DETAILED TABLES

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Employment in the market economy in the European Union

An analysis based on the structural business statistics

WITH DATA ON THE ENLARGED EUROPE

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Employment in the market economy in the European Union — an analysis based on the Structural Business Statistics

Introduction

The Structural Business Statistics (SBS) represent the most complete source of data on businesses in the European Union. The SBS provide information about most aspects of enterprise activity and break this down by detailed economic sector in each of the EU Member States (see Box on this page). The purpose of this publication is to increase knowledge and understanding of employment and business related issues across the European Union, including at regional level. It sets out a fairly complete and coherent picture on the scale of business output and employment in different parts of the Union and the division of these between economic sectors of activity. It also indicates the relative importance of different sized enterprises, their productivity and costs of production and the amount of investment undertaken. The fact that the data on employment and business related variables in the SBS (output, value-added and so on) are compiled and classified on the same basis ensures that analysis undertaken using them is internally consistent.

The focus of this report is on employment. The aim is threefold. First, it is to present the data which are available from the SBS and which are collected from enterprises on an annual basis. Secondly, it is to examine how the number working in different parts of the business sector, in different industries and services, varies across the EU. Thirdly, it is to analyse the relationship between employment and other key variables, such as, value-added, labour costs and investment, in industry and services in different EU Member States.

This both updates and extends the analysis contained in the first report published in 2003. The main extension is to cover the new Member States entering the EU in May 2004 as well as Bulgaria and Romania and to compare the structure of employment in these countries with that in the rest of the EU. Although there are a number of gaps in

Structural Business Statistics

The SBS are compiled from data collected by National Statistical Offices from enterprises of all sizes. At present, they cover all industries and services classified to NACE Rev. 1 sectors C to K, though excluding sector J (financial services). They, therefore, exclude public administration, education, health and social services (NACE Rev. 1 sectors L to N) as well as personal and community services (NACE Rev. 1 sectors O to Q). In principle, according to the regulations (EC, EURATOM N° 58/97 of 20 December 1996 concerning structural business statistics, *OJ No L 14/1 of 17.1.97*, p.1)), they can cover all sectors except public administration (NACE Rev. 1 sector L), but so far the effort has been concentrated on collecting data for the enterprise sector, ie on market rather than non-market activities (see Box below on the division of economic activity by NACE sector).

Within the sectors covered, activities are disaggregated to a NACE 4-digit level within industry, though data are more complete at a NACE 3-digit level, and to a NACE 3-digit level in services. The variables contained in the SBS include the number of enterprises, turnover, the value of production, value-added, wages and salaries, gross investment and hours worked as well as the number of persons employed and the number of employees. They also include a number of ratios and calculated variables, such as the share of employment in particular industries in the total for manufacturing, investment per worker, social charges as a share of personnel costs and the growth of employment.

Data on the new basis are available for all EU15 Member States except Greece from 1995, though are less complete and of more questionable accuracy for the years before 1999.

Data are also available for the new Member States, except Malta, and for Bulgaria and Romania. These cover

the same variables and the same NACE activities as for the EU15 countries. The data available are in most cases as complete as for old Member States with the exception of Poland and Slovenia for which there are data on employees but not the total number employed. In addition, the data for Hungary and Slovakia are incomplete in the sense that they do not cover very small enterprises – or not all of them (see Methodological notes). Data are available for most of the other countries at the NACE 2-digit level for 1998 to 2001. They are more limited by size of enterprise. Moreover, data by (NUTS 2) region are not available for the Czech Republic.

the statistics for these countries at present, the data which exist enable a good indication to be gained of the structure of business in most cases.

Outline of the report

The report begins by indicating the relative numbers employed in different Member States in the market economy, which covers sectors of the economy where enterprises predominate. The main sectors not covered are communal or non-market services (in particular, education, health care, social services and public administration), personal and community services (such as recreational and cultural activities and hairdressing) and agriculture (see Box on this page).

The NACE sections of activty and the scope of the report

The NACE Rev.1 system classifies economic activity into 17 NACE 1-digit sections, two of which (mining and quarrying and manufacturing) are divided into 16 sub-sections. The sections are comprised of 60 divisions (NACE 2-digit codes), each of which is divided into a number of groups (NACE 3-digit codes) and classes (NACE 4-digit codes). The classification scheme is as follows:

Sections (1-digit)	Codes A to Q
Sub-sections (2 letter)	Codes CA and CB and DA to DN
Divisions (2-digit)	Codes 01 to 99
Groups (3-digit)	Codes 01.1 to 93.0 (Divisions 95 to 99 are not further divided)
Classes (4-digit)	Codes 01.11 to 93.05

Scope of SBS – the market economy

The SBS cover the sections which make up the market economy:

Industry

C	Mining and quarrying
D	Manufacturing
E	Electricity, gas and water supply
F	Construction

Services

G	Wholesale and retail trade, sale and repair of motor vehicles
H	Hotels and restaurants
I	Transport and communications
K	Real estate, renting and business activities

Focus of the report

This report is concerned with the characteristics of these 8 NACE sections. It focuses in particular on the sectoral breakdown within manufacturing and services.

Manufacturing

Manufacturing is broken down into 14 sub-sections and 23 (NACE 2-digit) divisions. Each of the latter is divided into a variable number of groups (eg Division 29, Manufacture of machinery and equipment, is divided into 7 groups, such as, 29.4, the manufacture of machine tools), which in turn are divided into a variable number of classes (eg 29.41, the manufacture of hand-held machine tools).

Services

The services covered by the SBS are broken down into 17 (NACE 2-digit) divisions, each of which is split into groups (eg Division 52, Retail trade, is divided into 7 groups, such as the retail sales of food, drink and tobacco in specialised stores, 52.2) and classes (such as the retail sales of fruit and vegetables, 52.21).

The first chapter focuses, first, on industry and, secondly, on services. It examines the distribution of employment and value-added between detailed activities in these two broad sectors and the relationship between the two variables. It also present estimates of labour productivity, or value-added per unit of labour input by taking account of average hours worked by those employed in different sectors. It then considers the relationship between labour productivity and capital employed, as reflected in the figures for expenditure on investment. This enables some indication to be gained of the effect of the plant and equipment available for workers to use in the production process on their productivity.

The second chapter examines the division of employment between enterprises of different size across the market economy sector and across different EU countries. It also considers the way that value-added per person employed varies between different sized-firms. In both cases, industry and services are examined separately.

The third chapter reviews the data on labour costs contained in the SBS and examines the relationship between the cost of labour and its productivity in different sectors and countries. It also presents estimates of labour cost per unit of value-added in both industry and services activities and relates these to investment (which enterprises

Comparison of employment according to the SBS and LFS

The data on employment compiled by the SBS are on a different basis from those compiled by the Labour Force Survey (LFS), reflecting the different methods of collecting the basic information. The SBS data are collected from enterprises, while LFS data are collected from a survey of private households. (Note that the LFS, therefore, excludes people living in collective households, though the number concerned who are of working age is very small and the number of these in employment even smaller.) Whereas the SBS data relate to the number employed in enterprises, the LFS data relate to the number of residents in employment in the country concerned, irrespective of whether they work in the country or abroad. Moreover, the SBS records the number of people employed in different enterprises, some of whom might be counted twice if they have more than one job, while the LFS counts each person in employment only once irrespective of how many jobs they have. The SBS, therefore, essentially counts jobs rather people in employment, Nevertheless, the number of people with more than one job in the EU according to the LFS is relatively small – only around 3% of the total on average. Accordingly, the SBS figures for the numbers employed in 2001 in the NACE sections covered are relatively close to those shown by the LFS for the same year.

In the EU15 as a whole, the total employed in the market economy was around 4% less according to the SBS than according to the LFS. (It should be noted that SBS data for Greece is estimated in order to derive a total figure for the EU15.) The difference, however, is reduced to under 1% if Germany (where the SBS total is almost 15% less than the LFS total,which is to small extent due to the SBS data for services being for 2000 instead of 2001) is excluded (Table 1). The SBS total remains less than the LFS total. This is the reverse of what might be expected given that jobs ought to exceed the number of people doing them.

On the other hand, the LFS counts anyone as being employed who works at least one hour in the reference week. This may mean that it includes people as working who might not be recorded in the SBS, which averages the number employed in enterprises over the year.

There are larger differences for some countries. In the new Member States, differences are in general much bigger, mostly around 10% either way.

There are also differences in the division of employment between industry (ie NACE sections C to F) and services (NACE sections G, H, I and K). In industry, the SBS tends to give a lower total for employment than the LFS while the reverse is true for market service sectors. Differences between the SBS and LFS are larger for certain sectors across countries, in particular, Mining (C), Construction (F) and Business services.

There are a number of possible reasons for these differences. Not only might they reflect the different basis of data collection as described above, but they also might arise from the different way that those employed are allocated to sectors of activity. The SBS, does this on the basis of the enterprise in which people are employed and allocates enterprises according to their main activity (ie in this context whether the enterprise produces mainly manufactures or services). (The enterprise in the SBS is the basic statistical unit of account used for compiling data. An enterprises is defined as '*the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources*'.) The LFS data are compiled on an establishment, or local unit, basis and establishments are allocated to sectors of activity according to the view of the member of the household surveyed.

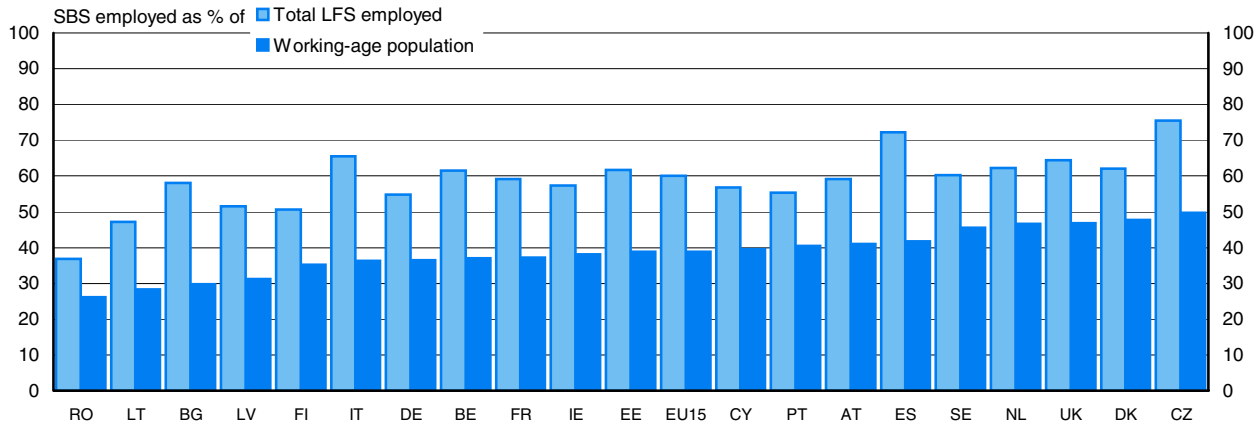
Table 1 – Difference between SBS and LFS data on number employed in the market economy, 2001

SBS relative to LFS (%)	Total	Industry (NACE C to F)	Mining, carrying (NACE C)	Manufacturing (NACE D)	Electricity, water (NACE E)	Construction (NACE F)	Services (NACE G,H,I,K)	Distributive trades (NACE G)	Hotels, restaurants (NACE H)	Transport, communications (NACE I)	Business services (NACE K)
EU15	-3.9	-13.1	-30.9	-10.7	-12.1	-18.4	3.9	-1.8	6.6	-13.2	23.8
EU 14 excl. DE	-0.6	-11.7	-32.4	-10.0	-17.4	-14.4	8.1	2.1	10.7	-10.0	28.9
BE	2.8	-4.2	-41.7	-8.3	17.2	6.4	8.0	2.7	23.2	-15.2	32.7
CZ	8.4	0.0	-13.4	5.6	-18.8	-11.7	20.2	22.8	2.3	-4.1	59.2
DK	6.6	-0.5	:	-2.8	19.1	3.0	12.0	15.3	44.6	-3.9	10.6
DE	-14.6	-17.1	-27.1	-12.6	5.3	-32.1	-11.9	-15.6	-11.6	-25.8	4.1
EE	-7.5	-13.1	5.8	-11.1	-5.1	-25.0	-1.8	17.0	-26.3	-28.5	16.2
ES	7.0	-6.2	-35.2	-11.6	-36.4	5.4	18.6	12.0	9.6	-3.6	57.1
FR	0.4	-6.4	-13.9	-7.3	-2.5	-4.1	5.8	0.3	-0.3	-3.8	22.1
IE	-28.6	:	-24.4	-14.2	:	:	-13.2	-13.3	5.9	-30.0	-14.2
IT	2.4	-3.7	-39.7	-0.7	-19.2	-9.5	8.5	-4.1	6.6	3.6	40.2
CY	-8.8	-9.8	-37.1	-4.9	-48.6	-11.3	:	-4.5	18.8	24.1	:
LV	-8.7	-13.8	:	-7.0	-13.6	-34.2	-4.2	-5.8	-31.9	-10.8	32.9
LT	-11.4	-12.1	:	-9.7	-13.9	-22.2	-10.5	-14.7	-24.8	-5.2	8.3
LU	73.8	57.1	:	63.4	55.5	48.3	84.4	42.5	40.5	59.9	228.3
HU	-34.6	-28.5	-57.9	-20.7	-14.1	-57.8	-41.2	-45.6	-60.4	-29.6	-33.2
MT	12.4	-9.1	-57.5	-1.8	4.9	-29.3	31.9	29.6	16.3	5.7	167.7
NL	9.9	-10.7	-10.1	-15.4	2.1	-1.3	21.5	13.2	13.0	2.9	44.3
AT	-10.2	-18.6	-45.1	-15.6	9.4	-27.4	-3.4	-6.9	2.8	-2.7	-1.1
PT	-11.4	-21.9	-16.9	-16.0	-23.3	-33.1	0.8	-3.7	-8.7	-12.0	39.6
SK	-31.6	-29.2	-38.2	-22.2	-13.2	-55.4	-34.8	-36.8	-71.9	-27.2	-15.9
FI	-15.9	-10.3	-6.6	-8.6	-29.3	-13.0	-20.5	-16.1	-35.4	-11.8	-27.0
SE	3.4	3.9	25.7	5.5	-18.5	1.0	3.1	2.6	-11.0	3.8	6.2
UK	3.1	-21.9	-37.9	-15.7	-34.6	-33.5	19.5	18.1	53.3	-19.2	33.3
BG	-9.4	-8.3	-11.3	-8.6	-0.7	-8.9	-10.6	-14.0	-32.4	0.3	4.9
RO	-10.6	-9.1	4.1	-9.2	-9.9	-13.6	-13.1	-14.0	-37.1	-25.8	69.1

Note: EL, PL, SI: SBS data not available. The EU15 aggregate has been estimated.
EU14 excludes DE, for which, because of its size, the large differences have a significant effect on the overall comparison.

Source: Eurostat, SBS and LFS

1 Employment in the market economy, 2001



EL, HU, MT, PL, SI, SK: n.a.; LU: not included; DE: NACE G to K: 2000; DK: NACE G: 1999, H to K: 2000; IE: 2000; CY: excl. NACE K

Source: Eurostat, SBS and LFS

ultimately need to finance from the value-added remaining after labour costs have been met).

