



European business

Facts and figures

Part 6:

Business services

Data 1991-2001



EUROPEAN
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THEME 4
Industry, trade
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**European business,
Facts & figures**

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Guide to the publication

CONTENTS OF THE PUBLICATION

European business aims to provide a standard set of information for industrial and service activities within the EU. The data provided in European business traces the major developments of output (in terms of value added), employment and external trade. The commentaries concentrate largely on the 3-digit level of the NACE Rev. 1 classification of economic activities ⁽¹⁾.

Structure of the publication

European business is divided into three main sections:

1. The first provides a general overview of the structure of the EU's business economy, looking at changes in output, employment and external trade.
2. The second provides a sectoral breakdown of industrial activities into 15 separate chapters, each of which contains a number of subchapters usually based on the 3-digit level of the NACE classification. Each chapter concludes with a statistical annex presenting structural business statistics and external trade statistics.
3. The third section provides a sectoral breakdown of service activities into 9 separate chapters (again with subchapters and a statistical annex, usually based on structural business statistics or alternatively a functional database specific to the subject area).

⁽¹⁾ Published by Eurostat, ISBN 92-826-8767-8, available from the usual outlets for Commission publications.

The chapters in European business are structured on the basis of their NACE code, starting with energy and the extractive industries and finishing with business services, the information society and media. Each chapter begins with a preliminary section explaining the sectoral coverage of the data provided.

NACE is a hierarchical classification made up of Sections (1-letter codes), Subsections (2-letter codes), Divisions (2-digit codes), Groups (3-digit codes) and Classes (4-digit codes). NACE establishes 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 the lower levels of ISIC Rev.3 can be calculated by aggregating the more detailed levels of NACE.

The compilation of industrial data has followed a different historical development to that of other sectors of the business economy. It is generally easier to compile activity and product statistics about goods/merchandise than it is to collect information, for example, relating to knowledge or information-based services. Hence, the balance of this publication reflects to some degree the information that is currently available from official statistical sources. For this reason too, a different form of presentation is employed for the majority of the manufacturing chapters, using long time-series for enterprises with 20 or more persons employed.

There has been a rapid improvement in data availability for service sectors during the last few years and most EU Member States now compile annual statistics. Clearly it will take a number of years to build up robust time-series and considerable work still needs to be done in the area of product statistics for services.

The weak availability of energy, mining and quarrying, construction and services' data often renders it difficult to provide a standard set of information and where this is the case, Eurostat's functional databases have been used to complement structural business statistics. Furthermore, for these chapters it is important to note that structural business statistics that are presented for those sectors take account of all enterprises (in other words, with one or more persons employed), as opposed to the threshold of 20 or more persons employed for manufacturing chapters.

Differences compared to the 2002 edition

This edition of European business focuses increasingly on official sources of information, as the European statistical system continues to make advances. Nowhere is this development more felt in the 2003 edition than for service sectors, as a result of a rapid improvement in the availability of data - allowing EU totals to be calculated for the first time.

As a result, the chapter on distributive trades has been split into the three activities of motor, wholesale and retail trade, each with their own chapter. Furthermore, the media services have been separated from the information society chapter.

Within industrial activities there have also been some changes, such as the separation of water supply and sewerage industries from the energy chapter and the inclusion of a subchapter on recycling and waste treatment - once more reflecting an improvement in data availability in areas that were traditionally less well covered by business statistics.

Furthermore, several chapters have had their activity definitions modified in an attempt to improve data coverage, at both the chapter and subchapter level. Hence, readers should take care if comparing data across different editions of the publication.

Another development in this edition is the inclusion of candidate country data. For the moment this is found in the overview chapter (together with a short commentary), as well as in the statistical annex to each industrial and service chapter. It is hoped that as the accession of the various candidate countries moves forward their statistics will become fully integrated in the publication.

GUIDE TO THE STATISTICS

Two main data sources should be distinguished when using this publication: those originating from official sources (collected normally by the national statistical institutes in each Member State and harmonised by Eurostat) and those provided by professional trade associations (representative organisations of manufacturers and service providers) and other non-official bodies. Non-official sources are easily recognised as they always appear in a shaded box.

Time frame

The data within this publication was extracted from various Eurostat databases during the first two weeks of November 2002. Fresher data may well be available on the CD-ROM or by consulting the Eurostat Datashop network and asking for a tailor-made extraction from the NewCronos database. The accompanying text was written during the fourth quarter of 2002 and the first quarter of 2003.

Where possible the time-series for industrial activities are presented for the EU between 1991 and 2001. Individual country data are generally available up until 1999 or 2000 depending upon the country and activity in question. EU totals have been estimated for 2000 and/or 2001 where sufficient data exists. Services data are usually presented in the form of a snapshot for the latest year available.

Exchange rates

All data are reported in ECU/EUR terms, with national currencies converted using average exchange rates prevailing for the year in question. As of 1 January 1999, eleven of the Member States entered into an economic and monetary union (EMU). These countries formed what has become known as the euro-zone. Technically data available prior to that date should continue to be denominated in ECU terms, whilst data available afterwards should be denominated in euro. However, as the conversion rate was ECU 1 = EUR 1, for practical purposes the terms may be used interchangeably and this publication denotes all such monetary series in euro. On 1 January 2001, Greece also became a member of the euro-zone.

Whilst the conversion to a common currency of data originally expressed in national currencies facilitates comparison, large fluctuations in currency markets are partially responsible for movements identified when looking at the evolution of a series in euro terms (especially at the level of an individual country). For the exchange rates used, please refer to table SA.1 in the statistical annex of the overview chapter.

Geographical coverage

EU totals cover all 15 Member States. Footnotes are added when a partial total is created from an incomplete set of country information.

Figures for Germany are on a post-unification basis, unless otherwise stated.

Non-availability

The colon (:) is used to represent data that is not available, either because it has not been provided to Eurostat or because it is confidential. In figures (charts), missing information is footnoted as not available.

OFFICIAL DATA SOURCES

SBS

The bulk of the information contained within European business is derived from the structural business statistics (SBS) database. This data has been collected within the legal framework provided by the SBS Regulation ⁽²⁾. Structural business statistics for the candidate countries are collected on a comparable basis, although data are currently provided to Eurostat on the basis of specific agreements rather than with a legal basis.

There are three main collections of SBS data that have been used in this publication. The first covers long time-series ⁽³⁾ for enterprises with 20 or more persons employed (often available from 1985 onwards). These series are only used in this publication for manufacturing activities. Not all Member States have transmitted data relating to the enterprise as the statistical unit and the specified size threshold. The table below presents the main discrepancies with respect to these standards.

⁽²⁾ Council Regulation (EC, EURATOM) No. 58/97 of 20 December 1996 concerning structural business statistics.

⁽³⁾ Public access to data for the Member States is available via the Eurostat Datashop network: NewCronos, theme 4, domain SBS, collection Enterpr, table ent_l_ms.

Table 1

Country	Year	Statistical unit and coverage
Belgium	1985-1994	Enterprises with 20 employees or more
	1995-2000	Enterprises with 1 person employed or more
Greece	1985-2000	Local kind-of-activity units with 20 persons employed or more
Spain	1985-1998	Enterprises with 1 employee or more
	1999-2000	Enterprises with 1 person employed or more
France	1985-1995	Enterprises with 20 employees or more; NACE Section D excludes Divisions 16 and 37; Subsection DA excludes Division 16; Subsection DN excludes Division 37
Ireland	1985-2000	Enterprises with 3 persons employed or more for NACE Sections C to E
	1995	NACE Subsection DN also includes Subsection DF
Luxembourg	1985-1994	Kind-of-activity units with 20 persons employed or more
	1995-1998	Kind-of-activity units with 1 person employed or more
	1985-1995	NACE Group 15.9 also includes Group 16.0
Netherlands	1997	Number of enterprises: data for this variable are rounded to multiples of 5; a "0" therefore means 2 or less enterprises
Austria	1985-1994	Establishments with 20 persons employed or more for NACE Sections C and D
Portugal	1985-2000	Enterprises with 1 person employed or more
	1990-1995	NACE Section D and Subsection DA exclude Division 37
Finland	1986-1994	Establishments with 5 persons employed or more
	1995-2000	Enterprises with 1 person employed or more
United Kingdom	1997	NACE Group 10.3 also includes Group 10.2; NACE Group 13.2 also includes Group 13.1

The second collection covers all enterprises ⁽⁴⁾ and these series have been used for non-manufacturing activities. The data generally start in 1995, although a small number of Member States have provided longer time-series. Not all Member States/candidate countries have transmitted data relating to this population. In particular, some Member States/candidate countries can only provide data for units with employment above a certain size threshold. The table below presents the main deviations from the standard population as laid down in the SBS Regulation (all enterprises, regardless of their level of employment).

⁽⁴⁾ Public access to data for the Member States is available via the Eurostat Datashop network: NewCronos, theme 4, domain SBS, collection Enterpr, table enter_ms and by consulting theme 4, domain SBS, collection Enterpr, table enter_cc for the candidate countries.

Table 2a

Country	Statistical unit and coverage used from 1995 onwards			
	Industry (NACE Sections C - E)	Construction (NACE Section F)	Trade (NACE Section G)	Services (NACE Sections H - K)
Denmark	No major deviations	NACE Class 45.21 also includes data for NACE Classes 45.23 and 45.24; NACE Class 45.31 also includes data for NACE Class 45.34	No major deviations	
Germany	No major deviations			1998 onwards: data are not comparable with previous years 1999: for Section I to K the number of enterprises and turnover come from a different source than the other variables and the two groups of variables can not be compared 1999: for production value and value added NACE Class 60.21 also includes Class 60.23, Class 74.13 also includes Class 74.14, Class 74.11 also includes Classes 74.12 and 74.15
Greece	No major deviations		Enterprises with a turnover of 15 million GRD or more	
Spain	1995 to 1998: enterprises with 1 employee or more	No major deviations	1995-1998: enterprises with 1 employee or more	
France	1995: NACE Section D excludes Divisions 16 and 37; Subsection DA excludes Division 16; Subsection DN excludes Division 37	No major deviations		In some transport activities within NACE Group 61.2 the coverage is only enterprises with 6 employees or more
Ireland	Enterprises with 3 persons employed or more 1995: NACE Subsection DN also includes Subsection DF	No major deviations		
Italy	Turnover from the principal activity at the NACE 4-digit level: this data is supplied only for enterprises with 200 employees or more	No major deviations		
Luxembourg	1996 onwards: kind-of-activity units with 1 person employed or more	No major deviations	No major deviations	1995-1998: NACE Class 66.01 also includes Class 66.02
Netherlands	Number of enterprises: data for this variable are rounded to multiples of 5; a "0" therefore means 2 or less enterprises			
	Enterprises with 20 employees or more for NACE Section E; total intramural R&D expenditure and total number of R&D personnel refer to enterprises with 10 employees or more	No major deviations		Survey on holdings (NACE Class 74.15): enterprises with 5 employees or more

Table 2b

Country	Statistical unit and coverage used from 1995 onwards			
	Industry (NACE Sections C - E)	Construction (NACE Section F)	Trade (NACE Section G)	Services (NACE Sections H - K)
Portugal	1995: NACE Subsection DN and Section D exclude Division 37	No major deviations		
United Kingdom	1996: NACE Class 14.12 also includes Class 14.13; Class 15.94 also includes Class 15.95; Class 17.15 also includes Class 17.14; Class 17.16 also includes Class 17.17; Class 21.11 also includes 21.12 1997: NACE Group 10.3 also includes Group 10.2; Group 13.2 also includes Group 13.1; Class 14.12 also includes Class 14.13; Class 17.15 also includes Class 17.14; Class 17.16 also includes 17.17; Class 21.12 also includes Class 21.11 1998: NACE Group 10.3 also includes Group 10.2; Class 14.12 also includes Class 14.13	No major deviations	1998: NACE Class 51.35 also includes Classes 51.36 and 51.37	No major deviations
Czech Republic	Sampling errors at 3-digit level are significant (due to low coverage). The 3-digit level is only an estimation based on the sample, but the sample differs between years. The sample is only representative for data at the 2-digit level of NACE Rev. 1			
Estonia	In 1995, Section D data at the 2-digit level cover enterprises with 20 and more employees, except investment data which cover enterprises with 50 and more employees. Data at the Section level cover all enterprises	No major deviations		1995: NACE Division 71 also includes Division 72
Hungary	Enterprises with 5 or more persons employed			
Latvia	No major deviations		It is recommended not to use 4-digit level data as the sampling plan for the survey was designed at the 3-digit level only	No major deviations
Slovak Republic	Covers enterprises with 20 or more persons employed as well as enterprises with less than 20 persons employed which were considered statistically important			

The third collection covers information broken down by employment size class. Again, not all Member States/candidate countries have transmitted data to Eurostat that relates to this statistical unit or population. In particular, some Member States/candidate countries can only provide data for units with employment above a certain size threshold. The table below summarises the main deviations from the standard statistical unit and coverage.

Data in this publication are generally available at the 3-digit NACE level, whilst more detailed information is often available within the SBS Enter tables at the 4-digit NACE level.

Table 3

Country	Statistical units and coverage			
	Industry (NACE Sections C - E)	Construction (NACE Section F)	Trade (NACE Section G)	Services (NACE Sections H - K and M - O)
Germany	1995 onwards: enterprises with 20 persons employed or more			No major deviations
Spain	1995 onwards: enterprises with 1 employee or more	No major deviations		
France	1995: enterprises with 20 employees or more		No major deviations	
Ireland	1995 onwards: enterprises with 3 persons employed or more	1995 onwards: enterprises with 20 persons employed or more	No major deviations	1997: NACE Group 60.1 also includes data for Classes 60.21, 60.22 and 60.23; NACE Group 74.6 also includes data for NACE Group 74.7
Netherlands	1999 onwards: employment size classes are defined in terms of employees; size class 1-9 has been approximated with size class 0-9 employees; size class 500-999 includes size class 1000+		1999 onwards: employment size classes are defined in terms of employees; size class 1 has been approximated with size class 0 employee; size class 2-4 has been approximated with size class 1-4 employees; size class 500-999 includes size class 1000+	1999 onwards: employment size classes are defined in terms of employees; size class 1-4 has been approximated with size class 0-4 employees; size class 1-9 has been approximated with size class 0-9 employees; size class 500-999 includes size class 1000+
Portugal	1996 onwards: employment size classes are defined in terms of employees; size class 1-9 has been approximated with size class 0-9 employees		1996 onwards: employment size classes are defined in terms of employees	
Sweden	1996: employment size classes are defined in terms of employees; size class 1-9 has been approximated with size class 0-9 employees	No major deviations		
United Kingdom	1995: enterprises with 20 persons employed or more 1997: NACE Group 10.3 also includes data for NACE Group 10.2; NACE Group 13.2 also includes data for NACE Group 13.1	1995: enterprises with 20 persons employed or more	No major deviations	
Estonia	1995: Section D data at the 2-digit level cover enterprises with 20 and more employees, except investment data which cover enterprises with 50 and more employees. Data at the Section level cover all enterprises 1995 to 1999: employment size classes are defined in terms of employees 1995 to 1998: data for size class 500-999 includes data for size class 1000+ as well 1996 to 1999: the size class total is not equal to the sum of the size classes published as the total also includes data for the size class 0 employees	1995 to 1999: employment size classes are defined in terms of employees 1995 to 1998: data for size class 500-999 includes data for size class 1000+ as well 1996 to 1999: data for size class 1-9 employees also includes data for size class 0 employees	1995 to 1999: employment size classes are defined in terms of employees 1995 to 1998: data for size class 500-999 includes data for size class 1000+ as well 1996 to 1999: size classes 0 and 1-9 employees are provided instead of size classes 1, 2-4 and 5-9 employees; data for size class 0 are published under the size class 1 and data for size class 1-9 are published under the size class 5-9	1995 to 1999: employment size classes are defined in terms of employees 1995 to 1998: data for size class 500-999 includes data for size class 1000+ as well 1996 to 1999: size classes 0 and 1-9 employees are provided instead of size classes 1-4 and 5-9 employees; data for size class 0 are published under the size class 1-4 and data for size class 1-9 are published under the size class 5-9 1995: NACE Division 71 also includes Division 72
Hungary	1998: enterprises with 5 persons employed or more; data for size class 1-9 persons employed are not available; data for size class 5-9 persons employed have been provided Data for the total of the size classes refer to enterprises with 5 persons employed or more		1998: enterprises with 5 persons employed or more; data for the total of the size classes refer to enterprises with 5 persons employed and more	
Slovenia	1995 to 1998: employment size classes are defined in terms of employees			
Slovak Republic	1995 to 1998: size classes are defined in terms of employees; data for the total of the size classes refer to enterprises with 20 and more employees			

Standard definitions of variables have been laid down. As such the figures are largely comparable across activities and countries. There are nevertheless some known divergences from the standard definitions. Until the reference year 1994 inclusive, Member States transmitted their data to Eurostat according to either the legal basis preceding

the SBS Regulation for industry or on a voluntary basis for services. As far as possible Eurostat and the Member States have worked to convert these data in line with the variable definitions as implemented following the adoption of the SBS Regulation. However, the results of the conversion may not be of the same quality as the data collected from the

1995 reference year onwards. For France, this conversion is applied until the reference year 1995 inclusive. For Greece, this conversion is applied until the reference year 1996 inclusive. The table below presents the main known discrepancies with respect to the standard variable definitions as regards data from Member States and candidate countries.

Table 4

SBS enter long time series: enterprises employing 20 or more persons			
Country	Year	Variable	Discrepancy
Belgium	1995-1998	Production value	The purchase of goods and services for resale are not removed, resulting in the values being overestimated
Denmark	1990-1998	Value added at factor cost Gross operating surplus	Value added at basic prices Value added at basic prices - personnel costs
Spain	1985-1999	Gross investment in tangible goods	Gross investment in land and gross investment in machinery and equipment
Ireland	1991-1994 (and possibly later years)	Value added at factor cost	Value added is calculated at market prices excluding VAT; for sectors where other indirect taxes play an important role, for example where there are taxes on petroleum products, Irish value added is disproportionately large; this non-standard definition of value added influences the Irish manufacturing total (through aggregation of NACE), EU totals (through aggregation across countries) and ratios, notably labour productivity measures
	1991-1994	Gross operating surplus	Value added at market price excluding VAT - personnel costs
Italy	1992-1995	Number of persons employed	Number of employees
Finland	1986-1995	Value added at factor cost Gross operating surplus	Value added at market price Value added at market price - personnel costs
SBS enter: enterprises employing 1 or more persons			
Country	Year	Variable	Discrepancy
Belgium	1995-1998	Production value	The purchase of goods and services for resale are not removed, resulting in the values being overestimated
Germany	1999	Sections I to K: value added at factor cost	Does not include subsidies
Spain	1995-1998	Gross investment in tangible goods	Gross investment in land and gross investment in machinery and equipment
Ireland	1998-2000	Sections H, I and K: personnel costs	Wages and salaries
Finland	1995	Value added at factor cost Gross operating surplus	Value added at market prices Value added at market prices - personnel costs
Sweden	1995-1996	Number of persons employed: the number of persons employed and the number of employees are very close as self-employed persons are not included and for enterprises with less than 10 employees the number of employees is collected in full time equivalent units	
United Kingdom	1996-1999	Gross investment in existing buildings and structures	Includes gross investment in land
	1997	Turnover from trading and intermediary activities	Turnover from trading activities of purchase and resale
Norway	1996-1997	For Sections C and D the definitions of variables 15 13 0 and 15 14 0 (concerning investment) are non-standard, however their sum is conform with the standard definitions	
Bulgaria	1996-1998	Changes in stocks	Concerns only changes in stocks of goods, and therefore excludes changes in stocks of services
	1996-1999	Investment in existing buildings and structure	Includes also investment in construction and alteration of buildings
	1999	Turnover and production value	Does not include duties and taxes on services invoiced by the unit
Cyprus	1995-1998	Change in stocks of finished products and work in progress manufactured by the unit	Includes change in stocks of all goods and services
Czech Republic	1995-1998	Number of enterprises	Average number of enterprises calculated on the basis of the length of the activity of the unit during the year; this means that an enterprise active only a part of the year is not counted as 1 but as a percentage (3 months=0.25 enterprises)
	1995-1998	Personnel costs and social security costs	Non-standard definitions
Hungary	1998	Number of employees	Estimated as a fixed percentage (99.5%) of the number of persons employed
Slovenia	1995-1998	Value added and wages and salaries	Non-standard definitions
SBS enter size class data			
Country	Year	Variable	Discrepancy
Denmark	1995-1996	Sections C to G: number of employees	Employees in full-time equivalents
Sweden	1996	Sections C to E: the number of persons employed and the number of employees are very close as self-employed persons are not included and for enterprises with less than 10 employees the number of employees is collected in full time equivalent units Sections H to K: number of persons employed shows in fact the number of employees	
Czech Republic	1995-1998	Number of enterprises	Average number of enterprises calculated on the basis of the length of the activity of the unit during the year; this means that an enterprise active only a part of the year is not counted as 1 but as a percentage (3 months=0.25 enterprises)
		Sections C to F: wages and salaries	Non-standard definition
Hungary	1998	Sections C to F: number of employees	Estimated as a fixed percentage (99.5%) of the number of persons employed
Slovenia	1995-1998	Value added	Non-standard definition
Slovak Republic	1995-1998	Sections G to K: number of persons employed	Number of employees

Estimates

EU-15 data for 2000 and 2001 are estimated. Estimates are made using individual country information and short-term indicators such as indices of production, output prices and employment. The individual country estimates are not published and as a result the information by Member State is generally only available up until 1999 or 2000 depending upon the country in question. The majority of estimates have been made for manufacturing series that concern 20 or more persons employed. It is important to note that these time-series for manufacturing activities will under-report absolute values and that this can be particularly important in activities where smaller enterprises (with less than 20 persons employed) play an important role - for example, the manufacture of textiles or clothing.

Prodcom

The legal basis of the data is Council Regulation (EEC) No 3924/91 on the establishment of a Community survey of industrial production (Prodcom Regulation).

This Regulation requires that production be recorded according to the product headings of the Prodcom list. The list is based on the Community's external trade classification, the Combined Nomenclature (CN). The list does not, however, cover all products. The list is divided into Divisions corresponding to the (2-digit) Divisions of NACE Rev. 1. Each Prodcom code is identified by an eight-digit code. The first six digits are the CPA code (Community Classification of Products by Activity). The last two digits normally provide a reference to the Combined Nomenclature (CN), although there are exceptions to this rule.

The physical volume and the value of production are normally recorded for the products in the Prodcom list. Different production concepts are used in the survey, namely:

- a) production sold during the survey period;
- b) actual production (total production) during the survey period. This includes any production which is incorporated into the manufacture of other products. Such production is normally taken to mean own products which are either processed into another product or fitted into another product in the reporting unit itself, in another plant belonging to it, or under contract in another unit;
- c) production during the survey period which is intended for sale.

The value of production sold/production intended for sale should be calculated on the basis of the ex-works selling price obtained/obtainable during the reporting period. It also includes packaging costs, even if they are charged separately. However, the following are not included: any turnover tax and consumer tax charged; separately charged freight costs; any discounts granted to customers.

The particular physical units of the CN classification have normally been adopted for recording the volume of production. In exceptional cases a different and/or supplementary unit is recorded. All units belonging to the individual Prodcom headings are specifically indicated in the data set.

The Prodcom statistics normally cover all enterprises/local units which manufacture products contained in the Prodcom list. Among the rules on representativeness the Regulation stipulates that all enterprises in Sections C, D and E of NACE Rev. 1 employing at least 20 persons must be included. In addition, at least 90% of production in each (4-digit) Class of NACE Rev. 1 must also be recorded.

There is currently no Prodcom data available on NewCronos for candidate countries. Eurostat is migrating the Prodcom data set from NewCronos to Comext.

External trade

EU external trade statistics are available in the Comext database, and can be compiled according to a product classification (CPA). The analysis focuses on external trade data for the period between 1991 and 2001. No estimates are made for external trade statistics, although it is possible that subsequent revisions may occur. The data are processed by summing together product statistics (using a conversion table from CN to CPA). The data for EU-15 are reported in terms of trade flows with the rest of the world, in other words extra-EU trade. However, for the individual Member States total trade flows are used (in other words intra-EU and extra-EU trade). All trade figures are given in current EUR terms.

European Business Trends

Tracking the business cycle is indispensable for many economic actors. The European Business Trends (EBT) database provides politicians, government agencies, bankers, business owners, consumers and trade unionists with information that is crucial when making decisions on whether industries grow, stagnate or decline. The legal base of the European system of quantitative Short Term Statistics is the Council Regulation No. 1165/98, which was adopted on 19 May 1998 and is in the process of being implemented.

One variable from the EBT database is directly presented in this publication, namely the domestic output price index. Output price indices report the short-term changes in the prices of commodities produced and sold in a given Member State. Converted to an annual series, this index has also been used to deflate SBS turnover, production value and value added data, using appropriate activity indices to create series in constant price terms. Production and employment indices from the EBT database also provide valuable information that is used to nowcast SBS data for 2000 and 2001.

All price-determining characteristics of the products should be taken into account when compiling these indices, including the quantity of units sold, transport provided, rebates, service conditions, guarantee conditions and destination. The specification must be such that in subsequent reference periods, the observation unit is able to identify the product and to provide the appropriate price per unit. The appropriate price is the ex-factory price that includes all duties and taxes on the goods and services invoiced by the unit but excludes VAT invoiced by the unit vis-à-vis its customer and similar deductible taxes directly linked to turnover.

There is currently no EBT data available for candidate countries on NewCronos. However, the development of these short-term indices is in an advanced state for many of the countries.

Labour Force Survey

The methodological basis and the contents of this survey are described in the publication 'Labour Force Survey - Methods and Definitions', 2001 edition. The main statistical objective of the Labour Force Survey is to divide the population of working age (generally 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.

Table 5

	A	B
EU-15 (1)	57 000	-
Belgium	2 500	4 500
Denmark	2 500	4 500
Germany	8 000	-
Greece	2 500	4 500
Spain	2 500	5 000
France	3 500	8 500
Ireland	2 500	4 500
Italy	3 500	7 500
Luxembourg	500	1 500
Netherlands	4 500	10 000
Austria	2 000	-
Portugal	7 500	15 000
Finland	2 500	4 500
Sweden (2)	2 500	-
United Kingdom	10 000	-
Bulgaria	5 500	10 000
Cyprus	500	1 500
Czech Republic	1 000	-
Estonia (3)	5 000	10 000
Hungary	2 500	4 500
Lithuania	5 000	-
Latvia	4 500	7 500
Malta	:	:
Poland	5 000	20 000
Romania	2 000	-
Slovak Republic	2 500	-
Slovenia	1 000	3 500
Turkey	:	:

A: threshold for publishing data.
B: threshold for reliable data.

(1) The limits applicable to data prior to 2001 are:

A: 9 000 B: - /

(2) The limits applicable to data prior to 2001 are:

A: 83 500 B: - /

(3) The limits applicable to data prior to 2000 are:

A: 4 000 B: 8 000 (1997); A: 1 500 B: 3 000 (1998-99)

It is important to note that the information is not collected from enterprises (as with the SBS database) but through a survey addressed to individual households. The National Statistical Institutes are responsible for selecting the sample, preparing the questionnaires, conducting the interviews 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.

The Community Labour Force Survey ⁽⁵⁾, is based upon a sample of the population. The results are therefore subject to the usual types of errors associated with sampling techniques. Eurostat implement basic guidelines intended to avoid the publication of figures which are statistically unreliable. Figures below these thresholds are not published. A second threshold is applied to data that may only be published with a warning concerning its reliability. These data are footnoted in the tables that use LFS data.

There was a methodological change between 1998 and 1999 in the collection of Belgian Labour Force Survey data. As such there may well be a rupture in the series in 1999.

There is currently no LFS data available for candidate countries on NewCronos. However, the development of these indicators is in an advanced state for many of the countries and data for candidate countries have already been published in the Statistics in Focus series (theme 3, 20/2002 - ISSN 1024-4352). Many data are already stored in the LFS production database.

National Accounts

The European System of National and Regional Accounts (1995 ESA, or simply: ESA) is an internationally compatible accounting framework for a systematic and detailed description of a total economy (that is a region, country or group of countries), its components and its relations with other economies.

⁽⁵⁾ Council Regulation (EC) No. 577/98 of 9 March 1998 on the organisation of a labour force sample survey in the Community.

The 1995 ESA, replaces the European System of Integrated Economic Accounts published in 1970 (1970 ESA; a second, slightly modified, edition appeared in 1978).

The 1995 ESA is fully consistent with the revised world-wide guidelines on national accounting, the System of National Accounts (1993 SNA, or simply: SNA; these guidelines have been produced under the joint responsibility of the United Nations, the IMF, the Commission of the European Communities, the OECD and the World Bank). However, the ESA is focused more on the circumstances and data needs of the European Union. Like the SNA, the ESA is harmonised with the concepts and classifications used in many other, social and economic statistics. Cases in point are statistics on employment, statistics on manufacturing and statistics on external trade. The ESA can therefore serve as the central framework of reference for the social and economic statistics of the European Union and its Member States.

The ESA framework consists of two main sets of tables:

- (a) the sector accounts;
- (b) the input-output framework and the accounts by industry.

The sector accounts provide, by institutional sector, a systematic description of the different stages of the economic process: production, generation of income, distribution of income, redistribution of income, use of income and financial and non-financial accumulation. The sector accounts also include balance sheets to describe the stocks of assets, liabilities and net worth at the beginning and the end of the accounting period.

The input-output framework and the accounts by industry describe in more detail the production process (cost structure, income generated and employment) and the flows of goods and services (output, imports, exports, final consumption, intermediate consumption and capital formation by product group).

National Accounts data for the candidate countries are available within the NewCronos database. These data have been fully integrated into the database and are found alongside the data for the Member States. Candidate country information is provided for the main National Accounts aggregates, as well as more detailed sectoral breakdowns.

GLOSSARY OF TERMS

There follows a brief list of the main terms employed within this publication:

Annual average growth rate: constant rate of growth that would be required in each year to achieve the same overall growth rate as that observed between two periods.

Apparent labour productivity: value added at factor cost/number of persons employed (expressed in thousand EUR per person employed); care should be taken in the interpretation of this ratio between different activities and countries because of the use of a simple head count for the labour input measure, as a proxy for the volume of work done; values may exceptionally be negative.

Average personnel costs: personnel costs/number of employees (expressed in thousand EUR per employee).

Constant prices: data presented with the effect of price fluctuations over time removed from them (deflated series); note that, as these are expressed in EUR, time series are influenced by fluctuations in the exchange rate.

Cover ratio: exports/imports (expressed as a percentage).

Current prices: data presented including the effects of price changes.

Domestic output price index: an index of the prices of commodities produced and sold within any given country in national currency terms; output price indices are often used to deflate production and value added data (in value) in order to obtain production and value added in constant price terms; this index shows the change in ex-works selling prices of all products sold on domestic markets, excluding VAT and similar deductible taxes.

Employees: are 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; employees include part-time workers, seasonal workers, persons on strike or on short-term leave, but exclude those persons on long-term leave and voluntary workers.

Enterprise: an enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources; an enterprise carries out one or more activities at one or more locations; an enterprise may be a sole legal unit.

Extra-EU exports: goods which leave the statistical territory of a Member State bound for a non-Community country.

Extra-EU imports: goods which enter the statistical territory of a Member State from a non-Community country.

Gross operating surplus: is the surplus generated by operating activities after the labour factor input has been recompensed; it can be calculated from value added at factor cost less personnel costs.

Gross operating rate: gross operating surplus/turnover (profitability measure, expressed as a percentage).

Local unit: the local unit is an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place. At or from this place economic activity is carried out for which - save for certain exceptions - one or more persons work (even if only part-time) for one and the same enterprise.

Number of persons employed (employment): 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.

Personnel costs: 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.

Production value: measures in value the amount actually produced by the unit, based on sales adjusted for changes in stocks and the resale of goods and services; the production value is defined as turnover, plus or minus the changes in stocks of finished products, work in progress and goods and services purchased for resale, minus the purchases of goods and services for resale, plus capitalised production, plus other operating income (excluding subsidies).

Simple wage adjusted labour productivity:

value added at factor cost/personnel costs *
100 (expressed as a percentage).

Trade balance: exports - imports.

Turnover: comprises the totals invoiced by the observation unit during the reference period, corresponding 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 unit with the exception of the VAT invoiced by the unit vis-à-vis its customer and other similar deductible taxes directly linked to turnover; it also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice; reductions in prices, rebates and discounts as well as the value of returned packing must be deducted.

Value added at factor cost: 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; income and expenditure classified as financial or extra-ordinary in company accounts is excluded from value added.

Value added specialisation: relative index that compares the value added share of a given manufacturing activity in total manufacturing value added for a given country with the same ratio for the EU (expressed as a percentage - if a country displays a ratio above 100 then it is relatively more specialised than the average for the EU).

Wage adjusted labour productivity: (value added at factor cost/personnel costs) * (number of employees/number of persons employed) * 100 (expressed as a percentage).

ABBREVIATIONS

Countries

EU	European Union
EU-15	Fifteen Member States of the European Union
B	Belgium
BENELUX	Belgium, the Netherlands and Luxembourg
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
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
EE	Estonia
HU	Hungary
LV	Latvia
LT	Lithuania
MT	Malta
PL	Poland
RO	Romania
SK	Slovakia
SI	Slovenia
TR	Turkey
CH	Switzerland
EEA	European Economic Area
IS	Iceland
JP	Japan
NO	Norway
US	United States (of America)

Professional trade associations

ACEA	Association des Constructeurs Européens d'Automobiles
ACI	Airports Council International (European Region)
AEA	Association of European Airlines
AECMA	Association Européenne des Constructeurs de Matériel Aérospatial
AESGP	Association of the European Self-Medication Industry
APEAL	The Association of European Producers of Steel for Packaging
APME	Association of Plastics Manufacturers in Europe
AWES	Association of European Shipbuilders and Shiprepairers
CAEF	Comité des Associations Européennes de Fonderie
CAOBISCO	Association of the Chocolate, Biscuit & Confectionery Industries of the EU
CBMC	Brewers of Europe
CECCM	Confederation of European Community Cigarette Manufacturers
CEPI	Confederation of European Paper Industries
Cerame-Unie	Liaison Office of the European Ceramic Industry
CIAA	Confédération des Industries Agro-alimentaires de la CE
CPDP	Comité Professionnel du Pétrole
CPIV	Comité Permanent de l'Industrie du Verre de la CEE
ECMT	European Conference of Ministers of Transport
EDA/ZMP	Europäischer Milchindustrieverband/Zentrale Markt- und Preisberichtsstelle der Land- und Ernährungswirtschaft
EFCA	European Federation of Engineering Consultancy Associations
EMF	European Mortgage Federation (and national associations)
EOS	European Organisation of the Sawmill Industry
ERMCO	European Ready Mixed Concrete Association
ESBG	European Savings Bank Group
ESOMAR	European Society for Opinion and Marketing Research
ESTA	European Security Transport Association
EURATEX	European Apparel and Textile Organisation
FBE	Fédération Bancaire Européenne
FEA	European Aerosol Federation
FEACO	Fédération Européenne des Associations de Conseil en Organisation
Fediol	Fediol - EC Seed Crushers' and Oil Processors' Federation
FEDMA	Federation of European Direct Marketing
FEFSI	Fédération Européenne des Fonds et Sociétés d'Investissement
FEP	European Federation of the Parquet Industry
FEVE	Fédération Européenne du Verre d'Emballage
FIBV	Fédération Internationale des Bourses de Valeurs
FIEC	Fédération de l'Industrie Européenne de la Construction
GEBC	Groupement Européen des Banques Coopératives
IAAPA	International Association of Amusement Parks and Attractions
IACA	International Air Carrier Association
ICAO	International Civil Aviation Organization, European and North Atlantic Office
IMACE	International Margarine Association of the Countries of Europe
ISL	Institute of Shipping Economics and Logistics
Leaseurope	European Federation of Leasing Company Associations
STD	Swedish Federation of Consulting Engineers and Architects (Svensk Teknik och Design)
UIC	Union Internationale des Chemins de Fer
UITP	Union Internationale des Transports Publics
UNAFPA	Union des Associations de Fabricants de Pâtes Alimentaires de la Communauté Européenne
UNESDA	Union of EU Soft Drinks Associations

Other organisations and publications

EITO	European Information Technology Observatory
IISI	International Iron and Steel Institute
LME	London Metal Exchange Limited
UN	United Nations
USGS	US Geological Survey
WTO	World Tourism Organisation
WTO	World Trade Organization
ITU	International Telecommunication Union
UNEX	Unipost External Monitoring System, International Post Corporation
Media Salles	Media Salles
EAO	European Audiovisual Observatory
CTcon	CTcon
Software Magazine	Software Magazine, Wiesner Publishing, Framingham, Mass., USA
The Bankers' Almanac	The Bankers' Almanac
International Insurance Facts	Insurance Information Institute
Zenithmedia	Zenithmedia Western European Market and Mediafact
meatnews.com	Meatnews.com & Meat Processing Global
PricewaterhouseCoopers	PricewaterhouseCoopers 2002 Global Forest and Paper Survey
McGraw-Hill	Engineering News-Record, McGraw-Hill
Hotels Magazine	Hotels Magazine
Containerisation Yearbook	Containerisation Yearbook

Statistical abbreviations

CIS	Community Innovation Survey
COICOP	Classification Of Individual Consumption according to Purpose
CPA	Classification of Products by Activity
ECHP	European Community Household Panel
FATS	Foreign Affiliates Trade Statistics
FDI	Foreign Direct Investment
HBS	Household Budget Survey
LFS	Labour Force Survey
NACE	Nomenclature statistique des Activités économiques dans la Communauté Européenne (Statistical Classification of economic activities in the European Community)
n.e.c.	not elsewhere classified
Prodcom	PRODucts of the European COMmunity
SBS	Structural Business Statistics
SME	Small and medium sized enterprise
ZPA1	Eurostat's agricultural products database

Other abbreviations

ABS	Antilock Braking System
AM	After-Market
ATC	Agreement on Textiles and Clothing
ATM	Automatic Teller Machine
BSE	Bovine Spongiform Encephalopathy (Mad-cow disease)
CD-ROM	Compact disc read-only memory
CFP	Common Fisheries Policy
DIY	Do-It-Yourself
DTP	Desk-top Publishing
DVD	Digital Versatile Disc
ECSC	European Coal and Steel Community
EEE	Electrical and Electronic Equipment
EER	Energy Efficiency Requirements
GDP	Gross Domestic Product
ICT	Information and Communications Technologies
ISDN	Integrated Services Digital Network
IT	Information Technology
JIT	Just In Time
MDF	Medium Density Fibreboard
NASDAQ	National Association of Securities Dealers' Quotation System
n.p.r.s.	not put up in form for retail sale
NYSE	New York Stock Exchange
OE	Original Equipment
OJ	Official Journal (of the European Communities)
OPT	Outward Processing Trade
OSB	Oriented StrandBoard
PC	Personal Computer
p.r.s.	put up in form for retail sale
PVC	Polyvinyl Chloride
R & D	Research and Development
TENS	Trans-European Networks
TGV	Train à Grand Vitesse (High-speed train)
TV	Television
VAT	Value Added Tax
WEEE	Waste Electrical and Electronic Equipment

Weights and measures

AAGR	Average Annual Growth Rate
CGT	Compensated Gross Tonnes
DWT	Dead-Weight-Tonnes
GW	Gigawatt (10 ⁶ kW)
Ha	Hectare (ten thousand square metres)
HI	Hectolitre (hundred litres)
Kg	Kilogram(s)
Km	Kilometre
Kms	Kilometres
M	Metre
MW	Megawatt (10 ³ kW)
PPS	Purchasing Power Standard
RPK	Revenue Passenger Kilometres
TEU	Twenty Foot Equivalent Unit
TOE	Tonne of Oil Equivalent (41 868 kilojoules net calorific value per kilogram)
TU	Tonnes of contained Uranium
TW	Terawatt (10 ⁹ kW)

Currencies

EUR	Euro
BEF	Belgian Franc
DKK	Danish Krone
DEM	German Mark
GRD	Greek Drachma
ESP	Spanish Peseta
FRF	French Franc
IEP	Irish Pound
ITL	Italian Lira
LUF	Luxembourg Franc
NLG	Dutch Guilder
ATS	Austrian Schilling
PTE	Portuguese Escudo
FIM	Finnish Markka
SEK	Swedish Krone
GBP	Pound sterling
BGN	New bulgarian Lev
CYP	Cyprus Pound
CZK	Czech Koruna
EEK	Estonian Kroon
HUF	Hungarian Forint
LTL	Lithuanian Litas
LVL	Latvian Lats
MTL	Malta Lira
PLN	New Polish Zloty
ROL	Romanian Leu
SIT	Slovenian Tolar
SKK	Slovak Koruna
TRL	Turkish Lira
JPY	Japanese Yen
USD	US Dollar

Symbols

- : not available
- not applicable

Overview - the EU's business economy

INTRODUCTION

One of the most common measures of living standards is gross domestic product (GDP) per head. In order to make comparisons more meaningful it is usual to adjust this ratio to account for different price levels between countries and to therefore express the series in terms of purchasing power standards (PPS). GDP per capita in the EU averaged PPS 23 200 in 2001 (or EUR EUR 23 210 per head). Among the Member States, GDP per capita in PPS terms ranged from just over two thirds (68 %) of the EU average in Greece to almost double (197 %) the average in Luxembourg. The figure for Luxembourg was well ahead of Denmark and Ireland (the second and third placed countries), where GDP per inhabitant was some 18 % above average – see Figure 1.

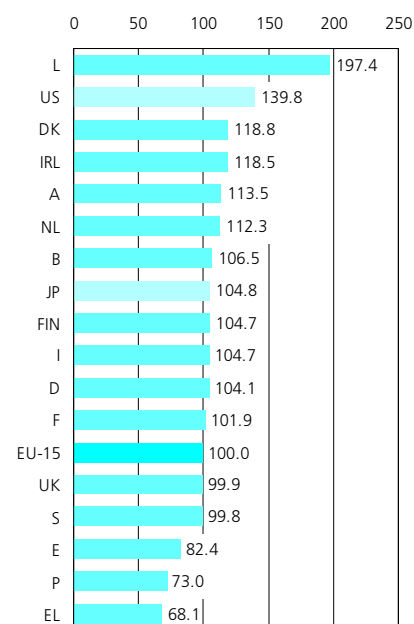
According to national accounts, the EU economy generated EUR 8 200 billion of value added in 2001. This figure can be split between six major branches – see Table 1 – with the relative importance of agriculture, hunting, forestry and fishing (2.1 % of total value added) and construction (5.4 %) being fairly limited compared to the other branches ⁽¹⁾.

⁽¹⁾ Please note that agriculture, fishing and forestry (NACE Sections A and B), as well as public administration, community, social and personal services (NACE Sections L to Q) are generally not covered by this publication, as large parts of them are not usually covered by European business statistics, which are generally limited to NACE Sections C to K. Selected parts of other community, social and personal services (NACE Section O) are found in Chapters 13, 14 and 24.

The respective shares of the three service branches in total value added all rose between 2000 and 2001, while the share of industry (NACE Sections C to E) fell by 0.7 percentage points. This continued an established trend of the EU economy becoming increasingly dominated by the service sector.

Between 1991 and 2001 financial intermediation and business services (NACE Sections J and K) gained 3.0 percentage points of total value added, while distributive trades, hotels and restaurants, transport, storage and communications (NACE Sections G, H and I) gained 0.8 points. On the other hand, the share of industry fell by 2.5 points, construction by 0.9 points and that of agriculture, hunting, forestry and fishing by 0.6 points.

Figure 1
GDP per inhabitant, 2001 (EU-15=100) (1)



(1) At current market prices and PPS; L, UK and JP, forecasts.

Source: Eurostat, National Accounts - ESA95 - aggregates (theme2/aggs).

Table 1
Breakdown of GDP in the EU, 2001 (%)

NACE label (NACE code)	
Agriculture, hunting, forestry & fishing (A & B)	2.1
Mining & quarrying; manufacturing; electricity, gas & water supply (C to E)	22.1
Construction (F)	5.4
Distributive trades; hotels & restaurants; transport, storage & communication (G to I)	21.6
Financial intermediation; real estate, renting & business activities (J & K)	27.2
Public administration, community, social & personal services (L to Q)	21.7

Source: Eurostat, National Accounts - Breakdowns by branch of activity (theme2/brkdowns).

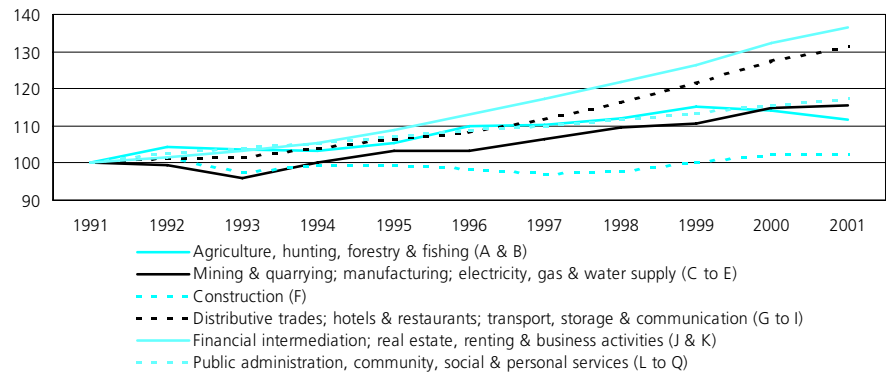
The progressive shift towards a service-orientated economy is represented in Figure 2, with the two fastest growing sectors (in constant price terms) both part of the market services' economy. The value added generated by the financial intermediation and business services sector grew at an average rate of 3.1 % per annum between 1991 and 2001, and was followed by distributive trades, hotels and restaurants, transport, storage and communications (2.7 % growth per annum).

Although growth in the other branches of the EU economy was not as fast, it did, on average, remain positive during the 10-year period from 1991 to 2001. Industry and construction experienced the largest downturns in activity during 1993, with industry recovering at a much more rapid pace during the second half of the 1990s, resulting in average growth of 1.5 % per annum for the whole of the period from 1991 to 2001.

The increasing importance of the service sector may, in part, be attributed to manufacturers and other service enterprises switching from in-house provision to external suppliers of services such as accounting, IT services, advertising, training, management consultancy, security, catering or cleaning. This trend is often referred to as outsourcing and may, at least in part, explain the rapid growth of the business service sectors during the 1990s.

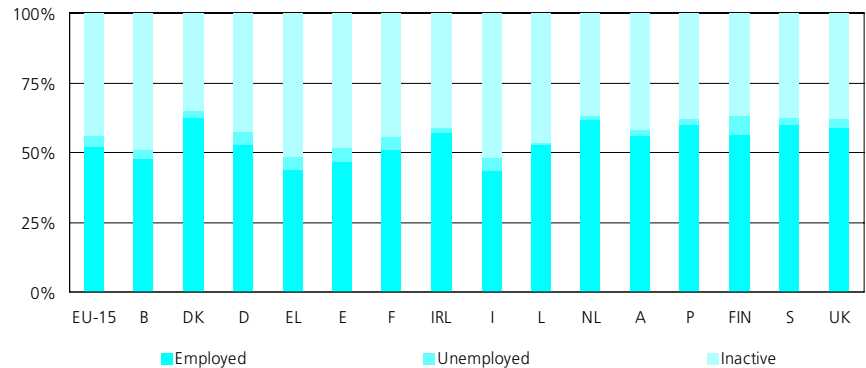
At the same time, manufacturing enterprises have tended to relocate their production, with relatively high wages, free trade and developments in communications driving output away from the EU towards low labour cost regions, particularly for more standardised products. Manufacturers within the EU increasingly concentrate on higher added value tasks, for example in the areas of research, design and development.

Figure 2
Breakdown of development of GDP in constant prices in the EU (1991=100)



Source: Eurostat, National Accounts - Breakdowns by branch of activity (theme2/brkdowns).

Figure 3
Breakdown of the labour force by employment status, 2001
(share of persons aged 15 or more) (1)



(1) NACE Sections A to Q.
Source: Eurostat, Labour Force Survey.

According to the labour force survey (LFS) ⁽²⁾, there were 310 million persons aged 15 years and above living in the EU in 2001; of these, some 174 million were either employed or seeking work, while the remaining 136 million were inactive (retired, in education, chose not to work, etc.) – see Figure 3. The activity rate measures the share of those employed in the total population aged between 15 and 64. In 2001, this ratio ranged from 60.3 % in Italy up to 79.2 % in Denmark; the EU average was 69.0 %. Higher activity rates tend to generate on the one hand more revenue for governments, while at the same time removing some of the social security burden, as persons (re-)join the labour force.

⁽²⁾ The use of the Labour Force Survey, which is based on a household survey, may produce quite different results to those obtained through enterprise surveys that are the basis for the vast majority of the statistics presented in this publication.

Approximately one in six (18.0 %) persons in the EU were working on a part-time basis in 2001 – see Figure 4. Part-time employment accounted for less than 10 % of employment in just three of the Member States: Greece, Spain and Italy. The share of part-time employment was higher than average in Denmark, Germany, Sweden and the United Kingdom (all between 20 and 25 %), and significantly higher in the Netherlands (42.2 %).

There were considerable differences between Member States as regards the share of women in the total number of persons employed in 2001. The highest shares (at least 45 %) were registered in Denmark, the Netherlands, Portugal, Finland, Sweden and the United Kingdom. The EU average stood at 42.9 %, while three countries were below the threshold of 40 % (Greece, Spain and Italy).

The service sector (NACE Sections G to Q) accounted for the majority of jobs in the EU in 2001, with just over two thirds (67.2 %) of those employed – see Figure 5. There were six countries where services accounted for more than 70 % of total employment, the highest share being recorded in Luxembourg (77 %). The shift towards services, evident for value added, was also present when studying the

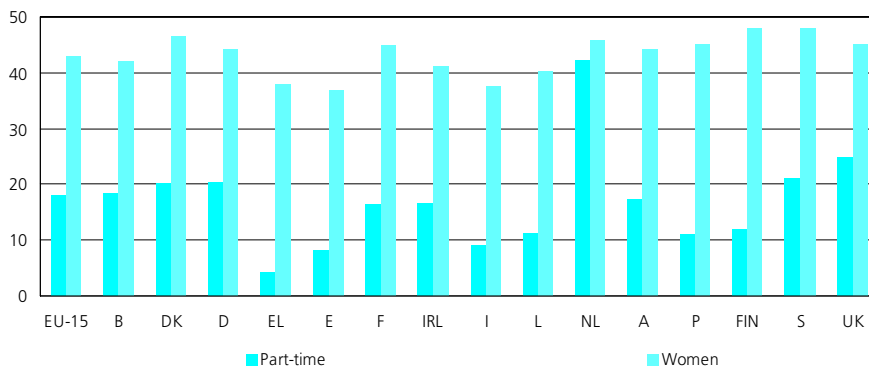
evolution of employment within the EU. Between 1995 and 2001 the number of persons employed in the service sector rose in every Member State, with the share of services in total employment increasing in every country, except Portugal. By 2001, Portugal was the only country to report that services did not account for more than 60 % of total employment.

There were large differences in the importance of the agriculture, hunting, forestry and fishing sectors (NACE Sections A and B): ranging from less than 2 % of total employment in Belgium, Luxembourg and the United Kingdom to 13 % of employment in Portugal and 16 % in Greece. The industrial and construction sectors (NACE Sections C to F) generally accounted for between 20 and 30 % of total employment, with their share rising above 30 % in Germany, Spain, Italy and Portugal.

Between 1995 and 2001 there was a 13 million net increase in the number of persons employed in the EU, with services accounting for 12.7 million of the net increase – see Table 2. The largest net gains were made by public administration, community, social and personal services (NACE Sections L to Q) and financial intermediation, real estate, renting and business activities (NACE Sections J and K), where employment in the EU rose by 5.1 million and 4.4 million respectively over the period considered. The only branch to register a net reduction in the number of persons employed was agriculture, hunting, forestry and fishing, with a decline of 1.1 million.

Figure 4

Labour force characteristics, 2001 (% share of those employed aged 15 or more) (1)

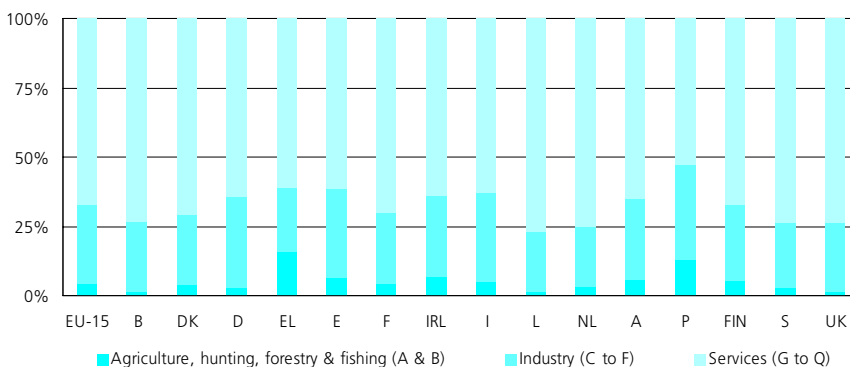


(1) NACE Sections A to Q.

Source: Eurostat, Labour Force Survey.

Figure 5

Breakdown of persons in employment by activity, 2001 (share of those employed aged 15 or more)



Source: Eurostat, Labour Force Survey.

Table 2

Evolution of total employment in the EU (millions)

NACE label (NACE code)	1995	2001	Share (%)		Growth rate, 2001/1995 (%)	Average annual growth rate, 1995-2001 (%)
			1995	2001		
Total (A to Q)	148.0	160.9	100.0	100.0	8.8	1.7
Agriculture, hunting, forestry & fishing (A & B)	7.8	6.7	5.3	4.2	-14.5	-3.1
Mining & quarrying; manufacturing; electricity, gas & water supply (C to E)	33.1	33.4	22.4	20.8	1.0	0.2
Construction (F)	11.6	12.7	7.9	7.9	9.4	1.8
Distributive trades; hotels & restaurants; transport, storage & comm. (G to I)	37.1	40.3	25.1	25.0	8.4	1.6
Financial intermediation; real estate, renting & business activities (J & K)	15.5	19.9	10.5	12.4	28.5	5.1
Public administration, community, social & personal services (L to Q)	42.8	47.9	28.9	29.8	12.0	2.3

Source: Eurostat, Labour Force Survey.

INTANGIBLES AND GLOBALISATION

Traditional economic theories were often based upon the exchange of tradable, physical goods in a one-to-one relationship. In recent years, intangibles (non-material factors) have been considered as playing an increasing role in determining economic performance. The exploitation of property rights, brands, R & D, know-how, skills and supply networks are thought to be some of the key drivers of intangible wealth creation.

At the Lisbon European Council in March 2000, the European Union set itself the ambitious goal 'to become the most competitive and dynamic knowledge-driven economy in the world' by 2010. Enterprise policy is one area that will play a major role in setting the conditions for this objective to be met. In order to measure business performance, a benchmarking initiative was set up at the request of the Lisbon Council. The structural indicators' database was launched in the European Commission's Communication 'Realising the potential of the European Union – Consolidating and extending the Lisbon strategy' (3). Table 3 shows some selected indicators from this database. The aim of the database is to act as a tool, whereby countries can seek to improve their own performance (to the benefit of the whole EU) by comparing themselves with other Member States and adapting their enterprise policy to reflect best practices identified in other countries.

Globalisation encompasses a wide range of issues, such as the development of intra-enterprise trade, financial flows, forms of linkages between businesses and cross-border operations. Multi-national enterprises and networks are at the core of the process, acting as economic agents controlling or interacting with entities situated in different countries. The qualitative nature of information required to define a group's perimeter can often make it difficult to obtain reliable statistical information (such as the statistical system stands today). One of the key constraints is that global enterprises make their decisions against a worldwide backdrop, while these decisions continue to be analysed using national data collections truncated by geographical borders.

(3) COM(2001) 79. Eurostat's structural indicators homepage may be found at: <http://www.europa.eu.int/comm/eurostat/Public/datashop/print-product/EN?catalogue=Eurostat&product=1-structur-EN&mode=download>

Table 3
Selected structural indicators

	Business enterprise R&D expenditure relative to GDP, 2001 (%) (1)	Number of patent applications at the EPO per million inhabitants, 2000 (units) (2)	Venture capital investment relative to GDP - early stage, 2001 (%) (3)
EU-15	1.28	152.7	0.05
B	1.45	151.2	0.04
DK	1.32	169.5	0.08
D	1.80	296.8	0.06
EL	0.19	5.2	0.02
E	0.52	22.1	0.02
F	1.36	139.7	0.04
IRL	0.88	87.6	0.03
I	0.53	72.3	0.02
L	1.19	170.9	:
NL	1.14	217.7	0.04
A	1.14	154.1	0.02
P	0.17	3.9	0.01
FIN	2.68	320.3	0.10
S	2.84	346.4	0.10
UK	1.21	124.0	0.06
JP	2.11	148.5	:
US	2.04	158.2	0.14

(1) B, DK, F, L and US, 2000; EL, IRL, NL, P and S, 1999; A, 1998; B, FIN and UK, forecast; DK, D and F, estimate; US and L, provisional; EU-15, Eurostat estimate.

(2) All values are provisional.

(3) US, Eurostat estimate.

Source: Eurostat, Structural indicators (theme1/strind).

Many enterprises have concentrated on extending their operations beyond national borders in an attempt (among other things) to circumvent trade barriers, increase proximity to customers, reduce costs (labour, transportation or other inputs), guarantee a supply of materials or avoid regulations. Such changes in business structure, conduct and performance have created significant challenges for national statistical systems.

Foreign affiliates trade statistics (FATS) is a data collection exercise that measures the commercial presence of enterprises in the territory of another country. The statistics describe the overall activity of foreign controlled enterprises and have been developed for inward FATS – in other words, foreign owned affiliates in the reporting economy. Table 4 provides some of the main results from this study.

Table 4
Main indicators for foreign affiliates trade statistics, 1998 (1)

	Nationally owned	Foreign owned	Non-EU foreign owned
Value added at factor cost (million EUR)			
DK	66 734	8 518	:
NL	143 931	26 865	14 427
FIN	49 421	6 788	2 934
S	98 272	18 889	8 819
UK	540 963	100 858	:
Number of persons employed (units)			
DK	1 317 464	111 194	:
NL	3 948 904	412 477	184 228
FIN	972 426	119 264	47 073
S	2 090 256	327 904	142 794
UK	:	:	:

(1) NACE Section C to K, excluding Section J. Source: Eurostat, Structural Business Statistics (theme4/sbs/fats).

STRUCTURAL BUSINESS STATISTICS

Structural business statistics (SBS) provide the majority of data used in this publication. The data are collected within the legal framework provided by the SBS regulation ⁽⁴⁾. Figures relating to enterprises of all sizes (with one or more persons employed) ⁽⁵⁾ are used in this publication to provide a snapshot of the latest situation in the EU's business economy for the reference year 2000.

A second collection of SBS data provides a longer time-series, but only for industrial enterprises with 20 or more persons employed ⁽⁶⁾. In this publication these figures are used to provide a comparison of the evolution of the manufacturing sector.

A SNAPSHOT OF THE EU'S BUSINESS ECONOMY

Estimates based on SBS data suggest that the value added of the EU's business economy (NACE Sections C to K) was EUR 4 700 billion in 2000, while there were over 100 million persons employed.

At the NACE section level, manufacturing was the largest activity, accounting for 31.2 % of value added and 27.7 % of employment. These two shares imply that the manufacturing sector is relatively productive when compared to the average performance of the whole economy. However, the remaining industrial activities were even more productive, as mining and quarrying accounted for a 1.4 % share of total value added, but just 0.4 % of employment, and electricity, gas and water supply was responsible for generating 2.9 % of total value added, while employing 1.0 % of the workforce. These figures may be explained in part by the transformation of the industrial base, as enterprises increasingly specialise in skills-intensive sectors, while low-skilled, labour-intensive activities have been driven out to lower cost countries.

⁽⁴⁾ Council Regulation (EC, EURATOM) No. 58/97 of 20 December 1996 concerning structural business statistics.

⁽⁵⁾ These data can be found on Eurostat's NewCronos database at: theme4/sbs/enterpr/enter_ms.

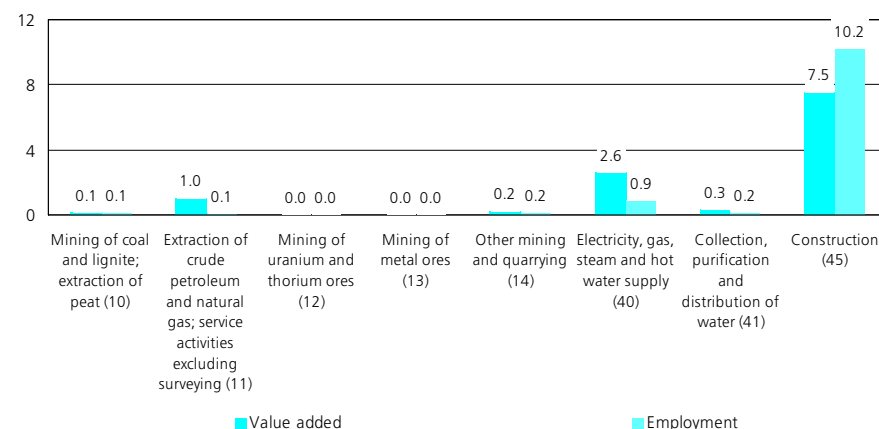
⁽⁶⁾ These data can be found on Eurostat's NewCronos database at: theme4/sbs/enterpr/ent_l_ms.

