



Business in candidate countries

Facts and figures

Data 1995-1999



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Guide to the publication

Facts and Figures

This publication is the candidate countries' version of the more voluminous 'European Business: Facts and Figures' which covers the EU countries. Together with two Statistics in Focus published in the same year, this Facts and Figures is the first one to be derived from the information available on NewCronos database on Structural Business Statistics in the candidate countries.

Structural Business Statistics (SBS) provide standardised data on a wide range of economic activities within the European Union (EU). They represent a wealth of information on the European economy, reflecting the dynamics, the development patterns and the state of the different economic sectors. The future enlargement of the EU raised the need to extend the SBS data coverage to the applicant countries. The SBS data collection process from candidate countries has recently started, with Bulgaria, the Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia covered at this point. Comparable SBS on Malta and Turkey are not yet available.

The reader of this publication will notice that at present some data are not available or remain confidential. Also, a number of methodological disparities still compound the comparability of data between the different candidate countries. The EU's SBS data and publications came a long way from the 1970s onwards. Similarly, the candidate countries' SBS data availability and comparability will be improving over the next couple of years.

SBS data are classified according to NACE Rev. 1. This hierarchical classification is made up of Sections (1-letter codes), Subsections (2-letter codes), Divisions (2-digit codes), Groups (3-digit codes) and Classes (4-digit codes). It is compatible at 2-digit level with ISIC Rev. 3, the international classification of economic activities used by the United Nations and its related institutions. SBS data can be retrieved in Eurostat's reference database NewCronos (Theme 4 -domain SBS - collection enterpr: annual enterprise statistics - dft file enter and cc). The figures in the Facts and Figures show the situation of the database as at 29 June 2002.

After the data are received from the various reporting countries, they first have to go through a process of quality and confidentiality checks. For some of the candidate countries the 1999 data treatment was not yet finalised when this publication was being produced. The whole set of 1999 data for the candidate countries will become available on NewCronos shortly.

In certain cases, other databases within NewCronos have been consulted for this publication. These sources are explicitly specified next to the text, graphs or tables making use of these.

Structure of the publication

The candidate countries' Facts and Figures tried to replicate as much as possible its EU counterpart entitled 'European Business: Facts and Figures' in structure and coverage. This should pave the way for a gradual convergence and integration of the different countries and sectors over time in an enlarged-EU publication.

The first part of the publication sums up the major methodological remarks - main discrepancies with respect to the SBS Regulation laid out in the Council Regulation (EC, EURATOM) no.58/97 of 20 December 1996 - that have to be borne in mind to interpret the SBS data of the candidate countries.

Part Two deals with the various industries surveyed in this publication, namely: Industrial activities, regrouping Mining (NACE section C); Manufacturing (NACE section D); and Energy (NACE section E); Construction (NACE section F); Distribution (NACE section G); Hotels and restaurants (NACE section H); Transport, storage and communication (NACE section I); and real estate, renting and business activities (NACE section K). Enterprises demography, employment, sales, competitiveness and productivity measures for 1998 give an overview of the state of the candidate countries' businesses in that year. As 1999 data were not yet available for all countries encompassed in this publication on 29 June 2002 (date of extraction of the data), 1998 was chosen as the

reference year.

Economic activities are further detailed in Part Three. This sectoral analysis is made up of 20 chapters. The main industrial and construction activities are the focus of the first 15 chapters, while the last 5 chapters are devoted to services.

The industrial chapters can be likened to broad sectors, regrouping a series of related NACE divisions and/or groups. First, the importance of the sector is assessed according to its share of production value, value added and employment in the industrial, mining or manufacturing activities. It is followed by time-series on value added, production value and employment between 1995 and 1999. Then each sector is broken down into divisions and groups, which are selected according to their importance and/or availability of data. Production and labour related indicators reflect the state of each of these sub-activities for the year 1998.

The chapters on services are organized in a slightly different way, as services data are by and large less readily available than in the industrial activities. According to their relevance, importance and/or availability of data, a number of NACE services divisions and/or groups are then elaborated with time-series covering turnover, value added and employment from 1995 to 1999, together with enterprise and employment indicators, turnover related indicators, and competitiveness and productivity related indicators for 1998.

The final part contains the references to the applicant countries' national statistical institutes.

Abbreviations

BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
ECU	European currency unit
EE	Estonia
EU	European Union
EUR	euro
Eurostat	Eurostat is one of the Directorates-General of the European Commission; also known as ESTAT
HU	Hungary
LV	Latvia
LT	Lithuania
NACE Rev. 1	Statistical Classification of Economic Activities in European Community, Revision 1
n.e.c.	not elsewhere classified
PL	Poland
RO	Romania
SBS	Structural Business Statistics
SK	Slovak Republic
SI	Slovenia
SME	Small and Medium Enterprise (enterprises with up to 250 persons employed)
toe	tonne of oil equivalent

Estonia*	Employment size classes are determined in terms of employees instead of number of persons employed.
Hungary**	Enterprises with 5 persons employed or more.
Slovak Republic***	Enterprises with 20 persons employed or more.
	Employment size classes are determined in terms of employees instead of number of persons employed.
Slovenia****	Employment size classes are determined in terms of employees instead of number of persons employed.

PART I

METHODOLOGY

Database

This publication is based on structural business statistics collected under the terms of Council Regulation (EC, EURATOM) No 58/97 of 20 December 1996.

The reference data are stored in Eurostat's reference database NewCronos (Theme 4 -domain SBS - collection enterpr: annual enterprise statistics - dft file enter and cc).

The figures shown reflect the situation of the database as of 15 June 2002.

No data are available for those countries that are not shown in the graphs and tables.

Whenever other sources of data are used, they are explicitly specified in the title of the table/graph/text using these.

Statistical classification

The data are collected according to the statistical classification of economic activities in the European Community (NACE Rev.1).

This publication covers NACE branches C (Mining and quarrying), D (Manufacturing), E (Electricity, gas and water supply), F (Construction), G (Wholesale and retail trade), H (Hotels and restaurants), I (Transport, storage and communication), K (Real estate, renting and business activities).

Methodological remarks

The candidate countries' data used in this publication are expressed in current ECU/EUR (EUR as from 1 January 1999, ECU prior to that). This means that the figures in ECU/EUR in this document do not fully reflect these countries' currency volatility, inflation rates and purchasing power.

Candidate countries provide Eurostat with data expressed in national currency. The complete data set is converted into ECU/EUR using the annual average exchange rates published by Eurostat (see table below):

	1995	1996	1997	1998	1999
Bulgaria	0.087866	0.225149	1.901570	1.969130	1.955840
Cyprus	0.591619	0.591904	0.582628	0.577418	0.578840
Czech Rep.	34.6960	34.4572	35.9304	36.3196	36.8862
Estonia	14.9900	15.2763	15.7150	15.7530	15.6466
Hungary	164.545	193.741	211.654	240.573	252.767
Latvia	0.689537	0.699605	0.659401	0.660240	0.623808
Lithuania	5.23203	5.07899	4.53616	4.48437	4.26311
Poland	3.17049	3.42232	3.71545	3.91784	4.22741
Romania	2661.81	3922.19	8111.50	9984.88	16345.20
Slovak Rep.	38.8649	38.9229	38.1061	39.5407	44.1227
Slovenia	154.880	171.778	180.996	185.958	194.473

Also, as mentioned throughout the text, there are still a number of discrepancies between the various candidate countries regarding the statistical population covered as well as the methodologies for structural business statistics:

Country	Statistical unit, size coverage and activity coverage used from 1995 onwards: specific remarks
Bulgaria	—
Cyprus	—
Czech Republic	Used survey is sample survey. Sampling errors at 3-digit level are significant (due to low coverage). Three-digit level is only estimation based on sample, but sample differs between years. Sample is only representative for data in 2-digit level of NACE Rev. 1.
Estonia	NACE Rev. 1 71 contains 71 and 72 (only in 1995); Employment size classes are determined in terms of employees instead of number of persons employed. Size classes '500 to 999' employees also contain '1000 or more' employees.
Hungary	Only enterprises with 5 persons employed or more are covered
Latvia	Services: A combined random sampling scheme is used for annual structural survey, consisting mainly of stratum in NACE 3-digit level due to small number of representative units within NACE classes. That leads to the situation when some classes are out of observation. As a consequence, the country recommends not using data at 4-digit level.
Lithuania	—
Poland	Non response is not taken into account for the large businesses (20 persons employed or more)
Romania	—
Slovak Republic	Population covered is enterprises with 20 persons or more employed and enterprises with less than 20 persons employed which were considered statistically important, based on expert judgement (1995 and 1996) or with a turnover larger than ECU/EURO 2.3 million (from 1997 onwards); Employment size classes are determined in terms of employees instead of number of persons employed.
Slovenia	Employment size classes are determined in terms of employees instead of number of persons employed.

Country	Variables: specific remarks
Bulgaria	—
Cyprus	—
Czech Republic	Number of enterprises: estimated as an average number of enterprises (result of a sample survey), calculated on the basis of the information concerning the length of the activity of the unit during the year; it means that an enterprise active only a part of the year is not counted as 1, but as a percentage (e.g. 3 months = 0.25) (1995-1998); Personnel costs: includes wages and salaries, social security costs and other personnel costs (1995-1998); Personnel costs and social security costs: definitions not entirely harmonised with CR 2700/98 (1995-1998)
Estonia	—
Hungary	Number of persons employed: variable from the annual labour survey (1998); Number of employees: variable from the monthly labour survey (1998); Number of employees represents 99.5% of number of persons employed
Latvia	—
Lithuania	—
Poland	—
Romania	Gross operating surplus = value added at factor cost - personnel costs - taxes linked to production (1997-1998)
Slovak Republic	Number of employees represents 99.8% of number of persons employed. Value added at factor cost is not completely harmonised with CR 2700/98.
Slovenia	Number of enterprises: in national series (used in all but Part II.4 of this publication) also take into account enterprises without employees (1995-1998). Value added at factor cost is not completely harmonised with CR 2700/98. Wages and salaries do not include other personnel costs

Definitions of Structural Business Statistics main variables and indicators

Apparent labour productivity

Apparent labour productivity is defined as value added (at factor cost) per person employed.

Gross operating rate

Gross operating rate is defined as gross operating surplus/turnover.

Gross operating surplus

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

balance available to the unit which allows it to recompense the providers of own funds and debt, to pay taxes and eventually to finance all or a part of its investment. Income and expenditure classified as financial or extraordinary in company accounts is excluded from gross operating surplus.

Number of employees

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

Number of enterprises

A count of the number of enterprises registered to the population concerned in the business register corrected for errors, in particular frame errors. Dormant units are excluded.

Number of persons employed

The total number of persons who work in the observation unit (employees receiving remuneration, working proprietors and unpaid family workers) as well as outside working persons who belong to the unit and are paid by it. It includes all persons who are on the payroll of the enterprise, whether they are temporarily absent (excluding long-term absences), part-time, seasonal or home workers, apprentices etc. The number of persons employed excludes manpower supplied to the unit by other enterprises and persons carrying out repair and maintenance work in the enquiry unit on behalf of other enterprises.

Personnel costs

Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the reference period. Personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions.

Production value

The production value measures the amount actually produced by the unit, based on sales, including changes in stocks and the resale of goods and services.

The production value is defined as turnover, plus or minus the changes in stocks of finished products, work in progress and goods and services purchased for resale, minus the purchases of goods and services for resale, plus capitalised production, plus other operating income (excluding subsidies). Income and expenditure classified as financial or extra-ordinary in company accounts is excluded from production value. Included in purchases of goods and services for resale are the purchases of services purchased in order to be rendered to third parties in the same condition.

Social security costs

Employers' social security costs correspond to an amount equal to the value of the social contributions incurred by employers in order to secure for their employees the entitlement to social benefits. Social security costs for the employer include the employer's social security contributions to schemes for retirement pensions, sickness, maternity, disability, unemployment, occupational accidents and diseases, family allowances as well as other schemes. Included are the costs for all employees including homeworkers and apprentices.

Charges are included for all schemes, regardless of whether they are statutory, collectively agreed, contractual or voluntary in nature. Wages and salaries which the employer continues to pay in the event of illness, occupational accident, maternity leave or short-time working may be recorded here or under wages and salaries, dependent upon the unit's accounting practices.

Turnover

Turnover comprises the totals invoiced by the observation unit during the reference period, which corresponds to market sales of goods or services supplied to third parties. It includes all duties and taxes on the goods and services invoiced by the unit, with the exception of the VAT invoiced by the unit vis-à-vis its customers and other similar deductible taxes directly linked to turnover.

Unit personnel costs

Unit personnel costs are defined as personnel costs per employee.

Value added (at factor cost)

Value added at factor cost is the gross income from operating activities after adjusting for operating subsidies and indirect taxes.

The above SBS variables are laid down by Commission Regulation (EC) No. 2700/98 of 17 December 1998.

More information on business statistics methodology: <http://europa.eu.int/comm/eurostat/ramon/> or http://forum.europa.eu.int/Public/irc/dsis/bmethods/info/data/new/main_en.html

The above-mentioned regulations and statistical classification can be downloaded under 'legal texts'

PART II

OVERVIEW OF THE CANDIDATE COUNTRIES' ENTERPRISES

In this publication, all structural business statistics data have been expressed in current ECU/EUR (EUR as from 1 January 1999). Market conversion rates however do not necessarily reflect the actual purchasing power of national currencies within their zone of influence. Therefore, using those market currency rates does not always provide a true indication of the volume of goods produced in the various countries. This should be taken into consideration when looking at the structural business statistics data in this publication, especially when comparing data in time and/or between countries in this publication. A couple of countries have shown a high currency volatility and inflation in the last years to 1998. Hence, for these countries, rising production values and/or value added at factor costs do not necessarily translate into an actual growth of production volume.

II.1 Enterprises and employment

Number of enterprises, 1998

	Industry	Construction	Trade	Services (1)
Bulgaria	25 978	13 966	104 288	71 747
Cyprus	:	:	:	:
Czech Rep.	129 262	111 948	223 405	260 442
Estonia*	4 205	2 153	10 704	7 193
Hungary**	12 958	6 191	13 199	10 765
Latvia	4 636	1 941	17 153	7 782
Lithuania	7 742	2 244	23 656	10 381
Poland	236 857	204 276	680 640	430 891
Romania	39 328	10 521	222 017	35 752
Slovak Rep.***	2 149	817	939	1 187
Slovenia	23 823	12 576	34 070	39 568

Number of persons employed, 1998

	Industry	Construction	Trade	Services (1)
Bulgaria	852 803	126 956	312 203	317 306
Cyprus	41 133	24 065	52 424	:
Czech Rep.	1 582 077	430 494	704 926	701 257
Estonia*	:	:	:	:
Hungary**	833 654	99 788	245 379	332 517
Latvia	180 327	35 916	103 326	123 382
Lithuania	292 519	79 226	182 418	148 836
Poland	3 270 802	801 450	1 979 795	1 517 882
Romania	2 551 754	483 268	1 067 687	742 122
Slovak Rep.***	:	:	:	:
Slovenia	:	:	:	:

(1) Services here include NACE branches H (Hotels and restaurants); I (Transport, storage and communication); K (Real estate, renting and business activities).

Number of employees, 1998

	Industry	Construction	Trade	Services (1)
Bulgaria	822 971	104 855	185 249	268 901
Cyprus	:	20 795	43 024	:
Czech Rep.	1 459 478	332 433	493 292	669 971
Estonia*	144 588	36 825	81 461	94 102
Hungary**	827 364	98 700	240 667	382 212
Latvia	179 989	35 755	101 730	122 814
Lithuania	288 642	78 665	167 140	143 295
Poland	2 997 568	559 260	1 021 346	1 157 658
Romania	2 393 053	399 360	736 264	620 321
Slovak Rep.***	483 335	82 296	78 485	189 349
Slovenia	261 727	54 701	99 240	117 640

Average number of persons employed and employees per enterprise, 1998

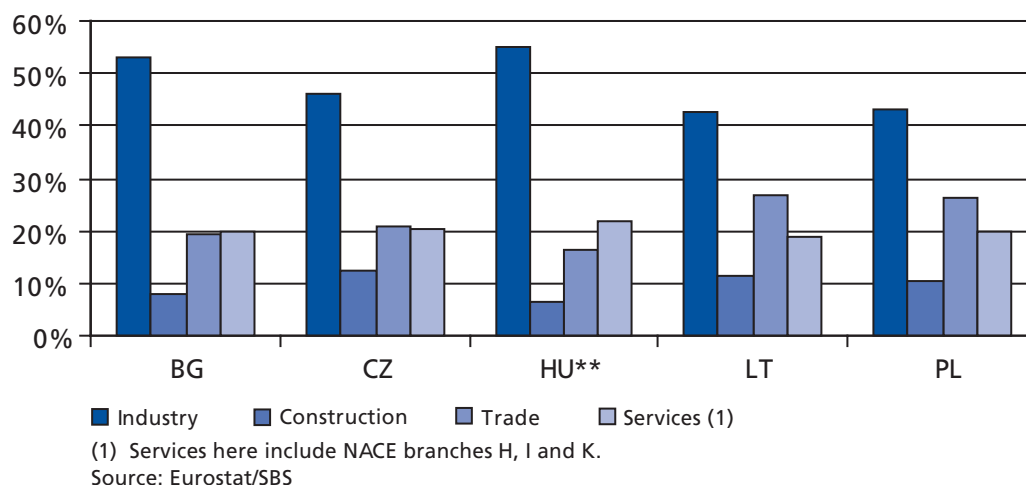
	Industry		Construction		Trade		Services (1)	
	Persons employed	Employees	Persons employed	Employees	Persons employed	Employees	Persons employed	Employees
Bulgaria	32.8	31.7	9.1	7.5	3.0	1.8	4.4	3.7
Cyprus	:	:	:	:	:	:	:	:
Czech Rep.	12.2	11.3	3.8	3.0	3.2	2.2	2.7	2.6
Estonia*	:	34.4	:	17.1	:	7.6	:	13.1
Hungary**	64.3	63.8	16.1	15.9	18.6	18.2	30.9	35.5
Latvia	38.9	38.8	18.5	18.4	6.0	5.9	15.9	15.8
Lithuania	37.8	37.3	35.3	35.1	7.7	7.1	14.3	13.8
Poland	13.8	12.7	3.9	2.7	:	:	3.5	2.7
Romania	64.9	60.8	45.9	38.0	4.8	3.3	18.0	17.4
Slovak Rep.***	:	224.9	:	100.7	:	83.6	:	159.5
Slovenia	:	11.0	:	4.3	:	2.9	:	3.0

National account figures indicate that in 6 of the 11 countries covered in this publication total employment declined over the 1995-1998 period. Romanian employment figures showed the largest decline (-7.2%). Estonia, Bulgaria, the Czech Republic, Slovenia and Latvia registered more modest drops in employment of -4.3%, -3.9%, -2.0%, -1.5% and -0.2% respectively. Five candidate countries experienced an increase in employment over the same period: Poland (+3.8%), Slovakia (+3.8%), Cyprus (+1.7%), Lithuania (+0.8%) and Hungary (+0.5%).

Most enterprise and employment demography figures resulting from the structural business statistics data collection are in line with the various candidate countries' population sizes: the larger the population, the larger the number of enterprises, the number of persons employed and the number of employees. One notable exception is the average number of persons employed and employees per enterprise for which for instance both Hungarian and Slovak figures are upwardly biased. The SBS survey in these two countries did not take into account enterprises with respectively less than 5 and 20 persons employed (see methodology).

Employment-wise, most candidate countries show the same pattern of breakdown in the number of persons employed across the different sectors. Industry seemed to be the biggest employer in 1998 (see graph II.1). If one adds up employment in trade and services however, then the industry's dominance as biggest employer has already been overtaken in Lithuania and Poland in 1998.

(1) Services here include NACE branches H (Hotels and restaurants); I (Transport, storage and communication); K (Real estate, renting and business activities).

Graph II.1. Share of employment across the different sectors, in % of persons employed, 1998


II.2 Turnover and value added

Turnover (million ECU/EUR), 1998

	Industry	Construction	Trade	Services (1)
Bulgaria	8 939.2	1 071.1	7 922.2	2 973.7
Cyprus	2 632.5	:	6 368.0	:
Czech Rep.	54 916.4	11 218.9	53 694.4	20 073.6
Estonia*	3 486.7	1 117.5	5 444.9	2 453.9
Hungary**	37 360.0	3 577.9	23 266.8	9 568.1
Latvia	3 252.0	759.1	5 323.4	2 181.5
Lithuania	5 223.6	1 066.7	7 234.2	1 906.0
Poland	114 663.4	18 495.0	117 782.5	33 260.0
Romania	26 955.8	3 595.9	227 401.0	5 989.5
Slovak Rep.***	16 851.6	2 023.4	9 120.1	3 249.4
Slovenia	16 043.4	2 446.6	13 029.0	5 682.2

Turnover per enterprise (thousand ECU/EUR), 1998

	Industry	Construction	Trade	Services (1)
Bulgaria	344.1	76.7	76.0	41.4
Cyprus	:	:	:	:
Czech Rep.	424.8	100.2	240.3	77.1
Estonia*	829.2	519.0	508.7	341.2
Hungary**	2 883.2	577.9	1 762.8	888.8
Latvia	701.0	391.1	310.4	280.3
Lithuania	674.7	475.4	305.8	183.6
Poland	484.1	90.5	:	77.2
Romania	685.4	341.8	102.4	167.5
Slovak Rep.***	7 841.6	2 476.6	9 712.6	2 737.5
Slovenia	673.4	194.5	382.4	143.6

(1) Services here include NACE branches H (Hotels and restaurants); I (Transport, storage and communication); K (Real estate, renting and business activities).

Value added at factor cost (million ECU/EUR), 1998

	Industry	Construction	Trade	Services (¹)
Bulgaria	:	:	:	:
Cyprus	1 002.4	620.7	1 072.3	:
Czech Rep.	:	:	:	:
Estonia*	869.5	192.0	427.3	767.3
Hungary**	9 006.6	654.6	2 102.1	3 658.2
Latvia	1 133.0	263.9	668.1	1 104.2
Lithuania	1 436.7	390.4	757.4	896.4
Poland	36 482.6	5 927.1	13 358.4	15 132.5
Romania	9 447.2	1 275.5	2 260.5	2 563.3
Slovak Rep.***	3 994.8	425.4	826.2	1 420.6
Slovenia	3 710.0	644.0	1 419.1	1 714.0

Value added per enterprise (thousand ECU/EUR), 1998

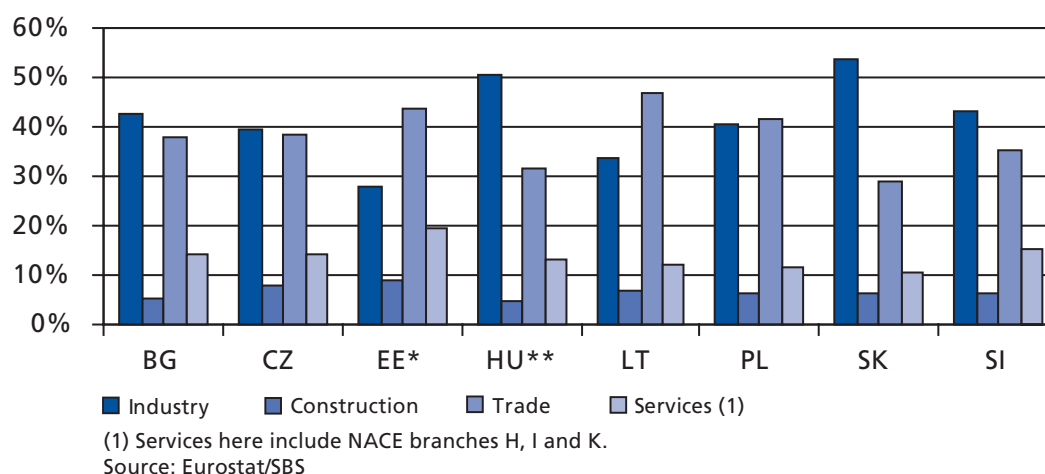
	Industry	Construction	Trade	Services (¹)
Bulgaria	:	:	:	:
Cyprus	:	:	:	:
Czech Rep.	:	:	:	:
Estonia*	206.8	89.2	39.9	106.7
Hungary**	695.1	105.7	159.3	339.8
Latvia	244.4	136.0	39.0	141.9
Lithuania	185.6	174.0	32.0	86.4
Poland	154.0	29.0	:	35.1
Romania	240.2	121.2	10.2	71.7
Slovak Rep.***	1 858.9	520.7	879.9	1 196.8
Slovenia	155.7	51.2	41.7	43.3

Indicators for turnover and value added per enterprise have to be carefully interpreted, as they are also prone to the methodological discrepancies between the reporting countries. For instance, Hungary and the Slovak Republic again show outliers for these indicators. The Hungarian and Slovakian statistics do not cover enterprises with respectively less than 5 persons employed and less than 20 persons employed. Hence, turnover and value added per enterprise are systematically higher for these two countries than for other countries covering all the enterprises, including the small ones.

Industry and trade generate the largest turnover figures among the four different sectors (see graph II.2). Turnover is an accounting measure which grossly corresponds to the sales figure invoiced over a specific period. In all the candidate countries, the value added per enterprise is the highest for industry when compared to the other main branches. The gross operating rate is better suited as a measure of profitability of a sector though (see paragraph III.3).

(¹) Services here include NACE branches H (Hotels and restaurants); I (Transport, storage and communication); K (Real estate, renting and business activities).

Graph II.2. Share of turnover across the different sectors, in %, 1998



II.3 Competitiveness and productivity

Apparent labour productivity (value added per person employed, thousand ECU/EUR), 1998

	Industry	Construction	Trade	Services (1)
Bulgaria	:	:	:	:
Cyprus	24	26	20	:
Czech Rep.	:	:	:	:
Estonia*	:	:	:	:
Hungary**	11	7	9	11
Latvia	6	7	6	10
Lithuania	5	5	4	7
Poland	11	7	:	10
Romania	4	3	2	4
Slovak Rep.***	:	:	:	:
Slovenia	:	:	:	:

Turnover per person employed (thousand ECU/EUR), 1998

	Industry	Construction	Trade	Services (1)
Bulgaria	10	8	25	9
Cyprus	64	:	121	:
Czech Rep.	35	26	76	29
Estonia*	:	:	:	:
Hungary**	45	36	95	29
Latvia	18	21	51	20
Lithuania	18	13	40	15
Poland	35	23	:	22
Romania	11	7	:	9
Slovak Rep.***	:	:	:	:
Slovenia	:	:	:	:

(1) Services here include NACE branches H (Hotels and restaurants); I (Transport, storage and communication); K (Real estate, renting and business activities).

Unit personnel costs (thousand ECU/EUR per head), 1998

	Industry	Construction	Trade	Services (¹)
Bulgaria	2	3	1	2
Cyprus	:	:	14	:
Czech Rep.	5	5	5	5
Estonia*	4	4	3	5
Hungary**	5	4	5	6
Latvia	3	3	2	4
Lithuania	3	4	2	4
Poland	6	6	:	6
Romania	2	2	1	3
Slovak Rep.***	4	4	4	5
Slovenia	12	10	11	12

Gross operating rate (%), 1998

	Industry	Construction	Trade	Services (¹)
Bulgaria	:	:	:	:
Cyprus	:	:	7.3	:
Czech Rep.	11.6	6.4	:	:
Estonia*	7.7	4.3	2.7	:
Hungary**	12.4	6.2	:	:
Latvia	17.9	23.4	8.7	30.7
Lithuania	9.9	10.5	:	:
Poland	:	:	:	:
Romania	9.6	11.8	5.1	:
Slovak Rep.***	11.0	2.8	5.1	16.0
Slovenia	3.8	4.5	:	:

Cyprus is showing the highest apparent labour productivity and turnover per person employed figures among the candidate countries for which data is available. Its peers from the Czech Republic (data not available for labour productivity), Hungary and Poland were the leaders for these indicators in Central Europe in 1998.

Slovenia is the most expensive Central European applicant country in terms of unit personnel costs. Some upward bias is possible as the personnel costs include payments for contract work carried out by persons that are not included in the number of employees. This is reflected in almost every sector. The Czech Republic, Hungary, Poland and the Slovak Republic bear the next most expensive unit personnel costs, followed by the Baltic States. Bulgaria and Romania offer the least expensive unit personnel costs among the candidate countries. Figures for Cyprus are not available, but figures on monthly gross nominal wages collected by Eurostat (domain harmonised earnings) seem to indicate that the unit personnel costs for this country are even higher than for Slovenia.

Profitability (expressed through gross operating rate) yields a slightly different picture. From those countries whose data are available, Latvia seemed to have the most profitable sectors in 1998.

(¹) Services here include NACE branches H (Hotels and restaurants); I (Transport, storage and communication); K (Real estate, renting and business activities).

II.4 Breakdown of number of enterprises by size class

Breakdown of number of enterprises by number of people employed, mining branch, 1998.

NACE Section C	Number of people employed						
Number of enterprises in :	1 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1000 or more
Bulgaria	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	:	:
Czech Rep.	175	35	20	27	5	4	7
Estonia*	28	11	7	3	4	6 ^(?)	:
Hungary**	:	31	17	11	4	4	3
Latvia	16	4	9	4	0	0	0
Lithuania	20	18	9	9	c	c	c
Poland	:	:	:	:	:	:	:
Romania	:	:	:	:	19	22	:
Slovak Rep.***	:	6	6	10	7	3	5
Slovenia****	135	4	3	5	c	c	c

Breakdown of number of enterprises by number of people employed, manufacturing branch, 1998.

NACE Section D	Number of people employed						
Number of enterprises in :	1 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1000 or more
Bulgaria	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	:	:
Czech Rep.	119 489	4 608	1 974	1 353	495	239	171
Estonia*	2 454	616	272	154	52	30 ^(?)	:
Hungary**	:	2 529	1 114	793	341	173	95
Latvia	3 224	586	277	198	70	27	11
Lithuania	5 807	883	368	275	117	49	35
Poland	:	:	:	:	:	:	:
Romania	30 294	3 979	:	:	:	:	445
Slovak Rep.***	:	755	438	471	207	95	87
Slovenia****	14 180	476	272	297	110	47	29

Breakdown of number of enterprises by number of people employed, electricity, gas and water supply branch, 1998.

NACE Section E	Number of people employed						
Number of enterprises in :	1 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1000 or more
Bulgaria	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	:	:
Czech Rep.	436	80	45	54	33	20	18
Estonia*	275	48	16	8	3	5 ^(?)	:
Hungary**	:	61	49	42	25	16	22
Latvia	113	48	32	10	3	1	3
Lithuania	47	39	27	21	6	3	8
Poland	:	:	:	:	:	:	:
Romania	36	28	57	77	44	41	20
Slovak Rep.***	:	19	c	12	6	c	11
Slovenia****	46	23	c	17	7	6	c

(?) Size class 500 to 999 also includes enterprises with 1000 persons or more employed for Estonia.

Breakdown of number of enterprises by number of people employed, construction branch, 1998.

NACE Section F	Number of people employed						
	1 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1000 or more
Bulgaria	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	:	:
Czech Rep.	108 105	2 702	706	319	75	28	14
Estonia*	1 659	316	122	47	7	2 ^(?)	:
Hungary**	:	1 049	278	94	26	10	4
Latvia	1 501	266	102	62	8	2	0
Lithuania	1 440	346	215	194	40	c	c
Poland	:	:	:	:	:	:	:
Romania	7 197	1 596	781	597	214	102	34
Slovak Rep.***	:	423	216	123	39	5	11
Slovenia****	9 134	c	56	52	21	4	c

Breakdown of number of enterprises by number of people employed, wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods branch, 1998.

NACE Section G	Number of people employed						
	1 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1000 or more
Bulgaria	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	:	:
Czech Rep.	219 081	3 116	736	328	85	43	16
Estonia*	9 929	582	129	50	12	2 ^(?)	:
Hungary**	:	1 519	397	263	84	21	12
Latvia	16 119	742	185	82	20	3	2
Lithuania	:	1 078	315	116	26	7	1
Poland	:	:	:	:	:	:	:
Romania	202 101	4 970	:	:	:	:	:
Slovak Rep.***	:	575	200	104	42	14	4
Slovenia****	17 568	275	104	80	22	10	6

Breakdown of number of enterprises by number of people employed, hotels and restaurants branch, 1998.

NACE Section H	Number of people employed						
	1 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1000 or more
Bulgaria	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	:	:
Czech Rep.	40 184	510	131	42	12	3	4
Estonia*	917	114	36	8	1	0 ^(?)	:
Hungary**	:	315	73	36	14	5	5
Latvia	1 518	89	19	9	3	0	0
Lithuania	:	143	44	18	c	c	c
Poland	:	:	:	:	:	:	:
Romania	9 352	510	155	97	22	:	:
Slovak Rep.***	:	110	43	22	c	c	0
Slovenia****	5 220	80	24	c	c	0	0

^(?) Size class 500 to 999 also includes enterprises with 1000 persons or more employed for Estonia.