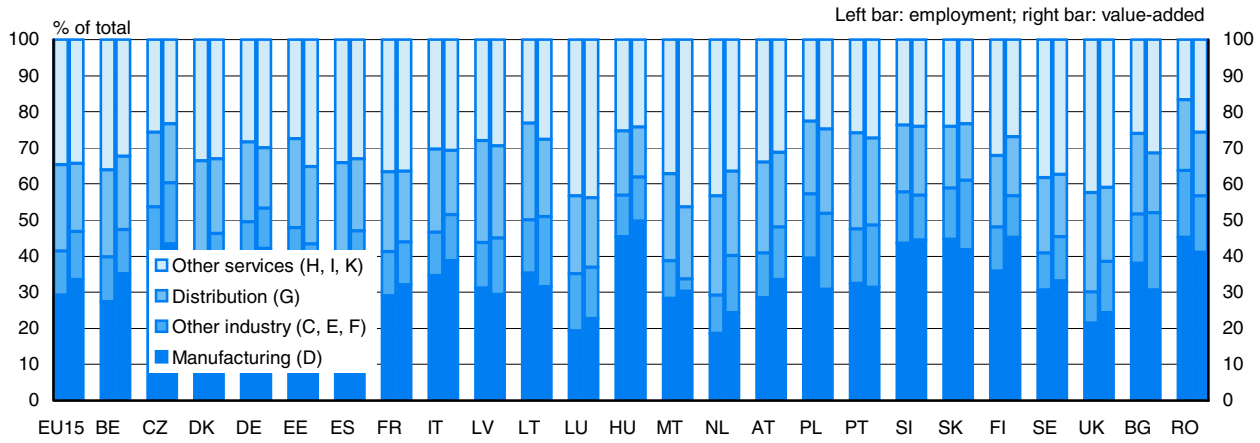
The fourth chapter presents data showing, first, the location of employment in selected industries across regions in the EU and, secondly, the way that average wages vary between regions within countries.

Scale of employment in the market economy

It should be noted at the outset that, because of a lack of data for two of the new Member States (Malta and Slovenia) and incomplete data for another two (Hungary and Slovakia), average figures in this report are calculated for the most part for EU15 instead of EU25. This also provides a convenient basis for comparing the position in the countries joining the Union with those which have been members for longer. The latter generally have much higher levels of GDP per head, which is conventionally used as an indicator of economic development.

In the EU15, the number employed in the market economy, or those activities covered by the SBS — NACE C to K excluding J — represented 60% of the total employed in the economy as a whole in 2001 (on the basis of EU

2 Employment and valued-added in the market economy, 2001



EL, IE, CY: n.a. ; DK: G 1999, H to K 1999; DE: G to K 2000 ; MT: NACE E 2000; PL, SI: employees only

Source: Eurostat, SBS

Labour Force Survey statistics) (Graph 1). (It should be noted, however, that this comparison tends to overstate the number employed in the market economy to the extent that the SBS counts jobs whereas the LFS counts people, who may have more than one job — see Box page 5.) The proportion ranged from just over 50% in Finland to over 70% in Spain. In the new Member States, the figures range from under 50% in Lithuania, where agriculture is important, to over 75% in the Czech Republic. In Romania, where agriculture is even more important, the number employed in the market economy amounted to under 40% of the total in work according to the LFS.

Relating the number employed in the market economy to working age population gives a comparative indication of the relative number of jobs provided by these activities in different countries. In the EU15 Member States taken together, the number employed in the market economy amounted to just under 40% of working-age population (taken as those aged 15 to 64) in 2001. In most new Member States, the proportion was less than the EU15 average, the only exceptions being the Czech Republic (50%), where the figure was higher than anywhere else in the Union, and Cyprus.

In the EU15, industry (NACE C to F) accounted for 41% of those employed in the market economy (NACE C to K — excluding J) in 2001 and market services (NACE G to K — excluding J) for 59% (Graph 2). Manufacturing alone represented 29% of the total and the distributive trades 24%. The relative importance of the different sectors varied substantially between countries, the share of services ranging from around 70% in the UK and Spain to just over 50% in Germany, Finland, Italy and Portugal.

In many of the new Member States, industry accounted for a larger share of employment in the market economy than in any of the EU15 countries. This was the case in the Czech Republic (54%), Hungary (57%) and Slovakia (59%). It was also true in Bulgaria (52%) and Romania (64%).

The share of market economy value-added generated by industry (47%) in EU15 in 2001 was greater than for employment, implying higher value-added per person employed in industry than in services. While this was systematically the case for all EU15 Member States, in the new Member States, it was true only for the Czech Republic, Hungary and Slovakia.

Chapter 1— Employment and value-added

Industry

Division of employment between industries

Over 40 million people were employed in Industry in the EU15 in 2001. Of these, some 28.4 million, or 70%, worked in manufacturing, 29% of all those employed in the market economy as a whole. Construction employed 10.4 million people, 11% of the total employed in the market economy and mining 0.4 million under ½% of the total (Table 2). Mining was more important in some of the new Member States, accounting for around 1.5% of the total working in the market economy in the Czech Republic, Slovakia and Estonia. It was even more important in Bulgaria (2.3%) and Romania(4.5%).

Stability of SBS data for industry, 2000 and 2001

The SBS survey has now been conducted for several years and the coverage of the data collected has increased significantly over the period. The accuracy of the data seems also to have improved as data collection methods have stabilised. A comparison of the data for employment in industry for the years 2000 and 2001 confirms this. For industry as a whole, there was a difference of only 0.2% in total employment in EU15 between the two years according to the SBS. This is broadly in line with other data sources (such as the national accounts) which show little change in employment in industry over this period (in practice, the national accounts shows a small fall of 0.3%). The difference between data for the two years was under 3% in all countries apart from Spain, where there was a big rise in employment in construction (15% as opposed to a rise of 6% shown by the national accounts). Variations between the two years were equally small in manufacturing across countries but larger in the much smaller mining sector where big job losses have tended to occur (Table 3).

The number employed in construction accounted for around 10% or more of all those working in the market economy in all EU15 Member States, except Sweden (9%) and the UK (8%). The proportion was as high as 17% in Spain. By contrast, in all the new Member States, apart from the Czech Republic and Cyprus, employment in construction amounted to under 10% of the total in the market economy.

Division of employment within manufacturing

Some 62% of all those employed in manufacturing in the EU15 in 2001 worked in basic manufacturing (textiles, metals, furniture and so on — see Box on page 12). The figure varied from over 80% in Luxembourg and Portugal and over 70% in Spain to only around 50% in Germany and Ireland (Table 4). In the new Member States, basic manufacturing was in most cases more important for employment, accounting for over 70% of total manufacturing in Estonia, as well as in Romania and Bulgaria, and over 80% in Cyprus, Latvia and Lithuania. (Graph 3)

Within basic manufacturing, textiles and clothing (DB+DC) accounted for less than 10% of total employment in manufacturing in most EU15 countries. The main exceptions are Portugal, where they accounted for almost a third, and Italy where the figure was almost 17%. In all the new Member States, the proportion employed in textiles and clothing was over 10% and around 15% in most cases, almost twice the EU15 average. In Bulgaria and Romania, the proportion was around 30%, almost the same as in Portugal.

The proportion of manufacturing employment in metals and metal products (DJ) in the new Member States, by contrast, was less than the EU15 average in all cases except the Czech Republic and Slovakia. For the other basic manufacturing sectors, the employment shares were more similar.

Table 2 – Employment and value-added in industry, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Employment (000)																											
Mining, quarrying (C)	356	3	57	2	107	6	42	40	5	37	1	2	3	0	6	0	9	5	220	15	5	14	4	9	71	37	179
Manufacturing (D)	28354	679	1391	479	7535	123	2656	4070	256	4833	37	154	246	34	756	31	929	629	2134	910	239	421	436	799	3888	605	1802
Basic manufacturing	17477	437	899	310	3864	97	1927	2482	130	3281	33	130	199	28	467	21	599	412	1502	747	164	272	264	423	2390	442	1321
Food, drink, tobacco (DA)	3568	104	147	89	837	20	377	649	49	440	12	37	56	4	121	4	166	80	393	104	22	51	40	66	515	104	214
Textiles, clothing (DB+DC)	2371	57	144	15	239	24	316	260	12	808	4	26	60	1	120	5	33	37	280	294	38	67	15	15	230	180	532
Metals+metal products (DJ)	4124	108	236	57	1086	9	421	583	17	826	3	10	11	11	79	2	133	99	242	92	39	64	57	123	487	54	184
Other manufacturing	7415	168	372	148	1703	43	813	990	52	1206	13	58	73	11	147	10	267	195	588	257	64	91	151	220	1159	103	391
Chemicals, fuel (DG+DF)	1838	75	47	28	513	3	148	320	23	232	2	4	6	2	47	1	78	26	108	25	13	20	23	46	278	33	85
Engineering	9038	166	446	142	3158	19	581	1267	91	1320	2	19	35	5	244	10	252	189	502	138	62	126	150	329	1219	120	396
Machinery+equipment (DK)	3113	45	151	73	1107	5	193	334	14	597	1	7	12	3	59	0	95	77	190	45	24	50	61	104	355	72	173
Elect+precn engineering (DL)	3286	55	185	53	1052	11	172	519	69	453	1	5	16	2	141	6	101	75	153	58	28	50	68	125	475	34	84
Transport equipment (DM)	2640	65	109	16	999	4	217	414	8	270	0	6	7	0	44	4	57	36	159	35	10	25	20	100	390	14	139
Construction (F)	10385	278	376	184	1988	31	1953	1458	:	1529	27	43	69	27	117	8	496	235	517	382	62	74	126	237	1367	124	373
Total Industry (C+D+E+F)	40140	987	1894	683	9925	170	4715	5770	:	6532	66	216	350	63	946	43	1468	903	3097	1334	317	555	583	1068	5458	826	2537
Value-added (million EUR)																											
Mining, quarrying (C)	64109	306	932	3540	6994	58	2049	2239	434	4817	24	19	72	28	110	7	5834	560	5864	549	110	159	230	573	35705	204	246
Manufacturing (D)	1451494	44271	14902	25669	412387	986	104142	207189	33812	202833	928	1635	1366	2288	11567	750	54256	35804	45211	17897	4027	3930	31089	41701	229042	1737	6880
Basic manufacturing	774745	23516	8628	15009	180273	756	67899	108911	11215	124281	796	1414	1019	1926	5651	438	32726	21694	30450	13035	2509	2269	16149	21898	129464	1108	4539
Food, drink, tobacco (DA)	167739	5576	1755	4796	34635	159	15578	28586	4632	17982	307	457	368	212	2390	115	10692	3525	13689	2381	389	295	2016	3520	32246	341	1178
Textiles, clothing (DB+DC)	70643	2513	854	669	8964	140	6870	8948	358	25193	65	177	229	161	610	84	1235	1409	2962	3300	418	275	561	506	9142	303	1231
Metals+metal products (DJ)	187168	5736	2357	2648	54315	75	15412	25861	745	32634	81	123	47	719	852	29	6585	5986	2481	1675	636	752	3101	6033	23952	165	697
Other manufacturing	349195	9691	3662	6897	82359	382	30039	45517	5480	48472	344	658	375	834	1799	211	14214	10774	11318	5679	1067	947	10471	11839	64124	299	1433
Chemicals, fuel (DG+DF)	180848	10325	1002	3012	47015	45	11522	28042	12325	18971	74	61	54	104	1675	25	8515	1955	4121	1359	460	249	2100	5218	28155	210	683
Engineering	495901	10430	5271	7647	185099	165	24720	70237	9547	59582	58	156	230	258	3680	286	13016	11722	10641	3503	1055	1118	12840	14584	71423	331	1658
Machinery+equipment (DK)	161146	2807	1472	3685	62658	37	7638	16280	700	28825	27	48	54	160	630	14	4982	4501	3344	1029	379	363	3425	5779	18435	206	588
Elect+precn engineering (DL)	173649	3606	1870	3160	55432	83	7613	27756	8412	19160	19	49	129	87	1811	230	4940	4778	3846	1351	498	367	8470	2765	25357	109	469
Transport equipment (DM)	161107	4017	1929	803	67010	45	9469	26201	435	11597	11	59	47	11	1238	42	3093	2443	3452	1124	177	388	945	6040	27632	17	601
Construction (F)	369792	9507	2475	7421	67564	232	50731	52070	:	43314	722	428	338	1172	1154	58	23000	10645	14862	6409	793	459	5605	10045	76354	408	1276
Total Industry (C+D+E+F)	2025944	59802	20698	38897	521433	1462	168509	283253	:	269313	1887	2500	2202	3735	14408	837	89752	51506	76146	27759	5157	5750	39073	57148	362658	2954	9505
Employment (% of market economy)																											
Mining, quarrying (C)	0.4	0.1	1.6	0.1	0.5	1.8	0.4	0.3	0.7	0.3	0.4	0.4	0.4	0.2	0.4	0.3	0.2	0.2	4.1	0.5	0.9	1.4	0.3	0.3	0.4	2.3	4.5
Manufacturing (D)	29.2	27.3	39.4	28.4	37.6	34.5	23.2	29.0	32.2	34.5	21.1	31.1	35.2	19.2	45.4	28.3	18.5	28.4	39.4	32.3	43.6	44.7	35.9	30.5	21.4	37.9	45.2
Electricity, water, gaz (E)	1.1	1.1	2.0	1.0	1.5	2.9	0.6	1.4	:	1.0	0.9	3.5	4.6	0.9	4.0	2.7	0.7	1.5	4.2	1.0	2.0	4.9	1.4	0.9	0.7	3.7	4.6
Construction (F)	10.7	11.2	10.6	10.9	9.9	8.6	17.0	10.4	:	10.9	15.1	8.6	9.8	14.9	7.1	7.3	9.9	10.6	9.5	13.6	11.2	7.9	10.4	9.1	7.5	7.8	9.4
Value-added (% of market economy)																											
Mining, quarrying (C)	1.5	0.2	2.7	4.2	0.7	1.7	0.6	0.3	0.8	0.9	0.5	0.3	1.7	0.3	0.5	0.3	2.6	0.5	4.0	1.0	1.2	1.7	0.3	0.5	3.8	3.6	1.5
Manufacturing (D)	33.4	35.1	43.4	30.5	42.1	29.2	29.0	32.1	58.6	38.7	18.5	29.4	31.5	22.6	49.7	30.1	24.3	33.4	30.8	31.3	44.4	41.7	45.1	33.0	24.3	30.6	41.0
Electricity, water, gaz (E)	3.2	4.5	7.0	2.7	3.5	5.5	3.2	3.4	:	3.5	4.2	7.5	9.9	2.4	6.8	0.9	3.0	4.2	6.9	5.1	2.5	12.8	3.1	3.8	2.3	10.7	6.6
Construction (F)	8.5	7.5	7.2	8.8	6.9	6.9	14.1	8.1	:	8.3	14.4	7.7	7.8	11.6	5.0	2.3	10.3	9.9	10.1	11.2	8.7	4.9	8.1	8.0	8.1	7.2	7.6

Note: EL: no data available; IE: 2000. AT: DA: 2000; BG: DC19.2: 2000; HU: DC, DF: 2000; MT: DD:2000; PL: employees only; SI: employees only; SK: DA: 2000; IE, AT, BG, EE, LT, LV, MT, SK: DG only. IE: NACE DN excluded; PL: DF, DG: 2000; SI: DC19.2, DF: 1999. Market economy relates to NACE sections C to K excluding J. Other manufacturing covers NACE sub-sections DD, DE, DH, DI and DN.