This switch in productive capacity has also brought with it a change in demand between businesses, most notably an increase in the demand for business services. Real estate, renting and business activities generated 17.9 % of value added (the highest share among service sectors), while employing 17.0 % of the total. Financial intermediation accounted for 8.5 % of the EU's value added in 2000, while employing 5.1 % of those working.

Looking in more detail, at the two-digit level of NACE, construction (NACE Division 45) was by far the largest non-manufacturing industrial activity in every Member State in 2000, accounting on average for 7.5 % of the value added generated in the EU's business economy and 10.2 % of those employed – see Figure 6. The next largest activity was usually the supply of electricity, gas, steam and hot water (NACE Division 40), although in Denmark and the United Kingdom the extraction of petroleum and gas (NACE Division 11) generated more value added. The extraction of petroleum and gas was also relatively important in the Netherlands, where it generated almost as much value added as the supply of electricity, gas, steam and hot water – see Table 5.

Figure 6

Breakdown of activity in non-manufacturing industrial sectors in the EU, 2000 (% share of business economy) (1)



(1) Based on NACE Divisions 10 to 14 and 40, 41 and 45; estimates.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 5

Three largest non-manufacturing industrial sectors, 2000 (1)

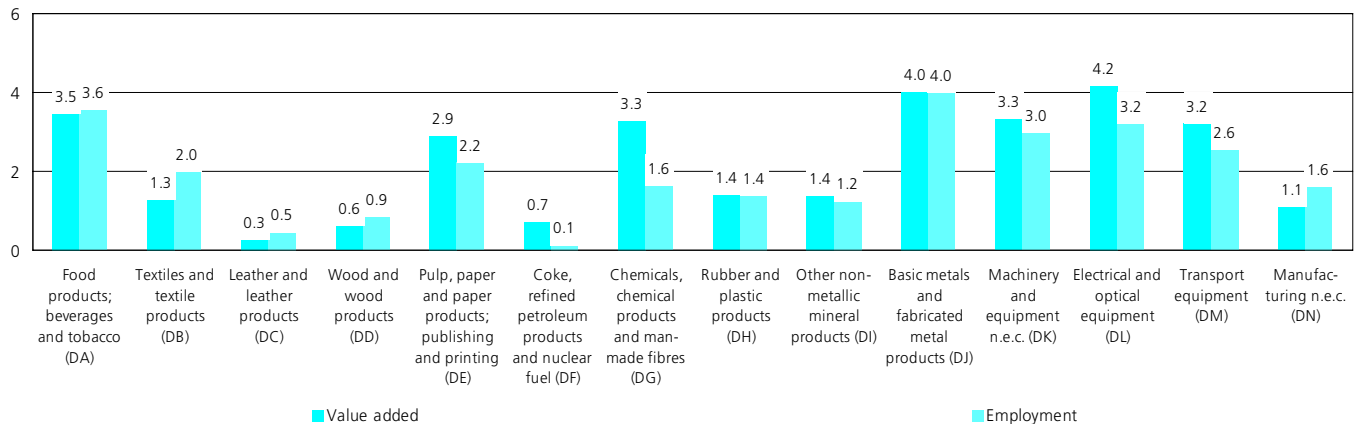
	Largest	Second largest	Third largest
EU-15	Construction	Electricity, gas, steam & hot water	Extraction of petroleum & gas
B	Construction	Electricity, gas, steam & hot water	Collection, purification & distribution of water
DK	Construction	Extraction of petroleum & gas	Electricity, gas, steam & hot water
D	Construction	Electricity, gas, steam & hot water	Mining of coal & lignite; extraction of peat
EL	Construction	Electricity, gas, steam & hot water	Other mining and quarrying
E	Construction	Electricity, gas, steam & hot water	Collection, purification & distribution of water
F	Construction	Electricity, gas, steam & hot water	Collection, purification & distribution of water
IRL	Construction	Electricity, gas, steam & hot water	Mining of coal & lignite; extraction of peat
I	Construction	Electricity, gas, steam & hot water	Extraction of petroleum & gas
L	Construction	Electricity, gas, steam & hot water	Other mining and quarrying
NL	Construction	Electricity, gas, steam & hot water	Extraction of petroleum & gas
A	Construction	Electricity, gas, steam & hot water	Other mining and quarrying
P	Construction	Electricity, gas, steam & hot water	Collection, purification & distribution of water
FIN	Construction	Electricity, gas, steam & hot water	Collection, purification & distribution of water
S	Construction	Electricity, gas, steam & hot water	Mining of metal ores
UK	Construction	Extraction of petroleum & gas	Electricity, gas, steam & hot water

(1) Based on value added for non-manufacturing industrial sectors (NACE Divisions 10 to 14 and 40, 41 and 45); estimates.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 7

Breakdown of activity in manufacturing sectors in the EU, 2000 (% share of business economy) (1)



(1) Based on NACE Subsections DA to DN; estimates.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Within the manufacturing sector, the three largest activities (in terms of value added) were machinery and equipment (NACE Division 29), food products and beverages (NACE Division 15) and chemicals and chemical products (NACE Division 24) – see Figure 7. At least two of these three activities appeared in the ranking of the three largest manufacturing activities in 10 of the Member States. However, manufacturing in Greece, Luxembourg, Portugal, Finland and Sweden was more concentrated in activities that did not have such a predominant position in the EU as a whole. In the larger Member States, Germany reported a higher than average share of its output concentrated within the manufacture of motor vehicles, France and Italy produced more fabricated metal products than average and the share of publishing and printing was relatively high in the United Kingdom – see Table 6.

Table 6

Three largest manufacturing sectors, 2000 (1)

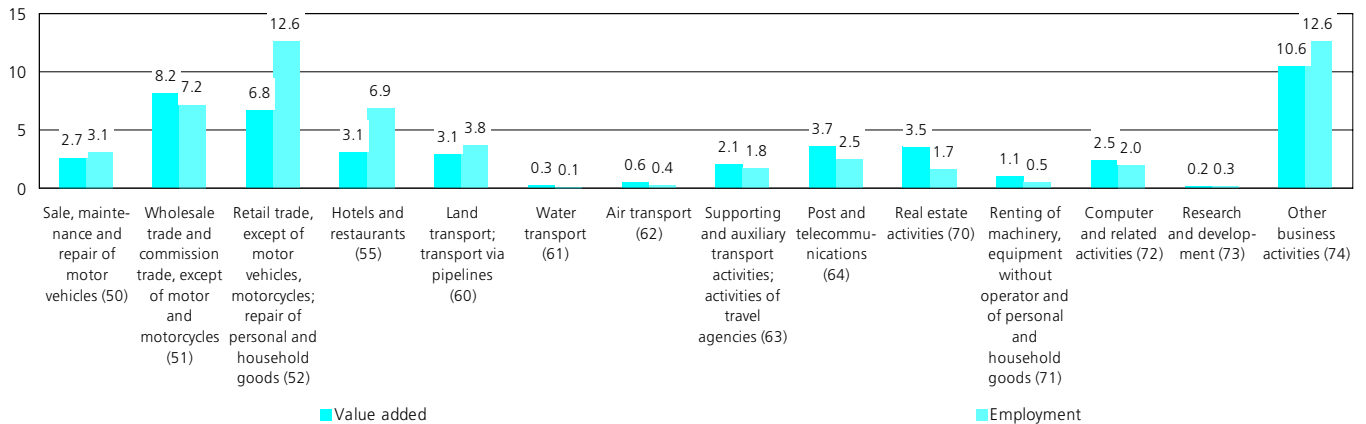
	Largest	Second largest	Third largest
EU-15	Machinery & equipment n.e.c.	Food products & beverages	Chemicals & chemical products
B	Chemicals & chemical products	Food products & beverages	Basic metals
DK	Food products & beverages	Machinery & equipment n.e.c.	Chemicals & chemical products
D	Machinery & equipment n.e.c.	Motor vehicles	Chemicals & chemical products
EL	Food products & beverages	Textiles	Coke, petroleum & nuclear fuel
E	Food products & beverages	Fabricated metal products	Chemicals & chemical products
F	Food products & beverages	Chemicals & chemical products	Fabricated metal products
IRL	Chemicals & chemical products	Food products & beverages	Publishing & printing
I	Machinery & equipment n.e.c.	Fabricated metal products	Food products & beverages
L	Basic metals	Rubber & plastic products	Fabricated metal products
NL	Food products & beverages	Chemicals & chemical products	Publishing & printing
A	Machinery & equipment n.e.c.	Coke, petroleum & nuclear fuel	Food products & beverages
P	Food products & beverages	Other non-metallic minerals	Textiles
FIN	Radio, TV & communications	Pulp, paper & paper products	Machinery & equipment n.e.c.
S	Motor vehicles	Machinery & equipment n.e.c.	Pulp, paper & paper products
UK	Food products & beverages	Publishing & printing	Chemicals & chemical products

(1) Based on value added for manufacturing (NACE Divisions 15 to 37); estimates.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 8

Breakdown of activity in service sectors in the EU, 2000 (% share of business economy) (1)



(1) Based on NACE Divisions 50 to 64 and 70 to 74; estimates.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Within the service sector the three largest activities (still at the two-digit level of NACE) were generally wholesale trade (NACE Division 51), retail trade (NACE Division 52) and other business activities (NACE Division 74). The latter two activities both accounted for a particularly high share of total employment, 12.6 % of those employed in the EU. However, in terms of value added, wholesale trade was more important than retail trade – see Figure 8. Considering the individual Member States, other business activities and wholesale trade were the two largest sectors in terms of value added generated in every country in 2000, except for Ireland and Portugal, where retail trade displaced other business activities. In the remaining countries, retail trade was usually the third most important activity, except in Greece (hotels and restaurants), Luxembourg (post and telecommunications) and Sweden (real estate activities) – see Table 7.

The promotion of small and medium-sized enterprises (SMEs) is thought to be fundamental when fostering an environment that encourages economic growth and job opportunities. The size class domain of the SBS database provides information on the enterprise size structure within the EU's business economy in 1999. SMEs are found to be particularly important in the activities of hotels and restaurants, construction, distributive trades and real estate, renting and business activities, where they provide employment to a large number of persons – see Table 8.

Table 7
Three largest service sectors, 2000 (1)

	Largest	Second largest	Third largest
EU-15	Other business activities	Wholesale trade	Retail trade
B	Wholesale trade	Other business activities	Retail trade
DK	Wholesale trade	Other business activities	Retail trade
D	Other business activities	Wholesale trade	Retail trade
EL	Other business activities	Wholesale trade	Hotels and restaurants
E	Wholesale trade	Other business activities	Retail trade
F	Other business activities	Wholesale trade	Retail trade
IRL	Retail trade	Wholesale trade	Other business activities
I	Other business activities	Wholesale trade	Retail trade
L	Other business activities	Wholesale trade	Post and telecommunications
NL	Wholesale trade	Other business activities	Retail trade
A	Wholesale trade	Other business activities	Retail trade
P	Wholesale trade	Retail trade	Other business activities
FIN	Wholesale trade	Other business activities	Retail trade
S	Wholesale trade	Other business activities	Real estate activities
UK	Other business activities	Wholesale trade	Retail trade

(1) Based on value added for services (NACE Divisions 50 to 64 and 70 to 74); estimates.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Indeed, SMEs employed as many as 87 % of the EU's workforce in the construction sector in 1999, 80 % of those employed in hotels and restaurants and 72 % in distributive trades. Transport, storage and communication was the only NACE section to report that SMEs did not employ more than 50 % of its workforce – see Table 9.

The apparent labour productivity of micro enterprises was below the average of all enterprises for each NACE section except in real estate, renting and business activities, where micro-enterprises accounted for 32.2 % of employment, but generated 33.9 % of value added.

In the construction, distributive trades and hotels and restaurants sectors, there was no significant difference in apparent labour productivity of small, medium or large-sized enterprises. Real estate, renting and business activities reported that apparent labour productivity in the EU increased between micro, small and medium-sized enterprises before tailing off for large enterprises. There were, however, two sectors that did report increasing apparent labour productivity returns for larger enterprises, namely manufacturing and transport, storage and communication. Both of these activities often require significant capital investment to set up efficient production lines or maintain national networks at a minimum efficient scale.

Table 8

Importance of small enterprises in the value added of manufacturing activities in the EU, 2000 (% share of enterprises with less than 20 persons employed) (1)

NACE label (NACE code)	Share of enterprises with <20 persons employed in total value added (%)
Food products and beverages (15)	15.3
Tobacco products (16)	0.2
Textiles (17)	19.1
Wearing apparel; dressing; dyeing of fur (18)	27.7
Tanning, dressing of leather; luggage (19)	30.1
Wood, except furniture; articles of straw and plaiting materials (20)	34.8
Pulp, paper and paper products (21)	5.3
Publishing, printing, reproduction of recorded media (22)	23.0
Coke, refined petroleum products and nuclear fuel (23)	1.1
Chemicals and chemical products (24)	3.1
Rubber and plastic products (25)	12.0
Other non-metallic mineral products (26)	13.8
Basic metals (27)	3.7
Fabricated metal products, except machinery and equipment (28)	30.4
Machinery and equipment n.e.c. (29)	12.4
Office machinery and computers (30)	6.2
Electrical machinery and apparatus n.e.c. (31)	8.6
Radio, television and communication equipment and apparatus (32)	4.2
Medical, precision and optical instruments, watches and clocks (33)	18.4
Motor vehicles, trailers and semi-trailers (34)	1.9
Other transport equipment (35)	4.2
Furniture; manufacturing n.e.c. (36)	29.3
Recycling (37)	39.1

(1) Extraction of data made in March 2003; the data presented in this table shows the importance of enterprises with less than 20 persons employed, enterprises that are generally not covered within SBS LONG, the principal data set used when drafting chapters for manufacturing activities.
Source: Eurostat, Structural Business Statistics (theme4/sbs/sizclass).

Table 9

Breakdown of activity by enterprise size class in the EU, 1999 (1)

NACE label (NACE code)	Value added				Employment			
	Micro (1-9 persons employed)	Small (10-49 persons employed)	Medium (50-249 persons employed)	Large (250 or more persons employed)	Micro (1-9 persons employed)	Small (10-49 persons employed)	Medium (50-249 persons employed)	Large (250 or more persons employed)
Manufacturing (D)	7.7	16.3	22.2	53.7	13.4	21.7	23.3	41.5
Construction (F)	32.5	32.5	17.2	17.9	41.2	31.4	14.3	13.0
Distributive trades (G)	29.2	23.9	16.6	30.3	38.9	21.4	11.7	27.9
Hotels & restaurants (H)	39.7	24.6	11.9	23.8	45.6	24.5	9.9	20.0
Transport, storage & communication (I)	10.8	11.8	9.8	67.6	15.9	14.8	12.5	56.8
Real estate, renting & business activities (K)	33.9	23.9	22.3	19.9	32.2	19.0	16.5	32.2

(1) NACE Sections C, E and J, not available.
Source: Eurostat, Structural Business Statistics (theme4/sbs/sizclass).

THE EU'S MANUFACTURING SECTOR FROM 1990 TO 2001

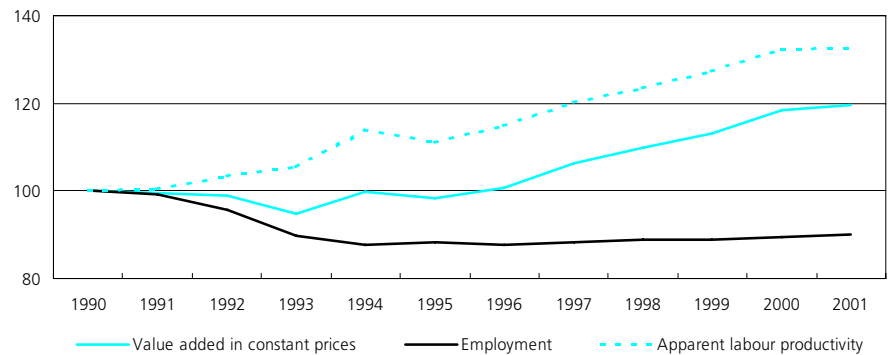
After a reduction in manufacturing activity at the start of the 1990s, the EU's value added in constant price terms increased during six consecutive years from 1996 to 2001 – see Figure 9. By 2001, the value added generated by the EU's manufacturing sector had reached EUR 1 327 billion.

There were a total of 23.7 million persons employed in the EU's manufacturing sector in 2001, down from 26.3 million in 1990. The decline in manufacturing employment was almost exclusively confined to the first half of the 1990s, since when employment levelled off. There was an absolute gain of 3.0 % in the number of persons employed between the low reached in 1996 and the latest data for 2001.

The decline in employment levels during the first half of the 1990s was the main contributing factor to overall productivity gains in the EU's manufacturing economy between 1990 and 1995. Nevertheless, since 1996 apparent labour productivity gains have been stimulated mainly by a sharp increase in real value added rather than a fall in employment. It is also important to remember that while the level of employment in manufacturing has itself fallen between 1990 and 2001, a large proportion of employment in the tertiary sector is dependent on the manufacturing sector as the source of demand for their services.

As the role of intangibles becomes more important, most commentators agree that the fastest growing areas of the EU's economy are those driven by marketing, innovation and technology. SBS data for the EU between 1990 and 2001 reports that the fastest growth among manufacturing activities was recorded in the chemicals, chemical products and man-made fibres sector (NACE Subsection DG), rubber and plastic products' sector (NACE Subsection DH) and the transport equipment sector (NACE Subsection DM). All of these can be considered as either research-driven with a high degree of technological innovation (for example, aerospace, pharmaceuticals or plastics manufacture), or alternatively marketing-driven, with brand image playing an important role in differentiating products (for example, motor vehicles or detergents) – see Table 10.

Figure 9 Evolution of main indicators for manufacturing (NACE Section D) in the EU (1990=100)



Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms).

Table 10 Share of manufacturing value added in the EU (%)

NACE label (NACE code)	1990	2001
Food products; beverages and tobacco (DA) (1)	11.0	11.3
Textiles and textile products (DB)	5.3	3.7
Leather and leather products (DC)	1.0	0.8
Wood and wood products (DD)	1.6	1.6
Pulp, paper and paper products; publishing and printing (DE)	8.3	8.8
Coke, refined petroleum products and nuclear fuel (DF)	1.8	2.1
Chemicals, chemical products and man-made fibres (DG)	10.7	11.8
Rubber and plastic products (DH)	4.2	4.8
Other non-metallic mineral products (DI)	4.8	4.4
Basic metals and fabricated metal products (DJ)	12.4	11.7
Machinery and equipment n.e.c. (DK)	11.4	10.6
Electrical and optical equipment (DL) (2)	13.6	13.3
Transport equipment (DM)	11.9	12.5
Manufacturing n.e.c. (DN) (1)	2.0	2.7

(1) 2001, estimate.

(2) 1990, estimate.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms).

Table 11
Relative specialisation in the manufacturing sector, 2000 (1)

B Accumulators, cells & batteries Other first processing of iron & steel Other textiles	DK Fish Games & toys Optical & photographic equipment	D Electricity distribn. & control app. Machine tools Motor vehicles	EL Cement, lime & plaster Oils & fats Textile fibres	E Cement, lime & plaster Ceramic tiles & flags Stone
F Aircraft & spacecraft Processing of nuclear fuel Steam generators	IRL Basic chemicals Office machinery & computers Reproduction of recorded media	I Ceramic tiles & flags Motorcycles & bicycles Tanning & dressing of leather	L Basic iron & steel (ECSC) Other textiles Rubber products	NL Audio-visual household goods Oils & fats Other transport equipment n.e.c.
A Railway rolling stock Sawmilling & planing of wood Sports goods	P Footwear Knitted & crocheted fabrics Other wood products	FIN Pulp, paper & paperboard Sawmilling & planing of wood Telecommunications equipment	S Pulp, paper & paperboard Sawmilling & planing of wood Tubes	UK Aircraft & spacecraft Pesticides & other agro-chemical products Publishing

(1) Three most specialised manufacturing activities per country; based on NACE Groups and their specialisation ratios in terms of value added at factor cost; excluding recycling; only NACE Groups with a share >0.5% of national manufacturing are included; activities are ranked in alphabetical order; estimates.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms).

Table 11 provides information on specialisation ratios, which compare for a given country the importance of a particular NACE group in total manufacturing value added to the same ratio for the EU as a whole. The results show that natural endowments of resources, reinforced by long-standing traditions, can be an important contributing factor to the composition of a country's manufacturing sector, as high ratios were recorded for sawmilling and planing of wood in Finland and Sweden, stone in Spain, other wood products (namely, cork) in Portugal and ceramic tiles and flags in Italy. High-technology sectors featured in several countries: for example, aircraft and spacecraft in France and the United Kingdom, office machinery and computers in Ireland and audiovisual household goods in the Netherlands. It is important to note that smaller countries tend to register a broader range (both much higher and much lower) of relative specialisation ratios than larger countries, as some manufacturing sectors do not exist in smaller countries, thus magnifying the relative importance of those that do. It is also important to consider that specialisation ratios, per se, provide no information as to whether or not an industry accounts for an important share of total manufacturing. For this reason, very small activities that accounted for less than 0.5 % of a country's manufacturing value added in 2000 were removed from the table, even when one country dominated the EU total in a very small industry.

One factor that plays an important role in determining the competitiveness of industrial sectors is price. The European business trends (EBT) database provides information for annual domestic output price indices. Table 12 shows that output prices in manufacturing as a whole rose by 7.6 % between 1995 and 2001. Prices at the NACE subsection level rose for all but one activity, as the price of electrical and optical equipment in the EU was 5.3 % lower in 2001 than it had been in 1995. The vast majority of price increases registered in the EU's manufacturing sector were less than 10 % overall between 1995 and 2001, while the harmonised index of consumer prices rose by 11.5 % during the same period. Indeed, there were just two exceptions to this rule, the leather and leather products' sector (where prices rose by 12.2 %) and the coke, refined petroleum products and nuclear fuel sector (where prices rose by as much as 57.6 %). Prices in the refined petroleum products and nuclear fuel sector are to a very large degree dependent upon the cost of crude oil.

EXTERNAL TRADE STATISTICS THE EU'S EXTERNAL TRADE SITUATION FROM 1991 TO 2001

External trade statistics for manufactured goods are available within the Comext database, and can be compiled according to the classification of products by activity (CPA). The EU totals cited in this section refer to extra-EU trade only and do not include intra-EU flows (in other words, trade between the Member States). On the other hand, the data presented for the Member States takes account of all external trade flows, both with intra and extra-EU partners.

As the EU data only refer to extra-EU trade, it is important to bear in mind that certain products have characteristics that mean they are less likely to be traded over long distances (for example, goods with low unit values relative to their transportation cost, perishable goods or fragile goods). Extra-EU exports of manufactured products (CPA Section D) expanded by 153.5 % between 1991 and 2001, equivalent to an average rate of 9.7 % per annum. These growth rates reflect the growing importance of globalisation and world markets.

Table 12
Development of domestic output prices in the EU (1995=100)

NACE label (NACE code)	1995	1996	1997	1998	1999	2000	2001
Manufacturing (D)	100.0	101.1	101.8	100.9	101.2	106.6	107.6
Food products; beverages and tobacco (DA)	100.0	102.1	103.4	103.1	102.3	103.9	107.5
Textiles and textile products (DB)	100.0	100.9	101.8	102.6	102.3	103.5	105.1
Leather and leather products (DC)	100.0	102.1	103.7	105.1	105.4	107.6	112.2
Wood and wood products (DD)	100.0	98.9	100.0	100.7	100.2	101.1	101.7
Pulp, paper and paper products; publishing and printing (DE)	100.0	99.3	98.4	99.3	99.0	104.1	106.1
Coke, refined petroleum products and nuclear fuel (DF)	100.0	111.7	116.9	103.4	117.3	168.2	157.0
Chemicals, chemical products and man-made fibres (DG)	100.0	98.8	99.6	98.0	97.2	103.2	104.3
Rubber and plastic products (DH)	100.0	100.0	99.4	98.8	97.9	100.0	101.2
Other non-metallic mineral products (DI)	100.0	100.8	101.7	102.7	103.8	105.8	108.3
Basic metals and fabricated metal products (DJ)	100.0	97.5	98.0	98.5	96.3	100.7	101.0
Machinery and equipment n.e.c. (DK)	100.0	102.6	104.1	105.1	106.0	107.1	108.6
Electrical and optical equipment (DL)	100.0	99.4	98.3	96.7	95.2	95.2	94.7
Transport equipment (DM)	100.0	101.9	102.1	103.1	103.6	103.9	104.6
Manufacturing n.e.c. (DN)	100.0	102.7	103.7	104.9	106.1	107.6	109.9

Source: Eurostat, European Business Trends (theme4/ebt/ebt_ind/ind_pric).

The EU's manufacturing trade surplus in 2001 was EUR 95.7 billion, which was a EUR 42.1 billion increase on 2000. This rapid gain of 79 % was entirely the result of expanding exports, while imports remained at almost the same level as in 2000 (down by EUR 1.9 billion). As a result, the EU recorded its highest trade surplus in manufactured products since 1997.

Table 13 details the external trade position of each Member State for manufactured products in 2001. In absolute terms the highest trade surplus was recorded in Germany (EUR 132 billion). However, in relative terms the German cover ratio was 130.2 % (indicating that total exports of manufactured goods were some 30.2 % higher than the corresponding total for imports). This was not the highest ratio among the Member States, as it was surpassed marginally by the cover ratio for Sweden (130.4 %), and more significantly by the cover ratios for Finland (157.7 %) and Ireland (167.2 %).

On the other hand, there were six Member States that reported trade deficits for manufactured goods in 2001. The largest of these was in the United Kingdom (EUR 62 billion), where total exports of manufactured goods accounted for 81.1 % of imports; the cover ratios of Portugal (69.2 %) and Greece (37.1 %) were considerably lower still.

Table 13
External trade flows of manufactured goods (CPA Section D), 2001 (million EUR)

	Exports	Share in EU total (%)	Imports	Share in EU total (%)	Trade balance	Cover ratio (%)
EU-15 (1)	910 433	-	814 760	-	95 673	111.7
B	190 815	8.2	167 602	7.8	23 213	113.9
DK	49 601	2.1	45 595	2.1	4 006	108.8
D	568 221	24.4	436 281	20.3	131 940	130.2
EL	9 627	0.4	25 927	1.2	-16 299	37.1
E	118 059	5.1	144 778	6.7	-26 719	81.5
F	339 904	14.6	328 180	15.3	11 724	103.6
IRL	84 755	3.6	50 691	2.4	34 064	167.2
I	260 418	11.2	217 886	10.2	42 532	119.5
L	11 086	0.5	12 362	0.6	-1 276	89.7
NL	205 413	8.8	182 363	8.5	23 049	112.6
A	73 416	3.1	76 261	3.6	-2 845	96.3
P	26 431	1.1	38 205	1.8	-11 775	69.2
FIN	47 248	2.0	29 953	1.4	17 295	157.7
S	78 467	3.4	60 172	2.8	18 295	130.4
UK	267 428	11.5	329 573	15.4	-62 145	81.1

(1) Trade with non-Community countries only.

Source: Eurostat, Comext.

Looking at the EU's external trade performance, broken down by CPA subsection, Table 14 shows that in 2001 some 68.5 % of the EU's manufactured exports were concentrated within the four product groups of chemicals, machinery and equipment, electrical and optical equipment, and transport equipment. This share was 7 percentage points higher than in 1991. A similar pattern was observed for imports, with the share of the four most important subsections rising from 56.5 % in 1991 to 61.6 % by 2001.

The increase in manufactured imports and exports over the period 1991 to 2001 was concentrated within two CPA subsections. Electrical and optical equipment (CPA Subsection DL) and transport equipment (CPA Subsection DM) recorded 5.1 and 2.1 percentage point gains in their respective shares of total manufactured imports and 6.2 and 2.4 point gains in their shares of total exports. Hence, these products consolidated their position as the most important CPA subsections for imports (together they accounted for 43.0 % of the EU's total manufacturing imports in 2001 compared to 36.3 % in 1991). Furthermore, they supplanted machinery and equipment (CPA Subsection DK) as the EU's most exported manufactured goods (together accounting for 38.8 % of exports in 2001, compared to 30.3 % in 1991).

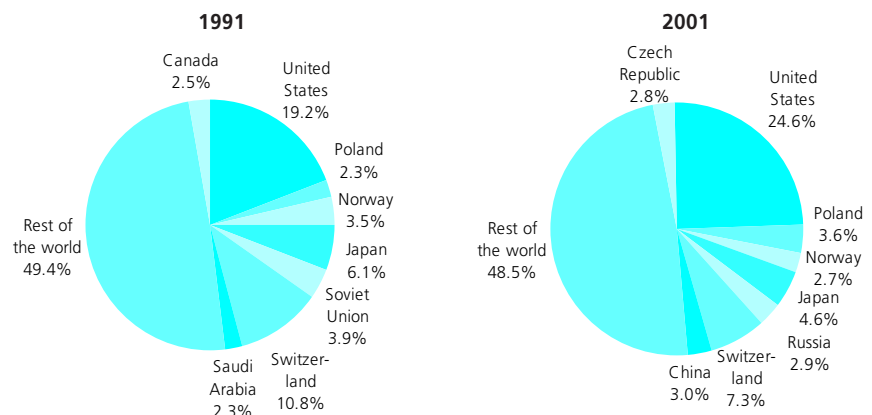
The EU's largest trade surpluses were recorded for chemicals, machinery and equipment, and transport equipment in 2001. Although not as important in size, the EU also enjoyed a positive external trade position for pulp, paper and paper products, publishing and printing and other non-metallic mineral products. On the other hand, the largest trade deficits were recorded for electrical and optical equipment and textiles, while the EU also relied heavily on imports of wood and wood products, and coke, refined petroleum products and nuclear fuel.

Table 14
EU-15 external trade flows with non-Community countries
(% share of manufacturing total)

CPA label (CPA code)	Exports		Imports	
	1991	2001	1991	2001
Food products; beverages and tobacco (DA)	7.6	5.3	7.2	5.0
Textiles and textile products (DB)	5.7	4.7	10.7	8.8
Leather and leather products (DC)	1.7	1.6	2.3	2.2
Wood and wood products (DD)	0.6	0.8	1.9	1.4
Pulp, paper and paper products; publishing and printing (DE)	3.2	2.8	2.6	2.1
Coke, refined petroleum products and nuclear fuel (DF)	2.0	1.9	4.4	2.8
Chemicals, chemical products and man-made fibres (DG)	13.1	14.7	9.5	9.8
Rubber and plastic products (DH)	2.3	2.5	1.9	2.2
Other non-metallic mineral products (DI)	2.3	1.9	1.0	1.2
Basic metals and fabricated metal products (DJ)	9.2	7.0	9.5	8.8
Machinery and equipment n.e.c. (DK)	18.1	14.9	8.2	8.3
Electrical and optical equipment (DL)	14.3	20.4	23.5	28.6
Transport equipment (DM)	16.0	18.4	12.8	14.4
Manufacturing n.e.c. (DN)	4.0	3.3	4.3	4.4

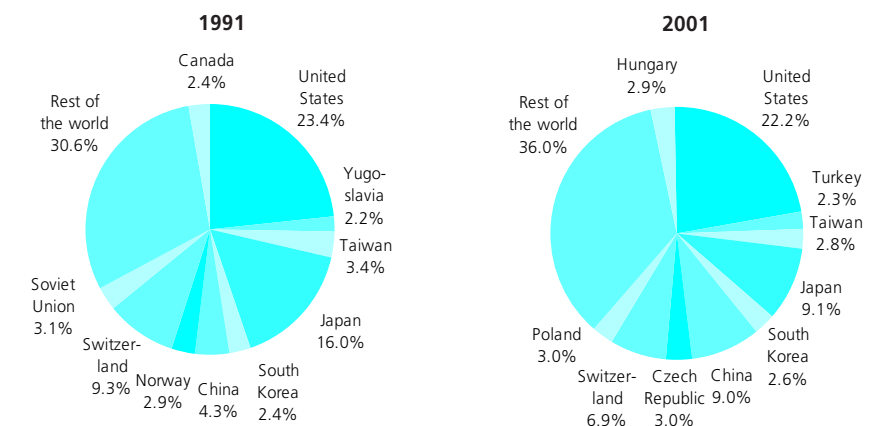
Source: Eurostat, Comext.

Figure 10
Destination of EU manufacturing (CPA Section D) exports



Source: Eurostat, Comext.

Figure 11
Origin of EU manufacturing (CPA Section D) imports



Source: Eurostat, Comext.

The share of the top 10 export markets for EU manufactured goods remained relatively stable between 1991 and 2001, rising from 54.7 to 56.0 %. The largest market was the United States, which accounted for almost one quarter (24.6 %) of the EU's exported manufactured products in 2001; this equated to a 5.4 percentage point increase when compared to 1991 – see Figure 10. On the other hand, the second and third most important export markets both saw their relative importance decline during the 1990s. The share of exports to Switzerland fell by 3.5 percentage points to 7.3 %, while there was a 1.5 point reduction in the share of total exports that were destined for Japan, reaching 4.6 % by 2001. Exports were, in part, redirected towards the candidate countries (as witnessed by the appearance of the Czech Republic in the top eight and the 1.3 point increase in the share of exports to Poland, which was already in the top eight), as well as towards China (which also entered the top eight export markets in 2001).

The United States was also the most important supplier of manufactured products into the EU – see Figure 11. It accounted for 22.2 % of EU manufactured imports in 2001, which was 1.2 percentage points below its corresponding share in 1991. There were more significant reductions in the shares of Japan, Switzerland and Taiwan; however, all three of these countries remained in the top 10 importers into the EU. The main beneficiary was China, whose share of EU imports of manufactured products rose from 4.3 % in 1991 to 9.0 % by 2001. There were also significant gains made by several of the candidate countries, most notably Poland, the Czech Republic and Hungary, who occupied fifth, sixth and seventh places in the ranking in 2001.

Table 15**EU-15 international trade in services with non-Community countries, 2001 (million EUR)**

	Credit	Debit	Net balance
Services	313 806	304 763	9 043
Transportation	78 082	74 059	4 023
Travel	71 866	77 445	-5 579
Communication services	6 201	6 934	-732
Construction services	10 046	6 390	3 656
Insurance services	7 892	3 285	4 606
Financial services	21 248	11 502	9 746
Computer and information services	11 880	7 457	4 423
Other business services	82 503	82 669	-167
Personal, cultural and recreational services	3 282	6 634	-3 352
Government services n.e.c.	7 108	5 974	1 133

Source: Eurostat, International trade in services (theme2/bop/its).

Services have increasingly become the subject of free trade negotiations and this has stimulated trade in services. However, according to balance of payments statistics, goods exported from the EU to non-Community countries were valued at more than three times the value of similar service transactions in 2001. EU credits for service transactions reached EUR 313.8 billion, equivalent to a 5.0 % increase on 2000. Debits grew by 4.3 % to reach EUR 305 billion, such that the EU recorded a net surplus of EUR 9.0 billion on its service transactions in 2001 – see Table 15. Three service sectors collectively accounted for almost three quarters (74.1 %) of the EU's external transactions of services in 2001: transportation, travel and other business services.

The United Kingdom had the highest share of credits from international trade in services in the EU, accounting for 17.5 % of the total in 2001 (see Table 16). This was well ahead of Germany, where EUR 98 billion of credits were recorded in 2001 (13.8 % of the total). Looking at the debits, as well as the credits, the United Kingdom registered the largest deficit for manufactured products but the highest net surplus for service transactions, while Germany recorded the largest surplus for manufactured products and the highest deficit for service transactions.

Table 16**International trade in services, 2001 (million EUR)**

	Credit	Debit
EU-15 (1)	313 806	304 763
B/L	56 195	48 414
DK	30 066	26 294
D	97 804	154 744
EL	21 733	12 935
E	64 763	37 625
F	89 581	69 655
IRL	22 577	38 934
I	64 279	63 917
NL	59 131	61 340
A	36 704	35 259
P	9 835	6 917
FIN	6 512	9 049
S	24 571	25 628
UK	123 509	105 703

(1) Trade with non-Community countries only.
Source: Eurostat, International trade in services (theme2/bop/its).

CANDIDATE COUNTRIES

As with the data for the EU, this description of the business economies of the candidate countries begins with data relating to living standards. The candidate countries all possessed lower GDP per inhabitant than the EU average in 2001. However, Cyprus and Slovenia reported levels of GDP per inhabitant that were higher than some of the EU Member States – see Figure 12.

Table 17 provides information on the structure of the candidate country economies. Some still reflect the process of transition towards market economies. For example, the importance of agriculture, hunting, forestry and fishing was often considerably higher in the candidate countries than in the EU. Distributive trades, hotels and restaurants, transport, storage and communication also generally accounted for a higher share of activity in the candidate countries.

LFS data provides a measure of working characteristics in 11 of the candidate countries (no data were available for Malta or Turkey at the time of writing). There were 96 million persons living in the 11 countries for which data are available for 2001, with the vast majority of the population (some 85.2 million) aged 15 years or more. About half of those who had reached a working age were in employment, some 42.7 million persons, with 6.4 million persons unemployed and the remaining 36.1 million non-active – see Figure 13. Although part-time employment accounted for almost one in five persons in employment in the EU (18 %), there were only three candidate countries where the share of part-time employment in total employment rose into double digits; namely, Latvia (10.0 %), Poland (10.2 %) and Romania (16.8 %). Part-time employment accounted for 5 % or less of the workforce in Bulgaria, the Czech Republic, Hungary and the Slovakia.

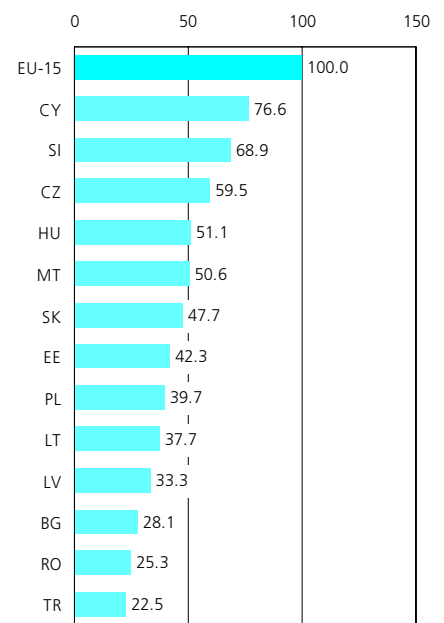
Some 42.8 % of those employed in the EU in 2001 were women. In the majority of candidate countries the share of women in total employment was higher, surpassing 50 % in Latvia and Lithuania, and only below the EU average in Cyprus (41.5 %) – see Figure 14.

As regards the breakdown of employment, agriculture, hunting, forestry and fishing accounted for a higher share of those employed when compared to the EU average of 4.2 % in every candidate country – see Figure 15. In four of the candidates, the share of this sector in total employment rose into double digits, climbing as high as 44.4 % in Romania⁽⁷⁾. The industrial (and construction) economies of the candidate countries also tended to account for a somewhat higher share of total employment than the EU average of 28.7 %. However, this was not the case in Cyprus, Lithuania, Romania or Latvia, while at the other extreme more than 40 % of the workforce in the Czech Republic worked in the industrial economy. The service sector accounted for more than half of those employed in all but one of the candidate countries – Romania, where the share of services in total employment was 29.7 %. The vast majority of the candidates did not, however, report employment rates in the service sector as high as the EU average of 67.1 %. Indeed, the only one above the EU average was Cyprus, where 71.1 % of those employed worked in the service sector.

More detailed activity data are available for the majority of candidate countries from SBS for 2000. These data are generally available for most NACE sections within the business economy (Sections C to K).

⁽⁷⁾ A high proportion of persons working in the candidate countries may have more than one occupation and it may therefore be difficult to distinguish their main occupation.

Figure 12
GDP per inhabitant in the candidate countries, 2001 (EU-15=100) (1)



(1) At current market prices and PPS; MT, 1999. Source: Eurostat, National Accounts - ESA95 - aggregates (theme2/aggs).

Table 17
Breakdown of GDP in the candidate countries, 2001 (%)

NACE label (NACE code)	BG		CY		CZ	EE	HU	LT	LV	MT	RO			
	EU-15	(1)	(2)	(1)							SI	SK	TR	
Agriculture, hunting, forestry & fishing (A & B)	2.1	13.8	4.0	4.2	5.8	4.3	7.1	4.7	2.4	3.4	14.6	3.1	4.6	12.1
Mining & quarrying; manufacturing; electricity, gas & water supply (C to E)	22.1	23.0	12.9	32.9	22.8	27.1	27.8	18.7	24.5	25.4	28.5	31.0	27.5	23.8
Construction (F)	5.4	3.5	7.1	7.2	5.9	4.9	6.1	6.2	2.8	7.5	5.5	5.9	5.2	4.8
Distributive trades; hotels & restaurants; transport, storage & comm. (G to I)	21.6	:	32.5	25.2	32.1	22.0	29.5	35.4	22.1	30.0	51.3	22.4	29.1	34.4
Financial intermediation; real estate, renting & business activities (J & K) (3)	27.2	:	20.9	15.7	15.6	21.7	10.6	16.0	19.5	16.1	9.4	16.5	18.3	11.3
Public administration, community, social & personal services (L to Q) (3)	21.7	:	22.5	15.0	17.9	20.0	19.0	19.0	28.8	17.6	16.9	21.2	15.4	13.6

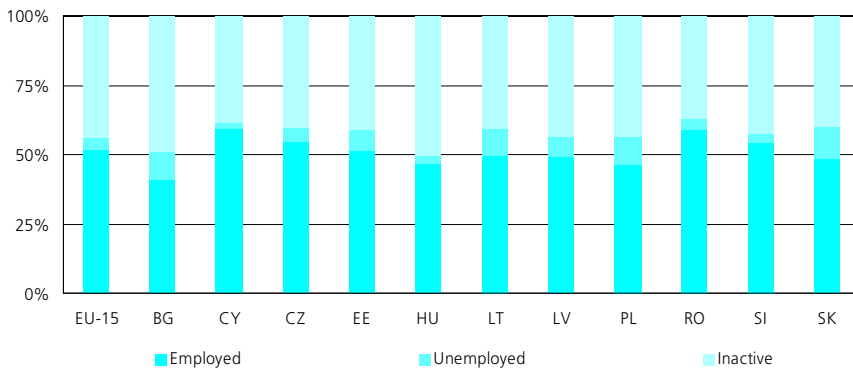
(1) 2000.

(2) Provisional.

(3) RO, 2000.

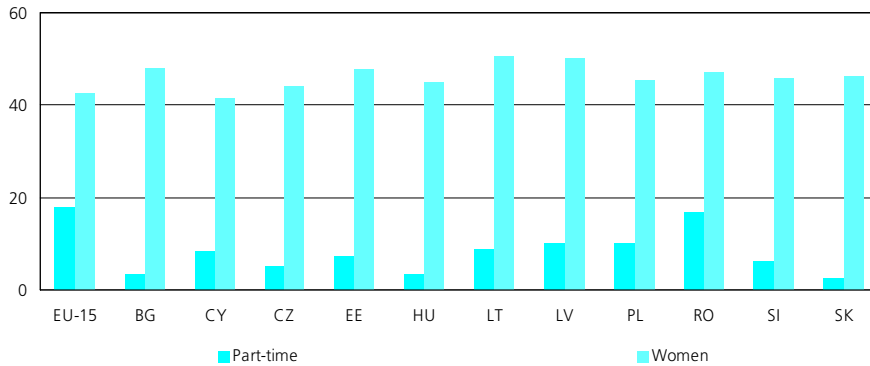
Source: Eurostat, National Accounts - Breakdowns by branch of activity (theme2/brkdowns).

Figure 13
Breakdown of the labour force by employment status in the candidate countries, 2001
 (share of persons aged 15 or more) (1)



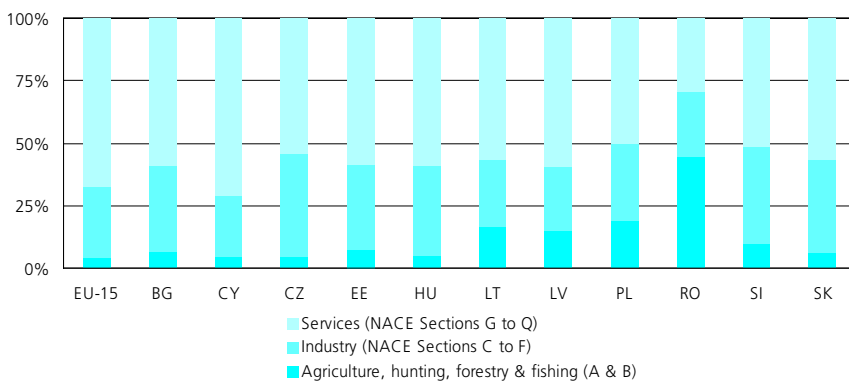
(1) NACE Sections A to Q.
 Source: Eurostat, Labour Force Survey.

Figure 14
Labour force characteristics in the candidate countries, 2001
 (% share of those employed aged 15 or more) (1)



(1) NACE Sections A to Q.
 Source: Eurostat, Labour Force Survey.

Figure 15
Breakdown of persons in employment by activity in the candidate countries, 2001
 (share of those employed aged 15 or more)



Source: Eurostat, Labour Force Survey.

Poland had by far the largest business economy in the candidate countries with EUR 92.6 billion of value added in 2000; a level that was in excess of that recorded in Denmark, Greece, Ireland, Luxembourg, Portugal and Finland. The next largest economy was the Czech Republic, with EUR 31.1 billion of value added in 2000, with Hungary and Romania the only other candidate countries to report that their respective business economies generated more than EUR 10 billion of value added.

At the NACE section level, manufacturing was the largest activity in the candidate countries, accounting for 39.1 % of value added, compared to 31.2 % of the total in the EU (see Table 18). The next largest was distributive trades (17.7 %), while transport and communications (12.7 %) and business services (10.3 %) were the only other sectors to account for a double-digit share of the business economy total. Unlike the EU, where mining and quarrying (Section C) was often the smallest activity, in the candidate countries the smallest activity was frequently hotels and restaurants (Section H), which accounted on average for just 1.8 % of business activity in the candidate countries. Taking an aggregate of all candidate countries is somewhat misleading, as there were naturally country differences away from the patterns reported above. For example, the hotels and restaurants sector accounted for as little as 0.9 % of total value added in Slovakia, to as much as 20.2 % of the total in Cyprus. In the same way, the share of the manufacturing sector varied considerably, from less than 30 % of the total in Cyprus, Estonia and Latvia to more than 40 % in the Czech Republic, Hungary, Slovenia and Slovakia and more than 50 % in Romania (55.3 %).

Table 18
Three largest activities in the candidate countries, 2000 (1)

	Largest	Second largest	Third largest
BG	Electricity, gas, steam & hot water	Post and telecommunications	Wholesale trade
CY (2)	Hotels and restaurants	Construction	Wholesale trade
CZ (3)	Wholesale trade	Construction	Other business activities
EE	Wholesale trade	Supporting and auxiliary transport activities; travel agencies	Post and telecommunications
HU (4)	Post and telecommunications	Electricity, gas, steam & hot water	Manufacture of food products and beverages
LT	Wholesale trade	Electricity, gas, steam & hot water	Post and telecommunications
LV	Wholesale trade	Construction	Supporting and auxiliary transport activities; travel agencies
MT	:	:	:
PL (5)	Wholesale trade	Construction	Other business activities
RO (6)	Construction	Land transport; transport via pipelines	Post and telecommunications
SI (7)	Construction	Wholesale trade	Other business activities
SK (8)	Wholesale trade	Electricity, gas, steam & hot water	Post and telecommunications
TR	:	:	:

(1) Ranking based on value added for NACE Divisions 15 to 74.
 (2) 1998; NACE Divisions 60 to 74, not available.
 (3) NACE Divisions 15 and 16, not available.
 (4) NACE Divisions 50 to 52, 1998.
 (5) NACE Division 26, 1999; NACE Divisions 15, 40, 41, 61 and 63, 1998.
 (6) NACE Divisions 52 and 62, 1998; NACE Division 51, 1997.
 (7) 1999.
 (8) NACE Divisions 15, 19 and 62, 1999; NACE Divisions 23 and 61, 1998.
 Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_cc).

Table 19
Breakdown of value added by enterprise size class in manufacturing sector of the candidate countries, 2000 (%)

	1-9 persons employed	10-19 persons employed	20-49 persons employed	50-99 persons employed	100-249 persons employed	250+ persons employed
EU-15	7.2	6.2	9.4	8.3	13.1	55.8
CZ	5.9	3.7	7.5	8.2	15.0	59.6
EE	4.1	6.1	13.5	15.6	24.0	36.6
HU (1)	:	3.8	5.7	6.8	12.6	:
LT	4.1	3.9	9.5	9.4	16.4	56.7
LV	4.6	4.8	12.7	11.4	21.5	44.9
PL	11.0	2.4	6.7	7.3	14.1	58.5
RO	1.7	2.7	4.8	5.3	12.2	73.3
SI	10.1	4.0	6.2	7.7	17.6	54.4
SK	3.9	3.5	5.1	5.5	11.7	70.3

(1) Only enterprises with 5 or more persons employed are considered.
 Source: Eurostat, Structural Business Statistics (theme4/sbs/sizclass/indus_cc and theme4/sbs/sizclass/indus_ms).

Among, non-manufacturing, industrial activities there was particular importance for the electricity, gas, steam and hot water supply subsector (NACE Division 40) and the construction sector (NACE Division 45). Turning to service activities, a completely different picture was apparent in the candidate countries. While the largest three service activities in almost every EU Member State were wholesale trade, retail trade and other business activities (NACE Divisions 51, 52 and 74), post and telecommunications (NACE Division 64) had considerably more importance in the candidate countries. This position may have been influenced by the rapid take-up of

communication technologies in some of the candidate countries, with investment in telecommunications infrastructure fuelling growth. Another service activity that was relatively more important in several of the candidate countries was supporting and auxiliary transport activities and travel agencies (NACE Division 63) – see Table 18.

In terms of the distribution of enterprises across size classes there was also great diversity according to the candidate country being studied (see Table 19). Large enterprises with 250 or more persons employed accounted for a very high share of manufacturing activity in Romania and Slovakia (more than 70 % of total value added), while the corresponding share in Estonia was 36.6 %. This latter value was well below the EU average of 55.8 %, around which most of the remaining candidate countries were grouped – see Table 19.

Statistical annex

There follows a short set of tables giving some general information which may be of use in interpreting the data that follows in the remaining chapters. This data is of a horizontal nature and may prove relevant for a number of chapters.

Table SA.1

Exchange rates, annual average rates (1 ECU/EUR=... national currency)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 (1)
BEF/LUF	42.2233	41.5932	40.4713	39.6565	38.5519	39.2986	40.5332	40.6207	40.3399	40.3399	40.3399	-
DKK	7.90859	7.80925	7.59359	7.54328	7.32804	7.35934	7.48361	7.49930	7.43556	7.45382	7.45207	7.43052
DEM	2.05076	2.02031	1.93639	1.92453	1.87375	1.90954	1.96438	1.96913	1.95583	1.95583	1.95583	-
GRD	225.216	247.026	268.568	288.026	302.989	305.546	309.355	330.731	325.820	336.678	340.750	-
ESP	128.469	132.526	149.124	158.918	163.000	160.748	165.887	167.184	166.386	166.386	166.386	-
FRF	6.97332	6.84839	6.63368	6.58262	6.52506	6.49300	6.61260	6.60141	6.55957	6.55957	6.55957	-
IEP	0.767809	0.760718	0.799952	0.793618	0.815525	0.793448	0.747516	0.786245	0.787564	0.787564	0.787564	-
ITL	1 533.24	1 595.52	1 841.23	1 915.06	2 130.14	1 958.96	1 929.30	1 943.65	1 936.27	1 936.27	1 936.27	-
NLG	2.31098	2.27482	2.17521	2.15827	2.09891	2.13973	2.21081	2.21967	2.20371	2.20371	2.20371	-
ATS	14.4309	14.2169	13.6238	13.5396	13.1824	13.4345	13.8240	13.8545	13.7603	13.7603	13.7603	-
PTE	178.614	174.714	188.370	196.896	196.105	195.761	198.589	201.695	200.482	200.482	200.482	-
FIM	5.00211	5.80703	6.69628	6.19077	5.70855	5.82817	5.88064	5.98251	5.94573	5.94573	5.94573	-
SEK	7.47927	7.53295	9.12151	9.16308	9.33192	8.51472	8.65117	8.91593	8.80752	8.44519	9.25511	9.16107
GBP	0.701012	0.737650	0.779988	0.775903	0.828789	0.813798	0.692304	0.676434	0.658735	0.609478	0.621874	0.628831
JPY	166.493	164.223	130.148	121.322	123.012	138.084	137.077	146.415	121.317	99.475	108.682	118.063
USD	1.23916	1.29810	1.17100	1.18952	1.30801	1.26975	1.13404	1.12109	1.06578	0.92194	0.89563	0.94557
BGN	0.03385	0.05105	0.03231	0.06439	0.08787	0.22515	1.90157	1.96913	1.95584	1.94792	1.94819	1.94921
CYP	0.573350	0.583675	0.582941	0.583931	0.591619	0.591904	0.582628	0.577418	0.578850	0.573924	0.575892	0.575301
CZK	:	:	34.1690	34.1509	34.6960	34.4572	35.9304	36.3196	36.8843	35.5995	34.0685	30.8036
EEK	:	:	15.4911	15.3962	14.9900	15.2763	15.7150	15.7530	15.6466	15.6466	15.6466	15.6466
HUF	142.202	172.777	107.611	125.030	164.545	193.741	211.654	240.573	252.767	260.045	256.591	242.958
LTL	:	2.14329	5.08682	4.73191	5.23203	5.07899	4.53616	4.48437	4.26405	3.69516	3.58229	3.45943
LVL	:	0.896066	0.793600	0.664101	0.689537	0.699605	0.659401	0.660240	0.625601	0.559227	0.560060	0.581048
MTL	0.399820	0.412953	0.447021	0.448852	0.461431	0.458156	0.437495	0.434983	0.425773	0.404138	0.403007	0.408936
PLN	2.01692	2.97484	2.12217	2.70153	3.17049	3.42232	3.71545	3.91784	4.22741	4.00817	3.67214	3.85742
ROL	145.4	673.7	885.8	1971.6	2661.8	3922.2	8111.5	9984.9	16345.2	19921.8	26004.0	31269.7
SIT	36.969	98.434	132.486	152.766	154.880	171.778	180.996	185.958	194.473	206.613	217.980	225.977
SKK	:	:	36.0317	38.1182	38.8649	38.9229	38.1061	39.5407	44.1229	42.6017	43.3001	42.6935
TRL	5153	8931	12879	35535	59912	103214	171848	293736	447237	574816	1102430	1439680

(1) National currencies marked as not applicable were replaced by the euro on 1 January 2002.

Source: Eurostat, Exchange rates (theme2/exint/exchrt/eurer/eurer_an).

Table SA.2

Population, as of 1 January (thousands)

	1991	1992	1993	1994	1995	1996	1997	1998	1999 (1)	2000 (2)	2001 (3)
EU-15	365 382	367 061	368 935	370 323	371 442	372 476	373 487	374 345	375 277	376 482	:
B	9 987	10 022	10 068	10 101	10 131	10 143	10 170	10 192	10 214	10 239	10 263
DK	5 146	5 162	5 181	5 197	5 216	5 251	5 275	5 295	5 314	5 330	5 349
D	79 753	80 275	80 975	81 338	81 539	81 817	82 012	82 057	82 037	82 163	82 260
EL	10 200	10 294	10 349	10 410	10 443	10 465	10 487	10 511	10 522	10 554	:
E	38 875	38 965	39 057	39 136	39 197	39 249	39 308	39 388	39 519	39 733	40 122
F	56 841	57 111	57 369	57 565	57 753	57 936	58 116	58 299	58 497	58 749	59 037
IRL	3 521	3 547	3 569	3 583	3 598	3 620	3 652	3 694	3 735	3 777	3 826
I	56 744	56 757	56 960	57 138	57 269	57 333	57 461	57 563	57 613	57 680	57 844
L	384	390	395	401	407	413	418	424	429	436	441
NL	15 010	15 129	15 239	15 342	15 424	15 494	15 567	15 654	15 760	15 864	15 987
A	7 769	7 868	7 962	8 015	8 040	8 055	8 068	8 075	8 083	8 103	8 121
P	9 877	9 961	9 965	9 983	10 013	10 041	10 070	10 108	10 150	10 198	10 263
FIN	4 998	5 029	5 055	5 078	5 099	5 117	5 132	5 147	5 160	5 171	5 181
S	8 591	8 644	8 692	8 745	8 816	8 837	8 844	8 848	8 854	8 861	8 883
UK	57 685	57 907	58 099	58 293	58 500	58 704	58 905	59 090	59 391	59 623	59 863
BG	8 669	8 595	8 485	8 460	8 427	8 385	8 341	8 283	8 230	8 191	8 149
CY	687	700	714	723	730	736	741	746	752	755	759
CZ	10 364	10 313	10 326	10 334	10 333	10 321	10 309	10 299	10 290	10 278	10 267
EE	1 570	1 562	1 527	1 507	1 492	1 476	1 462	1 454	1 446	1 372	1 367
HU	10 355	10 337	10 310	10 277	10 246	10 212	10 174	10 135	10 092	10 043	:
LT	3 736	3 747	3 736	3 724	3 718	3 712	3 707	3 704	3 701	3 699	3 693
LV	2 668	2 657	2 606	2 566	2 530	2 502	2 480	2 458	2 439	2 380	2 366
MT	356	360	363	366	369	371	374	377	379	380	391
PL	38 183	38 309	38 418	38 505	38 581	38 609	38 639	38 660	38 667	38 654	38 644
RO	23 192	22 811	22 779	22 748	22 712	22 656	22 582	22 526	22 489	22 455	22 430
SI	2 000	1 999	1 994	1 989	1 989	1 990	1 987	1 985	1 978	1 988	1 990
SK	5 272	5 296	5 314	5 336	5 356	5 368	5 379	5 388	5 393	5 399	5 403
TR	:	:	:	:	:	:	:	:	:	:	:

(1) E, IRL, L and BG, estimates.

(2) E, L and BG, estimates; IRL and EE, provisional.

(3) I, L, P and UK, estimates; IRL and EE, provisional.

Source: Eurostat, Demography - population (theme3/demo/dpop/pjan).

Table SA.3

Gross domestic product in constant prices, annual rate of change (%)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 (1)
EU-15	1.3	-0.4	2.8	2.4	1.6	2.5	2.9	2.8	3.4	1.5	0.9
B	1.5	-1.0	3.2	2.4	1.2	3.6	2.0	3.2	3.7	0.8	0.7
DK	0.6	0.0	5.5	2.8	2.5	3.0	2.5	2.3	3.0	1.0	1.7
D	2.2	-1.1	2.3	1.7	0.8	1.4	2.0	2.0	2.9	0.6	0.4
EL	0.7	-1.6	2.0	2.1	2.4	3.6	3.4	3.6	4.2	4.1	3.5
E	0.9	-1.0	2.4	2.8	2.4	4.0	4.3	4.2	4.2	2.7	1.9
F	1.5	-0.9	2.1	1.7	1.1	1.9	3.4	3.2	3.8	1.8	1.0
IRL	3.3	2.7	5.8	9.9	8.1	10.9	8.8	11.1	10.0	5.7	3.3
I	0.8	-0.9	2.2	2.9	1.1	2.0	1.8	1.6	2.9	1.8	0.4
L	1.8	4.2	3.8	1.3	3.7	7.7	7.5	6.0	8.9	1.0	0.1
NL	1.7	0.9	2.6	3.0	3.0	3.8	4.3	4.0	3.3	1.3	0.2
A	2.3	0.4	2.6	1.6	2.0	1.6	3.9	2.7	3.5	0.7	0.7
P	1.1	-2.0	1.0	4.3	3.5	3.9	4.5	3.5	3.5	1.7	0.7
FIN	-3.3	-1.1	4.0	3.8	4.0	6.3	5.3	4.1	6.1	0.7	1.4
S	-1.7	-1.8	4.1	3.7	1.1	2.1	3.6	4.5	3.6	1.2	1.6
UK	0.2	2.5	4.7	2.9	2.6	3.4	2.9	2.4	3.1	2.0	1.6
BG	-7.3	-1.5	1.8	2.9	-9.4	-5.6	4.0	2.3	5.4	4.0	4.0
CY	:	0.7	5.9	6.2	1.9	2.5	5.0	4.8	5.2	4.1	1.8
CZ	-0.5	0.1	2.2	5.9	4.3	-0.8	-1.0	0.5	3.3	3.3	2.2
EE	:	:	-2.0	4.3	3.9	9.8	4.6	-0.6	7.1	5.0	4.5
HU	:	:	:	1.5	1.3	4.6	4.9	4.2	5.2	3.7	3.4
LT	-21.3	-16.2	-9.8	3.3	4.7	7.3	5.1	-3.9	3.8	5.9	5.0
LV	-34.9	-14.9	0.6	-1.6	3.7	8.4	4.8	2.8	6.8	7.7	5.0
MT	4.7	4.5	5.7	6.2	4.0	4.9	3.4	4.1	4.8	-0.4	2.8
PL	:	:	:	:	6.0	6.8	4.8	4.1	4.0	1.1	0.8
RO	-8.7	1.5	3.9	7.1	3.9	-6.1	-4.8	-1.2	1.8	5.3	4.2
SI	-5.5	2.8	5.3	4.1	3.5	4.6	3.8	5.2	4.6	3.0	2.6
SK	:	:	5.2	6.5	5.8	5.6	4.0	1.3	2.2	3.3	3.9
TR	6.0	8.0	-5.5	7.2	7.0	7.5	3.1	-4.7	7.4	-7.4	3.9

(1) Forecasts.