Breakdown of number of enterprises by number of people employed, transport, storage and communication branch, 1998.

NACE Section I	Number of people employed						
	1 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1000 or more
Bulgaria	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	:	:
Czech Rep.	38 306	510	160	77	47	21	19
Estonia*	1 531	155	68	39	10	11 ^(?)	:
Hungary**	:	339	103	43	19	21	21
Latvia	1 897	166	79	41	17	9	6
Lithuania	:	241	116	76	10	9	9
Poland	:	:	:	:	:	:	:
Romania	:	:	:	:	:	:	:
Slovak Rep.***	:	128	52	56	39	4	6
Slovenia****	9 075	60	26	23	8	6	4

Breakdown of number of enterprises by number of people employed, real estate, renting and business activities branch, 1998.

NACE Section K	Number of people employed						
	1 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1000 or more
Bulgaria	:	:	:	:	:	:	:
Cyprus	:	:	:	:	:	:	:
Czech Rep.	177 970	1 621	483	263	66	13	6
Estonia*	3 962	226	84	24	5	2 ^(?)	:
Hungary**	:	860	255	133	45	11	7
Latvia	3 484	258	116	56	11	3	1
Lithuania	:	204	92	48	8	c	c
Poland	:	:	:	:	:	:	:
Romania	:	:	:	:	:	:	:
Slovak Rep.***	:	381	178	c	37	5	c
Slovenia****	9 366	234	58	31	9	c	c

The majority of enterprises in the candidate countries are SMEs. The branch with the largest predominance of SMEs is - not surprisingly - the trade branch. One of the few noteworthy exceptions can be found in the electricity, gas and water supply branch, in which Romanian enterprises with more than 100 persons employed dominate the national industry, to the contrary of its peer applicant countries.

^(?) Size class 500 to 999 also includes enterprises with 1000 persons or more employed for Estonia.

PART III

SECTORAL ANALYSIS

Industry

Chapter 1	Energy
Chapter 2	Non-energy mining and quarrying
Chapter 3	Food, drink and tobacco
Chapter 4	Textiles, clothing, leather and footwear
Chapter 5	Wood, paper, publishing and printing
Chapter 6	Chemicals, rubber and plastics
Chapter 7	Non-metallic mineral products
Chapter 8	Basic metal processing
Chapter 9	Metal products
Chapter 10	Machinery and equipment
Chapter 11	Electrical machinery and electronics
Chapter 12	Instrument engineering
Chapter 13	Transport equipment
Chapter 14	Other manufacturing industries
Chapter 15	Construction and real estate

Chapter 1: Energy

The activities covered in this chapter include:

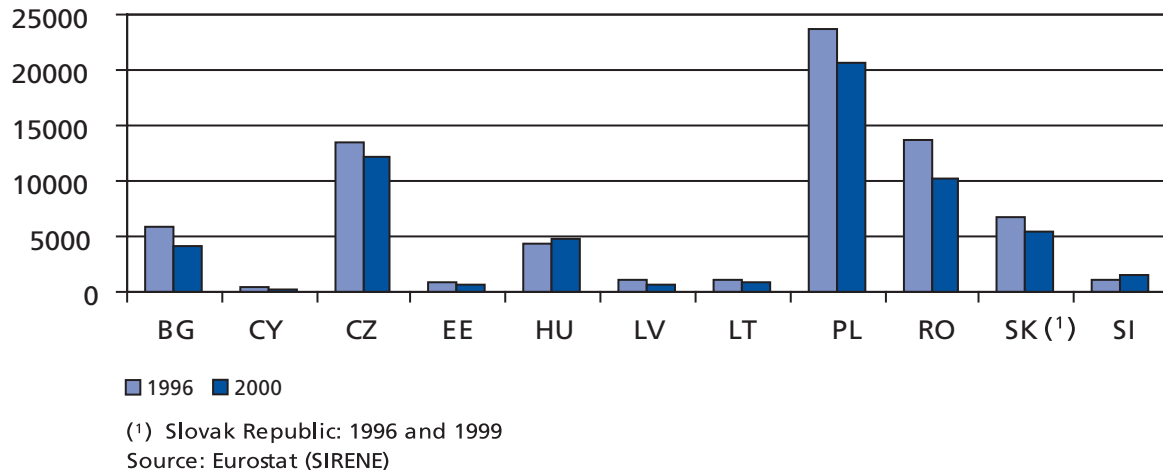
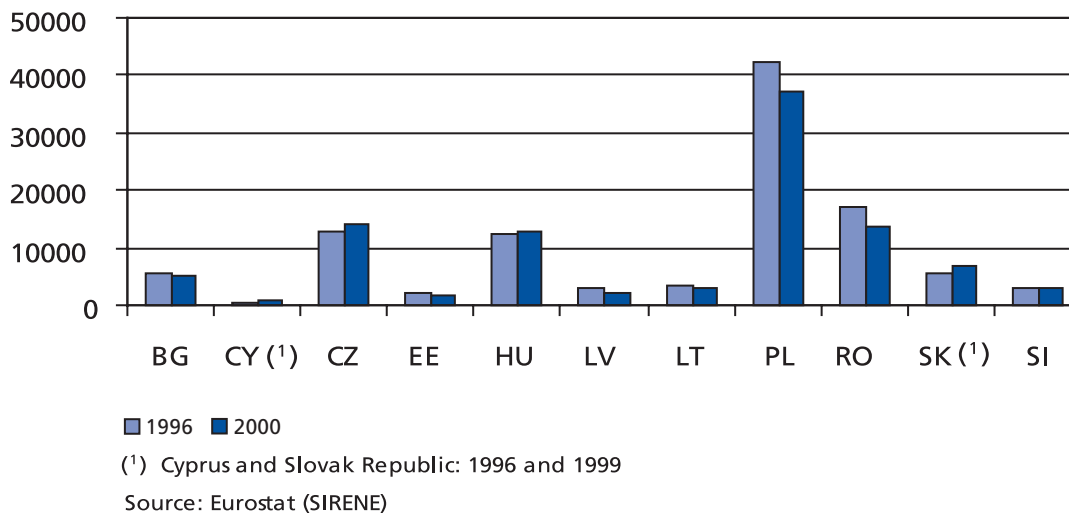
- 10 Mining of coal and lignite; extraction of peat;
- 10.1 Mining and agglomeration of hard coal;
- 10.2 Mining and agglomeration of lignite;
- 10.3 Extraction and agglomeration of peat
- 11 Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction excluding surveying
- 11.1 Extraction of crude petroleum and natural gas
- 11.2 Service activities incidental to oil and gas extraction excluding surveying
- 12 Mining of uranium and thorium ores
- 23 Manufacture of coke, refined petroleum products and nuclear fuel
- 23.1 Manufacture of coke oven products
- 23.2 Manufacture of refined petroleum products
- 23.3 Processing of nuclear fuel
- 40 Electricity, gas, steam and hot water supply
- 40.1 Production and distribution of electricity
- 40.2 Manufacture of gas; distribution of gaseous fuels through mains
- 40.3 Steam and hot water supply
- 41 Collection, purification and distribution of water

I. Industrial description

The energy sector is encompassing a variety of NACE sub-sections: CA (mining and quarrying of energy producing materials), DF (manufacture of coke, refined petroleum products and nuclear fuel) and section E (electricity, gas and water supply). Its activities are therefore vast and indeed, the energy sector plays a significant role in the candidate countries economy. In terms of production value, this sector makes up around one quarter of the entire industry activities (industry activities include mining and quarrying, manufacturing and electricity, gas and water supply activities). The share of value added this sector generates is even more important in most candidate countries than its share of production value in the industry. The number of people the energy sector employs is proportionally less significant, something which could be explained by the capital intensity of its activities.

Final energy consumption seems to be declining in the industry sector, probably due to a combination of cost and energy improvements in this sector (see graph III.1.1) while energy consumption of the transport and the other sectors have either remained stable or marginally increased over the three years to 1998 in the candidate countries (see graph III.1.2).

Despite of the fact that employment in the energy sector is generally decreasing, production value is on the rise as is the value added brought about by its activities. It could point out to efficiency (and non-labour related) productivity gains over the years to 1998. Poland clearly is the largest producer of all candidate countries in this sector. However, production value and value added at factor costs are expressed in current EUR, so interpretation of these figures requires caution.

Graph III.1.1. Final energy consumption in the industry sector (in 1000 toe)**Graph III.1.2. Final energy consumption in transport and the other sectors, except industry sector (in 1000 toe)****Energy sector: Share within the mining, manufacturing and energy branches (NACE C, D and E). %. 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Production value	25	14	17	19	15	:	c	19	29	27	14
Value added	:	18	:	25	23	:	c	26	34	37	9
Persons employed	12	4	9	:	13	:	c	15	15	:	:

Energy sector: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	c
Cyprus	149.3	155.4	164.5	176.5	:
Czech Rep.	:	:	:	:	:
Estonia	:	167.0	181.9	214.3	191.7
Hungary**	:	:	:	2 102.0	2 285.7
Latvia	:	:	c	258.5	:
Lithuania	159.1	205.7	324.6	:	:
Poland	:	7 436.3	8 938.8	9 384.2	:
Romania	:	:	3 478.2	3 223.7	:
Slovak Rep.***	1 156.6	1 300.4	1 367.7	1 495.5	:
Slovenia	330.7	308.6	314.6	331.3	:

Energy sector: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	2 208.7	2 281.5	2 276.8	c
Cyprus	309.8	341.9	393.7	356.1	:
Czech Rep.	9 591.7	9 286.6	9 139.6	8 961.3	8 972.3
Estonia	:	504.4	627.8	602.9	741.9
Hungary**	:	:	:	4 664.3	5 128.8
Latvia	:	:	c	490.8	:
Lithuania	892.1	1 110.1	1 568.6	c	:
Poland	:	16 170.9	19 525.1	19 371.7	:
Romania	:	:	8 648.6	8 002.7	c
Slovak Rep.***	3 526.2	4 006.7	4 406.0	4 336.0	:
Slovenia	1 834.7	1 870.2	2 004.8	2 106.9	:

Energy sector: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	107.2	106.5	103.9	c
Cyprus	1.6	1.6	1.6	1.7	:
Czech Rep.	186.1	168.1	158.4	148.1	136.5
Estonia	:	:	:	:	:
Hungary**	:	:	:	104.9	97.3
Latvia	:	:	c	21.1	:
Lithuania	45.3	46.8	45.2	c	:
Poland	:	569.8	554.2	501.5	:
Romania	:	:	421.8	381.3	c
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

Mining of coal and lignite and extraction of peat (NACE Rev. 1 10) is still a sensitive sector for a number of countries, hence a variety of them keep their data confidential. Among the countries whose data are available, the Czech Republic clearly stands out with a high production value, accompanied by higher than average unit personnel costs.

Regarding Extraction of crude petroleum and natural gas and related services excluding surveying (NACE Rev. 1 11), a number of countries are also keeping some data confidential. Nevertheless, it is a well-known fact that Romania is still the largest oil producer in Central Europe and also counts a vast number of gas fields. This translates into huge production values compared to its neighbouring countries and fellow candidate countries. Hungary and Lithuania however, boast better labour productivity figures than Romania. This could be explained by the fact that Romania's activities in this field are more labour-intensive.

Bigger actors in the Manufacture of coke, refined petroleum products and nuclear fuel (NACE Rev. 1 23) seem to be Bulgaria, the Czech Republic, Hungary, Poland, Romania and the Slovak Republic. Poland is especially value adding and productive in this area, with an apparent labour productivity as high as 117 thousand EUR per person employed in 1998.

Despite a modest production in Electricity, gas, steam and hot water supply (NACE Rev. 1 40) and Collection, purification and distribution of water (NACE Rev. 1 41), Cyprus shows the highest labour productivity in these two divisions among the countries whose data are available. Among the candidate countries, Poland has the largest production.

Mining of coal and lignite; extraction of peat (NACE Rev. 1 10)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	31.5	0.0	57.6	:	c	1.4	1.0	c	c	:	:
Production value (million ECU/EUR)	232.3	0.0	1 333.3	16.7	c	10.5	10.2	c	c	102.4	c
Value added (million ECU/EUR)	:	0.0	:	7.3	c	5.1	4.8	c	c	60.5	c
Gross operating surplus (million ECU/EUR)	:	:	233.8	1.6	c	1.7	1.2	:	c	12.9	c

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	94.5	0.0	430.6	5.7	c	3.6	3.6	c	c	47.6	c
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	c	3.7	4.6	c	c	:	c
Unit personnel costs (thousand ECU/EUR per employee)	3.0	:	7.5	4.1	c	2.6	3.5	c	c	4.7	c
Social security costs/total personnel costs (%)	38.5	:	32.3	24.6	c	22.2	22.2	:	c	29.6	c

Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction excluding surveying (NACE Rev. 1 11)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	1.5	0.0	c	:	1.8	0.0	0.4	c	107.1	:	:
Production value (million ECU/EUR)	5.3	0.0	c	85.2	91.8	0.0	25	c	3 155.3	134.4	:
Value added (million ECU/EUR)	:	0.0	:	39.2	39.2	0.0	8.9	c	1 327.4	41.4	:
Gross operating surplus (million ECU/EUR)	:	:	c	7.2	20.8	0.0	6.6	:	357.2	29	:

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	4.1	0.0	c	32.0	18.4	0.0	2.3	c	487.1	12.4	:
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	21.4	:	23.1	c	12.4	:	:
Unit personnel costs (thousand ECU/EUR per employee)	:	:	c	4.9	10.0	:	6.0	c	4.6	6.3	:
Social security costs/total personnel costs (%)	29.3	:	c	25.0	26.6	:	21.7	:	27.4	27.4	:

Manufacture of coke, refined petroleum products and nuclear fuel (NACE Rev. 1 23)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	12.9	0.1	4.2	:	15.1	0.1	c	20.3	16.2	:	:
Production value (million ECU/EUR)	746.1	109.7	1 009.5	6.1	1 713.8	2.3	c	5 110.0	967.1	814.4	70.0
Value added (million ECU/EUR)	:	11.2	:	1.6	656.7	0.8	c	2 381.1	182.3	137.7	11.7
Gross operating surplus (million ECU/EUR)	:	:	115	1.1	483.9	0.5	c	:	- 75.4	105.4	0.4

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	67.0	:	31.4	0.5	172.7	0.3	c	221.2	77.8	32.3	15.5
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	76.2	:	:	43.5	8.2	c	117.1	11.3	:	:
Unit personnel costs (thousand ECU/EUR per employee)	5.2	:	7.5	6.7	11.5	3.1	c	10.5	4.9	6.4	122.8
Social security costs/total personnel costs (%)	38.5	:	27.7	20.0	27.4	33.3	c	:	28.1	26.0	14.2

Electricity, gas, steam and hot water supply (NACE Rev. 1 40)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	39.3	1.2	57.1	:	59.5	18.7	32.5	200.7	141.1	:	:
Production value (million ECU/EUR)	1 179.2	196.2	6 024.8	440.2	2 431.0	470.3	873.9	8 637.7	3 035.4	3 060.1	1 661.9
Value added (million ECU/EUR)	:	136.9	:	136.3	1 206.1	248.2	314.2	3 621.8	1 236.2	1 130.5	154.1
Gross operating surplus (million ECU/EUR)	:	:	1 270.1	58.0	736.8	164.7	161.1	:	419.0	915.5	22.7

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	160.2	:	408.1	78.3	469.3	83.7	153.1	1 667.0	648.8	216.1	131.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	117.4	:	:	20.3	13.3	9.7	18.0	8.8	:	:
Unit personnel costs (thousand ECU/EUR per employee)	4.1	:	7.2	5.6	7.9	4.5	4.7	8.2	4.7	6.8	16.3
Social security costs/total personnel costs (%)	37.0	:	28.4	24.8	27.2	21.7	23.1	:	25.7	30.1	14.5

Collection, purification and distribution of water (NACE Rev. 1 41)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	18.3	0.3	23.6	:	24.5	0.9	7.1	44.1	57.9	:	:
Production value (million ECU/EUR)	111.6	50.2	512.7	54.7	379.6	7.7	72.4	910.4	434.9	224.7	175.9
Value added (million ECU/EUR)	:	28.4	:	29.9	176.7	4.4	40.3	574.6	234.1	125.4	57.1
Gross operating surplus (million ECU/EUR)	:	:	88.7	19.1	47.1	1.9	15.6	:	89.4	60.2	2.4

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	41.6	:	127.5	10.8	129.6	2.5	24.7	275.7	141.5	65.1	54.7
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	82.6	:	:	7.2	4.9	5.6	13.0	4.0	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.3	:	5.4	4.8	5.3	2.8	3.5	6.5	2.5	4.2	14.2
Social security costs/total personnel costs (%)	36.5	:	27.5	25.0	27.9	24.0	23.1	:	25.9	28.4	13.3

Chapter 2: Non-energy mining and quarrying

The activities covered in this chapter include:

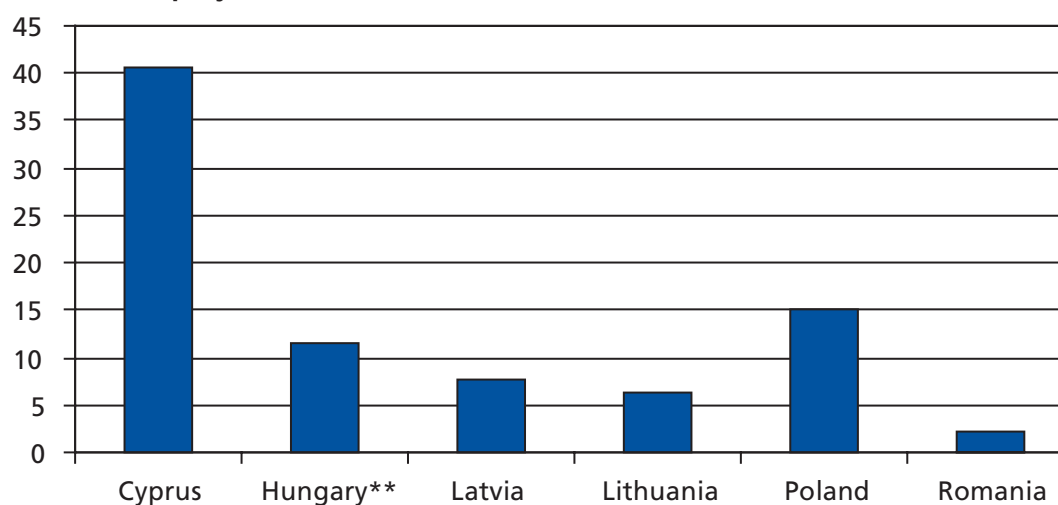
- 13 Mining of metal ores
 - 13.1 Mining of iron ores
 - 13.2 Mining of non-ferrous metal ores, except uranium and thorium ores
- 14 Other mining and quarrying
 - 14.1 Quarrying of stone
 - 14.2 Quarrying of sand and clay
 - 14.3 Mining of chemical and fertilizer minerals
 - 14.4 Production of salt
 - 14.5 Other mining and quarrying n.e.c.

I. Industrial description

Non-energy mining and quarrying comprises Mining of metal ores and the other mining and quarrying activities of NACE sub-section CB (Mining and quarrying, except of energy producing materials). The first table shows the share of sub-section CB for each candidate country, in comparison to the entire mining branch (comprising both sub-sections CA, Mining and quarrying of energy producing materials and CB, Mining and quarrying, except of energy producing materials). Mining and quarrying in Cyprus is totally allocated to the extraction of non-energy producing resources. Conversely, the Czech Republic, Estonia, Poland, Romania and the Slovak Republic's mining sectors are primarily energy-oriented, as Mining and quarrying of energy producing materials represents more than three quarters of all mining and quarrying activities' production value. The Estonian and Romanian mining sectors are the most specialised in energy-producing material mining and quarrying of all candidate countries as more than 90% of all production value in the mining and quarrying industry is destined for energy purposes. The other candidate countries' mining and quarrying activities are more balanced between the two primary divisions in this activity.

Apart from Lithuania, employment in most candidate countries in Mining and quarrying of non-energy producing materials was declining from 1995 to 1998. Apparent labour productivity for the whole sector was the highest in Cyprus, while the Central European candidate countries showed lower figures (for those countries whose data were available; see graph III.2.1). These low figures could be partly explained by the sheer number of persons employed in the non-energy mining and quarrying sector in these countries, even compared to their energy mining and quarrying sector. The latter seems therefore less labour-intensive than the former.

Graph III.2.1. Mining and quarrying, except of energy producing materials (NACE sub-section CB): Apparent labour productivity (thousand EUR/pers. employed), 1998



Source: Eurostat/SBS

Non-energy mining and quarrying: Share within the mining branch. %. 1998 (1)

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Production value	47	100	16	5	44	41	45	25	5	34	22
Value added	:	100	:	4	43	37	45	21	6	29	14
Persons employed	40	100	13	:	41	23	55	18	23	:	:

Non-energy mining and quarrying: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	73.9
Cyprus	19.0	19.3	18.9	24.4	:
Czech Rep.	:	:	:	:	:
Estonia	1.0	1.0	1.4	1.8	2.4
Hungary**	:	:	:	47.2	55.8
Latvia	:	:	3	3.1	:
Lithuania	3.5	4.5	7.8	11.2	:
Poland	:	740.3	954.3	766.3	:
Romania	:	:	144.0	102.8	c
Slovak Rep.***	37.7	42.5	15.0	18.0	:
Slovenia	15.2	14.7	45.1	41.4	:

Non-energy mining and quarrying: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	231.7	269.4	215.3	215.4
Cyprus	33.3	34.4	34.6	42.8	:
Czech Rep.	208.8	276.5	266.8	277.4	273.5
Estonia	2.1	2.6	3.8	5.9	6.8
Hungary**	:	:	:	110.1	126.2
Latvia	:	:	5.1	7.2	:
Lithuania	7.8	12.2	20.6	28.5	:
Poland	:	1 601.5	1 759.5	1 601.8	:
Romania	:	:	215.9	196.4	c
Slovak Rep.***	107.3	112.6	120.9	122.5	:
Slovenia	48.0	47.5	49.0	56.0	:

Non-energy mining and quarrying: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	26.7	25.4	22.0	17.2
Cyprus	0.7	0.6	0.6	0.6	:
Czech Rep.	10.5	11.2	10.2	9.3	8.9
Estonia	:	:	:	:	:
Hungary**	:	:	:	4.1	4.1
Latvia	:	:	:	0.4	:
Lithuania	1.5	1.5	1.2	1.8	:
Poland	:	60.3	53.6	50.7	:
Romania	:	:	56.5	48.8	c
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

(1) Ratio of NACE Rev.1 13 and 1 14 to total NACE branch C.

II. Main indicators of the sub-sectors

The highest production values for Mining of metal ores (NACE Rev. 1 13) found in those countries for which there are data, are stemming from Bulgaria and Romania. These two countries also have the most numerous workforce active in this sector. Hungary and the Slovak Republic generate much smaller production values, with bigger productivity values (apparent labour productivity not available for the Slovak Republic), but also higher unit personnel costs.

Other Mining and quarrying (NACE Rev. 1 14) consists of Quarrying of stone (NACE Rev. 1 14.1) and of sand and clay (NACE Rev. 1 14.2), both of which are the most important groups within this division in terms of production value. The rest of the groups under this heading are Mining of chemical and fertilizer minerals; Production of salt; and Other Mining and quarrying (respectively NACE Rev. 1 14.3, 14.4 and 14.5). Among those countries whose data are not confidential and available, Bulgaria, Cyprus, Hungary, Romania and the Slovak Republic all seem to achieve substantial production value in Other Mining and quarrying. Lithuania for its part, seems to be the biggest producer of the three Baltic candidate countries in this area.

Mining of metal ores (NACE Rev. 1 13)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	14.1	0.0	c	:	1.2	0.0	0.0	c	32.3	:	:
Production value (million ECU/EUR)	152.2	0.0	c	0.0	22.0	0.0	0.0	c	97.7	36.2	c
Value added (million ECU/EUR)	:	0.0	:	0.0	10.6	0.0	0.0	c	52.0	12.2	c
Gross operating surplus (million ECU/EUR)	:	:	c	0.0	1.8	0.0	0.0	:	- 62.1	0.3	c

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	34.8	:	c	0.0	8.9	0.0	0.0	c	111.5	11.9	c
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	8.9	:	:	c	1.6	:	c
Unit personnel costs (thousand ECU/EUR per employee)	2.5	:	c	:	7.5	:	:	c	3.5	4.2	c
Social security costs/total personnel costs (%)	32.2	:	c	:	28.1	:	:	:	32.1	29.4	c

Other mining and quarrying (NACE Rev. 1 14)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	7.9	0.6	c	:	2.9	0.4	1.8	c	16.5	:	:
Production value (million ECU/EUR)	63.1	42.8	c	5.9	88.1	7.2	28.5	c	98.7	86.3	c
Value added (million ECU/EUR)	:	24.4	:	1.8	36.5	3.1	11.2	c	50.8	29.2	c
Gross operating surplus (million ECU/EUR)	:	:	c	0.1	19.4	1.2	5.7	:	13.5	6.3	c

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	19.7	:	c	1.6	17.1	1.9	5.4	c	35.9	22.9	c
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	39.8	:	:	12.4	7.5	6.4	c	3.1	:	c
Unit personnel costs (thousand ECU/EUR per employee)	2.5	:	c	4.9	5.9	4.6	3.1	c	2.3	4.9	c
Social security costs/total personnel costs (%)	34.0	:	c	25.0	26.9	21.1	24.1	:	27.6	27.5	c

Quarrying of stone (NACE Rev. 1 14.1)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	1.7	:	3.0	:	0.8	c	:	c	:	:	:
Production value (million ECU/EUR)	9.3	:	67.5	:	29.5	c	:	c	:	52.5	10.4
Value added (million ECU/EUR)	:	:	:	:	11.6	c	:	c	:	18.8	2.8
Gross operating surplus (million ECU/EUR)	:	:	9.2	:	5.5	c	:	:	:	3.7	0.8

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	c	:	16.6	:	6.1	c	:	c	:	15.1	2.0
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	14.8	c	:	c	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	:	:	5.6	:	7.9	c	:	c	:	5.0	6.9
Social security costs/total personnel costs (%)	:	:	33.1	:	26.2	c	:	:	:	27.8	15.0

Quarrying of sand and clay (NACE Rev. 1 14.2)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	5.1	0.5	5.5	:	1.9	c	:	11.6	:	:	:
Production value (million ECU/EUR)	42.3	35.4	180.0	:	54.9	c	:	249.2	:	c	22.1
Value added (million ECU/EUR)	:	19.6	:	:	23.6	c	:	147.4	:	c	6.3
Gross operating surplus (million ECU/EUR)	:	:	45.9	:	13.5	c	:	:	:	c	0.9

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	12.5	:	34.1	:	10.1	c	:	76.5	:	c	5.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	41.0	:	:	12.6	c	:	12.8	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.5	:	6.3	:	5.5	c	:	7.1	:	c	10.0
Social security costs/total personnel costs (%)	34.4	:	29.3	:	26.7	c	:	:	:	c	13.0

Chapter 3: Food, drink and tobacco

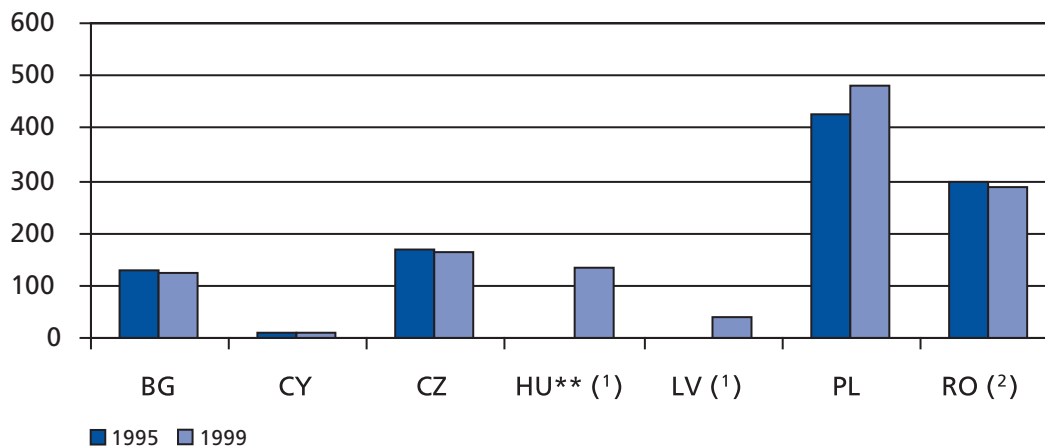
The activities covered in this chapter include:

- 15 Manufacture of food products and beverages
 - 15.1 Production, processing and preserving of meat and meat products
 - 15.2 Processing and preserving of fish and fish products
 - 15.3 Processing and preserving of fruit and vegetables
 - 15.4 Manufacture of vegetable and animal oils and fats
 - 15.5 Manufacture of dairy products
 - 15.6 Manufacture of grain mill products, starches and starch products
 - 15.7 Manufacture of prepared animal feeds
 - 15.8 Manufacture of other food products
 - 15.9 Manufacture of beverages
- 16 Manufacture of tobacco products

I. Industrial description

The Food, drink and tobacco sector is, together with the Energy sector and the Manufacture of basic metals and fabricated metal products, one of the key sectors in the candidate countries. This sector is classified as the NACE DA sub-section and covers the NACE Rev. 1 15 (Manufacture of food products and beverages) and 16 (Manufacture of tobacco products) divisions. It is making up between 15% (in the Slovak Republic) and as much as 38% (in Cyprus) of all manufacturing production value in the candidate countries. The importance of this sector is equally reflected in both value added and employment. In employment terms alone, it is the first employer in the manufacturing industry in Estonia, Hungary, Latvia and Poland. However, employment looked as if it was dwindling slowly in this sector between 1995 and 1998 (graph III.3.1), one exception being Poland.

Graph III.3.1. Employment (in thousands of persons employed) in the Food, drink and tobacco sector



(¹) Hungary and Latvia: figures previous to 1998 not available; (²) Romania: 1997 and 1998
Source: Eurostat/SBS

Food, drink and tobacco: Share within the manufacturing branch. %. 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Production value	24	38	17	29	20	35	c	26	23	15	c
Value added	:	31	:	22	15	33	c	25	21	12	c
Persons employed	17	26	11	:	18	25	c	17	13	:	:

Food, drink and tobacco: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	373.6
Cyprus	199.7	199.9	230.7	252.4	:
Czech Rep.	:	:	:	:	:
Estonia	:	:	143.8	143.1	125.3
Hungary**	:	:	:	1 147.5	1 150.1
Latvia	:	:	309.4	283.4	:
Lithuania	195.5	231.5	306.6	c	:
Poland	:	5 276.8	6 073.2	7 038.1	:
Romania	:	:	1392	1 297.3	999.8
Slovak Rep.***	2 376.0	2 297.5	2 551.2	2 594.6	:
Slovenia	c	c	c	c	:

Food, drink and tobacco: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	1 501.0	1 518.0	1 784.7	1 618.1
Cyprus	738.9	789.0	837.1	886.4	:
Czech Rep.	5 700.6	7 137.6	7 486.3	7 495.5	7 050.8
Estonia	:	:	747.0	755.5	626.0
Hungary**	:	:	:	5 584.3	5 457.5
Latvia	:	:	925.5	895.2	:
Lithuania	812.5	999.8	1 259.7	c	:
Poland	:	18 172.6	20 546.0	21 979.8	:
Romania	:	:	4 912.3	4 622.9	3 785.6
Slovak Rep.***	9 846.4	10 420.4	11 610.9	12 388.0	:
Slovenia	c	c	c	c	:

Food, drink and tobacco: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	127.6	120.0	123.3	114.6
Cyprus	9.8	10.1	10.3	10.2	:
Czech Rep.	156.3	167.0	173.2	164.1	156.6
Estonia	:	:	:	:	:
Hungary**	:	:	:	133.8	130.1
Latvia	:	:	:	40.3	:
Lithuania	55.1	53.4	57.7	c	:
Poland	:	426.9	492.6	478.7	:
Romania	:	:	296.6	285.4	265.6
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

Poland's massive weight of production value in the Manufacture of food and beverages (NACE Rev. 1 15) clearly appears in the main indicators of the sub-sectors of this division. This is also reflected in its superior labour productivity among the candidate countries in a number of groups as well as at division level. Only in the Production, processing and preserving of meat and meat products (NACE Rev. 1 15.1) is Poland's advantage in labour productivity overtaken by its peers.