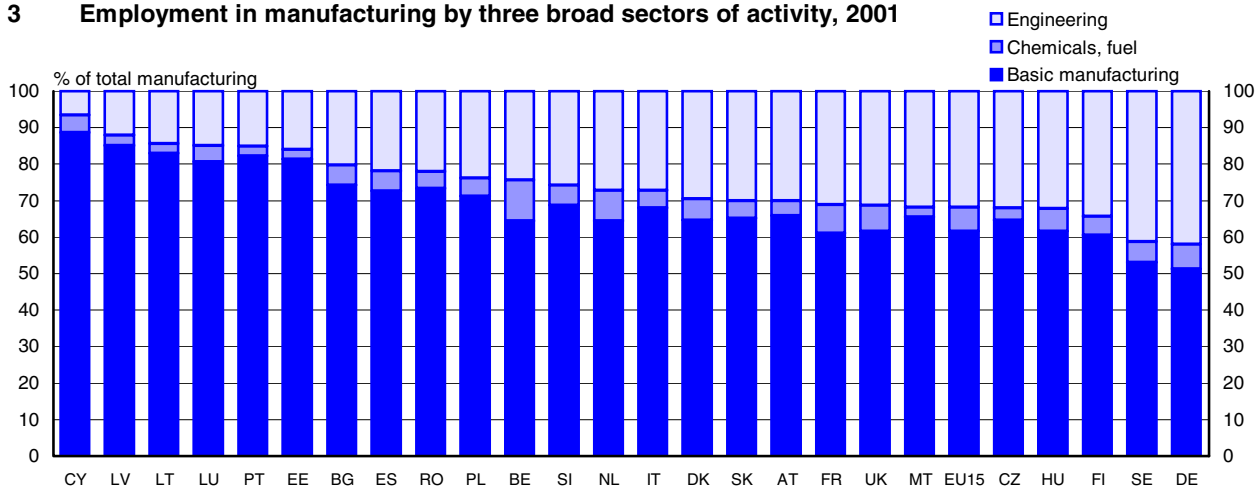
Source: Eurostat, SBS

Table 3 – Change in employment in industry, 2000-2001

	Industry (NACE C to F)			Mining, carrying (NACE C)			Manufacturing (NACE D)			Construction (NACE F)		
	2001	2000	2000/2001	2001	2000	2000/2001	2001	2000	2000/2001	2001	2000	2000/2001
Thousand			(%)			(%)			(%)			(%)
EU15	40140	40071	0.2	356	379	-6.2	28354	28482	-0.5	10385	10119	2.6
BE	987	959	2.9	3	4	-3.4	679	677	0.2	278	251	10.5
CZ	1894	1901	-0.4	57	59	-2.7	1391	1378	1.0	376	392	-4.0
DK	683	696	-1.9	2	2	4.5	479	488	-1.8	184	188	-1.9
DE	9925	10139	-2.1	107	129	-16.7	7535	7551	-0.2	1988	2164	-8.2
EE	170	170	0.3	6	7	-4.1	123	119	2.8	31	31	-0.6
ES	4715	4395	7.3	42	41	2.8	2656	2595	2.4	1953	1696	15.1
FR	5770	5707	1.1	40	42	-4.3	4070	4027	1.1	1458	1437	1.5
IE	:	:	:	5	5	0.0	256	256	0.0	:	:	:
IT	6532	6482	0.8	37	37	-0.7	4833	4821	0.2	1529	1478	3.5
CY	66	65	1.7	1	1	-3.1	37	36	1.8	27	26	1.7
LV	216	213	1.5	2	2	18.4	154	154	0.6	43	40	6.2
LT	350	353	-0.8	3	3	-9.4	246	245	0.7	69	68	1.3
LU	63	62	1.5	0	0	-8.0	34	34	-0.1	27	26	3.1
HU	946	947	-0.1	6	6	-1.6	756	756	0.0	117	112	4.8
MT	43	43	-1	0	0	-1	31	32	-1	8	8	1
NL	1468	:	:	9	9	2.1	929	915	1.5	496	:	:
AT	903	912	-1.0	5	6	-2.5	629	629	0.0	235	243	-3.4
PL	:	:	:	:	:	:	:	:	:	:	:	:
PT	1334	1325	0.6	15	15	3.1	910	938	-2.9	382	346	10.5
SI	:	:	:	:	:	:	:	:	:	:	:	:
SK	555	549	1.0	14	15	-10.6	421	411	2.3	74	77	-2.9
FI	583	577	1.1	4	4	1.6	436	436	0.1	126	120	5.3
SE	1068	1055	1.3	9	9	-1.2	799	792	0.9	237	229	3.6
UK	5458	5649	-3.4	71	73	-2.2	3888	4100	-5.2	1367	1339	2.1
BG	826	837	-1.4	37	41	-8.2	605	611	-1.0	124	126	-1.7
RO	2537	2593	-2.2	179	180	-0.8	1802	1835	-1.8	373	387	-3.7

Note: EL, PL, SI: SBS data not available.
Source: Eurostat, SBS

3 Employment in manufacturing by three broad sectors of activity, 2001



EL, IE: n.a. ; PL, SI: employees only; AT, BG, EE, LT, LV, MT, SK: NACE DF excluded; EE, LT, LV: NACE DC excluded

Source: Eurostat, SBS

Division of manufacturing into three broad sectors of activity

Manufacturing is divided here between three broad sectors of activity for purposes of analysis and presentation, 'Basic manufacturing', 'Chemicals and fuel' and 'Engineering'.

What are termed 'Basic manufacturing' are ultimately defined as those not included in the other two categories. They, therefore, consist of Food, drink and tobacco (NACE sectors 15 and 16 — see Box in Introduction — which are combined into NACE sector DA in the SBS), Clothing and footwear (NACE 17 and 18, which are combined as NACE sector DB, plus NACE 19 or DC), Wood and wood products (NACE sector 20 or DD), Paper, printing and publishing (NACE 21 and 22, which are combined into DE), Rubber and plastic products (NACE 25 or DH), Other non-metallic products (NACE 26 or DI), Basic metals and Metal products other than machinery (NACE 27 and 28 which are combined into DJ), Recycling and Furniture and miscellaneous products not included elsewhere (NACE 36 and 37 which are combined into NACE DN). The term 'basic' refers broadly to the type of product manufactured rather than the processes used to produce them, which can involve advanced technology and high levels of capital intensity of production.

'Chemicals and fuel' cover Coke production, petroleum refining and nuclear fuel (NACE 23 or DF) and Chemicals, chemical products and pharmaceuticals (NACE 24 or DG).

'Engineering' consists of Machinery and equipment (NACE 29 or DK), Office machines and computers (NACE 30), Electrical machinery and miscellaneous apparatus (NACE 31), Radio, television and communication equipment (NACE 32), Medical, precision and optical instruments (NACE 33), Motor vehicles and trailers (NACE 34), and Other transport equipment (NACE 35). NACE 30, 31 and 32 are combined into NACE DL, while NACE 34 and 35 make up NACE DM.

In the EU15 countries, engineering industries employed, on average, 9 million people in 2001, 32% of total manufacturing employment. In Germany and Sweden, the proportion was over 40%. In the new Member States, the proportion of manufacturing employment in engineering was similar to the EU15 average in the Czech Republic, Hungary, Malta and Slovakia, but only around 15% in the three Baltic States, lower than in the EU15 apart from Portugal.

Division of value-added between manufacturing sectors

The division of value-added between manufacturing sectors differs from that of employment. In the EU15 Member States taken together, manufacturing accounted for some 33% of the overall value-added generated by the market economy in 2001, some 4 percentage points more than its share of employment (Table 2). By contrast, in the new Member States, apart from the Czech Republic, Hungary and Malta, manufacturing accounted for a smaller share of value-added than employment. Construction, on the other hand, was responsible for a lower share of value-added than employment in both EU15 countries and the new Member States (under 9% as against 11% in EU15). According to the SBS data, value-added in manufacturing in Ireland is unusually high. This may be related to the high level of foreign ownership of manufacturing in Ireland.

In Germany, Finland, the Czech Republic, Romania and Slovenia over 40% of the value-added generated in the market economy was produced by manufacturing sector and in Hungary, 50% (but note the exclusion of small firms which are particularly important in services from the SBS data — see Methodological note).

The share of value-added in the market economy generated by construction was especially large in Spain and Cyprus, as it was for employment. By contrast, the share was only around 5% in Hungary and Slovakia and only 2% in Malta, but in the former two in particular, small firms, which are important in construction, are under-represented.

Mining, including oil extraction, accounted for 4% of market economy value-added in Denmark and Poland and only slightly less in the UK as well as Bulgaria, but for under 1% in the majority of Member States.

Within manufacturing, basic manufacturing, in general, accounted for smaller share of value-added as a whole than of employment, while engineering accounted for more in most cases — but not in all. Chemicals and fuel were in all countries responsible for a much larger share of value-added than employment (Graph 3 and 4).

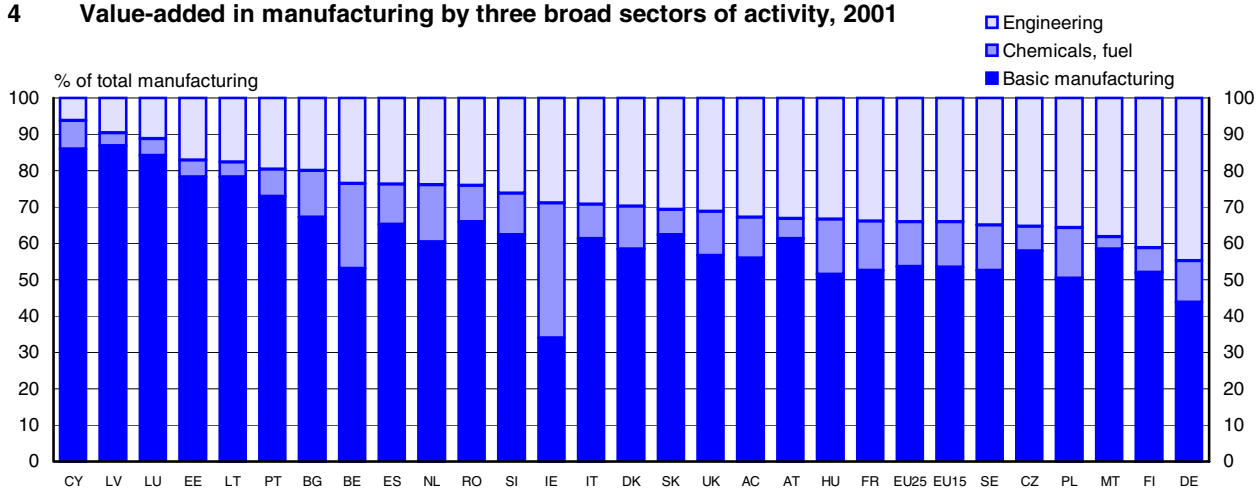
Table 4 – Distribution of employment and value-added within manufacturing, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Employment (% of total manufacturing)																											
Basic manufacturing	61.6	64.5	64.6	64.6	51.3	78.9	72.5	61.0	50.8	67.9	88.6	84.5	80.8	80.5	61.7	65.5	64.5	65.6	70.4	82.1	68.4	64.6	60.5	53.0	61.5	73.0	73.3
Food, drink, tobacco (DA)	12.6	15.4	10.6	18.7	11.1	16.3	14.2	15.9	19.2	9.1	31.7	23.7	22.5	12.4	16.0	14.2	17.9	12.8	18.4	11.4	9.2	12.0	9.2	8.2	13.2	17.2	11.9
Textiles, clothing (DB+DC)	8.4	8.4	10.3	3.1	3.2	19.8	11.9	6.4	4.7	16.7	11.3	16.6	24.5	3.8	15.9	14.6	3.5	5.9	13.1	32.3	15.9	15.8	3.5	1.9	5.9	29.8	29.5
Metals+metal products (DJ)	14.5	15.9	16.9	11.9	14.4	7.6	15.8	14.3	6.6	17.1	9.4	6.7	4.3	32.0	10.4	5.2	14.3	15.8	11.3	10.1	16.4	15.2	13.0	15.4	12.5	9.0	10.2
Other manufacturing (DD,DE,DH,DI,DN)	26.2	24.8	26.7	30.9	22.6	35.2	30.6	24.3	20.3	25.0	36.3	37.5	29.4	32.3	19.4	31.5	28.8	31.1	27.5	28.3	26.9	21.5	34.7	27.5	29.8	17.0	21.7
Chemicals, fuel (DG+DF)	6.5	11.1	3.4	5.8	6.8	2.5	5.6	7.9	9.0	4.8	4.9	2.9	2.5	4.5	6.3	2.8	8.3	4.1	5.1	2.7	5.6	4.7	5.2	5.8	7.2	5.4	4.7
Engineering	31.9	24.4	32.0	29.6	41.9	15.6	21.9	31.1	35.7	27.3	6.5	12.0	14.1	14.9	32.2	31.8	27.2	30.1	23.5	15.1	25.8	29.9	34.3	41.2	31.4	19.9	22.0
Machinery+equipment (DK)	11.0	6.6	10.9	15.1	14.7	4.0	7.3	8.2	5.6	12.4	3.0	4.5	5.0	7.8	7.9	1.5	10.2	12.3	8.9	5.0	9.9	11.9	14.0	13.1	9.1	12.0	9.6
Elect+precn engineering (DL)	11.6	8.1	13.3	11.1	14.0	8.6	6.5	12.8	27.0	9.4	2.2	3.5	6.5	6.2	18.6	18.2	10.8	12.0	7.1	6.3	11.8	12.0	15.7	15.6	12.2	5.7	4.7
Transport equipment (DM)	9.3	9.6	7.9	3.4	13.3	3.0	8.2	10.2	3.1	5.6	1.3	4.0	2.7	0.8	5.8	12.2	6.1	5.7	7.4	3.8	4.2	6.0	4.7	12.5	10.0	2.2	7.7
Value-added (% of total manufacturing)																											
Basic manufacturing	53.4	53.1	57.9	58.5	43.7	76.7	65.2	52.6	33.2	61.3	85.8	86.5	74.6	84.2	48.9	58.4	60.3	60.6	67.3	72.8	62.3	57.7	51.9	52.5	56.5	63.8	66.0
Food, drink, tobacco (DA)	11.6	12.6	11.8	18.7	8.4	16.2	15.0	13.8	13.7	8.9	33.0	28.0	26.9	9.3	20.7	15.3	19.7	9.8	30.3	13.3	9.7	7.5	6.5	8.4	14.1	19.6	17.1
Textiles, clothing (DB+DC)	4.9	5.7	5.7	2.6	2.2	14.2	6.6	4.3	1.1	12.4	7.0	10.8	16.8	7.0	5.3	11.2	2.3	3.9	6.6	18.4	10.4	7.0	1.8	1.2	4.0	17.4	17.9
Metals+metal products (DJ)	12.9	13.0	15.8	10.3	13.2	7.6	14.8	12.5	2.2	16.1	8.7	7.5	3.4	31.4	7.4	3.8	12.1	16.7	5.5	9.4	15.8	19.1	10.0	14.5	10.5	9.5	10.1
Other manufacturing (DD,DE,DH,DI,DN)	24.1	21.9	24.6	26.9	20.0	38.7	28.8	22.0	16.2	23.9	37.1	40.2	27.5	36.4	15.5	28.1	26.2	30.1	25.0	31.7	26.5	24.1	33.7	28.4	28.0	17.2	20.8
Chemicals, fuel (DG+DF)	12.5	23.3	6.7	11.7	11.4	4.6	11.1	13.5	36.5	9.4	8.0	3.7	3.9	4.6	14.5	3.4	15.7	5.5	9.1	7.6	11.4	6.3	6.8	12.5	12.3	12.1	9.9
Engineering	34.2	23.6	35.4	29.8	44.9	16.7	23.7	33.9	28.2	29.4	6.2	9.5	16.8	11.3	31.8	38.2	24.0	32.7	23.5	19.6	26.2	28.5	41.3	35.0	31.2	19.1	24.1
Machinery+equipment (DK)	11.1	6.3	9.9	14.4	15.2	3.7	7.3	7.9	2.1	14.2	2.9	2.9	3.9	7.0	5.4	1.9	9.2	12.6	7.4	5.7	9.4	9.2	11.0	13.9	8.0	11.8	8.5
Elect+precn engineering (DL)	12.0	8.1	12.5	12.3	13.4	8.4	7.3	13.4	24.9	9.4	2.1	3.0	9.4	3.8	15.7	30.7	9.1	13.3	8.5	7.5	12.4	9.3	27.2	6.6	11.1	6.3	6.8
Transport equipment (DM)	11.1	9.1	12.9	3.1	16.2	4.6	9.1	12.6	1.3	5.7	1.2	3.6	3.5	0.5	10.7	5.6	5.7	6.8	7.6	6.3	4.4	9.9	3.0	14.5	12.1	1.0	8.7

Note: EL: no data available; IE: 2000, NACE DN excluded. AT: DA: 2000; BG: DC19.2: 2000; HU: DC, DF: 2000; MT: DD:2000; PL: employees only, DF, DG: 2000; SI: employees only, DC19.2, DF: 1999; SK: DA: 2000; IE, AT, BG, EE, LT, LV, MT, SK: DG only.