Source: Eurostat, National Accounts - ESA95 - aggregates (theme2/aggs).

Table SA.4

Gross domestic product in constant prices in the EU, annual rate of change (%)

NACE label (NACE code)	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total (A to Q)	1.2	-0.3	2.5	2.4	1.7	2.5	3.0	2.7	3.7	1.8
Agriculture, hunting, forestry and fishing (A & B)	4.4	-0.6	-0.5	2.2	4.1	0.5	1.7	2.6	-0.9	-2.0
Mining & quarrying; manufacturing; electricity, gas & water supply (C to E)	-0.7	-3.5	4.3	3.1	0.0	3.0	3.0	1.1	3.8	0.6
Construction (F)	1.4	-4.1	2.2	0.0	-1.1	-1.3	0.8	2.4	2.3	-0.1
Distributive trades; hotels & restaurants; transport, storage & comm. (G to I)	1.4	0.1	2.7	2.2	1.6	3.4	4.0	4.6	4.9	2.8
Financial intermediation; real estate, renting & business activities (J & K)	1.5	1.9	1.9	3.5	3.7	3.7	4.1	3.7	4.6	3.0
Public administration, community, social & personal services (L to Q)	2.5	1.4	1.6	1.4	1.7	1.0	1.6	1.5	1.9	1.4

Source: Eurostat, National Accounts - Breakdowns by branch of activity (theme2/brkdowns).

Table SA.5

Long-term interest rate for government bond yields following the Maastricht Treaty, annual average rates (%)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU-15 (1)	9.8	8.3	8.5	8.9	7.5	6.3	4.9	4.7	5.4	5.0
B	8.7	7.2	7.8	7.5	6.5	5.8	4.8	4.8	5.6	5.1
DK	8.9	7.3	7.8	8.3	7.2	6.3	4.9	4.9	5.6	5.1
D	7.9	6.5	6.9	6.9	6.2	5.6	4.6	4.5	5.3	4.8
EL	:	23.3	20.7	17.0	14.5	9.9	8.5	6.3	6.1	5.3
E	11.7	10.2	10.0	11.3	8.7	6.4	4.8	4.7	5.5	5.1
F	8.6	6.8	7.2	7.5	6.3	5.6	4.6	4.6	5.4	4.9
IRL	9.3	7.7	7.9	8.3	7.3	6.3	4.8	4.7	5.5	5.0
I	13.3	11.2	10.5	12.2	9.4	6.9	4.9	4.7	5.6	5.2
L	7.9	6.9	7.2	7.2	6.3	5.6	4.7	4.7	5.5	4.9
NL	8.1	6.4	6.9	6.9	6.2	5.6	4.6	4.6	5.4	5.0
A	8.3	6.7	7.0	7.1	6.3	5.7	4.7	4.7	5.6	5.1
P	11.7	11.2	10.5	11.5	8.6	6.4	4.9	4.8	5.6	5.2
FIN	12.0	8.8	9.1	8.8	7.1	6.0	4.8	4.7	5.5	5.0
S	10.0	8.5	9.7	10.2	8.0	6.6	5.0	5.0	5.4	5.1
UK	9.1	7.6	8.2	8.3	7.9	7.1	5.6	5.0	5.3	5.0

(1) 1992, excluding EL.

Source: Eurostat, Interest rates (theme2/exint/intrt/govyield/govyie_a).

Table SA.6

Harmonised consumer price indices, annual rate of change (%)

	1991 (1)	1992 (1)	1993 (1)	1994 (1)	1995 (1)	1996 (2)	1997 (2)	1998	1999	2000	2001
EU-15	5.2	4.0	3.4	2.8	2.8	2.4	1.7	1.3	1.2	2.1	2.3
B	:	2.3	2.5	2.4	1.3	1.8	1.5	0.9	1.1	2.7	2.4
DK	2.2	1.9	0.9	1.8	2.0	2.1	1.9	1.3	2.1	2.7	2.3
D	:	:	:	:	:	1.2	1.5	0.6	0.6	2.1	2.4
EL	:	:	:	:	:	7.9	5.4	4.5	2.1	2.9	3.7
E	:	:	4.9	4.6	4.6	3.6	1.9	1.8	2.2	3.5	2.8
F	3.4	2.4	2.2	1.7	1.8	2.1	1.3	0.7	0.6	1.8	1.8
IRL	:	:	:	:	:	2.2	1.2	2.1	2.5	5.3	4.0
I	6.2	5.0	4.5	4.2	5.4	4.0	1.9	2.0	1.7	2.6	2.3
L	:	:	:	:	:	1.2	1.4	1.0	1.0	3.8	2.4
NL	3.2	2.8	1.6	2.1	1.4	1.4	1.9	1.8	2.0	2.3	5.1
A	3.1	3.5	3.2	2.7	1.6	1.8	1.2	0.8	0.5	2.0	2.3
P	11.4	8.9	5.9	5.0	4.0	2.9	1.9	2.2	2.2	2.8	4.4
FIN	4.5	3.3	3.3	1.6	0.4	1.1	1.2	1.4	1.3	3.0	2.7
S	8.7	1.3	4.8	2.9	2.7	0.8	1.8	1.0	0.6	1.3	2.7
UK	7.5	4.2	2.5	2.0	2.7	2.5	1.8	1.6	1.3	0.8	1.2

(1) EU-15, B, DK, E, F, I, P, FIN, S and UK, estimates.

(2) EU-15 and IRL, estimates.

Source: Eurostat, Harmonized indices of consumer prices (theme2/price/hicp/haind).

Table SA.7

Share in total mean consumption expenditure by households, 1999 (%) (1)

COICOP	EU-15 (2)	B	DK	D	EL	E	F (2)	IRL	I	L	NL	A	P (2)	FIN	S	UK
Food and non-alcoholic beverages	16.1	13.3	13.1	11.1	16.6	18.3	16.2	15.4	19.0	10.1	10.5	13.4	21.2	14.2	15.4	10.5
Alcoholic beverages, tobacco and narcotics	2.8	2.3	4.2	2.8	3.5	2.7	2.7	7.7	1.9	2.0	2.1	2.6	2.8	2.9	2.9	3.0
Clothing and footwear	6.9	5.4	5.5	5.7	8.6	7.4	5.6	6.2	7.5	5.9	6.0	6.6	6.3	4.6	5.2	5.5
Housing, water, electricity, gas and other fuels	24.6	26.2	28.4	31.2	21.9	27.5	23.2	17.4	24.7	27.4	26.7	23.9	19.9	28.1	26.8	28.3
Furnishings, household equipment & maintenance	7.0	6.5	6.4	7.4	7.5	5.0	7.6	4.5	7.6	8.2	7.2	7.2	6.7	4.5	5.0	7.3
Health	3.1	4.7	2.4	3.6	6.3	2.5	5.2	1.6	4.4	2.4	1.1	2.4	4.6	3.7	3.0	1.1
Transport	13.1	12.5	14.1	13.3	11.2	12.5	14.5	13.0	13.7	15.4	10.3	14.4	15.7	17.0	13.4	13.6
Communication	2.0	2.2	2.1	2.5	3.3	2.0	2.0	2.5	2.5	2.1	2.2	2.6	2.0	2.8	2.6	2.3
Recreation and culture	9.4	10.7	11.2	11.9	4.5	6.2	7.6	9.1	6.3	8.7	10.4	12.3	3.7	10.7	14.6	13.4
Education	0.7	0.5	0.4	0.5	2.4	1.4	0.5	1.4	0.8	0.1	1.2	0.3	1.3	0.2	0.1	1.3
Restaurants and hotels	6.4	5.7	4.1	4.9	8.8	9.3	6.9	5.1	4.6	9.6	7.0	5.4	9.2	4.1	3.8	7.9
Miscellaneous goods and services	7.9	10.0	8.1	5.0	5.5	5.1	8.1	8.1	7.1	8.0	15.3	8.9	6.5	7.1	7.2	5.8

COICOP	EU-15 (2)	BG	CY	CZ	EE	HU	LT	LV	MT	PL	RO	SI	SK	AL
Food and non-alcoholic beverages	16.1	46.5	:	25.2	35.7	28.9	48.1	42.1	:	35.1	55.3	26.1	33.0	63.2
Alcoholic beverages, tobacco and narcotics	2.8	3.9	:	3.5	3.4	4.3	4.0	2.8	:	3.3	2.7	3.4	3.6	4.7
Clothing and footwear	6.9	8.2	:	7.7	7.7	6.6	8.0	7.1	:	7.0	7.4	8.4	10.3	2.7
Housing, water, electricity, gas and other fuels	24.6	14.2	:	17.1	18.7	19.5	12.3	17.0	:	18.4	15.3	10.7	12.4	3.4
Furnishings, household equipment & maintenance	7.0	4.4	:	7.8	5.4	5.4	4.8	4.2	:	5.5	4.3	6.8	6.4	12.4
Health	3.1	3.3	:	1.5	1.6	3.0	3.5	3.5	:	4.4	2.3	1.6	1.2	1.0
Transport	13.1	7.2	:	10.2	6.8	9.2	6.7	6.9	:	8.6	5.2	16.5	8.9	5.4
Communication	2.0	1.9	:	2.0	2.8	4.4	1.9	3.2	:	2.3	1.4	1.9	2.1	0.5
Recreation and culture	9.4	3.0	:	11.0	7.5	6.7	3.5	5.6	:	6.5	2.6	8.8	8.2	3.9
Education	0.7	0.6	:	0.6	1.2	0.4	0.3	1.0	:	1.3	0.6	0.7	0.5	0.3
Restaurants and hotels	6.4	3.5	:	5.0	3.5	3.0	3.8	2.5	:	1.3	0.8	5.9	5.8	0.5
Miscellaneous goods and services	7.9	3.3	:	8.4	5.7	8.6	2.9	4.1	:	6.3	2.1	9.2	7.6	2.0

(1) Classified according to the COICOP classification.

(2) 1994.

Source: Eurostat, Household Budget Survey (theme3/hbs/struc/s_glob).

Table SA.8

Consumer confidence (balance)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
EU-15 (1)	-15.8	-19.2	-25.7	-13.5	-8.0	-14.8	-10.2	-3.8	-2.5	1.2	-4.3	-8.8
B	-6.5	-13.3	-24.7	-10.3	-8.6	-13.1	-12.8	1.7	2.6	13.5	0.6	-2.7
DK	-4.0	-2.4	-2.6	11.3	14.3	8.0	14.0	10.3	4.3	11.3	9.2	8.8
D	-10.8	-15.4	-25.3	-10.9	-6.0	-19.9	-18.0	-5.1	-1.6	2.9	-3.3	-11.4
EL	-33.3	-37.0	-31.1	-29.6	-37.3	-27.3	-29.9	-34.8	-27.0	-15.3	-26.6	-27.8
E	-13.4	-25.9	-30.9	-16.3	-12.8	-9.4	-2.9	0.1	1.7	2.2	-4.0	-11.6
F	-28.2	-27.3	-29.9	-18.6	-13.8	-29.8	-21.5	-11.6	-8.7	-2.8	-11.1	-15.8
IRL	-23.8	-25.7	-20.8	-10.3	-4.6	-0.2	11.7	12.4	14.0	12.5	-1.6	-7.5
I	-15.4	-21.9	-31.9	-13.1	-5.3	-12.0	-14.1	-7.7	-9.9	-7.6	-2.8	-8.6
L	:	:	:	:	:	:	:	:	:	:	:	7.4
NL	-5.3	-4.5	-15.6	-2.3	7.2	7.9	19.5	23.2	19.3	24.4	3.8	-1.6
A	:	:	:	:	-6.7	-12.7	-9.2	-1.7	4.7	5.9	3.0	4.4
P	-3.8	-13.7	-33.2	-30.9	-22.8	-25.1	-13.7	-14.8	-14.1	-18.0	-24.2	-33.7
FIN	-14.1	-8.3	-8.3	8.8	11.8	12.0	18.3	18.2	17.4	19.7	11.9	13.2
S	:	:	:	:	2.0	-4.8	4.4	10.0	12.4	21.8	5.0	9.6
UK	-17.3	-17.0	-17.8	-15.8	-10.4	-5.5	3.2	-1.8	-3.6	-3.8	-4.6	-3.8

(1) Average of available data.

Source: Directorate-General for Economic and Financial Affairs, Business and consumer surveys (theme1/euroind/bs/bsco_m).

Table SA.9

Gross fixed capital formation as a percentage of GDP (%)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 (1)
EU-15 (2)	21.9	21.2	19.9	19.8	19.8	19.6	19.4	19.9	20.2	20.6	20.1	19.4
B	21.0	20.7	20.0	19.5	19.9	19.9	20.4	20.6	20.9	21.2	20.8	19.7
DK	19.1	17.9	17.1	17.3	18.6	18.6	19.6	20.6	20.3	21.7	21.0	21.2
D	23.8	24.0	23.0	23.1	22.4	21.8	21.4	21.4	21.5	21.6	20.1	18.8
EL (2)	22.6	21.3	20.3	18.6	18.6	19.5	19.8	21.1	21.7	22.6	22.8	23.0
E	25.1	23.1	21.3	21.1	22.0	21.6	21.9	22.8	24.1	25.3	25.0	25.0
F	22.0	20.9	19.4	19.1	18.8	18.5	18.0	18.4	19.2	20.1	20.2	20.0
IRL	17.1	16.9	15.5	16.5	17.5	19.1	20.7	22.2	23.7	24.1	23.3	22.8
I	21.0	20.5	18.4	18.0	18.3	18.3	18.3	18.5	19.1	19.8	19.8	19.3
L	25.3	21.4	23.7	22.4	21.6	21.3	22.3	22.6	24.0	20.5	21.7	21.2
NL	21.9	21.6	20.7	20.3	20.3	21.1	21.5	21.5	22.5	22.5	21.9	20.9
A	24.2	23.7	23.2	23.5	23.3	23.3	23.6	23.6	23.5	23.9	23.2	22.5
P	24.9	23.7	22.2	22.3	22.8	23.3	25.6	26.9	27.4	28.6	27.5	25.8
FIN	24.4	19.9	16.4	15.5	16.3	17.0	18.0	18.7	19.0	19.2	19.8	19.4
S	20.6	18.0	15.3	15.1	15.5	15.7	15.2	16.0	17.0	17.3	17.5	17.0
UK	17.9	16.5	15.7	15.9	16.3	16.5	16.5	17.6	17.0	16.7	16.5	15.6
BG	18.2	16.2	13.0	13.8	15.3	13.5	11.0	13.0	15.1	15.7	17.8	18.3
CY (3)	:	:	:	:	19.2	20.4	19.0	19.2	18.1	17.6	17.3	16.0
CZ	24.1	27.9	28.4	28.7	32.0	32.0	30.6	29.1	27.8	28.3	28.3	27.2
EE	:	:	24.2	26.8	25.9	26.7	28.1	29.6	24.9	25.4	26.1	28.3
HU	20.9	19.9	18.9	20.1	20.1	21.4	22.2	23.6	23.9	24.2	23.7	22.9
LT	22.5	23.0	23.1	23.1	23.0	23.0	24.4	24.3	22.1	18.5	19.3	20.4
LV	6.2	11.2	13.8	14.9	15.2	18.3	18.8	27.3	25.2	26.5	27.3	26.2
MT	29.6	27.5	29.5	29.7	31.9	28.7	25.3	24.5	23.4	26.3	23.2	22.8
PL	19.5	16.8	15.9	17.9	18.6	20.7	23.5	25.2	25.5	24.9	21.5	19.4
RO	14.4	19.2	17.9	20.3	21.4	23.0	21.2	18.2	17.7	18.9	19.0	19.0
SI	20.6	18.6	18.8	20.1	21.4	22.5	23.4	24.6	27.4	26.7	24.9	24.7
SK	:	:	30.4	26.6	25.2	32.4	34.3	36.2	30.3	29.3	31.1	30.2
TR	23.8	23.6	26.5	24.6	23.8	25.1	26.4	24.6	21.9	22.4	17.8	17.5

(1) Forecast. (2) 1991-1994, estimates. (3) 1999 and 2000, provisional.
Source: Eurostat, National Accounts - ESA95 - aggregates (theme2/aggs).

Table SA.10

Business enterprise expenditure on R&D relative to GDP (%)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
EU-15 (1)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	:
B (2)	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.5	:	:
DK (3)	1.0	1.0	1.0	:	1.1	1.1	1.2	1.3	1.3	1.3	:	:
D	1.8	1.7	1.6	1.5	1.5	1.5	1.5	1.6	1.7	1.8	1.8	:
EL (4)	0.1	:	0.1	:	0.1	0.1	0.1	:	0.2	:	:	:
E (5)	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	:
F (6)	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	:	:
IRL (7)	0.6	0.7	0.8	0.9	1.0	0.9	0.9	0.9	0.9	:	:	:
I (8)	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	:
L	:	:	:	:	:	:	:	:	:	1.2	:	:
NL (9)	1.0	0.9	1.0	1.0	1.0	1.1	1.1	1.1	1.1	:	:	:
A (10)	:	:	0.8	:	:	:	:	1.1	:	:	:	:
P	:	0.1	:	:	0.1	:	0.1	:	0.2	:	:	:
FIN (11)	1.2	1.2	1.3	1.4	1.5	1.7	1.8	1.9	2.2	2.4	2.7	:
S (10)	1.9	:	2.2	:	2.6	:	2.8	2.9	2.8	:	:	:
UK (12)	1.4	1.4	1.4	1.4	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2

(1) Estimates. (2) 1992-2000, estimates. (3) 1992, 1996, 1999 and 2000, estimates. (4) 1991, 1993 and 1999, estimates. (5) 1996, 2000 and 2001, estimates. (6) 1991 and 2000, estimates. (7) 1991-1998, estimates. (8) 1997-2001, estimates. (9) 1993 and 1999, estimates. (10) 1998, estimate. (11) 2000, estimate; 2001, provisional. (12) 2000, estimate; 2001 and 2002, provisional.
Source: Eurostat, R&D expenditure at the national level (theme9/rd_ex_p/rd_nat/nat_exp/nat_exp).

Table SA.11

industrial confidence indicator (balance)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
EU-15 (1)	-13.1	-18.4	-25.4	-4.9	-1.3	-14.4	-3.9	-2.8	-8.3	3.2	-9.5	-11.8
B	-15.0	-20.4	-28.8	-6.3	-9.1	-17.8	-2.9	-7.8	-8.6	1.9	-14.0	-11.9
DK	-7.8	-7.3	-9.5	12.5	5.4	-8.7	5.5	-0.8	-12.9	5.7	-1.7	-4.0
D	0.7	-17.3	-33.3	-14.8	-5.9	-21.2	-10.1	-5.0	-14.4	-2.3	-14.8	-19.4
EL	-6.6	-3.7	-6.0	-0.1	3.8	-2.4	3.6	4.3	1.3	8.8	4.3	3.1
E	-21.8	-24.8	-34.8	-8.7	-3.3	-14.4	-1.4	1.4	-3.1	3.2	-4.2	-5.7
F	-21.0	-21.2	-34.4	-3.3	-2.3	-17.5	-5.3	5.3	-2.2	11.8	-4.0	-9.2
IRL	-8.8	-3.9	-12.8	2.5	7.1	-1.1	3.3	3.2	5.0	9.8	-7.7	-7.2
I	-12.6	-15.4	-17.6	1.3	6.4	-11.5	-0.3	0.3	-4.0	11.7	-2.8	-3.7
L	-24.1	-27.7	-25.0	-7.7	9.7	-22.0	4.2	6.7	-11.0	5.3	-15.5	-22.5
NL	-4.4	-6.3	-10.3	-0.9	1.5	-2.4	2.5	1.7	-0.4	4.1	-3.5	-4.8
A	-8.8	-17.4	-27.2	-7.5	-12.2	-23.9	-9.5	-8.6	-13.8	-2.8	-13.3	-16.3
P	-7.3	-11.8	-24.8	-3.9	-3.9	-9.6	0.4	2.2	-4.3	2.1	-5.8	-12.0
FIN	:	:	-4.5	18.2	7.8	-11.3	11.2	2.0	-3.8	17.4	-6.8	-5.7
S	:	:	:	:	:	-15.9	-0.9	3.1	-7.1	10.8	-18.7	-13.1
UK	-31.8	-23.6	-10.9	1.8	2.6	-5.1	-1.4	-15.5	-14.3	-6.6	-15.6	-14.6

(1) Average of available data.

Source: Directorate-General for Economic and Financial Affairs, Business and consumer surveys (theme1/euroind/bs/bssi_m).

Table SA.12

Capacity utilisation rates for total industry (%)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
EU-15 (1)	83.4	81.5	78.3	79.5	83.1	81.2	81.8	83.3	81.9	83.8	83.1	81.0
B	79.4	77.4	74.8	77.6	80.9	79.5	81.4	82.7	80.9	84.0	82.3	79.6
DK	81.0	79.7	77.7	81.8	83.4	81.7	83.3	85.5	82.2	82.5	82.8	81.2
D	88.2	84.8	78.8	80.2	84.6	82.2	83.2	85.5	84.0	85.9	85.1	82.0
EL	77.2	78.3	76.0	74.5	76.6	75.6	74.4	75.8	75.7	78.1	77.6	77.0
E	77.6	76.6	72.8	74.5	78.4	77.1	78.3	80.3	79.7	80.6	79.6	77.2
F	86.0	84.3	81.4	80.4	85.4	83.5	82.3	83.8	85.3	87.5	87.4	85.3
IRL	75.5	77.1	73.6	74.9	79.9	77.6	75.9	76.6	75.9	78.6	78.4	75.9
I	77.3	76.3	74.4	75.2	78.1	76.5	76.4	78.5	76.0	78.8	78.9	77.3
L	82.1	79.8	80.1	81.3	82.9	79.0	82.4	88.0	84.9	87.8	88.7	85.1
NL	84.6	83.5	81.0	82.4	84.4	83.9	84.4	85.3	84.0	84.7	84.6	82.9
A	:	:	:	:	:	80.2	82.0	83.7	81.9	84.5	83.1	80.6
P	79.1	77.4	73.9	77.3	79.7	78.9	80.9	81.4	80.8	81.2	81.7	79.4
FIN	:	:	82.3	86.9	87.7	83.2	87.2	88.9	86.1	86.8	85.7	82.7
S	:	:	:	:	:	85.0	85.7	85.1	85.8	87.5	83.6	83.1
UK	79.2	78.5	80.0	82.8	84.4	82.5	83.8	83.7	79.4	81.3	79.7	79.0

(1) Average of available data.

Source: Directorate-General for Economic and Financial Affairs, Business and consumer surveys (theme1/euroind/bs/bsin_q).

Table SA.13

Trade balance of goods (million EUR) (1)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU-15	:	-34 709	11 946	21 293	28 225	43 040	70 137	44 984	12 056	-59 965	-483
B/L	1 674	2 879	5 039	5 740	7 297	6 848	6 909	11 326	10 925	8 780	10 201
DK	4 135	5 738	6 672	6 397	5 093	6 077	4 741	3 450	6 038	7 387	7 768
D	15 405	21 563	35 171	42 970	48 814	54 737	62 097	68 572	65 815	61 995	98 875
EL	-8 160	-8 939	-9 015	-9 556	-11 092	-12 278	-13 647	-12 364	-16 901	-21 935	-21 302
E	-24 924	-23 304	-12 764	-12 426	-14 046	-12 818	-11 838	-18 391	-28 585	-37 778	-35 265
F	-7 602	1 857	6 349	6 719	8 417	11 784	23 728	23 437	18 791	-3 580	3 786
IRL	3 391	5 434	6 927	7 844	10 359	12 391	16 472	20 809	22 733	27 698	33 561
I	-155	2 414	28 236	29 865	33 680	47 796	41 412	31 854	22 051	10 360	17 783
NL	:	9 523	14 482	15 739	16 862	16 007	20 663	18 873	19 170	19 852	23 592
A	:	-7 900	-7 706	-8 924	-5 087	-5 734	-3 761	-3 268	-3 376	-2 990	-1 469
P	-6 350	-7 274	-6 806	-6 788	-6 860	-7 120	-8 709	-10 852	-12 943	-15 107	-14 507
FIN	:	2 915	5 342	6 339	9 443	8 856	10 136	11 157	11 453	14 896	14 142
S	:	5 216	6 442	8 059	12 301	14 660	16 067	15 180	15 806	16 460	15 220
UK	-14 670	-17 765	-17 257	-13 959	-13 975	-16 862	-17 827	-32 247	-41 552	-49 757	-53 924

(1) EU-15, trade with non-Community countries; Member States, trade with all partners (intra-EU and extra-EU).
Source: Eurostat, International trade in services (theme2/bop/its).

Table SA.14

Trade balance of services (million EUR) (1)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU-15	:	13 840	12 904	11 852	12 017	12 837	16 183	10 446	8 002	6 649	9 043
B/L	1 381	2 065	2 591	3 015	1 806	2 297	3 272	3 630	5 739	8 574	7 781
DK	2 240	1 775	1 397	447	544	1 020	293	-502	1 487	2 575	3 772
D	-18 208	-24 366	-28 878	-34 509	-35 012	-34 866	-36 445	-40 268	-49 039	-54 128	-56 940
EL	4 887	4 963	6 898	7 892	6 580	7 012	9 253	6 073	6 852	8 733	8 798
E	10 292	9 598	10 002	12 515	14 224	16 100	17 636	19 532	21 524	24 244	27 138
F	12 864	13 573	13 749	15 622	13 712	12 821	16 176	16 837	17 930	21 492	19 926
IRL	-945	-2 354	-2 526	-3 463	-4 808	-6 048	-7 945	-11 859	-10 688	-13 065	-16 357
I	-641	-2 688	706	1 594	1 301	1 599	1 772	3 582	1 104	1 142	362
NL	:	206	587	1 162	1 690	3 054	3 737	3 272	2 341	-939	-2 209
A	:	9 053	8 471	8 346	3 527	3 586	870	2 107	1 647	1 744	1 445
P	937	817	1 198	1 064	1 234	1 118	1 292	1 716	1 765	2 079	2 918
FIN	:	-1 896	-1 700	-1 189	-1 618	-988	-1 057	-930	-1 324	-2 442	-2 537
S	:	-2 191	-657	-838	-1 136	-1 421	-2 179	-1 952	-2 197	-3 419	-1 058
UK	4 766	6 632	6 885	5 587	8 440	11 793	18 096	18 725	17 904	19 423	17 806

(1) EU-15, trade with non-Community countries; Member States, trade with all partners (intra-EU and extra-EU).
Source: Eurostat, International trade in services (theme2/bop/its).

Table SA.15

Labour force characteristics, 2001 (1)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of persons employed (thousands)																
Total	160 947	4 039	2 712	36 528	3 918	15 877	23 672	1 709	21 373	185	7 621	3 697	4 984	2 396	4 330	27 908
Male	92 447	2 338	1 457	20 376	2 431	10 007	13 043	1 014	13 358	111	4 570	2 063	2 731	1 256	2 267	15 425
Female	69 061	1 700	1 260	16 152	1 486	5 870	10 635	703	8 015	74	3 495	1 634	2 252	1 147	2 073	12 565
Activity rate (% share of persons employed aged 15-64)																
Total	69.0	63.6	79.2	71.3	62.1	64.2	68.6	67.6	60.3	64.1	75.7	70.7	71.7	77.1	78.1	75.2
Male	78.1	72.7	83.3	78.8	76.2	78.1	75.1	79.0	73.7	76.1	84.2	79.0	79.3	79.6	80.2	82.5
Female	60.0	54.5	75.0	63.7	48.8	50.3	62.3	56.0	47.1	52.0	66.9	62.3	64.5	74.7	76.0	67.7
Full-time and part-time work (% share of persons employed)																
Part-time	18.0	18.5	20.1	20.3	4.1	8.1	16.4	16.6	9.1	11.3	42.2	17.2	11.1	12.0	21.0	24.8
Full-time	82.0	81.5	79.9	79.7	95.9	91.9	83.6	83.4	90.9	88.7	57.8	82.8	88.9	88.0	79.0	75.2
Unemployment rate (% share of labour force aged 15-64)																
Total	7.4	6.2	4.2	7.8	10.4	10.4	8.6	3.7	9.7	1.8	2.1	4.0	4.1	10.4	4.8	4.7
Male	6.5	5.7	3.7	7.8	6.9	7.3	7.0	3.8	7.5	1.6	1.8	4.0	3.1	10.0	5.1	5.2
Female	8.5	6.9	4.8	7.8	15.6	15.2	10.5	3.5	13.1	2.2	2.5	4.1	5.3	10.8	4.4	4.1

(1) NACE Sections A to Q.

Source: Eurostat, Labour Force Survey.

Table SA.16

Average number of hours usually worked per week by persons aged 15-64, 2001 (hours)

NACE label (NACE code)	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Total (A to Q)	37.7	37.5	36.4	36.8	43.3	40.1	36.9	37.7	39.0	38.2	31.7	38.4	40.1	38.4	36.9	38.1
Mining and quarrying (C)	42.3	38.6	:	39.6	41.9	40.1	39.1	42.0	40.0	:	38.0	38.0	42.4	:	:	51.0
Manufacturing (D)	39.2	39.0	37.2	37.4	43.7	40.8	37.8	39.5	40.4	40.2	35.2	38.5	40.8	39.3	38.3	42.3
Electricity, gas & water supply (E)	38.7	38.7	38.3	38.1	39.9	39.9	35.9	39.2	39.1	:	36.1	38.9	38.9	38.8	39.2	41.5
Construction (F)	41.2	40.5	40.0	40.0	43.8	41.1	39.4	42.1	41.6	40.3	39.5	39.4	41.8	41.5	39.8	44.5
Distributive trades (G)	37.6	39.7	34.9	35.5	45.9	41.5	37.9	35.4	42.3	38.9	30.4	36.5	42.2	37.4	36.5	34.4
Hotels and restaurants (H)	39.1	42.2	31.8	38.9	49.5	43.9	41.1	34.1	42.4	43.8	26.8	39.7	48.1	36.6	36.1	31.0
Transport, storage & communication (I)	40.2	40.1	38.6	39.3	47.5	42.3	37.2	40.2	40.2	39.1	35.0	39.9	41.8	39.7	37.9	43.2
Financial intermediation (J)	38.0	38.3	37.5	37.8	40.3	39.5	37.2	37.8	38.5	38.7	34.3	36.9	37.7	38.4	37.5	38.6
Real estate, renting & business activities (K)	37.9	38.4	38.0	36.6	43.1	38.2	37.8	38.1	39.2	38.3	33.8	36.1	40.0	37.4	37.6	39.5

Source: Eurostat, Labour Force Survey (theme3/lfs/worktime/ewhana).

Table SA.17

Unemployment rates (% share of labour force aged 15-64)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU-15	:	:	:	:	10.8	11.0	10.9	10.3	9.5	8.5	7.4
B	7.0	6.7	8.1	9.7	9.4	9.5	9.0	9.4	8.7	6.6	6.2
DK	9.2	9.2	10.9	8.1	7.0	6.9	5.4	5.1	5.2	4.5	4.2
D	5.3	6.4	7.7	8.8	8.2	8.9	9.9	9.9	8.9	8.0	7.8
EL	7.8	8.1	8.8	9.1	9.3	9.9	9.8	11.0	12.0	11.3	10.4
E	16.1	17.9	22.4	24.5	22.9	22.4	21.0	18.9	15.7	14.0	10.4
F	9.2	10.3	11.4	12.7	11.9	12.5	12.7	12.1	12.0	10.3	8.6
IRL	16.1	15.4	15.9	14.8	12.2	11.9	10.4	7.8	5.8	4.3	3.7
I	10.2	9.6	10.4	11.5	11.9	12.3	12.5	12.3	11.8	11.0	9.7
L	1.5	2.0	2.3	3.5	2.9	3.3	2.5	2.8	2.4	2.4	1.8
NL	7.3	5.6	6.3	7.2	7.2	6.5	5.6	4.4	3.6	2.7	2.1
A	:	:	:	:	4.4	5.3	5.2	5.5	4.7	4.7	4.0
P	4.1	4.1	5.5	7.0	7.4	7.7	6.9	4.9	4.9	4.1	4.1
FIN	:	:	:	:	17.2	15.7	15.1	13.3	11.8	11.2	10.4
S	:	:	:	:	8.2	9.7	10.5	9.1	7.7	5.5	4.8
UK	8.6	9.9	10.4	9.7	8.8	8.3	7.2	6.3	6.1	5.6	4.7

Source: Eurostat, Labour Force Survey (theme3/lfs/unempl/urgan).

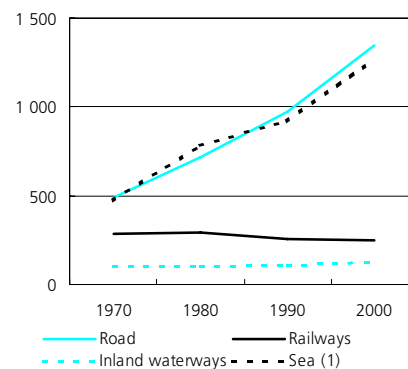
Transport services



In an economy, transport services play a vital role being at the centre of physical flows. They are present from the supply of raw materials to production plants down to the delivery of final production to customers. They are also present in the everyday life of most Europeans, from their journey to work, to their shopping time and their holidays. As a consequence, the overall competitiveness of an economy is greatly affected by the quality and efficiency of its transport system. Similarly, there is a close interrelation between transport activities and general economic activity, a link that has grown stronger in recent years as enterprises have increasingly adopted more flexible production systems, whereby transport services have become an integral and essential part of the production process. This is, for example, the case with just-in-time (JIT) production systems, where input deliveries are made in close coordination with production schedules, leading to more frequent deliveries of smaller quantities of materials.

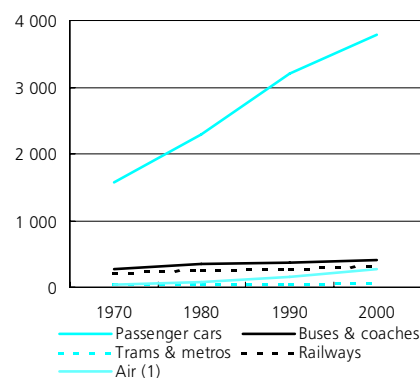
In addition, the movement of freight and passengers has also been affected by the relocation of business away from city centres, towards major transport arteries. From an international perspective, the completion of the internal market and the globalisation of world markets have also contributed to increase demand for international freight transport. As for passenger transport, urban spread has boosted the demand for commuter services, whereas leisure transport has benefited from a continuous increase in personal mobility and reductions in the cost of certain forms of transport, notably airborne.

Figure 20.1
Evolution of goods transported in the EU
(billion tonne-kilometres)



(1) Intra-EU traffic only.
Source: Eurostat; ECMT; UIC *in* European Union Energy and Transport in Figures, Directorate-General of the European Commission for Energy and Transport, 2002.

Figure 20.2
Evolution of passenger transport in the EU
(billion passenger-kilometres)



(1) Intra-EU traffic only.
Source: Eurostat; ECMT; UITP; UIC; AEA; IACA *in* European Union Energy and Transport in Figures, Directorate-General of the European Commission for Energy and Transport, 2002.

Transport services are broken down into: land transport (NACE Division 60), which includes railways, urban transport, road and road freight transport, as well as transport by pipelines; water transport (NACE Division 61); air transport (NACE Division 62), which includes space transport; and supporting and auxiliary transport activities (NACE Division 63), which cover cargo handling and storage, the operation of railway stations, ports and airports, travel agencies and tourist assistance activities.

Note that travel agencies (NACE Group 63.3) are covered in Chapter 19 that deals with tourism. These activities have hence been excluded from the analysis in the present chapter whenever possible: for example, for most sections using SBS data, as well as statistics on the volume of transport, although this is not the case for more aggregated data sets such as the LFS.

NACE

60: land transport; transport via pipelines;
60.1: transport via railways;
60.2: other land transport;
61: water transport;
61.1: sea and coastal water transport;
61.2: inland water transport;
62: air transport;
62.1: scheduled air transport;
62.2: non-scheduled air transport;
62.3: space transport;
63: supporting and auxiliary transport activities; activities of travel agencies;
63.1: cargo handling and storage;
63.2: other supporting transport activities;
63.4: activities of other transport agencies.

All of these factors are reflected in the strong and consistent growth witnessed by the transport services' sector of the economy over the past 30 years. Combining road, rail, inland waterways and sea transport, there were 2 992 billion tonne-km ⁽¹⁾ of freight moved within the EU in 2000, corresponding to an average increase of 2.7 % per annum since 1970. Passenger transport services (bus, rail and air) totalled 1 050 billion passenger-km within the EU in 2000 ⁽²⁾, rising at an average rate of 2.1 % per annum since 1970.

The equivalent of one tonne of freight was moved over 21.7 km for each EU citizen every day of 2000 (against 10.7 km in 1970). This figure can be broken down as follows: 9.8 km by road, 9.2 km by sea, 1.8 km by rail and 907 m by inland waterways.

Similarly on average each European citizen travelled 5.6 km per day in 2000 using land transport services (up from 4.2 km in 1970), compared to 27.5 km by car (up from 12.7 km in 1970). The breakdown of land transport use was 3.0 km by bus, 2.2 km by rail and 385 m by tram or metro. Intra-EU air transport accounted for an additional 2.0 km per person per day, equivalent to 744 km per person per year (compared to 97 km in 1970).

⁽¹⁾ Number of tonnes multiplied by the number of kilometres.

⁽²⁾ Number of passengers multiplied by the number of kilometres; air travel concerns intra-EU flights only.

Table 20.1

Average daily distance travelled by freight and passengers in the EU (kilometres per inhabitant)

	1970	2000
Goods		
Road	3.9	9.8
Sea (1)	3.8	9.2
Railways	2.3	1.8
Inland waterways	0.8	0.9
Passengers		
Passenger cars	12.7	27.5
Buses & coaches	2.3	3.0
Railways	1.7	2.2
Air (1)	0.3	2.0
Trams & metros	0.3	0.4

(1) Intra-EU traffic only.

Source: Eurostat; ECMT; UITP; UIC; AEA; IACA in European Union Energy and Transport in Figures, Directorate-General of the European Commission for Energy and Transport, 2002.

STRUCTURAL PROFILE

Estimates based on SBS data show that the total value added generated by the transport services' sector (including travel agencies) was equal to an estimated EUR 286 billion in the EU in 2000. This represented some 6.1 % of total value added in the EU business economy in 2000 (NACE Sections C to K). The 6.3 million persons employed in 2000 also represented 6.1 % of the total business economy workforce.

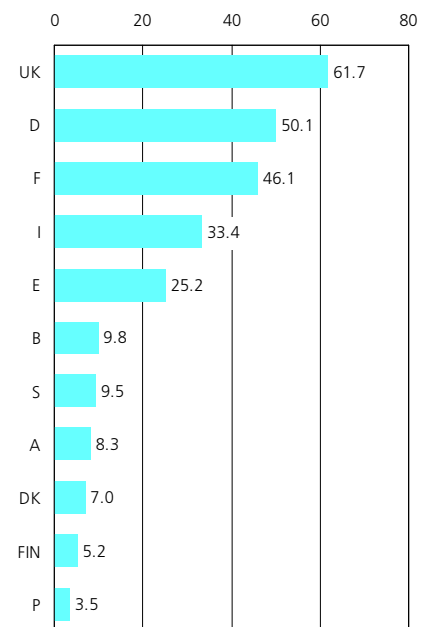
The largest subsector within transport services was land transport (i.e. road, railways and pipelines, NACE Division 60) which accounted for some 50.3 % of the total (EUR 144 billion), while air transport (NACE Division 62) generated 9.4 % (EUR 27 billion) and water transport (NACE Division 61) some 4.8 % (EUR 14 billion). The wide range of activities that make up auxiliary transport services (NACE Division 63) generated together the remaining 35.4 % of transport services value added (EUR 101 billion).

At a national level, the following specialisation was evident when comparing the value added of each country in each transport subsector to the EU averages ⁽³⁾: Belgium and Austria were relatively specialised in land transport, Denmark and Finland in water transport, Luxembourg and Ireland in air transport. None of the other Member States reported a strong specialisation in any of the subsectors.

⁽³⁾ EL and NL, not available.

Figure 20.3

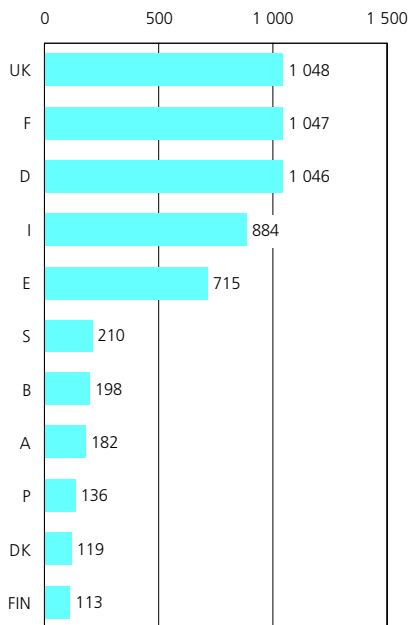
Land transport; transport via pipelines; water transport; air transport; supporting and auxiliary transport activities; activities of travel agencies (NACE Divisions 60, 61, 62 and 63) Value added, 2000 (billion EUR) (1)



(1) EL, IRL, L and NL, not available.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 20.4
Land transport; transport via pipelines;
water transport; air transport; supporting
and auxiliary transport activities;
activities of travel agencies
(NACE Divisions 60, 61, 62 and 63)
Number of persons employed, 2000
(thousands) (1)



(1) EL, IRL, L and NL, not available.
 Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Total passenger traffic within the EU reached 4 839 billion passenger-km in 2000. Of these, only 1 050 billion km were accounted for by transport services' enterprises. Indeed, the vast majority of Europeans relied on the car as their most important mode of passenger transport in the EU, with 3 789 billion passenger-km travelled in 2000. Within transport services themselves, the most important mode was transport by buses and coaches, which recorded traffic equivalent to 413 billion passenger-km, followed by railways (303 billion passenger-km) and intra-EU air transport (281 billion passenger-km). A further 53 billion passenger-km were travelled on trams and metro systems. Over the past three decades, passenger traffic increased for all transport modes. However, the fastest growing passenger transport service has, by far, been air transport, as the skies were deregulated, competition increased and tickets became more affordable. Intra-EU passenger traffic by air increased, on average, by 7.4 % per annum between 1970 and 2000 (and by 6.0 % per annum in the 1990s), compared to less than 1.5 % annual growth for the other transport services. As a consequence, air transport is quickly gaining ground on railways in terms of the volume of passengers carried within the EU and, if current trends continue, it will soon surpass rail and become the third most important mode of passenger transport after passenger cars and buses.

Turning to freight transport, total traffic within the EU reached 2 992 billion tonne-km in 2000 (excluding pipelines), most of which was accounted for either by road (1 348 billion tonne-km) or by sea (1 270 billion tonne-km). These two means of freight transport experienced similar growth during the past 30 years. Road freight transport increased on average by 3.5 % per annum between 1970 and 2000, while intra-EU sea transport also experienced strong growth, rising on average by 3.4 % per annum over the same period. Rail transport remained the third largest mode of freight transport, although losing ground, with transported volumes falling from 282 billion tonne-km in 1970 to 249 billion tonne-km by 2000; it was the only transport mode to report decreasing traffic. Inland waterways transported 125 billion tonne-km of freight within the EU in 2000, with the volume of goods transported rising on average by 0.7 % per annum over the last three decades.

LABOUR AND PRODUCTIVITY

Transport services had a total workforce estimated at 6.3 million persons employed in 2000, on the basis of SBS data. Most worked in land transport, where 3.9 million persons were employed (62.7 % of the total), while air transport employed 387 000 persons (6.1 %) and water transport 138 000 persons (2.2 %). Services auxiliary to transport activities employed a further 1.8 million persons, or 29.0 % of the transport services' total.

Land transport was responsible for more than half of the jobs in transport services in all countries ⁽⁴⁾, and even more than two thirds of those employed in Austria (76.1 %), Spain (69.3 %) and Belgium (67.6 %). These were also the countries where water transport was the least important, accounting for less than 1.0 % of the national transport services' workforce. The Nordic countries reported the highest shares for water transport in employment terms, particularly in Denmark, where 9.0 % of the transport services' workforce worked in the water transport subsector, but also in Finland (7.5 %) and Sweden (7.4 %). Luxembourg and Ireland had a relatively large workforce in air transport services, while Germany and the United Kingdom were the only countries where auxiliary transport activities accounted for more than one third of the transport services' workforce.

According to the LFS, transport services are a mainstay of male employment within the service sector. Women accounted for just 20.4 % of those persons employed in the EU's transport services' sector in 2001, a proportion that varied between 12.5 % for land transport and 36.7 % for air transport. These figures were considerably lower than the average for services (NACE Sections G to K), where women accounted for 43.5 % of those employed.

⁽⁴⁾ EL and NL, not available.

Table 20.2

Land transport; transport via pipelines; water transport; air transport; supporting and auxiliary transport activities; activities of travel agencies (NACE Divisions 60, 61, 62 and 63)
Labour force characteristics (% of total employment)

	Female		Part-time		Self-employed	
	1996	2001	1996	2001 (1)	1996	2001
EU-15	18.8	20.3	7.6	9.0	14.7	13.2
B	16.2	16.5	4.8	8.1	8.4	7.2
DK	20.5	23.2	7.6	10.4	11.7	5.7
D	22.9	23.5	8.0	9.8	8.5	8.1
EL	11.3	14.0	1.6	1.4	31.4	32.7
E	11.2	14.3	3.4	3.1	33.1	25.8
F	19.7	20.7	7.6	8.1	6.8	5.4
IRL	18.1	24.4	6.2	9.4	22.4	21.5
I	13.4	15.5	4.3	4.7	22.7	20.6
L	15.9	17.9	:	5.7	:	:
NL	20.3	22.9	20.0	26.3	6.2	7.0
A	18.4	21.6	7.4	9.9	4.5	6.2
P	18.2	15.6	:	:	14.0	14.1
FIN	26.0	20.5	5.1	7.1	20.4	14.6
S	23.0	24.2	13.9	11.9	17.2	13.2
UK	21.0	23.2	9.8	12.0	15.3	14.5

(1) EL and L, 2000.

Source: Eurostat, Labour Force Survey.

The incidence of part-time work within the EU's transport services' sector was also relatively low. Only 9.0 % of those employed in transport services in 2001 worked on a part-time basis, and only 7.6 % in land transport. This compared to a services' average of 19.8 %.

Apparent labour productivity in transport services was estimated at EUR 45 300 of value added per person employed in 2000, a slightly higher level than the average for services (EUR 42 900). At the subsector level, however, productivity showed great variations. In fact, land transport services ranked among the least labour productive activities within services (at the NACE division level), as each person employed generated on average EUR 36 400 of value added. At the same time, water transport (EUR 100 000) and air transport (EUR 69 700) numbered among the most labour productive service activities.

20.1: RAILWAY TRANSPORT

This subchapter includes information on the transport of passengers and freight by railways (NACE Group 60.1). Although in NACE the activities related to the operation of the railway infrastructure are classified as part of auxiliary transport activities, some information on the rail infrastructure (station facilities) is also provided in this subchapter.

This subchapter does not cover urban and suburban railway transportation (part of NACE Class 60.21), the repair and maintenance of rolling stock (part of NACE Group 35.2), sleeping car services (part of NACE Class 55.23) or dining car services (part of NACE Group 55.3).

The rapid development of road (offering greater flexibility) and air transport (especially over longer distances) has seriously affected the railways over the last few decades. Nevertheless, in recent years, congested road networks and greater environmental awareness have led to a realignment of EU transport policy. One of the main priorities has been the creation of trans-European networks (TENs) which constitute the cornerstone of transport infrastructure policy. As regards passenger transport, the focus of TENs is to extend the high-speed rail network and increase the market share of rail in the passenger transport market. The network to be developed also seeks to optimise the coordination of rail services with other means of transport, integrating the rail network with urban/suburban rail networks, airports and even private means of transport. For the freight part of the subsector, coordination is also being pursued to create flexibility and ease of transfer from other means of transport.

STRUCTURAL PROFILE

The EU's rail network encompassed 150 400 km of track in 2001, of which 52 % were electrified. Rail has lost significant ground relative to other transport modes during the past 30 years, as it recorded much lower traffic growth (if growth at all) than its competitors. As regards passenger transport, traffic in the EU stagnated around 275 billion passenger-km between 1987 and 1997, before picking up towards the end of the 1990s to reach 303 billion passenger-km by 2000. Growth at the end of this period can be linked to the development of high-speed rail connections. In total, rail passenger transport increased by 0.8 % per annum in the 1980s, a trend that slightly improved to 1.1 % in the 1990s. This was nevertheless almost half the growth rate of traffic in other passenger transport modes, and as a consequence the share of railways in total passenger transport ⁽⁵⁾ plunged from 10.2 % in 1970 to 6.6 % in 1990 and to 6.3 % in 2000.

⁽⁵⁾ Share in passengers transported by car, buses and coaches, trams and metros, railways and air transport.

Table 20.3

Transport via railways (NACE Group 60.1)
Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	:	:	:	5.5	:	:	:	:	-20.0	:	:	:	:	1.9	:
DK	3.5	7.9	0.5	:	:	311.2	12.8	-5.9	:	:	-5.0	5.3	-16.7	:	:
D	:	:	2.7	-4.4	7.8	:	:	:	:	9.8	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	3.9	46.6	-6.1	-15.9	26.8	-2.2	-4.7	4.2	-13.8	16.3	-4.4	-1.0	-2.0	-1.7	-1.9
F	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
IRL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
I	:	:	33.2	-3.5	20.7	:	:	31.7	-3.0	-6.2	:	:	-4.1	-3.4	-5.9
L	2.7	-8.9	0.4	15.3	12.3	6.4	-15.1	5.4	5.0	4.3	-3.2	-2.4	-1.6	-0.6	1.9
NL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
A	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
P	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
FIN	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
S	351.7	:	:	:	-0.9	133.9	:	:	:	27.7	:	:	:	:	1.5
UK	:	161.8	3.3	-5.3	12.7	:	:	24.7	-2.0	18.5	:	:	:	-5.0	-5.6

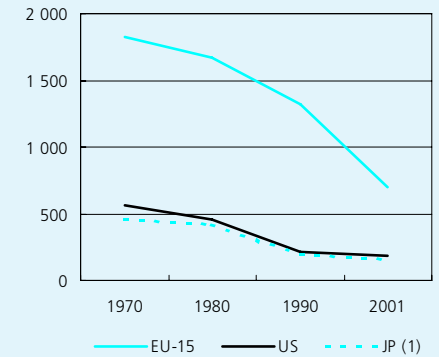
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 20.4
Passengers transported by high speed rail (billion passenger-kilometres)

	1990	1995	1996	1997	1998	1999	2000
B	0.0	0.0	0.0	0.6	0.8	0.8	0.9
D	0.0	8.7	8.9	10.1	10.2	11.6	13.9
E	0.0	1.2	1.1	1.3	1.5	1.7	1.8
F	14.9	21.4	24.8	27.6	30.6	32.2	34.7
I	0.3	1.1	1.3	2.4	3.6	4.5	5.1
NL	0.0	0.0	0.0	0.0	0.1	0.1	0.1
FIN	0.0	0.0	0.0	0.1	0.1	0.1	0.1
S	0.0	0.5	1.1	1.3	1.6	1.8	2.1
UK	0.0	:	:	:	:	:	:

(1) DK, EL, IRL, L, A, P, not available.
Source: UIC.

Figure 20.6
Employment in railways (thousands)

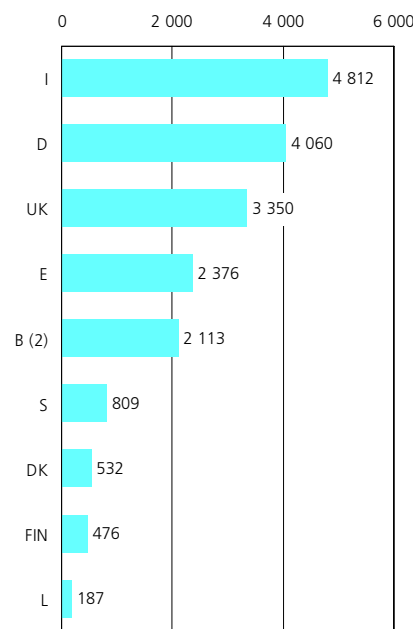


(1) 2000.
Source: UIC.

As regards rail freight, there was a downward trend in the volume of freight transported during the 1980s and the first half of the 1990s, falling to 206 billion tonne-km in 1993 from 290 billion tonne-km in 1980 and 256 billion tonne-km in 1990, before making up part of the loss by 2000 to 240 billion tonne-km. Rail freight transport declined on average by 1.2 % per annum between 1980 and 1990, a trend that continued in the early 1990s. The improvement recorded in the late 1990s was not sufficient to avoid railways being the only freight transport mode to report a decline in the volume of freight transported in the 1990s, equal to 0.8 % per annum on average. As a consequence, the share of rail in total intra-EU freight transport⁽⁶⁾ fell from 21.0 % in 1970 to 11.3 % in 1990 and 8.3 % in 2000.

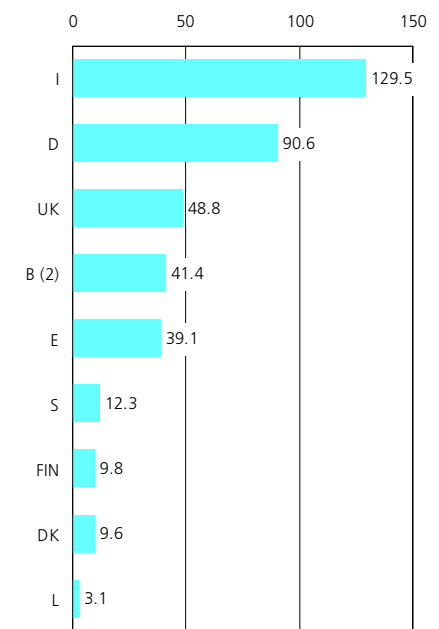
Each EU citizen travelled on average 803 km by train in 2000. France (1 182 km), Austria (1 011 km) and Denmark (993 km) recorded the highest use of railways per capita, as opposed to Ireland (368 km), Portugal (352 km) and Greece (152 km). Note that this ratio does not entirely denote the real preference of consumers for railways as it may be affected by such factors as the country's topography (e.g. insularity of Greece) or geographical situation (e.g. the central position of Austria inducing north/south transit traffic, as opposed to the peripheral location of Portugal) or the presence or not of a developed high-speed network (for example, France's TGV).

Figure 20.5
Transport via railways (NACE Group 60.1)
Value added, 2000 (million EUR) (1)



(1) EL, F, IRL, NL, A and P, not available.
(2) 1999.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 20.7
Transport via railways (NACE Group 60.1)
Number of persons employed, 2000 (thousands) (1)



(1) EL, F, IRL, NL, A and P, not available.
(2) 1999.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Employment in the EU's railway subsector declined continuously during the 1980s and 1990s and the number of persons employed more than halved over this period. There were slightly less than 700 000 persons employed in the EU's railway subsector in 2000.

⁽⁶⁾ Share in total freight transported by road, railways, sea and inland waterways, excluding pipelines.

20.2: ROAD TRANSPORT

Other land transport activities (NACE Group 60.2) cover road freight transport, as well as passenger transport (other than railways), scheduled or not, such as urban, suburban or inter-city public transport, taxi operations or charters. This definition includes a diverse number of agents, ranging from independent lorry or taxi drivers to large national or metropolitan public transport enterprises. This subchapter also contains information on the private use of passenger cars, which is not covered by NACE.

Road transport has greatly benefited over the past 30 years from increased demand for mobility and flexibility from private individuals and enterprises for passenger travel and freight transport alike. The latter provide door-to-door deliveries over short or long distances, often without the need for transshipment.

STRUCTURAL PROFILE

Road transport activities generated EUR 111 billion of value added in the EU in 2000 ⁽⁷⁾. The largest activity within the road transport subsector was freight transport by road (NACE Class 60.24). It accounted for approximately two thirds of value added, against one third for passenger road transport services, although these were relatively more important, notably in Denmark, Germany and France.

Available time series from SBS show that this subsector has enjoyed rapid growth in recent years. In the second half of the 1990s, the value added generated by road transport services grew at an average rate exceeding 5.0 % per annum in most countries for which data are available ⁽⁸⁾ (in current prices), reaching 7.2 % per annum in Sweden between 1995 and 2000 and 7.4 % per annum in Luxembourg. The slowest growth over the same period was reported by Belgium, at 2.3 % per annum.

⁽⁷⁾ DK, NACE Classes 60.21 to 60.23, 1999; F, NACE Class 60.24, 1999; IRL, 1998; EL, not available.

⁽⁸⁾ DK, D, EL, E, F, IRL and P, not available.

One notable characteristic of road transport is the importance of very small enterprises. Only limited data are available by size class for 2000, but it shows that enterprises employing between one and nine persons generated almost one third of the subsector's value added (30.2 %) ⁽⁹⁾, a share that rose to more than half in Spain (53.2 %) and Finland (57.2 %). This category of enterprises was nevertheless relatively less present in Austria (19.4 %), the United Kingdom (19.3 %) and Belgium (16.6 %).

The EU's road transport infrastructure had an estimated 3.9 million km of road network in 1999, equivalent to 1 200 km per thousand square km. Partly as a consequence of their high population density and their geographical situation, Belgium and the Netherlands had the highest density of roads, with respectively 4 800 km and 3 000 km of road per thousand square km of land. In comparison, sparsely populated countries such as Sweden and Finland had just 469 km and 232 km of road per thousand square km of land. Motorways totalled 51 600 km in the EU at the end of 2000, a 31 % increase on 1990. Belgium and the Netherlands had the densest network, with over 50 km per thousand square km, more than 10 times above the corresponding ratio for Greece (5.4), Sweden (3.3), Finland (1.6) or Ireland (1.5).

⁽⁹⁾ P, FIN and S, 1999; DK, D, EL, F, IRL, L and NL, not available.

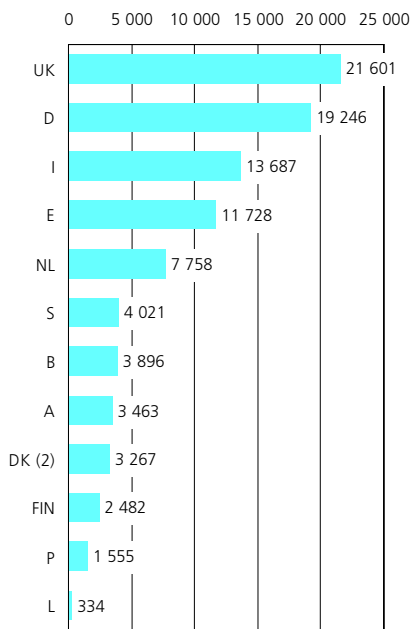
Table 20.5

Other land transport (NACE Group 60.2)
Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	:	:	8.2	6.6	11.9	:	:	3.1	8.0	6.2	:	:	0.4	4.9	6.8
DK	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
D	:	:	0.9	9.9	-17.5	:	:	:	:	-3.1	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	:	8.7	:	:	:	:	3.1	:	:	:	:	2.7
F	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
IRL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
I	14.1	4.4	9.0	1.8	7.6	19.3	-1.8	8.7	1.3	-5.0	1.6	1.8	0.4	3.4	3.4
L	-1.8	6.4	12.6	18.0	5.0	10.6	4.5	1.1	14.0	7.2	2.9	9.6	11.1	3.0	10.0
NL	5.3	2.4	8.1	:	:	2.5	1.2	7.8	:	:	:	:	:	:	:
A	:	:	9.9	4.8	18.7	:	:	3.3	3.2	11.8	:	:	1.1	1.1	3.3
P	:	:	:	-2.6	-2.6	:	:	:	7.6	-7.5	:	:	:	3.7	-5.1
FIN	4.4	2.8	18.5	4.2	8.2	1.1	12.4	9.0	-4.2	9.0	7.7	9.2	13.8	1.1	2.6
S	12.4	:	:	:	14.4	10.5	:	:	:	6.0	:	:	:	:	-2.0
UK	11.3	34.2	3.8	12.2	11.4	:	:	5.6	9.8	5.0	:	:	:	1.7	-1.5

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 20.8
Other land transport (NACE Group 60.2)
Value added, 2000 (million EUR) (1)



(1) EL, F and IRL, not available.

(2) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

The number of vehicles being used for road transport services has increased at a rapid rate in the past decades. There were 23.7 million registered freight vehicles on the EU's roads in 2000 and 528 000 buses and coaches. Growth was largely confined to freight vehicles, whose number multiplied by three between 1970 and 2000, while the number of buses and coaches reported a slower evolution (1.6 times as many in 2000).

Looking at traffic figures, a total of 1.3 billion tonne-km were travelled on EU roads in 2000. Restricting the analysis to transport by land and waterways (as no detailed recent data by Member State are available for sea and air transport), road accounted, on average, for 78.3 % of the EU's inland freight transported in 2000 ⁽¹⁰⁾. This ratio is affected by criteria such as the quality of the transport infrastructure, climatic and geographical conditions or the density of the population, and its share ranged from 48.3 % in Austria to 92.9 % in Ireland. It should also be stressed that the exclusion of sea transport has a significant effect on the results presented for several countries, notably Greece where short-sea shipping accounted for more one third of total freight transported in 1998.

