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Statistical pocketbook

Data 1995-2000

4

EUROPEAN COMMISSION

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THEME 4
Industry, trade and services

A great deal of additional information on the European Union is available on the Internet.
It can be accessed through the Europa server (http://europa.eu.int).

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Business in Europe - Statistical Pocketbook
This publication has been created in close co-operation with a large number of parties from within Eurostat's Directorate for Business Statistics (Director, Mr Pedro Díaz-Muñoz). The opinions expressed are those of the individual authors alone and do not necessarily reflect the position of the European Commission.

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1. Introduction

GUIDE TO THE STATISTICS PRESENTED IN THIS PUBLICATION

The aim of this publication is to present, for the first time, a collection of the most important data available within the *Business Statistics Directorate* of Eurostat. This publication provides the reader with statistical information to appreciate the realities of the European business economy, largely from the perspective of the enterprise. In particular the data presented in this pocketbook will be of interest to anybody wishing to study the structure and evolution of the EU's industrial and service sectors.

The publication may be viewed as a compendium of data available within the Directorate. However, it is by no means an exhaustive collection, rather it can be seen as a showcase for the various data sets that currently exist.

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

Structure of the publication

This publication is broken down into seven main chapters, covering the full spectrum of activities that form the work of the *Business Statistics Directorate*. Following this introductory chapter, the overview chapter looks at the business environment and the business enterprise population within the European Union as a whole, whilst the following five chapters detail different areas that make-up the business economy, namely, manufacturing industry, construction, distributive trades, the information society and other service activities (such as hotels, transport, finance and business services). The publication closes with a chapter on methodological issues, business registers and classifications, that are prerequisites for a harmonised statistical system.

DATA INTERPRETATION

There follow some general notes that give a brief explanation of how to interpret the data presented within this publication. For more detailed methodological notes refer to *chapter 8*, which begins *on page 95*. Throughout the publication, definitions of specific indicators are provided and some particular methodological issues outlined.

Sources

The vast majority of the sources used in this pocketbook come from within the *Business Statistics Directorate*. However, when the occasion warrants, sources from outside the Directorate have been included. These may be summarised as either official data from other Directorates within Eurostat (data from the Labour Force Survey, National Accounts, External Trade) or from other Directorate-Generals within the European Commission (for example, Eurobarometer surveys), or alternatively non-official data, which has been used in areas where official data collection is still being developed (for example, information society statistics). Particular care should be taken when interpreting data from non-official sources, as data collection, survey techniques and compilation methods may not be fully harmonised, nor coverage representative.

Data freshness

The data used in this publication was extracted from a wide variety of Eurostat databases on *5 November 2001*. The text that accompanies the tables and charts was drafted during the *second half of November 2001*. Fresher data than that published may now be available within Eurostat's reference database, NewCronos, where more statistics in terms of activity or product coverage, geographical coverage (either for countries or regions) or years may be found.

NewCronos is structured into themes and then into domains. The domain from which data was extracted is identified as part of the source for each table and chart that has been compiled using Eurostat data. Readers who wish to obtain the data behind the tables and charts or more detailed tabulations should contact one of Eurostat's Data shops (details are given on the page facing the inside back cover).

Geographical entities

Data published for EU-15 is either the sum or average of all fifteen Member States, as appropriate, or alternatively a figure that includes estimates to cover missing country data. When EU-15 figures cannot be compiled using a full set of country data, appropriate footnotes have been added. Figures for Germany are on a post-unification basis, unless otherwise stated.

Monetary values

All nominal financial/monetary values are expressed in ECU/euro terms, with national currencies converted using average annual exchange rates. As of 1 January 1999, eleven of the Member States entered into Economic and Monetary Union (EMU), forming what has become known as the euro-zone. Technically, data available prior to this date should continue to be denominated in ECU terms, and data after in euro (€) terms. As the conversion rate was 1 ECU=1 euro, the two terms are used interchangeably when referring to a series that covers both periods. As of 1 January 2001, Greece also became a member of the euro-zone. The conversion of data in national currencies to a common currency facilitates comparison, however, fluctuations in currency markets may be responsible for at least some of the movements identified when looking at the evolution of a time-series in ECU/euro terms.

ABBREVIATIONS AND SYMBOLS

EU Member States

EU	European Union
EU-15	Fifteen Member States of the European Union
Euro-zone	Geographical entity covered by the Member States participating in the euro
B	Belgium
DK	Denmark
D	Germany
EL	Greece
E	Spain
F	France
IRL	Ireland
I	Italy
L	Luxembourg
NL	Netherlands
A	Austria
P	Portugal
FIN	Finland
S	Sweden
UK	United Kingdom

Other country codes

JP	Japan
US	United States of America

Abbreviations

ATM	Automatic Teller Machine
BOP	Balance Of Payments
CC	Classification of types of Construction
CD	Compact Disc
CODED	Eurostat's Concepts and DEfinitions Database
CPA	Statistical Classification of Products by Activity in the European Economic Community
CPC	Central Product Classification
DVD	Digital Versatile Disc or Digital Video Disc
ECB	European Central Bank
ECSC	European Coal and Steel Community
EMU	Economic and Monetary Union
ESA-95	European System of National and Regional Accounts, 1995
FAO	Food and Agriculture Organisation of the United Nations
GDP	Gross Domestic Product
GSM	Global System for Mobile communications
HORECA	HOtels, REstaurants and CAfes
ICT	Information and Communication Technology

IMF	International Monetary Fund
ISIC	International Standard Classification of all Economic Activities
ISP	Internet Service Provider
ITU	International Telecommunication Union
KAU	Kind-of-Activity Unit
LP	Long Playing
MIG	Main Industrial Grouping
NACE Rev.1	Statistical Classification of Economic Activities in the European Community, Revision 1
NewCronos	Eurostat's Reference Database
NSI	National Statistical Institute
OECD	Organisation for Economic Co-operation and Development
PC	Personal Computer
PRODCOM	PRODucts of the European COMmunity
SBS	Structural Business Statistics
SME	Small and Medium-sized Enterprise
SMS	Short Message Service
STS-R	Short-Term Statistics Regulation
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VAT	Value Added Tax
VCR	Video Cassette Recorder
WAP	Wireless Application Protocol

Units and measures

billion	Thousand million
ECU	European Currency Unit
km	Kilometre

Symbols

€	Euro
-	Not applicable
:	Not available
%	Per cent
0.0	Real zero or value less than 0.05

2. Business enterprises

STRUCTURAL INDICATORS - BENCHMARKING EUROPEAN BUSINESS

Table 2.1: Structural indicators, 2000

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
GDP per person employed (PPS) (1)	100.0	124.4	102.4	97.0	80.1	89.1	107.7	115.7	113.2	199.7	100.2	96.0	65.5	102.0	92.9	97.8
Employment rate, females (%) (2)	53.8	51.9	72.1	57.8	41.3	40.3	54.8	53.4	39.3	50.0	63.4	59.7	60.4	65.2	69.7	64.5
Employment rate, males (%) (2)	72.4	69.8	80.7	72.7	71.3	69.6	68.8	75.6	67.6	75.0	82.1	76.2	76.2	71.1	72.6	77.9
Unit labour cost growth (%) (3)	:	-0.8	-2.2	0.2	-4.3	-0.2	0.3	-2.0	-0.8	-1.7	-0.3	-0.9	:	-3.2	4.7	0.4
Accidents at work (per 100 thousand persons in employment) (4)	4,089	5,112	3,203	4,958	2,936	7,073	4,920	1,433	4,105	4,719	3,909	3,321	5,505	3,435	1,329	1,512
Life-long learning (%) (5)	8.4	6.8	20.8	5.2	1.1	4.9	2.8	5.2	5.5	4.8	15.6	7.8	3.3	19.6	21.6	21.0
Business enterprise expenditure on R&D (%) (6)	1.2	1.5	1.3	1.7	:	0.5	1.4	:	0.6	:	:	:	0.2	2.2	2.9	1.3
Number of patents (per million inhabitants) (7)	152.7	151.2	169.5	296.8	5.2	22.1	139.7	87.6	72.3	170.3	217.6	154.1	3.9	320.3	346.4	124.0
Venture capital, early stage (EU-15=100) (8)	100.0	144.0	25.3	109.3	9.3	44.0	109.3	144.0	61.3	:	124.0	38.7	36.0	137.3	122.7	140.0
Venture capital, expansion & replacement stages (EU-15=100) (8)	100.0	69.7	57.4	72.3	97.4	65.2	98.1	65.8	58.7	:	191.0	27.7	60.6	56.8	87.7	191.6
Capital raised on stock markets as a share of GDP (%) (9)	4.5	2.9	4.1	1.4	9.9	22.0	2.9	4.1	0.8	10.9	14.2	1.2	14.1	9.5	5.0	2.5

(1) EL, E, IRL, L, NL, A, P and UK, forecasts.
(2) Employed persons aged 15-64 as a share of the population aged 15-64.
(3) Growth rate of the ratio: compensation per employee in current prices divided by GDP per person employed in current prices; EL, E, IRL, L, NL, A and UK, forecasts.
(4) Accidents at work resulting in more than 3 days absence from work (serious accidents); all data for 1998.
(5) Share of population aged 25-64 participating in education and training over the 4 weeks prior to the survey; EU-15, estimated on the basis of available information for 13 countries and 1997 data for IRL and A; IRL and A, 1997.
(6) As a share of GDP; DK, I, P, FIN and S, 1999; EU-15, DK, D, F and I, estimates; E, preliminary figure.
(7) All countries, preliminary data.
(8) Private equity minus buyouts, relative to GDP; EU-15, excluding L.
(9) Market value of new shares issued during the reference period relative to GDP.
Source: Eurostat, Structural indicators, available at http://www.europa.eu.int/comm/eurostat

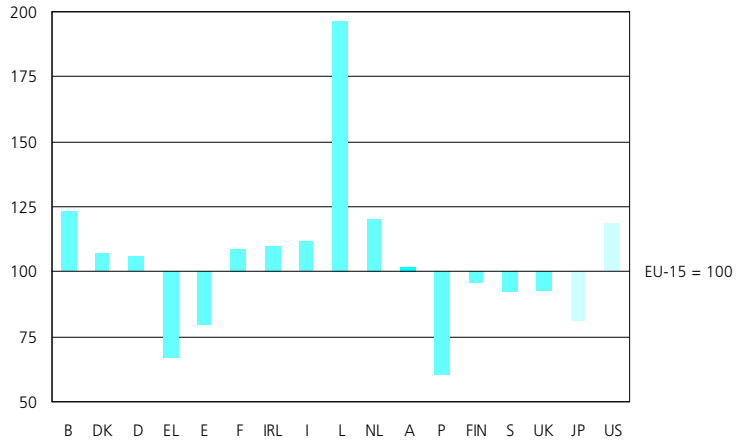
The Lisbon European Council defined an ambitious strategy for change. This strategy was to make the European Union "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion". The Lisbon meeting invited the European Council to meet each spring to discuss economic and social questions, against the background of the European Union's strategic goal.

As a result, Eurostat have set-up a Structural Indicators database. This database is available to the public at the following address, *http://www.europa.eu.int/comm/eurostat* and may be accessed by clicking on theme 4.

The web-site currently presents data for 36 indicators as used in the Commission's second Communication on Structural Indicators, COM (2001) 619, that was approved on the 30th October 2001. In accordance with the Lisbon and Göteborg European Councils, the indicators cover five domains: namely employment, innovation, economic reform, social cohesion and the environment, as well as some general background economic indicators.

In particular, investments in education, research and development and information and communication technologies have the potential to improve the capacity of the Union to innovate. Venture capital is considered as important because efficient risk capital markets play a major role in innovative high-growth SMEs. For the full benefits of structural reform to be reaped, more efficient and better functioning product and capital markets are required.

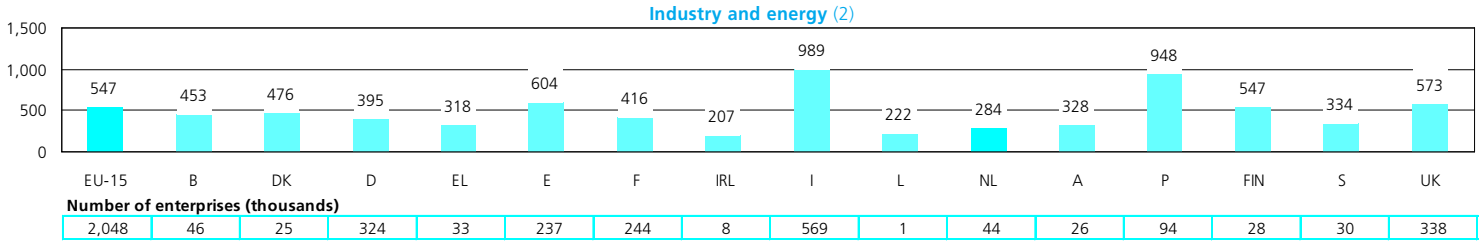
Chart 2.1: Labour productivity, 2000 (1)



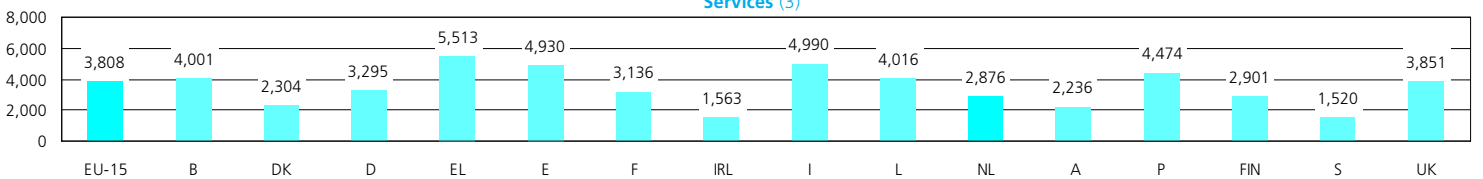
(1) GDP per hour worked based on Purchasing Power Standards (PPS) series; PPS are indicators of the average price ratios between different countries, their use makes it possible to compare the volumes of, for example, GDP per capita, between different countries; EL, E, IRL, L, NL, A, P, UK, JP and US, forecasts.
Source: Eurostat, Structural indicators, available at http://www.europa.eu.int/comm/eurostat

NUMBER OF ENTERPRISES

Chart 2.2: Number of enterprises per 100 thousand inhabitants, 1997 (units) (1)



Number of enterprises (thousands)															
2,048	46	25	324	33	237	244	8	569	1	44	26	94	28	30	338



Number of enterprises (thousands)															
14,250	407	122	2,704	579	1,939	1,838	57	2,870	17	449	180	445	149	134	2,273

(1) Note the scales employed in the graphs are different; estimates, except for B, E, FIN and UK. (2) Excluding construction, NACE Sections C to E. (3) NACE Sections G to K and Divisions 85, 90, 92 and 93, except for EL and S for which services include only NACE Sections G to I and Division 74

Source: Eurostat, Small and medium-sized enterprises (theme4/sme)

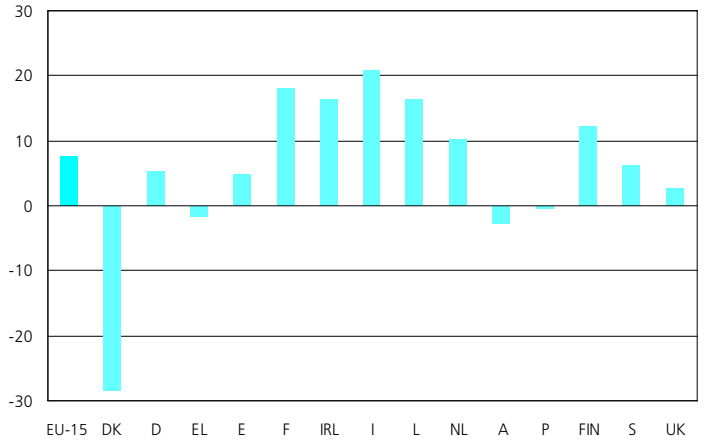
Many of the features in today's economy have had a significant impact on the structure of the business enterprise population. Out-sourcing, sub-contracting, the pace of innovation, developments in the information society and labour market flexibility have all contributed to shifts in the composition of this population. These features that shape the business enterprise population have resulted in a high number of businesses being created and rapid growth in several economic activities.

The data presented on the next three double page spreads was provided to Eurostat by Member States on a voluntary basis. This voluntary data collection has now finished, as Council Regulation No 58/97 of 20 December 1996 extended the coverage of regular structural business statistics to enterprises of all sizes, the previous Directives having only covered those with 20 persons or more employed. The implementation of this Regulation has included a move to collect size-class data. The first results may be found within NewCronos (Eurostat's Reference Database) under theme4/sbs/sizclass, where EU totals are expected for the first time during 2002.

The vitality of an economy depends to some extent on entrepreneurial initiative. In net terms, between 1993 and 1997 there were 1.3 million new enterprises created in the EU's business economy (see *chart 2.3*), more than half of these were created in business service, community, social and personal service activities.

Enterprise structure differs considerably between the Member States, and due to their high number of smaller enterprises the southern European countries account for a relatively large proportion of enterprises within the EU (as shown in *chart 2.2*). Another dichotomy in the structure of the business enterprise population is shown by the stark contrast between the number of enterprises that are active within industry and services. Of the 18.4 million business enterprises within the EU in 1997, the overwhelming share (almost 75%) was found within services.

Chart 2.3: Change in the number of enterprises in the business economy, 1993-1997 (%) (1)



(1) Estimates for all countries except E, FIN and UK; B, not available.
Source: Eurostat, Small and medium-sized enterprises (theme4/sme)

2 ENTERPRISE DISTRIBUTION ACROSS THE ECONOMY

Table 2.2: Number of enterprises and average number of persons employed per enterprise across different sectors of the economy, 1997 (1)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Share in total number of enterprises (%)																
Industry and energy (NACE Divisions 10-41)	10.9	8.8	14.7	9.7	4.5	9.7	10.3	9.6	14.5	4.8	8.2	11.8	14.9	13.8	12.0	10.1
Construction (NACE Division 45)	13.3	13.0	13.9	9.6	12.9	10.6	12.4	17.5	12.4	8.1	9.1	7.8	14.8	13.0	9.9	21.8
Distribution and HORECA (NACE Divisions 50-55)	35.2	46.5	40.8	31.5	68.3	43.2	32.5	41.3	36.0	46.7	36.9	43.4	52.1	29.6	31.7	21.2
Transport and communication (NACE Divisions 60-64)	5.3	3.5	5.5	3.9	4.9	9.3	3.9	5.3	4.3	5.0	5.2	5.2	3.3	11.3	6.1	6.3
Finance (NACE Divisions 65-67)	1.7	0.5	1.0	2.4	:	1.6	1.5	1.0	1.8	4.8	2.2	1.5	0.6	1.3	:	2.0
Other services (NACE Divisions 70-74, 85, 90, 92, 93)	33.6	27.7	24.1	43.0	:	25.6	39.5	25.3	31.0	30.5	38.4	30.4	14.3	30.9	:	38.6
Average number of persons employed per enterprise (units)																
Industry and energy (NACE Divisions 10-41)	15.0	15.9	19.8	25.7	10.1	10.8	18.4	30.5	8.7	36.8	23.8	25.4	11.4	15.3	23.1	13.9
Construction (NACE Division 45)	4.0	3.9	6.7	6.4	3.4	5.4	5.6	3.7	2.8	15.9	8.0	14.3	3.6	3.5	7.6	2.1
Distribution and HORECA (NACE Divisions 50-55)	4.6	4.6	7.1	6.0	1.6	3.6	5.3	7.3	2.5	5.4	7.2	7.4	2.8	4.2	6.4	8.8
Transport and communication (NACE Divisions 60-64)	8.4	13.6	9.1	13.3	2.2	4.0	15.5	18.4	6.2	18.6	18.6	21.1	7.3	6.4	15.0	7.0
Finance (NACE Divisions 65-67)	14.6	42.4	49.0	15.5	:	11.2	18.3	51.3	8.2	25.7	17.1	28.6	23.5	16.3	:	15.6
Other services (NACE Divisions 70-74, 85, 90, 92, 93)	4.5	5.1	5.1	6.4	:	3.8	4.4	6.6	1.9	5.8	8.3	4.6	3.5	2.9	:	4.7

(1) Estimates for all countries except B, E, FIN and UK.

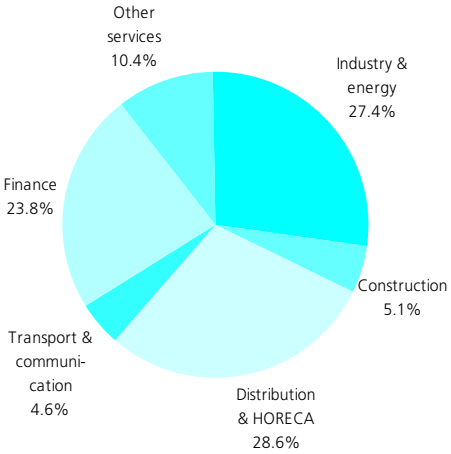
Source: Eurostat, Small and medium-sized enterprises (theme4/sme)

Whilst it has already been shown that most EU enterprises are active within services, *table 2.2* details more precisely their classification between distribution and HORECA, transport, finance and other services. Industrial enterprises and those operating within financial services consistently reported the highest average numbers of persons employed per enterprise (other than in the Netherlands).

Nevertheless, behind these aggregated figures there may well be a great deal of variation within each of the categories. For example, within manufacturing, it is normal to find that more traditional industries, such as the manufacture of food products, textiles, leather and paper tend to have an average enterprise size below the manufacturing average, whilst capital-intensive industries, such as chemicals and metallurgy, are characterised by a higher than average enterprise size. Alternatively, within transport and communication services, activities such as road haulage are dominated by micro-sized enterprises, whilst rail and air transport enterprises have very high average numbers of persons employed.

The average enterprise size in the EU fell from 6.4 persons per enterprise in 1993 to 6.0 persons in 1997. These figures need to be interpreted with care: as in an aggregated form they hide significant changes that may be taking place in the business enterprise population - for example, as a result of enterprise births and deaths or enterprises being reclassified into a different size class due to taking-on or laying-off employees. The average enterprise size fell in all areas of the EU economy between 1993 and 1998 except in the activities of distributive trades, hotels and restaurants.

Chart 2.4: Turnover breakdown by activity in the EU, 1997



Source: Eurostat, Small and medium-sized enterprises (theme4/sme)

2 THE IMPORTANCE OF SMALL AND MEDIUM-SIZED ENTERPRISES

Table 2.3: Number of enterprises and persons employed broken down by size-class, 1997 (% share of total) (1)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (1)						Industry and energy (NACE Divisions 10-41)										
Very small enterprises (0-9 employees)	81.2	84.0	78.6	72.4	80.9	83.0	81.2	58.5	83.5	67.9	75.0	69.9	80.6	85.5	76.3	87.1
Small enterprises (10-49 employees)	14.9	12.1	15.8	20.8	15.7	14.3	14.4	:	14.6	:	17.5	22.2	15.3	10.6	17.2	9.6
Medium-sized enterprises (50-249 employees)	3.1	2.9	4.6	5.0	2.8	2.3	3.5	:	1.7	:	5.8	6.2	3.5	2.9	5.0	2.6
Large enterprises (250+ employees)	0.8	1.0	1.1	1.8	0.5	0.4	0.9	:	0.3	:	1.6	1.7	0.5	1.0	1.5	0.8
Number of persons employed (2)																
Very small enterprises (0-9 employees)	14.8	16.6	12.1	9.5	16.0	22.8	14.5	4.9	22.9	7.2	14.3	10.7	17.0	10.1	10.4	13.4
Small enterprises (10-49 employees)	20.1	18.6	20.1	14.9	29.3	28.4	18.7	:	31.4	:	16.3	18.2	28.1	14.5	14.6	14.3
Medium-sized enterprises (50-249 employees)	19.7	17.6	25.3	15.8	28.2	21.2	20.0	:	19.5	:	21.0	:	29.7	20.3	20.7	20.4
Large enterprises (250+ employees)	45.4	47.3	42.6	59.8	26.5	27.7	46.8	:	26.3	:	48.3	:	25.2	55.0	54.4	51.9
Number of enterprises (1)						Services (NACE Divisions 50-74, 85, 90, 92 and 93)										
Very small enterprises (0-9 employees)	94.9	96.1	92.5	91.0	:	96.6	94.9	86.8	97.7	89.9	92.4	90.3	95.9	95.2	:	94.3
Small enterprises (10-49 employees)	4.5	3.4	6.4	7.9	:	2.9	4.3	:	2.1	:	6.0	8.4	3.6	4.1	:	4.9
Medium-sized enterprises (50-249 employees)	0.5	0.4	0.9	0.8	:	0.4	0.7	:	0.2	:	1.3	1.2	0.4	0.6	:	0.7
Large enterprises (250+ employees)	0.1	0.1	0.2	0.2	:	0.1	0.1	:	0.0	:	0.3	0.2	0.1	0.1	:	0.2
Number of persons employed (2)																
Very small enterprises (0-9 employees)	40.5	49.8	34.8	36.0	:	55.0	40.6	32.0	60.6	29.6	27.5	32.0	50.9	33.8	:	29.5
Small enterprises (10-49 employees)	17.0	13.6	:	20.1	:	15.7	17.8	:	13.9	:	17.7	21.5	19.2	18.0	:	14.2
Medium-sized enterprises (50-249 employees)	10.2	8.2	14.3	8.5	:	9.6	12.4	:	6.9	:	18.1	:	10.6	13.9	:	9.5
Large enterprises (250+ employees)	32.3	28.4	:	35.4	:	19.6	29.2	:	18.6	:	36.7	:	19.2	34.4	:	46.8

(1) Estimates for all countries except B, E, FIN and UK.
(2) Estimates for all countries except FIN and UK.
Source: Eurostat, Small and medium-sized enterprises (theme4/sme)

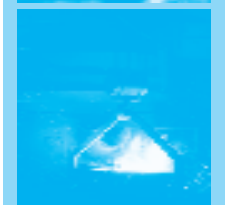
Policy makers pay increasing attention to the role that SMEs play in local, national and global economies. The contribution of SMEs to job creation, innovation and economic growth is widely recognised. To strengthen the competitive position of SMEs, and ultimately to safeguard existing jobs and to create new employment opportunities, a strong and direct focus of policy makers on SMEs is necessary in the Member States and at a pan-European level. As a result, European policies show an increased tendency towards improving the economic environment in which SMEs operate.

It is however important to note that whilst just 0.1% of all service enterprises and 0.8% of all industrial enterprises are large (with greater than or equal to 250 employees), these enterprises continue to play an important role in the EU economy, accounting for 45.4% of industrial employment and a 32.3% share of those employed in services.

