview



Chapter 2

Introduction

Services have become the hub of economic growth within the past two decades across practically all developed economies. Whether we look at wealth generated or employment creation, we find that the service sector of the economy consistently records the fastest rate of expansion. Indeed, in the post-industrial model, the relative share of both agriculture and industry has declined. A long-term trend towards services is common to all developed economies, due to the two-fold effect of technological advances and rising personal incomes. Indeed, services are the only sector of the European economy to have generated jobs in the last decade. Nevertheless, the United States has outpaced the level of job creation seen within services in Europe.

Before looking in detail at these trends it is important to note that the changes in the global economy have played a significant role in the shift of economic activity towards the service sector of the economy. Indeed, with technological advances the boundaries between services and industry are less clear. At the same time, many manufacturing activities are now out-sourced to service providers, explaining to a large degree the apparent decline of the industrial base on which most modern economies were founded.

Whilst the development of business services is a key component in the creation of a competitive economy, another area where services have expanded rapidly in recent years has been in relation to personal or welfare services. As personal incomes have risen faster than inflation, individuals have had a larger share of their disposable income available for consuming services. At the same time, the European population is ageing and there is an increasing demand for welfare services (whether this provision is market-orientated or non-market orientated).

Job creation in the Triad

In 1997 the European Union continued to be the world's largest single labour market. It accounted for more than 145 million persons occupied. The economies of the USA and Japan employed 127 million and 66 million persons respectively. Services have been a crucial sector of the economy for the creation of new jobs in all three Triad economies.

In 1997, the European Union service sector reported a net gain of 1.06 million jobs (compared to a year before). These jobs are of major significance for the European economy, as other sectors of the economy recorded a net loss in the number of persons occupied. The share of services in total employment was over 67% in the European Union in 1997. However, the creation of new jobs within services has unfortunately done little to alleviate the unemployment problem faced within Europe, as the decline of agricultural and industrial employment has matched the increase in services' employment.

If we look at the development of employment over time we find that in 1993 the share of services in total employment had been 65%. In 1988, services accounted for fewer than 61% of the total number of persons occupied within the European Union. Hence, the rate that jobs were shifting to the service sector of the economy within Europe was somewhat faster during the period 1988-1993.

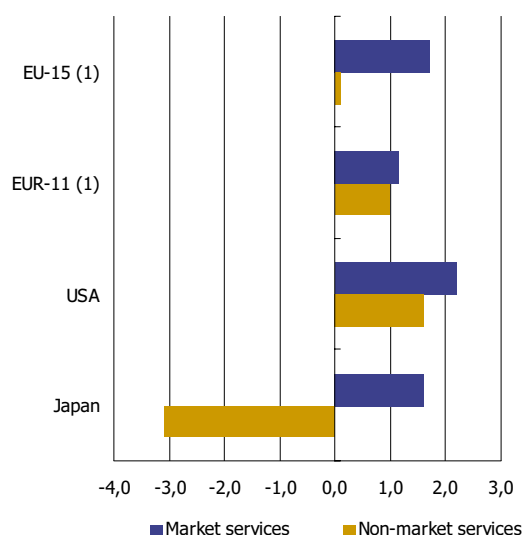
Whilst the growth in employment within the service sector is a positive feature of the European economy, the corresponding figures for the USA show that services in these two economies expanded at an even faster rate. Growth rates for the number of persons occupied in the USA were particularly high compared to those in the EU, for both market and non-market services.

Looking at data for 1997, we see that net job creation was more accentuated in the USA, where an increase of 2.8 million new jobs was recorded, 2.4 million of them were created in the services' sector of the economy. In contrast to the European labour market, American services have absorbed surplus labour, resulting in a low unemployment rate. The share of the American service sector in total employment amounted to 76% in 1997. It is of interest to note that since 1996, the American economy has employed more persons in the market services' sector than the European economy. The American growth rate for employment in market services has been approximately 1.5 percentage points above the corresponding European figures during the period 1994 to 1997 (where the effects of the recession of the early nineties need not be discounted).

Figure 2.1 shows the annual average change in employment in the services' sector broken down into market and non-market services over a ten-year period. Market services were clearly more dynamic than non-market services. This is partly due to the fact that many governments started to externalise activities, through tendering to private contractors, rather than relying on governmental departments.

In the European Union as a whole, market services saw their annual average rate of growth equal to almost 1.7% over the period considered (1993-1997). There was almost no change registered in the level of employment within non-market services. Looking at data for the euro-zone, non-market services reported annual average growth of nearly 1%. This indicates a disparity in the rate of growth amongst the Member States, attributable to fast growth in non-market services in Ireland (2.2%), Portugal (2.2%), Luxembourg (3.2%) and Spain (2.5%), and negative trends in countries outside the euro-zone, for example the United Kingdom (-3.0%) and Sweden (-0.6%).

Figure 2.1: annual average growth of employment in market and non-market services, 1988-1997 (%)



(1) 1993-1997 for market services.
For further information: National Accounts

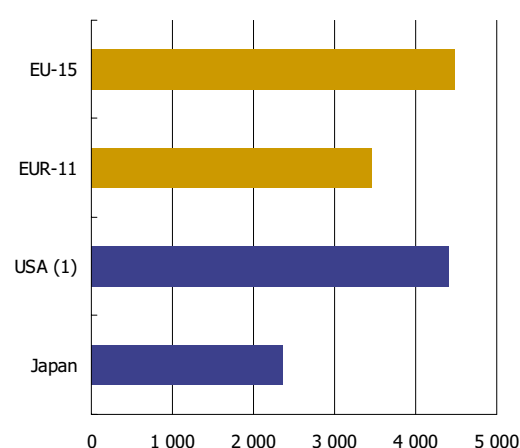
In the USA employment increased steadily in both market (2.2%) and non-market services (1.6%) over the period considered. The largest discrepancy between employment growth in market and non-market services was recorded in Japan, where services accounted for a much lower share of total employment, some 59% in 1997. Nevertheless, net job creation in the Japanese market services' sector was almost equivalent to the corresponding rates of the EU during the last decade for market services, at 1.6% per annum. However, non-market services reported a rate of change some 4.1 percentage points lower (an average reduction of more than 3.0% per annum).

Wealth created within the Triad

If we look at data for value added over a lengthy period of time from 1970 onwards, we find that there has been a marked expansion in the share of wealth generated by the services' sector of the Triad economies. Indeed, the importance of the services' sector has continued to increase steadily, a long-term trend that goes back for decades.

Nevertheless, we find that value added for services in the American economy seems to have reached a plateau. Indeed, National Accounts' data shows that the services' share of value added within the USA actually fell during the period 1988 to 1996 (from 75% to 73%). If we go back further in time, we see that services accounted for 63% of total wealth created in the American economy in 1970. During the same period, Japan also experienced an increase in the share of total value added, with a 15 percentage point gain from 47% in 1970 to 62% by 1997.

Figure 2.2: value added in services in the Triad, 1997 (billion ECU)



(1) 1996.

For further information: National Accounts

Within the EU the share of services in total value added has been fast approaching the share seen in the USA. From an initial share of 50% of total wealth in 1970, European services accounted for 67% of total value added by 1997. This was the sharpest increase within the three Triad economies over the period 1970 to 1997 (a 17 percentage point gain). Hence, European services were approaching the share of value added seen in the USA by 1997. It remains to be seen whether the constant share of USA services (in the region of 75% of total wealth) will be reproduced in Europe.

Europe may be seen to be playing catch-up with the USA with respect to the share of value added accounted for by services. Whilst value added in market services is growing at a faster rate in the EU than in the USA, we find that the number of persons employed is still growing at a faster rate in the USA.

Productivity trends in the Triad

If we look at the trend of labour productivity we can note that services increasingly require a greater proportion of employment to keep productivity rising in line with the trend of industrial output. This is clearly the case in the American economy, where services have generated the vast majority of new employment opportunities in the economy, yet the share of wealth created by the service sector has even declined in the last few years. Indeed, with high productivity gains in the industrial economy, due to rationalisation and improved technological advances, services require a greater proportion of total employment in order to maintain output in line with that of industry. The transfer of labour-intensive industrial activities to low cost regions has been followed by a transfer of industrial activity towards high technology and high value added activities, accentuating the shifts in productivity. Furthermore, as manufacturing has been re-engineered, outsourcing of many service activities has taken place (leading in particular to growth in business services). Productivity figures for services are likely to underestimate the true figures, due to measurement difficulties. These difficulties may include, for example, the measurement of the total number of persons occupied, which takes no account of the number of part-time workers. Hence, the employment value for services is likely to be over-estimated if we are trying to compare on the basis of full-time equivalents. A second measurement difficulty exists concerning intangibles, which are often a very important feature of services provided, whilst not being accounted for in official statistics.

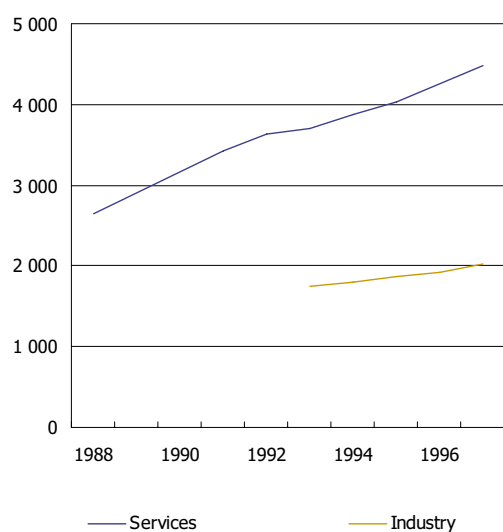
Labour productivity of services in the USA was higher than the corresponding figures for the EU or Japan. Nevertheless, the fastest growth in labour productivity within the Triad may be observed in Japan. The EU is also progressively catching up on the USA, although both the EU and Japan continue to report labour productivity (as measured by value added divided by the number of persons occupied) below the American figures.

It would appear that the main driving force behind the growth of wealth in the EU is productivity gains as opposed to additional labour input. Within the USA the converse is true, with the largest share of increased wealth being generated by an increase in the total number of hours worked. These trends in employment have already been outlined above, where the higher level of net job creation in the USA economy was noted. Indeed, if we look at the change in employment levels in the EU and Japan we can see that almost none of the gain in productivity is attributable to an increase in the total number of hours worked. Rather the number of hours worked within the EU has remained constant and enterprises have been reluctant to hire new employees. One reason for this may be that the price of labour is generally higher in the EU than in the USA, hence enterprises have preferred to substitute capital for labour, whilst job creation has occurred in the USA.

Value added within the EU

The services' sector is by far the main contributor to the total wealth created in the European Union. In 1997 value added of services amounted to 4.5 billion ECU, which represented 67% of the total wealth created within the European economy.

Figure 2.3: Value added of the EU in services and industry (billion ECU)

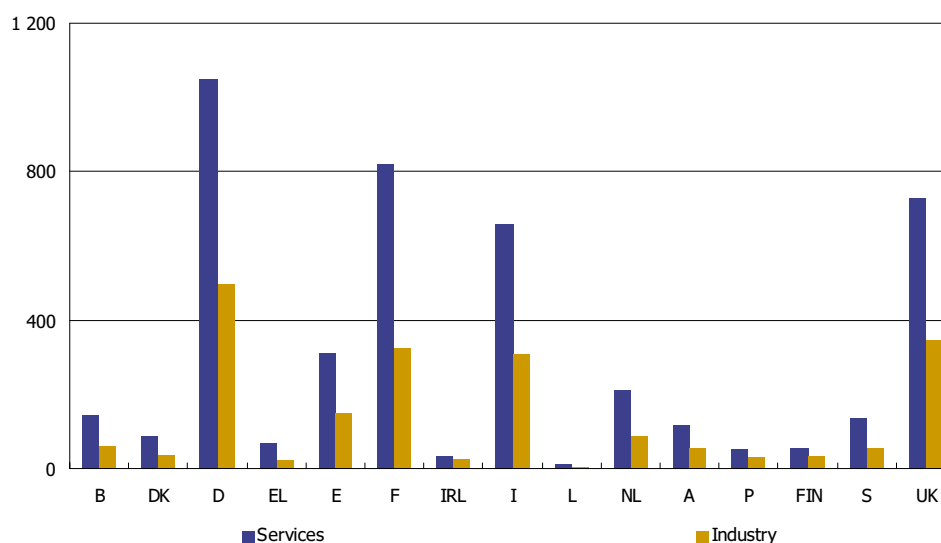


For further information: National Accounts

The services' sector continued not only to contribute the largest share of value added, it also saw its share grow steadily during the past decade. Figure 2.3 shows the evolution of both services and industry in terms of value added in the European Union between 1988 and 1997. One can clearly see that over this period, value added in the service sector has increased at a significantly faster rate than value added in industry. Only in the early 1990's did the growth rate of the value added in the services' sector slow, due to global recession.

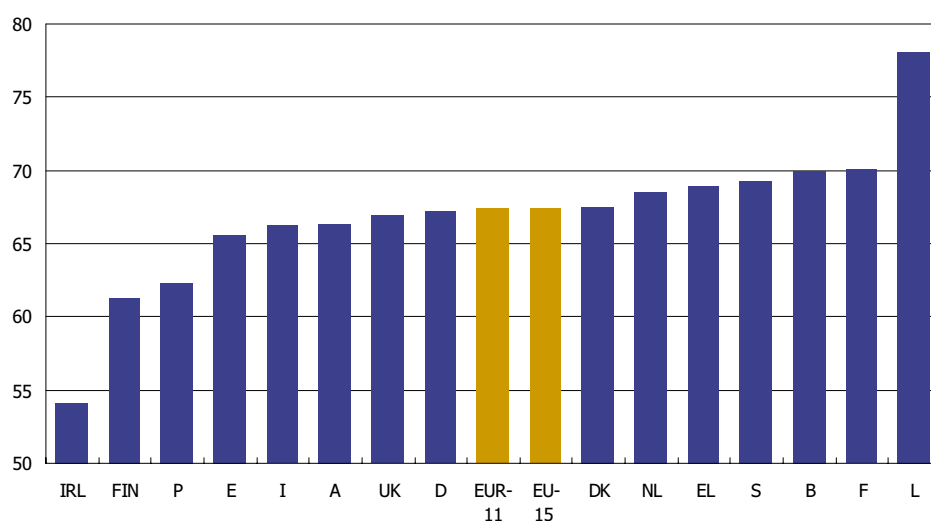
When comparing the data of the Member States, we can see a high degree of uniformity in the situation reported by each individual Member State. Figure 2.4 shows that in practically all Member States value added in the service sector was between double and treble the value added of the industrial sector in 1997.

Figure 2.4: value added of the EU in services and industry, 1997 (billion ECU)



For further information: National Accounts

Figure 2.5: share of value added of services in total value added, 1997 (%)



For further information: National Accounts

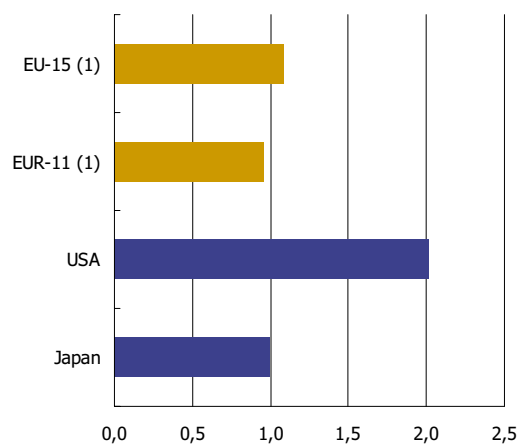
Services represented between 60% and 70% of total value added in all Member States, with two exceptions. On the one hand there was the unusual case of Luxembourg, where services accounted for nearly 80% of wealth created, due mainly to a buoyant financial services' sector. On the other hand, in Ireland the services' sector represented only 54% of total value added. The relative importance of the industrial sector in this country is somewhat higher than in the remainder of the Member States, due largely to tax incentives that have encouraged a large amount of foreign direct investment in the Irish industrial sector of the economy.

Employment in the EU

As already stated, the services' sector of the European economy has been the main driving force behind job creation in the European Union in the past two decades (albeit at rates below those of the USA). This trend is true for the majority of the Member States within the European Union. Figure 2.6 shows the annual average rate of change for employment during the period 1988 to 1997.

In general, employment growth was positive in all Member States, the only exceptions being Finland and Sweden. If we study more closely why these two Scandinavian countries recorded a decline in employment during the last decade, we can note that they were particularly hard hit during the recession of the early nineties. In 1992 and 1993 Finnish employment in services fell by over 5% per annum. Since then the rate of growth has once again turned positive and the latest figure for 1997 reported an increase of 2.5% (compared to a year before). Swedish employment levels were not as hard hit as in Finland. However, following a recovery in the trend of employment in the mid-nineties, negative growth rates were once more recorded in Sweden in 1996 and 1997 (-1.4% and -1% respectively).

Figure 2.6: average annual growth rate of employment in services, 1988-1997, (%)



(1) 1993-1997.

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As for the other Member States, Ireland, Portugal, Luxembourg, Spain and the Netherlands experienced above average growth between 1988 and 1997. Luxembourg had a particularly high growth rate of 4% per annum. Even during the early 1990's recession, Luxembourg's growth rate remained above the level of 2%.

In most Member States though, the early 1990's recession did have a negative impact on employment levels in the service sector. Before the recession, from 1988 to 1990, growth rates were very vigorous, for example in Spain (5.2% in 1989), the United Kingdom (4% in 1988), Portugal (7% in 1990), Luxembourg (5% in 1990) and

Sweden (nearly 5% in 1989). From 1990 to 1994 growth rates were much lower in practically all Member States and only in 1995 did they start to pick up again.

The one country where employment growth in the services' sector was consistently rather weak throughout the whole period was Denmark, with significant increases in the growth rate of employment being recorded only in 1996 (2%) and 1997 (2.2%).

Labour productivity within the EU

Labour productivity in the European Union, measured as value added divided by the number of persons occupied, varied substantially amongst the Member States. In 1997, the most labour productive Member States were Luxembourg, followed by Germany, Belgium and Austria. At the other end of the scale lay Portugal and Spain (data for Greece was not available for this analysis).

Labour productivity within the Member States for services ranged between 47.5 thousand ECU/head in Luxembourg and 18.6 thousand ECU/head in Portugal. Whilst these figures are based on constant price data, they unfortunately refer to value added at market prices (due to data availability).

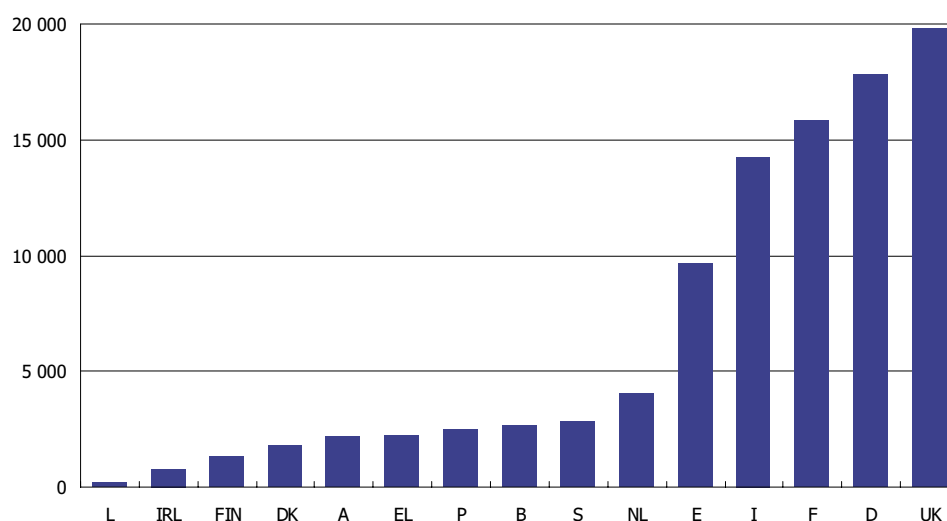
If we look at the increase in labour productivity from 1980 onwards we see that three Member States reported very low rates of growth (Italy, the Netherlands and Spain). The highest growth rate in absolute terms was recorded in the United Kingdom, where value added per head rose from under 15 thousand ECU per person to 34 thousand ECU per person. Luxembourg recorded the second highest absolute gain. It is of interest to note that these two countries both specialise in financial services.

Market and non-market services in the EU

In 1997 nearly 67 million people were employed in the European Union in the market services' sector and 31 million in the non-market services' sector. In the euro-zone the same breakdown showed that there were 47 million and 24 million persons employed respectively. Thus, employment in market services is more than double that of non-market services in the EU.

Looking at the different Member States, the Nordic countries and Ireland were clearly singled out by the fact that the number of persons occupied in non-market services came very close to those occupied in market services. In Ireland, the number of persons occupied in non-market services reached 76% of those occupied in market services, in Finland 78%, in Denmark 87% and in Sweden 89%. These figures give an indication of the importance of public administration within these Member States as a supplier of services.

Figure 2.7: employment in the services' sector, 1997 (thousands)



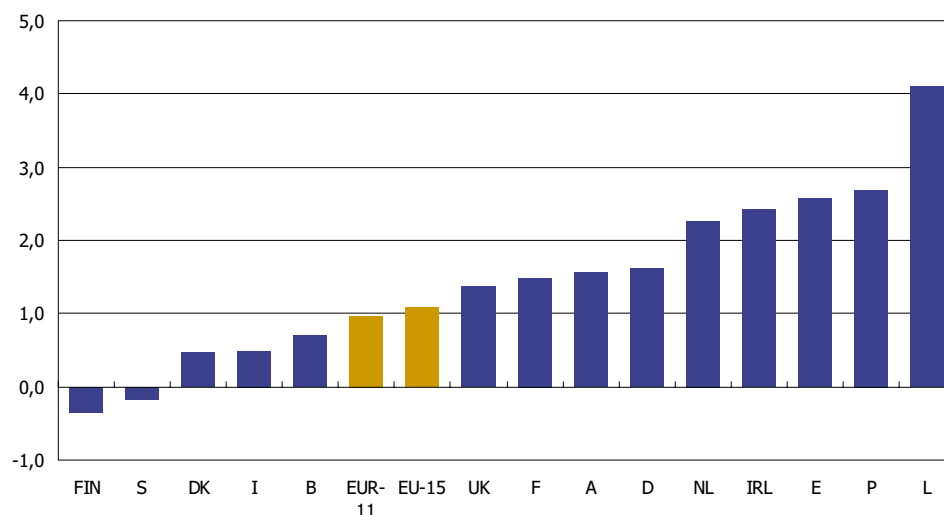
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At the other end of the spectrum we find the United Kingdom and Luxembourg, where only 20% of the persons employed within services are occupied in non-market services. The rest of the Member States had a breakdown relatively close to the European Union average of 32%.

The long-term trends (1988-1997) indicate that employment in market services has clearly been more dynamic than in non-market services. In the European Union as a whole, annual average growth of employment in market services amounted to 1.5% (estimate), whereas for non-market services it amounted to only 0.2%. Whilst annual average growth of employment in market services has been positive for all Member States (except Finland) over the period 1988 to 1997, it has been negative for non-market services in Sweden (-0.6%), Belgium (-0.5%) and especially so in the United Kingdom (-3%). Indeed, in the United Kingdom employment in market services grew at annual average rate of 3% per annum, whilst at the same time non-market services decreased by almost as much. As a result, market services significantly increased their share in total services' employment from 69% in 1988 to 80% by 1997.

Nevertheless, it should be noted that in the majority of Member States that saw above average growth for employment in market services, there was generally growth in non-market services too. This was the case for Ireland, France, Portugal and Luxembourg.

Figure 2.8: annual average growth of employment in the services' sector, 1988-1997 (%) (1)

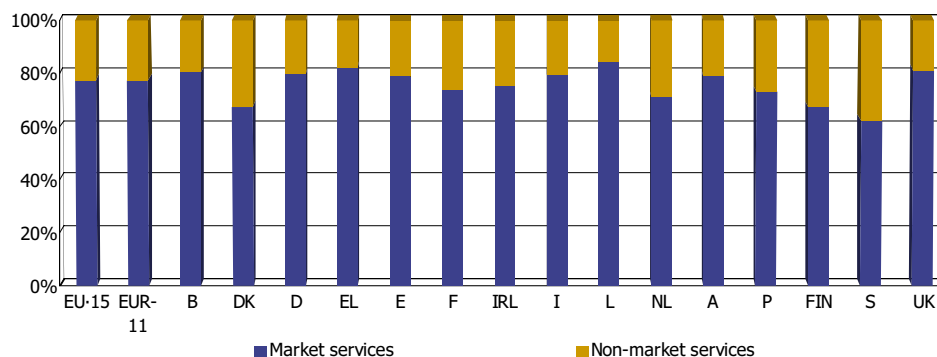


(1) 1993-1997 for EU-15 and EUR-11.
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Market services accounted for a significant share of value added in the services' sector. In the European Union as a whole, market services' value added in 1997 amounted to 3,485 billion ECU, as opposed to non-market services, which accounted for 1,002 billion ECU.

A similar pattern could be observed throughout the Member States. Figure 2.9 shows the share of market services in total services' value added for all Member States. In Belgium (81%), Greece (83%), Luxembourg (84%) and the United Kingdom (81%) market services had a share of total services well above average. By contrast, in Denmark (68%), Sweden (62%), Finland (68%) and the Netherlands (71%) it was well below the average (once again reflecting the importance of the public sector in the three Nordic countries).

Figure 2.9: value added for market and non-market services, 1997



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Within the market services' sector, four countries reported labour productivity above the level of 50 thousand ECU per head, they were Denmark, Germany, Finland and France. Of these countries Finland reported the largest gain in labour productivity, equal to more than 17 thousand ECU per head between 1980 and 1995. However, looking at all EU countries the United Kingdom recorded the largest absolute gain, with labour productivity rising to 39 thousand ECU per head by 1995. The lowest growth in absolute terms was recorded in Italy, the Netherlands and Spain. The Dutch figure may be explained by the fact that a large proportion of new jobs created in the Netherlands are part-time jobs in services. Hence, the weight of the number of persons employed is over-stated in the calculation of labour productivity (as the data is not adjusted for full-time equivalents).

Labour productivity in the non-market services' sector generally ran below that of market services. The lowest levels of labour productivity (for countries which had data available for 1995) were found in Spain (although the Greek and Portuguese figures were probably lower). Indeed, there was a reduction in labour productivity for Spain during the period considered of just over 4 thousand ECU per head. The highest labour productivity figures for non-market services within the Union were recorded in Austria, Denmark, Finland and the Netherlands.

C onclusions

The general tendency of the data presented above is that the EU market services' sector has expanded its share of both employment and value added. The importance of the non-market services' sector has declined significantly in some countries, although this reduction has usually been due to privatisation and deregulation policy "externalising" activities to the market services' sector of the economy, rather than any net loss for the services' sector as a whole.

The European Union has recorded labour productivity growth above the rates seen in the USA. Nevertheless, it would appear that whilst the gap in labour productivity has closed, this has been largely due to a substitution of capital for labour, rather than due to any significant expansion in the number of persons employed and total hours worked within Europe.

Net job creation that has occurred within Europe can be almost wholly attributable to the market services' sector of the economy. However, these gains have done little to alleviate the unemployment problem within Europe. Rather, the gains in jobs within the market services' sector of the European economy have been matched by the decline in employment witnessed in industrial and agricultural activities. Europe has therefore been less successful in creating new jobs than the USA. Some reasons that may explain this trend include the high level of labour costs within Europe (in particular non-wage costs associated within hiring new labour). Secondly, labour markets within the European Union are not as flexible in the USA. Thirdly, Europe has been slow to exploit new technologies and to move towards a knowledge-based economy, relying on information technologies - although this is changing. Technological change may well involve some job losses through restructuring (this has particularly been the case in manufacturing activities such as craft workers and machine operators). Nevertheless, if technology is embraced at an early stage, then the opportunities to take a lead in the market avoid the costs associated with playing catch-up (high costs of entry, low profitability, low levels of research and development). New technologies are also at the forefront of expanding services' markets, where physical proximity was once a prerequisite for economic activity. In the areas of financial services, education and distributive trades there has been a rapid increase in global trade. This process has been further encouraged by international agreements with respect to the liberalisation of services' markets (GATS).

Structure of services



Chapter 3

Structure and performance of services

Structure and performance of services

The growth of the EU services' sector has not been evenly distributed across all areas of the services' economy. Neither has the pace of change towards a service based economy been at the same rate when we compare the performance of different economies within the European Union. One general development that we may however note across the European services' economy is that there has been a move from small-scale family-owned services towards a more international and global presence of enterprises (especially in areas such as retail trade, communications, financial and business services). This trend has been countered by an increase in the number of proximity service suppliers throughout the EU. These services are usually developed as small local units, catering for a particular client base or a small local market.

This section of Services in Europe will develop the analysis presented in the overview chapter by looking in more detail at different service branches within the EU economy. The data presented is largely drawn from National Accounts sources, outlining the changes within the structural composition of the service sector in the EU and looking at its developments over time. The text and tables assess which service sectors are becoming more important in the European economy, both in terms of the wealth they create, as well as the number of jobs they create.

National Accounts group services data into market and non-market services. The majority of this publication concentrates on the former of these two (indeed, for the sectoral and country analysis presented later in the publication, data available from the SBS database only presently allows for an analysis of market service activities). Generally it is acknowledged that market services have a higher level of performance in terms of labour productivity (as measured by value added per person employed). Nevertheless, the role of non-market services is quite high in many countries of the European Union, especially when compared to the importance of this sector of the economy in Japan and the USA.

Value added trends

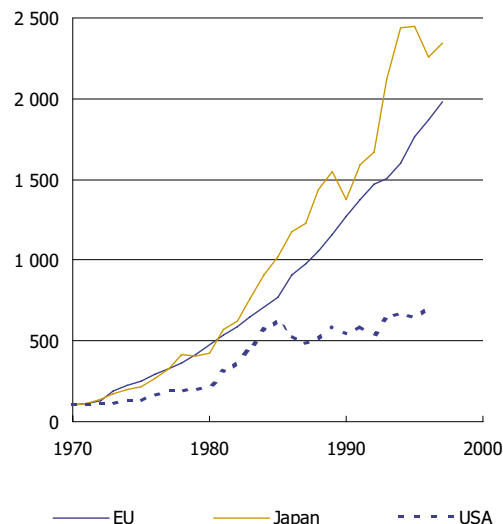
We will begin by identifying which branches of the services' economy have been responsible for the expansion of services as a whole during the last thirty years. We should note that the USA is by far the most service-orientated of the three Triad economies, with over 73% of total wealth created by services in 1996. In Japan the figures were considerably lower, as the industrial sector of the economy still accounted for a significantly higher share of economic activity. Europe sits somewhere between the other two countries.

Figure 3.1 shows the development of value added over the last three decades for market services. The data presented are in ECU terms and hence the EU displays a fairly smooth curve, whilst for Japan and the USA we may also observe the influence of exchange rate fluctuations. It is however possible to see that market services have expanded at a much faster rate in Japan and the EU when compared to the USA.

We may make a similar comparison for non-market services during the period 1970 to 1997. Figure 3.2 shows that the highest growth rate for non-market services was again recorded in Japan, where total value added rose from just 12.6 billion ECU in 1970 to 297.2 billion ECU by 1997.

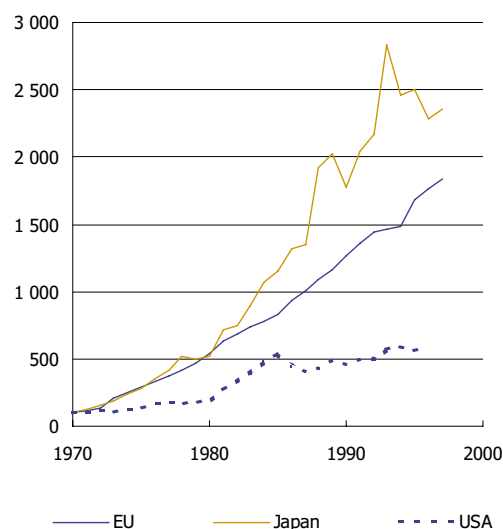
Total value added of non-market services in the EU (1,002 billion ECU) was more than three times higher than the corresponding figure in Japan. However, non-market services grew at a slower pace in Europe between 1970 and 1997. The USA had the highest total value added for non-market services (1,113 billion ECU), although the rate of growth over the last three decades for this sector of the American economy was the lowest within the Triad.

Figure 3.1: development of value added in the Triad for market services (1970=100)



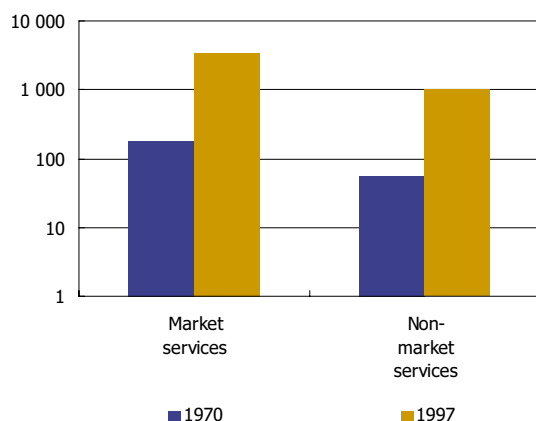
For further information: National Accounts

Figure 3.2: development of value added in the Triad for non-market services (1970=100)



For further information: National Accounts

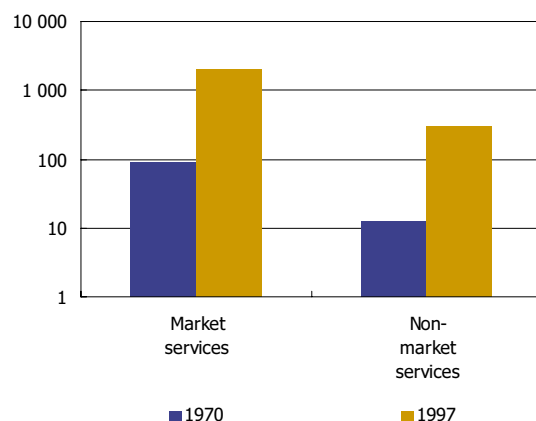
Figure 3.3: value added at market prices in the EU in services (billion ECU) (1)



(1) A logarithmic scale has been used.
For further information: National Accounts

One distinguishing feature of European services was the expanding share of total value added generated within the non-market services' sector of the economy. Indeed, this sector of the EU economy has seen its share of total value added increase from 11.8% to 15.0%, a gain of 3.2 percentage points between 1970 and 1997. If we compare this with the pattern of development in Japan and the USA we find that there was a somewhat different picture. The non-market services' branch in Japan has traditionally accounted for a much lower share of Japanese economic activity. Between 1970 and 1997, non-market services saw their share of total value added in Japan rise by 1.7 percentage points to just 7.9%. In the USA, non-market services accounted for 18.7% of total value added in 1970, a figure that remained almost constant through until 1996, when a share of 18.5% of total value added was recorded (a reduction of just 0.2 percentage points over the period).

Figure 3.4: value added at market prices in Japan in services (billion ECU) (1)



(1) A logarithmic scale has been used.
For further information: National Accounts

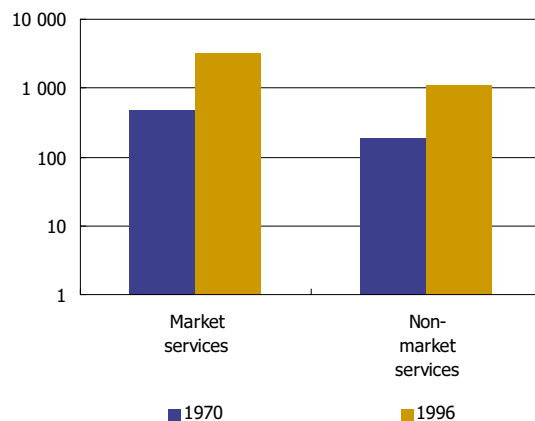
If we look at the share of services in the total value added of the US economy in 1970 we see that services already accounted for 65.7%, a figure just below the share of services in total value added in Europe in 1997. Hence, it was of no surprise to find that of the three Triad economies, the USA reported the lowest rates of growth for services in total value added, as the share of services in the USA economy was already at a high level as early as 1970. The different cycles of development in the three Triad economies do not however hide the fact that services are becoming increasingly important, no matter which of the Triad countries we study. Across all three countries the data clearly show that market services have expanded at a more rapid pace than any other area of the economy.

Despite the fact that non-market services grew in importance in the European economy, their 3.2 percentage point gain in total value added between 1970 and 1997 was nevertheless overshadowed by the performance of the market services' branch, where an increase of 14.3 percentage points was recorded between 1970 and 1997. In relative terms this gain was much stronger than the growth of market services in either Japan or the USA, where increases of 11.9 and 7.7 percentage points were recorded.

If we compare the share of total value added generated by market services in each of the three Triad economies we find that they report remarkably close figures. The latest data available for each member of the Triad shows that market services accounted for 53.4% of total value added in the EU, whereas in Japan the share was 55.2% and in the USA, some 56.3%. Hence, all three Triad economies reported that their share of market services in total value added was within 2.9 percentage points. Given that the Japanese and EU market services' sectors have been growing at a faster rate than the growth observed in the USA, we can expect the respective shares to become even closer in the near future.

With the value added of market services reporting very similar shares across the Triad, it is perhaps interesting to study in detail the composition of the market services' economy. We will now go on to examine the structural composition of the EU market services' economy to see if there are more marked differences in the composition of the service economy at a more disaggregated level.

Figure 3.5: value added at market prices in the USA in services (billion ECU) (1)



(1) Please note that the latest data available for the USA is for 1996; a logarithmic scale has been used.
For further information: National Accounts

Table 3.1: structure of services' value added in the Triad, 1997 (billion ECU)

	EU-15 (1)	EUR-11 (1)	Japan	USA (2)
Market services, of which	3 484,9	2 488,1	2 059,6	3 298,6
Communication services	4,5%	4,4%	2,4%	4,9%
Distributive trades	24,7%	25,0%	24,0%	26,0%
Financial services	10,6%	10,1%	6,5%	9,2%
Horeca	5,6%	5,5%	12,5%	5,6%
Other market services	46,5%	47,5%	45,1%	48,2%
Transport services	8,1%	7,5%	9,5%	6,3%
Non-market services	1 002,1	736,4	297,2	1 113,4
Total economy	6 660,2	4 836,0	3 780,5	6 024,5

(1) Earlier years had to be used for some countries for the breakdown of market services.

(2) 1996.

For further information: National Accounts

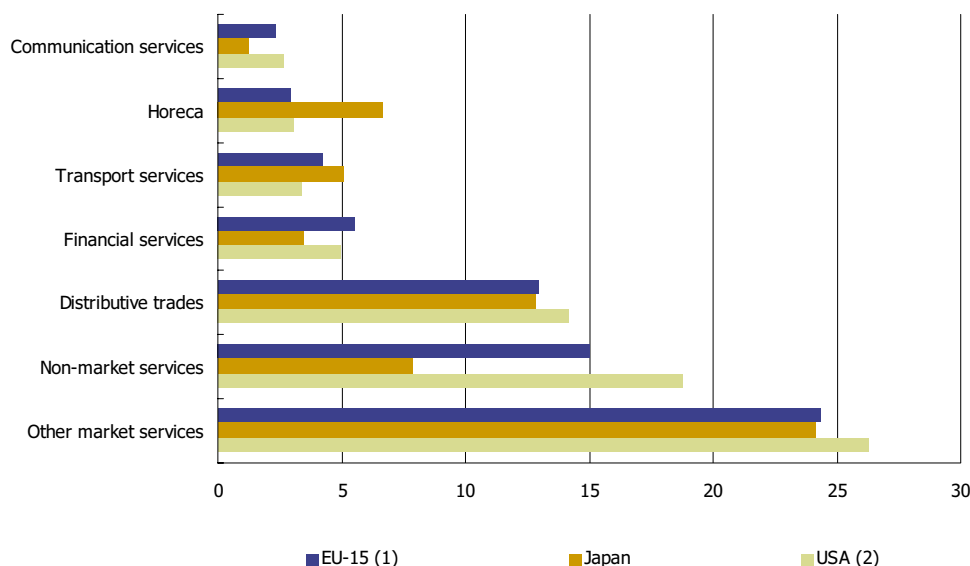
The data presented in table 3.1 confirms the observation that the structure of services between the Triad economies has followed a similar pattern. It is possible to breakdown the data for market services into six separate branches using National Accounts sources. The reader should note that the branch labelled "other market services" has grown considerably from being a residual group to one that contains many new and rapidly growing services that have developed during the course of the last thirty years. Indeed, other market services accounted for almost half of the value added generated within the market services' sectors of the Triad economies. The importance of other market services in the three Triad economies was again very similar, ranging from a figure of 45.1% of market services' value added in Japan to 48.2% in the USA.

Distributive trades were the second most important branch of the market services' economy (again this was true for all three members of the Triad). Distributive trades accounted for around one quarter of the value added generated in the Triad (ranging from 24.0% in Japan to 26.0% in the USA).

Whilst the two most important market services' branches were clearly evident across the Triad, there were some differences moving into the smaller market services. In Europe the third most important market service was financial services, accounting for just over 10% of value added. A similar picture was seen in the USA, where financial services reported a 9.2% share of value added in American market services. In Japan the share of financial services was much lower at 6.5%. Indeed, financial services were the fifth most important market services' branch in Japan, the third most important branch being Horeca with a 12.5% share of the market services' total, some 7 percentage points higher than in either the EU or the USA.

Transport services were the fourth most important sector (as measured by value added) in all three Triad economies. In Japan transport services accounted for 9.5% of the market services total, a figure well above the corresponding shares in the USA and the euro-zone (6.3% and 7.5% respectively). Transport services were relatively more important in the EU than the USA. These figures reflect to a large degree the density of population and geographical disposition of the countries in question.

**Figure 3.6: structure of services' value added in the Triad, 1997
(% of total value added)**



(1) Earlier years had to be used for some countries for the breakdown of market services.

(2) 1996.

For further information: National Accounts

Horeca (hotels, restaurants and cafés) was the fifth most important market services' sector in the EU economy, accounting for 5.6% of value added (an identical share to that seen in the USA). We have already noted that Horeca was far more important in Japan.

The smallest market services' branch in all three Triad economies was communication services, where less than 5% of the total value added for market services was generated. The EU share (4.5%) was slightly lower than in the USA (4.9%). However, in Japan communication services had a much lower share of total value added, accounting for only 2.4% of the market services' total.

It is perhaps easier to look at the structural breakdown of services in a graphical format. Figure 3.6 presents the breakdown of the services' value added in the three Triad economies. The most striking features of the graphic are the low share of non-market services in the Japanese economy and the comparatively high share of Horeca (also in Japan). Otherwise the differences between the shares in value added of each branch were limited to 3 percentage points between all three Triad members.

Table 3.2: Structure of services' value added in selected EU countries, 1996 (billion ECU)

	D	F	I	UK
Market services, of which	834,0	598,7	495,4	476,1
Communication services	4,1%	4,5%	3,5%	4,7%
Distributive trades	20,4%	24,7%	29,3%	21,6%
Financial services	10,2%	8,3%	9,2%	10,3%
Horeca	2,4%	5,8%	6,6%	5,2%
Other market services	57,4%	49,8%	42,5%	48,9%
Transport services	5,5%	6,8%	8,8%	9,2%
Non-market services	212,0	212,1	124,6	108,8
Total economy	1 565,1	1 155,9	941,5	873,7

For further information: National Accounts

Table 3.2 presents a breakdown of services within the EU. Data is given for the structure of the four largest EU economies, again detailing the share of each market service branch, as well as the importance of non-market services.

Again we find that the two most important market services were other market services and distributive trades. The economic weight of these branches of the economy varied somewhat between the four countries. For other market services the German figure was particularly high at 57.4% of total market services' value added. Within distributive trades the Italian share was high, at close to 30% of the market services total. Financial services were more developed in Germany and the United Kingdom, whilst France and Italy had higher shares in Horeca (the market services' branch with the lowest value added in Germany). For more details on the structural specialisation within European services, please refer to later in this section.

Employment trends

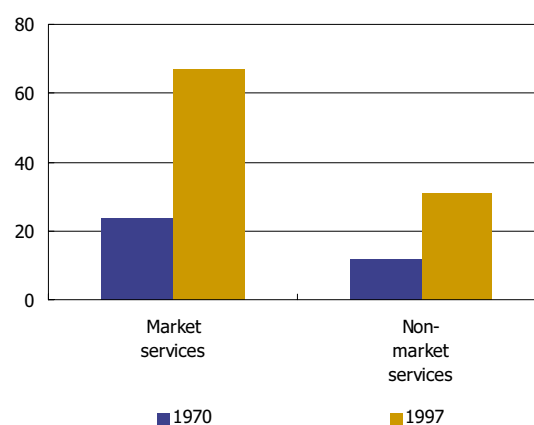
There has been considerable growth in the number of persons employed within the European Union in the last thirty years. National Accounts data allow us to look at the development of employment over this time frame. Total EU employment has grown from almost 76 million occupied persons in 1970 to just over 145 million persons by 1997⁽¹⁾. In order to avoid the effects of changes in EU membership, it is perhaps more prudent to look at the share of services in total EU employment, rather than at absolute figures, which jump with the accession of new Member States.

(1) These figures do not take account of the changes in the membership of the EU.

The growth of 'services' employment has been well above the average seen for the whole European economy. In 1970, services accounted for 46.2% of total EU employment, a share which subsequently rose to 67.5% of total employment by 1997. Breaking down these figures into market and non-market services we find that both branches saw an increase in their share of total EU employment. However, the rate of growth of market services was well in excess of that observed for non-market services. The share of market services in total EU employment rose from 31.0% to 46.1% by 1997, whilst non-market services accounted for 15.3% of total employment in 1971, rising to 21.3% by 1997. If we combine these gains we may note that the share of services in total EU employment rose by more than 21 percentage points during less than 30 years.

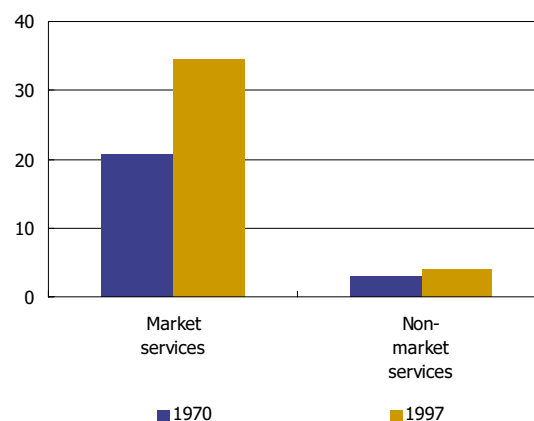
If we compare these figures to those recorded in Japan and the USA we can see that the other two Triad economies also recorded rapid growth in services' employment. However, the data reveal that market services were almost exclusively responsible for the growth in employment witnessed in Japan, whilst in the USA there was even a small decline in the share of total employment accounted for by the non-market services' sector of the American economy.

Figure 3.7: number of occupied persons in the EU in services (millions)



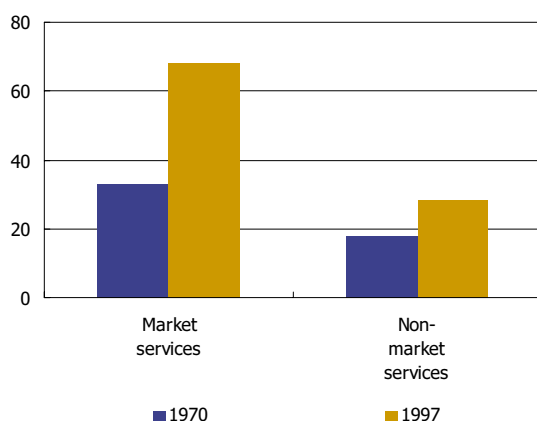
For further information: National Accounts

Figure 3.8: number of occupied persons in Japan in services (millions)



For further information: National Accounts

Figure 3.9: number of occupied persons in the USA in services (millions)



For further information: National Accounts

In Japan services accounted for a lower share of total employment than in either the EU or the USA, reaching 58.6% of total employment by 1997. However, we should note the very low share of the non-market services' sector of the Japanese economy, accounting for only 6.1% of the total number of occupied persons in Japan in 1997 (an increase of just 0.3 percentage points on the figures from 1970). Market services saw their share of total Japanese employment grow by almost 14 percentage points (a similar rate to the 15.2 point gain observed in the EU).

We have already noted that the American economy has moved at a faster pace towards being dominated by services and that much of this transformation had taken place before 1970 (when the data presented begin). In 1997, almost 76% of total employment in the USA was found in the service sector of the American economy. Some 53.7% of those persons occupied were found in market services, a comparable figure to the one in Japan. However, in the EU there was a somewhat different picture, despite the fact that EU employment in market services grew at a rapid pace between 1970 and 1997. The share of EU market services' employment in total EU employment remained well below the level of 50%.

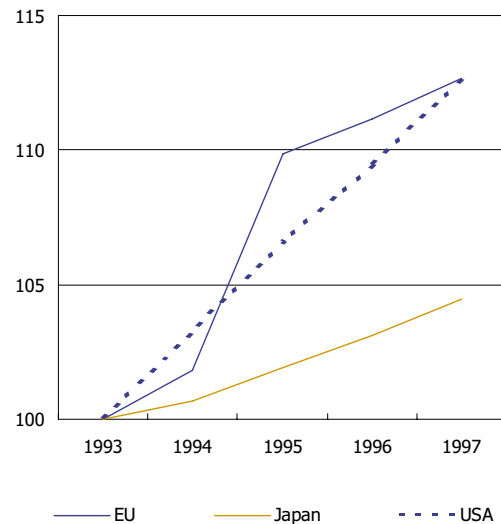
Turning to the share of non-market services' employment in total employment, we find that the share of the non-market services' sector in total European employment was at a similar level to that observed in the USA, 21.3% compared to 22.3% in the USA in 1997. We have already noted the low share of Japanese non-market services, equal to just 6.1%.

Whilst in Japan and the USA there was little or no change in the share of non-market services' employment in total employment, in the EU there was an expansion of 6 percentage points. This shift may be explained at least in part by the accession of new countries to the EU, especially the Nordic countries, where the share of non-market services in total employment is traditionally high. However, the shift in employment to the non-market services' sector of the economy was twice as high as the corresponding shift in value added (only 3.2 percentage points).

Figure 3.10 shows the recent developments of market services' employment in the Triad. It is of interest to note that despite the fact that the three Triad economies have all been through periods of recession in the nineties, market services' employment has continued to grow. Indeed, between 1993 and 1997 Eurostat estimate that market services' employment has grown by almost 13% in both the EU and the USA, whilst growth in Japan was less spectacular at 4%.

There were 68.3 million persons employed in market services in the USA in 1997, some 1.3 million persons more than in the EU. On the other hand, the EU employed 2.6 million more persons in non-market services than the USA.

Figure 3.10: development of market services' employment in the Triad (1993=100)



For further information: National Accounts

As with the data for value added, it is perhaps more interesting to look at the breakdown of the structure of employment between the different market services. The grouping of other market services accounted for the largest number of persons employed in both the EU and the USA. However, the shares reported were well below the corresponding shares of value added for this branch, suggesting a high level of labour productivity.

In Japan more persons were employed in distributive trades than in other market services. All three Triad economies reported that distributive trades had a higher share of employment than value added. We may therefore conclude that this branch of the economy was not as productive (as measured by value added per person employed). Distributive trades accounted for around one third of the persons employed in market services in all three Triad economies, ranging from 32.2% in the EU to 34.8% in the USA.

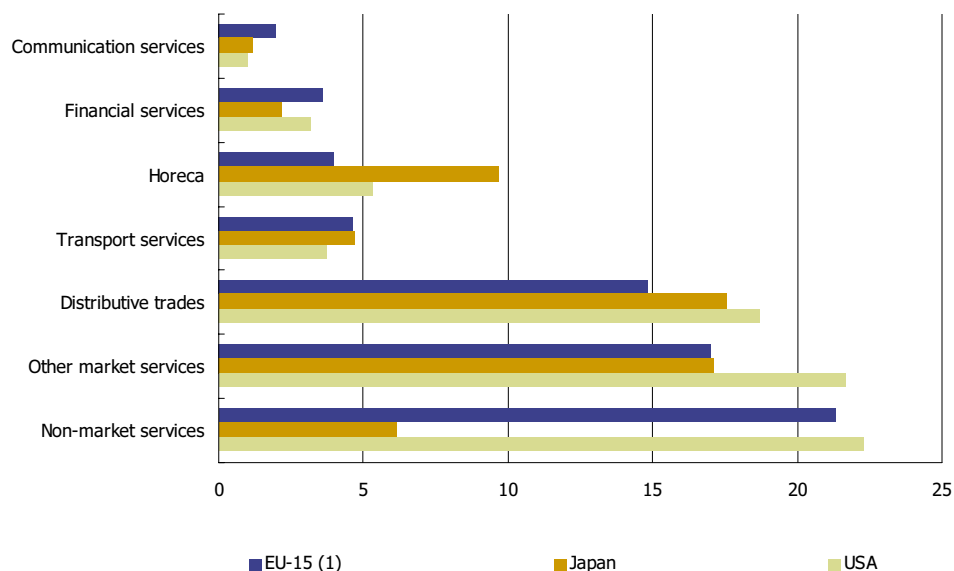
Table 3.3: structure of services' employment in the Triad, 1997 (millions)

	EU-15 (1)	EUR-11 (1)	Japan	USA
Market services, of which	66,9	46,9	34,6	68,3
Communication services	4,3%	4,7%	2,2%	1,9%
Distributive trades	32,2%	33,4%	33,5%	34,8%
Financial services	7,8%	8,4%	4,2%	6,0%
Horeca	8,6%	8,4%	18,5%	10,0%
Other market services	36,9%	34,1%	32,6%	40,4%
Transport services	10,1%	11,0%	9,0%	7,0%
Non-market services	30,9	24,3	4,1	28,3
Total economy	145,1	108,2	66,0	127,3

(1) Earlier years had to be used for some countries for the breakdown of market services.

For further information: National Accounts

Figure 3.11: structure of services' employment in the Triad, 1997
(% of total employment)



(1) Earlier years had to be used for some countries for the breakdown of market services.
For further information: National Accounts

Horeca was the third most important market services' sector in terms of employment in Japan and the USA, whilst in the EU transport services were more important. This was especially the case in the euro-zone, where transport services accounted for 11.0% of market services' employment, whilst the corresponding figure for EU-15 was 10.1%.

The share of financial services in total market services' employment was generally well below the corresponding shares of value added, suggesting a comparatively high level of labour productivity in all three members of the Triad. In communication services, the shares of value added and employment were almost equivalent for the EU and Japan, whilst in the USA the employment share was well below the corresponding share of value added.

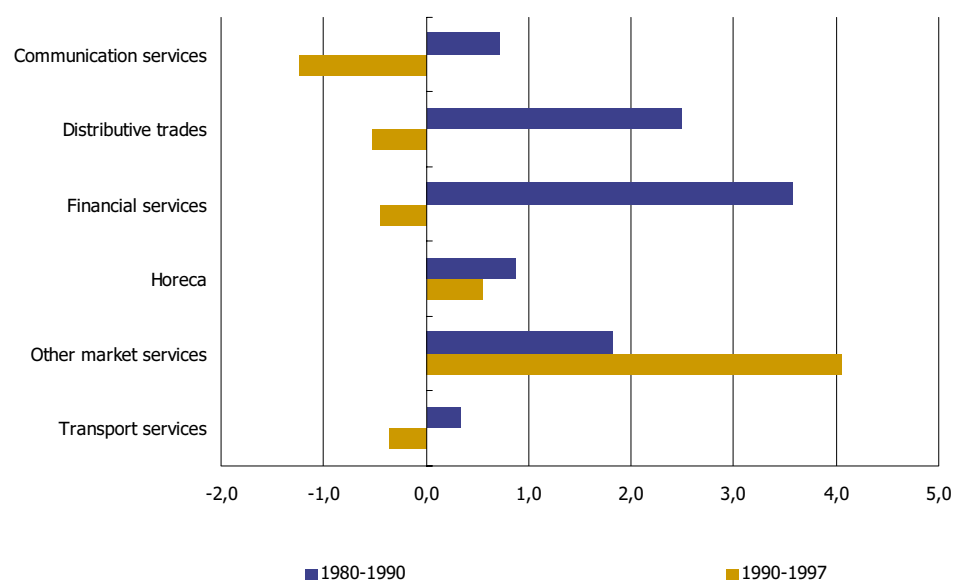
Whilst in the analysis of value added it was evident that the grouping of other market services was the most important in the Triad, when we study the breakdown of employment there are wider variations in the structure of services. We have noted that distributive trades were the most important branch in terms of offering employment in Japan. However, if we include non-market services in the analysis we find that both the EU and the USA employed more persons in this branch of the economy than in the branch of other market services. Non-market services accounted for 21.3% and 22.3% respectively of total services' employment in the EU and USA in 1997.

Having established which services employ the most people across the Triad we will now look at which branches reported growth in employment over time. For the purpose of this study we have broken down the time-series into two periods, the first is from 1980 to 1990, the second is from 1990 to 1997.

Employment in market services grew in the EU between 1980 and 1990 at the rate of 1.8% per annum. This was a somewhat higher level of growth when compared to the rate of change between 1990 and 1997, when the average annual growth rate was 1.1%. The EU growth rates were below those recorded in the USA.

The corresponding rates of growth in Japan were however similar to those observed in the EU, rising by 1.9% between 1980 and 1990 and by 1.4% between 1990 and 1997. In the USA there was considerably more growth in employment creation. Market services' employed on average almost 3.0% more persons per annum in the USA during the eighties. In the period 1990 to 1997, the employment growth rate for market services in the USA slowed somewhat (in line with the trends seen in the EU and Japan). However, there was still growth of 2.2% per annum for market services in the USA.

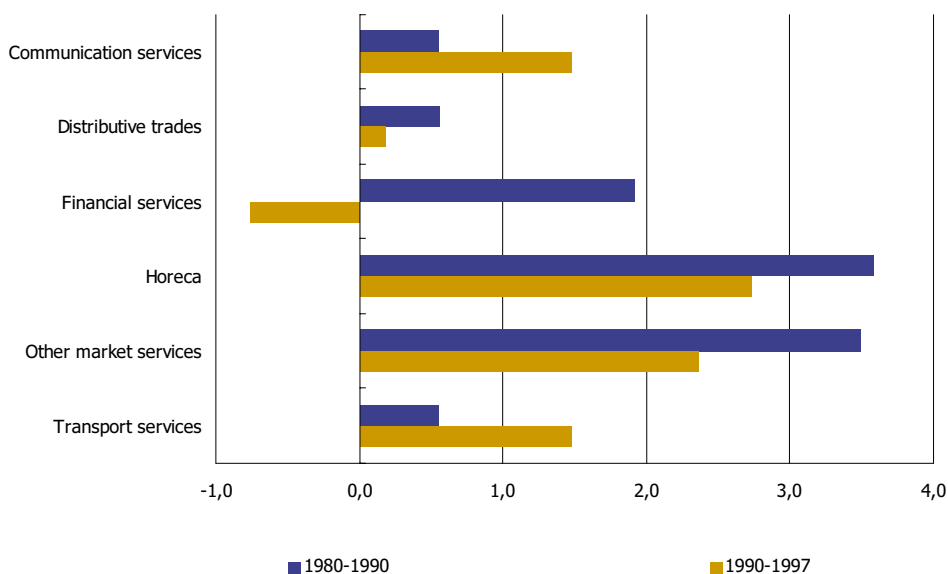
Figure 3.12: annual average growth rates of employment in market services in the EU (%) (1)



(1) Earlier years had to be used for some countries for the breakdown of market services.
For further information: National Accounts

If we turn our attention to look at the growth rates of the market services' branches we find that the growth rates fluctuated to a large degree. In the EU four of the branches reported that employment growth was negative during the period 1990 to 1997, with inferior rates of change to their respective figures recorded between 1980 and 1990; namely communication services, distributive trades, financial services and transport services. Employment fell by between 1.2% per annum in communication services and 0.4% per annum in transport services. Horeca reported that employment growth slowed from 0.9% per annum between 1980 and 1990 to 0.6% per annum between 1990 and 1997. Only one branch reported that employment growth was higher in the second time period, that of other market services. In this branch of the economy the growth rate of employment rose from 1.8% per annum to 4.1% per annum.