Even in the Manufacture of tobacco products (NACE Rev. 1 16) does Poland stand out by its weight in production value and its hefty labour productivity. This division seems to be particularly profitable for Poland and Romania, both countries in which more than half the production value is turned into value added at factor costs. The Hungarian and Cypriot performances are not as impressive, but these countries are still able to squeeze respectively about one third and one fourth of value added at factor costs out of their production value.

Manufacture of food products and beverages (NACE Rev. 1 15)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	107.3	9.9	c	:	131.7	c	56.4	467.3	278.7	:	:
Production value (million ECU/EUR)	1 443.8	790.1	c	755.5	5 374.0	c	1 214.0	19 634.7	4 217.1	c	1 512.8
Value added (million ECU/EUR)	:	229.9	:	143.1	1 079.4	c	287.5	5 309.5	1 084.4	c	343.5
Gross operating surplus (million ECU/EUR)	:	:	c	41.0	443.6	c	111.8	:	391.6	c	73.3

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	149.6	:	c	102.0	635.9	c	175.6	2 262.9	422.8	c	270.2
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	23.3	c	:	8.2	c	5.1	11.4	3.9	c	:
Unit personnel costs (thousand ECU/EUR per employee)	1.5	:	c	4.2	4.9	c	3.1	5.2	1.7	c	12.7
Social security costs/total personnel costs (%)	30.7	:	c	24.8	27.7	c	23.3	:	25.5	c	12.6

Production, processing and preserving of meat and meat products (NACE Rev. 1 15.1)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	12.8	1.0	33.7	:	38.8	5.0	:	116.9	:	:	:
Production value (million ECU/EUR)	178.1	156.3	1 616.0	:	1 592.8	108.4	:	4 142.1	:	359.1	293.2
Value added (million ECU/EUR)	:	21.8	:	:	277.5	18.2	:	260.5	:	25.4	52.9
Gross operating surplus (million ECU/EUR)	:	:	80.3	:	102.8	5.3	:	:	:	- 15.3	8.6

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	13.1	:	141.8	:	174.7	13.5	:	472.8	:	40.7	44.3
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	22.8	:	:	7.2	3.7	:	2.2	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.1	:	4.4	:	4.5	2.7	:	4.3	:	4.1	9.7
Social security costs/total personnel costs (%)	30.5	:	28.5	:	28.2	22.2	:	:	:	26.5	12.0

Manufacture of beverages (NACE Rev. 1 15.9)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	21.1	:	24.4	:	:	3.3	:	42.5	:	:	:
Production value (million ECU/EUR)	409.1	:	1 211.8	:	:	115.7	:	3 925.7	:	323.7	294.5
Value added (million ECU/EUR)	:	:	:	:	:	50.4	:	2 429.4	:	68.2	77.5
Gross operating surplus (million ECU/EUR)	:	:	186.4	:	:	32.7	:	:	:	29.7	25.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	38.4	:	142.6	:	:	17.8	:	302.3	:	38.6	52.5
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	:	15.1	:	57.1	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.0	:	6.0	:	:	5.3	:	7.4	:	4.2	17.3
Social security costs/total personnel costs (%)	32.6	:	27.7	:	:	21.9	:	:	:	27.2	13.7

Manufacture of tobacco products (NACE Rev. 1 16)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	15.9	0.3	c	:	2.0	c	c	11.5	6.7	:	:
Production value (million ECU/EUR)	340.9	96.3	c	0.0	210.3	c	c	2 345.1	405.8	c	c
Value added (million ECU/EUR)	:	22.5	:	0.0	68.1	c	c	1 728.6	212.9	c	c
Gross operating surplus (million ECU/EUR)	:	:	c	0.0	48.0	c	c	:	33.3	c	c

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	50.1	:	c	0.0	20.2	c	c	121.8	23.6	c	c
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	82.7	c	:	33.5	c	c	150.7	32.0	c	:
Unit personnel costs (thousand ECU/EUR per employee)	3.2	:	c	0.0	9.9	c	c	11.0	3.7	c	c
Social security costs/total personnel costs (%)	29.5	:	c	0.0	27.2	c	c	:	26.3	c	c

Chapter 4: Textiles, clothing, leather and footwear

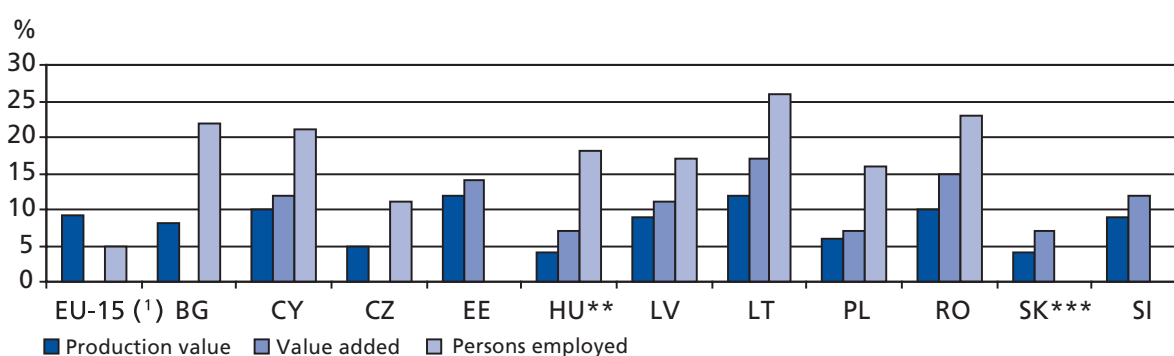
The activities covered in this chapter include:

- 17 Manufacture of textiles
- 17.1 Preparation and spinning of textile fibres
- 17.2 Textile weaving
- 17.3 Finishing of textiles
- 17.4 Manufacture of made-up textile articles, except apparel
- 17.5 Manufacture of other textiles
- 17.6 Manufacture of knitted and crocheted fabrics
- 17.7 Manufacture of knitted and crocheted articles
- 18 Manufacture of wearing apparel; dressing and dyeing of fur
- 18.1 Manufacture of leather clothes
- 18.2 Manufacture of other wearing apparel and accessories
- 18.3 Dressing and dyeing of fur; manufacture of articles of fur
- 19 Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear
- 19.1 Tanning and dressing of leather
- 19.2 Manufacture of luggage, handbags and the like, saddlery and harness
- 19.3 Manufacture of footwear

I. Industrial description

The Textiles, clothing, leather and footwear sector grouping NACE sub-sections DB and DC covers three different NACE divisions, namely Rev. 1 17, 18 and 19. Although employment decreased in most candidate countries from 1995 to 1998, it is the largest employer within the manufacturing industry in Bulgaria and Romania and a major one in most other candidate countries. Proportionally, indeed, when taking into account its share of value added, textile manufacture is also very important in the three Baltic States of Estonia, Latvia and especially Lithuania as well as in Cyprus, Slovenia and some other candidate countries. Most candidate countries namely enjoy a revealed comparative advantage in this branch. Buttressing this is the fact that the share of value added generated by this sector within the whole of the manufacturing branch is even higher than its share in production value, demonstrating a fair degree of specialisation (see graph III.4.1). The share of employment in the manufacturing total in the European Union lies around 9.1% for this sector, while the Union's share of production value in the manufacturing total is around 5% (long time-series covering enterprises with 20 persons employed and more).

Graph III.4.1. Textiles, clothing, leather and footwear: Share of production value, value added and employment within the manufacturing sector, 1998



(1) EU-15: Long time-series covering enterprises with 20 persons employed and more.

Source: Eurostat/SBS

Textiles, clothing, leather and footwear: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	225.7
Cyprus	120.5	120.4	108.1	101.0	:
Czech Rep.	:	:	:	:	:
Estonia	:	66.6	82.5	92.0	102.8
Hungary**	:	:	:	513.6	549.9
Latvia	:	:	92.9	98.9	:
Lithuania	105.4	127.7	165.7	183.2	:
Poland	:	1 749.7	1 897.8	2 030.0	:
Romania	:	:	819.7	944.2	907.1
Slovak Rep.***	171.4	177.9	173.9	183.3	154.7
Slovenia	427.4	388.8	391.3	390.2	:

Textiles, clothing, leather and footwear: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	517.7	569.5	577.4	526.0
Cyprus	306.2	281.6	267.6	244.5	:
Czech Rep.	2 217.5	2 301.7	2 269.6	2 271.6	2 268.9
Estonia	:	240.9	292.6	329.6	325.7
Hungary**	:	:	:	1 198.3	1 325.3
Latvia	:	:	218.0	231.1	:
Lithuania	280.5	337.1	445.7	478.1	:
Poland	:	4 316.5	4 766.0	4 755.6	:
Romania	:	:	1 725.0	1 911.0	1 774.8
Slovak Rep.***	541.1	539.1	515.2	520.8	497.6
Slovenia	1 095.6	1 009.7	1 093.3	1 140.2	:

Textiles, clothing, leather and footwear: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	160.5	161.6	161.8	153.7
Cyprus	11.3	9.7	8.9	8.1	:
Czech Rep.	197.5	185.1	179.1	163.4	164.2
Estonia	:	:	:	:	:
Hungary**	:	:	:	135.4	132.6
Latvia	:	:	:	27.5	:
Lithuania	63.8	63.3	64.8	65.4	:
Poland	:	420.8	458.9	427.1	:
Romania	:	:	485.3	488.2	496.7
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

Within the Manufacture of textiles (NACE Rev. 1 17), Poland, the Czech Republic, Romania, Slovenia and Hungary had the highest production value of all candidate countries in 1998. Cyprus, Hungary, Latvia and Poland all reached a high level of labour productivity in this division, but this also translates in higher unit personnel costs than their fellow candidate countries. The Czech Republic, Hungary and Poland show the highest unit personnel costs of all candidate countries but for Slovenia (whose personnel costs per employee are almost always double its Central European peer countries). These same conclusions can be repeated when digging further into NACE Rev. 1 17, such as for Textile weaving (NACE Rev. 1 17.2), Manufacture of made-up textiles (NACE Rev. 1 17.4) and Manufacture of other textiles (NACE Rev. 1 17.5), where Poland and the Czech Republic remain the biggest producers. They are followed closely by Hungary, which is also a major producer.

In the Manufacture of wearing apparel; dressing and dyeing of fur (NACE Rev. 1 18) Romania takes up the second place as biggest producer after Poland, while the Czech Republic comes third. Poland maintains the highest labour productivity among the Central European candidate countries.

Tanning and dressing of leather, manufacture of luggage, handbags, saddlery, harness and footwear (NACE Rev. 1 19) is the smallest division of the three in terms of production value. Again Poland, Romania and the Czech Republic are the three leading producers value in this activity.

Manufacture of textiles (NACE Rev. 1 17)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	41.3	1.4	79.5	:	36.7	12.1	27.1	122.6	140.1	:	:
Production value (million ECU/EUR)	241.6	47.2	1 438.2	184.9	482.6	140.1	282.9	2 061.1	677.0	182.7	609.5
Value added (million ECU/EUR)	:	19.5	:	36.5	165.7	53.7	95.0	735.6	265.4	58.8	164.2
Gross operating surplus (million ECU/EUR)	:	:	135.0	8.9	40.6	17.4	17.6	:	73.1	6.0	19.5

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	55.0	:	298.2	27.6	125.1	36.6	77.5	509.2	186.4	52.8	144.7
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	13.7	:	:	4.5	4.4	3.5	6.0	1.9	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.4	:	3.9	3.0	3.4	3.0	2.9	4.4	1.4	2.9	8.8
Social security costs/total personnel costs (%)	32.2	:	29.7	24.6	27.9	21.9	22.7	:	26.2	27.7	12.3

Textile weaving (NACE Rev. 1 17.2)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	22.4	:	37.0	:	5.5	1.9	:	30.0	:	:	:
Production value (million ECU/EUR)	140.1	:	724.0	:	81.7	24.2	:	519.2	:	108.4	92.9
Value added (million ECU/EUR)	:	:	:	:	26.2	13.3	:	181.6	:	31.6	29.6
Gross operating surplus (million ECU/EUR)	:	:	64.6	:	6.3	6.1	:	:	:	7.6	0.8

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	30.2	:	143.2	:	19.9	7.2	:	144.2	:	24.0	28.7
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	4.8	6.8	:	6.1	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.4	:	3.9	:	3.6	3.7	:	4.5	:	3.1	8.1
Social security costs/total personnel costs (%)	32.8	:	26.7	:	27.6	22.2	:	:	:	27.1	12.5

Manufacture of made-up textile articles, except apparel (NACE Rev. 1 17.4)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	2.1	0.4	9.6	:	13.4	1.5	:	17.1	:	:	:
Production value (million ECU/EUR)	7.8	14.2	109.2	:	116.0	19.4	:	214.3	:	14.9	241.3
Value added (million ECU/EUR)	:	5.2	:	:	48.7	6.2	:	92.8	:	4.3	51.9
Gross operating surplus (million ECU/EUR)	:	:	7.3	:	10.0	1.7	:	:	:	-0.3	7.8

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	1.9	:	28.6	:	38.6	4.5	:	56.5	:	4.6	44.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	13.8	:	:	3.6	4.2	:	5.4	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	0.9	:	3.4	:	2.9	3.0	:	4.0	:	2.8	9.1
Social security costs/total personnel costs (%)	31.6	:	50.0	:	28.0	22.2	:	:	:	26.1	12.2

Manufacture of other textiles (NACE Rev. 1 17.5)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	3.6	:	12.1	:	4.4	2.5	:	16.1	:	:	:
Production value (million ECU/EUR)	21.5	:	273.5	:	98.4	31.3	:	415.5	:	7.9	89.8
Value added (million ECU/EUR)	:	:	:	:	28.8	12.8	:	145.6	:	2.8	30.7
Gross operating surplus (million ECU/EUR)	:	:	32.9	:	9.8	3.7	:	:	:	-0.2	4.9

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	5.5	:	49.6	:	19.0	9.3	:	89.2	:	3.0	25.8
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	6.6	5.1	:	9.0	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	4.3	:	4.4	3.7	:	5.6	:	2.7	9.8
Social security costs/total personnel costs (%)	32.7	:	28.6	:	27.4	21.5	:	:	:	26.7	12.4

Manufacture of wearing apparel; dressing and dyeing of fur (NACE Rev. 1 18)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	97.5	5.4	57.4	:	74.0	12.7	32.6	238.4	254.1	:	:
Production value (million ECU/EUR)	247.8	148.7	512.2	108.5	508.8	77.2	138.0	1 943.6	843.9	194.1	329.9
Value added (million ECU/EUR)	:	60.6	:	44.7	258.5	40.9	75.3	1 030.9	504.5	86.2	154.5
Gross operating surplus (million ECU/EUR)	:	:	41.2	6.3	49.5	10.5	10.9	:	156.9	6.8	10.8

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	93.8	:	163.3	38.4	209.1	31.3	64.4	641.5	340.1	79.4	143.7
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	11.2	:	:	3.5	3.2	2.3	4.3	2.0	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.0	:	3.2	3.0	2.8	2.5	2.0	3.3	1.4	2.8	7.8
Social security costs/total personnel costs (%)	31.6	:	29.9	24.7	28.3	21.7	22.7	:	24.8	28.1	12.2

Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear (NACE Rev. 1 19)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	23.0	1.3	26.5	:	24.7	2.7	5.7	66.1	94.0	:	:
Production value (million ECU/EUR)	88.0	48.6	321.2	36.2	206.9	13.8	57.2	750.9	390.1	144.0	200.8
Value added (million ECU/EUR)	:	20.9	:	10.8	89.4	4.3	12.9	263.5	174.3	38.3	71.5
Gross operating surplus (million ECU/EUR)	:	:	8.4	1.8	16.1	-0.3	-0.6	:	55.6	-10.5	4.5

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	25.1	:	89.4	9.0	73.3	4.8	13.4	190.6	115.6	48.8	67.0
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	16.4	:	:	3.6	1.6	2.3	4.0	1.9	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.1	:	3.6	3.3	3.0	1.8	2.4	3.5	1.3	3.0	7.2
Social security costs/total personnel costs (%)	33.1	:	27.7	24.4	28.4	22.9	22.4	:	25.3	27.3	12.5

Chapter 5: Wood, paper, publishing and printing

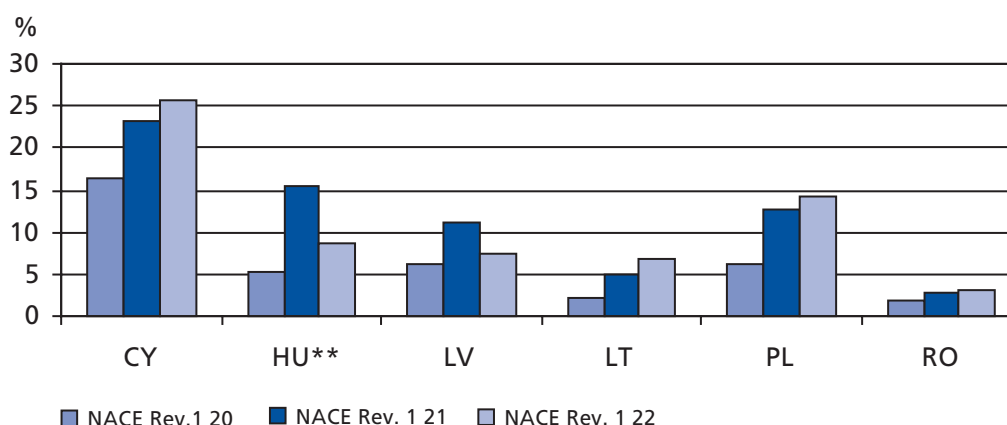
The activities covered in this chapter include:

- 20 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
- 20.1 Sawmilling and planing of wood, impregnation of wood
- 20.2 Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre board and other panels and boards
- 20.3 Manufacture of builders' carpentry and joinery
- 20.4 Manufacture of wooden containers
- 20.5 Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials
- 21 Manufacture of pulp, paper and paper products
- 21.1 Manufacture of pulp, paper and paperboard
- 21.2 Manufacture of articles of paper and paperboard
- 22 Publishing, printing and reproduction of recorded media
- 22.1 Publishing
- 22.2 Printing and service activities related to printing
- 22.3 Reproduction of recorded media

I. Industrial description

The Wood, paper, publishing and printing sector consists of two sub-sections, namely DD (Manufacture of wood and wood products) and DE (Manufacture of pulp, paper and paper products; publishing and printing and stretches over three divisions (NACE Rev. 1 20, 21 and 22). Estonia, Latvia and Lithuania show a high specialisation in this sector, together with Cyprus and Poland, and Romania to a lesser extent. Export-wise, this branch is very important, especially for the Baltic States. This sector generates as much as 25% of all of Latvia's manufacturing value added and employs as much as 21% of all manufacturing employment, the country's main division in this sector being 'Wood, wood products and cork, except furniture'. In 1998, the EU employed about 10 % of its manufacturing workforce in this sector with a production value of 8.7% out of total manufacturing production value (source: long time-series covering enterprises with 20 persons employed and more). In terms of evolution of employment, not enough data are available to draw accurate conclusions. The candidate countries either saw increases or decreases in employment in this sector from 1995 to 1998.

Graph III.5.1. Wood, paper, publishing and printing: Apparent labour productivity, 1998



Source: Eurostat/SBS

Wood, paper, publishing and printing: Share within the manufacturing branch. %. 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Production value	5	12	8	17	6	24	9	8	6	8	12
Value added	:	15	:	18	6	25	13	9	7	10	12
Persons employed	6	15	10	:	7	21	14	9	8	:	:

Wood, paper, publishing and printing: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	98.2
Cyprus	97.7	97.8	113.6	118.0	:
Czech Rep.	:	:	:	:	:
Estonia	:	72.5	106.8	117.4	130.6
Hungary**	:	:	:	457.0	467.7
Latvia	:	:	162.7	219.4	:
Lithuania	61.2	82.4	125.0	136.6	:
Poland	:	1 710.7	2 030.1	2 518.3	:
Romania	:	:	394.2	421.3	429.3
Slovak Rep.***	278.7	248.5	279.5	266.3	225.9
Slovenia	382.1	383.5	400.5	413.7	:

Wood, paper, publishing and printing: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	334.6	341.2	377.1	401.7
Cyprus	241.3	256.6	265.9	274.7	:
Czech Rep.	2 951.7	3 164.6	3 400.6	3 703.6	3 609.6
Estonia	:	264.7	378.2	457.5	525.4
Hungary**	:	:	:	1 590.5	1 749.2
Latvia	:	:	494.7	624.0	:
Lithuania	180.5	241.6	369.8	365.1	:
Poland	:	5 386.2	6 163.4	7 222.0	:
Romania	:	:	1 032.0	1 209.4	1 262.9
Slovak Rep.***	878.7	891.0	984.9	979.6	912.3
Slovenia	1 440.8	1 400.4	1 458.7	1 541.2	:

Wood, paper, publishing and printing: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	50.5	46.8	44.5	41.7
Cyprus	6.0	6.0	5.9	5.9	:
Czech Rep.	138.4	128.0	138.9	137.5	129.9
Estonia	:	:	:	:	:
Hungary**	:	:	:	52.2	53.0
Latvia	:	:	:	33.1	:
Lithuania	31.1	32.6	36.4	34.6	:
Poland	:	215.2	244.8	255.0	:
Romania	:	:	178.1	176.9	172.6
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

Poland and the Czech Republic are, just like for a host of other sectors, the biggest producers (in production value terms) among the candidate countries in the Wood, publishing and printing sector. Poland also leads the Central European candidate countries in labour productivity for a variety of groups in this sector. Latvia achieves almost the same productivity in the Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (NACE Rev. 1 20) as Poland while displaying unit personnel costs almost half as high as the Polish ones. Hungarian labour productivity in this sector is also high, with for instance the highest labour productivity among the Central European candidate countries for Manufacture of pulp, paper and paper products (NACE Rev. 1 21, see graph III.5.1).

Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (NACE Rev. 1 20)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	17.0	3.3	73.0	:	20.1	23.4	20.3	131.2	106.3	:	:
Production value (million ECU/EUR)	98.2	124.8	1 310.5	280.0	380.1	428.1	164.5	2 618.5	559.5	177.4	485.4
Value added (million ECU/EUR)	:	54.3	:	64.4	105.5	141.8	47.0	823.7	206.3	39.4	127.4
Gross operating surplus (million ECU/EUR)	:	:	116.0	22.5	43.2	83.4	9.7	:	82.3	- 0.5	13.9

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	17.0	:	205.3	41.9	62.3	61.1	37.4	414.2	120.2	39.9	113.5
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	16.4	:	:	5.3	6.1	2.3	6.3	1.9	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.1	:	4.0	3.2	3.1	2.6	1.9	4.2	1.3	3.2	9.2
Social security costs/total personnel costs (%)	30.6	:	37.6	24.8	28.1	21.9	23.0	:	26.4	28.1	12.3

Sawmilling and planing of wood, impregnation of wood (NACE Rev. 1 20.1)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	6.4	0.0	17.2	:	5.1	16.6	:	38.9	:	:	:
Production value (million ECU/EUR)	35.1	1.2	363.1	:	73.2	270.3	:	631.1	:	89.8	105.7
Value added (million ECU/EUR)	:	0.5	:	:	20.0	75.0	:	184.4	:	18.6	28.3
Gross operating surplus (million ECU/EUR)	:	:	43.8	:	6.3	45.3	:	:	:	- 1.5	5.5

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	4.7	:	54.3	:	13.7	32.0	:	129.5	:	20.1	22.8
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	10.9	:	:	4.0	4.5	:	4.7	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	0.9	:	3.7	:	2.7	1.9	:	3.9	:	3.4	8.7
Social security costs/total personnel costs (%)	29.8	:	36.5	:	28.5	21.9	:	:	:	27.9	12.3

Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre board and other panels and boards (NACE Rev. 1 20.2)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	4.0	0.2	6.1	:	2.6	4.9	:	14.4	:	:	:
Production value (million ECU/EUR)	39.4	16.9	192.8	:	125.0	136.7	:	798.3	:	39.6	84.3
Value added (million ECU/EUR)	:	4.8	:	:	32.3	59.7	:	258.2	:	10.1	20.0
Gross operating surplus (million ECU/EUR)	:	:	17.9	:	18.6	34.7	:	:	:	0.9	1.9

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	7.3	:	27.3	:	13.7	25.1	:	93.5	:	79.4	143.7
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	27.3	:	:	12.4	12.1	:	18.0	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.9	:	4.7	:	5.3	5.1	:	6.7	:	2.8	7.8
Social security costs/total personnel costs (%)	32.9	:	28.9	:	27.7	21.9	:	:	:	28.1	12.2

Manufacture of pulp, paper and paper products (NACE Rev. 1 21)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	15.1	0.8	22.9	:	10.5	1.5	3.8	39.3	23.3	:	:
Production value (million ECU/EUR)	138.4	56.4	1 070.9	47.6	605.7	39.8	54.4	1 858.6	271.8	551.3	511.6
Value added (million ECU/EUR)	:	19.3	:	10.8	162.3	16.4	19.4	499.2	66.7	152.0	94.7
Gross operating surplus (million ECU/EUR)	:	:	98.3	3.9	90.4	12.5	4.3	:	23.9	95.6	9.6

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	24.4	:	119.7	6.9	71.9	4.0	15.1	240.8	41.2	56.3	85.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	23.3	:	:	15.5	11.2	5.1	12.7	2.9	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	5.3	4.9	7.0	2.7	4.0	6.4	1.9	4.9	15.0
Social security costs/total personnel costs (%)	31.1	:	28.0	24.6	27.3	22.5	22.5	:	25.7	27.5	14.1

Publishing, printing and reproduction of recorded media (NACE Rev. 1 22)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	12.4	1.7	41.7	:	21.6	8.2	10.5	84.5	47.4	:	:
Production value (million ECU/EUR)	140.5	93.5	1 322.2	129.9	604.7	156.2	146.2	2 744.9	378.1	250.9	544.2
Value added (million ECU/EUR)	:	44.4	:	42.2	189.2	61.2	70.2	1 195.4	148.3	74.9	191.6
Gross operating surplus (million ECU/EUR)	:	:	172.0	9.4	72.1	32.2	29.5	:	85.7	27.5	26.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	20.6	:	223.1	32.9	117.2	31.7	40.8	461.7	55.8	47.4	165.6
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	25.7	:	:	8.8	7.4	6.7	14.1	3.1	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.9	:	6.5	6.2	5.5	3.9	4.0	7.8	2.0	5.7	17.3
Social security costs/total personnel costs (%)	29.1	:	39.9	24.9	25.8	21.8	17.6	:	24.7	25.9	10.8

Publishing (NACE Rev. 1 22.1)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	c	:	16.9	:	6.9	4.9	:	33.0	:	:	:
Production value (million ECU/EUR)	62.9	:	686.5	:	263.5	89.5	:	1 474.3	:	c	275.1
Value added (million ECU/EUR)	:	:	:	:	73.6	36.0	:	641.7	:	c	109.9
Gross operating surplus (million ECU/EUR)	:	:	75.3	:	26.9	18.6	:	:	:	c	13.6

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	7.3	:	118.2	:	46.7	19.5	:	273.2	:	c	96.3
Apparent labour productivity (thousand ECU/EUR per pers. employed)	c	:	:	:	10.6	7.4	:	19.4	:	c	:
Unit personnel costs (thousand ECU/EUR per employee)	c	:	7.7	:	6.8	4.0	:	11.0	:	c	25.0
Social security costs/total personnel costs (%)	23.3	:	35.0	:	24.0	22.1	:	:	:	c	9.3

Chapter 6: Chemicals, rubber and plastics

The activities covered in this chapter include:

- 24 Manufacture of chemicals and chemical products
 - 24.1 Manufacture of basic chemicals
 - 24.2 Manufacture of pesticides and other agro-chemical products
 - 24.3 Manufacture of paints, varnishes and similar coatings, printing ink and mastics
 - 24.4 Manufacture of pharmaceuticals, medicinal chemicals and botanical products
 - 24.5 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
 - 24.6 Manufacture of other chemical products
 - 24.7 Manufacture of man-made fibres
- 25 Manufacture of rubber and plastic products
 - 25.1 Manufacture of rubber products
 - 25.2 Manufacture of plastic products

I. Industrial description

This sector, encompassing NACE sub-sections DG (Manufacture of chemicals, chemical products and man-made fibres) and DH (Manufacture of rubber and plastic products), is fairly significant in most candidate countries. It generates as much as 10% or more production value of the manufacturing branch's total in countries like Bulgaria, the Czech Republic, Estonia, Hungary, Poland, Romania, the Slovak Republic and Slovenia. The EU's Chemicals, rubber and plastics sector in comparison, supplied about 14.4% of total manufacturing production value in 1998 (and was responsible for 12.3% of total manufacturing jobs). Nevertheless, only in Hungary, Slovenia and the Slovak Republic does this sector succeed in generating a share of value added at factor costs exceeding its share of production value in the manufacturing branch's total. From the available data on employment, one can see a general decline in employment in this industry in most candidate countries. In comparison, value added and production value show a mixed picture between 1995 and 1998. These figures are expressed in current EUR and therefore need to be interpreted with utmost caution.

Chemicals, rubber and plastics: Share within the manufacturing branch. %. 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Production value	12	9	10	10	12	6	9	11	10	11	15
Value added	:	9	:	6	14	5	8	11	9	13	16
Persons employed	9	8	7	:	9	6	5	9	7	:	:

Chemicals, rubber and plastics: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	192.8
Cyprus	67.4	67.3	68.1	75.3	:
Czech Rep.	:	:	:	:	:
Estonia	:	47.7	56.0	41.6	21.5
Hungary**	:	:	:	1 077.7	1 131.4
Latvia	:	:	51.4	44.6	:
Lithuania	54.9	75.6	79.0	89.8	:
Poland	:	2 542.2	2 893.1	3 062.6	:
Romania	:	:	636.3	538.8	512.4
Slovak Rep.***	377.5	341.4	377.2	333.7	249.6
Slovenia	417.6	436.7	477.2	536.4	:

Chemicals, rubber and plastics: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	1 020.6	1 061.5	896.3	766.5
Cyprus	193.2	190.6	194.9	202.7	:
Czech Rep.	2 997.3	4 047.5	4 349.7	4 556.7	4 615.6
Estonia	:	216.8	253.1	254.7	190.9
Hungary**	:	:	:	3 259.4	3 370.5
Latvia	:	:	161.2	156.2	:
Lithuania	220.4	282.5	332.6	369.8	:
Poland	:	7 822.3	9 063.9	9 489.1	:
Romania	:	:	2 515.1	1 927.0	1760
Slovak Rep.***	1 420.7	1 678.3	1 831.3	1 971.9	:
Slovenia	1 627.1	1 453.1	1 514.6	1 416.3	1 229.6

Chemicals, rubber and plastics: Employment (thousands of persons employed).

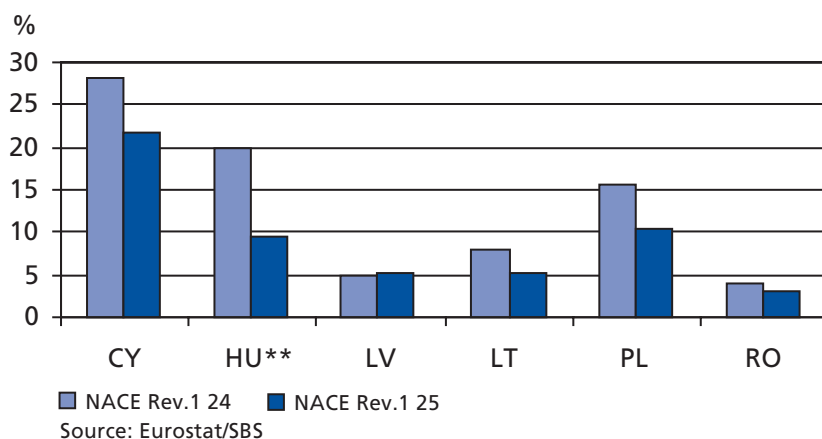
	1995	1996	1997	1998	1999
Bulgaria	:	71.7	72.9	68.9	59.1
Cyprus	3.0	3.0	2.9	3.0	:
Czech Rep.	88.3	101.7	106.4	102.6	102.8
Estonia	:	:	:	:	:
Hungary**	:	:	:	69.8	67.7
Latvia	:	:	:	9.1	:
Lithuania	12.3	13.0	13.0	12.9	:
Poland	:	222.0	235.3	232.9	:
Romania	:	:	174.2	145.3	130.7
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

The Czech Republic, Hungary, Poland are the biggest producers (value-wise, and in current EUR terms) of chemicals and chemical products (see NACE Rev. 1 24). Bulgaria, Romania, Slovenia and the Slovak Republic also produce substantial amounts of chemicals and chemical products.

In Bulgaria, the Czech Republic, Hungary, Poland and the Slovak Republic, the Manufacture of basic chemicals is the most important group of activities of this sector in terms of production value. In Cyprus, the Manufacture of plastic products has the largest production value while in Slovenia, it is the Manufacture of pharmaceuticals, medicinal chemicals and botanic products that is the most important. Due to missing and confidential data the most important activity group of this sector cannot be determined for the other candidate countries.