Chart 2.5: Turnover breakdown by activity and size-class in the EU, 1997

Source: Eurostat, Small and medium-sized enterprises (theme4/sme)

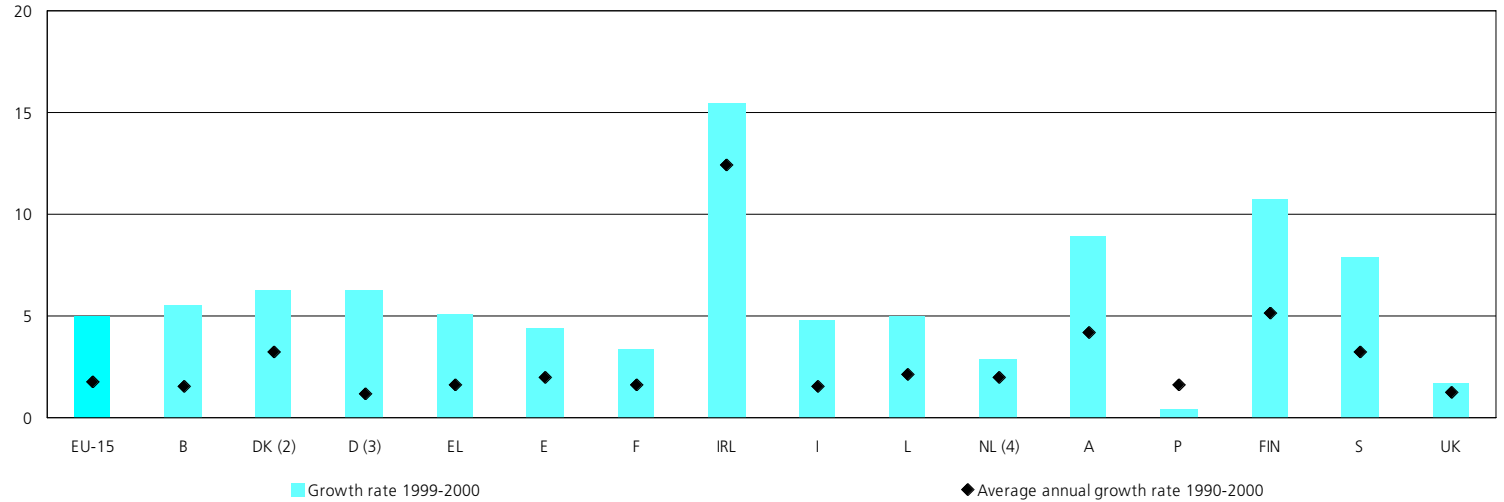
INDEX



3.Manufacturing industry

EVOLUTION OF THE PRODUCTION INDEX FOR TOTAL INDUSTRY

Chart 3.1: Production index for total industry (excluding construction), growth rates (%) (1)



(1) Data adjusted for the number of working days; total industry excluding construction covers NACE Sections C to E. (2) Estimates. (3) Average annual growth rate, estimate. (4) Average annual growth rate, 1995-2000.

Source: Eurostat, European Business Trends - Monthly and Quarterly Short Term Statistics (theme4/ebt)

Production index

The production index is an important business cycle indicator that reflects activity within the industry; it is one of the most volatile components of the economy. In line with traditional practice, the production index should show the evolution of value added at factor cost, at constant prices. Value added reflects the difference between operating income and purchases of goods and services, adjusted for changes in stocks and hence represents the value derived from the combination of factors such as capital and labour.

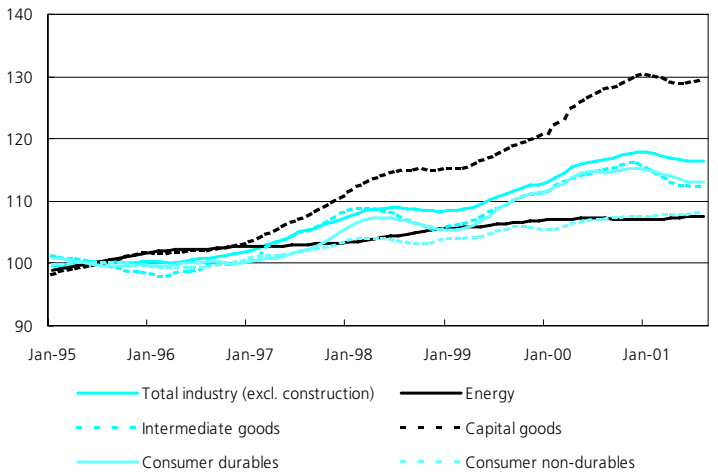
The index should take account of variations in type and quality of the commodities and of the input materials, changes in stocks of finished goods and work in progress, changes in technical input-output relations (processing techniques) and services such as the assembling of production units, mounting, installations, repairs, planning, engineering and creation of software. The observation unit for this index is the kind-of-activity unit (KAU), although enterprises or the local unit may be used as a proxy under certain circumstances.

Legal basis

The legal basis for the production index is Council Regulation No 1165/98 of 19 May 1998 concerning short-term statistics[1] (STS-R), which is currently in the process of implementation (due to be complete by mid-2003). It is important to note that the coverage of the production index according to the STS-R includes all activities listed in NACE Sections C to E (in other words, mining and quarrying, manufacturing, electricity, gas and water supply[2]) and not just manufacturing (NACE Section D).

(1) Available at, http://forum.europa.eu.int/Public/irc/dsis/bmethods/home within the section *Legal texts* under the heading *Data collection legislation*.
(2) Except for NACE Division 41 (collection, purification and distribution of water) and NACE Group 40.3 (steam and hot water supply).

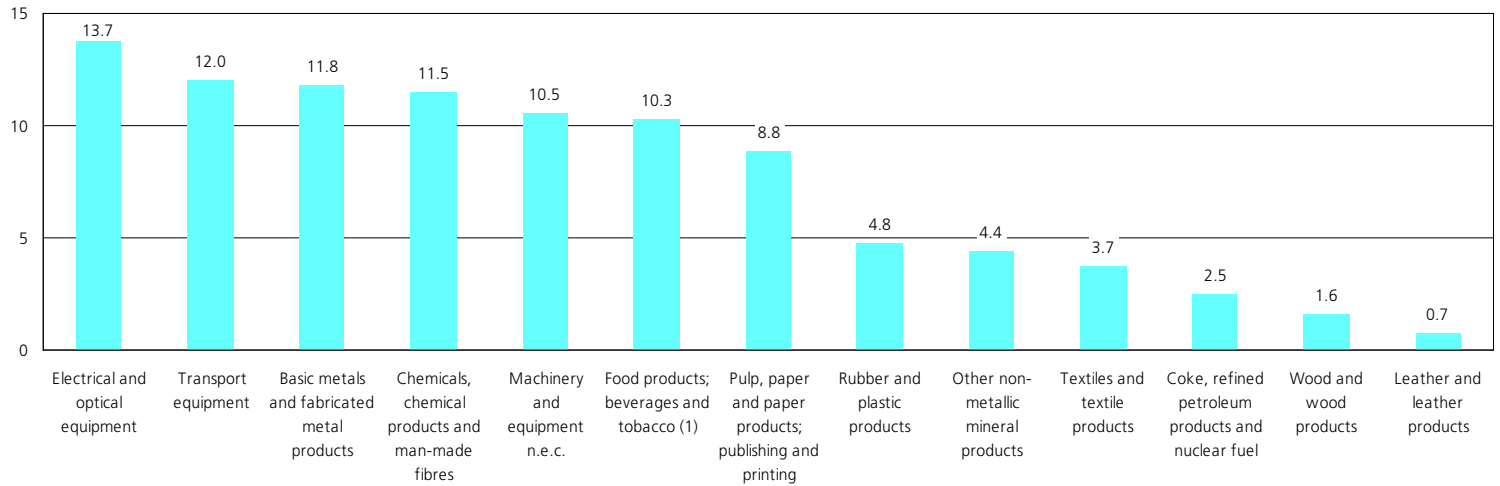
Chart 3.2: Production index for the EU, trend cycle (1995 = 100) (1)



(1) Estimates for July 2001 for total industry, energy and consumer non-durables, as well as August 2001 for all data; for a definition of the Main Industrial Groupings (MIGs) please refer to page 104.
Source: Eurostat, European Business Trends - Monthly and Quarterly Short Term Statistics (theme4/ebt)

THE LARGEST MANUFACTURING INDUSTRIES

Chart 3.3: Largest EU manufacturing industries (defined by NACE Sub-sections), 2000 (share of manufacturing value added at factor cost)



(1) Excluding tobacco products.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms)

Manufacturing accounted for under a fifth of the total value added generated in the EU economy in 2000. If the value added of extractive, energy and water industries are added then the share rose to 22.8%

Structural business statistics

The bulk of the information contained within this chapter (and several tables and charts in chapters 4-7) is derived from the Structural Business Statistics (SBS) database. This data has been collected within the legal framework provided by the Council Regulation No 58/97 of 20 December 1996 concerning structural business statistics. The SBS Regulation currently has 5 annexes: the first is a common module that covers all activities (industry, construction and services); the second covers industrial activities (mining, manufacturing and energy); the third covers distributive trades (motor, wholesale and retail trade); the fourth construction; and the fifth insurance services.

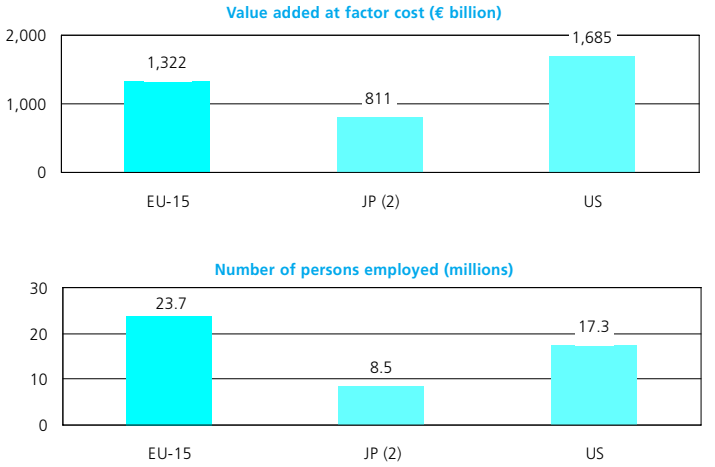
Enterprise coverage

The data presented for manufacturing cover enterprises with 20 or more persons employed. It is important to note that when comparing across activities, and between countries, the values under-report the population figures as the economic weight of smaller enterprises is not captured. This sub-population of smaller enterprises can be particularly significant in craft-based industries, for example, the manufacture of textiles or leather products, and smaller enterprises are also usually more common in the southern Member States.

Classification of activities

The SBS data reflects the population of enterprises structured according to the NACE classification (for further details see *pages 100* and *102* in *chapter 8*). If an enterprise operates in more than one activity, the most important in value added terms is chosen as its principal activity and all values for that enterprise are assigned to the NACE heading of its principal activity.

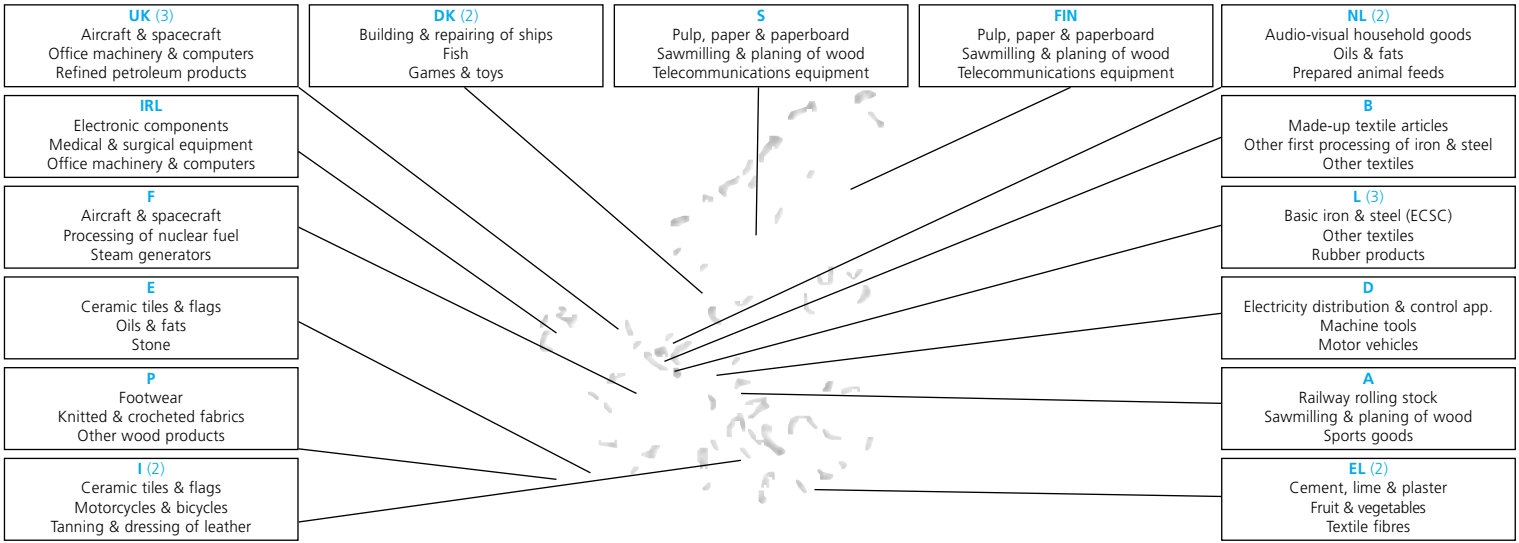
Chart 3.4: Size of manufacturing in the Triad, latest year available (1)



(1) EU-15, 2000; JP, 1999; US, 1997; JP, local kind-of-activity units with 4 persons employed or more; US, local kind-of-activity units with 1 person employed or more.
(2) Excluding NACE Groups 15.1 and 15.2, Division 16, Groups 22.3, 27.1, 28.3-28.5 and Division 30.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms)

SPECIALISATION OF MEMBER STATES

Map 3.1: Manufacturing specialisation in the Member States, 1999 (1)



(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. (2) 1998. (3) 1997.

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

Measuring output

Several of the tables and charts in this publication use value added from SBS as a measure for the net output of an industry or service. Compared to turnover (sales) or production value (gross output), value added has the advantage in that it avoids double-counting and is therefore less influenced by the industrial structure. For example, if a manufacturer of capital goods acquires one of its suppliers of intermediate goods the value added of the resulting enterprise is unaffected, and is equal to the sum of the value added of the two original enterprises. Turnover and production of the combined enterprise will be lower than the sum of the original enterprises because the sales from the manufacturer of the intermediate goods to the manufacturer of capital goods will have been internalised.

Estimates

EU-15 data for manufacturing activities for the year 2000 are estimated by Eurostat. These estimates are made using short-term indicators such as indices of production, output prices and employment to update the historical data received from individual Member States. At the time of writing, manufacturing activities are available up until 1997 for Luxembourg and the United Kingdom, 1998 for Denmark, Greece, Italy and the Netherlands and 1999 for all other countries.

Specialisation ratios

The calculation of specialisation ratios is performed using the following method: calculate for a given country the value added share of a given NACE Group in manufacturing and divide the result by the same ratio for EU-15, expressing the result as a percentage. Values over 100 show that a country is relatively specialised in a particular activity compared to the EU-15 average. Specialisation ratios, per se, say nothing about whether an industry accounts for an important share of manufacturing value added.

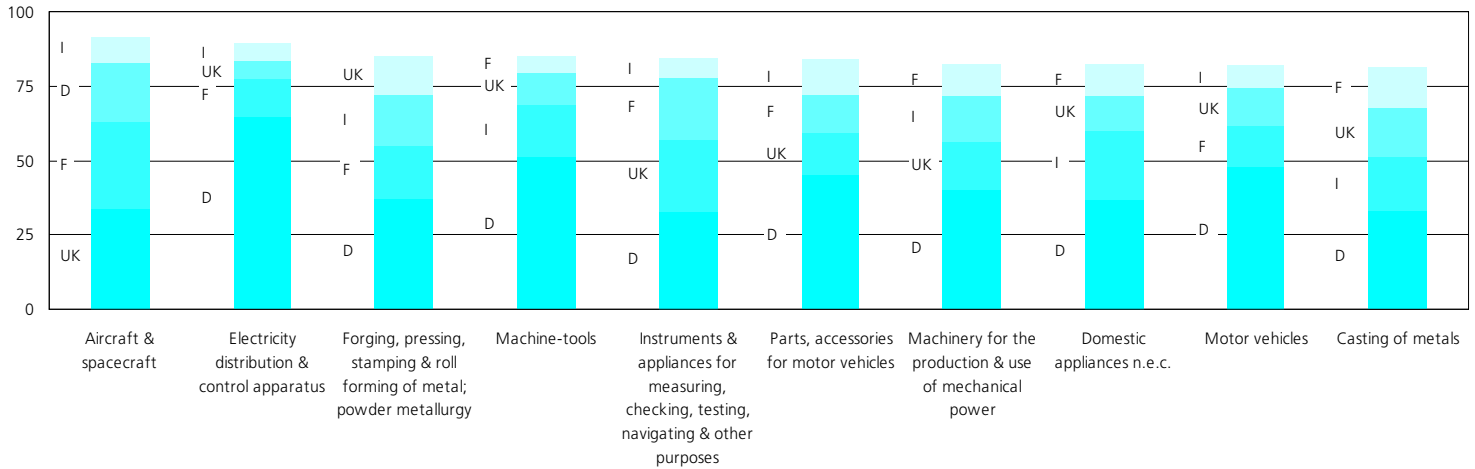
Table 3.1: Manufacturing specialisation in the Triad, 1997 (1)

EU-15	JP	US
Cement, lime & plaster	Audio-visual household goods	Aircraft & spacecraft
Elec. distribution & control app.	Domestic appliances	Grain mill products & starches
Footwear	Electrical equipment	Measuring instruments
General purpose machinery	Fish products	Medical & surgical equipment
Treatment & coating of metals	Motorcycles & bicycles	Tobacco products

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

GEOGRAPHICAL CONCENTRATION OF OUTPUT

Chart 3.5: Geographical concentration of manufacturing in terms of value added at factor cost, 1997 (cumulative share of the four largest producing countries) (1)



(1) NACE Groups 15.2, 16.0, 18.1, 18.3, 23.1, 23.2, 23.3, 28.2, 35.2 and 35.5 excluded; only NACE Groups with a share >0.5% of EU-15 manufacturing are included.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms)

Concentration measures

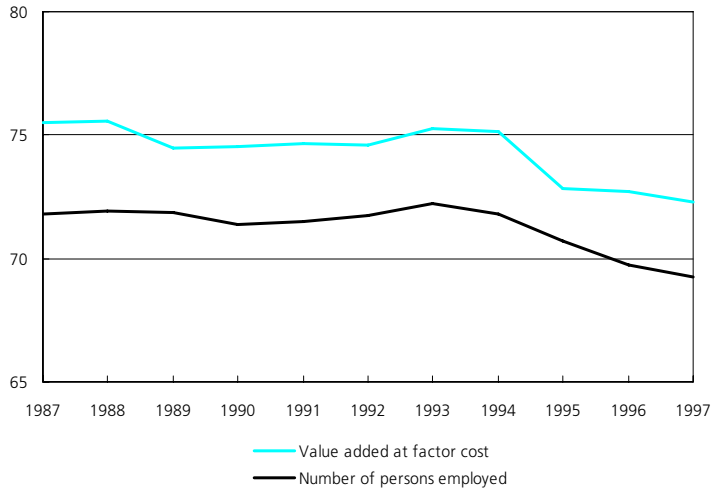
An alternative way to study the structure of European manufacturing is to look at the geographical concentration of output. A concentration measure can be calculated by taking the share of the four largest countries in terms of value added for each NACE Group. The concentration ratio of the four largest countries (CR4) was above 90% in 1997 in four NACE Groups (see *chart 3.5*).

Effects of globalisation

As globalisation widens the horizon for purchasing and production related decision making, it also increases the speed with which information and technology are diffused and ultimately competition spread. Countries that have a dynamic manufacturing industry that can adapt to these new challenges will benefit.

The geographical concentration of manufacturing in the four largest countries of the EU fell during the 1990s, as the smaller countries, notably those on the geographical periphery of the Union gained an increasing share of EU manufacturing output. The main driving forces behind this change would appear to be higher growth rates and quicker adaptability, resulting in the smaller Member States showing greater and greater specialisation in a limited number of activities, for example, games and toys in Denmark, office machinery and computers in Ireland, sports goods (notably, winter sports) in Austria, footwear and clothing in Portugal and the sawing and planing of wood in Austria, Finland and Sweden (see *map 3.1* on *page 22*). As a result, the productive capacity of several activities in the EU has gradually switched away from the four largest Member States towards areas of the Union which are more economically favourable for production - for example, with natural resource endowments, fiscal benefits or a skilled labour force (see *chart 3.6*).

Chart 3.6: Geographical concentration of manufacturing (cumulative share of France, Germany, Italy and the United Kingdom in the EU-15 total)



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

OUTPUT - RATES OF CHANGE

Table 3.2: Changes in manufacturing value added at factor cost in constant prices, 1990-2000 (% average annual change) (1)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Electrical and optical equipment	3.9	:	7.9	1.1	2.0	0.8	**-0.4**	6.3	:	:	4.0	:	:	19.1	26.4	5.1
Rubber and plastic products	3.8	:	3.1	3.9	3.5	3.9	3.4	5.9	3.6	:	4.7	:	:	**2.7**	3.2	4.9
Chemicals, chemical products and man-made fibres	2.9	:	:	1.5	1.9	1.4	1.2	3.7	19.0	12.8	0.4	:	:	**-0.7**	0.1	2.4
Pulp, paper & paper products; publishing & printing	2.3	:	2.9	3.3	3.6	2.4	**1.5**	1.7	12.9	5.6	4.3	:	:	2.1	1.8	2.8
Food products; beverages and tobacco (2)	2.1	:	:	3.3	3.9	-0.5	-0.7	:	3.0	:	5.1	:	:	-2.7	**-3.1**	3.2
Basic metals and fabricated metal products	1.9	:	3.1	2.1	1.7	1.4	1.2	2.6	:	:	2.8	:	:	1.3	0.2	**-0.3**
Wood and wood products	1.9	:	5.7	3.2	3.1	1.0	0.8	1.6	:	:	2.5	:	:	-0.3	-0.4	**-1.9**
Transport equipment	1.7	:	3.8	5.7	4.9	3.5	0.8	1.9	:	:	5.3	:	:	-8.8	**-11.5**	0.0
Machinery and equipment n.e.c.	0.8	:	2.2	1.1	0.2	2.7	1.5	2.1	:	1.1	7.2	:	:	0.2	**-1.5**	2.2
Other non-metallic mineral products	0.8	:	1.7	1.3	1.5	2.2	2.1	0.4	5.0	6.4	2.2	:	:	-3.1	**-3.4**	-1.3
Coke, refined petroleum products and nuclear fuel	0.2	:	:	:	:	2.1	-1.3	:	:	:	:	:	:	2.8	**-6.6**	-2.4
Textiles and textile products	-1.6	:	-0.2	-2.8	-3.4	-0.7	-1.0	-0.5	-1.9	:	-0.4	:	:	**-6.9**	-6.8	-0.6
Leather and leather products	-1.9	:	:	-3.9	-3.8	-1.7	-2.8	-1.6	:	:	-3.5	:	:	**-9.4**	-6.5	-5.3

(1) D, E, F, IRL and FIN, 1989-1999; DK, EL, I, NL and S, 1988-1998; L and UK, 1987-1997; estimates; bordeaux indicates the highest rate of change for each NACE Sub-section, bold indicates the lowest rate of change for each NACE Sub-section; activities are ranked according to the EU-15 rate of change.
(2) EU-15, excluding NACE Division 16.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms)

Constant prices

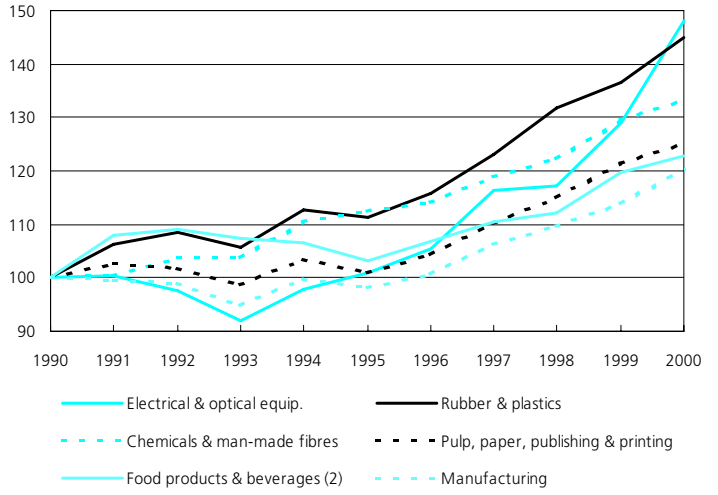
The data presented in *table 3.2* show growth rates of value added at factor cost for NACE Sub-sections, highlighting the fastest and slowest growing areas of EU manufacturing. The growth rates are calculated using a series in constant price ECU/euro terms. When looking at changes over time, it is important to distinguish between the effects of price inflation and quantity changes in the real level of output. Whilst the growth rates presented are derived from monetary series, they are in effect volume measures, because they provide information about changes in volumes and not prices.

Economic cycles

Chart 3.7 shows that despite the fact that there are fast and slow-growth industries, the general economic cycle of the EU exerts a strong influence on the performance of manufacturing industries. Cyclical patterns can be detected in many economic series (see *production index* on *pages 18 and 19*), and the growth of manufacturing value added at factor cost is one such series. The chart shows that there was a marked slowdown in output in 1993, with none of the activities in the chart immune to this. When analysing the growth rates presented in this publication, readers should be aware of the reference period(s) considered. For example, a comparison between 1990 and 2000 is based upon comparing a year that followed a peak in economic activity (1988), with a period when economic activity had been (and was still) growing after a trough (1993).

The average annual growth rate of manufacturing value added at factor cost between 1990 and 2000 was equal to 1.9%. This figure hides the contrasting fortunes between the first and second halves of the 1990s. During the period 1996 to 2000, EU manufacturing value added in constant price terms rose in every year, with particularly high growth recorded in 1997 and 2000 (6.0% in both years).