Source: Eurostat, SBS

4 Value-added in manufacturing by three broad sectors of activity, 2001



EL: n.a. ; IE: 2000

Source: Eurostat, SBS

Value-added per person employed in industry (NACE C to F)

Value-added per person employed in industry is considerably higher in the EU15 than in the new Member States. In 2001, Cyprus and Malta were the only new Member States in which the level was comparable to that in any of the EU15 countries (though only Portugal had a level as low as in these two countries) (Table 5).

Labour productivity in industry

The number employed, however, gives only a partial measure of the amount of labour used in the production process. Account needs also to be taken of the average time which those employed work. The SBS contains data on the average number of hours worked per year by employees, which in combination with the data on the number employed can be used to calculate overall labour inputs. This, in turn, can be used to estimate value-added per hour worked, or labour productivity.

It should be noted in this regard, however, that because working time data in the SBS relate to employees rather than total persons employed, some assumption needs to be made about the hours worked by the self-employed to obtain a complete picture. In order to simplify the analysis, the assumption is that the self-employed on average work the same hours as employees. In practice, LFS data suggest that the self-employed tend to work longer hours. To this extent, the estimates presented here may overstate labour productivity, but only to a small degree given the relatively small numbers of self-employed, especially in manufacturing.

As a first stage in this estimation process, SBS data on annual hours worked are compared with two other surveys: the Labour Cost Survey (LCS) and the Labour Force Survey (LFS) as a check on the accuracy of the data. The LCS should give similar results since like the SBS it relates to employees and is based on data collected from enterprises (though data relate to local units rather than enterprises). However, it excludes those employing less than 10 people which may affect the results. The LFS, on the contrary, collects data from households and covers both employees and self-employed as well as unpaid family workers. Moreover, it contains data for hours worked per week rather than per year, so an estimate needs to be made of the weeks worked per year to obtain comparable figures. This is done by comparing LFS weekly data with LCS annual data at an aggregate level to obtain an implicit figure for annual weeks of work. The LFS data are, then used to give an indication of the difference between the average working time of employees and of all persons in employment.

The SBS generally shows a slightly larger figure for average hours worked than the LCS. The main exceptions are Sweden and Lithuania, where the figures are much smaller (Table 6).

Table 5 – Value-added per person employed in industry, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Value-added per person employed (EUR thousand)																											
Mining, quarrying (C)	180.1	87.4	16.3	1443.6	65.3	9.1	48.7	55.3	82.0	131.0	38.0	9.7	25.5	96.2	17.5	19.0	648.8	102.0	:	36.7	:	11.7	61.4	65.1	500.3	5.5	1.4
Manufacturing (D)	51.2	65.2	10.7	53.6	54.7	8.0	39.2	50.9	132.2	42.0	25.0	10.6	5.5	66.7	15.3	23.9	58.4	57.0	:	19.7	:	9.3	71.3	52.2	58.9	2.9	3.8
Basic manufacturing	44.3	53.8	9.6	48.5	46.6	7.8	35.2	43.9	86.4	37.9	24.2	10.8	5.1	69.7	12.1	21.4	54.7	52.6	:	17.4	:	8.4	61.2	51.7	54.2	2.5	3.4
Food, drink, tobacco (DA)	47.0	53.4	11.9	53.6	41.4	8.0	41.3	44.0	94.6	40.9	26.1	12.5	6.6	49.9	19.8	25.9	64.3	43.8	:	22.9	:	5.8	50.1	53.6	62.7	3.3	5.5
Textiles, clothing (DB+DC)	29.8	44.0	5.9	45.2	37.5	5.8	21.7	34.5	29.7	31.2	15.4	6.9	3.8	123.1	5.1	18.4	38.0	38.2	:	11.2	:	4.1	36.8	34.0	39.8	1.7	2.3
Metals+metal products (DJ)	45.4	53.1	10.0	46.3	50.0	8.1	36.6	44.4	43.9	39.5	23.2	11.9	4.4	65.4	10.8	17.6	49.5	60.3	:	18.2	:	11.8	54.5	49.1	49.2	3.0	3.8
Other manufacturing (DD,DE,DH,DI,DN)	47.1	57.7	9.9	46.5	48.4	8.8	36.9	46.0	105.8	40.2	25.6	11.4	5.2	75.1	12.2	21.3	53.2	55.1	:	22.1	:	10.5	69.1	53.8	55.3	2.9	3.7
Chemicals, fuel (DG+DF)	98.4	137.0	21.4	108.9	91.7	14.6	77.8	87.5	532.9	81.7	41.1	13.8	8.8	66.9	35.4	28.7	109.8	76.1	:	54.3	:	12.6	93.1	112.7	101.2	6.5	8.1
Engineering	54.9	62.9	11.8	53.9	58.6	8.6	42.5	55.4	104.6	45.1	23.8	8.4	6.6	50.5	15.1	28.7	51.5	62.0	:	25.4	:	8.9	85.7	44.3	58.6	2.8	4.2
Machinery+equipment (DK)	51.8	62.4	9.7	50.8	56.6	7.4	39.6	48.7	48.7	48.3	24.0	6.8	4.4	59.3	10.6	30.3	52.7	58.2	:	22.8	:	7.2	56.2	55.4	51.9	2.8	3.4
Elect+precn engineering (DL)	52.9	65.3	10.1	59.6	52.7	7.9	44.3	53.5	121.9	42.3	24.0	9.0	8.0	40.8	12.9	40.5	49.0	63.3	:	23.4	:	7.3	124.0	22.1	53.4	3.2	5.6
Transport equipment (DM)	61.0	61.4	17.6	49.2	67.1	12.4	43.7	63.3	55.1	43.0	23.0	9.6	7.2	39.6	28.4	11.0	54.2	67.6	:	32.2	:	15.4	46.2	60.5	70.9	1.2	4.3
Construction (F)	35.6	34.2	6.6	40.3	34.0	7.5	26.0	35.7	:	28.3	27.1	10.0	4.9	43.9	9.8	7.2	46.3	45.4	:	16.8	:	6.2	44.4	42.3	55.9	3.3	3.4
Total Industry (C+D+E+F)	50.5	60.6	10.9	57.0	52.5	8.6	35.7	49.1	:	41.2	28.7	11.6	6.3	59.4	15.2	19.6	61.1	57.1	:	20.8	:	10.4	67.0	53.5	66.4	3.6	3.7
Index (total industry = 100)																											
Mining, quarrying (C)	357	144	149	2534	124	106	136	113	:	318	133	84	405	162	115	97	1061	179	:	176	:	112	92	122	753	153	37
Manufacturing (D)	101	108	98	94	104	94	110	104	:	102	87	92	88	112	100	122	96	100	:	95	:	90	106	98	89	80	102
Basic manufacturing	88	89	88	85	89	91	99	89	:	92	85	94	81	117	80	109	89	92	:	84	:	81	91	97	82	70	92
Food, drink, tobacco (DA)	93	88	109	94	79	93	116	90	:	99	91	108	105	84	130	132	105	77	:	110	:	56	75	100	94	91	147
Textiles, clothing (DB+DC)	59	73	54	79	71	67	61	70	:	76	54	60	60	207	33	94	62	67	:	54	:	40	55	64	60	47	62
Metals+metal products (DJ)	90	88	92	81	95	94	102	90	:	96	81	103	69	110	71	90	81	106	:	87	:	113	81	92	74	85	101
Other manufacturing (DD,DE,DH,DI,DN)	93	95	90	82	92	103	103	94	:	97	89	98	82	126	80	109	87	97	:	106	:	101	103	101	83	81	98
Chemicals, fuel (DG+DF)	195	226	196	191	175	170	218	178	:	198	143	119	139	113	233	147	180	133	:	261	:	122	139	211	152	180	216
Engineering	109	104	108	95	112	100	119	113	:	109	83	73	105	85	99	147	84	109	:	122	:	86	128	83	88	77	112
Machinery+equipment (DK)	103	103	89	89	108	86	111	99	:	117	84	59	69	100	70	155	86	102	:	110	:	70	84	104	78	79	91
Elect+precn engineering (DL)	105	108	92	105	100	92	124	109	:	103	84	78	128	69	84	207	80	111	:	112	:	70	185	41	80	88	149
Transport equipment (DM)	121	101	161	86	128	145	122	129	:	104	80	84	114	67	187	56	89	118	:	155	:	148	69	113	107	35	115
Construction (F)	71	56	60	71	65	88	73	73	:	69	95	87	78	74	65	37	76	80	:	81	:	59	66	79	84	92	91

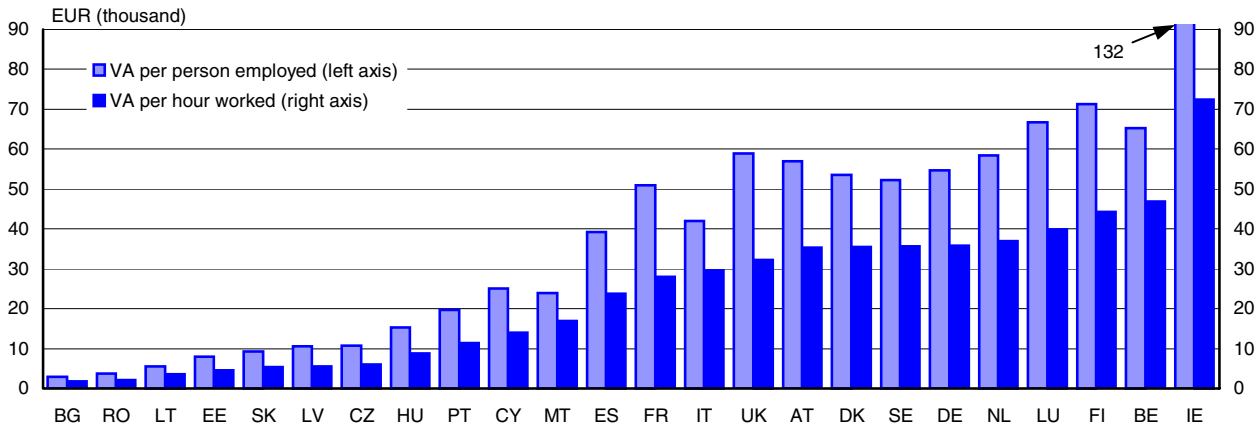
Note: EL, PL, SI: no data available; BE, IE: 2000. AT: NACE DA: 2000; BG: NACE DC19.2: 2000; HU: NACE DC, DF: 2000; MT: NACE DD:2000; SK: NACE DA: 2000; IE, AT, BG, EE, LT, LV, MT, SK: NACE DG
Source: Eurostat, SBS

Table 6 - Comparison of annual hours worked by those employed in manufacturing, 2000 and 2001

	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Average hours worked a year																										
SBS	1483	:	:	1572	1762	1757	1854	1836	1714	1969	1927	1620	1672	1760	1556	1711	1665	:	1821	:	1734	1634	1521	1889	1673	1809
LCS	:	1762	1511	1499	1749	1685	1568	1846	1717	1847	1759	1694	1672	1726	:	1523	1709	1870	1707	1708	1677	1627	1646	1820	1701	1780
LFS employees	1688	1728	1595	1574	1745	1754	1617	1776	1727	1709	1803	1699	1742	1740	1730	1537	1638	1790	1741	1745	1771	1694	1617	1851	1755	1762
LFS employed	1714	1754	1613	1602	1754	1775	1647	1793	1765	1737	1819	1707	1759	1746	1750	1557	1645	1810	1754	1763	1785	1713	1630	1857	1754	1763
% difference																										
LCS/SBS	:	:	:	4.8	0.7	4.3	18.3	-0.5	-0.2	6.6	9.6	-4.4	0.0	2.0	:	12.3	-2.6	:	6.7	:	3.4	0.4	-7.6	3.8	-1.7	1.7
LFS employees /SBS	-12.1	:	:	-0.2	1.0	0.2	14.7	3.4	-0.7	15.2	6.9	-4.7	-4.0	1.2	-10.1	11.3	1.6	:	4.6	:	-2.1	-3.5	-5.9	2.0	-4.7	2.7
LFS employed /SBS	-13.5	:	:	-1.9	0.4	-1.0	12.6	2.4	-2.9	13.4	6.0	-5.1	-5.0	0.8	-11.1	9.9	1.2	:	3.8	:	-2.8	-4.6	-6.7	1.7	-4.7	2.6
LFS employees / LCS	:	-2.0	5.6	5.0	-0.3	4.1	3.1	-3.8	0.6	-7.5	2.5	0.3	4.2	0.8	:	0.9	-4.1	-4.3	2.0	2.2	5.6	4.1	-1.8	1.7	3.1	-1.0
LFS employed / LCS	:	-0.4	6.7	6.9	0.3	5.3	5.0	-2.9	2.8	-5.9	3.4	0.8	5.2	1.2	:	2.2	-3.7	-3.2	2.8	3.2	6.4	5.3	-1.0	2.0	3.1	-0.9

Note: Data from the SBS and LCS relate to employees;data from the LFS to total employees in the first row, to persons employed (which include also self-employed) in the second row. Data for the LCS refer to year 2000 while SBS and LFS data are for 2001 except MT 2002.
Rows LCS/SBS, LFS/SBS, LFS/LCS show the % difference between the pairs of sources being compared.
Source: Eurostat, SBS, LFS and LCS

5 Value-added per person employed and per hour worked in manufacturing, 2001



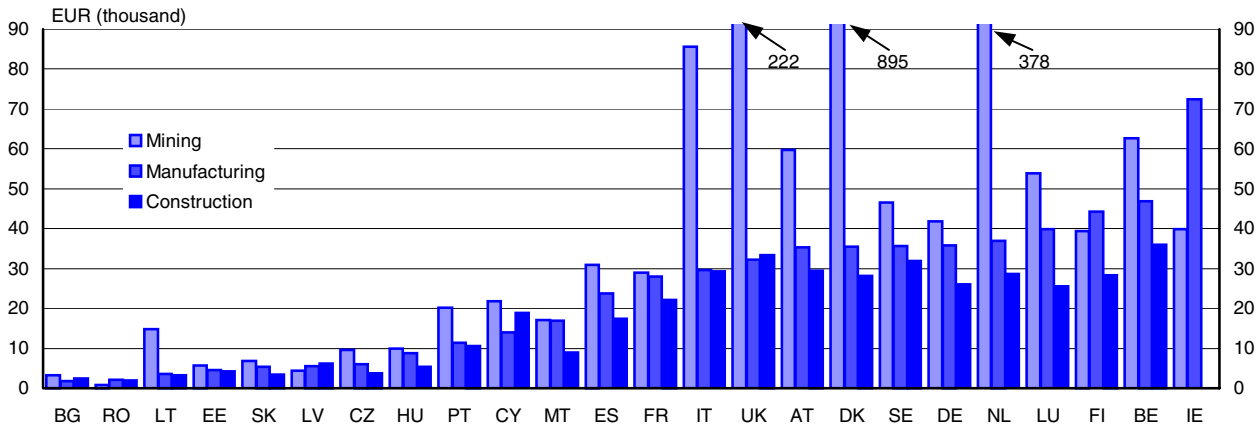
EL, PL, SI: n.a.