⁽¹⁰⁾ Share in total freight transported by road, railways and inland waterways, excluding pipelines.

Table 20.6
Number of road transport vehicles in the EU

	1970	1980	1990	1995	1996	1997	1998	1999	2000
Passenger cars (millions)	62.5	103.9	143.2	158.6	161.9	165.3	169.2	173.8	177.4
Buses and coaches (thousands)	331.6	437.6	479.4	486.0	495.2	504.9	512.0	519.6	528.0
Freight vehicles (millions)	7.5	10.6	17.4	19.8	20.5	21.2	22.0	22.9	23.7
Powered two-wheelers (millions)	:	:	:	:	22.4	22.9	23.8	25.1	25.7

Source: Eurostat; European Union Energy and Transport in Figures, Directorate-General of the European Commission for Energy and Transport, 2002.

Table 20.7
Road transport traffic, 2000

	Passenger transport (billion passenger-kilometres)			Tram & metro	Freight transport by road (billion tonne-kilometres)
	Passenger cars	Powered two-wheelers	Buses & coaches		
EU-15	3 788.6	150.2	412.6	53.1	1 348.4
B	105.9	1.5	12.4	0.9	32.5
DK	66.6	0.7	11.3	-	17.8
D	723.4	16.7	69.0	14.6	347.2
EL	77.1	19.2	21.7	1.2	18.4
E	331.6	14.3	50.6	5.2	117.5
F	699.6	12.3	45.3	10.1	266.5
IRL	33.3	0.4	6.1	-	6.5
I	665.2	66.9	94.0	5.4	244.0
L	5.1	0.1	0.9	-	2.4
NL	151.5	2.8	12.6	1.4	45.7
A	69.2	1.6	13.1	2.8	17.5
P	86.5	7.0	11.8	0.6	14.7
FIN	55.7	0.9	7.7	0.5	27.5
S	92.9	0.8	11.1	2.1	32.4
UK	625.0	5.0	45.0	8.3	158.0

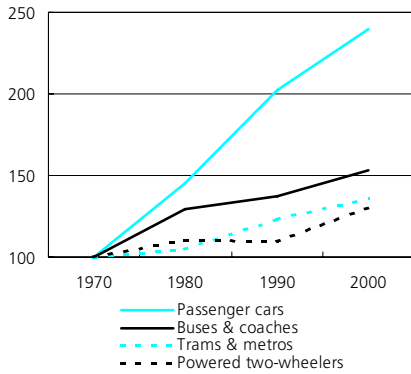
Source: Eurostat; ECMT; UIC; UITP in European Union Energy and Transport in Figures, Directorate-General of the European Commission for Energy and Transport, 2002.

Looking at passenger traffic, the car remained the preferred mode of transport in 2000, with 3.8 billion passenger-km travelled in 2000, or 80.5 % of total land passenger traffic ⁽¹¹⁾. There was little variation around this average, except in Greece, where powered two-wheelers (15.9 % of passenger traffic) and buses and coaches (17.9 %) were more popular than in the other Member States. As regards road transport services, only 1 in 10 passenger-km in

⁽¹¹⁾ Share in total passenger transport by passenger cars, powered two-wheelers, buses and coaches, trams and metros and railways.

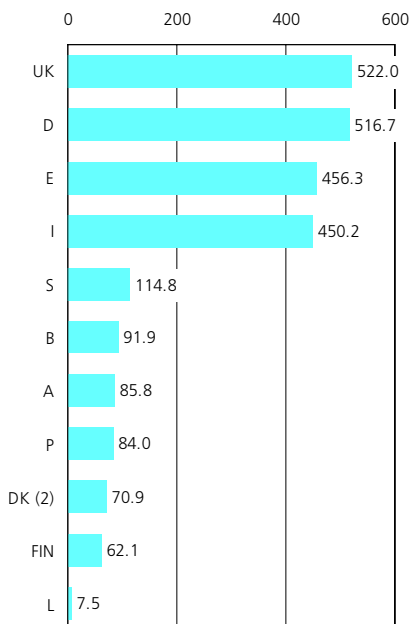
the EU was travelled by buses and coaches (8.8 %) or trams and metros (1.1 %). Both of these transport modes have lost ground to their competitors, mainly to passenger cars, over the past decades. The share of buses and coaches lost approximately 1 percentage point every decade, down from 12.1 % in 1970. Besides Greece, Ireland (14.8 %), Luxembourg (14.2 %), Austria (13.8 %) and Denmark (13.5 %) also reported higher shares for passenger transport by bus or coach.

Figure 20.9
Evolution of land passenger transport in the EU (1970=100, based on the number of passenger-kilometres)



Source: Eurostat; ECMT; UIC; UITP in European Union Energy and Transport in Figures, Directorate-General of the European Commission for Energy and Transport, 2002.

Figure 20.10
Other land transport (NACE Group 60.2)
Number of persons employed, 2000 (thousands) (1)



(1) EL, F, IRL and NL, not available.

(2) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

LABOUR AND PRODUCTIVITY

Road transport services employed some 3.1 million persons in the EU in 2000 ⁽¹²⁾, with road freight transport contributing to the majority of the workforce (2.0 million persons). The largest workforces were in the United Kingdom (522 000 persons) and Germany (516 700 persons). It is interesting to note the relatively high number of persons employed in road freight transport in the Netherlands, 122 100 persons, which was not far from half of the employment level reported by Germany for this part of the subsector (270 800 persons).

An important phenomenon within the road transport subsector was the prevalence of working proprietors and unpaid family workers (collectively referred to as unpaid persons employed) compared to the number of employees. Available data ⁽¹³⁾ show that as many as 19.9 % of those persons employed in the road transport subsector in the EU in 2000 were working proprietors and unpaid family workers, a share rising to 21.7 % for freight transport. The highest incidence of this phenomenon was recorded in Spain (40.0 % of road transport employment) and Italy (37.7 %). In contrast, more than 9 out of 10 persons employed in this subsector in Austria, the United Kingdom and Luxembourg were employees.

As a general rule the number of unpaid persons employed was higher in freight transport than in passenger transport. Portugal and Finland stood out as clear exceptions, with a much higher incidence of unpaid persons employed in passenger transport. In passenger transport, employees represented more than nine out of ten persons in employment in six Member States, notably the United Kingdom (95.7 %), Ireland (94.9 %) and Belgium (92.4 %). For freight transport, this was the case for only four of the Member States: Portugal (96.2 %), Luxembourg (95.5 %), France (93.2 %) and Austria (91.0 %).

Apparent labour productivity of road transport services in the EU was relatively low, equal to EUR 35 000 of value added per person employed in 2000 ⁽¹⁴⁾. This was more than EUR 10 000 below the average for transport services, reflecting the higher productivity recorded in air and maritime transport services. Even when taking into account the level of personnel costs, wage adjusted labour productivity was also below the transport services' and the services' averages. Value added was equal to 123.7 % of personnel costs (adjusted for the proportion of employees in the number of persons employed) in the EU in 2000 ⁽¹⁵⁾, ranging between 108.6 % in Italy and 109.6 % in Sweden to more than 140.0 % in Ireland (143.5 %) and the United Kingdom (144.2 %). This ratio was higher for freight transport services than it was for passenger transport services in every country, except Denmark ⁽¹⁶⁾.

Average personnel costs in the EU's road transport subsector were within a narrow range in 2000, averaging EUR 28 300 per employee ⁽¹⁷⁾. They were the highest in the Benelux countries (above EUR 33 000 per employee), while Ireland (EUR 21 000) and Spain (EUR 20 500) reported the lowest figures, together with Portugal (EUR 15 600). Furthermore, average personnel costs were generally higher in the freight transport part of this subsector (EUR 28 500) than they were in the passenger transport part (EUR 28 000).

⁽¹⁴⁾ DK, NACE Classes 60.21 to 60.23, 1999; F, NACE Class 60.24, 1999; IRL, 1998; NL, NACE Classes 60.21 to 60.23 not available; EL, not available.

⁽¹⁵⁾ DK, NACE Classes 60.21 to 60.23, 1999; F, NACE Class 60.24, 1999; IRL, 1998; NL, NACE Classes 60.21 to 60.23 not available; EL, not available.

⁽¹⁶⁾ DK, NACE Classes 60.21 to 60.23, 1999; F, NACE Class 60.24, 1999; IRL, 1998; EL and NL, not available.

⁽¹⁷⁾ DK, NACE Classes 60.21 to 60.23, 1999; F, NACE Class 60.24, 1999; IRL, 1998; EL and NL, not available.

⁽¹²⁾ DK, NACE Classes 60.21 to 60.23, 1999; F, NACE Class 60.24, 1999; IRL, 1998; NL, NACE Classes 60.21 to 60.23 not available; EL, not available.

⁽¹³⁾ DK, NACE Classes 60.21 to 60.23, 1999; F, NACE Class 60.24, 1999; IRL, 1998; EL and NL, not available.

20.3: WATER TRANSPORT

This subchapter covers all water transport activities included in NACE Division 61, both sea and coastal transport (NACE Group 61.1) and inland water transport (NACE Group 61.2).

It also provides some information on water transport infrastructure (navigable waterways, harbours and piers); in NACE these activities that are related to the operation of infrastructure are classified as part of auxiliary transport activities.

STRUCTURAL PROFILE

Water transport was the smallest transport services' subsector at the NACE division level. It generated EUR 13.5 billion of value added in the EU in 2000⁽¹⁸⁾ and accounted for an estimated 4.8 % of transport services' value added. However, in Finland (11.3 %) and particularly in Denmark (27.7 %) water transport was of much greater importance (note there are no data available for Greece). In the Netherlands, too, water transport generated a fairly high amount of value added, EUR 1.6 billion in 2000, although partial data availability does not allow the calculation of the weight of this subsector within total transport services.

At a more detailed level, sea and coastal transport (NACE Group 61.1) was by far the largest part of the subsector, as it accounted for some 87.0 % of the value added generated in the EU's water transport subsector. Nevertheless, inland waterways played a relatively significant role in Germany (17.6 %), Belgium (27.8 %), the Netherlands (44.6 %) and particularly Austria, a country with no coastline, where they accounted for 86.4 % of the value added generated in the water transport subsector.

Among the countries providing significantly lengthy time-series⁽¹⁹⁾, the development of the water transport subsector in recent years has displayed a mixed pattern. On the positive side, France, Sweden and the Netherlands boasted high growth rates in the second half of the 1990s, with average increases of, respectively, 11.7 % per annum (between 1996 and 2000), 7.6 % per annum and 5.5 % per annum (both over the period 1995–2000). In all cases, growth was somewhat faster for sea and coastal transport than for inland waterways. On the other hand, four Member States reported declining activity in the water transport subsector between 1995 and 2000: Italy (– 1.3 % per annum), Austria (– 3.0 %), Portugal (– 5.3 % between 1996 and 2000) and Belgium (– 10.6 %). With the exception of Portugal, these declines were the result of the performance of sea and coastal transport rather than inland waterways.

⁽¹⁹⁾ DK, D, EL, E and IRL, not available.

⁽¹⁸⁾ L, NACE Group 61.1 not available; IRL and EL, not available.

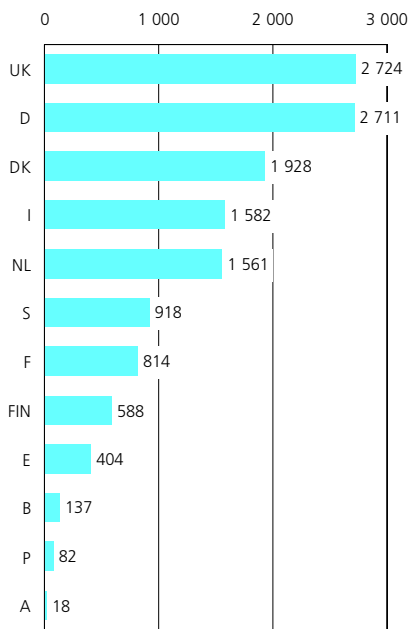
Table 20.8

Water transport (NACE Division 61)
Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	-21.5	28.4	-9.2	-4.5	-14.5	-16.5	-47.3	-42.4	63.5	37.8	26.0	-31.1	-13.3	-32.5	5.6
DK	:	:	:	:	57.5	:	:	:	:	25.5	:	:	:	:	0.1
D	:	:	8.2	5.4	121.3	:	:	:	:	-2.8	:	:	:	:	-19.7
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	:	-0.6	:	:	:	:	-9.0	:	:	:	:	-3.6
F	:	3.3	-3.9	1.8	23.0	:	20.2	-0.3	19.6	8.7	:	3.4	-1.7	1.0	4.2
IRL	:	2.2	:	:	:	:	-19.8	:	:	:	:	-7.7	:	:	:
I	-16.9	-20.3	42.2	-28.5	63.6	-26.1	-7.9	19.7	-21.8	47.2	-13.6	1.2	0.3	-11.7	1.4
L	3 680.3	8.6	:	:	:	128.6	116.7	:	:	:	706.1	22.2	:	:	:
NL	0.1	8.2	7.4	-3.7	23.3	1.7	14.6	3.9	:	:	12.0	-7.7	2.8	0.0	-11.7
A	-6.7	-18.9	5.5	19.0	-3.4	:	:	-11.9	26.6	-17.9	-33.3	-18.6	19.4	5.2	-15.4
P	29.8	-7.9	-24.0	-5.7	20.6	:	-25.6	0.5	-1.6	9.2	13.8	-8.2	-3.3	-6.5	-7.8
FIN	3.8	:	:	7.4	6.4	7.2	:	:	-2.6	-3.6	-8.0	:	:	4.3	-1.0
S	12.7	0.7	3.9	-2.1	13.1	19.7	4.9	-3.6	-5.6	26.3	:	:	1.9	-1.8	6.9
UK	:	-3.6	-12.4	-15.0	35.9	:	:	:	:	54.0	:	:	:	1.2	-1.2

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 20.11
Water transport (NACE Division 61)
Value added, 2000 (million EUR) (1)



(1) EL, IRL and L, not available.
 Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Enterprises in the water transport subsector are generally very small in size. Almost one third of the value added generated in the subsector in 1999 (32.7 %) originated from enterprises with between one and nine persons employed, a share that rose to 41.8 % in Austria and 42.6 % in the Netherlands (both in 2000). In some countries, however, this category of enterprise was of relatively less importance, notably in 1999 in Finland (9.3 % of value added), Sweden (8.3 %) and Italy (8.2 %) and particularly in Spain where they represented only 1.9 % of the subsector's value added in 2000.

There were 29 500 km of inland waterways in use in the EU in 1998 (20). Two countries had no inland waterways that were used for freight transport: Denmark and Ireland. Germany (7 300 km), the Netherlands (5 046 km) and Belgium (1 569 km) had the highest density of inland waterways on their territory, while Finland (6 245 km) and France (5 732 km) also reported extensive networks.

(20) Navigable canals, rivers and lakes regularly used for transport.

Table 20.9
Length of inland waterways in use (kilometres) (1)

	1970	1980	1990	1996	1997	1998
EU-15	32 338	30 620	29 637	29 436	29 815	29 500

(1) Navigable canals, rivers and lakes regularly used for transport.
 Source: Eurostat; UN; national statistics in European Union Energy and Transport in Figures, Directorate-General of the European Commission for Energy and Transport, 2002.

Four major axes exist when looking at the European inland waterway's network. The Basle-Rotterdam axis with the Rhine as its backbone is the most important in the EU. The Main-Danube axis is the second most important. The third major axis (east-west) is formed by the Elbe, Weser and Ems, while the fourth (north-south) serves regions of Belgium, the Netherlands and France notably through the Meuse, Scheldt, Lys and Sambre.

In 2000, inland waterways recorded freight traffic of 125 billion tonne-km, half the amount for rail and one tenth of that for road transport. This mode of transport is traditionally specialised in the transport of large quantities of bulk products, such as sand, ores, coal, chemicals and oil. The total volume of freight transported by inland waterways in the EU was equivalent to 7.3 % of inland freight transport (21). The country displaying the highest specialisation was the Netherlands, where as much as 45.5 % of inland freight was transported by inland waterways. Germany (13.6 %) and Belgium (13.5 %) were the only other countries where more than 10 % of freight was transported using this mode.

Growth in inland waterways' shipping has been fairly limited when compared to other means of transportation, with the volume of transported freight rising on average by 0.1 % per annum during the 1980s in the EU, a figure that accelerated to 1.6 % per annum between 1990 and 2000.

(21) Share in total freight transported by road, railways and inland waterways, excluding pipelines.

The busiest inland EU port was Rotterdam (Netherlands) with 106 million tonnes of freight loaded and unloaded for river and sea-river traffic in 1999. Antwerp (Belgium, 72.3 million tonnes in 2001) and Amsterdam (Netherlands, 47.3 million tonnes in 2000) followed. Other ports of importance included Liège (Belgium, 19.6 million tonnes in 2000), Paris (France, 18.5 million tonnes in 2001) and Duisburg (Germany, 13.6 million tonnes in 2001).

Turning to sea transport, a distinction has to be made between deep-sea transport, which refers to shipping on long sea routes, and short-sea shipping, that covers transport services of passengers and freight between national or European ports. With intra-EU traffic reaching 1 270 billion tonne-km in 2000, short-sea shipping was the second most important freight transport mode in the EU, at a level only slightly below that reported by road transport. It recorded strong growth too, rising on average by 3.4 % per annum over the past 30 years (3.5 % for road transport). The volume of freight transported by short-sea shipping rose on average by 1.7 % per annum between 1980 and 1990, and by 3.3 % per annum between 1990 and 2000.

The EU's merchant fleet numbered 8 885 vessels in 2001. This was equivalent to 257 million dead-weight-tonnes (DWT), or 35 % of the world fleet. It should be noted that these figures refer to all ships controlled by owners from EU countries, but that 63 % of the fleet in 2001 (representing 67 % of tonnage) flew a third country flag. In fact, only 3 316 ships with a total tonnage of 84.8 DWT flew EU flags. Within the total EU controlled fleet, 40 % of total tonnage was accounted for by oil tankers, 33 % by bulk carriers, 12 % by container ships and 10 % by general cargo ships; the rest was spread between chemical tankers, ore/bulk/oil tankers and liquid gas tankers.

Table 20.10
EU merchant fleet, 2001 (1)

	Number of ships (units)	Tonnage (million DWT)
Total fleet controlled	8 885	257.3
National flag	3 316	84.8
Foreign flag	5 569	172.5

(1) Ships of 1 000 GRT and over, as of 1 January 2001; including international registers like the Danish International Ship Register; including vessels registered at territorial dependencies.

Source: ISL in European Union Energy and Transport in Figures, Directorate-General of the European Commission for Energy and Transport, 2002.

Table 20.12
Main EU container service maritime operators, 2001 (TEU in service)

Company	Country	TEU in service	World ranking
Maersk-Sealand	DK	692 574	1
P&O Nedlloyd	UK, NL	381 481	2
Mediterranean Shipping Co	I, CH	300 543	5
CMA - CGM	F	187 497	8
Hapag-Lloyd	D	122 327	15
Hamburg Sud	D	90 757	20

Source: Containerisation Yearbook in European Union Energy and Transport in Figures, Directorate-General of the European Commission for Energy and Transport, 2002.

Rotterdam (Netherlands) was the busiest sea port in the EU, with 320 million tonnes of general cargo loaded and unloaded in 2000, almost two and a half times the volume of the next largest port, Antwerp (Belgium), with 131 million tonnes. However, one of the main trends in recent years has been a switch from conventional general cargo transportation towards containers. Rotterdam was also the largest port in terms of container transport, with 6.3 million TEUs⁽²²⁾ in 2000, ahead of Hamburg (Germany, 4.3 million) and Antwerp (Belgium, 4.1 million). The growth of general cargo traffic in the top twenty EU sea ports increased at an average rate of 0.7 % per annum between 1990 and 2000, while container traffic grew by 9.7 % per annum over the same period.

⁽²²⁾ Twenty Foot Equivalent Unit (TEU): a measurement of carrying capacity on a container ship, referring to a common container size of 20ft in length.

Table 20.11
Top ten ports in the EU ranked by traffic

Sea ports (million tonnes)		1970	1980	1990	2000
Rotterdam	NL	226.0	276.0	288.0	320.0
Antwerpen	B	78.0	82.0	102.0	130.5
Marseille	F	74.0	103.0	90.0	94.1
Hamburg	D	47.0	63.0	61.0	85.9
Le Havre	F	58.0	77.0	54.0	67.5
Amsterdam	NL	21.0	34.0	47.0	64.1
Tees & Hartlep.	UK	23.0	38.0	40.0	51.5
Genova	I	53.0	51.0	44.0	50.8
Grimsby & Imm.	UK	:	:	59.7	50.0
London	UK	64.0	48.0	58.0	47.9

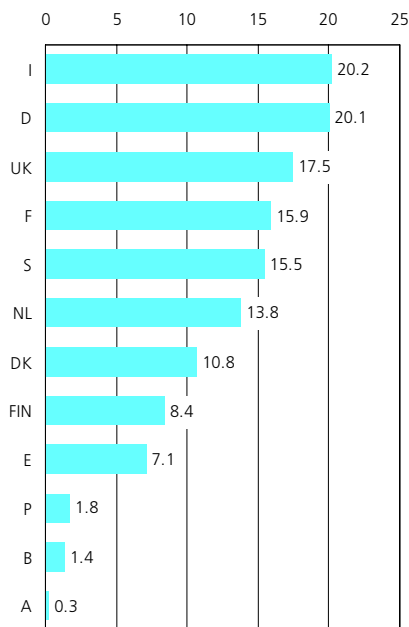
Container traffic (thousand TEU)		1990	1995	1999	2000
Rotterdam	NL	3 667.0	4 787.0	6 245.0	6 268.0
Hamburg	D	1 969.0	2 890.0	3 750.0	4 281.0
Antwerpen	B	1 549.0	2 329.0	3 614.0	4 082.0
Bremen/B'haven	D	1 198.0	1 524.0	2 201.0	2 752.0
Gioia Tauro	I	0.0	16.0	2 253.0	2 653.0
Algeciras	E	553.0	1 155.0	1 835.0	2 009.0
Felixstowe	UK	1 436.0	1 924.0	1 784.0	1 837.0
Genova	I	310.0	615.0	1 234.0	1 501.0
Le Havre	F	858.0	970.0	1 378.0	1 465.0
London	UK	:	888.0	1 462.0	1 463.0

Inland ports (million tonnes)		1995	1999	2000	2001
Rotterdam	NL	:	106.4	:	:
Antwerpen	B	54.2	62.3	70.2	72.3
Amsterdam	NL	:	47.0	47.3	:
Liège	B	13.7	19.1	19.6	:
Paris	F	20.3	19.1	19.8	18.5
Duisburg	D	:	:	14.0	13.6
Strasbourg	F	9.7	9.6	10.8	9.6
Köln	D	6.8	8.7	9.6	9.6
Mannheim	D	7.7	7.7	7.9	8.3
Ludwigshafen	D	8.2	7.2	8.2	7.6

Source: ISL, Ports of Rotterdam, Hamburg and Liverpool and European Federation of Inland Ports in European Union Energy and Transport in Figures, Directorate-General of the European Commission for Energy and Transport, 2002.

Figure 20.12

**Water transport (NACE Division 61)
Number of persons employed, 2000
(thousands) (1)**



(1) EL, IRL and L, not available.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

LABOUR AND PRODUCTIVITY

Estimates based on SBS data show that employment in the EU's water transport subsector was 138 100 persons in 2000, which represented 2.2 % of the transport services' workforce in terms of value added. Available time series ⁽²³⁾ report decreasing employment levels in most countries, sometimes to a large extent, such as between 1995 and 2000 in Portugal (– 6.5 % per annum), in Austria (– 10.4 % per annum) and in Belgium (– 11.7 % per annum). France and Sweden stood out as their employment levels rose by 1.7 % per annum (1996–2000) and 2.3 % per annum (1997–2000). In addition, it is worth noting the spectacular progression of employment in sea and coastal transport in Spain (from 2 684 to 6 999 persons employed between 1995 and 2000) and in inland waterways in Luxembourg (from 66 to 756 persons employed over the same period).

Most persons employed in water transport were employees; unpaid persons employed (working proprietors and unpaid family workers) represented only 6.2 % of total employment in 2000 ⁽²⁴⁾, a share that was even lower in sea and coastal transport at 2.8 %. Within inland water transport, however, unpaid persons employed were relatively frequent accounting for 18.6 % of total employment. Belgium and Austria reported the highest incidence of unpaid persons employed in the water transport sector, with respectively 11.7 % and 30.0 %. Within inland waterways transport, more than one in five persons employed in Sweden (21.1 %), Italy (22.6 %), France (28.4 %) and Belgium (38.6 %) were working proprietors or unpaid family workers.

The LFS shows that the water transport workforce was largely composed of men, who represented 80.5 % of those employed in the EU in 2001, a share that was much higher than the services' (NACE Sections G to K) average of 56.5 %. In addition, part-time work concerned only 5.6 % of the workforce against 19.8 % in services as a whole.

⁽²³⁾ DK, D, EL, E and IRL, not available.

⁽²⁴⁾ L, NACE Group 61.1 not available; IRL and EL, not available.

Water transport reported average personnel costs of EUR 41 900 per employee in 2000 ⁽²⁵⁾, a figure that was higher than in most other transport services. Average personnel costs were higher in sea and coastal transport services (EUR 43 400 per employee) than they were in the inland waterways part of the subsector (EUR 35 000 per employee). Enterprises in the United Kingdom (EUR 56 300) and Belgium (EUR 45 100) faced the highest average personnel costs per employee. In contrast, Sweden (EUR 38 800) and Luxembourg (EUR 30 300) were near the bottom of the ranking, together with Spain (EUR 28 200) and Portugal (EUR 21 100).

Relatively high average personnel costs were matched by equally high apparent labour productivity. According to estimates based on SBS data, each person employed in the water transport services' subsector generated no less than EUR 100 000 of value added in 2000, the second highest apparent productivity level within services (at the NACE division level) after renting (EUR 100 100).

Wage adjusted labour productivity ratios in the water transport services' subsector were also higher than average, reaching 241.3 % for the EU in 2000 ⁽²⁶⁾. The sea and coastal transport part of the subsector reported higher figures (257.5 %) than the inland waterways part (176.1 %). In the majority of countries, wage adjusted labour productivity ratios for water transport were above 200 %, and exceeded 300 % in Germany (330.2 %) and Denmark (424.8 %).

⁽²⁵⁾ L, NACE Group 61.1 not available; IRL and EL, not available.

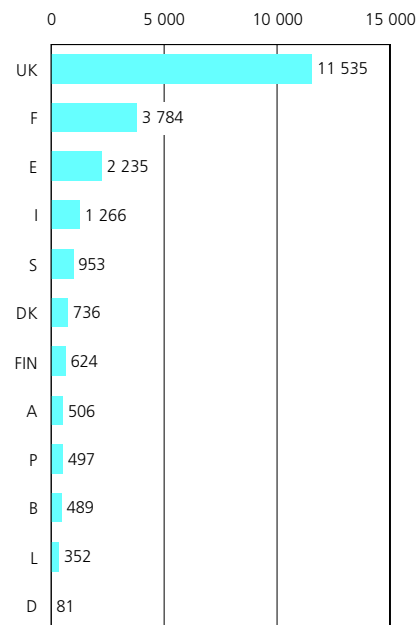
⁽²⁶⁾ L, NACE Group 61.1 not available; IRL and EL, not available.

20.4: AIR TRANSPORT

The air transport subsector comprises enterprises engaged in the transport of passengers and freight by air on scheduled services (NACE Group 62.1), as well as unscheduled services, helicopter and air taxi services and the employment of aircraft for private use (NACE Group 62.2). Space transport activities (NACE Group 62.3), which essentially include the launching of satellites and space vehicles, complete NACE Division 62.

This subchapter also provides separately some information on the air transport infrastructure (terminal facilities and airports) although in NACE these activities are classified as part of auxiliary transport activities.

Figure 20.13
Air transport (NACE Division 62)
Value added, 2000 (million EUR) (1)



(1) EL, IRL and NL, not available.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

STRUCTURAL PROFILE

The value added generated by the EU's air transport services' subsector (NACE Division 62) was estimated at EUR 27.0 billion in 2000 on the basis of SBS data. The subsector was dominated by the United Kingdom that alone accounted for more than one third of this total, or EUR 11.5 billion, ahead of Germany (EUR 7.8 billion in 1999). In relative terms, however, Ireland and Luxembourg had the most developed air transport services. Indeed, while the average contribution of the air transport subsector to total transport services' value added was estimated at 9.4 % in the EU in 2000, the shares reported in Ireland and Luxembourg were more than three times as high, reaching 29.2 % (1997) and 34.9 % respectively (27). These shares reflect specialisation in particular market segments, air-freight in Luxembourg and low-cost, no-frills passenger travel in Ireland.

(27) L, excluding sea and coastal transport (NACE Group 61.1).

Table 20.13

Air transport (NACE Division 62)
Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	6.5	16.6	22.0	7.1	17.0	-14.7	11.3	16.6	-14.4	-20.1	3.2	6.2	10.1	-1.7	7.6
DK	8.9	8.5	4.9	0.1	9.7	10.2	-0.6	0.5	20.6	-6.2	7.7	-7.2	14.6	3.9	1.9
D	:	-44.6	4.6	10.3	-19.3	:	:	:	:	-99.0	:	-0.7	-0.1	5.3	-22.7
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	4.2	12.8	8.0	9.1	14.5	1.3	11.2	-5.0	14.7	6.1	-7.0	3.3	-5.6	21.4	2.4
F	:	2.7	7.2	2.4	11.8	:	-4.3	13.7	5.7	-6.0	:	0.2	-0.1	5.2	7.3
IRL	:	24.3	:	:	:	:	30.8	:	:	:	:	6.0	:	:	:
I	:	36.5	46.1	-15.2	25.8	:	18.6	96.5	-63.3	1.1	:	4.7	9.7	11.3	0.6
L	15.8	25.4	-1.8	32.7	24.5	11.8	26.4	4.3	28.0	8.4	9.8	8.7	12.0	10.4	11.7
NL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
A	9.3	3.2	9.9	8.9	12.9	:	:	25.2	-5.4	-4.7	7.2	0.4	9.1	7.5	9.9
P	7.0	12.9	14.1	-3.2	17.0	:	7.8	15.9	-14.0	9.1	6.4	-0.7	6.9	5.0	2.9
FIN	12.1	:	:	9.2	13.1	1.3	:	:	-3.0	21.3	7.9	:	:	4.2	0.4
S	9.5	10.2	0.1	9.9	16.5	5.0	12.3	12.2	0.0	7.9	:	:	1.0	7.9	-5.2
UK	:	:	:	:	20.3	:	:	:	:	43.2	:	:	:	3.2	7.0

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Most countries reported growth in air transport activity in recent years, with average growth of value added around 5.0 % per annum in the second half of the 1990s ⁽²⁸⁾. Higher rates of growth were reported in Sweden (7.4 % per annum between 1995 and 2000) and Luxembourg (15.4 % per annum over the same period). Two countries, nevertheless, reported negative figures: Italy, where air transport value added lost, on average, 3.5 % per annum between 1996 and 2000, and Belgium, where the average decline was 5.4 % per annum between 1995 and 2000.

Air transport enterprises are generally very large in size, with those employing less than 10 persons generally accounting for just a few percentage points of value added (2.2 % in the EU in 1999). Denmark stood out from this general rule, as 14.4 % of value added was generated by micro-enterprises in 2000.

⁽²⁸⁾ D, EL, IRL and NL, not available.

Table 20.14

Recent evolution of passenger and air freight transport on European airlines, 2002
 (% change compared to previous year) (1)

Destination	Passenger traffic	Available seats	Passenger load factor (points)	Freight traffic
Total scheduled	-4.6	-8.8	3.2	-0.2
Domestic	-6.1	-7.0	0.6	-6.9
Total international	-4.5	-9.0	3.5	-0.2
Total long haul	-4.4	-8.7	3.6	0.1
Geographical Europe (2)	-4.5	-9.3	3.2	-11.5
North Atlantic	-7.6	-14.2	5.7	-5.6
Mid Atlantic	-4.6	-3.6	-0.8	6.3
South Atlantic	-10.8	-13.4	2.2	-13.0
North Africa	-8.6	-12.8	3.2	-11.3
Sub Saharan Africa	0.7	1.6	-0.6	8.0
Middle East	-4.1	-10.1	4.2	3.8
Far East - Australasia	0.2	-5.0	4.2	3.8

(1) Members of AEA.

(2) Including all scheduled international routes originating and terminating within the region comprising geographical Europe and European Russia up to the Urals (longitude 55°E), including Iceland, Turkey, Azores, Canary Islands, Madeira and Cyprus.

Source: AEA.

Table 20.15

AEA passenger airline traffic, 2001

		Total passenger traffic (million passenger-kilometres)	2001/2000 growth (%)	Scheduled passenger traffic (million passenger-kilometres)	Passenger load on scheduled traffic (%)	Share of European routes in scheduled traffic (%) (1)	Passenger load on scheduled European routes (%) (1)
Sabena/SNB	B	15 320	-20.9	15 320	68.4	40.7	61.8
SAS	DK, S, NO	23 296	1.6	23 277	64.9	42.9	58.5
Lufthansa	D	91 475	-3.0	91 336	71.9	19.5	61.9
Olympic Airways	EL	8 440	-5.0	8 434	64.6	44.3	61.7
Iberia	E	41 298	3.1	41 298	70.5	21.9	63.7
Spanair	E	10 419	7.9	5 967	61.1	14.8	62.4
Air France	F	95 822	4.3	95 808	74.9	11.9	63.6
Aer Lingus	IRL	8 944	-5.7	8 944	71.8	32.8	69.0
Alitalia	I	36 288	-11.2	36 124	70.9	22.2	65.5
Meridiana	I	2 140	-9.3	2 140	55.4	19.1	58.3
Luxair	L	1 061	6.5	586	53.8	100.0	53.8
KLM	NL	57 544	-4.6	57 536	77.9	13.9	70.6
Austrian Airlines	A	8 140	-7.5	8 140	66.8	29.1	59.2
TAP Air Portugal	P	10 345	-0.7	10 341	68.0	37.1	64.7
Finnair	FIN	12 957	2.9	7 933	60.7	48.6	54.2
British Airways	UK	104 023	-12.9	103 374	69.3	15.5	61.9
BMI British Midland	UK	4 958	5.3	4 534	60.1	55.1	59.0
Total		532 470	-4.4	521 095	71.0	20.6	62.5

(1) Including all scheduled international routes originating and terminating within the region comprising geographical Europe and European Russia up to the Urals (longitude 55°E), including Iceland, Turkey, Azores, Canary Islands, Madeira and Cyprus.

Source: AEA.

Intra-EU air passenger traffic reached 281 million passenger-km in 2000, up 8.0 % on the year before. Despite short-term fluctuations in activity caused by economic cycles or external factors, the long-term growth of this subsector has been rapid. Passenger traffic grew on average by 7.4 % per annum between 1970 and 2000 and by 6.0 % per annum between 1990 and 2000. As a result, intra-EU air transport accounted for 5.6 % of total passenger transport within the EU ⁽²⁹⁾, up from 3.8 % in 1990 and 1.5 % in 1970.

However, more recent figures report a severe fall in air traffic in 2001 and 2002, stemming notably from the fears of terrorism with respect to air travel in the aftermath of the attacks on New York and Washington in September 2001, the escalation of the tension in the Middle East (and especially Iraq) in the second half of 2002 and the general economic slowdown of the world economy.

Data for EU airlines from the Association of European Airlines (AEA) ⁽³⁰⁾ shows that total passenger traffic declined by 4.4 % in 2001 to 532 billion revenue passenger-km ⁽³¹⁾, down 12 billion passenger-km. Of these, 521 billion passenger-km travelled on scheduled services, approximately one fifth (20.6 %) were on European routes. That same year, the carrying capacity of airlines declined more slowly than traffic, by 1.2 % to 748 billion seat-km. As a consequence the passenger load factor, in other words, the average rate of seating capacity which was actually sold and utilised, fell from 73.6 % to 71.2 %. Passenger load factors were lower on European routes, at 62.5 % (down from 63.8 % in 2000).

The latest figures from AEA show that total passenger traffic was down a further 4.6 % in 2002 compared to 2001. While intra-European traffic was down 4.5 %, North Atlantic routes lost 7.6 %. In contrast, traffic with Africa and the Far East gained 0.7 % and 0.2 % respectively.

⁽²⁹⁾ Share in total passenger transport by passenger cars, powered two-wheelers, buses and coaches, trams and metros, railways and air transport.

⁽³⁰⁾ The EU members of AEA are Aer Lingus (IRL), Air France (F), Alitalia (I), Austrian Airlines (A), British Airways (UK), British Midland Airways (UK), Cargolux Airlines (L), Finnair (FIN), Iberia (E), KLM (NL), Lufthansa (D), Luxair (L), Olympic (EL), Sabena (B), SAS (DK, S, NO), Spanair (E) and TAP-Air Portugal (P).

⁽³¹⁾ Revenue passenger km: one fare-paying passenger transported one kilometre, counted on a point-to-point basis; RPKs are computed by multiplying the number of revenue passengers by the kilometres they have flown.

Table 20.16

Top EU airports by number of passengers arriving, departing and in transit (million passengers)

		1970	1980	1990	2000	2001
London Heathrow	UK	15.6	27.5	43.0	64.6	60.7
Frankfurt Rhein-Main	D	9.4	17.6	29.4	49.4	48.6
Paris Ch. de Gaulle	F	2.2	10.1	22.5	48.2	48.0
Amsterdam Schiphol	NL	5.2	9.4	16.5	39.6	39.5
Madrid Barajas	E	4.8	10.1	16.2	32.9	34.0
London Gatwick	UK	3.7	9.7	21.2	32.1	31.2
Roma Fiumicino	I	6.5	11.4	17.7	26.3	25.6
München F.J. Strauss	D	3.6	6.0	11.4	23.1	23.6
Paris Orly	F	10.4	15.7	24.3	25.4	23.0
Barcelona Transoceanico	E	4.0	5.8	9.0	19.8	20.7
Bruxelles National	B	2.8	5.1	7.1	21.6	19.7
Manchester Ringway Intl	UK	1.9	4.3	10.1	18.8	19.6
Palma de Mallorca	E	4.8	7.3	11.3	19.4	19.2
Milano Malpensa	I	:	:	:	20.7	18.6
Stockholm Arlanda	S	2.6	4.3	14.0	18.4	18.3
København Kastrup	DK	6.5	8.6	12.1	18.3	18.0
Düsseldorf Rhein-Ruhr	D	3.6	7.2	11.9	16.0	15.4
Dublin Collinstown	IRL	1.9	2.6	5.5	13.8	14.3
London Stansted	UK	:	:	:	11.9	13.7
Athina E.V.	EL	:	:	:	13.5	12.7

Source: ACI; ICAO.

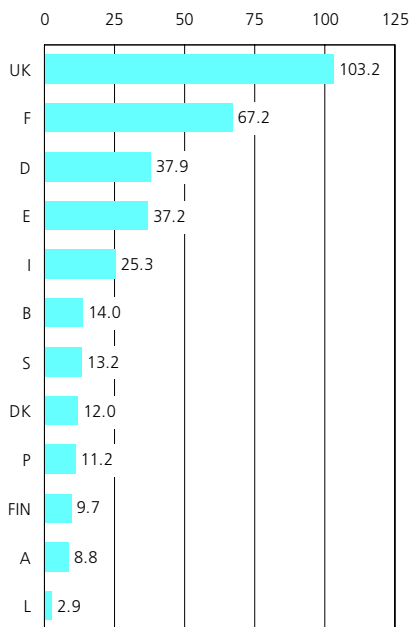
Table 20.17

Top twenty EU airports by cargo loaded and unloaded and mail (thousand tonnes)

		1995	2000	2001
Frankfurt Rhein-Main	D	1 297	1 710	1 613
Paris Ch. de Gaulle	F	824	1 610	1 592
London Heathrow	UK	1 043	1 402	1 264
Amsterdam Schiphol	NL	978	1 267	1 234
Bruxelles National	B	427	687	584
Luxembourg Findel	L	286	501	510
Köln/Bonn	D	276	442	458
København Kastrup	DK	310	419	379
Madrid Barajas	E	230	338	331
London Gatwick	UK	232	338	295
Milano Malpensa	I	126	301	289
Liège Bierset	B	8	270	273
East Midlands	UK	83	194	209
Roma Fiumicino	I	257	201	186
London Stansted	UK	93	183	183
München F.J. Strauss	D	65	148	146
Stockholm Arlanda	S	104	154	145
Dublin Collinstown	IRL	60	120	140
Wien Schwechat	A	93	135	120
Paris Orly	F	276	121	114

Source: ACI.

Figure 20.14
Air transport (NACE Division 62)
Number of persons employed, 2000
(thousands) (1)



(1) EL, IRL and NL, not available.
 Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

It should, however, be noted that outside of the mainstream airlines, so-called no-frills carriers have shown substantial growth throughout the period. For example, Ryanair (Ireland), the largest player in the subsector, reported a 41.5 % increase in its number of passengers carried in 2002, with an 85 % load factor. Internet plays a vital role for this enterprise, as 91 % of its tickets sold in 2002 were bought on-line. AEA estimate that the available capacity in terms of seats offered by the six main no-frills carriers (Ryanair, VirginExpress, Easyjet, Go, Buzz and bmibaby) increased by 48.3 % between mid-2001 and mid-2002.

Table 20.18
Employment in major European airlines, 2001

Airline	Country	Number of employees
SAS	DK	25 488
Lufthansa	D	39 272
Olympic Airways	EL	5 325
Iberia	E	28 320
Spanair	E	2 750
Air France	F	64 717
Aer Lingus	IRL	4 500
Alitalia	I	22 446
Meridiana	I	1 344
Cargolux Airlines Intl	L	1 411
Luxair	L	2 120
KLM	NL	27 573
Austrian Airlines	A	7 752
TAP Air Portugal	P	8 203
Finnair	FIN	8 893
British Airways	UK	62 175
BMI British Midland	UK	5 693

Source: AEA.

Members of AEA reported a 6.6 % decline of freight flown in 2001, as volumes were reduced to 27.5 billion tonne-km. It should be noted that only 2.5 % of freight flown was transported on European routes ⁽³²⁾. The total revenue load factor on all routes (the percentage of total capacity available for freight and mail which was actually sold and utilised) decreased from 68.2 % in 2000 to 65.1 % in 2001.

⁽³²⁾ Including all scheduled international routes originating and terminating within the region comprising geographical Europe and European Russia up to the Urals (longitude 55°E), including Iceland, Turkey, the Azores, the Canary Islands, Madeira and Cyprus.

Supply in the EU airline market may appear fragmented, especially when compared to the United States, where the world's largest airlines are based. In spite of a progressive liberalisation and privatisation policy for European skies, true cross-border mergers of major airlines remain to be realised. Most countries still see air transport as a strategic issue and are not inclined to leave the control of their national carrier in foreign hands. For example, the bankruptcy of Sabena in Belgium and Swissair in Switzerland was followed almost seamlessly by the emergence of replacement, albeit smaller, national carriers.

Instead, the constitution of alliances between airlines is more often used as an alternative. All main EU airlines are part of large alliances, whereby members agree to link their networks via cooperative arrangements. This is notably done through code-sharing, which allows one member airline to sell tickets under its own name for travel that occurs on another airline's network. The main global alliances include Star Alliance, One World, Sky Team, Privilege (formerly Qualiflyer) and an alliance between KLM and Northwest Airlines.

The largest airport in the EU was London Heathrow, with 60.7 million passengers in 2001. This was down 6.0 % compared to 2000, the largest fall among the main airports in the EU. Frankfurt (48.6 million passengers) and Paris Charles de Gaulle (48.0 million passengers) reported moderate declines of 1.6 % and 0.5 % respectively in 2001. As regards freight traffic, the largest EU airports were Frankfurt and Paris Charles de Gaulle, both with 1.6 million tonnes of loaded and unloaded freight and mail in 2001. London Heathrow followed with 1.3 million tonnes. While traffic decreased by more than 5.0 % in Frankfurt and Heathrow (-5.7 % and -9.9 % respectively), Paris Charles de Gaulle resisted the trend with a reduction of 1.2 %.

LABOUR AND PRODUCTIVITY

Air transport was a relatively small subsector within the EU's labour market. Total employment in the air transport services' subsector (NACE Division 62) was estimated at 387 100 persons in 2000, which represented just over one half of 1 percent of the services' (NACE Sections G to K) workforce, and 6.1 % of transport services' employment.

Employment in the EU's air transport subsector grew rapidly in most Member States during the second half of the 1990s, at rates that were often greater than value added gains. This was, for example, the case in France, where employment grew by 3.1 % per annum between 1996 and 2000, while value added increased by only 1.9 % per annum over the same period and in Italy (6.5 % for employment and – 3.5 % for value added). Between 1995 and 2000 there was 6.8 % growth in employment in Austria, while value added rose by 4.1 % and the corresponding figures in Finland were 6.2 % and 5.5 %. One notable characteristic of the labour force in the air transport subsector is the predominance of paid employees. Unpaid persons employed were extremely rare, as 99.6 % of the persons employed in this subsector in 2000 were employees⁽³³⁾, a share that was never below 99.0 % in any of the Member States.

⁽³³⁾ EL, IRL and NL, not available.

Air transport was the most balanced subsector within transport services in terms of the gender of the workforce, as women represented 36.7 % of total employment in air transport services in the EU in 2001. Although this was higher than the average for transport services (20.4 %), it was still below the services' average of 43.5 % (NACE Sections G to K). Some 86.3 % of the EU's air transport workforce were in full-time employment, which was the lowest share within the transport services' subsector in 2001.

Apparent labour productivity was relatively high in the air transport subsector. The average amount of value added generated by each person employed in the EU reached an estimated EUR 69 700 in 2000, which was more than 50 % above the transport services' average (EUR 45 300). Average personnel costs were equally high, at EUR 51 400 per employee in the EU in 2000⁽³⁴⁾. They were highest in Germany (EUR 61 100 per employee), Luxembourg (EUR 59 200) and Sweden (EUR 57 100), while Belgium (EUR 46 300), Finland EUR 43 200, Spain (EUR 45 000) and Portugal (EUR 39 200) reported the lowest levels.

⁽³⁴⁾ EL, IRL and NL, not available.

Combining the above two ratios to calculate wage adjusted labour productivity shows that value added was equivalent to 178 % of personnel costs in the EU in 2000⁽³⁵⁾. This productivity ratio exceeded 200 % in Luxembourg (207 %), the United Kingdom (225 %) and Germany (344 %, 1999), while Portugal (113 %) and France (103 %) were at the low end of the range. However, Italy (90 %) and Belgium (75 %) both reported that value added did not cover personnel costs⁽³⁶⁾.

⁽³⁵⁾ D, 1999; EL, IRL and NL, not available.

⁽³⁶⁾ Sabena, Belgium's national carrier went bankrupt in 2002.

20.5: AUXILIARY TRANSPORT ACTIVITIES

This subchapter includes information on all auxiliary transport services, cargo handling and storage, other supporting transport activities and transport agencies (other than travel agencies), as covered by NACE Groups 63.1, 63.2 and 63.4.

Some information concerning the size and use of road, air, railway and water transport infrastructure has been provided in the previous subchapters (20.1 to 20.4) to complement the SBS data for each mode of transport. However, NACE regroups the operation of transport infrastructure within supporting transport activities (NACE Group 63.2). Official SBS data are provided for this activity within this subchapter.

STRUCTURAL PROFILE

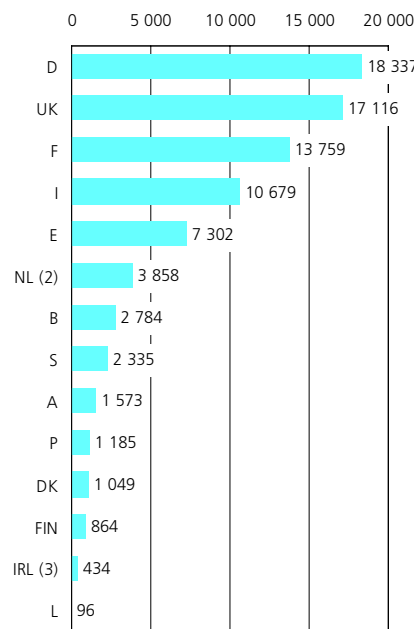
The value added generated by auxiliary transport activities (excluding travel agencies) in the EU (NACE Groups 63.1, 63.2 and 63.4) was EUR 81.4 billion in 2000, up 8.3 % compared to one year before (37). These activities accounted in most countries for between one quarter and one third of the total value added created in the transport services' sector, with an EU average of 29.6 % (38). Only Austria (19.1 %), Finland (16.6 %) and Denmark (15.1 %) recorded considerably lower shares.

Germany and the United Kingdom dominated the activity, with value added of EUR 18.3 billion and EUR 17.1 billion in 2000 respectively, while France (EUR 13.8 billion) and Italy (EUR 10.7 billion) had lower levels of activity in this subsector. Among the smaller Member States, the Netherlands (EUR 3.9 billion, 1999) and Belgium (EUR 2.8 billion) were relatively specialised in auxiliary transport activities, probably due to their geographical situation and the presence of large sea and inland ports on their territories.

(37) NL, 1999; IRL, 1998; EL, not available; growth rate excluding NL and IRL.

(38) EL, IRL, L and NL, not available.

Figure 20.15 Cargo handling and storage; other supporting transport activities; activities of other transport agencies (NACE Groups 63.1, 63.2 and 63.4) Value added, 2000 (million EUR) (1)



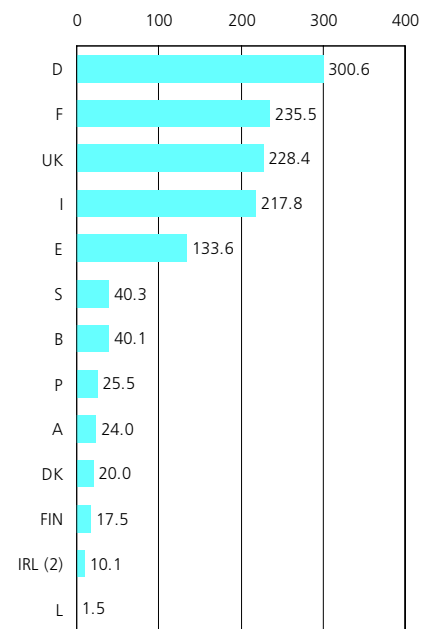
(1) EL, not available.

(2) 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 20.16 Cargo handling and storage; other supporting transport activities; activities of other transport agencies (NACE Groups 63.1, 63.2 and 63.4) Number of persons employed, 2000 (thousands) (1)



(1) EL and NL, not available.

(2) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 20.19

**Cargo handling and storage; other supporting transport activities; activities of other transport agencies
(NACE Groups 63.1, 63.2 and 63.4)
Main indicators, growth rates (%)**

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	4.7	2.6	10.7	-2.5	26.4	1.7	-1.3	3.7	7.8	1.2	1.7	4.2	2.6	29.5	-8.9
DK	:	:	:	:	-4.1	:	:	:	:	-48.7	:	:	:	:	-20.8
D	:	:	6.4	4.2	-10.5	:	:	:	:	12.1	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	:	17.9	:	:	:	:	8.0	:	:	:	:	5.5
F	:	8.9	12.2	5.2	13.6	:	-11.5	13.8	30.4	7.0	:	3.2	6.5	5.0	10.3
IRL	:	24.0	18.9	:	:	:	29.2	9.2	:	:	:	12.7	11.8	:	:
I	6.6	2.8	9.7	13.5	15.8	13.0	-4.2	4.7	13.3	15.7	0.9	2.4	10.3	6.9	11.7
L	-0.6	1.4	32.8	-0.7	37.0	-8.2	0.4	18.7	0.6	48.2	-3.5	12.4	-5.2	4.8	20.6
NL	1.1	5.7	6.7	12.2	:	0.4	10.8	7.5	4.1	:	0.3	1.7	:	:	:
A	:	:	1.7	7.9	15.4	:	:	1.5	2.0	12.7	:	:	1.3	2.6	1.5
P	:	3.6	13.0	3.2	4.9	:	7.7	14.7	2.9	17.4	:	-4.0	10.8	10.5	4.7
FIN	1.5	10.9	5.6	-0.5	0.9	-4.3	10.2	18.4	-3.1	-2.4	-1.4	5.2	12.1	2.5	-2.8
S	3.8	21.2	-7.3	9.7	15.5	14.2	51.7	-1.1	4.1	15.6	:	:	-1.0	3.1	5.7
UK	:	25.6	8.9	18.1	10.9	:	:	3.1	44.8	8.2	:	:	:	18.6	4.4

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

LABOUR AND PRODUCTIVITY

Auxiliary transport activities (excluding travel agencies) were an important employer within the EU's transport services' sector, with 1.3 million persons employed in 2000⁽³⁹⁾. This subsector has also experienced vigorous job creation in recent years. For example, among those countries that reported fairly lengthy time-series⁽⁴⁰⁾, several posted employment growth in excess of 5.0 % per annum in the second half of the 1990s, and none reported a net decline. Between 1995 and 2000, the fastest increase of employment was reported in Italy (average growth of 6.4 % per annum) and Luxembourg (7.0 % per annum), while the United Kingdom reported growth of 11.3 % per annum between 1997 and 2000.

⁽³⁹⁾ IRL, 1998; EL and NL, not available.

⁽⁴⁰⁾ DK, D, EL, E, IRL and NL, not available.

Apparent labour productivity for auxiliary transport services (excluding travel agencies) was generally higher than for transport services as a whole, with EUR 59 900 of value added generated by each person employed in 2000⁽⁴¹⁾. The same was true for average personnel costs, which were equal to EUR 33 500 per employee⁽⁴²⁾ in the EU in 2000, ranging between EUR 25 300 per employee in Portugal and EUR 49 300 in Luxembourg.

As a result, the wage adjusted labour productivity ratio in the EU was 179 %⁽⁴³⁾. The ratio was generally above 140 % in the majority of Member States, and remained well above 100 % in those countries where this threshold was not attained, for example Sweden (134 %) and Luxembourg (128 %).

⁽⁴¹⁾ IRL, 1998; EL and NL, not available.

⁽⁴²⁾ IRL, 1998; EL and NL, not available.

⁽⁴³⁾ IRL, 1998; EL and NL, not available.

Table 20.20

Land transport; transport via pipelines (NACE Division 60)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	9 621	11 932	54 231	:	197 384	78 115	3 200	135 694	645	13 995	9 151	17 174	20 913	25 122	46 464
Turnover (million EUR)	11 050	6 210	46 212	:	27 926	55 840	1 469	42 419	1 015	17 905	9 046	3 824	5 689	13 164	55 560
Number of persons employed (thousands)	134	71	608	:	495	686	24	580	11	206	138	90	72	127	571
Value added (million EUR)	6 157	3 039	23 481	:	14 104	26 088	639	18 538	521	8 401	5 806	1 627	2 958	4 831	25 059
Purchases of goods and services (million EUR)	6 962	3 301	25 864	:	16 210	29 523	837	29 246	651	10 440	4 748	2 270	2 859	8 926	31 618
Personnel costs (million EUR)	4 574	1 945	16 459	:	6 882	21 571	462	13 033	408	5 939	4 328	1 308	1 753	3 723	15 925
Gross investment in tangible goods (million EUR)	2 479	805	6 700	:	3 238	6 169	210	3 339	:	1 224	2 740	1 110	749	1 561	4 400
App. labour productivity (thous. EUR/pers. emp.)	45.9	42.9	38.6	:	28.5	38.0	26.6	32.0	48.8	40.8	41.9	18.0	41.2	38.0	43.9
Wage adjusted labour productivity (%)	124.2	134.7	124.8	:	129.5	112.2	120.8	100.6	122.6	129.9	126.6	110.4	128.1	117.2	145.2
Gross operating rate (%)	14.3	17.6	15.2	:	25.9	8.1	12.1	13.0	11.1	13.7	16.3	8.3	21.2	8.4	16.4

(1) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 20.21

Land transport; transport via pipelines (NACE Division 60)
Main indicators, 2000

	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI (1)	TR
Number of enterprises (units)	46 167	:	54 083	1 292	1 908	1 340	4 604	:	:	9 864	553	10 241	:
Turnover (million EUR)	1 323	:	5 054	492	2 922	533	691	:	:	2 384	862	972	:
Number of persons employed (thousands)	114	:	224	22	128	39	54	:	:	232	75	:	:
Value added (million EUR)	405	:	1 136	125	1 301	256	255	:	:	1 211	403	363	:
Purchases of goods and services (million EUR)	1 065	:	4 108	355	1 510	303	448	:	:	1 636	549	619	:
Personnel costs (million EUR)	227	:	1 176	96	714	151	173	:	:	605	378	311	:
Gross investment in tangible goods (million EUR)	186	:	875	46	547	147	65	:	:	492	166	110	:
App. labour productivity (thous. EUR/pers. emp.)	3.5	:	5.1	5.6	10.2	6.6	4.7	:	:	5.2	5.4	:	:
Wage adjusted labour productivity (%)	97.8	:	81.9	127.1	181.7	169.2	138.3	:	:	191.4	106.5	:	:
Gross operating rate (%)	13.4	:	-0.8	5.9	20.1	19.7	11.9	:	:	25.4	2.9	5.4	:

(1) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_cc).

Table 20.22

Other land transport (NACE Group 60.2)
Main indicators, 2000

	B	DK (1)	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	9 608	11 911	54 097	:	197 377	78 052	:	135 533	644	13 970	9 135	17 171	20 909	25 084	46 325
Turnover (million EUR)	9 244	5 755	34 029	:	26 362	:	:	36 149	756	16 236	7 250	3 607	4 964	11 840	46 587
Number of persons employed (thousands)	92	71	517	:	456	:	:	450	8	:	86	84	62	115	522
Value added (million EUR)	3 896	3 267	19 246	:	11 728	:	:	13 687	334	7 758	3 463	1 555	2 482	4 021	21 601
Purchases of goods and services (million EUR)	6 034	2 786	16 743	:	15 318	:	:	24 975	490	9 559	3 927	2 126	2 564	8 135	24 502
Personnel costs (million EUR)	2 772	1 995	12 422	:	5 608	:	:	7 851	235	5 508	2 251	1 150	1 383	3 274	13 724
Gross investment in tangible goods (million EUR)	1 059	702	5 059	:	2 588	:	:	2 994	:	1 189	1 316	1 007	640	1 461	4 089
App. labour productivity (thous. EUR/pers. emp.)	42.4	46.1	37.3	:	25.7	:	:	30.4	44.3	:	40.4	18.5	40.0	35.0	41.4
Wage adjusted labour productivity (%)	124.8	141.3	132.3	:	125.5	:	:	108.6	134.1	:	139.9	118.9	129.4	109.6	144.2
Gross operating rate (%)	12.2	22.1	20.1	:	23.2	:	:	16.1	13.1	13.9	16.7	11.2	22.1	6.3	16.9

(1) All except number of enterprises, 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 20.23

Water transport (NACE Division 61)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	327	457	1 822	:	187	1 930	:	1 398	:	4 360	66	101	313	837	1 235
Turnover (million EUR)	1 407	12 478	9 800	:	1 197	5 549	:	5 239	:	5 199	90	362	2 227	3 762	6 954
Number of persons employed (thousands)	1	11	20	:	7	16	:	20	:	14	0	2	8	15	18
Value added (million EUR)	137	1 928	2 711	:	404	814	:	1 582	:	1 561	18	82	588	918	2 724
Purchases of goods and services (million EUR)	1 267	10 759	7 325	:	844	4 766	:	4 024	:	3 461	72	290	1 661	2 923	4 285
Personnel costs (million EUR)	44	447	743	:	200	617	:	731	:	527	11	37	343	584	939
Gross investment in tangible goods (million EUR)	21	775	224	:	235	316	:	1 197	:	728	25	14	64	298	324
App. labour productivity (thous. EUR/pers. emp.)	98.7	179.2	135.0	:	56.6	51.1	:	78.2	:	113.1	67.1	46.0	69.7	59.4	155.6
Wage adjusted labour productivity (%)	218.9	424.8	330.1	:	200.4	121.9	:	197.8	:	267.4	154.9	218.2	170.1	152.8	276.3
Gross operating rate (%)	6.6	11.9	20.1	:	17.0	3.5	:	16.3	:	19.9	8.8	12.5	11.0	8.9	25.7

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 20.24

Water transport (NACE Division 61)
Main indicators, 2000

	BG	CY	CZ	EE (1)	HU	LV	LT	MT	PL (2)	RO	SK (2)	SI (3)	TR
Number of enterprises (units)	59	:	95	17	22	16	20	:	236	135	3	64	:
Turnover (million EUR)	:	:	35	268	44	6	84	:	549	149	23	17	:
Number of persons employed (thousands)	6	:	2	:	2	0	2	:	7	7	:	:	:
Value added (million EUR)	:	:	8	42	10	2	42	:	92	21	10	3	:
Purchases of goods and services (million EUR)	:	:	29	224	12	4	45	:	499	133	14	17	:
Personnel costs (million EUR)	16	:	9	38	11	2	28	:	73	16	9	3	:
Gross investment in tangible goods (million EUR)	2	:	2	3	3	4	16	:	17	22	1	0	:
App. labour productivity (thous. EUR/pers. emp.)	:	:	4.8	:	5.0	4.9	18.1	:	14.1	3.2	:	:	:
Wage adjusted labour productivity (%)	:	:	90.2	:	93.4	82.0	151.1	:	138.7	123.4	:	:	:
Gross operating rate (%) (4)	:	:	:	1.7	2.9	-6.4	17.0	:	3.5	3.4	6.0	0.6	:

(1) All except number of enterprises, 1999.