Although Poland has the highest labour productivity in the Manufacture of rubber and plastics (NACE Rev. 1 25) among the Central European candidate countries, Hungary attains the highest productivity (not adjusted for purchasing power parities) for the Manufacture of chemicals and chemical products (NACE Rev. 1 24) (see also graph III.6.1). Slovenia, which is a big producer in chemicals, rubber and plastics despite its smaller size among the candidate countries, has the highest unit personnel costs amongst all the Central European candidate countries. This Slovenian distinctiveness is pervasive throughout most of the industry and service activities. The Chemicals, rubber and plastics sector is no exception to this rule.

Graph III.6.1. Chemicals, rubber and plastics: Apparent labour productivity, 1998

As far as the Manufacture of rubber and plastics is concerned (NACE Rev. 1 25), Poland and the Czech Republic once again are the lead producers (in current EUR terms). This is a sector in which Poland and Hungary reach a similar productivity level (expressed in apparent labour productivity), while unit personnel costs are about the same level for these two countries and the Czech Republic.

Manufacture of chemicals and chemical products (NACE Rev. 1 24)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	46.0	1.6	48.9	:	39.6	7.3	8.3	125.1	99.5	:	:
Production value (million ECU/EUR)	712.8	130.4	2 772.1	188.1	2 264.8	125.3	291.5	6 177.5	1 470.2	956.0	1 273.3
Value added (million ECU/EUR)	:	44.8	:	24.0	792.0	35.3	66.1	1 936.5	394.3	222.7	359.9
Gross operating surplus (million ECU/EUR)	:	:	438.8	0.5	467.4	3.3	31.8	:	132.1	101.4	100.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	117.1	:	296.8	23.4	324.6	22.1	34.3	1 002.4	243.9	121.3	259.9
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	28.2	:	:	20.0	4.9	8.0	15.5	4.0	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.6	:	6.3	4.2	8.2	3.0	4.2	8.0	2.6	4.9	18.7
Social security costs/total personnel costs (%)	33.0	:	29.1	24.8	27.0	21.7	23.0	:	28.0	27.0	12.5

Manufacture of basic chemicals (NACE Rev. 1 24.1)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	15.6	:	27.3	:	14.9	0.4	:	45.5	:	:	:
Production value (million ECU/EUR)	298.3	:	1 690.1	:	1 010.0	9.3	:	2 537.8	:	440.1	c
Value added (million ECU/EUR)	:	:	:	:	296.6	2.2	:	705.7	:	94.6	c
Gross operating surplus (million ECU/EUR)	:	:	288.7	:	188.5	1.4	:	:	:	43.5	c

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	52.3	:	173.5	:	108.1	0.8	:	361.5	:	51.1	c
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	19.9	5.2	:	15.5	:	:	c
Unit personnel costs (thousand ECU/EUR per employee)	3.4	:	6.6	:	7.3	1.9	:	7.7	:	4.9	c
Social security costs/total personnel costs (%)	33.3	:	27.4	:	27.5	25.0	:	:	:	27.6	c

Manufacture of pharmaceuticals, medicinal chemicals and botanical products (NACE Rev. 1 24.4)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	11.3	0.5	6.9	:	16.0	2.2	:	26.0	:	:	:
Production value (million ECU/EUR)	168.1	46.5	321.7	:	857.5	29.2	:	975.0	:	192.5	563.9
Value added (million ECU/EUR)	:	15.3	:	:	394.8	12.8	:	440.3	:	50.4	204.7
Gross operating surplus (million ECU/EUR)	:	:	76.0	:	231.6	4.5	:	:	:	24.9	64.9

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	27.4	:	45.4	:	163.2	8.4	:	225.6	:	25.5	139.8
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	28.8	:	:	24.8	5.8	:	17.0	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.4	:	6.6	:	10.3	3.8	:	8.8	:	5.3	25.3
Social security costs/total personnel costs (%)	32.1	:	27.1	:	26.6	21.4	:	:	:	25.9	11.5

Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations (NACE Rev. 1 24.5)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	7.1	0.6	4.7	:	2.9	0.7	:	24.6	:	:	:
Production value (million ECU/EUR)	93.1	47.7	319.7	:	166.2	10.7	:	1 557.9	:	57.6	111.4
Value added (million ECU/EUR)	:	17.4	:	:	36.4	4.4	:	439.9	:	16.7	23.4
Gross operating surplus (million ECU/EUR)	:	:	23.0	:	17.9	2.0	:	:	:	10.4	6.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	12.9	:	25.4	:	18.5	2.5	:	210.5	:	6.3	17.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	27.8	:	:	12.6	6.4	:	17.9	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.9	:	5.9	:	6.4	3.6	:	9.0	:	4.4	12.3
Social security costs/total personnel costs (%)	31.8	:	36.2	:	27.0	20.0	:	:	:	25.4	13.2

Manufacture of rubber and plastic products (NACE Rev. 1 25)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	22.9	1.4	53.7	:	30.1	1.8	4.6	107.7	45.8	:	:
Production value (million ECU/EUR)	183.5	72.3	1 784.6	66.6	994.6	30.9	78.3	3 311.6	456.8	460.3	698.6
Value added (million ECU/EUR)	:	30.5	:	17.6	285.7	9.3	23.7	1 126.1	144.5	111.0	176.5
Gross operating surplus (million ECU/EUR)	:	:	229.6	7.7	135.6	5.4	10.2	:	58.5	40.7	34.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	35.1	:	276.6	9.9	150.1	3.9	13.5	524.0	83.5	70.3	142.6
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	21.7	:	:	9.5	5.1	5.1	10.5	3.2	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	5.4	4.3	5.0	2.1	3.0	5.6	2.0	4.9	12.1
Social security costs/total personnel costs (%)	30.8	:	31.5	25.3	27.4	23.1	23.0	:	27.5	26.2	12.1

Manufacture of rubber products (NACE Rev. 1 25.1)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	9.9	:	14.9	:	7.4	0.2	:	25.3	:	:	:
Production value (million ECU/EUR)	65.3	:	554.2	:	230.8	4.0	:	810.2	:	238.6	272.5
Value added (million ECU/EUR)	:	:	:	:	64.6	1.5	:	298.5	:	60.9	65.4
Gross operating surplus (million ECU/EUR)	:	:	85.7	:	22.0	1.0	:	:	:	22.7	10.9

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	15.3	:	89.2	:	42.6	0.5	:	168.2	:	38.1	54.6
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	8.8	6.2	:	11.8	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	6.2	:	5.8	2.1	:	6.9	:	5.3	14.5
Social security costs/total personnel costs (%)	31.4	:	30.0	:	27.0	20.0	:	:	:	26.0	10.8

Manufacture of plastic products (NACE Rev. 1 25.2)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	13.0	1.3	38.9	:	22.8	1.6	:	82.4	:	:	:
Production value (million ECU/EUR)	118.1	68.3	1 230.4	:	763.8	27.0	:	2 501.4	:	221.8	426.1
Value added (million ECU/EUR)	:	29.0	:	:	221.1	7.8	:	827.7	:	50.1	111.1
Gross operating surplus (million ECU/EUR)	:	:	143.9	:	113.6	4.4	:	:	:	18.0	23.1

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	19.8	:	187.5	:	107.5	3.4	:	355.8	:	32.2	88.0
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	22.0	:	:	9.7	4.9	:	10.0	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	5.1	:	4.7	2.1	:	5.1	:	4.5	10.9
Social security costs/total personnel costs (%)	30.3	:	32.1	:	27.4	23.5	:	:	:	26.4	12.7

Chapter 7: Non-metallic mineral products

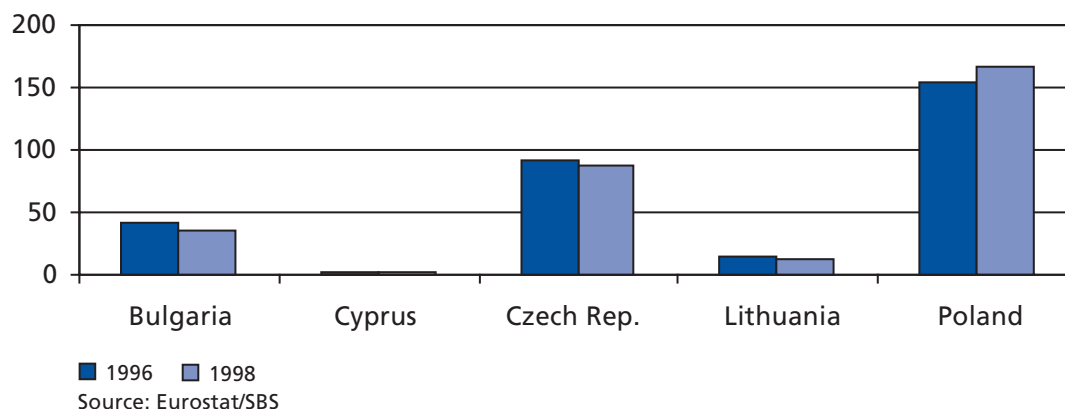
The activities covered in this chapter include:

- 26 Manufacture of other non-metallic mineral products
- 26.1 Manufacture of glass and glass products
- 26.2 Manufacture of non-refractory ceramic goods other than for construction purposes; manufacture of refractory ceramic products
- 26.3 Manufacture of ceramic tiles and flags
- 26.4 Manufacture of bricks, tiles and construction products, in baked clay
- 26.5 Manufacture of cement, lime and plaster
- 26.6 Manufacture of articles of concrete, plaster and cement
- 26.7 Cutting, shaping and finishing of stone
- 26.8 Manufacture of other non-metallic mineral products

I. Industrial description

The Non-metallic mineral products is classified under NACE Rev. 1 26, which is the only division making up sub-section DI 'Manufacture of other non-metallic mineral products' of NACE. It is a minor sector, representing between 3% (as in Hungary) and a maximum of 8% (as in Cyprus) of all manufacturing production value in the candidate countries. Similarly, the EU's counterpart represents a mere 3.4% of all production value stemming from the Union's manufacturing branch. The share of value added from this sector compared to total manufacturing's is higher than its pertaining share of production value in Cyprus, Estonia, Hungary, Latvia, Lithuania, Romania, the Slovak Republic and Slovenia. Employment was shrinking from 1995 to 1998 in most candidate countries whose data are available (see graph III.7.1) and lied between 3 and 7% of all manufacturing employment in 1998 in these countries. This figure stood at 4.5% in the EU in the same year.

Graph III.7.1. Non-metallic mineral products: Employment (in thousands of persons employed)



Non-metallic mineral products: Share within the manufacturing branch. %. 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Production value	14	8	6	5	3	3	4	5	5	5	4
Value added	:	10	:	7	5	4	5	5	6	7	5
Persons employed	5	7	6	:	5	3	5	6	5	:	:

Non-metallic mineral products: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	87.9
Cyprus	82.5	82.5	82.3	80.3	:
Czech Rep.	:	:	:	:	:
Estonia	:	26.7	37.5	48.6	42.3
Hungary**	:	:	:	345.5	365.0
Latvia	:	:	19.4	31.4	:
Lithuania	32.0	33.1	44.5	57.1	:
Poland	:	1 150.0	1 408.9	1 553.1	:
Romania	:	:	373.4	383.7	322.7
Slovak Rep.***	145.6	158.6	167.0	186.9	158.1
Slovenia	147.4	143.9	152.1	157.2	:

Non-metallic mineral products: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	288.8	322.4	335.9	331.8
Cyprus	202.7	202.9	195.8	191.3	:
Czech Rep.	1 783.3	2 247.1	2 399.6	2 481.6	2 598.0
Estonia	:	86.1	111.5	141.0	126.2
Hungary**	:	:	:	923.7	967.5
Latvia	:	:	47.9	75.9	:
Lithuania	101.8	108.5	144.1	165.3	:
Poland	:	2971.1	3 652.9	4 005.9	:
Romania	:	:	1 034.8	1 036.1	840.8
Slovak Rep.***	454.1	491.0	539.6	604.4	617.0
Slovenia	442.5	461.2	479.2	521.3	:

Non-metallic mineral products: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	41.7	38.9	35.1	30.3
Cyprus	3.0	2.9	2.6	2.6	:
Czech Rep.	84.7	90.7	91.9	87.8	87.1
Estonia	:	:	:	:	:
Hungary**	:	:	:	33.7	31.3
Latvia	:	:	:	5.0	:
Lithuania	17.0	14.1	13.0	12.5	:
Poland	:	154.1	169.1	165.9	:
Romania	:	:	125.5	117.4	104.8
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

The Manufacture of articles of concrete, plaster, cement yields the largest production value among the groups classified in this sector. In Bulgaria and the Slovak republic the most important activity of this sector is the Manufacture of cement, lime and plaster, and for the Czech Republic it is the Manufacture of glass and glass products.

Cyprus has the most productive Non-metallic mineral products sector among the 11 candidate countries in this present publication (expressed through apparent labour productivity). Among the Central European candidate countries, Hungary seems to be achieving the highest labour productivity for this sector with Poland closing in. Unfortunately, it is difficult to draw accurate conclusions at this stage for this sector due to its lack of data or their remaining confidential at division and group level.

Manufacture of other non-metallic mineral products (NACE Rev. 1 26)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	35.1	2.6	87.8	:	33.7	5.0	12.5	165.9	117.4	:	:
Production value (million ECU/EUR)	335.9	191.3	2 481.6	141.0	923.7	75.9	165.3	4 005.9	1 036.1	604.4	521.3
Value added (million ECU/EUR)	:	80.3	:	48.6	345.5	31.4	57.1	1 553.1	383.7	186.9	157.2
Gross operating surplus (million ECU/EUR)	:	:	505.8	23.7	162.5	19.1	19.1	:	129.1	73.1	31.4

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	68.9	:	447.5	24.9	183.0	12.4	37.9	836.1	248.1	113.8	125.8
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	31.4	:	:	10.3	6.2	4.6	9.4	3.3	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.0	:	5.5	5.0	5.5	2.5	3.1	5.6	2.2	4.5	12.1
Social security costs/total personnel costs (%)	32.9	:	28.5	24.9	27.9	21.8	23.0	:	27.7	27.1	12.9

Manufacture of glass and glass products (NACE Rev. 1 26.1)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	11.4	:	34.8	:	c	1.7	:	44.0	:	:	:
Production value (million ECU/EUR)	95.4	:	896.6	:	c	21.0	:	880.9	:	143.5	125.8
Value added (million ECU/EUR)	:	:	:	:	c	9.9	:	387.7	:	46.2	39.8
Gross operating surplus (million ECU/EUR)	:	:	180.8	:	c	6.4	:	:	:	11.8	4.2

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	23.5	:	174.9	:	c	3.6	:	219.1	:	34.5	35.5
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	c	5.8	:	8.8	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.1	:	5.3	:	c	2.1	:	5.3	:	4.3	11.2
Social security costs/total personnel costs (%)	33.6	:	27.2	:	c	22.2	:	:	:	27.0	13.8

Manufacture of cement, lime and plaster (NACE Rev. 1 26.5)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	5.3	0.4	4.2	:	c	c	:	15.1	:	:	:
Production value (million ECU/EUR)	98.3	55.0	314.6	:	c	c	:	684.9	:	144.4	79.6
Value added (million ECU/EUR)	:	27.4	:	:	c	c	:	238.8	:	38.0	23.9
Gross operating surplus (million ECU/EUR)	:	:	104.3	:	c	c	:	:	:	19.6	8.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	14.1	:	34.8	:	c	c	:	134.9	:	18.4	15.9
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	67.8	:	:	c	c	:	15.8	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.7	:	8.4	:	c	c	:	8.5	:	5.6	14.9
Social security costs/total personnel costs (%)	34.0	:	29.9	:	c	c	:	:	:	27.2	13.2

Manufacture of articles of concrete, plaster and cement (NACE Rev. 1 26.6)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	5.8	0.8	15.3	:	6.5	1.1	:	47.0	:	:	:
Production value (million ECU/EUR)	53.7	73.4	528.3	:	200.4	22.8	:	1 211.1	:	135.8	95.6
Value added (million ECU/EUR)	:	22.9	:	:	62.8	8.0	:	434.0	:	34.7	27.7
Gross operating surplus (million ECU/EUR)	:	:	78.2	:	28.2	5.1	:	:	:	9.4	3.6

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	10.0	:	81.5	:	34.7	3.0	:	195.1	:	25.4	24.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	27.2	:	:	9.6	6.9	:	9.2	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.8	:	5.7	:	5.4	2.6	:	5.1	:	4.7	11.5
Social security costs/total personnel costs (%)	31.0	:	29.8	:	27.4	23.3	:	:	:	26.8	12.0

Chapter 8: Basic metal processing

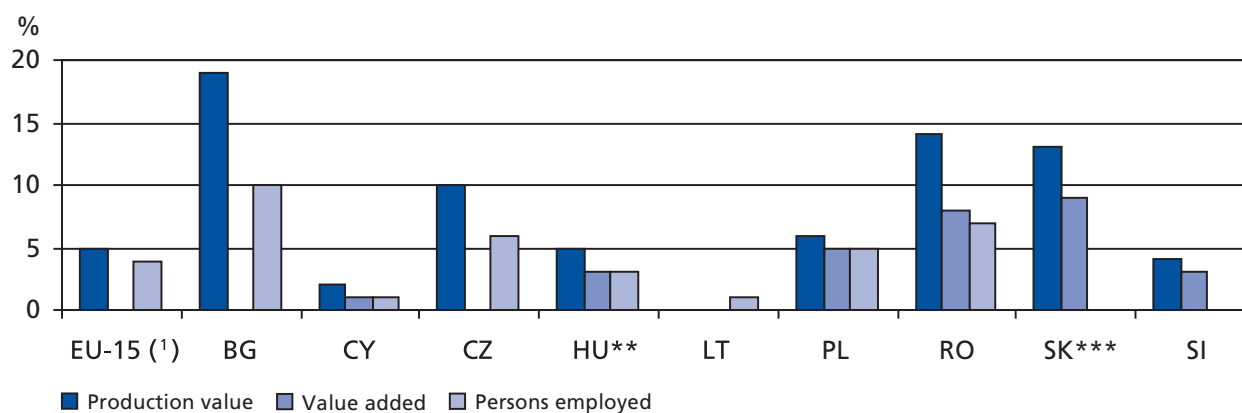
The activities covered in this chapter include:

- 27 Manufacture of basic metals
- 27.1 Manufacture of basic iron and steel and of ferro-alloys (ECSC)
- 27.2 Manufacture of tubes
- 27.3 Other first processing of iron and steel and production of non-ECSC ferro-alloys
- 27.4 Manufacture of basic precious and non-ferrous metals
- 27.5 Casting of metals

I. Industrial description

This sector is of great importance for the candidate countries: as it contributes as much as 19%, 14% and 13% of all production value of the industry branch respectively in Bulgaria, Romania and the Slovak Republic (see graph III.8.1). In the European Union (EU), the same measure stands at a mere 4.9%. In terms of share of value added within the manufacturing branch, Basic metal processing is slightly less important than in terms of production value. Employment in this sector is especially significant in Bulgaria (10% of number of persons employed in the industry are active in the processing of basic metals), while fairly important in most other candidate countries with sizable production values. Employment was declining in most candidate countries between 1995 and 1998, however. The EU's Basic metal processing sector employs around 3.9% of all persons employed in its manufacturing branch.

Graph III.8.1. Basic metal processing: Share of production value, value added and employment within the manufacturing sector, 1998



(1) EU-15: Long time-series covering enterprises with 20 persons employed and more.

Source: Eurostat/SBS

Basic metal processing: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	89.6
Cyprus	4.4	4.3	7.4	9.6	:
Czech Rep.	:	:	:	:	:
Estonia	:	0.5	0.7	1.4	0.8
Hungary**	:	:	:	220.8	186.4
Latvia	:	:	c	c	:
Lithuania	3.7	3.6	4.3	5.2	:
Poland	:	1 325.7	1 441.7	1 364.5	:
Romania	:	:	643.2	480.6	408.3
Slovak Rep.***	333.5	306.9	277.8	234.6	161.4
Slovenia	113.6	114.9	99.4	117.2	:

Basic metal processing: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	1 313.9	1 683.8	1 417.1	749.9
Cyprus	22.1	25.2	30.5	35.6	:
Czech Rep.	3 800.6	3 617.0	4 090.4	4 239.8	3 376.6
Estonia	:	1.4	2.3	5.1	3.1
Hungary**	:	:	:	1425	1 300.8
Latvia	:	:	c	c	:
Lithuania	11.3	13.3	15.4	16.3	:
Poland	:	5 141.2	5 363.9	5 507.3	:
Romania	:	:	3 264.3	2 726.5	1 828.8
Slovak Rep.***	1 572.2	1 414.9	1 682.5	1 606.4	1 466.3
Slovenia	643.7	582.3	523.7	592.7	:

Basic metal processing: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	81.3	79.9	75.2	49.5
Cyprus	0.1	0.2	0.2	0.2	:
Czech Rep.	108.1	107.5	99.1	90.3	83.4
Estonia	:	:	:	:	:
Hungary**	:	:	:	22.4	20.9
Latvia	:	:	:	c	:
Lithuania	2.0	2.0	1.7	1.8	:
Poland	:	148.4	137.2	130.2	:
Romania	:	:	156.7	141.4	119.8
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

While Bulgaria, the Czech Republic, Romania and the Slovak Republic are among the largest basic metal processing countries (according to the share of production value this sector generates in the manufacturing branch). Hungary, Poland and Slovenia's production values are significant too (in current EUR terms). Indeed, this sector is strategic in most candidate countries. At division level, Hungary and Poland lead again in labour productivity figures (for those countries for which this ratio has been calculated). The Manufacture of basic iron and steel and of ferro-alloys (NACE Rev. 1 27.1) makes up more or less 50% of all production value in the Czech, Hungarian, Polish and Slovenian Basic metal processing sector. The Slovak Republic distinguishes itself by its production being concentrated in 'Other first processing of iron and steel and production of non-ECSC ferro-alloys' (NACE Rev. 1 27.3, not detailed in this publication). This means that the Slovak Basic metal processing is specialized in cold drawing, cold rolling of narrow strip, cold forming or folding and wire drawing (NACE Rev. 1 27.31 to 27.34). In terms of unit personnel costs, Slovenia is still the most expensive Central European candidate country. Poland, however, shows above-average unit personnel costs for the Manufacture of basic precious and non-ferrous metals (NACE Rev. 1 27.4). The Hungarian labour productivity is higher than the Polish one in the Manufacture of tubes, the Manufacture of basic precious and non-ferrous metals and the Casting of metals, while this situation is reversed for the Manufacture of basic iron and steel and non-ferro alloys (ECSC). However, Hungary's unit personnel costs seem to remain slightly lower than in Poland in most activities.

Manufacture of basic metals (NACE Rev. 1 27)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	75.2	0.2	90.3	:	22.4	c	1.8	130.2	141.4	:	:
Production value (million ECU/EUR)	1 417.1	35.6	4 239.8	5.1	1 425.0	c	16.3	5 507.3	2 726.5	1 606.4	592.7
Value added (million ECU/EUR)	:	9.6	:	1.4	220.8	c	5.2	1 364.5	480.6	234.6	117.2
Gross operating surplus (million ECU/EUR)	:	:	340.7	0.7	74.1	c	-0.1	:	67.7	54.8	12.5

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	235.5	:	560.8	0.7	146.7	c	5.4	961.9	403.5	179.8	104.8
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	42.1	:	:	9.9	c	2.9	10.5	3.4	:	:
Unit personnel costs (thousand ECU/EUR per employee)	3.1	:	6.2	2.1	6.6	c	3.1	7.3	2.9	5.9	12.5
Social security costs/total personnel costs (%)	34.7	:	27.5	28.6	27.8	c	22.2	:	29.6	28.0	12.7

Manufacture of basic iron and steel and of ferro-alloys (ECSC) (NACE Rev. 1 27.1)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	22.6	:	47.5	:	9.1	c	:	69.7	:	:	:
Production value (million ECU/EUR)	c	:	2 646.9	:	716.1	c	:	3 550.9	:	156.4	263.8
Value added (million ECU/EUR)	:	:	:	:	71.2	c	:	855.0	:	33.3	48.4
Gross operating surplus (million ECU/EUR)	:	:	214.1	:	7.0	c	:	:	:	21.7	0.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	84.3	:	326.0	:	64.2	c	:	537.0	:	11.6	48.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	7.8	c	:	12.3	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	3.7	:	6.9	:	7.0	c	:	7.6	:	5.3	12.9
Social security costs/total personnel costs (%)	35.6	:	27.5	:	27.9	c	:	:	:	27.6	12.6

Manufacture of tubes (NACE Rev. 1 27.2)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	2.1	:	5.7	:	0.8	0	:	8.0	:	:	:
Production value (million ECU/EUR)	c	:	280.5	:	34.7	c	:	229.0	:	106.4	51.2
Value added (million ECU/EUR)	:	:	:	:	7.8	c	:	54.1	:	33.3	8.3
Gross operating surplus (million ECU/EUR)	:	:	12.0	:	3.3	c	:	:	:	10.8	1.4

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	4.1	:	34.1	:	4.5	c	:	54.6	:	22.4	7.0
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	9.3	c	:	6.8	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.9	:	6.0	:	5.5	c	:	6.6	:	5.3	12.5
Social security costs/total personnel costs (%)	31.7	:	27.0	:	28.9	c	:	:	:	29.5	12.9

Manufacture of basic precious and non-ferrous metals (NACE Rev. 1 27.4)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	10.0	:	5.1	:	:	c	:	17.0	:	:	:
Production value (million ECU/EUR)	270.2	:	358.2	:	:	c	:	873.2	:	359.1	140.2
Value added (million ECU/EUR)	:	:	:	:	:	c	:	176.7	:	58.5	20.5
Gross operating surplus (million ECU/EUR)	:	:	29.5	:	:	c	:	:	:	26.0	4.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	34.1	:	29.7	:	:	c	:	149.8	:	32.5	16.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	:	c	:	10.4	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	3.4	:	5.9	:	:	c	:	9.2	:	5.1	13.8
Social security costs/total personnel costs (%)	33.4	:	27.9	:	:	c	:	:	:	26.5	12.2

Casting of metals (NACE Rev. 1 27.5)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	18.2	:	20.2	:	3.8	0.1	:	27.5	:	:	:
Production value (million ECU/EUR)	79.1	:	445.8	:	76.5	c	:	524.1	:	31.1	133.5
Value added (million ECU/EUR)	:	:	:	:	28.1	c	:	194.6	:	5.3	39.6
Gross operating surplus (million ECU/EUR)	:	:	36.4	:	10.9	c	:	:	:	- 5.6	7.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	29.1	:	102.7	:	17.2	c	:	160.7	:	10.8	32.6
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	7.5	c	:	7.1	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	5.1	:	4.6	c	:	5.7	:	4.3	11.5
Social security costs/total personnel costs (%)	30.6	:	28.3	:	27.9	c	:	:	:	29.6	13.2

Chapter 9: Metal products

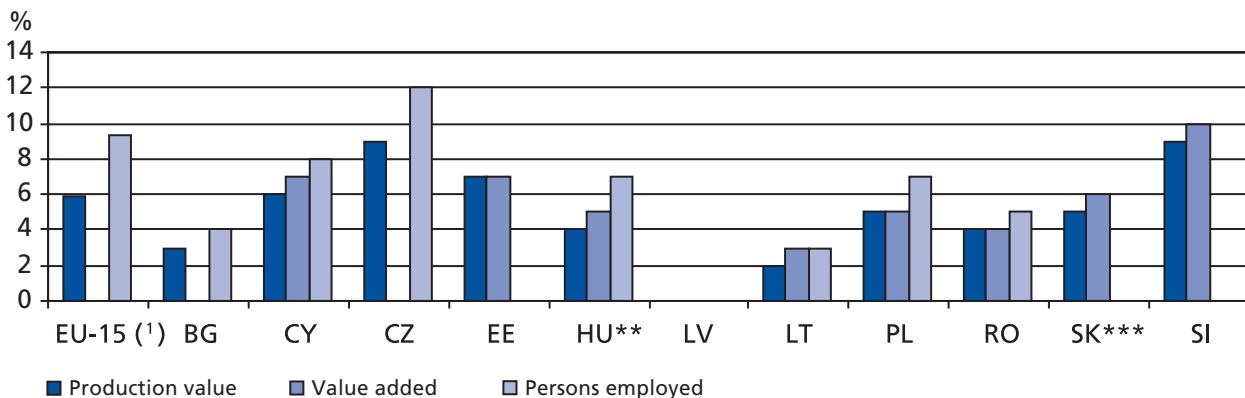
The activities covered in this chapter include:

- 28 Manufacture of fabricated metal products, except machinery and equipment
- 28.1 Manufacture of structural metal products
- 28.2 Manufacture of tanks, reservoirs and containers of metal; manufacture of central heating radiators and boilers
- 28.3 Manufacture of steam generators, except central heating hot water boilers
- 28.4 Forging, pressing, stamping and roll forming of metal; powder metallurgy
- 28.5 Treatment and coating of metals; general mechanical engineering
- 28.6 Manufacture of cutlery, tools and general hardware
- 28.7 Manufacture of other fabricated metal products

I. Industrial description

Metal products (NACE Rev. 1 28) may not be as important as basic metal processing for most candidate countries, but it is its natural extension on the production line. Hence, it is also covered under the sub-section DJ 'Manufacture of basic metals and fabricated metal products'. Whereas Slovenia does not have as high a specialisation in basic metal processing compared to its peers, it does overtake them in this sector (see graph III.9.1). Metal products provides about 9% of all production value and generates about 10% of all value added in this country's manufacturing activities. In the Czech Republic, this sector also contributes 9% of all manufacturing production and employs about 12% of all persons employed in the manufacturing branch. In the European Union, the Manufacture of metal products, except machinery and equipment, represented 5.9% of the manufacturing branch's total and employed 9.3% of total employment in manufacturing.

Graph III.9.1. Metal products: Share of production value, value added and employment within the manufacturing sector, 1998



(1) EU-15: Long time-series covering enterprises with 20 persons employed and more.

Source: Eurostat/SBS

Metal products: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	56.3
Cyprus	46.6	46.6	53.3	58.8	:
Czech Rep.	:	:	:	:	:
Estonia	:	28.9	35.8	46.1	37.5
Hungary**	:	:	:	343.2	428.8
Latvia	:	:	c	c	:
Lithuania	10.5	14.9	23.4	26.6	:
Poland	:	1 148.0	1 394.0	1 490.6	:
Romania	:	:	257.5	275.2	217.9
Slovak Rep.***	122.0	120.1	127.2	156.7	11.4
Slovenia	280.1	284.1	324.8	349.4	:

Metal products: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	155.2	181.7	198.0	189.1
Cyprus	128.1	128.4	134.8	146.8	:
Czech Rep.	2 673.6	2 956.0	3 513.6	3 852.3	3 566.4
Estonia	:	103.3	135.1	178.5	138.8
Hungary**	:	:	:	1 018.2	1 268.3
Latvia	:	:	c	c	:
Lithuania	32.5	45.4	72.0	79.7	:
Poland	:	2 988.3	3 556.0	4 084.1	:
Romania	:	:	581.0	721.0	571.0
Slovak Rep.***	408.3	409.5	476.0	569.0	497.7
Slovenia	896.6	928.7	1 142.2	1 231.8	:

Metal products: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	32.6	29.5	28.3	26.0
Cyprus	3.3	3.3	3.2	3.2	:
Czech Rep.	154.8	155.0	167.3	168.4	163.4
Estonia	:	:	:	:	:
Hungary**	:	:	:	48.7	54.4
Latvia	:	:	:	c	:
Lithuania	7.7	7.2	7.4	7.3	:
Poland	:	162.7	190.3	198.0	:
Romania	:	:	117.0	106.7	95.3
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

Slovenia's production value of more than one billion EUR in 1998 ranks third among the candidate countries in metal products, behind the Czech Republic and Poland's production value. Noteworthy is the high labour productivity level Latvia achieves in this sector. For the Manufacture of cutlery, tools and general hardware (NACE Rev. 1 28.6) Latvia's labour productivity is slightly higher than the Polish one, while its unit personnel costs are three times lower than the latter's. This contrasts with the Treatment and coating of metals; general mechanical engineering (NACE Rev. 1 28.5), where Latvian labour productivity is much lower than Poland's. Production value in this group remained marginal for Latvia though.