Chart 3.7: Changes in manufacturing value added at factor cost in constant prices in the EU for the five fastest growing NACE Sub-sections (1990 = 100) (1)



(1) Based on the activities identified in table 3.2; estimates.
(2) Excluding NACE Division 16.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms)

EMPLOYMENT - RATES OF CHANGE

Table 3.3: Changes in employment within manufacturing, 1990-2000 (% average annual change) (1)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Rubber and plastic products	0.6	:	2.7	-0.4	1.5	0.9	1.7	**3.7**	2.6	-1.7	:	2.8	:	1.5	**-2.0**	1.2
Coke, refined petroleum products and nuclear fuel	0.4	:	:	:	-1.0	-0.4	:	:	-0.2	:	:	:	:	1.2	**2.7**	**-2.7**
Wood and wood products	0.2	:	5.9	-0.5	-0.7	0.1	-0.3	4.3	2.2	**7.6**	:	2.1	:	-1.3	-1.1	**-1.8**
Food products; beverages and tobacco (2)	0.0	:	:	0.8	0.8	0.0	:	0.5	-0.8	**1.2**	:	:	:	**-2.3**	-1.3	-1.8
Pulp, paper & paper products; publishing & printing	-0.3	:	**6.1**	0.2	1.2	-0.2	-0.3	4.2	-0.5	2.1	:	**-1.9**	:	-1.3	-1.6	-0.7
Basic metals and fabricated metal products	-0.8	:	**3.9**	-2.2	-1.3	-0.5	0.0	2.6	0.9	**-5.0**	:	-1.1	:	2.0	-0.6	-2.1
Transport equipment	-1.2	:	0.4	-0.1	-3.8	-0.3	-1.7	**4.5**	-1.4	-3.5	:	0.8	:	**-4.3**	-1.9	-2.5
Chemicals, chemical products and man-made fibres	-1.3	:	:	**-2.9**	-0.6	-1.1	-0.1	**7.3**	-1.4	4.9	:	:	:	-0.9	2.3	-0.8
Other non-metallic mineral products	-1.4	:	**2.2**	-2.4	-1.8	0.1	-1.3	0.6	-1.1	0.9	:	-2.0	:	-2.4	**-4.1**	-2.8
Machinery and equipment n.e.c.	-1.5	:	1.9	**-2.7**	-0.5	1.1	-0.2	**2.1**	1.0	-1.1	:	-0.6	:	0.3	-0.4	-2.3
Electrical and optical equipment	-1.6	:	1.2	**-3.7**	**9.0**	-1.2	0.0	8.2	-1.9	6.2	:	:	:	5.2	0.9	-1.5
Leather and leather products	-3.3	:	:	**-9.1**	-5.5	-2.0	-3.6	-5.9	**-1.5**	:	:	-5.3	:	-6.4	-7.4	-8.3
Textiles and textile products	-3.4	:	-3.2	-7.4	-6.1	-1.5	-3.7	-5.1	-1.3	**3.2**	:	-6.7	:	**-7.8**	-4.6	-3.2

(1) D, E, F, IRL and FIN, 1989-1999; DK, EL, I, NL and S, 1988-1998; L and UK, 1987-1997; estimates; bordeaux indicates the highest rate of change for each NACE Sub-section, bold indicates the lowest rate of change for each NACE Sub-section; activities are ranked according to the EU-15 rate of change.
(2) EU-15, excluding NACE Division 16.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms)

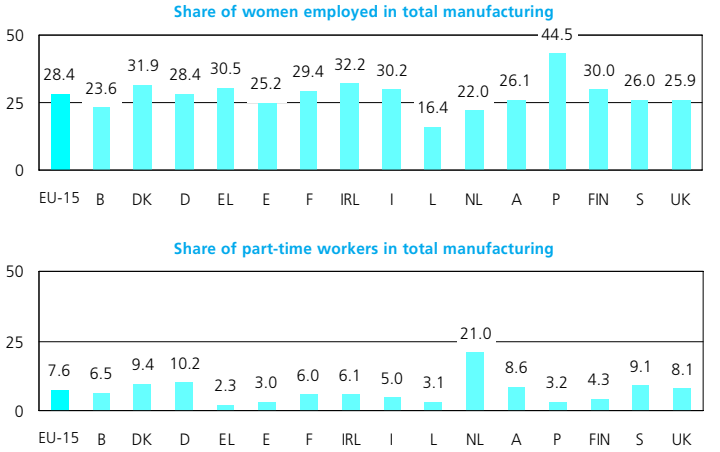
There were 23.6 million persons employed in the EU's manufacturing industries in 2000, some 2.7 million less than a decade before. Employment (and unemployment) are highly cyclical indicators. As demand within an economy increases, enterprises tend to increase over-time work and try to take-up slack in their productive capacity. The hiring of more persons usually occurs when increasing demand is perceived to be both strong and durable. In the same way, as demand slows or contracts, the number of hours that are worked are usually cut before job losses ensue. As such, indicators of employment generally lag behind the economic cycle (by between 3 and 9 months according to the activity in question).

Number of persons employed

The number of persons employed is defined as the total number of persons who work in the observation unit (inclusive of working proprietors, partners and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (for example, sales representatives, delivery personnel, repair and maintenance teams). It also includes part-time workers, seasonal workers, apprentices and home workers who are on the pay-roll of the observation unit, as well as persons absent for a short period (for example, on sick leave, paid leave or special leave), and those on strike.

The number of persons employed does not include those absent for an indefinite period, nor manpower supplied to the unit by other enterprises (such as temporary, agency workers), persons carrying out repair and maintenance work on behalf of other enterprises, or those on compulsory military service.

Chart 3.8: Employment characteristics within manufacturing, 2000 (%)



Source: Eurostat, LFS (theme3/lfs)

FACTOR INPUT AND STRATEGIC INVESTMENTS

Table 3.4: Factor inputs and strategic investments, 1999 (% of manufacturing) (1)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost																
Labour-intensive industries	16.0	14.8	15.0	14.3	14.5	21.5	15.1	:	20.8	5.6	11.4	:	29.5	14.3	11.6	14.1
Capital-intensive industries	14.3	20.6	3.2	15.3	24.8	17.0	11.8	:	14.5	32.7	16.8	:	15.2	28.0	19.1	11.0
Marketing driven industries	19.7	20.7	31.9	16.4	32.2	24.9	20.8	:	18.9	13.3	31.3	:	23.9	14.3	13.8	25.9
Technology driven industries	23.3	22.0	17.2	25.7	8.8	13.5	29.2	:	15.7	0.6	17.8	:	9.9	25.5	32.9	24.7
Mainstream industries	26.6	21.8	32.7	28.2	19.8	23.1	23.1	:	30.2	47.8	22.7	:	21.5	17.8	22.6	24.4
Employment																
Labour-intensive industries	23.1	22.0	18.1	17.5	23.6	32.9	20.3	12.1	26.1	10.3	:	24.3	44.0	23.8	16.5	20.4
Capital-intensive industries	9.5	13.7	2.9	11.6	13.4	9.0	8.0	5.5	11.1	27.8	:	11.8	5.5	14.8	14.6	8.6
Marketing driven industries	20.9	24.9	32.7	18.5	33.1	27.1	22.7	30.2	18.0	20.1	:	20.1	25.5	20.9	16.7	24.1
Technology driven industries	18.2	16.4	12.1	22.5	7.6	9.0	22.9	27.3	14.4	1.3	:	10.6	5.1	15.4	23.4	18.9
Mainstream industries	28.3	23.0	34.2	29.9	22.3	22.0	26.1	24.9	30.4	40.5	:	33.2	19.9	25.1	28.8	27.9

(1) Excluding NACE Division 37; estimates; DK, EL, IRL, I, A, P and S, 1998; EU-15, L, NL and UK, 1997; a detailed list of NACE Groups used in the taxonomy is given on page 104.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms)

The classification used in *table 3.4* and *chart 3.9* was produced during work on the Enterprise Directorate-General's annual Competitiveness Report[3] (naturally, other classifications would be possible). The taxonomy categorises manufacturing according to traditional factor inputs of labour and capital, as well as spending on research and marketing.

Labour-intensive industries (for example, textiles, clothing, wood processing) have traditionally displayed low levels of technology and, as a result; countries with low wage costs usually enjoy a significant comparative advantage. These industries may restructure through the introduction of mechanisation/automation or alternatively turn to outward processing, where the production process migrates to low wage areas whilst corporate control and high added value activities, such as design, remain in the domestic economy (clothing).

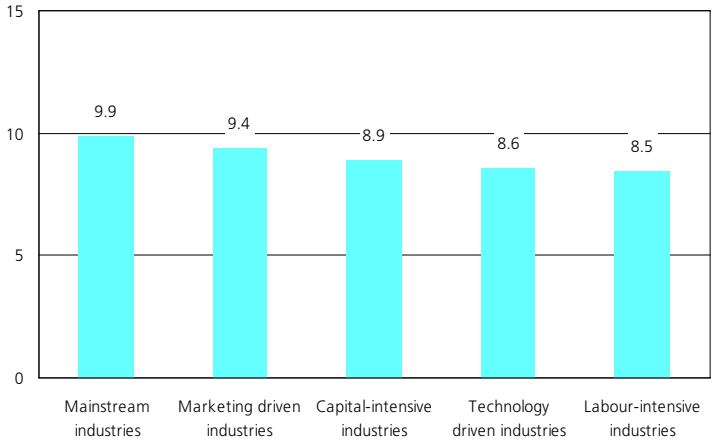
Capital-intensive industries (machinery, pulp & paper, basic chemicals) usually produce intermediate goods that are supplied to downstream industries. They are often characterised by large-scale production that requires considerable investment in capital. Their opportunities to restructure include integration into downstream industries or further exploitation of scale economies.

Marketing-driven industries (perfumes, electronic games and toys) are often associated with consumer goods, where brand image plays a role in differentiating products and protecting enterprises from cost competition.

Research-intensive industries (pharmaceuticals, aerospace equipment, ICT) usually involve complex technological innovation, where economic benefits are uncertain. The most serious concern of enterprises within this group is that their knowledge can be exposed to imitation and diffusion.

(3) Intangible investment and human resources: the new WIFO taxonomy of manufacturing industries, http://www.wifo.ac.at
Further details of competitiveness reports, http://europa.eu.int/comm/enterprise/library

Chart 3.9: Gross operating rate in the EU, 1997 (%) (1)



(1) A detailed list of NACE Groups used in the taxonomy is given on page 104.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms)

COST AND PRICE INDICATORS

Table 3.5: Cost and price indicators in manufacturing, 1995-2000 (% average annual growth) (1)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Personnel costs, of which	3.1	:	6.2	0.9	4.1	5.2	2.2	8.2	2.3	2.7	0.3	2.3	5.4	8.8	8.7	4.7
Wages and salaries	3.2	:	5.8	0.7	4.3	5.2	2.4	8.6	2.8	:	-0.1	2.4	:	9.5	8.0	4.7
Social security costs	3.2	:	17.4	1.6	3.5	5.3	1.8	6.5	1.1	:	1.8	2.1	:	6.3	10.3	:
Cost of purchases of goods and services	6.8	:	7.3	4.7	2.4	8.6	6.8	16.3	6.6	4.6	:	:	9.2	13.1	:	:
Output prices, of	1.3	2.1	1.8	0.7	:	1.8	1.2	1.1	1.5	0.9	2.0	:	5.3	1.2	1.1	1.0
Energy	3.0	3.3	:	0.6	9.7	3.8	5.5	:	4.7	:	16.2	:	7.5	2.3	0.0	1.4
Intermediate goods	0.1	:	1.1	0.0	3.2	0.8	-0.3	:	0.6	-0.9	1.0	:	1.0	0.5	0.3	-0.8
Capital goods	0.5	:	1.9	0.5	5.1	1.4	:	:	1.8	1.6	1.5	:	:	0.4	0.5	-0.2
Consumer durables	1.0	0.3	2.0	0.7	3.6	2.1	0.4	:	1.6	:	1.2	:	2.2	2.5	1.6	0.6
Consumer non-durables	1.0	3.3	0.9	0.5	4.3	1.7	:	1.4	1.6	1.5	1.0	:	2.1	0.6	1.1	1.2

(1) For all variables other than output prices, D, E, F, IRL, A, P, FIN and S, 1994-1999; for all variables other than output prices, DK, EL , I and NL, 1993-1998; for all variables other than output prices, L and UK, 1992-1997; for a definition of the Main Industrial Groupings (MIGs) please refer to page 104.

Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms) and Eurostat, European Business Trends - Monthly and Quarterly Short Term Statistics (theme4/ebt)

Output price index

The output price index (or producer price index) shows monthly price changes in the industrial economy, which can be an indicator of inflationary pressure before it reaches the consumer. All price-determining characteristics should be taken into account in the calculation of the output price index, including the quantity of units sold, transport provided, rebates, service conditions, guarantee conditions and destination. The appropriate price is the ex-factory price in national currency, including all duties and taxes on the goods and services invoiced by the unit but excluding VAT invoiced by the unit vis-à-vis its customer and similar deductible taxes directly linked to turnover. The price should refer to the moment when the order is made, not the moment when the commodities leave the "factory gates". The prices presented in *table 3.5* and *chart 3.10* are for the domestic market only, in other words, prices paid by customers resident on the same national territory as the observation unit.

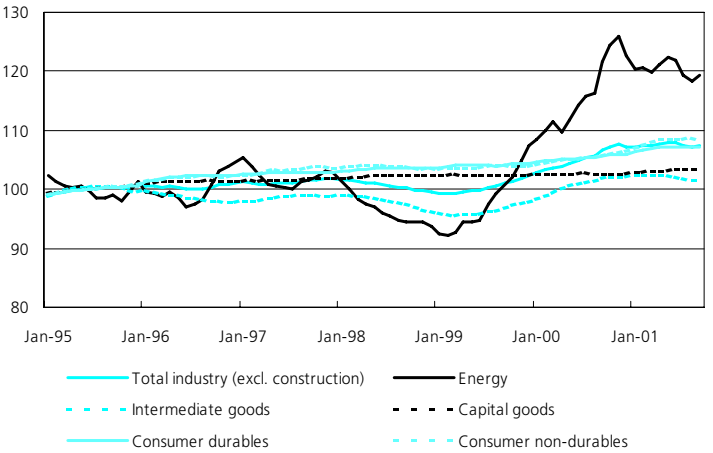
Chart 3.10 shows that whilst the evolution of energy prices was volatile in the EU during the 1990s, price developments for other industrial goods were subdued (in particular intermediate and capital goods).

Main industrial groupings

The dissemination of short-term Community statistics on the business cycle is normally based on a commonly defined set of aggregates of economic activities, known as the Main Industrial Groupings (MIGs). These groupings help to identify important information on demand, output and prices.

The pressure for timely and comparable European short-term business statistics has drastically increased in recent years, especially with the developments in the European Monetary Union. Short-term statistics should enable economic and political decision-makers to quickly and accurately analyse the economic situation. The legal basis for the definition of MIGs is Commission Regulation (EC) No 586/2001 of 26 March 2001.

Chart 3.10: Output price indices for the EU (1995 = 100) (1)



(1) For a definition of the Main Industrial Groupings (MIGs) please refer to page 104.
Source: Eurostat, European Business Trends - Monthly and Quarterly Short Term Statistics (theme4/ebt)

PERFORMANCE INDICATORS

Table 3.6: Performance indicators for manufacturing

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
								1995								
Apparent labour productivity (€ thousand)	45.3	59.5	48.1	50.4	18.2	32.5	49.5	64.8	44.2	55.5	:	53.0	:	53.5	52.5	38.9
Personnel costs per employee (€ thousand)	33.6	40.7	34.4	40.8	17.1	20.9	35.5	22.3	27.1	34.9	:	38.0	:	31.7	32.0	21.7
Wage adjusted labour productivity (%)	134.7	146.0	139.5	123.7	106.5	155.5	139.5	290.8	163.1	159.1	:	139.3	:	168.6	164.0	179.3
Gross operating surplus (€ billion)	331.8	14.4	4.8	66.7	0.3	26.2	44.7	9.5	50.2	0.8	17.0	8.1	:	9.7	12.3	61.8
Gross operating rate (%)	9.2	9.6	9.4	6.0	1.2	10.1	7.4	21.7	10.5	11.6	11.0	9.8	:	14.2	11.5	14.1
								2000 (1)								
Apparent labour productivity (€ thousand)	55.9	61.6	47.4	55.4	32.8	36.9	53.9	109.8	48.4	62.0	:	58.7	17.8	61.1	61.1	50.4
Personnel costs per employee (€ thousand)	:	41.5	32.4	43.0	18.5	23.8	38.1	28.0	30.6	38.4	:	39.8	11.1	33.6	39.5	29.5
Wage adjusted labour productivity (%)	:	148.6	146.4	128.8	177.0	155.2	141.3	392.5	158.1	161.4	:	147.5	160.6	181.7	154.8	170.7
Gross operating surplus (€ billion)	484.0	15.3	6.3	80.0	3.4	36.6	50.9	20.5	53.7	0.8	18.0	9.7	7.2	12.0	14.3	76.6
Gross operating rate (%)	10.0	9.5	11.0	6.5	14.6	10.6	6.8	25.7	9.4	12.0	10.6	10.7	11.1	14.1	10.5	12.4

(1) B, D, E, F, IRL, A, P, FIN and S, 1999; DK, EL , I and NL, 1998; L and UK, 1997.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms)

All of the indicators included in *table 3.6* provide an ex-post evaluation of the competitive performance of EU manufacturing. Essentially an enterprise remains competitive if it continues, over time, to satisfy its customers by providing goods and/or services in a more efficient manner than its competitors in terms of price and/or other factors. Whilst it is relatively simple to collect statistics on performance measures, costs and prices, it is considerably more of a challenge to collect data on these other factors that make firms competitive, for example, brand differentiation, after-sales service, non-routine marketing, training, software, so-called non-price competitiveness.

Apparent labour productivity: value added at factor cost (defined on *page 19*) divided by the number of persons employed. The result is expressed in thousand per person employed.

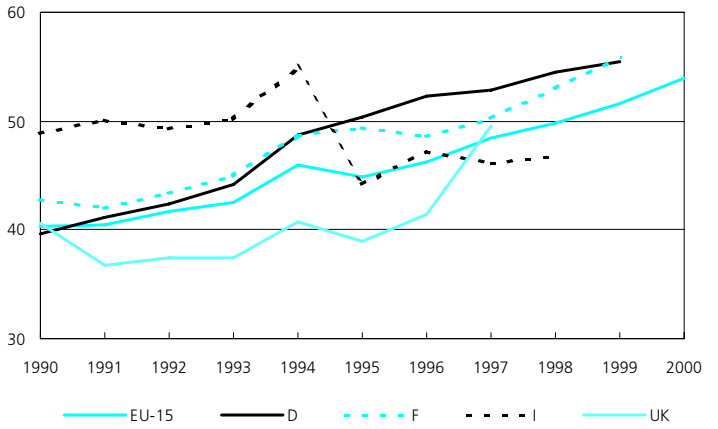
Personnel costs per employee: personnel costs divided by the number of employees. Employees (as opposed to persons employed - defined on *page 29*) are defined as persons who work for an employer with an employment contract, receiving compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind.

Wage adjusted labour productivity: value added at factor cost divided by personnel costs. This is adjusted by multiplying by the ratio of the number of employees to the number of persons employed.

Gross operating surplus: the surplus generated by operating activities after the labour factor input has been recompensed. This indicator can be calculated from value added at factor cost less personnel costs. It is used to recompense the providers of own funds and debt, to pay taxes and eventually to finance all or a part of its investment.

Gross operating rate: gross operating surplus expressed as a percentage of turnover (or sales).

Chart 3.11: Apparent labour productivity for manufacturing (€ thousand per person employed)



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

HIGH-TECHNOLOGY

Table 3.7: High-technology manufacturing, 1999

	EU-15 (1)	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
									High-technology activities (2)							
Average number of persons employed per enterprise (units) (3)	230.0	198.8	244.4	386.5	162.6	62.5	329.4	210.1	216.0	:	:	468.4	50.9	102.5	515.7	303.1
Number of persons employed (thousands) (3)	1,017	41.5	30.3	373.8	12.5	84.5	349.8	41.8	201.3	:	:	37.9	27.1	44.0	80.4	356.4
Value added at factor costs (e billion) (4)	86.9	4.4	2.1	26.7	0.5	5.1	25.8	7.0	12.0	:	4.3	3.0	0.9	5.0	6.8	24.0
Apparent labour productivity (e thousand per person employed) (3)	85.4	106.0	69.0	71.3	38.4	60.8	73.8	167.1	59.6	:	:	79.0	34.4	114.6	84.3	67.2
Gross operating surplus (e billion) (4)	37.2	2.2	0.9	7.1	0.2	1.9	7.6	5.8	3.7	:	1.7	1.0	0.4	3.5	3.0	11.4
Annual average growth rate of value added, 1994-1999 (%) (5)	7.5	:	:	1.1	:	1.5	7.3	:	-2.9	:	1.2	:	:	34.8	13.5	10.3
									Manufacturing							
Average number of persons employed per enterprise (units) (6)	50.7	18.0	118.0	168.0	50.7	15.8	122.0	55.0	75.1	36.0	:	120.0	13.0	16.0	151.0	134.0
Number of persons employed (thousands) (6)	23,392	665	417	6,402	236	2,486	3,227	250	2,915	33	:	512	997	427	661	3,594
Value added at factor costs (e billion) (7)	1,214	41.0	19.8	354.8	7.7	91.8	174.0	27.5	141.0	2.0	43.0	30.1	17.7	26.1	40.4	181.1
Apparent labour productivity (e thousand per person employed) (6)	51.9	61.6	47.4	55.4	32.8	36.9	53.9	109.8	48.4	62.0	:	58.7	17.8	61.1	61.1	50.4
Gross operating surplus (e billion) (7)	409.8	15.3	6.3	80.0	3.4	36.6	50.9	20.5	53.7	0.8	18.0	9.7	7.2	12.0	14.3	76.6
Annual average growth rate of value added, 1994-1999 (%) (8)	2.6	:	3.5	1.2	7.4	4.4	3.0	:	-1.1	:	2.7	:	:	8.4	6.7	4.5

(1) Average number of persons employed, estimates based on available country information. (2) Manufacture of pharmaceuticals (NACE Group 24.4), office machinery and computers (NACE Division 30), electronics and communications (NACE Division 32) and aircraft and spacecraft (NACE Group 35.3); EU-15, excluding NACE Division 32; IRL and A, excluding NACE Group 35.3. (3) DK, EL and I, 1998; UK, 1997. (4) DK, EL and I, 1998; NL and UK, 1997. (5) I and S, 1993-1998; D, NL and UK, 1992-1997. (6) DK, EL and I, 1998; L and UK, 1997. (7) DK, EL, I and NL,1998; L and UK, 1997. (8) DK, EL, I, NL and S, 1993-1998; L and UK, 1992-1997.

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

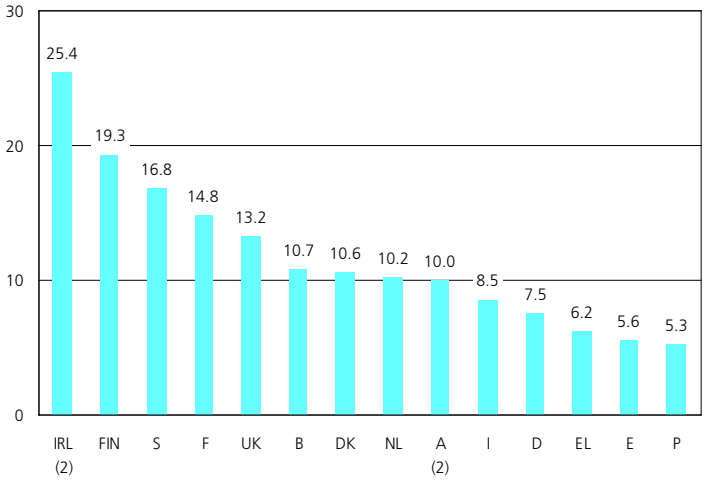
Technology is a key factor in boosting growth and competitiveness. The data presented in *table 3.7* concentrates on manufacturing activities that have a high technological component, as measured by the spend on research and development (R&D). The list of NACE activities is based on an OECD classification, "Revision of the classifications of high-technology sectors and products"[4], which defines high-technology manufacturing as the:

- manufacture of pharmaceuticals (NACE Group 24.4);
- manufacture of office machinery and computers (NACE Division 30);
- manufacture of electronics and communications (NACE Division 32) and;
- the manufacture of aircraft and spacecraft (NACE Group 35.3).

There has been rapid growth of value added for the manufacture of electronics and communications equipment during the second half of the 1990s, which was particularly prevalent in Finland and Sweden, where Nokia produced hand-sets for mobile telephony as did Ericsson, which was also strong in a number of related activities. There was also rapid growth in the aerospace industry, and consolidation of the EU's leading producers in the form of the Airbus joint stock company[5], which has created a truly international aerospace company. Growth in the other two high-technology industries was less pronounced during the second half of the 1990s - although there were pockets of expanding activity, most notably in Ireland, where pharmaceuticals and the manufacture of office machinery and computers were both amongst the top three NACE Groups in terms of relative specialisation (see *map 3.1* on *page 22*).

(4) DSTI 1997/2-OECD/GD(97)216 working document.
(5) Owned by EADS (European Aeronautic Defence and Space Company) and BAE systems.

Chart 3.12: High-technology value added at factor cost as a share of manufacturing value added, 1999 (%) (1)



(1) L, not available; DK, EL and I, 1998; NL and UK, 1997.
(2) Excluding NACE Group 35.3.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/ent_l_ms)

PRODCOM

Table 3.8: Example of production and market statistics from the PRODCOM database, 2000

	EU-15 (1)	B	DK	D	EL	E	F	IRL (2)	I	L (3)	NL	A	P	FIN	S (4)	UK
								Household dishwashing machines - PRODCOM code 29711200 (thousands)								
Production	7,661	0	0	3,874	56	:	:	0	2,325	0	0	:	0	0	151	0
Exports	1,349	13	8	2,731	45	378	207	3	2,221	0	47	12	1	7	220	65
Imports	78	153	109	536	97	467	838	65	181	10	438	162	157	104	335	971
Trade balance	1,271	-140	-101	2,195	-52	-89	-631	-62	2,040	-9	-392	-150	-157	-97	-115	-906
Apparent consumption	6,390	140	101	1,679	107	:	:	62	285	9	392	:	157	97	265	906
								Beer made from malt (excl. beer containing <= 0.5% by volume of alcohol) - PRODCOM code 15961000 (millions of litres)								
Production	30,950	1,547	746	10,680	380	2,639	1,800	1,258	1,183	42	2,496	875	667	456	464	5,891
Exports	1,264	659	171	1,059	31	70	239	287	43	12	1,268	49	67	27	6	348
Imports	234	171	6	369	43	321	491	69	414	15	173	47	27	7	60	539
Trade balance	1,031	488	165	691	-12	-250	-252	219	-371	-4	1,095	2	40	21	-54	-191
Apparent consumption	29,919	1,059	581	9,989	392	2,889	2,052	1,039	1,554	45	1,401	873	627	435	518	6,082

(1) Extra-EU for all trade related variables; 1998 for beer.
(2) 1998 for beer.
(3) 1999 for beer.
(4) 1999 for dishwashing machines.
Source: Eurostat, European production and market statistics - PRODCOM (theme4/europrom)

PRODCOM aims to provide information on European production of commodities. The data is published monthly in NewCronos (Eurostat's reference database) and on CD-ROM as part of Europroms. Information provided in PRODCOM includes data for the value and quantity of production sold during the reference period. In some cases production sold is replaced by total production during the reference period or by production for sale.