(2) 1998.

(3) 1999.

(4) HU, 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_cc).

Table 20.25

Air transport (NACE Division 62)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	119	99	270	:	51	531	:	196	12	170	79	23	61	175	934
Turnover (million EUR)	4 200	2 388	7 397	:	6 449	14 926	:	10 972	1 113	:	2 304	1 429	1 654	3 200	29 385
Number of persons employed (thousands)	14	12	38	:	37	67	:	25	3	:	9	11	10	13	103
Value added (million EUR)	489	736	81	:	2 235	3 784	:	1 266	352	:	506	497	624	953	11 535
Purchases of goods and services (million EUR)	3 710	1 779	8 782	:	4 441	11 128	:	9 749	756	:	1 797	996	1 076	2 265	17 263
Personnel costs (million EUR)	644	583	2 298	:	1 671	3 676	:	1 390	170	:	418	440	419	750	5 095
Gross investment in tangible goods (million EUR)	404	485	1 654	:	596	1 654	:	957	:	579	520	149	179	530	3 466
App. labour productivity (thous. EUR/pers. emp.)	34.9	61.5	2.1	:	60.2	56.3	:	50.0	122.3	:	57.7	44.3	64.2	72.1	111.8
Wage adjusted labour productivity (%)	75.3	126.1	3.5	:	133.7	102.9	:	90.3	206.7	:	120.5	112.9	148.8	126.3	225.3
Gross operating rate (%)	-3.7	6.4	-30.0	:	8.7	0.7	:	-1.1	16.3	:	3.8	4.0	12.4	6.3	21.9

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 20.26

Air transport (NACE Division 62)
Main indicators, 2000

	BG	CY	CZ (1)	EE (2)	HU	LV	LT	MT	PL	RO (3)	SK (1)	SI (1)	TR
Number of enterprises (units)	83	:	40	6	11	13	14	:	:	17	4	32	:
Turnover (million EUR)	:	:	:	58	444	60	72	:	:	161	18	95	:
Number of persons employed (thousands)	4	:	:	:	3	1	1	:	:	4	0	:	:
Value added (million EUR)	:	:	:	6	38	11	8	:	:	24	2	24	:
Purchases of goods and services (million EUR)	:	:	:	51	385	43	64	:	:	139	16	60	:
Personnel costs (million EUR)	19	:	:	6	45	5	12	:	:	21	1	19	:
Gross investment in tangible goods (million EUR)	10	:	:	2	27	6	2	:	:	65	1	2	:
App. labour productivity (thous. EUR/pers. emp.)	:	:	:	:	11.1	19.7	5.7	:	:	5.8	14.9	:	:
Wage adjusted labour productivity (%)	:	:	:	:	84.7	215.3	65.1	:	:	108.5	171.4	:	:
Gross operating rate (%)	:	:	:	-0.9	-1.5	10.3	-5.8	:	:	1.9	5.4	4.9	:

(1) 1999.

(2) All except number of enterprises, 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_cc).

Table 20.27

Supporting and auxiliary transport activities; activities of travel agencies (NACE Division 63)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	3 469	1 884	17 463	:	18 345	10 774	844	24 574	222	6 060	2 257	2 395	1 890	4 681	16 617
Turnover (million EUR) (2)	16 565	6 828	68 387	:	32 549	53 314	2 689	40 803	547	8 884	10 774	4 819	4 429	14 900	92 882
Number of persons employed (thousands) (3)	49	26	380	:	175	278	13	258	2	80	34	33	23	54	356
Value added (million EUR) (2)	3 066	1 250	23 827	:	8 433	15 405	522	11 984	136	4 302	1 924	1 338	1 039	2 793	22 428
Purchases of goods and services (million EUR) (2)	13 695	5 646	46 297	:	23 759	38 939	2 169	29 420	419	5 427	8 860	3 571	3 437	12 328	70 111
Personnel costs (million EUR) (2)	1 896	887	11 927	:	4 263	9 246	286	6 577	91	2 370	1 286	737	733	2 108	11 317
Gross investment in tangible goods (million EUR)	996	300	3 677	:	2 157	4 970	162	1 797	:	1 883	310	1 252	217	882	7 940
App. labour productivity (thous. EUR/pers. emp.)	62.7	48.7	62.6	:	48.2	55.4	38.8	46.4	62.5	:	56.0	40.6	45.6	51.6	62.9
Wage adjusted labour productivity (%)	149.0	138.6	187.0	:	186.7	166.0	172.6	158.5	144.3	:	143.4	175.2	139.1	127.0	192.0
Gross operating rate (%) (2)	7.1	5.3	17.4	:	12.8	11.6	8.8	13.3	8.2	21.8	5.9	12.5	6.9	4.6	12.0

(1) 1998. (2) NL, 1998. (3) NL, 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 20.28

Supporting and auxiliary transport activities; activities of travel agencies (NACE Division 63)
Main indicators, 2000

	BG	CY	CZ	EE	HU	LV	LT	MT	PL (1)	RO	SK	SI (2)	TR
Number of enterprises (units)	4 959	:	7 119	741	682	1 114	936	:	10 891	1 904	570	1 452	:
Turnover (million EUR)	485	:	3 153	1 118	1 321	954	480	:	3 062	940	484	795	:
Number of persons employed (thousands)	48	:	32	10	19	15	12	:	78	39	7	:	:
Value added (million EUR)	117	:	433	261	228	350	152	:	1 093	352	85	210	:
Purchases of goods and services (million EUR)	410	:	2 733	858	833	626	326	:	2 057	618	393	522	:
Personnel costs (million EUR)	97	:	189	78	119	98	70	:	467	169	44	156	:
Gross investment in tangible goods (million EUR)	51	:	100	70	60	155	60	:	205	204	20	74	:
App. labour productivity (thous. EUR/pers. emp.)	2.4	:	13.4	25.1	11.9	23.5	12.3	:	13.9	8.9	11.9	:	:
Wage adjusted labour productivity (%)	117.2	:	184.2	326.9	190.3	358.4	212.4	:	189.6	187.0	189.5	:	:
Gross operating rate (%)	4.3	:	7.7	16.4	8.2	26.5	17.1	:	20.5	19.5	8.4	6.8	:

(1) 1998. (2) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_cc).

Table 20.29

Cargo handling and storage; other supporting transport activities; activities of other transport agencies (NACE Groups 63.1, 63.2 and 63.4)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL (2)	A	P	FIN	S	UK
Number of enterprises (units)	2 137	1 320	10 066	:	12 448	6 471	540	15 672	111	3 815	1 003	1 417	1 145	2 454	10 062
Turnover (million EUR)	12 019	4 642	48 945	:	21 691	42 019	1 565	30 120	320	6 327	7 559	2 904	3 368	10 520	41 894
Number of persons employed (thousands)	40	20	301	:	134	236	10	218	2	:	24	25	17	40	228
Value added (million EUR)	2 784	1 049	18 337	:	7 302	13 759	434	10 679	96	3 858	1 573	1 185	864	2 335	17 116
Purchases of goods and services (million EUR)	9 429	3 642	31 953	:	13 987	29 120	1 133	20 017	233	2 946	5 998	1 802	2 529	8 351	24 462
Personnel costs (million EUR)	1 665	707	9 826	:	3 495	7 846	231	5 749	73	1 985	1 005	629	591	1 693	7 859
Gross investment in tangible goods (million EUR)	928	288	3 470	:	2 055	4 812	155	1 720	:	1 815	247	1 209	205	839	7 239
App. labour productivity (thous. EUR/pers. emp.)	69.4	52.6	61.0	:	54.6	58.4	42.8	49.0	63.2	:	65.6	46.5	49.4	58.0	74.9
Wage adjusted labour productivity (%)	157.1	146.0	175.7	:	198.7	174.7	178.7	166.5	128.1	:	152.6	184.0	144.2	134.4	212.2
Gross operating rate (%)	9.3	7.4	17.4	:	17.6	14.1	13.0	16.4	6.9	29.6	7.5	19.2	8.1	6.1	22.1

(1) 1998. (2) All except number of enterprises and investment, 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Financial services



The financial services' sector has experienced a rapid evolution in recent years, fuelled both by regulatory and technological change. What used to be a sector largely confined between national boundaries has been transformed by the completion of a single market for financial services, and furthermore by the introduction of the euro as the common currency for 12 of the Member States. Rapid changes in the financial services' legal environment during the past two decades have resulted, for example, in the abolition of exchange controls, as well as the progressive removal of legal and administrative barriers, allowing acquisitions, mergers and the direct provision of services to take place both within domestic markets and across borders. At the same time, technological advances have had a significant impact on this sector that has been at the forefront of IT usage. The increasing penetration of ICT equipment within households and the development of Internet access further affects the way financial services are provided. For example, home banking is becoming increasingly popular, as is the direct sale of insurance contracts or on-line stock exchange trading.

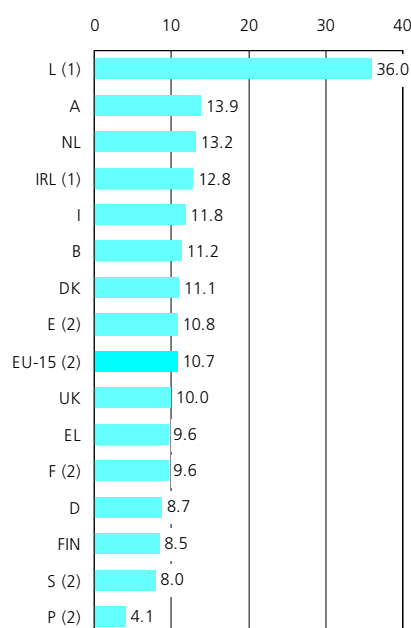
STRUCTURAL PROFILE

Financial services (NACE Section J) constitute a sizeable part of the EU's economy. They are estimated to have generated some EUR 398 billion of value added in 2000 ⁽¹⁾. In relative terms, this represented 14.8 % of the total for services (NACE Section G to K) in the EU and 8.5 % of the business economy (NACE Sections C to K). Furthermore, according to estimates based on national accounts, the EU financial services' branch employed some 5.3 million persons in 2000 ⁽²⁾, about 8.5 % of the total services' workforce (NACE Sections G to K) or 5.1 % of that for the business economy.

⁽¹⁾ E, F, P and S, 1999.

⁽²⁾ E, F and P, 1999; S, 1998.

Figure 21.1
Financial intermediation (NACE Section J)
Share of services value added, 2001 (%)



(1) 2000.

(2) 1999.

Source: Eurostat, National Accounts - Breakdowns by branch of activity (theme2/brkdowns).

The financial services' sector encompasses financial intermediation as offered by credit institutions, investment funds, leasing enterprises (NACE Division 65), insurance and pension funding services (NACE Division 66), as well as activities providing financial auxiliary services, such as the administration of financial markets, security brokering or fund management (NACE Division 67).

NACE

- 65: financial intermediation, except insurance and pension funding;
- 65.1: monetary intermediation;
- 65.2: other financial intermediation;
- 66: insurance and pension funding, except compulsory social security;
- 67: activities auxiliary to financial intermediation;
- 67.1: activities auxiliary to financial intermediation, except insurance and pension funding;
- 67.2: activities auxiliary to insurance and pension funding.

Germany contributed most to wealth creation in this branch, with EUR 85.8 billion of value added, ahead of the United Kingdom (EUR 75.1 billion). Italy's value added in financial services (EUR 67.2 billion) surpassed that of France (EUR 57.1 billion, 1999).

Looking at the weight of financial services within the individual Member States, Luxembourg stood out as the country where financial services were most important, as they accounted for 22.8 % of Luxembourg's value added in 2000, more than four times the average in the EU (5.1 %, 1999). Austria (6.6 %, 2001), the Netherlands (6.4 %, 2001) and Italy (5.9 %, 2001) also displayed a relatively high level of activity in financial services. Sweden (3.7 %, 1999), Finland (3.6 %, 2001) and Portugal (1.6 %, 1999), in contrast, had relatively small financial services' branches by this measure. It is also notable that both France (4.6 %, 1999) and Germany (4.2 %, 2001) reported shares that were below average.

Financial services boasted steady growth in all Member States in the second half of the 1990s, with EU value added rising from EUR 331 billion in 1995 to EUR 381 billion in 1999, equivalent to an average annual increase of 3.6 % (in current prices). Available data for reporting countries⁽³⁾ suggest a general continuation of this trend in 2000, with the notable exception of Germany where value added was reduced by 5.9 % from EUR 91.2 billion to EUR 85.8 billion. In 2001 there was a marked reversal in activity, as financial services reported decreasing value added in the majority of countries⁽⁴⁾. Germany again suffered from the largest loss (–5.4 %) among the Member States, with significant reductions also registered in Belgium (–4.6 %) and Greece (–2.9 %). Two countries resisted this trend and reported large gains: the Netherlands (5.8 %) and Denmark (6.6 %).

⁽³⁾ E, F, P and S, not available.

⁽⁴⁾ E, F, IRL, L, P and S, not available.

LABOUR AND PRODUCTIVITY

The LFS shows that women were well represented in the financial services' workforce, accounting for almost half (48.7 %) of those employed in the EU in 2001. Banking and financial intermediation (NACE Division 65) had an almost balanced workforce (49.5 % were women), while women were somewhat less present in insurance and pension funding (48.3 %, NACE Division 66) or financial auxiliaries (46.0 %, NACE Division 67).

Employees constituted 92.8 % of the financial services' workforce in 2001, the highest proportion of all service activities (at the level of NACE sections), while only 7.0 % of those employed were self-employed. Unsurprisingly, the workforce of the banking and financial intermediation subsector was almost exclusively composed of employees (97.9 %). In contrast, self-employment was relatively frequent in the insurance and pension funding (13.1 %) and financial auxiliary subsectors (18.4 %).

Part-time work was not particularly widespread among the financial services' workforce. Only 13.7 % of those employed in 2001 did not work full time, a relatively low figure compared to the average for service activities (19.8 % for NACE Sections G to K).

Financial services numbered among the most labour productive service activities. Apparent labour productivity reached an estimated EUR 75 000 value added per person employed in 2000, 75 % above the average for services (EUR 42 900) and 66 % above the average for the business economy as a whole (NACE Sections C to K).

Table 21.1
Financial intermediation (NACE Section J)
Labour force characteristics (% of total employment)

	Female		Part-time		Self-employed	
	1996	2001	1996	2001 (1)	1996	2001
EU-15	47.7	48.7	11.7	13.7	6.4	7.0
B	42.8	47.7	12.9	13.6	10.5	8.6
DK	50.8	52.0	12.7	13.7	:	:
D	51.4	51.9	14.1	16.8	8.8	9.7
EL	45.1	48.0	:	3.8	5.2	9.7
E	31.1	38.5	4.0	4.1	5.7	6.4
F	53.0	53.5	9.8	11.6	4.2	3.8
IRL	55.7	57.1	7.3	11.4	:	4.5
I	34.5	37.9	4.7	7.7	12.0	14.3
L	47.1	39.7	5.6	9.0	:	:
NL	44.2	43.9	23.4	28.7	4.4	3.7
A	49.8	49.1	13.6	17.5	2.3	4.5
P	34.2	36.8	:	:	:	:
FIN	75.7	65.8	9.7	5.5	:	:
S	54.2	54.4	21.2	11.2	:	:
UK	53.5	51.7	15.4	16.2	3.5	3.9

(1) EL, 1999.

Source: Eurostat, Labour Force Survey.

21.1: FINANCIAL INTERMEDIATION

The activities covered by this subchapter include financial intermediation activities classified within NACE Division 65, whether they are monetary (NACE Group 65.1) or not (NACE Group 65.2). Particular attention is given to credit institutions classified within NACE Class 65.12 (monetary intermediation other than central banking) and Class 65.22 (credit granting other than financial leasing). Note that not all enterprises covered by NACE Class 65.22 are credit institutions.

The main role of financial intermediation services consists of accepting deposits and converting them into loans and credits. From the methodological point of view, the term credit institutions is generally used to describe enterprises engaged in monetary intermediation other than central banking (NACE Class 65.12). It is, however, important to note that for some countries (5) data also include the activity of credit granting other than financial leasing (NACE Class 65.22).

STRUCTURAL PROFILE

According to the Credstat database, there were 7 972 credit institutions in the EU in 2000. Almost half of these were either German (2 792 enterprises) or French (1 097 enterprises). Credit institutions may be broken down into three categories: licensed banks, specialised credit granting institutions and other credit institutions. In most countries, more than 9 out of 10 credit institutions were licensed banks, although specialised credit granting institutions were considerably more important than the average in Spain (23.4 %), whereas other credit institutions represented more than two fifths of the Irish enterprises in this subsector and almost one third of the Swedish total. In a majority of countries, credit institutions were generally incorporated enterprises, although there was a majority of cooperatives in Finland (82 %), Austria (81 %), Portugal (67 %), Italy (65 %) and Germany (64 %). In addition, half of credit institutions were public law enterprises in Denmark (50 %), more than one third in Sweden (37 %) and one fifth in Germany (20 %).

(5) D, E, F, A, FIN and S.

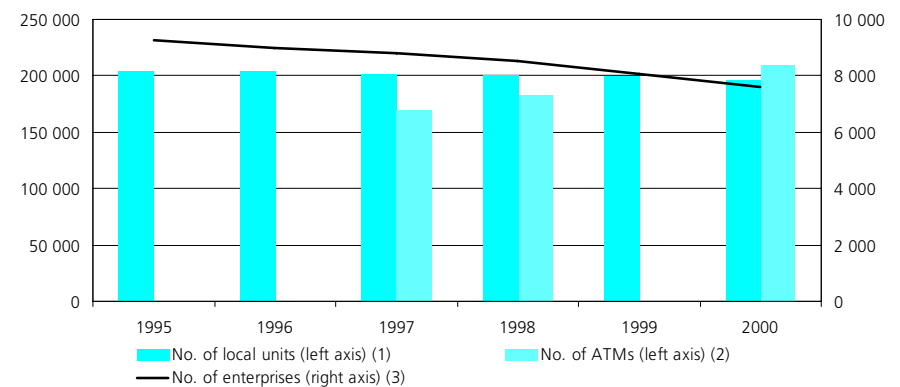
On-going market liberalisation and the completion of the internal market for banking have had a noticeable effect on the market structure of credit institutions (6). The number of enterprises has declined in most countries in recent years, which can be explained by a wave of mergers within the banking industry and between banks and other parts of the financial services' sector. There was a net fall of 1 651 credit institutions in the EU between 1995 and 2000 (7), equivalent to a fall of 17.2 %. The largest reductions were recorded in Spain (- 27.3 %), Belgium (- 25.8 %), Portugal (- 24.2 %) and Germany (- 23.2 %), while Luxembourg (- 8.2 %), the Netherlands (- 8.0 %) and Denmark (- 2.0 %) experienced the least significant reductions. Ireland stood out from this trend, as there was a marked increase in the number of credit institutions, which rose from 48 in 1995 to 82 by 2000.

(6) For more information please refer to 'Special feature on banking', Eurostat, 2001.
 (7) Excluding FIN.

The majority of the EU's credit institutions were relatively small in size, although their importance has decreased over time in favour of larger enterprises. In 2000, more than three quarters of enterprises in this subsector (77.4 %) had a balance sheet total below one billion euro (8). Nevertheless, the number of enterprises in this size class category decreased overall by 18.4 % in the EU between 1997 and 2000 (9). At the other end of the scale, there were 36 credit institutions in the EU in 2000 with balance sheet totals that exceeded EUR 100 billion, 14 more than in 1997 (10). Most of these large credit institutions were located in just three countries: Germany, the United Kingdom (both 10) and France (6).

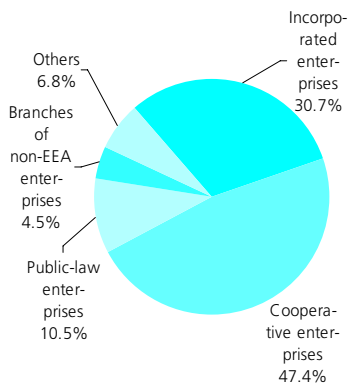
(8) NL, not available.
 (9) IRL and NL, not available.
 (10) IRL and NL, not available.

Figure 21.2 Evolution of the number of credit institutions and access points in the EU (units)



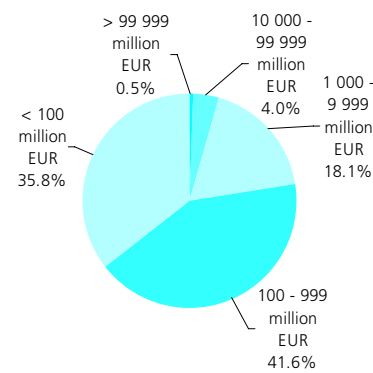
(1) Excluding FIN and S.
 (2) Excluding L and S.
 (3) Excluding FIN.
 Source: Eurostat, Structural Business Statistics (theme4/sbs/credstat).

Figure 21.3
Breakdown of number of credit institutions by legal status in the EU, 2000



Source: Eurostat, Structural Business Statistics (theme4/sbs/credstat/c_serie2/leg_stat).

Figure 21.4
Breakdown of number of credit institutions by balance sheet total in the EU, 2000



Source: Eurostat, Structural Business Statistics (theme4/sbs/credstat/c_serie2/sizecla).

There was a network of 200 134 local units in the EU's credit institutions' subsector in 2000. This corresponded to an overall decrease of 3.2 % when compared to 1997, but hid different evolutions at a national level. While most Member States reported a decrease in their number of local units, there was significant growth in Greece (28.1 %), Portugal (13.7 %), Italy (11.6 %) and Denmark (10.2 %). On average, each credit institution in the EU had 25 local units in 2000, compared to 23 in 1997. There were great differences in this ratio according to the country studied, with larger networks present in Spain (107 local units per enterprise), Greece (69 per enterprise) and Belgium (65 per enterprise). In contrast, credit institutions established in Austria, Finland and Luxembourg had much smaller distribution networks, with an average of less than 10 local units each.

Table 21.2
Top ten EU banks, as of 31 December 2001

		Assets (billion EUR)	Capital (million EUR)	World ranking
Deutsche Bank	D	928	1 607	1
BNP Paribas	F	834	1 790	3
Bayerische Hypo-und Vereinsbank	D	736	1 626	4
The Royal Bank of Scotland	UK	609	1 475	10
ABN AMRO	NL	604	1 694	11
Barclays	UK	576	2 755	14
Société Générale	F	518	545	15
Dresdner Bank	D	512	1 511	17
Commerzbank	D	507	1 408	18
Crédit Agricole	F	500	2 941	19

Source: The Bankers' Almanac, available at <http://www.bankersalmanac.com>.

Table 21.3
Main indicators by type of banks as of 31 December 2001 in the EU

	Total assets (million EUR)	Deposits (million EUR)	Loans (million EUR)
Co-operative banks	2 531	1 437	1 386
Savings banks (1)	2 656	1 593	1 471
Commercial banks	23 925	10 039	11 104

(1) As of 1 January 2001; non bank loans and deposits.
Source: GEBC, ESBG, FBE.

To get a more complete picture of the retail network, data also exists for the number of automatic teller machines (ATMs). The growing importance of ATMs, as the predominant point of access to the network of credit institutions, is seen from the number of ATMs that are in operation in the EU. There were 212 500 ATMs in the EU in 2000 ⁽¹¹⁾, hence a higher number than local units, corresponding to an average of 27 ATMs per credit institution. At a country level, all Member States except Germany, France and Austria numbered more ATMs than local units within the credit institutions' subsector. Every Member State recorded high growth in its number of ATMs between 1997 and 2000, in particular Finland (68.8 %), Greece (59.9 %) and Portugal (53.6 %). In relation to national population totals, the Spaniards had the easiest access to ATMs, as there were 115 of them per 100 000 inhabitants, more than twice the average density recorded in the EU (56 per 100 000 persons) ⁽¹²⁾.

⁽¹¹⁾ S, 1999; L, not available.

⁽¹²⁾ S, 1999; L, not available.

Table 21.4

Net assets of European investment funds as of 30 September 2002 (1)

	Net assets (million EUR)
B	67 672
DK	37 027
D	197 300
EL	22 246
E	168 730
F	797 700
IRL	230 395
I	357 608
L	762 872
NL (2)	88 800
A	62 654
P	18 781
FIN	14 949
S	52 982
UK	298 202

(1) Publicly-offered, open-ended funds investing in transferable securities and money market instruments.

(2) As of 31 December 2001.

Source: FEFSI, available at <http://www.fefsi.org>.

The European Federation of Investment Funds and Companies (FEFSI) estimates that there were more than 20 000 investment funds in the EU, with net assets of EUR 3 178 billion in 2002. Two countries concentrated most of the investment funds: France, which accounted for 25.1 % of the total net assets managed in the EU, and Luxembourg which held 24.0 % of the total. The importance of Luxembourg reflects its strategy to establish itself as the first European centre of funds distributed at international level.

The major types of funds are equity, balanced, bond, and money market funds. Balanced funds invest in both equity and bond markets, whereas money market funds invest in instruments such as certificates of deposit or commercial paper. Funds invested in equity and in bonds represented approximately the same share of total assets in the EU in September 2002, approximately one third each. One fifth of the total was accounted for by money markets, with balanced funds accounting for the remaining 14 %.

LABOUR AND PRODUCTIVITY

Some 2.7 million persons were employed in credit institutions in the EU in 2000 ⁽¹³⁾, a number that has remained fairly stable in recent years, with 0.5 % average annual growth between 1996 and 2000 ⁽¹⁴⁾. The largest bank employer was Germany with 758 600 persons employed, far ahead of the United Kingdom (445 400 persons employed) and France (366 100 persons employed). Most Member States experienced modest changes in their levels of employment within credit institutions, with the notable exceptions of the Netherlands, where the number of persons employed increased, on average, by 4.5 % per annum between 1995 and 2000, and Luxembourg (average growth of 4.1 % per annum over the same period).

According to SBS data, EU credit institutions employed an average of 344 persons each in 2000 ⁽¹⁵⁾. The increasing average size of credit institutions is further emphasised by this indicator, which reveals that average employment was 20.5 % higher when compared to 1996 ⁽¹⁶⁾. Figures on enterprise demography show that this evolution can be mainly attributed to the decreasing number of enterprises, rather than job creation. Greek enterprises were the largest in size, with 1 387 persons employed on average, while the smallest enterprises were found in Luxembourg (101), Austria (87) and Finland (73).

⁽¹³⁾ FIN, 1998; S, 1997.

⁽¹⁴⁾ FIN and S, not available.

⁽¹⁵⁾ S, 1997.

⁽¹⁶⁾ FIN and S, not available.

Additionally, LFS data shows that part-time work was not particularly widespread within financial intermediation. The proportion of those employed working on a part-time basis in 2001 was 13.6 % in the EU, far less than the services' average (19.8 % for NACE Sections G to K).

Average personnel costs in EU credit institutions were relatively high, reaching EUR 63 600 per person employed in 2000 ⁽¹⁷⁾. At the same time, however, these were matched by equally high apparent labour productivity, some EUR 143 500 of value added per person employed in those countries for which data are available ⁽¹⁸⁾, which was almost four times the average for the whole of services (EUR 42 900 for NACE Sections G to K). Furthermore, available data show that apparent labour productivity increased by 50.0 % overall between 1997 and 2000, while the increase in average personnel costs was 37.7 % over the same period ⁽¹⁹⁾.

⁽¹⁷⁾ S, 1997.

⁽¹⁸⁾ D, IRL and S, not available.

⁽¹⁹⁾ IRL and S, not available.

21.2: INSURANCE AND PENSION FUNDS

The activities covered by this subchapter include insurance and pension fund services which are classified within NACE Division 66. A distinction is made in the classification between life insurance (NACE Class 66.01), pension funding (NACE Class 66.02) and non-life insurance (NACE Class 66.03). Compulsory social security services are excluded.

The insurance and pension funding subsector can be defined as embracing all enterprises exclusively or primarily engaged in converting and mutualising individual risks into collective risks. Life insurance embraces conventional life insurance contracts with or without a substantial savings element. Pension funding includes the provision of retirement incomes. Non-life insurance is a residual grouping, including accident, motor and health insurance. SBS data on insurance separate life and non-life insurance, as well as identifying composite insurers ⁽²⁰⁾ and reinsurers.

STRUCTURAL PROFILE

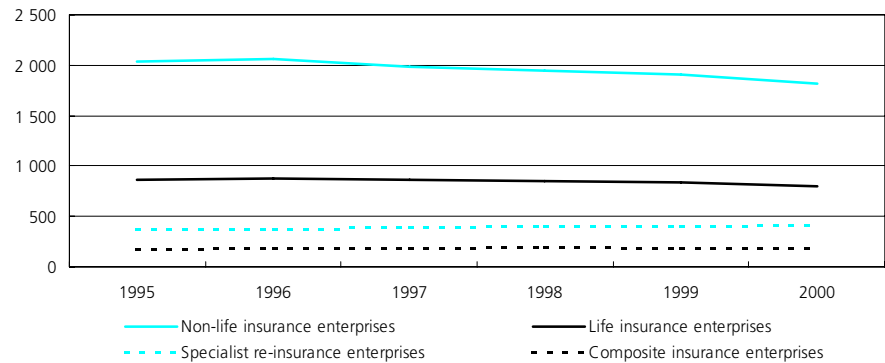
There were 3 627 insurance enterprises operating in the EU in 2000 ⁽²¹⁾. Most of them were dealing with non-life insurance (2 068, or 57.0 % of the total), while there were 890 life insurance enterprises (24.5 %) and 237 composite insurers (6.5 %). In addition, there were 385 reinsurers (11.9 %).

Insurance services are relatively concentrated geographically, with particular importance in the Netherlands. About half of all life insurers in the EU in 2000 were located in just four countries: the United Kingdom (142 enterprises), Germany (123 enterprises), the Netherlands (101 enterprises) and Denmark (91 enterprises). The non-life market displayed the same level of concentration, as four Member States hosted more than half of the enterprises: Germany (315 enterprises), France (302 enterprises), the Netherlands (266 enterprises)

⁽²⁰⁾ Enterprises carrying out both life and non-life business.

⁽²¹⁾ B and IRL, 1999; EL, 1997.

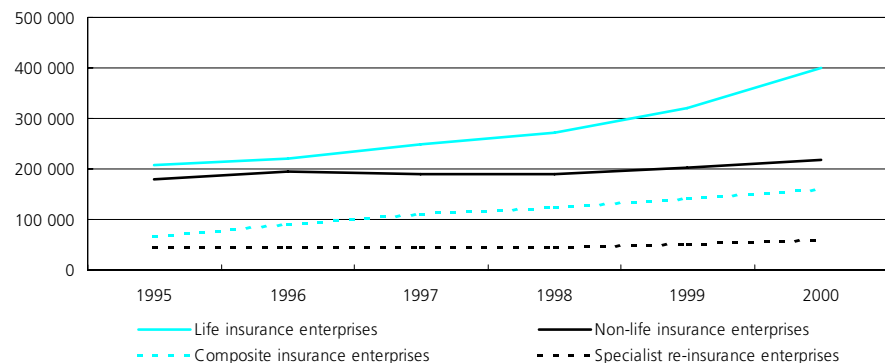
Figure 21.5
Evolution of the total number of insurance enterprises in the EU (units) (1)



(1) Excluding B, EL and IRL.

Source: Eurostat, Structural Business Statistics (theme4/sbs/statonis/serie_5a).

Figure 21.6
Evolution of gross premiums written in the EU (million EUR) (1)



(1) Excluding B, EL and IRL.

Source: Eurostat, Structural Business Statistics (theme4/sbs/statonis/serie_5a).

and Spain (193 enterprises). Composite insurance enterprises existed in only nine of the Member States and were mainly present in Spain (62 enterprises), France, Belgium (both 38 enterprises) and Austria (32 enterprises). Note that in France this type of enterprise was introduced by law only in 1995. As regards specialist reinsurance, two thirds of all enterprises were located in Luxembourg (264 enterprises).

Insurance services have undergone serious restructuring over recent years, as evidenced by the evolution of the total number of insurance enterprises, that suffered a 6.4 % decline overall between 1995 and 2000 ⁽²²⁾. The main reason for this trend was the reduction in the number of non-life insurers, which decreased by 11.2 % over the period considered. At the same time, the number of life insurers also declined, by some 6.0 %. The number of composite insurance enterprises and reinsurance enterprises, in contrast, increased by 8.3 % and 13.3 % respectively.

⁽²²⁾ B, EL and IRL, not available.

Table 21.5.
Largest life insurance companies in the EU, 2001

		Revenues (billion EUR)	World ranking
ING Group	NL	92.7	1.0
AXA	F	73.2	2.0
Aviva	UK	58.4	4.0
Generali	I	57.4	5.0
Prudential	UK	40.0	7.0

Source: International Insurance Facts, available at <http://www.internationalinsurance.org>.

Table 21.6.
Largest reinsurance companies in the world, 2001

		Gross premiums written (billion EUR)	World ranking
Munich Re	D	22.0	1
Hannover Re	D	11.4	5
Lloyd's of London	UK	9.2	6
Gerling Global	D	5.8	7
Scor Group	F	4.8	8

Source: International Insurance Facts, available at <http://www.internationalinsurance.org>.

While a decreasing trend was experienced in most Member States, the number of insurance enterprises grew in Ireland (from 86 in 1995 to 122 in 1999), Luxembourg (300 to 344 over the period 1995–2000) and in Sweden (144 to 157 over the same period), mainly fuelled by the creation of life insurance enterprises.

Total gross premiums written by EU insurance enterprises amounted to EUR 870 billion in 2000 ⁽²³⁾. In 2000, life insurance business was the leading insurance business. Indeed, gross premiums written within the EU could be broken down as EUR 411 billion (47.2 %) for life insurance enterprises, EUR 226 billion (26.0 %) for non-life insurance enterprises, EUR 173 billion (19.9 %) for composite insurance enterprises and EUR 60 billion (6.9 %) for specialist reinsurance enterprises. An analysis by Member State reveals the relative specialisation of Irish and British enterprises in life insurance, and of their Dutch, German and Greek counterparts in the non-life business. Reinsurance was of notable importance in Luxembourg and Germany.

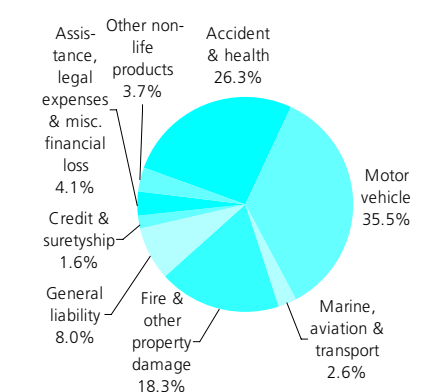
⁽²³⁾ B and IRL, 1999; EL, 1997.

In absolute terms, the United Kingdom accounted for almost half of the gross premiums written by life insurance enterprises in the EU in 2000 (48.7 %), while German enterprises wrote about one third of the EU's non-life insurance premiums (33.7 %). German reinsurers, although making up just one tenth of all EU specialist reinsurance enterprises, accounted for two thirds (66.9 %) of the premiums written in the EU. Note that three German enterprises were among the 10 largest reinsurance companies in the world.

Among the various products offered by the non-life insurance market, motor vehicle insurance was the most important, representing over one third (35.5 %) of the non-life insurance total in terms of premiums written in the EU in 2000 ⁽²⁴⁾. Accident and health insurance came next, with over one quarter (26.3 %) of the total, while fire and other damage to property accounted for 18.3 % of total premiums. The share of motor vehicle insurance varied from 23.1 % in the Netherlands to 64.4 % in Greece. Accident and health insurance was the most important non-life insurance product in the Netherlands (46.1 %) and Germany (36.2 %).

⁽²⁴⁾ B and IRL, 1999; EL, 1997.

Figure 21.7.
Breakdown of gross direct premiums written for non-life insurance products in the EU, 2000 (1)



(1) B and IRL, 1999; EL, 1997; UK, not available. Source: Eurostat, Structural Business Statistics (theme4/sbs/statonis/serie_5e).

The business activity of insurance developed at a very fast pace in the second half of the 1990s thanks to the progression of life insurance business and composite insurance business. Total gross premiums written increased by 11.0 % per annum, on average, between 1995 and 2000 ⁽²⁵⁾, with the final year in this range being particularly positive, with an increase of 16.6 %. Over the same period, life insurance business increased (in terms of gross premiums written) by an average of 14.0 % per annum, while the corresponding figure for composite insurance enterprises reached 19.6 % per annum, mainly the result of a significant increase in their life business activity. This increase may be explained by the shift in the nature of insurance enterprises (for example, life insurance enterprises becoming composite insurance enterprises, as they create and develop non-life insurance business), as well as by the creation of new insurance enterprises. Growth in the non-life segment was much more modest, yet still rapid in absolute terms, at 4.0 % per annum over the same period. At a national level, Ireland recorded a rapidly expanding insurance market, with gross premiums written up, on average, by 34.0 % per annum between 1995 and 1999, mainly thanks to life insurance. Large gains were also recorded in the United Kingdom, where average growth of 20.7 % per annum was registered between 1995 and 2000, as well as in Italy (19.4 % per annum) and Sweden (16.2 % per annum). France (5.3 %) and Germany (3.2 %) reported the slowest growing insurance markets among Member States.

⁽²⁵⁾ This paragraph: excluding B, EL and IRL.

Table 21.7
Insurance and pension funding, except compulsory social security (NACE Division 66)
Main indicators, growth rates (%)

	Gross premiums written			Number of persons employed		
	1998	1999	2000	1998	1999	2000
EU-15	:	:	:	:	:	:
B	:	:	:	:	:	:
DK	11.8	-1.7	8.4	-0.8	:	:
D	1.7	7.6	4.9	0.7	4.9	-0.4
EL	:	:	:	:	:	:
E	11.8	26.6	50.8	:	:	:
F	:	:	:	:	:	:
IRL	:	:	:	:	:	:
I	29.8	25.6	8.8	:	:	:
L	:	:	:	:	:	:
NL	:	:	:	:	:	:
A	8.4	21.2	-17.6	-10.2	90.4	-34.0
P	16.7	16.6	17.8	:	:	:
FIN	12.0	17.5	21.1	:	:	:
S	7.6	27.5	38.4	:	-1.8	9.1
UK	22.3	23.6	32.8	:	:	:

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

On average EUR 2 306 of gross insurance premiums were written per inhabitant in the EU in 2000 ⁽²⁶⁾. Some EUR 1 089 was spent on life insurance premiums and EUR 599 on non-life insurance premiums. An additional EUR 460 were accounted for by composite insurance enterprises.

In several countries, an increasing number of persons choose to complement their legal compulsory pension schemes with contributions to autonomous pension funds. Limited data are available, but this shows the increasing importance taken by this form of investment. Note, however, that due to a large heterogeneity in national pension funds' systems and the absence of a European regulatory and statistical framework, not all of the statistical information requested from Member States is fully available and comparability among Member States needs to be interpreted.

⁽²⁶⁾ B and IRL, 1999; EL, 1997.

Table 21.8
Main indicators for autonomous pension funds, 2000

	Number of pension funds (units)	Number of members (units)	Active members (units)	Total contributions	Profit and loss account (million EUR)				
					Investment income	Other income	Total expenditure on pensions	Net change in technical provisions (reserves)	Total operational expenses
B (1)	310	361 654	248 414	871.8	1 568.1	235.3	1 158.4	1 488.3	173.5
DK	54	22 897	11 899	45.6	282.0	4.4	220.7	52.1	4.4
D	299	:	:	:	8 814.7	787.4	:	12 818.1	639.1
EL	:	:	:	:	:	:	:	:	:
E	607	4 995 589	3 928 682	8 276.4	-286.4	7.8	7 455.2	6 180.0	457.1
F	:	:	:	:	:	:	:	:	:
IRL	:	629 801	:	:	:	:	:	:	:
I	495	1 555 789	1 447 956	2 055.7	:	:	1 376.0	:	:
L	1	:	:	:	:	:	:	:	:
NL	991	13 355 000	5 140 000	10 565.4	12 061.0	-1 800.0	12 031.1	23 006.7	644.0
A	19	283 741	252 443	363.6	136.6	29.1	260.2	504.7	33.6
P	244	399 853	293 530	:	436.0	12.0	762.0	0.0	69.0
FIN	116	124 805	71 323	70.5	464.7	3.5	441.5	-12.8	6.4
S	45	811 876	378 802	:	778.4	:	1 068.2	621.4	23.3
UK	:	:	:	22 460.2	93 110.8	976.2	53 716.5	64 865.3	4 600.7

(1) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/pension/p_serie1).

However, existing data suggests that pension funds experienced rapid development in recent years. There were 3 181 of them in 2000 ⁽²⁷⁾, compared to 3 072 in 1997. In addition, total expenditure on pensions through autonomous pension funds increased by nearly 46 % in the EU between 1997 and 2000, to reach EUR 78.5 billion.

Over the same period, the number of members of autonomous pension funds increased in all reporting countries, except Finland and Denmark. The number of retired members of autonomous pension funds was 2.6 million in 2000, compared with 11.8 million members still in active population (or active members). As a result, the ratio between active members and retired members was 4.5 in 2000, up from 3.8 in 1997. This ratio spanned from 1.1 in Denmark and 1.3 in Finland, where pension funds have reached a high level of maturity, up to 29.1 in Spain and 13.4 in Italy. In 2000, the average level of contributions per active member ranged from EUR 1 127 in Finland to EUR 3 856 in Denmark.

(27) B, 1999; L, 1998; EL, F, IRL and UK, not available.

EMPLOYMENT

According to the LFS, some 1.2 million persons were employed in the EU's insurance and pension funding sector in 2001 (NACE Division 66), a number that has remained fairly stable since the middle of the 1990s. Working patterns were in many ways similar to those found in banking, particularly as regards the relatively balanced workforce in terms of gender breakdown and the relatively low recourse to part-time work. Indeed, 48.3 % of the insurance and pension fund workforce were women in 2001, 5 percentage points above the average for service activities (43.5 %). Part-time work was not particularly widespread and concerned only 12.7 % of those in employment, the lowest share recorded among financial services activities (at the NACE division level). However, one domain where the employment profile for insurance and pension funding differed from banking was in the significance of self-employment. Some 13.1 % of those working in the EU's insurance and pension funding sector in 2001 were self-employed, which was almost twice the average recorded for financial services (7.0 %, NACE Section J), although still below the average for the whole of services (17.4 %, NACE Sections G to K).

21.3: FINANCIAL AUXILIARIES

Activities auxiliary to financial intermediation have a supporting function in capital markets, performing a complementary role to banking and insurance activities. The activities covered in this subchapter are classified under NACE Division 67, covering the '*provision of services involved in or closely related to financial intermediation, but not themselves involving financial intermediation*'. The definition includes the administration of financial markets, securities brokering and fund management (part of NACE Group 67.1), as well as activities of insurance brokers and agents (part of NACE Group 67.2).

Financial auxiliaries have experienced dramatic changes in their business environment in recent years, particularly in the field of capital markets. On the one hand, companies increasingly operate on an international or even global basis, which leads them to issue bonds and equity outside of their domestic market. On the other hand, investors are also increasingly looking for investment opportunities on a worldwide basis, helped by the development of information and communication technologies (ICTs). The reorganisation of stock markets has

also played an important role in stimulating the supply of financial services and competition between financial intermediaries. Key elements include: the end to brokers' monopoly and the liberalisation of commissions; the creation of secondary listings, allowing medium-sized businesses unable to meet the conditions for a full listing to improve their access to capital; and the computerisation of stock markets and market operations in all European exchanges, greatly improving market liquidity by making information more rapidly available.

Table 21.9

Stock markets, main indicators as of 31 December 2002

		Total number of companies listed, excluding investment funds (units)	of which, domestic (units)	Market capitalisation of domestic companies (million EUR)	Share trading, including investment funds (million EUR)	Trading view (1)
Euronext	B, F, NL, P	1 484	1 114	1 477 108	2 097 837	REV
København	DK	201	193	73 674	56 229	REV
Deutsche Börse	D	934	715	658 573	1 279 948	TSV
Athinai	EL	314	313	64 379	24 771	TSV
España	E	3 015	2 986	443 097	689 671	REV
Irish	IRL	76	62	57 540	35 127	TSV
Italia	I	294	288	457 992	669 046	REV
Luxembourg	L	244	47	23 569	524	TSV
Wien	A	129	109	32 235	6 450	TSV
Helsinki	FIN	149	147	133 279	188 670	TSV
Stockholm	S	297	278	170 724	294 927	REV
London	UK	2 824	2 405	1 712 199	4 225 762	REV

(1) TSV (Trading System View) count only those transactions which pass through the trading system or which take place on the exchange's trading floor. REV (Regulated Environment View) includes all transactions subject to supervision by the market authority.

Source: FIBV.

As regards stock exchanges, the EU market is concentrated principally within three main places: London, Euronext ⁽²⁸⁾ and the Deutsche Börse. The largest market in 2002 was the London stock exchange, with a market capitalisation of domestic companies reaching EUR 1 712 billion. This was above the level of Euronext, where market capitalisation was almost EUR 1 477 billion. The German stock exchange followed at some distance, with market capitalisation of EUR 659 billion.

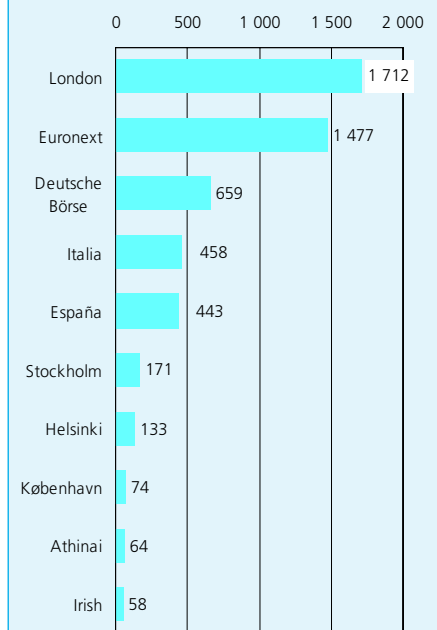
All EU stock markets witnessed a sharp rise in capitalisation during the course of the 1990s, a trend that accelerated in the second half of the decade. However, after several years of vivid growth, the start of the new century was accompanied by a reversal of this trend. In 2001 and 2002, stock markets experienced a serious downturn as a consequence of many factors, including, the slowing global economy, doubts cast on accounting methods used by some companies, and the burst of the speculative bubble around technology values. EU market capitalisation decreased in most countries, with the steepest declines reported by the Deutsche Börse (–45.3 %), Helsinki (–37.7 %) and Stockholm (–37.0 %). Most other market places suffered capitalisation losses in excess of 20 %. Luxembourg was one of the main places that resisted this trend, as a decline of 7.6 % was recorded. However, in Vienna, market capitalisation gained 13.9 %.

⁽²⁸⁾ Euronext was created in September 2000 by the merger of the Amsterdam, Brussels and Paris exchanges; Lisbon joined Euronext in 2002.

In terms of turnover too, the 1990s was characterised by enormous growth in trading in the EU. During the period 1990 to 1994, the value of share trading almost doubled in the EU, while during the period 1994 to 1997 the value was doubled again, and once more between 1997 and 2000. In 2001, the first signs of slowdown in trading turnover appeared, and in 2002 the value of share trading fell. Euronext and Athens suffered the greatest turnover decline, –41.3 % and –41.0 % respectively compared to 2001. Copenhagen, Stockholm and Luxembourg posted declines in excess of 30 %, while reductions of more than 20 % were recorded in Germany and Vienna. Helsinki, in contrast, recorded a loss of 6.8 %, while the Irish stock market was the only one among the Member States to boast an increasing value of transactions (up 39.7 %).

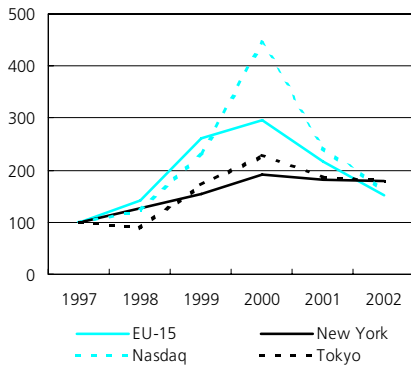
Figure 21.8

The largest stock markets in the EU ranked by market capitalisation, as of 31 December 2002 (billion EUR)



Source: FIBV.

Figure 21.9
Value of share trading, including investment funds (1997=100)



Source: Eurostat, Stock Market (theme2/mny/stockmkt/turnover/turnov_a), FIBV.

EMPLOYMENT

According to the LFS, employment in the EU’s financial auxiliary activities (NACE Division 67) was estimated at some 827 000 persons employed in 2001, a number that has been on a rising trend since the mid-1990s.

Financial auxiliaries displayed the lowest participation rates for women among the financial services, as they accounted for only 46.0 % of those in employment in 2001. This was below the 48.7 % average for the whole financial sector (NACE Section J), but still above the average for services (43.5 %, NACE Sections G to K).

In contrast, almost one fifth (18.4 %) of the EU’s financial auxiliaries workforce was self-employed in 2001, which was more than two and a half times higher than the average for financial services (7.0 %). This was due to a large number of independent brokers/agents and financial advisors that operated within this activity. Additionally, this may also partly explain the higher than average recourse to part-time work, which concerned 15.4 % of the financial auxiliaries’ workforce in the EU in 2001. The corresponding share for financial services was only 13.7 %.

Table 21.10

Other monetary intermediation (NACE Class 65.12)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	89	200	2 702	41	281	540	:	841	202	160	811	216	336	126	478
Turnover (million EUR)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Number of persons employed (thousands)	76	49	727	57	244	344	:	347	22	131	71	60	24	:	445
Value added (million EUR)	9 847	6 189	:	5 594	19 579	40 435	:	40 880	5 922	15 279	7 694	5 404	2 785	6 133	107 118
Purchases of goods and services (million EUR)	5 511	2 788	38 960	1 961	9 413	24 363	:	24 218	3 034	7 055	3 829	1 880	1 198	3 010	30 851
Personnel costs (million EUR)	5 100	2 820	41 303	2 174	11 601	21 523	:	21 126	1 655	6 696	4 204	2 163	907	2 662	44 318
Gross investment in tangible goods (million EUR) (1)	657	279	:	:	2 482	603	:	38 402	:	693	809	:	-174	:	5 216
App. labour productivity (thous. EUR/pers. emp.)	129.1	127.5	:	98.4	80.3	117.6	:	117.7	265.7	116.6	108.2	90.6	113.7	:	240.5
Wage adjusted labour productivity (%)	193.0	219.4	:	:	165.1	187.9	:	:	:	228.2	183.0	249.8	306.9	:	241.6
Gross operating rate (%)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:

(1) NL and A, 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 21.11

Credit institutions, 2000 (units)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S (1)	UK
Number of enterprises	89	200	2 792	41	368	1 097	82	841	202	160	841	216	352	213	478
Number of enterprises 2000/1997 (%)	-18	-2	-20	5	-12	-14	55	-10	-6	-5	-12	-7	-4	1	-11
Number of local units	5 778	2 401	59 715	2 828	39 312	25 285	1 007	28 181	300	6 152	5 390	5 526	1 975	2 059	14 225
Number of ATMs	6 245	2 701	47 650	3 472	45 761	19 220	1 160	31 843	:	6 921	2 600	9 643	4 552	2 580	28 137
Breakdown of number of enterprises by NACE Class															
Other monetary intermediation (2)	89	200	2 702	41	281	540	:	841	202	160	811	216	336	126	478
Other credit granting (3)	0	0	90	0	87	557	:	0	0	0	30	0	16	87	0
Breakdown of number of enterprises by category of credit institution															
Licensed banks	89	190	:	41	281	:	47	837	202	160	841	216	336	126	478
Special. credit granting institutions	0	10	:	0	86	:	0	0	0	0	0	0	0	23	0
Other credit institutions	0	0	:	0	1	:	35	4	0	0	0	0	16	64	0
Breakdown of number of enterprises by legal status															
Incorporated enterprises	61	77	181	18	175	764	45	280	135	145	107	42	23	109	287
Cooperative enterprises	13	24	1 782	14	92	186	3	543	2	1	684	145	288	2	0
Public-law enterprises	1	99	562	0	1	0	4	0	2	4	43	5	40	79	0
Branches of non-EEA enterprises	14	0	28	9	52	96	2	14	8	10	1	2	0	1	124
Others	0	0	239	0	48	51	28	4	55	0	6	22	1	22	67
Breakdown of number of enterprises by balance sheet total															
> 99,999 million EUR	3	0	11	0	2	6	0	1	0	:	1	0	0	0	12
10,000 - 99,999 million EUR	5	10	65	6	16	36	6	44	17	:	6	5	2	12	81
1,000 - 9,999 million EUR	28	11	480	8	105	268	48	143	71	:	39	25	10	23	157
100 - 999 million EUR	34	61	1 501	10	130	414	15	368	87	:	286	40	62	68	175
< 100 million EUR	15	118	735	17	115	373	13	285	27	:	509	146	278	110	53

(1) Number of ATMs, 1999.

(2) NACE Class 65.12.

(3) NACE Class 65.22.

Source: Eurostat, Structural Business Statistics (theme4/sbs/credstat).

Table 21.12

Insurance and pension funding, except compulsory social security (NACE Division 66)
Main indicators, 2000

	B (1)	DK	D	EL	E	F	IRL	I	L (2)	NL	A	P	FIN	S	UK
Number of enterprises (units)	428	282	778	:	853	:	:	681	334	:	45	288	275	202	:
Turnover (million EUR)	:	12 265	195 403	:	35 392	:	:	44 245	:	:	4 375	5 811	6 825	24 498	279 877
Number of persons employed (thousands) (3)	:	15	229	:	:	:	:	:	:	:	7	:	10	18	:
Value added (million EUR)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Purchases of goods and services (million EUR)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Personnel costs (million EUR)	:	825	12 729	:	:	:	:	:	:	:	118	:	54	:	:
Gross investment in tangible goods (million EUR)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
App. labour productivity (thous. EUR/pers. emp.)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Wage adjusted labour productivity (%)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Gross operating rate (%)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:

(1) 1999.

(2) 1998.

(3) DK, 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 21.13

Number of insurance enterprises, 2000 (units)

	Total insurance enterprises	Life insurance enterprises	Non-life insurance enterprises	Composite insurance enterprises	Specialist re-insurance enterprises
B (1)	156	23	81	38	14
DK	228	91	129	0	8
D	479	123	315	0	41
EL (2)	132	22	93	17	0
E	308	49	193	62	4
F	462	89	302	38	33
IRL (1)	122	40	82	:	:
I	206	80	99	20	7
L	344	56	24	0	264
NL	367	101	266	0	:
A	58	5	17	32	4
P	51	16	27	7	1
FIN	159	15	139	0	5
S	157	38	111	0	8
UK	398	142	190	23	43

(1) 1999.

(2) 1997.

Source: Eurostat, Structural Business Statistics (theme4/sbs/statonis/serie_5a).

Table 21.14

Gross premiums written by insurance enterprises, 2000 (million EUR)

	Total insurance enterprises	Life insurance enterprises	Non-life insurance enterprises	Composite insurance enterprises	Specialist re-insurance enterprises
B (1)	18 978	1 970	3 832	13 175	:
DK	12 219	7 326	4 015	0	878
D	177 462	61 247	76 203	0	40 012
EL (2)	1 433	770	663	:	:
E	42 178	12 124	7 927	21 340	788
F	146 693	38 840	43 892	57 997	5 964
IRL (1)	11 904	8 528	3 376	0	:
I	72 965	28 843	10 940	31 410	1 772
L	9 564	5 982	742	0	2 841
NL	40 336	23 022	17 314	0	:
A	13 258	534	1 742	9 594	1 389
P	7 028	2 582	1 859	2 582	6
FIN	6 747	4 234	2 512	0	1
S	23 307	14 843	8 411	0	53
UK	285 549	199 807	42 365	37 265	6 113

(1) 1999, (2) 1997.

Source: Eurostat, Structural Business Statistics (theme4/sbs/statonis/serie_5a).

Table 21.15

Non-life insurance products, gross direct premiums written, 2000 (million EUR)

	Accident and health	Motor vehicle	Marine, aviation and transport	Fire and other damage to property	General liability	Credit and suretyship	Assistance, legal expenses and miscellaneous financial loss	Other non-life products
B (1)	5 281	10 166	451	7 607	5 072	469	2 997	:
DK	1 102	1 196	109	1 565	130	27	2	124
D	26 506	20 149	1 473	11 545	6 625	1 012	3 587	2 321
EL (2)	40	588	59	134	14	6	:	73
E	3 335	7 972	346	607	757	373	274	3 365
F	9 182	14 646	1 507	10 375	2 699	729	2 011	:
IRL (1)	264	1 087	37	518	569	41	254	:
I	3 635	16 874	694	3 441	2 034	706	162	327
L	23	191	297	107	35	13	74	:
NL	7 801	3 905	509	2 705	:	:	:	2 017
A	1 733	2 060	91	1 257	437	62	273	78
P	956	1 578	59	464	51	29	35	:
FIN	603	845	112	533	126	41	31	51
S	1 239	2 104	386	2 048	231	164	4	410
UK	:	:	:	:	:	:	:	:

(1) 1999.

(2) 1997.

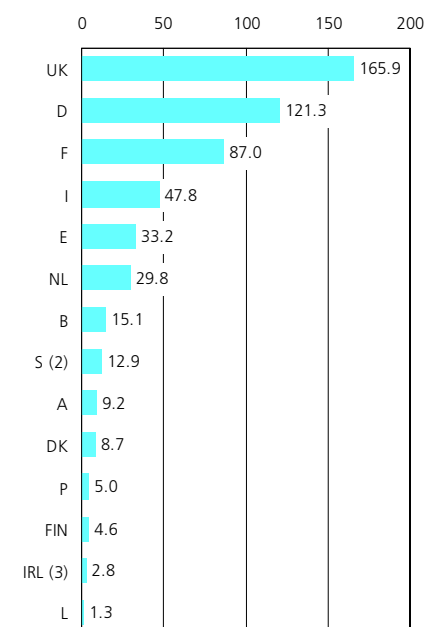
Source: Eurostat, Structural Business Statistics (theme4/sbs/statonis).

Business services



Outsourcing or externalisation have become widespread practice for industrial and service enterprises. Such practices have often resulted in enterprises being able to focus more closely on their main tasks, where they themselves have expertise. Other tasks have been contracted out to independent service providers that in turn can demonstrate an expertise, and ideally a more efficient, intensive use of resources. Many of these tasks are regrouped in this chapter on business services, such as accounting, cleaning or security, while others are treated elsewhere, such as transport in Chapter 20. This outsourcing aims to increase flexibility, notably in terms of human resource management and also efficient gains through lower costs or higher, more specialised levels of service. This trend towards outsourcing has migrated the structure of the European economy from industrial activities towards service activities, as employment and the added value of the services involved has been credited to the specialised service enterprises rather than their clients. However, it would be misleading to credit the entire expansion of business services to the outsourcing phenomena. The complexity of business processes and the emergence of new technologies has strengthened demand for some business services, for example training and R & D services. As a result, business services (defined here as the aggregate of NACE Divisions 71, 73 and 74) have become one of the most important sectors in the EU economy, contributing more than 10 % of wealth creation and employment to the EU's business economy. Table 22.1 provides an indicator of the weight of a selected number of business services, which are generally considered as among the main beneficiaries of outsourcing. The table shows that the externalisation of activities has taken place most noticeably in the United Kingdom, the Netherlands and France.

Figure 22.1
Business services
(NACE Divisions 71, 73 and 74)
Value added, 2000 (billion EUR) (1)



(1) EL, not available.

(2) 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Business services include the technical, professional and operational services generally supplied to firms or administrations, rather than to households, for the support of their production processes or organisation. The most important business services are renting and leasing, research and development, legal, tax and management consultancy, advertising and market research activities, engineering services, human resources services, and cleaning and security services. These activities are all included within NACE Divisions 71, 73 and 74. NACE Section K also covers real estate services (Division 70) and computing services (Division 72) which are part of Chapters 15 and 23 respectively.

NACE

- 71: renting of machinery and equipment without operator and of personal and household goods;
- 71.1: renting of automobiles;
- 71.2: renting of other transport equipment;
- 71.3: renting of other machinery and equipment;
- 71.4: renting of personal and household goods n.e.c.;
- 73: research and development;
- 73.1: research and experimental development on natural sciences and engineering;
- 73.2: research and experimental development on social sciences and humanities;
- 74: other business activities;
- 74.1: legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings;
- 74.2: architectural and engineering activities and related technical consultancy;
- 74.3: technical testing and analysis;
- 74.4: advertising;
- 74.5: labour recruitment and provision of personnel;
- 74.6: investigation and security activities;
- 74.7: industrial cleaning;
- 74.8: miscellaneous business activities n.e.c.

Table 22.1
Share in GDP of selected business services, 2000 (per thousand)

	EU-15 (1)	B	DK	D	E	F	IRL (2)	I	L	NL (3)	A	P	FIN	S (4)	UK
Advertising	3.9	2.7	3.5	2.6	5.4	4.1	1.7	2.1	1.3	4.6	3.8	2.5	2.9	4.8	6.6
Labour recruitment and provision of personnel	7.5	10.8	2.2	2.7	4.4	13.5	2.1	1.7	6.6	12.3	4.2	3.0	1.7	0.4	15.6
Investigation and security activities	1.6	1.5	0.4	1.0	2.4	1.8	1.4	1.4	2.2	1.4	0.8	3.0	1.2	1.8	2.5
Industrial cleaning	3.9	3.7	6.0	3.8	5.4	3.5	1.0	4.4	3.7	6.5	3.1	2.6	4.1	4.0	3.1
Total share	17.0	18.7	12.1	10.0	17.6	22.8	6.2	9.7	13.8	23.4	11.9	11.0	9.8	11.1	27.8

(1) Based on available data in the table.