Manufacture of fabricated metal products, except machinery and equipment (NACE Rev. 1 28)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	28.3	3.2	168.4	:	48.7	c	7.3	198.0	106.7	:	:
Production value (million ECU/EUR)	198.0	146.8	3 852.3	178.5	1 018.2	c	79.7	4 084.1	721.0	569.0	1 231.8
Value added (million ECU/EUR)	:	58.8	:	46.1	343.2	c	26.6	1 490.6	275.2	156.7	349.4
Gross operating surplus (million ECU/EUR)	:	:	358.4	13.8	123.3	c	6.7	:	95.3	40.6	71.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	40.6	:	748.2	32.4	219.9	c	19.9	919.1	175.0	116.1	278.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	18.1	:	:	7.0	c	3.6	7.5	2.6	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	5.2	4.3	4.6	c	2.8	5.7	1.9	4.4	10.1
Social security costs/total personnel costs (%)	30.8	:	33.7	24.7	26.9	c	22.6	:	26.2	27.6	13.2

Manufacture of structural metal products (NACE Rev. 1 28.1)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	7.3	2.0	27.2	:	16.2	0.8	:	50.8	:	:	:
Production value (million ECU/EUR)	43.8	96.4	698.8	:	295.7	12.8	:	1 224.7	:	127.8	151.3
Value added (million ECU/EUR)	:	35.1	:	:	105.7	4.7	:	408.7	:	32.9	37.5
Gross operating surplus (million ECU/EUR)	:	:	46.4	:	35.4	3.2	:	:	:	5.2	3.7

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	8.6	:	140.3	:	70.3	1.8	:	252.2	:	27.7	33.8
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	17.4	:	:	6.5	5.6	:	8.1	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.3	:	5.5	:	4.4	2.2	:	5.9	:	4.4	10.8
Social security costs/total personnel costs (%)	30.2	:	30.0	:	26.2	22.2	:	:	:	27.8	13.0

Treatment and coating of metals; general mechanical engineering (NACE Rev. 1 28.5)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	2.4	0.4	33.1	:	6.6	0.4	:	26.7	:	:	:
Production value (million ECU/EUR)	10.6	13.3	563.5	:	99.8	2.6	:	374.0	:	44.9	211.5
Value added (million ECU/EUR)	:	8.1	:	:	41.9	1.3	:	169.9	:	18.3	69.8
Gross operating surplus (million ECU/EUR)	:	:	54.1	:	17.3	0.6	:	:	:	4.3	18.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	1.5	:	137.6	:	24.6	0.9	:	62.2	:	14.0	51.9
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	20.8	:	:	6.3	3.5	:	6.4	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.1	:	4.9	:	3.8	2.4	:	4.1	:	4.0	8.9
Social security costs/total personnel costs (%)	26.7	:	31.2	:	25.2	22.2	:	:	:	27.9	12.9

Manufacture of cutlery, tools and general hardware (NACE Rev. 1 28.6)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	6.2	:	45.3	:	5.9	1.2	:	18.5	:	:	:
Production value (million ECU/EUR)	28.3	:	699.6	:	115.2	13.1	:	321.4	:	44.4	249.1
Value added (million ECU/EUR)	:	:	:	:	43.4	7.3	:	109.8	:	17.5	86.1
Gross operating surplus (million ECU/EUR)	:	:	93.0	:	15.8	4.7	:	:	:	1.8	11.5

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	9.2	:	158.2	:	27.6	2.7	:	149.7	:	15.7	74.7
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	7.3	6.1	:	5.9	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	4.9	:	4.7	2.3	:	9.3	:	3.9	11.0
Social security costs/total personnel costs (%)	30.4	:	38.1	:	27.9	22.2	:	:	:	27.4	13.9

Manufacture of other fabricated metal products (NACE Rev. 1 28.7)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	7.2	0.7	35.5	:	12.4	3.4	:	69.3	:	:	:
Production value (million ECU/EUR)	83.6	30.1	852.7	:	272.9	83.3	:	1 400.8	:	149.2	386.4
Value added (million ECU/EUR)	:	12.3	:	:	93.2	22.5	:	515.1	:	46.2	111.5
Gross operating surplus (million ECU/EUR)	:	:	91.8	:	36.7	12.9	:	:	:	15.1	25.4

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	10.7	:	163.4	:	56.6	9.7	:	266.5	:	31.1	86.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	18.5	:	:	7.5	6.6	:	7.4	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	5.0	:	4.6	2.9	:	4.8	:	4.3	9.6
Social security costs/total personnel costs (%)	30.8	:	35.3	:	27.2	21.6	:	:	:	27.0	12.8

Chapter 10: Machinery and equipment

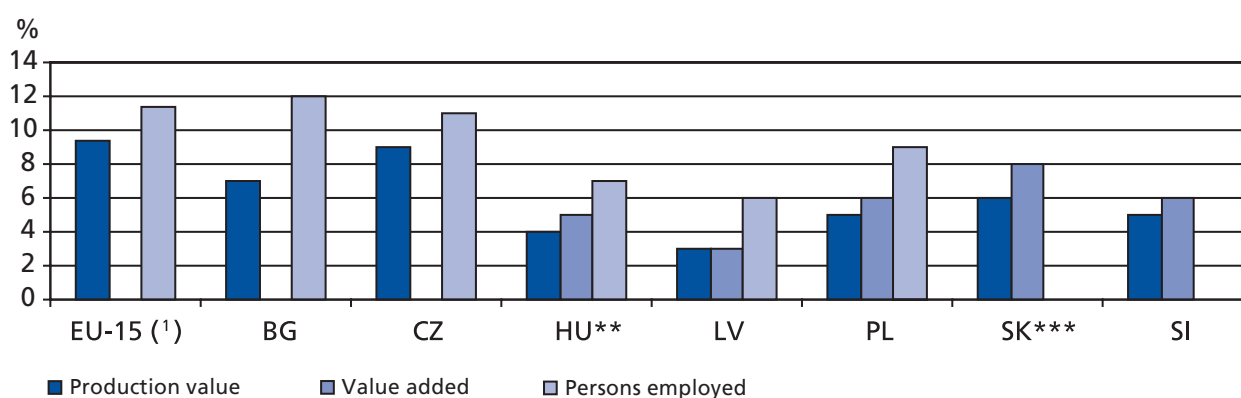
The activities covered in this chapter include:

- 29 Manufacture of machinery and equipment n.e.c.
- 29.1 Manufacture of machinery for the production and use of mechanical power, except aircraft, vehicle and cycle engines
- 29.2 Manufacture of other general purpose machinery
- 29.3 Manufacture of agricultural and forestry machinery
- 29.4 Manufacture of machine-tools
- 29.5 Manufacture of other special purpose machinery
- 29.6 Manufacture of weapons and ammunition

I. Industrial description

Machinery and equipment covers the whole of sub-section DK 'Machinery and equipment n.e.c.' bar 29.7 'Manufacture of domestic appliances n.e.c.' which is covered in the next chapter. Machinery and equipment is relatively important in Bulgaria and the Czech Republic and to a lesser extent in Poland, the Slovak Republic and Slovenia (see graph III.10.1). In the EU too, this sector is very important, with up to 9.4% of all production value and 11.4% of total persons employed in the Union's manufacturing branch.

Graph III.10.1. Machinery and equipment (²): Share of production value, value added and employment within the manufacturing sector, 1998



(¹) NACE Rev. 1 29; Long-time series covering enterprises with 20 persons employed and more.

Source: Eurostat/SBS

(²) Excluding NACE Rev. 1 29.7

Machinery and equipment (²): Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	195.3
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	:	:	:	:	:
Hungary**	:	:	:	391.5	393.0
Latvia	:	:	35.5	:	:
Lithuania	:	:	:	:	:
Poland	:	1 713.1	1 810.0	1 825.4	:
Romania	:	:	:	:	:
Slovak Rep.***	171.7	200.3	214.2	206.1	154.1
Slovenia	149.7	159.7	175.9	190.6	:

Machinery and equipment (²): Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	422.2	484.9	528.6	472.8
Cyprus	:	:	:	:	:
Czech Rep.	:	3 307.0	3 661.0	4 108.1	3 333.4
Estonia	:	:	:	:	:
Hungary**	:	:	:	1 030.9	1 031.3
Latvia	:	:	81.9	:	:
Lithuania	:	:	:	:	:
Poland	:	4 338.5	4 660.9	4 629.9	:
Romania	:	:	:	:	:
Slovak Rep.***	638.2	737.0	808.4	748.3	654.9
Slovenia	451.2	488.6	564.8	623.1	:

Machinery and equipment (²): Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	501.9
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	:	:	:	:	:
Hungary**	:	:	:	1 324.7	1 389.3
Latvia	:	:	82.7	:	:
Lithuania	:	:	:	:	:
Poland	:	4 925.7	5 348.9	5 341.6	:
Romania	:	:	:	:	:
Slovak Rep.***	765.9	873.5	963.7	925.4	854.6
Slovenia	955.7	975.6	1 157.3	1 299.3	:

II. Main indicators of the sub-sectors

The Czech Republic notches up the highest production value figures (in current EUR) in the Manufacture of machinery for the production and use of mechanical power, except aircraft, vehicle and cycle engines (NACE Rev. 1 29.1), the Manufacture of machine tools (NACE Rev. 1 29.4) and the Manufacture of weapons and ammunition (NACE Rev. 1 29.6). Poland is the biggest producer in the rest of the NACE groups making up Machinery and equipment. Poland boasts the highest labour productivity among the Central European applicant countries whose data are available, except for the Manufacture of agricultural and forestry machinery (NACE Rev. 1 29.3), the Manufacture of machine-tools (NACE Rev. 1 29.4) and the Manufacture of other special purpose machinery (NACE Rev. 1 29.5). In these latter areas, Hungary shows a higher labour productivity than Poland, while maintaining slightly lower unit personnel costs.

(²) Excluding NACE Rev. 1 29.7

Manufacture of machinery and equipment n.e.c. (NACE Rev. 1 29)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	97.1	1.0	169.5	:	59.4	:	14.9	258.6	245.8	:	:
Production value (million ECU/EUR)	555.5	51.4	4 330.7	75.1	1 325.0	:	118.7	5 342.3	1 338.6	925.6	1 300.0
Value added (million ECU/EUR)	:	22.1	:	26.0	462.6	:	44.4	2 043.7	572.3	237.2	328.4
Gross operating surplus (million ECU/EUR)	:	:	391.5	4.7	146.3	:	0.8	:	114.6	- 13.6	55.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	170.4	:	901.8	21.3	316.3	:	43.6	1 466.2	448.3	250.8	273.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	21.1	:	:	7.8	:	3.0	7.9	2.3	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.8	:	5.5	3.8	5.4	:	2.9	5.9	1.9	4.1	11.4
Social security costs/total personnel costs (%)	30.7	:	29.6	24.9	27.1	:	22.2	:	26.3	27.4	12.7

Manufacture of machinery for the production and use of mechanical power, except aircraft, vehicle and cycle engines (NACE Rev. 1 29.1)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	13.4	:	29.2	:	9.6	2.5	:	42.5	:	:	:
Production value (million ECU/EUR)	102.8	:	1137.9	:	206.5	19.9	:	1 042.7	:	202.3	100.7
Value added (million ECU/EUR)	:	:	:	:	71.6	9.0	:	389.4	:	56.6	33.4
Gross operating surplus (million ECU/EUR)	:	:	85.8	:	16.2	1.1	:	:	:	- 0.8	4.8

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	30.6	:	160.6	:	55.4	8.0	:	290.2	:	57.4	28.6
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	7.4	3.6	:	9.2	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.3	:	5.7	:	5.8	3.2	:	6.9	:	3.9	11.7
Social security costs/total personnel costs (%)	32.4	:	28.4	:	27.6	21.3	:	:	:	28.0	12.9

Manufacture of other general purpose machinery (NACE Rev. 1 29.2)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	17.4	:	33.2	:	15.1	1.3	:	46.3	:	:	:
Production value (million ECU/EUR)	84.5	:	920.5	:	296.6	19.2	:	1 053.0	:	86.0	215.4
Value added (million ECU/EUR)	:	:	:	:	121.9	6.0	:	406.7	:	27.1	65.6
Gross operating surplus (million ECU/EUR)	:	:	90.6	:	41.8	2.4	:	:	:	0.1	7.5

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	25.4	:	180.6	:	80.1	3.7	:	239.6	:	27.0	58.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	8.1	4.7	:	8.8	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.5	:	6.0	:	5.4	2.9	:	5.9	:	4.1	11.9
Social security costs/total personnel costs (%)	29.5	:	34.4	:	26.0	21.6	:	:	:	27.0	12.4

Manufacture of agricultural and forestry machinery (NACE Rev. 1 29.3)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	5.6	:	17.4	:	8.4	1.6	:	32.1	:	:	:
Production value (million ECU/EUR)	24.8	:	351.9	:	188.4	6.4	:	550.2	:	67.8	69.3
Value added (million ECU/EUR)	:	:	:	:	59.6	2.5	:	194.9	:	11.8	18.5
Gross operating surplus (million ECU/EUR)	:	:	9.3	:	20.7	- 0.5	:	:	:	- 9.9	3.2

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	8.8	:	78.5	:	38.8	3.3	:	167.9	:	21.7	15.3
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	7.1	1.6	:	6.1	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	4.7	:	4.7	2.1	:	5.1	:	3.8	9.5
Social security costs/total personnel costs (%)	29.5	:	28.9	:	27.6	21.2	:	:	:	27.6	13.7

Manufacture of machine-tools (NACE Rev. 1 29.4)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	11.3	0.1	19.2	:	2.0	c	:	21.5	:	:	:
Production value (million ECU/EUR)	66.7	5.2	456.3	:	39.0	c	:	291.1	:	90.4	110
Value added (million ECU/EUR)	:	2.6	:	:	15.9	c	:	140.2	:	31.9	30.2
Gross operating surplus (million ECU/EUR)	:	:	58.6	:	5.5	c	:	:	:	5.5	4.1

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	18.8	:	110.7	:	10.4	c	:	111.0	:	26.4	26.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	20.8	:	:	7.8	c	:	6.5	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.7	:	5.8	:	5.2	c	:	5.5	:	3.9	11.6
Social security costs/total personnel costs (%)	30.9	:	27.8	:	27.9	c	:	:	:	28.4	13.4

Manufacture of other special purpose machinery (NACE Rev. 1 29.5)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	21.5	:	53.8	:	14.1	1.1	:	89.4	:	:	:
Production value (million ECU/EUR)	162.3	:	1 134.1	:	286.8	7.8	:	1 652.6	:	301.0	127.2
Value added (million ECU/EUR)	:	:	:	:	116.5	4.1	:	680.1	:	78.2	42.7
Gross operating surplus (million ECU/EUR)	:	:	109.8	:	35.7	0.8	:	:	:	- 19.5	5.7

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	53.1	:	292.0	:	80.8	3.4	:	510.3	:	97.7	37.0
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	8.3	3.8	:	7.6	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.5	:	5.6	:	5.8	3.2	:	5.9	:	4.3	11.8
Social security costs/total personnel costs (%)	31.1	:	28.3	:	27.0	20.6	:	:	:	26.8	12.4

Manufacture of weapons and ammunition (NACE Rev. 1 29.6)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	23.2	0.0	7.3	:	1.1	0.0	:	3.2	:	:	:
Production value (million ECU/EUR)	87.6	3.9	107.3	:	13.7	0.0	:	40.3	:	1.8	0.5
Value added (million ECU/EUR)	:	1.0	:	:	6.1	0.0	:	14.1	:	0.5	0.2
Gross operating surplus (million ECU/EUR)	:	:	15.8	:	0.3	0.0	:	:	:	-0.4	0.1

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	26.9	:	35.6	:	5.8	0.0	:	16.0	:	0.9	0.2
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	24.4	:	:	5.6	:	:	4.4	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.2	:	4.9	:	5.3	:	:	5.0	:	3.4	8.7
Social security costs/total personnel costs (%)	29.7	:	26.4	:	29.3	:	:	:	:	33.3	0.0

Chapter 11: Electrical machinery and electronics

The activities covered in this chapter include:

- 29.7 Manufacture of domestic appliances n.e.c.
- 30 Manufacture of office machinery and computers
- 31 Manufacture of electrical machinery and apparatus n.e.c.
 - 31.1 Manufacture of electric motors, generators and transformers
 - 31.2 Manufacture of electricity distribution and control apparatus
 - 31.3 Manufacture of insulated wire and cable
 - 31.4 Manufacture of accumulators, primary cells and primary batteries
 - 31.5 Manufacture of lighting equipment and electric lamps
 - 31.6 Manufacture of electrical equipment n.e.c.
- 32 Manufacture of radio, television and communication equipment and apparatus
 - 32.1 Manufacture of electronic valves and tubes and other electronic components
 - 32.2 Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy
 - 32.3 Manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods

I. Industrial description

This sector regroups Manufacture of domestic appliances n.e.c. (NACE Rev. 1 29.7, from sub-section DK 'Manufacture of machinery and equipment n.e.c.') and all of industry sub-section DL 'Manufacture of electrical and optical equipment' bar the Manufacture of medical, precision and optical instruments, watches and clocks (NACE Rev. 1 33). Electrical machinery and electronics is a leading sector in Hungary, with 13% of all industry employment, 18% of industrial production value and 16% of industrial value added. This sector is also quite important in Slovenia, and albeit to a lesser extent, in the Czech Republic, Poland and the Slovak Republic. This sector has enjoyed growing employment, production value and value added in the Czech Republic and Hungary in the last years to 1999 (the last two indicators being expressed in current EUR).

Electrical machinery and electronics: Share within the manufacturing branch. %. 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Production value	:	:	7	:	18	c	:	7	:	7	13
Value added	:	:	:	:	16	c	:	6	:	8	12
Persons employed	:	:	9	:	13	c	:	6	:	:	:

Electrical machinery and electronics: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	79.5
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	:	:	:	:	:
Hungary**	:	:	:	1 199.2	1 454.6
Latvia	:	:	c	c	:
Lithuania	:	:	:	:	:
Poland	:	1 439.1	1 617.4	1 850.0	:
Romania	:	:	:	:	:
Slovak Rep.***	130.8	134.8	173.4	209.2	199.0
Slovenia	350.0	344.4	390.2	420.1	:

Electrical machinery and electronics: Production value (million ECU/EUR).

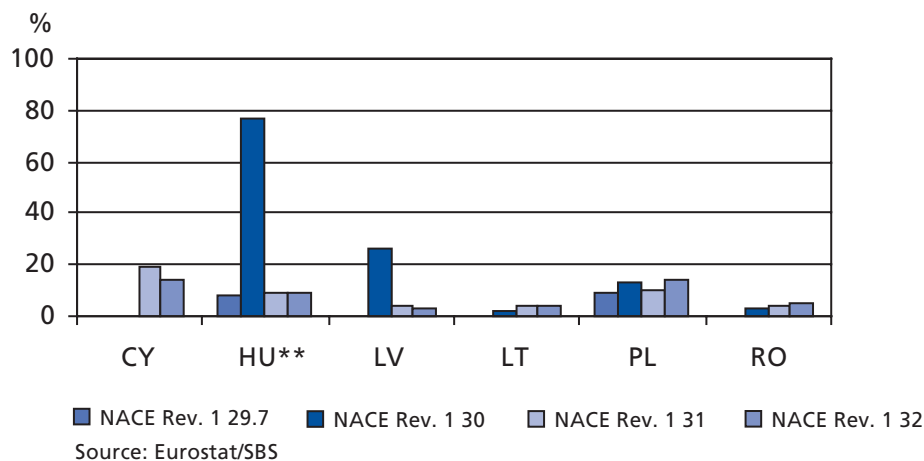
	1995	1996	1997	1998	1999
Bulgaria	:	266.5	265.2	285.6	273.0
Cyprus	:	:	:	:	:
Czech Rep.	:	2 627.2	2 841.7	3 230.5	3 381.7
Estonia	:	:	:	:	:
Hungary**	:	:	:	5 002.0	7 394.4
Latvia	:	:	c	c	:
Lithuania	:	:	:	:	:
Poland	:	4 086.8	4 878.0	5 655.6	:
Romania	:	:	:	:	:
Slovak Rep.***	543.1	618.2	795.2	907.7	925.0
Slovenia	1 351.0	1 374.6	1 562.9	1 699.3	:

Electrical machinery and electronics: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	52.5	45.2	42.1	35.7
Cyprus	:	:	:	:	:
Czech Rep.	:	126.2	129.2	129.4	133.1
Estonia	:	:	:	:	:
Hungary**	:	:	:	95.3	112.2
Latvia	:	:	:	c	:
Lithuania	:	:	:	:	:
Poland	:	165.1	170.1	166.9	:
Romania	:	:	:	:	:
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

Poland is the biggest producer of domestic appliances (Manufacture of domestic appliances, NACE Rev. 1 29.7) and achieves a higher labour productivity in this group compared to Hungary. Nevertheless, Hungary's manufacturing of office machinery and computers' industry managed to achieve a labour productivity of 77.2 thousand EUR per person employed in 1998 (see graph III.11.1), a sector in which Hungary was by far the most important producer among the candidate countries in this industry. Latvia comes second in labour productivity for this group of activities, with an impressive 25.8 thousand EUR per person employed in 1998. Poland has the highest labour productivity among the countries whose data are available for the other two main groups covered under electrical machinery and electronics, namely Manufacture of electrical machinery and apparatus n.e.c. (NACE Rev. 1 31) and Manufacture of radio, television and communication equipment and apparatus (NACE Rev. 1 32). It is also the biggest producer in these two industries, in which the Czech Republic and Hungary also generate substantial production amounts in current EUR.

Graph III.11.1. Electrical machinery and electronics: Apparent labour productivity, 1998**Manufacture of domestic appliances n.e.c. (NACE Rev. 1 29.7)****Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	4.7	:	9.4	:	9.2	c	:	23.6	:	:	:
Production value (million ECU/EUR)	26.9	:	222.6	:	294.1	c	:	712.4	:	177.3	676.9
Value added (million ECU/EUR)	:	:	:	:	71.1	c	:	218.3	:	31.1	137.8
Gross operating surplus (million ECU/EUR)	:	:	21.7	:	26.1	c	:	:	:	11.5	29.7

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	6.8	:	43.7	:	45.0	c	:	131.1	:	19.6	108.0
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	7.8	c	:	9.3	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.5	:	4.9	:	4.9	c	:	5.6	:	3.9	11.2
Social security costs/total personnel costs (%)	29.4	:	30.4	:	28.0	c	:	:	:	28.1	12.8

Manufacture of office machinery and computers (NACE Rev. 1 30)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	5.0	:	2.3	:	4.8	0.1	0.8	4.9	3.3	:	:
Production value (million ECU/EUR)	40.6	:	100.5	27.3	2 052.4	7.7	5.0	240.6	68.2	25.8	96.5
Value added (million ECU/EUR)	:	:	:	1.5	369.7	3.1	1.9	65.0	10.2	7.3	18.6
Gross operating surplus (million ECU/EUR)	:	:	4.0	0.0	338.7	2.7	-0.2	:	5.5	2.3	4.8

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	8.2	:	11.2	1.6	31.0	0.4	2.1	29.8	4.5	5.0	13.8
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	77.2	25.8	2.4	13.4	3.1	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.7	:	5.4	13.1	6.5	3.3	2.6	8.0	2.0	4.0	13.5
Social security costs/total personnel costs (%)	28.0	:	41.1	25.0	26.5	25.0	19.0	:	25.1	26.0	12.3

Manufacture of electrical machinery and apparatus n.e.c. (NACE Rev. 1 31)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	24.7	0.5	89.3	:	53.0	4.7	4.7	98.3	61.4	:	:
Production value (million ECU/EUR)	186.2	26.2	2 255.2	39.4	1 356.5	53.4	91.3	2 761.5	608.4	460.3	598.8
Value added (million ECU/EUR)	:	10.2	:	13.9	494.9	20.9	18.8	1 014.1	229.4	118.8	177.9
Gross operating surplus (million ECU/EUR)	:	:	250.4	3.5	219.8	7.4	4.7	:	97.0	27.7	30.1

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	41.6	:	417.4	10.5	275.1	13.5	14.0	570.4	129.6	91.2	147.8
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	18.9	:	:	9.3	4.4	4.0	10.3	3.7	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.7	:	5.3	4.9	5.2	2.9	3.0	6.2	2.2	4.0	11.7
Social security costs/total personnel costs (%)	31.3	:	30.5	24.8	27.4	22.2	22.9	:	26.0	27.7	12.4

Manufacture of radio, television and communication equipment and apparatus (NACE Rev. 1 32)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	7.7	0.0	28.4	:	28.4	3.3	8.3	40.1	15.0	:	:
Production value (million ECU/EUR)	31.9	0.2	652.2	33.5	1 299.0	29.4	124.5	1 941.1	258.3	244.3	327.1
Value added (million ECU/EUR)	:	0.1	:	14.6	263.5	9.0	37.7	552.6	75.5	52.0	85.8
Gross operating surplus (million ECU/EUR)	:	:	51.5	2.1	118.4	1.4	8.8	:	40.9	19.4	9.4

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	11.2	:	136.5	12.4	145.0	7.7	28.9	243.6	32.8	32.6	76.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	14.3	:	:	9.3	2.7	4.5	13.8	5.0	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.5	:	5.2	4.1	5.1	2.3	3.5	6.8	2.4	3.7	12.2
Social security costs/total personnel costs (%)	30.4	:	32.0	25.0	27.4	22.1	23.2	:	25.6	27.3	11.9

Chapter 12: Instrument engineering

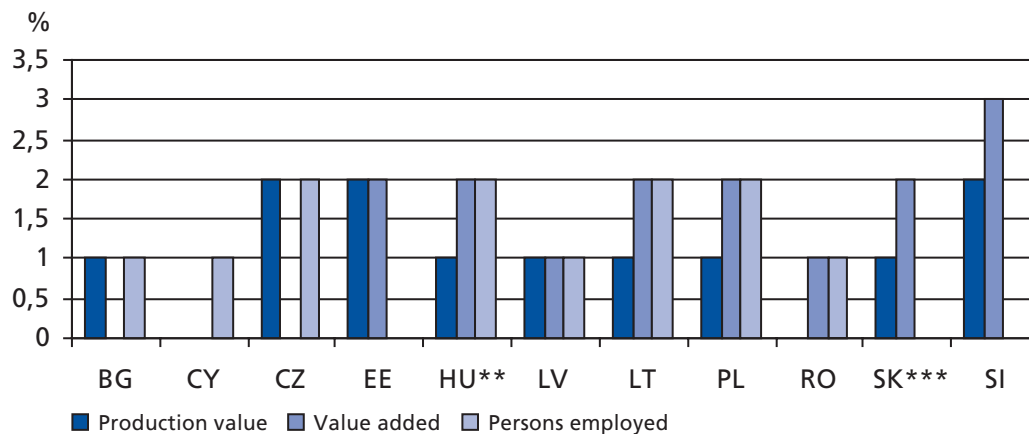
The activities covered in this chapter include:

- 33 Manufacture of medical, precision and optical instruments, watches and clocks
- 33.1 Manufacture of medical and surgical equipment and orthopaedic appliances
- 33.2 Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment
- 33.3 Manufacture of industrial process control equipment
- 33.4 Manufacture of optical instruments and photographic equipment
- 33.5 Manufacture of watches and clocks

I. Industrial description

Instrument engineering is a marginal sector for all candidate countries, with only 2% or less of all manufacturing production value. Nonetheless, it is a fairly profitable sector, with share of industrial value added being equal or higher than the share of manufacturing production value. Slovenia is the applicant country in which this sector seems the most important (see graph III.12.1).

Graph III.12.1. Instrument engineering: Share of production value, value added and employment, 1998



Instrument engineering: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	14.8
Cyprus	2.4	2.4	2.9	3.4	:
Czech Rep.	:	:	:	:	:
Estonia	:	6.0	12.0	12.8	13.6
Hungary**	:	:	:	122.4	158.7
Latvia	4.6	9.1	19.3	21.1	:
Lithuania	:	:	3.2	6.2	:
Poland	:	386.1	512.6	537	:
Romania	:	:	48.3	45.9	48.4
Slovak Rep.***	44.4	23.1	55.1	61.8	37.2
Slovenia	83.3	87.6	93.8	103.1	:

Instrument engineering: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	27.6	30.0	39.8	38.7
Cyprus	5.9	6.5	5.6	6.2	:
Czech Rep.	431.6	539.2	602.1	726.5	707.9
Estonia	:	18.1	30.0	51.7	50.8
Hungary**	:	:	:	301.5	468.8
Latvia	:	:	6.2	14.9	:
Lithuania	13.9	25.7	50.4	50.8	:
Poland	:	738.6	939.4	992.1	:
Romania	:	:	103.3	96.5	102.0
Slovak Rep.***	115.1	149.6	172.3	184	158.3
Slovenia	243.3	246.7	275.0	292.8	:

Instrument engineering: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	9.9	9.0	9.1	7.7
Cyprus	0.2	0.2	0.2	0.2	:
Czech Rep.	31.1	31.6	34.3	34.2	31.9
Estonia	:	:	:	:	:
Hungary**	:	:	:	15.0	13.8
Latvia	:	:	:	0.8	:
Lithuania	3.3	3.5	3.9	3.9	:
Poland	:	45.2	47.3	48.5	:
Romania	:	:	21.0	17.5	16.0
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

For all but one of the countries for which data are available, the most important activity group is the Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment. In Cyprus, the Manufacture of medical and surgical equipment and orthopaedic appliances has the largest production value of all the activity groups covered in this sector.

Among the Central European countries for which data are available, Poland is taking the lead in labour productivity in this sector, even reaching 17.4 thousand EUR per person employed in 1998 in the Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment (NACE Rev. 1 33.2). Poland is also the leading producer in this sector in current EUR terms, although the Czech Republic overtakes the former's position for NACE group Rev. 1 33.1 (Manufacture of medical and surgical equipment and orthopaedic appliances).

Manufacture of medical, precision and optical instruments, watches and clocks (NACE Rev. 1 33)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	9.1	0.2	34.2	:	15.0	0.8	3.9	48.5	17.5	:	:
Production value (million ECU/EUR)	39.8	6.2	726.5	51.7	301.5	14.9	50.8	992.1	96.5	184.0	292.8
Value added (million ECU/EUR)	:	3.4	:	12.8	122.4	6.2	21.1	537.0	45.9	61.8	103.1
Gross operating surplus (million ECU/EUR)	:	:	99.4	2.5	42.6	4.6	10.3	:	14.9	23.3	13.6

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	12.3	:	155.3	10.4	79.8	1.8	10.8	220.8	30.2	38.5	89.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	16.5	:	:	8.1	7.3	5.4	11.1	2.6	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.5	:	5.4	4.1	5.4	2.1	2.8	6.2	1.9	4.8	12.1
Social security costs/total personnel costs (%)	30.1	:	41.7	25.0	27.2	22.2	23.1	:	25.5	26.2	12.1

Manufacture of medical and surgical equipment and orthopaedic appliances (NACE Rev. 1 33.1)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	2.5	0.1	12.5	:	4.8	0.4	:	16.1	:	:	:
Production value (million ECU/EUR)	10.9	3.7	234.6	:	94.1	4.7	:	226.4	:	34.7	17.9
Value added (million ECU/EUR)	:	2.2	:	:	36.3	2.0	:	125.7	:	13.3	7.1
Gross operating surplus (million ECU/EUR)	:	:	46.5	:	13.8	0.8	:	:	:	3.7	0.7

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	3.0	:	49.9	:	22.5	1.2	:	52.8	:	9.7	6.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	14.8	:	:	7.6	4.5	:	7.8	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.4	:	5.6	:	4.8	2.7	:	5.6	:	3.9	8.9
Social security costs/total personnel costs (%)	30.0	:	54.3	:	27.1	25.0	:	:	:	26.8	12.5

Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment (NACE Rev. 1 33.2)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	3.6	:	13.5	:	7.4	0.3	:	15.3	:	:	:
Production value (million ECU/EUR)	14.6	:	323.3	:	153.9	9.6	:	452.6	:	93.3	180.8
Value added (million ECU/EUR)	:	:	:	:	62.4	3.9	:	273.6	:	23.9	68.1
Gross operating surplus (million ECU/EUR)	:	:	38.5	:	18.4	3.7	:	:	:	9.0	7.8

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	5.0	:	64.4	:	44.0	0.3	:	83.7	:	14.9	60.2
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	8.4	14.9	:	17.9	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.5	:	5.2	:	6.0	1.1	:	6.6	:	4.1	13.0
Social security costs/total personnel costs (%)	28.0	:	33.5	:	27.3	33.3	:	:	:	26.2	11.6

Chapter 13: Transport equipment

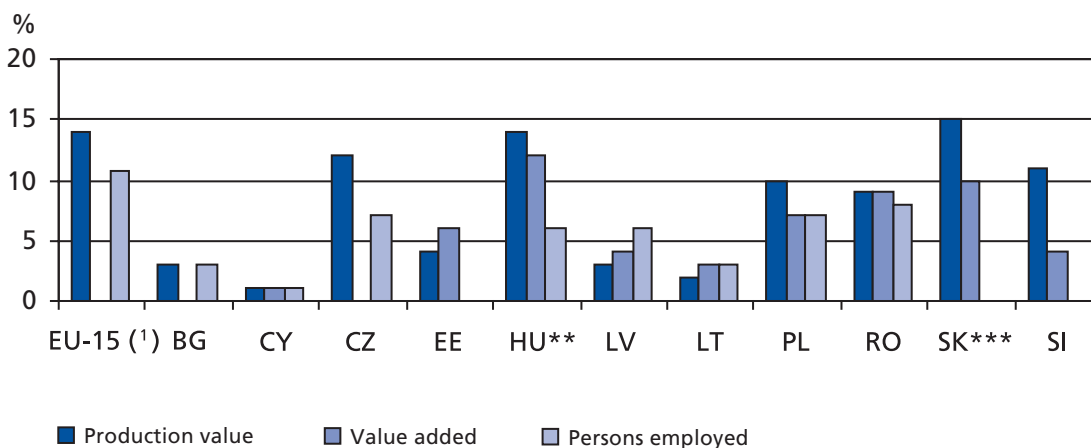
The activities covered in this chapter include:

- 34 Manufacture of motor vehicles, trailers and semi-trailers
- 34.1 Manufacture of motor vehicles
- 34.2 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers
- 34.3 Manufacture of parts and accessories for motor vehicles and their engines
- 35 Manufacture of other transport equipment
- 35.1 Building and repairing of ships and boats
- 35.2 Manufacture of railway and tramway locomotives and rolling stock
- 35.3 Manufacture of aircraft and spacecraft
- 35.4 Manufacture of motorcycles and bicycles
- 35.5 Manufacture of other transport equipment n.e.c.