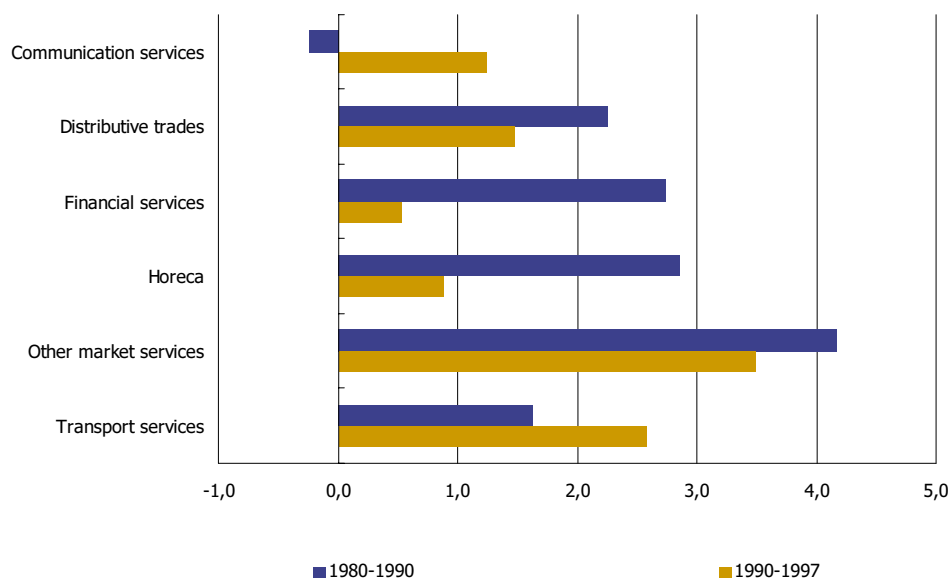
Figure 3.13: annual average growth rates of employment in market services in Japan (%)



For further information: National Accounts

In Japan, whilst the growth rates for different market services' branches slowed in general, they remained positive in the majority of cases. Financial services was the only market services' branch of the Japanese economy to report a reduction in the number of persons occupied between 1990 and 1997, with employment falling by 0.8% per annum. Distributive trades, Horeca and other market services all reported that employment growth slowed in the nineties when compared to growth rates recorded for the eighties. However, communication and transport services both saw their employment growth rates quicken during the nineties.

Figure 3.14: annual average growth rates of employment in market services in the USA (%)



For further information: National Accounts

The USA reported similar trends to those observed in Japan, with communication and transport services both reporting higher growth during the nineties. It should be noted that these were two of the smallest branches of the economy and as such increases in their rates of growth may have only minor effects on the absolute total employment figures. Indeed, it is perhaps more prudent to look at the changes for distributive trades and other market services, where growth of 1.5% and 3.5% per annum was recorded in the USA during the period 1990 to 1997. If we compare these rates of change to those recorded in the EU and Japan, we find that the USA had the highest rate of growth and absolute increase in employment for distributive trades. Despite the fact that the EU had a higher growth rate for employment in other market services (4.1% per annum compared to 3.5% per annum) the absolute gain in the USA was higher. Other market services in the USA saw total employment rise to 27.9 million persons (an increase of 6.0 million on the 1990 figure), whilst in the EU there were 23.8 million persons employed in 1997 (following an increase of 5.8 million persons since 1990).

We may conclude that much of the potential for employment growth lies within the branch of other market services. This is due not only to the size of this branch of the economy, but also to the fact that in all three Triad economies this branch has consistently reported positive growth rates amongst some of the highest observed. Indeed, within the EU this branch of the economy has been solely responsible for increasing the number of jobs available in services in the 1990s. Although there are often concerns that the jobs created within services are characterised by low-pay, low skills and low productivity, these concerns would seem largely unfounded, as many jobs in the other market services' branch of the economy are administrative, managerial, executive, technical and professional in nature. Furthermore, it is interesting to note that even during periods of recession, most service activities were resistant to the recession and managed to maintain employment levels without too many losses (if any).

Member State specialisation in market services

Having looked at the most important branches of the market services' economy in the Triad, we will now attempt to look in more detail within the Member States of the European Union. We have already noted that the branches of other market services and distributive trades account for the largest shares of economic activity in the Triad and this remains true in most of the Member States.

If we look first at the distribution of value added amongst the Member States we find that the largest share of value added was always in the branch of other market services, except in Portugal, where distributive trades were more important (with other market services second placed in the ranking). As with the data for the Triad, distributive trades were found to be the next most important branch of the economy in terms of total value added, except in Portugal (already noted) and Luxembourg, where financial services played a much more important role than usual.

Table 3.4: ranking of the most important market services by value added, 1996 (1)

	First	Second	Third
B	Other market services	Distributive trades	Transport services
DK	Other market services	Distributive trades	Transport services
D	Other market services	Distributive trades	Financial services
EL	Other market services	Distributive trades	Horeca
E	Other market services	Distributive trades	Horeca
F	Other market services	Distributive trades	Financial services
IRL	Other market services	Distributive trades	Financial services
I	Other market services	Distributive trades	Financial services
L	Other market services	Financial services	Distributive trades
NL	Other market services	Distributive trades	Transport services
A	Other market services	Distributive trades	Financial services
P	Distributive trades	Other market services	Financial services
FIN	Other market services	Distributive trades	Transport services
S	Other market services	Distributive trades	Transport services
UK	Other market services	Distributive trades	Financial services

(1) Earlier years had to be used for some countries.
For further information: National Accounts

**Table 3.5: ranking of the most important market services
by number of persons employed, 1996 (1)**

	First	Second	Third
B	Other market services	Distributive trades	Transport services
DK	Distributive trades	Other market services	Transport services
D	Other market services	Distributive trades	Horeca
EL	Distributive trades	Other market services	Horeca
E	Other market services	Distributive trades	Horeca
F	Other market services	Distributive trades	Transport services
IRL	Distributive trades	Other market services	Horeca
I	Distributive trades	Other market services	Transport services
L	Other market services	Distributive trades	Financial services
NL	Distributive trades	Other market services	Transport services
A	Distributive trades	Other market services	Horeca
P	Distributive trades	Other market services	Horeca
FIN	Distributive trades	Other market services	Transport services
S	Other market services	Distributive trades	Transport services
UK	Other market services	Distributive trades	Horeca

(1) Earlier years had to be used for some countries; for Ireland and the United Kingdom number of wage and salaried earners.

For further information: National Accounts

Only when we reach the third most important market services' branch in terms of value added do we find that there were marked differences between the Member States. Horeca played an important role in the Greek and Spanish economies, whilst in the four largest EU economies financial services generated the third highest level of value added (this was also the case in Austria, Ireland and Portugal). In the remaining Member States, transport services were the third most important branch of the market services' economy, except in Luxembourg, where due to high specialisation in financial services, distributive trades generated the third highest level of value added.

Turning to employment we find that the picture was not as clear. Distributive trades and other market services were the largest employers in the EU. Three of the four largest Member States recorded the highest number of occupied persons in other market services, whilst Italy had more persons occupied in distributive trades (also true in Greece and Portugal).

In the countries where distributive trades were the largest market services' employer, other market services were the second most important employer. The contrary was also true, where other market services were the most important employer, distributive trades were the second most important employer. We may therefore conclude that distributive trades were generally more labour-intensive than other market services.

Third place in the ranking of market services' branches by employment was split evenly between transport services and Horeca (7 countries each). These two branches were also highly labour intensive, whilst financial services (a more productive area of the services' economy) was in third place in the ranking in Luxembourg, due to the highly developed nature of this sector of the services economy in Luxembourg.

The structure of an economy takes a long time to change significantly over time. Table 3.6 shows the fastest growing market services' branches in the EU during the period 1980 to 1996. Whilst distributive trades and other market services remained the two most important market services in terms of wealth created and employment opportunities over this period, there were changes occurring in the structure of the European services' economy. We have already noted the substantial increase in the share of other market services in all three Triad economies⁽²⁾, whilst distributive trades maintained a fairly static share of the economy in terms of value added and a gradually rising share of employment.

The development of value added shows that the fastest growing market services in Europe were communication services, other market services, Horeca and financial services. Either communication services or other market services were the fastest growing market services in every Member State, except Spain (Horeca) and the United Kingdom (financial services). Distributive trades and transport services did not feature as one of the three fastest growing market services in any of the Member State (except the Netherlands, where distributive trades were the third fastest growing market services' branch in the Dutch economy).

The Netherlands was the only Member State to report that other market services were not present within the three fastest growing market services. In the United Kingdom communication services were not present in the top three fastest growing market services, which was the case in all other Member States, whilst there were four countries (Austria, Finland, Germany and Luxembourg) where Horeca did not appear in the three fastest growing market services.

(2) Although we should remember that given the residual nature of this branch, many new services are classified within this category as they do not fit anywhere else in the existing classification.

Table 3.6: ranking of the fastest growing market services, 1980-1996
(annual average growth of value added) (1)

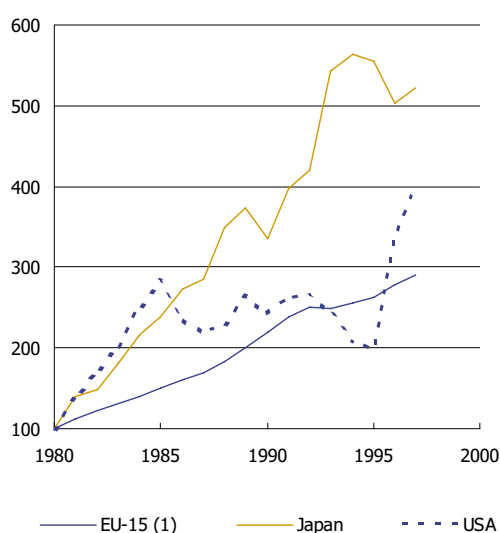
	First	Second	Third
B	Other market services	Horeca	Communication services
DK	Communication services	Horeca	Other market services
D	Other market services	Financial services	Communication services
EL	:	:	:
E	Horeca	Communication services	Other market services
F	Other market services	Horeca	Communication services
IRL	Communication services	Other market services	Financial services
I	Communication services	Other market services	Horeca
L	Communication services	Other market services	Financial services
NL	Communication services	Horeca	Distributive trades
A	Other market services	Financial services	Communication services
P	Other market services	Communication services	Horeca
FIN	Other market services	Communication services	Financial services
S	Other market services	Horeca	Communication services
UK	Financial services	Horeca	Other market services

(1) Earlier years had to be used for some countries instead of 1996.
For further information: National Accounts

Trends in wages and salaries

National Accounts data are only partially available for other indicators that help us to look at the structure of services within the Triad. There is a limited amount of information available on the topic of wages and salaries. To supplement this information, please note that there is more detailed coverage of personnel costs within the three following sections of this publication. In the thematic analysis there is a section on earnings in services, whilst the sectoral and country analysis provide information from the SBS Regulation relating to personnel costs (including employer contributions).

Figure 3.15: Compensation of employees in services in the Triad (1980=100)



(1) Excluding Greece.
For further information: National Accounts

Looking at the wages and salaries in the Triad, we can see that the highest rate of wage growth was recorded in Japan between 1980 and 1997, followed by the USA and then the EU. Figure 3.15 shows the development of wages and salaries during the eighties and nineties in the Triad for the whole of the service sector. We should note that the series presented are in ECU terms, which has a direct influence on the trend of Japanese and American data due to currency fluctuations. Nevertheless, looking at these figures there was some hope that the pace of wage growth was slowing across Europe. Historically, European employers have been slow to hire new labour due to the high indirect costs of employing new staff and secondly because wage costs in Europe have (in many countries) been very high.

As with the data for wages and salaries, the information available for labour productivity from the National Accounts database is limited in its coverage. Please note that in the sectoral and country analysis you will find additional data on labour productivity and wage adjusted labour productivity from the SBS database, where information is often available at the 3-digit level of the NACE Rev. 1 classification. Nevertheless, when studying aggregated figures it is of more use to refer to branches as defined by National Accounts.

Table 3.7: labour productivity in market services, 1996 (thousand ECU/head)

	Distributive trades	Horeca	Transport services	Communication services	Financial services	Other market services
B	53,2	56,1	77,8	54,7	85,3	61,4
D	39,6	19,2	:	83,0	91,1	110,1
E	28,4	34,2	30,6	58,2	83,0	37,6
F	46,3	44,4	46,8	64,9	84,7	85,1
I	37,1	32,5	38,7	65,9	105,5	65,9
L	44,1	31,3	:	145,1	128,0	94,5
NL	38,1	39,3	47,1	90,6	83,4	82,2
A	45,7	36,4	39,2	83,3	111,1	91,1
P	19,2	13,7	23,1	57,1	47,6	30,5
FIN	31,3	26,3	51,1	48,8	77,6	78,3
S	37,6	29,8	:	77,1	77,3	75,7
Japan	39,7	40,3	62,6	62,6	83,6	81,9
USA	37,0	27,5	43,3	125,2	77,9	59,6

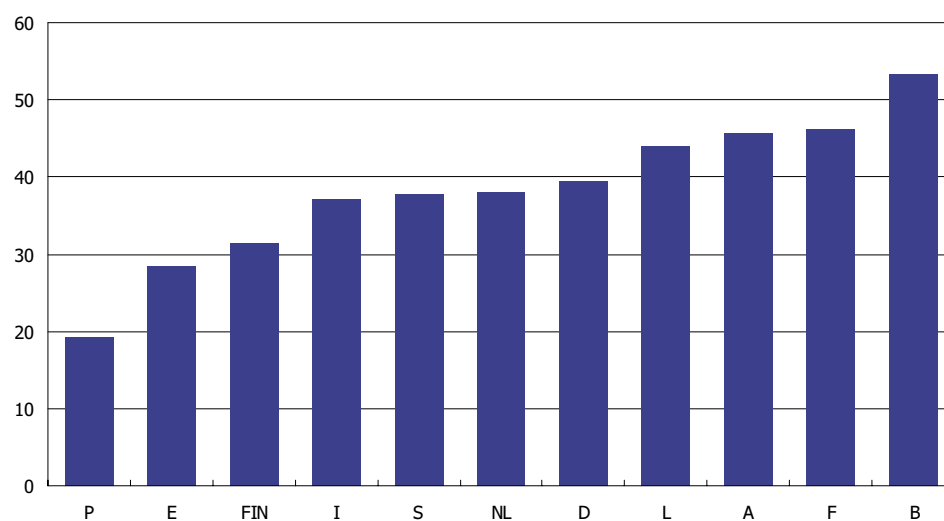
For further information: National Accounts

Table 3.7 gives a broad selection of information on labour productivity across the Triad for six market services. There is unfortunately no data available for a number of the EU countries. Labour productivity is measured as value added per person employed and the series are expressed in thousand ECU per head.

It is interesting to note that the two branches of distributive trades and Horeca both displayed low levels of labour productivity across the majority of the Member States. Belgium recorded the highest labour productivity (amongst the countries for which data is available) in both of these branches. At the other end of the scale, communication services, other market services and financial services all had high levels of labour productivity, rising above 100 thousand ECU of value added per person employed in several countries.

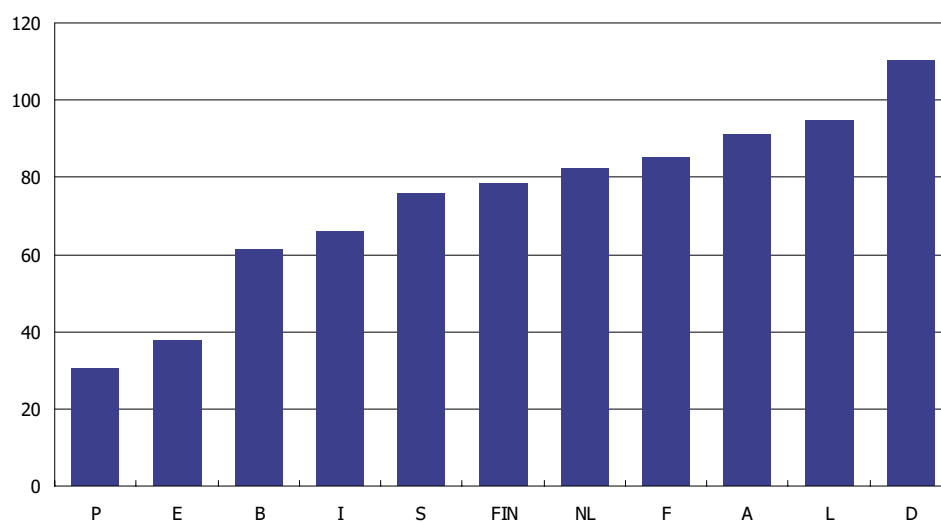
These figures suggest that services' labour productivity did not lag behind the productivity levels recorded in manufacturing. The measurement of labour productivity entails several problems for service sectors. For example, it is often difficult to evaluate the output of workers in the service sector of the economy, as well as the quality improvements made in many services. Furthermore, employment data ignores the number of hours worked, and hence may well under-estimate the productivity of certain services because of the high propensity to employ on a part-time basis in branches such as distributive trades and Horeca.

Figure 3.16: labour productivity in distributive trades, 1996 (thousand ECU/head)



For further information: National Accounts

Figure 3.17: labour productivity in other market services, 1996 (thousand ECU/head)



For further information: National Accounts

Figure 3.16 and 3.17 show the value added per head of the two most important market services' branches in the European economy. It is interesting to note the large difference in labour productivity between these two branches. Furthermore, we can see that the countries at the bottom of the ranking remained similar between the two branches (Italy, Spain and Portugal were present in the bottom four of both rankings). The range of labour productivity was far more pronounced in the branch of other market services than distributive trades. Indeed, there was a 34 thousand ECU per head difference between the highest and lowest labour productivity in distributive trades, whilst the difference was almost 80 thousand ECU for other market services.

Enterprise structure and demographics

Another area of interest when studying the structure of services is to look at the composition of the service sector in terms of the enterprises that make-up the business population. To do this we draw on information from the small and medium-sized enterprises (SME) database. The information that is presented in this section has been collected on the basis of the NACE Rev. 1 classification system, as such it is directly comparable with the analysis which follows in the remainder of this publication.

The most striking feature of the data presented on enterprise size and structure is the difference between countries, rather than between activities. Whilst the average enterprise tended to be small in Belgium, Greece, Italy, Portugal and Spain in most service activities, larger enterprises were more common across the majority of services in Austria, Germany and the Netherlands.

Table 3.8 gives details of the number of enterprises that were found in the EU service sector of the economy, as well as industry for means of comparison.

Table 3.8: number of enterprises in the EU broken down by size class, 1995 (%) (1)

	0-9 employees	10-49 employees	50-249 employees	250+ employees
Distributive trades	95,1	4,4	0,4	0,1
Horeca	94,2	5,3	0,4	0,1
Transport and communications	93,1	5,8	0,9	0,2
Financial intermediation	94,1	3,9	1,3	0,7
Real estate, renting and other business activities	95,0	4,2	0,6	0,2
Market services	94,8	4,6	0,6	0,1
Industry	80,7	15,2	3,3	0,8

(1) Earlier years had to be used for some activities.
For further information: SME

Table 3.9: number of persons employed in the EU broken down by size class, 1995 (%) (1)

	0-9 employees	10-49 employees	50-249 employees	250+ employees
Distributive trades	48,6	20,0	9,4	22,0
Horeca	55,3	21,8	8,5	14,4
Transport and communications	22,4	14,0	10,2	53,4
Financial intermediation	12,8	6,0	9,6	71,7
Real estate, renting and other business activities	38,4	17,6	13,7	30,3
Market services	40,0	17,6	10,4	31,9
Industry	13,8	19,4	19,5	47,4

(1) Earlier years had to be used for some activities.
For further information: SME

The figures on enterprise size do not allow us to really judge the economic weight of the different size classes. In order to do this, it is better to look at the breakdown of employment and turnover between the different size classes. In the activities of distributive trades and Horeca we find that there were a large number of persons working in very small enterprises (less than 10 employees). Indeed, very small enterprises employed around half of the total number of persons working in these activities (some 48.6% and 55.3%). The grouping of real estate, renting and other business activities (which includes NACE Rev. 1 Divisions 70 to 74) also had a high share of persons employed in very small enterprises (some 38.4% of the total).

Large enterprises accounted for high shares of employment in the activities of transport and communications, as well as financial intermediation. Indeed, some 71.7% of all persons employed in financial intermediation were employed in large enterprises (with 250 or more employees). Transport and communication activities also reported that more than half the workforce were working for large enterprises (many were natural monopolies, either recently privatised/liberalised or still in state ownership). Both of these figures were above the corresponding share in industry, where 47.4% of the total number of persons employed were working in large enterprises. Nevertheless, in the two largest services (whether we measure by value added or the number of persons employed) the distribution of employment was considerably different. Horeca, distributive trades and real estate, renting and other business activities reported that less than 31% of their respective workforces were employed in large enterprises (indeed for distributive trades the figure was nearly as low as one fifth of the workforce, whilst for Horeca it was less than one sixth).

If we look in more detail at these figures, broken down by Member State, we find that the share of large enterprises was much lower in the southern EU countries and Belgium. The data by Member State suggests that different services have different structures within the Member States. Whilst the United Kingdom, Ireland and the Netherlands had a high share of large enterprises in the activity of distributive trades, Austria had by far the highest share in transport and communication. In real estate, renting and other business activities, the Netherlands again reported a large average size for its enterprises, together with Germany and Ireland.

Average turnover per person employed is generally seen to rise with the size of the enterprise, usually up to the category of medium-sized enterprises (between 50 and 249 employees). Larger enterprises see their average turnover per head tail-off. This statement held true for all service activities covered in table 3.10, whilst this was not the case in industrial activities, where average turnover per head continued to rise for large enterprises. The data for both financial services, and to a lesser degree distributive trades, should be viewed with care, as the turnover figures are inflated due to the nature of these activities. It is interesting to note that for the remaining service activities average turnover per head was below the corresponding figures seen in industry.

**Table 3.10: average turnover per person employed in the EU
broken down by size class, 1995 (thousand ECU) (1)**

	0-9 employees	10-49 employees	50-249 employees	250+ employees
Distributive trades	117,2	238,9	348,9	237,4
Horeca	36,6	39,5	59,6	52,5
Transport and communications	68,7	110,0	136,1	80,3
Financial intermediation	296,0	1 319,4	2 338,7	817,3
Real estate, renting and other business activities	86,2	121,2	129,1	79,7
Market services	96,5	205,2	363,8	223,4
Industry	66,0	93,8	136,5	169,2

(1) Earlier years had to be used for some activities.
For further information: SME

Thematic analysis

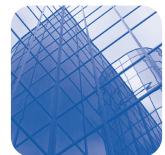
1 Competitiveness of services

2 Structure of earnings and labour costs

3 Labour force structure

4 Labour force profile

5 Cyber-economy



Chapter 4

Competitiveness of services

Competitiveness of services

This section of "Services in Europe" provides some elements to help for a better understanding of competitiveness of service activities. Competitiveness has become central to public-authorities policies and private companies strategies alike. It is revealing to see that the latest annual report on competitiveness published by the European Commission⁽¹⁾ starts with the following sentence: "competitiveness of firms is crucial for their success in the market. Competitiveness of countries is crucial for their performance in terms of wealth creation".

Whilst competitiveness is a well-known word, it has a little-known definition, and economists are split over what "competitiveness" means. As a first step, this article will briefly attempt to outline which elements should be taken into consideration when defining competitiveness. The article then considers the tools developed to measure competitiveness, notably the link between competitiveness and the emergence of the knowledge-driven economy. The final section establishes the link between competitiveness and service activities, with a particular emphasis on qualitative factors, which are generally not covered by the official statistics presented in the remainder of this publication.

Defining competitiveness

Intense discussions have arisen over recent decades on the issue of competitiveness, which has become one of the main concerns of governments and firms throughout the world. Whilst public authorities launched vast programmes for the development of regional infrastructure, the promotion of R&D and networks to support SMEs, all aimed at improving the competitiveness of their economies, many enterprises have engaged in deep re-organisations of their structures and production processes in order to face ever-increasing competition on national and world markets.

Awareness of the necessity to continuously improve competitiveness has been further fuelled by important structural changes witnessed in the world economy. Elements such as deregulation policies, globalisation of markets or plummeting costs for the transport of goods and information have considerably increased the benchmarks of economic efficiency. We have witnessed the emergence of "global firms" acting in a "global market" and in quest of "global competitiveness"⁽²⁾, the ability to simultaneously mobilise a range of skills (industrial, financial, technological, commercial, administrative or cultural) on a world-wide basis.

(1) European Commission: "The Competitiveness of European Industry, 1998 report".

(2) OECD: "Globalisation and competitiveness: relevant indicators", 1996.

It is somewhat surprising to see that, despite competitiveness having become a buzzword and the key indicator of success or failure of public policies or firms strategies, no agreement can be found in economic literature on its definition. One main reason for this is that it is a multifaceted concept embracing so many different realities. The word has been used in a variety of ways to characterise both competition between firms and industries within regions, nations or groups of nations⁽³⁾. It is clear that the competitiveness of the EU economy cannot be measured and analysed with the same tools as the competitiveness of an SME within the retail trade industry. Indeed, competitiveness of firms or industries is measured with reference to the advantages that these have vis-à-vis their competitors in domestic or international markets, such as their ability to satisfy the needs of their customers more effectively and at a lower cost than their competitors or their ability to offer a better service. Whilst quantitative measures of market share and operating ratios are relatively simple to define within industrial activities, the definition of a competitive service activity is more open to interpretation. For regions or nations, which contrary to firms are not concerned about survival or generating profits, the objective is to improve the welfare of their citizens and provide the necessary infrastructure to allow businesses to develop and compete. An economy's competitiveness is hence better assessed by its ability to provide high standards of living to its population, often measured by GDP per capita, together with high rates of employment.

In the OECD project on "Framework conditions for industrial competitiveness", competitiveness was defined combining both levels of analysis, as "the ability of companies, industries, regions, nations or supranational regions to generate, while being and remaining exposed to international competition, relatively high factor income and factor employment levels on a sustainable basis"⁽⁴⁾. Whilst this definition applies to both microeconomic and macroeconomic levels, it is better suited to regions or nations as it directly refers to their main objective, raising living standards.

(3) Reference is often made to the work of Prof. Paul Krugman, Stanford University. He argued that "competitiveness" was a pointless word when applied to national economies, as companies do not compete in the same way as countries. Whilst it may be a zero-sum game in the case of companies, it is not in the latter, as when nations compete they may both win through trade.

(4) In OECD: "Globalisation and competitiveness: relevant indicators", 1996.

Measuring competitiveness

In the same way as it can be particularly difficult to provide a clear-cut definition of competitiveness, measuring it might prove just as tricky. Indicators that are used to assess competitiveness traditionally rely on quantitative elements such as prices, factor productivity or market share. This model needs to be improved as economies move towards a knowledge-based growth model, where competitiveness depends on factors that sometimes cannot be as easily quantified as they include elements of a qualitative nature. For example, at the level of enterprises, customer satisfaction is a central element of competitiveness, as can be the perceived value of a product or service or its perceived quality. At a more aggregated level, indicators have also been developed to measure countries competitiveness based on factors such as the level of infrastructure, the quality of life, the number of Nobel prizes or executive opinion surveys⁽⁵⁾.

Tightly linked to the development of the knowledge-driven economy is the rising importance of intangible investments. This term is used in relation to investment that enterprises make to acquire new knowledge⁽⁶⁾. They are considered crucial factors that determine competitiveness, and are hence an essential element in its analysis. Intangible investment can be broadly categorised as investment in technology (research and development), marketing, information technology (including software), reorganisation (of management or of the accounting system) or rights (patents, licenses or industrial property rights).

At the roots of the development of intangible investment lies the rapid development of service activities, and in particular business services. Competitive pressures have increasingly forced many manufacturing enterprises to change their organisational structure and to outsource non-core activities to independent service providers. Activities such as advertising, software development, recruitment or accountancy that once used to be performed internally are more and more sub-contracted to enterprises belonging to the so-called "business services" sector. Many of the activities found in this sector fall into the definition of intangible investment, and testify of the importance of service activities in the competitiveness of manufacturing enterprises.

This has been notably underscored in a recent report from the Commission to the Council⁽⁷⁾, where it is stated that "it is becoming increasingly well understood that a great number of pressures on industry are generated not only within manufacturing but in the services sectors. These input services to manufacturing are in many cases not competitive in Europe. The resulting negative downstream externalities effectively reduce the competitiveness of Europe's manufacturing industry".

(5) IMD: World Competitiveness Yearbook; World Economic Forum: Global Competitiveness Report.

(6) "Intangible investments are all new goal-oriented activities of a firm or disembodied tools used by a firm (...) aimed at a quantitative change or extension of existing knowledge, or at the acquisition or improvement of existing goods (...) or at the acquisition of completely new knowledge" in Statistics Netherlands: "Intangible investments", 1998.

(7) Working document of the European Commission: "Industrial Competitiveness and Business Services - Report to the Industry Council", 05/1998.

The report also identifies service activities that are considered of strategic importance to industrial competitiveness. These are unsurprisingly those that are most linked to the definition of intangible investment, namely management consultancy, information and communication services, engineering and quality control, advertising and marketing and legal and accounting services.

Measuring the competitiveness of service activities hence becomes an important step in the assessment of the competitiveness of the whole economy, in which intangible investment plays a central role. One of the major problems faced in this approach is the lack of comprehensive statistical information on business services. One reason is that common input-output variables are insufficient to measure intangible and intellectual content. Another is that many business services are new or emerging activities and are not yet covered by National Accounts registers.

One tool that has gained momentum in recent years is that of benchmarking. Indeed, competitiveness is a relative concept as it supposes the existence of competition, and hence allows for a comparison of performance. Economies only compete in the sense that some do better than others at delivering rising living standards and employment to their citizens, whilst exposed to an open trading environment. Benchmarking is in itself a form of competitive analysis providing a set of analytical tools for identifying economies that are more competitive and analysing the reasons for their superior performance, by measuring and comparing best practices.

Competitiveness and service activities

Economic literature counts an impressive number of article and studies on competitiveness. Yet, the vast majority of these concentrate on industrial activities and generally overlook service activities. One reason that could explain this lack of material is that services have suffered from poor statistical coverage, particularly when compared to industrial activities (even though they account for two-thirds of the wealth generated in the European economy).

As European economies have moved towards a knowledge-driven growth model, this imbalance has become more evident. In this respect, it is significant to note that the largest single service branch in National Accounts statistics is that of "other market services" (see structure and performance of services). What should have been a residual branch, now accounts for practically half the value added generated in all market services in the EU, ahead of distributive trades or financial services.

Public authorities are still in the process of building the foundations of a statistical system able to monitor and follow the pace of the structural transformation of the business environment. The statistical information system on service activities is still in its infancy, but it is growing at a fast pace. This edition of "Services in Europe" is further proof of this, as it provides unprecedented analysis and statistical evidence on European service activities. Fundamental competitiveness indicators can be found in this "thematic" chapter, notably a thorough analysis of the labour force and its cost, as well as statistical evidence on the emergence of the so-called "cyber-economy". Indicators on performance and productivity can also be found in the sectoral and country analyses.

Whilst these indicators rely more on the classical quantitative approach of competitiveness, service activities require further attention as regards qualitative factors. In distributive trades, for example, competitiveness of enterprises may depend on many qualitative elements such as the efficiency of logistics, the quality and variety of products offered, the quality of the service or the location of points of sale, just to name a few.

At a European level, the most important brake on competitiveness within service activities has been the fragmentation of markets. For network-based activities such as transport and communications, a crucial element of competitiveness is the ability to link or interconnect network infrastructure. One of the top priorities in the development of the single European market has been the elimination of missing links and incompatibilities, with the objective of creating efficient trans-European networks (TENs).

In telecommunications, the development of an integrated digital network, the "information super-highway", combining several suppliers and able to carry a variety of content (voice, video, data) has witnessed great progress since the liberalisation of European markets. Traditional telecommunications operators that used to operate as monopolies just a few years ago now face fierce competition from new operators, but also from low-orbit satellite networks, cable-TV companies and even electric utilities. Bandwidth has considerably been improved and telecommunications costs have significantly been reduced in most countries, especially as regards international calls. The world-wide success of the European standard for mobile telephony GSM is further proof of how competitiveness can originate from the interoperability of networks. However, change is taking place at an uneven pace across the EU and the penetration of information and communication technologies across Member States shows considerable differences (see cyber-economy).

In the field of business services, the trend towards free movement of services has been faced with regulatory problems. National market restrictions have often posed obstacles for the creation of pan-European business services (see table 4.1.1). The 1997 Commission report on competitiveness⁽⁸⁾ highlighted that “the legacy of national orientation and the small size of European business services is reflected in the difficulty of national companies to set-up cross-border operations”. For example, for accountancy and auditing services, a high degree of regulation at national level has resulted in substantial differences in the practice and rules of the profession across Member States. Yet, simple and harmonised accounting rules at EU level could promote financial innovation and the internationalisation of activities. For the moment, it is extra-European firms that occupy most of the market, with large well-known companies, in an activity where reputation acts as a barrier to entry. All of the “Big Five” accounting and consultancy companies have North American or Anglo-Saxon roots. The same remarks could be made concerning legal services or technical services. They also have several barriers to entry in national markets, requiring adherence to many local rules and/or membership of national associations.

Financial services play a pervasive role in the economy as the indispensable medium between lenders and borrowers, savers and investors, risk takers and risk insurers. As such, they are at every level of the economic life. Unfortunately their competitiveness has also been severely hindered by the fragmentation of European financial markets. For example, on the most restrictive definition, the EU still counts 33 stock exchanges and 18 controlling organisms⁽⁹⁾, each with a different regulatory framework. Since the liberalisation of European financial markets, banks and insurance have come under growing competitive pressure that has forced them to seek external alliances, but these are still very much centered on a national or “cultural vicinity” basis⁽¹⁰⁾. The full entry into force of the euro is set to greatly improve this situation and to boost the trend towards a more integrated European financial system.

This section has attempted to introduce the topic of competitiveness. In order to look in more detail at specific performance based ratios, please refer to the sectoral and country based analysis presented later in this publication.

Table 4.1.1: restrictions to market access within business services

Area of restriction	Example of affected sector
Entry barriers for professionals through national corporations professional orders setting capacity and fixing prices	Professional and technical services
Limitations for marketing and market research through restrictions on media promotion and direct marketing	Advertising and marketing
For further information: European Commission	

(8) European Commission: “The Competitiveness of European Industry”, 1997.

(9) European Commission: “The Competitiveness of European Industry, 1998 report”, 1998.

(10) Transnational operations (including those involving extra-EU countries) accounted for less than a third of the total value of mergers and acquisitions within European banking in 1998, European Commission: “Panorama of European Business”.

Structure of earnings and labour costs

Introduction

Whilst, traditional economic theory was based on a belief that the source of a nation's wealth was its productive capacity (in terms of output of manufactures), the structural shift towards a service economy would suggest that these rules are no longer valid. Indeed, almost all of the richest nations of the world have displayed a tendency over the last few decades for services to generate an increasing share of their wealth (indeed, a majority share).

As this structural shift has taken place, some commentators have been concerned by the fact that service sector jobs are not as “rewarding” as those found in other sectors of the economy. Whilst this observation may hold true for some service occupations, it is a generalisation that clearly does not hold for all jobs within the services' economy. The term “rewarding” should refer not only to material benefits, but also non-material benefits, as well as the pleasantness of the working environment. This article will not go into details of assessing pecuniary benefits, job security or health and safety within the workplace (all of which play an important role in job satisfaction). Instead, it will look at the single most important determinant of job quality for the vast majority of employees, their earnings.

The analysis presented begins by looking at the structure of labour costs from the perspective of the employer. The tables presented detail average personnel costs across a wide range of service activities. A breakdown of the composition of personnel costs is provided, with reference in particular to the share of social security contributions made by employers (one factor often cited as discouraging the hiring of new employees). The second section of this article looks at earnings from the perspective of the employee. The article details earnings' profiles observed across a wide selection of service activities and the deviation between male and female earnings, as well as full-time and part-time earnings. The third section of the article studies the effects of age on earnings. Generally, we find that the earnings of an employee rise (as one would expect) with seniority and experience. This section of the analysis uses data from the Structure of Earnings Survey. The fourth and final section studies the effects of enterprise size on the earnings of the individuals working within it.

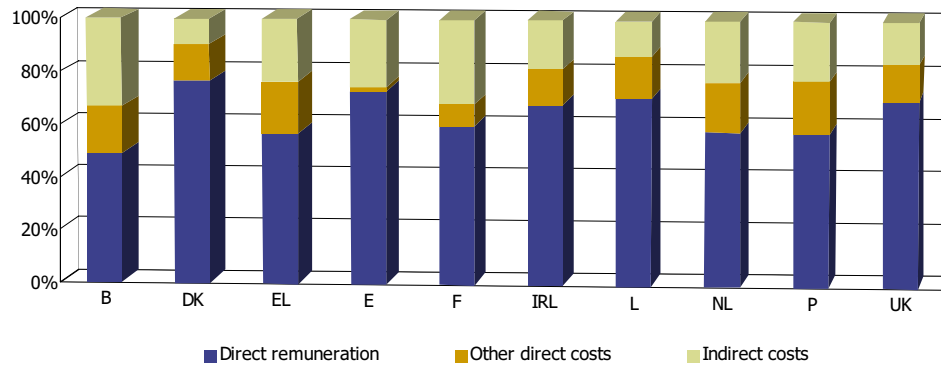
Composition of labour costs

Personnel costs are made up of a number of components, the actual salary paid to employees (direct remuneration), social security contributions, as well as other taxes and insurance payments. Personnel costs are defined as, "the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home workers)⁽¹⁾". These costs include taxes and employees' social security contributions, as well as employer's compulsory and voluntary social contributions. The employers' social security costs correspond to the amount needed to secure social benefit entitlement for employees. Social security costs include contributions to schemes for retirement pensions, sickness, maternity, disability, unemployment, occupational accidents and diseases, as well as family allowance.

The data presented within this article are given in ECU terms (fluctuations of up to 20% in exchange rates are common between successive years). Clearly data from 1999 onwards will be more comparable as eleven of the Member States will share a common currency within the euro-zone. Indeed, for the analysis and tables presented, currency fluctuations play a significant role in the comparative trends of both personnel costs and earnings data, with the figures being not only affected by the differences in underlying wage trends, but also the changes to the benefit and taxation systems of the individual countries that are being compared. Furthermore, the data presented do not indicate the relative living standards of each country and its inhabitants, nor the purchasing power of their incomes. Indeed, the price of goods and services varies widely, not only with respect to third countries, but also within the European Union. Figures given take no account of the relative price differences within each country.

(1) SBS Regulation concerning structural business statistics.

Figure 4.2.1: structure of labour costs in services, 1996 (% of total) (1)



(1) Earlier years had to be used for some countries.
For further information: Labour Cost Survey

Figure 4.2.1 shows the structure of employers' costs within the service sector of the EU economy. It is of interest to note that whilst Spain had the second highest level of direct remuneration (behind Denmark), employers faced comparatively high indirect costs and practically no other direct costs (i.e. bonuses and ex gratia payments not paid at each pay period, payments for days not worked, severance pay, benefits in kind). Indeed, only France and Belgium had higher indirect costs (at over 30% of total labour costs) than Spain.

The SBS database is able to provide data for personnel costs throughout a range of service activities. These data refer to the total costs borne by the employer. Table 4.2.1 shows the breakdown of personnel costs across a wide range of market services' activities. The costs given refer to total personnel costs for all employees and do not include costs for the self-employed and family workers, which in some service activities account for a large share of the labour force. We may note that the three activities that normally account for the highest level of personnel costs are wholesale trade, retail trade and other business activities. Whilst these activities report the highest personnel costs they are also three of the largest employers within the services' economy.

Table 4.2.1: personnel costs, 1996 (million ECU) (1)

	B	DK	E	F	I	L	NL	A	P	FIN	S	UK	NO
Motor vehicle distribution, maintenance and repair	1 914,0	954,8	4 357,0	6 729,1	4 438,5	124,0	2 691,4	1 867,9	849,6	717,9	1 784,4	7 844,7	1 200,1
Wholesale trade	7 687,8	4 232,4	10 975,8	23 119,0	15 073,2	334,2	10 630,3	6 575,4	2 227,3	2 400,6	6 573,5	21 774,5	3 427,2
Retail trade	:	2 993,3	11 615,1	16 420,7	14 599,7	286,7	6 198,9	4 785,8	1 688,4	1 987,1	4 670,6	24 120,2	2 693,1
Hotels and restaurants	1 452,6	904,3	:	12 195,5	6 473,7	183,0	2 589,0	2 657,1	839,5	860,1	1 688,5	10 238,4	:
Land transport	4 440,4	:	:	18 755,6	12 185,1	313,6	4 487,5	3 860,8	863,1	1 479,1	2 576,7	8 131,0	:
Water transport	128,7	:	83,9	590,0	818,0	0,9	485,0	25,0	38,7	319,7	430,2	897,0	:
Air transport	536,7	446,6	1 328,2	3 279,7	1 129,4	:	1 072,1	299,0	304,0	342,5	458,7	2 809,1	:
Auxiliary transport activ.	1 866,8	:	:	7 154,4	4 443,8	62,6	2 274,4	1 027,8	399,5	561,4	1 076,6	5 028,3	:
Post and telecommunic.	3 101,2	1 763,2	:	16 253,2	7 735,1	143,9	2 728,3	:	764,9	1 089,8	2 609,1	6 241,1	:
Real estate	314,3	:	:	6 629,0	818,1	25,3	:	594,5	148,8	385,7	:	:	392,9
Renting of machinery	290,2	116,8	:	1 725,3	304,7	16,9	395,9	156,6	22,0	57,5	211,2	2 221,7	109,7
Computing services	977,9	808,8	1 466,5	8 743,3	3 672,6	93,2	2 080,6	570,3	57,6	615,3	1 566,9	7 087,8	640,7
Research and develop.	254,0	:	:	990,6	37,6	:	:	61,1	0,4	35,9	258,5	2 005,4	73,1
Other business activities	6 282,9	3 027,7	:	44 092,0	8 589,9	376,8	6 675,3	3 475,1	1 320,5	1 986,3	5 365,5	29 913,6	2 748,3

(1) Earlier years had to be used for some countries.
For further information: SBS

It is perhaps therefore more prudent to look at the measure personnel costs per employee, which allows us to see the importance of personnel costs irrespective of the number of employees in each activity. Table 4.2.2 gives a somewhat different picture of the breakdown of personnel costs. We may note that the lowest average personnel costs by activity were found in the activities of motor trade, retail trade and hotels and restaurants. At the opposite extreme, we find the highest average personnel costs were in the activities of transport, storage and communication, computer activities and research and development. These activities are largely characterised by the fact that they all report a highly educated labour force. In addition, several of these activities have until recently (or still remain) under public ownership.

Table 4.2.2: personnel costs per employee, 1996 (thousand ECU) (1)

	B	DK	E	F	I	L	NL	A	P	FIN	S	UK	NO
Motor vehicle distribution, maintenance and repair	35,0	25,6	18,5	16,3	22,8	24,3	26,1	27,2	9,3	28,9	31,9	13,3	26,1
Wholesale trade	42,6	34,0	20,5	26,2	30,8	31,9	28,1	35,8	12,6	34,8	39,4	23,0	34,4
Retail trade	:	17,8	15,6	13,6	28,2	20,0	12,8	21,7	7,5	24,5	28,0	9,6	18,6
Hotels and restaurants	15,8	28,1	:	21,6	16,0	19,2	14,8	18,3	6,2	22,8	24,7	8,2	:
Land transport	41,0	:	:	32,2	29,8	37,2	27,0	30,5	12,4	31,2	29,9	14,5	:
Water transport	45,0	:	:	44,8	33,4	22,1	35,7	58,3	19,1	39,2	37,2	:	:
Air transport	47,8	42,2	43,3	55,1	55,2	:	38,2	47,4	33,1	44,2	48,7	:	:
Auxiliary transport activities	52,1	:	:	32,7	27,0	39,3	32,9	36,8	18,3	30,8	34,3	:	:
Post and telecommunications	38,5	32,2	:	36,0	26,5	40,4	27,6	:	20,5	24,3	26,9	13,4	:
Real estate	32,3	:	:	31,5	19,8	29,1	:	32,7	11,1	27,9	:	:	23,1
Renting of machinery	38,6	33,8	:	30,6	35,0	37,0	24,4	30,9	10,3	28,7	32,1	6,9	21,1
Computing services	51,4	47,0	26,2	46,8	27,1	42,7	43,8	45,1	19,3	41,3	38,6	29,2	45,5
Research and development	67,6	:	:	49,8	29,0	:	:	58,2	8,0	36,4	19,1	:	44,5
Other business activities	29,2	39,0	:	32,8	26,4	26,4	18,8	28,2	15,4	29,8	38,5	16,4	26,8

(1) Earlier years had to be used for some countries.
For further information: SBS

Table 4.2.3: personnel costs in services in the USA, 1997 (ECU)

NAICS	Personnel costs (million ECU)	Number of employees (thousands)	Average personnel costs per employee (thousand ECU)
452 General merchandise stores	27 175	2 506	10,8
447 Gasoline stations	10 108	918	11,0
448 Clothing and clothing accessories stores	14 780	1 336	11,1
451 Sporting goods, hobby, book, & music stores	6 397	567	11,3
453 Miscellaneous store retailers	9 037	758	11,9
445 Food and beverage stores	35 977	2 910	12,4
485 Transit and ground passenger transportation	4 951	342	14,5
446 Health and personal care stores	13 533	904	15,0
442 Furniture and home furnishings stores	8 760	483	18,1
443 Electronics and appliance stores	6 418	350	18,3
487 Scenic and sightseeing transportation	407	22	18,4
532 Rental and leasing services	11 334	569	19,9
444 Building material and garden equipment and supplies dealers	22 757	1 124	20,2
454 Non-store retailers	11 006	516	21,3
531 Real estate	26 192	1 171	22,4
492 Couriers and messengers	12 385	531	23,3
493 Warehousing and storage	2 503	107	23,4
441 Motor vehicle and parts dealers	44 620	1 743	25,6
484 Truck transportation	34 074	1 302	26,2
481 Air transportation	2 461	92	26,9
488 Support activities for transportation	11 065	409	27,1
512 Motion picture and sound recording industries	8 491	289	29,3
422 Wholesale trade, non-durable goods	72 327	2 411	30,0
525 Funds, trusts, and other financial vehicles	622	20	31,8
522 Credit intermediation and related activities	88 413	2 716	32,6
483 Water transportation	2 489	73	34,2
421 Wholesale trade, durable goods	117 915	3 410	34,6
524 Insurance carriers and related activities	80 633	2 306	35,0
514 Information services and data processing services	14 274	407	35,0
521 Monetary authorities - central bank	797	22	36,8
511 Publishing industries	36 438	970	37,6
513 Broadcasting and telecommunications	60 047	1 555	38,6
486 Pipeline transportation	2 333	49	47,5
523 Securities intermediation and related activities	61 746	705	87,6

For further information: 1997 Economic Census, Advance Report

By means of international comparison, table 4.2.3 gives personnel costs within the USA services' economy for a broad range of activities. Please note that the classification system used in the USA is called NAICS (North American Industrial Classification System), which will in future be used by all members of NAFTA. Although the data presented are not harmonised with those for the European Union provided under the NACE Rev. 1 classification system, they do give some idea of the relative importance of personnel costs between activities in the EU and USA.

We may note that nine of the bottom ten activities in terms of personnel costs per employee in the USA were in distributive trade activities (almost all in retail trade). The highest personnel costs per head were in financial services and information technologies. By far the highest average personnel costs in the USA were found in the securities intermediation and related activities, which included underwriting securities issues and/or making markets for securities and commodities as well as providing services such as managing investment portfolios.

The main differences between the figures for the USA and the EU may be seen in activities such as transportation, where the USA has lower average personnel costs, this is especially the case in air transportation.

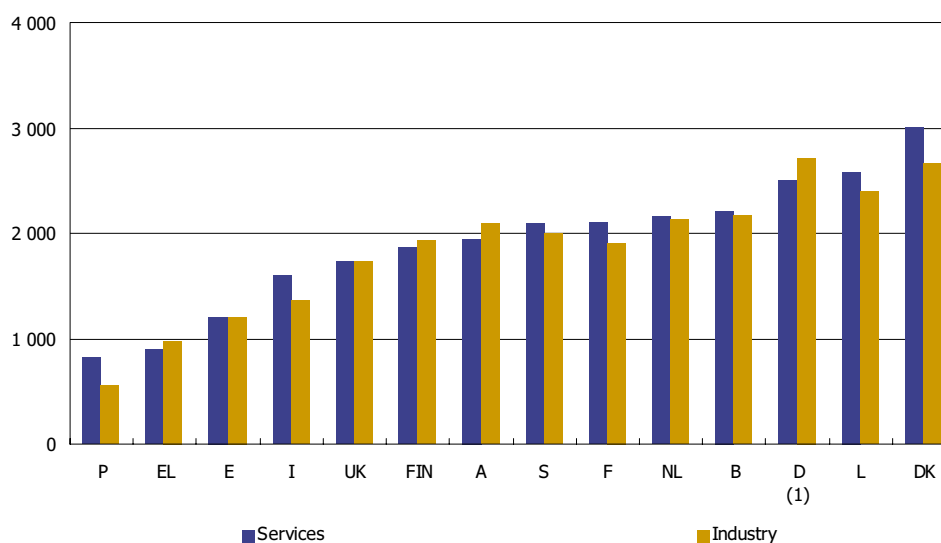
Earnings structure by type of employee

The analysis presented will now move on to look at earnings structure from the perspective of the employee. As stated earnings are probably the single most important factor in determining job satisfaction for the vast majority of employees. The figures in this section relate solely to wages and salaries and include take-home pay, social contributions and income taxes payable by the employee.

If we compare the structure of earnings between industry and services we see that there is a slight advantage in terms of the monthly earnings within industry in the European Union. However, many jobs within services compare favourably to the industry average. In addition, employees within the service sector are generally less likely to lose their jobs and also face less chance of being inflicted by workplace injuries. Some service sector posts give the job holder far greater job flexibility and freedom in carrying out their tasks, whilst traditional industrial jobs are based around mass production techniques that require repetitive tasks to be carried out in a set order. These factors are not taken into account in the data provided.

One area where care needs to be taken in interpreting the data supplied is in considering the number of hours worked. Whilst it is possible to compare the full-time earnings of one service activity with another, we should be aware of the differences that exist in an average working week between activities. If we make direct comparisons between activities we should be aware that the average working week may vary by up to five or six hours between some activities.

Figure 4.2.2: average monthly earnings, 1995 (ECU)

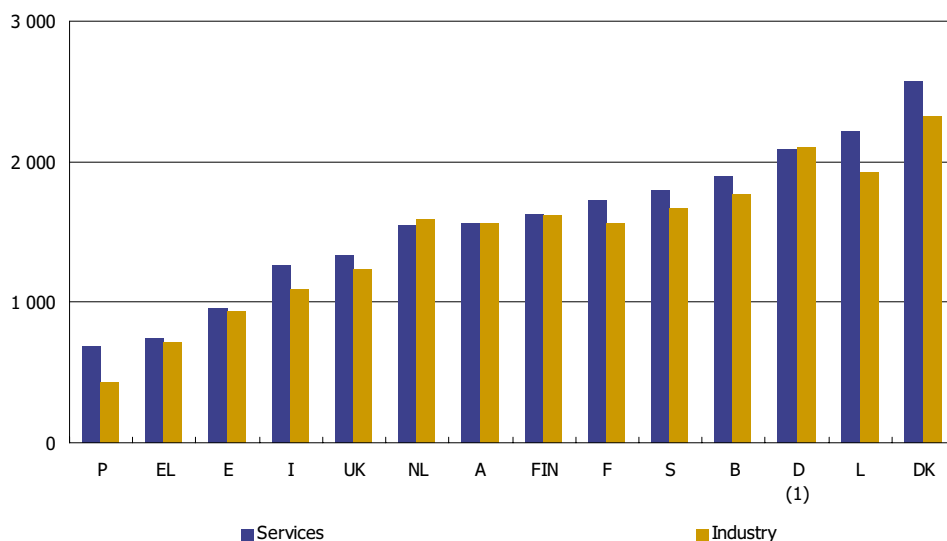


(1) Former West Germany only.
For further information: Structure of Earnings Survey

The European industry figure is the result of considerably higher earnings in Germany and Austria, with Greece and Finland as the only other Member States to report higher earnings in industry compared to services. Two European economies reported that there was no difference between average monthly earnings in industry and services; they were Spain and the United Kingdom.

All other Member States had higher average earnings in services when compared to industry. Denmark was the country to report the highest average earnings in services, it was also the country to report the largest differential between average earnings in services and industry, a difference of 355 ECU per month. Monthly earnings in the Danish service sector rose above 3 thousand ECU per head, considerably higher than in Luxembourg, the second placed country in the ranking, where the monthly average was 2.6 thousand ECU per head. Together with Germany, these two countries stood out at the top of the ranking with high average earnings in both industry and services. At the other end of the scale, the lowest average monthly earnings in services were recorded in Greece and Portugal, the only two countries to report monthly earnings below the level of one thousand ECU per head.

Figure 4.2.3: average monthly earnings of part-time employees, 1995 (ECU)



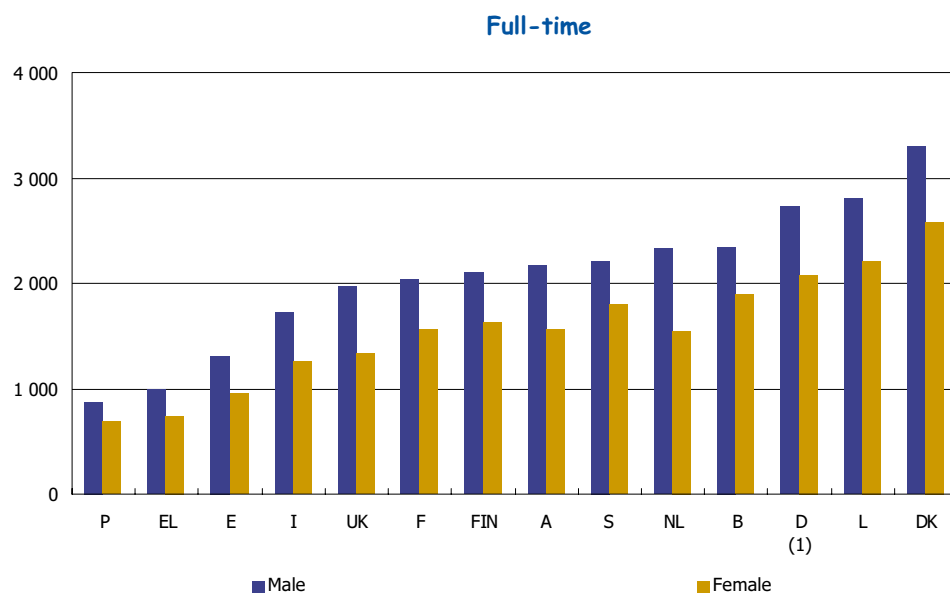
(1) Former West Germany only.
For further information: Structure of Earnings Survey

The data studied so far has been averages given for all employees. It is possible to study average earnings for part-time employment only. Part-time employees are considered to be those who, in accordance with a contract with the employer, do not perform a full days work or do not complete a full week's work within the local unit. We find that the three countries with the highest average part-time earnings for services remain in the same order as the ranking observed for all employees; Denmark, Luxembourg and Germany.

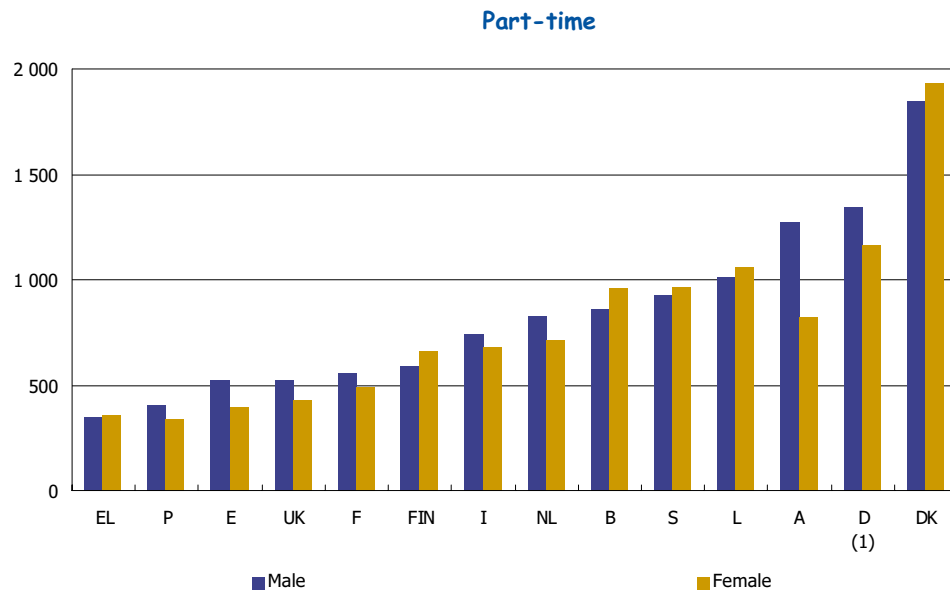
The differentials observed between services and industry for part-time employees were highest in Luxembourg, where services' employees earned on average 293 ECU per head more than their industry counterparts.

We may conclude that there is very little difference between earnings in industry and services at an aggregated level. We will now examine the structure of labour costs on the basis of a comparison of male and female earnings.

Figure 4.2.4: average monthly earnings in services, 1995 (ECU)



(1) Former West Germany only.
For further information: Structure of Earnings Survey



(1) Former West Germany only.
For further information: Structure of Earnings Survey

If we turn our attention to the breakdown of average earnings in services for full-time and part-time employees by gender, we can note that male full-time earnings were always higher than female earnings. This observation holds true across all countries of the Union, with the largest differential between male and female earnings found in the Netherlands (780 ECU per month), followed by Denmark and the United Kingdom. It is interesting to note that these three countries have a high propensity to employ on a part-time basis. The lowest differentials between full-time earnings for men and women in services were found in Spain, Greece and Portugal (the three countries with the lowest average earnings).

Looking at earnings of part-time employees, we find that a very different picture exists. Six of the Member States reported that the average earnings of females working part-time in services were higher than the equivalent figures for men. The three largest differences were recorded in Finland, Denmark and Belgium, where women working part-time earned 79 ECU, 86 ECU and 99 ECU per month on average more than their male counterparts. One reason that females may earn more is that more highly educated and skilled women with family commitments may choose to work part-time, whilst the vast majority of males working part-time do so for economic reasons (i.e. they cannot find alternative full-time employment). The highest average earnings for part-time female employees were recorded in Denmark, well ahead of the second placed country, Germany, where earnings were equal to only 60% of the Danish figure (at almost 2 thousand ECU per month).

We find that in Finland, France and the United Kingdom part-time male employees received less than 28% of the total earnings of their full-time counterparts within services. Considering all Member States, the same ratio rose above 50% in only two countries (Denmark and Austria). Turning attention to the same ratio for female employees we find that France and the United Kingdom again reported by far the lowest ratios, with female part-time employees in services receiving less than 33% of the earnings their full-time counterparts enjoyed. Denmark reported the highest share of part-time earnings in full-time earnings, at just over 75% for females working in services.

Table 4.2.4: monthly earnings of full-time employees, 1995 (ECU)

		B	DK	D (1)	EL	E	F	I	L	NL	A	P	FIN	S	UK
Motor vehicle distribution, maintenance and repair	Female	1 752	2 290	2 111	647	879	1 389	1 053	1 846	1 313	:	547	1 581	1 493	1 140
	Male	1 931	2 601	2 500	884	1 047	1 754	1 114	2 207	1 948	:	650	1 888	1 932	1 630
Wholesale trade	Female	1 932	2 578	2 052	710	830	1 614	1 211	1 936	1 548	:	636	1 699	1 721	1 236
	Male	2 390	3 177	2 705	870	1 162	2 245	1 441	2 414	2 280	:	832	2 179	2 193	1 818
Retail trade	Female	1 494	2 070	1 834	609	756	1 294	1 007	1 570	1 289	:	486	1 388	1 594	1 100
	Male	1 739	2 583	2 386	735	1 100	1 514	1 195	1 923	1 826	:	648	1 694	1 732	1 616
Hotels and restaurants	Female	1 462	2 232	:	709	773	1 243	994	1 414	1 466	:	:	:	1 585	969
	Male	1 973	2 612	:	858	988	1 358	1 195	1 749	1 891	:	:	:	1 729	1 286
Land transport	Female	1 726	2 208	:	937	1 012	1 526	1 668	2 342	1 591	:	750	1 605	1 731	1 328
	Male	1 974	2 462	:	1 136	1 143	1 558	1 939	2 765	1 988	:	773	1 894	1 820	1 664
Water transport	Female	1 967	2 412	:	883	953	:	1 216	:	:	:	1 124	2 120	1 908	1 350
	Male	2 593	3 640	:	1 219	1 400	2 169	1 741	2 086	2 957	:	1 049	2 426	2 794	2 108
Air transport	Female	2 275	3 115	:	983	1 240	2 460	1 693	2 637	:	:	1 119	:	2 052	1 834
	Male	3 121	3 718	:	1 176	1 654	3 934	1 982	3 520	:	:	1 451	:	2 755	2 829
Auxiliary transport activities	Female	1 810	2 413	:	760	977	1 508	1 265	2 118	:	:	859	1 703	1 953	1 284
	Male	2 302	2 961	:	986	1 306	1 521	1 452	2 481	:	:	1 144	2 199	2 046	1 928
Post and telecommunications	Female	1 799	2 745	:	933	1 330	:	1 287	2 337	:	:	1 012	1 567	1 883	1 608
	Male	2 006	3 640	:	1 321	1 693	:	1 390	2 405	:	:	1 082	1 892	2 112	1 903
Financial intermediation	Female	2 321	2 900	2 402	1 001	1 423	1 847	1 656	2 935	1 721	:	1 129	1 849	1 930	1 541
	Male	3 053	3 695	3 312	1 314	1 793	3 029	2 409	3 891	2 880	:	1 417	2 964	2 946	2 840
Insurance and pension funding	Female	2 156	3 052	2 567	902	1 073	1 521	1 404	2 863	1 957	:	1 111	1 741	2 041	1 464
	Male	2 799	4 296	3 417	1 293	1 516	2 433	1 881	3 849	2 827	:	1 297	2 805	3 024	2 438
Activities auxiliary to financial intermediation	Female	1 953	3 486	:	771	1 446	1 903	1 459	3 089	1 679	:	958	2 223	2 438	1 495
	Male	2 961	4 998	:	1 353	2 334	4 324	2 278	4 671	2 883	:	1 319	2 852	3 852	2 895
Real estate	Female	1 798	2 515	:	:	1 114	1 445	1 429	2 263	1 880	:	667	1 556	1 575	1 356
	Male	2 191	2 707	:	:	1 743	1 894	3 590	2 903	2 630	:	1 003	1 907	1 960	2 064
Renting of machinery	Female	2 200	2 480	:	:	917	2 114	1 196	2 218	:	:	677	1 763	1 726	1 269
	Male	2 097	2 952	:	:	1 002	1 591	1 043	3 429	1 890	:	796	2 029	1 938	1 758
Computing services	Female	2 282	3 249	:	:	1 064	1 789	1 391	2 605	1 856	:	784	2 265	2 006	1 835
	Male	2 877	4 136	:	:	1 390	2 852	1 969	3 511	2 785	:	1 357	2 744	2 746	2 711
Research and development	Female	2 178	3 201	:	:	:	2 086	1 359	2 996	:	:	704	1 768	1 963	1 836
	Male	2 926	4 578	:	:	:	2 999	1 792	3 803	2 800	:	1 998	2 216	2 420	2 505
Other business activities	Female	1 987	2 429	:	:	990	1 680	1 089	2 322	1 561	:	708	1 527	1 825	1 479
	Male	2 588	3 617	:	:	1 404	2 374	1 469	2 399	2 526	:	810	2 243	2 468	2 247
Services	Female	1 900	2 577	2 085	744	949	1 558	1 258	2 217	1 553	1 557	688	1 631	1 795	1 334
	Male	2 343	3 296	2 728	992	1 315	2 043	1 726	2 813	2 333	2 175	877	2 103	2 207	1 979

(1) Former West Germany only.