(2) 1998.

(3) Investigation and security activities, 1998.

(4) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs) and National Accounts - ESA95 - aggregates (theme2/agg5).

The importance of business services in the economy is clearly not just derived from the wealth that they generate and the employment they provide, but also from the facilitating role that they provide to other sectors. As such they impact on the competitiveness of the economy as a whole. The dynamic relation between business services and their clients in other sectors of the economy results not only from their provision of non-industrial services, but also from a growing involvement in the production process itself. Examples are the development of transport enterprises into logistics, closely integrated into the production planning systems of clients. This can go further with such enterprises taking over some preparatory stages of the production process, for example pre-assembling components prior to delivery.

The European Commission highlighted this multifaceted and developing role in its 1998 communication to the Council ⁽¹⁾ that put forward a framework to strengthen the competitiveness of EU industry. This increased competitiveness for the clients of business services can be seen at many levels, notably better access to knowledge, skills, expertise and new technologies, better stock management and the externalisation of inputs previously used with low intensity.

⁽¹⁾ 'The contribution of business services to industrial performance', Communication from the Commission to the Council, COM(1998) 534, 1998.

Table 22.2
Specialisation in business services, 2000 (1)

	Most specialised countries	Least specialised countries
Renting	P, A, B and F	S, DK, FIN and I
Research and development	L, S, NL and B	A, FIN, IRL and P
Legal, accountancy and management services	IRL, D, I and B	E, F, FIN and P
Architecture, engineering, technical testing	FIN, S, DK and D	L, F, B and P
Advertising	E, S, A and FIN	IRL, B, D and L
Personnel services	F, B, NL and UK	D, DK, I and S
Security and investigation	P, E, IRL and L	A, D, NL and DK
Industrial cleaning	DK, FIN, I and E	L, F, UK and IRL
Miscellaneous business activities	UK, P, S and I	D, DK, B and L

(1) Based on a specialisation ratio defined as the share of the activity in terms of value added in the national business services sector divided by the same ratio for the EU; S, 1999; IRL, 1998; security and investigation services for NL, 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs).

STRUCTURAL PROFILE

On the basis of available SBS data, it is estimated that business services ⁽²⁾ generated EUR 561 billion of value added in the EU in 2000. This represented some 11.9 % of the wealth generated in the business economy and 20.9 % of that created in the service sector alone. To assess its importance, the business services' sector generated more value added than the retail trade sector or the transport services' sector.

The largest contributor to this total was the United Kingdom with EUR 166 billion of value added in 2000, ahead of Germany (EUR 121 billion) and almost twice as much as in France (EUR 87 billion). Among the larger economies, it was interesting to note the relatively small size of the business services' sector in Italy (EUR 48 billion) and Spain (EUR 33 billion). This contrasts with the situation in the Netherlands, where business services were particularly important, with EUR 30 billion of value added.

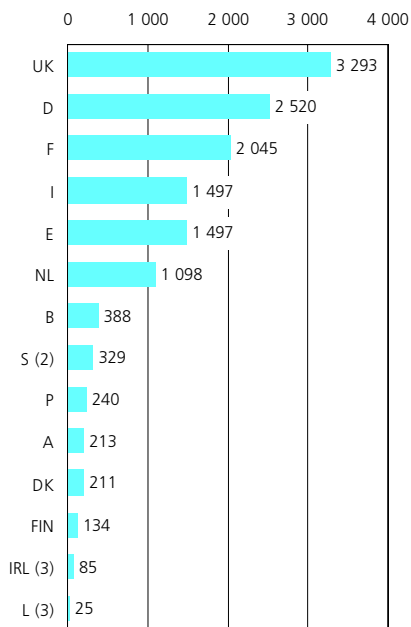
⁽²⁾ Unless otherwise specified, business services are hereafter defined as the aggregate of NACE Divisions 71, 73 and 74.

Business services witnessed a rapid expansion in the second half of the 1990s in most countries for which data are available ⁽³⁾, as growth rates generally exceeded 5.0 % per annum (in current prices). The highest average rates of growth included 10.0 % per annum in France (between 1996 and 2000), 10.5 % per annum in Luxembourg (between 1995 and 2000) and 17.2 % per annum in the United Kingdom (between 1997 and 2000).

⁽³⁾ Time-series of at least three years available for B, F, I, L, A, P, FIN, S and UK.

Figure 22.2

**Business services
(NACE Divisions 71, 73 and 74)
Number of persons employed, 2000
(thousands) (1)**



(1) EL, not available.

(2) 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Looking at the breakdown of the business services' sector, the largest activity (in terms of value added) was legal, accountancy and management services (NACE Group 74.1, see Subchapter 22.3). This group accounted for approximately one third of the EU's business services' value added in 2000, and more than 40 % of the total in Germany, Ireland (1998) and Italy. Architectural, engineering and technical activities (an aggregation of NACE Groups 74.2 and 74.3) was the next largest subsector, with particular importance in the Nordic Member States, where approximately one quarter of business services' value added was generated in these activities, roughly 10 percentage points more than in most other countries. Personnel services (NACE Group 74.5) were relatively important in countries where temporary work is well established, such as the Benelux countries, the United Kingdom (where they represented more than 10 % of total value added) and France (21.9 %). Miscellaneous business activities (NACE Group 74.8, which includes photographic, packaging, secretarial and translation activities) contributed approximately one tenth of business services' value added, although this subsector was particularly important in Sweden (12.3 %, 1999), Portugal (14.9 %) and the United Kingdom (15.0 %). Renting and R & D activities contributed less to total value added in the EU's business services' sector. Table 22.2 provides more detail of the most and least specialised countries for each of the main business services.

LABOUR AND PRODUCTIVITY

Employment in business services was estimated at some 13.8 million persons in the EU in 2000. This was no less than 13.4 % of total employment in the business economy, and 22.1 % of employment in the service sector. These shares were above those recorded for value added, hence suggesting that the apparent labour productivity of the EU's business services' sector was lower than average.

There was a positive development of employment levels in the EU during the second half of the 1990s. All countries reporting fairly lengthy time-series⁽⁴⁾ recorded average growth of at least 5 % per annum, with the highest net employment gains equal to 10.4 % per annum in Finland and 19.5 % per annum in Portugal (both between 1995 and 2000).

In absolute numbers, the United Kingdom had the largest number of persons employed in the business services' sector, some 3.3 million in 2000, ahead of Germany (2.5 million persons) and France (2.0 million). Italy and Spain recorded the same level of employment (1.5 million), while the Netherlands reported 1.1 million persons employed, a relatively high figure given the size of the Netherlands' economy.

Among the individual activities that make up the business services' sector, the largest employer (as with value added) was legal, accountancy and management services (NACE Group 74.1), which alone accounted for approximately one quarter of employment in this sector. However, one can note the significant difference between the two proportions, as the share of this subsector in business services' value added was one third of the total, indicating much higher than average labour productivity in the legal, accountancy and management services' subsector.

The second largest provider of employment in the business services' sector was personnel services (NACE Group 74.5), that accounted for approximately one fifth of employment, but only one tenth of value added. Industrial cleaning (NACE Group 74.7) was also a highly labour-intensive activity with relatively low apparent labour productivity.

(4) B, F, I, NL, A, P, FIN, S and UK.

Table 22.3

**Business services (NACE Divisions 71, 73 and 74)
Labour force characteristics (% of total employment)**

	Female		Part-time		Self-employed	
	1996	2001	1996	2001	1996	2001
EU-15	46.5	47.4	20.8	21.6	23.0	22.0
B	44.5	45.6	16.4	20.3	27.5	24.4
DK	40.2	48.6	23.0	18.4	24.8	17.4
D	51.8	53.0	25.3	28.1	20.4	19.8
EL	40.6	46.2	3.8	3.6	52.6	44.7
E	49.1	50.6	14.6	16.5	23.0	23.1
F	46.7	46.1	17.4	16.7	13.5	12.1
IRL	44.6	49.8	10.0	17.4	23.1	19.6
I	43.3	45.2	13.3	15.9	46.3	45.9
L	47.8	50.6	12.9	16.3	17.1	13.8
NL	42.4	44.4	35.9	39.5	18.6	15.3
A	51.7	51.3	21.1	28.7	19.5	19.1
P	45.8	49.3	11.8	9.9	31.0	24.2
FIN	48.9	47.0	17.9	14.2	17.8	15.7
S	44.8	41.7	22.6	18.2	20.5	17.5
UK	43.5	44.0	22.7	21.9	21.8	19.6

Source: Eurostat, Labour Force Survey.

The LFS provides further interesting information on the characteristics of the business services' workforce. It reveals, for example, that the gender balance was relatively even in 2001, as women represented 47.4 % of the total number of persons employed in the EU, compared to an average of 43.5 % for services (NACE Sections G to K). Women outnumbered men in the business services' sectors of Germany (53.0 %), Austria (51.3 %), Luxembourg and Spain (both 50.6 %), whereas in Sweden women accounted for 42.6 % of those employed. These results should be seen in parallel with the sectoral specialisation of the individual countries in one or other activity, for example, the higher than average importance of industrial cleaning in Germany and architectural, engineering and technical activities in Sweden.

Part-time work accounted for 21.6 % of those employed in the EU in 2001, some 1.8 percentage points above the services' average (NACE Sections G to K). As one may expect, employees were more prone to work part time (23.4 %) than self-employed persons (14.2 %), although in both cases these proportions were higher than the respective averages for the whole of the service sector. Part-time work was also a mainly feminine domain, as it concerned 35.7 % of all women working in the business services' sector, but only 8.9 % of men, in line with averages for the whole of the services' sector.

The large proportion of self-employed persons is another defining characteristic of business services. The self-employed accounted for 22.0 % of the total number of persons employed in the EU in 2001. Employees (77.2 %) represented the majority of persons in the workforce, as there was only a marginal proportion of family workers (0.8 %). Almost three quarters of self-employed persons in the business services' sector were men (72.1 %), a similar rate to the services' average (71.8 %).

As noted above, apparent labour productivity in business services was slightly lower than in services as a whole. Estimates based on available SBS data show that each person employed generated EUR 40 600 of value added in 2000, some EUR 2 300 less than the average for services (NACE Sections G to K) and EUR 5 100 below the productivity level of the whole business economy (NACE Sections C to K). This figure can be mainly attributed to other business activities (NACE Division 74), where productivity was among the lowest of all service sectors (at the NACE division level). Each person employed in the EU's other business activities' sector generated an average of EUR 38 200 of value added.

When adjusted to take into account average personnel costs, the wage adjusted labour productivity ratio of the business services' sector (NACE Divisions 71, 73 and 74) exceeded 130 % in all countries, except for Belgium (126.9 %) and France (124.0 %).

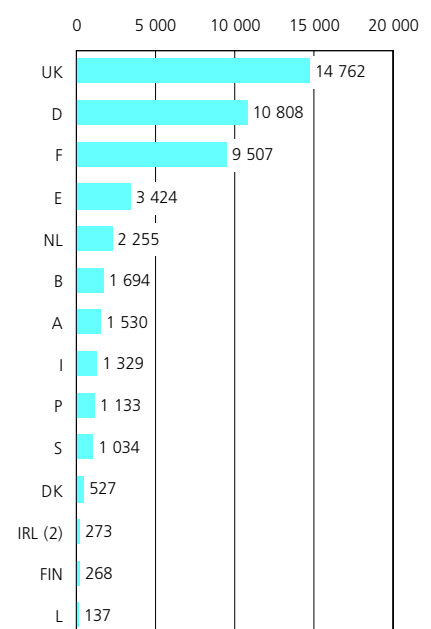
22.1: RENTING AND LEASING

This subchapter covers the activities of renting of machinery and equipment without operators and the renting of personal and household goods (NACE Division 71). There are a wide variety of items that can be rented, amongst which the most important are transport equipment (motor vehicles, ships, aircraft, etc.) and agricultural, construction or office equipment. It should be noted that a distinction is generally made between operational leasing (or long-term rental), which is included in this subchapter and financial leasing, which is considered as a special form of credit granting and is hence covered as part of the financial services sector (see Chapter 21). The renting and leasing of real estate is also treated separately in Chapter 15.

Both renting and leasing offer to clients the possibility of benefiting from the use of a good (often equipment) without the need to pay its full value at the time of acquisition. Leasing is often used for medium or long-term relationships whereas renting may often be for shorter periods but this is not always the case. In the case of leasing the lessee (the user of the good) may often have the right to purchase the good, sometimes for a token sum, at the end of the specified term of the lease and only at this point does the legal and economic ownership of the good normally transfer to the lessee. In general, however, these rights remain with the lessor in the case of both renting and leasing and it is the lessor generally who assumes responsibility for the maintenance of equipment.

As such both methods provide users with advantages from the perspective of improved cash flow, reduced need for mobilising capital, lower rates of equipment lying idle and the reduced risk of high maintenance costs, non-availability of equipment because of breakdown and premature obsolescence. There may also be tax benefits, particularly in the case of leasing.

Figure 22.3
Renting of machinery and equipment without operator and of personal and household goods (NACE Division 71)
Value added, 2000 (million EUR) (1)



(1) EL, not available.

(2) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.4

Renting of machinery and equipment without operator and of personal and household goods (NACE Division 71)

Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	40.7	0.5	3.9	23.8	12.6	28.8	-7.8	3.3	23.2	7.4	26.5	-19.3	10.3	11.8	-7.4
DK	:	:	:	:	-1.9	:	:	:	:	-1.5	:	:	:	:	8.7
D	:	5.8	4.8	6.4	-37.7	:	:	:	:	-65.4	:	:	:	:	-6.3
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	:	7.5	:	:	:	:	0.6	:	:	:	:	8.2
F	28.2	-1.3	8.3	6.2	18.1	23.7	-0.9	9.7	3.2	9.2	12.6	-0.5	4.9	3.7	11.9
IRL	15.3	24.3	33.7	:	:	3.9	36.2	40.5	:	:	2.0	10.9	28.2	:	:
I	:	-40.0	152.8	40.2	10.3	:	-29.9	149.1	38.2	-7.2	:	-1.0	47.2	17.9	10.0
L	26.6	-2.1	3.6	11.5	8.1	18.6	-8.4	42.9	-21.3	12.3	21.3	3.9	3.6	25.7	6.8
NL	:	:	9.6	:	:	:	:	8.6	:	:	7.8	4.7	0.8	:	:
A	-0.1	10.7	2.8	9.7	11.9	:	:	10.0	6.0	5.4	1.5	-3.5	2.5	8.4	17.0
P	501.7	-2.3	33.5	-1.8	33.9	:	1.1	16.9	21.4	29.7	208.2	-5.8	-2.6	7.0	2.2
FIN	3.6	9.4	16.0	10.2	14.4	18.9	12.8	26.6	-0.8	13.6	7.5	6.6	2.3	9.9	6.5
S	22.1	-1.3	-2.2	16.2	11.1	20.8	-0.9	-7.6	19.6	15.7	:	:	-2.3	5.2	1.4
UK	4.3	19.9	20.6	14.2	3.8	:	:	24.8	10.1	4.8	:	:	:	9.5	4.1

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

STRUCTURAL PROFILE

The value added generated by renting and leasing activities in the EU was estimated at EUR 52.1 billion in 2000, a 1.9 % contribution to the total wealth generated in the service sector that year. Three countries accounted for two thirds of this total: the United Kingdom (EUR 14.8 billion), Germany (EUR 10.8 billion) and France (EUR 9.5 billion). Spain, and particularly Italy, recorded noticeably low levels of value added relative to the size of their economies, EUR 3.4 billion and EUR 1.3 billion in 2000. In contrast, renting and leasing was particularly developed in Austria (EUR 1.5 billion) and Portugal (EUR 1.1 billion), where these activities accounted for a larger than average proportion of business services' value added.

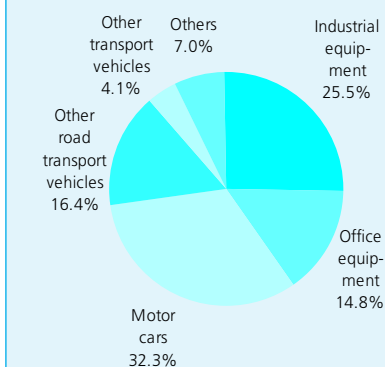
Renting and leasing enjoyed vigorous expansion during the second half of the 1990s in most countries for which data are available⁽⁵⁾, many boasting average annual growth rates in double digits. Italy recorded the fastest increase, as value added rose from EUR 593 million in 1996 to EUR 1.3 billion in 2000, equivalent to a 22.3 % gain per annum. Other rapid increases were recorded in Portugal (average growth of 16.8 % per annum over the period 1996–2000), Finland (13.9 % between 1995 and 2000), the United Kingdom (12.9 % between 1997 and 2000) and Belgium (10.2 % between 1995 and 2000). The Netherlands stood out as the only Member State to report a decline in value added during the period considered, as a slight reduction from EUR 2.4 billion in 1995 to EUR 2.3 billion in 2000 was registered.

Leasing operations used to concentrate on office equipment, but have subsequently extended to all kinds of goods, ranging from machines and industrial equipment to motor vehicles, ships and aircraft. In 2001, only 14.8 % of total turnover was attributed to office equipment (see Figure 22.4). Passenger cars were the largest market segment constituting about 32.3 % of leasing turnover, ahead of industrial equipment (25.5 %).

⁽⁵⁾ Time-series of at least three years available for B, F, I, L, NL, A, P, FIN, S and UK.

Figure 22.4

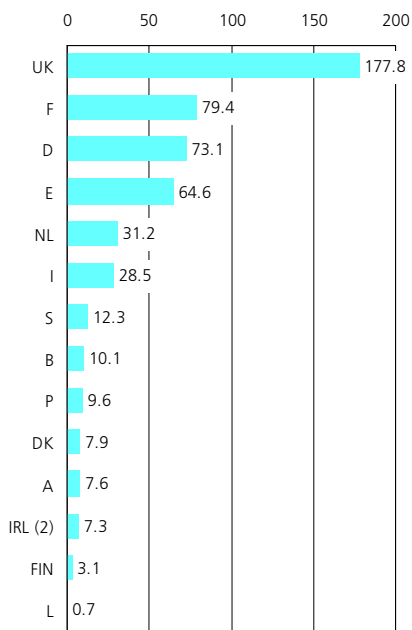
Equipment leased by type of asset in the EU, 2001 (share of turnover) (1)



(1) Excluding EL and L.

Source: Leaseurope, Annual Statistics, available at <http://www.leaseurope.org>.

Figure 22.5
Renting of machinery and equipment without operator and of personal and household goods (NACE Division 71)
Number of persons employed, 2000
(thousands) (1)



(1) EL, not available.

(2) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

LABOUR AND PRODUCTIVITY

Renting and leasing was not a particularly large sector in terms of employment. It is estimated that these activities occupied 520 500 persons in the EU in 2000, about 0.5 % of total employment in the EU's business economy and 0.8 % of those employed in the services sector. At the division level of NACE in the service sector, only water and air transport and R & D employed fewer people. Nevertheless, employment expanded rapidly in the second half of the 1990s, albeit at a slower pace than value added. In Italy, the level of employment almost doubled between 1996 and 2000, passing from 15 091 to 28 542 persons employed, corresponding to average growth of 17.3 % per annum. Despite a contraction in value added, the Netherlands reported the second highest growth rate for employment, with an overall gain of 50 % in the number of persons employed in the renting and leasing subsector between 1995 (20 218 persons employed) and 2000 (31 177 persons employed). In contrast, employment levels remained relatively stable in Sweden (with average growth of 1.4 % per annum between 1997 and 2000) and Portugal (0.1 % per annum between 1995 and 2000).

The LFS highlights that renting and leasing displays many employment characteristics that are generally more closely associated with manufacturing than other business services. There was for example a relatively high presence of men, paid employees and full-time work patterns in this subsector in the EU in 2001. Indeed, almost two thirds (63.6 %) of those persons employed were men, the highest share amongst any of the activities in this chapter (at the NACE division level). Full-time work accounted for 83.6 % of the workforce (compared to 78.4 % for business services), while paid employees accounted for 85.6 % of those in employment, some 8.4 percentage points above the business services' average.

The interpretation of financial ratios should be carried out with great caution, due to the specific nature of this activity, whereby the rental or leasing enterprise remains the owner of the good it rents or leases. As such, enterprises in this sector may face considerably higher financial income and depreciation charges when compared to enterprises that are active in other service sectors. As a consequence, ratios relying on indicators such as gross value added may appear over-inflated. For example, wage adjusted labour productivity was particularly high in the renting and leasing subsector, exceeding 200 % in every country for which data are available for 2000, except Italy. Average personnel costs were generally above averages for the whole of the business services' sector. For example, in the Netherlands, Germany and Portugal they accounted for more than 120 % of the business services' average, while the majority of the other countries laid within the range of 110 to 120 %.

22.2: RESEARCH AND DEVELOPMENT

Research and development (R & D) activities are classified within NACE according to the field of investigation where the research is taking place. A distinction is made between research and experimental development within natural sciences and engineering (NACE Group 73.1) and research and experimental development within social sciences and humanities (NACE Group 73.2). Note that market research activities are not covered and that these are included as part of Subchapter 22.3. In addition, the statistics presented in this subchapter concern exclusively those enterprises whose main activity consists of carrying out R & D activities, and thus excludes R & D departments of universities, public administrations and enterprises whose main activity is otherwise classified.

STRUCTURAL PROFILE

SBS data allow an estimate to be made for the value added generated by R & D enterprises in the EU in 2000. The estimate gives a value of around EUR 11.2 billion, with the United Kingdom (EUR 2.7 billion) and Germany (EUR 2.5 billion) together accounting for almost half of the total. The value added generated in the Netherlands was on a par with the figure reported in France (EUR 1.5 billion). Although R & D enterprises represent only a marginal share of the business services' sector in most countries (between 0.5 and 2.0 % of value added), Luxembourg was a notable exception, as the EUR 159 400 of value added that was generated in 2000 was equivalent to 12 % of business services' value added. Sweden, Germany and Belgium also reported that this subsector was important in relation to the size of their business services' sectors.

Table 22.5

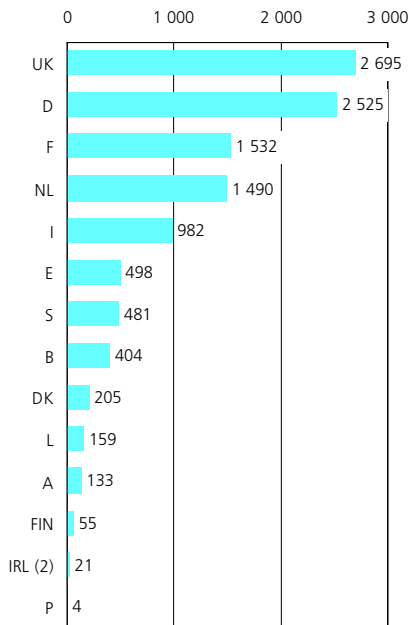
Research and development (NACE Division 73)
Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	26.3	-1.2	0.4	23.1	2.3	-1.0	1.0	-15.1	49.3	4.8	1.4	-8.1	9.8	22.0	7.9
DK	:	:	:	:	22.2	:	:	:	:	25.9	:	:	:	:	12.4
D	:	16.5	37.4	6.2	-15.4	:	:	:	:	-58.3	:	:	:	:	-56.0
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	3.0	23.7	:	:	:	3.2	-19.8	:	:	:	4.2	-30.3
F	:	5.5	10.3	6.6	11.2	:	2.1	9.1	18.4	11.5	:	9.9	9.3	4.0	14.7
IRL	74.5	-9.2	110.6	:	:	79.2	-8.7	62.7	:	:	40.9	7.5	12.2	:	:
I	:	6.2	-19.8	20.4	8.3	:	-19.6	-2.9	17.1	12.1	:	1.0	-0.7	13.8	3.0
L	3.6	-2.4	20.5	2.1	1.0	17.3	-24.6	48.6	3.3	1.3	14.6	5.6	15.4	16.4	-9.1
NL	:	:	:	:	15.5	:	:	:	:	-1.3	11.9	19.4	8.5	:	:
A	7.0	-7.4	12.4	12.6	274.3	:	:	2.8	13.8	99.1	9.4	12.9	14.9	-4.0	78.1
P	35.0	137.0	1.6	70.8	-12.6	:	125.0	105.6	2.7	2.6	32.9	10.6	64.0	-8.8	10.7
FIN	8.5	49.5	1.5	239.9	65.3	7.0	16.8	-8.7	-42.1	102.2	2.8	36.2	-7.3	4.3	38.1
S	37.3	44.0	38.4	13.6	-26.0	35.2	98.0	24.2	4.1	-28.5	:	:	14.5	6.1	-22.2
UK	4.3	35.2	11.2	10.0	-6.4	:	:	-1.1	7.1	-25.1	:	:	:	-3.2	-0.1

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 22.6

**Research and development
(NACE Division 73)
Value added, 2000 (million EUR) (1)**

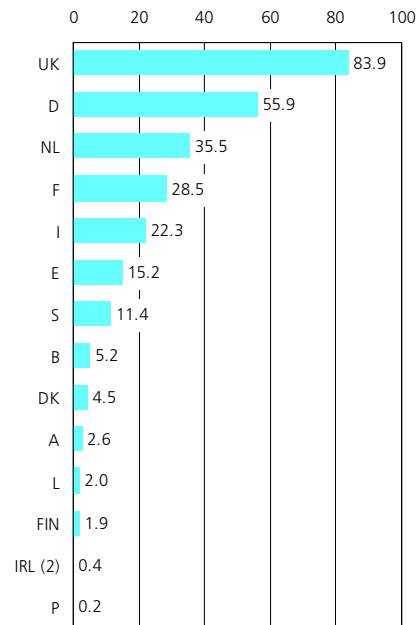


(1) EL, not available.
(2) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 22.7

**Research and development
(NACE Division 73)
Number of persons employed, 2000
(thousands) (1)**



(1) EL, not available.
(2) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

LABOUR AND PRODUCTIVITY

On the basis of available SBS data, employment in R & D enterprises was estimated at 269 700 persons in the EU in 2000. As such, this was the smallest service sector after water transport at the division level of NACE, accounting for only 0.3 % of those employed in the EU's business economy.

According to the LFS, a small majority of the R & D workforce in the EU in 2001 were men (58.4 %). Contrary to the other business services, practically all persons in employment (96.4 %) were paid employees, and only Italy displayed a significant share of self-employed persons (19.7 %) in this activity. Full-time employment was also more popular than in other business services, as it concerned 86.4 % of the workforce.

The apparent labour productivity of the EU's R & D sector was estimated at EUR 41 500 per person employed in 2000, which was slightly higher than the average for business services, but below the averages for services (NACE Sections G to K) or for the business economy as a whole (NACE Sections C to K). Belgium (EUR 77 600 per person) and Luxembourg (EUR 80 700) boasted the most productive workforces, while Finland (EUR 29 200) and Portugal (EUR 19 000) were below average.

Wage adjusted labour productivity in R & D enterprises was generally lower than in other business services and in some cases value added did not cover personnel costs. This was the case in 2000 in Denmark, Portugal, Finland, Sweden and the United Kingdom. The highest value for the wage adjusted labour productivity ratio was recorded in Belgium, at 125.6 %. The generally low figures for this ratio can in part be explained by elevated personnel costs, which may well be a direct consequence of the high level of qualifications possessed by the majority of the workforce. Indeed, average personnel costs were generally above EUR 45 000 per employee, with a maximum of EUR 72 600 recorded in Luxembourg in 2000 ⁽⁶⁾, while average personnel costs were typically below EUR 30 000 for the whole of the business services' sector.

⁽⁶⁾ IRL, 1998; EL, not available.

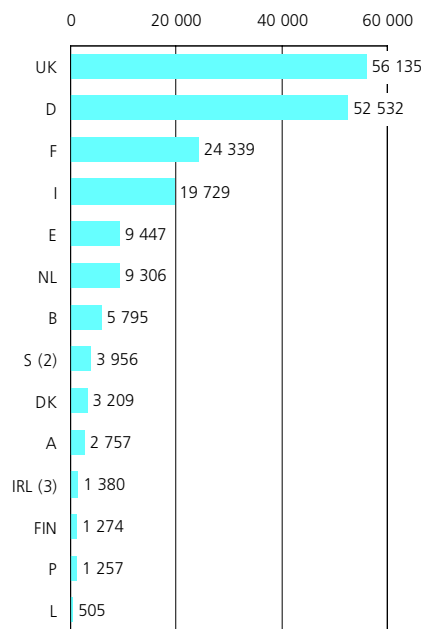
22.3: LEGAL, ACCOUNTANCY AND MANAGEMENT SERVICES

The activities covered in this subchapter extend across a variety of professional activities that include legal services, accounting, book-keeping, auditing, tax consultancy, market research, public opinion polling, business and management consultancy services, as well as management activities relating to holding companies; they are classified within NACE Group 74.1.

Many of the services considered in this chapter are provided by small enterprises, often self-employed persons or partnerships providing a narrow, specific range of services. Some of the subsectors have seen the enterprises grow to very large proportions, in both a geographic dimension from local enterprises to national and then multinational enterprises, and in an activity dimension from specialised enterprises to multi-service enterprises. Most noticeably this has been seen with accounting partnerships expanding into consultancy (management and IT in particular – the latter is treated in Chapter 23) and has led in some very public cases to concerns about conflicts of interest. In some of these services international expansion has often come about through the establishment of networks of independent enterprises rather than the establishment of foreign subsidiaries under a single group management.

Although classified as business services, some of these services are supplied in part to individuals, such as legal or tax consultancy services.

Figure 22.8
Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings (NACE Group 74.1)
Value added, 2000 (million EUR) (1)



(1) EL, not available.
 (2) 1999.
 (3) 1998.
 Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

STRUCTURAL PROFILE

Legal, accountancy and management services are the largest activity within the business services' sector, accounting for EUR 191.6 billion of value added in 2000 ⁽⁷⁾, more than one third of business services' value added. Germany and the United Kingdom generated together more than half of this amount, with respectively EUR 52.5 billion and EUR 56.1 billion of value added. This was more than twice the figure reported by France (EUR 24.3 billion) or Italy (EUR 19.7 billion).

In relative terms the professional services were of particular importance in Ireland, where, with EUR 1.4 billion of value added (1998), they accounted for not far from half of the value added created in the business services' sector. On the contrary, professional services were relatively less developed in Portugal and Finland where they accounted for only one quarter of business services' value added.

Growth in the professional services' sector was modest during the second half of the 1990s, except in the United Kingdom where value added increased from EUR 30.0 billion in 1997 to EUR 56.1 billion by 2000. Apart from Luxembourg (with an average growth rate of 11.3 % per annum over the period 1995 to 2000), the remaining countries for which data are available ⁽⁸⁾ recorded growth rates generally in the range of 5 to 10 %.

Available size-class data show that professional services' enterprises tend to be generally smaller than the average for business services. Indeed, enterprises employing less than 10 persons accounted for 40.6 % of value added and 46.9 % of employment in 2000 ⁽⁹⁾, shares that were significantly above the respective averages for business services as a whole.

⁽⁷⁾ S, 1999; IRL, 1998; EL, not available.
⁽⁸⁾ Time-series of at least three years available for B, F, I, L, NL, A, P, FIN, S and UK.
⁽⁹⁾ D, EL, IRL and L, not available; S, 1999.

Legal services

Legal services are defined as the activities of advocates, barristers, solicitors, notaries, registered lawyers and legal consultants. While some large international partnerships have emerged, the vast majority of persons employed in this sector are self-employed lawyers or notaries. Data compiled by the Council of the Bars and Law Societies of the European Union indicate that there were over 617 600 fully qualified lawyers practising in the EU in 2000, which corresponds to 1.6 per 1 000 inhabitants.

Accountancy services

According to the Federation of European Accountants (FEE), there were more than 386 600 qualified accountants who were members of national associations in the EU in 2000, of which about 62 % worked for specialised accountancy enterprises, while the others were working either in the accounts departments of enterprises in other business sectors or within public administrations.

Accountancy services consist mainly of account keeping and auditing, but enterprises in these activities often also provide consultancy services relating to fiscal, financial, general management and IT matters. The profession is dominated by a few large international firms that usually provide services to medium and large clients while the bulk of the profession consists of small enterprises, particularly self-employed accountants.

The EU market for accountancy services is a good example of a professional service market that is highly fragmented largely as a result of the multitude of rules and regulations to which enterprises are subject, including accession to the profession itself. Rules on accountancy, taxation, company law or social legislation may differ considerably from one country to the other, constituting a barrier to transnational operations.

Market research and public opinion polling

Market research deals with analysing markets for products and services. It is generally used by enterprises to identify and evaluate market conditions and emerging trends and to define and assess marketing strategies. This service also covers the surveying of public attitudes to political, economic and social issues. According to the European Society for Opinion and Marketing Research (ESOMAR®), market research activities generated EUR 6.5 billion of turnover in the EU in 2001, an increase of 7.3 % when compared to 2000, following two years of double-digit growth.

The main clients of market research enterprises are manufacturing enterprises, which accounted for approximately half of the turnover generated in 2001 (see Table 22.7), while the media was the second largest client, representing approximately 10 % of turnover. Most of the turnover in this subsector was generated in the area of consumer research (approximately 79.0 %). The largest market research group in the world was VNU (Netherlands) after acquiring the former top company, ACNielsen (United States), in 2001. After this operation, VNU controlled nearly 25 % of the revenues of the top 25 companies in this sector, with turnover in market research activities equal to EUR 2.7 billion in 2001 (see Table 22.8), more than twice the turnover of the second-placed company in the ranking, IMS Health (United States).

Table 22.6

Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings (NACE Group 74.1)

Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	11.6	6.4	18.5	13.4	24.6	-5.7	-3.3	11.1	14.3	14.6	1.3	-4.1	13.6	4.4	10.6
DK	:	:	:	:	17.8	:	:	:	:	27.1	:	:	:	:	9.7
D	:	-4.1	8.1	11.5	-32.0	:	:	:	:	-21.4	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	:	13.2	:	:	:	:	11.8	:	:	:	:	3.8
F	17.9	23.6	7.7	7.3	22.5	-10.2	2.3	23.6	-3.0	17.5	-29.5	6.8	9.3	4.2	11.9
IRL	19.2	18.8	13.0	:	:	18.3	23.7	15.6	:	:	6.1	3.5	8.8	:	:
I	:	2.7	7.1	27.5	8.7	:	1.5	9.5	11.5	10.8	:	2.9	1.8	9.3	9.0
L	4.6	22.3	7.8	11.9	18.9	15.4	13.2	7.2	6.3	14.7	16.4	9.7	13.5	2.3	13.7
NL	:	:	-7.3	:	:	:	:	11.5	:	:	17.5	2.3	2.5	:	:
A	:	:	9.4	3.4	8.5	:	:	6.4	5.0	4.8	:	:	5.8	3.4	2.9
P	:	-57.5	36.6	15.3	-28.4	:	-70.5	45.0	51.0	-36.8	:	8.3	10.2	-5.2	-1.5
FIN	-43.2	10.8	49.8	7.3	-16.0	-14.8	16.9	56.0	-26.3	-10.6	-7.8	0.8	9.7	5.8	-0.1
S	8.9	11.2	13.3	19.1	:	-1.2	34.8	4.0	2.9	:	:	:	6.0	6.6	:
UK	:	:	23.2	16.0	21.9	:	:	26.6	13.7	30.2	:	:	:	5.0	10.2

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.7
Breakdown of market research clients in the EU, 2001 (1)

	Share of research turnover (%)
Manufacturing	50.8
Media	9.7
Utilities, post & telecom	6.2
Public administration	6.0
Financial services	5.5
Research institutes	5.1
Distributive trade	4.1
Industrial B2B	3.6
Advertising agencies	2.3
Others	6.7

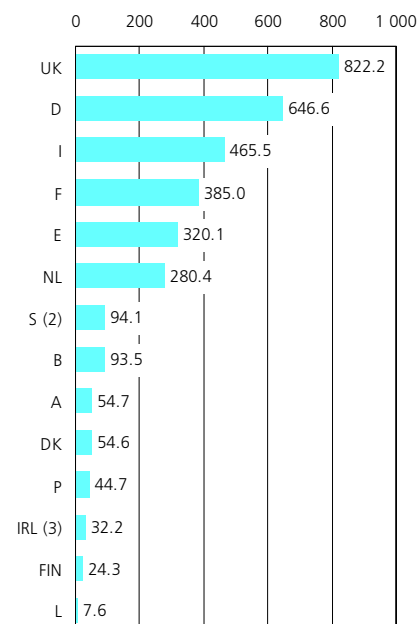
(1) L, NL and A, not available.
Source: Annual Study on the Market Research Industry, ESOMAR, 2001 Copyright © ESOMAR® 2003. Permission for using this material has been granted by ESOMAR®, Amsterdam, NL. For further information, please refer to the ESOMAR website: www.esomar.nl.

Table 22.8
Top ten global market research companies by turnover, 2001

		Number of research-only full-time employees	Global research turnover (million EUR)
VNU	NL	31 919	2 680
IMS Health	US	5 400	1 308
WPP	UK	6 285	1 124
Taylor Nelson Sofres	UK	8 685	908
Information Resources	US	4 000	621
GfK Group	D	4 750	536
NFO WorldGroup	US	9 500	506
Ipsos Group	F	3 362	480
NOP World	UK	1 748	363
Westat	US	1 576	319

Source: Annual Study on the Market Research Industry, ESOMAR, 2001 Copyright © ESOMAR® 2003. Permission for using this material has been granted by ESOMAR®, Amsterdam, NL. For further information, please refer to the ESOMAR website: www.esomar.nl.

Figure 22.9
Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings (NACE Group 74.1) Number of persons employed, 2000 (thousands) (1)



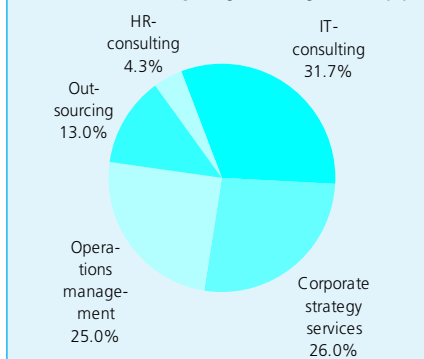
(1) EL, not available.
(2) 1999.
(3) 1998.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Management consultancy
As with other professional services this sector has a small number of large multinational consultants alongside a large number of very small enterprises.

According to the European Federation for management consultancy (FEACO) in 2002 there were approximately 280 000 consultants in Europe (10) who generated an estimated turnover of EUR 52.5 billion. This corresponds to a growth rate of about 10.5 % when compared to 2001 turnover levels. IT consulting (11) (31.7 %), corporate strategy (26.0 %) and operations management (25.0 %) were the main fields of activity for management consultants in 2002 (see Figure 22.10). On the demand side, the most important clients of consulting firms were manufacturing enterprises, representing 27.3 % of total turnover (see Figure 22.11).

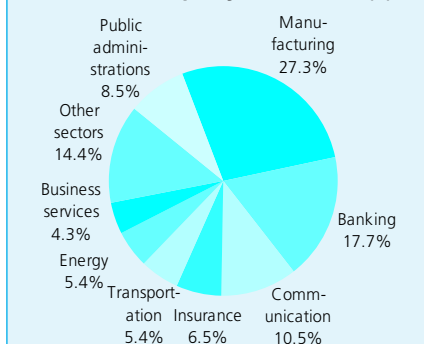
(10) EU-15 (excluding IRL and L), Bulgaria, Switzerland, Hungary, Norway, Poland, Romania, Russia and Slovenia; forecasts.
(11) IT consulting is often carried out by management consultants; note that consultancies with IT consulting as their principal activity are included in NACE Division 72 and are treated in Chapter 23.

Figure 22.10
Breakdown of management consulting turnover in Europe by activity, 2002 (1)



(1) EU-15 (excluding IRL and L), BG, CH, HU, NO, PL, RO, RU and SI; forecasts.
Source: Survey of the European Management Consultancy Market, FEACO, 31 December 2001.

Figure 22.11
Breakdown of management consulting turnover in Europe by client, 2002 (1)



(1) EU-15 (excluding IRL and L), BG, CH, HU, NO, PL, RO, RU and SI; forecasts.
Source: Survey of the European Management Consultancy Market, FEACO, 31 December 2001.

LABOUR AND PRODUCTIVITY

According to SBS data, approximately 3.3 million persons were working in the professional services in the EU in 2000 ⁽¹²⁾. About one quarter of them were employed in the United Kingdom, some 822 200 persons, and one fifth in Germany, some 646 600 persons. Italy had the third highest number of persons employed for professional services, with 465 500 persons, which was more than in France (385 000 persons), despite the fact that they generated less value added. As noted above, the Netherlands had a highly developed professional services sector, with 280 400 persons employed in 2000.

⁽¹²⁾ S, 1999; IRL, 1998; EL, not available.

Available time-series for the second half of the 1990s ⁽¹³⁾ sheds some light on the relatively dynamic nature of the professional services' labour market, as the average number of net jobs that were created exceeded 4.0 % per annum in most countries, reaching 8.0 % per annum between 1995 and 2000 in France, 8.7 % in the Netherlands and even 10.2 % in Luxembourg (both over the same period).

Apparent labour productivity in the professional services' subsector showed wide differences from country to country, but was in all cases above the average for business services as a whole ⁽¹⁴⁾. Productivity ratios lay in the range of EUR 28 100 per person employed in Portugal to EUR 81 200 per person employed in Germany, with the productivity level above EUR 50 000 in the majority of countries.

⁽¹³⁾ B, F, I, L, NL, A, P, FIN, S and UK.

⁽¹⁴⁾ S, 1999; IRL, 1998; EL, not available.

However, adjusting productivity to take into account the level of personnel costs leads to less clear-cut conclusions. Indeed, high average personnel costs dragged wage adjusted labour productivity ratios below the average for business services in Belgium, Spain, France, the Netherlands, Austria and Sweden. In the remaining countries, wage adjusted labour productivity remained above the business services' average, particularly in the United Kingdom (177.7 %) and Germany (222.1 %).

22.4: ARCHITECTS AND ENGINEERING ACTIVITIES; TECHNICAL, TESTING AND ANALYSIS

Architectural and engineering activities covered by NACE Group 74.2 include architectural consulting activities (such as building design and drafting, supervision of construction, town and city planning and landscape architecture) and various engineering and technical activities related to construction, as well as geological and prospecting activities, weather forecasting activities and geodetic surveying. Technical testing and analysis activities (NACE Group 74.3) include environmental measuring, testing in the field of food hygiene, building and equipment, as well as the periodic testing of vehicles for roadworthiness.

STRUCTURAL PROFILE

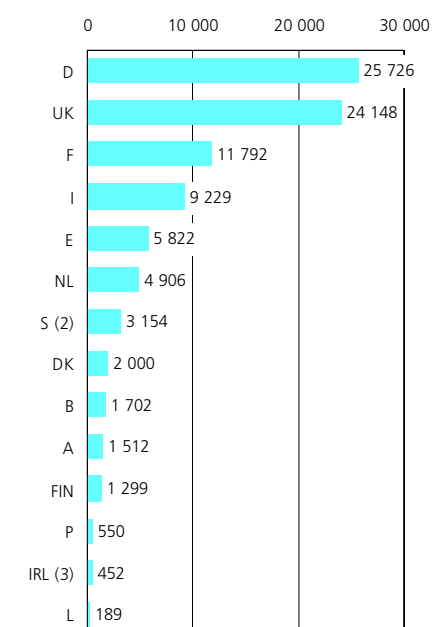
Architectural, engineering and technical services generated EUR 92.5 billion of value added in the EU in 2000 ⁽¹⁵⁾, approximately 17 % of the total for business services. Contrary to most other business services, Germany contributed the largest share, with EUR 25.7 billion of value added in 2000, ahead of the United Kingdom (EUR 24.1 billion) and more than twice the level of France (EUR 11.8 billion) and Italy (EUR 9.2 billion). Relative to other business services, these activities were particularly important in the Nordic countries, as well as Germany, where they generated one quarter (or more) of business services' value added.

Size-class data portray this sector as being dominated by smaller than average enterprises. Indeed, micro-enterprises generated almost one third of the value added (31.8 %) within the activities of architectural, engineering and technical services and accounted for almost half of the workforce (49.2 %) ⁽¹⁶⁾.

⁽¹⁵⁾ S, 1999; IRL, 1998; EL, not available.

⁽¹⁶⁾ D, EL, IRL, I and L, not available; S, 1999.

Figure 22.12
Architectural and engineering activities and related technical consultancy; technical testing and analysis (NACE Groups 74.2 and 74.3)
Value added, 2000 (million EUR) (1)



(1) EL, not available.

(2) 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.9

Architectural and engineering activities and related technical consultancy; technical testing and analysis (NACE Groups 74.2 and 74.3)
Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	-40.1	-15.1	5.2	10.3	17.0	-63.5	-14.0	-2.5	12.8	16.0	-2.4	1.9	-4.5	9.7	14.3
DK	:	:	:	:	3.3	:	:	:	:	1.2	:	:	:	:	1.8
D	:	-5.8	3.1	4.2	-12.0	:	:	:	:	-14.2	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	:	13.9	:	:	:	:	11.6	:	:	:	:	6.5
F	1.5	14.2	4.0	7.2	15.4	-17.6	11.6	5.4	9.5	12.5	-23.4	5.5	4.1	4.3	7.5
IRL	50.6	40.5	2.1	:	:	21.1	24.0	30.9	:	:	27.7	0.9	35.6	:	:
I	6.3	7.2	-7.4	13.6	2.0	-6.5	4.8	2.3	20.4	-1.5	-2.3	1.8	-7.7	12.4	8.0
L	8.6	8.9	43.2	10.8	4.2	17.0	13.2	2.8	47.9	-6.0	11.3	7.5	54.1	9.8	-5.8
NL	:	:	5.9	:	:	:	:	5.3	:	:	7.2	-0.5	-0.3	:	:
A	:	:	9.3	5.2	31.9	:	:	16.2	3.5	-12.8	:	:	12.9	6.3	8.6
P	:	6.2	10.8	50.7	-46.8	:	10.6	-1.1	64.5	-33.9	:	10.9	-8.3	1.7	-4.0
FIN	-7.8	-2.5	12.5	7.5	14.5	3.6	5.3	11.2	5.6	13.0	3.6	6.9	7.7	3.6	3.7
S	26.8	0.1	1.5	5.1	:	17.2	7.0	3.6	5.9	:	:	:	4.3	3.3	:
UK	21.2	49.1	8.4	-0.2	10.4	:	:	5.9	0.8	19.8	:	:	:	1.1	2.8

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Engineering consultancy

Engineering consultancy enterprises advise, design, implement and/or manage engineering solutions for construction projects. The European Federation of Engineering Consultancy Associations (EFCA) estimates that there were 8 656 engineering consultancy firms in the EU in 2001, employing almost 196 000 persons and generating turnover in excess of EUR 25 billion (see Table 22.10).

Landscape contractors

The European Landscape Contractors Association (ELCA) estimates that there were almost 41 000 landscaping enterprises in the EU in 2001 ⁽¹⁷⁾, employing just over 240 000 persons. These enterprises prepare, renovate and maintain gardens (including public ones), sports grounds, parks, golfing greens and leisure facilities. Of increasing importance is the field of greenery on buildings and interior gardens in workspaces.

⁽¹⁷⁾ EL, L and P, not available.

Table 22.10

Main indicators for engineering consultancy services, 2001

	Number of enterprises	Number of persons employed	Turnover (million EUR)	Exports as a share of turnover (%)
EU-15	8 656	195 642	25 227	:
B	105	4 250	250	15
DK	353	8 652	890	22
D	3 400	47 083	3 900	20
EL	190	1 900	76	10
E	234	17 611	1 283	11
F	1 035	21 623	3 673	30
IRL (2)	106	2 173	131	5
I	380	12 845	4 671	42
L (1)	98	1 264	74	:
NL	220	20 000	3 800	25
A (2)	1 221	4 755	77	15
P	160	1 988	190	6
FIN	249	9 250	700	32
S	345	9 900	862	10
UK	560	32 348	4 650	35
BG	98	750	:	:
CZ	51	1 527	74	2
HU	71	1 679	23	22
PL	19	400	16	:
SI	12	431	12	5

(1) Engineering consultants and architects.

(2) Turnover, 2000.

Source: EFCA (European Federation of Engineering Consultancy Associations) – <http://www.efcanet.org>.

Table 22.11
Top ten engineering consulting groups in the EU, 2001

		Number of employees	Turnover (million EUR)
WS Atkins plc	UK	15 000	1 326
Altran Technologies	F	16 651	1 309
Fugro N.V	NL	6 523	924
Arcadis Group	NL	7 619	809
Mott MacDonald Group	UK	5 326	582
ARUP Group	UK	6 250	527
Grontmij Group	NL	4 013	519
Jaakko Pöyrö Group	FIN	4 584	438
Groupe Egis	F	3 700	380
WSP Group plc	UK	5 000	379

Source: Swedish Federation of Consulting Engineers and Architects (STD), Sector Review, November 2002.

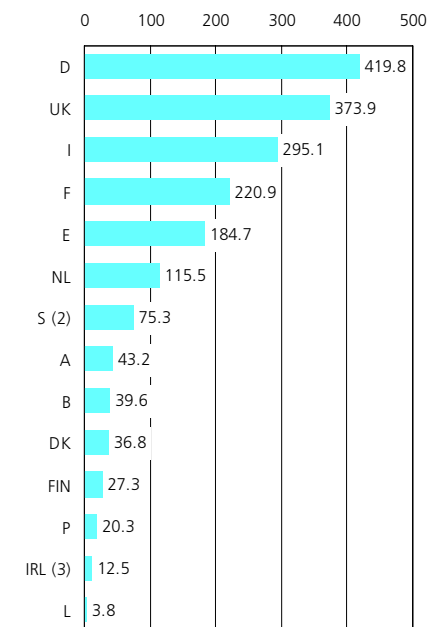
LABOUR AND PRODUCTIVITY

Some 1.9 million persons were working in architectural, engineering and technical services in the EU in 2000 ⁽¹⁸⁾. Germany and the United Kingdom were the largest employers in the sector, with respectively 419 800 and 373 900 persons employed. Italy employed more persons in this sector than France (295 100 persons against 220 900 persons). The relative importance of this activity in the Nordic countries was again apparent from the high share of the architectural, engineering and technical services' workforce in the business services' total in Sweden (22.9 %, 1999), Finland (20.4 %) and Denmark (17.4 %). They were joined by two other countries that also reported high shares: Austria (20.3 %) and Italy (19.7 %).

⁽¹⁸⁾ S, 1999; IRL, 1998; EL, not available.

Although apparent labour productivity was on average higher than in other business services, at around EUR 50 000 of value added per person employed, the relatively high level of average personnel costs dragged adjusted labour productivity ratios below the business services' average in each Member State. Indeed, average personnel costs were equal to or greater than EUR 40 000 per employee in the majority of countries, and reached EUR 47 500 in Denmark. In Spain (EUR 25 200) and Portugal (EUR 17 400), where average personnel costs were the lowest in the EU, personnel costs were above the national average for business services. As a consequence, wage adjusted labour productivity ratios for architectural, engineering and technical services were generally below the average for business services as a whole, below 120 % in most countries, with a minimum of 86.6 % recorded in Austria.

Figure 22.13
Architectural and engineering activities and related technical consultancy; technical testing and analysis (NACE Groups 74.2 and 74.3)
Number of persons employed, 2000 (thousands) (1)



(1) EL, not available.

(2) 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

22.5: ADVERTISING AND DIRECT MARKETING

Advertising and direct marketing enterprises engage in services aimed at promoting ideas, goods and services, be it to the general public, specific target groups or other enterprises. These activities are covered by NACE Group 74.4 which includes the creation and placing of outdoor advertising, the sale of advertisement time and space and the distribution or delivery of advertising material, as well as direct marketing, sponsorship and sales promotion services.

Advertising has undergone a fragmentation as new media have developed and the number of specialised titles and channels has increased. This has led simultaneously to a potentially increased audience (and hence revenue) and at the same time to demand for a more specialised or focused approach. This fragmentation has come about through the liberalisation of broadcasting activities and from technological developments that have reduced the costs of preparing and publishing content. More recently the sector has suffered considerably from the economic slowdown.

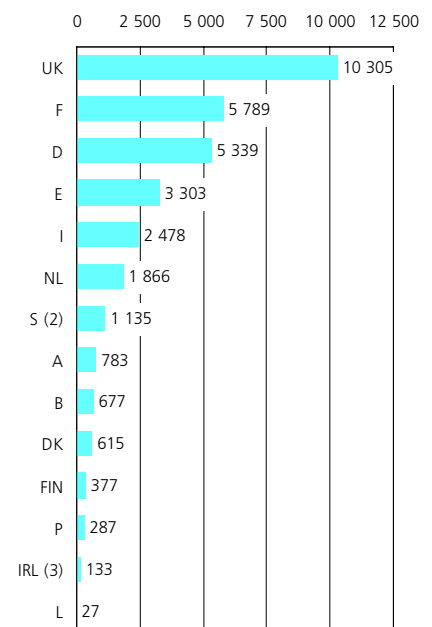
STRUCTURAL PROFILE

The EU's advertising sector generated value added of EUR 33.1 billion in 2000 ⁽¹⁹⁾, more than 6 % of the business services' total. The United Kingdom was, by far, the largest advertising market in the EU, with almost one third of the value added generated in the EU (EUR 10.3 billion). In addition, contrary to most other business services, France, and not Germany, was the second largest country for advertising, with value added of EUR 5.8 billion, compared to EUR 5.3 billion for Germany. These results are mainly caused by the relatively low specialisation of Germany in advertising (rather than a high specialisation of France), as advertising in Germany accounted for 4.4 % of business services' value added compared to a 6.1 % average. In relative terms, Spain appeared as the country most specialised in advertising, as it accounted for a 10.0 % share of business services' value added, while other countries with relatively high shares included Sweden (8.8 %, 1999), Austria (8.5 %) and Finland (8.2 %). At the opposite end of the spectrum, only Luxembourg (2.0 %) reported a lower specialisation ratio than Germany, although Belgium (4.5 %) and Ireland (4.7 %) were also well below the EU average.

⁽¹⁹⁾ S, 1999; IRL, 1998; EL, not available.

Total turnover of advertising enterprises in the EU was equal to EUR 121.4 billion in 2000. This figure can be used to calculate a proxy for average turnover in the EU, which was equivalent to approximately EUR 331 for each inhabitant (see Table 22.13).

Figure 22.14 Advertising (NACE Group 74.4) Value added, 2000 (million EUR) (1)



(1) EL, not available.

(2) 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.12

Advertising (NACE Group 74.4) Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	2.1	-7.8	1.9	28.6	-2.9	-5.5	-2.1	17.8	5.6	5.2	-23.0	-3.8	9.4	8.4	11.5
DK	:	:	:	:	-0.4	:	:	:	:	-4.0	:	:	:	:	14.3
D	:	2.8	0.7	17.2	-39.8	:	:	:	:	-69.9	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	8.4	29.2	:	:	:	8.3	53.4	:	:	:	8.1	25.1
F	6.7	2.7	10.2	7.2	8.9	2.0	5.8	7.0	9.4	11.5	-5.9	6.8	3.5	4.7	2.2
IRL	21.9	13.7	16.4	:	:	9.3	14.6	23.3	:	:	7.8	54.1	-37.2	:	:
I	29.6	5.2	151.7	7.7	-2.0	27.1	-16.8	46.1	26.8	8.0	-4.5	1.6	29.9	17.4	1.5
L	8.6	-3.5	11.1	7.3	8.0	-5.2	-0.5	27.4	-10.0	8.4	16.3	6.0	12.4	1.6	16.5
NL	:	:	9.5	:	:	:	:	13.5	:	:	-0.9	15.5	4.0	2.6	32.6
A	:	:	-0.9	19.8	14.9	:	:	-0.2	18.4	24.3	:	:	19.4	5.1	8.2
P	:	-19.4	32.3	27.4	-34.4	:	4.0	20.4	-6.8	-3.2	:	46.6	-21.3	2.9	-20.4
FIN	10.5	6.9	24.1	6.7	7.7	5.4	15.4	17.4	4.8	14.4	11.1	-0.3	18.5	12.5	2.2
S	11.2	8.8	10.8	3.5	:	16.4	9.3	12.6	5.5	:	:	:	9.3	3.6	:
UK	7.9	35.2	6.1	14.4	19.0	:	:	6.7	40.4	42.8	:	:	:	-6.1	15.8

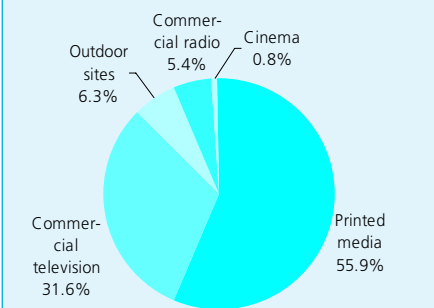
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.13
Average advertising expenditure, 2000
(EUR per inhabitant)

	Total adspend (1)
EU-15	331.1
B	436.4
DK	458.6
D	185.3
EL	:
E	404.3
F	360.4
IRL	154.6
I	204.8
L	291.0
NL	417.8
A	331.8
P	207.9
FIN	275.2
S	477.6
UK	538.6

(1) EU-15, excluding EL; IRL, 1998; S, 1999.
Source: Eurostat, Structural Business Statistics
(theme4/sbs) and Demography (theme3/demo).

Figure 22.15
Breakdown of advertising expenditure by
medium, 2000 (1)



(1) DK, outdoor sites include free magazines, directories, annuals and trade press.
Source: Western European Market and Mediafact, Zenithmedia, 2001.

Advertising expenditure by medium

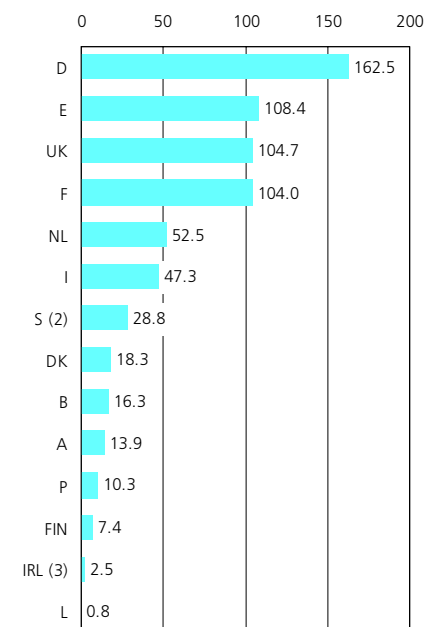
Despite the deregulation of television and the increase of new broadcasting services the printed press remained the most popular medium for disseminating advertisements, accounting for 55.9 % of total advertising expenditure in 2000, ahead of commercial television (31.6 %) and outdoor sites (6.3 %) – see Figure 22.15.

Table 22.14
Direct marketing spend and volume of
direct marketing per capita, 2000

	Volume per inhabitant (items) (2)	Spend per inhabitant (EUR)
EU-15 (1)	201.7	111.8
B	106.5	70.0
DK	413.0	100.2
D	266.9	159.8
EL	:	5.4
E	21.5	75.7
F	384.0	121.9
IRL	90.8	18.7
I	26.0	45.7
L	:	:
NL	676.7	269.8
A	544.9	141.9
P	54.8	4.6
FIN	304.3	95.2
S	398.6	134.9
UK	78.1	127.4

(1) Average of available countries.
(2) B, I and UK, excluding unaddressed mail.
Source: 2001 Survey on Direct Marketing Activities in the European Union, FEDMA.

Figure 22.16
Advertising (NACE Group 74.4)
Number of persons employed, 2000
(thousands) (1)



(1) EL, not available.
(2) 1999.
(3) 1998.
Source: Eurostat, Structural Business Statistics
(theme4/sbs/enterpr/enter_ms).

Direct marketing

Direct marketing is evolving from its traditional forms of direct mail and un-addressed mail to direct response within the printed press, TV shopping, tele-marketing, Internet and other on-line services. Nevertheless, the largest share of expenditure on direct marketing services in the EU in 2000 was still direct mail according to The Federation of European Direct Marketing (FEDMA).

FEDMA estimates that total direct marketing expenditure in the EU was equal to EUR 43.0 billion in 2000, up 9 % compared to 1999. In volume terms, when combining addressed and unaddressed mailings, EU residents received an average of 202 items in 2000 (see Table 22.14).

LABOUR AND PRODUCTIVITY

The advertising sector employed 677 700 persons in the EU in 2000⁽²⁰⁾, which represented approximately 5.0 % of total employment in the business services' sector. Despite its low rate of specialisation relative to the other Member States in terms of value added, Germany employed by far the highest number of persons in this activity, some 162 500 persons in 2000. Spain, the United Kingdom and France followed with similar levels of employment, all between 104 000 and 108 000 persons. Sweden confirmed its relative specialisation in advertising, as this subsector employed 8.7 % of the business services' workforce.

Advertising activities were characterised by average personnel costs per employee that were above the EU average. This was the case in every country except for Denmark, Germany and Sweden⁽²¹⁾. Average personnel costs peaked at EUR 41 700 per employee in France and EUR 42 600 in the United Kingdom, which was more than double the average recorded in Germany (EUR 20 600), Spain (EUR 19 000) and Portugal (EUR 18 500). Wage adjusted labour productivity ratios were above the business services' average in most countries, particularly in Austria (157.6 %), Spain (160.3 %) and the United Kingdom (231.3 %).