Commodities are specified in the PRODCOM List, which includes around 5,000 products that are agreed upon by all Member States. The List is updated each year. The products are listed according to an eight-digit code, of which the first six are directly aligned with the statistical classification of products, the CPA.

Data on EU and national markets

Whilst data on European production in itself is very useful, PRODCOM data is also used to provide information on the quantity and value of products available on European and national markets. PRODCOM data is combined with data for imports and exports and apparent consumption is calculated for each product by adding imports to production and deducting exports.

Data availability

It is not uncommon for data for PRODCOM headings to be confidential as products may be produced by very few companies in each country. As a result, non-confidential PRODCOM data is only available for a reduced number of headings, as detailed in *table 3.9*.

To improve usefulness , efforts are constantly being made to detect possibilities for better alignment between the methodologies of PRODCOM and foreign trade statistics, and ways of publishing more data without disclosing confidential data.

Table 3.9: Availability of PRODCOM headings for EU-15 production

	1995	1999
Number of headings		6,263
Obligatory headings		5,032
Records available, total number	631	3,089
with data in value, of which	626	3,039
confidential	143	1,112
non-confidential	483	1,927
non-confidential, non-zero	483	1,908
non-confidential, zero	0	19
with data in quantity, of which	185	1,257
confidential	83	612
non-confidential	132	778
non-confidential, non-zero	132	759
non-confidential, zero	0	19

Source: Eurostat, PRODCOM

STEEL

Table 3.10: Steel production (thousand tonnes)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
								1995								
Crude steel production	155,752	11,558	654	42,051	939	13,802	18,107	310	27,766	2,613	6,409	5,003	828	3,152	4,898	17,662
Apparent steel consumption (1)	133,510	:	722	34,874	2,296	11,977	14,366	295	28,565	:	3,719	3,656	984	3,358	3,866	14,564
Total production of hot rolled steel products	134,705	11,035	631	34,316	1,435	12,772	15,110	275	24,076	2,414	4,702	4,212	704	3,301	4,460	15,262
Production of hot rolled long steel products	52,152	1,058	222	10,699	865	7,596	4,581	275	13,243	2,414	646	1,006	704	647	1,073	7,123
Production of hot rolled flat steel products	82,553	9,977	409	23,617	570	5,176	10,529	0	10,833	0	4,056	3,206	0	2,654	3,387	8,139
Production of coated flat steel products	25,921	2,245	0	6,857	206	1,756	4,720	0	2,865	692	1,083	874	169	658	696	3,100
								2000								
Crude steel production	163,410	11,637	800	46,376	1,088	15,840	21,001	359	26,728	2,571	5,666	5,723	1,088	4,091	5,190	15,252
Apparent steel consumption (1)	155,307	12,007	697	37,162	3,209	15,632	17,399	402	32,529	2,693	4,327	4,898	2,279	3,638	4,345	14,092
Total production of hot rolled steel products	146,894	13,689	559	38,974	1,646	14,554	17,474	342	24,095	3,019	4,956	5,034	910	3,890	4,689	13,063
Production of hot rolled long steel products	56,635	1,216	224	12,872	1,491	9,404	4,828	342	13,583	3,019	412	1,103	910	647	886	5,698
Production of hot rolled flat steel products	90,259	12,473	335	26,102	155	5,149	12,646	0	10,512	0	4,543	3,931	0	3,243	3,804	7,366
Production of coated flat steel products	34,399	3,745	0	8,362	210	2,643	6,845	0	3,877	896	1,379	1,271	261	921	755	3,234

(1) Apparent steel consumption = imports - exports + deliveries of non-alloy and alloy steels.

Source: Eurostat, Iron and Steel - Yearly Statistics, 2001

A modern reporting system with a long tradition

Monitoring the European production of iron, steel and steel products has a long tradition that dates back to the beginning of the process of European integration in 1951, with the foundation of the European Coal and Steel Community (ECSC). The ECSC Treaty will expire in July 2002, though the current statistical collection is planned to continue to the end of 2002. For 2003, a new legal basis for iron and steel statistics is being built up in two ways:

- product statistics will be taken over by PRODCOM;
- for other variables, a draft Council Regulations is in the decision-making process.

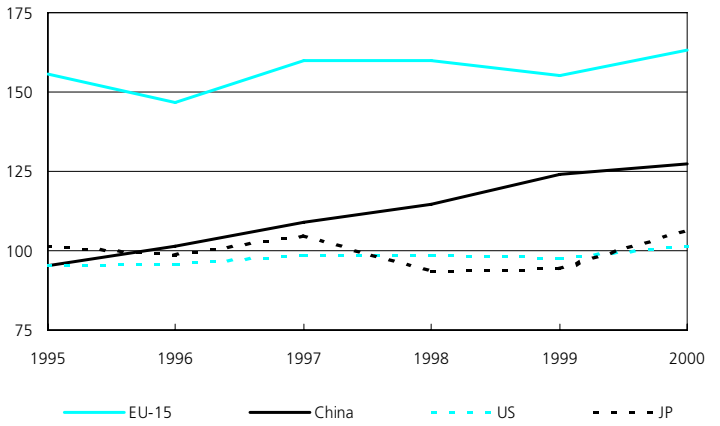
Production of iron and steel

There are two main ways of making steel: via pig-iron made in blast furnaces from iron ore and other raw materials (which accounts for 60% of the EU's crude steel production in 2000); and by recycling steel scrap in electric furnaces (40% of the EU's output). Most finished products are made by hot rolling, with the two primary product classes: long products, such as rods and wire (39% of the EU's hot rolled production in 2000) and flat products, such as sheet and plate (61% of the EU's hot rolled production).

The EU is the world's largest steel producer, followed by China, Japan and the United States. It is also the world's largest steel exporter. The year 2000 was a record year as EU crude steel production rose to more than 163 million tonnes, the highest level since the 1970s.

Collapse of domestic demand in eastern Europe in the early 1990s and the subsequent downturn in the Asian economies starting in the second half of 1997 have directly affected the EU's trade balance in steel products. In 1998 the EU became, for the first time, a net importer of steel products - the deficit continuing in 1999 and 2000.

Chart 3.13: World crude steel production (million tonnes)



Source: Eurostat, Iron and Steel - Yearly Statistics, 2001 for EU figures and International Iron and Steel Institute for the remaining data

EXPORTS

Table 3.11: Export specialisation ratio relative to the EU, 2000 (%)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Food products; beverages and tobacco	100	117.2	308.5	59.6	231.3	130.1	120.3	126.6	73.9	81.2	190.9	69.1	92.4	23.0	30.4	81.7
Textiles and textile products	100	125.7	131.9	72.5	422.6	101.3	82.4	20.0	229.3	117.7	68.6	99.7	402.2	27.6	35.0	71.4
Leather and leather products	100	84.3	56.7	36.2	41.0	174.8	67.6	12.0	391.7	9.0	61.4	114.5	463.1	16.9	14.8	44.2
Wood and wood products	100	102.5	174.8	67.0	35.0	84.4	60.0	25.9	61.0	141.6	37.9	398.6	498.3	587.2	381.3	21.2
Pulp, paper and paper products; publishing and printing	100	83.6	67.2	87.6	48.8	90.2	69.5	41.5	63.0	76.4	75.7	175.0	151.8	612.8	298.3	76.2
Coke, refined petroleum products and nuclear fuel	100	166.6	88.2	37.2	590.4	141.4	74.6	12.1	77.0	2.7	259.5	22.1	85.8	133.6	127.1	111.3

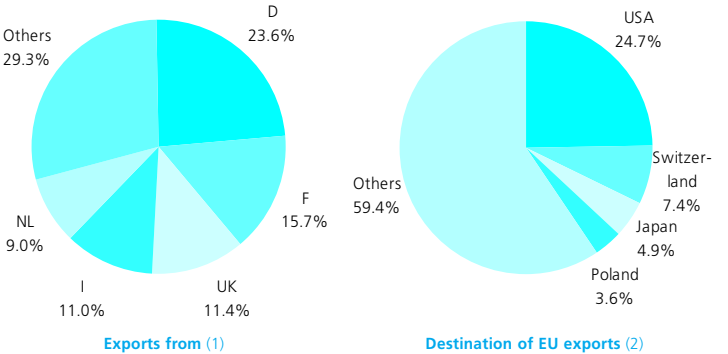
(1) The ratio measures the share of exports for each CPA Sub-section in manufacturing exports for each country and compares this ratio to the same ratio for the sum of the EU Member States, expressing the result as a percentage; values over 100 show that a country exports relatively more of those products than the EU average.
Source: Eurostat, COMEXT

External trade indicators in the EU

The EU exported manufactured goods valued at €858.1 billion in 2000, whilst it imported €808.5 billion. A large share of the EU's manufactured exports are made-up of electrical and optical equipment goods (office machinery and computers, electrical machinery, TV, audio and communications equipment, medical and precision instruments). This Sub-section of CPA accounted for more than one-fifth (21.4%) of the goods exported by the EU to non-Community countries in 2000. Transport equipment was the second most important CPA Sub-section, with 17.5% of exports, followed by machinery and equipment (14.6%) and chemicals and man-made fibres (14.1%). There has been a gradual shift in the destination of the EU's exports between 1990 and 2000. Exports to the US increased in relative and absolute terms, rising from a 21.1% share in 1990 to account for almost a quarter (24.4%) of the EU's manufactured exports in 2000. Over the same period there was a marked reduction in the share of manufactured exports destined for Switzerland and Japan.

The same CPA Sub-sections topped the ranking of imports, with electrical and optical equipment accounting for almost a third (31.3%) of all manufactured goods imported into the EU in 2000. Transport equipment (13.1%) and chemicals and man-made fibres (9.1%) were the next most imported goods. The most noticeable shift in the origin of imports during the 1990s was the marked increase in imports from China, growing from 3.3% in 1990 to 8.5% by 2000. Eastern European countries (Poland, Hungary, the Czech Republic and Romania) also accounted for an increasingly large share of imports coming into the EU.

Chart 3.14: Manufacturing exports, 2000



(1) Exports from EU Member States to all partners (including intra-Community trade).
(2) Extra EU-15 exports.
Source: Eurostat, COMEXT

IMPORTS

Table 3.12: Import specialisation ratio relative to the EU, 2000 (%) (1)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Food products; beverages and tobacco	100	107.1	149.2	85.4	163.1	108.4	93.8	84.7	116.0	132.6	107.7	69.1	137.6	72.7	77.4	102.5
Textiles and textile products	100	87.3	128.8	120.1	129.6	85.1	94.5	63.0	99.0	69.7	77.7	105.7	126.8	79.5	81.9	107.8
Leather and leather products	100	74.2	96.8	100.1	105.0	80.2	95.6	50.8	173.0	38.3	85.2	109.3	137.8	58.5	61.3	101.3
Wood and wood products	100	92.0	218.9	96.6	100.3	104.4	70.3	84.1	129.1	71.3	93.4	130.3	99.8	73.7	83.7	107.0
Pulp, paper and paper products; publishing and printing	100	107.8	124.4	98.5	120.6	91.6	102.3	73.0	98.7	82.7	92.7	130.3	92.6	75.1	79.5	105.3
Coke, refined petroleum products and nuclear fuel	100	147.5	105.8	106.4	104.0	104.2	94.0	90.8	90.6	250.1	104.5	89.7	121.4	129.1	115.2	64.7
Chemicals, chemical products and man-made fibres	100	153.5	82.4	92.0	112.5	99.7	97.6	93.9	120.3	80.6	100.1	81.8	87.2	90.6	81.5	86.3
Rubber and plastic products	100	114.9	122.6	102.1	87.1	108.5	101.2	84.2	85.5	105.7	83.3	130.9	115.4	102.8	114.0	92.8
Other non-metallic mineral products	100	103.5	127.8	108.0	124.2	94.5	107.7	88.8	91.1	150.4	88.3	147.2	119.2	94.3	92.3	78.7
Basic metals and fabricated metal products	100	104.2	98.9	104.3	111.3	98.4	87.3	43.8	134.8	182.1	94.3	112.9	100.7	103.1	112.0	85.1
Machinery and equipment n.e.c.	100	95.5	119.3	97.6	118.3	117.8	103.3	73.2	106.2	81.5	66.9	129.1	114.5	134.1	124.6	93.7
Electrical and optical equipment	100	57.2	89.4	103.0	63.6	71.6	82.8	190.9	74.3	93.1	154.9	84.6	65.7	133.5	117.3	122.9
Transport equipment	100	94.6	67.9	98.3	88.2	140.0	139.0	64.4	96.4	71.5	56.6	102.2	120.4	70.0	92.6	89.4

(1) The ratio measures the share of imports for each CPA Sub-section in manufacturing imports for each country and compares this ratio to the same ratio for the sum of the EU Member States, expressing the result as a percentage; values over 100 show that a country imports relatively more of those products than the EU average.
Source: Eurostat, COMEXT

In many manufacturing activities the share of production destined for the domestic markets has generally declined at the expense of exports, as a result of the globalisation process and the opening up of the Internal Market. The effects of these changes caused by the new economic structure of the global economy may only be partially measured by official statistics, as it is often difficult to measure the trade of goods and services between units within the same enterprise group.

The information presented on these last two double-page spreads differs from that in the remainder of this chapter in that it is not based on the NACE classification of economic activities, but on the CPA (statistical classification of products by activity in the European Economic Community). For more details of this classification please refer to *page 101*.

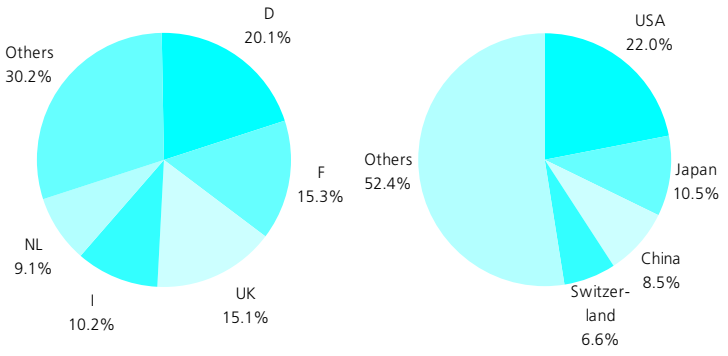
Trade partners

When compiling external trade statistics a distinction has been made between data that is presented for the EU as a whole (EU-15) and that for the individual Member States as regards trade flows. For the EU, trade is measured with the rest of the world, in other words the sum of each Member States' extra-EU trade - excluding intra-Community trade. On the other hand, for individual Member States, world trade is taken as the partner to reflect trade carried out between the Member States, as well as trade carried out with non-Community countries.

Specialisation ratios

The calculation of trade specialisation ratios is performed using the following method: calculate for a given country the export (or import) share for a given CPA Group in manufacturing and divide by the same ratio for the sum of all 15 Member States, expressing the result as a percentage. Values over 100 show that a country is relatively specialised in exporting (or importing) a particular product. A high specialisation ratio says nothing, per se, about whether a product accounts for a large or small share of total manufacturing imports or exports.

Chart 3.15: Manufacturing imports, 2000



(1) Imports to EU Member States from all partners (including intra-Community trade).
(2) Extra EU-15 imports.
Source: Eurostat, COMEXT

4. Construction

EVOLUTION OF MAIN ECONOMIC INDICATORS

Table 4.1: Main economic indicators for construction (% average annual growth)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
								1990-1995								
GDP in constant prices (1)	1.5	1.4	2.0	1.3	1.2	1.6	1.1	4.7	1.3	:	2.1	2.0	1.7	-0.7	3.9	1.8
Production index for construction (2)	:	-2.0	:	5.3	:	-1.8	2.5	:	-3.5	-0.7	:	:	:	:	:	-2.0
Production index for building (2) (3)	:	:	:	6.5	:	-0.9	4.6	:	-2.9	-2.7	:	:	:	:	:	-2.6
Production index for civil engineering (2) (3)	:	:	:	3.7	:	-3.0	-1.4	:	-5.6	1.4	:	:	:	:	:	3.5
Employment index for construction (4)	-2.0	0.5	4.7	2.4	:	-1.4	-2.4	-0.9	-3.4	-0.8	-0.1	:	:	-10.5	:	-5.0
								1995-2000								
GDP in constant prices	2.6	2.8	2.7	1.8	3.3	3.8	2.5	9.9	1.9	6.7	3.7	2.6	3.6	5.1	2.9	2.8
Production index for construction (2) (5)	0.8	2.4	:	-3.2	:	5.2	1.8	:	1.3	0.7	2.7	5.8	:	8.1	:	2.0
Production index for building (2) (5)	1.1	9.0	:	-3.5	:	7.4	2.4	:	0.1	-0.9	1.8	5.4	:	9.3	:	2.1
Production index for civil engineering (2) (5)	0.8	5.6	:	-2.7	:	1.4	0.6	:	4.8	2.4	3.5	7.2	:	4.1	:	0.6
Employment index for construction (6)	1.7	2.9	6.8	-5.8	:	4.8	0.2	7.8	-0.6	1.0	2.5	0.2	:	6.6	:	5.6

(1) EU-15 and D, 1991-1995; S, 1993-1995.
(2) Data adjusted by working days; E, I and UK, estimates.
(3) D, estimates.
(4) EU-15, DK and D, 1991-1995; A, confidential.
(5) A, 1996-2000.
(6) DK and A, 1996-2000; S and I, 1995-1998; FIN, 1995-1999; EU-15, estimate.
Source: Eurostat, National accounts - Aggregates (theme2/aggs/aggs_gdp/a_gdp_k) and Eurostat, European Business Trends - Monthly and Quarterly Short Term Statistics (theme4/ebt)

Construction accounted for around 5.4% of total value added in the EU economy in 2000. Construction work is fixed investment and in the form of new offices and factories it may be seen as providing a foundation for future economic output, whilst new roads and bridges generally improve social welfare and can also lead to efficiency gains in terms of the time it takes to transport goods and people around a country, boosting competitiveness. The construction of housing tends not to have a direct impact on future economic output.

Construction work is highly seasonal and cyclical, for this reason it is normal to study seasonally adjusted data. Furthermore, factors such as adverse weather conditions (wet or freezing) may have an influence on the data.

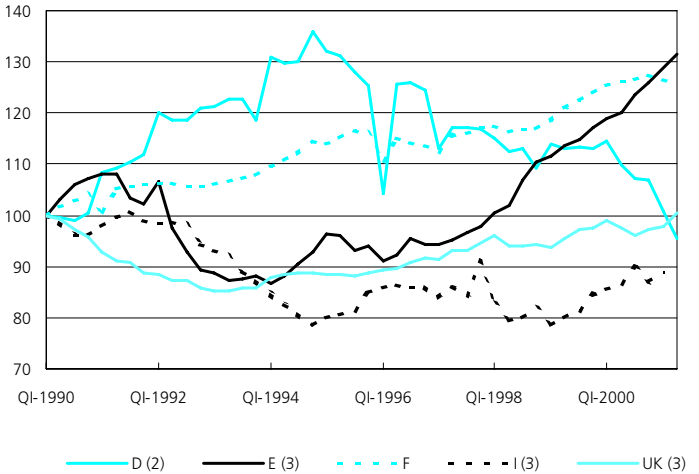
Production index

The production index provides a measure of the volume of value added at factor cost during a given reference period. In practice, the ideal production index can only be approximated and this using input data (consumption of typical raw materials or labour), output data (deflated production values or deflated sales values) or exceptionally in some countries administrative declarations (related to the progression of work). The index should take account of:

- variations in type and quality of the commodities and of the input materials;
- changes in stocks of finished goods and services and work in progress;
- changes in technical input-output relations (processing techniques);
- services such as the mounting, installations, repairs, planning or engineering.

The legal basis for short-term construction statistics is the same as for manufacturing, Council Regulation No 1165/98 of 19 May 1998. The production index covers NACE Section F and is broken down into civil engineering and building construction, according to the Classification of types of Construction (CC).

Chart 4.1: Production index for construction (QI-1990 = 100) (1)



(1) Seasonally adjusted data. (2) 1990, estimates. (3) Estimates.
Source: European Business Trends - Monthly and Quarterly Short Term Statistics (theme4/ebt)

BREAKDOWN OF ACTIVITY

Table 4.2: Breakdown of construction activity, 1999 (1)

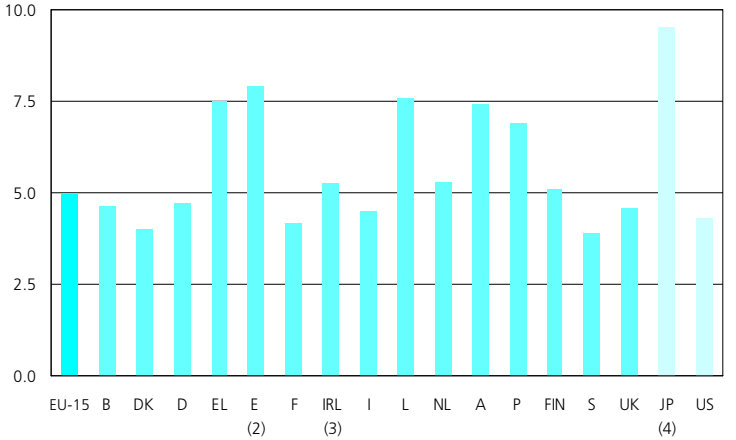
	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
							Building works (NACE Groups 45.1 and 45.2)									
Number of enterprises (thousands) (2)	:	19.0	8.8	:	:	:	115.5	:	224.6	0.7	29.4	6.0	51.3	17.8	24.1	107.4
Number of persons employed per enterprise (units) (3)	:	6.9	8.4	:	:	:	5.8	:	3.4	:	8.1	22.7	5.2	4.1	4.8	6.8
Turnover (e billion) (4)	:	15.8	9.7	:	:	:	68.9	:	75.4	:	31.5	14.5	21.2	9.8	14.6	120.8
Gross operating rate (%) (5)	:	8.1	9.4	:	:	:	4.7	:	50.9	24.0	20.9	28.2	9.3	10.1	14.2	14.4
							Completion work (NACE Groups 45.3 and 45.4)									
Number of enterprises (thousands)	:	34.3	17.5	:	:	:	192.7	:	256.7	1.0	28.1	11.5	26.6	10.2	25.5	96.7
Number of persons employed per enterprise (units) (6)	:	3.2	5.7	:	:	:	3.8	:	2.3	11.4	7.0	9.8	3.5	3.9	3.8	4.5
Turnover (e billion)	:	9.9	8.3	:	:	:	54.3	:	34.3	0.9	16.2	8.2	3.9	3.6	8.6	46.0
Gross operating rate (%)	:	23.8	24.8	:	:	:	17.4	:	12.9	:	4.9	24.9	20.2	25.7	19.1	38.8

(1) I and NL, 1998.
(2) L, 1998; L, provisional.
(3) A, 1998; UK, 1997.
(4) A, 1998; L, confidential.
(5) L and A, 1998; L, provisional.
(6) L, 1998; L, provisional; UK, 1997.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms)

The SBS data presented in *table 4.2* is classified according to NACE. The data (unlike those presented in the tables and charts for manufacturing) cover enterprises of all size classes, including those with less than 20 persons employed. This is particularly important for an activity such as construction, where there is generally a high presence of SMEs operating, especially in building, finishing, completion and installation work.

The construction of new houses is classed as capital formation in residential dwellings within National Accounts, whilst the sale of existing housing is a transfer that does not in itself add to GDP. Nevertheless, a buoyant market in existing property does lead to gains in GDP as a result of increased commission fees for real estate, legal and financial activities, as well as increased demand for new furnishings, household durables and completion/renovation work.

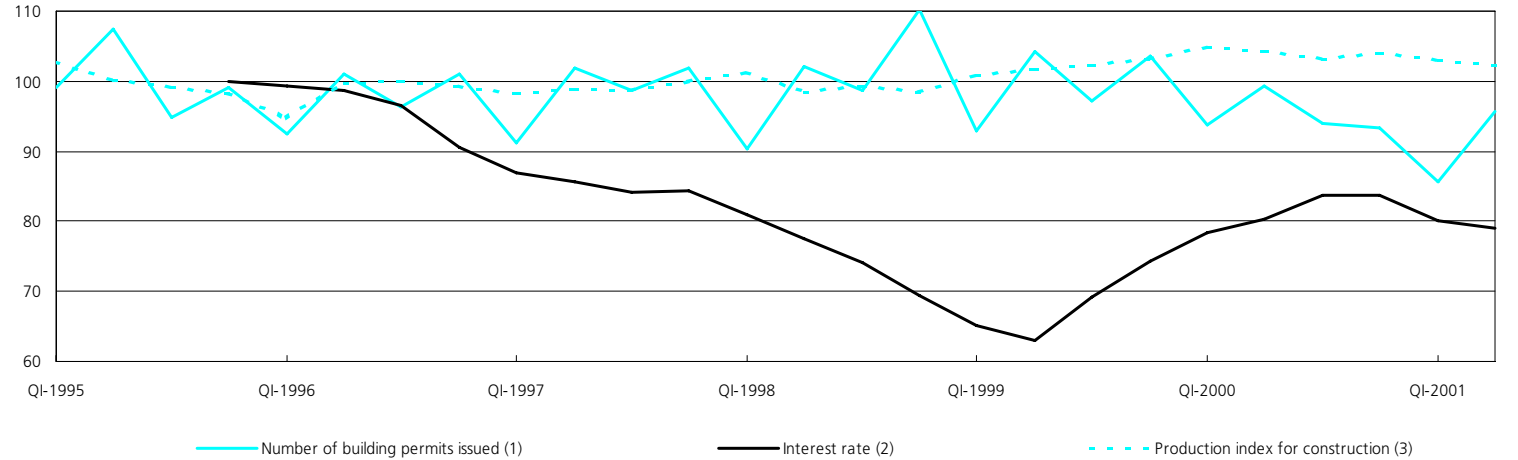
Chart 4.2: Share of construction in GDP, 2000 (%) (1)



(1) Gross value added at basic prices in relation to GDP. (2) 1998. (3) 1999. (4) 1997.
Source: Eurostat, National accounts - Breakdowns by branch of activity (theme2/brkdowns)

BUILDING PERMITS ISSUED AND LABOUR INPUT INDICATORS

Chart 4.3: Short-term indicators for construction in the EU (1995 = 100)



(1) Gross data for residential buildings only; QII-1999 to QII-2001, estimates. (2) Housing loans to households; euro-zone (EUR-11 up to 31.12.2000 / EUR-12 from 1.1.2001); QIV-1995 = 100. (3) Seasonally adjusted data; QII-2001, estimate.