For further information: Structure of Earnings Survey

The analysis presented will now move on to study particular service activities rather than the whole aggregate of services. Looking in detail by activity we find that many of the highest earnings are paid to members of the labour force working within service activities. In other words some of the highest paid workers in service activities earned considerably more than their counterparts in industry. High earnings were found within transport and communications, financial services and computer activities. Only three countries reported average earnings above 4 thousand ECU per month, Denmark, France and Luxembourg. Auxiliary financial intermediation was the only common activity to both countries above this threshold.

On the other hand, we also find that many of the lowest paid members of the labour force are active within the services' economy. The service activities that displayed particularly low average earnings included retail trade and motor trade, hotels and restaurants and other business activities (for women). The lowest figure recorded for both men and women was in retail trade in Portugal.

We may note that the average deviation of wages across all service activities is considerably higher for men than for women. In other words the spread of earnings between the different service activities is higher for men than for women within a particular country. In Denmark, France and Luxembourg there is an average deviation between men for service activities of more than 600 ECU. The average deviation of female earnings across all service activities was much lower, between 100 and 300 ECU according to the country in question (except in Denmark, where it was higher at 360 ECU per month).

If we look at the table from the opposite dimension, we find that the spread of earnings across countries for a particular service activity was also greater for men than for women. The four activities that reported the widest deviation of earnings amongst the Member States did so for both men and women (in the same order for the ranking). The widest variations were recorded in the activities of auxiliary financial intermediation, air transport, insurance and pension funding and research and development (all highly paid activities in the majority of countries).

Table 4.2.5: monthly earnings of part-time employees, 1995 (ECU)

		B	DK	D (1)	EL	E	F	I	L	NL	A	P	FIN	S	UK
Motor vehicle distribution, maintenance and repair	Female	848	1 962	1 194	274	315	573	798	1 087	789	:	183	660	965	462
	Male	750	1 761	1 538	:	675	599	:	:	742	:	479	707	984	454
Wholesale trade	Female	1 065	1 970	1 153	325	396	567	625	1 055	923	:	233	741	1 284	490
	Male	1 229	1 980	1 387	388	459	940	722	895	1 270	:	486	694	1 006	785
Retail trade	Female	870	1 713	1 127	394	435	585	622	932	652	:	334	667	906	405
	Male	614	1 312	1 161	416	464	629	733	657	636	:	304	563	611	449
Hotels and restaurants	Female	629	2 021	:	485	353	543	643	909	647	:	:	:	809	309
	Male	577	2 034	:	297	329	513	608	783	592	:	:	:	806	362
Land transport	Female	1 062	1 991	:	:	315	681	569	913	725	:	237	666	909	485
	Male	809	2 120	:	455	615	591	1 100	495	861	:	800	843	986	726
Water transport	Female	1 592	1 908	:	:	:	:	524	:	:	:	500	979	1 141	555
	Male	:	2 713	:	:	:	:	:	:	:	:	459	1 544	:	:
Air transport	Female	1 382	3 167	:	924	864	1 052	920	1 451	:	:	572	:	:	987
	Male	1 069	3 325	:	1 062	1 741	:	:	:	:	:	:	:	:	2 260
Auxiliary transport activities	Female	1 294	2 253	:	107	782	497	915	:	:	:	263	742	973	573
	Male	1 709	2 712	:	186	1 651	573	914	:	:	:	599	980	732	957
Post and telecommunications	Female	1 047	1 429	:	:	380	:	640	1 296	:	:	687	533	940	676
	Male	1 197	1 259	:	371	501	:	687	1 463	:	:	883	526	642	964
Financial intermediation	Female	1 585	2 433	1 287	:	386	805	1 002	1 627	996	:	693	902	1 214	659
	Male	2 007	2 204	1 842	:	1 347	1 760	974	2 532	:	:	:	743	:	1 278
Insurance and pension funding	Female	1 461	2 646	1 565	462	584	706	744	1 758	1 168	:	235	823	937	603
	Male	1 865	2 621	1 463	543	769	1 081	:	:	:	:	427	1 112	1 768	945
Activities auxiliary to financial intermediation	Female	1 170	3 126	:	:	743	649	731	2 055	933	:	597	:	1 077	674
	Male	249	2 286	:	:	898	1 298	:	:	:	:	413	:	:	484
Real estate	Female	692	2 075	:	:	362	430	:	:	1 069	:	411	605	1 094	512
	Male	472	2 246	:	:	1 202	473	:	:	:	:	286	727	764	536
Renting of machinery	Female	973	1 461	:	:	453	:	:	1 272	:	:	765	:	:	481
	Male	719	1 602	:	:	625	:	:	:	:	:	:	:	:	737
Computing services	Female	1 401	2 364	:	:	404	749	583	2 095	:	:	564	1 070	:	822
	Male	1 433	2 113	:	:	516	539	:	:	1 378	:	:	991	:	1 275
Research and development	Female	1 458	3 155	:	:	:	823	:	:	:	:	293	769	1 189	688
	Male	1 315	4 255	:	:	:	1 351	:	:	:	:	:	708	:	853
Other business activities	Female	838	1 783	:	:	325	345	599	815	616	:	414	500	809	478
	Male	890	1 911	:	:	450	440	687	1 201	721	:	452	572	1 083	576
Services	Female	959	1 936	1 167	360	395	489	681	1 061	714	820	338	661	964	430
	Male	860	1 850	1 342	354	522	555	744	1 012	827	1 270	403	588	924	525

(1) Former West Germany only.

For further information: Structure of Earnings Survey

The highest part-time earnings were observed in air transport, auxiliary transport activities, financial services and computer activities. Within the part-time labour force we find far less variation in the earnings between men and women. The mean deviation across service activities was less than 100 ECU per month in Denmark, Finland, Germany, Greece, Italy, the Netherlands and Portugal. The activities that reported the highest variation in monthly part-time earnings were insurance and pension funding and auxiliary financial intermediation (for both men and women). The highest and lowest monthly earnings for women were recorded in Denmark and Portugal, ranging from 3.2 thousand ECU to just 572 ECU for air transport and from 3.1 thousand ECU to 597 ECU for auxiliary financial intermediation. The activities of distributive trades, hotels and restaurants and other business services all reported low average deviation between the Member States, with earnings in distributive trades and hotels and restaurants particularly low for each country studied.

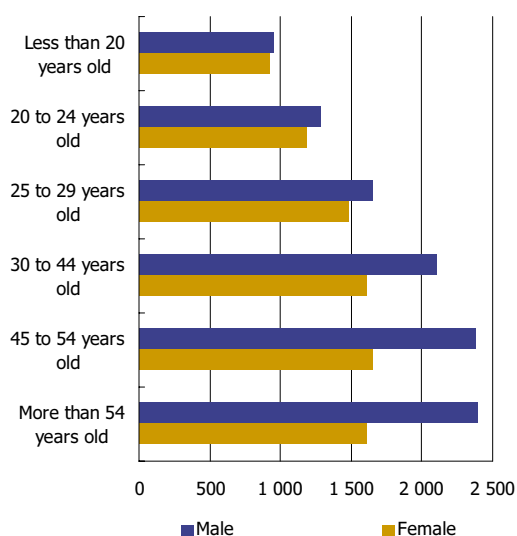
Earnings structure by age

We will now study the effects of age on the average earnings per month of the services' labour force. There are two aspects that will be presented: firstly, the age of the employee; and secondly, the length of service employees spend with the same enterprise. We may expect average earnings to rise with both age and length of service. In general this rule of thumb holds within the services' economy. Nevertheless, there are a number of interesting trends to observe.

The differential between average male earnings and female earnings grows as employees get older, from just 22 ECU per month for persons below 20 years old to as much as 774 ECU per month for employees over 54 years old.

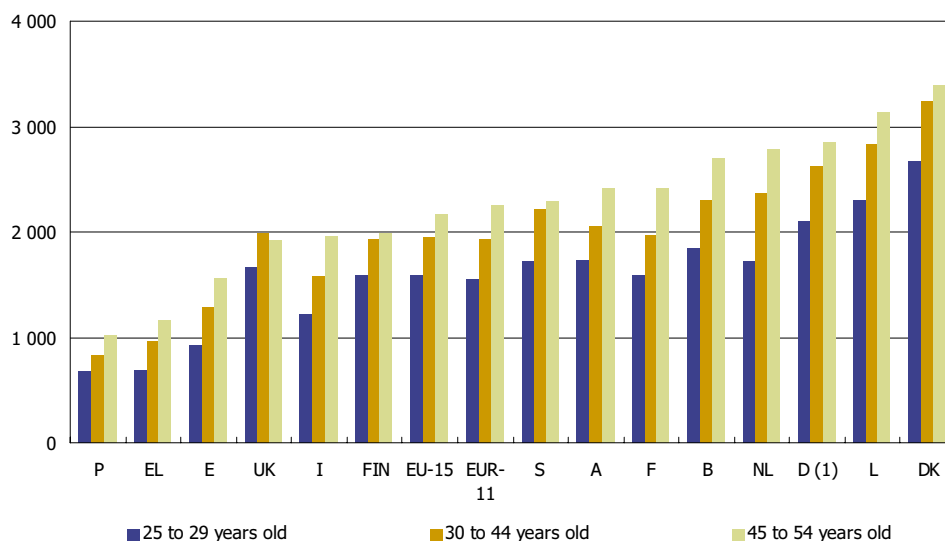
We may also note that whilst the average earnings of male employees continues to rise with successive age groups through until retirement we find that average female earnings in services barely change between the ages of 30 and retirement.

Figure 4.2.5: monthly earnings in services in the EU, breakdown by age group, 1995 (ECU)



For further information: Structure of Earnings Survey

Figure 4.2.6: monthly earnings in services, breakdown by age group, 1995 (ECU)



(1) Former West Germany only.
For further information: Structure of Earnings Survey

If we look for the largest differentials between age groups we find that the highest increase in earnings between two age groups was recorded in the Netherlands when comparing those aged 25 to 29 years old with those aged 30 to 44 years old. Generally the increases in earnings for employees aged 44 and more were less than the gains recorded by those aged between 30 and 44 years old. This was however not the case in Austria, France, Italy and Portugal, where older employees saw their earnings rise at a faster pace.

Looking at the structure of earnings by age group we find that in the age group 45 to 54 years old all Member States reported that they had average earnings in services above the threshold of one thousand ECU per month. Only two countries reported that average earnings were above 3 thousand ECU per month; they were Denmark (for all age groups above 30 years old) and Luxembourg (for age groups 45 years and above).

If we look in more detail at earnings' profiles across different service activities we find that the increase in average monthly earnings varies considerably by service activity. There were four service activities that reported earnings rising by more than 2 thousand ECU per month between those aged less than 20 and those above 54 years old; they were financial intermediation, auxiliary financial intermediation, research and development and computer activities.

Table 4.2.6: monthly earnings of full-time employees in the EU, 1995 (ECU)

	Less than 20 years old	20 to 24 years old	25 to 29 years old	30 to 44 years old	45 to 54 years old	More than 54 years old	Total
Motor vehicle distribution, maintenance and repair	883	1 277	1 532	1 844	2 008	2 010	1 738
Wholesale trade	910	1 225	1 588	2 013	2 289	2 371	1 910
Retail trade	902	1 121	1 400	1 604	1 747	1 794	1 469
Hotels and restaurants	775	1 022	1 178	1 326	1 368	1 310	1 195
Land transport	1 153	1 257	1 462	1 656	1 834	1 746	1 662
Water transport	1 180	1 351	1 636	2 129	2 368	2 177	2 040
Air transport	1 043	1 439	1 780	2 224	2 637	2 191	2 210
Auxiliary transport activities	1 052	1 172	1 394	1 685	1 849	1 716	1 583
Post and telecommunications	1 131	1 357	1 500	1 634	1 728	1 641	1 622
Financial intermediation	1 045	1 488	1 904	2 378	2 770	3 081	2 321
Insurance and pension funding	952	1 320	1 788	2 292	2 665	2 737	2 186
Activities auxiliary to financial intermediation	858	1 449	2 210	2 882	2 945	3 148	2 494
Real estate	862	1 241	1 466	1 849	1 898	2 028	1 754
Renting of machinery	938	1 207	1 407	1 781	2 017	1 781	1 629
Computing services	974	1 393	1 943	2 609	2 910	3 106	2 349
Research and development	989	1 564	1 902	2 600	2 963	3 027	2 516
Other business activities	1 009	1 281	1 643	2 110	2 443	2 488	1 946
Services	934	1 236	1 583	1 949	2 173	2 210	1 852

For further information: Structure of Earnings Survey

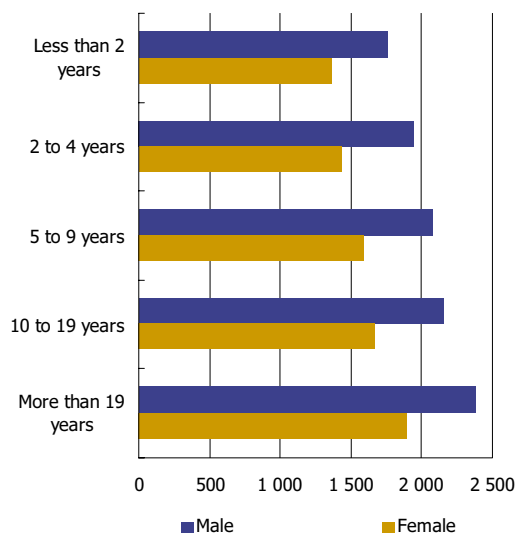
Average earnings within transport and communications activities were at a high level from an early age, with all five activities that make up this heading reporting earnings of over one thousand ECU for the less than 20 age group. Turning attention to employees at the other end of the age spectrum, we find that seven service activities reported declining average earnings for the oldest age group studied (more than 54 years old). Amongst these the highest reduction was recorded in air transport, where pilots often retire and hence no longer figure in the data provided (lowering considerably the average earnings of this group). A similar trend could be observed in the data for other transport activities, post and telecommunications, as well as hotels and restaurants. In all other service activities, earnings continued to rise as a function of age.

The case of auxiliary financial intermediation was very interesting as this activity recorded the second lowest earnings in the age group of less than 20. However, as more highly educated employees joined the labour force, very high successive increases in earnings were recorded through to 44 years old. After this age there was little change in average earnings of employees up until their retirement. Nevertheless, auxiliary financial intermediation reported the highest average earnings of any service activity within the age group of more than 54 years.

Length of service is defined as the number of years worked with the current employer. If the employee has already worked in another local unit of the enterprise, length of service is calculated from the date of entry to the enterprise.

Earnings increase with length of service due to statutory increases, as well as pay rises as a result of promotion or performance related increases. The rate of growth of earnings in relation to the length of service grows somewhat more rapidly at the start of an employee's career in services. The most rapid increase in earnings was observed when employees had spent between 2 and 4 years with their present employer (equally true for men and women). There were also sizeable increases in earnings at the other end of the spectrum, for those employees that had spent more than 19 years with the same enterprise.

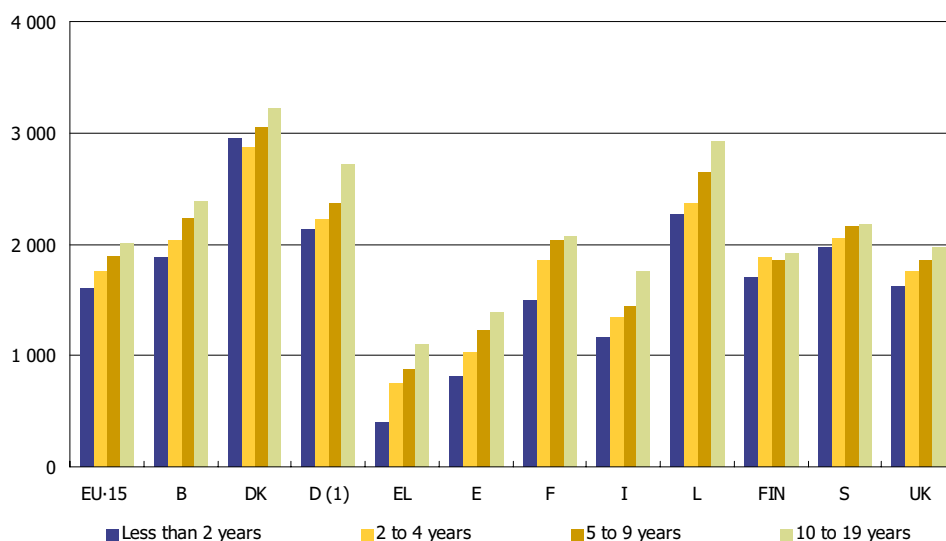
Figure 4.2.7: monthly earnings in services in the EU, breakdown by length of service, 1995 (ECU)



For further information: Structure of Earnings Survey

Turning our attention to the different trends within the Member States we find that three countries reported very little deviation in earnings as a function of length of service. Average mean deviations in Finland, Sweden and the United Kingdom were less than 100 ECU per month. Indeed, if we compare earnings for those employees who had spent more

Figure 4.2.8: monthly earnings in services, breakdown by length of service, 1995 (ECU)



(1) Former West Germany only.

For further information: Structure of Earnings Survey

Table 4.2.7: monthly earnings in the EU, breakdown by length of service, 1995 (ECU)

	Less than 2 years	2 to 4 years	5 to 9 years	10 to 19 years	More than 19 years	Total
Motor vehicle distribution, maintenance and repair	1 442	1 563	1 777	1 965	2 162	1 738
Wholesale trade	1 597	1 756	1 998	2 122	2 399	1 910
Retail trade	1 257	1 345	1 579	1 709	1 918	1 469
Hotels and restaurants	1 080	1 215	1 249	1 410	1 403	1 195
Land transport	1 466	1 483	1 506	1 719	1 860	1 662
Water transport	1 759	1 747	1 904	2 065	2 206	2 040
Air transport	2 163	2 038	2 309	2 412	2 161	2 210
Auxiliary transport activities	1 402	1 609	1 675	1 680	1 764	1 583
Post and telecommunications	1 756	1 720	1 500	1 546	1 643	1 622
Financial intermediation	2 183	2 128	2 212	2 284	2 651	2 321
Insurance and pension funding	1 953	1 942	2 258	2 330	2 363	2 186
Activities auxiliary to financial intermediation	2 156	2 618	2 708	2 638	3 004	2 494
Real estate	1 517	1 659	1 808	1 898	1 952	1 754
Renting of machinery	1 303	1 637	1 805	1 991	1 930	1 629
Computing services	2 163	2 249	2 388	2 723	2 772	2 349
Research and development	2 226	2 240	2 404	2 641	3 110	2 516
Other business activities	1 662	1 903	2 030	2 284	2 831	1 946
Services	1 603	1 752	1 892	2 012	2 266	1 852

For further information: Structure of Earnings Survey

than 19 years with the same enterprise to those that had spent less than 2 years, we find that the difference in earnings was as low as 192 ECU per month in the United Kingdom. The United Kingdom was the only country to report that length of service was not directly linked to higher average earnings. Employees in services in the United Kingdom who had spent more than 19 years with the same enterprise earned on average less than those who had been with an enterprise for between 10 and 19 years.

France, Germany and Italy all reported very similar trends, with differentials between employees having served the least and the most time in enterprises equivalent to just under 900 ECU per month. However, it was in Luxembourg that the highest rewards for length of service were recorded. Employees who had been with the same enterprise for more than 19 years earned on average more than 1.4 thousand ECU more than their counterparts who had been with the same enterprise for less than two years.

Looking at the European figures for length of service across a broad range of service activities we find that two activities reported very little variation in earnings due to length of service. Auxiliary transport activities and post and telecommunications both reported mean deviation amongst different lengths of service below 100 ECU per month.

There were two services that reported average earnings higher for those employees that had spent less than 2 years with an enterprise than those having spent more than 19 years; they were air transport and post and telecommunications. The rapid change in technology and the resulting qualifications required to fill certain posts in the telecommunications industry may explain why new recruits are paid more than those employees having spent their whole career in these activities.

By far the largest differential between earnings of employees at either extreme of the scale was found in the activity of other business activities. This was the only service sector to report that employees having spent their whole career with one enterprise were earning more than a thousand ECU more than employees who had spent less than 2 years with the same enterprise.

Earnings structure by type of local unit

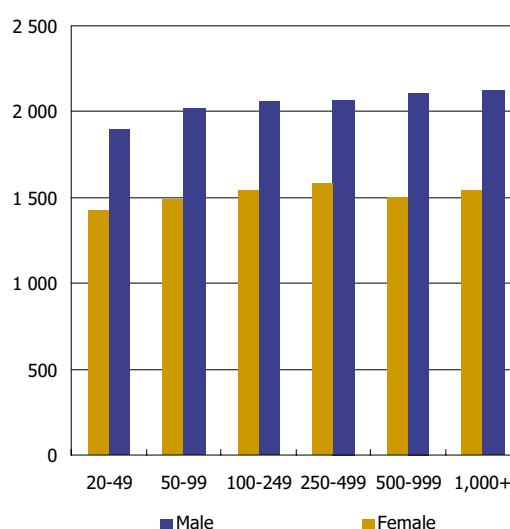
The data that is used within the analysis that follows relates to the local unit and not to the enterprise.

There is a fundamental difference in that the local unit can be "an enterprise or part thereof (for example, a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place"⁽²⁾. The data presented by local unit are broken down into size class categories. We may observe that employees within larger local units in services generally enjoyed a pay advantage over those working in smaller units. The advantage varied according to whether the employee was male or female and also according to the occupation of the employee. Differentials within service activities were generally not as pronounced as within industrial activities. Generally, as the size of local units in service activities grows to between 500 and 999 employees the difference between male and female earnings also becomes larger, whilst in very large local units (more than one thousand employees) average earnings between the sexes move somewhat closer again.

(2) Council Regulation (EEC), No. 696/93, Section III F of 15.03.1993 on the statistical units for the observation and analysis of the production system in the Community.

We may observe from figure 4.2.9 that the differentials of earnings by size of local unit rise far quicker for males than they do for females. Indeed, average male earnings in services rose directly as a function of the size of the local unit. Within the female labour force the same simple relationship did not exist. The highest female earnings were recorded for women working in local units employing between 250 and 499 persons. Average earnings for females working in local units of between 100 and 249 employees were also higher than those found in local units of more than 500 employees.

Figure 4.2.9: monthly earnings in services in the EU, breakdown by size of local unit, 1995 (ECU)



For further information: Structure of Earnings Survey

Table 4.2.8: monthly earnings in the EU, breakdown by size of local unit, 1995 (ECU)

Number of employees		10-19	20-49	50-99	100-249	250-499	500-999	1,000+	All
Motor vehicle distribution, maintenance and repair	Male	1 533	1 805	1 892	1 773	2 364	1 912	1 807	1 800
	Female	1 313	1 451	1 456	1 296	1 996	1 485	1 341	1 432
Wholesale trade	Male	1 834	1 961	2 194	2 190	2 206	2 265	1 998	2 062
	Female	1 427	1 459	1 546	1 643	1 590	1 641	1 451	1 520
Retail trade	Male	1 545	1 605	1 652	1 637	1 693	1 558	1 762	1 658
	Female	1 291	1 268	1 269	1 408	1 303	1 150	1 290	1 287
Hotels and restaurants	Male	1 193	1 207	1 326	1 289	1 274	1 383	1 339	1 290
	Female	1 069	995	1 047	1 103	1 044	1 066	1 057	1 063
Land transport	Male	1 385	1 385	1 568	1 566	1 601	1 705	1 893	1 684
	Female	1 270	1 199	1 420	1 454	1 527	1 536	1 557	1 461
Water transport	Male	2 127	1 987	1 382	2 013	2 199	:	:	2 153
	Female	1 709	1 222	1 417	1 511	1 315	:	:	1 581
Air transport	Male	3 944	2 219	2 342	2 379	2 648	2 204	2 342	2 384
	Female	2 387	1 829	1 830	1 763	1 869	1 613	1 867	1 851
Auxiliary transport activities	Male	1 432	1 665	1 594	1 596	1 559	1 834	1 986	1 676
	Female	1 293	1 398	1 306	1 379	1 502	1 421	1 299	1 355
Post and telecommunications	Male	1 447	1 587	1 680	1 659	1 572	1 966	1 688	1 679
	Female	1 205	1 380	1 539	1 434	1 316	1 605	1 439	1 428
Financial intermediation	Male	2 367	2 539	2 696	2 655	2 484	2 646	2 750	2 659
	Female	1 739	1 880	2 084	1 959	1 935	1 891	1 805	1 864
Insurance and pension funding	Male	2 127	2 417	2 068	2 586	2 509	2 737	2 712	2 589
	Female	1 474	1 521	1 491	1 622	1 742	1 896	1 839	1 732
Activities auxiliary to financial intermediation	Male	3 378	3 052	3 777	3 540	3 416	:	:	3 109
	Female	1 420	1 709	1 621	1 727	1 740	:	:	1 650
Real estate	Male	1 780	2 054	1 963	2 198	1 782	1 866	:	2 058
	Female	1 481	1 307	1 500	1 335	1 371	1 406	:	1 431
Renting of machinery	Male	1 552	1 553	1 457	1 752	:	:	:	1 670
	Female	1 301	1 855	2 273	1 220	1 435	:	:	1 506
Computing services	Male	2 351	2 683	2 458	2 509	2 833	2 930	2 486	2 600
	Female	1 574	1 712	1 691	1 739	1 752	2 205	1 750	1 745
Research and development	Male	3 097	2 770	2 523	2 885	2 804	3 015	2 728	2 791
	Female	1 804	1 790	2 182	2 020	1 798	1 989	2 012	1 992
Other business activities	Male	2 320	2 263	2 303	2 024	1 997	2 042	2 262	2 203
	Female	1 592	1 582	1 578	1 469	1 543	1 331	1 548	1 528
Services	Male	1 753	1 897	2 022	2 058	2 065	2 106	2 124	2 031
	Female	1 384	1 423	1 490	1 543	1 576	1 502	1 540	1 510

For further information: Structure of Earnings Survey

If we turn our attention to data by service activity across the Union, we find that only two services reported that employees in small local units (10 to 49 employees) earned more than those in very large local units (more than a thousand employees). Air transport was one of these activities, where the composition of the labour force in larger units could explain the difference, as we may imagine that the labour force includes far more ancillary staff and comparatively fewer pilots. The other activity was that of other business activities.

Within the activities of retail trade and hotels and restaurants the female labour force earned almost the same amount working in small or large local units. Female earnings in these two services were somewhat higher within medium-sized local units (100 to 249 employees).

If we compare the earnings of men and women within local units of the same size across service activities, we find that the mean variation in female earnings is almost constant. In other words, no matter the size of the local unit, the pay differences between the different service activities remained more or less constant. However, for men there is a somewhat different pattern, with much higher variations in earnings between different services when studying small local units. The difference between male earnings for different service activities was seen to decline as the size of the local unit grew.

Finally, we will look at earnings in each Member State by size of local unit. Table 4.2.9 shows that in Finland and the United Kingdom there was limited variation in earnings between local units of different size (an observation that held for male and female employees). Similar trends could be observed for the female labour force in Austria, Greece and the Netherlands, where the size of the local unit played a very limited role in determining average earnings. Nevertheless, Danish women were the only group to have average earnings in the smallest local units (10 to 19 employees) above those of the largest local unit (more than a thousand employees) and this by only 90 ECU per month.

The largest difference between earnings in the smallest local units and largest local units was recorded in France, where male employees working in large local units earned on average nearly 1,500 ECU per month more than their counterparts in the smallest local units.

Table 4.2.9: monthly earnings in services, breakdown by size of local unit, 1995 (ECU)

Number of employees		10-19	20-49	50-99	100-249	250-499	500-999	1,000+	All
EU-15	Male	1 753	1 897	2 022	2 058	2 065	2 106	2 124	2 031
	Female	1 384	1 423	1 490	1 543	1 576	1 502	1 540	1 510
B	Male	2 088	2 163	2 315	2 446	2 511	2 578	2 690	2 361
	Female	1 699	1 752	1 884	1 964	2 009	2 103	2 268	1 898
DK	Male	2 986	3 089	3 228	3 432	3 582	3 938	3 317	3 296
	Female	2 501	2 565	2 621	2 655	2 722	2 900	2 411	2 577
D (1)	Male	2 491	2 557	2 597	2 703	2 923	3 132	3 070	2 747
	Female	1 905	1 936	1 990	2 029	2 196	2 277	2 282	2 090
EL	Male	866	919	1 053	1 158	1 144	1 151	1 319	992
	Female	675	709	786	847	888	865	950	744
E	Male	1 030	1 155	1 357	1 333	1 478	1 538	1 705	1 315
	Female	789	851	896	943	994	1 064	1 241	949
F	Male	1 827	1 897	2 033	2 080	2 004	2 204	3 286	2 346
	Female	1 499	1 484	1 541	1 610	1 577	1 549	2 001	1 730
I	Male	1 442	874	1 282	1 454	1 484	1 711	1 907	1 726
	Female	1 432	880	1 023	1 108	1 198	1 172	1 446	1 258
L	Male	2 415	2 553	2 778	2 834	3 178	3 191	3 039	2 813
	Female	1 957	2 076	2 069	2 295	2 216	2 349	2 614	2 217
NL	Male	1 987	2 211	2 280	2 417	2 383	2 355	2 507	2 333
	Female	1 395	1 451	1 535	1 548	1 596	1 625	1 654	1 553
A	Male	1 960	2 097	2 167	2 205	2 318	2 396	2 197	2 175
	Female	1 474	1 542	1 505	1 673	1 581	1 515	1 608	1 557
P	Male	696	814	903	:	:	1 059	1 116	877
	Female	549	599	672	:	:	827	1 058	688
FIN	Male	2 055	2 041	2 187	2 154	2 215	2 104	2 079	2 103
	Female	1 584	1 614	1 608	1 691	1 718	1 608	1 628	1 631
S	Male	1 974	2 161	2 320	2 265	2 180	2 785	2 503	2 207
	Female	1 681	1 756	1 773	1 862	1 910	2 012	1 979	1 795
UK	Male	1 852	1 939	1 941	2 150	2 048	2 058	1 960	1 979
	Female	1 226	1 254	1 344	1 367	1 348	1 370	1 352	1 333

(1) Former West Germany only.

For further information: Structure of Earnings Survey

It was of interest to note that in Italy average earnings of local units with between 10 and 19 employees were well above those found in local units employing between 20 and 49 employees. The difference was over 500 ECU per month in favour of those working in smaller local units. Furthermore, these units displayed almost identical earnings for men and women, with the difference of earnings between the sexes only apparent for larger local units.

Introduction

There has been much written in economic literature about the stages of economic development that may be observed during the transition of economies towards a post-industrialised economic form. The movement of the labour force from traditional activities such as agriculture and industry towards services has been a feature of most developed world economies in the last thirty years. The most striking examples of this phenomena are not found within Europe: it is in North America and Australia that the increase in jobs accounted for by the service sector has been at its greatest.

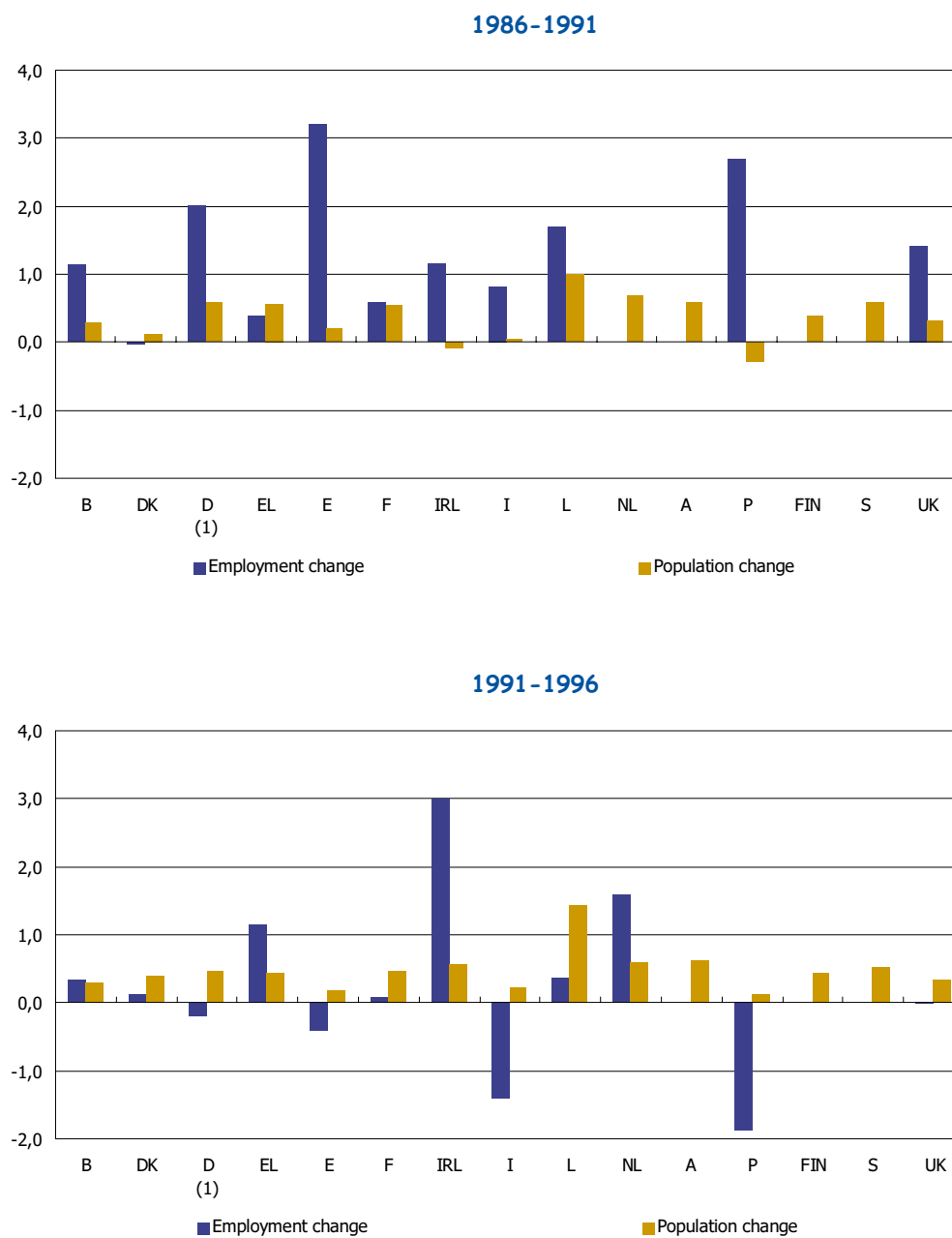
This section of "Services in Europe" will look at the development of the structure of the labour force within the service sector of the European economy. It will briefly trace the shift in the composition of the structure of the labour force between the large economic aggregates (agriculture, energy, industry, construction and services). The analysis will then look at the growth and development of particular service activities, with reference to those service activities that have recorded the most rapid growth in employment (in real and percentage terms). The article then considers the composition of the services' labour force. This section details the number of persons who are self-employed, the number of family workers and the number of people working from home. The following section studies educational attainment within the labour force. The analysis breaks down labour into three broad groups, those with lower, medium or higher education. The final section presents a somewhat different view of the services' labour market, studying those made unemployed (as classified by their previous economic activity).

Structure of employment

When studying employment trends over time it is important that we take account of economic cycles that play a significant role in explaining short-term gains and losses within the labour force. For example, the recession experienced at the start of the nineties meant that the majority of countries reported stagnating or negative trends in the number of persons employed (for the economy as a whole). Other factors that need to be accounted for include changes in the number of persons of working age, changes in labour force participation rates, as well as changes in unemployment rates. The first of these factors is largely a function of changes in the birth and death rate (although migration may play a role), whilst the latter two factors are largely a function of underlying economic and social conditions.

The population of the European Union has risen over the past three decades (notwithstanding the changes in the composition of the European Union's membership). Across all Member States there has been a modest rising trend in population. However, this trend has slowed considerably if we compare the population growth rates for the nineties with those of the early seventies (when growth in excess of 1% per annum was not uncommon in Ireland, Luxembourg, Portugal and Spain).

Figure 4.3.1: employment and population growth in the EU (annual % change)



(1) Former West Germany only.
For further information: Labour Force Survey

Calculating annual average growth rates for population over a fairly lengthy period of time, we see that the population of the fifteen Member States grew at a rate of 0.34% per annum during the period 1971-1996. Looking at the individual Member States, the rates of growth for the period 1971-1996 varied between only 0.18% per annum in Germany and 0.79% per annum in Ireland. Breaking down the period into five-year intervals, we can observe four negative data values. Two of these are for Germany: -0.01% per annum between 1971-1976 and -0.19% per annum between 1981-1986; the other two were recorded in the period 1986-1991 in Ireland (-0.08% per annum) and Portugal (-0.29% per annum).

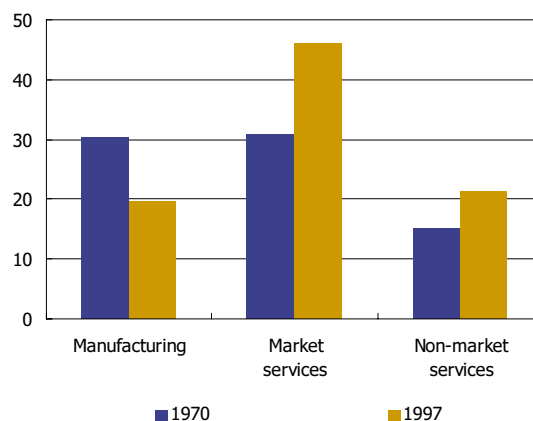
The main implication of a rising population within Europe is that it points to an ageing population that has an increasing share of non-active persons, who are supported by those in work. Furthermore, in countries where the unemployment rate remains low, there may be problems of labour supply for economic activities that rapidly generate new jobs.

Participation rates allow us to measure the number of persons of working age who are actively engaged in employment or the search of employment. General trends show that there has been a rise in participation rates in recent years within Europe. However, if we break down the gains into male or female participation, we see that the increase is almost entirely due to rising female participation rates.

The absolute growth of the share of the services' labour force is a trend that has been evident for at least three decades. However, it is perhaps more relevant to look at which areas provide a large number of jobs in absolute terms rather than talk of services in aggregate terms. Whilst this section is limited in scope to study the structure of the labour force, the following thematic section will look at employment trends in terms of working hours and labour force flexibility.

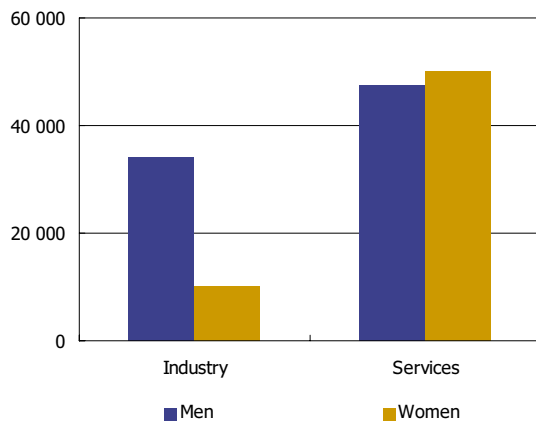
To demonstrate the dramatic change in the composition of the labour force over the last few decades we may compare data on the number of occupied persons from National Accounts, where a time-series exists as far back as 1970. We find that the share of services' employment has increased for both market and non-market services. The majority of the increase has been recorded in market services, where a gain of more than 15 percentage points was registered between 1970 and 1997. At the same time manufacturing witnessed a decline of more than 10 percentage points in its total number of occupied persons.

Figure 4.3.2: Share of total occupied persons in the EU (%)



For further information: National Accounts

Figure 4.3.3: breakdown of persons employed in the EU, 1998 (thousands)



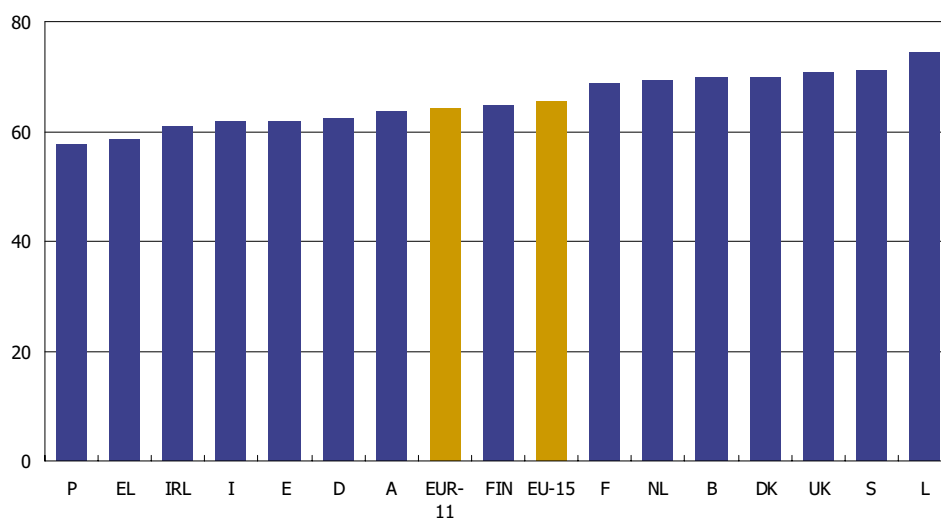
For further information: Labour Force Survey

The most recent figures available from the Labour Force Survey show that there were close on 100 million persons working in services in the EU in 1998. This figure can be compared with a total of less than 45 million persons working in industry. It is of interest to note that the number of women working in services outweighed the number of men in 1998, with some 2.8 million more women employed in services.

If we turn our attention away from the EU aggregate and look at the importance of services in the respective Member States, we find that services accounted for between 57.6% (Portugal) and 74.4% (Luxembourg) of the total number of persons employed.

The southern Member States and Ireland occupied the bottom five places when ranking the countries by their share of services in total employment.

Figure 4.3.4: share of the EU labour force employed in services, 1997 (%)



For further information: Labour Force Survey

Table 4.3.1 gives a detailed breakdown of the structure of employment in market services. Figures are available at the 2-digit level of the NACE Rev. 1 activity classification. We can note that Germany had the highest number of persons employed in market services (11.8 million), followed closely by the United Kingdom (the only other Member State to report more than 10 million persons employed in this area of the economy). France and Italy both reported more than 7 million persons employed in market services.

It is perhaps of more interest to look at the share of each NACE Rev. 1 Division in the market services total. We find that employment was distributed with a fairly consistent pattern across the Member States, whilst being concentrated within a few activities. The most important employers in the EU within market services were retail trade (25.8%), other business activities (14.9%) and hotels and restaurants (11.4%), no other NACE Rev. 1 Division accounted for more than 10% of the market services' total.

We find that almost one-third of market services' employment in Greece and Italy was in retail trade (high shares were also recorded in Portugal and Spain). Denmark, Finland, Luxembourg and Sweden were the only Member States to report less than 20% of total market services' employment in retail trade.

Table 4.3.1: number of persons employed by market service activity, 1997 (thousands) (1)

NACE Rev. 1	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
50	3 263,1	77,0	68,7	744,7	93,0	291,9	446,6	28,9	493,3	3,7	123,8	84,1	122,3	43,8	74,0	567,5
51	5 303,8	135,6	112,6	1 076,6	118,3	511,4	965,1	47,6	632,7	6,2	399,9	133,2	118,6	72,8	193,1	780,4
52	13 896,7	336,2	175,6	3 235,8	431,2	1 312,6	1 575,3	116,7	2 221,1	13,3	594,7	350,1	407,8	128,8	216,3	2 781,2
55	6 120,7	129,6	78,2	1 165,2	229,8	786,1	726,4	76,1	882,6	8,7	220,2	205,4	218,4	60,4	103,9	1 229,8
60	3 816,7	128,3	65,8	613,4	105,8	449,3	649,4	33,2	573,6	6,0	188,0	120,0	75,6	78,4	107,9	621,9
61	260,0	6,1	17,3	35,3	27,8	15,2	15,6	2,7	50,0	0,1	10,7	0,8	9,3	9,6	12,5	47,1
62	367,4	16,3	8,4	76,9	10,5	30,4	59,2	6,7	41,6	1,9	32,2	4,1	12,9	8,2	10,3	47,7
63	1 838,5	46,2	38,5	608,2	57,8	95,9	218,0	4,5	110,1	0,9	69,4	43,4	37,1	22,5	45,5	440,5
64	2 608,4	88,6	60,5	575,8	44,8	154,4	461,4	17,9	320,0	3,0	108,9	60,1	42,4	40,9	79,8	549,9
65	3 276,5	103,2	63,0	810,1	70,6	237,3	415,3	30,9	455,8	14,9	134,6	94,0	93,5	36,5	62,7	654,2
66	1 187,3	44,7	23,2	349,5	25,0	92,8	160,9	13,2	184,8	1,5	57,1	45,3	29,1	18,3	22,7	119,3
67	759,8	8,9	3,4	111,8	1,3	10,5	118,6	6,3	41,8	1,0	47,0	1,7	0,3	1,4	3,5	402,2
70	1 222,2	15,0	24,5	230,9	1,5	44,5	283,3	4,8	73,1	0,4	47,5	35,8	13,1	26,8	66,7	354,4
71	298,8	6,6	5,0	49,1	3,2	19,8	50,6	2,3	9,0	0,3	17,2	3,5	3,4	3,6	5,7	119,4
72	1 209,6	31,3	35,0	231,0	6,3	47,5	186,2	11,3	167,7	0,6	79,6	15,4	16,2	21,6	56,4	303,6
73	588,5	8,1	8,8	192,9	3,9	15,8	141,1	3,3	36,4	0,4	30,6	8,9	10,4	10,9	22,0	95,1
74	7 997,4	187,3	139,4	1 740,3	145,2	654,7	1 248,8	62,7	817,8	8,8	538,4	174,8	178,7	106,6	240,5	1 753,4
Market services	54 015,4	1 369,0	927,9	11 847,4	1 375,9	4 770,2	7 721,8	468,9	7 111,3	71,5	2 699,7	1 380,6	1 389,1	691,0	1 323,5	10 867,7

(1) For a list of NACE Rev. 1 codes, please refer to page 221.
For further information: Labour Force Survey

Within other business activities the highest employment share was recorded in the Netherlands at almost 20% of the market services' total, closely followed by Sweden (18.2%). Greece, Italy and Luxembourg had the three lowest figures. The low share in Luxembourg could be explained in part by the high number of persons employed in financial intermediation, where more than 20% of the market services' total were found (compared to an EU average of just 6.2%).

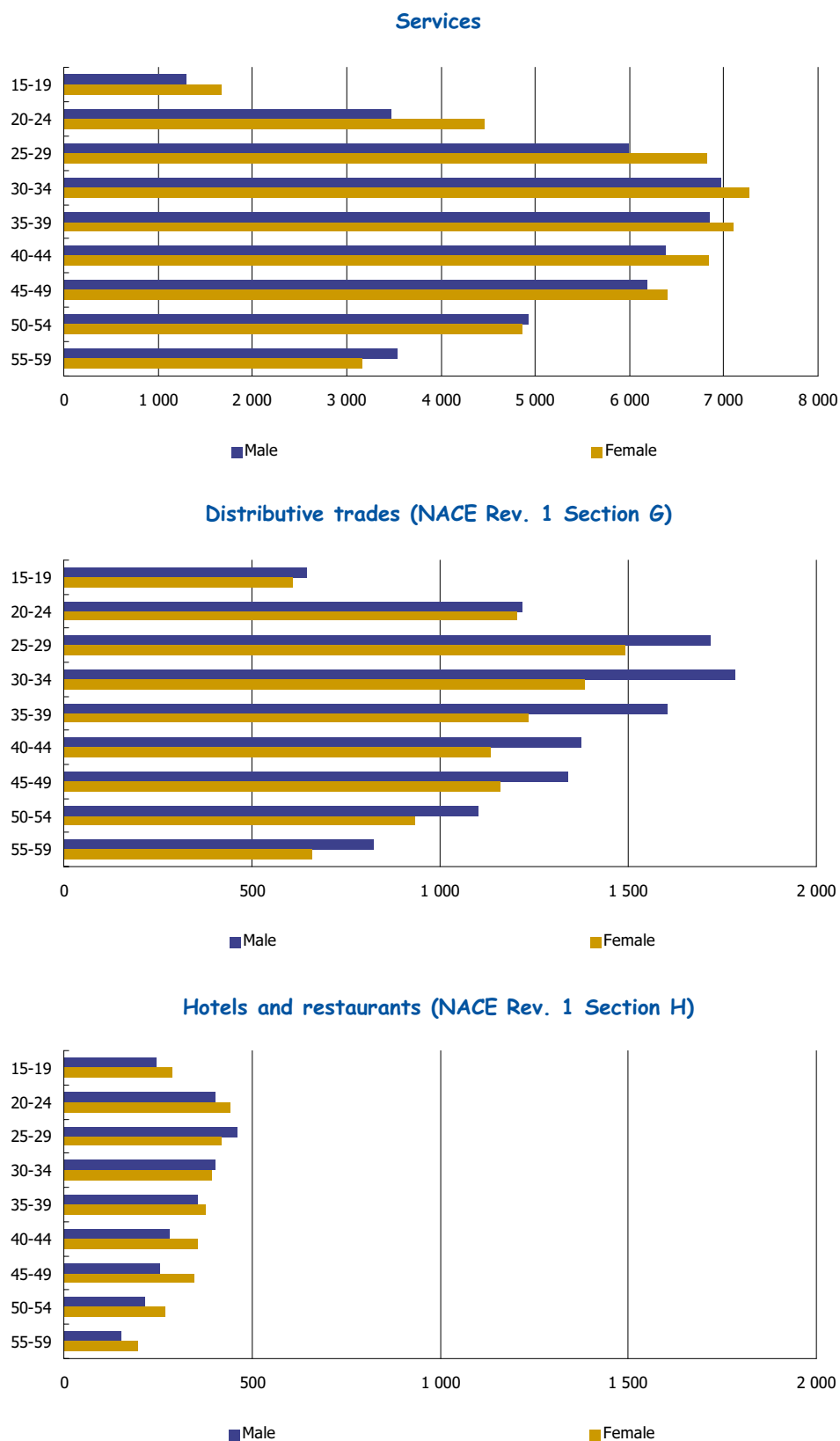
Indeed, if we look at the variation of national figures from the EU average by NACE Rev. 1 Division, financial intermediation in Luxembourg reported by far the largest percentage divergence from average EU figures (14.6 percentage points higher). Other differences worth noting (excluding the data for retail trade, commented above) included the 5 point higher than average share of hotels and restaurants in Greece and Spain, as well as a 5 percentage point positive difference in research and development in the Netherlands. No other activity saw a difference greater than 5 percentage points from the EU average other than French retail trade, where employment was 5.2 percentage points below the EU average.

Figure 4.3.5 shows for each NACE Rev. 1 Section within market services the breakdown of persons employed by age and sex, a graph for the whole of services is also provided. Please note that female employment in community and personal services, public administration, education and health is generally much higher than corresponding figures for men. Indeed, looking at the figures for market services we find that men were in the majority in terms of persons employed for most activities. The four main occupational areas where female employment was concentrated were clerical work (financial intermediation and business services), sales work (retail trade), education and nursing. It is of interest to note that despite the integration of women into the service economy at a rapid pace, there remain large differences in the jobs held by men and women. Female posts were found to still be largely concentrated in a few occupations and activities.

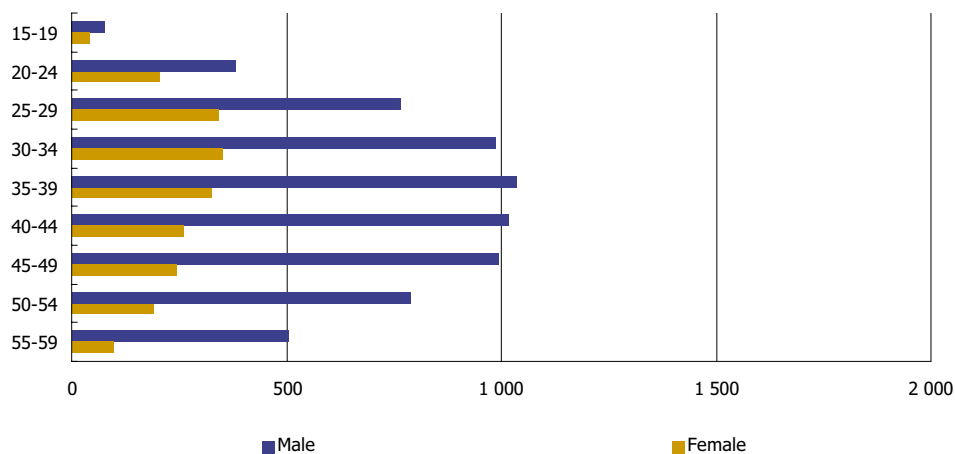
If we turn attention to the composition of the market services' labour force by age profile we find that up to the age of 29 women play a far greater role than men. There were almost 2.2 million more women working in services between the ages of 15 and 29 in 1997. By the age of 50, men accounted for more jobs than women within the services' labour force of the EU, a trend that was accentuated as the labour force became older.

The individual graphs for each NACE Rev. 1 market services' heading show some interesting differences between activities. We may note that the comparatively lower levels of women working between the ages of 25 and 34 in both distributive trades and hotels and restaurants, almost certainly due to women taking time off work to raise a family. Indeed, for hotels and restaurants, women were in the majority between the ages of 15 and 24 and after the age of 35 through until retirement. A second trend to note in the activities of distribution and hotels and restaurants was the high propensity to employ persons below the age of 20 years old. In financial intermediation, the lowering of female participation due to raising a family seemed to occur at a somewhat later stage in life (with the figures showing a larger differential between male and female employment levels between the ages of 30 and 39).

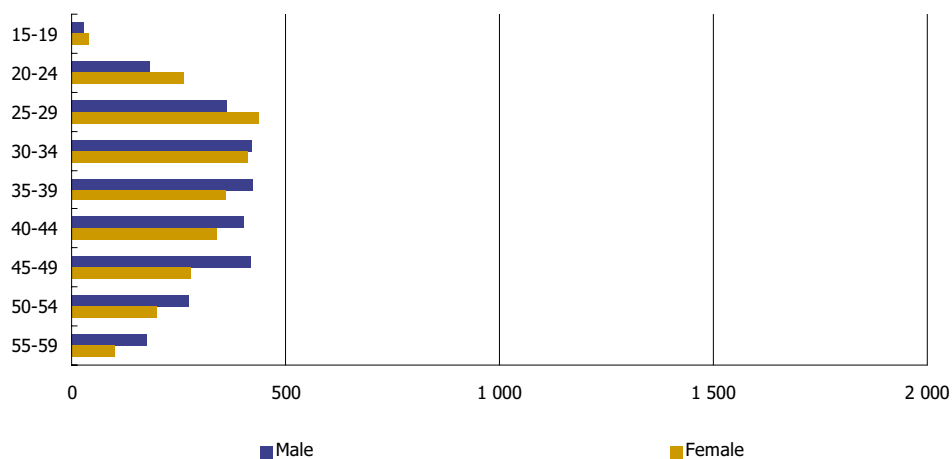
Figure 4.3.5: number of persons employed in the EU by age group, 1997 (thousands)



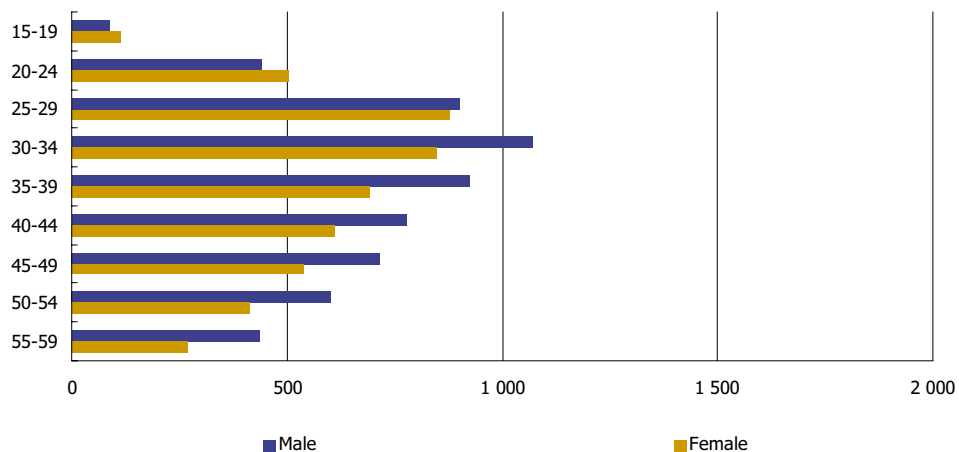
Transport services (NACE Rev. 1 Section I)



Financial intermediation (NACE Rev. 1 Section J)



Business services (NACE Rev. 1 Section K)



For further information: Labour Force Survey

Composition of the labour force

The analysis presented so far has concentrated on the actual number of persons employed and the service activities where they are employed. No attempt has been made to describe the professional status of each individual working in services in Europe. The Labour Force Survey allows us to breakdown the European labour force into those persons who are employees, self-employed, those who are family workers, as well as those who are working from home.

The European economies displaying the lowest share of employees in market services were all southern European, ranging from Greece where less than 53% of the workforce were employees to Spain and Portugal where almost 68% of the workforce were employees. With the exception of Belgium (74.3%), all other Member States reported a figure between 80% and 90%, with Luxembourg reporting the highest share of employees in market services, some 89.1%.

The Labour Force Survey distinguishes three main categories for professional status: employees, self-employed and family workers. The latter of these three categories has by far the least weight and as such the data on self-employment largely mirrors that provided in table 4.3.2 on the number of employees.