I. Industrial description

Just as for the EU, this is one of the most important manufacturing branches in the candidate countries. The Czech Republic, Hungary, Poland, Romania, the Slovak Republic and Slovenia are among the biggest producers in this sector in Central Europe. Share of value-added in manufacturing total is particularly high in Hungary, Romania and the Slovak Republic (see graph III.13.1).

Graph III.13.1. Transport equipment: Share of production value, value added and employment within the manufacturing sector, 1998



(1) EU-15: Long time-series covering enterprises with 20 persons employed and more.
Source: Eurostat/SBS

Transport equipment: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	42.9
Cyprus	7.0	7.0	7.8	8.2	:
Czech Rep.	:	:	:	:	:
Estonia	:	31.3	39.8	38.4	38.0
Hungary**	:	:	:	926.2	1 093.0
Latvia	:	:	33.6	33.2	:
Lithuania	12.4	23.9	31.1	35.3	:
Poland	:	1 706.1	1 800.5	1 994.2	:
Romania	:	:	550.4	567.3	557.1
Slovak Rep.***	144.6	120.7	175.0	247.6	242.7
Slovenia	:	123.0	117.9	146.4	:

Transport equipment: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	175.8	165.6	200.5	130.7
Cyprus	14.7	15.8	15.8	17.3	:
Czech Rep.	2 707.4	3 489.1	4 617.2	5 150.3	5 676.8
Estonia	:	74.8	91.8	94.4	98.6
Hungary**	:	:	:	3 840.0	4 683.0
Latvia	:	:	77.3	82.4	:
Lithuania	48.1	65.5	79.9	97.1	:
Poland	:	5 729.4	7 406.2	8 488.1	:
Romania	:	:	1 491.7	1 721.3	1 480.7
Slovak Rep.***	782.2	942.9	1 073.0	1 904.4	1 921.7
Slovenia	:	1 081.3	1 132.9	1 472.3	:

Transport equipment: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	25.8	24.3	22.3	18.5
Cyprus	0.4	0.5	0.5	0.5	:
Czech Rep.	93.3	95.6	97.9	95.1	95.3
Estonia	:	:	:	:	:
Hungary**	:	:	:	42.5	39.8
Latvia	:	:	:	9.0	:
Lithuania	9.7	9.5	8.2	8.2	:
Poland	:	202.2	197.9	193.0	:
Romania	:	:	192.1	174.6	158.6
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

Hungary is the most productive candidate country in the manufacture of motor vehicles, trailers and semi-trailers (NACE Rev. 1 34), with an apparent labour productivity above Cyprus and Poland's in this industry. A majority of candidate countries are very active in this industry. The Czech Republic, Hungary, Poland, Romania and the Slovak Republic achieved very high production figures in 1998 in current EUR. One reason is that the Central European applicant countries are home to quite a few well-known local and global car brands in this sector. Regarding the manufacture of other transport equipment, Building and repairing of ships and boats (NACE Rev. 1 35.1) is probably the most important group within this NACE division. Poland, famous for its ship-building history, is the main builder and repairer of ships and boats and hence, this country leads the candidate countries in labour productivity in this field too. Although Hungary's labour productivity is once more the highest among the countries whose data are available for the Manufacture of railway and tramway locomotives and rolling stock (NACE Rev. 1 35.2), Poland and the Czech Republic are the main producers in this field. The same can be said about the Manufacture of aircraft and spacecraft (NACE Rev. 1 35.3). A few local candidate country aircraft producers have, just as a number of counterparts in the EU, outlived the Cold War and are targeting both the military and civil markets.

Manufacture of motor vehicles, trailers and semi-trailers (NACE Rev. 1 34)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	6.2	0.3	67.2	:	34.8	0.7	0.8	102.8	90.4	:	:
Production value (million ECU/EUR)	34.4	13.8	4 637.9	40.3	3 664.6	12.1	8.7	6 084.6	1 108.0	1 603.4	1 387.5
Value added (million ECU/EUR)	:	6.4	:	15.4	866.8	2.1	2.5	1 221.1	282.9	183.2	115.9
Gross operating surplus (million ECU/EUR)	:	:	521.2	6.6	634.9	0.2	-1.6	:	54.8	110.4	24.4

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	11.6	:	419.7	8.8	231.9	1.9	4.2	665.1	210.2	72.7	91.6
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	19.1	:	:	24.9	3.1	3.0	11.9	3.1	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.9	:	6.3	5.4	6.8	2.8	5.1	6.5	2.4	5.1	12.6
Social security costs/total personnel costs (%)	31.0	:	27.7	25.0	27.2	21.1	19.0	:	26.3	27.4	13.2

Manufacture of motor vehicles (NACE Rev. 1 34.1)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	2.5	0.1	c	:	10.9	c	:	48.5	:	:	:
Production value (million ECU/EUR)	6.9	5.0	c	:	2 609.8	c	:	4 834.2	:	c	1 153.8
Value added (million ECU/EUR)	:	2.2	:	:	553.7	c	:	788.1	:	c	66.3
Gross operating surplus (million ECU/EUR)	:	:	c	:	466.3	c	:	:	:	c	16.3

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	3.7	:	c	:	87.4	c	:	382.3	:	c	49.9
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	20.0	c	:	51.0	c	:	16.3	:	c	:
Unit personnel costs (thousand ECU/EUR per employee)	1.5	:	c	:	8.7	c	:	7.5	:	c	14.8
Social security costs/total personnel costs (%)	32.4	:	c	:	26.5	c	:	:	:	c	11.0

Manufacture of parts and accessories for motor vehicles and their engines (NACE Rev. 1 34.3)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	2.7	0.2	31.7	:	22.7	c	:	48.4	:	:	:
Production value (million ECU/EUR)	23.6	8.8	1 216.2	:	999.5	c	:	1 081.4	:	115.6	163.8
Value added (million ECU/EUR)	:	4.2	:	:	293.6	c	:	389.6	:	35.6	35.0
Gross operating surplus (million ECU/EUR)	:	:	173.6	:	155.2	c	:	:	:	14.4	5.7

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	6.4	:	172.3	:	138.4	c	:	251.2	:	21.2	29.2
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	18.7	:	:	12.9	c	:	8.1	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.5	:	5.5	:	6.1	c	:	5.6	:	4.5	11.0
Social security costs/total personnel costs (%)	31.3	:	28.0	:	27.6	c	:	:	:	27.4	17.1

Building and repairing of ships and boats (NACE Rev. 1 35.1)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	11.0	0.1	0.4	:	0.2	3.5	:	44.2	:	:	:
Production value (million ECU/EUR)	141.4	3.5	c	:	2.3	47.9	:	1 584.8	:	c	10.7
Value added (million ECU/EUR)	:	1.8	:	:	0.8	23.6	:	503.4	:	c	3.2
Gross operating surplus (million ECU/EUR)	:	:	c	:	0.2	12.2	:	:	:	c	0.1

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	32.1	:	c	:	0.6	11.4	:	336.0	:	c	3.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	15.4	:	:	3.6	6.8	:	11.4	:	c	:
Unit personnel costs (thousand ECU/EUR per employee)	3.0	:	c	:	2.8	3.3	:	8.2	:	c	12.3
Social security costs/total personnel costs (%)	33.0	:	:	:	33.3	21.9	:	:	:	c	12.9

Manufacture of railway and tramway locomotives and rolling stock (NACE Rev. 1 35.2)**Production related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	4.9	:	15.0	:	5.0	4.6	:	22.2	:	:	:
Production value (million ECU/EUR)	23.6	:	301.2	:	114.6	21.4	:	482.1	:	168.2	37.9
Value added (million ECU/EUR)	:	:	:	:	36.0	7.2	:	132.0	:	44.3	19.9
Gross operating surplus (million ECU/EUR)	:	:	20.1	:	5.7	-2.9	:	:	:	16.8	0.2

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	9.2	:	79.7	:	30.3	10.1	:	118.5	:	91.2	147.8
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	7.1	1.6	:	5.9	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.9	:	5.3	:	6.0	2.2	:	5.3	:	4.0	11.7
Social security costs/total personnel costs (%)	29.3	:	26.2	:	27.7	21.8	:	:	:	27.7	12.4

Manufacture of aircraft and spacecraft (NACE Rev. 1 35.3)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	c	:	8.4	:	1.2	c	:	18.6	:	:	:
Production value (million ECU/EUR)	c	:	110.5	:	29.9	c	:	237.2	:	- 0.2	1.0
Value added (million ECU/EUR)	:	:	:	:	16.7	c	:	114.9	:	- 8.5	0.3
Gross operating surplus (million ECU/EUR)	:	:	- 19.8	:	4.0	c	:	:	:	- 12.0	0.0

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	c	:	48.9	:	12.7	c	:	108.4	:	3.5	0.2
Apparent labour productivity (thousand ECU/EUR per pers. employed)	c	:	:	:	14.2	c	:	6.2	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	c	:	5.8	:	10.8	c	:	5.7	:	4.6	11.1
Social security costs/total personnel costs (%)	c	:	26.8	:	27.6	c	:	:	:	28.6	0.0

Chapter 14: Other manufacturing industries

The activities covered in this chapter include:

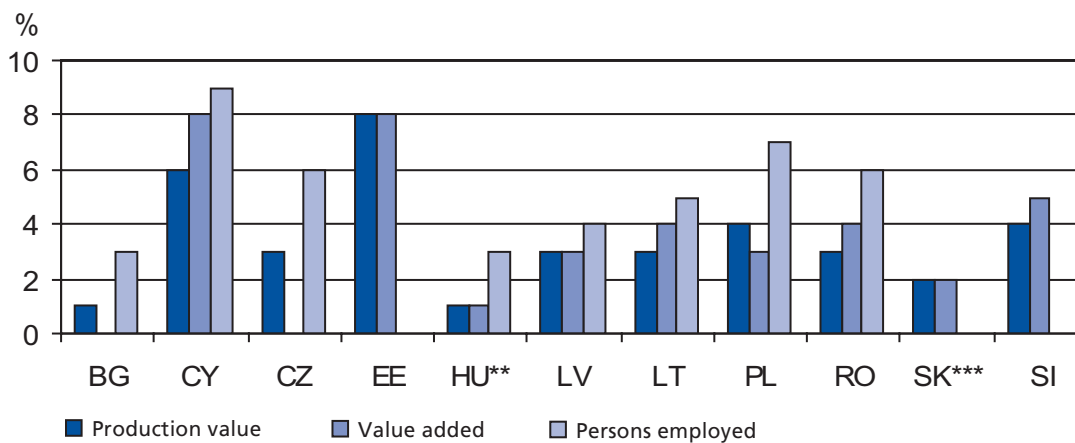
- 36 Manufacture of furniture; manufacturing n.e.c.
- 36.1 Manufacture of furniture
- 36.2 Manufacture of jewellery and related articles
- 36.3 Manufacture of musical instruments
- 36.4 Manufacture of sports goods
- 36.5 Manufacture of games and toys
- 36.6 Miscellaneous manufacturing n.e.c.

I. Industrial description

The other manufacturing industries are regrouped into the Manufacture of furniture, manufacturing n.e.c. (NACE Rev. 1 36). This sector is relatively important for Cyprus, Estonia, Poland and Romania (see graph III.14.1). It is of less importance in the other candidate countries. The Manufacture of furniture (NACE Rev. 1 36.1) makes up most of this sector, which is very much related to the production of wood and wood products. The bigger producers in current EUR are Poland and the Czech Republic despite the latter's less important specialisation in this activity.

Cyprus reaps the highest labour productivity among the candidate countries, while Poland is the most productive Central European candidate country.

Graph III.14.1. Other manufacturing industries: Share of production value, value added and employment within the manufacturing sector, 1998



Source: Eurostat/SBS

Other manufacturing industries: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	35.7
Cyprus	60.2	60.1	61.0	61.4	:
Czech Rep.	:	:	:	:	:
Estonia	:	36.2	46.8	55.5	56.4
Hungary**	:	:	:	103.4	125
Latvia	:	:	20.6	25.4	:
Lithuania	17.2	24.5	36.3	45.7	:
Poland	:	768.9	882.3	990.4	:
Romania	:	:	264.0	256.4	236.3
Slovak Rep.***	44.8	47.9	62.6	58.9	31.5
Slovenia	c	c	161.7	162.5	:

Other manufacturing industries: Production value (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	93.6	85.4	99.3	110.6
Cyprus	162.2	156.0	151.4	148.0	:
Czech Rep.	1 120.8	1 208.0	1 409.0	1 427.1	1 518.4
Estonia	:	124.1	162.6	198.8	197.3
Hungary**	:	:	:	322.9	373.2
Latvia	:	:	57.4	76.3	:
Lithuania	53.1	77.7	109.0	127.5	:
Poland	:	2 290.6	2 955.0	3 131.8	:
Romania	:	:	669.3	650.3	621.5
Slovak Rep.***	183.5	194.3	218.7	221.7	232.3
Slovenia	c	c	540.8	539.8	:

Other manufacturing industries: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	27.9	25.7	23.7	21.3
Cyprus	4.4	3.9	3.7	3.4	:
Czech Rep.	83.2	77.4	87.0	84.9	81.2
Estonia	:	:	:	:	:
Hungary**	:	:	:	24.5	26.5
Latvia	:	:	:	6.8	:
Lithuania	12.1	11.8	12.9	13.1	:
Poland	:	150.0	184.4	180.0	:
Romania	:	:	142.0	134.1	126.4
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

Manufacture of furniture; manufacturing n.e.c. (NACE Rev. 1 36)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	23.7	3.4	84.9	:	24.5	6.8	13.1	180.0	134.1	:	:
Production value (million ECU/EUR)	99.3	148.0	1 427.1	198.8	322.9	76.3	127.5	3 131.8	650.3	221.7	539.8
Value added (million ECU/EUR)	:	61.4	:	55.5	103.4	25.4	45.7	990.4	256.4	58.9	162.5
Gross operating surplus (million ECU/EUR)	:	:	128.4	12.5	24.5	8.6	12.3	:	66.4	8.5	25.2

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	25.0	:	282.1	43.0	78.8	17.3	33.4	587.1	185.4	50.5	137.3
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	17.9	:	:	4.2	3.7	3.5	5.5	1.9	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.2	:	4.0	3.4	3.3	2.5	2.6	4.1	1.5	3.4	9.0
Social security costs/total personnel costs (%)	30.4	:	31.7	24.9	27.3	22.0	22.8	:	25.9	27.5	12.7

Manufacture of furniture (NACE Rev. 1 36.1)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	17.4	2.5	44.5	:	17.3	4.7	:	137.0	:	:	:
Production value (million ECU/EUR)	72.8	96.0	916.8	:	:	59.3	:	2 614.5	:	170.2	428.8
Value added (million ECU/EUR)	:	45.5	:	:	:	19.6	:	765.1	:	41.8	131.5
Gross operating surplus (million ECU/EUR)	:	:	67.5	:	:	7.3	:	:	:	4.6	20.8

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	17.4	:	159.8	:	:	12.6	:	491.7	:	37.2	110.7
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	18.1	:	:	:	4.0	:	5.6	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.1	:	4.2	:	:	2.6	:	4.3	:	3.3	9.0
Social security costs/total personnel costs (%)	30.5	:	32.1	:	:	22.2	:	:	:	27.7	12.6

Manufacture of furniture (NACE Rev. 1 36.1)

Production related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of persons employed (thousands)	c	:	3.4	:	0.5	0.0	:	1.7	:	:	:
Production value (million ECU/EUR)	c	:	61.7	:	5.7	0.3	:	19.8	:	6.4	44.8
Value added (million ECU/EUR)	:	:	:	:	2.5	0.0	:	7.8	:	2.2	11.3
Gross operating surplus (million ECU/EUR)	:	:	5.2	:	1.1	0.0	:	:	:	0.3	0.5

Labour related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Personnel costs (million ECU/EUR)	c	:	11.2	:	1.4	0.0	:	4.3	:	1.9	10.9
Apparent labour productivity (thousand ECU/EUR per pers. employed)	c	:	:	:	4.8	0.0	:	4.5	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	c	:	3.9	:	2.8	0.0	:	3.6	:	3.1	11.1
Social security costs/total personnel costs (%)	c	:	34.8	:	28.6	:	:	:	:	26.3	11.0

Chapter 15: Construction and real estate

The activities covered in this chapter include:

- 45 Construction
 - 45.1 Site preparation
 - 45.2 Building of complete constructions or parts thereof; civil engineering
 - 45.3 Building installation
 - 45.4 Building completion
 - 45.5 Renting of construction or demolition equipment with operator
- 70 Real estate activities
 - 70.1 Real estate activities with own property
 - 70.2 Letting of own property
 - 70.3 Real estate activities on a fee or contract basis

I. Industrial description

Construction and real estate comprise both NACE division 45, which on its own makes up Construction section F, and NACE division 70, part of Services section K in NACE.

According to National Accounts figures from 2000, construction (not including real estate) has on average contributed 6.1% to the value added of all economic activities between 1995 and 2000 in the candidate countries covered in this publication. From all the candidate countries' construction sectors in this publication, the Polish one brought forth the largest contribution of total value added (8.8%), while Bulgaria's the least significant (3.6%). In the EU-15, the construction branch represents 5.4% of the total gross value added (weighted average). The gross value added in constant prices of the construction branch has been growing with an average of 6% in the candidate countries if one considers Cyprus, the Czech Republic, Estonia, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia. This average however disguises large differences between the various candidate countries: the Czech Republic experienced a decrease of 46% of gross value added, while value added leaped 56% in Latvia.

According to the Labour Force Survey, the overwhelming majority of persons employed in the construction sector in the candidate countries are male. Romania boasts the highest percentage of female employment in this sector (see table below).

Construction sector: Share in employment, 1998 (%).

	males	females
Bulgaria	81.9	18.1
Cyprus	92.5	7.5
Czech Rep.	88.1	11.9
Estonia	82.6	17.4
Hungary	89.6	10.4
Latvia	82.5	17.5
Lithuania	87.8	12.2
Poland	:	:
Romania	88.1	11.9
Slovak Rep.	89.2	10.8
Slovenia	88.3	11.7

Eurostat (CEC/LFS)

Construction (NACE Rev. 1 45)**Construction: Value added (million ECU/EUR).**

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	375.1
Cyprus	561.7	585.6	597.8	620.7	:
Czech Rep.	:	:	:	:	:
Estonia	129.5	138.8	163.7	192.0	155.0
Hungary**	:	:	:	654.6	784.3
Latvia	:	:	199.3	263.9	:
Lithuania	196.2	215.7	314.5	390.4	:
Poland	:	3 998.5	5 108.9	5 927.1	:
Romania	:	:	1 109.7	1 275.5	1 025.6
Slovak Rep.***	290.1	379.4	462.8	425.4	293.6
Slovenia	503.7	552.5	600.6	644.0	:

Construction: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	699.5	788.6	1 071.1	1281.6
Cyprus	:	:	:	:	:
Czech Rep.	9 367.7	10 039.6	11 510.2	11 218.9	11 348.5
Estonia	556.3	668.1	814.9	1 117.5	900.3
Hungary**	:	:	:	3 577.9	4 292.2
Latvia	:	:	501.2	759.1	:
Lithuania	478.8	571.4	848.7	1 066.7	:
Poland	:	12 135.5	16 844.7	18 495.0	:
Romania	:	:	3 054.5	3 595.9	3 141.5
Slovak Rep.***	1 330.6	1 607.7	1 971.5	2 023.4	1 370.7
Slovenia	1 915.4	2 200.3	2 439.5	2 446.6	:

Construction: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	163.3	136.3	127.0	130.1
Cyprus	25.7	25.3	24.8	24.1	:
Czech Rep.	471.0	445.2	489.3	430.5	401.7
Estonia	:	:	:	:	:
Hungary**	:	:	:	99.8	108.3
Latvia	:	:	:	35.9	:
Lithuania	80.9	75.9	78.0	79.2	:
Poland	:	651.5	805.1	801.5	:
Romania	:	:	493.5	483.3	431.9
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Real estate activities (NACE Rev. 1 70)**Real estate activities: Value added (million ECU/EUR).**

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	24.3
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	23.7	35.2	41.8	78.0	73.3
Hungary**	:	:	:	182.6	213.1
Latvia	:	:	73.9	110.4	:
Lithuania	17.5	20.6	31.2	54.5	:
Poland	:	521.1	825.1	1 234.6	:
Romania	:	:	51.9	78.0	89.6
Slovak Rep.***	208.3	154.3	102.9	97.3	61.8
Slovenia	16.8	18.5	24.8	35.1	:

Real estate activities: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	27.6	25.4	44.0	51.9
Cyprus	:	:	:	:	:
Czech Rep.	759.1	1 059.3	1 273.8	1 527.0	1 414.7
Estonia	84.1	119.6	178.9	299.0	310.5
Hungary**	:	:	:	520.4	716.3
Latvia	:	:	125.4	195.0	:
Lithuania	47.4	44.3	56.3	92.0	:
Poland	:	2 695.1	3 230.3	3 888.3	:
Romania	:	:	85.2	133.9	166.5
Slovak Rep.***	390.3	1 528.7	304.6	288.3	233.9
Slovenia	64.9	66.0	110.8	129.9	:

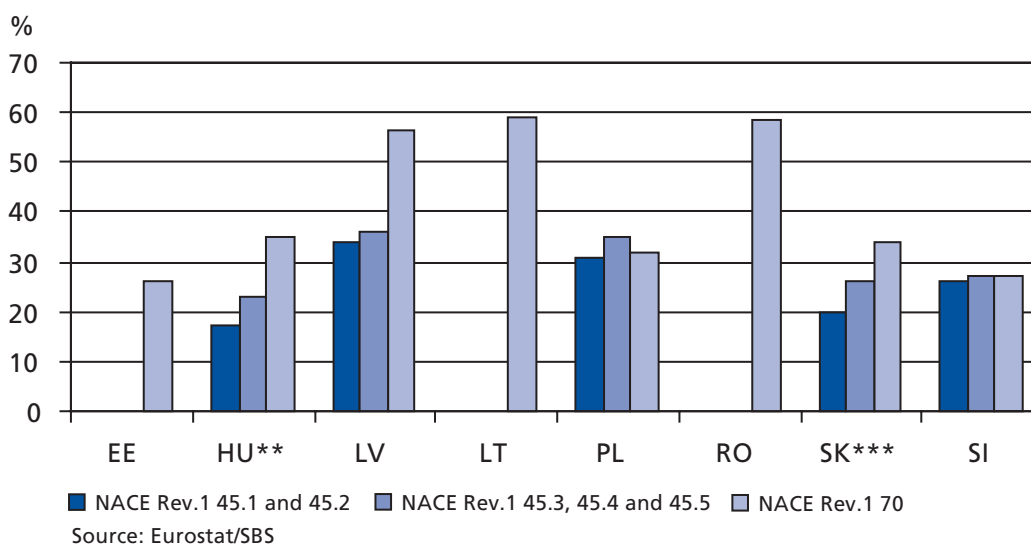
Real estate activities: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	6.7	6.9	6.5	7.7
Cyprus	:	:	:	:	:
Czech Rep.	35.5	37.2	45.0	45.1	45.6
Estonia	:	:	:	:	:
Hungary**	:	:	:	18.6	18.9
Latvia	:	:	:	17.8	:
Lithuania	12.8	11.5	11.1	12.8	:
Poland	:	113.8	123.8	125.2	:
Romania	:	:	14.5	15.1	18.1
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

II. Main indicators of the sub-sectors

Hungary and the Slovak Republic seem to achieve the highest turnover per enterprise among the Central European candidate countries whose data are available for Construction and real estate. However, no accurate conclusion can be made for this ratio since it is distorted by the fact that only enterprises with 5 persons employed or more and only enterprises with 20 employees or more are considered in respectively the Hungarian and the Slovakian bits of the survey. The same can be said about the number of enterprises, as well as the other enterprise and employment related indicators. They have to be construed with utmost caution. A more precise health indicator might be value added share per turnover. In 'Site preparation and construction' (NACE Rev. 1 45.1 and 45.2), Latvia and Poland notch up fairly high percentages for this ratio (see graph III.15.1). Regarding the rest of the countries whose data are available for this ratio, Slovenia and the Slovak Republic's are midway between Latvia and Poland's, on the one hand, and Hungary's on the other. 'Installation and completion' (NACE Rev. 1 45.3, 45.4 and 45.5) again show Latvia and Poland having the highest share of value added at factor costs per turnover among those countries whose data are available, while this ratio is the lowest in Hungary. The latter country, however, shows a higher labour productivity in this sector compared to Latvia and Poland. Hungary and Poland display among the highest labour productivity ratios for 'Real estate activities' (NACE Rev. 1 70). In terms of value added per turnover though, Latvia, Lithuania and Romania reap up the highest percentages.

Graph III.15.1. Construction and real estate: Share of value added per turnover, 1998



Site preparation and construction (NACE Rev. 1 45.1 and 45.2)

Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	10 307	:	62 126	:	4 099	730	:	98 975	:	638	4 431
Number of persons employed (thousands)	107	20	309	:	76	22	:	558	:	:	:
Number of pers. employed/enterprise	10.4	:	5.0	:	18.5	30.0	:	5.6	:	:	:
Employees out of total no. of persons employed (%)	83.0	89.0	83.0	:	99.0	100.0	:	79.0	:	:	:

Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	889	:	8 731	:	2 900	512	:	14 397	:	1 785	1 698
Turnover/enterprise (million ECU/EUR)	0.1	:	0.1	:	0.7	0.7	:	0.2	:	2.8	0.4
Turnover/person employed (thousand ECU/EUR)	8.3	:	28.3	:	38.2	23.3	:	25.8	:	:	:

Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	:	:	17.0	34.0	:	31.0	:	20.0	26.0
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	27.0	:	:	6.6	8.0	:	8.1	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.8	:	5.3	:	4.4	2.9	:	5.9	:	:	:
Gross operating surplus (million ECU/EUR)	:	225.0	514.0	:	168.0	114.0	:	:	:	42.0	59.0

Installation and completion (NACE Rev. 1 45.3, 45.4 and 45.5)

Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	3 659	:	49 822	:	2 092	1 211	:	105 301	:	8 145	179
Number of persons employed (thousands)	20	4	121	:	24	14	:	244	:	:	:
Number of pers. employed/enterprise	5.5	:	2.4	:	11.4	11.6	:	2.3	:	:	:
Employees out of total no. of persons employed (%)	81.0	74.0	63.0	:	98.0	100.0	:	50.0	:	:	:

Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	182	:	2 488	:	678	247	:	4 098	:	239	749
Turnover/enterprise (million ECU/EUR)	0.1	:	0.1	:	0.3	0.2	:	0.0	:	1.3	0.1
Turnover/person employed (thousand ECU/EUR)	9.0	:	20.5	:	28.5	17.7	:	16.8	:	:	:

Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	:	:	23.0	36.0	:	35.0	:	26.0	27.0
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	19.5	:	:	6.5	6.4	:	5.8	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	5.4	:	4.3	2.2	:	4.8	:	:	:
Gross operating surplus (million ECU/EUR)	:	18.0	203.0	:	56.0	64.0	:	:	:	15.0	50.0

Real estate activities (NACE Rev. 1 70)

Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	1 591	:	15 714	1 137	998	1 104	897	14 429	1 246	197	947
Number of persons employed (thousands)	6.5	:	45.1	:	18.6	17.8	12.8	125.2	15.1	:	:
Number of pers. employed/enterprise	4.1	:	2.9	:	18.7	16.1	14.2	8.7	12.1	:	:
Employees out of total no. of persons employed (%)	77.2	:	83.5	:	98.0	99.9	98.8	85.5	71.6	:	:

Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	44	:	1 527	299	520	195	92	3 888	134	288	130
Turnover/enterprise (million ECU/EUR)	0.0	:	0.1	0.3	0.5	0.2	0.1	0.3	0.1	1.5	0.1
Turnover/person employed (thousand ECU/EUR)	6.8	:	33.9	:	28.0	11.0	7.2	31.1	8.9	:	:

Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	:	26.1	35.1	56.6	59.2	31.8	58.3	33.7	27.0
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	9.8	6.2	4.3	9.9	5.2	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	5.8	4.1	5.7	2.7	2.7	6.0	1.9	4.0	11.3
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	62.6	:	:	:	46.2	:

Services

- Chapter 16** **Distributive trades**
- Chapter 17** **Tourism**
- Chapter 18** **Transport services**
- Chapter 19** **Business services**
- Chapter 20** **Information and audio-visual services**

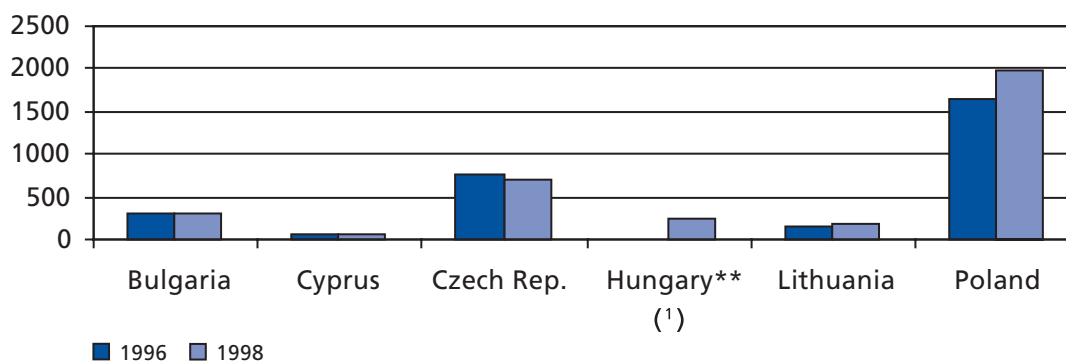
Chapter 16: Distributive trades

The activities covered in this chapter include:

- 50 Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel
- 50.1 Sale of motor vehicles
- 50.2 Maintenance and repair of motor vehicles
- 50.3 Sale of motor vehicle parts and accessories
- 50.4 Sale, maintenance and repair of motorcycles and related parts and accessories
- 50.5 Retail sale of automotive fuel
- 51 Wholesale trade and commission trade, except of motor vehicles and motorcycles
- 51.1 Wholesale on a fee or contract basis
- 51.2 Wholesale of agricultural raw materials and live animals
- 51.3 Wholesale of food, beverages and tobacco
- 51.4 Wholesale of household goods
- 51.5 Wholesale of non-agricultural intermediate products, waste and scrap
- 51.6 Wholesale of machinery, equipment and supplies
- 51.7 Other wholesale
- 52 Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods
- 52.1 Retail sale in non-specialized stores
- 52.2 Retail sale of food, beverages and tobacco in specialized stores
- 52.3 Retail sale of pharmaceutical and medical goods, cosmetic and toilet articles
- 52.4 Other retail sale of new goods in specialized stores
- 52.5 Retail sale of second-hand goods in stores
- 52.6 Retail sale not in stores
- 52.7 Repair of personal and household goods

Employment in Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel (NACE Rev. 1 50) was generally increasing in most candidate countries from 1995 to 1998 (see graph III.16.1), although total employment in distributive trades tended to show a more mixed picture. In 1998, Latvia generated as much as 13.7% of value added to turnover in the Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel (NACE Rev. 1 50), whereas Cyprus came first for this ratio among the candidate countries, with 16.8%. As far as the wholesale and retail trade outside the automotive sphere is concerned, Poland achieved the highest share of value added to turnover among the Central European candidate countries in 1998. At the same time, this country is showing the lowest percentage of employees out of total number of persons employed in the Trade section (NACE section G). Value added and turnover seemed to be on the up too from 1995 to 1998, although it is more difficult to appreciate as the figures for these indicators are expressed in current EUR terms. Slovenia has the highest unit personnel costs for trade among the Central European candidate countries, just as for the majority of other economic sectors. Wholesale trade and commission trade, except of motor and motorcycles generates the highest contribution

Graph III.16.1. Distributive trades: Employment (in thousands of persons employed)



(¹) figures previous to 1998 not available
Source: Eurostat/SBS

to the value added of the distributive trade activities in every candidate country covered in this publication. The majority of persons employed in the trade activities of the candidate countries are female (see table below).