Source: Eurostat, SBS, LCS

The SBS for a majority of countries also reports a slightly larger number of hours worked than the estimates derived from the LFS. The main exceptions are Belgium, Malta and Sweden, while for France and Cyprus, the SBS figures are much higher than the LFS estimates. Differences between the LFS and LCS are relatively small, partly because of the method of estimation. The LFS data indicate that the difference between average hours worked by employees and all those in employment is also relatively small — 1–3% in most cases. The resulting estimates of total labour inputs in industry (ie the number employed multiplied by average hours worked) have the effect of widening the extent of variation in labour productivity between countries. In countries such as Belgium, therefore, where value-added per person employed is relatively high, average working time is relatively low, while the reverse is the case in Spain and Portugal, where value-added per person employed is comparatively low. In most cases, average hours worked in the new Member States are longer than in the EU15, which tends to widen the productivity gap between the two groups of countries.

Value-added per hour of labour input in manufacturing was highest in Ireland in 2001. It was also relatively high in Belgium, Finland and Luxembourg. On the other hand, it was much lower in the new Member States, Cyprus apart,

6 Value-added per hour worked in mining, manufacturing and construction, 2001



EL, PL, SI, IE construction sector: n.a.

Source: Eurostat, SBS and LCS

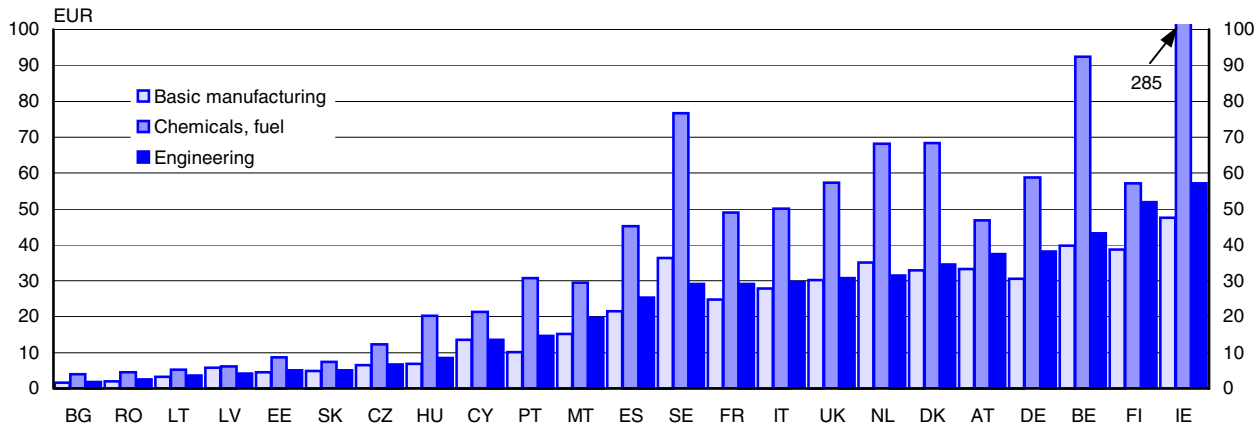
Table 7 – Value-added per hour worked in industry, 2001

	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Value added per hour worked (EUR)																										
Mining, quarrying (C)	62.6	9.6	894.6	41.8	5.7	31.0	28.9	39.8	85.5	21.8	4.4	14.9	53.8	9.9	17.0	378.2	59.7	15.1	20.1	:	6.8	39.4	46.5	222.2	3.3	0.8
Manufacturing (D)	46.8	6.1	35.4	35.7	4.6	23.7	28.1	72.4	29.6	14.0	5.5	3.5	39.9	8.7	17.0	36.9	35.4	11.9	11.4	:	5.4	44.3	35.6	32.3	1.8	2.2
Basic manufacturing	39.7	6.6	32.9	30.6	4.4	21.5	24.7	47.5	27.8	13.5	5.7	3.3	60.8	6.9	15.3	35.2	33.2	15.0	10.1	:	4.9	38.7	36.3	30.2	1.6	1.9
Food, drink, tobacco (DA)	42.5	:	37.5	27.3	4.5	24.9	26.0	51.7	32.1	13.5	6.1	4.8	:	11.1	20.0	43.3	27.8	:	13.0	:	3.3	31.8	35.1	36.4	2.1	3.1
Textiles, clothing (DB+DC)	33.9	3.5	30.6	24.6	3.4	13.4	19.9	18.5	22.8	9.5	3.7	2.7	:	3.0	13.1	25.5	24.7	6.1	6.5	:	2.5	24.6	30.2	21.2	1.1	1.3
Metals+metal products (DJ)	37.2	5.6	30.7	32.8	4.6	22.6	23.7	23.4	27.9	14.9	5.8	3.0	40.1	6.1	13.8	30.1	37.4	5.5	10.9	:	6.9	33.8	33.7	25.6	2.0	2.1
Other manufacturing (DD,DE,DH,DI,DN)	41.7	5.6	31.4	31.6	5.0	22.5	25.8	57.6	29.6	14.4	6.3	2.9	60.5	6.9	14.5	34.1	34.8	10.4	12.9	:	6.0	43.8	38.6	31.6	1.9	2.1
Chemicals, fuel (DG+DF)	92.4	12.4	68.3	58.7	8.6	45.2	49.0	284.8	50.1	21.4	6.2	5.3	:	20.2	29.5	68.2	46.8	17.0	30.8	:	7.4	57.1	76.6	57.4	4.0	4.6
Engineering	43.2	6.8	34.5	38.2	5.1	25.3	29.2	57.2	29.7	13.5	4.2	3.6	31.4	8.6	19.8	31.5	37.4	14.9	14.6	:	5.1	51.9	29.2	30.7	1.8	2.5
Machinery+equipment (DK)	42.5	5.5	32.5	37.1	4.2	23.7	25.8	26.2	31.1	13.6	3.4	2.8	34.4	5.9	19.4	32.1	34.8	11.5	12.9	:	4.2	34.1	36.4	26.8	1.8	2.2
Elect+precn engineering (DL)	45.3	5.9	38.0	34.4	4.8	26.6	28.4	67.4	29.2	13.4	4.8	3.8	24.5	7.4	24.8	30.0	38.5	24.9	13.7	:	4.1	74.4	14.9	28.3	2.1	3.2
Transport equipment (DM)	41.9	9.9	32.4	43.5	7.1	25.7	32.8	28.0	27.2	13.3	4.6	4.1	:	16.2	9.4	33.0	40.7	12.8	18.2	:	8.6	28.5	38.7	37.2	0.7	2.5
Construction (F)	36.0	3.7	28.1	26.1	4.2	17.4	22.2	:	29.3	18.9	6.1	3.3	25.5	5.4	9.0	28.7	29.4	14.6	10.5	:	3.5	28.4	31.9	33.3	2.4	1.9
Total Industry (C+D+E+F)	47.8	6.2	38.1	35.3	4.9	22.5	27.8	:	31.3	17.1	6.1	4.0	35.1	8.7	:	38.4	35.7	13.6	12.3	:	6.0	41.9	37.3	37.0	2.3	2.1
Index of value-added per hour worked (total industry =100)																										
Mining, quarrying (C)	131	155	2345	118	116	137	104	:	273	127	72	374	153	114	:	986	167	111	164	:	115	94	125	600	145	36
Manufacturing (D)	98	98	93	101	94	105	101	:	94	81	90	88	114	101	:	96	99	88	92	:	90	106	95	87	79	103
Basic manufacturing	83	106	86	86	91	95	89	:	89	79	93	84	173	80	:	92	93	110	82	:	81	92	97	82	70	91
Food, drink, tobacco (DA)	89	:	98	77	91	111	94	:	103	79	100	119	:	128	:	113	78	:	105	:	55	76	94	98	90	146
Textiles, clothing (DB+DC)	71	57	80	70	69	59	71	:	73	55	60	68	:	35	:	67	69	45	52	:	42	59	81	57	46	61
Metals+metal products (DJ)	78	91	80	93	94	100	85	:	89	87	94	77	114	70	:	79	105	40	89	:	115	81	90	69	86	101
Other manufacturing (DD,DE,DH,DI,DN)	87	91	82	89	101	100	93	:	95	84	104	74	172	80	:	89	98	76	105	:	100	105	103	85	81	98
Chemicals, fuel (DG+DF)	193	200	179	166	176	200	176	:	160	125	101	134	:	234	:	178	131	125	250	:	124	136	205	155	173	218
Engineering	90	109	90	108	103	112	105	:	95	79	68	89	89	99	:	82	105	109	119	:	85	124	78	83	76	120
Machinery+equipment (DK)	89	88	85	105	85	105	93	:	99	80	55	69	98	68	:	84	98	84	105	:	71	81	98	72	79	105
Elect+precn engineering (DL)	95	96	100	97	97	118	102	:	93	78	78	96	70	85	:	78	108	183	111	:	69	178	40	77	89	150
Transport equipment (DM)	88	160	85	123	145	114	118	:	87	77	75	103	:	187	:	86	114	94	148	:	144	68	104	100	32	117
Construction (F)	75	59	74	74	86	77	80	:	94	110	100	83	73	63	:	75	82	107	86	:	58	68	86	90	104	89
Average working time in industry																										
Average hours worked p.a.	*1418*	1762	*1499*	*1549*	1768	*1778*	*1851*	*:*	*1715*	*:*	1893	1616	*1689*	1767	*:*	*1772*	*1663*	1848	*1840*	:	1739	*1650*	*1521*	*1895*	1684	1831

Note: EL, PL, SI, EU15: no data available; BE, IE: 2000. AT: NACE DA: 2000; BG: NACE DC: 2000; HU: NACE DC, DF: 2000; MT: NACE DD:2000; SK: NACE DA: 2000; IE, AT, BG, EE, LT, LV, MT, SK: NACE DG

Source: Eurostat, SBS, LCS and LFS

7 Value-added per hour worked in the three broad manufacturing activities, 2001



EL, LU, PL, SI: n.a. ; IE, AT, BG, EE, LT, LV, MT, SK: Chemicals only. IE: NACE DN excl. ; EE, LT, LV: NACE DC excl.

Source: Eurostat, SBS, LCS

than in the rest of the EU15 (Graph 5). The extent of the difference in labour productivity across the enlarged Union is, therefore, substantial, ranging from over 30 euros in a number of the EU15 countries and close to 50 euros in Belgium to only 4 euros in Lithuania. In Bulgaria and Romania, it was around half of this (Graph 6 and Table 7). These differences, however, overstate the true difference to the extent that they take no account of differences in price level between countries, which are considerable (prices for equivalent goods and services in the new Member States tend to be less than half of those in the EU15). Ideally, therefore, the comparisons ought to allow for this, though no official estimates of purchasing power parities are available for manufacturing to enable it to be done. But even if such an adjustment were made, the gap would remain very wide (as indicated by the purchasing power parity figures for GDP as a whole).

Within manufacturing, productivity was high in Chemicals and fuel and, in most cases, relatively low in basic manufacturing (Graph 7).

Labour productivity and investment

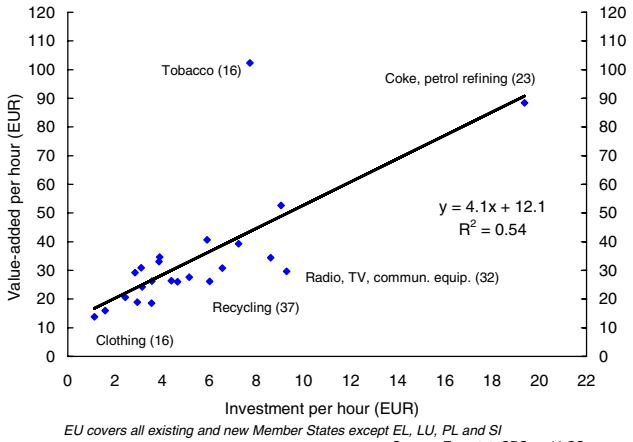
The data on investment in the SBS can be used to give an indication of the capital used in the production process in different sectors of activity, even if it measures the 'flow' of expenditure in the year rather than the accumulated stock of plant, equipment and buildings (see Box on this page). Relating investment to the esti-

Investment per hour worked in industry

The investment figures analysed in the text relate to expenditure in gross terms (ie before deducting any sales or making any adjustments for value) on 'tangible' goods, which cover purchases of machinery and equipment and of land and buildings as well as the construction and alterations of the latter. In all Member States, purchases of machinery and equipment represent the bulk of investment (around 85% of the total on average), while the construction and alteration of buildings accounts for most of the remainder. The figures, it should be noted, cover only physical investment and not less tangible investment such as in R&D or work force skills.

The figures for investment are divided by the estimates of total hours worked to obtain a figure for capital expenditure per unit of labour input which can be compared with value-added per hour worked, or labour productivity. Although, investment per hour worked relates only to expenditure in a particular year and does not necessarily reflect the total amount of capital (buildings as well as machinery and equipment) available for use in the production process, it may be indicative of this, to the extent that capital-intensive industries (ie those which use a large amount of capital relative to labour in production) tend to invest relatively large amounts each year.

8 Correlation between investment per hour and value-added per hour in manufacturing sectors of the EU, 2001



EU covers all existing and new Member States except EL, LU, PL and SI
Source: Eurostat, SBS and LCS

mates of total hours worked gives a measure of capital per unit of labour input.

The variation in investment between industries is broadly in line with the variation in labour productivity. This suggests that a significant part of the variation in labour productivity between industries may be related to the use of capital in production.

In the enlarged EU (excluding Greece, Luxembourg, Poland and Slovenia for which data are not available), the industry with the highest level of investment per hour worked (coke and petrol refining NACE 23) also had the highest level of productivity (Graph 8).Conversely, the clothing industry (NACE 18) had both a low level of capital per hour worked and a low level of productivity.

Value-added per hour worked and investment per hour worked

There is likely, in principle, to be a positive relationship between value-added per hour worked and investment per hour worked as between sectors of activity. The greater the amount of capital used in production relative to a given amount of labour, the higher, other things being equal, value-added will tend to be. The income available to compensate capital will also tend to be larger as value-added per hour worked increases — as it needs to be to justify the investment involved.

The relationship between investment and value-added for NACE 2-digit industries is shown in Graph 8. This indicates that although there is a pronounced tendency for the two to vary together, a few industries diverge from the average relationship (shown by the OLS regression line). This is the case for Tobacco, where, value-added per hour worked is higher than would be expected given investment, which may be because of other factors pushing up value-added. For Recycling and Radio, TV and communication equipment, value-added per hour worked is lower than would be expected given investment, which may be due to the low productivity of those employed or an untypical high level of investment in 2001.