Table 4.3.2: share of employees in the total number of persons employed, 1997 (%) (1)

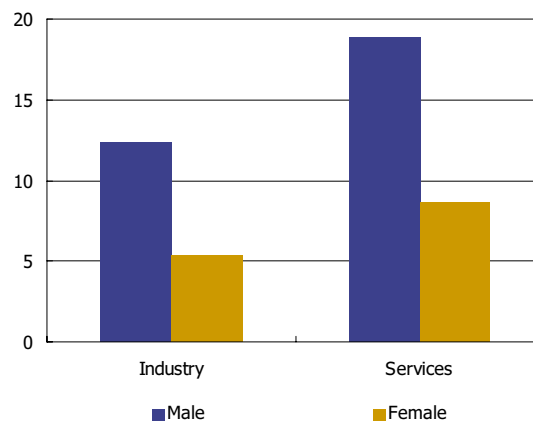
NACE Rev. 1	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
50	75,5	69,1	82,3	87,4	47,1	68,1	82,4	72,6	48,8	89,7	82,0	87,2	73,7	71,2	79,1	83,1
51	82,6	78,2	86,3	86,8	64,1	77,3	91,0	84,6	55,3	92,3	90,9	89,9	72,8	83,7	83,9	90,6
52	70,2	60,1	87,1	84,5	34,5	53,5	76,2	79,4	35,5	85,6	83,4	86,6	52,7	80,3	74,7	87,6
55	71,0	53,4	86,1	75,0	49,6	61,3	73,8	76,8	54,0	75,3	83,9	73,9	62,8	86,7	78,5	85,7
60	78,9	91,8	81,1	90,6	45,8	61,2	89,0	63,5	72,5	95,7	91,7	92,6	78,3	70,1	81,3	73,2
61	93,9	85,6	100,0	87,5	98,0	95,8	94,8	99,5	91,3	100,0	83,8	100,0	100,0	100,0	96,6	95,9
62	98,7	99,5	94,9	98,7	100,0	100,0	100,0	99,8	92,5	99,0	99,5	100,0	100,0	100,0	100,0	100,0
63	91,5	91,6	92,1	89,3	83,8	90,3	97,9	98,9	78,0	100,0	95,7	97,1	79,7	96,2	94,3	95,0
64	97,4	97,2	98,7	98,2	98,7	96,3	99,6	91,1	98,3	100,0	97,0	99,6	98,7	99,3	99,4	94,0
65	98,0	94,9	100,0	97,9	99,6	99,1	99,6	99,5	95,5	100,0	99,4	100,0	99,4	100,0	100,0	97,5
66	86,0	87,4	100,0	81,6	82,8	83,7	97,3	98,4	66,6	86,4	99,6	92,7	90,8	100,0	100,0	96,5
67	82,1	46,8	89,2	64,4	80,8	70,1	72,0	78,7	69,8	98,0	74,7	20,8	100,0	87,6	82,5	93,5
70	80,1	60,7	90,8	71,0	20,6	71,4	88,0	65,2	43,2	68,3	85,9	92,1	62,6	83,2	90,6	85,3
71	86,1	76,8	68,2	81,2	35,4	70,9	94,6	80,8	67,0	73,1	78,2	79,7	76,5	59,6	86,6	93,5
72	83,1	87,0	90,8	80,7	83,3	83,7	91,4	87,3	72,5	80,6	88,4	79,7	59,6	86,0	85,8	83,3
73	94,2	98,8	100,0	93,4	89,3	91,2	98,8	89,3	76,5	100,0	93,9	96,8	97,2	92,9	98,5	94,8
74	74,1	68,9	75,6	75,7	43,3	74,2	84,4	77,7	50,5	76,9	80,6	80,2	62,6	80,6	77,4	77,0
Market services	78,4	74,3	87,1	84,4	52,8	67,9	85,8	80,7	55,5	89,1	86,8	86,9	67,9	83,6	83,6	86,4

(1) For a list of NACE Rev. 1 codes, please refer to page 221.
For further information: Labour Force Survey

Services offer a business environment conducive for the creation of small enterprises. With the creation of new enterprises, we normally find the owners work as self-employed persons. In addition, new enterprises may need to take-on staff in order to develop, subsequently offering employment opportunities to other members of the labour force. The importance of the self-employed within the service sector of the European economy is shown in figure 4.3.6. We may note that there were generally far higher numbers of self-employed persons in services than there were in industry. If we turn to look at the breakdown by gender, we find that men were more likely to be self-employed than women (independent of whether we study industry or services).

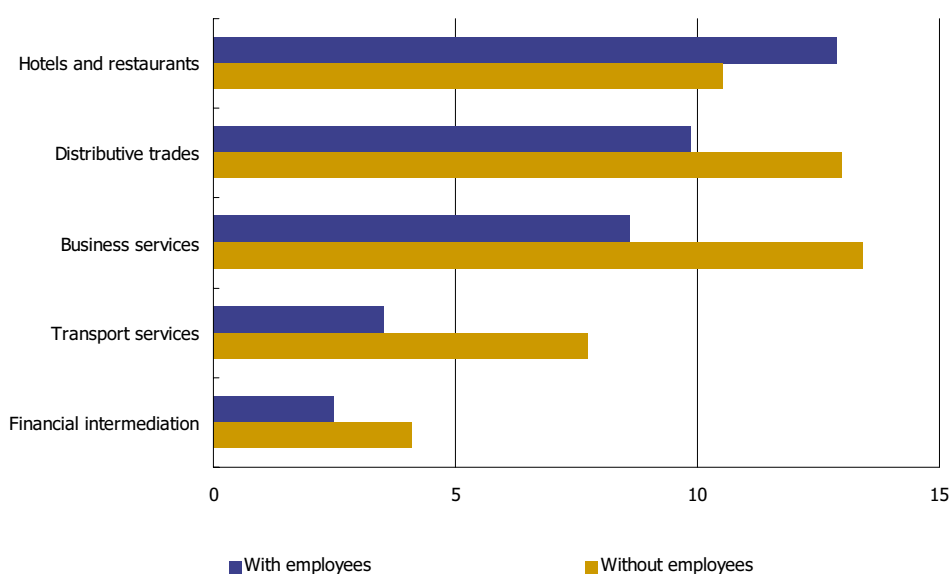
The number of men self-employed in services as a share of the total number of self-employed men was equal to 60.4% in 1998. The same calculation for the female labour force showed very little difference, with self-employed women in services accounting for 61.9% of the total number of self-employed women.

Figure 4.3.6: self-employed as a share of the number of persons employed in the EU, 1998 (%)



For further information: Labour Force Survey

Figure 4.3.7: self-employed as a share of the number of persons employed in the EU, 1997 (%)



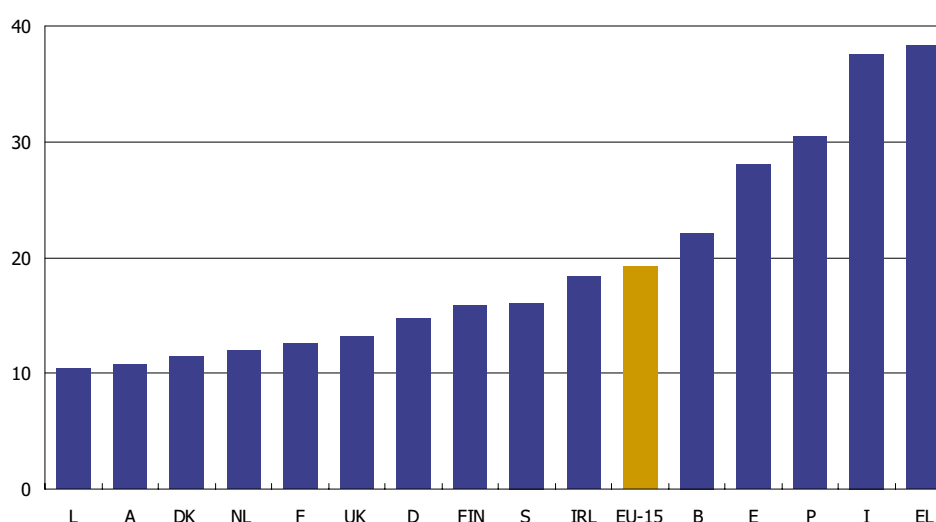
For further information: Labour Force Survey

To study the employment opportunities offered by the self-employed to the remainder of the European labour force we may break down the data on the self-employed to look at those who work on their own and those who are self-employed whilst offering employment to other persons. Figure 4.3.7 details the shares of the total number of persons employed in NACE Rev. 1 market service Sections who are self-employed without employees and self-employed with employees. It is interesting to note that the activities of distributive trades, hotels and restaurants and business services all reported 22% to 23% of the total number of persons employed as self-employed. The self-employed in hotels and restaurants displayed the highest propensity to employ other persons, with almost 13% of the total number of persons employed working for themselves and offering work to others. Within the activities of transport services and financial intermediation there were much lower levels of self-employment. Indeed, in financial services the self-employed accounted for less than 7% of the total number of persons employed.

The share of the self-employed in the total number of persons employed varied considerably between Member States within market services. The highest number of self-employed persons were recorded in Greece and Italy, where more than 37.5% of the total number of persons employed in market services had their own business. These figures were well ahead of the two Iberian countries: Portugal, with a share of 30.5% and Spain, where 28.5% of the workforce were self-employed. Of the remaining eleven Member States, only Belgium (22.1%) could report a share either above the level of 20% or above the European average (19.3%).

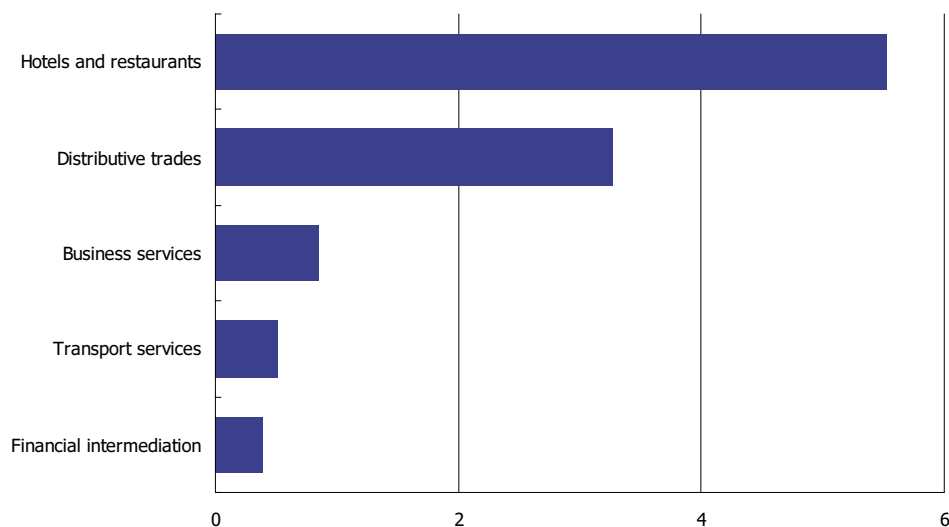
No country reported a share for the self-employed below 10% of the total number of persons employed in market services. However, Denmark, Austria and Luxembourg all reported shares below the level of 12%. Germany, the United Kingdom and France were all grouped together in the lower half of the ranking, with between 12.6% and 14.7% of those employed in market services being self-employed.

Figure 4.3.8: share of the self-employed in the total number of persons employed in market services, 1997 (%)



For further information: Labour Force Survey

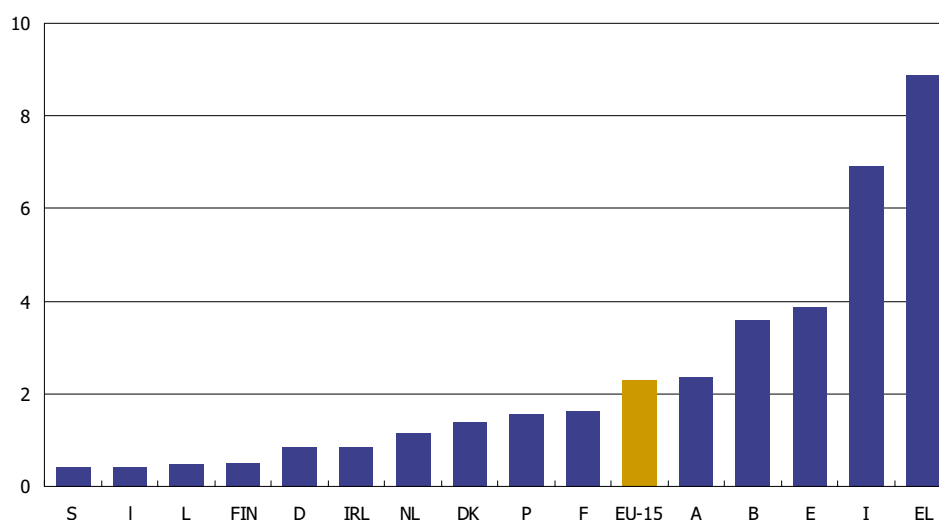
Figure 4.3.9: share of family workers in the total number of persons employed in the EU, 1997 (%)



For further information: Labour Force Survey

Turning attention to family workers we may note that two service activities reported considerably higher shares of family workers as a professional status, they were hotels and restaurants (5.5%) and distributive trades (3.3%). In the three remaining NACE Rev. 1 market service Sections less than 1% of the EU workforce were classified as family workers in 1997.

Figure 4.3.10: share of family workers in the total number of persons employed in market services, 1997 (%)

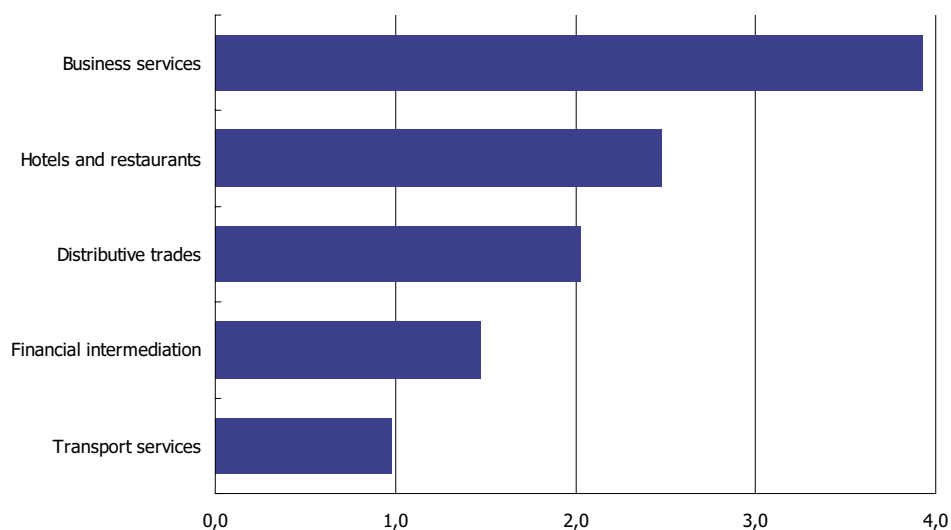


For further information: Labour Force Survey

Looking at the number of family workers by Member State we find that two countries, Greece and Italy had by far the highest shares of family workers within the European Union. In addition, these were the two countries that also had the highest rate of self-employed persons in the EU. Spain and Belgium were also high in the ranking by self-employed persons and they occupied third and fourth place when looking at the number of family workers. Hence, there would appear to be a link between high numbers of self-employed and family workers in certain market services. However, this trend was challenged by the data for Austria, where there was a higher than average propensity to find family workers and lower than average propensity to find self-employed persons. Six of the Member States reported that family workers accounted for less than 1% of the total market services' workforce in 1997; they were Ireland, Germany, Finland, the United Kingdom, Luxembourg and Sweden.

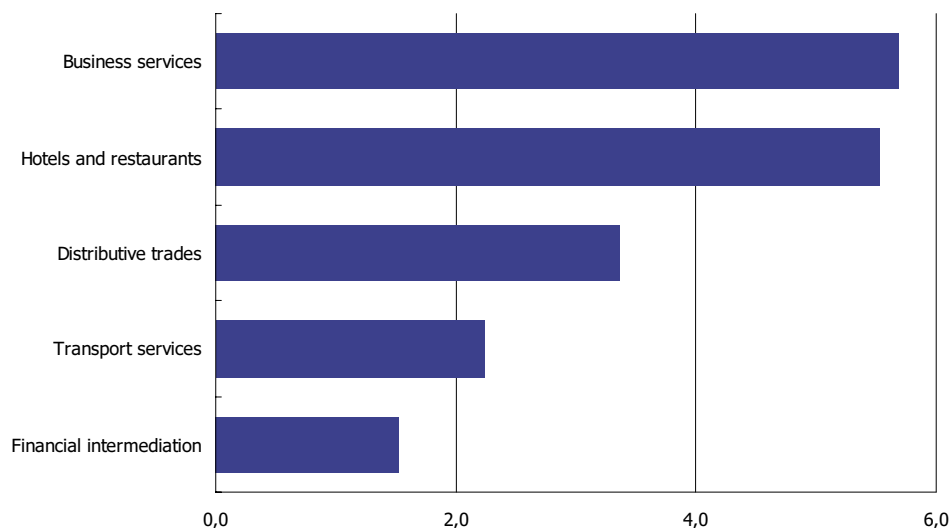
As the discussion on labour flexibility continues to grow across Europe, we may draw attention to data from the Labour Force Survey on the number of persons usually working at home. With the advances in information technology it is now possible to envisage a wide variety of jobs being carried out from the home. Indeed, many enterprises are already installing home office equipment for their staff in an attempt to reduce their rental for property. The data in figure 4.3.11 shows that there were still however relatively few persons working from home in Europe. The market service with the highest concentration of home workers was business services, with almost 4% of the total number of persons employed in 1997.

Figure 4.3.11: share of persons usually working from home in the total number of persons employed in the EU, 1997 (%)



For further information: Labour Force Survey

Figure 4.3.12: share of females usually working from home in the total number of females employed in the EU, 1997 (%)



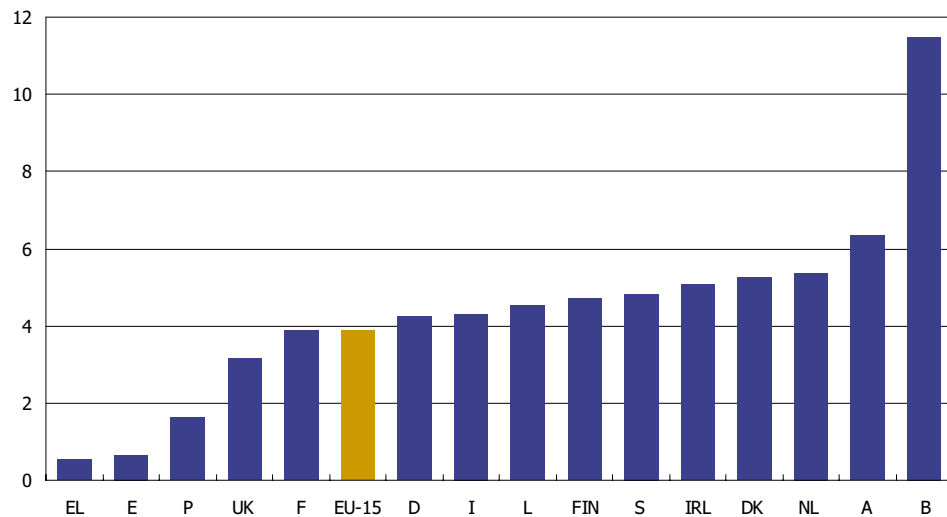
For further information: Labour Force Survey

Comparatively high rates of home working were recorded in Sweden, Austria, Ireland, Denmark, Belgium and Finland, all with more than 5% of the total number of persons employed in market services. Germany and France had figures slightly above the EU average, whilst two countries (Spain and Greece) reported that less than 1% of the market services' workforce were working from home.

The development of working from home is a phenomena more developed within the female labour force in the EU. This may well be a result of women preferring to work from home in an attempt to balance their professional lives with their family lives. The share of women working from home in the total number of women employed rose to as high as 5.7% in business services. A figure above 5% was also recorded for hotels and restaurants.

Within the Member States, home working by women rose to over 10% in Belgium in 1997 for market services (11.5%), well ahead of Austria, the Netherlands, Denmark and Ireland (the only other Member States to have shares above 5%). At the other end of the scale, Spain and Greece reported almost no difference in the rate of female home employment compared to total home employment (with only 0.6% of total female employment in market services being carried out from home).

Figure 4.3.13: share of females usually working at home in the total number of females employed in market services, 1997 (%)



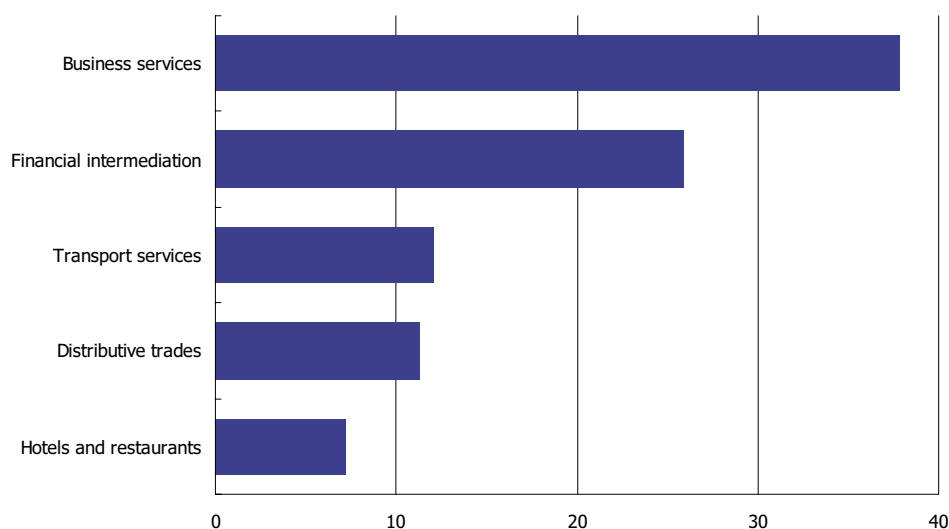
For further information: Labour Force Survey

Educational attainment of the labour force

The data presented on educational attainment of the labour force has been aggregated into three categories, lower, medium and higher education. These may be summarised by defining lower education as either no education or those who attended a school providing a general education, in other words primary and lower secondary education. The medium level of education includes apprenticeships, vocational training, as well as upper secondary education in schools. Finally, higher education may be defined as university degrees or equivalent and further degrees (such as Masters, MBAs and PhDs).

Within the different market service activities covered by figure 4.3.14 there was a wide range of average educational attainment amongst the different workforces in the EU. We find that there were generally low levels of education in the activities of hotels and restaurants (7.2%), distributive trades (11.3%) and transport services (12.1%). However, within the activities of financial intermediation (25.9%) and business services (37.8%) average educational attainment rose to more than double the rates seen in the remainder of market services. Indeed, the largest share of the market services' workforce with a higher education was found in business services for every Member State, except Portugal (where a greater share of persons employed in financial intermediation had a higher education). Belgium, Greece and Ireland all reported that the majority of the persons employed in business services had a higher education. The same was true in financial intermediation in Belgium.

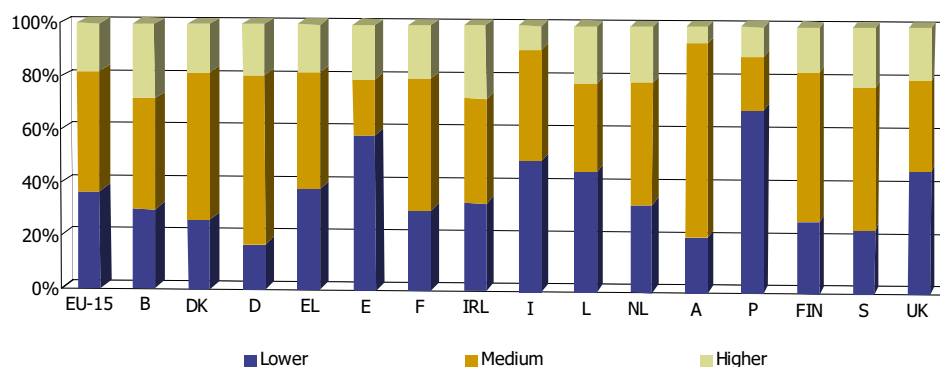
Figure 4.3.14: share of the total number of persons employed with a higher education in the EU, 1997 (%)



For further information: Labour Force Survey

The breakdown by Member State showed that in Belgium and Ireland more than a quarter of the market services' labour force possessed a higher level of education. Figures for the majority of the remaining Member States were largely concentrated within the range of 16% to 22% of the total number of persons employed in market services. However, in Portugal, Italy and Austria there were lower shares of the workforce with a higher education (indeed, in Italy and Austria the figures were below the level of 10%).

Figure 4.3.15: number of persons employed by educational attainment in market services, 1997



For further information: Labour Force Survey

If we look at the opposite extreme and the number of persons with only a general education or indeed no education, then we find that in Spain and Portugal the majority of persons employed in market services fell into this category. In three other countries (Italy, the United Kingdom and Luxembourg) almost half of the persons employed possessed a lower education. Three countries were able to report that less than a quarter of the persons working in market services had received only a lower education, they were Germany (less than one fifth), Austria and Sweden. Hence, it would appear that whilst few persons in market services in Austria had a degree, many had followed some form of higher education or apprenticeship scheme. The Nordic Member States and Germany also reported a similar trend although less pronounced, with more than half of the persons employed in market services having had some form of further education or apprenticeship, whilst not attaining a higher education degree or equivalent.

If we look at educational attainment by market service activity and by sex we find there were large differences between the average education levels of men and women in certain services. When studying transport services, it was normal to find that women on average had a higher share with a higher education. We should note however that there were on average three to four times as many men as women working in transport services, and that many of the posts occupied by men required lower levels of skill or education (for example, driving goods' vehicles).

Table 4.3.3: number of males with a higher education as a share of the total number of males employed, 1997 (%) (1)

NACE Rev. 1	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
G	12,7	19,8	9,3	19,4	11,6	14,1	14,7	17,6	4,3	14,2	12,4	3,5	4,9	14,7	14,8	13,3
H	7,9	12,5	8,6	12,9	5,7	8,3	6,4	18,7	1,8	8,0	8,3	2,4	1,9	9,1	11,4	10,1
I	11,3	12,7	13,2	15,3	12,7	14,4	8,7	11,4	4,3	9,0	14,1	1,9	7,6	6,5	11,3	13,1
J	32,1	59,7	31,7	28,0	37,9	38,2	39,4	48,6	18,5	44,1	36,8	12,7	30,4	36,7	42,1	35,1
K	46,4	59,8	48,3	49,3	67,9	50,9	43,2	64,2	34,5	62,6	47,1	32,4	30,1	44,6	45,7	48,9
Market services	32,4	42,3	30,0	48,9	22,7	32,2	31,3	44,2	12,4	31,9	31,6	11,7	13,9	37,5	37,6	36,2

(1) For a list of NACE Rev. 1 codes, please refer to page 221.
For further information: Labour Force Survey

Within the two activities of distributive trades and hotels and restaurants, the differentials between average male and female education were usually very small. Only one country, Germany, had a difference of more than 10 percentage points between the share of men and women with a higher education. The same could not be said for the activities of financial intermediation and business services, where the male working population often had a considerably higher share of highly educated persons. Double-digit differences existed in every country for business services (except for Portugal), with the largest difference being 32.8 percentage points in Luxembourg. In financial services the majority of countries also reported that the male share of total persons employed with a higher education was at least 10 percentage points higher than the equivalent ratio for women. However, one country reversed this trend, Spain reported that there were 10.3 percentage points more women with a higher education in financial intermediation than men.

Table 4.3.4: number of females with a higher education as a share of the total number of females employed, 1997 (%) (1)

NACE Rev. 1	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
G	9,5	19,9	11,4	8,0	10,4	14,9	14,2	17,5	4,2	5,3	8,9	3,0	5,8	9,9	11,1	8,7
H	6,7	11,6	6,9	7,0	5,4	7,5	6,7	18,9	2,0	5,0	9,2	0,9	2,1	5,1	9,7	8,7
I	14,7	28,2	10,8	10,5	15,4	36,1	15,9	25,7	8,2	15,3	17,9	2,9	21,3	10,5	13,2	14,9
J	18,9	41,2	13,9	13,2	32,4	48,5	25,2	40,5	11,1	25,1	23,3	4,7	26,8	15,0	22,5	15,5
K	27,0	47,2	24,9	20,2	47,1	34,9	29,4	49,1	20,6	29,7	31,5	8,9	25,2	18,8	35,0	29,1
Market services	18,5	36,4	18,7	15,5	19,7	25,7	24,2	36,5	9,6	15,7	20,4	4,7	13,2	18,1	24,6	18,4

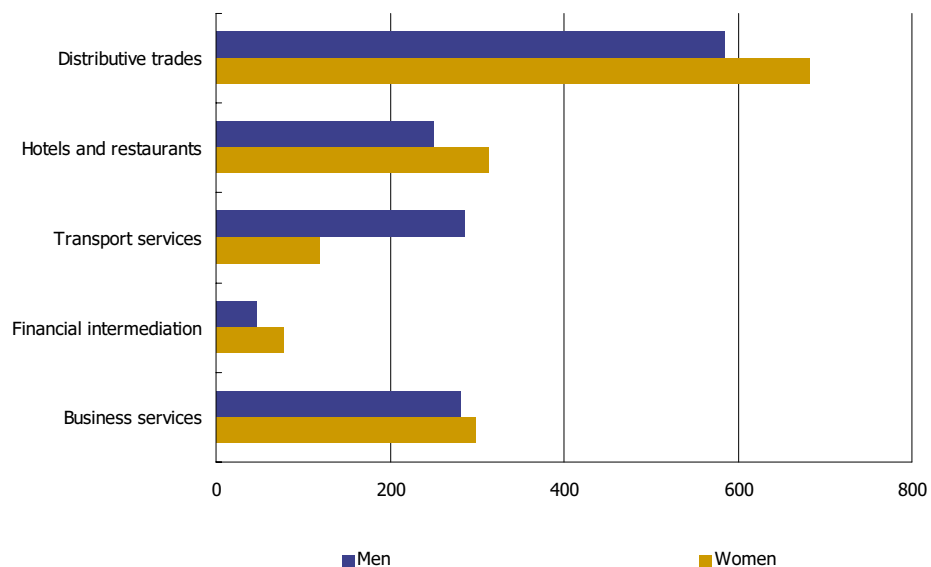
(1) For a list of NACE Rev. 1 codes, please refer to page 221.
For further information: Labour Force Survey

Unemployment rates by previous service activity

The Labour Force Survey also collects information on the previous activity worked in by those formerly employed. We can therefore study the economic activities laying off a large number of persons. The absolute number of persons who were unemployed classified by their previous economic activity is clearly linked to both the size of each service activity as well as the particular characteristics of each labour market (the ease of hiring and firing, the supply of labour).

In market services, we find that distributive trades had by far the largest number of persons made unemployed, some 1.3 million in 1997, of which 54% were women. In four of the five NACE Rev. 1 Sections for which data are given in figure 4.3.16, the majority of persons being laid off were women. This was particularly the case in financial intermediation, where 62% of those made unemployed were women. The converse was true in transport services, with more than 70% of those persons made unemployed men.

Figure 4.3.16: unemployment in the EU by previous economic activity, 1997 (thousands)



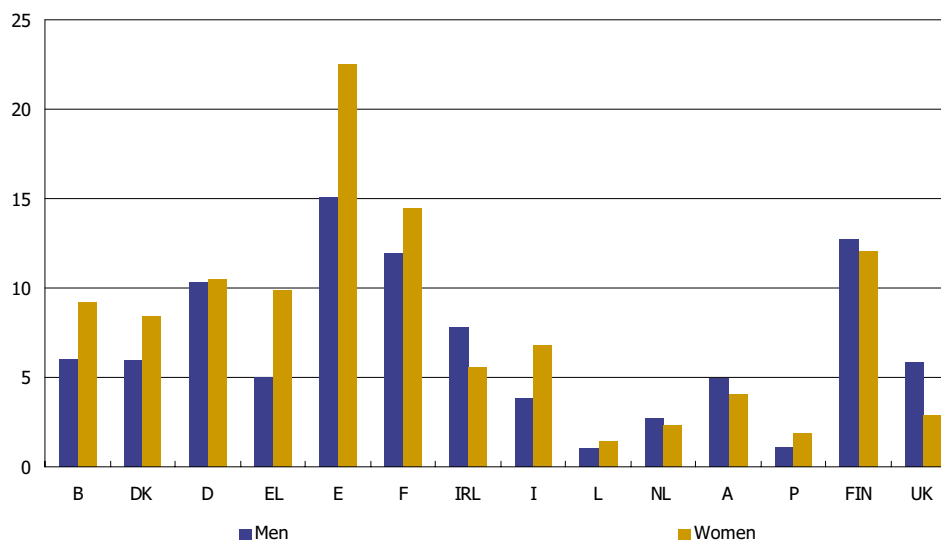
For further information: Labour Force Survey

It is possible to derive the ratio of the number of persons made unemployed in each activity divided by the total number of persons employed and made unemployed. Whilst not directly comparable with unemployment rates (that are usually given as a share of the whole labour force), these figures give some idea of the magnitude of the number of persons who were laid off within each market service activity. However, those persons who are inactive in the labour force are not included in such a calculation and hence the figures will tend to under-report the true sectoral unemployment rates to a small degree.

General unemployment rates within the EU in 1997 ranged between less than 3% of the labour force in Luxembourg and over 20% in Spain. Ireland, Sweden and the United Kingdom were the only three countries in the EU to report that female unemployment rates were below the corresponding male figures. If we compare the average male and female unemployment rates in market services we find that there were also generally more women unemployed than men. However, this was not the case in Finland, Ireland, the Netherlands, Austria and the United Kingdom.

Unemployment figures for market services in Italy and Portugal were much lower than general unemployment rates for the whole economy. In Italy the differences in 1997 were equivalent to almost 6 percentage points for men and nearly 10 percentage points for women. For most other countries the unemployment rates in market services were generally better than those recorded for the economy as a whole. This observation did not hold in three countries, where the data showed higher unemployment rates in market services than the economy in general. In Germany male unemployment in market services was 1 percentage point higher than for the whole male labour force, whilst the difference in France was 0.9 percentage points. In Denmark, both male and female unemployment rates were higher in market services than for the whole labour force, by 1.4 percentage points for men and 2 percentage points for women.

Figure 4.3.17: unemployment in market services, as a share of the total number of persons employed (%)



For further information: Labour Force Survey

By far the highest unemployment rates for market services were recorded in Spain, where both the latest male (15.1%) and female (22.5%) data reported ratios above those seen in the rest of the EU. It was rare to find more than 5 percentage points difference in the unemployment rates of men and women across the five NACE Rev. 1 market services' Section headings for which data were studied. Nevertheless, in Spain this was the case for each Section, with female unemployment rates consistently and considerably higher. The same was also true in Finland for the activity of hotels and restaurants, where a 10 percentage point difference existed between male (5.7%) and female (15.7%) rates.

Introduction

The Amsterdam Treaty makes provision in Article 128 for the Council to address recommendations to individual Member States concerning employment policy. In the Joint Employment Report of 1998 a number of areas were outlined for attention with respect to employment policy within the Member States. Amongst these was concern that the jobs potential of the services' sector had been given limited attention in countries such as Italy, France and Germany.

European policy has recently been developed by the introduction of National Action Plans for each of the Member States. These are designed to address the question of employment using four pillars as a basis for discussion and implementation of policy. The four pillars are:

- improving employability;
- developing employment;
- encouraging adaptability in business and employees;
- strengthening the policies for equal opportunities.

Recent trends have shown that greater flexibility has entered the European labour market. This may be seen on the one hand as a natural reaction to the high unemployment levels that have been experienced throughout much of the European Union during the last decade or more. On the other hand, flexible work practices and changes in the composition of the labour force and the hours worked are also a result of employees looking for alternative work patterns in an attempt to balance their private and professional lives.

At the same time, many enterprises have been through a process of restructuring and this has resulted in a shift towards the use of temporary work, part-time work (to deal with peaks in customer demand) as well as outsourcing and sub-contracting. As a result, many employment posts that were in the past full-time positions within an enterprise have been lost in favour of contracting out activities to auxiliary service providers (for example, advertising, security or cleaning services).

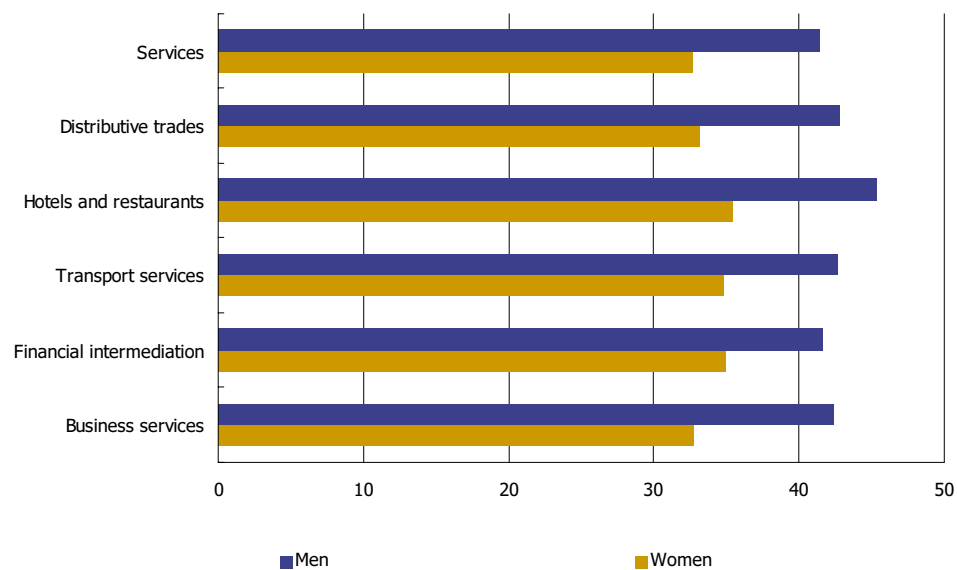
As we move into the 21st century, many businesses are redefining the structure of their staff. This section of "Services in Europe" will look at the employment profile of market services. The article gives data on the breakdown of hours worked within service activities, followed by a descriptive analysis on the times when people work. The discussion then moves on to the area of part-time and temporary employment, before concluding with the amount of training that is received by the workforce in the EU. Together these topics give us an overall picture of the flexibility of labour (giving employees greater choice and flexibility in their work arrangements). From the viewpoint of the employer, we may see many of these developments as a means to improve the efficiency of labour and the competitiveness of their firms.

Hours worked by the labour force

Much has been written in economic literature on the topic of working hours. Some countries in Europe are legislating to reduce the average number of hours worked per week in an attempt to stimulate employment markets (for example, France). At the other end of the scale, legislation limiting the maximum number of hours to be worked has also been passed on a European-wide basis.

The annual Labour Force Survey asks respondents several questions on their working hours, including how many hours they usually work on average per week. We see very clearly that the averages worked by men and women vary considerably. For services as a whole, the average hours worked by men and women differ by as much as 8.7 hours. The difference became even larger in the activities of distributive trades, hotels and restaurants and business services, where average male and female hours differed by 9.5 and 10 hours per week respectively. The lowest differences between the sexes in terms of the average working week were found in financial intermediation, where women worked on average some 6.6 hours less than their male counterparts.

Figure 4.4.1: average hours usually worked per week in the EU, 1998 (hours)



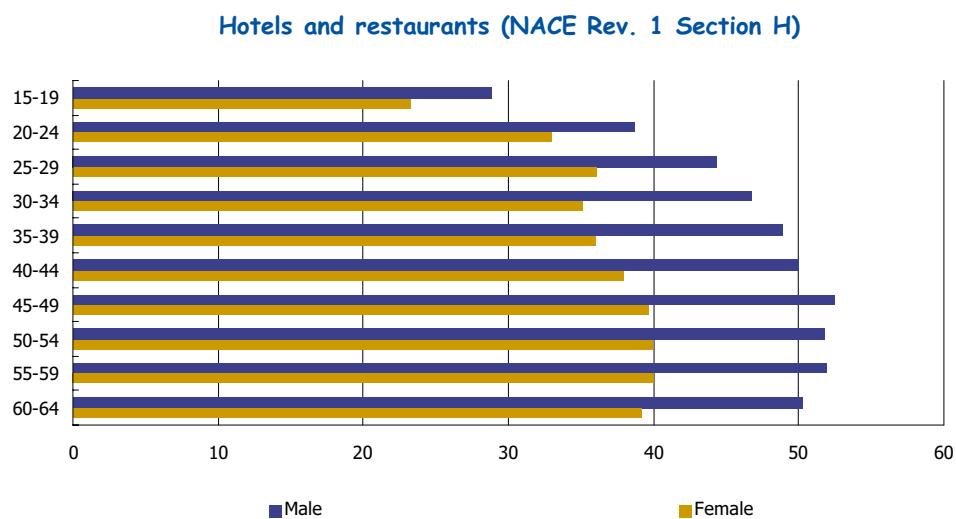
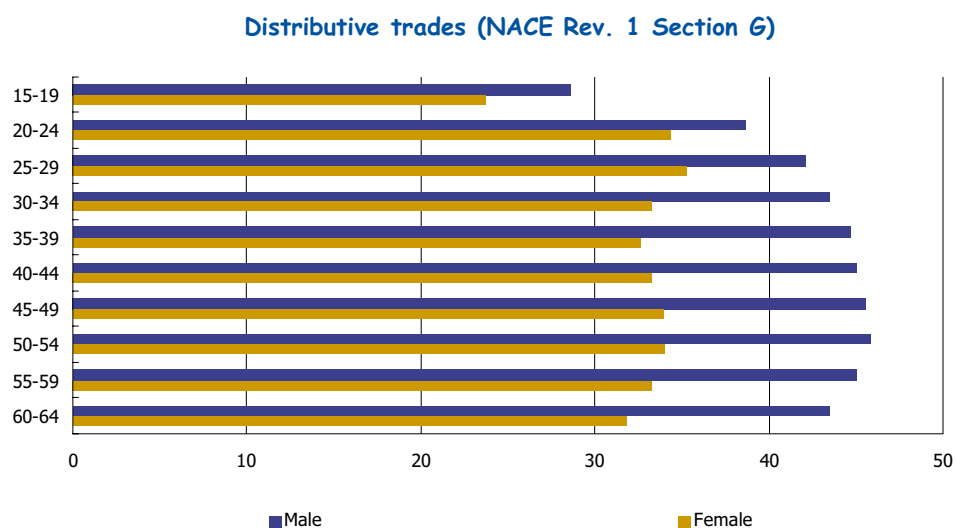
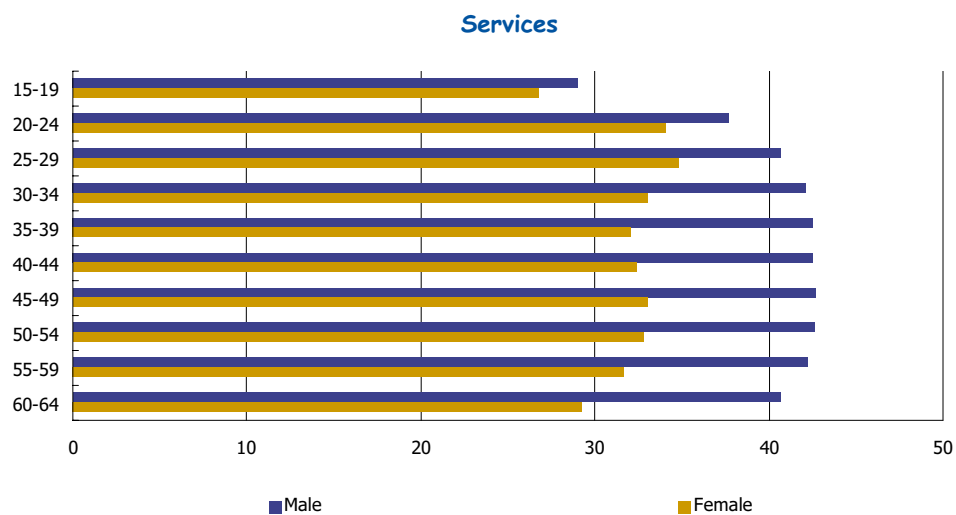
For further information: Labour Force Survey

Figure 4.4.2 gives a more detailed picture of the average hours worked in the main market services, broken down by the age structure of those working in each activity. The highest number of hours were usually worked by men in the activity of hotels and restaurants, where the average approached 50 hours per week.

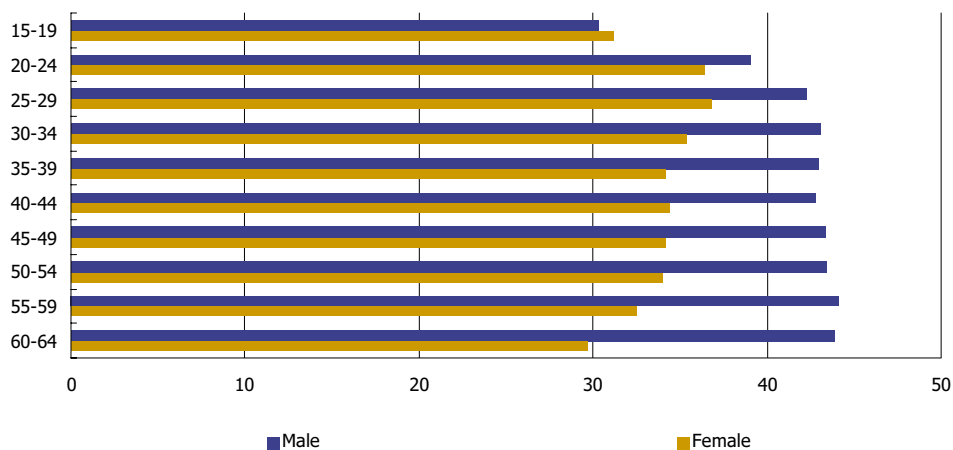
Age would appear to play a significant role in determining the average hours worked, as well as gender. Whilst male employment generally shows that younger and older workers tend to work less than those in middle age, the same cannot be said for female employment. Indeed, family commitments would appear to restrict many women from working lengthier hours especially those between the ages of 30 and 45. Whilst the average number of hours worked by women tends to decrease with age for the majority of activities studied, this is clearly not the case in the activity of hotels and restaurants, where older women tend to work longer hours than their younger counterparts.

To measure the differences in the number of hours worked by men and women, we may look at the average deviation of hours from the mean number of hours worked by all age groups. As such we can see those services which offered greater flexibility in the number of hours worked by each age group. The highest deviations were found for hotels and restaurants (the only activity where the average number of hours worked by women reached 40), distributive trades and business services. It was interesting to note that there was only one service where the mean deviation across age groups was higher for women than for men, namely financial intermediation, where the average hours worked by men were concentrated around 40 hours per week throughout working life.

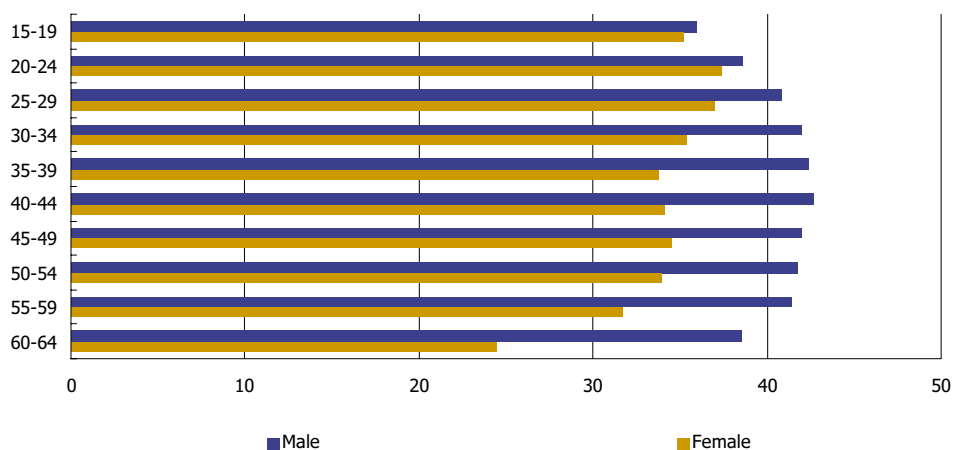
Figure 4.4.2: number of hours usually worked in services, 1998 (hours)



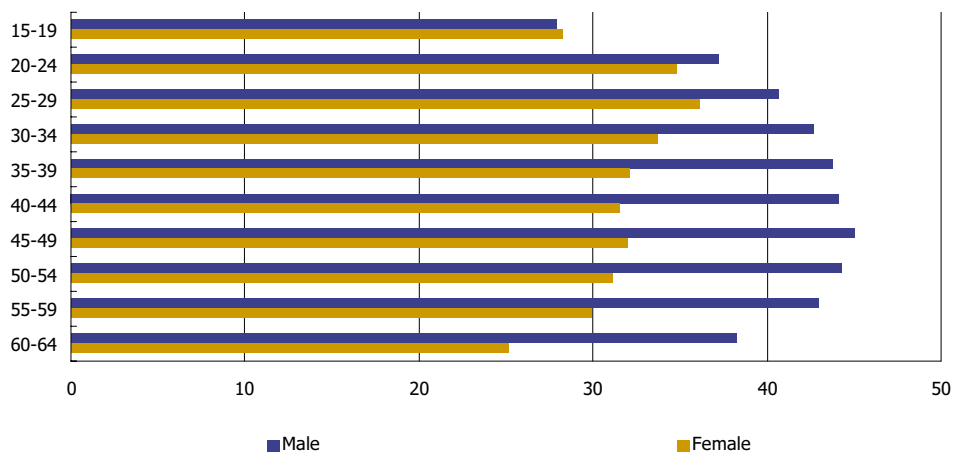
Transport services (NACE Rev. 1 Section I)



Financial intermediation (NACE Rev. 1 Section J)



Business services (NACE Rev. 1 Section K)



For further information: Labour Force Survey

Table 4.4.1: average hours usually worked per week by men in market services, 1997 (hours) (1)

NACE Rev. 1	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
50	37,3	37,4	41,8	47,6	42,8	36,2	38,9	44,3	40,7	39,8	40,9	44,7	41,6	41,3	45,5
51	37,8	39,8	42,8	45,4	43,0	34,2	38,5	43,6	39,9	39,9	41,0	44,3	39,6	41,5	45,0
52	38,1	31,8	43,2	48,2	43,3	36,5	39,2	45,3	39,9	35,2	42,0	46,5	38,9	42,8	38,8
55	36,5	34,0	47,9	54,2	46,9	36,2	40,6	46,0	38,9	33,4	45,3	54,4	33,0	39,8	40,5
60	36,2	41,6	41,5	51,5	44,5	32,8	33,8	42,3	37,3	40,2	41,0	48,1	39,2	40,1	47,6
61	29,9	46,2	53,1	56,8	48,5	30,1	38,5	45,7	40,0	45,9	45,2	47,1	37,4	42,8	50,3
62	36,8	38,9	39,9	39,3	38,5	31,5	34,9	38,7	38,1	38,4	40,0	42,4	38,0	39,0	40,6
63	35,3	40,6	44,9	43,9	40,8	33,2	33,4	42,5	40,0	38,9	41,5	42,8	39,1	40,0	44,8
64	37,9	30,8	38,3	39,3	39,3	37,0	37,5	38,3	39,8	35,1	39,9	40,5	35,9	36,7	43,9
65	37,5	37,3	40,1	39,6	40,6	37,3	39,7	39,8	40,3	37,3	39,4	38,7	37,0	38,4	44,5
66	37,9	40,7	44,2	41,9	41,3	32,4	39,2	41,3	37,6	38,5	42,1	37,7	39,0	37,1	42,2
67	30,9	43,3	46,5	45,1	41,6	28,4	35,1	42,4	39,8	40,8	48,1		47,4	44,8	42,6
70	39,8	36,6	42,8	44,7	41,6	33,6	37,0	42,9	29,7	38,3	38,2	41,5	33,6	37,3	41,5
71	30,4	48,8	41,1	52,8	41,8	37,9	35,7	43,8	44,8	36,7	41,1	48,2	42,0	36,2	43,9
72	37,1	41,4	41,9	40,9	40,7	36,5	38,3	42,3	36,5	40,4	42,3	41,7	41,2	41,7	44,2
73	37,9	41,6	40,3	40,4	40,2	34,7	35,5	41,2	41,3	38,0	40,2	40,4	40,9	41,1	42,0
74	36,7	40,2	44,1	45,5	41,1	32,7	36,6	42,9	38,8	38,5	41,8	42,7	37,5	38,0	43,6

(1) For a list of NACE Rev. 1 codes, please refer to page 221.
For further information: Labour Force Survey

Table 4.4.2: average hours usually worked per week by women in market services, 1997 (hours) (1)

NACE Rev. 1	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
50	27,8	27,6	33,9	43,8	37,6	33,8	34,0	37,2	41,0	26,8	34,7	41,4	42,0	34,5	32,3
51	34,6	35,6	33,3	41,3	38,0	34,7	34,1	37,1	33,8	31,0	34,4	40,7	35,8	36,2	33,4
52	31,2	29,3	30,8	44,9	39,6	32,3	31,5	40,0	35,0	23,7	33,7	43,3	34,5	31,4	25,5
55	29,5	27,5	36,5	48,2	40,6	31,8	29,3	39,8	35,7	23,2	38,3	50,2	34,8	31,4	27,8
60	34,3	36,0	36,9	42,0	36,8	32,2	32,0	36,9	34,8	27,8	36,6	37,7	33,5	34,3	34,0
61	30,4	34,3	39,1	53,4	37,2	41,7	41,8	36,9	40,0	21,3	20,0	35,8	37,8	34,9	37,6
62	28,1	35,0	36,2	35,0	38,8	26,4	32,2	37,6	37,1	30,0	41,5	38,4	35,2	36,4	37,2
63	34,1	34,9	34,5	41,7	37,6	35,1	34,5	38,1	35,1	31,8	36,4	40,6	38,1	35,7	35,7
64	34,9	32,0	31,3	38,3	36,8	32,9	37,7	36,6	32,2	23,1	34,5	37,6	34,5	34,1	33,9
65	33,5	35,2	34,2	39,0	38,3	36,3	35,7	36,9	36,8	30,2	34,6	36,5	34,8	34,4	33,7
66	32,5	35,2	33,9	39,8	37,2	34,1	36,4	35,9	32,3	31,0	34,6	36,0	37,3	33,2	36,1
67	32,6	32,8	32,6	48,5	38,9	33,6	36,3	37,4	38,0	31,1	18,7	40,0	35,0	39,3	35,0
70	31,4	30,0	32,2	45,1	36,2	32,7	34,3	35,7	35,2	30,3	32,7	39,1	27,4	33,8	31,0
71	34,7	26,1	35,1	47,4	37,8	36,2	35,6	37,6	40,0	30,8	35,5	40,0	48,6	30,1	32,7
72	38,5	38,3	35,6	38,8	39,1	37,3	36,5	37,7	35,9	35,1	35,6	41,2	34,2	38,3	34,4
73	34,2	32,1	33,8	39,2	40,3	35,7	32,5	33,9	30,8	31,3	36,0	35,7	35,7	38,5	35,9
74	31,4	31,5	30,3	40,0	33,4	31,2	33,7	34,8	32,2	26,8	32,6	36,7	33,0	33,7	31,2

(1) For a list of NACE Rev. 1 codes, please refer to page 221.
For further information: Labour Force Survey

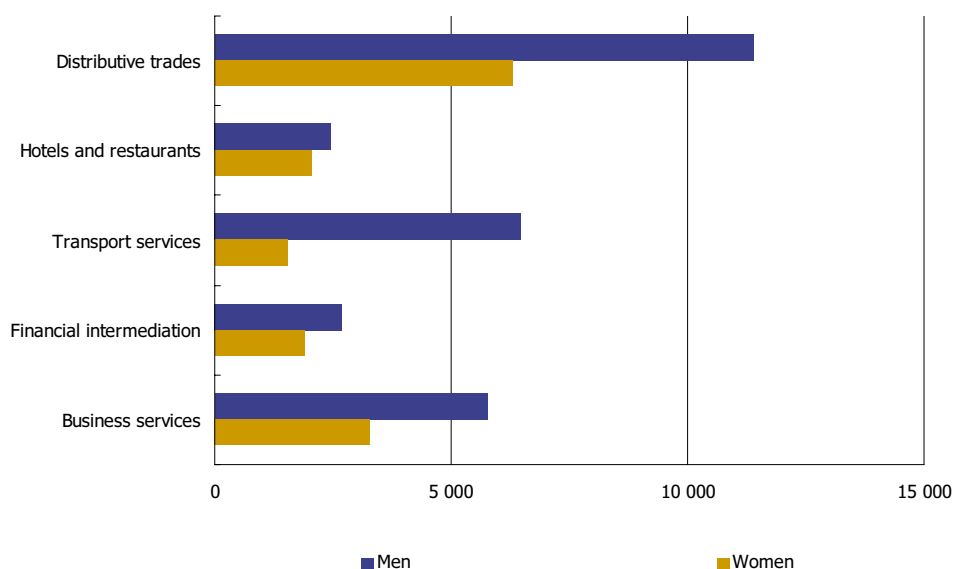
By country we may observe that the longest working hours for men were often recorded in Greece. Furthermore, in Austria, Germany, Italy, Portugal, Spain and the United Kingdom the majority of NACE Rev. 1 Divisions reported that men were working more than 40 hours per week. On the other hand, men worked on average less than 40 hours per week in all market services in Belgium and France.

The figures for average hours worked by women varied to a much higher degree when looking at the situation in each Member State. In countries where there was a high propensity to employ on a part-time basis (the Netherlands and the United Kingdom), it was possible to note that the average hours usually worked by women were much lower than in the countries where part-time work was not as developed (Greece, Portugal and Spain). These differences were particularly accentuated in the activities of retail trade and hotels and restaurants, where the average hours worked in the Netherlands were below 24 hours per week, whilst in Portugal and Greece they rose to over 43 hours per week in retail trade and over 48 hours per week for hotels and restaurants. These areas of the service sector are traditionally low wage and the possibility to increase still further employment would appear to rest with the liberalisation of markets, as well as reductions in non-wage costs for low skilled jobs.

Working time of the labour force

This section will address the time that people spend at work in the service sector of the EU economy. First of all we will look at the number of persons who are working a full week within Europe. We may note that the number of men employed on a full-time basis in services in the EU is almost double the number of women. Indeed, women working full-time in services accounted for only 52% of the posts occupied by men. The lowest ratio was found in an activity traditionally dominated by men, that of transport services, where women accounted for less than 24% of the total number of men employed. Even in activities that are traditionally associated with female employment there was a majority of men working full-time. For example, in hotels and restaurants women accounted for almost 83% of the full-time posts occupied by men. The only other market service where the number of women working full-time was anywhere near the number of men working full-time was financial intermediation (71%).

Figure 4.4.3: number of persons working full-time in market services in the EU, 1997 (thousands)



For further information: Labour Force Survey

Table 4.4.3: share of the total number of persons employed who usually work on a Saturday, 1997 (%) (1)

NACE Rev. 1	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
50	36,5	25,2	24,6	28,9	59,4	46,9	33,5	35,8	47,4	10,5	38,1	18,1	28,3	31,6	20,8	40,1
51	19,4	13,7	13,5	18,1	42,2	31,0	14,0	17,0	30,6	13,7	14,5	15,2	21,6	11,8	4,9	16,8
52	61,1	57,5	67,0	48,1	76,5	79,7	73,7	58,2	74,0	51,5	64,4	44,3	66,5	59,2	44,9	49,7
55	66,0	62,1	72,3	62,5	78,0	86,4	60,1	58,3	78,4	67,8	64,9	51,0	75,6	53,8	45,5	52,6
60	36,3	15,0	38,5	38,1	52,8	45,3	20,8	40,3	40,9	15,7	44,6	31,2	41,7	42,4	25,5	40,4
61	52,4	21,9	70,0	43,9	63,5	39,0	30,2	38,2	56,0	:	66,8	44,2	31,4	78,0	73,2	48,9
62	39,0	27,7	49,6	41,8	8,6	59,3	13,1	45,8	37,5	13,6	61,6	72,1	52,8	56,5	45,8	37,1
63	26,3	12,3	37,1	25,7	31,1	38,4	14,8	27,4	33,4	2,8	39,7	15,6	21,8	8,2	20,7	29,2
64	30,6	6,3	35,4	34,5	3,9	18,3	30,3	17,1	48,2	6,3	38,5	19,1	8,9	14,1	13,9	31,0
65	9,2	8,2	1,7	3,3	0,9	25,6	24,3	2,6	5,1	:	5,9	6,9	0,6	0,8	0,6	9,5
66	9,7	6,4	7,0	10,8	15,3	13,6	7,6	3,6	13,9	1,3	6,0	12,1	1,6	3,4	:	6,7
67	13,0	18,3	:	16,5	13,3	14,0	24,5	6,1	18,5	:	17,2	27,9	:	:	9,9	7,6
70	22,0	17,3	7,0	18,6	53,6	24,7	35,0	20,9	33,9	9,4	14,5	11,1	20,6	16,0	6,3	17,6
71	27,2	26,0	37,7	26,6	71,0	49,9	14,9	32,2	33,1	10,0	34,7	19,0	52,2	30,7	12,0	25,9
72	8,6	6,2	7,6	12,1	14,7	8,5	4,2	6,3	12,9	:	9,2	13,4	16,4	7,9	4,5	6,6
73	8,3	4,4	8,6	13,9	3,4	11,1	2,3	1,3	8,5	6,0	7,5	19,7	6,1	17,5	4,3	5,4
74	17,4	9,7	15,2	16,0	26,6	24,7	16,1	12,6	28,1	5,6	15,2	12,8	24,0	16,0	7,9	14,4
Market services	37,2	28,2	33,9	32,1	54,9	54,0	34,5	35,1	50,2	22,4	34,6	28,8	43,3	30,6	19,6	31,7

(1) For a list of NACE Rev. 1 codes, please refer to page 221.