Source: Eurostat, European Business Trends - Monthly and Quarterly Short Term Statistics (theme4/ebt) and Eurostat, National accounts - Monetary and other financial statistics (theme2/mny)

Number of building permits issued

Construction activity is highly sensitive to interest rate fluctuations and expectations of future demand. Low interest rates encourage capital spending, especially in times of growing economic activity when increasing demand and capacity utilisation encourages work on new projects.

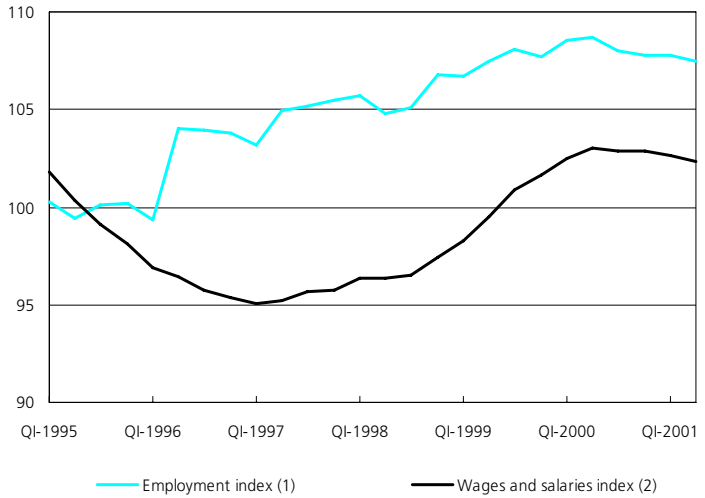
The administrative formalities related to building vary considerably between EU Member States, but the vast majority include something close to an authorisation to start work on a building project. A permit is the final stage of planning and building authorisation, prior to the start of work. It may be the case that a proportion of permits are not used or alternatively that there is a time lag between the permit being issued and the start of the project. An index based on permits gives some indication of the future workload for the building industry.

Indices of the number of permits are compiled for residential buildings that are intended for private habitation. The dwelling should have separate access to a street or to a common space within the building. In this form, the building permits index does not give a precise idea as to the scale of the projects for which permits have been granted. Eurostat also collect data on permits recorded by a size measure, the square metres of useful floor area, as measured within the external walls, excluding functional areas (for example, heating and air-conditioning installations) or thoroughfares (stairwells, lifts, escalators).

Wages and salaries

Wages and salaries (see *chart 4.4*) are defined as the total remuneration, in cash or in kind, payable to all persons counted on the payroll (including home workers). Included are all basic wages and salaries, as well as allowances, bonuses and commissions, taxes, contributions and other amounts payable by employees and withheld at source by the employer. Social contributions, taxes or other labour cost expenditure paid by the employer, such as training costs, reimbursements for equipment or travel costs are not included.

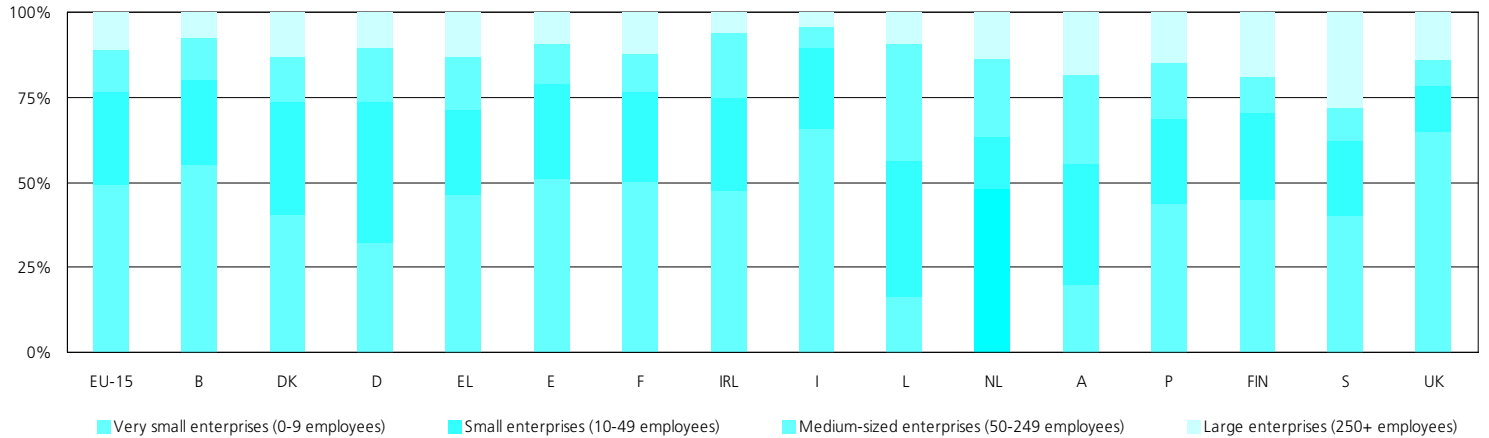
Chart 4.4: Labour input indicators for construction in the EU (1995 = 100)



(1) Seasonally adjusted data; QII-1999 to QII-2001, estimates.
(2) Seasonally adjusted data; QII-2001, estimate.
Source: Eurostat, European Business Trends - Monthly and Quarterly Short Term Statistics (theme4/ebt)

THE IMPORTANCE OF SMALL AND MEDIUM-SIZED ENTERPRISES

Chart 4.5: Number of persons employed in construction, broken down according to enterprise size-class, 1997 (share of total) (1)

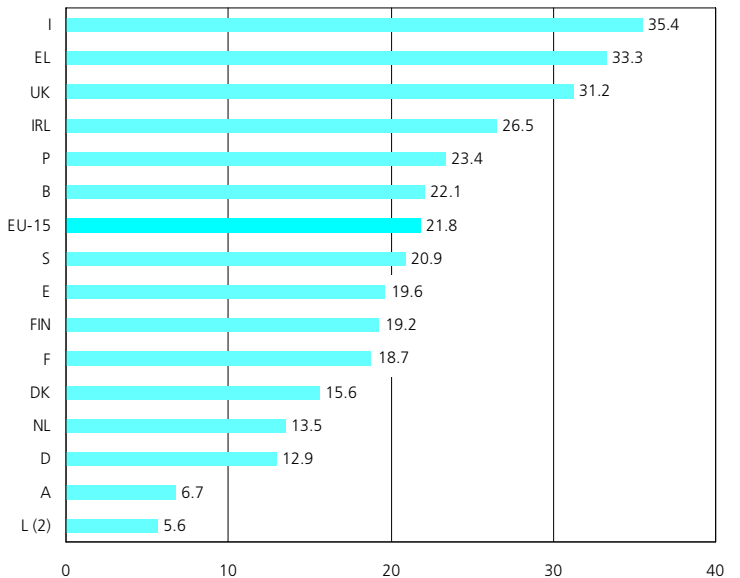


(1) Estimates for all countries except, A, FIN and UK.
Source: Eurostat, Small and medium-sized enterprises (theme4/sme)

Construction is characterised by a strong presence of small enterprises. Indeed, very small enterprises accounted for almost 50% of those employed in construction in 1997. Construction also makes extensive use of sub-contracting. Production processes involve medium to long completion times (similar to the manufacturing activities of shipbuilding or aircraft production) and hence care needs to be taken in order to correctly distinguish production, work in progress and sales. The pattern of work - different types of buildings and civil engineering structures, as well as repair and maintenance work - also varies from period to period and from year to year. Each building and civil engineering work is, in some way, unique, mainly because of variations in ground or site conditions. This, allied with the long production process, can make evaluation of costs and/or prices quite difficult.

There were almost 2 million construction enterprises operating in the EU in 1997, equivalent to more than 13% of the enterprises that were active in the EU's business economy. Construction enterprises together accounted for around 9% of total business enterprise employment in the EU in 1997. With an average of just over 5 persons employed per enterprise, construction - together with retail trade - was the activity most dominated by small enterprises. The smallest enterprises (in terms of average number of persons employed) are found within construction activities relating to completion work (wiring, plumbing, plastering, joinery, painting and glazing), whilst building enterprises (site preparation, general construction and civil engineering works) tend to, on average, be larger in size.

Chart 4.6: Share of self-employed persons in the construction labour force, 2000 (share of total) (1)



(1) Excluding non-response and unknown. (2) Unreliable figure.
Source: Eurostat, Labour Force Survey (theme3/lfs/empt/e_wst_s)

5. Distributive trades

5

MAIN ECONOMIC INDICATORS

Table 5.1: Main economic indicators for distributive trades, 1999

	EU-15 (1)	B	DK	D (2)	EL	E	F	IRL (3)	I (3)	L (4)	NL (5)	A	P (6)	FIN (7)	S	UK
Motor trade (NACE Division 50)																
Number of enterprises (thousands)	608.6	20.3	8.7	37.2	:	69.6	80.9	5.1	159.1	0.8	21.5	8.1	27.0	9.2	18.5	72.3
Turnover (e billion)	877.2	42.6	20.1	125.6	:	71.6	118.5	8.4	127.4	2.7	51.2	20.2	25.3	13.2	28.4	195.3
Value added at factor cost (e billion)	:	3.2	2.4	:	:	8.2	15.2	0.9	11.5	0.3	4.9	3.1	2.2	1.5	3.2	27.0
Wholesale trade (NACE Division 51)																
Number of enterprises (thousands)	1,235.6	42.2	16.9	71.4	:	177.9	160.9	4.9	407.9	3.0	54.3	17.8	49.3	16.4	41.4	120.0
Turnover (e billion)	2,924.7	135.4	73.5	565.9	:	241.8	477.1	18.7	295.1	7.7	218.0	72.2	59.0	44.8	88.2	523.3
Value added at factor cost (e billion)	:	12.7	9.8	:	:	26.7	49.5	2.5	40.4	0.7	:	10.0	6.4	4.8	11.7	74.6
Retail trade (NACE Division 52)																
Number of enterprises (thousands)	2,804.2	81.5	24.5	280.4	:	527.4	380.0	20.7	733.5	2.9	91.2	34.5	135.8	24.4	57.3	216.8
Turnover (e billion)	1,598.4	47.5	27.3	307.6	:	129.2	278.9	13.3	195.5	3.0	68.0	35.0	32.8	22.9	40.1	315.6
Value added at factor cost (e billion)	:	7.4	5.1	:	:	24.8	48.7	2.4	32.2	0.5	13.1	7.1	4.8	3.6	7.0	64.5

(1) Estimates; number of enterprises, 1996.
(2) Excluding NACE Groups 50.2, 51.1 and 52.7; number of enterprises, 1998.
(3) 1997.
(4) Number of enterprises and value added, 1998.
(5) Number of enterprises and value added for all NACE Divisions, as well as turnover for motor trade, 1998.
(6) 1998.
(7) Turnover, 2000.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms)

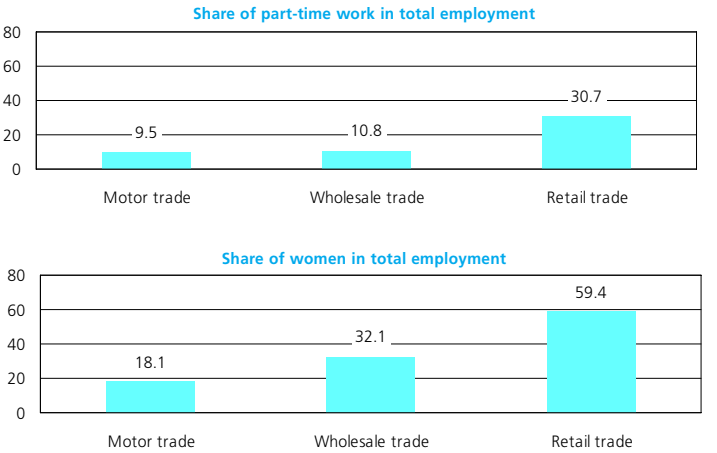
The economic importance of distributive trades within the European economy is witnessed by a number of indicators. National accounts data allow us to measure the size of distributive trade compared to the rest of the economy. In terms of wealth created, distributive trades accounted for between 10% and 16% of total value added in each of the Member States in the late 1990s.

However, it is in terms of providing employment opportunities that distributive trade really comes into its own. Depending on the country studied, distribution accounted for between 13% and 19% of the total workforce in the late 1990s, offering jobs to many persons seeking flexible work. Distribution also provides employment for workers with limited skills and qualifications, although requirements for technical skills have risen as the use of computerised stock management and new communications technologies has increased.

As well as offering a large number of employment opportunities (some 22 million in the EU in 1999 according to SBS data), distributive trade also offers many opportunities for entrepreneurship, as the sunk costs associated with starting an enterprise (in particular a retail enterprise) are relatively low. There were around 4.6 million distributive trade enterprises in the EU in 1996, accounting for almost a third of the business enterprise population.

Within retail trade, the number of new shopping formats has increased considerably over the last couple of decades. The result is manifest in the development of strategies such as out-of-town shopping centres, discount food stores, mail-order sales, franchises, electronic transactions and e-commerce. Several of these initiatives require either economies of scale or large-scale capital investment and have hence been pioneered in the main by large enterprises. Smaller retail enterprises have concentrated on customer service, off-peak opening hours and providing a service to local and rural communities.

Chart 5.1: Employment characteristics of distributive trades in the EU, 2000 (%)



Source: Eurostat, Labour Force Survey

5 MOTOR AND WHOLESALE TRADE

Table 5.2: Number of persons employed in motor and wholesale trade (thousands) (1)

	EU-15	B	DK	D (2)	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Motor trade, of which	3,264	80.1	65.1	436.5	:	322.8	430.8	30.1	439.4	5.9	138.5	77.3	135.7	34.8	76.2	537.4
Sale of motor vehicles	:	39.5	28.9	304.2	:	103.3	223.6	10.8	85.7	3.3	91.4	32.3	46.3	10.1	30.1	214.9
Maintenance and repair of motor vehicles	:	23.0	17.5	:	:	128.9	104.9	:	234.8	0.5	17.4	24.7	47.6	11.3	23.0	160.5
Sale of motor vehicle parts and accessories	:	10.3	6.1	84.2	:	40.0	62.1	:	41.5	0.7	15.8	10.0	17.7	6.5	8.2	99.3
Sale, maintenance & repair of motorcycles and related parts & accessories	:	2.0	0.5	8.9	:	6.4	13.4	:	20.3	0.0	2.4	1.2	8.0	0.4	1.5	12.2
Retail sale of automotive fuel	:	5.4	11.9	39.2	:	44.4	26.8	7.9	57.0	1.3	11.6	9.0	16.2	6.5	13.5	50.6
Wholesale trade, of which	7,380	220.4	175.7	1,213	:	879.4	970.6	50.2	1,015	12.5	431.2	192.6	266.3	80.7	214.7	1,071
Wholesale on a fee or contract basis	:	13.7	6.4	:	:	66.0	64.7	1.9	316.4	0.6	10.1	8.8	31.9	5.3	9.2	44.4
Wholesale of agricultural raw materials and live animals	:	7.4	10.3	51.0	:	37.2	56.1	1.6	26.6	0.4	32.5	16.6	9.8	2.1	6.7	21.4
Wholesale of food, beverages and tobacco	:	36.8	22.1	221.1	:	284.3	175.2	11.0	161.1	2.6	66.9	35.6	56.2	7.1	25.9	185.1
Wholesale of household goods	:	55.5	36.2	316.3	:	192.5	185.0	9.6	217.9	1.8	92.8	45.5	68.0	14.7	53.1	249.0
Wholesale of non-agricuktural intermediate products, waste and scrap	:	44.7	36.9	338.9	:	159.6	200.4	10.0	159.9	3.0	77.5	41.1	41.9	15.2	54.2	239.3
Wholesale of machinery, equipment and supplies	:	55.6	58.3	201.2	:	129.8	281.6	11.0	90.0	3.5	128.8	42.1	38.0	28.1	63.9	237.2
Other wholesale	:	6.7	5.5	85.0	:	10.0	7.6	4.9	43.3	0.5	22.7	2.9	20.4	8.1	1.7	95.0

(1) FIN, 2000; I, L, NL and P, 1998; UK, number of employees, 1997.
(2) Total for motor trade excludes NACE 50.2; total for wholesale trade excludes NACE 50.1.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms)

Motor trade

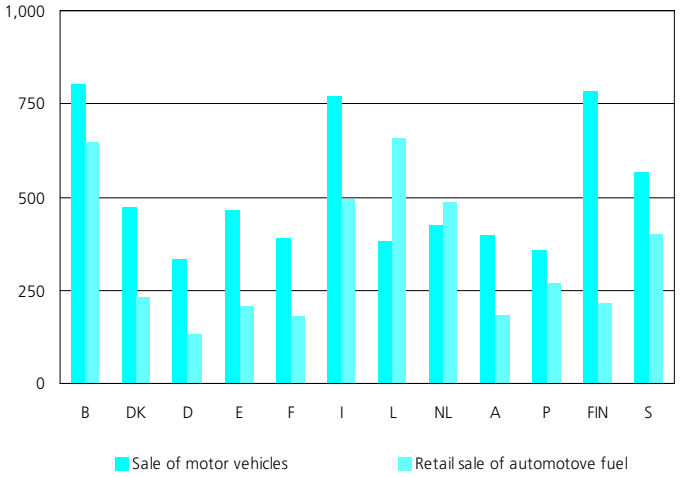
Motor trade is a very special part of distributive trades, since motor vehicles and motorcycles are not everyday commodities. Vehicle manufacturers have faced considerable over-capacity in recent years. As a result, competition between manufacturers is now as intense as ever. Its effects have serious implications on motor vehicle wholesale and retail markets. Indeed, there has been a general tendency towards fewer but larger dealerships, i.e. dealerships employing a greater number of persons and selling more cars.

The European Commission has adopted an evaluation report on Regulation 1475/95 on motor vehicle distribution and servicing agreements. This Regulation lays down specific EU competition rules for the sector, notably the current regime of "block exemption" which vehicle manufacturers enjoy with respect to their distribution systems.

Wholesale trade

Wholesale trade is an essential activity for a modern economy. It plays an important logistical role, moving goods from the producer towards the consumer. New technologies - electronic data interchange for example via the Internet - pose a challenge for wholesalers, as they facilitate direct relations between producers and other distributors and even consumers. These technologies reduce the so-called "lead-time" - the period between the preparation and the execution of an order, thereby streamlining production processes and reducing the need for large stocks. As a consequence, many wholesalers are seeking to respond to these threats by moving into the retail business.

Chart 5.2: Average turnover per person employed, 1999 (€ thousand) (1)



(1) IRL and UK, not available; FIN, 2000; I, L, NL and P, 1998.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms)

VOLUME OF RETAIL SALES

Table 5.3: Volume of retail sales, growth rates (1)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
								Annual growth rate 1999-2000 (%) (2)								
Retail trade	4.1	7.5	2.3	2.2	7.4	6.2	5.7	12.7	1.5	3.6	4.9	2.9	5.5	5.8	6.1	3.5
Retail trade of food items	3.6	1.2	0.3	1.7	7.5	6.3	5.2	8.8	2.6	4.3	2.6	1.1	5.1	5.1	2.9	3.3
Retail trade of non-food items, of which selected items,	4.3	:	1.9	2.6	7.1	6.6	6.3	18.3	0.8	3.1	5.9	3.8	5.8	6.4	9.2	:
Retail sale of textiles, clothing, footwear & leather goods	3.1	17.4	0.7	-0.5	6.3	7.9	4.4	15.0	0.3	1.9	4.4	5.5	2.8	3.3	4.9	2.9
Retail sale of household equipment	5.5	10.5	2.8	3.1	6.0	11.7	7.9	11.5	0.1	3.0	6.6	0.8	4.3	7.4	13.4	6.2
Retail sale of books, newspapers & retail sales in other specialised stores	5.4	20.7	0.9	4.2	7.2	0.3	8.2	27.8	0.0	4.6	4.9	8.1	6.1	4.0	8.1	:
								Average annual growth rate 1995-2000 (%) (3)								
Retail trade	2.6	4.4	3.0	0.6	3.2	4.7	4.3	7.1	2.7	4.0	3.7	2.6	6.9	4.9	3.8	4.5
Retail trade of food items	2.1	3.4	2.2	0.5	2.2	3.5	4.5	3.7	3.4	3.7	1.2	2.5	7.4	3.3	1.6	4.5
Retail trade of non-food items, of which selected items,	3.0	:	0.1	0.6	4.0	6.2	4.1	13.9	2.3	5.6	6.0	2.7	6.5	6.2	6.1	:
Retail sale of textiles, clothing, footwear & leather goods	2.2	5.3	1.7	-0.9	3.6	3.8	3.1	15.3	2.0	2.2	3.4	0.8	4.1	3.5	3.6	3.5
Retail sale of household equipment	4.4	4.1	0.5	0.5	2.3	7.5	5.1	10.3	1.6	6.1	6.5	2.9	6.7	6.9	7.3	6.7
Retail sale of books, newspapers & retail sales in other specialised stores	3.2	7.5	0.9	0.4	2.7	6.0	5.2	13.3	1.9	4.0	6.9	4.4	5.7	5.0	5.7	:

(1) Data adjusted for working days; retail trade is defined as NACE Groups 52.1 to 52.6; retail trade of food-items is defined as NACE Class 52.11 and Group 52.2, retail trade of non-food items is defined as NACE Class 52.12 and Groups 52.3 to 52.6; retail trade of textiles, clothing, footwear and leather goods is defined as NACE Classes 52.41 to 52.43; retail sale of household equipment is defined as NACE Classes 52.44 to 52.46; retail sale of books, newspapers & retail sale of other specialised stores is defined as NACE Classes 52.47 and 52.48.
(2) DK, E, F, IRL, I, NL, A, P and UK, estimates.
(3) EU-15, DK, EL, E, F, IRL, I, NL, A, P and UK, estimates; EU-15 and EL, 1996-2000; IRL, 1996-2000 for retail trade, retail trade of non-food items and retail sale of books, newspapers and retail sale in other specialised stores; NL, 1996-2000 for retail trade of non-food items and retail sale of books, newspapers and retail sale in other specialised stores.
Source: Eurostat, European Business Trends - Monthly and Quarterly Short Term Statistics (theme4/ebt)

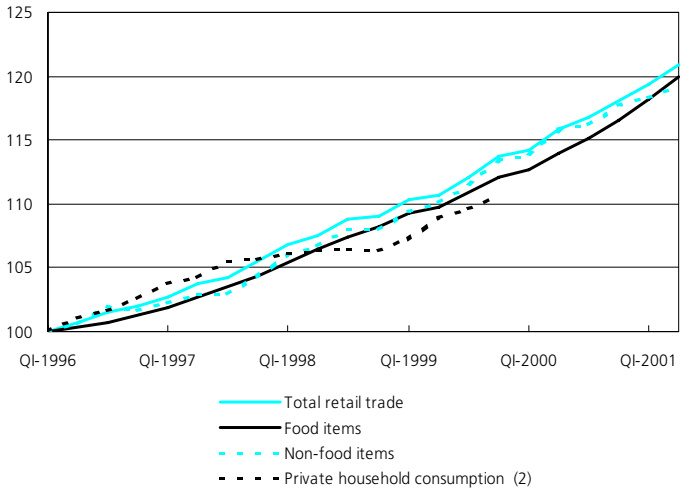
Retail sales index

The volume of sales index shows the evolution of the quantity of goods sold in the retail trade sector. It is an indicator of final domestic demand and reflects consumer confidence. However, one should note that some items sold by retailers are bought by other businesses and that consumers purchase items, particularly services, from other sources than retailers - as such, the correlation between consumer spending and retail sales is not direct.

The legal basis for the collection of data is Council Regulation No 1165/98 from 19 May 1998. The volume of sales represents the value of turnover in constant prices. It is derived from turnover in current prices adjusted by a deflator of sales. Turnover comprises market sales of goods or services supplied to third parties. It includes all duties and taxes on the goods or services invoiced by the unit with the exception of the VAT invoiced vis-à-vis its customer and other similar deductible taxes.

Retail sales data are usually seasonally adjusted. When interpreting data, readers should take account of factors such as sales prices, changes in the weather and consumer expectations of changes in consumption taxes, which may lead to spending decisions being brought forward or being postponed. In times of recession, non-essential consumer spending can be deferred, with sales of consumer durables usually being worst hit.