Market services

Employment in market services

Some 23% of EU15 working-age population in 2001 were employed in market services. The figure was over 30% in Luxembourg, the Netherlands and the UK. In the new Member States, the proportion was in most cases lower. It was below 20% in all of these countries except in Cyprus, the Czech Republic and Estonia. In Bulgaria, the figure was less than 15% of working-age population and in Romania, under 10% (Graph 9 and Table 8). (It was only around 10% in Hungary and Slovakia as well, but in both cases, very small firms which are large employers in services, are under-represented.)

Division of employment between market services (NACE G, H, I, K)

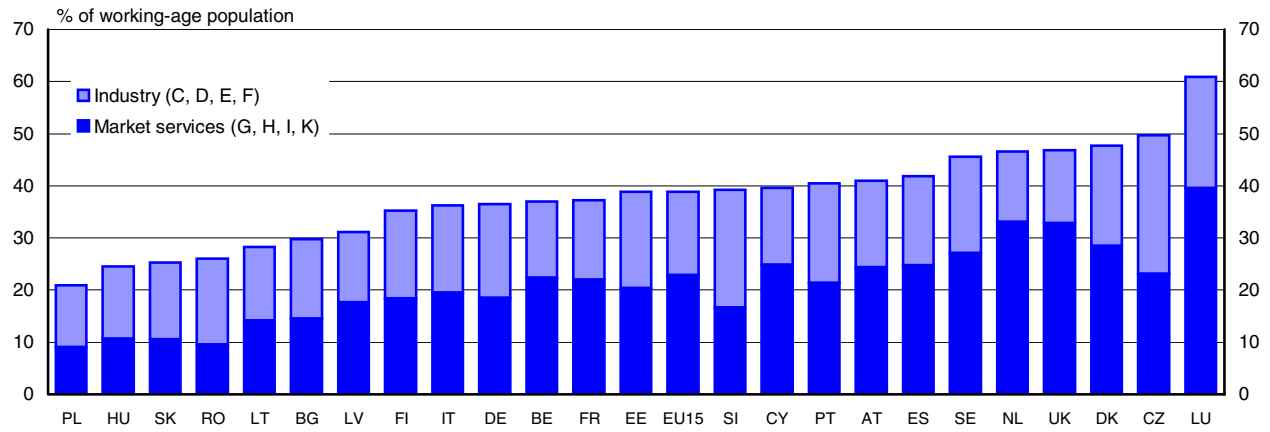
Around 10% of working-age population in the EU15 countries in 2001 was employed in the distributive trades (NACE G). This was also the case in Cyprus, the Czech Republic and Estonia. Accordingly, in most of these 18 countries, the distributive trade accounted for some 40% or more of all employment in market services, making it the biggest sector of employment in all Member States except for Luxembourg and the Netherlands, in both of which business services (NACE K) were about the same size (Table 8).

Table 8 – Employment and value-added in broad market service sectors of activity, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Employment (% of total in market services)																											
Distributive trades (G)	40.9	40.0	44.5	43.6	43.6	47.2	41.9	37.7	40.4	43.0	49.5	50.2	53.7	33.1	41.4	39.4	38.8	42.7	47.3	50.7	43.8	41.4	38.2	35.2	39.4	46.1	54.0
Hotels and restaurants (H)	12.2	10.5	9.9	9.4	10.5	7.1	15.9	9.6	20.9	12.1	30.2	6.1	6.9	10.9	8.1	22.5	9.1	16.1	4.7	16.2	12.0	5.3	8.4	7.1	14.1	10.8	5.5
Transport, communications (I)	15.4	18.3	20.8	17.8	15.2	23.1	13.8	18.8	14.5	15.9	20.3	25.2	25.2	19.3	30.0	20.7	13.8	18.8	25.0	12.0	22.0	30.1	25.0	19.3	12.8	28.7	25.8
Business services (K)	31.5	31.2	24.7	29.3	30.7	22.5	28.4	33.9	24.2	29.0	:	18.5	14.2	36.7	20.4	17.4	38.3	22.3	23.0	21.1	22.2	23.2	28.5	38.5	33.7	14.4	14.7
Employment (% of working-age pop, 15-64)																											
Distributive trades (G)	9.3	8.9	10.3	12.4	8.0	9.6	10.3	8.3	8.3	8.3	12.3	8.8	7.6	13.1	4.4	:	12.8	10.4	4.2	10.8	7.3	4.3	7.0	9.5	12.9	6.6	5.1
Hotels and restaurants (H)	2.8	2.3	2.3	2.7	1.9	1.4	3.9	2.1	4.3	2.3	7.5	1.1	1.0	4.3	0.9	:	3.0	3.9	0.4	3.4	2.0	0.6	1.5	1.9	4.6	1.5	0.5
Transport, communications (I)	3.5	4.1	4.8	5.1	2.8	4.7	3.4	4.1	3.0	3.1	5.0	4.4	3.6	7.6	3.2	:	4.5	4.6	2.2	2.6	3.7	3.1	4.6	5.2	4.2	4.1	2.4
Business services (K)	7.2	6.9	5.7	8.3	5.6	4.6	7.0	7.4	5.0	5.6	:	3.3	2.0	14.5	2.2	:	12.6	5.4	2.1	4.5	3.7	2.4	5.2	10.4	11.0	2.1	1.4
Total market services (G, H, I, K)	22.8	22.3	23.0	28.4	18.4	20.3	24.6	21.9	20.5	19.4	24.8	17.6	14.1	39.5	10.6	:	33.0	24.3	9.0	21.3	16.6	10.4	18.3	27.0	32.8	14.4	9.5
Value-added (% of total in market services)																											
Distributive trades (G)	39.5	40.7	43.4	43.2	41.5	41.7	42.5	38.6	36.6	38.8	41.4	51.1	46.7	32.1	38.8	31.1	44.4	43.5	52.1	50.4	44.8	42.8	40.9	37.5	36.3	34.8	41.9
Hotels and restaurants (H)	6.8	5.1	4.5	4.6	5.1	4.0	10.7	6.8	9.4	7.8	28.9	2.7	2.6	7.2	4.1	15.7	5.7	10.1	1.9	8.3	7.3	2.7	5.8	4.7	6.7	6.1	3.2
Transport, communications (I)	22.5	26.0	27.7	25.9	20.4	39.3	23.9	23.7	25.2	25.1	29.7	35.5	39.7	34.1	38.8	36.9	23.3	25.2	29.4	26.7	23.7	33.7	30.1	24.6	20.0	50.7	42.1
Business services excl. real estate, renting (K)	31.2	28.1	24.5	26.3	33.0	15.0	22.9	30.9	28.9	28.3	:	10.6	11.0	26.5	18.3	16.3	26.6	21.2	16.6	14.6	24.2	20.8	23.3	33.2	36.9	8.3	12.8
Market services as % of GDP	26.5	26.2	20.0	25.4	22.1	30.6	29.2	24.6	20.4	20.9	30.8	35.6	16.0	29.1	15.3	38.0	31.2	26.2	34.6	23.9	18.0	15.8	22.0	28.2	36.2	17.8	16.2

Notes: EL n.a.; DK: NACE G: 1999, NACE H to K: 2000; DE, IE: 2000. NL: value-added for NACE K estimated based on 2000 value for NACE K73; PL, SI: employees only.
Source: Eurostat, SBS and LFS

9 Employment in market services and industry, 2001



EL, IE, MT: n.a. ; DK: NACE G: 1999, NACE H-K: 2000; DE: services: 2000; CY: NACE K excl.; PL, SI: employees only

Source: Eurostat, SBS and LFS

Table 9 – Change in employment in market services, 2000-2001

	Total market services (G, H, I, K)			Distributive trades (G)			Hotels and restaurants (H)			Transport, communications (I)			Business services (K)		
Thousand	2001	2000	2000/2001 (%)	2001	2000	2000/2001 (%)	2001	2000	2000/2001 (%)	2001	2000	2000/2001 (%)	2001	2000	2000/2001 (%)
EU15	57004	55805	2.1	23343	23033	1.3	6944	6794	2.2	8755	8646	1.3	17963	17332	3.6
BE	1499	1483	1.0	599	589	1.7	158	158	-0.4	275	280	-1.9	467	456	2.5
CZ	1640	1607	2.0	730	719	1.6	163	169	-3.6	341	334	2.2	406	386	5.2
DK	:	567	:	:	:	:	:	94	:	:	179	:	:	294	:
DE	:	10113	:	:	4408	:	:	1062	:	:	1536	:	:	3107	:
EE	186	183	1.5	88	86	1.5	13	12	9.1	43	45	-5.1	42	39	6.5
ES	6747	6566	2.8	2828	2791	1.3	1074	1046	2.6	929	910	2.2	1916	1819	5.3
FR	8257	8021	2.9	3110	3054	1.8	796	771	3.3	1554	1529	1.6	2796	2667	4.9
IE	:	532	:	:	215	:	:	111	:	:	77	:	:	129	:
IT	7490	7171	4.5	3219	3130	2.8	905	859	5.4	1193	1177	1.4	2173	2005	8.4
CY	110	109	1.3	54	54	0.5	33	33	0.9	22	21	4.3	:	:	:
LV	280	278	0.5	140	141	-0.6	17	17	-0.9	70	69	2.7	52	51	1.1
LT	350	338	3.6	188	177	6.0	24	22	8.1	88	88	-0.2	50	50	-0.6
LU	116	:	:	38	36	5.8	13	12	1.4	22	:	:	43	:	:
HU	719	702	2.4	298	285	4.4	58	59	-1.3	216	219	-1.4	147	139	5.9
MT	68	55	23.3	27	26	2.5	15	17	-10.3	14	12	17.7	12	:	:
NL	3559	3444	3.3	1380	1365	1.1	325	303	7.3	491	482	1.9	1363	1294	5.4
AT	1312	1287	1.9	561	554	1.2	212	212	-0.1	247	246	0.4	293	276	6.2
PL	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
PT	1479	1427	3.6	750	755	-0.6	239	216	10.9	178	175	1.7	313	282	10.7
SI	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
SK	387	363	6.6	160	147	9.4	20	16	28.4	116	119	-1.8	90	82	9.3
FI	633	638	-0.8	242	238	1.4	53	54	-2.3	158	160	-1.3	180	185	-2.7
SE	1549	1497	3.5	545	541	0.6	109	107	2.4	299	301	-0.8	596	548	8.8
UK	12687	12506	1.4	5001	4908	1.9	1792	1789	0.2	1621	1573	3.0	4273	4237	0.9
BG	772	742	4.1	356	346	2.8	83	77	7.9	222	218	1.8	111	100	10.7
RO	1449	1241	16.7	782	944	-17.2	80	84	-5.1	374	:	:	213	213	0.0

Note: EL, PL, SI: SBS data not available.

Source: Eurostat, SBS and LFS

These two countries apart, business services was the second largest sector of employment in all EU15 countries. In all of the new Member States, except for the Czech Republic and Estonia, on the other hand, transport and communications employed more people, probably reflecting the less developed nature of business services.

Hotels and restaurants were a particularly important source of employment in Cyprus (30% of total market services), Malta (22%) and Ireland (21%), though in each case, apart from Cyprus, the number employed was relatively small in relation to working-age population.

Division of value-added between services

Business services and transport and communication sectors accounted for a larger share of value-added than employment in most countries. In particular, the specific features of the real estate and renting sector which generates significant value-added with a limited work force tends to distort the overall distribution among market service sectors. The sector has been therefore excluded from business services (business services represent 32% of total market service value-added after adjustment against 38% before). The reverse was true for distributive trades and more particularly for hotels and restaurants, where the value-added generated was relatively small.

Stability of SBS data in market services

A comparison of the SBS data for employment between the two years 2000 and 2001, as in the case of industry, provides a test of the consistency of the statistics. In the case of market services, however, the number employed increased by around 2% in the EU15 between these two years according to the SBS. National accounts data show much the same increase, so reinforcing confidence in the statistics. Taken together, employment in market services grew in all countries between the two years, except in Finland where employment fell by under 1% (Table 9).

Growth in employment was particularly high in business services. This is in line with other data sources (the LFS in particular) which indicate that these services have been a major source of job growth for the past decade or more.

Employment in services by detailed sector

At the NACE division level (2-digit code), over 20% of those employed in market services in 2001 worked in retailing (NACE 52) in most EU countries. The proportion was in general relatively large in the new Member States where other services tend to be less developed (Table 10). In Latvia and Lithuania, therefore, as well as Romania and Bulgaria, the figure was close to 30%. In the majority of countries, retailing accounted for over half of those employed in the distributive trades. The share employed in wholesaling, however, varied significantly between countries — from over 20% in Slovakia to 10% in the UK — reflecting differences in distribution arrangements and, in some degree, in the average size of retailers (large retailers tending to purchase goods directly from manufacturers rather than through wholesalers).

The division of employment between sectors within business services also varies, in this case partly reflecting the level of development of the sector. Computer and related activities accounted for 4% of overall employment in market services in the EU15 in 2001, but for 8% in Sweden and 6% in Finland, while in Spain the share was only 2% and in Portugal 1%. The share was similarly small in most of the new Member States. It was largest in the Czech Republic and Slovakia (3%) but still below the EU average (Table 11). Accounting, consultancy and legal services were responsible for 7–8% of total employment in market service in the three Benelux countries, Sweden and the UK, but for only 1–2% in Lithuania, Latvia and Slovakia as well as in Bulgaria and Romania. Some 9–10% of market service employment was in agencies specialising in labour recruitment and the provision of personnel in each of the three Benelux countries, but very little at all in the new Member States as well as in Sweden and Ireland. (It should be noted that workers employed through such agencies are classified to this sector in the SBS rather than to the sector in which they actually work.)