(20) S, 1999; IRL, 1998; EL, not available.

(21) S, 1999; IRL, 1998; EL, not available.

22.6: LABOUR RECRUITMENT AND TEMPORARY WORK SERVICES

Activities covered in this subchapter include personnel search, selection referral, head-hunting and job placement services, be they supplied to an individual looking for work or an enterprise trying to hire (NACE Group 74.5). The data presented also cover labour-contracting activities (for example, temporary work agencies), however they do not comprise farm labouring or the performing arts.

The selection and provision of human resources by specialised agencies has been spurred on by the deregulation of labour markets and outsourcing of these services by enterprises in other sectors hoping for greater flexibility or specific expertise. This greater flexibility may be related to organisational or operational issues, to respond rapidly to unexpected changes in demand, to meet short-term needs for unusual skills or to smooth out temporary unavailability of permanent staff. Temporary work may also provide a first step for employees to permanent work.

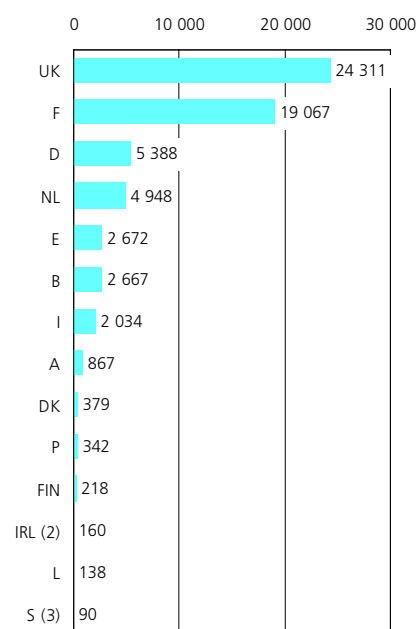
STRUCTURAL PROFILE

Personnel services generated total value added of EUR 63.3 billion in the EU in 2000 (22). The largest share was accounted for by the United Kingdom, with EUR 24.3 billion, followed by France (EUR 19.1 billion). In contrast, the sector was not as developed in Germany, where only EUR 5.4 billion of value added was generated. Looking at the contribution of personnel services to total wealth creation in the business services' sector, the countries that were most specialised in this area were France (21.9 % of business services' value added), Belgium (17.7 %), the Netherlands (16.6 %) and the United Kingdom (14.7 %), in contrast to Germany (4.4 %), Italy (4.2 %) and Sweden (0.7 %, 1999).

By the end of the 1990s all Member States had authorised private employment agencies but some only recently. The importance of this activity across Member States still reflects historical and legal particularities. Significant constraints can still however remain, for example, as regards the maximum length of each assignment, sectors in which agency work is prohibited or underlying reasons which govern the use of agency work.

(22) S, 1999; IRL, 1998; EL, not available.

Figure 22.17 Labour recruitment and provision of personnel (NACE Group 74.5) Value added, 2000 (million EUR) (1)



(1) EL, not available.
(2) 1998.
(3) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

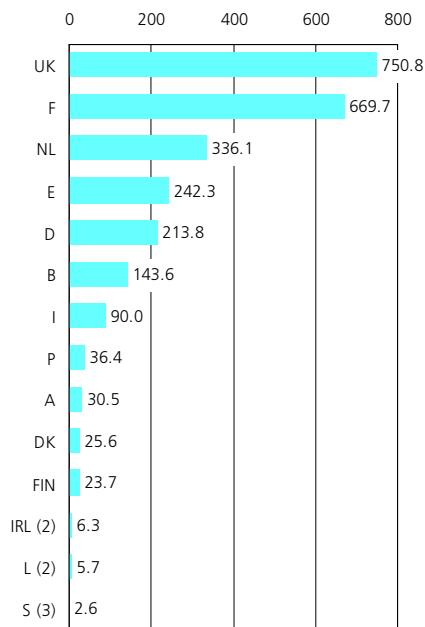
Table 22.15 Labour recruitment and provision of personnel (NACE Group 74.5) Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	11.0	11.0	19.5	12.9	19.3	9.4	16.5	15.7	15.2	19.1	3.5	23.5	8.3	7.4	15.5
DK	:	:	:	:	27.0	:	:	:	:	22.2	:	:	:	:	21.2
D	:	12.0	22.2	17.7	0.8	:	:	:	:	12.6	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	3.7	35.7	:	:	:	3.1	39.8	:	:	:	3.2	6.8
F	1.1	17.6	27.9	14.1	19.5	-0.5	18.5	28.0	15.1	20.4	-1.9	18.3	27.8	14.1	12.9
IRL	7.1	32.9	45.6	:	:	20.0	55.8	57.3	:	:	31.7	17.2	63.0	:	:
I	:	:	792.5	39.6	60.2	:	:	879.5	96.7	77.4	:	:	623.4	215.8	109.7
L	19.2	12.7	-9.0	58.9	12.0	23.9	12.7	-12.4	63.3	12.0	10.9	27.1	18.5	:	:
NL	:	:	18.3	:	:	:	:	19.1	:	:	12.7	13.5	0.4	0.2	-1.9
A	:	:	5.5	13.5	43.3	:	:	10.6	12.1	47.5	:	:	15.6	24.1	37.2
P	:	43.4	33.2	-12.6	40.5	:	37.8	46.6	-16.1	42.1	:	33.7	41.0	-12.6	40.7
FIN	24.6	31.9	33.4	17.3	32.7	16.2	41.1	35.8	15.1	27.9	47.7	27.9	42.9	36.4	169.6
S	62.1	8.2	56.6	94.8	:	67.1	4.1	51.4	111.6	:	:	:	27.9	160.4	:
UK	22.4	39.3	52.3	15.5	23.7	:	:	29.2	22.9	23.0	:	:	:	4.7	11.7

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 22.18

Labour recruitment and provision of personnel (NACE Group 74.5)
Number of persons employed, 2000
(thousands) (1)



(1) EL, not available.

(2) 1998.

(3) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

The activity of personnel services is dominated by large enterprises. It is a sector where three quarters (75.8 %) of the persons employed in the EU in 2000 ⁽²³⁾ worked for enterprises with 250 or more persons employed. These large enterprises accounted for almost two thirds of value added (65.2 %) in the sector. Micro-enterprises of less than 10 persons accounted for just 5.8 % of value added and 3.1 % of employment ⁽²⁴⁾.

⁽²³⁾ D, EL, IRL and L, not available; B and I, 1999; S, 1998.

⁽²⁴⁾ D, EL, IRL and L, not available; I, 1999; B and S, 1998.

Table 22.16

Share of expenditure on agency workers in manufacturing, 2000 (%) (1)

Fabricated metal products	13.7
Machinery & equipment n.e.c.	12.2
Motor vehicles	12.2
Chemicals	10.1
Food products & beverages	8.5
Rubber & plastics	6.4
Other transport equipment	6.0
Electrical machinery & apparatus n.e.c.	5.6
Radio, television & comm. equipment	4.8
Publishing, printing & recorded media	4.1
Other non-metallic mineral products	3.3
Basic metals	3.3
Instrument engineering	2.3
Pulp & paper	2.2
Textiles	1.5
Wood	1.5
Office machinery & computers	1.5
Clothes	0.4
Leather	0.2

(1) B, F and IRL, 1999; EL and L, not available; excluding NACE Divisions 16, 23, 36 and 37; NL, excluding NACE Groups 15.9, 32.3 and 33.1; A, excluding NACE Groups 15.2 and 15.6; FIN, excluding NACE Group 15.4; UK, excluding NACE Group 15.4.

Source: Eurostat, Structural Business Statistics (theme4/sbs).

LABOUR AND PRODUCTIVITY

There were 2.6 million persons employed in personnel services in the EU in 2000 ⁽²⁵⁾. The United Kingdom, with 750 800 persons employed, and France, with 669 700 persons employed, constituted more than half of the EU's workforce in this subsector. It is however very important to note the particularity of employment figures for these activities. Indeed, persons taking up temporary work assignments are normally considered as persons employed by the employment agency and not by the client enterprise. According to CIETT, temporary work enterprises employ one permanent staff member for every 20 placed on assignments, and hence it is possible to estimate that 120 000 full-time employees were working within temporary work agencies themselves.

Personnel services are generally characterised by low apparent labour productivity levels, as well as low average personnel costs. Wage adjusted labour productivity ratios did not exceed 110 % in the majority of countries, and were below business services' averages in every Member State ⁽²⁶⁾. Average personnel costs peaked at EUR 27 100 per employee in France and were generally comprised between EUR 10 000 and EUR 20 000 in most other countries, below the average for business services in every Member State.

In 2000, according to SBS data, almost half of the total manufacturing expenditure on agency workers was accounted for by just four NACE divisions (see Table 22.16). Fabricated metal products (NACE Division 28) was the largest single user of temporary work, accounting for 13.7 % of the manufacturing total, just ahead of machinery and equipment (NACE Division 28) and motor vehicles (NACE Division 34), both accounting for 12.2 %. The chemical sector (NACE Division 24) accounted for 10.1 % of the total.

⁽²⁵⁾ S, 1999; L and IRL, 1998; EL, not available.

⁽²⁶⁾ S, 1999; L and IRL, 1998; EL, not available.

22.7: SECURITY SERVICES

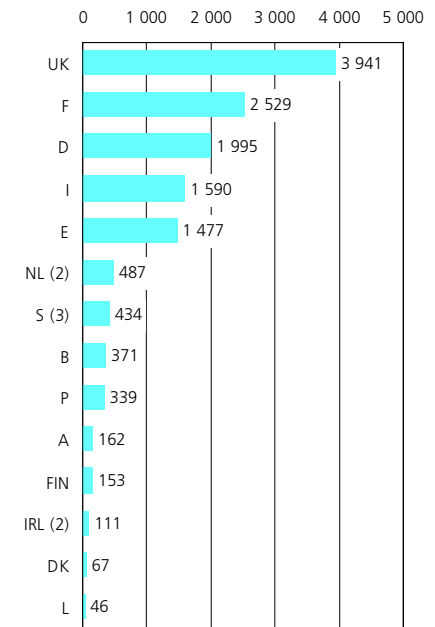
The services covered in this subchapter include investigative and surveillance activities, the transport of valuables, bodyguard activities, security guard/watchman activities for apartment buildings, offices and factories, as well as consultancy for security services (NACE Group 74.6). The installation of alarm systems is not covered.

STRUCTURAL PROFILE

The largest security services sector in the EU in 2000 was in the United Kingdom, generating EUR 3.9 billion of value added, 50 % more than in France (EUR 2.5 billion) and almost double the German figure (EUR 2.0 billion). These three countries accounted together for almost two thirds of the EUR 13.7 billion value added that was generated by security services' enterprises in the EU in 2000 (27). Growth in the second half of the 1990s has been to a large extent in line with, or slightly slower than the average recorded for business services in a majority of countries reporting fairly lengthy time-series. For example, in the United Kingdom, value added at factor costs expanded by 16.0 % per annum between 1997 and 2000 (in current prices), against an average of 17.2 % in business services. In France, growth was equal to 6.5 % per annum between 1996 and 2000, against 10.1 % in business services. In contrast, security services enjoyed significantly faster expansion than the business services average in Belgium (5.1 % compared to 2.2 % over the period 1995–2000), Portugal (25.3 % compared to 14.4 % over the period 1997–2000) and Finland (12.7 % compared to 6.9 % over the period 1995–2000).

(27) S, 1999; NL and IRL, 1998; EL, not available.

Figure 22.19 Investigation and security activities (NACE Group 74.6) Value added, 2000 (million EUR) (1)



(1) EL, not available.
(2) 1998.
(3) 1999.

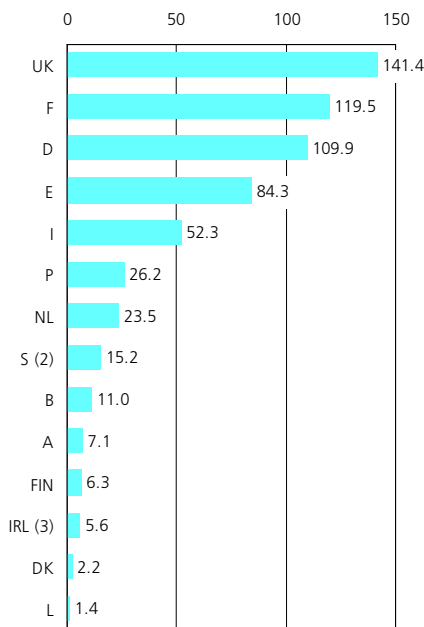
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.17 Investigation and security activities (NACE Group 74.6) Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	5.9	-4.5	13.6	7.9	2.3	9.2	-3.1	9.0	4.7	6.1	11.8	-5.7	13.1	-0.9	5.8
DK	:	:	:	:	21.6	:	:	:	:	18.5	:	:	:	:	18.1
D	:	0.7	7.5	13.2	-13.5	:	:	:	:	-18.5	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	:	10.2	:	:	:	:	7.7	:	:	:	:	1.7
F	8.6	1.6	9.4	9.9	9.8	6.1	1.5	8.9	10.0	5.7	3.3	4.2	2.3	7.0	13.5
IRL	24.8	14.1	-6.6	:	:	25.0	27.9	-9.2	:	:	17.1	10.8	0.8	:	:
I	:	:	5.5	3.3	6.0	:	:	29.5	0.0	3.9	:	:	0.9	4.0	7.1
L	1.6	6.2	7.6	7.5	17.9	4.3	5.0	11.7	3.2	18.2	10.1	9.6	4.5	11.2	8.6
NL	:	:	:	:	:	:	:	:	:	:	4.0	12.6	10.7	8.5	29.5
A	:	:	-4.2	14.6	10.9	:	:	-6.3	11.8	9.9	:	:	5.7	1.5	13.0
P	:	1.8	25.5	21.3	12.9	:	-4.0	35.3	26.9	14.4	:	-3.5	21.2	21.6	9.9
FIN	5.8	12.8	13.4	17.4	19.6	3.8	10.9	11.5	18.7	19.1	14.3	6.0	9.6	17.3	27.3
S	16.9	4.3	8.0	10.1	:	18.0	7.6	8.9	8.3	:	:	:	-3.2	14.5	:
UK	22.9	45.8	8.5	21.7	20.5	:	:	10.2	19.5	18.5	:	:	:	6.5	-1.6

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 22.20
Investigation and security activities
(NACE Group 74.6)
Number of persons employed, 2000
(thousands) (1)



(1) EL, not available.

(2) 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.18
Main indicators of security transport services in Europe, 2000

Cash transportation	
Number of enterprises	367
Number of persons employed	33 810
Number of vehicles	10 735
Cash processing	
Number of centres	607
Number of persons employed	11 930

Source: ESTA.

In relative terms, security services represented 2.4 % of business services' value added. This subsector was more developed, in relative terms, in Portugal and Spain, where it accounted for 6.9 % and 4.5 % of value added in the business services' total. In Denmark, in contrast, the sector contributed 0.8 % of the total.

Micro-enterprises that employed less than 10 persons generated only 5.3 % of value added and employed 5.5 % of the security services' workforce (28). These shares were well below the averages recorded in the EU for business services.

Cash transportation

The European Security Transport Association (ESTA) estimates that there were 367 cash transportation enterprises active in the EU in 2000 (see Table 22.18). This small number is an indication of the relatively high degree of market concentration that is apparent in the majority of Member States, with the exception of Italy and Germany. Cash transportation enterprises employed just over 33 800 persons in 2000 and relied on a fleet of almost 11 000 armoured vehicles.

(28) B, D, EL, IRL, I, L and NL, not available; S, 1999.

LABOUR AND PRODUCTIVITY

Security services employed 606 100 persons in the EU in 2000 (29). A large majority of them worked in the United Kingdom (141 400 persons employed), France (119 500 persons employed) and Germany (109 900 persons employed). These were the only countries where employment exceeded 100 000 persons.

Security services accounted for 4.5 % of business services' employment, 2 percentage points more than this subsector's share of business services' value added.

Security services were at the lower end of the scale when comparing their wage adjusted labour productivity to that of other business services. Wage adjusted productivity ratios were below 120 % in every Member State for which data are available (30), except the United Kingdom, where the highest ratio in the EU was registered (125.5 %).

Average personnel costs were generally between EUR 16 000 and EUR 30 000 per employee (31). Only Belgium (EUR 32 800) at one end, and Portugal (EUR 11 300) at the other, stood outside of this range.

(29) S, 1999; IRL, 1998; EL, not available.

(30) S, 1999; NL and IRL, 1998; EL, not available.

(31) S, 1999; NL and IRL, 1998; EL, not available.

22.8: INDUSTRIAL CLEANING SERVICES

Industrial cleaning services include the interior cleaning of buildings of all types, including offices, hospitals, factories or multi-unit residential buildings, the cleaning of public means of transport, window cleaning, chimney sweeping, as well as disinfecting and exterminating activities (NACE Group 74.7). This NACE group excludes agricultural pest control, steam cleaning, sand blasting and similar activities for building exteriors, as well as domestic household cleaning.

When outsourcing, cleaning is often one of the first services to be considered and this sector has benefited greatly from this phenomenon. These enterprises have often diversified into the provision of other services related to the working environment, for example, waste management services and green space maintenance. In so doing they offer customers a broader package of services that reduces the number of contract relationships to be managed.

STRUCTURAL PROFILE

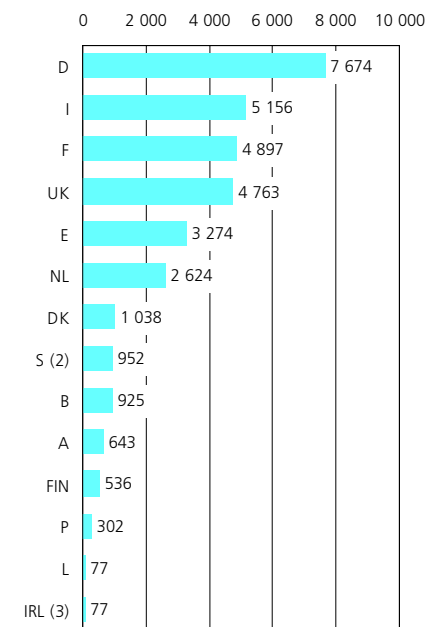
The EU's industrial cleaning subsector generated EUR 32.9 billion of value added in 2000 ⁽³²⁾, which was approximately 6 % of the business services' total. Germany was by far the largest contributor, with EUR 7.7 billion of value added in 2000. Italy followed with EUR 5.2 billion, ahead of France (EUR 4.9 billion) and the United Kingdom (EUR 4.8 billion).

In relative terms, three countries were considerably more specialised in cleaning services. In Italy industrial cleaning activities accounted for 10.8 % of total value added in the business services' sector. In Finland the equivalent share was 11.7 % and in Denmark it reached 12.0 %. The United Kingdom and Ireland were the least specialised countries, as industrial cleaning services accounted for only 2.9 % and 2.7 % of value added in the business services' sector.

Data broken down by employment size-class suggest that this sector is one where large enterprises play a more important role than in business services in general. Indeed, enterprises employing 250 or more persons accounted for over one half (51.3 %) of value added and employment (54.6 %) in 2000 ⁽³³⁾.

⁽³²⁾ S, 1999; IRL, 1998; EL, not available.
⁽³³⁾ D, EL, IRL, I, L and NL, not available; S, 1999.

Figure 22.21 Industrial cleaning (NACE Group 74.7) Value added, 2000 (million EUR) (1)



(1) EL, not available.
 (2) 1999.
 (3) 1998.
 Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

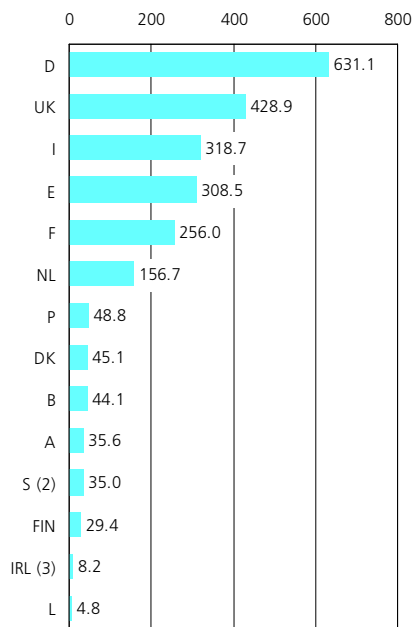
Table 22.19 Industrial cleaning (NACE Group 74.7) Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	8.3	-5.8	15.3	4.8	13.6	1.1	-2.1	11.2	3.2	10.7	0.4	2.4	9.9	-0.7	5.7
DK	:	:	:	:	12.6	:	:	:	:	6.7	:	:	:	:	9.0
D	:	-2.4	0.8	3.5	-4.9	:	:	:	:	-13.2	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	8.1	15.2	:	:	:	10.3	13.8	:	:	:	5.1	9.7
F	15.8	0.5	4.4	8.0	7.7	11.7	-0.4	4.7	9.5	6.5	-7.7	0.9	-3.7	6.2	11.0
IRL	43.1	37.4	1.7	:	:	27.5	50.0	7.3	:	:	41.1	11.4	-11.9	:	:
I	14.1	13.2	19.6	6.2	8.1	-43.0	6.1	22.8	-3.5	12.0	9.0	3.3	15.6	4.8	7.8
L	11.7	-10.6	9.3	5.2	10.6	5.2	2.5	-0.2	13.3	10.4	5.5	6.9	8.8	7.8	9.4
NL	:	:	2.9	:	:	:	:	2.2	:	:	2.5	-0.9	5.6	-0.7	9.0
A	:	:	3.1	8.1	4.7	:	:	3.8	8.6	0.1	:	:	4.2	0.0	-0.6
P	:	77.0	-47.3	38.9	-4.4	:	10.3	-0.4	22.1	7.4	:	4.6	2.8	1.5	13.0
FIN	-6.5	17.2	10.4	4.5	23.8	-7.8	17.4	10.3	1.9	26.9	-19.1	50.0	14.3	12.2	14.4
S	16.0	-7.4	13.7	9.8	:	19.9	-7.2	16.3	10.4	:	:	:	4.5	1.8	:
UK	1.6	38.1	-2.4	16.5	9.3	:	:	-6.7	16.5	11.1	:	:	:	-0.3	2.6

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 22.22

Industrial cleaning (NACE Group 74.7)
Number of persons employed, 2000
(thousands) (1)



(1) EL, not available.

(2) 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

LABOUR AND PRODUCTIVITY

All figures relating to employment and apparent labour productivity should be interpreted with care in this sector because of the high incidence of part-time employment, which may vary between countries and over time. Employment data is usually not adjusted to full-time equivalents. This affects not only the measurement of the level of employment, but it also artificially lowers average personnel costs and apparent labour productivity. In addition, labour market policies have been introduced in several EU countries that allow employers to hire on the basis of a contract with tax and social security advantages (and usually relatively low wages for a limited number of hours in the working week).

There were 2.4 million persons employed in the EU's industrial cleaning subsector in 2000 ⁽³⁴⁾, which represented no less than 17.3 % of business services' employment, almost three times this subsector's share in business services' value added. About one quarter of the total were working in Germany, which numbered 631 100 persons employed about 200 000 more than in the United Kingdom (428 900 persons employed). Italy and France followed with approximately the same level of employment, 318 700 and 308 500 persons employed respectively.

⁽³⁴⁾ S, 1999; IRL, 1998; EL, not available.

Average personnel costs within industrial cleaning activities were particularly low compared to other business services. They reached a maximum of EUR 24 700 per employee in Sweden (1999), down to EUR 5 600 in Portugal, with most countries reporting levels between EUR 10 000 (Spain) and EUR 18 600 (Belgium). Wage adjusted labour productivity ratios were also clearly below the business services' average in every country for which data is available ⁽³⁵⁾. Productivity ratios did not exceed 115 % in most countries, although the United Kingdom (131.0 %) and Ireland (137.2 %) reported noticeably higher values. Luxembourg and Germany were at the lower end of the ranking, with ratios close to parity (102.0 % and 101.6 % respectively).

⁽³⁵⁾ S, 1999; IRL, 1998; EL, not available.

22.9: MISCELLANEOUS BUSINESS ACTIVITIES

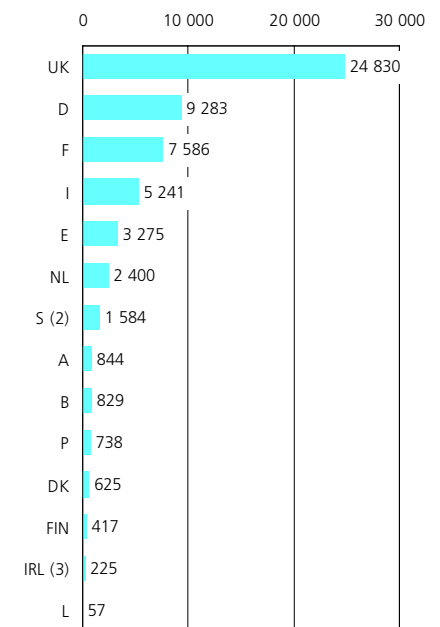
Miscellaneous business activities correspond to Group 74.8 of the NACE. They include services such as photographic activities, packaging activities and secretarial and translation activities. In addition, this NACE group also covers the following activities: bill collecting, credit rating, appraisal activities, fashion design, trading stamp activities, activities of interior decorators, activities of fairs and exhibition organisers and activities of agents for artists.

STRUCTURAL PROFILE

The residual nature of this NACE group means that it is very heterogeneous. Furthermore, this group of activities has become a sizeable component of the business services' sector, generating EUR 57.9 billion in 2000 ⁽³⁶⁾, or one tenth of the total wealth created in business services in the EU (more than advertising or industrial cleaning). This high figure is largely due to the figures reported in the United Kingdom, where EUR 24.8 billion of value added was generated in miscellaneous business activities in 2000, no less than 42.9 % of the EU total. Germany (EUR 9.3 billion) and France (EUR 7.6 billion) had the second and third largest activities. The importance of the miscellaneous business activities' sector in the United Kingdom could also be seen in relative terms, as it accounted for 15.0 % of the value added generated in business services, which was five percentage points more than the EU average. In Portugal (14.9 %) and Sweden (12.3 %, 1999) this subsector also accounted for a particularly high share of business services' value added.

⁽³⁶⁾ S, 1999; IRL, 1998; EL, not available.

Figure 22.23
Miscellaneous business activities n.e.c. (NACE Group 74.8)
Value added, 2000 (million EUR) (1)



(1) EL, not available.

(2) 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.20
Miscellaneous business activities n.e.c. (NACE Group 74.8)
Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	16.7	-4.4	12.3	-1.9	18.0	-20.0	20.7	20.3	-13.2	21.1	-6.0	8.6	9.0	-4.7	15.6
DK	:	:	:	:	10.6	:	:	:	:	22.3	:	:	:	:	8.3
D	:	1.4	-2.2	3.0	-44.0	:	:	:	:	-72.3	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	:	20.8	:	:	:	:	12.7	:	:	:	:	14.2
F	11.7	2.4	6.8	9.8	10.9	-8.0	-0.2	5.6	11.2	5.4	-21.4	-0.5	1.7	5.2	8.1
IRL	17.4	28.0	32.4	:	:	35.1	27.7	7.0	:	:	17.7	-2.7	25.9	:	:
I	:	-3.3	-18.4	33.8	-5.7	:	-8.5	11.0	-4.7	-2.0	:	12.0	2.7	-13.9	3.2
L	19.6	30.0	1.0	1.2	32.0	90.4	5.9	-23.1	10.9	28.0	21.6	6.5	24.3	3.2	21.7
NL	:	:	5.8	:	:	:	:	5.3	:	:	12.2	8.6	-9.1	-1.1	42.8
A	:	:	13.3	-2.7	43.8	:	:	8.6	-2.9	52.9	:	:	13.1	6.0	39.4
P	:	-7.1	52.6	82.7	-43.3	:	-13.7	-13.9	123.6	-6.2	:	-3.5	0.4	3.0	7.3
FIN	11.0	8.1	16.2	21.1	3.6	16.7	7.8	18.1	7.0	6.1	-0.9	9.0	15.7	20.3	-9.3
S	18.7	5.5	23.1	29.0	:	20.1	15.2	25.4	34.1	:	:	:	26.0	17.8	:
UK	4.7	24.3	-2.3	17.1	19.1	:	:	-1.1	17.1	27.4	:	:	:	6.7	5.0

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

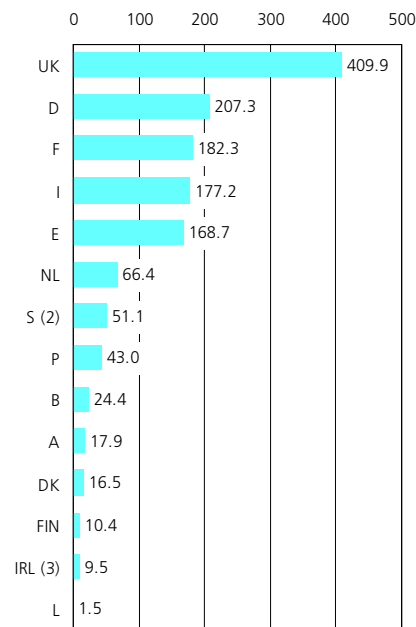
Looking at the evolution of value added in the second half of the 1990s, the miscellaneous business activities' subsector reported double-digit growth rates for value added in most countries for which data are available ⁽³⁷⁾. The fastest expansion was recorded in Sweden, where value added more than doubled between 1995 and 1999, from EUR 680 million to EUR 1.6 billion, at an average rate of 23.5 % per annum. Belgium and France, recorded significantly slower growth, with value added rising by 4.4 % per annum and 2.6 % per annum respectively, while Italy was the only country to report a decline in output, from EUR 5.5 billion in 1996 to EUR 5.2 billion in 2000.

Micro-enterprises (employing less than 10 persons) accounted for the highest share of value added (35.3 %) and employment (40.9 %) in 2000 ⁽³⁸⁾, with shares that were above the business services' average.

⁽³⁷⁾ Time-series of at least three years available for B, E, F, I, L, NL, A, P, FIN, S and UK.

⁽³⁸⁾ B, D, EL, IRL, I and L, not available; S, 1999.

Figure 22.24
Miscellaneous business activities n.e.c.
(NACE Group 74.8)
Number of persons employed, 2000
(thousands) (1)



(1) EL, not available.

(2) 1999.

(3) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

LABOUR AND PRODUCTIVITY

One in 10 persons working in the business services' sector in the EU in 2000 ⁽³⁹⁾ were employed within miscellaneous business activities, a total of 1.4 million. Given the size of this subsector in the United Kingdom in terms of value added, it was unsurprising to find that the United Kingdom was also the largest single employer; with 409 900 persons, almost twice the level recorded in Germany (207 300). In relative terms, Sweden and Portugal reported that miscellaneous business activities contributed no less than 15.6 % and 17.9 % of total employment in the business services' sector.

The evolution of employment during the late 1990s was not as vigorous as that of wealth creation, although it was clearly following a positive evolution ⁽⁴⁰⁾. This was particularly true in Spain, where the number of persons employed grew at an average annual rate of 11.5 % between 1995 and 2000, and in Luxembourg where growth reached 13.8 % per annum. Portugal (1.7 % per annum) and Italy (0.6 % per annum), in contrast, reported relatively stable employment levels.

Average personnel costs ranged in most countries between EUR 27 100 per employee (the Netherlands) and EUR 37 000 (Luxembourg) ⁽⁴¹⁾. Personnel costs were higher than the average for business services in the majority of countries. However, apparent labour productivity was below the business services' average in most countries and as a consequence, wage adjusted labour productivity ratios were also below average. A group of seven countries reported particularly low productivity ratios between 100 % and 120 % and included Luxembourg (99.8 %), Sweden (100.5 %), Italy and Portugal (both 105.8 %). A second group of countries had productivity ratios between 130 % and 140 % and included Ireland (131.5 %), Denmark (131.9 %), the Netherlands (133.1 %), Finland (133.9 %) and Austria (139.5 %). Germany (147.3 %) and the United Kingdom (188.5 %) were the only Member States to display considerably higher labour productivity ratios.

⁽³⁹⁾ S, 1999; IRL, 1998; EL, not available.

⁽⁴⁰⁾ Time-series of at least three years available for B, E, F, I, L, NL, A, P, FIN, S and UK.

⁽⁴¹⁾ S, 1999; IRL, 1998; EL, not available.

Table 22.21

Renting of machinery and equipment without operator and of personal and household goods (NACE Division 71)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	2 470	2 526	10 965	:	18 671	22 611	1 435	12 543	222	4 345	1 660	2 193	1 109	4 936	15 058
Turnover (million EUR)	4 319	1 287	22 500	:	6 821	18 394	626	3 791	333	7 018	2 380	1 694	562	2 368	25 967
Number of persons employed (thousands)	10	8	73	:	65	79	7	29	1	31	8	10	3	12	178
Value added (million EUR)	1 694	527	10 808	:	3 424	9 507	273	1 329	137	2 255	1 530	1 133	268	1 034	14 762
Purchases of goods and services (million EUR)	2 557	792	10 405	:	3 320	10 142	363	2 553	192	4 736	844	548	308	1 395	10 943
Personnel costs (million EUR)	263	163	2 026	:	939	2 309	100	345	25	630	199	125	85	325	4 190
Gross investment in tangible goods (million EUR)	2 994	498	10 026	:	3 156	11 559	204	2 357	:	3 168	1 824	2 100	262	839	11 672
App. labour productivity (thous. EUR/pers. emp.)	168.4	66.7	147.9	:	53.0	119.7	37.4	46.5	196.6	72.3	200.1	118.0	87.2	83.8	83.0
Wage adjusted labour productivity (%)	486.8	276.1	426.2	:	280.3	374.9	224.9	183.7	484.2	271.9	648.2	761.9	291.7	232.2	325.1
Gross operating rate (%)	33.1	28.3	39.0	:	36.4	39.1	27.7	26.0	33.6	23.2	55.9	59.5	32.6	30.0	40.7

(1) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.22

Renting of machinery and equipment without operator and of personal and household goods (NACE Division 71)
Main indicators, 2000

	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI (1)	TR
Number of enterprises (units)	522	:	4 295	161	205	302	355	:	4 964	392	227	344	:
Turnover (million EUR)	12	:	259	24	134	42	23	:	710	65	77	22	:
Number of persons employed (thousands) (2)	1	:	7	1	3	2	1	:	16	2	2	:	:
Value added (million EUR)	5	:	86	10	65	27	9	:	592	35	29	6	:
Purchases of goods and services (million EUR)	8	:	174	15	68	22	15	:	253	32	49	14	:
Personnel costs (million EUR)	1	:	32	3	16	9	4	:	62	9	7	4	:
Gross investment in tangible goods (million EUR)	1	:	85	9	55	13	7	:	561	37	20	0	:
App. labour productivity (thous. EUR/pers. emp.) (2)	3.7	:	11.7	13.5	24.3	17.3	6.8	:	12.2	14.1	17.5	:	:
Wage adjusted labour productivity (%) (2)	303.6	:	171.7	334.8	404.6	312.4	210.4	:	196.9	319.3	418.1	:	:
Gross operating rate (%)	31.5	:	20.7	28.7	36.5	45.0	24.6	:	74.6	40.5	28.5	7.4	:

(1) 1999. (2) PL, 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_cc).

Table 22.23

Research and development (NACE Division 73)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	323	271	2 795	:	3 191	2 418	115	8 995	19	1 720	100	37	239	2 117	2 801
Turnover (million EUR)	647	417	3 665	:	798	4 190	46	1 707	265	3 429	287	10	620	1 552	7 831
Number of persons employed (thousands)	5	5	56	:	15	29	0	22	2	36	3	0	2	11	84
Value added (million EUR)	404	205	2 525	:	498	1 532	21	982	159	1 490	133	4	55	481	2 695
Purchases of goods and services (million EUR)	340	219	2 426	:	553	2 929	25	969	131	2 031	212	7	570	1 181	5 075
Personnel costs (million EUR)	301	224	2 285	:	341	1 400	8	501	144	1 242	119	5	70	572	4 271
Gross investment in tangible goods (million EUR)	65	49	1 033	:	81	264	2	135	:	207	26	3	8	122	1 338
App. labour productivity (thous. EUR/pers. emp.)	77.6	45.1	45.1	:	32.9	53.7	47.5	44.1	80.7	41.9	51.2	19.0	29.2	42.1	32.1
Wage adjusted labour productivity (%)	125.6	91.2	103.8	:	119.6	109.3	206.4	109.1	111.0	113.6	108.1	63.0	74.5	74.9	62.0
Gross operating rate (%)	16.0	-4.6	6.6	:	19.7	3.1	27.8	28.2	6.0	7.2	4.8	-10.2	-2.4	-5.8	-20.1

(1) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.24

Research and development (NACE Division 73)
Main indicators, 2000

	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI (1)	TR
Number of enterprises (units)	77	:	323	37	143	118	94	:	798	329	119	594	:
Turnover (million EUR)	11	:	141	3	116	20	6	:	1 016	160	176	56	:
Number of persons employed (thousands) (2)	2	:	7	0	4	3	1	:	59	34	7	:	:
Value added (million EUR)	5	:	56	1	42	13	2	:	605	93	39	27	:
Purchases of goods and services (million EUR)	8	:	87	2	65	10	4	:	467	154	118	32	:
Personnel costs (million EUR)	4	:	52	1	29	10	2	:	536	70	46	25	:
Gross investment in tangible goods (million EUR)	1	:	17	1	5	4	1	:	122	32	9	11	:
App. labour productivity (thous. EUR/pers. emp.) (2)	2.4	:	8.2	5.0	11.3	4.1	4.5	:	8.6	2.7	5.2	:	:
Wage adjusted labour productivity (%) (2)	117.2	:	105.5	123.0	140.3	123.1	127.2	:	109.8	115.1	83.3	:	:
Gross operating rate (%)	7.9	:	3.3	11.8	10.8	11.9	10.7	:	6.7	14.1	-4.2	4.8	:

(1) 1999. (2) PL, 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_cc).

Table 22.25

Other business activities (NACE Division 74)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S (2)	UK
Number of enterprises (units)	64 303	30 730	237 707	:	307 386	307 673	11 644	572 672	4 075	89 465	29 977	36 611	27 693	96 375	303 451
Turnover (million EUR)	32 835	15 029	173 376	:	60 205	186 066	4 584	91 097	1 853	54 688	16 574	9 235	8 577	26 553	253 571
Number of persons employed (thousands) (3)	372	199	2 391	:	1 417	1 937	77	1 446	23	1 031	203	230	129	302	3 032
Value added (million EUR)	12 966	7 933	107 937	:	29 270	75 998	2 539	45 457	1 038	26 051	7 567	3 815	4 272	11 304	148 433
Purchases of goods and services (million EUR)	20 004	7 665	71 466	:	31 944	113 613	2 046	45 929	791	28 987	8 298	5 490	4 562	16 356	104 042
Personnel costs (million EUR)	9 091	5 521	53 825	:	18 069	65 363	1 255	17 707	0	17 810	5 300	2 552	2 996	9 254	79 409
Gross investment in tangible goods (million EUR) (4)	2 291	660	7 959	:	3 338	8 656	167	3 301	:	2 022	767	766	304	1 644	11 354
App. labour productivity (thous. EUR/pers. emp.) (3)	34.8	39.9	45.1	:	20.7	39.2	33.0	31.4	34.4	25.3	37.3	16.6	33.2	37.4	49.0
Wage adjusted labour productivity (%) (3)	116.0	128.6	167.7	:	131.7	114.7	169.0	139.7	121.8	126.4	122.1	132.2	131.9	97.8	169.6
Gross operating rate (%)	11.8	16.1	31.2	:	18.6	5.7	28.0	30.5	56.0	15.1	13.7	13.7	14.9	7.7	27.2

(1) 1998. (2) 1999. (3) L, 1998. (4) NL, 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.26

Other business activities (NACE Division 74)
Main indicators, 2000

	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI (1)	TR
Number of enterprises (units)	14 279	:	151 964	3 237	4 662	2 874	4 581	:	191 146	12 171	3 972	17 223	:
Turnover (million EUR)	573	:	6 263	442	2 713	408	367	:	13 924	1 260	1 158	2 236	:
Number of persons employed (thousands) (2)	79	:	291	23	94	21	25	:	427	139	49	:	:
Value added (million EUR)	144	:	1 883	166	811	259	153	:	6 682	477	398	632	:
Purchases of goods and services (million EUR)	462	:	4 326	276	1 350	183	216	:	7 795	868	754	1 548	:
Personnel costs (million EUR)	106	:	1 217	116	517	84	105	:	2 278	293	255	478	:
Gross investment in tangible goods (million EUR)	108	:	331	30	159	34	42	:	689	118	251	88	:
App. labour productivity (thous. EUR/pers. emp.) (2)	1.8	:	6.5	7.2	8.6	12.1	6.0	:	10.0	3.4	8.2	:	:
Wage adjusted labour productivity (%) (2)	97.1	:	96.2	137.7	156.4	303.9	127.6	:	153.9	120.0	152.4	:	:
Gross operating rate (%)	6.7	:	10.6	11.3	10.8	42.9	13.0	:	31.6	14.7	12.4	6.9	:

(1) 1999. (2) PL, 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_cc).

Table 22.27

Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings (NACE Group 74.1)

Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S (2)	UK
Number of enterprises (units)	30 710	10 879	90 323	:	131 857	145 557	6 070	235 320	2 207	39 635	10 012	10 034	10 746	39 292	120 690
Turnover (million EUR)	15 710	5 040	72 110	:	15 008	76 316	1 962	32 521	909	14 736	4 769	2 566	2 467	9 892	81 654
Number of persons employed (thousands)	93	55	647	:	320	385	32	466	8	280	55	45	24	94	822
Value added (million EUR)	5 795	3 209	52 532	:	9 447	24 339	1 380	19 729	505	9 306	2 757	1 257	1 274	3 956	56 135
Purchases of goods and services (million EUR)	9 887	2 118	23 703	:	5 827	55 556	585	12 827	406	5 590	2 017	1 367	1 332	6 660	24 737
Personnel costs (million EUR)	3 577	1 922	19 594	:	4 650	19 786	544	5 687	278	5 848	1 615	683	778	3 442	26 705
Gross investment in tangible goods (million EUR)	1 360	299	3 967	:	1 134	5 183	61	1 176	:	569	340	174	84	898	3 582
App. labour productivity (thous. EUR/pers. emp.)	62.0	58.8	81.2	:	29.5	63.2	42.9	42.4	66.6	33.2	50.4	28.1	52.4	42.1	68.3
Wage adjusted labour productivity (%)	103.1	145.9	222.1	:	128.9	120.9	198.2	156.8	154.3	123.8	137.6	163.2	139.8	85.8	177.7
Gross operating rate (%)	14.1	25.5	45.7	:	32.0	6.0	42.6	43.2	24.9	23.5	23.9	22.3	20.1	5.2	36.0

(1) 1998. (2) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.28

Architectural and engineering activities and related technical consultancy; technical testing and analysis (NACE Groups 74.2 and 74.3)

Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S (2)	UK
Number of enterprises (units)	14 824	6 050	74 140	:	79 679	67 261	2 249	200 695	835	14 440	9 520	4 224	6 729	23 014	57 838
Turnover (million EUR)	4 428	4 090	37 406	:	11 911	32 495	924	17 011	335	10 103	4 948	1 400	2 490	6 567	42 098
Number of persons employed (thousands)	40	37	420	:	185	221	13	295	4	115	43	20	27	75	374
Value added (million EUR)	1 702	2 000	25 726	:	5 822	11 792	452	9 229	189	4 906	1 512	550	1 299	3 154	24 148
Purchases of goods and services (million EUR)	2 887	2 155	11 642	:	6 276	20 842	475	7 048	128	5 322	2 736	868	1 264	3 647	18 104
Personnel costs (million EUR)	1 075	1 570	13 499	:	2 851	10 071	267	2 190	129	3 503	1 341	307	934	2 590	13 561
Gross investment in tangible goods (million EUR)	386	131	1 348	:	560	1 043	37	781	:	251	187	236	80	333	1 593
App. labour productivity (thous. EUR/pers. emp.)	43.0	54.4	61.3	:	31.5	53.4	36.1	31.3	50.2	42.5	35.0	27.1	47.6	41.9	64.6
Wage adjusted labour productivity (%)	92.4	114.4	153.1	:	125.1	116.4	138.0	95.4	125.9	106.6	86.6	156.1	128.2	100.1	154.8
Gross operating rate (%)	14.2	10.5	32.7	:	24.9	5.3	20.0	41.4	17.6	13.9	3.5	17.4	14.7	8.6	25.1

(1) 1998. (2) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.29

Advertising (NACE Group 74.4)

Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S (2)	UK
Number of enterprises (units)	5 651	2 441	20 787	:	16 259	20 777	298	16 937	271	11 170	3 553	2 202	2 659	10 723	12 409
Turnover (million EUR)	4 474	2 449	15 235	:	16 143	21 226	574	11 830	128	6 653	2 692	2 127	1 424	4 231	32 175
Number of persons employed (thousands)	16	18	163	:	108	104	3	47	1	52	14	10	7	29	105
Value added (million EUR)	677	615	5 339	:	3 303	5 789	133	2 478	27	1 866	783	287	377	1 135	10 305
Purchases of goods and services (million EUR)	3 792	1 888	10 357	:	12 967	15 452	442	9 791	100	4 785	1 912	1 867	1 060	3 178	21 824
Personnel costs (million EUR)	339	444	2 719	:	1 832	4 230	64	918	25	1 013	390	167	257	829	4 080
Gross investment in tangible goods (million EUR)	126	85	811	:	259	385	11	218	:	180	70	64	29	116	757
App. labour productivity (thous. EUR/pers. emp.)	41.6	33.7	32.8	:	30.5	55.7	52.9	52.4	33.8	35.6	56.2	27.7	50.6	39.5	98.5
Wage adjusted labour productivity (%)	125.5	125.0	159.7	:	160.3	133.5	186.2	146.5	92.5	104.5	157.6	149.8	138.4	106.4	231.3
Gross operating rate (%)	7.6	7.0	17.2	:	9.1	7.3	12.0	13.2	2.1	12.8	14.6	5.6	8.4	7.2	19.3

(1) 1998. (2) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.30

Labour recruitment and provision of personnel (NACE Group 74.5)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S (2)	UK
Number of enterprises (units)	276	483	2 022	:	2 241	2 500	260	3 308	77	4 100	398	239	464	293	14 278
Turnover (million EUR)	2 958	478	6 507	:	3 015	21 122	302	3 132	153	11 832	1 027	465	272	146	36 387
Number of persons employed (thousands) (3)	144	26	214	:	242	670	6	90	6	336	30	36	24	3	751
Value added (million EUR)	2 667	379	5 388	:	2 672	19 067	160	2 034	138	4 948	867	342	218	90	24 311
Purchases of goods and services (million EUR)	294	108	1 121	:	356	1 472	142	1 149	14	6 895	165	127	56	58	11 880
Personnel costs (million EUR) (3)	2 554	343	4 732	:	2 443	18 173	107	1 533	109	3 924	803	397	198	78	17 627
Gross investment in tangible goods (million EUR)	35	8	96	:	41	105	5	90	:	316	15	9	5	4	727
App. labour productivity (thous. EUR/pers. emp.) (3)	18.6	14.8	25.2	:	11.0	28.5	25.4	22.6	13.3	14.7	28.4	9.4	9.2	34.7	32.4
Wage adjusted labour productivity (%) (3)	104.3	109.4	108.5	:	109.0	104.9	144.2	119.8	68.9	124.2	107.0	86.1	109.6	110.0	136.1
Gross operating rate (%) (3)	3.8	7.5	10.1	:	7.6	4.2	17.5	16.0	-39.5	8.7	6.2	-11.8	7.5	7.9	18.4

(1) 1998. (2) 1999. (3) L, 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.31

Investigation and security activities (NACE Group 74.6)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL (2)	A	P	FIN	S (3)	UK
Number of enterprises (units)	466	213	1 879	:	1 761	6 065	204	2 363	29	730	206	410	328	580	4 693
Turnover (million EUR)	481	110	2 855	:	1 853	3 821	142	2 148	54	650	217	399	204	596	5 083
Number of persons employed (thousands)	11	2	110	:	84	120	6	52	1	24	7	26	6	15	141
Value added (million EUR)	371	67	1 995	:	1 477	2 529	111	1 590	46	487	162	339	153	434	3 941
Purchases of goods and services (million EUR)	109	48	876	:	423	1 225	32	549	8	164	55	67	53	165	1 124
Personnel costs (million EUR)	348	52	1 969	:	1 331	2 414	91	1 356	41	451	144	292	131	357	3 062
Gross investment in tangible goods (million EUR)	15	6	79	:	67	84	4	223	:	14	10	28	15	37	159
App. labour productivity (thous. EUR/pers. emp.)	33.7	30.5	18.2	:	17.5	21.2	19.7	30.4	31.4	29.1	22.8	13.0	24.1	28.5	27.9
Wage adjusted labour productivity (%)	102.7	118.4	92.5	:	109.4	103.9	118.1	109.5	111.1	100.4	110.3	114.8	113.2	118.9	125.5
Gross operating rate (%)	4.8	13.4	0.9	:	7.9	3.0	14.0	10.9	9.2	5.5	8.5	12.0	10.7	12.9	17.3

(1) 1998. (2) 1998, except investment (1999) and number of enterprises and persons employed (2000). (3) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 22.32

Industrial cleaning (NACE Group 74.7)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S (2)	UK
Number of enterprises (units)	2 763	5 842	15 495	:	14 026	14 387	207	27 117	102	6 205	1 541	1 593	2 573	5 154	9 589
Turnover (million EUR)	1 536	1 436	9 859	:	3 948	6 907	100	7 277	110	3 799	846	413	740	1 367	6 152
Number of persons employed (thousands)	44	45	631	:	309	256	8	319	5	157	36	49	29	35	429
Value added (million EUR)	925	1 038	7 674	:	3 274	4 897	77	5 156	77	2 624	643	302	536	952	4 763
Purchases of goods and services (million EUR)	607	491	2 154	:	700	1 850	23	2 112	32	1 204	202	113	208	427	1 417
Personnel costs (million EUR)	766	829	6 271	:	2 970	4 378	55	3 977	75	2 145	546	268	430	788	3 568
Gross investment in tangible goods (million EUR)	120	42	268	:	123	187	5	255	:	73	37	15	37	60	206
App. labour productivity (thous. EUR/pers. emp.)	21.0	23.0	12.2	:	10.6	19.1	9.3	16.2	16.0	16.7	18.0	6.2	18.2	27.2	11.1
Wage adjusted labour productivity (%)	112.9	113.8	101.6	:	106.6	109.3	137.2	114.2	102.0	117.3	114.0	109.7	116.9	110.1	131.0
Gross operating rate (%)	10.3	14.6	14.2	:	7.7	7.5	22.1	16.2	2.2	12.6	11.5	8.1	14.2	12.0	19.4

(1) 1998. (2) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Information and communication services



Information and communication services are among the most dynamic activities in the European economy. Together with media activities (covered in Chapter 24), information and communication services form the backbone of the so-called *information society*. This expression emerged at the beginning of the 1990s to refer to a society whose wealth and growth is based on its ability to process, store, retrieve and communicate information.

In December 1999, the Commission launched the eEurope initiative aimed at ensuring that the EU fully benefits from the potential changes that the information society can offer. In May 2002, the European Commission adopted a follow-up action plan, eEurope 2005, running from 2003 to 2005. The key objectives of this initiative were threefold: i) bringing every citizen, home and school and every business and administration into the digital age; ii) creating a digitally literate Europe, supported by an entrepreneurial culture ready to finance and develop new ideas; and iii) ensuring the whole process is socially inclusive, building consumer trust and strengthening social cohesion. These political objectives were supported by a series of concrete actions⁽¹⁾, centred around three main goals: a cheaper, faster, secure Internet; investing in people and skills; and stimulating the use of the Internet (for example, support for e-commerce, and e-government).

⁽¹⁾ See 'eEurope - an Information Society for all', Communication on a Commission Initiative for the Special European Council of Lisbon, 23 and 24 March 2000, available at http://europa.eu.int/information_society/europe/action_plan/index_en.htm.

STRUCTURAL PROFILE

In 2000, information and communication services enterprises (NACE Divisions 64 and 72) generated a total value added estimated at EUR 289.6 billion. As such, information and communication services represented some 6.1 % of the wealth created by the business economy (NACE Sections C to K) in the EU in 2000. Within the information and communication services' sector, post and telecommunications (NACE Division 64) was the largest activity, accounting for approximately 60 % of the value added, against 40 % for computing services.

According to the European Information Technology Observatory (EITO), services linked to information and communications technologies (ICTs) in western Europe recorded turnover of EUR 422.1 billion in 2001. Telecommunications services accounted for the largest share of this total, with turnover of EUR 233.6 billion in 2001, while turnover from information technology (IT) services was estimated at EUR 125.9 billion. Software was the smallest activity, with turnover of EUR 68.2 billion in 2001, but it was also the fastest growing.

It must be noted that EITO's definition of information and communication services does not correspond to that used in the rest of this chapter (notably, it does not include postal services). As regards the exchange rates used by EITO, for the countries of the euro-zone the irrevocably fixed conversion rates between the euro and their currencies were adopted, while for the remaining countries data were converted from national currencies at constant 2000 exchange rates against the euro.

This chapter addresses two sectors that share the exchange of information as the principal feature of their activity. It includes data relating to NACE Divisions 64 and 72 that refer to post and courier activities and telecommunications services and software and computing services.

NACE

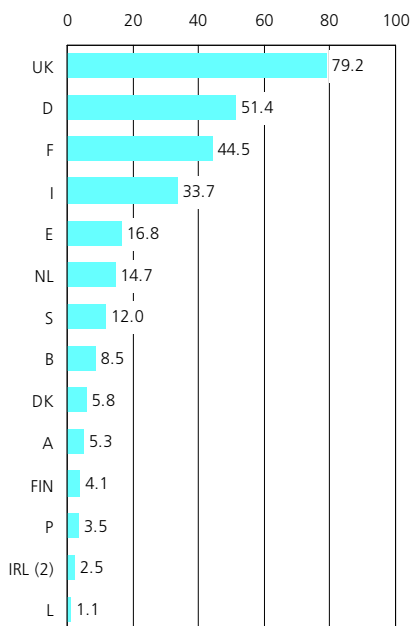
64:	post and telecommunications;
64.1:	post and courier activities;
64.2:	telecommunications;
72:	computer and related activities;
72.1:	hardware consultancy;
72.2:	software consultancy and supply;
72.3:	data processing;
72.4:	database activities;
72.5:	maintenance and repair of office, accounting and computing machinery;
72.6:	other computer related activities.

Table 23.1
ICT services turnover in the EU (billion EUR)

	2000	2001	2002 (1)
Software products	58.0	62.6	68.2
IT services	116.4	125.9	136.8
Telecommunications services	213.0	233.6	249.8
Total	387.4	422.1	454.8

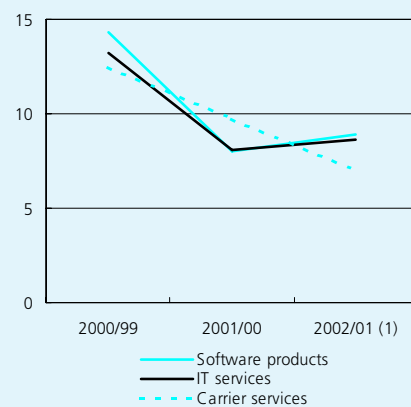
(1) Estimates.
Source: EITO, 2002.

Figure 23.1
Post and telecommunications; computer and related activities
(NACE Divisions 64 and 72)
Value added, 2000 (billion EUR) (1)



(1) EL, not available.
(2) 1998.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 23.2
Growth rate of turnover of ITC services in the EU (%)



(1) Estimates.
Source: EITO, 2002.

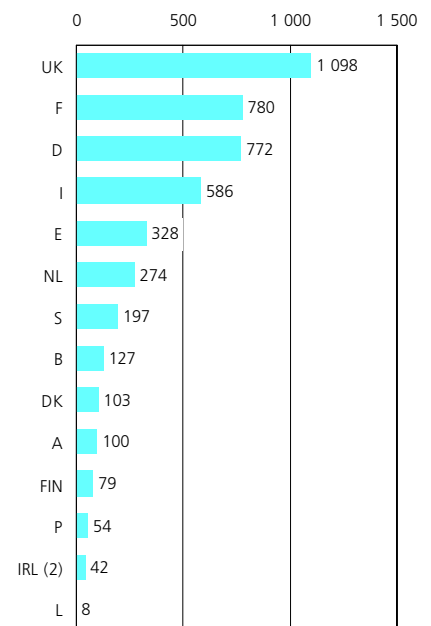
LABOUR AND PRODUCTIVITY

Information and communication services are an important source of employment in the EU's economy. Based on SBS data, an estimated 4.6 million persons were employed in this sector in 2000: 2.6 million in post and telecommunications and 2.0 million in software and computing services. Together they represented 4.5 % of total employment in the business economy (NACE Sections C to K) and 7.4 % of employment in service activities.

In addition, available figures shed light on a very dynamic employment market. Average growth in the second half of the 1990s for the number of persons employed was 3.7 % per annum in Italy (1995 to 2000), 5.0 % in France (1996 to 2000), 8.7 % in the United Kingdom (1998 to 2000) and reached 9.6 % in Luxembourg (1995 to 2000) and 13.7 % in the Netherlands (1998 to 2000). Nevertheless, between 1999 and 2000 there was a slowdown in the rate at which net employment levels rose, as the number of persons employed in the EU rose by 2.8 % compared to 1999 (2).

(2) Growth rate excluding EL, IRL and NL.

Figure 23.3
Post and telecommunications; computer and related activities
(NACE Divisions 64 and 72)
Number of persons employed, 2000 (thousands) (1)



(1) EL, not available.
(2) 1998.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

A more detailed study at the NACE division level shows that virtually all of the jobs created could be attributed to computer and related activities. Indeed, while employment levels remained stable for most countries in the post and telecommunications sector (except in the Netherlands where growth of 11.0 % was recorded between 1998 and 2000), software and computing services boasted double-digit growth rates in every country for which data are available (see Subchapter 23.3 below for more details).

Results of the latest LFS provide interesting information on the characteristics of this sector's workforce, which are not typical of the service sector, but rather correspond more closely to patterns generally found in manufacturing activities: a male-dominated workforce, a relatively small proportion of self-employment and a low share for part-time work. More precisely, information and communication services reported 68.4 % of men among those employed in the EU in 2001 compared to 56.5 % for services as a whole (NACE Sections G to K). Interestingly, the share of men increased by almost 1 percentage point between 1995 and 2001, due to an expansion in employment levels in the software and computing services sector, which is male dominated.

Compared to other service activities, information and communication services also reported a much lower than average share of self-employed persons. This group accounted for only 7.0 % of the sector's workforce in the EU in 2001, compared to a services' average of 17.4 %. Again, the proportion of the workforce who are self-employed was seen to be growing as a result of software and computing services gaining importance, with self-employment in the software and computing services' sector considerably higher (13.0 % in 2001) than in the post and telecommunications sector (2.6 %). A breakdown by gender reveals that women were less prone to be self-employed than men: 96.3 % of women were employees in the information and communication services' sector in 2001, against only 91.2 % of men.

Table 23.2
Post and telecommunications; computer and related activities
(NACE Divisions 64 and 72)
Labour force characteristics (% of total employment)

	Female		Part-time		Self-employed	
	1996	2001	1996	2001 (1)	1996	2001
EU-15	32.5	31.6	11.8	12.2	5.9	7.0
B	24.5	23.8	5.7	6.4	5.0	6.4
DK	31.8	35.6	16.8	20.9	3.2	5.0
D	36.7	33.5	16.7	17.7	6.7	7.8
EL	23.2	29.6	:	:	:	:
E	26.6	34.9	2.6	4.2	4.3	5.2
F	39.7	38.7	12.8	11.5	2.0	3.0
IRL	31.8	31.7	:	6.3	9.9	9.0
I	31.5	31.5	3.0	4.5	8.1	10.4
L	24.6	25.9	:	12.7	:	:
NL	26.2	25.1	26.0	26.9	7.6	8.8
A	25.0	28.3	10.8	10.8	3.0	8.0
P	37.4	33.4	:	:	:	:
FIN	36.6	34.5	10.2	12.4	:	3.8
S	38.2	32.2	19.1	12.5	:	8.1
UK	26.9	26.2	11.9	12.0	7.8	7.9

(1) L, 2000.

Source: Eurostat, Labour Force Survey.

The share of persons working on a full-time basis in information and communication services (87.8 %) was also significantly higher than the services' average (80.2 %), with the gap wider than 10 percentage points in the United Kingdom, Ireland, the Netherlands, Belgium and Austria. In addition, the proportion of persons working full time remained fairly stable between 1995 and 2001, while part-time work became increasingly popular in services as a whole. Women were much more likely than men to work part time: 26.3 % of women employed in information and communication services in 2001 worked part time, against only 5.8 % of men.

Labour productivity of information and communication services was significantly higher than in most other sectors of the EU economy. Estimates based on SBS data show that on average, each person employed generated EUR 62 700 of value added in 2000, against EUR 42 900 in services (NACE Sections G to K) and EUR 45 700 in the business economy (NACE Sections C to K). Across the EU, apparent labour productivity ranged between EUR 51 100 in Spain, EUR 56 600 in Finland and EUR 72 100 in the United Kingdom and even EUR 119 900 in Luxembourg in 2000⁽³⁾. In

addition, it is worth noting that labour productivity was higher in post and telecommunications (EUR 66 700 per person employed) than in computer and related activities (EUR 57 600 per person employed).