For further information: Labour Force Survey

Table 4.4.4: share of the total number of persons employed who usually work on a Sunday, 1997 (%) (1)

NACE Rev. 1	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
50	6,8	4,4	24,3	5,7	5,8	8,6	3,8	8,5	1,5	3,8	9,6	7,1	6,5	11,1	15,4	10,4
51	3,4	3,2	7,5	3,8	2,1	2,6	1,3	3,1	1,4	0,7	3,8	4,7	5,7	4,1	3,5	6,1
52	9,7	13,5	9,9	3,7	10,1	9,2	13,7	12,3	8,0	5,5	5,0	4,4	17,8	11,0	23,2	14,8
55	51,4	54,5	64,7	54,5	60,9	72,6	42,2	46,8	55,7	51,6	52,3	39,5	56,7	38,3	35,4	37,8
60	21,6	11,9	33,9	29,9	27,9	24,0	10,0	25,8	15,1	9,7	30,9	26,2	33,1	35,8	26,2	21,7
61	44,8	19,8	70,0	34,4	55,6	30,2	30,2	37,0	38,2	:	62,4	52,2	24,0	78,0	73,2	43,2
62	35,2	26,5	49,6	39,2	3,9	48,7	12,8	40,7	24,8	12,4	61,6	57,9	55,8	49,4	45,8	34,5
63	12,5	6,2	36,2	9,1	9,6	16,0	5,7	24,1	9,9	:	26,2	10,6	9,1	6,7	14,3	17,7
64	4,6	2,3	14,2	6,3	1,0	4,0	1,5	5,1	3,2	3,5	6,2	6,9	5,2	10,1	8,1	4,6
65	0,9	0,8	1,1	0,8	0,4	0,4	0,1	0,6	0,9	:	1,1	2,3	1,0	0,6	0,6	1,7
66	1,7	3,4	5,3	2,7	2,4	0,8	0,5	0,7	0,9	:	2,6	2,7	:	:	:	0,8
67	1,7	2,7	:	3,3	:	6,6	:	0,4	3,2	:	2,6	:	:	44,3	:	1,3
70	5,9	2,0	11,0	6,2	:	2,9	3,1	4,4	3,6	:	2,6	6,5	5,6	20,3	5,8	8,1
71	11,9	10,7	28,3	10,3	43,8	22,8	7,2	10,6	3,2	:	17,6	2,2	44,9	27,2	12,0	10,0
72	3,2	4,7	6,4	4,8	:	:	0,7	3,5	0,6	:	5,5	6,4	10,4	6,2	5,1	3,4
73	5,2	3,2	4,3	9,4	1,6	1,2	1,5	0,8	0,9	6,0	5,8	15,6	3,4	13,9	2,8	3,8
74	6,9	4,4	12,0	7,6	2,7	9,7	3,9	6,2	2,3	1,0	8,8	6,0	14,9	10,0	6,8	8,5
Market services	13,2	11,9	19,3	11,5	18,1	19,9	9,3	15,6	12,0	9,0	12,7	12,4	20,4	16,1	14,0	13,6

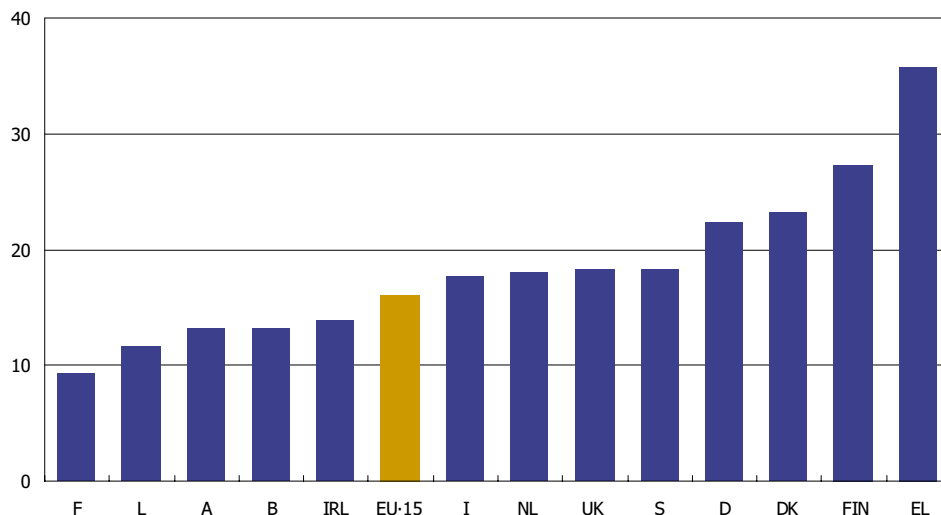
(1) For a list of NACE Rev. 1 codes, please refer to page 221.

For further information: Labour Force Survey

The development of trends in weekend and evening work clearly depend to a large degree upon the service activity that we study. In areas such as retail trade the liberalisation of opening hours in a number of Member States has created employment opportunities.

Weekend work showed contrasting trends between Saturday and Sunday work. On average 37.2% of the EU market services' workforce were usually working on a Saturday. In Greece, Italy and Spain the figures were much higher, with more than 50% of the workforce usually working on a Saturday in these three countries.

Figure 4.4.4: share of total number of person employed in market services working in the evenings, 1997 (%) (1)



(1) Excluding data for Portugal and Spain.
For further information: Labour Force Survey

The highest rates for Saturday work were unsurprisingly found in retail trade and hotels and restaurants. For the former, only four countries reported that less than half of the workforce were usually working Saturday; they were Austria, Germany, Sweden and the United Kingdom. For hotels and restaurants the propensity to work on Saturdays was even higher, with only one country (Sweden) reporting that less than half those employed were working on a Saturday). On the other hand as many as 86.4% of those employed in hotels and restaurants in Spain were working on a Saturday.

The share of persons working in market services on a Sunday was less than the corresponding share of those usually working on a Saturday. For the EU, the number of persons usually working on a Sunday was equal to 13.2% of the total number of persons employed in market services in 1997. The shares ranged from 9.0% in Luxembourg to 20.4% in Portugal (Denmark and Spain also recorded high shares close to 20%).

One final measure that gives us some idea on the flexibility of the workforce in services is the share of persons working during the evening. Again for this measure we find that Greece recorded the highest shares in the EU. Hence, although Greece has one of the lowest rates of part-time work (as we will see in the next section), the number of persons working at weekends and in the evenings was well above the EU average. The lowest figures for evening work were recorded in France and Luxembourg, two countries that also had low shares of their respective market services' workforces working at weekends. The EU average for usually working in the evening was equal to 16.1% of the market services' workforce in 1997.

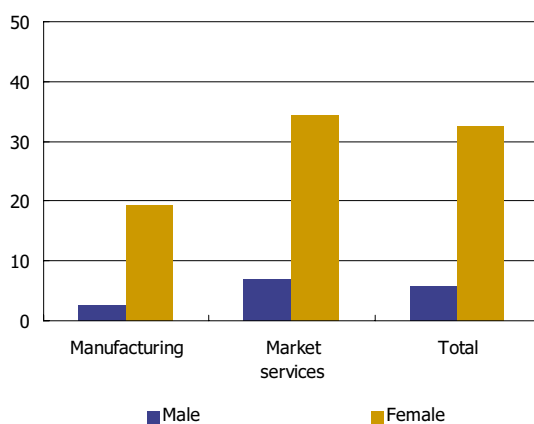
Part-time work in the labour force

In statistical terms, part-time work is an employment characteristic that is defined in relation to the full-time working population. The definition of part-time work within the Labour Force Survey is based upon the employee's own perception of his/her work position. The aim of this approach is to be able to reflect statutory and institutional differences between countries.

Part-time work has seen rapid growth within industrialised economies in the last three decades. It is one example of the move towards more atypical working patterns. Unlike full-time employment, the part-time labour force has reported increases in the number of persons employed even during times of recession.

Part-time work increases participation rates within national economies (especially of women) and is actively encouraged by administrations as a policy for the reduction and/or redistribution of working time. Indeed, the availability of part-time work on a voluntary basis is one of the key determinants of higher employment rates.

Figure 4.4.5: share of part-time employment in total employment in the EU, 1997 (%)



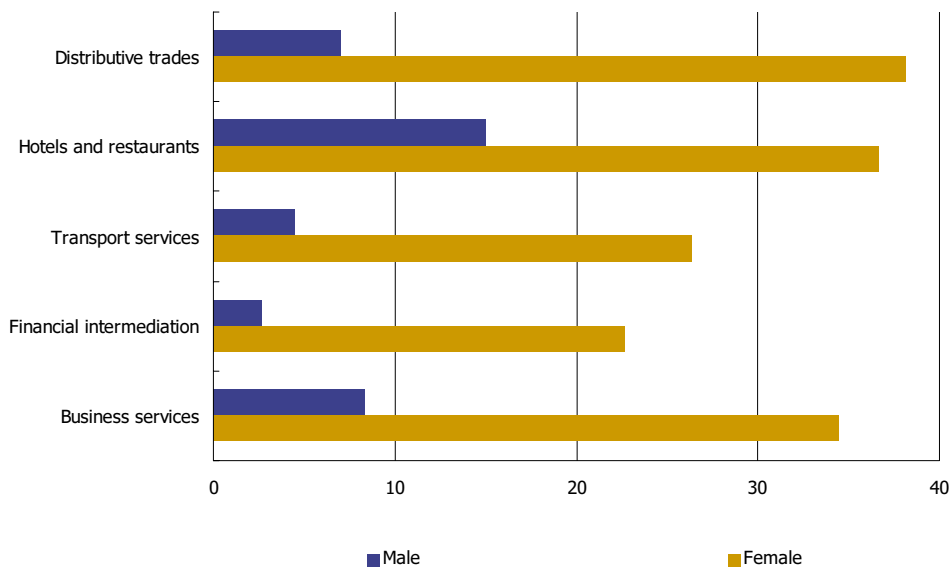
For further information: Labour Force Survey

The rise in the number of women seeking work, the structural shift of jobs from industry to services and the increase in the level of part-time work are all inter-related. Part-time work offers opportunities for enterprises to increase labour market flexibility in response to new methods of work organisation, adapting the management of labour in relation to fluctuations in activity and changes in the production process.

Figure 4.4.5 shows the wide disparity in the share of part-time work between the sexes. We can see that in the whole of the EU the average rate of part-time employment for women was 32.4% in 1997, whilst in market services it was somewhat higher. Male

patterns of part-time work also reported the highest share of part-time work in market services, although the share was well below 10%. Indeed, as the share of women working part-time increases, the difference between the number of women working part-time and the number of men working part-time also increases (as male part-time employment remains fairly uniform across different sectors of the economy).

Figure 4.4.6: share of part-time employment in total employment in the EU, 1997 (%)

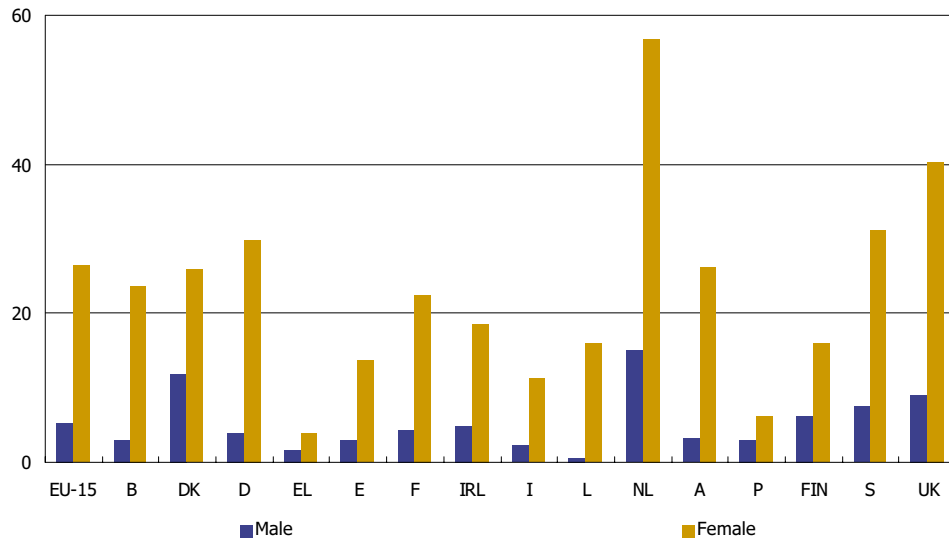


For further information: Labour Force Survey

Figure 4.4.6 shows the breakdown of part-time employment by market service activity. It is interesting to note that distributive trades, hotels and restaurants and business services all had more than a third of the female workforce working on a part-time basis in the EU. Transport services and financial intermediation reported that around a quarter of all women worked part-time.

The corresponding figures for men were much lower, although 15% of the men employed in hotels and restaurants were working part-time (later in this section we will examine whether this was for economic reasons or out of choice). In all other market services, the share of men working part-time was below the level of 10%. The lowest shares were recorded in financial services, where just 2.7% of the total number of men employed in this activity worked part-time. The service activity recording the highest difference between male and female part-time employment shares was distributive trades, where the female share was more than 30 percentage points higher than the corresponding share for men.

Figure 4.4.7: share of the number of men and women working part-time in market services, 1997 (%)



For further information: Labour Force Survey

If we turn our attention to the different levels of part-time working within the Member States we may observe that the Netherlands and the United Kingdom have by far the highest shares of women working part-time. These two countries reported that 56.8% and 40.2% of the total number of women working in market services in 1997 worked on a part-time basis. At the other end of the spectrum there were two countries reporting that less than 10% of females employed in market services were working part-time (Portugal and Greece). They were joined at the lower end of the ranking by Italy and Spain where the share was below the level of 15%.

By NACE Rev. 1 Section heading, the Netherlands had the highest share of women working part-time for each of the five service activities for which data is provided in table 4.4.5. The share of women working part-time rose above 60% for both the Netherlands and the United Kingdom in distributive trades and hotels and restaurants. In Greece none of the five market services studied saw the share of females working part-time rise above the level of 10%. The highest Greek figure was recorded in business services, where 8.6% of the women employed were working on a part-time basis in 1997.

One of the main areas where part-time work has improved employability is with respect to balancing professional and family lives. It is however thought that further numbers of women could well be encouraged to take-up part-time working opportunities if additional childcare facilities were made available or if there were changes in family responsibilities between the sexes. One means to demonstrate this fact is by looking at the participation rates of women aged between 30 and 39 years old. Single women of this age recorded the highest levels of employment participation, followed by married women without children and finally women with young children. The employment rates of women in the EU depend to a large degree on the cultural and institutional context of each country in question, with large numbers of women leaving the workforce due to marriage in the southern Member States. The birth of a child results in a dramatic reduction of employment rates for women throughout the EU between the ages of 30 and 39. In addition to making more child provision available (nurseries, day-centres, crèches and workplace childcare), an alternative policy instrument to increase employment rates is to reduce social charges for low wage and part-time employment.

Table 4.4.5: share of women employed part-time by market service activity, 1997 (%)

	Distributive trades	Hotels and restaurants	Transport services	Financial intermediation	Business services
EU-15	38,2	36,7	26,4	22,7	34,5
B	33,5	33,6	20,8	25,8	28,9
DK	37,3	54,3	23,8	23,7	31,2
D	42,8	35,0	31,3	26,5	41,3
EL	5,4	5,9	2,8	2,5	8,6
E	14,3	20,2	12,5	8,7	26,3
F	31,9	34,4	28,6	19,7	29,2
IRL	29,7	38,8	10,8	11,0	16,4
I	16,7	19,2	8,3	12,4	22,9
L	17,1	15,3	18,1	14,2	24,0
NL	66,5	75,5	58,3	46,2	58,1
A	35,7	22,2	23,9	25,6	41,8
P	10,8	7,2	6,6	8,3	15,3
FIN	27,7	26,7	15,3	7,5	23,6
S	47,6	49,4	30,8	31,4	30,3
UK	60,9	60,5	29,9	25,5	37,9

For further information: Labour Force Survey

Table 4.4.6: share of men employed part-time by market service activity, 1997 (%)

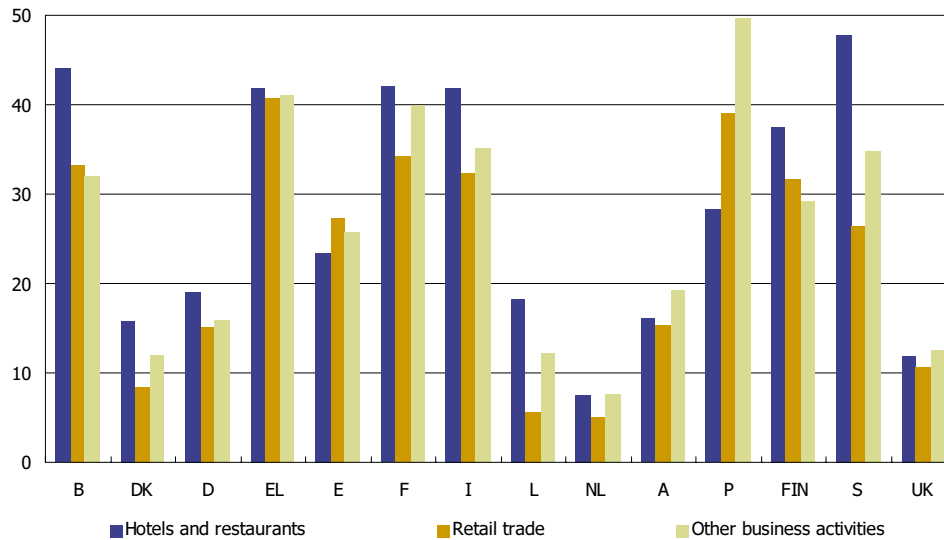
	Distributive trades	Hotels and restaurants	Transport services	Financial intermediation	Business services
EU-15	7,0	15,0	4,5	2,7	8,4
B	3,8	13,9	2,9	2,2	4,6
DK	18,5	35,9	13,2	5,6	10,3
D	4,9	13,1	4,4	2,3	7,9
EL	1,9	3,8	1,2	0,4	1,3
E	3,4	9,0	1,9	1,4	4,9
F	4,8	12,6	3,5	2,7	6,8
IRL	7,3	15,1	4,8	1,3	4,4
I	2,6	4,9	1,6	1,6	5,0
L	1,0	1,2	0,3	0,0	2,3
NL	17,4	41,4	13,7	7,5	15,6
A	3,0	7,3	1,8	1,9	8,1
P	3,6	4,4	0,8	1,7	9,4
FIN	6,6	37,8	5,0	16,2	10,8
S	6,8	25,1	8,7	6,5	13,4
UK	16,2	31,9	6,5	3,3	10,0

For further information: Labour Force Survey

The number of men working part-time was generally much lower across all Member States. Only in the Netherlands and Denmark did the share of men working part-time rise above the level of 10% (to 14.9% and 11.7% respectively).

If we look at the breakdown of male employment by service activity across the Member States, we see that the activity with by far the highest male part-time employment rate was hotels and restaurants. In the majority of the Member States more than 10% of men employed in this activity worked on a part-time basis in 1997. This share rose above 30% of the total number of men employed in four countries; Denmark, Finland, the Netherlands and the United Kingdom. The next highest shares of men working on a part-time basis were found in distributive trades, with Denmark, the Netherlands and the United Kingdom reporting that between 16% and 19% of all men employed worked part-time. One figure stood out in the remaining three NACE Rev. 1 Section headings, the 16.2% share of Finnish men working in financial services on a part-time basis. No other Member State had more than 7.5% of men employed on a part-time basis in financial services.

Figure 4.4.8: share of total number of persons employed working part-time who could not find a full-time job, 1998 (%)



For further information: Labour Force Survey

A measure of job security that we may derive from statistics collected by the Labour Force Survey is the prevalence of involuntary part-time workers. As already noted, many people work part-time because it allows them greater freedom in their private lives to accommodate family, school, leisure or other obligations. However, some people work part-time because they are unable to find full-time work or because their hours are reduced by their employer. Indeed, many people take part-time work due to economic reasons. Figure 4.4.8 shows the three NACE Rev. 1 services' Divisions that have the highest rates of involuntary part-time work in the EU. Hotels and restaurants generally recorded the highest involuntary part-time employment in all but five of the Member States (Austria, the Netherlands, Portugal, Spain and the United Kingdom). It was interesting to note that the lowest rates of involuntary part-time work were recorded in the Netherlands, the United Kingdom and Denmark (where part-time work registered its highest share in the total number of persons employed). In Belgium, France, Greece, Italy and Sweden it was quite normal to find that up to 40% or more of the persons employed on a part-time basis would have preferred to be working full-time.

Table 4.4.7: share of persons employed on a part-time basis who did not want a full-time job, 1997 (%) (1)

NACE Rev. 1	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
50	10,2	15,6	73,0	26,9	5,1	55,2	:	20,2	30,8	54,5	22,6	14,2	21,6	46,4	69,7
51	15,1	48,3	74,1	29,6	5,4	62,0	:	29,3	67,2	74,7	16,2	42,0	41,0	62,6	78,0
52	10,7	28,9	75,1	39,3	4,2	58,3	:	25,8	64,9	50,2	15,0	24,7	15,8	47,2	57,7
55	8,9	18,7	58,7	29,1	5,1	48,8	:	22,0	59,2	42,0	14,4	23,7	15,5	18,9	46,9
60	12,0	47,0	62,1	40,4	13,3	56,8	:	18,3	67,8	62,1	29,1	35,8	9,5	18,5	64,7
61	:	51,5	68,8	:	:	49,8	:	:	:	88,2	:	80,0	:	:	:
62	20,6	:	55,8	:	3,4	55,3	:	:	30,0	90,4	21,9	:	:	56,7	85,0
63	6,1	63,4	72,3	25,1	:	36,5	:	11,8	:	74,2	12,7	28,6	26,6	49,4	73,4
64	11,0	23,7	62,9	27,1	:	70,5	:	15,3	40,0	66,0	12,1	:	24,9	51,1	62,4
65	19,1	64,8	84,5	12,1	:	85,3	:	23,9	57,4	82,6	14,9	7,8	64,3	90,1	89,2
66	13,4	61,0	82,2	75,0	:	75,1	:	34,7	78,3	85,2	8,6	58,0	26,9	29,7	85,2
67	:	:	71,4	:	:	79,3	:	30,8	:	77,4	16,4	:	:	:	82,6
70	5,7	48,5	74,9	:	7,4	69,1	:	51,9	40,5	80,7	13,0	44,8	14,3	49,0	84,2
71	23,5	:	59,4	49,0	:	42,4	:	:	:	49,8	28,8	11,2	52,6	46,3	72,5
72	20,8	44,1	59,6	:	:	70,8	:	29,5	:	85,0	6,4	:	:	63,5	87,8
73	:	62,5	47,6	:	:	70,2	:	:	:	97,8	17,3	:	:	51,0	95,3
74	10,1	55,7	67,6	34,5	2,7	54,1	:	28,6	61,7	71,8	15,2	24,2	21,5	39,5	77,1

(1) For a list of NACE Rev. 1 codes, please refer to page 221.

For further information: Labour Force Survey

If we change perspective, we may look at part-time work as offering employment opportunities to many persons who are unable or unwilling to take a full-time job. We have already noted that this could well be the case for mothers of young children. The same is true for other members of society such as older people, who wish to continue working but on a limited basis before their retirement. "The reversal of the trend towards early retirement has an important role to play in increasing employment rates, since exit from the labour market through early retirement or disability is usually a definitive choice, leaving no possibility of returning to work afterwards"⁽¹⁾. A survey conducted by Eurobarometer in 1993 revealed that almost 40% of men retiring early would like to have continued working (half of them on a part-time basis).

(1) Employment Rates Report 1998, Employment Performance in the Member States, European Commission.

Table 4.4.7 shows the number of persons who were employed on a part-time basis who did not want to work full-time. This was often the case in market services in Germany, the Netherlands and the United Kingdom, where many NACE Rev. 1 Divisions showed that more than two-thirds of those persons working part-time did not want a full-time job.

Temporary contracts within the labour force

There has been much research into the shift from a workforce where persons are employed with a contract of unlimited duration to short-term contracts. One of the main reasons that firms engage in this type of practice is to meet demand fluctuations, to supplement staff shortages (through illness, maternity leave or holidays) and to reduce total labour costs. There are a number of reasons why enterprises may have moved to this more flexible approach to hiring labour: perhaps due to increased competition, the desire to maximise profits or to avoid unionism, preferring to conduct individual wage bargaining. In addition, through contracting out non-core elements of the production process, many enterprises feel that they may benefit from the economies of scale or specialist skills that service providers may offer.

In the EU in 1998, more than 12% of all employees had a contract of limited duration. There were some 12.1% of men working with such a contract in the EU, whilst the corresponding figure for women was slightly higher at 13.7%. In 1997 the shares were 0.6 percentage points lower for both men and women, indicating that this type of contract was becoming more popular.

Table 4.4.8 details for market services the share of employees working with a limited duration contract. The highest shares were found in the activity of hotels and restaurants, where it was quite normal for around one fifth of employees to be working with a contract of limited duration. Another activity with high shares was research and development, where the nature of research projects of a finite length clearly has a bearing on the contracts offered to employees. Hence, we may conclude that temporary work contracts were not always found in low wage activities.

Table 4.4.8: share of employees with a limited duration contract, 1997 (%) (1)

NACE Rev. 1	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
50	13,0	5,6	14,4	17,4	9,1	32,0	14,2	6,2	7,1	2,2	5,6	14,2	11,4	6,4	8,6	5,3
51	9,3	3,7	6,1	9,0	5,1	34,2	8,4	2,7	4,6	:	5,7	5,8	14,4	6,0	7,6	4,0
52	12,2	6,8	17,4	10,8	10,8	41,1	13,8	11,4	8,1	1,6	12,6	7,4	19,2	12,2	15,8	5,9
55	20,7	7,3	17,1	18,6	30,6	48,4	19,0	18,4	15,5	2,1	28,2	17,6	21,7	20,3	29,4	11,6
60	7,9	1,3	3,7	6,3	5,2	28,0	7,7	3,8	3,4	:	7,8	4,8	11,0	4,1	9,4	5,4
61	11,8	2,5	12,8	7,9	15,7	37,3	14,4	5,1	9,3	:	4,6	18,1	7,2	10,7	8,8	9,9
62	9,5	7,9	:	4,5	12,8	31,6	9,6	4,5	5,9	1,1	9,5	2,6	22,9	13,2	17,5	3,3
63	9,3	5,0	11,0	8,4	8,9	26,1	11,6	6,4	8,0	:	6,9	3,1	5,5	11,1	13,1	7,3
64	7,9	2,7	3,7	8,1	3,7	15,7	7,1	3,5	4,5	1,6	11,6	1,8	11,2	14,4	6,3	9,2
65	5,8	2,9	4,0	8,4	1,2	8,3	6,0	6,6	1,9	1,1	5,4	3,6	6,3	7,8	5,1	5,8
66	7,3	2,6	2,4	8,6	4,6	20,9	4,1	1,0	3,9	:	8,3	2,4	7,1	8,6	14,2	6,4
67	6,6	2,1	0,0	8,1	7,4	23,1	7,4	4,3	7,0	:	4,9	:	:	:	:	6,2
70	9,3	2,2	7,9	9,4	:	42,8	9,0	3,9	11,2	6,8	4,1	3,4	16,1	13,3	8,7	7,2
71	10,7	5,5	:	10,1	27,0	52,4	12,5	1,8	:	:	16,2	:	20,6	:	16,6	5,4
72	8,7	4,4	6,1	7,8	3,7	41,5	9,2	4,3	5,7	15,6	6,4	5,6	16,4	9,4	3,8	7,9
73	19,5	9,2	22,3	23,2	7,7	32,6	13,8	16,3	17,8	:	12,8	18,0	27,8	17,0	22,4	21,4
74	14,7	8,5	9,8	11,4	10,2	40,6	15,9	8,5	13,6	4,0	12,0	3,9	18,2	18,5	13,1	11,3
Market services	11,7	5,0	10,1	11,1	11,3	35,0	11,6	8,8	7,6	1,6	10,8	7,3	15,3	11,8	11,9	7,6

(1) For a list of NACE Rev. 1 codes, please refer to page 221.
For further information: Labour Force Survey

Looking at the data on contract duration by Member State, it is possible to note that the country with the highest propensity to employ on the basis of a limited duration contract was Spain, where there were quite often 30% to 40% of those employed working with a contract of limited duration. This may partly be explained by the economic situation in Spain, where high unemployment rates have been recorded. As a result enterprises were loathed in recent years to give contracts of unlimited duration to their employees, whilst the Spanish government encouraged the creation of determinate contracts (particularly for young members of society).

It was of interest to note that at the other end of the ranking, in Belgium there was not one NACE Rev. 1 market services' Division where more than 10% of employees had a contract of limited duration.

Training within the labour force

In the previous analytical section data was provided on the educational attainment of the labour force working in services. As more young persons stay in higher education the skills of the European labour force should be expected to increase. With the increase in levels of educational attainment, there may be a corresponding increase in the employment rate. However, the potential to increase employability is not just a result of the education. Training can also be used as a means of increasing the skills level of the workforce and is a fundamental component for maintaining a high skills level for older members of staff.

Table 4.4.9 gives data for the number of employees who have not received any form of training in the previous four-week period before the annual Labour Force Survey. An increase in skills levels can be expected if access to higher education and training throughout working life are improved. These developments are even more important in populations where there are less new entrants into the labour market (for demographic reasons). One fundamental area for increasing skills is the area of information technology. The data in table 4.4.9 suggests that the service areas where the highest rate of training was taking place were financial intermediation, followed by business services.

A comparison on the basis of country information showed that there were four countries where training levels were particularly high compared to the rest of the EU. In Denmark, Finland, the Netherlands and Sweden, more than 20% of employees had received some form of training in the previous four-week period, prior to the Labour Force Survey (these shares rose much higher in the activity of financial intermediation).

Table 4.4.9: number of employees not receiving any training during the previous four-week period, 1997 (%) (1)

	Distributive trades	Hotels and restaurants	Transport services	Financial intermediation	Business services	Market services
B	97,4	97,3	97,4	94,1	95,6	97,2
DK	86,8	79,3	79,1	70,9	78,9	82,7
D	97,0	95,9	95,9	93,3	93,6	96,1
EL	99,3	99,2	99,4	98,6	98,5	99,3
E	97,7	96,8	97,1	93,2	95,5	97,2
F	98,6	98,5	98,5	96,9	97,1	98,2
IRL	94,9	95,8	95,1	88,5	87,5	93,1
I	97,2	97,6	96,0	93,1	95,7	96,8
L	98,5	99,2	96,7	94,0	96,0	96,7
NL	86,8	85,4	88,1	72,2	81,3	84,7
A	92,1	95,7	92,5	88,2	91,7	92,5
P	97,2	98,7	95,8	90,8	92,1	96,6
FIN	85,1	84,0	87,1	58,8	76,7	82,3
S	81,3	83,7	72,5	55,9	73,5	75,6

(1) Excluding the United Kingdom.

For further information: Labour Force Survey

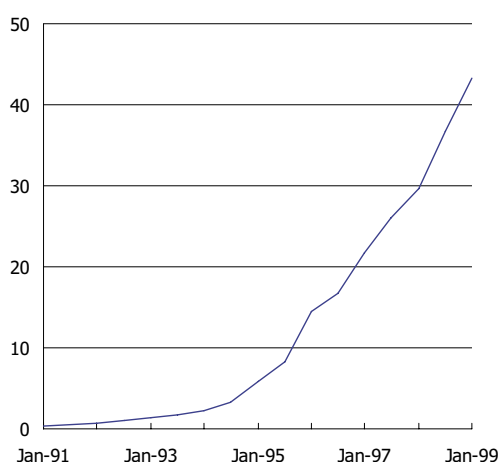
Introduction

The term "cyber-economy" is used to describe the transformational impact that information and communication technologies (ICTs) are having on every single aspect of business activity. It is often associated with the emergence of the so-called "information society", a society whose wealth and growth is based on its ability to handle information. Some commentators see this phenomenon as significant and far-reaching as last century's industrial revolution with correspondingly high economic stakes. Already the Internet can be seen as the backbone for the emergence of the cyber-economy, of which knowledge and intangible investment (see the chapter on competitiveness) are likely to become the cornerstones.

Whilst ICTs are not new to the business environment, the 1990s have seen changes in the way of doing business, trends which are bound to develop as we move into the 21st century. The globalisation of economies, stimulated by the deregulation of markets and increasing freedom of trade and financial flows, have found a formidable ally in the advance of communication technologies. The exponential growth of the Internet (see figure 4.5.1) should be noted not only as a means of communication, but

also as a medium for entertainment, and as a tool for electronic commerce (e-commerce).

Figure 4.5.1: number of Internet hosts in the world (millions)



For further information: Internet Software Consortium (<http://www.isc.org>)

The combined effects of these events are set to give birth to a dramatic change in many areas of society. The shift to communications and technology services away from traditional manufacturing activities is a fundamental change. There are many new service sector activities that are growing or indeed being borne out of the ICT market. One of the main benefits of this expansion is that it can lead to higher educational attainment (by increasing the transfer of knowledge) whilst at the same time providing a new source for employment opportunities.

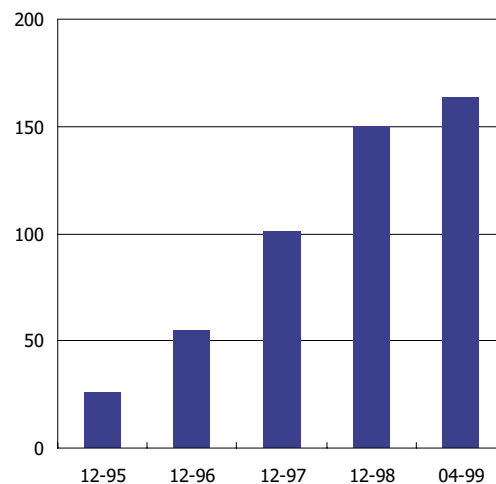
One good example of new services that are developing within the cyber-economy is e-commerce, which is developing rapidly on the World Wide Web (WWW), the graphical interface of the Internet. Whilst world-wide presence used to require heavy logistical and financial input, the Internet has reduced significantly the barriers of entry with respect to commerce. Only a few thousand euros are needed to produce a high-quality web-site that has the potential to instantly open the door to millions of customers world-wide, without the need for any intermediaries. This trend could prompt a major reorganisation of traditional production and distribution models and influence such decisions as where, what, how or when to produce or distribute goods and services.

A recent study⁽¹⁾ by the OECD estimated that world-wide revenue of e-commerce was equal to approximately 25 billion ECU in 1997. That amount is forecast to swell to one thousand billion ECU in the near future (2003/2005), growth being driven by the business-to-business (B2B) segment.

The speed at which the market is changing is best illustrated by the increase in individual Internet users. Whilst only 55 million people were connected to the Internet in 1996, that number reached an estimated 165 million individuals in mid-1999.

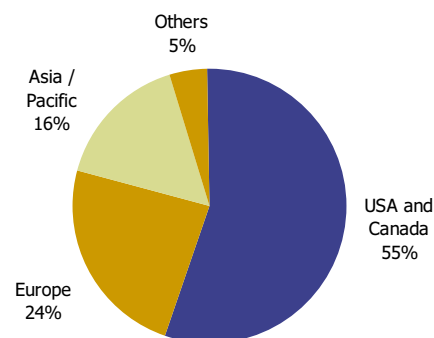
Discrepancies across countries and areas of the world are enormous. It is estimated that 55% of Internet users in 1999 were located in North America and one quarter in Europe (see figure 4.5.3). Only 1% were in Africa or the Middle East. Figures on the penetration of Internet and on-line services in the Member States, USA and Japan are available from the European Information Technology Observatory (see figure 4.5.2). It is estimated that in 1997 there were more than 22 users of Internet or on-line services for 100 inhabitants in the USA, a ratio ten times higher than in Italy or Greece. The EU-15 average was equal to 6.6 users per 100 inhabitants, a level slightly higher than in Japan (5.9). Sweden and France were the two Member States boasting the highest penetration of Internet and on-line services at respectively 13.8 and 12.0 users per 100 inhabitants.

Figure 4.5.2: number of Internet users in the world (millions) (1)



(1) An Internet user is a person with access to the Internet, data is not specific to Internet account holders.
For further information: NUA Ltd

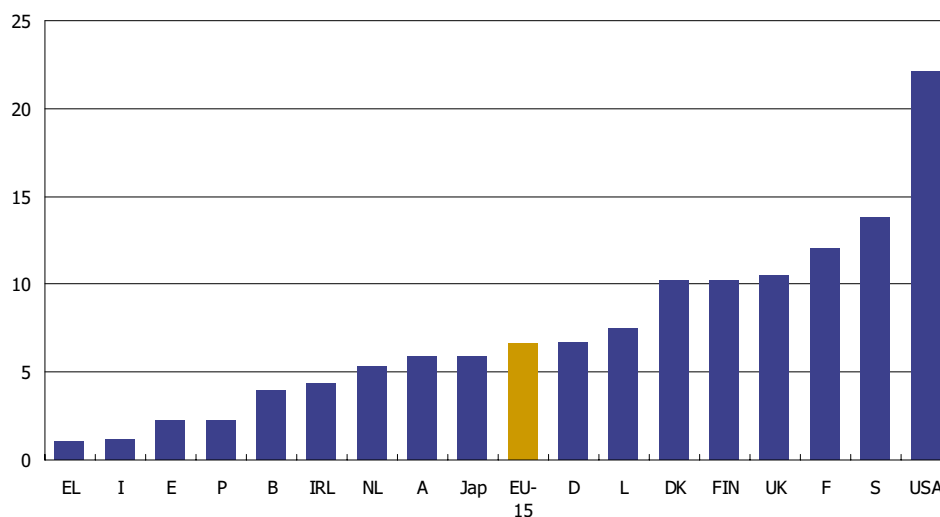
Figure 4.5.3: breakdown of Internet users by region, May 1999 (%) (1)



(1) An Internet user is a person with access to the Internet, data is not specific to Internet account holders.
For further information: NUA Ltd

(1) OECD: "The Economic and Social Impacts of Electronic Commerce: Preliminary Findings and Research Agenda", 1998.

Figure 4.5.4: penetration rate of Internet / on-line services, 1997
(no. of users per 100 inhabitants)



For further information: EITO

Table 4.5.1: number of Internet hosts by top-level domain, January 1999

	Number of hosts	Share of the total (%)
B	165,9	0,4
DK	279,8	0,6
D	1 316,9	3,0
EL	51,5	0,1
E	264,2	0,6
F	488,0	1,1
IRL	54,9	0,1
I	338,8	0,8
L	6,5	:
NL	564,1	1,3
A	143,2	0,3
P	49,7	0,1
FIN	546,2	1,3
S	431,8	1,0
UK	1 423,8	3,3
EU-15 (1)	6 125,5	14,0
USA (2)	8 746,8	20,2
Japan	1 687,5	3,9
Other Europe	1 173,9	2,7
Other Americas	1 611,0	3,7
Other Asia/Pacific	1 710,5	4,0
Africa/Middle East	283,3	0,7
Commercial (.com)	12 140,7	28,1
Networks (.net)	8 856,7	20,5
Organisations (.org)	744,3	1,7
International organisations (.int)	0,9	:
Others	148,4	0,3
Total	43 229,7	100,0

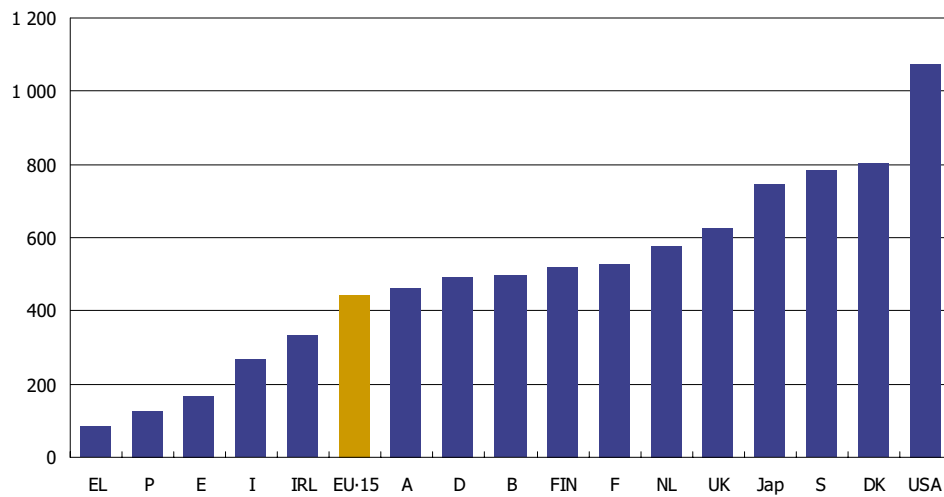
(1) Excluding commercial (.com), networks (.net) and organisations (.org and .int) located in the EU.

(2) Only .us, educational (.edu), government (.gov), US military (.mil); excludes commercial (.com), networks (.net) and organisations (.org and .int).

For further information: Internet Software Consortium (<http://www.isc.org>)

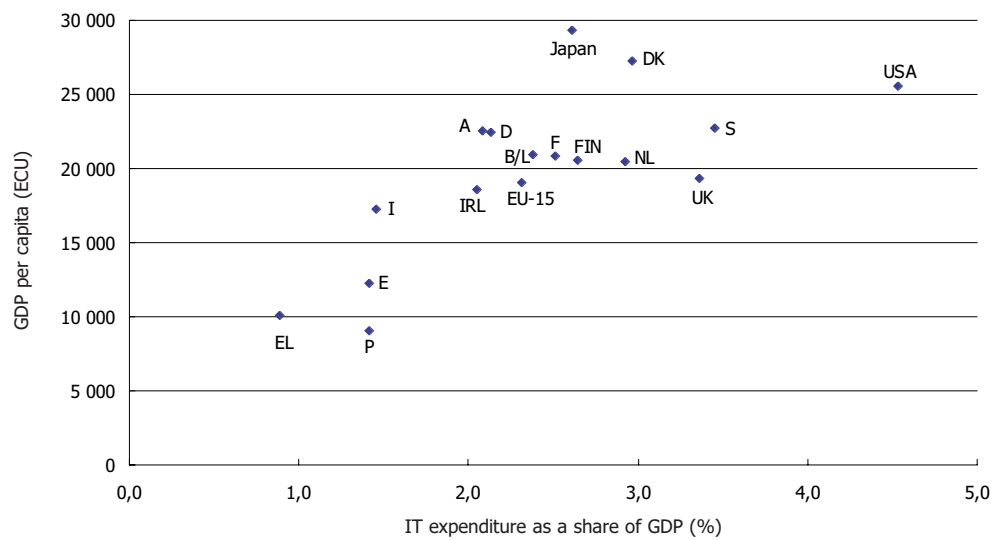
The take-up rate of information technologies across the EU in 1997 varied considerably. One way to measure the impact of IT on an economy is to look at IT expenditure per head, which ranged from 84 ECU per inhabitant in Greece to 803 ECU per inhabitant in Denmark (see figure 4.5.5). At 445 ECU per capita, average IT expenditure remained much lower in the EU-15 compared to its main economic competitors. For example, it was less than half the level recorded in the USA (1,075 ECU per capita) and two-thirds of the figure for Japan (745 ECU per capita).

Figure 4.5.5: IT expenditure per capita, 1997 (ECU)



For further information: EITO

Figure 4.5.6: IT expenditure in relation to GDP per capita, 1997



For further information: EITO, Eurostat

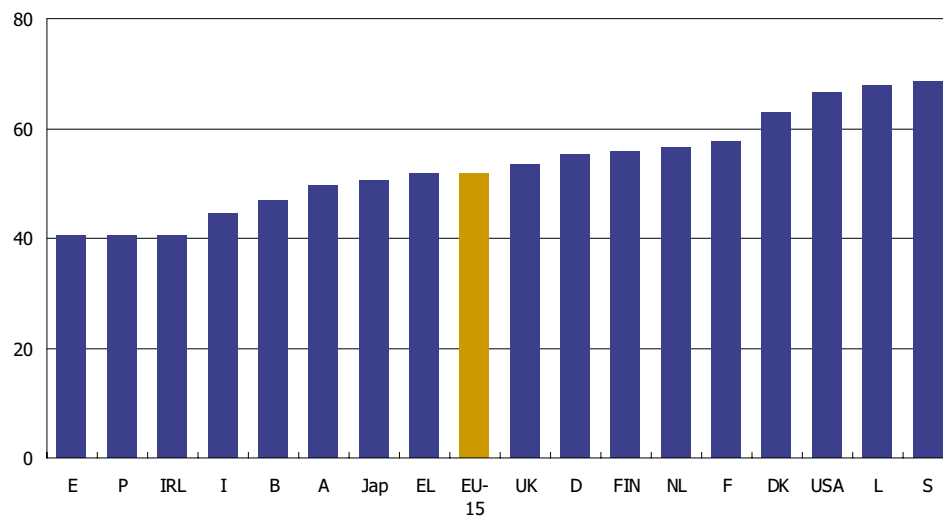
Infrastructure

A robust communications infrastructure is a prerequisite for the cyber-economy to thrive, in the same way as an efficient transport infrastructure is indispensable to economic flows in the “real” world. Reference has sometimes been made to the information “super-highway”, an integrated, high-capacity and interactive communications network able to efficiently transport data. Telecommunications networks once used to be almost exclusively dedicated to voice communication, accommodating analogue lines on copper wires, often with poor transmission quality and line availability. In the case of data communication, which requires absolute transmission quality and security, on an increasingly high bandwidth, technical specifications have risen considerably.

As data transfer takes an ever rising share of telecommunications traffic, infrastructure has rapidly moved from traditional analogue lines to digital technology (figure 4.5.8). The European Information Technology Observatory estimate that by the year 2002, 95% of the world's main lines will be digital (up from 85% in 1997). In Europe and the USA practically all lines will be digital, whilst this was already the case in Japan in 1997. On the user side, ISDN⁽²⁾ or equivalent lines are expected to continue to boast double-digit growth rates well into the 21st century.

(2) Integrated Services Digital Network.

**Figure 4.5.7: penetration rate of main telephone lines, 1997
(lines per 100 inhabitants)**

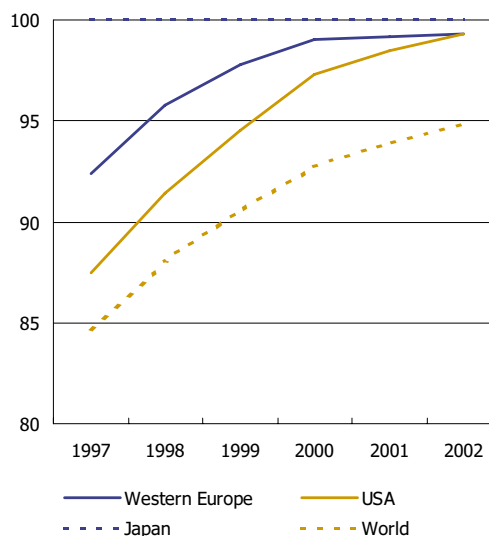


For further information: EITO

Besides traditional telephone networks, other infrastructures are also used as telecommunications media, such as low-orbit satellites, cable TV networks and electric utilities networks. But the most dramatic evolution of recent years is characterised by the booming adoption of wireless technologies, whose success is such that they are expected to replace fixed wire line technology in many applications.

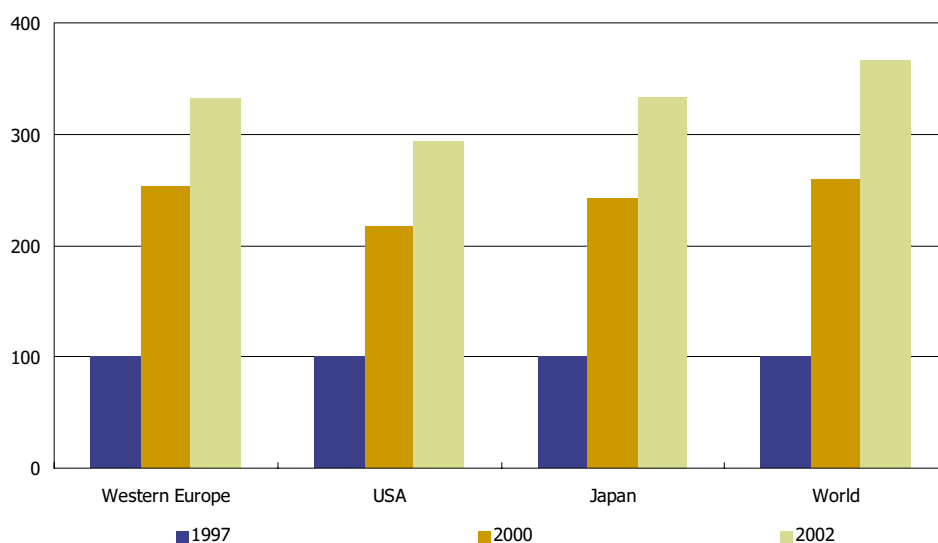
The number of cellular phone subscribers multiplied by a factor of four in the EU between 1993 and 1996, reaching 33 million lines. EITO forecast a compound annual growth rate of the number of subscribers of almost 30% per year between 1997 and 2002 when the number of mobile telephone subscribers would be close to 200 million in Western Europe, practically a third of the world total, 93 million in the USA and 70 million in Japan.

Figure 4.5.8: number of main lines that are digital (%)



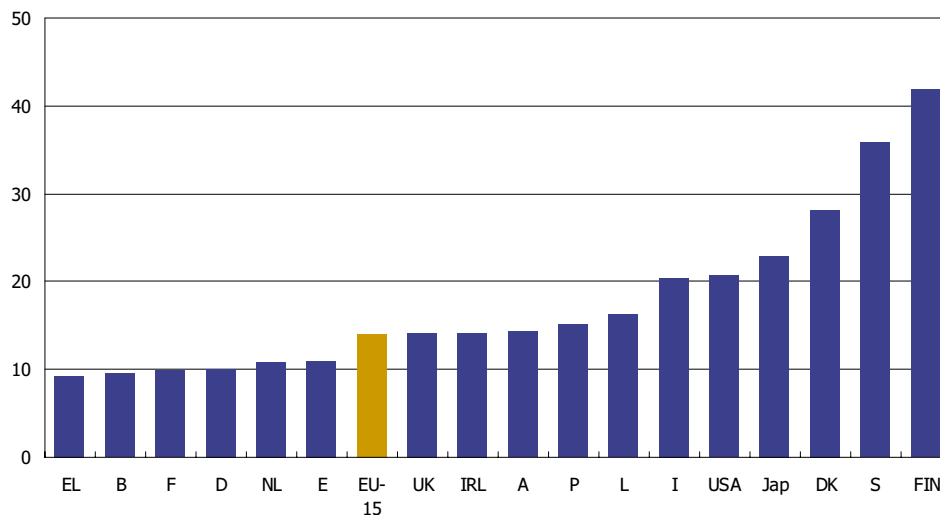
For further information: EITO

Figure 4.5.9: Number of ISDN or equivalent lines (1997=100)



For further information: EITO

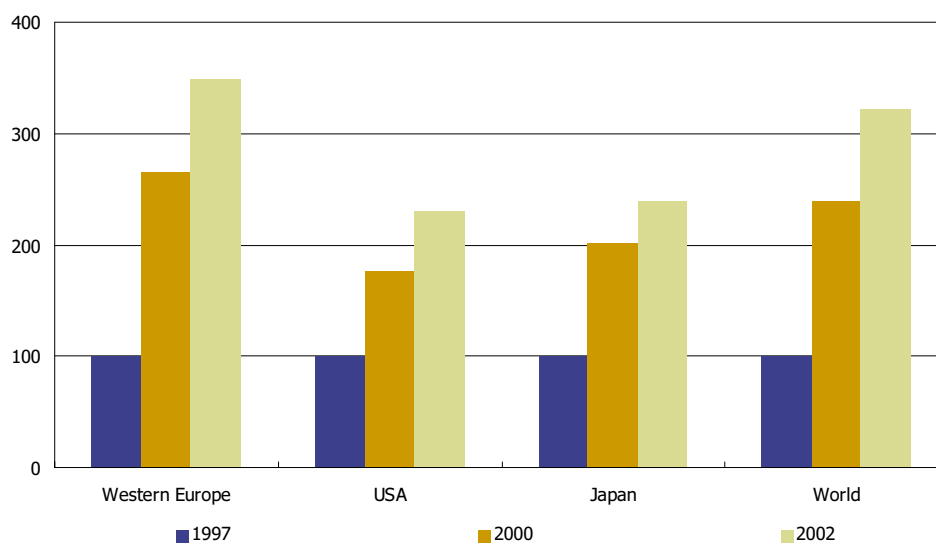
**Figure 4.5.10: penetration rate of analogue and digital mobile phones, 1997
(lines per 100 inhabitants)**



For further information: EITO

Figure 4.5.10 shows the penetration rate of mobile phones (both analogue and digital) in the EU, USA and Japan in 1997. The highest penetration was found in the three EU Nordic countries: Finland (42 mobile phone lines per 100 inhabitants), followed by Sweden (36) and Denmark (28). At the other end of the ranking we find France, Belgium and Greece, all with a penetration rates lower than 10%. The EU-15 average was 14 mobile lines per 100 inhabitants, well below Japan (23) and the USA (21). It is interesting to note the high share of mobile phones in the USA that still used analogue and not digital

Figure 4.5.11: number of mobile phone subscribers (1997=100)

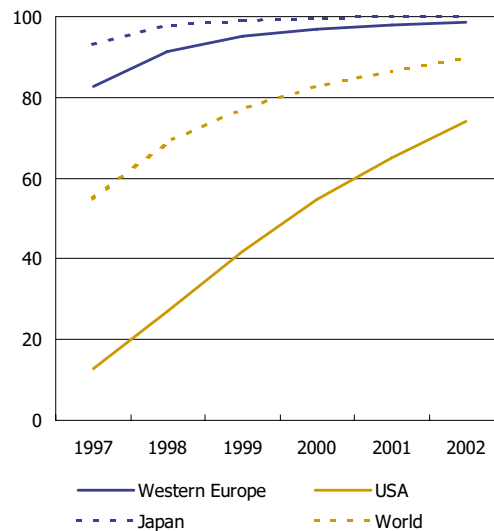


For further information: EITO

technology. They represented as much as 87% of the total in 1997, compared to only 17% in Western Europe and 7% in Japan. Digital technology was expected to gain ground in the USA by 2002, as shown in figure 4.5.12, but it would still display the lowest penetration rate across the Triad.

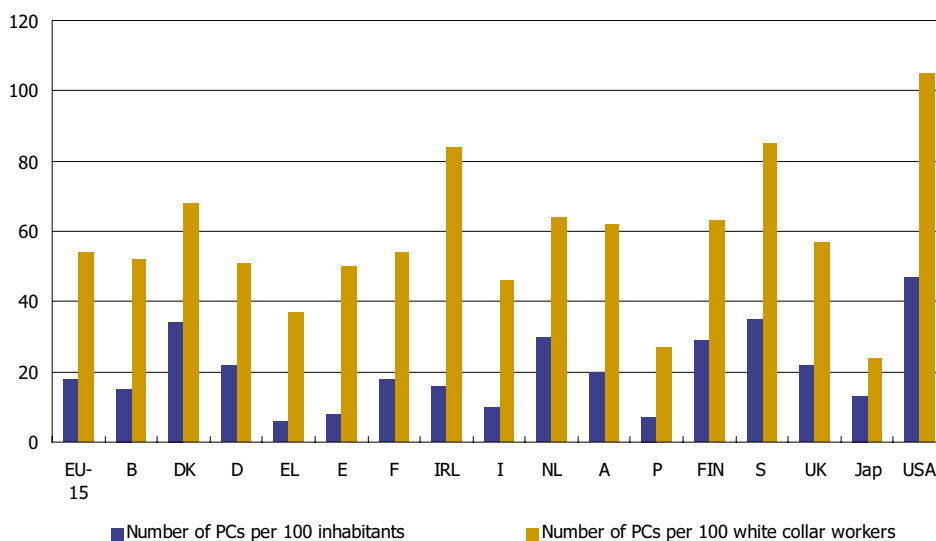
Europe has a strong competitive advantage in digital mobile telephony. The GSM standard, a digital system that had originally been designed by Europeans for deployment in Europe, has eventually been adopted by over 300 operators in more than 130 countries around the world. The challenge faced by this technology is the progress in bandwidth capacity allowing multimedia data content to be transferred over mobile phones.

Figure 4.5.12: digital mobile phones as a share of total mobile phone subscriptions (%)



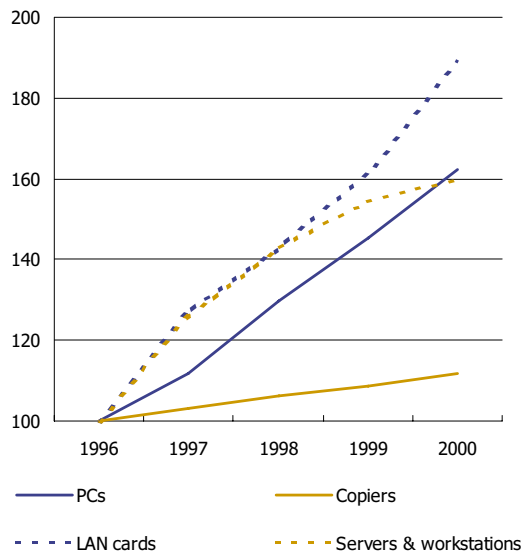
For further information: EITO

Figure 4.5.13: penetration rate of PCs, 1997



For further information: IDC in EITO

Figure 4.5.14: IT hardware, unit shipments in the EU (1996=100)



For further information: EITO

Indeed, one essential characteristic of the development of the digital economy is the increasing convergence between telecommunications and information technologies. The penetration of IT in the EU has been slower than across the Atlantic. In 1997 the number of PCs in the EU varied from 6 per 100 inhabitants in Greece to 35 in Sweden, as shown in figure 4.5.13. The EU average was 18 per 100 inhabitants, less than half the level recorded in the USA (47 per 100 inhabitants). The gap between Europe and America is even more striking if we compare the number of PCs to the "white collar" population. In this case, we find that PCs were more numerous than white collar workers in the USA, whilst only 54% of Europe's white collar labour force had a PC.

About twenty million PCs were shipped in the EU in 1998, and that number was expected to rise by 25% to 25 million units in the year 2000. Total market value was equal to 30 billion ECU in 1998 and was forecast to grow to 34 million ECU by the year 2000, an increase of 12%. The lower growth rate for market value reflects the expected continued reduction of average prices of personal computers.

The fastest growing market within IT hardware is that of data communications. Its total value was 7.5 billion ECU in 1998 and was expected to experience an 18% increase by 2000, rising to 9 billion ECU. If we look at local area network (LAN) cards, 20 million units are expected to be shipped in the EU in the year 2000, almost a third more than in 1998 and double as many as in 1996.

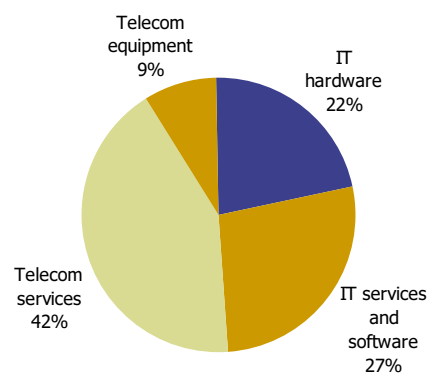
Market structure

The EU market for information and communication technologies (ICT), including both equipment and services, was worth an estimated 370 billion ECU in 1998. This amount was evenly shared between information technologies (IT) and telecommunications. Services took the lion share with a market value of 257 billion ECU, 70% of the total, whilst hardware accounted for only 30% of the total or 113 billion ECU.

The ICT market saw an increase in its value of some 9% in 1998 compared to figures for 1997. Growth forecasts are for a continuation of this strong positive trend, although slowing down to 8.2% in 1999 and 7.6% by 2000. As can be clearly seen in figure 4.5.16, growth was expected to be mainly driven by IT services and software, whose market grew by 12.5% in 1998 and was expected to continue to boast double-digit growth rates in both 1999 and 2000.

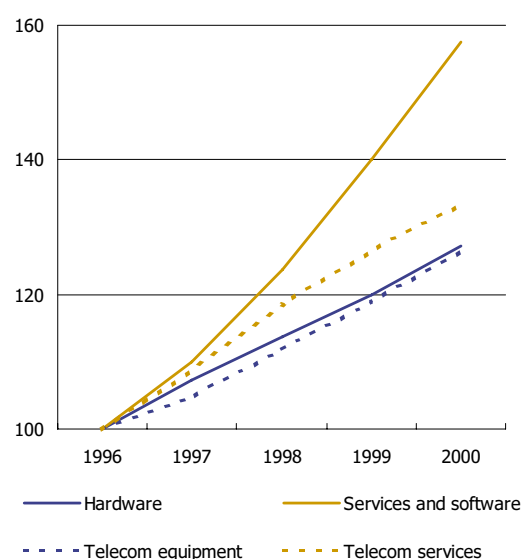
Software products recorded growth of 12.2% in 1998, with a market value of 36 billion ECU. System software and application software each shared about half of that amount. Computing services represented an even larger and faster expanding area, with a market that was worth an estimated 63.7 billion ECU in 1998, a progression of 12.7% when compared to 1997. Just under half of the market was accounted for by consulting and implementation services, one third by operation management services (for example, system and network management, help-desks, back-up and archiving services) and the rest by support services (for example, maintenance contracts and telephone support, be it bundled or not with software packages). The fastest growing activities in computing services were consulting and implementation services.