Value-added in services by detailed sector

The division of value-added between detailed sectors within market services follows a similar pattern to that of employment, with the main exception that real estate and rental activities account for a much larger share of

Table 10 – Employment in detailed market service sectors, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Employment (000)																											
Distributive trades (G)	23343	599	730	438	4408	88	2828	3110	215	3219	54	140	188	38	298	27	1380	561	1100	750	102	160	242	545	5001	356	782
Sale+service of motor vehicles (50)	3135	81	85	65	608	11	350	450	30	455	8	16	30	6	41	4	157	80	120	125	15	13	35	80	609	35	73
Wholesale trade (51)	7254	231	239	176	1246	33	969	1024	55	1055	18	41	56	14	106	9	491	201	469	252	41	82	85	218	1237	114	271
Retail trade (52)	12955	287	406	197	2553	44	1509	1635	131	1709	28	84	101	18	150	14	731	280	511	373	46	65	121	247	3154	207	438
Hotels+restaurants (55)	6944	158	163	94	1062	13	1074	796	111	905	33	17	24	13	58	15	325	212	110	239	28	20	53	109	1792	83	80
Hotels, accommodation (55.1-2)	1739	23	32	23	317	4	265	222	39	240	15	3	4	3	19	10	59	108	40	46	8	8	13	31	350	19	32
Restaurants, bars, canteens (55.3-5)	5204	135	131	71	744	9	809	575	72	665	18	14	20	10	39	5	266	103	70	193	19	12	40	79	1442	64	48
Transport, communications (I)	8755	275	341	179	1536	43	929	1554	77	1193	22	70	88	22	216	14	491	247	582	178	51	116	158	299	1621	222	374
Land transport, pipelines (60)	3818	137	228	71	608	22	511	696	27	538	5	39	55	11	127	2	211	145	326	90	:	73	71	122	583	133	227
Water transport (61)	138	1	2	11	20	:	7	16	:	23	4	0	2	1	2	1	14	0	:	2	:	:	8	15	18	6	7
Air transport (62)	369	6	:	12	38	:	38	70	:	24	2	1	1	3	3	2	32	9	:	11	1	:	9	14	96	3	:
Travel agencies (63)	1882	48	36	26	380	10	184	297	:	324	8	16	12	3	19	6	87	36	:	36	9	9	24	57	367	34	38
Post+telecommunications (64)	2548	83	70	59	490	8	189	475	27	285	4	14	18	4	65	3	147	58	:	39	11	33	45	91	557	46	99
Business services (K)	17963	467	406	294	3107	42	1916	2796	129	2173	:	52	50	43	147	12	1363	293	534	313	52	90	180	596	4273	111	213
Total market services (G, H, I, K)	57004	1499	1640	1005	10113	186	6747	8257	532	7490	:	280	350	116	719	68	3559	1312	2325	1479	232	387	633	1549	12687	772	1449
% of total market services																											
Distributive trades (G)	41	40	45	44	44	47	42	38	40	43	:	50	54	33	41	39	39	43	47	51	44	41	38	35	39	46	54
Sale+service of motor vehicles (50)	5	5	5	6	6	6	5	5	6	6	:	6	9	6	6	5	4	6	5	8	6	3	6	5	5	5	5
Wholesale trade (51)	13	15	15	17	12	18	14	12	10	14	:	15	16	12	15	14	14	15	20	17	18	21	13	14	10	15	19
Retail trade (52)	23	19	25	20	25	24	22	20	25	23	:	30	29	16	21	20	21	21	22	25	20	17	19	16	25	27	30
Hotels+restaurants (55)	12	11	10	9	10	7	16	10	21	12	:	6	7	11	8	22	9	16	5	16	12	5	8	7	14	11	6
Hotels, accommodation (55.1-2)	3	2	2	2	3	2	4	3	7	3	:	1	1	3	3	15	2	8	2	3	4	2	2	2	3	2	2
Restaurants, bars, canteens (55.3-5)	9	9	8	7	7	5	12	7	14	9	:	5	6	8	5	8	7	8	3	13	8	3	6	5	11	8	3
Transport, communications (I)	15	18	21	18	15	23	14	19	14	16	:	25	25	19	30	21	14	19	25	12	22	30	25	19	13	29	26
Land transport, pipelines (60)	7	9	14	7	6	12	8	8	5	7	:	14	16	10	18	3	6	11	14	6	:	19	11	8	5	17	16
Water transport (61)	0	0	0	1	0	:	0	0	:	0	:	0	1	1	0	1	0	0	:	0	:	:	1	1	0	1	0
Air transport (62)	1	0	:	1	0	:	1	1	:	0	:	0	0	3	0	3	1	1	:	1	0	:	1	1	1	0	:
Travel agencies (63)	3	3	2	3	4	6	3	4	:	4	:	6	4	2	3	9	2	3	:	2	4	2	4	4	3	4	3
Post+telecommunications (64)	4	6	4	6	5	5	3	6	5	4	:	5	5	3	9	5	4	4	:	3	5	9	7	6	4	6	7
Business services (K)	32	31	25	29	31	23	28	34	24	29	:	19	14	37	20	17	38	22	23	21	22	23	29	38	34	14	15

Notes: EL: n.a.; CZ: NACE I61: 2000; DK: 2000 except NACE G: 1999; DE, IE: 2000; PL, SI: employees only; RO: NACE I611: 2000.

Source: Eurostat, SBS

Table 11 – Employment in Business services, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Employment (000)																											
Business services (K)	17963	467	406	294	3107	42	1916	2796	129	2173	:	52	50	43	147	12	1363	293	534	313	52	90	180	596	4273	111	213
Real estate activities (70)	1746	30	44	39	304	12	211	315	9	220	:	21	16	2	23	2	71	29	119	34	3	16	20	75	383	10	19
Rental activities (71)	520	10	7	8	73	1	68	82	7	31	:	1	1	1	3	1	31	8	7	10	0	2	3	12	174	1	3
Computer+related activities (72)	2173	49	43	44	282	3	165	336	19	340	:	5	4	5	17	1	138	39	35	17	5	12	38	121	577	10	20
Research+development (73)	290	6	6	5	56	0	15	31	1	22	:	3	1	2	4	:	35	3	53	0	4	6	2	14	96	1	30
Other business activities (74)	13235	371	306	199	2391	26	1456	2032	93	1558	:	22	27	34	100	7	1088	213	320	252	40	54	117	373	3043	89	140
of which: Accounting, consultancy (74.1)	3500	99	79	55	647	7	339	445	35	478	:	4	4	8	20	3	294	57	45	55	12	8	25	113	848	19	19
Architecture, engineering (74.2-3)	1925	40	69	37	420	5	194	239	13	301	:	5	11	4	18	1	123	42	67	23	12	15	28	80	378	14	35
Advertising (74.4)	690	16	21	18	163	2	109	106	2	51	:	3	3	1	3	1	54	16	13	11	2	5	8	34	101	7	9
Labour recruitment, staff provision (74.5)	2599	130	7	26	214	2	214	657	7	115	:	1	1	12	10	0	367	33	5	48	1	1	11	4	758	7	5
Misc business activities nec (74.6-8)	4521	86	129	64	948	10	600	586	35	614	:	9	8	9	49	2	251	65	190	114	13	26	46	142	958	41	73
% of total market services																											
Business services (K)	32	31	25	29	31	23	28	34	24	29	:	19	14	37	20	17	38	22	23	21	22	23	29	38	34	14	15
Real estate activities (70)	3	2	3	4	3	6	3	4	2	3	:	8	5	1	3	4	2	2	5	2	1	4	3	5	3	1	1
Rental activities (71)	1	1	0	1	1	0	1	1	1	0	:	0	0	1	0	1	1	1	0	1	0	0	1	1	1	0	0
Computer+related activities (72)	4	3	3	4	3	2	2	4	4	5	:	2	1	4	2	2	4	3	2	1	2	3	6	8	5	1	1
Research+development (73)	1	0	0	0	1	0	0	0	0	0	:	1	0	2	0	:	1	0	2	0	2	2	0	1	1	0	2
Other business activities (74)	23	25	19	20	24	14	22	25	17	21	:	8	8	29	14	11	31	16	14	17	17	14	18	24	24	11	10
of which: Accounting, consultancy (74.1)	6	7	5	5	6	4	5	5	7	6	:	2	1	7	3	5	8	4	2	4	5	2	4	7	7	2	1
Architecture, engineering (74.2-3)	3	3	4	4	4	3	3	3	2	4	:	2	3	3	3	1	3	3	3	2	5	4	4	5	3	2	2
Advertising (74.4)	1	1	1	2	2	1	2	1	0	1	:	1	1	1	0	1	2	1	1	1	1	1	1	2	1	1	1
Labour recruitment, staff provision (74.5)	5	9	0	3	2	1	3	8	1	2	:	0	0	10	1	1	10	2	0	3	0	0	2	0	6	1	0
Misc business activities nec (74.6-8)	8	6	8	6	9	5	9	7	7	8	:	3	2	7	7	3	7	5	8	8	6	7	7	9	8	5	5

Notes: EL: n.a.; DK, DE, IE: 2000; PL, SI: employees only; MT: NACE K714: 2000.

Source: Eurostat, SBS

Table 12 – Value-added in detailed market service sectors, 2001

	EU25	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Value-added (million EUR)																												
Distributive trades (G)	876011	824602	25502	5649	17277	164890	727	71868	126490	8207	93941	1300	1422	928	1958	3231	497	52393	22257	34454	13797	1731	1470	11165	21886	192804	**931**	**2956**
Sale+service of motor vehicles (50)	125778	119042	3485	633	2356	24550	104	9518	16158	1110	12125	199	126	160	317	508	79	6442	2984	4485	2283	271	172	1633	3291	32844	175	337
Wholesale trade (51)	416586	381240	14167	3460	9831	71917	394	33167	55074	3781	43516	554	916	475	1032	1751	241	29418	11884	25805	6967	858	893	5380	11302	83670	532	1688
Retail trade (52)	333647	324319	7849	1556	5089	68423	230	29183	55257	3316	38300	547	381	294	609	973	178	16533	7389	4164	4546	601	405	4153	7293	76290	225	931
Hotels+restaurants (55)	145120	141210	3225	584	1851	20238	69	18052	22184	2100	18872	907	76	52	439	340	251	6737	5168	1258	2262	281	91	1579	2768	35748	**164**	**229**
Hotels, accommodation (55.1-2)	52901	50829	846	296	600	7892	40	7220	7764	768	7472	471	30	18	129	200	211	1978	2908	642	830	110	54	463	1017	10959	73	146
Restaurants, bars, canteens (55.3-5)	92218	90382	2378	288	1252	12346	29	10832	14420	1333	11401	436	46	33	310	140	40	4759	2260	616	1432	171	37	1116	1751	24789	91	83
Transport, communications (I)	502028	469690	16282	3606	10359	80890	686	40493	77563	5655	60802	932	989	789	2080	3235	590	27549	12909	19441	7307	916	1155	8205	14314	106315	**1357**	**2976**
Land transport, pipelines (60)	156726	146191	6625	1113	3039	23481	156	15418	26967	961	19094	76	255	305	583	1154	33	9005	6458	6996	1747	:	446	3088	4209	25315	389	1194
Water transport (61)	12833	12652	113	0	1928	2711	:	455	838	:	1801	106	6	33	37	13	22	845	29	:	89	:	:	649	815	2386	:	:
Air transport (62)	24278	23832	440	29	736	81	:	2150	3949	:	1605	114	14	6	399	35	224	2150	397	:	617	25	:	532	789	9274	:	:
Travel agencies (63)	107501	105252	3273	509	1250	23827	273	8608	16212	:	13876	267	329	149	163	237	151	5438	2072	:	1595	200	134	1207	2659	25549	194	396
Post+telecommunications (64)	187761	181763	5831	1955	3406	30789	221	13862	29597	3027	24427	369	385	296	898	1796	160	10111	3952	:	3260	257	560	2729	5842	43791	725	1327
Business services (K)	903703	878504	21403	3817	15671	193195	434	60162	136558	7446	81370	:	573	359	1925	2065	315	47268	15448	15682	6055	995	961	8853	30173	244310	**269**	**1110**
Total market services (G, H, I, K)	2426862	2314006	66411	13655	45157	459212	1916	190575	362794	23408	254986	3139	3061	2127	6402	8871	1653	133948	55781	70834	29421	3923	3678	29802	69141	579177	**2721**	**7271**
% of total market services																												
Distributive trades (G)	36	36	38	41	38	36	38	38	35	35	37	41	46	44	31	36	30	39	40	49	47	44	40	37	32	33	**34**	**41**
Sale+service of motor vehicles (50)	5	5	5	5	5	5	5	5	4	5	5	6	4	7	5	6	5	5	5	6	8	7	5	5	5	6	6	5
Wholesale trade (51)	17	16	21	25	22	16	21	17	15	16	17	18	30	22	16	20	15	22	21	36	24	22	24	18	16	14	20	23
Retail trade (52)	14	14	12	11	11	15	12	15	15	14	15	17	12	14	10	11	11	12	13	6	15	15	11	14	11	13	8	13
Hotels+restaurants (55)	6	6	5	4	4	4	4	9	6	9	7	29	2	2	7	4	15	5	9	2	8	7	2	5	4	6	**6**	**3**
Hotels, accommodation (55.1-2)	2	2	1	2	1	2	2	4	2	3	3	15	1	1	2	2	13	1	5	1	3	3	1	2	1	2	3	2
Restaurants, bars, canteens (55.3-5)	4	4	4	2	3	3	2	6	4	6	4	14	2	2	5	2	2	4	4	1	5	4	1	4	3	4	3	1
Transport, communications (I)	21	20	25	26	23	18	36	21	21	24	24	30	32	37	32	36	36	21	23	27	25	23	31	28	21	18	**50**	**41**
Land transport, pipelines (60)	6	6	10	8	7	5	8	8	7	4	7	2	8	14	9	13	2	7	12	10	6	:	12	10	6	4	14	16
Water transport (61)	1	1	0	0	4	1	:	0	0	:	1	3	0	2	1	0	1	1	0	:	0	:	:	2	1	0	:	:
Air transport (62)	1	1	1	0	2	0	:	1	1	:	1	4	0	0	6	0	14	2	1	:	2	1	:	2	1	2	:	:
Travel agencies (63)	4	5	5	4	3	5	14	5	4	:	5	8	11	7	3	3	9	4	4	:	5	5	4	4	4	4	7	5
Post+telecommunications (64)	8	8	9	14	8	7	12	7	8	13	10	12	13	14	14	20	10	8	7	:	11	7	15	9	8	8	27	18
Business services (K)	37	38	32	28	35	42	23	32	38	32	32	:	19	17	30	23	19	35	28	22	21	25	26	30	44	42	**10**	**15**

Notes: EL n.a.; DK: 2000 excL. NACE G: 1999; DE, IE: 2000; CY: total except NACE K.

Source: Eurostat, SBS

Table 13 – Value-added in Business services, 2001

	EU25	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Value-added (million EUR)																												
Business services (K)	903703	878504	21403	3817	15671	193195	434	60162	136558	7446	81370	:	573	359	1925	2065	315	47268	15448	15682	6055	995	961	8853	30173	244310	**269**	**1110**
Real estate activities (70)	179557	173887	1984	528	4621	51304	157	17871	25100	667	11238	:	263	131	161	414	54	11929	2961	3872	1126	58	194	2214	9880	31885	42	146
Rental activities (71)	54697	53551	1807	103	527	10808	15	3573	10341	290	1581	:	16	10	145	125	:	4007	1659	821	946	5	52	284	965	16543	6	62
Computer+related activities (72)	131091	127874	2937	684	2384	20621	40	6166	18574	2443	14148	:	73	42	280	390	38	8118	2167	1623	600	148	179	1834	6026	41263	43	158
Research+development (73)	13534	12185	493	62	205	2525	1	451	1672	132	940	:	16	3	123	54	:	1490	180	1145	6	27	41	34	167	3766	4	108
Other business activities (74)	526327	512537	14182	2439	7933	107937	220	32101	80871	3914	53463	:	207	172	1214	1082	195	29843	8482	8221	3377	758	495	4487	13135	150854	175	636
of which: Accounting, consultancy (74.1)	211113	207534	6412	729	3209	52532	68	10090	26609	2002	26703	:	62	39	578	344	119	10673	3038	1834	781	267	118	1272	4102	59489	46	125
Architecture, engineering (74.2-3)	100973	97461	2011	639	2000	25726	49	6842	12676	678	9103	:	38	82	236	243	24	5578	2064	2000	589	292	145	1408	3544	24559	42	225
Advertising (74.4)	35251	33087	744	287	615	5339	23	3282	5769	176	1957	:	46	17	34	95	14	2168	733	1584	337	38	59	400	1342	10145	22	46
Labour recruitment, staff provision (74.5)	65043	64723	2562	57	379	5388	17	2831	19589	189	1933	:	6	3	141	70	4	5681	1029	141	456	15	7	252	146	24025	9	20
Misc business activities nec (74.6-8)	:	:	2453	727	1730	18952	63	9057	16228	870	13767	:	55	32	225	330	33	:	1617	2662	1214	147	165	1155	4001	32635	57	220
% of total market services																												
Business services (K)	37	38	32	28	35	42	23	32	38	32	32	:	19	17	30	23	19	35	28	22	21	25	26	30	44	42	**10**	**15**
Real estate activities (70)	7	8	3	4	10	11	8	9	7	3	4	:	9	6	3	5	3	9	5	5	4	1	5	7	14	6	2	2
Rental activities (71)	2	2	3	1	1	2	1	2	3	1	1	:	1	0	2	1	:	3	3	1	3	0	1	1	1	3	0	1
Computer+related activities (72)	5	6	4	5	5	4	2	3	5	10	6	:	2	2	4	4	2	6	4	2	2	4	5	6	9	7	2	2
Research+development (73)	1	1	1	0	0	1	0	0	0	1	0	:	1	0	2	1	:	1	0	2	0	1	1	0	0	1	0	1
Other business activities (74)	22	22	21	18	18	24	12	17	22	17	21	:	7	8	19	12	12	22	15	12	11	19	13	15	19	26	6	9
of which: Accounting, consultancy (74.1)	9	9	10	5	7	11	4	5	7	9	10	:	2	2	9	4	7	8	5	3	3	7	3	4	6	10	2	2
Architecture, engineering (74.2-3)	4	4	3	5	4	6	3	4	3	3	4	:	1	4	4	3	1	4	4	3	2	7	4	5	5	4	2	3
Advertising (74.4)	1	1	1	2	1	1	1	2	2	1	1	:	2	1	1	1	1	2	1	2	1	1	2	1	2	2	1	1
Labour recruitment, staff provision (74.5)	3	3	4	0	1	1	1	1	5	1	1	:	0	0	2	1	0	4	2	0	2	0	0	1	0	4	0	0
Misc business activities nec (74.6-8)	:	:	4	5	4	4	3	5	4	4	5	:	2	1	4	4	2	:	3	4	4	4	4	4	6	6	2	3

Notes: EL n.a.; DK, DE, IE: 2000; NL: NACE K73: 2000.