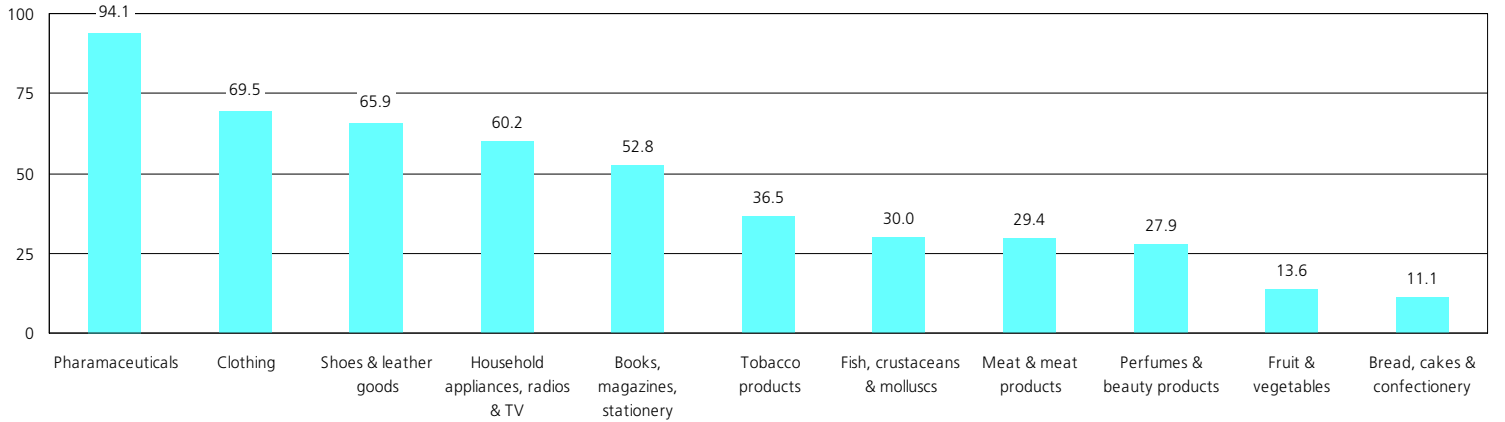
Chart 5.3: Volume of retail sales and private household consumption in the EU (QI-1996 = 100) (1)



(1) Data are seasonally adjusted. (2) 2000 and 2001, not available.
Source: Eurostat, Eurostat, European Business Trends - Monthly and Quarterly Short Term Statistics (theme4/ebt) and National accounts - quarterly national accounts (theme2/quart)

RETAIL SPECIALISATION BY PRODUCT

Chart 5.4: Share of retail sales of the following products accounted for by stores specialising in their sale, 1997 (%) (1)



(1) DK, D, E, F, NL, P, UK and NO only.
Source: Eurostat, Structural Business Statistics - Distributive trades: breakdown of turnover by product (theme4/sbs/dtprod/sb_re_ms)

Structural Business Statistics - special series

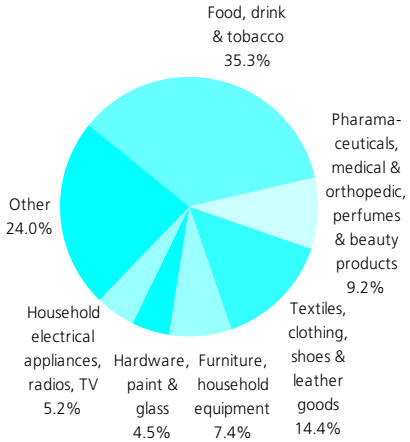
The SBS Regulation foresees the collection of data on the turnover of distribution enterprises. This includes the collection of turnover data for a large number of product groups, with information on the markets for different products, their distribution channels and the degree of product specialisation or diversification within enterprises.

For this special series, turnover corresponds to the resale of goods purchased by the unit in its own name and for its own account (hence excluding goods sold on a commission basis only). The goods are resold in the same condition in which they were purchased, maybe after operations such as labelling, packaging and wrapping.

Data for this special analysis of turnover is only collected every 5 years, with 1997 as the latest reference year for retail trade enterprises, 1998 for wholesale trade enterprises and 2000 for motor trades.

The data try to answer two main questions, namely: what products do retailers sell? and in which type of stores are certain product groups sold, stores that specialise in a narrow range of products (such as pharmacies, bakeries, fish-mongers) or non-specialised stores (such as supermarkets, hypermarkets and department stores)?

Chart 5.5: Breakdown of total retail sales, 1997 (1)



(1) DK, D, E, F, NL, P, UK and NO only.
Source: Eurostat, Structural Business Statistics - Distributive trades: breakdown of turnover by product (theme4/sbs/dtprod/sb_re_ms)

6. Information society

6 INFORMATION AND COMMUNICATION TECHNOLOGIES

Table 6.1: Main economic indicators for the information society, 1999 (1)

	EU-15 (2)	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises *(3)*																
Information and communication technologies (thousands)	389.0	8.9	7.3	57.7	:	20.3	49.5	1.7	81.1	0.8	15.6	7.9	4.0	5.5	24.0	143.1
Manufacturing (% of total)	12.1	2.5	8.1	11.3	:	8.1	13.9	13.7	16.8	1.4	8.0	5.7	14.0	12.9	7.4	6.5
Services (% of total)	87.9	97.5	91.9	88.7	:	91.9	86.1	86.3	83.2	98.6	92.0	94.3	86.0	87.1	92.6	93.5
Telecommunications (% of services)	3.1	3.6	3.7	1.1	:	6.4	5.5	3.7	0.8	5.3	4.4	2.5	4.4	4.7	1.3	4.4
Number of persons employed *(4)*																
Information and communication technologies (thousands)	4,300.0	114.6	99.3	775.3	:	257.0	785.6	67.8	548.4	:	200.1	103.9	72.9	98.7	186.7	:
Manufacturing (% of total)	37.2	20.8	23.7	45.3	:	21.5	36.6	58.1	32.7	:	30.5	37.1	38.1	46.3	39.6	:
Services (% of total)	62.8	79.2	76.3	54.7	:	78.5	63.4	41.9	67.3	:	69.5	62.9	61.9	53.7	60.4	:
Telecommunications (% of services)	27.6	34.2	26.5	:	:	39.0	32.9	46.6	26.5	:	:	37.4	47.0	36.7	:	:
Value added at factor cost *(5)*																
Information and communication technologies (€ billion)	315.0	9.3	7.0	:	:	17.3	52.7	6.7	34.8	:	11.8	7.8	4.2	8.9	14.7	88.5
Manufacturing (% of total)	27.0	19.5	18.2	:	:	15.9	31.7	69.4	23.4	:	33.0	34.8	18.2	56.6	35.5	22.5
Services (% of total)	73.0	80.5	81.8	:	:	84.1	68.3	30.6	76.6	:	67.0	65.2	81.8	43.4	64.5	77.5
Telecommunications (% of services)	55.7	49.8	40.6	:	:	70.8	46.4	59.6	59.5	:	:	50.0	73.0	48.6	30.6	38.5
External trade *(6)*																
ICT manufacturing exports (€ billion)	124.0	13.2	5.1	64.4	0.6	7.5	41.8	28.5	14.7	1.7	54.0	6.8	2.1	12.7	18.8	63.5
ICT manufacturing imports (€ billion)	186.4	14.4	6.8	73.6	2.7	16.8	46.4	19.2	26.3	2.0	54.9	9.8	3.8	7.2	13.7	74.7

(1) ICT manufacturing is defined as NACE Division 30, Group 31.3, Division 32, Groups 33.2 and 33.3; ICT services are defined as NACE Class 51.64, Group 64.2 and Division 72.
(2) Other than external trade, Eurostat estimates for 1998. (3) D and P, NACE Class 51.64, 1998; E, I and L, 1998; IRL, all services data, 1997; NL, all services data, 1998. (4) DK, NACE Group 31.3, 1997; D and P, NACE Class 51.64, 1998; D, NL and S, NACE Group 64.2, not available; F, NACE Group 64.2, 1996; I, 1998; IRL, all services data, 1997. (5) DK, NACE Group 31.3, 1997; E and I, 1998; F and S, NACE Group 64.2, 1996; IRL, all services data, 1997; NL, NACE Division 32, 1997; NL, NACE Group 64.2, not available. (6) Data refer to 2000, covering CPA Division 30, Group 31.3, Division 32, Groups 33.2 and 33.3; EU-15 data refer to extra-EU trade flows, Member States to trade with all partners.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms); Eurostat, Comext

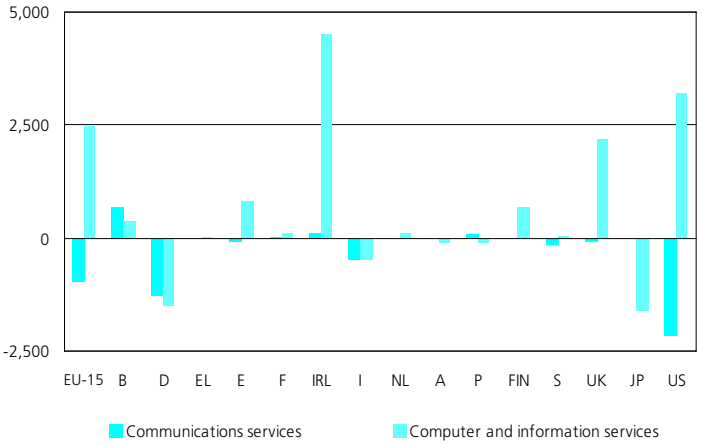
The transition from the industrial to the information society has been characterised by the rapid growth of intangibles. Some of the main features of the information society include turning information into a commodity, the codification of knowledge and shifting economic emphasis from turning material inputs into material outputs towards the creation, commercialisation, and distribution of intellectual property and intangible commodities. Information can be used at the same time by many users in different places. Its depreciation is not a result of its use, but rather its freshness and relevance (whether or not the information being provided is up-to-date and correct).

Information and communication technology (ICT) is a generic term that covers both information technologies (hardware and software), as well as communication equipment and services. The data presented in *table 6.1* therefore span the divide (often created for practical purposes) between industrial and service statistics, covering on the one hand the production of equipment such as computers, telephone hand-sets and networks and on the other, value-added services that use this equipment such as the provision of services by mobile phone operators, Internet service providers, software development houses, or computer help-desk support.

Balance of payments

Balance of payment (BOP) statistics record all cross-border currency flows, including the movement of capital. The balance of payments of the European Union is compiled as the sum of the harmonised balance of payments accounts of the fifteen Member States. The data presented in *chart 6.1* show figures for the current account net balance (exports-imports) of information and communication services. Whilst it is relatively easy to measure trade flows for manufactured goods, the collection of data for trade in services such as shipping, travel and tourism, financial services, advertising or indeed, communication, computer and information services is considerably more difficult.

Chart 6.1: Trade surplus/deficit of communication and computer and information services, 1999 (€ million) (1)



(1) DK, not available; L, included within B; EL, NL, A and JP, not available for communication services.
Source: Eurostat, International trade in services, geographical breakdown of the current account (theme2/bop/its)

6 TELECOMMUNICATIONS

Table 6.2: Main indicators for telecommunications, 2000

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of fixed lines (millions) (1)	202.7	5.1	3.8	50.2	5.6	17.5	34.0	1.8	26.5	0.3	9.6	3.9	4.3	2.8	6.1	34.8
Number of mobile subscriptions (millions) (2)	235.8	5.6	3.3	48.1	6.0	24.7	29.1	2.5	42.2	0.4	10.7	6.5	6.7	3.8	6.3	40.0
Number of fixed lines per 100 inhabitants (units) (3)	54	50	68	59	53	43	58	48	46	72	61	48	42	55	67	57
Number of mobile subscriptions per 100 inhabitants (units) (2)	62.6	54.5	61.0	58.6	56.4	62.7	49.1	65.9	73.2	87.2	67.5	79.6	66.7	72.7	71.5	67.1
Average fixed line minutes per head per day (units) (4)	:	:	8.5	7.7	:	3.8	5.6	:	5.5	7.9	5.9	4.9	2.7	9.8	11.8	6.2
Average mobile subscription minutes per head per day (units) (5)	:	:	1.1	0.6		0.6	0.5	:	:	0.5	:	:	1.3	2.4	1.8	1.2
Share of international calls in total duration of telephone calls (%) (6)	:	18.1	4.0	3.0	:	2.9	2.7	:	2.3	25.6	5.3	8.6	5.5	2.3	4.0	4.5

(1) EU-15, B, EL, IRL, I, NL and A, 1999.
(2) Data refer to year-end.
(3) Data refer to 1999.
(4) E, IRL and FIN, population estimates; F, 1998 for population data; I and NL, 1998; A, 1997.
(5) E and FIN, population estimates; F, 1998.
(6) Data refer to 1999; I and NL, 1998; B and A, 1997.
Source: Eurostat, Communications (theme4/coins/telecom/tel_ser); International Telecommunications Union (ITU)

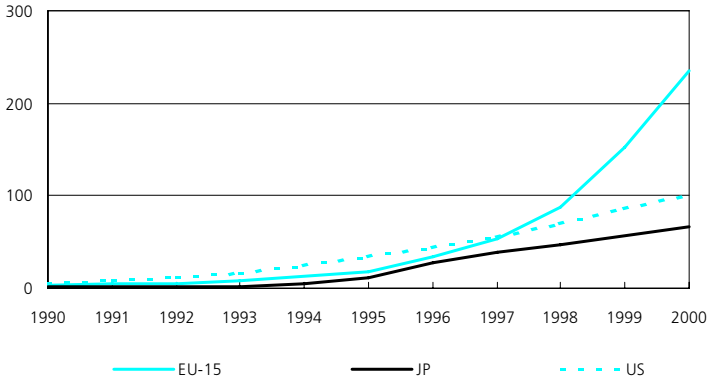
At the start of the 1990s, there were just over 10 million mobile telephone subscribers around the world. The introduction of second-generation networks, such as GSM, sparked an increase in mobile subscription growth and the number of subscribers grew to over 725 million by the beginning of 2001[6], approximately a third of whom were resident in the EU. Indeed, there are more mobile phone subscribers in the EU than there are fixed lines (see *table 6.2*). When analysing data on mobile phone subscriptions it is important to note that subscriptions need not necessarily be in use - many consumers take advantage of special deals offered by providers and then cease to use a subscription or switch to another package once the benefits are no longer advantageous.

The introduction of the second-generation phones brought the possibility to use Short Message Service (SMS) applications, which allow text messages to be sent from one telephone to another. Wireless Application Protocol (WAP) was commercially launched in the EU in 2000, it allows mobile phones to browse the Internet, with web-sites adapted to fit the screen size of a mobile hand-set.

Third generation mobile networks mark for the first time a move towards harmonising global standards - as previously mobile systems have been based on a variety of national and regional systems. Japan has been at the forefront of the push to introduce 3G networks and started its first commercial service in the second half of 2001. The EU countries have also been actively moving towards 3G networks and during 2000 most countries awarded licences to operate these networks. 3G networks support broadband Internet access, which should significantly speed-up Internet access for mobile phone subscribers and open the possibility for many new mobile applications.

(6) International Telecommunication Union (ITU), http://www.itu.int/home/index.html

Chart 6.2: Mobile telephone penetration (millions of subscriptions) (1)



(1) Data refer to year-end.
Source: Eurostat, Communications (theme4/coins/telecom/tel_ser) for EU-15; International Telecommunications Union (ITU) for JP and US and for 2000 for EU-15

COMPUTERS

Table 6.3: Main indicators for computers, 2000

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
ICT market (€ billion) (1)	566.3	16.3	11.7	127.1	8.1	43.8	95.3	5.5	67.5	:	29.1	12.9	8.1	8.6	20.2	112.1
ICT equipment (%) (2)	34.0	32.0	35.9	35.0	30.8	35.2	29.7	34.4	31.9	:	33.9	34.8	35.0	39.7	38.0	36.2
of which, computer hardware (%) (2)	15.3	14.3	19.4	17.1	7.1	12.7	13.1	15.7	11.1	:	15.0	15.4	11.8	17.4	20.8	18.1
Software products (%) (2)	9.5	13.0	8.6	12.9	2.4	3.7	8.4	4.6	6.0	:	12.2	8.5	3.1	7.6	7.2	11.7
IT services (%) (2)	16.5	14.8	21.4	13.7	5.0	8.9	25.2	7.9	14.2	:	13.9	14.6	6.0	17.4	24.8	17.9
Carrier services (%) (3)	40.0	40.2	34.2	38.4	61.9	52.2	36.6	53.0	48.0	:	40.0	42.2	55.8	35.3	30.0	34.2
Number of PCs in use (millions)	107.8	3.5	2.3	27.6	0.8	5.8	17.9	1.4	12.0	0.2	6.3	2.3	1.1	2.1	4.5	20.2
PCs in use per 100 inhabitants (units)	35	34	43	34	7	14	30	36	21	46	39	28	10	40	51	34
Share of SMEs having a stand-alone PC (%) (4)	:	66	87	79	37	34	66	73	45	78	61	83	47	78	88	70
Number of computers per 100 pupils (units) (5)	8.6	8.6	30.6	4.3	4.3	7.2	3.5	10.3	5.5	32.2	12.5	11.0	4.0	38.4	15.3	11.1
Share of households with a desktop (%) (6)	35	42	59	32	15	34	29	28	35	45	66	32	20	45	56	36
Share of households with a laptop (%) (6)	5	7	11	5	1	3	5	5	1	10	18	7	3	7	11	8
Share of households with a palm (%) (6)	3	3	2	2	3	2	3	3	2	8	9	3	2	1	4	6

(1) Data refer to estimates for 2001; data for L are included within B; ICT (information and communication technologies) market is defined as being composed of ICT equipment, software products, IT services and carrier services.
(2) Data refer to estimates for 2001; data for L are included within B.
(3) Includes telecom and Internet carriers; data refer to estimates for 2001; data for L are included within B.
(4) Data refer to 2001.
(5) Data refer to June 2001.
(6) Data refer to spring 2000.
Source: EITO 2001; Eurostat, Information Society Statistics (theme4/infosoc/misc/pc/pcuse); European Commission, DG Enterprise, 2001 (ENSR Enterprise Survey for the Observatory of European SMEs); European Commission (Flash Eurobarometer 101.0 and 102.0); European Commission (Eurobarometer 53)

The data presented in *table 6.3* refer to the sales of information technology equipment (for example, computer hardware, communications equipment, office equipment, data communications and network equipment), software products, information technology services and carrier services (Internet and mobile telephone carriers). Computer and telecommunication hardware generally accounts for around a third of the turnover generated in ICT markets.

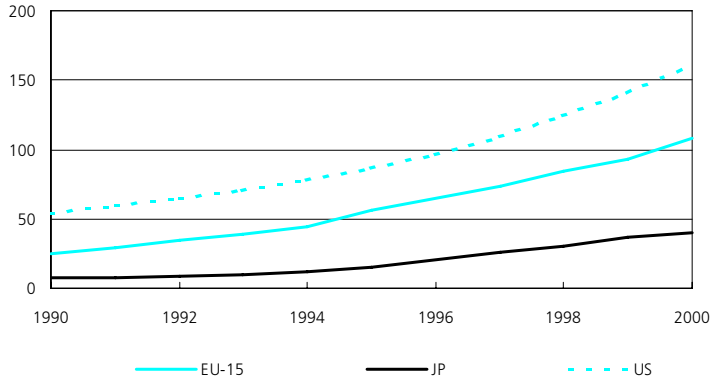
Whilst the use of mobile phones has increased exponentially during the second half of the 1990s in the EU (and at much faster rate than in the US or Japan), the same cannot be said for the use of personal computers (PCs). There were an estimated 108 million PCs in use in the EU in 2000, equivalent to 35 per 100 inhabitants, whilst the corresponding rate in the US was 59.

The widespread use of computers across the whole of society is thought to bring significant productivity gains. Within large enterprises, PC penetration rates have almost reached saturation, however, just 60% of small and medium-sized enterprises surveyed in 2001 said that they used a PC (some 54% used a network to connect PCs)[7]. The penetration rate of PCs into EU households was much lower, equal on average to 35% during the spring of 2000, whilst lap-top PCs and palms had single digit penetration rates in the majority of Member States.

In the second quarter of 2001 global sales of PCs were reported to have fallen quarter-on-quarter for the first time ever and this reversal was confirmed by a further decline, that was more marked, in the third quarter.

(7) Enterprise Directorate-General of the European Commission - ENSR, Enterprise Survey for the Observatory of European SMEs.

Chart 6.3: Number of PCs in use (millions)



Source: Eurostat, Information Society Statistics (theme4/infosoc/misc/pc/pcnb) for EU-15; International Telecommunications Union (ITU)

6 THE INTERNET

Table 6.4: Selected indicators for Internet use and Internet supply, 2001

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of Internet users (millions)	123.2	4.2	3.5	32.0	1.3	7.0	10.8	1.1	14.4	0.2	10.3	3.0	1.2	3.1	6.1	24.9
Number of Internet users (%)	32.7	26.3	66.8	38.9	12.1	17.7	18.4	29.4	25.2	34.8	65.4	35.8	12.5	60.9	69.0	42.4
Share of persons aged 18-29 who use the Internet (%) (1)	57.7	:	80.7	53.2	:	41.3	66.5	70.5	44.4	:	75.0	:	:	93.2	92.0	69.8
Share of persons aged 64+ who use the Internet (%) (1)	8.0	:	5.9	6.0	:	2.3	17.2	3.8	1.9	:	10.7	:	:	8.5	8.6	9.9
Share of males who use the Internet (%) (1)	42.3	:	53.2	40.2	:	28.9	49.4	41.7	30.1	:	59.2	:	:	60.7	63.4	50.7
Share of females who use the Internet (%) (1)	28.8	:	44.0	26.2	:	13.2	42.0	30.4	15.6	:	43.2	:	:	48.9	52.6	32.8
Share of SMEs with access to Internet (%) (2)	41.5	47.8	55.9	56.9	24.0	34.8	38.7	56.9	36.0	46.6	44.3	49.7	22.5	60.3	69.7	37.7
Share of Internet users visiting government web-sites (%) (3)	44.9	49.9	58.2	44.7	44.9	34.6	42.9	49.3	35.6	42.4	42.3	47.5	30.7	42.6	65.0	39.9
Computers connected to the Internet per 100 pupils (units) (3)	4.0	4.1	22.7	2.5	1.3	3.3	3.8	5.5	2.2	21.0	3.6	6.0	1.3	12.7	11.8	6.5
Share of households connected to the Internet (%) (3)	48.1	34.7	58.9	37.9	32.4	11.7	23.4	26.2	46.2	32.9	43.6	58.5	46.2	23.4	48.1	64.3
Number of Internet hosts (thousands)	12,614	417	436	2,163	148	663	1,230	88	1,630	12	1,320	504	177	771	764	2,291
Number of Internet hosts per 100 inhabitants (units)	3.4	4.1	8.1	2.6	1.3	1.6	2.2	2.3	2.8	2.7	8.3	6.2	1.8	14.9	7.2	3.8
Number of secure servers (units) (4)	8,762	70	219	2,914	55	309	451	182	443	11	366	367	94	170	212	2,899
Number of Internet Service Providers (ISPs) (units) (5)	:	140	50	350	:	:	:	:	500	:	130	:	:	65	80	300

(1) EU-15 data are based on the 10 countries for which data are available in the table; data refer to 2000.
(2) SMEs are defined as enterprises with between 0 and 249 employees; data refer to 1999.
(3) Data refer to June 2001.
(4) Data refer to November 2001.
(5) Data refer to end of 1999.

Source: Eurostat, Information Society Statistics (theme4/infosoc/misc/internet/iuse and ihostnb); E-commerce data report, Empirica, 2000; European Commission (Flash Eurobarometer 101.0 and 103.0); http://www.securityspace.com/s_survey; ISPO (ESIS - European Survey of Information Society Projects and Actions)

Globally, the annual growth rate of the number of Internet users fell to its lowest level ever in 2000/2001, but still remained at 35%. This could be explained, in part, by the downturn in the Internet economy, which was reflected in the growing number of "dot.com" business failures, but also as a result of market saturation in developed economies, where most of those who want to be on-line already are. Within the EU, the highest penetration rates for Internet use are found in the Nordic countries and the Netherlands, the only Member States to report that more than 50% of their population uses the Internet (see *table 6.4*).

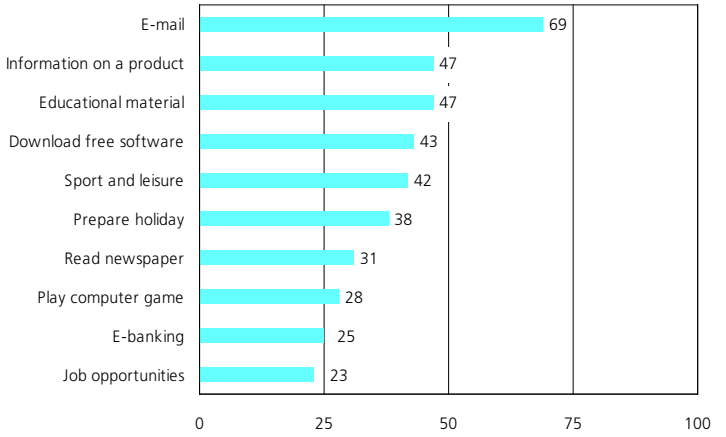
As regards use made of the Internet in the EU, e-mail was the principal applicationin spring 2000 , followed by the research of information (be it product information or educational material). E-banking appeared within the top ten applications, whilst 14% of EU inhabitants said that they had used the Internet to buy CDs, 14% to purchase books, 9% to buy software and 7% to buy stocks.

On the supply side, the Internet consists of a maze of permanently interconnected computers that provide the backbone to the system by routing traffic, known as Internet hosts. Globally there were more than a 100 million hosts at the start of 2001. The most popular host suffixes are .com and .net, together accounting for approximately 60% of the total.

Internet Service Providers (ISPs) charge flat-fees for unlimited use or variable prices according to the time spent on-line. In a number of countries, Internet access is "free", meaning there is no ISP charge, however, the majority of consumers still have to pay local telephone tariffs when connected to the Internet.

Secure servers use protocol that encrypts transmission over networks, setting-up a secure end-to-end link. Their most common application is to enable electronic commerce over the Internet, allowing a user to pass credit card and personal details in an encrypted form.

Chart 6.4: Top ten uses made of the Internet in the EU, spring 2000 (share of users having made use of the following applications in the previous three months)



Source: European Commission (Eurobarometer 53)

AUDIO-VISUAL MEDIA

Table 6.5: Selected indicators for audio-visual media, 1999

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Average TV viewing time per inhabitant per day (minutes) (1)	222.0	173.0	159.0	185.0	253.0	213.0	189.0	194.0	221.0	136.0	165.0	147.0	202.0	149.0	143.0	220.0
Average radio listening time per inhabitant per day (minutes) (2)	162.0	266.0	194.0	179.0	:	95.0	161.0	237.0	169.0	198.0	175.0	211.0	194.0	190.0	183.0	150.0
Number of video cassette sales (millions)	286.9	7.1	6.5	39.8	0.5	14.5	54.0	2.8	40.0	:	9.0	4.0	2.5	3.9	6.4	96.0
Number of video cassette rentals (millions) (3)	728.0	23.4	20.7	159.0	9.7	82.5	73.1	28.0	79.0	0.6	36.0	9.2	6.8	8.0	18.0	174.0
Household penetration of DVD players (% of households with a DVD) (4)	3.9	3.5	3.8	2.8	0.7	5.0	4.0	4.0	4.6	6.3	5.5	2.4	2.5	2.3	7.8	4.1
Number of DVD sales (millions) (5)	14.6	0.7	0.2	2.6	0.1	0.7	4.2	0.1	1.0	:	0.5	0.1	0.1	0.2	0.2	4.0
Number of sound recording sales (millions)	1,020	31.0	19.1	289.8	8.4	61.4	150.2	9.5	53.9	:	39.4	22.4	16.8	11.4	28.6	277.7
of which, CDs (%) (6)	71.0	72.2	92.1	72.7	82.0	78.8	67.9	64.1	66.4	:	85.0	80.2	76.8	88.6	78.6	63.7

(1) EL, IRL, I and NL, 1998; B and L, 1997; EU-15, estimate based on sum of available data.
(2) I and UK, 1998; EU-15, estimate based on sum of available data.
(2) D, F and L, 1998; EU-15, estimate based on sum of available data.
(4) Data for 2000.
(5) EU-15, excluding L.
(6) Long-play CDs, excluding CD singles.
Source: Eurostat, Audio-visual services (theme4/auvis/q_2000/tvmark, radmar, vidmar, phmark); Eurostat, Statistics on Audio-visual services, 2001; European Commission (Eurobarometer 53); Screen Digest; IFPI (International Federation of the Phonographic Industry)

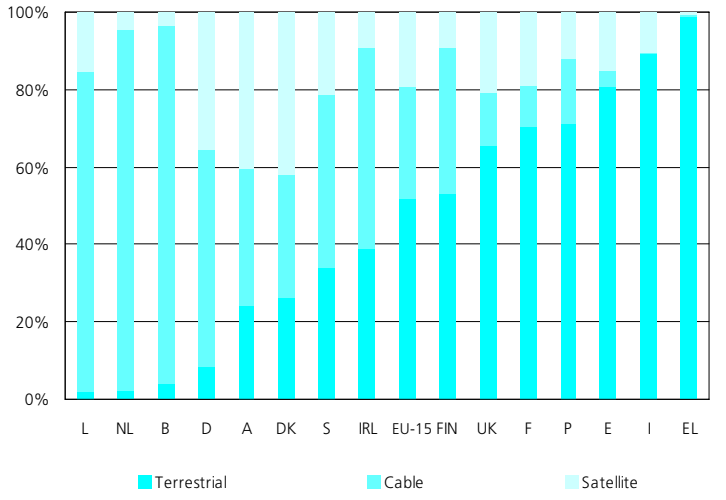
With the introduction of digital technology, audio-visual services (radio, television, music and cinema) are being transformed. As a result, production techniques, broadcasting and distribution means are all being re-defined. The introduction of digital technology leads potentially to more channels, more choice, new services and higher advertising revenues.