Wage adjusted labour productivity was also relatively high, with ratios over 130 % in all countries except for France (129.9 %) and Sweden (128.9 %), rising to over 200 % in Portugal (225.5 %) and Luxembourg (272.0 %). Between 1999 and 2000, wage adjusted labour productivity was nevertheless on a downward trend in all countries but Spain and Italy⁽⁴⁾, as a result of rising personnel costs not being matched by corresponding productivity gains. For example, average personnel costs per employee increased by 21.9 % in the United Kingdom to EUR 45 700, by 14.8 % in Germany to EUR 42 400 and by 12.5 % in Belgium to EUR 50 800. At the same time, apparent labour productivity was up 6.6 % in the United Kingdom and 1.9 % in Belgium, while falling by 18.8 % in Germany.

⁽⁴⁾ EL, IRL and NL, not available.

⁽³⁾ IRL, 1998; EL, not available.

23.1: POSTAL AND COURIER SERVICES

This subchapter covers NACE Group 64.1, which includes both national post activities and other courier activities. National post activities (NACE Class 64.11) include the pick-up, transport and delivery (domestic or international) of mail and parcels, and other services such as PO boxes or poste restante. Courier activities other than national post activities are covered by NACE Class 64.12 and mainly include express courier services, where enterprises have widened their initial focus on business documents towards the transfer of packages and freight too.

The demand for postal and courier services is largely in the form of businesses, administrations and private customers who wish to ensure that letters and parcels are moved between themselves. The market for the delivery of letters is still dominated by formerly public-owned postal operators – or universal service providers (USPs) ⁽⁵⁾. However, the competitive environment for this area of the economy is rapidly changing and there have been several initiatives that have promoted market liberalisation within the EU.

⁽⁵⁾ The term USP takes account of the possibility that the operators are no longer public organisations.

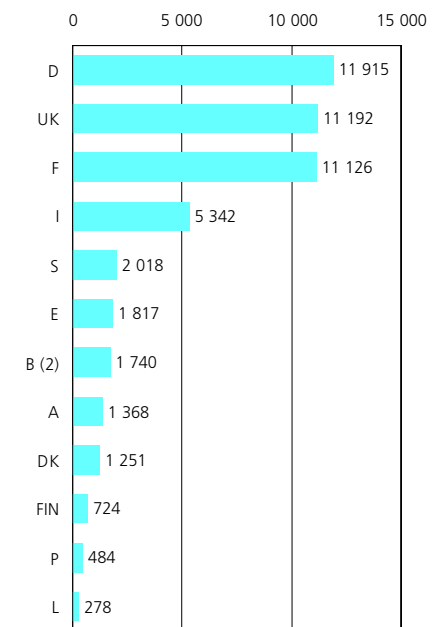
Nevertheless, USPs, be they publicly or privately owned, continue to provide the majority of general letter services and in most countries they still operate as a monopoly with exclusive rights, balanced by the fact that they are bound by a universal service obligation. On the other hand, private operators dominate the express services or courier markets, providing letter and parcel services in particular for business-to-business (B2B), direct mail and business-to-consumer (B2C) markets.

The increasing potential for substitution of traditional mail products by new technologies presents a major challenge for the postal services sector. Increased competition is seen in the letter-post market, as well as from alternative means of communicating (for example, the telephone, fax, electronic mail and the Internet).

On the other hand, technological changes also offer potential efficiency gains and provide the opportunity for new added value postal services and e-commerce related products. For example, advances in technology have led to productivity gains through the automation of sorting, while the use of modern technologies has led to an increase in the volume of certain types of postal traffic, for example, deliveries resulting from e-commerce orders.

Figure 23.4

**Post and courier activities
(NACE Group 64.1)
Value added, 2000 (million EUR) (1)**



(1) EL, IRL and NL, not available.

(2) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 23.3

Post and courier activities (NACE Group 64.1)

Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	:	10.6	5.5	6.6	:	:	2.0	1.3	7.0	:	:	-3.0	-2.8	-0.2	:
DK	-0.2	6.6	2.9	8.2	3.0	4.2	1.1	1.2	13.5	6.3	2.4	-2.3	3.4	5.7	-7.5
D	:	:	:	11.8	-27.6	:	:	:	:	-12.9	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	:	24.4	:	:	:	:	7.2	:	:	:	:	5.9
F	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
IRL	:	20.0	:	:	:	:	16.9	:	:	:	:	10.4	:	:	:
I	7.9	-0.5	-2.2	5.2	9.0	-16.5	1.4	-0.4	1.0	4.7	-3.3	-4.1	0.0	1.5	-3.9
L	7.8	7.9	9.7	3.3	5.6	5.0	6.8	9.2	-3.1	1.9	-2.4	2.2	0.8	3.0	0.3
NL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	7.0
A	:	:	:	9.8	9.7	:	:	:	8.6	-3.9	:	:	:	-1.0	-2.7
P	:	6.8	10.0	10.8	4.9	:	7.9	4.2	9.5	8.4	:	1.3	4.3	1.6	5.6
FIN	:	5.2	2.7	1.3	2.7	:	1.1	-1.1	0.3	2.1	:	-3.2	1.4	-3.5	4.0
S	4.4	:	:	:	:	4.9	:	:	:	:	:	:	:	:	0.3
UK	:	:	:	:	17.2	:	:	:	:	23.7	:	:	:	2.2	0.9

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

STRUCTURAL PROFILE

Post and courier activities generated EUR 49.3 billion of value added in 2000 ⁽⁶⁾. Based on available data, national post activities were by far the largest activity in this sector, as they accounted for 90 % or more of the value added in all countries for which data are available, except the United Kingdom where the share of national post was equal to 73.3 % ⁽⁷⁾.

Available figures suggest that during the 1990s, national postal services tried to rationalise their network by closing post offices, while ensuring ease of access by increasing the number of post boxes. In 2000, national postal services operated close to 91 000 permanent post offices in the EU ⁽⁸⁾ (see Table 23.15 in the statistical annex at the end of this chapter), about 15 000 fewer than 10 years before. In contrast, the number of post boxes increased over the same period to 663 000 in 2000, up 50 000 when compared to their number in 1990.

When compared to population, Ireland had the densest postal network, as each permanent post office served on average less than 2 000 persons. In contrast, Belgian post offices each served as many as 7 500 inhabitants, a figure that may be related to the high density of population in this country. Most of the other countries reported an average of between 3 250 (Austria) and 6 017 (Germany) inhabitants per post office.

There were more than 100 billion letter-post items handled by national postal services in the EU in 2000. This figure includes national and international receipt and dispatch (see Table 23.15 in the statistical annex at the end of this chapter). Domestic services accounted for the vast majority of traffic, but while this proportion is naturally linked to the size of each country, the relationship was not always clear-cut. Among the five largest Member States, the United Kingdom recorded a relatively high volume of international traffic in total letter-post items handled (7.1 %) compared, for example, to Germany (4.8 %) or France (4.0 %). Among the smaller Member States, relatively low shares were recorded in Austria (4.0 %) or Finland (5.4 %), while Belgium (10.0 %), Greece (14.5 %) and Ireland (14.5 %) had much higher international exposure. Unsurprisingly, the smallest Member State, Luxembourg, recorded the highest share (40.3 %) of international mail in total letter-post items handled.

⁽⁶⁾ B, 1999; IRL, 1997; EL and NL, not available.

⁽⁷⁾ D and I, 2000; UK, 1999; DK and P, 1998; S, 1996.

⁽⁸⁾ UK, 1999.

Table 23.4

Main indicators of courier activities, 2000 (1)

	Number of enterprises	Number of persons employed	Turnover for postal services (million EUR)
DK	1 210	2 095	325
D	19 356	45 273	8 782
E	6 084	47 965	1 961
IRL	3	47	2
I (2)	1 727	:	:
L	36	:	:
FIN (3)	241	:	254
S	328	6 199	421

(1) B, EL, F, NL, A, P and UK, not available.

(2) 1998.

(3) 1999.

Source: Eurostat, Communications (theme4/coins).

Table 23.5

Average number of delivery days for intra-EU mail, first half of 2002 (units) (1)

Destination	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Origin															
B	-	2.1	2.0	3.2	2.4	2.2	2.1	2.4	2.0	2.1	2.3	2.2	2.3	2.1	2.2
DK	2.1	-	1.9	2.9	2.2	2.1	2.1	2.3	2.2	2.1	2.2	2.1	2.1	1.8	2.0
D	2.0	1.9	-	3.1	2.5	2.0	2.2	2.3	2.0	2.0	2.0	2.3	2.3	2.0	2.0
EL	2.4	2.3	2.4	-	2.7	2.5	2.7	2.9	2.6	2.6	2.7	3.1	2.7	2.6	2.4
E	2.3	2.4	2.2	3.6	-	2.2	2.5	2.5	2.7	2.3	2.7	2.2	2.8	2.4	2.2
F	2.1	2.0	2.0	3.1	2.4	-	2.3	2.2	2.0	2.1	2.2	2.2	2.5	2.0	2.1
IRL	2.3	2.1	2.0	3.6	2.9	2.2	-	2.4	2.3	2.2	3.0	3.0	2.7	2.2	2.0
I	2.3	2.2	2.1	3.2	2.5	2.3	2.4	-	2.6	2.3	2.4	2.4	2.7	2.3	2.2
L	2.0	2.1	1.9	3.0	2.8	2.1	2.2	2.6	-	2.3	2.4	2.2	2.5	2.3	2.0
NL	2.1	2.1	2.2	3.4	2.6	2.4	2.3	2.4	2.3	-	2.5	2.5	2.3	2.2	2.1
A	2.1	1.9	1.9	3.3	2.5	2.3	2.6	2.6	2.1	2.2	-	2.6	2.4	2.1	2.1
P	2.1	2.0	2.0	3.9	2.3	2.0	2.8	2.3	2.4	2.1	3.0	-	2.9	2.2	2.1
FIN	2.2	2.0	2.0	3.3	2.7	2.2	2.1	2.5	2.3	2.2	2.2	2.1	-	1.9	2.0
S	2.1	2.0	2.1	3.6	2.4	2.3	2.3	2.5	2.2	2.2	2.2	2.2	2.1	-	2.1
UK	2.2	2.3	2.2	3.5	2.8	2.3	2.3	2.7	2.4	2.5	2.7	2.5	2.6	2.5	-

(1) The method of calculation is based on a five day business week that excludes Saturdays and Sundays, as well as national public holidays in the destination country; the following countries have Saturday mail deliveries - DK, D, F, I, NL and UK.

Source: UNEX - Unipost External Monitoring System, International Post Corporation, 2002.

Letter-post traffic witnessed a rising trend during the 1990s, much of which could be attributed to domestic traffic, which rose, on average, by more than 2.0 % per annum between 1990 and 2000 in the majority of EU countries.

The Postal Directive (97/67/EC) establishes cross-border quality targets. These targets are currently set at 85 % of deliveries within three days and 98 % of deliveries within five days. According to the International Post Corporation, during the first half of 2002 some 93.9 % of priority intra-EU mail was delivered within three days. This figure represents a significant improvement on the 69.1 % rate recorded in 1994. Over the same period, the share of cross-border priority mail delivered within five days rose from 92.4 % to 98.9 % (see Table 23.5).

Table 23.6
Breakdown of mail volume by point of access in the EU, 2001 (%)

	Letter mail	Direct mail	Parcels	Registered mail	Printed	Un-addressed mail
Collection from business customers	23	52	79	26	36	88
Sorting plant	31	34	1	2	63	1
Post office	19	11	19	63	1	5
Post box	21	0	0	0	0	0
Other	6	3	1	9	0	6

Source: 'Conditions governing access to universal postal services and networks', study by CTcon for the European Commission, July 2001.

Most postal traffic in circulation within the EU originates from business, but is destined for private households. It is generally estimated that 80 % of all mail that is posted in the EU is from businesses, but that only one third concerns B2B correspondence. This is reflected in the breakdown of mail by point of access (see Table 23.6), where collection at business customers and direct access at sorting plants represented more than half of letter mail volume.

LABOUR AND PRODUCTIVITY

Post and courier activities employed 1.5 million persons in 2000 ⁽⁹⁾. Although no official data are available to assess the breakdown between USP and competing postal operators (CPOs) and other postal agents (OPAs), a study carried out for the European Commission ⁽¹⁰⁾ estimates that 71 % of persons employed in postal services in 2000 worked for USPs and 29 % for CPOs and OPAs. According to the same study, it appears that employment levels have grown in recent years, as decreasing trends recorded in USPs were more than compensated for by expansion in CPOs and OPAs.

According to available SBS data, apparent labour productivity for postal and courier activities was generally low, under EUR 40 000 per person employed in all countries ⁽¹¹⁾ except Luxembourg, where it reached EUR 90 600. Wage adjusted labour productivity, which takes personnel costs into consideration, was also generally quite low and was usually between 110 and 120 % ⁽¹²⁾, although two countries clearly lay outside this range, Italy on the low side (102.4 %) and Luxembourg on the high side (200.0 %).

⁽⁹⁾ B, 1999; IRL, 1997; EL not available.

⁽¹⁰⁾ 'Employment trends in the EU postal sector', final report, PLS Rambøll, October 2002, available at http://europa.eu.int/comm/internal_market/en/postal/stud/index.htm.

⁽¹¹⁾ B, 1999; EL, IRL and NL, not available.

⁽¹²⁾ B, 1999; EL, IRL and NL, not available.

The evolution of employment in postal services is the result of interplay between positive drivers (the development of new services and growth of mail volumes) and negative drivers (increasing automation). In a recent report from the European Commission on the application of the Postal Directive ⁽¹³⁾, increased demand for postal services was said to be the main driver of employment creation (estimated at 2 to 3 % a year), but market liberalisation was also thought to have created jobs. For example, the German National Regulatory Authority estimates that more than 16 000 full-time or part-time jobs were created by private operators following partial liberalisation and the development of new services.

A study commissioned by the European Commission's Directorate-General for the Internal Market ⁽¹⁴⁾ provides further evidence on employment trends, in the absence of detailed official figures. According to this study, employment in the postal services' sector grew by nearly 5 % during the period 1995 to 2000, to a level of approximately 1.7 million full-time equivalent (FTE) employees in 2000 ⁽¹⁵⁾. Although total USP employment was relatively stable, declining by approximately 4 000 employees, or 0.3 %, to 1.2 million FTE employees, employment in CPOs and OPAs grew during the same period by as much as 19.7 % to 498 000 FTE employees.

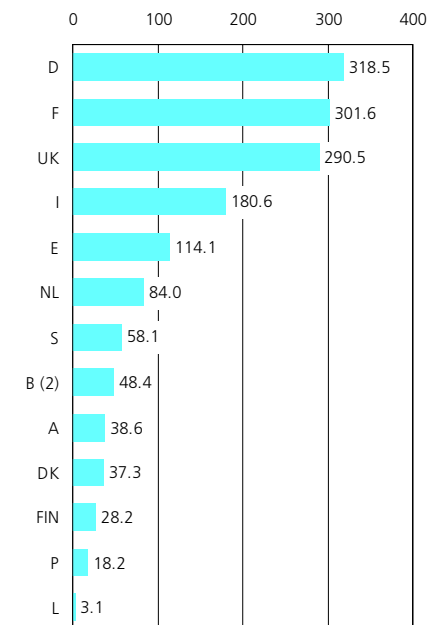
⁽¹³⁾ Report from the Commission to the European Parliament and the Council on the application of the Postal Directive (97/67/EC), COM(2002) 632 final, November 2002.

⁽¹⁴⁾ 'Employment Trends in the EU Postal Sector', final report, PLS Rambøll, October 2002, available at http://europa.eu.int/comm/internal_market/en/postal/stud/index.htm.

⁽¹⁵⁾ Note that this figure is not directly comparable with official statistics quoted above; most notably, it includes estimates of missing data (for example EL) and is in full-time equivalents rather than a simple head count.

Figure 23.5

Post and courier activities
(NACE Group 64.1)
Number of persons employed, 2000
(thousands) (1)



(1) EL and IRL, not available.

(2) 1999.

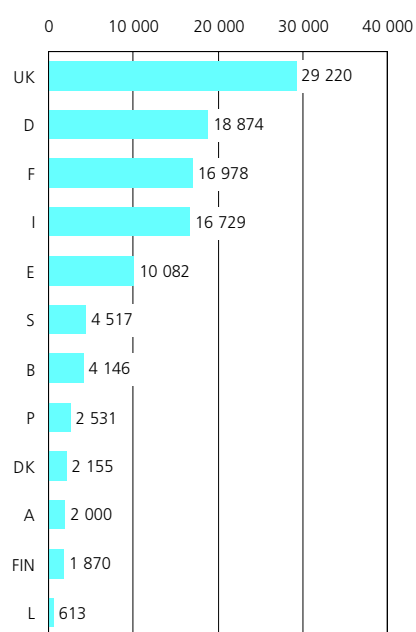
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

23.2: TELECOMMUNICATIONS SERVICES

Telecommunications services (NACE Group 64.2) embrace the distribution of sound, images, data and other information via cables, broadcasting, relay or satellite. These services include both the management and maintenance of networks and the provision of services using these networks, other than for the provision of radio and television programmes (which are covered in Chapter 24).

The telecommunications sector was a heavily regulated market with a legal and economic monopoly until recent years. However, during the course of the past two decades this sector has been radically modified not only by the pace of technological change, but also as a result of liberalisation. The first steps in this process concerned value added services and business users, leaving control of the service provision (or network) in the hands of national monopolies. In 1987, the European Commission issued a Green Paper which was the first step in a 10-year process that culminated in the liberalisation of all telecommunications services and networks by 1 January 1998. During this period the introduction of mobile handsets completely revolutionised the way people do business and the way people contact each other in their leisure time. Indeed, there are now more mobile subscriptions in the EU than there are fixed telephone lines.

Figure 23.6
Telecommunications (NACE Group 64.2)
Value added, 2000 (million EUR) (1)



(1) EL, IRL and NL, not available.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

STRUCTURAL PROFILE

In 2000, the turnover of the telecommunications' sector (NACE Group 64.2) in the EU reached EUR 247.7 billion ⁽¹⁶⁾, generating EUR 110.9 billion ⁽¹⁷⁾ of value added. Together, the United Kingdom (26.6%), Germany (17.2%) and France (15.5%) accounted for almost 60% of total value added. Most countries displayed continuous, strong growth of value added within the telecommunications sector during the second half of the 1990s, a trend that continued in 2000 with increases in this year equal to 20% or more in a majority of countries. Only Luxembourg and Germany displayed results at odds with these general trends ⁽¹⁸⁾, the former recording a 6.9% increase in value added between 1999 and 2000, the latter an 8.5% reduction.

⁽¹⁶⁾ IRL, 1997; EL and NL, not available.

⁽¹⁷⁾ IRL, 1997; EL and NL, not available.

⁽¹⁸⁾ EL, F, IRL, NL and S, not available.

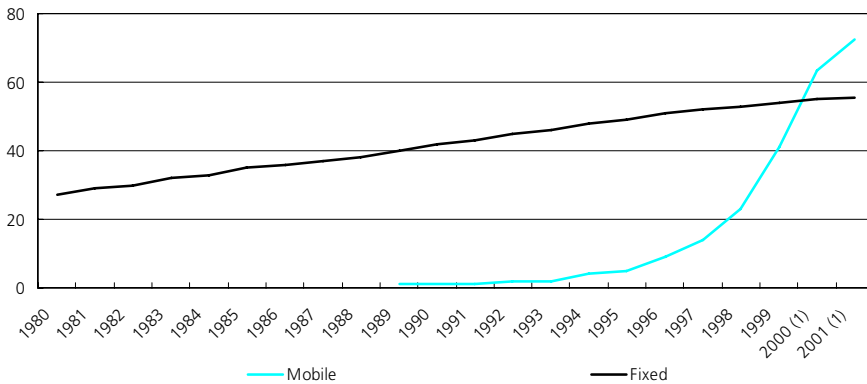
Table 23.7

Telecommunications (NACE Group 64.2)
Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	13.5	5.4	18.5	23.0	26.3	13.7	-8.2	7.4	9.7	10.8	8.2	-4.6	-3.3	7.9	5.3
DK	32.9	18.9	-24.3	15.8	21.9	11.9	24.4	5.0	4.5	-7.5	15.9	-13.7	28.1	5.1	8.0
D	:	:	:	11.1	-8.5	:	:	:	:	-35.1	:	:	:	:	:
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	14.3	27.1	:	:	:	-27.6	35.2	:	:	:	-5.5	8.6
F	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
IRL	:	21.9	:	:	:	:	12.0	:	:	:	:	6.5	:	:	:
I	31.9	10.3	22.6	5.2	26.3	17.6	9.0	13.8	-8.9	15.8	1.1	-1.6	3.2	7.7	6.1
L	39.6	11.1	23.2	23.2	6.9	52.7	15.9	3.8	41.8	8.2	12.8	14.8	14.9	48.9	11.2
NL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	25.0
A	:	:	:	27.2	19.9	:	:	:	8.4	-21.7	:	:	:	4.2	5.4
P	:	10.5	25.2	24.7	18.1	:	3.9	15.3	13.1	0.7	:	-2.5	6.3	-2.7	-4.9
FIN	13.5	19.1	31.5	19.8	23.5	8.2	15.7	15.8	15.8	-0.8	-2.2	2.4	6.9	7.7	-1.8
S	0.2	:	:	:	:	30.9	:	:	:	:	:	:	:	:	-0.7
UK	13.5	37.9	20.6	16.6	23.3	:	:	12.5	9.0	10.7	:	:	:	12.0	1.8

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Figure 23.7
Evolution of the number of telephone lines in the EU (millions)



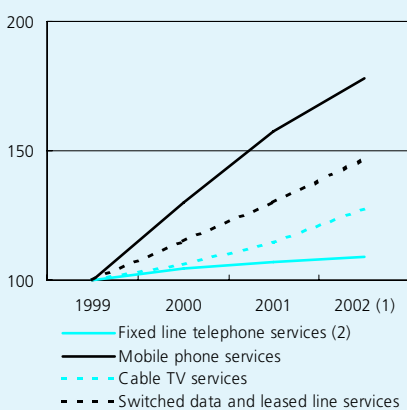
(1) Source: ITU.
Source: Eurostat, Communications (theme4/coins/telecom/tel_ser).

Table 23.8
Telecom turnover in the EU (billion EUR)

	2000	2001	2002 (1)
Fixed line telephone services (2)	120.4	123.6	125.6
Mobile phone services	73.3	88.8	100.4
Switched data and leased line services	11.6	12.5	14.0
Cable TV services	7.7	8.7	9.9
Total	189.4	213.0	233.6

(1) Estimates.
(2) Includes Internet and on-line services.
Source: EITO, 2002.

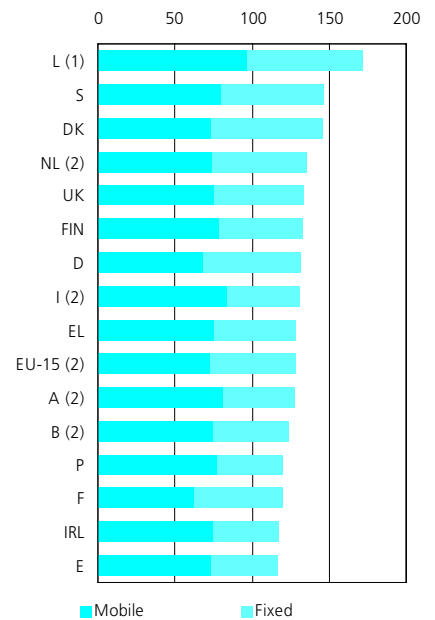
Figure 23.9
Evolution of telecom services turnover in the EU (1999=100)



(1) Estimates.
(2) Includes Internet and on-line services.
Source: EITO, 2002.

The number of fixed telephone lines in the EU has more than doubled over the past 20 years to reach 210.8 million by 2001, up from 96.6 million in 1980 (see Table 23.17 in the statistical annex at the end of this chapter). Growth was fairly stable over this period, with an average annual rate of 3.8%. The fastest expansion was recorded in Portugal and Luxembourg, where the number of lines quadrupled over the period considered. In contrast, the Nordic countries, where connectivity rates were already at high levels by 1980, recorded the slowest expansion.

Figure 23.8
Number of telephone lines per 100 inhabitants, 2001



(1) Mobile, source ITU.
(2) Source ITU.
Source: Eurostat, Communications (theme4/coins/telecom/tel_ser).

In 2001, there were 56 fixed lines per 100 inhabitants in the EU, which was twice as many as in 1980. Despite recording some of the highest growth rates among the Member States, Ireland and Portugal still displayed some of the lowest connectivity rates for fixed lines in 2001, with 42 lines and 43 lines per 100 inhabitants respectively, together with Spain (also 43 lines). At the other end of the scale, Luxembourg and Sweden boasted the highest connectivity for fixed lines, equal to 75 lines per 100 inhabitants in 2001, followed by Denmark (72).

A majority of EU countries (9) reported that their connectivity rate for fixed lines was declining in 2001. While this reduction could partly have been a sign of market saturation, it is also likely to have resulted from the continued substitution of fixed line telephony by mobile subscriptions.

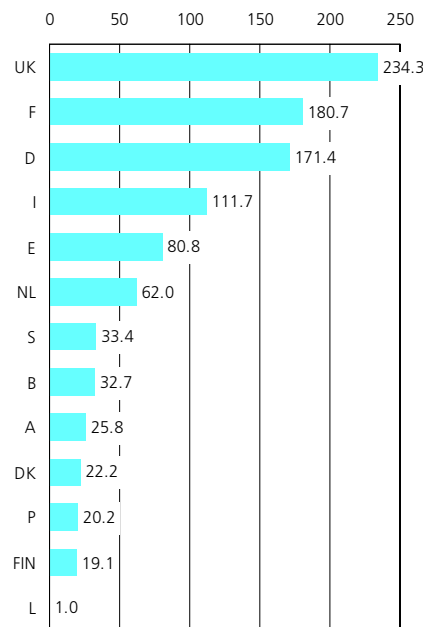
With the number of mobile subscriptions growing and now exceeding that of fixed lines, while penetration rates for fixed lines are stagnating or decreasing, it is possible that mobile communications are substituting fixed line use. Nevertheless, both networks can also be seen as complements, meaning that an increase in mobile telephone use may increase traffic in fixed networks. According to a recent study carried out for the European Commission ⁽¹⁹⁾, the net effect of mobile phone diffusion on the demand for fixed telecommunication network use remains unclear, the literature showing different authors coming to different conclusions. The main reason is that the diffusion of wire-line telecommunication networks has typically been publicly subsidised, whereas the diffusion of mobile phones has primarily been market driven. Data are distorted by public subsidies and hence fail to accurately capture whether market forces consider the two technologies as substitutes or complements. The development of non-voice usage of telephone lines further adds to measurement difficulties, for example, public programmes supporting access to the Internet, which is currently primarily achieved via wire-line networks.

For the first time, the number of mobile phone subscriptions exceeded the number of fixed lines in every Member State in 2001. There were almost 275 million subscriber lines to cellular mobile systems in the EU in 2001 (see Table 23.17 in the statistical annex at the end of this chapter), or 72 for every 100 inhabitants, up from 18 million subscriber lines in 1995.

Luxembourg boasted the highest penetration rate of mobile phones, with 97 lines per 100 inhabitants in 2001, ahead of Italy (84) and Austria (81). Furthermore, only three countries recorded a mobile connectivity ratio below the EU average: Germany, with 68 lines per 100 inhabitants, Spain (66) and France, where the lowest penetration of mobile subscriptions was recorded at just 61 lines per 100 inhabitants.

(19) 'Technology policy in the telecommunication sector', Enterprise Papers No. 8, European Commission Directorate-General for Enterprise, 2002.

Figure 23.10
Telecommunications (NACE Group 64.2)
Number of persons employed, 2000
(thousands) (1)



(1) EL and IRL, not available.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Internet access has become an important factor in national calls, as a large number of users connect to their service provider through a modem. According to figures available from the COINS database, Internet connections accounted for 34 % of national telecommunication traffic in 2000 in Sweden, 38 % in Portugal, 40 % in Spain and as much as 53 % in the United Kingdom.

International calls, including both intra- and extra-EU calls, averaged between 15 and 40 seconds per day per line in the majority of countries. Smaller countries naturally reported longer average duration for international calls, with the highest figure in Luxembourg (169 seconds per day in 1999) and Ireland (also 169 seconds per day). Sweden (85 seconds), Belgium (51 seconds) and Austria (51 seconds) also recorded a significantly higher than average duration for international calls per line. Among the larger Member States, particularly low levels of international calls were recorded in France (15 seconds per day) and Italy (19 seconds per day) when compared to the United Kingdom (38 seconds per day) - see Table 23.18 in the statistical annex at the end of this chapter.

The European Information Technology Observatory (EITO) estimates that total turnover of telecommunications services in the EU reached EUR 213 billion in 2001 (see Table 23.8), a 12.5 % progression compared to 2000. EITO forecast that growth would slow to 9.7 % in 2002. Fixed telephone services represented the largest share of the telecommunications services' sector, with turnover equal to EUR 123.6 billion, witnessing the lowest rate of growth (2.7 %) in 2001. This may in part be explained by the fact that the price of local and long-distance calls declined as competition intensified. Mobile telephone services on the other hand boasted growth of 21.1 % in the EU in 2001, with turnover estimated at EUR 88.8 billion. Switched data and leased line services recorded growth of 13.3 % in 2001 to register EUR 12.5 billion of turnover.

LABOUR AND PRODUCTIVITY

One million persons were working in telecommunications services in the EU in 2000 ⁽²⁰⁾. The United Kingdom accounted for nearly one quarter of this figure (23.2 %), ahead of France (17.9 %) and Germany (17.0 %). Available time-series on employment levels in telecommunications services show a positive trend in most countries during the second half of the 1990s. Among the larger Member States, employment grew by an average of 3.2 % per annum in Italy and 2.5 % in France between 1995 and 2000. In the United Kingdom, growth reached 8.4 % per annum between 1997 and 2000, based on the

⁽²⁰⁾ IRL, 1997; EL, not available.

number of employees. In the smaller Member States, Luxembourg more than doubled its level of employment in telecommunications between 1995 and 2000, while the corresponding growth rate was 50 % in Denmark. In contrast, Portugal and Finland reported net job losses in this sector between 1999 and 2000 of – 4.9 % and – 1.8 % respectively.

The productivity of the telecommunications services' sector was particularly high, as apparent labour productivity was over EUR 100 000 per person employed in the majority of Member States ⁽²¹⁾, with the exceptions of Finland (EUR 97 900), Denmark (EUR 97 100), France (EUR 94 000) and Austria (EUR 77 600).

Wage adjusted labour productivity ratios ranged between 172.5 % in Belgium (1999) and 920.3 % in Luxembourg (1998), with most countries in the range of 200 to 300 % ⁽²²⁾. Exceptions included Italy and Portugal that boasted ratios above 300 %, while wage adjusted labour productivity in France and Austria was below 200 %.

⁽²¹⁾ EL, IRL and NL, not available.

⁽²²⁾ IRL and NL, not available.

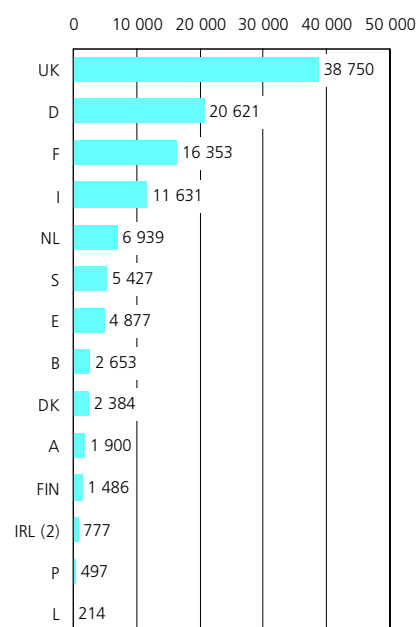
23.3: SOFTWARE AND COMPUTING SERVICES

NACE Division 72 covers software and computing services, which includes consultancy activities for hardware (NACE 72.1) or software (NACE 72.2), data-processing activities (NACE 72.3), database activities (NACE 72.4) and the maintenance and repair of office and IT machinery (NACE 72.5). The actual manufacture of computers (NACE 30.02) and their retail trade (NACE 52.48) are not covered by this subchapter.

As with other activities in this chapter that have seen rapid technological changes in recent years, the software and computing services subsector was one of the fastest growing areas of the EU economy during the 1990s until stock market valuations for many companies crashed. This sector is at the forefront of the information society, providing software and services that allow business and consumers to take full advantage of technological progress. With the increase in the use of the Internet and growth in e-commerce applications there have been fundamental changes in software developments as well as the way in which computing services are offered to customers.

Figure 23.11
Computer and related activities
(NACE Division 72)

Value added, 2000 (million EUR) (1)



(1) EL, not available.

(2) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

STRUCTURAL PROFILE

The computer and related activities (NACE Division 72) subsector generated an estimated EUR 116 billion of value added in 2000, equivalent to 2.5 % of the wealth created in the EU's business economy (NACE Sections C to K) and some 4.3 % of the value added generated in the service sector (NACE Sections G to K).

The United Kingdom accounted for approximately one third of the value added generated in software and computing services in the EU in 2000, with EUR 38.8 billion, far ahead of Germany (EUR 20.6 billion) and France (EUR 16.4 billion) and more than three times the contribution of Italy (EUR 11.6 billion). This sector had relatively low importance in Spain, with value added of only EUR 4.9 billion in 2000, which was less than in the Netherlands (EUR 6.9 billion) or Sweden (EUR 5.4 billion).

Table 23.9

Computer and related activities (NACE Division 72)
Main indicators, growth rates (%)

	Turnover					Value added					Number of persons employed				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
EU-15	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
B	-0.2	8.8	35.0	23.1	20.5	2.0	10.4	34.3	21.5	13.0	2.8	10.1	19.8	24.4	14.9
DK	:	:	:	:	21.3	:	:	:	:	12.4	:	:	:	:	26.6
D	:	13.7	28.1	7.4	16.5	:	:	:	:	-24.3	:	:	:	:	-19.1
EL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
E	:	:	:	22.5	22.2	:	:	:	17.1	35.5	:	:	:	18.0	17.9
F	7.7	5.8	19.2	21.1	11.9	0.2	5.9	20.4	23.8	6.3	-1.3	5.8	13.0	15.9	13.6
IRL	57.5	49.6	139.1	:	:	74.2	54.4	50.7	:	:	33.2	24.9	73.9	:	:
I	27.9	5.1	25.3	5.3	23.9	17.0	4.9	18.6	12.0	17.0	3.4	1.1	16.5	11.8	11.3
L	37.4	22.8	-12.1	54.4	7.9	57.2	10.4	-16.9	56.9	8.9	50.7	-3.3	21.1	8.5	21.5
NL	:	:	20.9	:	:	:	:	20.5	:	:	23.3	16.9	18.5	:	:
A	17.7	-4.8	30.7	21.4	22.3	:	:	27.5	19.4	21.6	7.6	22.6	24.9	11.7	28.0
P	179.7	40.6	30.2	35.1	-13.5	:	40.2	22.4	65.8	-16.6	186.5	25.9	3.4	22.5	1.4
FIN	6.9	9.7	32.6	18.8	16.3	8.2	11.2	30.6	17.2	0.4	2.7	12.9	22.7	14.4	24.6
S	22.8	10.4	29.6	26.4	17.8	27.6	19.9	25.5	23.9	9.1	:	:	21.8	16.7	21.3
UK	12.0	54.3	41.6	22.5	14.4	:	:	46.5	18.6	14.2	:	:	:	14.9	12.9

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Software and computing services benefited from a particularly favourable evolution in recent years, as witnessed by the rapid development of value added. In all countries reporting significantly long time-series⁽²³⁾, value added expanded at double-digit rates in the second half of the 1990s, with average changes ranging from 10.9 % per annum (between 1995 and 2000) in France to 25.6 % per annum in the United Kingdom (between 1997 and 2000). This came despite a slowdown recorded in the year 2000, when Germany and Portugal reported substantial declines in activity, - 24.3 % and - 16.6 % respectively.

EITO estimates that EU software and IT services accounted for EUR 188 billion of turnover in 2001 (see Table 23.10). This figure can be broken down into two main product markets, those for IT services (EUR 126 billion of turnover) and those for software (EUR 63 billion).

Within the EU's software market, systems software and applications software each shared approximately half of total value of turnover (EUR 33 billion and EUR 30 billion respectively) in 2001. In 2001, the growth observed in applications software markets (8.7 %) was higher than the corresponding figure for systems software (7.4 %).

⁽²³⁾ Excluding DK and D, as data was available only for 1999 and 2000; EL, not available.

Table 23.10

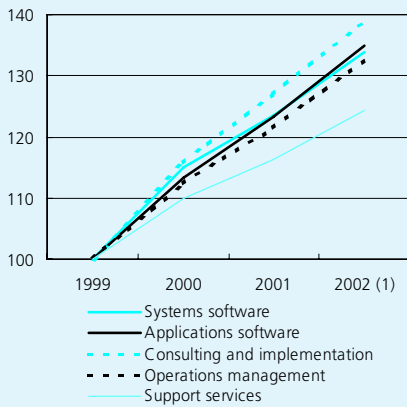
Software and IT services turnover in the EU (billion EUR)

	2000	2001	2002 (1)
Software	57 995	62 626	68 220
Systems software	30 418	32 654	35 393
Applications software	27 577	29 972	32 827
IT services	116 413	125 889	136 769
Consulting	14 282	15 824	17 372
Implementation	34 875	38 087	41 620
Operations managemt.	37 048	40 016	43 613
Support services	30 207	31 962	34 164

(1) Estimates.
Source: EITO, 2002.

In 2001, two fifths of the turnover generated in the IT services' sector could be attributed to consulting and implementation services, almost one third to operations management services (for example, systems and network management, help-desks, back-up and archiving services) and the remainder - approximately one quarter - to support services (for example, maintenance contracts and telephone support, be it bundled or not with software packages). The fastest growing activities in IT services in 2001 were consulting (10.8 % growth) and implementation services (9.2 %), ahead of operations management (8.0 %). Support services (5.8 %) recorded the slowest growth.

Figure 23.12
Evolution of software and IT services turnover in the EU (1999=100)



(1) Forecasts.
Source: EITO, 2002.

Table 23.11
World's top software and IT services companies, 2001

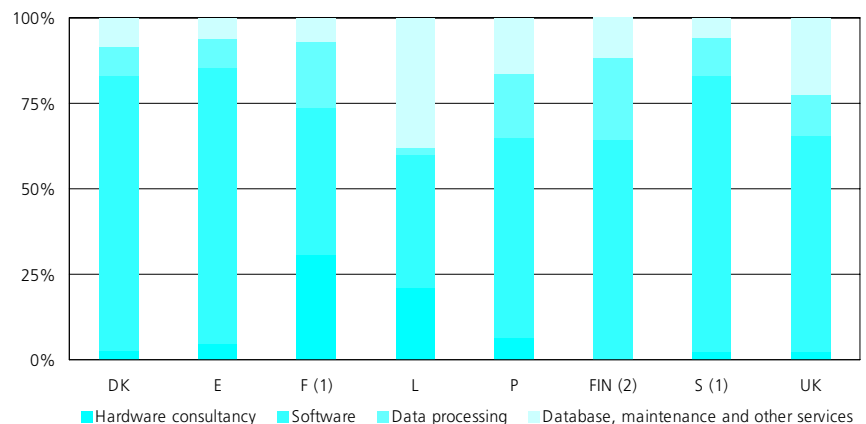
	Software and IT services revenue (million EUR)	Corporate revenue (million EUR)	Number of employees (thousands)
IBM	53 476	95 872	320
Microsoft	27 540	28 244	48
EDS	24 054	24 054	143
Accenture	14 904	14 904	75
Oracle	12 125	12 125	43
Computer Sciences	11 750	11 750	68
Compaq	8 649	37 464	78
PwCC	8 353	8 353	36
Cap Gemini E&Y	8 324	8 324	58
NTT DATA	7 213	7 213	13

Source: Software Magazine's Annual Software 500, Wiesner Publishing, Framingham, Mass., 2002.

Additional information on software and computing services is provided by a pilot survey carried out in a limited number of Member States (Denmark, Spain, France, Luxembourg, Portugal, Finland, Sweden and the United Kingdom) for the reference year 2000. The survey concentrated on turnover data, broken down by client and product. Results reveal that software consultancy and supply services (NACE 72.2) were the most important activity in software and computing services in all surveyed countries (see Figure 23.13). Nevertheless, France and Luxembourg displayed important hardware consultancy activities. Similarly, data processing showed above average importance in Finland, France and Portugal.

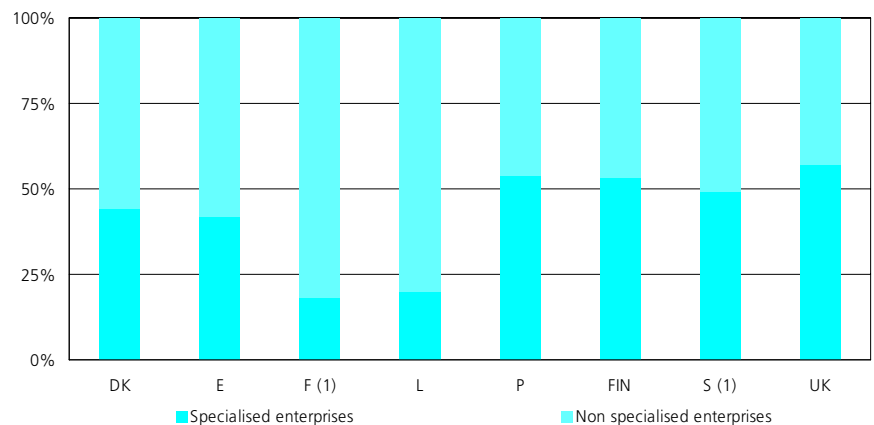
The importance of specialisation among software enterprises was also measured by the survey. For the purpose of the survey, enterprises were defined as product specialised if their most important product accounted for at least 75 % of their total net turnover. Software services enterprises were not product specialised in the majority of countries surveyed, meaning that their activity depended on more than one product. This was, however, not the case in Portugal, Sweden and the United Kingdom, where specialised software enterprises accounted for the largest share of turnover. Additionally, the survey provided evidence of a link between the average size of an enterprise and its product specialisation: the smaller the enterprise, the greater its product specialisation, meaning that smaller enterprises tended to concentrate on a narrower product range.

Figure 23.13
Breakdown of turnover in computing services by NACE Group, 2000 (%)



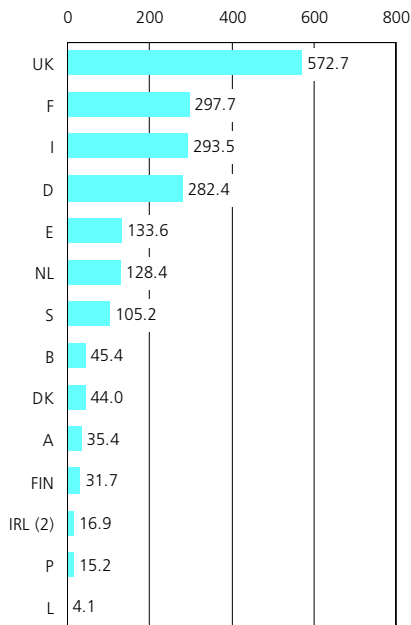
(1) 1999.
(2) Hardware consultancy included in database, maintenance and other services.
Source: Eurostat, Business services (theme4/sbs/bus_serv/comp_ser).

Figure 23.14
Breakdown of turnover in software services by enterprise specialisation, 2000 (%)



(1) 1999.
Source: Eurostat, Business services (theme4/sbs/bus_serv/comp_ser).

Figure 23.15
Computer and related activities (NACE Division 72)
Number of persons employed, 2000
(thousands) (1)



(1) EL, not available.
 (2) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

LABOUR AND PRODUCTIVITY

Employment in software and computing services was estimated to be around 2 million persons in the EU in 2000. This represented about 2.0 % of total employment in the business economy (NACE Sections C to K) and 4.3 % of jobs in the service sector (NACE Sections G to K). The United Kingdom alone accounted for more than one-quarter (28.4 %) of the total, with 573 000 persons employed in 2000. This was not far from twice the levels reported in France (298 000 persons employed), Italy (293 000 persons employed) and Germany (282 000 persons employed). Among the smaller economies, the Netherlands (128 000 persons employed) and Sweden (105 000 persons employed) stood out with relatively high levels of employment compared to their size.

Between 1999 and 2000 the number of persons employed in the software and computing services' sector increased in the majority of countries ⁽²⁴⁾, with growth rates exceeding 20 % in Luxembourg, Austria and the Nordic countries. Only Germany reported net job losses in the sector. The positive trend in most countries was a continuation of the dynamic evolution of employment during the second half of the 1990s, as employment levels virtually doubled in the majority of countries between 1995 and 2000 and even quadrupled in Portugal. Average gains were comprised in most countries between 14.2 % per annum (Belgium) and 18.7 % per annum (Austria), although rates were even higher in Portugal (35.9 % per annum). The relatively low, but still significant, levels of employment growth recorded over the same period in France (9.2 % per annum) and Italy (8.7 % per annum) should also be noted.

⁽²⁴⁾ EL, IRL and NL, not available.

The LFS indicates that the software and computing services' workforce was dominated by men, as women accounted for only one in four persons employed in 2001 (25.9 %). It is interesting to note, however, that the share of women was extremely varied from one country to the other, ranging from only 16.7 % in the Netherlands and 20.3 % in Portugal up to 32.0 % in Ireland and 42.1 % in Greece.

While a steadily growing proportion of persons employed in services' activities adopted part-time work patterns between 1995 and 2001 in the EU, this trend was, however, not witnessed in computer and related activities. According to the LFS, the relative importance of full-time employment remained fairly constant in the EU, from 91.0 % of the workforce in 1995 to 91.5 % in 2001. In Sweden, the share of persons working full time increased significantly, passing from 85.8 % in 1995 to 93.5 % in 2001. Other countries also recorded an increase in full-time employment (and hence a reduction of part-time work) such as the United Kingdom (up 2.3 percentage points to 91.6 %), Spain (up 1.4 points to 97.6 %) or Germany (up 1.2 points to 87.2 %). However, the opposite trend was reported in six countries, led by Denmark where the share of full-time employment fell from 92.3 % in 1995 to 83.3 % in 2001.

The relatively atypical evolution of this sector in terms of working time status may be balanced against the importance of male employment compared to other service activities. In fact, LFS data shows that only 4.5 % of men employed in software and computing services worked part time, while 20.1 % of their female colleagues did.

SBS data provides information on the apparent labour productivity of the workforce in software and computing services. Each person employed in the EU generated on average an estimated EUR 57 600 of value added in 2000, that is one third above the service sector average, with values that spanned from EUR 32 700 in Portugal to EUR 73 000 in Germany ⁽²⁵⁾. Average personnel costs per employee ranged between EUR 27 400 in Portugal and EUR 56 300 in Sweden in 2000 ⁽²⁶⁾, with values comprised between EUR 43 100 (the Netherlands) and EUR 54 500 (Germany) in the majority of countries. Combining these two indicators, and taking into account the proportion of self-employed persons in the workforce, the resulting wage adjusted labour productivity ratios were relatively low compared to other services. This was mainly due to higher than average personnel costs that may be a reflection of the large proportion of those employed with a higher level of education. The majority of

countries reported wage adjusted labour productivity between 100 and 125 % in 2000 ⁽²⁷⁾, with Sweden the only country where value added did not cover personnel costs (91.7 %). At the other end of the range, Germany (133.9 %) and the United Kingdom (142.0 %) recorded the highest ratios. With these ratios, productivity was significantly below the national average recorded for business services (NACE Section K) in all reporting countries, with productivity gaps particularly wide in Denmark (104.8 % in software and computer services versus 159.7 % in business services), Germany (133.9 % versus 200.2 %) or Portugal (119.3 % versus 169.6 %). In addition, the evolution of apparent labour productivity was at best stable, if not decreasing, in all countries for which fairly lengthy SBS time-series are available ⁽²⁸⁾. For example, wage adjusted labour productivity passed from 105.3 % to 105.5 % between 1996 and 2000 in Belgium, from 117.5 % to 119.6% between 1997 and

2000 in Austria and from 116.2 % to 117.4 % between 1995 and 2000 in Italy. It decreased over the same period in France, from 110.7 % to 107.7 %, and between 1998 and 2000 in the United Kingdom, from 178.9 % to 142.0 %. This can be at least partly due to the increase in average personnel costs failing to match apparent labour productivity gains, both in France (2.1 % per annum for average personnel costs versus 1.6 % per annum for apparent labour productivity between 1995 and 2000) and in the United Kingdom (14.7 % versus 2.2 % respectively over the period 1998-2000).

⁽²⁵⁾ IRL, 1998; EL, not available.

⁽²⁶⁾ IRL, 1998; EL, not available.

⁽²⁷⁾ IRL, 1998; EL, not available.

⁽²⁸⁾ All Member States except DK, D, EL, IRL and NL.

Table 23.12

Post and telecommunications (NACE Division 64)

Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	2 008	1 173	3 564	:	6 420	3 228	640	2 779	92	3 005	497	218	505	712	14 344
Turnover (million EUR)	11 882	6 380	54 693	:	26 794	57 050	2 923	42 663	1 331	19 298	8 999	6 095	6 248	11 586	87 819
Number of persons employed (thousands)	82	59	490	:	195	482	25	292	4	146	64	38	47	92	525
Value added (million EUR)	5 881	3 406	30 789	:	11 899	28 103	1 704	22 071	891	7 746	3 368	3 016	2 594	6 535	40 412
Purchases of goods and services (million EUR)	6 255	3 174	29 612	:	16 003	29 422	1 233	19 746	409	11 977	5 684	3 512	3 832	5 874	50 224
Personnel costs (million EUR)	3 880	1 890	17 333	:	5 135	19 038	806	9 647	204	4 347	2 314	1 136	1 338	3 472	22 537
Gross investment in tangible goods (million EUR)	1 824	730	15 412	:	6 597	9 255	730	5 796	:	4 346	2 119	1 642	1 156	2 399	18 592
App. labour productivity (thous. EUR/pers. emp.)	71.9	57.3	62.9	:	61.1	58.3	67.5	75.5	218.6	53.1	52.3	78.5	54.9	71.4	77.0
Wage adjusted labour productivity (%)	147.8	177.9	174.9	:	226.1	147.4	207.0	226.2	433.6	169.5	144.7	264.9	193.4	187.4	175.9
Gross operating rate (%)	16.8	23.8	24.6	:	25.2	15.9	30.7	29.1	51.6	17.6	11.7	30.8	20.1	26.4	20.4

(1) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 23.13

Post and telecommunications (NACE Division 64)

Main indicators, 2000

	BG	CY	CZ (1)	EE	HU	LV	LT	MT	PL	RO	SK	SI (1)	TR
Number of enterprises (units)	893	:	1 272	90	162	133	158	:	:	788	47	440	:
Turnover (million EUR)	1 012	:	2 588	381	3 026	527	485	:	:	2 048	943	778	:
Number of persons employed (thousands)	45	:	73	10	66	14	18	:	:	104	35	:	:
Value added (million EUR)	495	:	:	210	1 598	327	297	:	:	1 210	446	214	:
Purchases of goods and services (million EUR)	551	:	1 165	164	852	207	216	:	:	879	443	386	:
Personnel costs (million EUR)	154	:	488	63	521	89	100	:	:	416	194	167	:
Gross investment in tangible goods (million EUR)	132	:	760	111	882	162	183	:	:	917	178	295	:
App. labour productivity (thous. EUR/pers. emp.)	11.0	:	:	22.0	24.1	23.1	16.1	:	:	11.6	12.7	:	:
Wage adjusted labour productivity (%)	318.6	:	:	333.8	304.2	366.7	296.9	:	:	271.2	229.7	:	:
Gross operating rate (%)	33.7	:	:	38.7	35.6	45.1	40.7	:	:	38.8	26.7	6.0	:

(1) 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_cc).

Table 23.14

Post and courier activities (NACE Group 64.1)
Main indicators, 2000

	B (1)	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	1 852	972	3 324	:	5 282	1 422	:	1 913	39	2 225	304	51	248	328	7 703
Turnover (million EUR)	2 587	1 728	18 041	:	3 631	15 025	:	7 189	456	:	2 302	623	1 192	3 004	19 913
Number of persons employed (thousands)	48	37	318	:	114	302	:	181	3	84	39	18	28	58	291
Value added (million EUR)	1 740	1 251	11 915	:	1 817	11 126	:	5 342	278	:	1 368	484	724	2 018	11 192
Purchases of goods and services (million EUR)	843	491	7 172	:	1 813	3 068	:	1 571	177	:	926	172	480	1 053	8 767
Personnel costs (million EUR)	1 446	1 021	9 166	:	1 577	10 272	:	5 153	138	:	1 228	427	591	1 683	9 289
Gross investment in tangible goods (million EUR)	106	52	943	:	192	527	:	341	:	70	86	48	63	148	488
App. labour productivity (thous. EUR/pers. emp.)	36.0	33.5	37.4	:	15.9	36.9	:	29.6	90.6	:	35.4	26.6	25.7	34.7	38.5
Wage adjusted labour productivity (%)	115.2	120.1	127.1	:	111.1	108.1	:	102.4	200.0	:	110.6	113.2	122.2	119.5	117.8
Gross operating rate (%)	11.4	13.3	15.2	:	6.6	5.7	:	2.6	30.6	:	6.1	9.1	11.2	11.2	9.6

(1) All except number of enterprises, 1999.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 23.15

Postal services, 2000

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK (1)
Access to postal services (units)															
Permanent post offices (2)	1 368	1 111	13 663	1 779	10 172	16 662	1 914	13 950	108	2 282	2 497	3 779	1 489	1 754	18 341
Average number of inhabitants served by a permanent post office (2)	7 494	4 806	6 017	5 924	3 925	3 535	1 986	4 141	4 060	6 979	3 249	2 707	3 476	5 058	3 257
Post boxes (2)	19 296	9 806	140 000	13 672	37 812	134 524	6 200	80 810	1 171	19 725	23 146	18 766	7 850	38 250	112 200
Number of letter post items treated by the national post (millions)															
Domestic service (3)	3 533	1 563	21 700	459	4 968	25 759	590	6 253	108	7 022	2 868	1 201	1 646	3 548	19 092
International dispatch (4)	194	:	402	78	142	598	78	161	45	:	69	61	34	122	929
International receipt (5)	200	:	702	:	159	468	144	218	28	299	51	45	60	121	522

(1) Excluding Northern Ireland.

(2) UK, 1999; B, EL, F, NL, A, P and UK, Source: UPU.

(3) B, 1999; A, 1997; NL, including international dispatch; B, EL, F, NL, A and UK, Source: UPU.

(4) B, 1998; D, 1997; B, EL, F, NL, A and UK, Source: UPU.

(5) B, 1998; D, 1997; NL, 1999; B, EL, F, NL, A, P and UK, Source: UPU.

Source: Eurostat, Communications (theme4/coins/post_cou/new/post_ser).

Table 23.16

Telecommunications (NACE Group 64.2)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	156	201	240	:	1 138	1 806	:	866	53	780	193	167	257	384	6 641
Turnover (million EUR)	9 115	4 652	36 652	:	23 163	42 025	:	35 474	875	:	6 696	5 472	5 056	8 582	67 906
Number of persons employed (thousands)	33	22	171	:	81	181	:	112	1	62	26	20	19	33	234
Value added (million EUR)	4 146	2 155	18 874	:	10 082	16 978	:	16 729	613	:	2 000	2 531	1 870	4 517	29 220
Purchases of goods and services (million EUR)	5 227	2 683	22 441	:	14 190	26 354	:	18 176	232	:	4 757	3 339	3 352	4 821	41 457
Personnel costs (million EUR)	2 394	869	8 166	:	3 558	8 766	:	4 494	66	:	1 086	709	748	1 790	13 248
Gross investment in tangible goods (million EUR)	1 729	678	14 469	:	6 405	8 728	:	5 455	:	4 276	2 033	1 595	1 093	2 251	18 103
App. labour productivity (thous. EUR/pers. emp.)	126.8	97.1	110.1	:	124.8	94.0	:	149.8	607.5	:	77.6	125.4	97.9	135.2	124.7
Wage adjusted labour productivity (%)	172.5	247.5	230.8	:	281.2	193.5	:	368.5	920.3	:	183.5	356.2	249.9	251.0	217.1
Gross operating rate (%)	19.2	27.6	29.2	:	28.2	19.5	:	34.5	62.6	:	13.7	33.3	22.2	31.8	23.5

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 23.17

Number of fixed and mobile telephone lines (millions)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Fixed																
1990	153.0	3.9	2.9	32.0	3.9	12.6	28.1	1.0	22.4	0.2	6.9	3.2	2.4	2.7	5.8	25.4
2000	207.1	5.1	3.8	50.2	5.7	17.5	34.0	1.6	27.2	0.3	9.9	3.8	4.3	2.8	6.0	34.8
2001 (1)	210.8	5.1	3.9	52.3	5.6	17.4	34.0	1.9	27.3	0.4	10.0	3.8	4.4	2.8	6.6	35.3
Mobile																
1990	3.1	0.0	0.1	0.3	0.0	0.1	0.3	0.0	0.3	0.0	0.1	0.1	0.0	0.3	0.5	1.1
2000 (1)	238.9	5.3	3.4	48.2	5.9	24.7	29.1	2.5	42.2	0.3	10.8	6.3	6.7	3.7	6.4	43.5
2001 (1)	274.8	7.7	4.0	56.2	8.0	26.5	35.9	2.8	48.7	0.4	11.9	6.6	8.0	4.0	7.0	47.0

(1) Source: ITU.

Source: Eurostat, Communications (theme4/coins/telecom/tel_ser).

Table 23.18

Average duration of outgoing telephone calls, 2000 (seconds per line per day)

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
National calls (1)	282	963	926	:	712	579	:	740	658	598	594	556	1 037	1 011	642
International calls (2)	51	35	30	21	24	15	169	19	169	37	51	20	27	85	38

(1) F, I and L, 1999; NL, 1998; B and A, 1997.

(2) B, EL, F, I, L and NL, 1999; A, 1998.

Source: Eurostat, Communications (theme4/coins/telecom/tel_ser).

Table 23.19

Computer and related activities (NACE Division 72)
Main indicators, 2000

	B	DK	D	EL	E	F	IRL (1)	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	7 601	6 466	22 654	:	16 270	36 953	1 785	76 527	739	14 020	7 768	2 199	3 896	22 078	129 312
Turnover (million EUR)	6 633	5 545	39 964	:	10 934	35 493	2 136	27 879	498	13 345	4 493	1 277	3 420	12 938	66 629
Number of persons employed (thousands)	45	44	282	:	134	298	17	293	4	128	35	15	32	105	573
Value added (million EUR)	2 653	2 384	20 621	:	4 877	16 353	777	11 631	214	6 939	1 900	497	1 486	5 427	38 750
Purchases of goods and services (million EUR)	4 051	3 218	20 374	:	4 825	19 348	1 368	16 912	281	6 434	2 627	821	2 008	7 844	27 750
Personnel costs (million EUR)	2 092	2 063	14 082	:	3 608	15 055	463	6 722	190	4 992	1 244	370	1 341	5 137	23 715
Gross investment in tangible goods (million EUR)	355	255	3 479	:	426	1 153	94	1 187	:	349	276	127	148	545	3 399
App. labour productivity (thous. EUR/pers. emp.)	58.4	54.2	73.0	:	36.5	54.9	46.1	39.6	51.5	54.1	53.6	32.7	46.8	51.6	67.7
Wage adjusted labour productivity (%)	105.5	104.8	133.9	:	123.3	107.7	154.3	117.4	106.5	125.5	119.6	119.3	108.1	91.7	142.0
Gross operating rate (%)	8.4	5.8	16.4	:	11.6	3.7	14.7	17.6	4.7	14.6	14.6	9.9	4.2	2.2	22.6

(1) 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms).

Table 23.20

Computer and related activities (NACE Division 72)
Main indicators, 2000

	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI (1)	TR
Number of enterprises (units)	2 333	:	19 286	417	912	452	720	:	20 795	3 174	720	1 578	:
Turnover (million EUR)	105	:	1 583	86	1 000	92	90	:	2 614	282	338	343	:
Number of persons employed (thousands) (2)	9	:	40	2	15	4	3	:	45	19	9	:	:
Value added (million EUR)	28	:	501	30	318	43	27	:	1 052	106	110	98	:
Purchases of goods and services (million EUR)	83	:	1 115	54	549	57	62	:	1 678	185	213	226	:
Personnel costs (million EUR)	22	:	318	21	159	25	17	:	461	54	74	75	:
Gross investment in tangible goods (million EUR)	9	:	84	3	86	16	6	:	99	24	22	13	:
App. labour productivity (thous. EUR/pers. emp.) (2)	3.0	:	12.6	12.7	20.7	10.6	7.8	:	12.1	5.6	12.3	:	:
Wage adjusted labour productivity (%) (2)	92.9	:	113.9	138.8	197.4	171.1	142.3	:	112.9	141.4	146.9	:	:
Gross operating rate (%)	5.5	:	11.5	11.1	15.8	20.2	11.7	:	22.6	18.2	10.8	6.6	:

(1) 1999.

(2) PL, 1998.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_cc).