Figure 4.5.15: breakdown of the ICT market in the EU, 1998



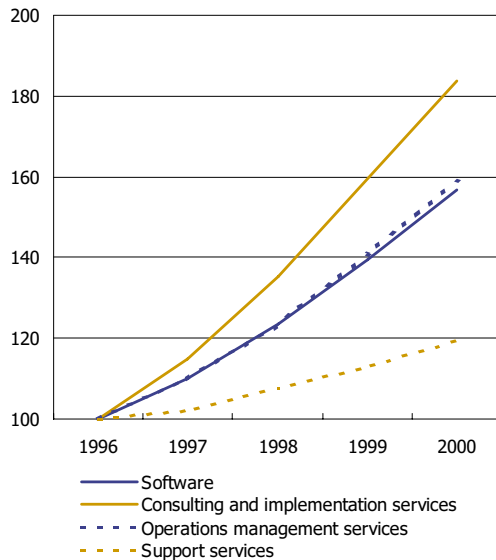
For further information: EITO

Figure 4.5.16: evolution of ICT market value in the EU (1996=100)



For further information: EITO

Figure 4.5.17: evolution of IT software and services market value in the EU (1996=100)



For further information: EITO

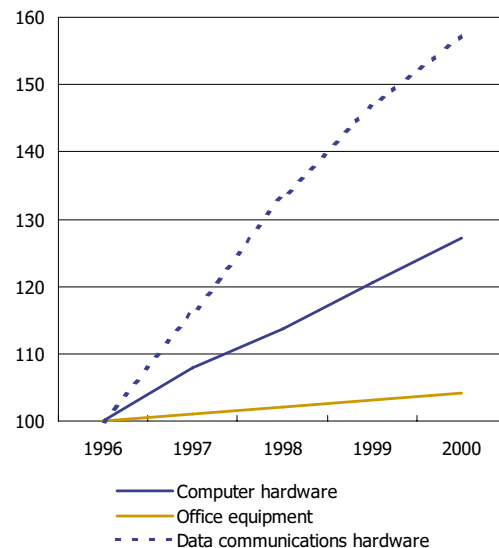
As for the telecom services market, growth in the EU-15 reached 9% in 1998 but is expected to slow down to 6.8% in 1999 and 5.5% in the year 2000. Telephone services represented the largest share with a market value of 98 billion ECU. They were however the area witnessing the lowest rate of growth (3.8%) and the lowest growth forecasts (3.6% in 1999 and 3.2% in the year 2000). This may be explained by the fact that the price of local and long-distance calls should continue to decline as competition intensifies. Mobile telephone services boasted annual growth of 26.9% in 1997 and 28.4% in 1998, reaching an estimated market value of 31 billion ECU. Cable TV services also recorded a high growth rate, 14% in 1998, and were expected to experience a further progression of 13% and 15% in 1999 and 2000. Their market value remained the lowest of all telecom services at 6 billion ECU in 1998.

The growing importance of wireless communications is reflected in expenditure on network equipment. The share of wireless equipment for public networks grew by 26% in 1998 and was expected to catch-up the level of switching equipment by the year 2000, reaching total market value of 6 billion ECU. Expenditure on switching equipment, on the contrary, was expected to remain constant between 1998 and 2000, after witnessing a drop from 6.7 billion ECU in 1996 to 6.1 billion ECU in 1998. As for private equipment, the market for mobile terminals (domestic and business) reached 3.9 billion ECU in 1998, a progression of 5% compared to 1997. Forecasts for 1999 and 2000 were of a further 6% growth for both years. Still, the fastest growing sector for private equipment is that regrouping domestic and business equipment other than private switches (PABX), telephone sets and mobile terminals. This grouping includes fax machines, answering machines and audio/video conferencing equipment. The market value for this kind of product was the largest of all private telecom equipment at an estimated 5.8 billion ECU in 1998, a level 13% higher than the year before. Growth was expected to remain strong in 1999 and 2000 at 12% for both years.

As regards the market for IT hardware its value was an estimated 82 billion ECU in 1998. The largest share was accounted for by computer hardware (65 billion ECU), the rest being shared by office equipment (9.1 billion ECU) and data communications hardware (7.3 billion ECU). This latter market was the most dynamic, displaying double-digit growth rates in 1997 and 1998 (16% in both years) and this was expected to continue in 1999 (10%). In contrast, office equipment⁽³⁾ expenditure remained constant over the period.

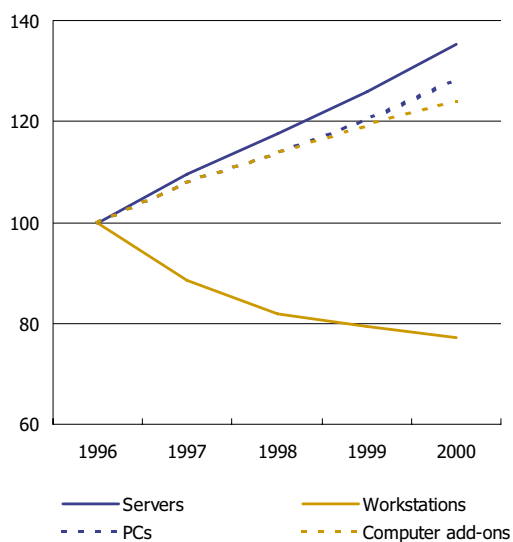
Looking in more detail at computer equipment expenditure (figure 4.5.19) we see a reduction in the workstation market, whose value fell 18% between 1996 and 1998 from 2.7 billion ECU down to 2.2 billion ECU. Servers and PCs, in contrast, enjoyed vigorous growth of 8% and 5% respectively in 1998, and these trends were expected to continue in 1999 and 2000. PCs made up the largest share of the market (30 billion ECU in 1998), ahead of servers (23 billion ECU). PC add-ons (printers, memory upgrades and other various board enhancements) accounted for 10 billion ECU, of which 6 billion ECU was for printers. As for the server market, just under a quarter of its value was dedicated to those running Unix operating systems, representing a total expenditure of 5.5 billion ECU. Windows NT servers accounted for 11% of the market or 2.5 billion ECU. The largest share of the market (30%) was for non-Unix or NT servers such as IBM S390 or AS/400 servers, Digital Open VMS or NetWare servers. Expenditure on add-ons for servers, including storage and printers was worth 8.4 billion ECU, or 36% of total expenditure on servers.

Figure 4.5.18: IT hardware market value (1996=100)



For further information: EITO

Figure 4.5.19: computer equipment market value (1996=100)



For further information: EITO

(3) Including copiers and other duplicating equipment, typewriters, calculators, point-of-sale systems, etc.

Employment

Assessing employment in information and communication technologies (ICT) activities is difficult because of their composite nature. In addition, contrary to the analysis of the market structure found in the previous section that was based on a demand-sided approach, estimating employment requires a supply-side analysis. This proves difficult as ITC goods and services are increasingly incorporated into non-ITC goods and services. No standard definition of ICT exists (as yet, on-going work is being carried out with the OECD), and great care should hence be taken when comparing data from different sources.

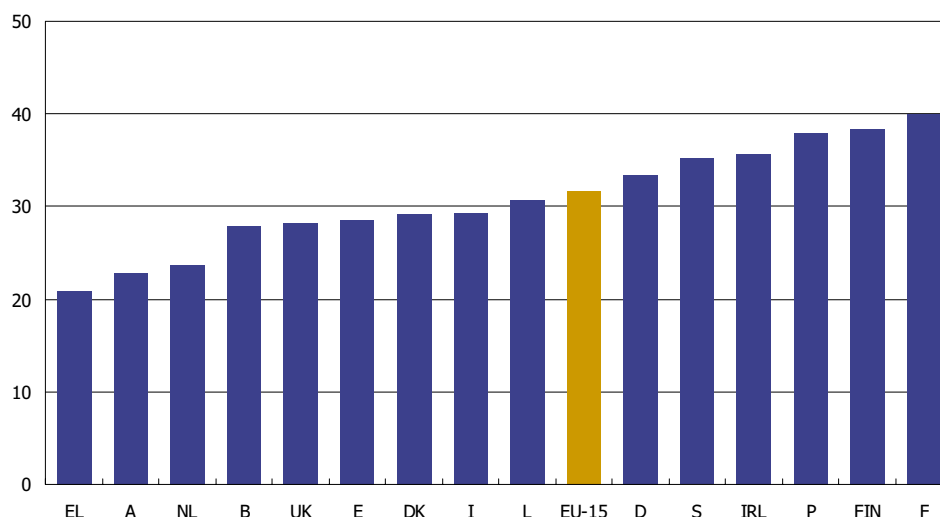
The European Information Technology Observatory (EITO) estimate that close to 2 million persons were employed in ITC activities in Europe in 1997. This number was evenly shared between IT activities and telecom activities. It is important to note that these figures do not take into account employment in user companies, for example persons employed within IT departments of companies not classified within the IT sector of the economy. EITO estimate that this type of employment accounted for more than 8 million full-time equivalent positions in Europe in 1997. That number was expected to grow, as the number of vacancies in IT departments was set to exceed the total number of IT professionals by the year 2000.

The evolution of employment in IT activities reflects similar trends to those observed in the previous section concerning market structure and value. The main trend that can be observed is a shift from hardware equipment and manufacturing functions to service-related activities, such as software and computer services. In 1997, there was a reduction of some 15 thousand posts in major hardware manufacturers. In contrast, employment in software and computer services rose by 8 thousand in 1997 to 738 thousand persons.

As regards telecom activities, they employed just over one million persons in 1997, up by 10 thousand when compared to the figures for 1996. This positive trend was expected to continue in 1998 as job losses in traditional activities would be offset by increasing employment amongst new entrants and high growth technology suppliers, such as mobile services, call centres or Internet access providers.

The Labour Force Survey carried out by Eurostat supplies some indications regarding the structure of the labour force in ICT activities. Women were under-represented as they accounted for only slightly less than one third of total employment in these activities. In the case of computer activities (both manufacturing and services) the share of women was even lower at just above one-quarter of total employment. This compares with average female employment of 42% in the whole economy, and 51% in service activities. Countries with the lowest female shares of the labour force were Greece (21%) and Austria (23%), with rates almost half those recorded in Finland (38%) and France (40%).

Figure 4.5.20: share of ICT labour force who are women, 1997 (%) (1)

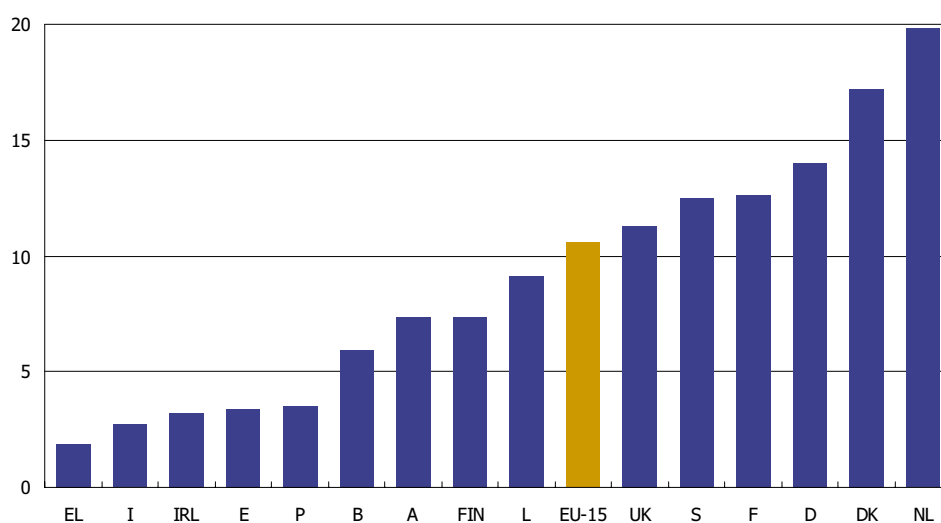


(1) Manufacture of office machinery, computers, radio, television and communications equipment; post and telecommunications and computer and related activities.

For further information: Labour Force Survey

On the other hand, ICT activities were amongst the sectors with the lowest share of persons employed working part-time (11%), compared to 17% in the economy as a whole. Countries with the highest proportion of persons working part-time in this activity were the Netherlands and Denmark (20% and 17% respectively), whilst there were less than 3% in Greece and Italy. The share of persons working part-time in communication services was slightly higher at 14%, whilst it was lower in hardware manufacturing activities (6%).

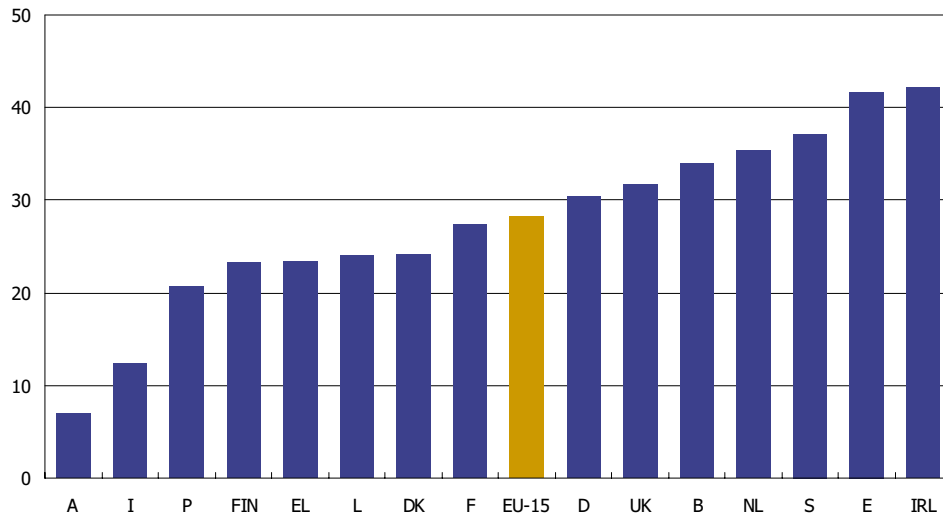
Figure 4.5.21: share of ICT labour force working part-time, 1997 (%) (1)



(1) Manufacture of office machinery, computers, radio, television and communications equipment; post and telecommunications and computer and related activities.

For further information: Labour Force Survey

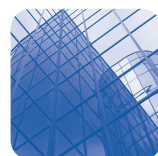
Figure 4.5.22: share of ICT labour force with a higher education, 1997 (%) (1)



(1) Manufacture of office machinery, computers, radio, television and communications equipment; post and telecommunications and computer and related activities.
For further information: Labour Force Survey

Turning to the level of education of the European ICT workforce, the share of persons employed holding a higher education degree was 28% in 1997, ranging from 7% in Austria to 42% in Spain and Ireland. Looking more closely at the different sub-sectors, it is not too surprising to see that computer services employed one of the highest rates of highly educated persons of the whole economy. With a share of 52% it was the third highest level of all service activities after research and development (63%) and education (62%). This strongly contrasts with communication services where only 15% of the persons employed held a higher education degree, a level lower than in the economy as a whole.

Sectoral analysis



Chapter 5

Motor trade (NACE Rev. 1 50)

Motor trade covers all activities (except manufacture and renting) related to motor vehicles and motor cycles, including lorries and trucks, as well as the retail sale of automotive fuel and lubricating or cooling products. In 1997 the motor trade activity of the European Union employed more than 3.2 million persons. This represented 62% of the total number of persons employed in wholesale trade and 23% of the persons employed within retail trade.

If we compare the relative shares of persons employed and turnover per enterprise we can get a clearer picture of the relative size of the activity across the Member States. Italy had by far the smallest enterprises, measured by both turnover per enterprise (573 thousand ECU) and by the number of persons employed per enterprise (2.6). Turnover per enterprise was highest in Luxembourg (2.6 million ECU), probably due to the weight of the retail trade of automotive fuel in that country. Measured by employment per enterprise, the largest enterprises were located in Austria with 9.3 persons on average, well ahead of Luxembourg with 6.9.

The share of women in total EU motor trade employment was only 17.5%, well below the service sector average. Austria had the highest share with 49% of the total being women. Part-time employment and the employment of workers with a higher education were equally low, representing only 45.7% and 48.6% of European Union averages in services. However, the number of self-employed persons was higher than the average for services.

Table 5.1: main indicators for motor trade, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B (1)	:	:	:	35,0	6,2	39,5	112,9
DK (1)	12 726	5,0	0,9	:	:	:	:
D (2)	41 595	11,4	2,9	:	:	:	:
EL	:	:	:	:	:	:	:
E	:	:	:	:	:	:	:
F	82 491	5,1	1,2	:	:	32,0	:
IRL	4 716	5,7	1,4	:	:	23,7	:
I	160 744	2,6	0,6	22,8	5,1	26,1	114,5
L	848	6,9	2,6	24,3	6,0	42,6	175,4
NL (3)	21 230	6,0	1,2	26,1	8,3	:	:
A (4)	8 071	9,3	2,2	27,2	11,0	37,6	138,1
P	20 353	4,9	0,6	9,3	:	:	:
FIN	8 376	3,5	1,1	28,9	7,9	41,5	143,6
S	17 641	:	1,3	31,9	:	:	:
UK	71 119	:	1,9	:	6,4	:	:

(1) 1995.

(2) Excluding NACE Rev. 1 50.2.

(3) 1995; excluding NACE Rev. 1 50.1 and 50.3.

(4) 1995 for labour costs, value added and labour productivity.

For further information: SBS

Personnel costs per employee amounted to 9.3 thousand ECU in Portugal, a particularly low figure when compared to the other countries for which data were available, ranging from 22.8 thousand ECU in Italy to 35.0 thousand ECU in Belgium. If we compare these figures to value added per capita, we find that the ratio of wage adjusted labour productivity was highest in Luxembourg and lowest in Belgium.

The share of employees in total employment in the European Union's motor trade sector was equivalent to 75.5%, only slightly below the European Union average for the whole service sector (78.4%). Two countries stood out with particularly low shares: in Greece and Italy employees made up less than half of total employment. This was probably due to the very high number of small traditional repair shops, which do not normally have any employees. Luxembourg, France, Portugal and Austria had the highest shares of employees for this activity.

In Denmark, full-time employees' monthly earnings were over 47% above the EU average in 1995. Indeed, Denmark's part-time employees had higher average earnings than the EU average for full-time and part-time staff. West Germany's full-time employees earned slightly more than 40% above the EU average in this activity, whilst Luxembourg, the Netherlands, Sweden, Finland and Belgium were all above the average. Greece, Portugal, Spain and the United Kingdom all had average earnings more than 60% below the EU average.

Wholesale trade (NACE Rev. 1 51)

Wholesale trade covers the resale of new and used goods to retailers, to industrial, commercial, institutional or professional users, to other wholesalers or to agents. In 1996, the size of the enterprises in this sector ranged from just 2.6 persons employed per enterprise in Italy to 10.2 persons on average in Ireland.

Total employment in wholesale trade in the European Union reached over 5.3 million persons in 1997 (Labour Force Survey), representing almost 10% of the total number of persons employed in the service sector of the EU. Some 82.6% of those employed were employees, a somewhat higher share than the service sector average (78%). The share of the self-employed was equal to 16%, of which 7% had employees and 9% did not. In Luxembourg, practically all employees had a contract of indefinite duration. Spain was the only country well below the EU average, with 66% of Spanish employees working under a contract of indefinite duration (compared to 91% in the EU).

The share of women in total employment in the European Union was 30.8%, well below the EU average for services as a whole. In Portugal, the Netherlands, Spain, Greece and Ireland women represented around 26% of the total wholesale trade workforce. Only in Austria (39%) and Germany (38%) did the female share of the labour force approach parity.

Of those countries for which data was available, personnel costs were highest in Belgium (42.6 thousand ECU per employee) and lowest in Portugal (12.6 thousand ECU per employee). There were also large differences between the countries in terms of wage adjusted labour productivity, whilst Belgium had a ratio of 123.3%, Luxembourg boasted 190.2%.

The share of part-time workers in the European Union at 10% was rather low when compared to the average for services. In Greece only 2% of the persons employed were working part-time, as opposed to 18% in the Netherlands. As in most other NACE Rev. 1 service Divisions, full-time and part-time workers' earnings were highest in Denmark. In Portugal the lowest average earnings were recorded, both for full-time and for part-time employees.

Overall, the ratio of persons with a higher level of education in the wholesale trade sector was below the EU average for services. However, there were a number of individual countries where the ratio was above average: namely Finland, Portugal and Belgium, whilst Sweden and the United Kingdom had very low shares of their labour force with a higher education.

Table 5.2: main indicators for wholesale trade, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B (1)	:	:	:	42,6	7,0	52,5	123,3
DK (1)	28 286	6,0	2,2	:	:	:	:
D (2)	80 691	16,5	7,4	:	:	:	:
EL	:	:	:	:	:	:	:
E	:	:	:	:	:	:	:
F	161 138	5,8	2,5	:	:	45,3	:
IRL	4 374	10,2	3,6	:	:	42,3	:
I	360 919	2,6	0,8	30,8	6,3	46,2	150,0
L	2 642	4,6	2,7	31,9	5,1	60,7	190,2
NL (3)	52 344	7,8	3,1	28,1	6,8	47,9	170,4
A (4)	20 901	9,1	3,3	35,8	10,0	49,6	138,4
P	29 401	6,3	1,2	12,6	:	:	:
FIN	15 491	4,8	2,3	34,8	7,1	58,0	166,7
S	39 661	:	2,0	39,4	:	:	:
UK	110 107	:	3,8	:	5,6	:	:

(1) 1995.

(2) Excluding NACE Rev. 1 51.1.

(3) 1995; excluding NACE Rev. 1 51.1.

(4) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

Retail trade (NACE Rev. 1 52)

Retail trade covers the sale of new and used goods to the general public for personal or household consumption and the repair and installation of personal or household goods. Considering those countries for which data is available, the average European retail enterprise had between 4 and 5 persons employed. When comparing different countries, Italy had the lowest average (2.1 persons employed per enterprise), with a very high number of small family-owned retail outlets. Using the same measure, Germany and the United Kingdom had the largest enterprises, approaching 10 persons on average per enterprise.

Total employment in the retail trade sector amounted to 13.9 million persons in the European Union. This figure was more than double the corresponding figure for wholesale trade. Around 70% of the total number of persons employed were employees, a proportion approximately 10 percentage points below the average for the service sector. In Italy and Greece the share of employees was particularly low at around 35%. Again, this trend can be attributed to the large number of small family-owned shops, which normally have very few (or indeed no) employees. The share of the self-employed was equal to 26%, some 7 percentage points above the EU average. The share of family workers in total employment was almost double the service sector average. Nearly 88% of employees had an indefinite duration contract in the EU. In Luxembourg this share rose to 98%, whereas in Spain it was significantly lower at 59%.

Table 5.3: main indicators for retail trade, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B (1)	:	:	:	24,8	11,0	27,3	110,0
DK	31 735	6,1	0,8	17,8	12,7	:	:
D (2)	307 139	8,9	1,1	:	:	:	:
EL	:	:	:	:	:	:	:
E	:	:	:	:	:	:	:
F	392 438	3,7	0,6	:	:	29,9	:
IRL	20 079	6,0	0,6	:	:	16,3	:
I	678 123	2,1	0,2	28,2	10,3	20,3	72,0
L	3 162	5,5	0,8	20,0	12,1	28,2	140,7
NL (3)	90 017	6,5	0,6	13,3	12,3	18,6	140,2
A (4)	38 914	6,6	0,8	21,7	15,5	27,0	123,9
P	125 686	2,5	0,2	7,5	:	:	:
FIN	23 912	3,9	0,8	24,5	11,1	33,9	138,2
S	55 441	:	0,7	28,0	:	:	:
UK	206 963	:	1,1	:	12,4	:	:

(1) 1995; excluding NACE Rev. 1 52.7.

(2) Excluding NACE Rev. 1 52.7.

(3) 1995; excluding NACE Rev. 1 52.1, 52.31 and 52.5.

(4) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

The retail trade sector employed a higher than average share of women. In 1997 women represented 58% of the retail trade workforce in the European Union. The only two countries where the share dropped below 50% were Greece and Italy, although female employment was still higher in these two countries than for services as a whole.

Personnel costs tended to be notably low in retail trade, although there was a wide diversity between the Member States. Whilst personnel costs in Italy amounted to 28.2 thousand ECU per employee, in Portugal they totalled only 7.5 thousand ECU per employee. Productivity ratios were also lower than in this activity than almost any other NACE Rev. 1 market services' Divisions for which data was available.

Retail trade had the highest share of part-time workers (28%) amongst all service sector Divisions. In the Netherlands and the United Kingdom part-time workers represented more than half of the total workforce. On the other hand, in Portugal, Italy and Greece part-time labour constituted less than one tenth of the total workforce. As in other areas of distribution, retail trade earnings were generally very low. Again the lowest figures were found in Portugal and the highest earnings in Denmark (true for both part-time and full-time employees).

The share of persons employed in retail trade with a higher education was significantly below most other service sectors. In Austria only 2% of the workforce had a higher education degree, whilst in Belgium the figure rose to as high as 17%. Working on Saturdays was considerably more common than in other NACE Rev. 1 Divisions.

Hotels and restaurants (NACE Rev. 1 55)

This section covers the provision of short-stay lodging in hotels, motels, camping sites, mountain refuges, youth hostels and holiday chalets and the sale of meals and drinks in restaurants, bars, canteens and catering. Examining the data available, the average size of enterprises in this sector did not change greatly from one country to another, ranging from 3.3 persons employed per enterprise in France to 5.8 persons in Denmark (1995). Compared to other service activities this level was rather low.

Employment in this sector reached 6.1 million persons in the European Union in 1997 (Labour Force Survey), 71% of which were employees. This share was somewhat lower than the average for services. Of the remaining members of the workforce, 6% were family workers, 10% self-employed persons without any employees and 13% were self-employed with employees. The share of self-employed persons was highest in Belgium, amounting to just more than 36%. The lowest share of self-employed persons in the workforce was recorded in Denmark, with only 13%. As in most other service sector NACE Rev. 1 Divisions, Luxembourg had the highest share of employees with an indefinite duration contract (98%), whilst Spain had the lowest share (52%).

Women represented more than half of the workforce in this particular activity, exceeding the service sector average considerably. Spain and Greece displayed the lowest shares for women in total employment at 43%, whilst Finland reported the highest share at 67%.

Personnel costs were rather low compared to other service sector activities, ranging from 6.2 thousand ECU per employee in Portugal (1995) to 28.1 thousand ECU per employee in Denmark (1995).

The share of part-time employment in the activity of hotels and restaurants was one of the highest shares in the service sector at 27%, just behind retail trade (28%). However, the ratios varied significantly between countries. In Luxembourg, Portugal and Greece the share of those working part-time was below 10%, whereas in the Netherlands it approached the 60% mark. Earnings were highest in Denmark, both for part-time and full-time workers. Part-time employees in Denmark had average earnings above the EU figures for full-time employees. In all other countries average earnings were clearly below EU service sector averages.

Persons with a higher education represented just 7% of the total workforce, well below the EU average of 18% for the service sector. Comparing data between countries, we could note that Austria had the lowest share (just above 1%), followed by Italy and Portugal (2%). Ireland had the highest share, with the highly educated accounting for almost 19% of the Irish workforce in the activity of hotels and restaurants. Another indicator that differed considerably from the EU service sector average was the number of persons working on Saturdays and Sundays. Indeed, some 51% of the workforce in the hotel and restaurant sector of the EU economy worked on Sundays, whereas the EU average for services amounted to only 13%.

Table 5.4: main indicators for hotels and restaurants, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	15,8	27,2	17,4	110,0
DK (1)	13 657	5,8	0,2	28,1	:	:	:
D	:	:	:	:	:	:	:
EL	:	:	:	:	:	:	:
E	258 085	:	:	:	:	:	:
F	202 253	3,3	0,2	21,6	35,7	24,6	113,8
IRL	:	:	:	:	:	:	:
I (1)	207 499	3,5	0,1	16,0	24,7	16,1	100,4
L	2 597	4,1	0,3	19,2	32,3	29,0	151,0
NL (1)	41 096	:	0,3	14,8	44,7	:	:
A (2)	40 504	4,5	0,2	18,3	37,9	21,6	117,8
P (1)	38 349	4,2	0,1	6,2	:	:	:
FIN	9 228	4,6	0,4	22,8	27,5	27,9	122,0
S	18 507	:	0,3	24,7	:	:	:
UK	109 532	:	0,5	:	28,6	:	:

(1) 1995.

(2) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

Land transport (NACE Rev. 1 60)

Land transport covers freight and passenger transport by road and via railways and transport via pipelines. Amongst those countries for which data were available, the average size of enterprise ranged from relatively small in Finland (where the average enterprise employed 3 persons) to relatively large in Luxembourg (where the average enterprise employed 15.5 persons). Compared to the other transport Divisions of the NACE Rev. 1 classification, the size of enterprises in land transport was however rather small.

More than 3.8 million persons were employed in the activity of land transport in 1997 (Labour Force Survey). This represented roughly 7% of total employment in the service sector of the EU. The share of employees was equal to 79%, which was in line with the service sector average. Of the remaining 21% of the workforce, 15% were self-employed without employees, 5% were self-employed with employees and 1% were family workers. As in other service sectors, the share of self-employed in total employment was particularly high in Greece, where it reached almost 52%. In Luxembourg, the self-employed accounted for only 4% of total employment. Over 92% of employees within this activity in the EU had an indefinite duration contract. Spain reported the most insecure labour market, with only 72% of employees boasting an indefinite duration contract.

Table 5.5: main indicators for land transport, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	41,0	47,0	47,6	116,3
DK	:	:	:	:	:	:	:
D	:	:	:	:	:	:	:
EL	:	:	:	:	:	:	:
E	:	:	:	:	:	:	:
F	79 488	8,0	0,5	32,2	44,8	26,8	83,3
IRL	2 593	8,3	0,4	:	:	20,1	:
I (1)	132 074	4,3	0,2	29,8	38,7	21,1	70,9
L	578	15,5	1,3	37,2	40,9	47,5	127,6
NL (1)	10 866	:	1,0	27,0	48,3	:	:
A (2)	9 398	13,8	0,7	30,5	56,6	31,6	103,5
P (1)	13 229	5,7	0,2	12,4	:	:	:
FIN	19 688	3,0	0,2	31,2	42,0	44,4	142,4
S	:	:	:	:	:	:	:
UK	47 566	:	0,6	:	33,2	:	:

(1) 1995.

(2) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

The land transport sector was dominated by men in terms of the composition of the workforce, with women accounting for only 12% of the total number of persons employed, well below the service sector average. This trend was particularly pronounced in Greece, where only 2% of the workforce were women. Even the highest shares amongst EU countries showed low levels of female participation, 17% in Germany.

Personnel costs were well above the average in Belgium, amounting to 41 thousand ECU per employee. In the rest of the countries for which data were available, the figure ranged from 12.4 thousand ECU per employee in Portugal to 37.2 thousand ECU per employee in Luxembourg. When compared to value added per person employed, these figures revealed productivity ratios amongst the Member States, ranging from 70.9% in Italy to 142.4% in Finland.

Part-time work was not very common in this activity. In the European Union only 7% of those employed were working part-time. In Greece part-time work was practically non-existent, representing just above 1% of the workforce. There were only four countries where the share of part-time work was equal to or exceeded 10% of the workforce, the Netherlands (19%), Sweden (14%), the United Kingdom (11%) and Denmark (10%). Gross monthly earnings were lowest in Portugal, both for part-time and for full-time employees. Full-time employees in Luxembourg had the highest earnings, whereas the highest earnings for part-time workers were found in Denmark.

Looking at the educational attainment of the EU workforce, we find that persons employed with a higher education accounted for a relatively low share of the land transport workforce, representing only 7% of the total in 1997. This was well below the EU service sector average of 18%. In Austria the share was particularly low, reaching only 1%. In contrast, Germany had a share of 12%, which despite being the highest figure in the EU was still well below the EU services' average.

Water transport (NACE Rev. 1 61)

Water transport services include sea, coastal and inland water transport of passengers and freight, whether scheduled or not. Amongst those countries where data was available, the average enterprise size was quite high. However, there were wide disparities in the data by Member State, ranging from an average of just 3 persons per enterprise in Luxembourg to almost 49 persons in Ireland.

In total there were an estimated 260 thousand persons employed in the European Union in the activity of water transport, representing barely half a percentage point of total EU employment in the service sector (Labour Force Survey). Of these persons, some 94% were employees and the share of the self-employed without employees and the self-employed with employees was equivalent to roughly 3% of the total number of persons employed. This share rose quite dramatically in two countries, the Netherlands (16%) and Germany (12%), where freight transport via rivers and canals is often carried out by family concerns and self-employed persons. More than 88% of the workforce had an indefinite duration contract. Again, Luxembourg was the country with the highest number of contracts of an indefinite nature (with practically the whole workforce employed with this status). In Spain persons with an indefinite contract accounted for only 63% of the total number of persons employed.

Table 5.6: main indicators for water transport, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	45,0	9,2	61,5	136,7
DK	:	:	:	:	:	:	:
D	:	:	:	:	:	:	:
EL	:	:	:	:	:	:	:
E	25	:	:	:	:	:	:
F	1 966	7,6	2,3	44,8	13,0	35,1	78,3
IRL	37	48,8	8,1	:	:	56,9	:
I (1)	1 047	24,6	4,5	33,4	18,5	65,4	195,6
L	23	3,0	0,3	21,2	29,5	58,5	275,8
NL (1)	4 770	:	0,8	35,7	15,8	:	:
A (2)	95	3,3	1,0	58,3	24,8	45,2	77,4
P (1)	66	31,0	5,3	19,1	:	:	:
FIN	286	28,9	6,1	39,2	20,2	67,7	172,6
S	669	:	4,9	38,1	:	:	:
UK	1 161	:	6,1	:	16,5	:	:

(1) 1995.

(2) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

The share of women in the European Union's water transport workforce (16%) was well below the average for services. This was particularly the case in Greece and Italy, where the shares were equal to just 2% and 5% respectively. In Luxembourg women accounted for a majority of the jobs (58%). No other country reported that women were in the majority for this activity. Finland (46%) and Austria (31%) followed Luxembourg in the ranking.

Amongst those countries for which data was available, personnel costs ranged between 19.1 thousand ECU per employee in Portugal (1995) and 58.3 thousand ECU per employee in Austria (1995). When compared to value added per person employed, these figures revealed that there was a high degree of deviation in the resulting productivity ratios. Whilst in Austria (1995) value added only covered personnel costs to the order of 77.4%, in Luxembourg the wage adjusted labour productivity ratio reached 275.8%.

Only 6% of workers in this sector were working part-time in the European Union, a third of the average for the service sector. In Luxembourg and Greece there were almost no part-time workers at all. The share was also very low in Italy and the United Kingdom (around 2%), as well as in Belgium, Portugal (both 3%) and Ireland (4%). On the other hand, in Austria (31%) and the Netherlands (27%) the highest shares of part-time work in the total number of persons employed was recorded. Part-time earnings were lowest in Portugal, the United Kingdom and Italy, whilst in Denmark they were highest (as in practically all service activities). Denmark's full-time employees also earned higher average earnings than in any other European country.

The share of workers with a higher education in the water transport sector was above the services average at 24%. This was particularly the case in Luxembourg, where 58% of persons employed possessed a higher education. High ratios were also recorded in Denmark and Sweden, where the share of persons with a higher education reached 43% and 38% respectively of the national workforce. At the other end of the scale, Italy with just 4% and Portugal with 6% had the lowest shares. Sunday work was particularly high in this sector. The share of persons working on Sundays was more than triple the EU average for services.

Air transport (NACE Rev. 1 62)

This sector covers the transport of passengers or freight by air and includes space transport (for example, the launching of satellites). The average size of enterprises in this sector was understandably larger than in other NACE Rev. 1 Divisions. Amongst those countries where data was available, Spain had by far the largest average enterprises with over 1.2 thousand persons employed per enterprise. This constituted almost twice the number of persons employed on average per enterprise in Portugal, the country with the second largest enterprise size. It was therefore no surprise to find that Spain and Portugal also had the lowest number of enterprises (25 and 13, as opposed to 962 in the United Kingdom).

Employment in air transport was estimated to equal some 367 thousand persons, under 1% of total employment in the service sector of the EU economy (Labour Force Survey). Practically all the persons employed were employees. The share of employees with an indefinite contract was equal to 91% in the European Union in 1997. This was more or less in line with the average for the service sector. In Denmark the share rose to almost 100%, whereas in Spain it reached only 68%.

Table 5.7: main indicators for air transport, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	47,8	22,8	48,5	101,5
DK	251	42,3	7,6	42,2	26,1	:	:
D	283	165,8	50,6	:	:	:	:
EL	:	:	:	:	:	:	:
E	25	1 226,8	169,6	43,3	33,2	56,7	130,9
F	548	108,7	21,6	55,1	28,6	58,8	106,8
IRL	32	183,2	34,5	:	:	57,3	:
I	:	:	:	:	:	:	:
L	:	:	:	:	:	:	:
NL (1)	59	:	:	:	:	:	:
A (2)	87	77,9	19,0	47,4	21,6	65,6	138,4
P (1)	13	707,4	70,4	33,1	:	:	:
FIN	69	112,7	17,5	44,2	31,3	62,2	140,6
S	:	:	:	:	:	:	:
UK	962	:	16,9	:	17,6	:	:

(1) 1995.

(2) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

Women made up 38% of the total workforce, a share somewhat lower than the average for the service sector. In Sweden and Finland women constituted a clear majority of the persons employed in air transport (with around 66% of the total). The converse was true in Italy, where women were clearly under-represented in the workforce, with just 25% of the total.

Personnel costs per employee were higher than in any other NACE Rev. 1 transport Division, averaging almost 50 thousand ECU amongst those countries for which data was available. In France personnel costs per employee rose to as high as 55 thousand ECU per employee. There was little diversity between countries, as Portugal (1995) recorded the lowest figures, 33.1 thousand ECU per employee. Wage adjusted labour productivity ratios were not particularly high in this activity, ranging from 141% in Finland to 102% in Belgium.

As is other transport Divisions of the NACE Rev. 1 classification, the share of part-time work in total employment was below the EU average for services. In Austria there were literally no persons working on part-time basis and in many other countries such as Greece, Ireland, Italy, Luxembourg and the United Kingdom the share remained below the level of 5%. The Netherlands had the highest share, with 22% of the workforce employed on a part-time basis. Earnings for full-time workers were lowest in Greece and those for part-time workers were lowest in Portugal. They were highest in Denmark, both for part-time and for full-time workers.

The share of the workforce with a higher education was considerably higher than the average for the service sector. Within the EU the figure averaged 28%, whilst at the top of the ranking the Netherlands saw its share rise as high as 40%. Italy recorded the lowest share within the Union at just 11%. Work on Sunday was again very common (as in the other transport sectors of the economy).

Supporting auxiliary transport services (NACE Rev. 1 63)

This activity covers supporting and auxiliary transport activities, such as cargo handling, storage and warehousing, the operation of terminal facilities such as railway stations, bus stations, harbours and piers, airway terminals, activities of travel agencies and tour operators. The average size of EU enterprises was generally small in this activity - especially when compared to other transport activities. If we take the number of persons employed per enterprise as a measure of size, French enterprises were the largest in Europe with an average of 22.7 persons employed, whilst the smallest enterprises were found in Italy (1995), with an average of 9.8 persons.

Total employment in this sector was estimated at over 1.8 million persons employed in 1997 (Labour Force Survey). This figure was equivalent to more than 40% of the total number of persons employed in land, water and air transport combined. Some 91% of those employed had the status of being employees. In Luxembourg practically the whole labour force were employees, whereas in Italy the lowest share within the Union was recorded. The share of the self-employed accounted for only 9% of the total number of persons employed, broken down as 5% with employees and 4% without employees. These figures were much lower than the averages for other service sectors. Family work was negligible,

except in Greece and in Italy, where it constituted 2% of total employment. In line with the service sector average, nine out of ten workers in the European Union had an indefinite duration contract. As in many other service activities, practically all of Luxembourg's workforce had a contract of unlimited duration, whilst the lowest share was found in Spain, where just 74% of those employed enjoyed a contract of unlimited duration.

The share of women in total employment, at 31%, was well below the services average. However, there were a couple of countries where women accounted for a larger share of the workforce. This was most notably the case in Luxembourg (67%) and Finland (48%). In Spain the female share of total employment was the lowest in the EU at just 22%.

Personnel costs ranged from 18.3 thousand ECU per employee in Portugal (1995) to 39.3 thousand ECU per employee in Luxembourg (1995). There was one exception to this rule, in Belgium unit personnel costs amounted to 52.1 thousand ECU per employee.

Part-time work accounted for a lower than average share of total employment in this activity (10%). There were however large variations amongst the countries for this indicator. In Greece and Portugal, part-time work was not at all common, accounting for just 2% of the workforce in both countries. On the other hand, in the Netherlands (where part-time work is very common) the share rose to as high as 24%. Gross monthly earnings were lowest in Greece, both for part-time and for full-time employees. Once more, average earnings were highest in Denmark.

Table 5.8: main indicators for supporting auxiliary transport services, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	52,1	17,6	70,2	134,6
DK	:	:	:	:	:	:	:
D	:	:	:	:	:	:	:
EL	:	:	:	:	:	:	:
E	16 730	:	:	:	:	:	:
F	9 670	22,7	3,8	32,7	22,2	49,8	152,2
IRL	804	13,6	2,2	:	:	34,6	:
I (1)	19 535	9,8	1,3	27,0	19,6	42,2	156,6
L (1)	154	10,7	3,1	39,3	13,5	48,0	122,2
NL (1)	4 657	:	1,7	32,9	34,4	:	:
A (2)	2 098	13,7	3,2	36,8	14,6	56,9	154,6
P (1)	1 506	14,8	2,0	18,3	:	:	:
FIN	1 310	14,3	3,0	30,8	15,3	43,9	142,6
S	:	:	:	:	:	:	:
UK	16 856	:	2,3	:	15,5	:	:

(1) 1995.

(2) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

Post and telecommunications (NACE Rev. 1 64)

Post and telecommunications cover the pick-up, transport and delivery (domestic or international) of mail and parcels by national post and couriers other than the national post, and the transmission of sound, images, data or other information via cables, broadcasting, relay or satellite. The average size of enterprises in this activity was larger than almost any other service sector, ranging from 35.4 persons employed (Denmark) to 761.3 persons employed per enterprise (Portugal, 1995). This was due to the weight of large national post and telecommunications companies. Interestingly, the country with the highest absolute number of enterprises was not Germany, but Spain (4.8 thousand enterprises). Spanish figures reported one thousand more enterprises than in Germany.

The Labour Force Survey estimates that 2.6 million persons were employed in the post and telecommunications sector in the European Union in 1997. This represented some 5% of total employment in the European Union service sector. The share of employees was very high, exceeding 97%. The two countries deviating somewhat from the average were Ireland with 91% and the United Kingdom with 94%. It was interesting to note that these two countries were the first to deregulate markets for telecoms and postal services. The share of self-employed without employees was 7% and 4% in Ireland and the United Kingdom, whilst the share of the self-employed with employees was equal to 2% in both countries. In the remainder of the countries the shares of the self-employed and also family workers were negligible. However, the share of workers with an indefinite duration contract was higher than the EU average for services. As in most NACE Rev. 1 Divisions, the highest shares could be found in Luxembourg (98%) and the lowest in Spain (84%). However, in comparison to other service activities the figure for Spain was comparatively high.

The share of women in the workforce was also below the service sector average. Women represented 35% of the European Union's telecoms and postal services' workforce in 1997. The share was highest in Finland (46%) and lowest in Greece (19%).

Amongst those countries for which data was available, unit personnel costs ranged between 20.5 thousand ECU per employee in Portugal (1995) and 40.4 thousand ECU per employee in Luxembourg. Comparing these figures with those for value added per person employed, the resulting wage adjusted labour productivity ratios were high for most countries, with Luxembourg the highest (360.7%).

Table 5.9: main indicators for post and telecommunications, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	38,5	62,3	61,0	158,4
DK	1 565	35,4	3,2	32,2	45,6	:	:
D	3 845	:	9,1	:	:	:	:
EL	:	:	:	:	:	:	:
E	4 807	:	:	:	:	:	:
F	2 109	214,2	18,3	36,0	58,4	59,3	164,6
IRL	528	42,2	4,2	:	:	66,5	:
I (1)	1 917	153,9	10,9	26,5	61,5	57,1	215,8
L	65	54,9	13,2	40,4	32,8	145,8	360,7
NL (1)	1 541	:	6,4	27,6	45,6	:	:
A	302	182,5	16,6	:	:	:	:
P (1)	49	761,3	53,1	20,5	:	:	:
FIN	369	122,2	8,8	24,3	44,7	42,7	176,0
S	412	:	20,0	38,4	:	:	:
UK	:	:	:	:	:	:	:

(1) 1995.

For further information: SBS

As in other service activities, the shares of part-time workers varied considerably between countries and it was no surprise to find that the highest shares were in the Netherlands (35%) and the lowest in Portugal (1%) and Greece (3%). The European Union average of 14% was below that for the service sector as a whole (19%). Earnings for part-time workers were lowest in Greece and highest in Luxembourg, whereas full-time worker's earnings were lowest in Portugal and highest in Denmark.

The share of workforce with a higher education (15%) was some 3 percentage points below the EU average for all service activities. There was a rather large difference between the lowest shares in Austria (3%) and the highest shares which were found in Spain (31%).

Banking (NACE Rev. 1 65.12)

Financial intermediation is covered by Division 65 of the NACE Rev. 1 classification. The activities of credit institutions are covered by class 65.12 that includes monetary intermediation activities, other than central banking.

According to official business statistics there were just under eight thousand credit institutions active in the EU in 1997, controlling a network of almost 204 thousand local units, with an average of 13 persons for each local unit.

Financial intermediation as a whole is also a very important sector in terms of employment. The annu-

al Labour Force Survey conducted within the EU estimated that the banking workforce of the EU was equivalent to 3.3 million persons in 1997, with almost all of them employees. Banking is indeed a sector where self-employment is extremely limited, representing under 2% of the EU workforce. Amongst the employee population, job security was high given that 94% of employees were working with a contract of unlimited duration. This was the highest share found in all service activities. The same was true when studying all Member States: indeed, when looking at the countries with the lowest proportion of indefinite duration contracts, we find that Germany and Greece still boasted 92% of their employees in this category.

The presence of women in the financial intermediation workforce was equivalent to almost one half. Women accounted for more than 47% of the number of persons employed. Finland boasted a far higher female participation rate, equivalent to around 80% of the total number of persons employed. Six other EU countries recorded more women than men within the activity of financial intermediation. The lowest shares of female participation were found in Portugal (35%), Italy (31%) and Spain (27%), all clearly below the average.

Part-time work was not very common in financial intermediation activities. Only 12% of the persons

Table 5.10: main indicators for banking, 1995

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	143	535,2	282,5	:	:	:	:
DK	204	228,9	53,2	:	:	115,8	:
D	:	:	:	:	:	:	:
EL	:	:	:	:	:	:	:
E	318	770,2	:	:	65,6	:	:
F	596	:	582,8	:	5,1	:	:
IRL	:	:	:	:	:	:	:
I	970	348,3	106,6	:	62,5	:	:
L (1)	256	69,8	:	67,0	46,2	114,9	171,4
NL	174	:	224,5	:	53,9	:	:
A	944	70,7	26,2	:	:	:	:
P	240	262,7	54,6	:	64,9	:	:
FIN	355	88,2	19,5	:	:	:	:
S	116	373,3	137,0	:	:	:	:
UK	561	:	:	:	:	:	:

(1) 1996.

For further information: SBS

employed in 1997 did not work full-time, whilst the average for services was equal to 19%. However, some countries showed a higher penetration of part-time work, such as the Netherlands (24% of the workforce) or Sweden (20%). At the opposite end of the ranking, part-time work concerned only 0.7% of the persons employed in Greece and 1.7% of those employed in Spain. Average gross monthly earnings of part-time workers were highest by far in Denmark at 2.4 thousand ECU in 1995, followed by Luxembourg and Belgium (both equal to 1.6 thousand ECU). More generally, earnings for the whole of the financial intermediation workforce were clearly above the services' average at 2.3 thousand ECU per head, ranging from 1.2 thousand ECU in Greece to 3.4 thousand ECU in Luxembourg.

One distinctive characteristic of financial intermediation activities was the relatively high proportion of persons employed with a higher education degree. They accounted for more than one-quarter of the workforce in 1997, and exceeded 30% in the majority of countries, compared to an average of just 18% for the typical service activity. The number of highly educated persons even outnumbered all other persons employed in Belgium, whilst in Austria their presence accounted for under 10% of the total number of persons employed.

Insurance (NACE Rev. 1 66.01 and 66.03)

Activities of insurance are covered by Division 66 of the NACE Rev. 1 classification, they include life and non life insurance, as well as pension funding. Within insurance, business statistics reported that there were more than 4.2 thousand enterprises active in the EU in 1996 (estimation). More than 60% of those were non-life insurance enterprises and more than one-fifth were life insurance enterprises, the rest being shared between composite insurance enterprises and specialist reinsurance enterprises. Insurance enterprises wrote gross premiums worth a total value of almost 570 billion ECU, a majority of which was accounted for by life insurance (43%), ahead of non-life insurance (38%).

Employment in insurance and pension funding was estimated at 1.2 million persons in the EU in 1997 (Labour Force Survey). Of these, 86% were employees, 8% self-employed without employees, 5% self-employed with employees and less than 1% family workers. Employees benefited from a relatively high level of job security, with 93% working under a contract of unlimited duration, the second highest share of all service activities after financial intermediation. The lowest proportions were found in Greece (79%) and Sweden (86%), whilst all other countries displayed shares well above 90%.

The proportion of women employed in the insurance and pension funding industry was almost identical to the figures for banking. Women accounted for 46% of the total number of persons employed. Only two countries reported that there were more women employed in this sector than men; they were Finland (64%) and France (62%). At the other end of the ranking, the Netherlands recorded a female presence equivalent to only 37% of the total, the lowest figure in the EU, closely followed by Austria (38%).

Table 5.11: main indicators for insurance, 1995

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	124	55,9	36,0	:	25,9	132,9	:
DK	236	59,3	34,4	:	36,7	:	:
D	462	489,0	263,8	:	32,7	:	:
EL	:	:	:	:	:	:	:
E	:	:	:	:	:	:	:
F	482	:	222,1	:	:	:	:
IRL	86	92,0	42,9	:	:	:	:
I	201	:	69,4	:	:	:	:
L	:	:	:	:	:	:	:
NL	:	:	:	:	:	:	:
A (1)	135	238,6	81,5	:	46,3	53,1	:
P	42	151,3	52,1	:	:	:	:
FIN	165	55,9	20,7	:	:	:	:
S	:	:	:	:	:	:	:
UK	:	:	:	:	:	:	:

(1) 1996 for number of enterprises.
For further information: SBS

Part-time work was not particularly prevalent in insurance and pension funding activities. Only 12% of the persons employed in 1997 were found to be working part-time, compared to some 19% for the whole of services in the EU. The Netherlands and Sweden displayed a significantly higher number of part-time workers, with shares equivalent to 24% and 23% respectively. Greece and Ireland were found at the opposite end of the spectrum, with less than 3% of those employed working part-time. Monthly gross earnings of part-time workers were on average highest in Denmark, equal to 2.6 thousand ECU in 1995, ahead of Luxembourg (where they were just above 2 thousand ECU). More generally, earnings in insurance and pension funding activities were slightly above the average for EU service sectors at 2.2 thousand ECU, ranging from 1.2 thousand ECU in Portugal up to 3.7 thousand ECU in Denmark.

The education level of persons employed in insurance and pension funding activities was generally above the average for service sectors. Indeed, about one-quarter of the persons employed in the sector had a higher education degree in 1997, and the ratio even exceeded two-fifths in both Ireland (43%) and Belgium (44%). Austria had the lowest share, with only 8.5% of the workforce highly-educated.

Real estate (NACE Rev. 1 70)

Real estate services cover those activities related to buying, selling, renting and appraising real estate. Enterprises active in this sector can be very different in size, ranging from persons operating on their own account with no employees to big multi-national companies managing large property portfolios in several countries. The average real estate enterprise in Europe employed only 2 to 3 persons, a level relatively low amongst service activities and an indication of the preponderance of small and medium-sized enterprises in this activity.

Employment totalled more than 1.2 million persons in 1997 of which 80% were employees, a proportion in line with the average for service activities (Labour Force Survey). Amongst those that were not employees, 12% were self-employed with no employees, 7% self-employed with employees and 1% were family workers. The rate of self-employment was significant in Greece at 80%, four times the EU average. This contrasted with Austria, where less than one out of ten persons working in the sector was self-employed. More than 90% of employees in this activity had an indefinite duration work contract, although in Spain the figure dipped to 57% of the total.

Table 5.12: main indicators for real estate, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	32,3	14,7	67,1	208,1
DK	:	:	:	:	:	:	:
D	:	:	:	:	:	:	:
EL	:	:	:	:	:	:	:
E	54 967	:	:	:	:	:	:
F	132 235	2,3	0,4	31,5	18,2	64,2	203,4
IRL	1 957	2,9	0,2	:	:	36,1	:
I (1)	99 998	1,6	0,1	19,8	7,2	48,3	243,6
L	657	1,7	0,4	29,1	11,8	67,6	232,2
NL	:	:	:	:	:	:	:
A (2)	3 943	5,0	1,3	32,7	15,3	108,8	333,2
P (1)	5 476	3,1	0,2	11,1	:	:	:
FIN	6 378	2,6	0,3	27,9	22,9	53,9	193,5
S	:	:	:	:	:	:	:
UK	:	:	:	:	:	:	:

(1) 1995.

(2) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

Real estate services tended to employ a fairly high share of women, indeed almost half of the workforce were women in 1997. Greece was the Member State displaying the lowest proportion of women (19%) in its workforce, whilst Austria had the highest share (equal to some 72%).

Unit personnel costs tended to be lower in real estate activities when comparing to other service activities. In most countries for which data was available unit personnel costs averaged 30 thousand ECU per employee. Figures were somewhat lower in Italy (at 19.8 thousand ECU per employee, 1995) and in Portugal (11.1 thousand ECU per employee, 1995), whilst they reached 32.7 thousand ECU per employee in Austria (1995). When compared to per capita value added, these figures revealed particularly high wage adjusted labour productivity ratios, exceeding 200% in most countries.

With more than one fifth of the persons employed working part-time, real estate services ranked amongst the services with the highest part-time workforces, following retail trade (28%) and hotels and restaurants (27%). Luxembourg and Ireland were the only two countries where part-time work concerned less than a tenth of the workforce, whilst more than one-third of the persons employed in Austria worked part-time. Earnings in Portugal were the lowest in Europe for this activity, both for part-time and full-time employees. Earnings were again highest in Denmark (in common with most other services).

One striking characteristics of the real estate workforce was the relatively high share of persons with a higher education. Although far behind computer activities or research and development, real estate did report that 23% of all persons employed had a higher education degree. This was an almost identical figure to financial intermediation activities and well above the average for services as a whole.

Renting (NACE Rev. 1 71)

Renting services include the renting of automobiles or other transport equipment, machinery and personal and household goods. Operational leasing which is normally long-term rental is covered, but financial leasing which is normally a special form of credit granting is not. According to official business statistics, enterprises active in renting activities employed on average 3 to 4 persons in 1996, a level relatively low amongst service activities.

Renting activities employed just under 300 thousand persons in the EU in 1997 (Labour Force Survey). Salaried employment represented a relatively high proportion of the total, exceeding 86%. Some 90% of employees had an indefinite duration work contract, and in some countries practically all employees enjoyed this benefit. However, more than half of the employees in Spain and more than a third in Greece worked under a limited duration contract. The share of self-employed persons in the total number of persons employed in renting services was much lower than for the whole of the tertiary sector at just 13.5%. This low figure could be largely attributed to the low shares recorded in France (5.4%) and the United Kingdom (6.5%). In the majority of the other Member States, there was a high number of self-employed persons, often above 20%. This was particularly the case in Finland (40%) and Greece (57%). In the latter, there were a large number of self-employed persons with no employees. Indeed, this group even exceeded the number of employees in absolute terms.

Women represented less than a third of the renting services workforce, a relatively low proportion in comparison with the average for service activities. In Portugal and Luxembourg women even accounted for less than a fifth of the number of persons employed, whilst at the other extreme in Austria they represented more than half of the workforce.

Personnel costs tended to be lower in renting activities than in other services activities. They were around 30 thousand ECU per person in the majority of Member States. Amongst the countries for which data was available, Belgium displayed the highest level of personnel costs at 38.6 thousand ECU per employee, more than three times the Portuguese figure. A measure of productivity can be created by comparing these figures to those for value added per capita. The resulting ratio was generally the highest of any service activity. Wage adjusted labour productivity rose well above 300% in most countries, indicating that value added covered personnel costs more than three times over. The ratio even reached 579% in Luxembourg and 582% in Austria.

Table 5.13: main indicators for renting, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	38,6	15,5	123,1	318,7
DK (1)	4 404	1,5	0,2	33,8	:	:	:
D	24 714	:	1,2	:	:	:	:
EL	:	:	:	:	:	:	:
E	16 754	:	:	:	:	:	:
F	19 325	3,4	0,7	30,6	21,0	118,3	386,5
IRL	1 129	4,6	0,3	:	:	27,8	:
I	:	:	:	:	:	:	:
L	174	2,9	1,4	37,0	11,4	214,3	578,7
NL (1)	5 315	:	0,8	24,4	20,9	:	:
A (2)	1 585	3,8	1,1	30,9	20,2	179,7	581,8
P (1)	1 271	2,4	0,1	10,3	:	:	:
FIN	946	2,5	0,4	28,7	23,2	69,2	241,4
S	:	:	:	:	:	:	:
UK	9 404	:	1,6	:	26,7	:	:

(1) 1995.

(2) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

A smaller than average proportion of the persons employed in renting activities worked part time, some 15% of the total workforce. Austria, Sweden and the Netherlands were the only countries where part-time work was clearly well above the level of the other countries, at around 30%. Earnings of people working full-time in Denmark and Luxembourg were the highest in Europe, at around 3 thousand ECU per month, about double the average level recorded in the euro-zone and more than three times the earnings of Spanish and Portuguese workers. Earnings of part-time employees were lowest in Spain and the United Kingdom at around 535 ECU per month.

Persons with a higher education level accounted for a low share of the workforce in renting services. They represented only 16% of the workforce, with a range extending from less than a tenth of the workforce in Greece, Italy and the Netherlands to three-quarters of the workforce in Luxembourg.

Computer services (NACE Rev. 1 72)

Software and computing services covered by Division 72 of the NACE Rev. 1 classification includes hardware and software consultancy services, analysis, design and programming of ready to use software (customised or not), data processing and database activities, as well as the maintenance and repair of office machinery.

Official business statistics reveal that the average size of computer service enterprises was between six and eight persons per enterprise in 1995. The annual Labour Force Survey estimated total employment in the sector exceeding 1.2 million persons in 1997, of which 83% were employees, 11% self-employed without employees and 5% self-employed with employees, less than 1% were family workers. Amongst those that were employees, 91% had an indefinite duration work contract, a share that was the third highest amongst service activities. Only three Member States displayed a share of limited duration contracts above 10%; they were Luxembourg, Portugal and Spain (where figures showed in excess of 40% of employees with a limited duration contract). Self-employment was most common in Italy, whilst the average for the EU was equal to 17%.

Female employment in computer services was amongst the lowest recorded in the whole tertiary sector, as women accounted for only one-quarter of the total number of persons employed. These trends were seen across practically all countries, with the share of women in the workforce showing only a small degree of variability across the EU. If we rank the countries based on the share of women in their respective total number of persons employed, we find that the two extremes were 8% in the Netherlands and 33% in Ireland.

Table 5.14: main indicators for computer services, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	51,4	35,6	54,2	105,3
DK (1)	6 734	3,2	0,4	47,0	:	:	:
D	33 914	:	0,6	:	:	:	:
EL	:	:	:	:	:	:	:
E (2)	13 449	5,2	0,3	26,2	42,5	30,5	116,5
F	25 819	7,3	0,8	46,8	44,4	51,6	110,1
IRL	956	8,1	0,6	:	:	43,1	:
I (1)	45 475	4,3	0,3	27,1	34,9	31,5	116,2
L	370	6,2	0,7	42,7	41,0	48,1	112,7
NL (1)	9 573	:	0,5	43,8	65,2	:	:
A (3)	4 830	3,4	0,5	45,1	34,0	64,8	143,6
P (1)	639	5,1	0,3	19,3	:	:	:
FIN	2 824	5,7	0,6	41,3	41,7	54,1	131,0
S	:	:	:	:	:	:	:
UK	64 295	:	0,3	:	40,2	:	:

(1) 1995.

(2) 1995, except for number of enterprises.

(3) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

Personnel costs were generally higher in computing activities than in other services. In most countries for which data was available they averaged around 45 thousand ECU per employee. Belgium displayed the highest level of unit personnel costs at 51.4 thousand ECU per year, more than two and a half times the level of Portugal. Labour productivity as measured by value added per capita exceeded unit personnel costs in all countries, rising to 143.6% in Austria (1995).