Technology is an important driver of audio-visual markets and consumer take-up of new technologies has tended to become quicker and quicker. For example, it took decades for households to switch from black and white to colour television sets, whilst the substitution of LPs by CDs was considerably faster, and the switch from video to DVD has started at a rapid pace. In 1999, the average EU inhabitant spent €185 on watching television and films and listening to music.

The Television without Frontiers Directive 89/552/EEC adopted on 3 October 1989 by the Council and amended on 30 June 1997 by the European Parliament and the Council Directive 97/36/EC, pursues the public interest by, amongst other things, ensuring the free circulation of media and public access to events of national importance, protecting minors, allowing the right to reply and promoting cultural and linguistic diversity. At the same time, enterprise policy is designed to encourage audio-visual enterprises to be innovative and competitive (for example, through the protection of copyright and through funding programmes such as Media Plus).

A Council Decision 1999/27/EC on audio-visual statistics was adopted on 26 April 1999, allowing for developments in this complex and rapidly changing environment to be monitored more closely.

Chart 6.5: Main mode of TV reception among TV households in 1999



Source: Eurostat, Statistics on Audio-visual services, 2001; Screen Digest/IVF

CINEMA

Table 6.6: Selected indicators for cinemas, 1999

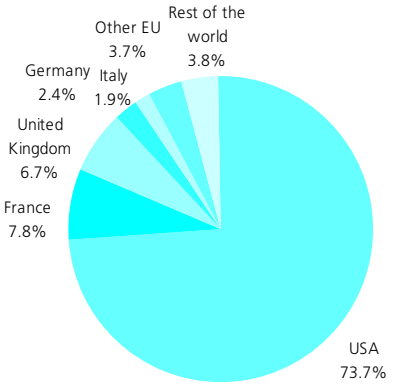
	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of films produced (units) (1)	594.0	12.0	23.0	66.0	19.0	82.0	171.0	17.0	108.0	8.0	23.0	12.0	11.0	12.0	23.0	103.0
Share of US films (% of box office receipts) (2)	:	72.4	58.7	78.6	80.0	64.2	54.1	:	63.7	80.7	89.8	:	:	63.2	68.2	60.4
Share of national films (% of box office receipts) (3)	:	2.0	25.9	11.1	5.0	14.0	32.2	9.8	24.8	:	5.6	6.8	3.9	24.7	20.5	34.0
Share of other EU films (% of box office receipts) (4)	:	5.0	7.1	2.7	:	:	10.9	:	:	:	:	:	:	8.8	10.2	4.5
Number of cinema sites (units)	10,394	135	167	1,730	32	1,334	2,163	72	2,259	8	183	234	338	232	815	692
of which, >=8 screens (units)	:	16	:	63	:	71	:	7	8	1	4	9	8	:	15	:
Number of cinema screens per 100 thousand inhabitants (units) (5)	6.6	4.5	6.5	5.4	3.6	8.5	8.4	7.5	8.0	4.9	2.9	6.2	5.3	7.1	12.8	4.7
Number of admissions (millions) (6)	847.7	22.2	10.7	152.5	13.5	135.4	165.9	14.9	108.2	1.3	21.6	16.3	18.6	7.1	17.0	142.5
Average number of admissions per inhabitant per year (units)	2.2	2.1	2.1	1.8	1.2	3.3	2.6	3.3	1.8	3.1	1.2	1.9	1.9	1.4	1.8	2.4

(1) EU-15, estimate; data cover national and international co-productions of full-length films; DK, IRL and A, 1998; all other countries, 2000.
(2) B, EL, I, L and NL, 1998.
(3) B, EL, IRL, I, A and P, 1998; NL, 1997.
(4) B, DK and D, 1998.
(5) I and NL, 1998.
(6) L and P, 1999; all other countries, 2000; EU-15, estimate based on sum of available data.
Source: Eurostat, Audio-visual services (theme4/auvis/q_2000/cinexm); Eurostat, Statistics on Audio-visual services, 2001

The cinema industry is composed of three broad areas: namely, production, distribution and exhibition. The EU cinema industry saw the number of attendances fall at a rapid rate during the period 1950-1990, which can largely be attributed to the increased time spent watching television. The repositioning of cinema as a leisure pursuit and the development of multiplex cinema sites led to an increase in the number of admissions in the EU, which have grown in almost every year during the 1990s, such that by 2000 there were 848 million cinema admissions in the EU (46% more than in 1990). The average inhabitant in the EU visits the cinema 2.2 times per year.

In terms of box office receipts and admissions, American movies dominate the EU cinema market (see chart 6.6). In France and the United Kingdom, nationally produced films account for a higher share of total box office receipts than in other Member States, approximately a third of the total. As of April 2001, the highest ranked EU-produced film to appear in the all-time highest grossing films was Notting Hill, in 45th position.

Chart 6.6: Breakdown of cinema admissions in the EU according to the origin of films, 2000



Source: European Audio-visual Observatory *in* Eurostat, Statistics on Audio-visual services, 2001

7. Other services

TOURISM - MAIN ECONOMIC INDICATORS

Table 7.1: Main economic indicators for tourism, 1999 (1)

	EU-15	B	DK	D (2)	EL	E (3)	F	IRL (4)	I (3)	L (5)	NL (3)	A	P	FIN	S	UK
Hotels, camping sites and other provision of short-stay accommodation (NACE Groups 55.1-55.2)																
No. of enterprises per 100 thousand inhabitants (units)	:	22.5	30.1	50.1	:	39.8	77.8	:	69.1	96.0	30.9	199.6	37.8	27.4	34.3	25.5
No. of persons employed per 100 thousand inhabitants (units)	:	196.9	420.8	366.1		592.5	346.1	:	372.2	797.2	308.5	1,295.1	446.2	257.3	322.6	
Average turnover per 100 thousand inhabitants (€ million)	:	15.6	22.4	16.1	:	25.2	26.8	:	21.2	52.1	20.2	60.5	15.5	21.1	24.2	27.9
Restaurants, bars, canteens and catering (NACE Groups 55.3-55.5)																
No. of enterprises per 100 thousand inhabitants (units)	:	382.5	221.0	187.8	:	600.2	267.4	304.2	341.0	508.7	217.3	269.5	560.7	177.0	192.7	167.9
No. of persons employed per 100 thousand inhabitants (units)	:	1,321.8	1,354.1	945.9	:	1,802.1	851.6	2,188.2	974.1	2,322.7	1,254.5	1,199.3	2,173.2	721.0	826.8	:
Average turnover per 100 thousand inhabitants (€ million)	:	57.1	60.4	32.1	:	53.1	50.8	92.0	49.3	135.8	53.6	53.2	64.6	50.5	51.2	85.4
Travel agencies (NACE Group 63.3)																
No. of enterprises per 100 thousand inhabitants (units)	:	10.4	10.9	13.8	:	13.2	7.1	7.9	13.1	29.2	13.9	15.1	9.4	13.3	22.9	11.0
No. of persons employed per 100 thousand inhabitants (units)	:	72.2	116.1	:	:	86.9	64.9	79.6	60.8	151.3	131.3	127.0	78.7	101.3	140.5	:
Average turnover per 100 thousand inhabitants (€ million)	:	36.8	41.6	15.8	:	21.7	17.0	27.4	17.3	96.0	23.9	40.6	17.5	23.1	44.8	84.8

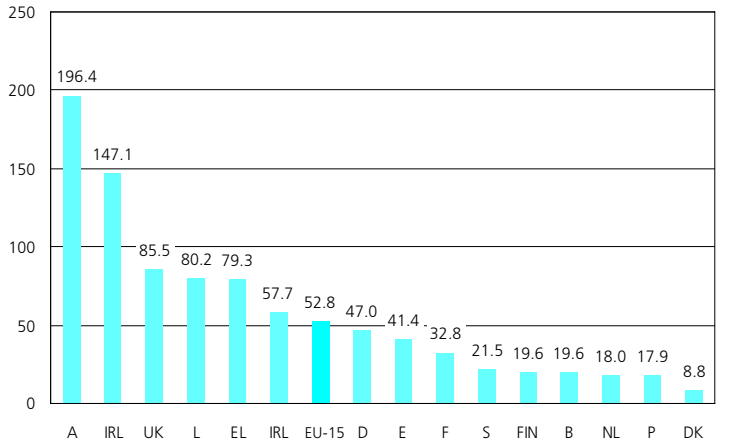
(1) The number of inhabitants refers to 1998.
(2) 1997 for number of enterprises, except for NACE Group 63.3; 1998 for turnover, except for NACE Group 63.3; 1998 for persons employed in NACE Group 55.4.
(3) 1998.
(4) 1997.
(5) 1998, except for turnover.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms)

As business becomes increasingly globalised, the necessity to travel increases. Personal mobility has also increased at a rapid pace during the second half of the 1900s, and with increasing standards of living, more and more Europeans have started to travel abroad on holiday, whilst many also chose to take (a number of) short breaks during the year. These trends have led to an expansion of the tourism industry within the EU. Tourism may be defined as the activities of persons travelling to and staying in places outside of their usual environment for not more than one consecutive year, be it for leisure or business purposes. As a concept, tourism involves a wide range of activities that are best viewed as a market rather than an activity.

The main economic indicators data presented in *table 7.1* have been collected according to the SBS Regulation. In the NACE classification the activities that most relate to tourism are travel agencies (Group 63.3) part of the Division relating to supporting and auxiliary transport activities, hotels, short-stay accommodation, restaurants, bars and canteens (Division 55) and the transport services activities (Divisions 60 to 62).

The data presented in *chart 7.1* provides information on the supply of accommodation services offered by hotels and similar establishments relative to the number of inhabitants in a country. Hotels comprise hotels, apartment hotels, motels, inns, residential clubs and similar establishments that provide a set of services that go beyond daily bed-making and cleaning of bedrooms and sanitary facilities. The term similar establishments refers for example to boarding houses, guest houses, bed and breakfast accommodation and farmhouse accommodation, where basic services are provided.

Chart 7.1: Number of hotels and similar establishments per 100 thousand inhabitants, 2000 (units) (1)



(1) The number of inhabitants refers to 1998.
Source: Eurostat, Tourism (theme4/tour)

TOURISM: CAPACITY

Table 7.2: Number of bed places in hotels, campsites and holiday dwellings (thousands)

	EU-15	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
							Number of bed-places in hotels and similar establishments									
1990	7,834.0	93.7	88.5	1,126.4	438.4	929.5	1,087.7	70.3	1,703.5	14.8	111.3	650.6	179.3	92.1	161.9	1,086.0
1995	8,613.2	114.9	99.0	1,446.7	557.2	1,031.7	1,193.3	96.9	1,739.5	14.7	142.5	646.1	204.1	102.5	173.8	1,050.2
2000	9,305.1	119.2	62.1	1,590.3	607.6	1,315.7	1,178.3	138.6	1,834.4	14.4	173.1	588.2	223.0	117.3	188.3	1,154.6
							Number of bed-places in campsites									
1990	:	373.2	237.6	506.6	78.1	571.3	2,625.4	:	1,228.1	50.6	493.8	:	261.1	23.5	:	1,328.4
1995	:	368.4	266.1	731.6	90.2	622.4	2,828.2	:	1,269.6	54.2	474.4	:	:	84.2	:	1,280.9
2000	:	351.4	268.4	780.9	:	740.0	2,692.0	33.9	:	46.1	726.2	199.0	:	21.3	:	1,311.6
							Number of bed-places in holiday dwellings									
1990	:	:	:	200.8	:	384.9	246.8	:	163.1	:	123.5	:	:	:	44.6	275.5
1995	:	62.4	39.6	262.1	:	391.1	249.2	:	139.8	:	142.8	:	:	8.3	48.7	265.7
2000	:	61.7	40.0	316.4	:	566.6	263.5	11.3	:	1.9	182.6	54.6	:	9.4	49.9	:

Source: Eurostat, Tourism (theme4/tour)

The Council adopted Directive (95/57/EC) in 1995 on the collection of statistical information in the field of tourism. This Directive allows harmonised data to be collected on the capacity and occupancy of different forms of accommodation. Furthermore, the data are broken down according to the origin, profile and spending pattern of tourists.

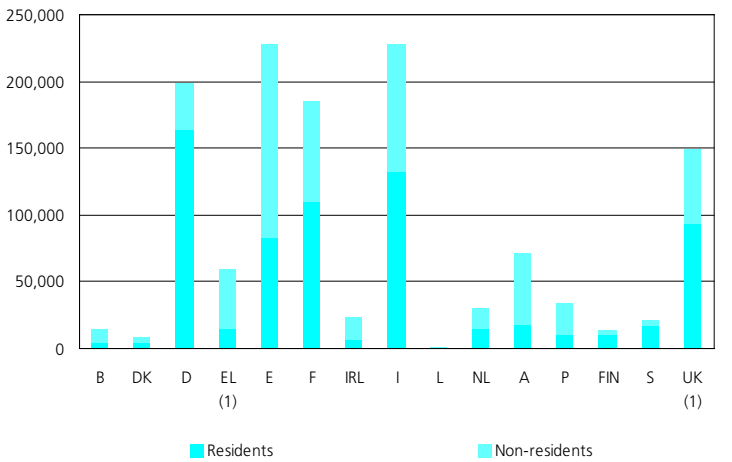
The data in *table 7.2* provide an indication of the supply of bed-places in the EU, broken down by type of accommodation. Holiday dwellings include collective facilities that are under common management, for example, clusters of houses or bungalows. Whilst these types of accommodation can provide limited hotel-style services, this does not include daily bed-making and cleaning.

The number of bed places is determined by the number of persons who can stay overnight in the establishment; this figure should not include temporary beds set-up as a result of a specific customer request.

The number of nights spent is a demand-side measure of the tourism market. A night spent (or overnight stay) is each night that a guest spends or is registered as spending in an establishment (in other words physical presence is not necessary). These figures are calculated on the basis of the country of residence of the guest and hence allow a breakdown to be made between resident and non-resident guests.

For further information:
Tourism in Europe - Key figures 1999-2000
Community methodology on Tourism Statistics, Luxembourg, 1997
e-mail: hanswerner.schmidt@cec.eu.int

Chart 7.2: Number of nights spent by residents and non-residents in hotels and similar establishments, 2000 (thousands)



(1) 1999.
Source: Eurostat, Tourism (theme4/tour)

TRANSPORT SERVICES

Table 7.3: Main economic indicators for transport services, 1999

	EU-15	B	DK	D	EL	E (1)	F	IRL (2)	I (1)	L (3)	NL (1)	A	P	FIN	S	UK (4)
Land transport; transport via pipelines (NACE Division 60)																
Average number of persons employed per enterprise (units)	:	13.0	7.0	11.0	:	:	8.0	8.0	4.1	16.0	:	15.0	6.0	3.0	5.0	:
Average turnover per enterprise (e million)	:	1.0	0.6	0.6			0.6		0.3	1.3	:	0.9	0.2	0.2	0.5	1.1
Average personnel costs per employee (e thousand)	:	36.4	34.7	30.4	:	:	33.2	:	33.2	37.2	:	31.9	15.7	29.1	29.7	28.0
Water transport (NACE Division 61)																
Average number of persons employed per enterprise (units)	:	4.0	22.0	10.0	:	:	8.0	37.0	16.6	:	3.0	4.0	20.0	28.0	19.0	:
Average turnover per enterprise (e million)	:	4.9	15.9	1.7	:	:	2.3	6.8	3.3	:	1.0	1.2	3.0	7.0	4.3	4.1
Average personnel costs per employee (e thousand)	:	62.1	43.1	37.4	:	:	43.1	:	40.8	:	33.3	60.0	19.1	39.0	38.4	40.4
Air transport (NACE Division 62)																
Average number of persons employed per enterprise (units)	:	129.0	79.0	97.0	:	383.2	117.0	183.0	137.9	:	:	102.0	404.0	149.0	72.0	:
Average turnover per enterprise (e million)	:	35.5	14.7	18.2	:	66.2	24.9	40.3	62.7	:	:	26.2	45.2	22.5	14.2	25.2
Average personnel costs per employee (e thousand)	:	47.2	46.9	46.2	:	44.3	56.4		52.1	50.9		49.3	37.0	42.3	54.6	48.8
Supporting and auxiliary transport activities; activities of travel agencies (NACE Division 63)																
Average number of persons employed per enterprise (units)	:	16.0	15.0	16.0	:	:	24.0	15.0	9.9	10.0	:	15.0	14.0	13.0	12.0	:
Average turnover per enterprise (e million)	:	4.2	3.3	2.1	:	:	4.5	2.9	1.5	3.0	1.6	4.5	1.9	2.5	3.0	5.2
Average personnel costs per employee (e thousand)	:	42.8	40.3	30.9	:	:	33.6	:	30.1	36.3	:	37.7	18.8	31.5	38.0	20.4

(1) 1998.
(2) 1997.
(3) 1998 for average personnel costs for NACE Divisions 60, 62 and 63; 1997 for average number of persons employed and average turnover for NACE Divisions 60 and 63.
(4) 1998 for average personnel costs for NACE Divisions 60, 62 and 63; 1997 for average personnel costs for NACE Division 61.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms)

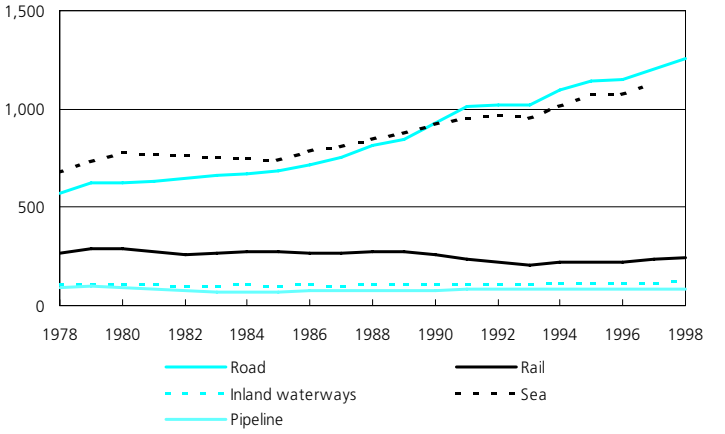
Transport plays a fundamental role in the economy in providing a distribution system for raw materials, parts and products, whilst at the same time providing flexibility and mobility for the workforce, together with personal freedom and opportunities for leisure and tourism. The end of the 20th Century was marked by the rapid growth in the use of the EU's road network, with both the level of private car ownership and the share of freight transported on the roads rising. Over the same period, there was rapid growth in the use of airlines, as a more prosperous society indulged in a greater number of holidays and these in increasingly distant locations, whilst it became commonplace for business travellers to use aircraft.

However, the benefits of a highly developed transport infrastructure are set against a number of concerns that result from its use, ranging from noise and pollution, to accidents, health risks and a general deterioration of the environment.

The transport services industry is primarily engaged in the conveyance of goods and passengers either directly or indirectly. Direct involvement relates to the specific conveyance of goods and passengers by various modes of transport (land, air, inland waterways, sea), whilst indirect involvement relates to auxiliary services, such as cargo handling and storage, operation of terminal facilities, freight forwarding, travel agencies and tourist guide activities (see *pages 82-85* for more details on tourism).

The enterprise structure of transport services enterprises varies considerably from small, family-run or sole proprietor businesses operating in areas such as road haulage to large, international airline carriers and often publicly-owned railway operators (see *table 7.3*).

Chart 7.3: Use of freight transport in the EU (million tonne-kms)



Source: Eurostat, Transport and environment reporting mechanism (theme8/term)

FINANCIAL SERVICES - BANKING

Table 7.4: Main indicators for banking, 1999

	EU-15 (1)	B (2)	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN (3)	S	UK
								Number of enterprises broken down by legal status (units)								
Incorporated enterprises limited by shares (4)	2,460	60	75	178	19	189	811	:	278	138	130	107	45	27	106	297
Co-operative enterprises	4,059	14	25	2,018	13	94	161	:	580	2	2	708	148	292	2	0
Public-law enterprises (5)	917	1	101	578	0	1	34	:	0	2	24	46	6	40	84	0
Branches of non-EEA enterprises (6)	364	14	0	30	9	53	93	:	14	8	11	1	3	1	0	127
Others	530	0	0	251	0	50	49	:	4	60	2	8	17	1	20	68
								Number of enterprises broken down by size class (according to balance sheet) (units)								
<€100 million	3,065	15	122	885	14	134	386	:	324	29	:	541	152	291	109	63
€100-€999 million	3,405	39	59	1,619	11	132	457	:	369	96	:	283	34	59	69	178
€1,000-€9,000 million	1,381	28	10	481	12	103	266	:	145	70	:	38	26	9	23	170
€10,000-€99,000 million	279	5	10	60	4	17	33	:	37	15	:	7	7	2	11	71
>€99,999 million	31	2	0	10	0	1	6	:	1	0	:	1	0	0	0	10
Number of persons employed (thousands) (7)	2,754.4	73.9	48.0	757.5	55.8	248.1	390.3	:	345.2	21.2	126.0	73.0	61.1	26.3	47.0	481.3
Balance sheet as a share of GDP (%) (8)	258.0	313.0	233.0	328.0	114.0	179.0	213.0		155.0	3,299.0	242.0	262.0	283.0	106.0	174.0	313.0
Return on equity (%) (9)	:	11.7	9.7	:	16.7	6.5	8.4	:	1.9	:	10.3	5.6	6.9	17.6	7.2	:

(1) Sum of available countries only. (2) Number of enterprises at the end of the year; 93 banks were active in 1999. (3) 1998 for the number of enterprises. (4) UK, includes UK banks and EEA branches in the UK. (5) DK, includes only savings banks. (6) E, includes the branches of EEA enterprises. (7) B, including persons employed in local units of Belgian credit institutions and non-EU branches established in Belgium, as well as persons employed in local units of Belgian credit institutions established abroad; S, in full-time equivalents. (8) FIN, 1998. (9) Defined as (profit and loss on ordinary activities - all taxes) / balance sheet total; A, 1998; E, 1997.

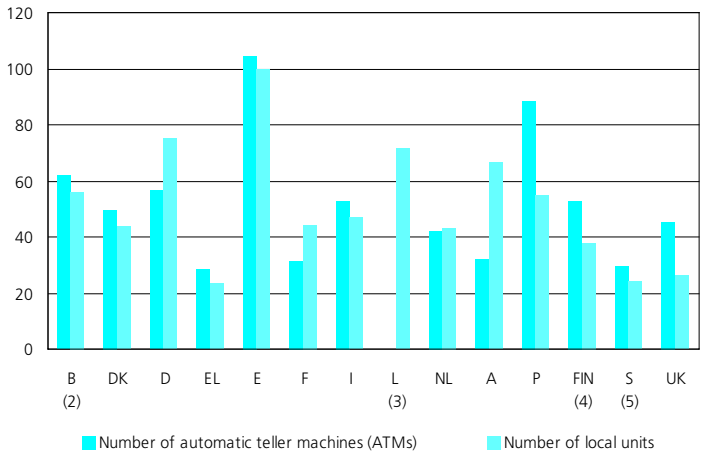
Source: Eurostat, Structural Business Statistics (theme4/sbs/credstat)

The 1990s saw concentration within the European banking industry increase, as the Internal market in the EU came into being, bringing deregulation of financial markets, that allowed not only mergers and take-overs between banks, but also between banks and other financial intermediation enterprises (such as insurance companies). Mergers and acquisitions were also the means for players to reach a global size and to remain competitive within global markets.

There were just over 200 thousand banking local units in the EU in 1999. This was equivalent to 54.7 local units per 100,000 inhabitants. Another component of the banking distribution network is the Automatic Teller Machines (ATMs) network. Between 1997 and 1999, the number of ATMs in the EU grew by 16.5%, totalling 196 thousand by 1999.

Eurostat started to collect basic structural statistics on credit institutions from reference year 1994 onwards. The collection of data was through national central banks, financial supervisory authorities and national statistical offices on a voluntary basis. In order to ensure high quality data on credit institutions, Eurostat drafted an amendment to Council Regulation No 58/97 concerning structural business statistics which would add a new annex containing an extensive list of characteristics specific to credit institutions. This will be presented to the European Parliament and the Council for consideration and adoption during 2002.

Chart 7.4: Network access to banking - ATMs and local units per 100 thousand inhabitants, 1999 (units) (1)



(1) IRL, no data available. (2) Including local units in Belgian credit institutions and non-EU branches established in Belgium, and local units of Belgian credit institutions established abroad. (3) 1998 data; not all ATMs were owned by credit institutions, large numbers of cash dispensers were owned by Automata Oy, which was in turn owned by banks; the number of Automata's machines was equal to 2,071. (4) Data only refers to licensed banks.