Distributive trades: Share in employment, 1998 (%).

	males	females
Bulgaria	49.3	50.7
Cyprus	58.0	42.0
Czech Rep.	45.9	54.1
Estonia	45.9	54.1
Hungary	49.7	50.3
Latvia	40.1	59.9
Lithuania	52.0	48.0
Poland	:	:
Romania	45.4	54.6
Slovak Rep.	42.4	57.6
Slovenia	49.8	50.2

Eurostat (CEC/LFS)

Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel (NACE Rev. 1 50)

Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	116.8
Cyprus	155.1	151.5	158.7	174.6	:
Czech Rep.	:	:	:	:	:
Estonia	30.9	39.8	57.9	68.1	63.4
Hungary**	:	:	:	281.4	:
Latvia	:	:	64.6	82.0	:
Lithuania	26.9	43.6	71.2	104.1	:
Poland	:	1 100.8	1 168.7	1 272.0	:
Romania	:	:	243.3	234.2	226.9
Slovak Rep.***	30.3	62.7	62.7	115.7	111.0
Slovenia	218.0	225.0	260.3	253.2	:

Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	672.0	667.9	850.5	1 117.1
Cyprus	938.3	940.9	949.2	1 040.4	:
Czech Rep.	4 607.6	5902	6 014.9	7 104.9	7 487.8
Estonia	340.3	477.5	726.0	798.7	715.9
Hungary**	:	:	:	3 570.9	:
Latvia	:	:	457.3	598.2	:
Lithuania	320.4	534.3	771.9	900.8	:
Poland	:	8 121.4	10 199.4	11 457.3	:
Romania	:	:	2 213.1	2 369.7	2 224.9
Slovak Rep.***	241.3	595.9	538.5	980.4	1 517.6
Slovenia	2 099.4	2 361.6	2 642.3	2 666.1	:

Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	23.0	24.4	25.9	29.7
Cyprus	7.9	7.9	8.0	8.0	:
Czech Rep.	53.6	63.6	76.8	81.4	75.7
Estonia	:	:	:	:	:
Hungary**	:	:	:	28.2	:
Latvia	:	:	:	11.1	:
Lithuania	20.0	15.2	20.0	23.4	:
Poland	:	152.7	193.2	210.0	:
Romania	:	:	83.0	82.0	84.2
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	5 188	:	24 551	1 190	2 037	1 478	2 794	78 934	12 302	125	3 984
Number of persons employed (thousands)	25.9	8.0	81.4	:	28.2	11.1	23.4	210.0	82.0	:	:
Number of pers. employed/enterprise	5.0	:	3.3	:	13.9	7.5	8.4	2.7	6.7	:	:
Employees out of total no. of persons employed (%)	76.8	75.3	68.0	:	98.0	98.7	93.6	51.0	75.3	:	:

Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	851	1 040	7 105	799	3 571	598	901	11 457	2 370	980	2 666
Turnover/enterprise (million ECU/EUR)	0.2	:	0.3	0.7	1.8	0.4	0.3	0.1	0.2	7.8	0.7
Turnover/person employed (thousand ECU/EUR)	32.8	129.9	87.3	:	126.6	53.7	38.5	54.6	28.9	:	:

Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	16.8	:	8.5	7.9	13.7	11.6	11.1	9.9	11.8	9.5
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	21.8	:	:	10.0	7.4	4.4	6.1	2.9	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	15.7	5.3	4.2	4.4	2.3	2.5	4.4	1.5	5.6	12.4
Gross operating surplus (million ECU/EUR)	:	79.7	:	25.9	150.1	:	:	:	129.1	80.2	:

Wholesale trade and commission trade, except of motor vehicles and motorcycles (NACE Rev. 1 51)

Wholesale trade and commission trade, except of motor vehicles and motorcycles: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	332.0
Cyprus	377.6	388.7	416.0	458.3	:
Czech Rep.	:	:	:	:	:
Estonia	151.4	179.3	219.4	222.4	229.0
Hungary**	:	:	:	1 198.4	:
Latvia	:	:	291.1	:	:
Lithuania	84.7	154.6	280.0	352.3	:
Poland	:	5 812.8	7 307.2	7 865.3	:
Romania	:	:	1 077.5	:	:
Slovak Rep.***	229.8	299.1	456.8	527.7	416.7
Slovenia	561.9	550.8	618.3	632.5	:

Wholesale trade and commission trade, except of motor vehicles and motorcycles: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	5 107.0	4 956.2	5 825.2	7 150.9
Cyprus	2 339.4	2 427.0	2 529.6	2 682.4	:
Czech Rep.	28 032.1	29 787.7	28 252.1	3 1957.4	29 154.9
Estonia	1 838.9	2 247.7	2 953.8	3 307.9	3 287.6
Hungary**	:	:	:	13 885.6	:
Latvia	:	:	2 587.0	:	:
Lithuania	1 076.6	1 952.5	3 155.4	3 889.3	:
Poland	:	57 468.3	68 745.5	75 780.9	:
Romania	:	:	10 277.9	:	:
Slovak Rep.***	4 531.2	4 653.6	6 586.3	6 782.9	6 038.3
Slovenia	5 663.2	5 649.4	6 018.8	6 251.4	:

Wholesale trade and commission trade, except of motor vehicles and motorcycles: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	97.6	97.2	101.6	107.0
Cyprus	16.6	17.5	17.7	17.9	:
Czech Rep.	262.8	240.0	239.4	230.8	218.8
Estonia	:	33.4	:	:	:
Hungary**	:	:	:	90.0	:
Latvia	:	:	:	:	:
Lithuania	25.0	33.1	48.6	51.9	:
Poland	:	500.1	592.5	615.3	:
Romania	:	:	296.4	:	:
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

**Wholesale trade and commission trade, except of motor vehicles and motorcycles:
Enterprise and employment related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	22 400	:	66 558	5 396	4 762	4 327	5 911	12 2271	:	576	18 261
Number of persons employed (thousands)	101.6	17.9	230.8	:	90.0	:	51.9	6 15.3	:	:	:
Number of pers. employed/enterprise	4.5	:	3.5	:	18.9	:	8.8	5.0	:	:	:
Employees out of total no. of persons employed (%)	77.3	96.4	76.1	:	98.5	:	94.9	70.3	:	:	:

**Wholesale trade and commission trade, except of motor vehicles and motorcycles:
Turnover related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	5 825	2 682	31 957	3 308	13 886	:	3 889	75 781	:	6 783	6 251
Turnover/enterprise (million ECU/EUR)	0.3	:	0.5	0.6	2.9	:	0.7	0.6	:	11.8	0.3
Turnover/person employed (thousand ECU/EUR)	57.3	150.1	138.4	:	154.3	:	74.9	123.2	:	:	:

**Wholesale trade and commission trade, except of motor vehicles and motorcycles:
Competitiveness and productivity related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	17.1	:	6.7	8.6	:	9.1	10.4	:	7.8	10.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	25.7	:	:	13.3	:	6.8	12.8	:	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	15.0	7.4	4.2	6.5	:	2.9	6.0	:	5.5	12.1
Gross operating surplus (million ECU/EUR)	:	199.6	:	86.5	:	:	:	:	:	318.0	:

Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods (NACE Rev. 1 52)
Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	198.7
Cyprus	378.5	398.8	416.2	439.4	:
Czech Rep.	:	:	:	:	:
Estonia	93.8	103.7	122.8	136.8	140.5
Hungary**	:	:	:	622.2	:
Latvia	:	:	:	:	:
Lithuania	102.8	146.0	263.1	301.0	:
Poland	:	5 172.9	4 558.6	4 221.1	:
Romania	:	:	876.2	877.1	:
Slovak Rep.***	108.0	123.8	139.2	182.8	146.0
Slovenia	458.1	485.7	509.8	533.4	:

Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	1 039.4	976.6	1 246.5	1 543.4
Cyprus	2 165.7	2 257.7	2 435.6	2 645.2	:
Czech Rep.	14 760.6	17 498.0	15 408.0	14 632.1	15 024.7
Estonia	846.1	953.5	1 119.9	1 338.2	1 425.8
Hungary**	:	:	:	5 810.3	:
Latvia	:	:	:	:	:
Lithuania	1 004.5	1 370.6	2 159.6	2 444.0	:
Poland	:	31 865.4	31 857.0	30 544.3	:
Romania	:	:	6 717.5	8 030.9	:
Slovak Rep.***	851.7	997.4	1 131.8	1 356.8	1 311.2
Slovenia	3 463.8	3 709.9	3 906.5	4 111.5	:

Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	191.8	174.0	184.7	205.3
Cyprus	25.3	25.9	26.4	26.5	:
Czech Rep.	420.3	447.0	414.8	392.7	402.8
Estonia	:	:	:	:	:
Hungary**	:	:	:	127.1	:
Latvia	:	:	:	:	:
Lithuania	87.7	89.5	102.5	107.1	:
Poland	:	998.2	1 131.1	1 154.5	:
Romania	:	:	672.9	660.7	:
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	76 700	:	132 296	4 118	6 400	11 348	14 951	479 435	157 444	238	11 825
Number of persons employed (thousands)	184.7	26.5	392.7	:	127.1	:	107.1	1 154.5	660.7	:	:
Number of pers. employed/enterprise	2.4	:	3.0	:	19.9	:	7.2	2.4	4.2	:	:
Employees out of total no. of persons employed (%)	47.0	74.5	66.8	:	97.8	:	89.6	41.7	68.7	:	:

Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	1 247	2 645	14 632	1 338	5 810	:	2 444	30 544	8 031	1 357	4 112
Turnover/enterprise (million ECU/EUR)	0.0	:	0.1	0.3	0.9	:	0.2	0.1	0.1	5.7	0.3
Turnover/person employed (thousand ECU/EUR)	6.7	99.6	37.3	:	45.7	:	22.8	26.5	12.2	:	:

Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	16.6	:	10.2	10.7	:	12.3	13.8	10.9	13.5	13.0
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	16.6	:	:	4.9	:	2.8	3.7	1.3	:	:
Unit personnel costs (thousand ECU/EUR per employee)	0.9	12.9	3.8	2.7	3.4	:	1.9	2.7	1.0	3.5	9.7
Gross operating surplus (million ECU/EUR)	:	184.1	:	32.8	:	:	:	:	359.4	63.4	:

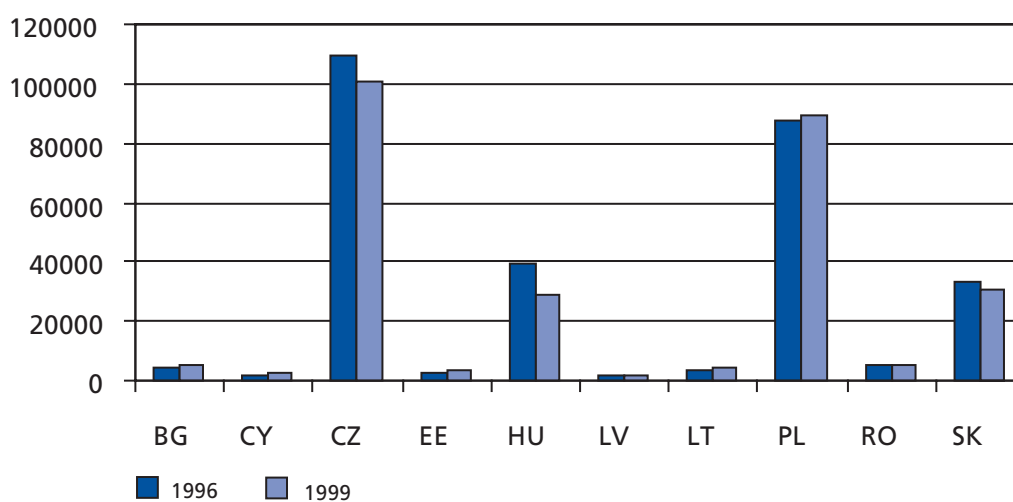
Chapter 17: Tourism

The activities covered in this chapter include:

- 55 Hotels and restaurants
- 55.1 Hotels
- 55.2 Camping sites and other provision of short-stay accommodation
- 55.3 Restaurants
- 55.4 Bars
- 55.5 Canteens and catering
- 63.3 Activities of travel agencies and tour operators; tourist assistance activities n.e.c.

The Tourism sector comprises NACE section H (Hotels and restaurant) and one of the groups within the Transport, storage and communications section I, namely 'Activities of travel agencies and tour operators, tourist association activities n.e.c.' (NACE Rev. 1 63.3).

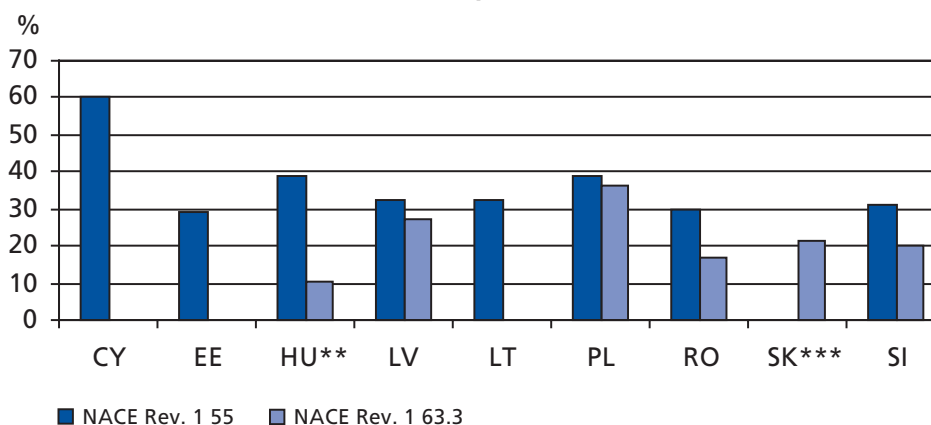
Graph III.17.1. Tourism: Visitors to the candidate countries (in thousands of arrivals)



Source: Eurostat (General statistics, Newcronos)

Tourism flows in the applicant countries are substantial (see graph III.17.1), especially in the Czech Republic and Poland and to a lesser extent in Hungary and the Slovak Republic. On balance, these flows have been stable between 1996 and 1999.

Graph III.17.2. Tourism: Share of value added per turnover, 1998



Source: Eurostat/SBS

Hotels and restaurants (NACE Rev. 1 55)

Employment in Hotel and restaurants seems to have been increasing in the Czech Republic, Lithuania and Poland between 1995 and 1998 (among those countries whose data are available). Value added on turnover, as one of the more reliable profitability indicators, shows a very strong performance in the Cypriot hotels and restaurants division (see graph III.17.2). In Central Europe, the same ratio for the same division is the highest in Hungary and Poland, standing at almost 40%. The other countries in that region displayed an average of 30% for value added as share of turnover. In addition, Cyprus, Hungary and Poland reached the highest figures for labour productivity in the hotels and restaurants sector. The two latter countries also displayed the highest unit personnel costs among the Central European candidate countries. Poland, just as for a variety of different services activities, once again shows the lowest percentage of employees to total number of persons employed in the hotels and restaurants sector. Hungary, Latvia and Lithuania display a higher percentage for this ratio in their Hotels and restaurants division.

Hotels and restaurants: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	141.1
Cyprus	571.9	557.1	617.9	680.5	:
Czech Rep.	:	:	:	:	:
Estonia	25.0	32.2	39.0	43.1	47.4
Hungary**	:	:	:	267.5	273.4
Latvia	:	:	38.6	42.1	:
Lithuania	13.3	21.9	35.8	47.9	:
Poland	:	525.4	713.3	741.6	:
Romania	:	:	168.1	193.0	180.4
Slovak Rep.***	33.4	49.5	52.4	60.0	58.1
Slovenia	189.9	196.7	202.4	217.4	:

Hotels and restaurants: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	279.5	324.3	448.8	426.3
Cyprus	937.6	922.6	1 016.7	1 131.9	:
Czech Rep.	1 634.7	2 103.4	1 780.8	1 905.0	1 833.4
Estonia	96.4	109.2	133.1	148.4	160.3
Hungary**	:	:	:	688.8	868.8
Latvia	:	:	106.0	130.4	:
Lithuania	53.8	67.9	115.4	148.8	:
Poland	:	1 548.3	1 922.5	1 909.9	:
Romania	:	:	575.8	646.3	586.4
Slovak Rep.***	82.4	112.3	137.4	158.9	150.0
Slovenia	591.5	635.5	656.7	697.8	:

Hotels and restaurants: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	72.6	68.1	66.0	70.2
Cyprus	30.1	30.3	29.7	30.0	:
Czech Rep.	140.3	149.2	148.5	162.3	161.5
Estonia	:	:	:	:	:
Hungary**	:	:	:	54.5	55.4
Latvia	:	:	:	12.8	:
Lithuania	14.4	14.0	17.0	19.9	:
Poland	:	119.5	163.5	175.4	:
Romania	:	:	98.2	98.7	100.2
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Hotels and restaurants: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	19 432	:	40 887	1 076	2 864	1 638	1 983	51 168	10 147	:	8 300
Number of persons employed (thousands)	66.0	30.0	162.3	:	54.5	12.8	19.9	175.4	98.7	:	:
Number of pers. employed/enterprise	3.4	:	4.0	:	19.0	7.8	10.0	3.4	9.7	:	:
Employees out of total no. of persons employed (%)	62.0	:	73.0	:	98.0	98.0	95.0	54.0	80.0	:	:

Hotels and restaurants: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	448.8	1 131.9	1 905.0	148.4	688.8	130.4	148.8	1 909.9	646.3	:	697.8
Turnover/enterprise (million ECU/EUR)	0.0	:	0.1	0.1	0.2	0.1	0.1	0.0	0.1	:	0.1
Turnover/person employed (thousand ECU/EUR)	6.8	37.7	11.7	:	12.6	10.2	7.5	10.9	6.6	:	:

Hotels and restaurants: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	60.1	:	29.0	38.8	32.3	32.2	38.8	29.9	:	31.2
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	22.6	:	:	4.9	3.3	2.4	4.2	2.0	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.8	:	2.9	2.5	3.0	1.8	1.9	3.7	1.3	:	7.8
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	19.4	:	:	:	:	:

Activities of travel agencies and tour operators; tourist assistance activities n.e.c. (NACE Rev. 1 63.3)

Conclusions for Activities of travel agencies and tour operators; tourist assistance activities n.e.c. (NACE Rev. 1 63.3) are slightly different. Poland still boasts the most impressive ratio for value added to turnover (see graph III.17.2). However, this yardstick was higher for Latvia, the Slovak Republic, Slovenia and Romania than for Hungary in 1998. Latvia even achieved the most significant labour productivity in this sector, ahead of Poland and while bearing much lower unit personnel costs. Poland, together with the Czech Republic, have the fewest employees to total number of persons employed in this sector. In contrast, Hungary and Latvia's employment in this sector is almost the exclusivity of employees.

Activities of travel agencies and tour operators; tourist assistance activities n.e.c.: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	:
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	:	:	:	:	:
Hungary**	:	:	:	27.0	30.3
Latvia	:	:	2.6	11.5	:
Lithuania	:	:	:	:	:
Poland	:	165.3	155.8	233.1	:
Romania	:	:	11.8	20.6	19.4
Slovak Rep.***	2.8	9.9	12.2	13.1	11.6
Slovenia	48.8	54.7	56.9	52.5	:

Activities of travel agencies and tour operators; tourist assistance activities n.e.c.: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	:
Cyprus	:	:	:	:	:
Czech Rep.	792.0	687.2	620.6	718.8	1 007.6
Estonia	:	:	:	:	:
Hungary**	:	:	:	261.5	293.5
Latvia	:	:	24.2	42.6	:
Lithuania	:	:	:	:	:
Poland	:	569.9	572.8	640.9	:
Romania	:	:	79.5	123.8	153.8
Slovak Rep.***	22.0	41.9	49.4	61.1	69.9
Slovenia	211.1	221.0	247.9	260.2	:

**Activities of travel agencies and tour operators; tourist assistance activities n.e.c.:
Employment (thousands of persons employed).**

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	:
Cyprus	:	:	:	:	:
Czech Rep.	11.2	9.4	8.8	9.9	11.1
Estonia	:	:	:	:	:
Hungary**	:	:	:	3.4	3.6
Latvia	:	:	:	0.7	:
Lithuania	:	:	:	:	:
Poland	:	13.7	16.4	17.7	:
Romania	:	:	6.3	9.1	9.0
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

**Activities of travel agencies and tour operators; tourist assistance activities n.e.c.:
Enterprise and employment related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	:	:	5 438	:	165	210	:	5 651	897	13	777
Number of persons employed (thousands)	:	:	9.9	:	3.4	0.7	:	17.7	9.1	:	:
Number of pers. employed/enterprise	:	:	1.8	:	20.8	3.5	:	3.1	10.2	:	:
Employees out of total no. of persons employed (%)	:	:	57.6	:	98.6	97.0	:	58.3	68.4	:	:

**Activities of travel agencies and tour operators; tourist assistance activities n.e.c.:
Turnover related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	:	:	719	:	262	43	:	641	124	61	260
Turnover/enterprise (million ECU/EUR)	:	:	0.1	:	1.6	0.2	:	0.1	0.1	4.7	0.3
Turnover/person employed (thousand ECU/EUR)	:	:	72.8	:	76.1	58.4	:	36.2	13.6	:	:

**Activities of travel agencies and tour operators; tourist assistance activities n.e.c.:
Competitiveness and productivity related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	:	:	10.3	27.0	:	36.4	16.6	21.4	20.2
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	7.9	15.8	:	13.2	2.3	:	:
Unit personnel costs (thousand ECU/EUR per employee)	:	:	6.3	:	5.5	1.8	:	5.3	1.7	5.0	18.8
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	10.2	:	:	:	8.4	:

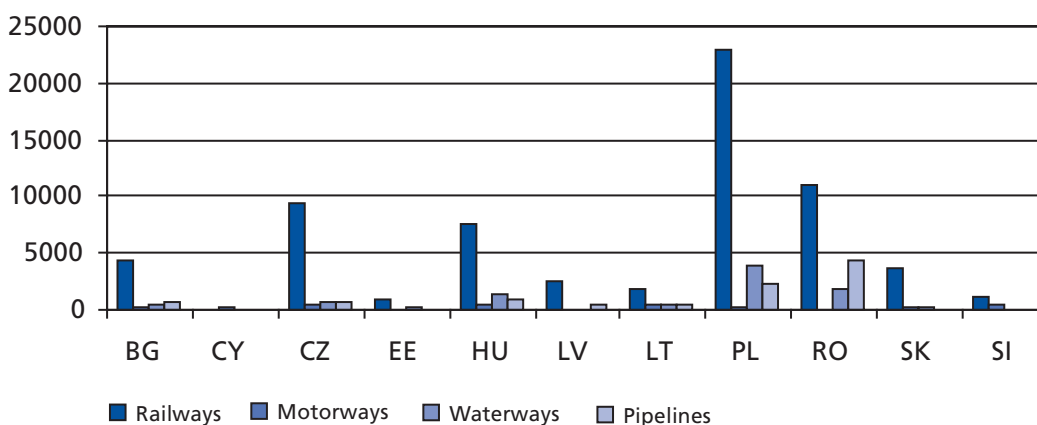
Chapter 18: Transport services

The activities covered in this chapter include:

- 60 Land transport; transport via pipelines
- 60.1 Transport via railways
- 60.2 Other land transport
- 60.3 Transport via pipelines
- 61 Water transport
- 61.1 Sea and coastal water transport
- 61.2 Inland water transport
- 62 Air transport
- 62.1 Scheduled air transport
- 62.2 Non-scheduled air transport
- 62.3 Space transport
- 63 Supporting and auxiliary transport activities; activities of travel agencies
- 63.1 Cargo handling and storage
- 63.2 Other supporting transport activities
- 63.3 Activities of travel agencies and tour operators; tourist assistance activities n.e.c.
- 63.4 Activities of other transport agencies

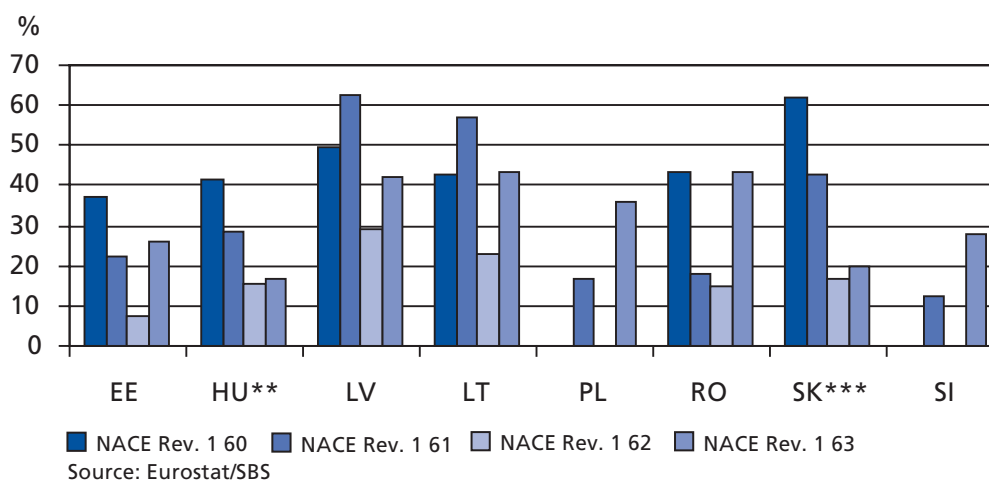
Transport services are a fairly big sector in the candidate countries, both in terms of turnover generated and employment. It regroups all means of transportation, i.e. land, water and air transport together with Supporting and auxiliary transport activities; activities of travel agencies (NACE Rev. 1 63). This sector will face increased competition due to EU accession, as greater liberalisation in this area is already being imposed in the Union's current Member States.

Graph III.18.1. Railways, roads, waterways and pipelines in the candidate countries, in kilometres, 1999



Source: Eurostat (General statistics, NewCronos)

In 1999, Poland had the largest rail network and waterways network of all 11 covered candidate countries (see graph III.18.1). Romania had the most vast pipelines network, most likely thanks to its being the largest oil producer in the region.

Graph III.18.2. Transport services: Share of value added per turnover, 1998**Land transport; transport via pipelines (NACE Rev. 1 60)**

Employment in Land transport; transport via pipelines (NACE Rev.1 60) may be on the wane, but this sector is still a behemoth in the number of jobs it is providing. Bulgaria's land transport workforce consists of only around 54% of employees, while most of other candidate countries display a percentage of employees much closer to 100%. The Slovak Republic ranks first in terms of value added at factor costs as share of turnover among the candidate countries whose data are available, with more than 60% (see graph III.18.2).

Land transport; transport via pipelines: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	362.7
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	75.8	94.2	106.6	135.3	141.7
Hungary**	:	:	:	904.3	1 149.9
Latvia	:	:	221.2	214.1	:
Lithuania	112.7	154.0	200.1	221.4	:
Poland	:	c	c	c	:
Romania	:	:	:	757.5	:
Slovak Rep.***	411.1	434.7	419.2	457.8	256.3
Slovenia	318.7	319.3	340.9	c	:

Land transport; transport via pipelines: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	598.9	625.9	892.1	982.8
Cyprus	:	:	:	:	:
Czech Rep.	2 758.8	3 153.5	4 067.8	4 444.4	4 542.2
Estonia	177.3	232.4	302.3	364.9	378.1
Hungary**	:	:	:	2 179.2	2 453.3
Latvia	:	:	405.9	429.9	:
Lithuania	256.2	333.8	464.2	515.6	:
Poland	:	c	c	c	:
Romania	:	:	:	1 748.8	:
Slovak Rep.***	699.8	732.1	754.8	741.0	705.7
Slovenia	796.8	825.8	893.2	c	:

Land transport; transport via pipelines: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	163.1	140.6	122.8	123.0
Cyprus	:	:	:	:	:
Czech Rep.	231.9	238.9	235.0	226.2	229.6
Estonia	:	:	:	:	:
Hungary**	:	:	:	128.6	127.8
Latvia	:	:	:	39.6	:
Lithuania	50.7	51.1	51.2	53.2	:
Poland	:	c	c	c	:
Romania	:	:	:	270.8	:
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Land transport; transport via pipelines: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	31 269	:	30 672	1 095	1 360	1 219	2 372	c	9 848	158	c
Number of persons employed (thousands)	122.8	:	226.2	:	128.6	39.6	53.2	c	270.8	:	:
Number of pers. employed/enterprise	3.9	:	7.4	:	94.6	32.5	22.4	c	27.5	:	c
Employees out of total no. of persons employed (%)	54.2	:	86.8	:	99.2	99.8	97.7	c	93.4	:	c

Land transport; transport via pipelines: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	892	:	4 444	365	2 179	430	516	c	1 749	741	c
Turnover/enterprise (million ECU/EUR)	0.0	:	0.1	0.3	1.6	0.4	0.2	c	0.2	4.7	c
Turnover/person employed (thousand ECU/EUR)	7.3	:	19.6	:	16.9	10.8	9.7	c	6.5	:	c

Land transport; transport via pipelines: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	:	37.1	41.5	49.8	42.9	c	43.3	61.8	c
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	7.0	5.4	4.2	c	2.8	:	c
Unit personnel costs (thousand ECU/EUR per employee)	3.1	:	5.4	4.0	5.3	3.2	2.9	c	2.5	4.7	c
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	87.5	:	:	:	91.2	:

Water transport (NACE Rev. 1 61)

The number of persons employed in Water transport (NACE Rev. 1 61) was, just like its land counterpart, showing signs of erosion between 1995 and 1998. Both Baltic States Latvia and Lithuania achieve very high shares of value added to turnover in this division combined with a very high labour productivity. Interestingly, Latvia and Lithuania's unit personnel costs are also the highest among the Central European candidate countries in water transport bar for Slovenia. Land-bound Hungary and the Slovak Republic also manage to reach healthy figures of value added to turnover, with moderate unit personnel costs.

Water transport: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	c
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	15.4	22.1	15.3	55.2	42.4
Hungary**	:	:	:	15.2	12.2
Latvia	:	:	c	18.4	:
Lithuania	34.0	42.5	45.6	56.6	:
Poland	:	117.6	126.1	91.8	:
Romania	:	:	45.1	36.6	31.1
Slovak Rep.***	c	c	c	10.0	c
Slovenia	2.1	2.3	2.4	2.7	:

Water transport: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	c	c	c	c
Cyprus	:	:	:	:	:
Czech Rep.	c	c	c	c	c
Estonia	205.7	184.6	211.4	249.5	267.6
Hungary**	:	:	:	53.1	38.1
Latvia	:	:	c	29.4	:
Lithuania	75.4	84.3	93.0	99.5	:
Poland	:	591.7	619.9	549.0	:
Romania	:	:	254.1	201.1	150.6
Slovak Rep.***	c	c	c	23.3	c
Slovenia	41.0	31.9	25.8	21.4	:

Water transport: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	8.2	8.1	7.8	6.7
Cyprus	:	:	:	:	:
Czech Rep.	c	c	c	c	c
Estonia	:	:	:	:	:
Hungary**	:	:	:	2.3	2.3
Latvia	:	:	:	0.9	:
Lithuania	3.3	3.3	3.0	2.8	:
Poland	:	10.3	8.7	6.5	:
Romania	:	:	16.3	15.0	11.1
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Water transport: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	53	:	101	24	21	15	20	236	126	3	59
Number of persons employed (thousands)	7.8	:	c	:	2.3	0.9	2.8	6.5	15.0	:	:
Number of pers. employed/enterprise	147.1	:	c	:	110.7	61.7	139.1	27.6	119.3	:	:
Employees out of total no. of persons employed (%)	99.3	:	c	:	99.7	100.0	100.0	109.5	94.4	:	:

Water transport: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	c	:	c	250	53	29	100	549	201	23	21
Turnover/enterprise (million ECU/EUR)	c	:	c	10.4	2.5	2.0	5.0	2.3	1.6	7.8	0.4
Turnover/person employed (thousand ECU/EUR)	c	:	c	:	22.8	31.7	35.8	84.2	13.4	:	:

Water transport: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	c	:	c	22.1	28.6	62.6	56.9	16.7	18.2	42.9	12.6
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	c	:	6.5	19.9	20.3	14.1	2.4	:	:
Unit personnel costs (thousand ECU/EUR per employee)	c	:	c	9.8	5.9	11.7	9.0	10.1	2.2	5.2	15.2
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	7.5	:	:	:	1.4	:

Air transport (NACE Rev. 1 62)

For those countries whose data are available, Air transport (NACE Rev. 1 62) has seemingly stable employment figures. The workforce in this division is actually almost entirely composed of employees. Latvia and Lithuania again show value added shares of turnover above the average of the other countries whose data are not confidential or available. Latvia's labour productivity is much higher than Hungary's and its unit personnel costs are twice as low.