Part-time work was not very common in computer services. It accounted only for 8% of employment in 1997, the third lowest share in service activities. The share was as low as 5% in the majority of countries, and greater than 10% in only three; the United Kingdom (10%), Germany (12%) and Portugal (13%), all of these figures remained well below the average of 19% recorded for the whole EU tertiary sector. Monthly earnings of part-time employees in computer services were the lowest in Portugal (560 ECU) and Spain (430 ECU). More generally, earnings in computer services were the second highest of all service activities (following research and development) at 2.2 thousand ECU per employee in 1995 (ranging from 1.2 thousand ECU in Portugal to 3.9 thousand ECU in Denmark).

A characteristic typical to computer services was the very high average education level of its workforce. More than half the persons employed had a higher education degree, a proportion exceeded only by research and development activities. The proportion of highly educated persons in the workforce was almost three times higher than the average for the whole of services. Only four Member States displayed figures noticeably under the 50% level; they were Finland (35%), Portugal (28%), Italy (25%) and Austria (18%).

Research and development (NACE Rev. 1 73)

Activities of research and development are covered by Division 73 of the NACE Rev. 1 classification, including basic research, applied research and experimental development in natural sciences, engineering, social sciences and humanities. Unfortunately the scarcity of data on these activities renders it difficult to get a complete picture of this service activity. For example, the average number of persons employed per enterprise was available for only five countries and showed a great amount of variation from an average of just 3.9 persons in Portugal (1995) to as many as 22.1 persons in Austria (1996).

The annual Labour Force Survey estimated total employment in the activity equal to some 590 thousand persons in 1997, of which 94% were employees. The share of self-employment was amongst the lowest recorded in service activities and the presence of family workers was almost non-existent (0.1%). Employees faced a limited degree of job security, given that as many as 20% of them worked with a limited duration contract. This was the second highest share in the whole tertiary sector, following hotels and restaurants.

Women were not particularly well represented in the R&D workforce. They accounted for 38% of the number of persons employed, below the EU average for service activities. The proportion of women varied considerably across the EU, ranging from just over 30% in Belgium and Germany to as much as 70% in Austria. Nevertheless, the share of women in the R&D workforce remained below national averages in ten out of fifteen countries.

Table 5.15: main indicators for research and development, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	67,6	49,9	77,0	113,8
DK	:	:	:	:	:	:	:
D	5 232	:	0,5	:	:	:	:
EL	:	:	:	:	:	:	:
E	10 136	:	:	:	:	:	:
F	1 750	11,4	1,7	49,8	33,1	52,3	105,0
IRL	69	5,2	0,3	:	:	38,5	:
I	:	:	:	:	:	:	:
L	:	:	:	:	:	:	:
NL	:	:	:	:	:	:	:
A (1)	53	22,1	1,2	58,2	68,5	41,9	72,0
P (2)	22	3,9	0,1	8,0	:	:	:
FIN	149	6,9	0,5	36,4	54,8	42,6	117,1
S	:	:	:	:	:	:	:
UK	2 365	:	2,1	:	45,3	:	:

(1) 1995 for personnel costs, value added and labour productivity.

(2) 1995.

For further information: SBS

Personnel costs were higher in R&D activities than in other services activities. In countries for which data was available unit personnel costs rose to figures generally greater than 40 thousand ECU per employee (except in Portugal). Belgium displayed the highest level, with 67.6 thousand ECU per employee, recording also the highest labour productivity figures (77 thousand ECU of value added generated per capita). A combination of these two figures measures the wage adjusted labour productivity. In one country this ratio showed that personnel costs exceeded value added (Austria).

Part-time work was not a typical feature of R&D activities. It accounted for only 12% of total employment in this activity in 1997. Only one country displayed a marked preference for part-time work, in the Netherlands part-time employment accounted for almost a quarter of the R&D workforce. Part-time workers earnings were highest in Denmark at 3.5 thousand ECU per employee in 1995 followed by the Netherlands at 1.5 thousand ECU. More generally, average monthly earnings in R&D were the highest of all service activities.

The high level of earnings could be explained to a large degree by the educational attainment of the workforce. Indeed, no less than 63% of the persons employed in R&D had a higher education degree, the highest proportion of all services activities and a level even above the education sector. Austria (46%) was the only country to report that the majority of persons employed did not possess a higher education.

Other business activities (NACE Rev. 1 74)

Division 74 of the NACE Rev. 1 classification covers the heterogeneous group of other business activities, covering activities such as legal and consultancy services, architects, advertising, labour recruitment, security or cleaning services. There were a very large number of enterprises active in this sector, and they were on average relatively small in size. Official business statistics showed that they employed on average three to seven persons.

Other business activities ranked as one of the largest service activities, with total employment of almost 8 million persons in the EU in 1997. The annual Labour Force Survey estimated that only 74% of them were employees. The share of self-employment is hence amongst the highest recorded in service activities, ahead of hotels and restaurants and just behind retail trade. About 40% of the self-employed persons also had employees. The share of self-employment was high in all Member States, although Portugal (37%), Italy (47%) and Greece (53%) recorded notably higher than average ratios, whilst the lowest figures were found in France (15%). The frequency of limited duration contracts amongst employees was close to the services average at 15%. Ireland, Austria and Luxembourg were the only countries where more than nine out of ten employees had a contract of indefinite duration.

Table 5.16: main indicators for other business activities, 1996

	Number of enterprises (units)	Average number of persons employed per enterprise (units)	Average turnover per enterprise (million ECU)	Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value-added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)
B	:	:	:	29,2	32,4	34,0	116,4
DK (1)	40 713	3,4	0,2	39,0	:	:	:
D	377 943	:	0,6	:	:	:	:
EL	:	:	:	:	:	:	:
E	282 814	:	:	:	:	:	:
F	271 673	5,0	0,4	32,8	39,0	36,9	112,4
IRL	9 269	7,0	0,3	:	:	26,4	:
I	:	:	:	:	:	:	:
L (1)	2 288	7,0	0,5	26,4	41,3	33,0	124,9
NL	:	:	:	:	:	:	:
A (2)	25 335	6,0	0,4	28,2	42,3	38,8	137,7
P (1)	17 227	5,5	0,4	15,4	:	:	:
FIN	22 634	3,4	0,3	29,8	40,9	39,2	131,5
S	:	:	:	:	:	:	:
UK	:	:	:	:	:	:	:

(1) 1995.

(2) 1995 for personnel costs, value added and labour productivity.

For further information: SBS

Women accounted for more than 47% of the number of persons employed in other business activities. Female participation was highest in Germany (54%), Finland (53%) and Austria (52%), the only countries where women outnumbered men. It was lowest in Greece (41%) and Denmark (43%).

Personnel costs were slightly lower in other business activities than in the rest of the service sector. However, we should note that the NACE Rev. 1 classification divides the activity into a number of Groups which show a wide diversity in personnel costs (see later in this section). Where data was available for NACE Rev. 1 74, unit personnel costs were as a general rule around 30 thousand ECU per employee in 1995/96. Denmark displayed the highest level at 39 thousand ECU, whilst the lowest unit personnel costs were found in Portugal at 15.4 thousand ECU per employee.

Part-time work was common within this activity. It accounted for more than 22% of total employment in 1997, placing it near the top of the services ranking (just behind retail trade and hotels and restaurants). In the Netherlands, more than a third of the persons employed in other business activities worked part-time. This figure contrasted sharply with the data from Greece, where only 4% of those employed were working part-time. Earnings of part-time employees were (by far) highest in Denmark at 1.8 thousand ECU in 1995, followed by Sweden with 900 ECU. Looking at the whole workforce, average monthly earnings in other business activities were equal to 1.9 thousand ECU, in line with the average for services.

The level of education of business services personnel showed that twice as many people had a higher education than in services as a whole. In 1997, 37% of the persons employed possessed a higher education degree, compared to an average of just 18% for services. This was the third highest proportion in market services, after R&D and computer services. By country, the highest figures were recorded in Greece, where 62% of the persons employed had received a higher education, more than 2.5 times the level of Austria (23%).

[Legal, accounting and management consulting services \(NACE Rev. 1 74.1\)](#)

A very large share of other business activities is accounted for by activities such as legal, accounting or management consultancy services. These represented in 1995/96 well over a quarter of the number of persons employed and over a third of the turnover generated in the whole of other business activities in the majority of Member States. The high number of enterprises meant that only 3 to 4 persons worked on average in each enterprise. The highest average size was recorded in Ireland, where 6 persons were employed per enterprise.

There were many persons working as self-employed in this activity, the share of employees in the workforce was relatively low in most countries, such as Belgium (63%) and Denmark (65%). For those working as employees, unit personnel costs were amongst the highest of all business services. They ranged between 33 thousand ECU per employee in Austria and 34 thousand ECU in Finland, some 50% lower than in Belgium, where the highest figures in the EU were found (51 thousand ECU per employee).

Labour productivity adjusted by personnel costs was particularly high in Luxembourg, where value added covered personnel costs by more than a factor of two. The lowest values for wage adjusted labour productivity were recorded in Sweden (127%) and France (125%). In the majority of the Member States, this activity ranked amongst the most productive within other business activities (using the measure of value added per head).

[Architectural, engineering and technical services \(NACE Rev. 1 74.2 and 74.3\)](#)

The activities of architectural, engineering and technical services accounted for around 15% of employment in other business activities in 1995/96, although the activity was relatively more important in Denmark (22% of employment) and Finland (27%). In terms of turnover, however, the sector accounted for over a quarter of the other business activities total in several countries. Enterprises were generally small in size, numbering fewer than 4 persons on average. The average enterprise in Italy employed just 1.5 persons. Turnover per head ranked amongst the highest in other business activities, exceeding 100 thousand ECU per person employed in Denmark, Belgium and France.

The self-employed in architectural, engineering and technical services accounted for a very high share of total employment. Employees represented less than 80% of the total number of persons employed in many countries, and their share was as low as 25% in Italy (which explains to a large degree the particularly low average size of enterprises noted above). Personnel costs per employee were as a general rule the highest within other business activities at around 40 thousand ECU per employee (except in Italy, where they amounted to only 26 thousand ECU on average).

The level of wage adjusted labour productivity calculated by comparing personnel costs and value added per capita (adjusted by the share of employees) showed great variation across the Member States. If we study the extremes, we find that France had a ratio of just 106%, whilst in Italy value added covered personnel costs by more than four times (443%). Excluding these two extremes, the remaining Member States reported wage adjusted labour productivity between 127% in Sweden and 196% in the Netherlands. This placed the activity close to the averages seen for other business activities.

Advertising (NACE Rev. 1 74.4)

Advertising represented a small share of other business activities. In 1995/96, only 6% of the persons employed in other business activities were working in this activity, a proportion that was under 3% in Luxembourg and the Netherlands. Enterprises were as a general rule relatively small in size, employing between 3 and 4 persons on average, with the exception of Ireland that displayed a much larger average size (12 persons).

The share of self-employment in advertising was relatively high in most of the countries where data was available. This was particularly true in Belgium, Denmark and Italy where the figures rose to as high as 40%. In France and Ireland, however, the share of the self-employed was much lower at around 10%. Personnel costs per employee ranked amongst the highest of all business services. They ranged from 30 thousand ECU per employee in Italy to 42 thousand ECU in Denmark. In the majority of countries for which data was available, unit personnel costs were greater than 38 thousand ECU.

Wage adjusted productivity for advertising was in many countries amongst the highest recorded in other business activities. The Netherlands was the country displaying the highest ratio of value added on personnel costs (375%). In contrast, France reported the lowest ratio, at only 125%. Apart of these extremes, wage adjusted labour productivity was at a level between 143% in Sweden and 208% in Italy.

Labour recruitment and provision of personnel services (NACE Rev. 1 74.5)

The importance of labour recruitment and provision of personnel services is highly variable from one country to another. The activity represented only 5% of the persons employed in business services in Finland and Ireland in 1996, whilst the proportion was as high as 32% in Belgium. Enterprise size displayed the same variability, from an average of just 2 persons per enterprise in Italy to as many as 150 persons per enterprise in France.

In most countries, self-employment had a marginal status in this sector, concerning less than 2% of the workforce. However, two countries showed a clearly different structure. Italy reported that the self-employed accounted for 60% of the total number of persons employed, and in Denmark the ratio rose to as high as 72%. Unit personnel costs were highest in Sweden at 44 thousand ECU per employee, in strong contrast with the Netherlands, where they averaged just 6 thousand ECU per employee (please note that for the Netherlands, employment and personnel costs data come from different surveys and there may be methodological differences). The average for the other Member States was equal to about 20 thousand ECU.

By comparing value added per capita to unit personnel costs it is possible to measure wage adjusted labour productivity. In most countries, this ratio was particularly low for the activity of labour recruitment and personnel services. In Belgium, France and Austria, value added per capita only exceeded personnel costs by a few percentage points. In Luxembourg, value added per person employed was even 2% lower than personnel costs. This was not the case in every country though, as data for Sweden and Italy showed labour productivity ratios as high as 189% and 343%.

Investigation and security activities (NACE Rev. 1 74.6)

Less than 5% of the persons employed in other business activities in 1995/96 in the EU worked in investigation and security activities. Only Ireland displayed a considerably higher than average share at 8%. The share of turnover was even lower at 2% or less in the majority of countries. The average size of enterprises was very different from one country to another. It was smallest in Denmark with only 4 persons employed on average per enterprise, less than a tenth of the average size recorded in Spain (45 persons per enterprise) and Austria (55 persons per enterprise).

As a general rule, only a very small share of the persons employed in this sector were self-employed. They usually accounted for less than 5% of the workforce in all countries, except in Denmark, where the self-employed represented practically one person employed out of two. Unit personnel costs were amongst the lowest in other business activities, with an average slightly above 20 thousand ECU per employee. Denmark recorded the highest level, with 37 thousand ECU per employee, more than double the figures recorded in Spain (15 thousand ECU per employee).

Labour productivity adjusted by unit personnel costs was relatively low in this activity when compared to other business services. In 1995/96, value added per capita exceeded personnel costs by an average of just 10% in Belgium, Spain and Austria. The wage adjusted labour productivity ratio rose to 116% and 117% in Finland and Sweden. The highest ratios were recorded in Italy (just over 120%).

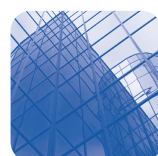
Industrial cleaning (NACE Rev. 1 74.7)

Official statistics indicate that industrial cleaning services are very labour intensive with a low turnover per capita. They accounted for as much as one quarter of the other business activities' workforce in Denmark and Luxembourg in 1995/96, whilst generating less than a tenth of total turnover. Indeed, all countries for which data was available had a share of total turnover (in other business activities) that was generally about a third of the corresponding share of total employment. The average number of persons employed per enterprise was highest in Ireland and Luxembourg, at 55 and 40 persons respectively. This strongly contrasted with Denmark and Finland, where the lowest averages were found, 6 persons employed per enterprise on average.

The vast majority of persons employed in industrial cleaning activities were employees, usually more than 90%. However, two countries displayed a different situation. In Italy the self-employed accounted for 14% of the workforce and in Denmark they represented as much as 57% of total employment. This sector, as a general rule, displayed the lowest unit personnel costs of all business services, an average below 20 thousand ECU per employee, ranging from just 9 thousand ECU in Spain up to 31 thousand ECU in Denmark.

Labour productivity within the sector was not particularly high, although not the lowest in business services. On average, value added per capita was about 20% higher than personnel costs in 1995/96. The situation was however very different from one country to another. The lowest figures were found in Spain and France where value added covered personnel costs by just 110%, whilst in Italy the ratio rose as high as 268%.

Country analysis



Chapter 6

Please note that these tables have been updated in October 1999, whilst the remainder of this publication is based on information extracted in April 1999.

Table 6.1: Belgium, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	:	:	:	77,1	:	69,8
51	Wholesale trade	:	:	:	216,5	:	78,2
51.1	Wholesale on a fee or contract basis	:	:	:	16,2	:	33,9
51.2, 5, 6	Wholesale goods for intermediate use	:	:	:	98,0	:	83,2
51.3, 4	Wholesale goods for consumption	:	:	:	94,8	:	80,1
52	Retail trade	:	:	:	275,7	:	64,5
52.1	Retail sale in non-specialised stores	:	:	:	80,3	:	88,7
52.2	Retail sale of food, beverages and tobacco in specialised stores	:	:	:	34,7	:	49,3
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	:	:	:	18,0	:	66,4
52.4	Other retail sale of new goods in specialised stores	:	:	:	125,3	:	57,4
52.6	Retail sale not in stores	:	:	:	10,7	:	35,7
55	Hotels and restaurants	:	:	:	139,2	:	65,9
55.1, 2	Hotels and other accommodation	:	:	:	20,3	:	88,2
55.3, 4, 5	Restaurants, bars and canteens	:	:	:	118,9	:	62,1
60.1	Railway transport	:	:	:	:	:	:
60.2, 3 (1)	Other land transport	:	:	:	77,6	:	88,6
61	Water transport	:	:	:	3,3	:	87,7
62	Air transport	:	:	:	11,3	:	99,1
63	Auxiliary transport activities	:	:	:	38,5	:	93,0
64.12 (1)	Courier activities other than national post	:	:	:	3,6	:	71,8
64.2	Telecommunications	:	:	:	31,1	:	99,3
65.12 (1)	Other monetary intermediation	143	0,1	282,5	76,5	535,2	:
66.01, 03 (1)	Insurance	124	0,1	36,0	6,9	55,9	:
70	Real estate	:	:	:	19,8	:	49,1
71	Renting of machinery	:	:	:	10,9	:	68,8
72	Computing services	:	:	:	24,1	:	79,0
73	Research and development	:	:	:	3,9	:	95,9
74	Other business activities	:	:	:	272,1	:	79,2
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	74,4	:	63,1
74.2, 3	Architectural & engineering activities	:	:	:	86,6	:	60,3
74.4	Advertising	:	:	:	9,9	:	57,6
74.5	Labour recruitment	:	:	:	37,4	:	99,6
74.6	Security services	:	:	:	18,7	:	95,4
74.7	Industrial cleaning	:	:	:	32,4	:	94,1
74.8	Miscellaneous business activities	:	:	:	:	:	57,5

(1) 1995.
For further information: SBS

Table 6.2: Belgium, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	31,5	5,2	2 715,9	35,2	78,1	1 020,3
51	Wholesale trade	40,8	6,1	11 227,3	51,9	99,5	4 327,5
51.1	Wholesale on a fee or contract basis	44,6	8,0	567,4	35,1	26,6	323,0
51.2, 5, 6	Wholesale goods for intermediate use	44,7	5,6	5 875,8	60,0	134,2	2 230,5
51.3, 4	Wholesale goods for consumption	37,0	6,5	4 500,8	47,5	128,3	1 689,9
52	Retail trade	22,6	9,9	6 899,9	25,0	71,4	2 873,6
52.1	Retail sale in non-specialised stores	24,4	11,1	2 403,8	29,9	108,8	664,4
52.2	Retail sale of food, beverages and tobacco in specialised stores	17,5	8,8	677,0	19,5	55,1	378,0
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	25,0	11,0	671,0	37,3	99,3	373,2
52.4	Other retail sale of new goods in specialised stores	21,8	8,9	2 866,6	22,9	60,1	1 295,8
52.6	Retail sale not in stores	20,9	7,0	186,6	17,4	29,8	106,5
55	Hotels and restaurants	15,8	27,2	2 424,8	17,4	72,5	972,2
55.1, 2	Hotels and other accommodation	29,9	41,3	748,4	36,9	109,1	214,5
55.3, 4, 5	Restaurants, bars and canteens	12,4	22,7	1 676,4	14,1	70,4	757,7
60.1	Railway transport	:	:	:	:	:	:
60.2, 3 (1)	Other land transport	35,6	35,5	3 496,2	45,1	126,6	:
61	Water transport	45,0	9,2	200,7	61,5	119,9	72,0
62	Air transport	47,8	22,8	549,8	48,5	100,6	13,1
63	Auxiliary transport activities	52,1	17,6	2 701,6	70,2	125,2	834,8
64.12 (1)	Courier activities other than national post	38,5	30,7	130,1	36,3	94,2	:
64.2	Telecommunications	53,4	54,7	3 462,4	111,2	206,5	1 810,2
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03 (1)	Insurance	:	25,9	921,1	132,9	:	:
70	Real estate	32,3	14,7	1 331,2	67,1	102,3	1 016,9
71	Renting of machinery	38,6	15,5	1 343,1	123,1	219,4	1 053,0
72	Computing services	51,4	35,6	1 303,6	54,2	83,1	325,7
73	Research and development	67,6	49,9	301,4	77,0	109,1	47,4
74	Other business activities	29,2	32,4	9 241,7	34,0	92,2	2 958,9
74.1	Legal, accounting, management consultancy, market research and holdings	51,5	34,1	4 115,8	55,3	67,9	1 700,3
74.2, 3	Architectural & engineering activities	50,6	29,3	1 550,0	47,8	57,0	562,0
74.4	Advertising	38,5	8,0	528,3	41,3	61,9	245,0
74.5	Labour recruitment	15,9	86,5	1 443,2	16,7	104,1	68,3
74.6	Security services	30,9	77,3	316,4	32,1	99,0	25,7
74.7	Industrial cleaning	17,6	58,1	744,6	19,9	106,5	125,4
74.8	Miscellaneous business activities	29,0	13,0	543,5	29,1	57,7	232,2

(1) 1995.

For further information: SBS

Table 6.3: Denmark, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50 (1)	Motor vehicles distribution, maintenance and repair	12 726	24,3	0,9	63,0	5,0	64,5
51 (1)	Wholesale trade	28 286	54,1	2,2	169,0	6,0	77,7
51.1 (1)	Wholesale on a fee or contract basis	2 238	4,3	0,9	5,9	2,6	62,9
51.2, 5, 6 (1)	Wholesale goods for intermediate use	12 431	23,8	2,8	101,1	8,1	81,1
51.3, 4 (1)	Wholesale goods for consumption	11 615	22,2	2,0	56,2	4,8	73,8
52	Retail trade	31 735	60,3	0,8	193,9	6,1	86,8
52.1	Retail sale in non-specialised stores	3 852	7,3	3,2	79,5	20,6	95,6
52.2	Retail sale of food, beverages and tobacco in specialised stores	4 917	9,3	0,3	16,9	3,4	74,4
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	804	1,5	1,5	8,9	11,0	92,4
52.4	Other retail sale of new goods in specialised stores	18 109	34,4	0,5	81,7	4,5	83,0
52.6	Retail sale not in stores	1 232	2,3	0,2	1,9	1,6	60,0
55 (1)	Hotels and restaurants	13 657	26,1	0,2	78,9	5,8	40,7
55.1, 2 (1)	Hotels and other accomodation	1 763	3,4	0,5	19,9	11,3	48,4
55.3, 4, 5 (1)	Restaurants, bars and canteens	11 894	22,8	0,2	59,0	5,0	38,1
60,1	Railway transport	19	0,0	90,1	11,8	620,5	100,0
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	:	:	:	:	:	:
62	Air transport	251	0,5	7,6	10,6	42,3	99,8
63	Auxiliary transport activities	:	:	:	:	:	:
64.12	Courier activities other than national post	1 400	2,7	0,1	7,5	5,4	90,4
64.2	Telecommunications	138	0,3	26,6	17,7	128,2	99,9
65.12 (1)	Other monetary intermediation	204	0,4	53,2	46,7	228,9	:
66.01, 03 (1)	Insurance	236	0,5	34,4	14,0	59,3	:
70	Real estate	:	:	:	:	:	:
71 (1)	Renting of machinery	4 404	8,4	0,2	6,5	1,5	53,0
72 (1)	Computing services	6 734	12,9	0,4	21,5	3,2	79,9
73	Research and development	:	:	:	:	:	:
74 (1)	Other business activities	40 713	77,9	0,2	139,1	3,4	55,8
74.1 (1)	Legal, accounting, management consultancy, market research and holdings	12 461	23,8	0,2	37,2	3,0	64,9
74.2, 3 (1)	Architectural & engineering activities	9 198	17,6	0,3	10,3	3,4	74,8
74.4 (1)	Advertising	3 815	7,3	0,4	1,0	2,5	57,6
74.5 (1)	Labour recruitment	342	0,7	0,3	36,4	30,0	27,9
74.6 (1)	Security services	263	0,5	0,2	13,6	3,9	47,7
74.7 (1)	Industrial cleaning	6 303	12,1	0,1	31,0	5,8	42,7
74.8 (1)	Miscellaneous business activities	8 331	15,9	0,1	:	1,6	43,5

(1) 1995.

For further information: SBS

Table 6.4: Denmark, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	:	:	:	:	:	:
51	Wholesale trade	:	:	:	:	:	:
51.1	Wholesale on a fee or contract basis	:	:	:	:	:	:
51.2, 5, 6	Wholesale goods for intermediate use	:	:	:	:	:	:
51.3, 4	Wholesale goods for consumption	:	:	:	:	:	:
52	Retail trade	17,8	12,7	:	:	:	1 132,8
52.1	Retail sale in non-specialised stores	16,5	10,3	:	:	:	235,8
52.2	Retail sale of food, beverages and tobacco in specialised stores	14,7	13,2	:	:	:	106,4
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	24,0	17,1	:	:	:	59,0
52.4	Other retail sale of new goods in specialised stores	18,9	15,3	:	:	:	664,1
52.6	Retail sale not in stores	19,0	10,3	:	:	:	12,6
55 (1)	Hotels and restaurants	28,1	:	:	:	:	:
55.1, 2 (1)	Hotels and other accommodation	27,9	:	:	:	:	:
55.3, 4, 5 (1)	Restaurants, bars and canteens	28,2	:	:	:	:	:
60.1	Railway transport	64,6	52,8	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	:	:	:	:	:	:
62	Air transport	42,2	26,1	:	:	:	:
63	Auxiliary transport activities	:	:	:	:	:	:
64.12	Courier activities other than national post	11,6	42,8	:	:	:	:
64.2	Telecommunications	50,8	34,7	:	:	:	:
65.12 (1)	Other monetary intermediation	:	:	5 405,1	115,8	:	:
66.01, 03 (1)	Insurance	:	36,7	:	:	:	:
70	Real estate	:	:	:	:	:	:
71 (1)	Renting of machinery	33,8	:	:	:	:	:
72 (1)	Computing services	47,0	:	:	:	:	:
73	Research and development	:	:	:	:	:	:
74 (1)	Other business activities	39,0	:	:	:	:	:
74.1 (1)	Legal, accounting, management consultancy, market research and holdings	39,0	:	:	:	:	:
74.2, 3 (1)	Architectural & engineering activities	44,6	:	:	:	:	:
74.4 (1)	Advertising	41,9	:	:	:	:	:
74.5 (1)	Labour recruitment	37,8	:	:	:	:	:
74.6 (1)	Security services	37,0	:	:	:	:	:
74.7 (1)	Industrial cleaning	31,1	:	:	:	:	:
74.8 (1)	Miscellaneous business activities	35,5	:	:	:	:	:

(1) 1995.

For further information: SBS

Table 6.5: Germany, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50 (1)	Motor vehicles distribution, maintenance and repair	41 595	5,1	2,9	473,6	11,4	:
51 (2)	Wholesale trade	80 691	9,9	7,4	1 334,5	16,5	:
51.1	Wholesale on a fee or contract basis	:	:	:	:	:	:
51.2, 5, 6	Wholesale goods for intermediate use	42 195	5,2	7,6	687,0	16,3	:
51.3, 4	Wholesale goods for consumption	36 801	4,5	6,5	571,8	15,5	:
52 (3)	Retail trade	307 139	37,5	1,1	2 721,0	8,9	:
52.1	Retail sale in non-specialised stores	31 743	3,9	4,1	873,1	27,5	:
52.2	Retail sale of food, beverages and tobacco in specialised stores	35 917	4,4	0,4	178,7	5,0	:
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	25 142	3,1	1,2	250,4	10,0	:
52.4	Other retail sale of new goods in specialised stores	163 584	20,0	0,7	1 200,9	7,3	:
52.6	Retail sale not in stores	47 209	5,8	0,7	210,2	4,5	:
55	Hotels and restaurants	:	:	:	1 181,1	:	:
55.1, 2	Hotels and other accommodation	:	:	:	334,5	:	:
55.3, 4, 5	Restaurants, bars and canteens	:	:	:	846,6	:	:
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	:	:	:	:	:	:
62	Air transport	283	0,0	50,6	46,9	165,8	99,2
63	Auxiliary transport activities	:	:	:	:	:	:
64.12	Courier activities other than national post	3 171	0,4	0,4	:	:	:
64.2	Telecommunications	194	0,0	170,9	:	:	:
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03 (4)	Insurance	462	0,1	263,8	225,9	489,0	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	24 714	3,0	1,2	:	:	:
72	Computing services	33 914	4,1	0,6	:	:	:
73	Research and development	5 232	0,6	0,5	:	:	:
74	Other business activities	377 943	46,1	0,6	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	121 952	14,9	0,8	:	:	:
74.2, 3	Architectural & engineering activities	116 356	14,2	0,4	:	:	:
74.4	Advertising	34 223	4,2	0,6	:	:	:
74.5	Labour recruitment	2 325	0,3	1,7	:	:	:
74.6	Security services	2 821	0,3	1,0	:	:	:
74.7	Industrial cleaning	21 740	2,7	0,5	:	:	:
74.8	Miscellaneous business activities	78 526	9,6	0,7	:	:	:

(1) Excluding NACE Rev. 1 50.2.
(2) Excluding NACE Rev. 1 51.1.
(3) Excluding NACE Rev. 1 52.7.
(4) 1995.
For further information: SBS

Table 6.6: Germany, competitiveness indicators, 1995

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	:	:	:	:	:	:
51	Wholesale trade	:	:	:	:	:	:
51.1	Wholesale on a fee or contract basis	:	:	:	:	:	:
51.2, 5, 6	Wholesale goods for intermediate use	:	:	:	:	:	:
51.3, 4	Wholesale goods for consumption	:	:	:	:	:	:
52	Retail trade	:	:	:	:	:	:
52.1	Retail sale in non-specialised stores	:	:	:	:	:	:
52.2	Retail sale of food, beverages and tobacco in specialised stores	:	:	:	:	:	:
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	:	:	:	:	:	:
52.4	Other retail sale of new goods in specialised stores	:	:	:	:	:	:
52.6	Retail sale not in stores	:	:	:	:	:	:
55	Hotels and restaurants	:	:	:	:	:	:
55.1, 2	Hotels and other accommodation	:	:	:	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	:	:	:	:	:	:
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	:	:	:	:	:	:
62	Air transport	:	:	:	:	:	:
63	Auxiliary transport activities	:	:	:	:	:	:
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	:	:	:	:	:	:
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03	Insurance	:	32,7	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	:	:	:	:	:	:
72	Computing services	:	:	:	:	:	:
73	Research and development	:	:	:	:	:	:
74	Other business activities	:	:	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	:	:	:
74.2, 3	Architectural & engineering activities	:	:	:	:	:	:
74.4	Advertising	:	:	:	:	:	:
74.5	Labour recruitment	:	:	:	:	:	:
74.6	Security services	:	:	:	:	:	:
74.7	Industrial cleaning	:	:	:	:	:	:
74.8	Miscellaneous business activities	:	:	:	:	:	:

For further information: SBS

Table 6.7: Greece, enterprise and employment indicators, 1995

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	:	:	:	:	:	:
51	Wholesale trade	:	:	:	:	:	:
51.1	Wholesale on a fee or contract basis	:	:	:	:	:	:
51.2, 5, 6	Wholesale goods for intermediate use	:	:	:	:	:	:
51.3, 4	Wholesale goods for consumption	:	:	:	:	:	:
52	Retail trade	:	:	:	:	:	:
52.1	Retail sale in non-specialised stores	:	:	:	:	:	:
52.2	Retail sale of food, beverages and tobacco in specialised stores	:	:	:	:	:	:
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	:	:	:	:	:	:
52.4	Other retail sale of new goods in specialised stores	:	:	:	:	:	:
52.6	Retail sale not in stores	:	:	:	:	:	:
55	Hotels and restaurants	:	:	:	:	:	:
55.1, 2	Hotels and other accommodation	:	:	:	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	:	:	:	:	:	:
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	:	:	:	:	:	:
62	Air transport	:	:	:	:	:	:
63	Auxiliary transport activities	:	:	:	:	:	:
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	:	:	:	:	:	:
65.12	Other monetary intermediation	56	0,1	:	55,1	983,5	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	:	:	:	:	:	:
72	Computing services	:	:	:	:	:	:
73	Research and development	:	:	:	:	:	:
74	Other business activities	:	:	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	:	:	:
74.2, 3	Architectural & engineering activities	:	:	:	:	:	:
74.4	Advertising	:	:	:	:	:	:
74.5	Labour recruitment	:	:	:	:	:	:
74.6	Security services	:	:	:	:	:	:
74.7	Industrial cleaning	:	:	:	:	:	:
74.8	Miscellaneous business activities	:	:	:	:	:	:

For further information: SBS

Table 6.8: Greece, competitiveness indicators, 1995

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	:	:	:	:	:	:
51	Wholesale trade	:	:	:	:	:	:
51.1	Wholesale on a fee or contract basis	:	:	:	:	:	:
51.2, 5, 6	Wholesale goods for intermediate use	:	:	:	:	:	:
51.3, 4	Wholesale goods for consumption	:	:	:	:	:	:
52	Retail trade	:	:	:	:	:	:
52.1	Retail sale in non-specialised stores	:	:	:	:	:	:
52.2	Retail sale of food, beverages and tobacco in specialised stores	:	:	:	:	:	:
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	:	:	:	:	:	:
52.4	Other retail sale of new goods in specialised stores	:	:	:	:	:	:
52.6	Retail sale not in stores	:	:	:	:	:	:
55	Hotels and restaurants	:	:	:	:	:	:
55.1, 2	Hotels and other accommodation	:	:	:	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	:	:	:	:	:	:
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	:	:	:	:	:	:
62	Air transport	:	:	:	:	:	:
63	Auxiliary transport activities	:	:	:	:	:	:
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	:	:	:	:	:	:
65.12	Other monetary intermediation	:	17,5	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	:	:	:	:	:	:
72	Computing services	:	:	:	:	:	:
73	Research and development	:	:	:	:	:	:
74	Other business activities	:	:	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	:	:	:
74.2, 3	Architectural & engineering activities	:	:	:	:	:	:
74.4	Advertising	:	:	:	:	:	:
74.5	Labour recruitment	:	:	:	:	:	:
74.6	Security services	:	:	:	:	:	:
74.7	Industrial cleaning	:	:	:	:	:	:
74.8	Miscellaneous business activities	:	:	:	:	:	:
For further information: SBS							

Table 6.9: Spain, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	:	:	:	:	:	:
51	Wholesale trade	:	:	:	:	:	:
51.1	Wholesale on a fee or contract basis	:	:	:	:	:	:
51.2, 5, 6	Wholesale goods for intermediate use	:	:	:	:	:	:
51.3, 4	Wholesale goods for consumption	:	:	:	:	:	:
52	Retail trade	:	:	:	:	:	:
52.1	Retail sale in non-specialised stores	:	:	:	:	:	:
52.2	Retail sale of food, beverages and tobacco in specialised stores	:	:	:	:	:	:
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	:	:	:	:	:	:
52.4	Other retail sale of new goods in specialised stores	:	:	:	:	:	:
52.6	Retail sale not in stores	:	:	:	:	:	:
55	Hotels and restaurants	258 085	65,7	:	:	:	:
55.1, 2	Hotels and other accommodation	14 557	3,7	:	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	243 528	62,0	:	:	:	:
60.1	Railway transport	6	0,0	177,4	41,8	6 958,7	100,0
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	25	0,0	:	:	:	:
62	Air transport	25	0,0	169,6	30,7	1 226,8	100,0
63	Auxiliary transport activities	16 730	4,3	:	:	:	:
64.12	Courier activities other than national post	3 807	1,0	:	:	:	:
64.2	Telecommunications	999	0,3	:	:	:	:
65.12 (1)	Other monetary intermediation	318	0,1	:	244,9	770,2	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	54 967	14,0	:	:	:	:
71	Renting of machinery	16 754	4,3	:	:	:	:
72 (2)	Computing services	13 449	3,4	0,3	65,6	5,2	85,4
73	Research and development	10 136	2,6	:	:	:	:
74	Other business activities	282 814	72,0	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	128 001	32,6	:	:	:	:
74.2, 3	Architectural & engineering activities	72 849	18,6	:	:	:	:
74.4	Advertising	14 866	3,8	:	73,2	:	:
74.5	Labour recruitment	2 027	0,5	:	231,3	:	:
74.6	Security services	1 631	0,4	0,9	109,0	44,9	98,5
74.7 (2)	Industrial cleaning	13 412	3,4	0,2	:	18,7	96,1
74.8	Miscellaneous business activities	50 028	12,7	0,1	:	2,2	58,9

(1) 1995.
(2) 1995, except number of enterprises and number of enterprises per 10,000 population.
For further information: SBS

Table 6.10: Spain, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	:	:	:	:	:	:
51	Wholesale trade	:	:	:	:	:	:
51.1	Wholesale on a fee or contract basis	:	:	:	:	:	:
51.2, 5, 6	Wholesale goods for intermediate use	:	:	:	:	:	:
51.3, 4	Wholesale goods for consumption	:	:	:	:	:	:
52	Retail trade	:	:	:	:	:	:
52.1	Retail sale in non-specialised stores	:	:	:	:	:	:
52.2	Retail sale of food, beverages and tobacco in specialised stores	:	:	:	:	:	:
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	:	:	:	:	:	:
52.4	Other retail sale of new goods in specialised stores	:	:	:	:	:	:
52.6	Retail sale not in stores	:	:	:	:	:	:
55	Hotels and restaurants	:	:	:	:	:	:
55.1, 2	Hotels and other accommodation	:	:	:	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	:	:	:	:	:	:
60.1	Railway transport	28,0	58,9	2 386,3	57,2	204,3	1 218,3
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	:	:	:	:	:	:
62	Air transport	43,3	33,2	1 739,7	56,7	130,9	411,6
63	Auxiliary transport activities	:	:	:	:	:	:
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	:	:	:	:	:	:
65.12 (1)	Other monetary intermediation	:	65,6	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	:	:	:	:	:	:
72 (1)	Computing services	26,2	42,5	2 000,2	30,5	99,5	533,8
73	Research and development	:	:	:	:	:	:
74	Other business activities	:	:	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	:	:	:
74.2, 3	Architectural & engineering activities	:	:	:	:	:	:
74.4	Advertising	:	:	:	:	:	:
74.5	Labour recruitment	:	:	:	:	:	:
74.6	Security services	15,1	82,7	1 201,1	16,4	107,3	115,8
74.7 (1)	Industrial cleaning	8,9	84,0	2 189,8	9,5	101,7	201,3
74.8	Miscellaneous business activities	16,0	28,1	2 121,6	19,5	71,5	1 093,6

(1) 1995.
For further information: SBS

Table 6.11: France, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	82 491	14,1	1,2	418,0	5,1	91,5
51	Wholesale trade	161 138	27,6	2,5	942,5	5,8	98,0
51.1	Wholesale on a fee or contract basis	39 334	6,7	1,2	60,0	1,5	94,3
51.2, 5, 6	Wholesale goods for intermediate use	60 203	10,3	3,3	517,2	8,6	98,4
51.3, 4	Wholesale goods for consumption	56 394	9,7	2,8	359,6	6,4	98,2
52	Retail trade	392 438	67,2	0,6	1 444,7	3,7	86,0
52.1	Retail sale in non-specialised stores	35 968	6,2	3,6	503,8	14,0	96,3
52.2	Retail sale of food, beverages and tobacco in specialised stores	49 238	8,4	0,2	102,1	2,1	67,5
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	29 493	5,1	0,8	141,1	4,8	86,2
52.4	Other retail sale of new goods in specialised stores	180 358	30,9	0,4	569,2	3,2	84,9
52.6	Retail sale not in stores	66 476	11,4	0,2	85,9	1,3	69,0
55	Hotels and restaurants	202 253	34,6	0,2	663,6	3,3	85,2
55.1, 2	Hotels and other accommodation	46 591	8,0	0,3	194,2	4,2	90,1
55.3, 4, 5	Restaurants, bars and canteens	155 662	26,7	0,2	469,4	3,0	83,1
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	1 966	0,3	2,3	14,9	7,6	88,4
62	Air transport	548	0,1	21,6	59,6	108,7	100,0
63	Auxiliary transport activities	9 670	1,7	3,8	219,6	22,7	99,6
64.12 (1)	Courier activities other than national post	1 060	0,2	0,2	5,2	4,9	79,1
64.2	Telecommunications	827	0,1	30,5	163,5	197,7	100,0
65.12 (1)	Other monetary intermediation	596	0,1	582,8	:	:	:
66.01, 03 (1)	Insurance	482	0,1	222,1	:	:	:
70	Real estate	132 235	22,7	0,4	306,3	2,3	68,6
71	Renting of machinery	19 325	3,3	0,7	65,6	3,4	85,9
72	Computing services	25 819	4,4	0,8	189,0	7,3	98,8
73	Research and development	1 750	0,3	1,7	19,9	11,4	99,8
74	Other business activities	271 673	46,5	0,4	1 368,4	5,0	98,2
74.1	Legal, accounting, management consultancy, market research and holdings	120 101	20,6	0,4	283,0	2,4	99,2
74.2, 3	Architectural & engineering activities	61 375	10,5	0,4	343,9	2,9	99,2
74.4	Advertising	20 085	3,4	0,8	92,3	4,4	96,6
74.5	Labour recruitment	2 294	0,4	4,5	223,3	149,9	100,0
74.6	Security services	4 678	0,8	0,6	158,4	19,7	98,9
74.7	Industrial cleaning	13 408	2,3	0,4	179,5	16,7	97,2
74.8	Miscellaneous business activities	49 732	8,5	0,4	:	3,2	93,6

(1) 1995.

For further information: SBS

Table 6.12: France, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	:	:	13 359,2	32,0	:	2 788,3
51	Wholesale trade	:	:	42 647,0	45,3	:	9 889,1
51.1	Wholesale on a fee or contract basis	:	:	3 043,0	50,7	:	822,1
51.2, 5, 6	Wholesale goods for intermediate use	:	:	23 897,6	46,2	:	5 184,3
51.3, 4	Wholesale goods for consumption	:	:	15 506,6	43,1	:	3 847,1
52	Retail trade	:	:	43 142,6	29,9	:	12 849,6
52.1	Retail sale in non-specialised stores	:	:	15 390,9	30,6	:	4 174,5
52.2	Retail sale of food, beverages and tobacco in specialised stores	:	:	2 569,1	25,2	:	963,5
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	:	:	5 885,1	41,7	:	2 636,9
52.4	Other retail sale of new goods in specialised stores	:	:	16 303,8	28,6	:	4 301,6
52.6	Retail sale not in stores	:	:	2 056,6	23,9	:	502,8
55	Hotels and restaurants	21,6	35,7	16 302,0	24,6	96,9	4 106,5
55.1, 2	Hotels and other accommodation	22,7	34,9	5 359,0	27,6	109,4	1 378,8
55.3, 4, 5	Restaurants, bars and canteens	21,1	36,2	10 943,0	23,3	92,0	2 727,7
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	44,8	13,0	522,9	35,1	69,2	-67,2
62	Air transport	55,1	28,6	3 503,4	58,8	106,8	223,6
63	Auxiliary transport activities	32,7	22,2	10 927,9	49,8	151,6	3 773,5
64.12 (1)	Courier activities other than national post	23,8	48,4	126,9	24,2	80,5	:
64.2	Telecommunications	41,2	42,6	16 696,1	102,1	247,5	9 954,6
65.12 (1)	Other monetary intermediation	:	5,1	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	31,5	18,2	19 653,5	64,2	139,6	13 024,5
71	Renting of machinery	30,6	21,0	7 761,0	118,3	332,1	6 035,7
72	Computing services	46,8	44,4	9 747,8	51,6	108,8	1 004,4
73	Research and development	49,8	33,1	1 041,7	52,3	104,8	51,2
74	Other business activities	32,8	39,0	50 432,0	36,9	110,4	6 340,0
74.1	Legal, accounting, management consultancy, market research and holdings	48,3	32,5	16 896,2	59,7	122,7	3 347,6
74.2, 3	Architectural & engineering activities	43,0	35,7	8 137,7	45,3	104,6	478,4
74.4	Advertising	39,5	22,2	4 190,7	47,7	116,6	837,2
74.5	Labour recruitment	25,4	90,6	9 069,6	26,4	104,0	351,2
74.6	Security services	20,8	70,1	1 969,7	21,3	101,3	67,3
74.7	Industrial cleaning	16,8	71,2	4 027,8	18,0	104,4	381,3
74.8	Miscellaneous business activities	35,5	30,2	6 140,4	38,8	102,3	877,0

(1) 1995.

For further information: SBS

Table 6.13: Ireland, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	4 716	13,0	1,4	27,1	5,7	81,0
51	Wholesale trade	4 374	12,1	3,6	44,6	10,2	92,4
51.1	Wholesale on a fee or contract basis	474	1,3	0,2	1,8	3,9	79,7
51.2, 5, 6	Wholesale goods for intermediate use	1 615	4,5	4,6	19,6	12,1	93,3
51.3, 4	Wholesale goods for consumption	1 558	4,3	4,8	18,5	11,8	93,2
52	Retail trade	20 079	55,4	0,6	120,7	6,0	81,2
52.1	Retail sale in non-specialised stores	5 763	15,9	1,0	57,8	10,0	85,4
52.2	Retail sale of food, beverages and tobacco in specialised stores	2 816	7,8	0,3	10,2	3,6	67,7
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	1 097	3,0	0,6	6,7	6,1	84,8
52.4	Other retail sale of new goods in specialised stores	9 082	25,0	0,4	43,0	4,7	80,2
52.6	Retail sale not in stores	129	0,4	0,8	0,8	6,4	84,2
55	Hotels and restaurants	:	:	:	:	:	:
55.1, 2	Hotels and other accommodation	:	:	:	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	11 009	30,4	0,3	71,5	6,5	78,0
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	37	0,1	8,1	1,8	48,8	98,3
62	Air transport	32	0,1	34,5	5,9	183,2	99,7
63	Auxiliary transport activities	804	2,2	2,2	11,0	13,6	93,6
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	28	0,1	58,3	12,4	443,4	99,9
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03 (1)	Insurance	86	0,2	42,9	7,9	92,0	:
70	Real estate	1 957	5,4	0,2	5,7	2,9	63,6
71	Renting of machinery	1 129	3,1	0,3	5,1	4,6	79,4
72	Computing services	956	2,6	0,6	7,8	8,1	90,4
73	Research and development	69	0,2	0,3	0,4	5,2	81,0
74	Other business activities	9 269	25,6	0,3	64,8	7,0	83,4
74.1	Legal, accounting, management consultancy, market research and holdings	5 033	13,9	0,3	28,6	5,7	77,4
74.2, 3	Architectural & engineering activities	1 695	4,7	0,4	3,3	5,4	79,8
74.4	Advertising	225	0,6	1,9	5,0	11,6	91,3
74.5	Labour recruitment	177	0,5	0,9	8,4	18,7	97,9
74.6	Security services	186	0,5	0,7	7,8	27,1	97,1
74.7	Industrial cleaning	151	0,4	0,5	9,1	55,5	98,2
74.8	Miscellaneous business activities	1 802	5,0	0,2	:	4,3	76,0

(1) 1995.

For further information: SBS

Table 6.14: Ireland, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	:	:	642,1	23,7	:	:
51	Wholesale trade	:	:	1 886,2	42,3	:	:
51.1	Wholesale on a fee or contract basis	:	:	76,5	41,6	:	:
51.2, 5, 6	Wholesale goods for intermediate use	:	:	891,2	45,6	:	:
51.3, 4	Wholesale goods for consumption	:	:	758,1	41,1	:	:
52	Retail trade	:	:	1 962,4	16,3	:	:
52.1	Retail sale in non-specialised stores	:	:	880,9	15,2	:	:
52.2	Retail sale of food, beverages and tobacco in specialised stores	:	:	125,2	12,2	:	:
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	:	:	152,2	22,6	:	:
52.4	Other retail sale of new goods in specialised stores	:	:	755,5	17,6	:	:
52.6	Retail sale not in stores	:	:	26,0	31,4	:	:
55	Hotels and restaurants	:	:	:	:	:	:
55.1, 2	Hotels and other accommodation	:	:	:	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	:	:	854,9	12,0	:	:
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	:	:	102,6	56,9	:	:
62	Air transport	:	:	336,0	57,3	:	:
63	Auxiliary transport activities	:	:	379,6	34,6	:	:
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	:	:	1 091,3	87,9	:	:
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	207,0	36,1	:	:
71	Renting of machinery	:	:	142,8	27,8	:	:
72	Computing services	:	:	334,1	43,1	:	:
73	Research and development	:	:	13,8	38,5	:	:
74	Other business activities	:	:	1 711,0	26,4	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	965,2	33,8	:	:
74.2, 3	Architectural & engineering activities	:	:	278,2	30,4	:	:
74.4	Advertising	:	:	94,2	36,2	:	:
74.5	Labour recruitment	:	:	65,4	19,8	:	:
74.6	Security services	:	:	95,6	19,0	:	:
74.7	Industrial cleaning	:	:	47,8	5,7	:	:
74.8	Miscellaneous business activities	:	:	164,7	21,2	:	:

For further information: SBS

Table 6.15: Italy, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	164 400	28,6	0,6	434,7	2,6	47,6
51	Wholesale trade	365 086	63,6	0,8	992,5	2,7	54,2
51.1	Wholesale on a fee or contract basis	222 762	38,8	0,1	279,8	1,3	10,4
51.2, 5, 6	Wholesale goods for intermediate use	51 448	9,0	2,4	263,2	5,1	71,5
51.3, 4	Wholesale goods for consumption	81 625	14,2	1,7	408,5	5,0	71,5
52	Retail trade	708 702	123,5	0,2	1 510,7	2,1	36,7
52.1	Retail sale in non-specialised stores	85 840	15,0	0,7	367,8	4,3	64,3
52.2	Retail sale of food, beverages and tobacco in specialised stores	117 720	20,5	0,1	194,7	1,7	15,4
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	32 659	5,7	0,4	88,1	2,7	46,3
52.4	Other retail sale of new goods in specialised stores	338 323	58,9	0,2	680,8	2,0	33,8
52.6	Retail sale not in stores	103 453	18,0	0,1	134,5	1,3	6,5
55	Hotels and restaurants	211 796	36,9	0,2	736,7	3,5	53,7
55.1, 2	Hotels and other accommodation	36 707	6,4	0,3	220,1	6,0	74,4
55.3, 4, 5	Restaurants, bars and canteens	175 089	30,5	0,1	516,6	3,0	44,9
60.1 (1)	Railway transport	152	0,0	30,4	162,8	1 071,1	99,9
60.2, 3 (1)	Other land transport	131 922	23,0	0,2	406,1	3,1	60,6
61	Water transport	908	0,2	4,3	22,3	24,5	92,8
62	Air transport	88	0,0	58,6	19,7	223,8	99,5
63	Auxiliary transport activities	19 905	3,5	1,4	192,5	9,7	84,1
64.12 (1)	Courier activities other than national post	1 707	0,3	0,2	6,7	3,9	62,5
64.2	Telecommunications	238	0,0	82,9	96,3	404,6	99,7
65.12 (1)	Other monetary intermediation	970	0,2	106,6	337,9	348,3	:
66.01, 03 (1)	Insurance	201	0,0	69,4	:	:	:
70	Real estate	104 961	18,3	0,1	165,2	1,6	24,3
71	Renting of machinery	7 929	1,4	0,2	15,1	1,9	40,1
72	Computing services	47 261	8,2	0,3	200,1	4,2	70,3
73	Research and development	6 205	1,1	0,2	18,9	3,1	65,2
74	Other business activities	500 272	87,2	0,1	1 119,2	2,2	50,2
74.1	Legal, accounting, management consultancy, market research and holdings	193 873	33,8	0,1	373,0	1,9	42,5
74.2, 3	Architectural & engineering activities	183 744	32,0	0,1	1,8	1,4	25,7
74.4	Advertising	10 859	1,9	0,4	45,5	2,8	57,6
74.5 (1)	Labour recruitment	926	0,2	0,2	236,3	2,0	41,2
74.6 (1)	Security services	1 777	0,3	0,8	173,3	25,6	94,1
74.7	Industrial cleaning	25 090	4,4	0,2	258,9	9,4	84,7
74.8	Miscellaneous business activities	83 862	14,6	0,2	:	2,1	43,4

(1) 1995.

For further information: SBS

Table 6.16: Italy, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	21,8	5,0	10 828,6	24,9	54,5	6 322,4
51	Wholesale trade	28,3	6,1	39 552,3	39,9	76,3	24 299,9
51.1	Wholesale on a fee or contract basis	27,0	8,0	7 099,6	25,4	9,8	6 313,2
51.2, 5, 6	Wholesale goods for intermediate use	32,8	6,2	14 106,6	53,6	163,2	7 930,1
51.3, 4	Wholesale goods for consumption	25,0	5,8	16 203,6	39,7	158,6	8 893,6
52	Retail trade	21,9	8,1	28 185,6	18,7	31,2	16 042,3
52.1	Retail sale in non-specialised stores	23,0	9,6	8 196,8	22,3	62,3	2 753,5
52.2	Retail sale of food, beverages and tobacco in specialised stores	17,7	3,8	3 013,7	15,5	13,5	2 485,3
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	21,3	7,5	2 695,3	30,6	66,5	1 825,7
52.4	Other retail sale of new goods in specialised stores	21,6	8,3	12 324,2	18,1	28,4	7 364,9
52.6	Retail sale not in stores	23,6	2,8	1 431,3	10,6	2,9	1 225,5
55	Hotels and restaurants	18,5	26,3	13 142,5	17,8	51,8	5 807,5
55.1, 2	Hotels and other accommodation	19,3	39,5	5 541,7	25,2	97,2	2 381,8
55.3, 4, 5	Restaurants, bars and canteens	18,0	21,0	7 600,8	14,7	36,8	3 425,8
60.1 (1)	Railway transport	33,1	74,1	803,0	4,9	14,9	:
60.2, 3 (1)	Other land transport	27,6	28,1	11 217,5	27,6	100,1	:
61	Water transport	38,0	20,9	1 247,6	56,0	136,7	462,5
62	Air transport	57,9	23,7	1 461,4	74,2	127,4	326,3
63	Auxiliary transport activities	33,5	22,8	9 042,8	47,0	118,2	3 626,1
64.12 (1)	Courier activities other than national post	21,6	24,9	129,1	19,3	55,9	:
64.2	Telecommunications	38,2	39,5	12 768,7	132,6	346,2	9 100,7
65.12 (1)	Other monetary intermediation	:	62,5	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	23,8	9,1	7 314,5	44,3	45,3	6 359,9
71	Renting of machinery	30,6	14,5	593,2	39,3	51,6	407,9
72	Computing services	32,2	32,8	7 132,6	35,7	77,9	2 614,2
73	Research and development	41,2	39,3	957,6	50,6	80,1	448,8
74	Other business activities	23,5	29,3	33 804,0	30,2	64,4	20 583,4
74.1	Legal, accounting, management consultancy, market research and holdings	24,6	34,1	14 371,4	38,5	66,6	10 478,9
74.2, 3	Architectural & engineering activities	32,5	22,5	7 248,1	28,0	22,1	5 085,7
74.4	Advertising	36,5	18,6	1 488,4	49,5	78,2	856,7
74.5 (1)	Labour recruitment	22,9	15,4	58,8	32,4	58,3	:
74.6 (1)	Security services	24,7	78,7	1 279,3	28,1	107,0	:
74.7	Industrial cleaning	16,0	75,3	3 662,1	15,5	82,0	460,3
74.8	Miscellaneous business activities	27,5	14,2	5 526,0	31,9	50,3	3 455,5

(1) 1995.

For further information: SBS

Table 6.17: Luxembourg, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	848	20,4	2,6	5,8	6,9	87,6
51	Wholesale trade	2 642	63,6	2,7	12,1	4,6	86,5
51.1	Wholesale on a fee or contract basis	400	9,6	0,9	0,6	1,6	57,8
51.2, 5, 6	Wholesale goods for intermediate use	1 193	28,7	3,3	6,4	5,3	89,1
51.3, 4	Wholesale goods for consumption	818	19,7	3,1	4,7	5,8	88,7
52	Retail trade	3 162	76,1	0,8	17,3	5,5	83,0
52.1	Retail sale in non-specialised stores	294	7,1	3,1	4,4	14,8	93,8
52.2	Retail sale of food, beverages and tobacco in specialised stores	358	8,6	0,6	2,1	5,8	83,7
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	135	3,2	1,2	0,9	6,5	82,9
52.4	Other retail sale of new goods in specialised stores	2 064	49,7	0,6	9,2	4,5	79,9
52.6	Retail sale not in stores	195	4,7	0,3	0,5	2,3	53,5
55	Hotels and restaurants	2 597	62,5	0,3	10,6	4,1	89,5
55.1, 2	Hotels and other accommodation	413	9,9	0,5	3,2	7,7	90,0
55.3, 4, 5	Restaurants, bars and canteens	2 184	52,6	0,2	7,5	3,4	89,2
60.1	Railway transport	1	0,0	218,4	3,2	3 229,0	100,0
60.2, 3	Other land transport	577	13,9	0,9	5,7	9,9	90,8
61	Water transport	23	0,6	0,3	0,1	3,0	60,3
62	Air transport	:	:	:	:	:	:
63 (1)	Auxiliary transport activities	154	3,8	3,1	1,6	10,7	96,6
64.12	Courier activities other than national post	22	0,5	0,9	0,3	12,1	98,1
64.2	Telecommunications	:	:	:	:	:	:
65.12	Other monetary intermediation	256	6,2	:	17,9	69,8	100,0
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	657	15,8	0,4	1,1	1,7	75,7
71	Renting of machinery	174	4,2	1,4	0,5	2,9	91,0
72	Computing services	370	8,9	0,7	2,3	6,2	94,8
73	Research and development	:	:	:	:	:	:
74 (1)	Other business activities	2 288	55,8	0,5	16,0	7,0	89,1
74.1	Legal, accounting, management consultancy, market research and holdings	1 450	34,9	0,4	5,1	3,5	81,3
74.2, 3	Architectural & engineering activities	613	14,8	0,3	4,0	3,6	80,0
74.4	Advertising	180	4,3	0,6	:	3,0	84,5
74.5	Labour recruitment	50	1,2	1,6	3,8	80,0	99,8
74.6	Security services	:	:	:	0,8	:	:
74.7	Industrial cleaning	96	2,3	0,9	2,2	39,9	98,9
74.8 (1)	Miscellaneous business activities	279	6,8	0,4	:	2,7	79,8

(1) 1995.

For further information: SBS

Table 6.18: Luxembourg, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	24,3	6,0	248,4	42,6	153,7	124,4
51	Wholesale trade	31,9	5,1	734,7	60,7	164,6	400,6
51.1	Wholesale on a fee or contract basis	45,8	5,0	41,9	65,2	82,2	24,9
51.2, 5, 6	Wholesale goods for intermediate use	33,5	5,1	413,8	65,1	194,0	223,7
51.3, 4	Wholesale goods for consumption	28,2	4,9	259,5	55,1	195,1	141,6
52	Retail trade	20,0	12,1	486,1	28,2	116,8	199,4
52.1	Retail sale in non-specialised stores	19,1	9,0	117,4	27,0	132,7	39,5
52.2	Retail sale of food, beverages and tobacco in specialised stores	18,5	16,4	60,7	29,0	131,6	28,4
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	23,7	11,6	36,5	41,9	146,5	19,4
52.4	Other retail sale of new goods in specialised stores	20,6	13,8	255,9	27,8	107,6	104,1
52.6	Retail sale not in stores	19,2	9,6	9,7	21,4	59,4	5,0
55	Hotels and restaurants	19,2	32,3	308,9	29,0	135,1	125,9
55.1, 2	Hotels and other accommodation	20,8	41,0	103,3	32,7	141,6	44,2
55.3, 4, 5	Restaurants, bars and canteens	18,6	29,4	205,7	27,5	132,1	81,8
60.1	Railway transport	48,4	57,4	190,6	59,0	122,0	34,4
60.2, 3	Other land transport	30,3	31,8	234,5	41,0	135,3	77,2
61	Water transport	21,2	29,5	4,0	58,5	275,8	3,1
62	Air transport	:	:	:	:	:	:
63 (1)	Auxiliary transport activities	39,3	13,5	79,2	48,0	118,1	:
64.12	Courier activities other than national post	21,1	25,0	3,4	12,9	60,2	-2,1
64.2	Telecommunications	:	:	:	:	:	:
65.12	Other monetary intermediation	67,0	46,2	2 051,5	114,9	171,4	854,3
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	29,1	11,8	77,5	67,6	175,9	52,2
71	Renting of machinery	37,0	11,4	107,4	214,3	526,8	90,5
72	Computing services	42,7	41,0	110,9	48,1	106,8	17,6
73	Research and development	:	:	:	:	:	:
74 (1)	Other business activities	26,4	41,3	528,3	33,0	111,3	151,5
74.1	Legal, accounting, management consultancy, market research and holdings	35,9	40,5	333,5	65,8	148,9	185,6
74.2, 3	Architectural & engineering activities	36,2	46,4	106,0	48,2	106,4	42,3
74.4	Advertising	32,2	16,4	25,1	46,8	123,0	10,5
74.5	Labour recruitment	17,8	87,8	69,8	17,5	98,1	-1,1
74.6	Security services	:	:	:	:	:	:
74.7	Industrial cleaning	12,9	63,0	61,0	15,9	122,4	12,3
74.8 (1)	Miscellaneous business activities	44,3	32,1	43,3	57,0	102,8	16,4

(1) 1995.