Source: SIF 25/2001 Theme 4 Statistics on credit institutions

FINANCIAL SERVICES - INSURANCE AND PENSION FUNDS

Table 7.5: Main indicators for insurance, 1999

	EU-15 (1)	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK (2)
Number of enterprises broken down by type of insurance (units)																
Life insurance enterprises	1,044	23	91	123	:	52	92	40	82	57	109	5	17	14	34	305
Non-life insurance enterprises	2,187	81	131	327	:	204	298	82	104	22	291	18	28	148	108	345
Composite insurance enterprises	237	16	0	0	:	61	34	0	20	0	0	32	7	0	0	45
Specialist reinsurance enterprises	385	14	9	42	:	4	33	:	9	257	:	4	1	5	7	:
Total investments (€ billion)																
Life insurance enterprises	2,257	9.4	111.9	527.8	:	34.0	275.6	35.0	91.2	18.7	223.1	2.8	8.4	15.5	60.7	42.6
Non-life insurance enterprises	446	6.7	10.1	160.9	:	5.9	90.5	8.9	15.1	1.6	26.8	2.7	2.2	9.7	37.6	68.0
Composite insurance enterprises	784	70.0	0.0	0.0	:	38.5	344.7	0.0	98.6	0.0	0.0	37.3	8.7	0.0	0.0	186.5
Specialist reinsurance enterprises	201	0.0	1.9	162.4	:	1.5	16.9	:	4.6	9.8	:	3.4	0.0	0.4	0.1	:

(1) Calculated as sum of available countries.
(2) Excluding data for shares, variable-yeld securities and unit trusts.
Source: Eurostat, Structural Business Statistics (theme4/sbs/statonis)

Insurance

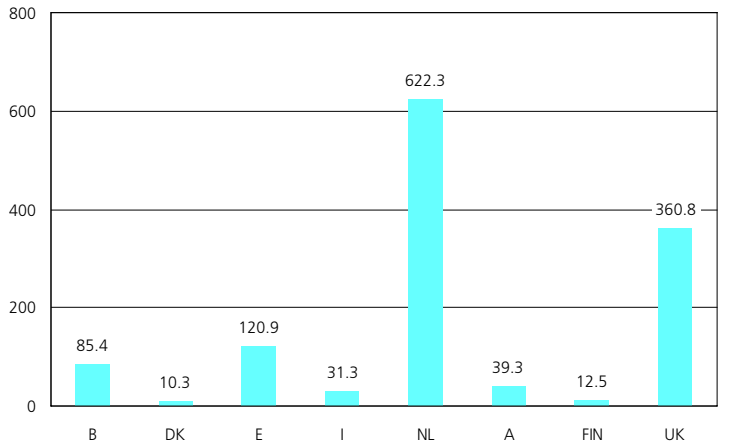
As with the banking industry, the majority of insurance markets are characterised by a tendency towards increased concentration. Life insurance business has developed at a faster rate than non-life insurance business, with non-life markets almost saturated. It is likely that the growth experienced in life insurance markets in the last decade will continue as more Europeans seek complementary income to pension benefits received from public welfare protection systems, that are increasingly likely to face financing difficulties as populations age.

The data presented for insurance enterprises are collected within the context of Annex 5 of Council Regulation No 58/97 concerning structural business statistics. Life insurance enterprises are defined as covering all forms of life insurance (on death or to a stipulated age), as well as marriage assurance, birth assurance and permanent health insurance. Non-life insurance enterprises cover risks associated with accidents, sickness, vehicles, goods in transit, fire and natural forces, damage to property, vehicle and general liability. Composite insurance enterprises cover both life and non-life insurance business, whilst specialist reinsurance concerns provide cover to other insurance enterprises or pension funds.

Pension funds

In order to improve data availability and quality within the field of supplementary pension funds, Eurostat has proposed to build-up a pension funds sector specific module to be annexed to Regulation 58/97 concerning structural business statistics. Until such time that this that this takes place data will continue to be collected on a voluntary basis.

Chart 7.5: Average contributions to autonomous pension funds per inhabitant, 1999 (€) (1)



(1) Values represent the sum of contributions receivable from members and contributions receivable from employers; no data available for missing countries.
Source: Eurostat, Structural Business Statistics (theme4/PENSION)

BUSINESS SERVICES

Table 7.6: Main economic indicators for business services, 1999

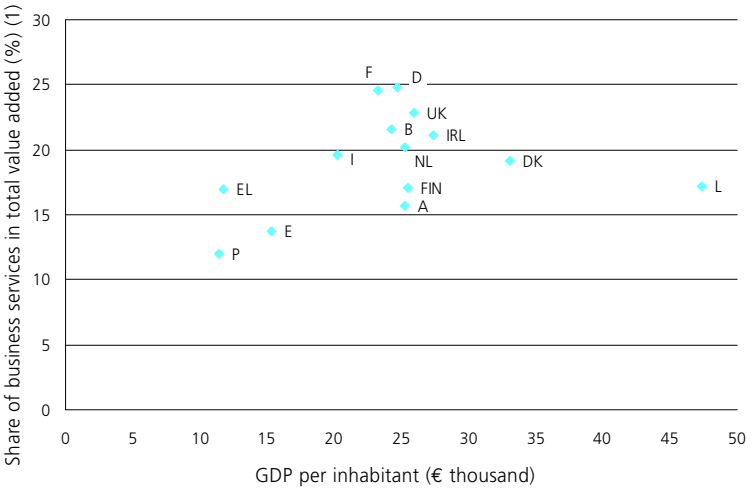
	EU-15	B	DK	D	EL	E (1)	F	IRL (2)	I (1)	L (1)	NL (3)	A	P	FIN	S	UK (4)
Real estate activities (NACE Division 70)																
Average number of persons employed per enterprise (units)	:	2.0	2.0	2.0	:	:	2.0	3.0	1.5	2.0	4.0	7.0	3.0	2.0	3.0	:
Average turnover per enterprise (e million)	:	0.5	0.4	0.5	:	:	0.4	0.2	0.1	0.4	1.2	1.6	0.8	0.4	0.6	0.6
Average personnel costs per employee (e thousand)	:	31.5	21.7	35.7	:	:	32.7	:	24.4	28.9	44.3	31.9	14.0	27.7	34.3	20.0
Renting of machinery and equipment (NACE Division 71)																
Average number of persons employed per enterprise (units)	:	4.0	3.0	3.0	:	:	3.0	5.0	2.2	3.0	5.0	4.0	4.0	3.0	3.0	:
Average turnover per enterprise (e million)	:	1.3	0.5	1.4	:	:	0.7	0.4	0.2	1.4	1.1	1.5	0.6	0.4	0.5	1.7
Average personnel costs per employee (e thousand)	:	33.1	23.6	28.7	:	:	31.3	:	27.3	38.0	25.5	29.2	13.8	27.6	32.7	22.3
Research and development (NACE Division 73)																
Average number of persons employed per enterprise (units)	:	17.0	17.0	20.0	:	7.1	11.0	4.0	2.6	125.0	20.0	18.0	6.0	6.0	8.0	:
Average turnover per enterprise (e million)	:	2.2	1.5	0.7	:	0.2	1.7	0.2	0.2	17.1	:	1.0	0.3	1.7	1.1	3.0
Average personnel costs per employee (e thousand)	:	63.9	45.4	42.6	:	25.6	48.1	:	43.8	70.6	:	46.9	23.8	37.1	49.1	31.1
Other business activities (NACE Division 74)																
Average number of persons employed per enterprise (units)	:	6.0	6.0	7.0	:	:	6.0	7.0	2.5	7.0	13.0	7.0	6.0	4.0	3.0	:
Average turnover per enterprise (e million)	:	0.5	0.5	0.6	:	:	0.5	0.4	0.1	0.4	:	0.5	0.4	0.3	0.3	0.7
Average personnel costs per employee (e thousand)	:	28.9	31.1	26.4	:	:	33.9	:	22.7	28.2	20.1	29.2	12.9	27.5	38.3	20.9

(1) 1998.
(2) 1997.
(3) 1998 for NACE Divisions 70 and 71; 1998 for average number of persons employed for NACE Division 73; 1998 for average personnel costs for NACE Division 74); 1997 for average number of persons employed for NACE Division 74.
(4) 1997 for average personnel costs.
Source: Eurostat, Structural Business Statistics (theme4/sbs/enterpr/enter_ms)

Business services are services that are usually (but not always) purchased by other businesses - examples include the auditing of accounts, the preparation of building plans by an architect, or the cleaning of an office. Sometimes the services offered by business service enterprises are purchased by private individuals, and therefore, not all of their output is exclusively provided to business. In addition, many enterprises continue to perform some business services as part of their in-house activities, for example, an enterprise may employ its own computer personnel rather than making use of specialist enterprises and most larger enterprises have their own accounts department. Businesses that offer these services to other enterprises are classified within Section K of NACE, where real estate, renting and business activities are all grouped together.

Changes over the past 30 or so years, particularly within the industrial part of the economy, have led to many business service activities being contracted out. These changes have taken place for a number of reasons. From the supply side, business services may be offered more efficiently by enterprises that specialise in them. From the demand side, by contracting-out services, many manufacturing and other enterprises can concentrate on their core activities and have greater flexibility when changes need to be made in response to market developments. This increased use of out-sourcing has contributed to an apparent decline in the size of industry and at the same time has led to a rapid expansion in the growth of business services.

Chart 7.6: Relationship between the importance of business services and GDP, 2000



(1) Business services are defined as NACE Section K; F, IRL, L, NL, A and P, 1999; E, 1998.
Source: Eurostat, National accounts (theme2/aggs and theme2/brkdowns)

8. Background notes and information

METHODOLOGY AND METHODOLOGICAL CO-ORDINATION

The methodological co-ordination section of Eurostat aims to promote harmonised rules and methods for business statistics and to improve co-ordination of work related to business statistics. As part of its drive to improve co-ordination, groups have been set up for seven broad topics: globalisation, data on the information society, intangible outputs, statistical units, the use of administrative sources, the linking of employer and employee data, and accounting standards.

Eurostat also actively co-operates with other European and worldwide institutions. Meetings with the EU's trade (industrial) associations are held on a regular basis and an electronic network for the exchange of information between Eurostat and the trade associations has been set up. There are also frequent working contacts with the UN, OECD, IMF, FAO, WHO, UNESCO and other international institutions.

Eurostat has set-up a number of publicly available tools to support these co-ordination and harmonisation activities, they are grouped together within the *BUSINESS METHODS* web-site.

Business Methods: your guide to European business statistics methodology

Business Methods is a tool for the co-ordination of business statistics methodology in Europe. It also plays an important role in disseminating methodological information, and promoting the use of agreed standards. The aim of *Business Methods* is to bring together all existing and draft methodology, norms and useful information relating to European business statistics within a coherent and user friendly framework. *Business Methods* can be accessed via the following Internet address, *http://forum.europa.eu.int* by clicking on *Eurostat* and then *Business Methods*. The homepage has links to:

- **CODED** - Eurostat's Concepts and Definitions database - this database currently holds around 3,200 concepts and definitions covering business statistics as well as all other European statistical domains.
- **RAMON** - Eurostat's classifications server (see *classifications* on *page 99* for more details).
- **Manual of Business Statistics** - this manual combines all existing and draft manuals covering specific areas of business statistics into one coherent and consistent structure. Due to its size, it only exists in electronic format, though individual sections or sub-sections continue to be produced in paper format where there is sufficient demand.
- **Legal texts** - relevant to European business statistics.
- **National data collection methodology** - a database including information about the statistical infrastructure in the Member States, for example, registers and classifications.
- **Miscellaneous methodological papers** - sorted by theme;
- **Other useful information** - such as organisational charts of national statistical institutes.
- **Quality reports** - sorted by theme;

Most of the material is available in English, French and German.

Further information: for questions relating to *Business Methods*, CODED or general methodological questions concerning business statistics, please contact the methodological co-ordination section within Eurostat, at eurostat-methodology@cec.eu.int

BUSINESS REGISTERS

Why business registers are important

The most important uses of statistical business registers are:

- as a sampling frame for a large variety of surveys, a tool for the preparation and co-ordination of surveys;
- as a source of information of business indicators and demography and for statistical analysis. Currently there are 21 million enterprises recorded in EU statistical business registers with 115 million persons employed;
- to mobilise administrative data and detect and construct statistical units from administrative or legal ones.
- other uses including inter-administrative and commercial use depend upon specific country legislation.

Legal background

Council Regulation on Community co-ordination in drawing up Business Registers for Statistics Purposes No 2186/93 gives the legal basis for the set-up, scope, characteristics, maintenance and updating of business registers. This builds on other Regulations, notably the Council Regulation on the Statistical Units for the observation and analysis of the production system in the Community No 696/93 and the Council Regulation on the statistical classification of economic activities in the European Union (NACE) No 761/93. These Regulations and other documents on business registers are available on the *Business Methods* web-site (see previous page for more details).

Coverage and updating

Units - there are three compulsory units - the legal unit, enterprise and local unit. The inclusion of enterprise groups in registers is a major development project. Other units like kind-of-activity units are rarely included, but may be constructed in an analytical way.

Coverage - all enterprises contributing to GDP at market prices must be included in business registers, with certain exceptions. The inclusion of NACE Sections A, B and L (agriculture, fishing and public administration) is optional, although in most countries they are included. Registers also exclude natural persons owning property whether they use that property for their own needs or rent it to third parties. This means that a natural person will not be included in the registers on account of his/her activities in Group 70.2 of the NACE. The smallest enterprises of no statistical importance may be excluded, if they fall below administrative (VAT or employment) thresholds.

Variables - the characteristics can generally be divided into four main categories:

1. identification variables, for example, name and address;
2. stratification variables, for example, activity or size;
3. demographic variables, for example, date of creation;
4. relationship variables, for example, links between units.

Updating - the Registers Regulation gives the minimum updating requirements, which are generally exceeded. In updating, special attention is paid to enterprise continuity and detecting enterprise births and deaths.

Annual inquiry on business registers

The annual inquiry on business registers originated from the need to monitor the implementation of the Business Registers Regulation, but now it serves many purposes. It started in 1995 and the main results are stored in a database, which is not public. The following information is asked:

- identification and contact persons;
- sources - the most important administrative sources are tax registers, but many others are used, both administrative and survey sources;
- number of legal units, enterprises and local units, by NACE Section, as well as employment and turnover figures. Information on public enterprises is also included;
- variables available for different units;
- enterprise group information - the number of resident and trans-national groups, units and employment;
- quality information - share of falsely active units, discrepancies between register and survey results and what quality measurements are available.

On-going work

The aim of work in this field is harmonisation - to improve the quality of business statistics as well as international comparability. High quality business registers reduce survey costs and response burden. The most important development project at the present moment is the preparation of harmonised methodology for enterprise groups and their inclusion in business registers. The revision of the Manual of Recommendations is another important task currently being treated. The Manual explains the Registers Regulation, guides its development and recommends measures going beyond the Regulation. The Manual includes 16 published chapters and 3 draft chapters - these will be updated or finalised during 2002.

The annual inquiry and database are developed according to agreements with the Member States. Spreading good country practices is also an established exercise. Co-operation with various projects wherever business registers are used as a survey frame, as data source, or in linking with other administrative or statistical registers is expanding.

Further information: information on business registers can be accessed via the following Internet address, *http://forum.europa.eu.int* by clicking on *Eurostat* and then *Business Methods*. Within *Business Methods* a page has been created, with a link to the *Eurostat Manual of Business Statistics*, chapter 5 of which deals with business registers.
Alternatively for questions relating to business registers please contact arto.luhtio@cec.eu.int

CLASSIFICATIONS

Why do we need statistical classifications?

Statistical classifications belong to the basic instruments without which statistical data cannot be compiled. They are also an important factor in the quality of statistical information. Statistical classifications must be revised from time to time to reflect changing economic structures that lead to the creation of new activities and products or the expansion of existing ones. Such change is thus a constant challenge for the compilation of statistical classifications. The intervals between revisions must not be too long, since the pertinence of the classification diminishes with time, nor must they be too short, since otherwise the comparability of the data over time is adversely affected.

Two main types of classification

Different classifications are needed to cater for the functions which statistics are required to perform. Economic classifications can be broadly divided into two categories:

1. classifications of economic activities - are used to classify economic entities (enterprises, local units and similar statistical units). Such classifications therefore form the basis for compiling statistics on output, the production factors entering into the production process (labour, raw materials and supplies, energy etc.), capital formation or financial transactions.

2. product classifications - that are used to classify the outputs (goods and services) of economic entities. Goods classifications have traditionally been far more important than classifications of services. Examples of this type of product-related data are foreign trade statistics or product statistics on production and consumption.

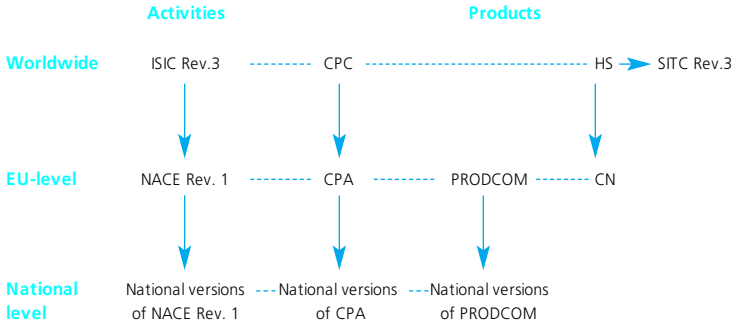
Harmonisation and co-ordination at an international level

It was not until the 1970s that a comprehensive programme was launched at an international level to harmonise such classifications, the aim being to create an integrated system of classifications of activities and of products.

On the basis of a report by one of the groups of experts commissioned by the United Nations, a work programme to harmonise the economic classifications at a global level was set-up in 1976 to look at:

- the revision and harmonisation of the UN and EC classifications of economic activities;
- relating the classifications of economic activities to the corresponding product classifications;
- harmonising between production-related product classifications and product classifications for foreign trade.

The outcome of this work at UN level was ISIC Rev.3 (International Standard Classification of all Economic Activities) and CPC (Central Product Classification). The European economic classifications are fully harmonised with these global classification systems, although they usually go into more detail.



Revised system of integrated statistical classification

Key European statistical classifications used within the Business Statistics Directorate

NACE Rev. 1 (Statistical Classification of Economic Activities in the European Community)

NACE is the EU classification of economic activities that is totally in line with ISIC Rev.3 and can thus be regarded as its European counterpart. It came into force in 1990 through Council Regulation No 3037, which was subsequently amended by Commission Regulation No 761 in 1993. Work on drawing up NACE Rev. 1 began in 1986 and it soon emerged that large parts of ISIC Rev.3 were inadequately broken down for the purposes of observing and analysing European economies, so a further disaggregation was required.

NACE is a hierarchical classification made up of Sections (1-letter codes), Sub-sections (2-letter codes), Divisions (2-digit codes), Groups (3-digit codes) and Classes (4-digit codes). The most important aid to interpretation of NACE Rev. 1 is the explanatory notes on the individual headings. These notes are based on those of ISIC Rev.3. This ensures that not only the structure but also the contents of NACE Rev. 1 are in line with those of ISIC Rev.3. A list of NACE is provided on *page 102*.

Level of breakdown	ISIC Rev.3		NACE Rev. 1	
	Number	Coding	Number	Coding
Sections	17	A - Q	17	A - Q
Sub-sections	-	-	31	CA - DN(*)
Divisions	60	01 - 99	60	01 - 99
Groups	159	011 - 990	222	01.1 - 99.0
Classes	292	0111 - 9900	503	01.11 - 99.00

Relationship between and structure of ISIC Rev. 3 and NACE Rev. 1 classifications of economic activities

* Only 16 of the 31 Sub-sections in NACE Rev. 1 are given a two-letter code, namely Sub-sections of Sections C and D in which a distinction is made. The 15 other Sections are considered implicitly as Sub-sections.

CPA (statistical classification of products by activity in the European Economic Community)

The most significant achievement to come out of the work to develop an international system of integrated classifications of economic activities and products is without doubt the Central Product Classification (CPC) devised by the United Nations. Before the CPC was developed, the international system did not have any classification which encompassed both goods and services. The CPC was created with the aim of providing a framework for the comparison of many different kinds of statistics concerning goods and services. The CPA is the European version of the CPC, and the purposes it serves are in line with those of the CPC. Whilst the CPC is merely a recommended classification, however, the CPA is legally binding in the European Community.

The CPA differs from the CPC in that it is not only more detailed but also in its structure. The view at European level was that a central product classification should be structured according to the criterion of economic origin, being based, naturally enough, on NACE Rev. 1. This recourse to NACE Rev. 1 with respect to the definitions of economic activity means that the CPA's structure is coherent at all levels with that of NACE Rev. 1.

PRODCOM list (Community survey of industrial production)

PRODCOM is the abbreviation for the EU's system of production statistics, the legal basis for which is Council Regulation No 3924 from 1991. The PRODCOM list of goods is not itself part of the Regulation, but is drawn up each year. The headings of the PRODCOM list are derived from the Harmonised System (HS), which thus enables comparisons to be made between production statistics and foreign trade statistics. PRODCOM headings use an eight-digit numerical code, the first six-digits of which are identical to those of the CPA code. The PRODCOM list is therefore linked to, and consistent with, the classification of products by activity.

Further information: Eurostat's classifications server, RAMON, is available to the general public at *http://europa.eu.int/comm/eurostat/ramon*. All of the above mentioned classifications are available on-line.

NACE Rev. 1 - CLASSIFICATION OF ECONOMIC ACTIVITIES

A Agriculture, hunting & forestry

B Fishing

C Mining & quarrying

D Manufacturing

DA Manufacture of food products; beverages & tobacco

15 Manufacture of food products & beverages

16 Manufacture of tobacco products

DB Manufacture of textiles & textile products

17 Manufacture of textiles

18 Manufacture of wearing apparel; dressing & dyeing of fur

DC Manufacture of leather & leather products

19 Manufacture of leather & leather products

DD Manufacture of wood & wood products

20 Manufacture of wood & wood products

DE Manufacture of pulp, paper, publishing & printing

21 Manufacture of pulp, paper & paper products

22 Publishing, printing & reproduction of recorded media

DF Manufacture of coke, refined petroleum products & nuclear fuel

23 Manufacture of coke, refined petroleum products & nuclear fuel

DG Manufacture of chemicals, chemical products & man-made fibres

24 Manufacture of chemicals, chemical products & man-made fibres

DH Manufacture of rubber & plastic products

25 Manufacture of rubber & plastic products

DI Manufacture of other non-metallic mineral products

26 Manufacture of other non-metallic mineral products

DJ Manufacture of basic metals & fabricated metal products

27 Manufacture of basic metals

28 Manufacture of fabricated metal products, except machinery & equip.

DK Manufacture of machinery & equipment n.e.c.

29 Manufacture of machinery & equipment n.e.c.

DL Manufacture of electrical & optical equipment

30 Manufacture of office machinery & computers

31 Manufacture of electrical machinery & apparatus n.e.c.

32 Manufacture of radio, television & communication equipment & app.

33 Manufacture of medical, precision & optical instr., watches & clocks

DM Manufacture of transport equipment

34 Manufacture of motor vehicles, trailers & semi-trailers

35 Manufacture of other transport equipment

DN Manufacturing n.e.c.

36 Manufacture of furniture; manufacturing n.e.c.

37 Recycling

E Electricity, gas & water supply
- 40 Electricity, gas, steam & hot water supply
- 41 Collection, purification & distribution of water

F Construction
- 45 Construction

G Distributive trades
- 50 Motor trade; retail sale of automotive fuel
- 51 Wholesale & commission trade (except motor vehicles & motorcycles)
- 52 Retail trade & repair (except of motor vehicles & motorcycles)

H Hotels & restaurants
- 55 Hotels & restaurants

I Transport, storage & communication
- 60 Land transport; transport via pipelines
- 61 Water transport
- 62 Air transport
- 63 Supporting & auxiliary transport activities; activities of travel agencies
- 64 Post & telecommunications

J Financial intermediation
- 65 Financial intermediation, except insurance & pension funding
- 66 Insurance & pension funding, except compulsory social security
- 67 Activities auxiliary to financial intermediation

K Real estate, renting & business activities
- 70 Real estate activities
- 71 Renting of machinery & equipment
- 72 Computer & related activities
- 73 Research & development
- 74 Other business activities

L Public administration & defence; compulsory social security

M Education

N Health & social work

O Other community, social & personal service activities

P Private households with employed persons

Q Extra-territorial organizations & bodies

Further information: for a more detailed listing of NACE, please use the Eurostat web-site at *http://europa.eu.int/comm/eurostat/ramon,* click on *classifications* and then type *NACE* in the search field.

Main industrial groupings

Energy
NACE Groups 10.1-10.3, 11.1, 11.2, 12.0, 23.1-23.3, 40.1-40.3 and 41.0

Intermediate goods
NACE Groups 13.1, 13.2, 14.1-14.5, 15.6, 15.7, 17.1-17.3, 17.6, 20.1-20.5, 21.1, 21.2, 24.1-24.3, 24.6, 24.7, 25.1, 25.2, 26.1-26.8, 27.1-27.5, 28.4-28.7, 31.2-31.6, 32.1, 37.1 and 37.2

Capital goods
NACE Groups 28.1-28.3, 29.1-29.6, 30.0, 31.1, 32.2, 33.1-33.3, 34.1-34.3, 35.2 and 35.3

Consumer durables
NACE Groups 29.7, 32.3, 33.4, 33.5, 35.4, 35.5 and 36.1-36.3

Consumer non durables
NACE Groups 15.1-15.5, 15.8, 15.9, 16.0, 17.4, 17.5, 17.7, 18.1-18.3, 19.1-19.3, 22.1-22.3, 24.4, 24.5 and 36.4-36.6

Taxonomy of factor inputs and strategic investments

Labour-intensive industries
NACE Groups 17.2, 17.4, 18.1-18.3, 20.1-20.5, 24.2, 26.2, 26.4, 26.7, 27.5, 28.1, 28.3-28.5, 29.4, 31.6, 34.2, 35.1, 35.2, 36.1 and 36.2

Capital-intensive industries
NACE Groups 17.1, 21.1, 23.1, 23.2, 24.1, 24.7, 26.3, 26.5, 27.1, 27.3, 27.4 and 34.3

Marketing driven industries
NACE Groups 15.1-15.9, 16.0, 19.1-19.3, 22.1-22.3, 24.5, 28.2, 28.6, 33.5 and 36.3-36.6

Technology driven industries
NACE Groups 24.2, 24.4, 24.6, 30.0, 31.2, 32.1-33.1, 33.2-33.4, 34.1 and 35.3

Mainstream industries
NACE Groups 17.3, 17.5-17.7, 21.2, 24.3, 25.1, 25.2, 26.1, 26.6, 26.8, 27.2, 28.7, 29.1-29.3, 29.5-29.7, 31.1, 31.3-31.5, 35.4 and 35.5