Air transport: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	c
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	1.3	- 1.3	2	3.2	5.7
Hungary**	:	:	:	52.2	54.3
Latvia	:	:	c	15.2	:
Lithuania	6.9	8.1	12.6	13.1	:
Poland	:	c	c	c	:
Romania	:	:	9.3	23.5	c
Slovak Rep.***	c	c	c	2.8	2.4
Slovenia	16.7	16.4	16.4	c	:

Air transport: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	c	c	c	c
Cyprus	:	:	:	:	:
Czech Rep.	c	c	c	c	c
Estonia	23.3	28.9	40.3	44.8	58.0
Hungary**	:	:	:	331.3	360.4
Latvia	:	:	c	52.4	:
Lithuania	36.8	40.6	51.3	57.3	:
Poland	:	c	c	c	:
Romania	:	:	147.5	161.3	c
Slovak Rep.***	c	c	c	16.7	18.4
Slovenia	77.4	77.3	83.3	c	:

Air transport: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	5.3	5.4	5.1	4.8
Cyprus	:	:	:	:	:
Czech Rep.	c	c	c	c	c
Estonia	:	:	:	:	:
Hungary**	:	:	:	3.8	3.4
Latvia	:	:	:	0.7	:
Lithuania	1.4	1.3	1.3	1.4	:
Poland	:	c	c	c	:
Romania	:	:	4.8	4.1	c
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Air transport: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	48	:	34	7	14	17	6	c	17	5	c
Number of persons employed (thousands)	5.1	:	c	:	3.8	0.7	1.4	c	4.1	:	:
Number of pers. employed/enterprise	106.7	:	c	:	268.3	38.2	238.7	:	239.0	:	c
Employees out of total no. of persons employed (%)	98.6	:	c	:	99.3	100.0	100.0	:	94.6	:	c

Air transport: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	c	:	c	45	331	52	57	:	161	17	c
Turnover/enterprise (million ECU/EUR)	c	:	c	6.4	23.7	3.1	9.6	:	9.5	3.3	c
Turnover/person employed (thousand ECU/EUR)	c	:	c	:	88.2	80.6	40.0	:	39.7	:	c

Air transport: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	c	:	c	7.1	15.8	29.0	22.9	:	14.6	16.8	c
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	c	:	13.9	23.4	9.1	:	5.8	:	c
Unit personnel costs (thousand ECU/EUR per employee)	c	:	c	8.6	14.7	6.3	7.5	:	5.3	7.1	c
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	11.1	:	:	:	0.6	:

Supporting and auxiliary transport activities; activities of travel agencies (NACE Rev. 1 63)

Supporting and auxiliary transport activities; activities of travel agencies (NACE Rev. 1 63) on balance provided a rising number of employment opportunities from 1995 to 1998, with employees-to-number-of-persons-employed rates above 75% in a majority of candidate countries. Latvia, Lithuania and Romania exhibited the most significant ratios of value added to turnover, with more than 40%. Latvia also had the highest labour productivity among the candidate countries whose data for 1998 are available.

Supporting and auxiliary transport activities; activities of travel agencies: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	85
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	82.2	102.0	133.3	166.5	191.3
Hungary**	:	:	:	132.2	165.9
Latvia	:	:	256.3	283.5	:
Lithuania	76.9	95.7	112.3	126.9	:
Poland	:	468.8	895.5	1 093.2	:
Romania	:	:	228.8	269.1	296.1
Slovak Rep.***	26.7	36.7	42.9	53.2	70.4
Slovenia	171.6	181.1	201.2	211.5	:

Supporting and auxiliary transport activities; activities of travel agencies: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	231.8	227.8	245.7	329.1
Cyprus	:	:	:	:	:
Czech Rep.	1 449.5	1 799.4	2 127.0	2 201.5	2 519.7
Estonia	251.3	359.4	540.7	642.5	752.1
Hungary**	:	:	:	783.7	1 026.6
Latvia	:	:	658.8	672.7	:
Lithuania	126.1	168.5	249.5	291.4	:
Poland	:	2 651.8	2 749.1	3 062.3	:
Romania	:	:	490.5	620.6	707.9
Slovak Rep.***	107.7	172.0	231.2	265.5	301.4
Slovenia	621.6	653.3	706.6	752.6	:

Supporting and auxiliary transport activities; activities of travel agencies: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	29.3	27.9	55.3	52.6
Cyprus	:	:	:	:	:
Czech Rep.	22.0	23.1	26.6	29.4	29.1
Estonia	:	:	:	:	:
Hungary**	:	:	:	15.7	17.6
Latvia	:	:	:	15.8	:
Lithuania	9.4	10.5	11.0	12.9	:
Poland	:	63.7	74.4	78.5	:
Romania	:	:	39.8	42.8	40.7
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Supporting and auxiliary transport activities; activities of travel agencies: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	2 963	:	7 916	623	557	845	759	10 891	1 663	58	1 409
Number of persons employed (thousands)	55.3	:	29.4	:	15.7	15.8	12.9	78.5	42.8	:	:
Number of pers. employed/enterprise	18.7	:	3.7	:	28.2	18.7	16.9	7.2	25.8	:	:
Employees out of total no. of persons employed (%)	96.8	:	76.5	:	98.9	99.8	98.5	80.9	86.8	:	:

Supporting and auxiliary transport activities; activities of travel agencies: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	246	:	2 202	643	784	673	291	3062	621	266	753
Turnover/enterprise (million ECU/EUR)	0.1	:	0.3	1.0	1.4	0.8	0.4	0.3	0.4	4.6	0.5
Turnover/person employed (thousand ECU/EUR)	4.4	:	74.9	:	49.9	42.5	22.7	39.0	14.5	:	:

Supporting and auxiliary transport activities; activities of travel agencies: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	:	25.9	16.9	42.1	43.5	35.7	43.4	20.0	28.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	8.4	17.9	9.9	13.9	6.3	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.0	:	6.7	6.4	5.6	5.9	5.0	7.3	3.9	6.3	16.9
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	191.1	:	:	:	25.9	:

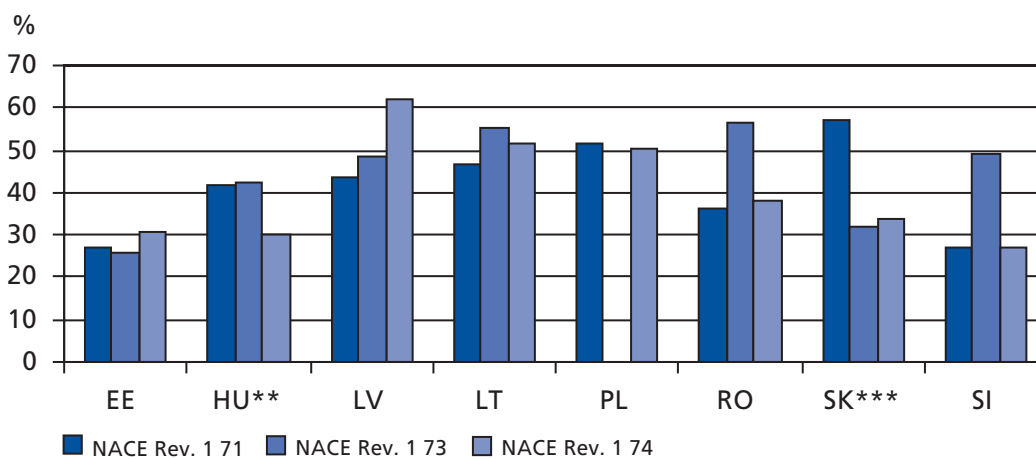
Chapter 19: Business services

The activities covered in this chapter include:

- 71 Renting of machinery and equipment without operator and of personal and household goods
 - 71.1 Renting of automobiles
 - 71.2 Renting of other transport equipment
 - 71.3 Renting of other machinery and equipment
 - 71.4 Renting of personal and household goods n.e.c.
- 73 Research and development
 - 73.1 Research and experimental development on natural sciences and engineering
 - 73.2 Research and experimental development on social sciences and humanities
- 74 Other business activities
 - 74.1 Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings
 - 74.2 Architectural and engineering activities and related technical consultancy
 - 74.3 Technical testing and analysis
 - 74.4 Advertising
 - 74.5 Labour recruitment and provision of personnel
 - 74.6 Investigation and security activities
 - 74.7 Industrial cleaning
 - 74.8 Miscellaneous business activities n.e.c.

Business services cover a myriad of different activities, from renting and R&D services through architectural, engineering and technical services to ancillary but vital advertising, auditing, book-keeping, cleaning, labour recruitment, legal, market research, tax consultancy and security activities.

Graph III.19.1. Business services: Share of value added per turnover, 1998



Renting of machinery and equipment without operator and of personal and household goods (NACE Rev. 1 71)

Renting of machinery and equipment without operator and of personal and household goods (NACE Rev. 1 71) globally saw its employment grow from 1995 through 1998. It is distinguished by a very low rate of employees to total employment in Bulgaria, Romania and even more so in Poland. 70% of the Czech workers in this sector were employees, whereas in Hungary, Latvia and Lithuania, this number was much closer to 100%. The Slovak renting sector secured up to 57% of its turnover as value added at factor costs (see graph III.19.1). Poland's counterpart was almost as profitable. The Hungarian, Latvian, Lithuanian and Romanian gross income figures were also high, while Estonia and Slovenia's renting sector yielded more moderate gross income results.

Renting of machinery and equipment without operator and of personal and household goods: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	5.5
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia (!)	11.2	3.1	5.0	6.8	6.2
Hungary**	:	:	:	35.5	58.2
Latvia	:	:	6.7	7.1	:
Lithuania	1.0	2.0	2.6	4.2	:
Poland	:	117.0	147.4	195.0	:
Romania	:	:	10.3	11.4	17.1
Slovak Rep.***	0.6	2.9	14.3	8.4	16.1
Slovenia	5.1	5.8	5.7	5.7	:

Renting of machinery and equipment without operator and of personal and household goods: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	4.9	3.3	9.3	11.6
Cyprus	:	:	:	:	:
Czech Rep.	250.0	291.3	236.1	287.9	357.9
Estonia (!)	42.7	11.3	19.0	25.0	25.0
Hungary**	:	:	:	85.0	127.1
Latvia	:	:	5.3	16.4	:
Lithuania	2.3	5.0	7.7	9.0	:
Poland	:	278.4	364.6	378.0	:
Romania	:	:	20.2	31.2	38.9
Slovak Rep.***	6.3	15.8	34.4	14.7	34.2
Slovenia	19.0	20.1	19.2	21.0	:

Renting of machinery and equipment without operator and of personal and household goods: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	1.7	1.6	1.4	1.2
Cyprus	:	:	:	:	:
Czech Rep.	8.4	6.8	8.6	5.5	8.4
Estonia (!)	:	:	:	:	:
Hungary**	:	:	:	2.5	2.6
Latvia	:	:	:	0.8	:
Lithuania	0.7	0.7	0.7	0.9	:
Poland	:	12.3	15.6	16.0	:
Romania	:	:	2.2	2.4	2.6
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

(!) In 1995, NACE Rev.1 71 also contains 72 for Estonia

Renting of machinery and equipment without operator and of personal and household goods: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	616	:	2 819	148	177	257	231	7 016	304	13	324
Number of persons employed (thousands)	1.4	:	5.5	:	2.5	0.8	0.9	16.0	2.4	:	:
Number of pers. employed/enterprise	2.2	:	1.9	:	14.4	3.2	3.8	2.3	8.0	:	:
Employees out of total no. of persons employed (%)	55.2	:	70.9	:	99.0	100.0	83.7	38.8	64.2	:	:

Renting of machinery and equipment without operator and of personal and household goods: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	9	:	288	25	85	16	9	378	31	15	21
Turnover/enterprise (million ECU/EUR)	0.0	:	0.1	0.2	0.5	0.1	0.0	0.1	0.1	1.1	0.1
Turnover/person employed (thousand ECU/EUR)	6.9	:	52.7	:	33.4	19.7	10.4	23.6	12.9	:	:

Renting of machinery and equipment without operator and of personal and household goods: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	:	27.2	41.8	43.3	46.7	51.6	36.5	57.1	27.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	13.9	8.5	4.8	12.2	4.7	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.1	:	6.9	3.7	5.0	2.6	2.5	6.2	2.3	4.3	9.9
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	4.9	:	:	:	5.8	:

Research and development (NACE Rev. 1 73)

From the available data, one can see that most candidate countries experienced a decline in Research and Development (NACE Rev. 1 73) employment in the three years to 1998. Poland again seems to be faring very well in terms of value added to turnover in 1998 (and equally in terms of labour productivity, although both figures are provisional for Poland in 1998), followed by Romania and Lithuania (see graph III.19.1). Interestingly, Hungarian and Polish research and development unit personnel costs exceeded Slovenia's in 1998. This is one of the few exceptions in which Slovenian unit personnel costs are not Central Europe's highest.

Research and development: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	5.1
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	0.5	0.6	1.3	0.6	0.6
Hungary**	:	:	:	31.4	39.3
Latvia	:	:	6.9	5.1	:
Lithuania	3.4	4.9	9.8	5.5	:
Poland	:	403.8	469.7	509.5	:
Romania	:	:	111.7	122.8	90.2
Slovak Rep.***	38.1	43.9	55.8	53.4	43.1
Slovenia	17.5	19.2	20.5	28.0	:

Research and development: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	18.7	16.7	15.0	13.7
Cyprus	:	:	:	:	:
Czech Rep.	132.8	141.3	131.0	133.0	148.0
Estonia	1.5	2.2	4.0	2.3	1.7
Hungary**	:	:	:	74.0	110.8
Latvia	:	:	11.2	10.5	:
Lithuania	5.0	6.7	16.2	10.0	:
Poland	:	730.8	792.3	854.6	:
Romania	:	:	201.2	216.5	158.0
Slovak Rep.***	85.1	106.3	140.4	166.3	153.5
Slovenia	34.2	38.5	40.0	56.9	:

Research and development: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	6.6	5.4	4.4	3.4
Cyprus	:	:	:	:	:
Czech Rep.	10.0	8.2	7.7	7.4	6.7
Estonia	:	:	:	:	:
Hungary**	:	:	:	3.9	3.9
Latvia	:	:	:	3.2	:
Lithuania	1.6	1.5	1.7	1.0	:
Poland	:	53.7	61.1	59.5	:
Romania	:	:	49.4	48.4	42.1
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Research and development: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	123	:	268	27	150	107	116	435	336	55	477
Number of persons employed (thousands)	4.4	:	7.4	:	3.9	3.2	1.0	59.5	48.4	:	:
Number of pers. employed/enterprise	35.6	:	27.7	:	25.7	30.1	8.2	136.7	143.9	:	:
Employees out of total no. of persons employed (%)	97.4	:	98.1	:	98.8	99.8	95.9	97.1	87.6	:	:

Research and development: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	15	:	133	2	74	11	10	855	217	166	57
Turnover/enterprise (million ECU/EUR)	0.1	:	0.5	0.1	0.5	0.1	0.1	2.0	0.6	3.0	0.1
Turnover/person employed (thousand ECU/EUR)	3.4	:	17.9	:	19.2	3.3	10.5	14.4	4.5	:	:

Research and development: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	:	26.1	42.4	48.6	55.0	59.6	56.7	32.1	49.2
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	8.1	1.6	5.8	8.6	2.5	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.4	:	6.6	3.4	7.4	2.5	4.5	7.8	2.2	5.5	7.0
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	-2.9	:	:	:	10.0	:

Other business activities (NACE Rev. 1 74)

Most candidate countries reported rising employment in the 'Other business activities' (NACE Rev. 1 74) division from 1995 to 1998. Less than half of Polish workers in this industry were actual employees. The other extreme lies in Hungary and Latvia, where the percentage of employees to total number of persons employed was almost 100%. Latvia and to a lesser extent, Lithuania and Poland possess the most profitable sectors in this division, reaping the highest value-added-to-turnover ratios (see graph III.19.1). Labour productivity is also high in Latvia and Poland, while the former has much lower expensive unit personnel costs.

Other business activities: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	122.9
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	65.0	78.9	87.7	106.1	122.1
Hungary**	:	:	:	553.2	705.6
Latvia	:	:	76.4	171.1	:
Lithuania	33.7	51.3	110.3	127.5	:
Poland	:	1 600.1	2 951.0	4 254.4	:
Romania	:	:	222.5	310.1	299.6
Slovak Rep.***	86.0	153.1	189.0	188.1	166.8
Slovenia	450.1	469.0	497.2	565.2	:

Other business activities: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	155.6	155.8	303.9	452.0
Cyprus	:	:	:	:	:
Czech Rep.	4 767.8	4 985.0	5 508.9	5 624.2	5 807.1
Estonia	169.3	232.5	288.1	344.6	384.0
Hungary**	:	:	:	1 826.0	2 669.8
Latvia	:	:	198.6	277.2	:
Lithuania	84.3	100.7	209.2	246.2	:
Poland	:	4 608.1	6 508.4	8 425.2	:
Romania	:	:	499.8	809.3	832.0
Slovak Rep.***	351.5	535.5	630.3	561.4	584.0
Slovenia	1 872.3	1 940.8	1 972.1	2 086.9	:

Other business activities: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	57.6	54.7	61.4	73.3
Cyprus	:	:	:	:	:
Czech Rep.	272.2	259.4	268.9	270.6	278.1
Estonia	:	:	:	:	:
Hungary**	:	:	:	77.7	88.3
Latvia	:	:	:	14.3	:
Lithuania	11.4	13.5	19.6	20.4	:
Poland	:	285.2	356.2	427.1	:
Romania	:	:	109.9	122.5	140.1
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Other business activities: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	13 186	:	144 920	2 615	3 815	2 123	3 402	161 747	9 199	377	16 277
Number of persons employed (thousands)	61.4	:	270.6	:	77.7	14.3	20.4	427.1	122.5	:	:
Number of pers. employed/enterprise	4.7	:	1.9	:	20.4	6.7	6.0	2.6	13.3	:	:
Employees out of total no. of persons employed (%)	58.3	:	65.7	:	98.3	98.7	88.4	49.1	58.4	:	:

Other business activities: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	304	:	5 624	345	1 826	277	246	8 425	809	561	2 087
Turnover/enterprise (million ECU/EUR)	0.0	:	0.0	0.1	0.5	0.1	0.1	0.1	0.1	1.5	0.1
Turnover/person employed (thousand ECU/EUR)	4.9	:	20.8	:	23.5	19.4	12.1	19.7	6.6	:	:

Other business activities: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	:	30.8	30.3	61.7	51.8	50.5	38.3	33.5	27.1
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	7.1	12.0	6.3	10.0	2.5	:	:
Unit personnel costs (thousand ECU/EUR per employee)	1.6	:	6.0	4.7	5.5	3.4	4.7	6.5	2.4	4.7	12.6
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	122.8	:	:	:	49.5	:

Chapter 20: Information services

The activities covered in this chapter include:

- 64 Post and telecommunications
- 64.1 Post and courier activities
- 64.2 Telecommunications
- 72 Computer and related activities
- 72.1 Hardware consultancy
- 72.2 Software consultancy and supply
- 72.3 Data processing
- 72.4 Data base activities
- 72.5 Maintenance and repair of office, accounting and computing machinery
- 72.6 Other computer related activities

Information services comprise post and telecommunications, as well as computer related activities.

The table below shows the number of fixed and cellular mobile telephones per thousand inhabitants. Cyprus has the largest number of fixed telephones, whereas the Estonians have the highest number of cellular mobile phones per thousand inhabitants.

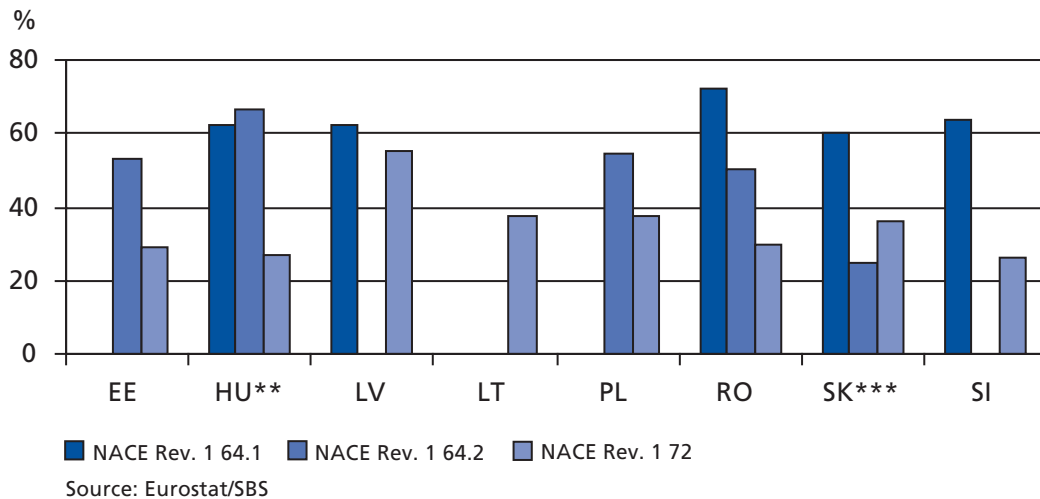
Number of telephones per 1000 inhabitants, 1998.

	fixed telephones	cellular mobile telephones
Bulgaria	335	:
Cyprus	539	155
Czech Rep.	364	94
Estonia	345	172
Hungary	335	102
Latvia	222	45
Lithuania	455	110
Poland	228	50
Romania	159	25
Slovak Rep.	287	92
Slovenia	:	:

Eurostat (CEC/LFS)

Post and telecommunications (NACE Rev. 1 64)

Employment in Post and courier activities (NACE Rev. 1 64.1) and Telecommunications (NACE Rev. 1 64.2) has mostly contracted from 1995 to 1998 in those countries whose data are available. Value added to turnover in Post and courier activities however, was very high in 1998 in a host of candidate countries: Romanian value added to turnover exceeded 70%, while Hungary's, Latvia's, the Slovak Republic's and Slovenia's hovered around 60%. Telecommunications (NACE Rev. 1 64.2), also displayed similarly high rates of value added to turnover, together with hefty labour productivity figures (see graph III.20.1).

Graph III.20.1. Information services: Share of value added per turnover, 1998**Post and telecommunications: Value added (million ECU/EUR).**

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	360.0
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	63.8	83.7	114.1	151.1	184.6
Hungary**	:	:	:	1 320.0	1 524.9
Latvia	:	:	149.6	210.6	:
Lithuania	67.2	87.1	142.9	220.5	:
Poland	:	c	c	c	:
Romania	:	:	482.3	719.1	:
Slovak Rep.***	264.2	303.4	370.0	414.8	c
Slovenia	152.7	155.6	178.6	199.8	:

Post and telecommunications: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	243.0	283.6	444.1	711.2
Cyprus	:	:	:	:	:
Czech Rep.	1 337.9	1 517.5	1 930.4	2 243.6	2 588.3
Estonia	100.9	133.5	190.9	260.0	342.3
Hungary**	:	:	:	2 410.1	2 822.8
Latvia	:	:	240.1	319.2	:
Lithuania	129.3	176.5	264.7	386.4	:
Poland	:	c	c	c	:
Romania	:	:	841.0	1 280.5	:
Slovak Rep.***	397.3	507.9	663.5	804.2	c
Slovenia	379.5	424.8	477.3	602.2	:

Post and telecommunications: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	46.2	45.3	45.6	44.8
Cyprus	:	:	:	:	:
Czech Rep.	81.0	80.3	80.7	74.4	73.3
Estonia	:	:	:	:	:
Hungary**	:	:	:	68.6	67.5
Latvia	:	:	:	15.1	:
Lithuania	20.9	21.0	21.1	21.0	:
Poland	:	c	c	c	:
Romania	:	:	104.6	105.8	:
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Post and courier activities (NACE Rev. 1 64.1)**Post and courier activities: Enterprise and employment related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	:	:	178	:	27	13	:	c	20	14	283
Number of persons employed (thousands)	:	:	c	:	46.0	7.6	:	c	37.0	:	:
Number of pers. employed/enterprise	:	:	c	:	1 705.3	583.1	:	c	1 847.6	:	:
Employees out of total no. of persons employed (%)	:	:	c	:	99.1	100.0	:	c	96.3	:	:

Post and courier activities: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	:	:	c	:	379	28	:	c	139	137	132
Turnover/enterprise (million ECU/EUR)	:	:	c	:	14.0	2.1	:	c	7.0	9.8	0.5
Turnover/person employed (thousand ECU/EUR)	:	:	c	:	8.2	3.7	:	c	3.8	:	:

Post and courier activities: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	c	:	62.5	62.6	:	c	72.1	59.9	63.9
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	c	:	5.1	2.3	:	c	2.7	:	:
Unit personnel costs (thousand ECU/EUR per employee)	:	:	c	:	4.4	1.8	:	c	2.5	3.5	13.2
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	3.4	:	:	:	14.5	:

Telecommunications (NACE Rev. 1 64.2)**Telecommunications: Enterprise and employment related indicators, 1998**

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	:	:	236	:	117	106	:	:	538	47	89
Number of persons employed (thousands)	:	:	c	:	22.6	7.5	:	:	68.8	:	:
Number of pers. employed/enterprise	:	:	c	:	193.2	70.9	:	:	127.9	:	:
Employees out of total no. of persons employed (%)	:	:	c	:	99.9	100.0	:	:	89.8	:	:

Telecommunications: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	:	:	c	:	2 032	291	:	:	1 141	668	471
Turnover/enterprise (million ECU/EUR)	:	:	c	:	17.4	2.7	:	:	2.1	14.2	5.3
Turnover/person employed (thousand ECU/EUR)	:	:	c	:	89.9	38.8	:	:	16.6	:	:

Telecommunications: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	c	:	53.3	66.3	:	:	54.22	50.0	24.6
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	c	:	47.9	25.7	:	:	9.0	:	:
Unit personnel costs (thousand ECU/EUR per employee)	:	:	c	:	11.6	6.7	:	:	4.3	6.3	18.6
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	143.2	:	:	:	226.4	:

Computer and related activities (NACE Rev. 1 72)

Computer and related activities (NACE Rev. 1 72), to the contrary of postal and telecommunication services, saw employment rise in the three years to 1998. Value added as share of turnover in this division seems to be usually more moderate than in Telecommunications, although the Latvian Computer and related activities sector still achieves an impressive 55% on this measure (see graph III.20.1). Its Hungarian counterpart boasted the highest labour productivity figures among the reporting countries.

Computer and related activities: Value added (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	:	:	:	18.7
Cyprus	:	:	:	:	:
Czech Rep.	:	:	:	:	:
Estonia	:	10.9	14.8	21.3	21.0
Hungary**	:	:	:	164.1	209.6
Latvia	:	:	12.9	26.6	:
Lithuania	6.3	9.3	13.3	18.5	:
Poland	:	281	414.3	547.7	:
Romania	:	:	28.2	42.1	51.4
Slovak Rep.***	35.6	49.4	54.9	75.6	69.3
Slovenia	34.1	45.8	56.3	70.4	:

Computer and related activities: Turnover (million ECU/EUR).

	1995	1996	1997	1998	1999
Bulgaria	:	31.5	32.8	47.2	68.9
Cyprus	:	:	:	:	:
Czech Rep.	780.7	1 498.8	1 325.4	1 289.8	1 388.8
Estonia	:	38.9	58.7	72.8	75.6
Hungary**	:	:	:	616.5	748.7
Latvia	:	:	30.3	48.4	:
Lithuania	16.6	30.2	59.0	49.6	:
Poland	:	781.8	1016	1 457.1	:
Romania	:	:	71.9	140.0	166.8
Slovak Rep.***	93.4	123.2	149.6	208.1	179.2
Slovenia	126.7	179.0	219.9	267.0	:

Computer and related activities: Employment (thousands of persons employed).

	1995	1996	1997	1998	1999
Bulgaria	:	6.7	6.8	7.0	7.7
Cyprus	:	:	:	:	:
Czech Rep.	31.7	36.8	38.0	36.3	35.3
Estonia	:	:	:	:	:
Hungary**	:	:	:	10.7	12.3
Latvia	:	:	:	2.3	:
Lithuania	1.7	2.3	2.4	2.7	:
Poland	:	30.1	38.6	45.3	:
Romania	:	:	14.0	16.7	19.4
Slovak Rep.***	:	:	:	:	:
Slovenia	:	:	:	:	:

Computer and related activities: Enterprise and employment related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Number of enterprises	2 048	:	16 697	376	665	338	479	18 315	2 308	77	1 408
Number of persons employed (thousands)	7.0	:	36.3	:	10.7	2.3	2.7	45.3	16.7	:	:
Number of pers. employed/enterprise	3.4	:	2.2	:	16.1	6.9	5.5	2.5	7.2	:	:
Employees out of total no. of persons employed (%)	66.9	:	70.8	:	99.0	97.5	88.4	47.7	56.4	:	:

Computer and related activities: Turnover related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Turnover (million ECU/EUR)	47	:	1 290	73	617	291	48	1 457	140	208	267
Turnover/enterprise (million ECU/EUR)	0.0	:	0.1	0.2	0.9	2.7	0.1	0.1	0.1	2.7	0.2
Turnover/person employed (thousand ECU/EUR)	6.7	:	35.5	:	57.4	38.8	20.8	32.2	8.4	:	:

Computer and related activities: Competitiveness and productivity related indicators, 1998

	BG	CY	CZ	EE	HU**	LV	LT	PL	RO	SK***	SI
Value added/turnover (%)	:	:	:	29.3	26.6	55.0	37.3	37.6	30.1	36.3	26.4
Apparent labour productivity (thousand ECU/EUR per pers. employed)	:	:	:	:	15.3	11.4	7.0	12.1	2.5	:	:
Unit personnel costs (thousand ECU/EUR per employee)	2.3	:	9.3	6.8	8.8	3.7	4.3	10.7	2.5	7.9	16.3
Gross operating surplus (million ECU/EUR)	:	:	:	:	:	18.1	:	:	:	30.7	:

PART IV

FURTHER REFERENCES

Further reference material

Further documentation on Structural Business Statistics (SBS) can be obtained from the Candidate Countries' National Statistical Institutes. Additionally, Small and Medium Enterprises (SMEs) statistics and sectoral financial analysis data can complement SBS from a slightly different perspective.

Bulgaria

НАЦИОНАЛЕН СТАТИСТИЧЕСКИ ИНСТИТУТ
NATIONAL STATISTICAL INSTITUTE

<http://www.nsi.bg>

Cyprus

CYSTAT
STATISTICAL SERVICE OF CYPRUS

<http://www.pio.gov.cy/>

Czech Republic

ČESKÝ STATISTICKÝ ÚŘAD
CZECH STATISTICAL OFFICE

<http://www.czso.cz/>

Estonia

STATISTIKAAMET
STATISTICAL OFFICE OF ESTONIA

<http://www.stat.ee/>

Hungary

KÖZPONTI STATISZTIKAI HIVATAL
HUNGARIAN CENTRAL STATISTICAL OFFICE

<http://www.ksh.hu/>

Latvia

CENTRĀLĀ STATISTIKAS PĀRVALDE
CENTRAL STATISTICAL BUREAU OF LATVIA

<http://www.csb.lv/>

Lithuania

STATISTIKOS DEPARTAMENTAS PRIE LIETUVOS RESPUBLIKOS VYRIAUSYBES
DEPARTMENT OF STATISTICS TO THE GOVERNMENT OF THE REPUBLIC OF LITHUANIA (STATISTICS
LITHUANIA)

<http://www.std.lt/>

Poland

GŁÓWNY URZĄD STATYSTYCZNY
CENTRAL STATISTICAL OFFICE OF POLAND

<http://www.stat.gov.pl/>

Romania

INSTITUTUL NATIONAL DE STATISTICA
NATIONAL INSTITUTE OF STATISTICS

<http://www.insse.ro/>

Slovak Republic

ŠTATISTICKÝ ÚRAD SLOVENSKEJ REPUBLIKE
STATISTICAL OFFICE OF THE SLOVAK REPUBLIC

<http://www.statistics.sk/>

Slovenia

STATISTIČNI URAD REPUBLIKE SLOVENIJE
STATISTICAL OFFICE OF THE REPUBLIC OF SLOVENIA

<http://www.gov.si/>