For further information: SBS

Table 6.19: the Netherlands, enterprise and employment indicators, 1995

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50 (1)	Motor vehicles distribution, maintenance and repair	20 805	13,4	1,2	127,8	6,0	80,8
51 (2)	Wholesale trade	49 835	32,1	3,8	409,8	7,8	92,2
51.1	Wholesale on a fee or contract basis	4 775	3,1	:	:	:	:
51.2, 5, 6 (3)	Wholesale goods for intermediate use	21 780	14,0	4,5	226,4	8,7	94,1
51.3, 4 (3)	Wholesale goods for consumption	18 905	12,2	3,5	160,8	7,6	89,6
52 (4)	Retail trade	85 965	55,4	0,7	584,9	6,5	79,2
52.1 (3)	Retail sale in non-specialised stores	4 140	2,7	4,5	213,3	48,4	96,4
52.2 (3)	Retail sale of food, beverages and tobacco in specialised stores	12 775	8,2	0,4	66,0	4,7	66,8
52.3 (5)	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	3 190	2,1	1,4	20,0	9,7	86,0
52.4 (3)	Other retail sale of new goods in specialised stores	42 645	27,5	0,6	279,4	6,0	78,4
52.6 (3)	Retail sale not in stores	17 290	11,1	0,2	32,7	2,0	37,5
55	Hotels and restaurants	41 096	26,6	0,3	:	:	:
55.1, 2	Hotels and other accommodation	5 280	3,4	0,5	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	35 816	23,2	0,2	:	:	:
60.1	Railway transport	2	0,0	:	:	:	:
60.2, 3	Other land transport	10 864	7,0	:	:	:	:
61	Water transport	4 770	3,1	0,8	:	:	:
62	Air transport	59	0,0	:	:	:	:
63	Auxiliary transport activities	4 657	3,0	1,7	:	:	:
64.12	Courier activities other than national post	1 213	0,8	0,3	:	:	:
64.2	Telecommunications	254	0,2	:	:	:	:
65.12	Other monetary intermediation	174	0,1	224,5	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	5 315	3,4	0,8	:	:	:
72	Computing services	9 573	6,2	0,5	:	:	:
73	Research and development	:	:	:	:	:	:
74	Other business activities	:	:	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	:	:	:
74.2, 3	Architectural & engineering activities	12 146	7,9	0,5	:	:	:
74.4	Advertising	9 817	6,4	0,5	:	:	:
74.5	Labour recruitment	1 491	1,0	:	:	:	:
74.6	Security services	:	:	:	:	:	:
74.7	Industrial cleaning	6 193	4,0	0,3	:	:	:
74.8	Miscellaneous business activities	:	:	:	:	:	:

(1) Excluding NACE Rev. 1 50.1 and 50.3, except for number of enterprises and enterprises per 10,000 population (both 1991 and 1996).

(2) Excluding NACE Rev. 1 51.1, except for number of enterprises, enterprises per 10,000 population and turnover per enterprise (all 1996).

(3) 1996 for number of enterprises, enterprises per 10,000 population and turnover per enterprise.

(4) Excluding NACE Rev. 1 52.1, 52.31 and 52.5, except for number of enterprises and enterprises per 10,000 population (both 1996).

(5) Excluding NACE Rev. 1 52.31, except for number of enterprises, enterprises per 10,000 population and turnover per enterprise (all 1996).

For further information: SBS

Table 6.20: the Netherlands, competitiveness indicators, 1995

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50 (1)	Motor vehicles distribution, maintenance and repair	26,1	8,3	:	:	:	:
51 (2)	Wholesale trade	28,1	6,5	19 168,8	47,9	170,4	8 479,1
51.1	Wholesale on a fee or contract basis	:	:	:	:	:	:
51.2, 5, 6 (3)	Wholesale goods for intermediate use	30,0	7,0	11 779,5	51,2	170,9	5 153,5
51.3, 4 (3)	Wholesale goods for consumption	26,1	5,7	6 521,9	42,7	163,6	2 891,5
52 (4)	Retail trade	13,3	12,6	12 736,4	18,6	140,2	5 732,7
52.1 (5)	Retail sale in non-specialised stores	10,5	10,3	2 693,3	15,2	144,2	926,3
52.2 (3)	Retail sale of food, beverages and tobacco in specialised stores	12,2	11,2	1 038,0	16,7	91,1	526,7
52.3 (6)	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	13,1	13,7	1 490,6	21,4	163,8	943,8
52.4 (3)	Other retail sale of new goods in specialised stores	15,5	14,1	6 035,8	21,1	107,1	2 615,8
52.6 (3)	Retail sale not in stores	14,2	6,9	583,3	18,7	49,4	409,4
55	Hotels and restaurants	14,8	44,7	7 177,1	:	:	:
55.1, 2	Hotels and other accommodation	20,0	63,3	2 247,8	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	13,3	39,6	4 929,2	:	:	:
60,1	Railway transport	:	:	:	:	:	:
60.2, 3 (7)	Other land transport	:	48,4	6 203,2	:	:	2 042,9
61 (8)	Water transport	35,7	15,4	1 215,7	:	:	744,4
62	Air transport	:	:	:	:	:	:
63 (8)	Auxiliary transport activities	32,9	32,9	3 585,0	:	:	1 481,7
64.12 (7)	Courier activities other than national post	:	35,4	187,1	:	:	73,1
64.2	Telecommunications	:	:	:	:	:	:
65.12	Other monetary intermediation	:	53,9	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	24,4	20,9	2 448,4	:	:	:
72	Computing services	43,8	65,2	:	:	:	:
73	Research and development	:	:	:	:	:	:
74	Other business activities	:	:	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	:	:	:
74.2, 3	Architectural & engineering activities	36,7	64,1	5 443,8	:	:	:
74.4	Advertising	37,9	16,5	2 213,5	:	:	:
74.5	Labour recruitment	5,8	:	:	:	:	:
74.6	Security services	:	:	:	:	:	:
74.7	Industrial cleaning	9,6	83,7	1 960,1	:	:	:
74.8	Miscellaneous business activities	:	:	:	:	:	:
(1) Excluding NACE Rev. 1 50.1 and 50.3.							
(2) Excluding NACE Rev. 1 51.1, except for personnel costs in total costs, value added and gross operating surplus (all 1996)							
(3) 1996 for personnel costs in total costs, value added and gross operating surplus.							
(4) Excluding NACE Rev. 1 52.1, 52.31 and 52.5.							
(5) Excluding NACE Rev. 1 52.12, except for personnel costs in total costs, value added and gross operating surplus (all 1996)							
(6) Excluding NACE Rev. 1 52.31, except for personnel costs in total costs, value added and gross operating surplus (all 1996)							
(7) 1996.							
(8) 1996, except for personnel costs per employee.							
For further information: SBS							

Table 6.21: Austria, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	8 071	10,0	2,2	74,9	9,3	92,0
51	Wholesale trade	20 901	25,9	3,3	190,9	9,1	94,3
51.1 (1)	Wholesale on a fee or contract basis	5 209	6,5	0,1	7,8	1,8	50,3
51.2, 5, 6 (1)	Wholesale goods for intermediate use	8 466	10,5	5,1	100,7	12,5	96,2
51.3, 4 (1)	Wholesale goods for consumption	6 324	7,8	4,6	82,7	13,9	96,3
52	Retail trade	38 914	48,3	0,8	255,6	6,6	86,8
52.1 (1)	Retail sale in non-specialised stores	5 187	6,4	2,0	64,4	12,3	91,9
52.2 (1)	Retail sale of food, beverages and tobacco in specialised stores	5 207	6,5	0,4	16,0	3,1	69,4
52.3 (1)	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	2 194	2,7	1,3	19,7	10,1	90,2
52.4 (1)	Other retail sale of new goods in specialised stores	22 298	27,7	0,8	141,8	6,7	87,1
52.6 (1)	Retail sale not in stores	1 791	2,2	0,6	7,2	4,1	75,7
55	Hotels and restaurants	40 504	50,3	0,2	183,1	4,5	78,4
55.1, 2 (1)	Hotels and other accommodation	17 712	22,0	0,3	101,8	5,8	79,9
55.3, 4, 5 (1)	Restaurants, bars and canteens	22 792	28,3	0,2	82,8	3,9	76,8
60.1 (1)	Railway transport	17	0,0	122,6	62,8	3 696,5	100,0
60.2, 3 (1)	Other land transport	9 381	11,6	0,5	70,6	7,9	90,4
61	Water transport	95	0,1	1,0	0,3	3,3	85,8
62	Air transport	87	0,1	19,0	6,8	77,9	99,8
63	Auxiliary transport activities	2 098	2,6	3,2	28,8	13,7	97,2
64.12	Courier activities other than national post	203	0,3	:	:	:	:
64.2 (1)	Telecommunications	99	0,1	58,4	56,4	679,4	100,0
65.12 (2)	Other monetary intermediation	944	1,2	26,2	66,7	70,7	:
66.01, 03 (3)	Insurance	135	0,2	81,5	32,7	238,6	:
70	Real estate	3 943	4,9	1,3	19,8	5,0	91,9
71	Renting of machinery	1 585	2,0	1,1	6,1	3,8	82,8
72	Computing services	4 830	6,0	0,5	16,2	3,4	83,8
73	Research and development	53	0,1	1,2	1,2	22,1	98,0
74	Other business activities	25 335	31,4	0,4	151,3	6,0	85,6
74.1 (1)	Legal, accounting, management consultancy, market research and holdings	9 244	11,5	0,4	46,8	5,5	82,9
74.2, 3 (1)	Architectural & engineering activities	8 148	10,1	0,3	10,8	4,1	76,5
74.4 (1)	Advertising	3 124	3,9	0,7	5,0	3,6	79,1
74.5 (1)	Labour recruitment	296	0,4	1,7	31,1	44,1	99,2
74.6 (1)	Security services	111	0,1	1,5	10,4	54,5	98,8
74.7 (1)	Industrial cleaning	1 210	1,5	0,6	30,3	27,5	97,5
74.8 (1)	Miscellaneous business activities	3 202	4,0	0,6	:	4,1	80,7

(1) 1995 for average turnover per enterprise, number of persons employed, average number of persons employed and share of employees in the number of persons employed.
(2) 1995.
(3) 1995 for average turnover per enterprise, number of persons employed and average number of persons employed.
For further information: SBS

Table 6.22: Austria, competitiveness indicators, 1995

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	27,2	11,0	2 807,2	37,6	126,9	939,3
51	Wholesale trade	35,8	10,0	9 646,4	49,6	130,5	3 071,1
51.1	Wholesale on a fee or contract basis	37,7	33,6	306,3	39,1	52,2	158,0
51.2, 5, 6	Wholesale goods for intermediate use	37,5	9,7	5 421,0	53,8	143,7	1 793,3
51.3, 4	Wholesale goods for consumption	33,8	10,6	3 782,9	45,7	135,1	1 087,4
52	Retail trade	21,7	15,5	6 849,3	27,0	107,3	2 063,5
52.1	Retail sale in non-specialised stores	21,0	12,7	1 663,4	25,8	113,2	423,5
52.2	Retail sale of food, beverages and tobacco in specialised stores	18,7	9,9	420,2	26,2	97,2	211,8
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	22,3	16,6	626,0	31,7	128,5	229,3
52.4	Other retail sale of new goods in specialised stores	22,1	17,8	3 854,8	27,2	106,9	1 120,8
52.6	Retail sale not in stores	25,9	13,6	189,3	26,2	76,8	47,9
55	Hotels and restaurants	18,3	37,9	3 986,5	21,6	92,5	:
55.1, 2	Hotels and other accommodation	19,3	40,2	2 412,8	23,7	97,9	:
55.3, 4, 5	Restaurants, bars and canteens	17,0	34,9	1 573,7	19,0	85,7	:
60.1	Railway transport	33,6	73,5	1 431,0	22,8	67,7	:
60.2, 3	Other land transport	27,4	44,3	2 780,3	39,4	143,7	:
61	Water transport	58,3	24,8	21,5	45,2	69,8	:
62	Air transport	47,4	21,6	414,6	65,6	138,1	:
63	Auxiliary transport activities	36,8	14,6	1 631,5	56,9	150,6	:
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	44,9	76,1	4 256,0	75,5	168,0	:
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03	Insurance	:	46,3	1 736,2	53,1	:	:
70	Real estate	32,7	15,3	2 150,6	108,8	306,8	:
71	Renting of machinery	30,9	20,2	1 078,9	179,7	491,3	:
72	Computing services	45,1	34,0	974,4	64,8	120,7	:
73	Research and development	58,2	68,5	44,9	41,9	70,6	:
74	Other business activities	28,2	42,3	5 557,0	38,8	118,6	:
74.1	Legal, accounting, management consultancy, market research and holdings	32,7	50,9	2 169,5	46,4	117,7	:
74.2, 3	Architectural & engineering activities	36,1	42,8	1 410,7	46,5	98,6	:
74.4	Advertising	36,9	17,5	497,0	55,2	118,4	:
74.5	Labour recruitment	28,0	77,7	329,6	30,5	108,3	:
74.6	Security services	20,2	79,1	109,7	22,1	108,2	:
74.7	Industrial cleaning	14,5	78,5	519,0	16,7	112,4	:
74.8	Miscellaneous business activities	32,2	22,3	521,4	50,2	125,7	:

For further information: SBS

Table 6.23: Portugal, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	28 164	28,4	0,7	138,0	4,9	86,9
51	Wholesale trade	52 702	53,1	0,9	259,5	4,9	88,1
51.1	Wholesale on a fee or contract basis	18 568	18,7	0,2	37,3	2,0	58,1
51.2, 5, 6	Wholesale goods for intermediate use	13 259	13,4	1,4	83,4	6,3	93,1
51.3, 4	Wholesale goods for consumption	17 507	17,6	1,3	122,1	7,0	93,5
52	Retail trade	118 159	119,0	0,2	371,4	3,1	76,3
52.1	Retail sale in non-specialised stores	13 674	13,8	0,5	69,0	5,0	83,2
52.2	Retail sale of food, beverages and tobacco in specialised stores	22 487	22,7	0,1	50,3	2,2	61,7
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	4 628	4,7	0,5	20,7	4,5	88,3
52.4	Other retail sale of new goods in specialised stores	60 685	61,1	0,2	207,7	3,4	81,4
52.6	Retail sale not in stores	8 425	8,5	0,1	10,5	1,3	18,5
55	Hotels and restaurants	63 297	63,8	0,1	239,5	3,8	77,8
55.1, 2	Hotels and other accommodation	2 740	2,8	0,4	39,0	14,2	95,3
55.3, 4, 5	Restaurants, bars and canteens	60 557	61,0	0,1	200,5	3,3	74,4
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	98	0,1	4,6	2,3	23,8	98,5
62	Air transport	25	0,0	39,2	9,8	391,5	99,9
63	Auxiliary transport activities	2 616	2,6	1,4	27,6	10,5	96,9
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	113	0,1	23,7	21,1	186,4	99,7
65.12 (1)	Other monetary intermediation	240	0,2	54,6	63,1	262,7	:
66.01, 03 (1)	Insurance	42	0,0	52,1	6,4	151,3	:
70	Real estate	9 032	9,1	0,7	26,6	2,9	72,9
71	Renting of machinery	2 662	2,7	0,4	9,6	3,6	78,7
72	Computing services	2 316	2,3	0,3	9,4	4,1	86,3
73	Research and development	41	0,0	0,1	0,1	2,8	69,0
74	Other business activities	41 224	41,5	0,3	183,7	4,5	82,1
74.1	Legal, accounting, management consultancy, market research and holdings	9 470	9,5	0,6	40,1	4,2	83,8
74.2, 3	Architectural & engineering activities	3 671	3,7	0,4	15,7	5,6	90,8
74.4	Advertising	2 986	3,0	0,8	16,8	3,7	83,4
74.5	Labour recruitment	215	0,2	0,9	39,6	73,1	99,7
74.6	Security services	605	0,6	0,4	40,1	27,7	96,8
74.7	Industrial cleaning	1 624	1,6	0,2	20,4	24,4	96,9
74.8	Miscellaneous business activities	22 653	22,8	0,1	:	1,8	48,0

(1) 1995.

For further information: SBS

Table 6.24: Portugal, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	9,8	5,9	1 831,2	13,3	118,1	660,0
51	Wholesale trade	12,3	6,2	4 832,8	18,6	133,7	2 027,4
51.1	Wholesale on a fee or contract basis	11,8	6,8	480,5	12,9	63,3	224,6
51.2, 5, 6	Wholesale goods for intermediate use	13,7	6,3	1 935,8	23,2	169,8	874,1
51.3, 4	Wholesale goods for consumption	11,4	5,8	2 077,0	17,0	148,9	771,9
52	Retail trade	8,1	8,6	3 642,1	9,8	92,9	1 357,9
52.1	Retail sale in non-specialised stores	8,1	6,6	806,3	11,7	119,6	339,5
52.2	Retail sale of food, beverages and tobacco in specialised stores	6,4	7,0	306,1	6,1	59,1	109,0
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	11,3	10,0	419,0	20,3	158,1	212,1
52.4	Other retail sale of new goods in specialised stores	7,9	9,7	1 969,8	9,5	97,5	630,3
52.6	Retail sale not in stores	11,9	5,2	56,8	5,4	8,4	33,6
55	Hotels and restaurants	6,6	22,5	1 684,7	7,0	83,0	457,1
55.1, 2	Hotels and other accommodation	9,9	40,6	553,9	14,2	136,9	186,6
55.3, 4, 5	Restaurants, bars and canteens	5,8	19,0	1 130,8	5,6	72,7	270,5
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	17,0	9,8	102,0	43,8	254,1	63,1
62	Air transport	31,1	32,8	424,5	43,4	139,2	120,2
63	Auxiliary transport activities	18,4	14,9	906,9	32,9	173,1	415,0
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	25,3	33,3	1 856,2	88,1	347,2	1 324,8
65.12 (1)	Other monetary intermediation	:	64,9	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	11,3	8,5	1 722,1	64,7	418,4	1 503,1
71	Renting of machinery	11,5	18,3	609,2	63,7	434,5	522,4
72	Computing services	19,9	28,9	209,2	22,3	96,7	48,1
73	Research and development	8,4	23,6	0,8	7,0	57,4	0,1
74	Other business activities	11,2	20,5	4 800,4	26,1	192,4	3 118,8
74.1	Legal, accounting, management consultancy, market research and holdings	15,2	18,4	3 080,0	76,7	422,9	2 569,1
74.2, 3	Architectural & engineering activities	15,8	22,0	462,1	22,6	129,8	168,3
74.4	Advertising	17,7	6,9	254,0	23,2	109,4	92,3
74.5	Labour recruitment	8,5	70,2	142,0	9,0	106,1	9,0
74.6	Security services	9,8	76,5	179,9	10,7	106,0	20,9
74.7	Industrial cleaning	5,0	60,4	209,3	5,3	102,6	17,6
74.8	Miscellaneous business activities	12,0	22,1	473,2	11,8	47,1	241,6

(1) 1995.

For further information: SBS

Table 6.25: Finland, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	8 376	16,3	1,1	29,0	3,5	85,7
51	Wholesale trade	15 491	30,2	2,3	74,4	4,8	92,7
51.1	Wholesale on a fee or contract basis	3 721	7,3	0,2	4,5	1,2	74,3
51.2, 5, 6	Wholesale goods for intermediate use	6 667	13,0	2,9	43,5	6,5	94,4
51.3, 4	Wholesale goods for consumption	4 680	9,1	2,1	21,0	4,5	92,1
52	Retail trade	23 912	46,7	0,8	93,1	3,9	87,1
52.1	Retail sale in non-specialised stores	4 680	9,1	2,5	45,0	9,6	93,9
52.2	Retail sale of food, beverages and tobacco in specialised stores	1 391	2,7	0,4	3,3	2,4	76,9
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	1 286	2,5	0,9	7,1	5,5	92,5
52.4	Other retail sale of new goods in specialised stores	13 667	26,7	0,4	34,1	2,5	80,6
52.6	Retail sale not in stores	725	1,4	0,4	1,3	1,7	81,6
55	Hotels and restaurants	9 228	18,0	0,4	42,8	4,6	88,0
55.1, 2	Hotels and other accommodation	1 224	2,4	0,8	11,2	9,2	94,9
55.3, 4, 5	Restaurants, bars and canteens	8 004	15,6	0,3	31,6	3,9	85,5
60.1 (1)	Railway transport	2	0,0	:	:	:	:
60.2, 3 (1)	Other land transport	19 267	37,7	:	:	:	:
61	Water transport	286	0,6	6,1	8,3	28,9	98,6
62	Air transport	69	0,1	17,5	7,8	112,7	99,6
63	Auxiliary transport activities	1 310	2,6	3,0	18,7	14,3	97,4
64.12 (1)	Courier activities other than national post	205	0,4	0,8	3,5	16,8	97,3
64,2	Telecommunications	163	0,3	13,4	16,5	101,2	99,7
65.12 (1)	Other monetary intermediation	355	0,7	19,5	31,3	88,2	:
66.01, 03 (1)	Insurance	165	0,3	20,7	9,2	55,9	:
70	Real estate	6 378	12,4	0,3	16,8	2,6	82,4
71	Renting of machinery	946	1,8	0,4	2,4	2,5	83,3
72	Computing services	2 824	5,5	0,6	16,1	5,7	92,7
73	Research and development	149	0,3	0,5	1,0	6,9	95,3
74	Other business activities	22 634	44,2	0,3	76,4	3,4	87,2
74.1	Legal, accounting, management consultancy, market research and holdings	8 884	17,3	0,2	20,8	2,3	82,8
74.2, 3	Architectural & engineering activities	5 784	11,3	0,3	3,5	3,8	89,1
74.4	Advertising	1 978	3,9	0,5	3,7	2,8	82,9
74.5	Labour recruitment	270	0,5	0,4	13,4	13,1	96,6
74.6	Security services	292	0,6	0,4	7,5	12,5	96,0
74.7	Industrial cleaning	2 235	4,4	0,2	22,0	6,0	90,1
74.8	Miscellaneous business activities	3 191	6,2	0,2	:	2,4	82,7

(1) 1995.

For further information: SBS

Table 6.26: Finland, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	28,9	7,9	1 203,0	41,5	123,0	485,0
51	Wholesale trade	34,8	7,1	4 315,9	58,0	154,7	1 915,4
51.1	Wholesale on a fee or contract basis	34,8	23,5	254,0	55,9	119,5	136,6
51.2, 5, 6	Wholesale goods for intermediate use	36,1	8,1	2 606,7	59,9	166,0	1 124,2
51.3, 4	Wholesale goods for consumption	32,0	6,6	1 091,9	52,0	162,3	472,2
52	Retail trade	24,5	11,1	3 153,9	33,9	120,4	1 166,8
52.1	Retail sale in non-specialised stores	25,1	9,5	1 576,8	35,0	130,9	515,2
52.2	Retail sale of food, beverages and tobacco in specialised stores	31,6	17,1	135,5	40,6	98,8	54,4
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	25,4	15,9	292,6	41,4	150,6	126,5
52.4	Other retail sale of new goods in specialised stores	22,7	13,1	1 037,9	30,4	108,3	415,2
52.6	Retail sale not in stores	27,2	9,2	55,6	44,2	132,6	27,7
55	Hotels and restaurants	22,8	27,5	1 193,3	27,9	107,4	333,2
55.1, 2	Hotels and other accommodation	26,1	32,0	378,7	33,7	122,5	100,5
55.3, 4, 5	Restaurants, bars and canteens	21,5	25,7	814,6	25,8	102,4	232,8
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	39,2	20,2	559,8	67,7	170,2	240,1
62	Air transport	44,2	31,3	483,5	62,2	140,1	140,9
63	Auxiliary transport activities	30,8	15,3	821,8	43,9	139,0	260,5
64.12 (1)	Courier activities other than national post	20,4	47,4	79,9	23,1	110,4	:
64.2	Telecommunications	30,6	33,6	1 216,1	73,8	240,7	713,8
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	27,9	22,9	905,6	53,9	159,6	519,9
71	Renting of machinery	28,7	23,2	166,6	69,2	201,0	109,2
72	Computing services	41,3	41,7	869,8	54,1	121,4	254,5
73	Research and development	36,4	54,8	44,1	42,6	111,5	8,2
74	Other business activities	29,8	40,9	2 995,5	39,2	114,6	1 009,1
74.1	Legal, accounting, management consultancy, market research and holdings	34,2	44,9	1 060,5	50,9	123,3	470,6
74.2, 3	Architectural & engineering activities	34,5	42,4	930,3	42,2	109,0	:
74.4	Advertising	32,6	17,3	231,8	42,3	107,4	83,5
74.5	Labour recruitment	19,6	74,4	77,3	21,9	108,1	10,6
74.6	Security services	21,5	73,2	87,3	23,9	106,6	11,9
74.7	Industrial cleaning	20,2	65,7	320,1	24,0	106,8	76,8
74.8	Miscellaneous business activities	29,7	35,1	288,2	38,3	106,6	103,3

(1) 1995.

For further information: SBS

Table 6.27: Sweden, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	17 641	20,0	1,3	:	:	:
51	Wholesale trade	39 661	44,9	2,0	:	:	:
51.1	Wholesale on a fee or contract basis	3 070	3,5	1,1	:	:	:
51.2, 5, 6	Wholesale goods for intermediate use	21 439	24,2	2,1	:	:	:
51.3, 4	Wholesale goods for consumption	14 728	16,7	2,1	:	:	:
52	Retail trade	55 441	62,7	0,7	:	:	:
52.1	Retail sale in non-specialised stores	7 159	8,1	2,2	:	:	:
52.2	Retail sale of food, beverages and tobacco in specialised stores	7 316	8,3	0,5	:	:	:
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	922	1,0	3,1	:	:	:
52.4	Other retail sale of new goods in specialised stores	33 498	37,9	0,4	:	:	:
52.6	Retail sale not in stores	2 115	2,4	0,5	:	:	:
55	Hotels and restaurants	18 507	20,9	0,3	:	:	:
55.1, 2	Hotels and other accommodation	2 665	3,0	0,7	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	15 842	17,9	0,3	:	:	:
60.1	Railway transport	21	0,0	2,5	:	:	:
60.2, 3	Other land transport	26 222	29,7	0,4	:	:	:
61	Water transport	669	0,8	4,9	:	:	:
62	Air transport	177	0,2	12,8	:	:	:
63	Auxiliary transport activities	3 574	4,0	3,3	:	:	:
64.12	Courier activities other than national post	166	0,2	2,1	:	:	:
64.2	Telecommunications	238	0,3	23,6	:	:	:
65.12 (1)	Other monetary intermediation	116	0,1	137,0	43,3	373,3	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	4 426	5,0	0,4	:	:	:
72	Computing services	12 234	13,8	0,5	:	:	:
73	Research and development	1 178	1,3	0,8	:	:	:
74	Other business activities	76 194	86,2	0,3	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	30 472	34,5	0,2	:	:	:
74.2, 3	Architectural & engineering activities	19 393	21,9	0,3	:	:	:
74.4	Advertising	9 106	10,3	0,4	:	:	:
74.5	Labour recruitment	149	0,2	0,3	:	:	:
74.6	Security services	441	0,5	1,1	:	:	:
74.7	Industrial cleaning	4 810	5,4	0,2	:	:	:
74.8	Miscellaneous business activities	11 823	13,4	0,2	:	:	:

(1) 1995.

For further information: SBS

Table 6.28: Sweden, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	31,9	:	2 652,5	:	:	868,1
51	Wholesale trade	39,4	:	9 865,2	:	:	3 291,8
51.1	Wholesale on a fee or contract basis	38,9	:	441,2	:	:	145,1
51.2, 5, 6	Wholesale goods for intermediate use	40,5	:	6 153,8	:	:	2 130,2
51.3, 4	Wholesale goods for consumption	37,9	:	3 218,7	:	:	1 001,2
52	Retail trade	28,0	:	6 264,0	:	:	1 575,9
52.1	Retail sale in non-specialised stores	27,4	:	2 189,3	:	:	438,0
52.2	Retail sale of food, beverages and tobacco in specialised stores	27,7	:	445,2	:	:	120,2
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	36,8	:	490,0	:	:	100,8
52.4	Other retail sale of new goods in specialised stores	27,1	:	2 780,3	:	:	814,6
52.6	Retail sale not in stores	32,3	:	177,5	:	:	38,8
55	Hotels and restaurants	24,7	:	2 128,5	:	:	440,0
55.1, 2	Hotels and other accommodation	27,2	:	755,3	:	:	149,3
55.3, 4, 5	Restaurants, bars and canteens	23,5	:	1 373,2	:	:	290,6
60.1	Railway transport	37,8	:	13,8	:	:	6,1
60.2, 3	Other land transport	31,1	:	3 144,9	:	:	563,6
61	Water transport	38,1	:	762,0	:	:	250,2
62	Air transport	49,9	:	701,2	:	:	178,4
63	Auxiliary transport activities	36,8	:	1 666,1	:	:	349,2
64.12	Courier activities other than national post	29,3	:	189,8	:	:	4,5
64.2	Telecommunications	45,1	:	2 907,2	:	:	1 344,0
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	32,5	:	815,5	:	:	564,9
72	Computing services	49,1	:	2 670,2	:	:	598,6
73	Research and development	45,7	:	263,0	:	:	-87,9
74	Other business activities	37,7	:	8 287,2	:	:	1 859,0
74.1	Legal, accounting, management consultancy, market research and holdings	43,9	:	2 741,0	:	:	576,7
74.2, 3	Architectural & engineering activities	41,3	:	2 686,8	:	:	564,0
74.4	Advertising	37,6	:	874,6	:	:	262,1
74.5	Labour recruitment	43,6	:	26,9	:	:	12,7
74.6	Security services	29,4	:	341,8	:	:	50,6
74.7	Industrial cleaning	25,5	:	798,6	:	:	145,1
74.8	Miscellaneous business activities	31,9	:	817,5	:	:	247,8

For further information: SBS

Table 6.29: the United Kingdom, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	71 119	12,1	1,9	:	:	:
51	Wholesale trade	110 107	18,7	3,8	:	:	:
51.1	Wholesale on a fee or contract basis	12 846	2,2	0,7	:	:	:
51.2, 5, 6	Wholesale goods for intermediate use	28 968	4,9	8,2	:	:	:
51.3, 4	Wholesale goods for consumption	40 335	6,9	3,4	:	:	:
52	Retail trade	206 963	35,2	1,1	:	:	:
52.1	Retail sale in non-specialised stores	37 559	6,4	2,9	:	:	:
52.2	Retail sale of food, beverages and tobacco in specialised stores	58 321	9,9	0,3	:	:	:
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	7 321	1,2	1,2	:	:	:
52.4	Other retail sale of new goods in specialised stores	90 290	15,4	1,0	:	:	:
52.6	Retail sale not in stores	6 321	1,1	1,8	:	:	:
55	Hotels and restaurants	109 532	18,6	0,5	:	:	:
55.1, 2	Hotels and other accommodation	15 112	2,6	0,9	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	94 420	16,1	0,4	:	:	:
60.1	Railway transport	92	0,0	32,7	:	:	:
60.2, 3	Other land transport	47 474	8,1	0,6	:	:	:
61	Water transport	1 161	0,2	6,1	:	:	:
62	Air transport	962	0,2	16,9	:	:	:
63	Auxiliary transport activities	16 856	2,9	2,3	:	:	:
64.12	Courier activities other than national post	2 266	0,4	1,3	:	:	:
64.2	Telecommunications	:	:	:	:	:	:
65.12 (1)	Other monetary intermediation	561	0,1	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	9 404	1,6	1,6	:	:	:
72	Computing services	64 295	10,9	0,3	:	:	:
73	Research and development	2 365	0,4	2,1	:	:	:
74	Other business activities	:	:	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	:	:	:
74.2, 3	Architectural & engineering activities	50 256	8,5	0,5	:	:	:
74.4	Advertising	10 157	1,7	1,6	:	:	:
74.5	Labour recruitment	8 166	1,4	1,5	:	:	:
74.6	Security services	2 184	0,4	1,0	:	:	:
74.7	Industrial cleaning	6 647	1,1	0,5	:	:	:
74.8	Miscellaneous business activities	61 838	10,5	0,5	:	:	:

(1) 1995.

For further information: SBS

Table 6.30: the United Kingdom, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	:	6,4	:	:	:	:
51	Wholesale trade	:	5,6	:	:	:	:
51.1	Wholesale on a fee or contract basis	:	11,1	:	:	:	:
51.2, 5, 6	Wholesale goods for intermediate use	:	5,0	:	:	:	:
51.3, 4	Wholesale goods for consumption	:	6,0	:	:	:	:
52	Retail trade	:	12,4	:	:	:	:
52.1	Retail sale in non-specialised stores	:	10,9	:	:	:	:
52.2	Retail sale of food, beverages and tobacco in specialised stores	:	10,5	:	:	:	:
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	:	11,9	:	:	:	:
52.4	Other retail sale of new goods in specialised stores	:	14,6	:	:	:	:
52.6	Retail sale not in stores	:	13,1	:	:	:	:
55	Hotels and restaurants	:	28,6	:	:	:	:
55.1, 2	Hotels and other accommodation	:	36,3	:	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	:	26,3	:	:	:	:
60.1	Railway transport	:	23,6	:	:	:	:
60.2, 3	Other land transport	:	34,5	:	:	:	:
61	Water transport	:	16,5	:	:	:	:
62	Air transport	:	17,6	:	:	:	:
63	Auxiliary transport activities	:	15,5	:	:	:	:
64.12	Courier activities other than national post	:	31,8	:	:	:	:
64.2	Telecommunications	:	33,4	:	:	:	:
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	:	26,7	:	:	:	:
72	Computing services	:	40,2	:	:	:	:
73	Research and development	:	45,3	:	:	:	:
74	Other business activities	:	:	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	:	:	:
74.2, 3	Architectural & engineering activities	:	37,4	:	:	:	:
74.4	Advertising	:	12,3	:	:	:	:
74.5	Labour recruitment	:	65,7	:	:	:	:
74.6	Security services	:	79,0	:	:	:	:
74.7	Industrial cleaning	:	72,6	:	:	:	:
74.8	Miscellaneous business activities	:	30,2	:	:	:	:

For further information: SBS

Table 6.31: Norway, enterprise and employment indicators, 1996

		Number of enterprises (units)	Number of enterprises per 10,000 population (units)	Average turnover per enterprise (million ECU)	Number of persons employed (thousands)	Average number of persons employed per enterprise (units)	Share of employees in the number of persons employed (%)
50	Motor vehicles distribution, maintenance and repair	8 110	18,5	2,0	50,3	6,2	92,1
51	Wholesale trade	17 594	40,2	2,6	107,3	6,1	94,8
51.1	Wholesale on a fee or contract basis	2 009	4,6	0,2	3,8	1,9	74,4
51.2, 5, 6	Wholesale goods for intermediate use	8 700	19,9	2,9	62,6	7,2	96,3
51.3, 4	Wholesale goods for consumption	5 723	13,1	3,6	37,5	6,5	95,2
52	Retail trade	31 802	72,6	0,7	166,3	5,2	89,0
52.1	Retail sale in non-specialised stores	6 254	14,3	1,7	63,6	10,2	94,9
52.2	Retail sale of food, beverages and tobacco in specialised stores	2 653	6,1	0,4	8,7	3,3	76,8
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	1 198	2,7	0,8	7,6	6,3	88,5
52.4	Other retail sale of new goods in specialised stores	17 977	41,0	0,5	79,7	4,4	88,9
52.6	Retail sale not in stores	1 543	3,5	0,2	3,3	2,2	58,5
55	Hotels and restaurants	:	:	:	:	:	:
55.1, 2	Hotels and other accommodation	:	:	:	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	:	:	:	:	:	:
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	:	:	:	:	:	:
62	Air transport	:	:	:	:	:	:
63	Auxiliary transport activities	:	:	:	:	:	:
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	:	:	:	:	:	:
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03 (1)	Insurance	116	0,3	44,9	7,7	66,8	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	2 007	4,6	0,3	5,2	2,6	80,8
72	Computing services	2 465	5,6	0,9	16,9	6,9	93,7
73	Research and development	132	0,3	2,8	4,7	35,7	99,5
74	Other business activities	:	:	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	:	:	:
74.2, 3	Architectural & engineering activities	6 794	15,5	0,5	:	4,3	89,5
74.4	Advertising	2 376	5,4	0,5	5,1	2,7	82,2
74.5	Labour recruitment	:	:	:	10,4	:	:
74.6	Security services	152	0,3	1,1	15,2	33,6	98,5
74.7	Industrial cleaning	1 554	3,5	0,2	29,3	6,7	88,6
74.8	Miscellaneous business activities	5 165	11,8	0,3	:	2,9	79,5

(1) 1995.

For further information: SBS

Table 6.32: Norway, competitiveness indicators, 1996

		Personnel costs per employee (thousand ECU)	Share of personnel costs in total costs (%)	Value added at factor cost (million ECU)	Value added at factor cost per person employed (thousand ECU)	Wage adjusted labour productivity (%)	Gross operating surplus (million ECU)
50	Motor vehicles distribution, maintenance and repair	26,0	7,6	1 697,6	33,7	119,7	493,9
51	Wholesale trade	33,8	8,0	5 140,7	47,9	134,4	1 700,6
51.1	Wholesale on a fee or contract basis	27,2	20,7	124,4	32,4	88,6	46,8
51.2, 5, 6	Wholesale goods for intermediate use	35,4	9,3	3 147,9	50,3	141,8	1 010,4
51.3, 4	Wholesale goods for consumption	31,8	5,9	1 752,4	46,8	146,8	616,0
52	Retail trade	18,7	13,1	3 733,8	22,5	107,1	970,3
52.1	Retail sale in non-specialised stores	17,2	10,3	1 455,7	22,9	126,7	420,3
52.2	Retail sale of food, beverages and tobacco in specialised stores	17,8	10,9	157,9	18,1	78,3	39,1
52.3	Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles	25,6	18,2	203,3	26,9	92,9	31,8
52.4	Other retail sale of new goods in specialised stores	19,3	16,2	1 805,0	22,6	104,2	434,9
52.6	Retail sale not in stores	17,5	9,7	59,1	17,8	59,5	25,2
55	Hotels and restaurants	:	:	:	:	:	:
55.1, 2	Hotels and other accommodation	:	:	:	:	:	:
55.3, 4, 5	Restaurants, bars and canteens	:	:	:	:	:	:
60.1	Railway transport	:	:	:	:	:	:
60.2, 3	Other land transport	:	:	:	:	:	:
61	Water transport	:	:	:	:	:	:
62	Air transport	:	:	:	:	:	:
63	Auxiliary transport activities	:	:	:	:	:	:
64.12	Courier activities other than national post	:	:	:	:	:	:
64.2	Telecommunications	:	:	:	:	:	:
65.12	Other monetary intermediation	:	:	:	:	:	:
66.01, 03	Insurance	:	:	:	:	:	:
70	Real estate	:	:	:	:	:	:
71	Renting of machinery	28,3	24,2	293,8	56,2	160,4	174,3
72	Computing services	46,8	37,0	933,9	55,2	110,6	192,0
73	Research and development	42,7	49,2	235,0	49,8	116,1	34,7
74	Other business activities	:	:	:	:	:	:
74.1	Legal, accounting, management consultancy, market research and holdings	:	:	:	:	:	:
74.2, 3	Architectural & engineering activities	43,2	36,2	1 445,7	49,3	102,2	312,4
74.4	Advertising	36,8	16,7	262,7	40,6	90,8	67,1
74.5	Labour recruitment	:	:	:	:	:	:
74.6	Security services	22,8	75,0	133,1	26,1	112,7	18,5
74.7	Industrial cleaning	16,9	59,7	189,6	18,2	95,5	33,9
74.8	Miscellaneous business activities	28,7	27,1	480,7	31,7	87,9	134,6

For further information: SBS

Methodological notes



Chapter 7

European Business Statistics System

Since the beginning of the 1990's great progress has been made in European business statistics. There have been major changes in the tools used by statisticians for producing business statistics and developments in the data collected. The biggest changes in terms of increased data availability have been in the development of harmonised production statistics and in the long-awaited extension of structural and short-term statistics outside of the traditional areas of mining, manufacturing, utilities and construction into the service sectors of the economy. This has been accompanied by a more comprehensive coverage of small and medium-sized enterprises.

Below are listed the main business statistics tools as they are at the time of writing. Many of these have a legal basis which has been developed during the 1990s.

General statistical legislation relevant to business statistics

Statistical Law 1997

Confidentiality 1990

Units and classifications

Statistical units 1993

Classification of products by activity (CPA) 1993

NACE Rev. 1 1990

Nomenclature of territorial units (NUTS)

Classification types of constructions (CC)

Register

Business registers 1993

Business statistics data production

Short-term statistics (STS) 1998

Structural business statistics (SBS) 1997

Labour cost survey (LCS) 1996

Structure and distribution of earnings (SES) 1995

Production statistics (PRODCOM) 1991

EU trade (INTRASTAT) 1991

Source notes

The main basis for the analysis contained within this product may be found within the data collected through the SBS Regulation. This data contains structural statistics on European enterprises. However, in an attempt to provide a wider-ranging analysis several other sources have also been used in this product. They include the National Accounts SEC2 database, the Labour Force Survey, the Labour Cost Survey, the Structure of Earnings Survey and the SME database on Small and Medium-sized Enterprises.

Although these statistics have the same source, the Statistical Office of the European Communities (Eurostat), the same definitions are not always employed for the concepts within the methodology of each data collection. Hence, the data can show significant differences for concepts that may appear similar or even identical at first sight. The list of sources presented detail the data used in this publication and should help the reader to find methodological explanations regarding specific data collections.

SBS database

The SBS database contains structural business statistics on industrial and service enterprises in Europe. Data on services are collected within the legal framework provided by the SBS Regulation No. 58/97, Annex 1.

A few important points should be kept in mind when reading the analysis in this publication and when studying the data presented in the tables or found in the SBS database. Many service activities are characterised by a dynamic business population with many enterprises moving into and out of the population every year. The large number of small enterprises means that care has to be taken when comparing the absolute number of enterprises between countries, as small methodological difference may lead to large differences in statistics.

Employment figures in the SBS database are nearly always based on head counts and hence do not take account of differences in working time or the incidence of part-time employment; these two factors vary greatly between activities and between countries. It should be noted that the data for Sweden do not include persons classified as sole proprietors. Sole proprietorships are enterprises who in the institutional sector classification belong to the household sector. Indeed, they are households that act like producers, that are not incorporated.

The turnover concept does not always give a good indication of the economic weight or importance of an activity. In financial intermediation and distributive trade activities, large amounts of turnover can pass through enterprises with few persons employed, and the same commodities can be “invoiced” several times. In the activity of banking, turnover is defined as interest and commission received. In the activity of insurance it corresponds to gross premiums written and pension contributions.

Measures of productivity are generally presented using value added at factor costs per person employed. Income and expenditure classified as financial or extraordinary in company accounts is excluded. This has large implications when comparing indicators based on value added across activities. Another drawback is that the employment data are not calculated as full-time equivalents, with consequences for ratios such as value added per person employed when comparing across activities.

The analysis sometimes refers to wage adjusted labour productivity (value added divided by personnel costs, expressed in percentage terms). For this indicator an element of distortion has to be considered: namely that value added is linked to all production factors with the labour force measured as the total number of persons employed, whilst for personnel costs the data relates to the paid staff only (employees). Hence, activities that display a propensity for a high number of working proprietors or unpaid personnel (such as family workers) may have artificially high ratios. In order to try to take account of this distortion the personnel costs have been adjusted by multiplying by the number of persons employed over the number of employees.

Definitions of variables

The number of enterprises is defined as a count of the number of enterprises registered to the population concerned in the business register, corrected for errors, in particular frame errors. Dormant units are excluded. This statistic should include all units active during at least a part of the reference period.

The number of persons employed is defined as the total number of persons who work in the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (e.g. sales representatives, delivery personnel, repair and maintenance teams). It includes persons absent for a short period (e.g. sick leave, paid leave or special leave), and also those on strike, but not those absent for an indefinite period. It also includes part-time workers who are regarded as such under the laws of the country concerned and who are on the pay-roll, as well as seasonal workers, apprentices and home workers on the pay-roll.

The number of employees is defined as those persons who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind.

Turnover is the total amount invoiced by the enterprise during the period under review. This total corresponds to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the enterprise with the exception of VAT invoiced by the unit vis-à-vis its customers. It also includes all other charges to customers. Reductions in prices, rebates and discounts as well as the value of returned packing must be deducted, but not cash discounts. In the activity of banking, turnover is defined as interest and commission received. In the activity of insurance it corresponds to gross premiums written and pension contributions.

Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home workers) in return for work done by the latter during the reference period. Personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions. Personnel costs are made up of wages and salaries and employers' social security costs.

Value added at factor cost is the gross income from operating activities after adjusting for operating subsidies and indirect taxes. It can be calculated from turnover, plus capitalised production, plus other operating income, plus or minus the changes in stocks, minus the purchases of goods and services, minus other taxes on products which are linked to turnover but not deductible, minus the duties and taxes linked to production. Alternatively it can be calculated from gross operating surplus by adding personnel costs.

Wage adjusted labour productivity: $(\text{value added at factor cost} / \text{personnel costs}) * (\text{number of employees} / \text{number of persons employed})$.

Comprehensive information on the sources and methodology used for this data is available in a separate publication released by Eurostat: "Structural Business Statistics: National Methodologies". The project to document the national data collection methodologies for services' structural statistics was set up by Eurostat in the mid-1990s following similar exercises for industrial structural statistics. These projects were harmonised during 1999 and a common publication is due at the end of 1999, covering both industrial and service activities.

National Accounts

Data published by Eurostat for the European Union countries are in accordance with the ESA-79 (European System of Integrated Economic Accounts), which is the European Union version of the United Nations' system of National Accounts (SNA). It gives common definitions for the complete set of national accounts, input-output tables and financial (flow or funds) accounts. The basic classification NACE-CLIO, which is used to build the input-output tables is used to detail the aggregates by branch. For the final consumption of households on the economic territory, the breakdown is made by consumption purpose. For each branch, the gross value added is the difference between the value of actual output and the value of intermediate consumption.

As far as employment is concerned, the occupied population covers all the persons engaged in some activity which is considered as productive (in the National Accounts sense) whether these persons are civilian or military personnel. It comprises both the residents and the non-residents (wage and salary earners, self-employed persons, unpaid family workers, armed forces) who work for resident producer units.

The final consumption of households represents the value of goods and services used for the direct satisfaction of individual human wants. The flow contains the final consumption of resident households and non-residents households on the economic territory. Final consumption is broken down on the basis of the two-digit classification of ESA corresponding to the "Classification of household goods and services" of the SNA (System of National Accounts, United Nations).

SME database

The SME tabular data are structural enterprise data, broken down by employment size class and economic activity at national and regional levels. For most of the countries data have been produced by public institutions. These are primarily: the national statistical institutes, in many cases they integrate different official data sources such as enterprise censuses, the VAT register, the statistical business register, results of surveys, etc.; the social security authority, which is the major source of employment data.

In some cases data come from private institutions. In general, the SME tabular data are created from several sources, either at the national level, or within Eurostat. This is necessary when: one source cannot provide all the variables requested (for example, the social security authority generally cannot provide data on turnover or value added); one source does not cover all economic activities (in several countries surveys are carried out for certain activities as VAT registers do not contain exempted activities); one source cannot provide information on all enterprise sizes (for example, industrial censuses generally do not cover smaller firms or social security registers do not include enterprises without employees). Please note that no data exists for size class "0" in Greece.

The main characteristic of the SME data is its breakdown by employment size class. The size class boundaries are expressed in terms of paid employment: this allows us to separate the sole proprietorships (size class "0") from the rest of the enterprise population, as they employ by definition only unpaid staff, consisting of the entrepreneur or family members. As well as the number of enterprises by size class, the SME data contain several economic variables. The number of persons employed is defined as the total number of persons who work in the enquiry unit (inclusive of working proprietors, partners working regularly in the enterprise and unpaid family workers), as well as persons who work outside the unit but belong to it and are paid by it (for example, commercial representatives, delivery men, repair and maintenance groups). Included are persons absent for a short period (for example, on sick leave, paid leave or special leave), and also those on strike, but not those absent for an indefinite period. Also included are part-time workers who are regarded as such under the laws of the country concerned and who are on the payroll, as well as seasonal workers, apprentices and homeworkers on the payroll. Excluded are labour forces made available to the unit by other enterprises and charged for, persons carrying out repair and maintenance work in the enquiry unit on behalf of other enterprises, as well as those doing compulsory military service.

Number of employees (paid employment) is defined as persons who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, payments by result or payments in kind. Homeworkers, regardless of whether they are on the payroll or not, are excluded.

Turnover is the total invoiced by the unit during the reference period, that is all market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the unit with the exception of value added tax (VAT) invoiced by the unit vis-à-vis its customers. Turnover includes all other charges (transport, packaging, etc.) ascribed to the customer even if these charges are listed separately in the invoice. Reduction in prices, rebates and discounts, as well as the value of returned packaging must be deducted, but not cash discounts. Turnover does not include sales of fixed assets. Operating subsidies received from public authorities or the EU are also excluded.

Labour Cost Survey

The Labour Cost Survey is conducted every four years, the last occasion being 1996. The survey is a follow-up to similar surveys carried out in 1978, 1981, 1984, 1988 and 1992 on industry, distributive trades, banking and insurance. For the intervening years, Eurostat has devised a method to update figures in co-operation with the statistical services of the Member States which allows each country to make estimations according to the availability of basic data.

The statistical offices of the Member States are responsible for their sampling methods, for drawing up appropriate questionnaires, for collecting data from enterprises or local units and for processing replies. After verification, and in accordance with the utilisation programme defined by the Commission, they forward the results of the survey to the Statistical Office of the European Communities. At Community level, the Statistical Office of the European Communities is responsible for the processing, analysis and dissemination of the results transmitted. The survey covers enterprises or local units with at least ten employees carrying out the main activities defined and described by the economic activities of Sections C, D, E, F, G, H and K, Divisions 65 and 66 and Group 63.3 of NACE Rev. 1. The data collected on labour costs covers: wage costs, including bonuses and allowances, and all incidental expenditure, including in particular employers' contributions to social security and supplementary schemes and other social payments, including the cost of vocational training and any taxes or subsidies directly related to labour costs; the total number of staff employed by the enterprises or local units; working hours.

Concepts used

Employees are all persons working under contract as paid employees in the enterprise or establishment who receive remuneration, irrespective of the type of work performed, the number of hours worked (full or part-time) and the duration of the contract (fixed or indefinite).

The term labour costs is taken to mean the expenditure borne by employers in order to employ workers, a concept which has been adopted in the Community framework and complies broadly with the international definition of the International Conference of Labour Statisticians (Geneva, 1996). These costs can be subdivided into two main categories, direct costs and indirect costs.

Direct costs cover:

- direct remuneration, in other words, remuneration paid for normal time worked plus overtime, and any bonuses and gratuities regularly paid. This means gross amounts, before deduction of tax and employees' social security contributions;
- other bonuses and ex-gratia payments covers remuneration not paid regularly. It covers in particular 13th or 14th month payments, holidays bonuses, bonuses linked to individual or collective performance and company saving schemes;
- payments for days not worked includes remuneration paid for statutory contractual or voluntarily granted leave and public holidays or other paid days not worked;
- benefits in kind refer to all goods and services made available to employees through the enterprise or establishment including company products, staff housing and company cars, compensatory payments or benefits in kind which are not taken up must also be included.

Indirect costs cover:

- statutory social security contributions paid by the employer, such as all contributions paid to social security institutions by the employer that are compulsory by law, net of subsidies. These contributions cover statutory payments to sickness, maternity, disability, retirement, unemployment, industrial accidents and occupational disease and family allowance schemes;
- collectively agreed, contractual and voluntary social security contributions payable by the employer include all contributions paid by the employer to social security schemes which are supplementary to those which are compulsory by law. These include supplementary pension schemes, supplementary sickness insurance schemes, supplementary unemployment insurance schemes and all other non-compulsory supplementary social security schemes;
- direct social benefits paid by the employer are all sums paid directly by the employer to employees and regarded as social security benefits such as guaranteed remuneration in the event of sickness, or short-time working;
- vocational training costs paid by employer include all expenditure on training and further training of enterprise employees, in particular remuneration of apprentices, social security contributions for apprentices and other vocational training costs not mentioned elsewhere;
- other social expenditure paid by employer cover both amounts paid directly to employees or indirect benefits. These include recruitment costs, costs for canteens and meal vouchers and all expenditure not mentioned elsewhere.

about Force Survey

The first Community Labour Force Survey was organised in the six original Member States in 1960 by the Statistical Office of the European Communities. In 1992 a number of changes were introduced with the aim of improving the quality of the data and their reliability at national and regional level. Council Regulation (EEC) 3711/91 of 16th December 1991 specified the contents and reliability criteria for the new survey, to be conducted annually from 1992 until further notice. The concepts and definitions used remain essentially those adopted by the thirteenth International Conference of Labour Statisticians of 1982 and used in the Community surveys from 1983 to 1991, so that a high degree of comparability is assured between the results from the two series. The methodological basis and the contents of this new series of surveys are described in the publication "Labour Force Survey - Methods and Definitions - 1996".

The main statistical objective of the Labour Force Survey is to divide the population of working age (15 years and above) into three mutually exclusive and exhaustive groups (persons in employment, unemployed persons and inactive persons) and to provide descriptive and explanatory data on each of these categories. Respondents are assigned to one of these groups on the basis of the most objective information possible, obtained through a survey questionnaire, which relates principally to their actual activity within a defined reference week.

The National Statistical Institutes are responsible for selecting the sample, preparing the questionnaires, conducting the interviews among households, and forwarding the results to Eurostat in accordance with a common coding scheme. Eurostat devises the programme for analysing the results and is responsible for processing and disseminating the information forwarded by the National Statistical Institutes. Perfect comparability across 15 countries is difficult to achieve, even were it to be by means of a single direct survey, in other words, a survey carried out at the same time, using the same questionnaire and a single method of recording. Nevertheless, the degree of comparability of the Community Labour Force Survey results is considerably higher than that of any other existing set of statistics on employment or unemployment available for the Member States. This is due to: the recording of the same set of characteristics in each country; a close correspondence between the Community list of questions and the national questionnaires; the use of the same definitions for all countries; the use of common classifications (for example, NACE Rev. 1 as the economic activity); the synchronisation of the survey in spring; the data being centrally processed by Eurostat.

The Community Labour Force Survey, although subject to the constraints of the Community's statistical requirements, is a joint effort by Member States to co-ordinate their national employment surveys, which must serve their own national requirements. Therefore, in spite of the close co-ordination between the National Statistical Institutes and Eurostat, there inevitably remain some differences in the survey from country to country.

Structure of Earnings Survey

The legal basis for the collection of this data is the Council Regulation No. 2744/95 of 27 November 1995 on "statistics on the structure and distribution of earnings", according to which the Member States and the Commission would produce statistics on the structure and distribution of all employees' earnings in Sections C to K of the NACE Rev. 1 classification. Data concern local units of 10 and more employees classified by size and principal activity.

The data are based on a survey carried out through the statistical services of the Member States, unless information would already be available from other sources that would be equivalent as regards accuracy, quality and timeliness.

For each employee, the following information is collected:

- gross earnings for a complete pay period for the representative month, including the various bonuses regularly paid, additional payments for overtime, shift work, night work, weekend work and commissions; likewise included are remuneration for periods of absence (leave or sickness) entirely paid by the employer and family allowances and other benefits laid down by collective agreements or voluntarily within the local unit; total earnings related to overtime and special payments for shift work, night work or weekend work must be specified separately;
- annual gross earnings in the relevant financial year, i.e. the gross earnings as defined above referred to an annual basis, plus occasional bonuses (such as holiday bonuses, 13th month and profit sharing); the amount of occasional bonuses must be specified separately;
- the number of hours paid or the number of hours in a standard working week or month for which payment is made, the number of paid overtime hours in the pay period and the number of holidays, excluding public holidays per year;
- the sex, age and occupation classified according to the International Standard Classification of Occupations, level of education and training, length of service in the enterprise, working arrangements, i.e. full-time or part-time and type of employment contract.

Signs and abbreviations

EU-15	total of Member States of the EU
EUR-11	euro-zone
B	Belgium
DK	Denmark
D	Germany
EL	Greece
E	Spain
F	France
IRL	Ireland
I	Italy
L	Luxembourg
NL	the Netherlands
A	Austria
P	Portugal
FIN	Finland
S	Sweden
UK	the United Kingdom
IS	Iceland
NO	Norway
EEA	European Economic Area
ECU	European currency unit
billion	thousand million
LCS	Labour Cost Survey
LFS	Labour Force Survey
SBS	Structural Business Statistics
SES	Structure of Earnings Survey
SME	Small and Medium-sized Enterprises
:	data not available

Nace Rev. 1 classification of economic activities

NACE Rev. 1 was adopted in order to establish a common statistical classification of economic activities within the European Community and to ensure comparability between national and Community classifications and hence national and Community statistics. In 1970 the General Industrial Classification of Economic Activities within the European Communities was compiled and known as NACE, later as NACE '70 or NACE 1970. NACE Rev. 1 replaced NACE '70 and in doing so established a direct link between the European classification and the internationally recognised ISIC Rev. 3 developed under the auspices of the United Nations. These two classifications are directly compatible at the 2-digit level and more detailed levels of ISIC Rev. 3 can be calculated by aggregating the more detailed levels of NACE Rev. 1.

The NACE Rev. 1 classification is composed of the following levels:

- 17 Sections- letters A to Q;
- 31 Subsections - 2-character alphabetical codes;
- 60 Divisions - 2-digit codes;
- 222 Groups- 3-digit codes;
- 503 Classes - 4-digit codes.

5000	Sale, maintenance and repair of motor vehicles
5010	Sale of motor vehicles
5020	Maintenance and repair of motor vehicles
5030	Sale of motor vehicle parts and accessories
5040	Sale, maintenance and repair of motorcycles and related
5050	Retail sale of automotive fuel
5100	Wholesale trade and commission trade, except of motor and motorcycles
5110	Wholesale on a fee or contract basis
5120	Wholesale of agricultural raw materials, live animals
5130	Wholesale of food, beverages and tobacco
5140	Wholesale of household goods
5150	Wholesale of non-agricultural intermediate products, waste and scrap
5160	Wholesale of machinery, equipment and supplies
5170	Other wholesale
5200	Retail trade, except of motor vehicles, motorcycles; repair of personal and household goods
5210	Retail sale in non-specialized stores
5220	Retail sale of food, beverages, tobacco in specialized stores
5230	Retail sale of pharmaceutical, medical goods, cosmetic
5240	Other retail sale of new goods in specialized stores
5250	Retail sale of second-hand goods in stores
5260	Retail sale not in stores
5270	Repair of personal and household goods

5500	Hotels and restaurants
5510	Hotels
5520	Camping sites, other provision of short-stay accommodation
5530	Restaurants
5540	Bars
5550	Canteens and catering
6000	Land transport; transport via pipelines
6010	Transport via railways
6020	Other land transport
6030	Transport via pipelines
6100	Water transport
6110	Sea and coastal water transport
6120	Inland water transport
6200	Air transport
6210	Scheduled air transport
6220	Non-scheduled air transport
6230	Space transport
6300	Supporting and auxiliary transport activities; activities of travel agencies
6310	Cargo handling and storage
6320	Other supporting transport activities
6330	Activities of travel agencies and tour operators; tourist assistance activities n.e.c.
6340	Activities of other transport agencies
6400	Post and telecommunications
6410	Post and courier activities
6420	Telecommunications
6500	Financial intermediation, except insurance and pension funding
6510	Monetary intermediation
6520	Other financial intermediation
6600	Insurance and pension funding, except compulsory social security
6700	Activities auxiliary to financial intermediation
6710	Activities auxiliary to financial intermediation, except insurance and pension funding
6720	Activities auxiliary to insurance and pension funding

7000	Real estate activities
7010	Real estate activities with own property
7020	Letting of own property
7030	Real estate activities on a fee or contract basis
7100	Renting of machinery and equipment without operator and of personal and household goods
7110	Renting of automobiles
7120	Renting of other transport equipment
7130	Renting of other machinery and equipment
7140	Renting of personal and household goods n.e.c.
7200	Computer and related activities
7210	Hardware consultancy
7220	Software consultancy and supply
7230	Data processing
7240	Data base activities
7250	Maintenance and repair of office, accounting and computing machinery
7260	Other computer related activities
7300	Research and development
7310	Research and experimental development on natural sciences and engineering
7320	Research and experimental development on social sciences and humanities
7400	Other business activities
7410	Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings
7420	Architectural and engineering activities and related technical consultancy
7430	Technical testing and analysis
7440	Advertising
7450	Labour recruitment and provision of personnel
7460	Investigation and security activities
7470	Industrial cleaning
7480	Miscellaneous business activities n.e.c.