Source: Eurostat, SBS

Table 14 – Value-added per person employed in market services, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Thousand EUR																											
Distributive trades (G)	35	43	8	39	37	8	25	41	38	29	24	10	5	51	11	19	38	40	:	18	:	9	46	40	39	3	4
Sale+service of motor vehicles (50)	38	43	7	36	40	10	27	36	37	27	24	8	5	49	12	21	41	37	:	18	:	13	46	41	54	5	5
Wholesale trade (51)	53	61	14	56	58	12	34	54	69	41	31	22	8	75	16	26	60	59	:	28	:	11	63	52	68	5	6
Retail trade (52)	25	27	4	26	27	5	19	34	25	22	19	5	3	34	6	13	23	26	:	12	:	6	34	30	24	1	2
Hotels+restaurants (55)	20	20	4	20	19	5	17	28	19	21	27	4	2	35	6	16	21	24	:	9	:	4	30	25	20	2	3
Hotels, accommodation (55.1-2)	29	37	9	26	25	11	27	35	20	31	31	11	4	42	11	21	33	27	:	18	:	6	37	33	31	4	5
Restaurants, bars, canteens (55.3-5)	17	18	2	18	17	3	13	25	19	17	24	3	2	32	4	8	18	22	:	7	:	3	28	22	17	1	2
Transport, communications (I)	54	59	11	58	53	16	44	50	73	51	42	14	9	93	15	42	56	52	:	41	:	10	52	48	66	6	8
Land transport, pipelines (60)	38	48	5	43	39	7	30	39	36	35	15	6	6	51	9	16	43	45	:	19	:	6	43	34	43	3	5
Water transport (61)	91	89	0	179	135	:	63	53	:	80	29	26	19	27	7	28	59	90	:	48	:	:	77	53	131	:	:
Air transport (62)	65	80	:	62	2	:	57	56	:	68	48	28	5	132	11	109	68	46	:	54	:	:	61	58	97	:	:
Travel agencies (63)	56	68	14	49	63	26	47	55	:	43	35	20	12	64	13	25	63	58	:	45	:	16	50	47	70	6	10
Post+telecommunications (64)	71	70	28	57	63	26	73	62	112	86	100	27	17	229	27	51	69	69	:	84	:	17	60	64	79	16	13
Business services (K)	49	46	9	53	62	10	31	49	58	37	:	11	7	45	14	27	35	53	:	19	:	11	49	51	57	2	5
Business services, excl real estate, renting (K)	41	41	9	43	48	9	24	42	58	36	:	10	7	40	13	31	25	42	:	15	:	10	41	38	53	2	5
Real estate activities (70)	100	65	12	119	169	13	85	80	71	51	:	12	8	106	18	23	167	101	:	33	:	12	109	132	83	4	8
Rental activities (71)	103	173	14	67	148	19	52	125	42	51	:	12	7	209	44	:	130	203	:	98	:	29	89	78	95	4	23
Computer+related activities (72)	59	59	16	54	73	14	37	55	130	42	:	16	10	58	23	32	59	56	:	35	:	15	49	50	72	4	8
Research+development (73)	42	78	10	45	45	5	30	54	155	42	:	5	6	61	15	:	43	54	:	34	:	7	16	12	39	3	4
Other business activities (74)	39	38	8	40	45	8	22	40	42	34	:	9	6	36	11	27	27	40	:	13	:	9	38	35	50	2	5
of which: Accounting, consultancy (74.1)	59	65	9	59	81	10	30	60	57	56	:	14	10	70	17	34	36	53	:	14	:	15	51	36	70	2	6
Architecture, engineering (74.2-3)	51	50	9	54	61	9	35	53	51	30	:	8	7	59	13	26	45	49	:	25	:	10	51	45	65	3	6
Advertising (74.4)	48	47	13	34	33	12	30	55	71	39	:	17	5	34	31	26	40	45	:	29	:	13	53	39	100	3	5
Labour recruitment, staff provision (74.5)	25	20	8	15	25	9	13	30	27	17	:	9	6	12	7	10	15	31	:	10	:	7	23	36	32	1	4
Misc business activities nec (74.6-8)	:	28	6	27	20	6	15	28	25	22	:	6	4	26	7	17	:	25	:	11	:	6	25	28	34	1	3
Total market services (G, H, I, K)	41	44	8	45	45	10	28	44	44	34	:	11	6	55	12	24	38	43	:	20	:	9	47	45	46	4	5
Market economy (C to K excl J)=100																											
Distributive trades (G)	79	84	80	79	76	87	81	88	:	78	84	90	80	90	78	83	85	82	:	91	:	92	82	83	74	74	90
Hotels and restaurants (H)	46	40	37	40	39	55	54	60	:	56	95	40	35	61	42	73	47	50	:	47	:	45	53	52	38	56	68
Transport, communications (I)	120	117	109	116	108	169	139	108	:	136	146	125	145	164	107	186	126	108	:	202	:	99	92	99	126	172	189
Business services (K)	109	90	97	107	127	109	100	106	:	100	:	99	116	80	101	118	78	109	:	95	:	107	87	105	110	68	124
Business services, excl real estate, renting (K)	93	81	92	85	98	95	76	92	:	95	:	90	110	71	90	136	56	88	:	73	:	100	72	79	102	62	112
Total market services (G, H, I, K)	91	87	86	90	93	109	90	95	:	91	100	98	98	97	88	108	85	88	:	98	:	95	83	93	88	99	119

Notes: EL, PL, SI: n.a.; DK: 2000 except NACE G: 1999; DE, IE: 2000; NL: NACE K73: 2000.
Source: Eurostat, SBS

Table 15 – Comparison of annual hours worked by those employed in market services, 2000

	Distributive trades (G)					Hotels and restaurants (H)					Transport, communications (I)					Business services (K)				
	LCS (hrs)	LFS employed (hrs)	LFS employees (hrs)	LCS/LFS employed (%)	LCS/LFS employees (%)	LCS (hrs)	LFS employed (hrs)	LFS employees (hrs)	LCS/LFS employed (%)	LCS/LFS employees (%)	LCS (hrs)	LFS employed (hrs)	LFS employees (hrs)	LCS/LFS employed (%)	LCS/LFS employees (%)	LCS (hrs)	LFS employed (hrs)	LFS employees (hrs)	LCS/LFS employed (%)	LCS/LFS employees (%)
BE	:	1757	1504	:	:	:	1810	1294	:	:	:	1717	1705	:	:	:	1703	1582	:	:
CZ	1804	1953	1840	-7.6	-2.0	1799	1990	1864	-9.6	-3.5	1773	1899	1851	-6.6	-4.2	1763	1945	1882	-9.4	-6.3
DK	1417	1482	1404	-4.4	0.9	808	1380	1226	-41.5	-34.1	1476	1691	1645	-12.7	-10.3	1337	1621	1543	-17.5	-13.3
DE	1352	1536	1444	-12.0	-6.3	1306	1714	1474	-23.8	-11.4	:	1698	1654	:	:	:	1582	1468	:	:
EE	1765	1799	1740	-1.9	1.5	1718	1750	1744	-1.8	-1.5	1767	1834	1827	-3.6	-3.3	1757	1602	1614	9.7	8.8
EL	1772	2074	1915	-14.6	-7.5	1681	2259	1997	-25.6	-15.8	1849	2110	1996	-12.4	-7.3	1800	1954	1829	-7.8	-1.6
ES	1636	1800	1732	-9.1	-5.6	1497	1915	1730	-21.8	-13.5	1658	1834	1778	-9.6	-6.8	1549	1670	1608	-7.2	-3.7
FR	1548	1669	1588	-7.2	-2.5	1659	1795	1583	-7.6	4.8	:	1677	1655	:	:	1485	1641	1597	-9.5	-7.0
IE	1489	1636	1542	-9.0	-3.5	1369	1547	1422	-11.5	-3.8	1894	1844	1806	2.7	4.9	1570	1725	1681	-9.0	-6.6
IT	1741	1851	1705	-6.0	2.1	1639	1864	1689	-12.1	-3.0	1717	1742	1707	-1.5	0.6	1633	1711	1580	-4.6	3.4
CY	1844	1842	1771	0.1	4.1	1682	1901	1776	-11.5	-5.3	1916	1842	1785	4.1	7.4	1717	1720	1666	-0.2	3.1
LV	1809	1940	1942	-6.8	-6.9	1773	2080	2078	-14.8	-14.7	1787	1907	1901	-6.3	-6.0	1790	1770	1762	1.1	1.6
LT	1753	1762	1766	-0.5	-0.7	1638	1675	1673	-2.2	-2.1	1668	1754	1751	-4.9	-4.8	1743	1637	1532	6.5	13.8
LU	1621	1713	1646	-5.4	-1.6	1584	1995	1809	-20.6	-12.4	1663	1718	1707	-3.2	-2.6	1610	1664	1594	-3.2	1.0
HU	1801	1798	1763	0.1	2.1	1771	1855	1799	-4.5	-1.5	1703	1815	1798	-6.2	-5.3	1789	1810	1767	-1.1	1.3
MT	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
NL	1261	1343	1254	-6.1	0.6	1132	1108	885	2.1	27.9	1555	1541	1507	0.9	3.2	1262	1483	1428	-14.9	-11.6
AT	1553	1563	1504	-0.6	3.3	1639	1725	1590	-4.9	3.1	1705	1701	1691	0.2	0.8	1485	1574	1503	-5.7	-1.2
PL	1952	1838	1775	6.2	9.9	2063	1870	1766	10.3	16.8	1791	1872	1824	-4.3	-1.8	2067	1742	1719	18.6	20.2
PT	1773	1844	1765	-3.9	0.5	1788	2090	1866	-14.5	-4.2	1833	1824	1797	0.5	2.0	1684	1687	1652	-0.2	1.9
SI	1735	1775	1747	-2.2	-0.7	1708	1826	1792	-6.4	-4.7	1700	1829	1822	-7.0	-6.7	1731	1798	1746	-3.7	-0.9
SK	1776	1885	1817	-5.7	-2.2	1804	1951	1878	-7.5	-3.9	1763	1850	1823	-4.7	-3.3	1792	1886	1827	-5.0	-1.9
FI	1309	1649	1560	-20.6	-16.1	1184	1564	1448	-24.3	-18.2	1441	1732	1695	-16.8	-15.0	1459	1627	1577	-10.3	-7.5
SE	1460	1594	1503	-8.4	-2.9	1196	1538	1301	-22.2	-8.0	1458	1587	1560	-8.2	-6.5	1523	1590	1577	-4.2	-3.4
UK	1436	1515	1459	-5.3	-1.6	1294	1339	1260	-3.4	2.7	1859	1895	1889	-1.9	-1.6	1556	1716	1725	-9.3	-9.8
BG	1847	1813	1783	1.9	3.6	1793	1834	1801	-2.2	-0.5	1713	1793	1778	-4.5	-3.7	1686	1738	1721	-3.0	-2.0
RO	1887	1879	1862	0.4	1.3	1981	1871	1859	5.9	6.6	1769	1816	1801	-2.6	-1.8	1993	1784	1781	11.7	11.9

Note: SBS data not available. The LCS data relate to average annual hours worked by employees, the LFS data to those worked by total number of persons employed in the first column, to those worked by employees only in the second column. MT: n.a.

Source: Eurostat, LFS and LCS

Annual hours worked per year by those employed in market services, 2000

Since SBS data on the number of hours worked are missing for market services, data from the Labour Cost Survey has been used instead. These relate to 2000. The alternative is to use the Labour Force Survey but the LCS has the advantage of giving annual figures and should be more consistent with the SBS in that it is also enterprise based.

The LCS shows a smaller number of hours worked per year than the LFS in most countries for all market service sectors (Table 15). Differences between the two sources were greatest in Finland, and Denmark. Differences are in general relatively large in the distributive trades and hotels and restaurants.

Labour productivity in market services

Labour productivity in market services, as in industry, can be measured by value-added per hour worked. As in industry, this is affected by the amount of capital used in the process of producing services as well as by the productivity of the workers employed per se. In services, such as real estate or leasing machinery and equipment, which involve a large amount of capital, the value-added generated per hour of labour input tends to be higher than elsewhere, precisely because of the relatively high cost of capital (the servicing of borrowing and the return required on investment, in particular). This is also the case, though to a lesser extent, in transport and communications and in air and water transport. It is less the case in business services, where the skills of the people employed (as reflected in educational attainment levels) tend to be more important than the scale of capital inputs, or in the distributive trades or hotels and restaurants, where the main item of capital is the premises used. Because of the higher skills, value-added per hour worked tends to be higher in business services than in distribution or hotels and restaurants and this additional value-added goes towards covering the higher wages and salaries associated with the higher skill level.

value-added than of employment, in many Member States in 2001, over twice the share (Tables 12 and 13). Excluding these activities, business services (NACE K) account for a similar or slightly smaller share of value-added than of employment in most countries.

Value-added per person employed in market services

Value-added per person employed in market services in the EU15 in 2001 was 9% lower than the average for the market economy as a whole (Table 14). The only Member States where service value-added was higher than in the rest of the economy were Estonia (9% higher) and Malta (8%), this was also the case in Romania (19%). Value-added per person employed in Hotels and restaurants was under 50% of the level for the market economy as a whole in the EU15 as well as in most new Member States. Conversely, it was higher than the market economy average in Transport and communications.

The pattern of variation in value-added per person employed between sectors of activity was similar in the new Member States to that in the EU15, with the highest levels in most cases in Rental activities (NACE 71) and Post and telecommunications (NACE 64).

Labour productivity in market services

As for industry, productivity can be estimated by calculating value-added per hour worked rather than per person employed. The data source used for hours worked is the LCS, which gives averages for the year 2000, except for Belgium where there are no LCS data.

Because of the greater importance of part-time working in services than in industry, average hours worked in market services, according to the LCS, were in general lower, on average, than in industry. (Table 16).

Average hours worked in total market services in 2000 in the EU15 ranged from 1783 a year in Greece to only 1246 a year in France. In the new Member States, as in industry, average working time was in most cases longer than in the EU15, partly because of less part-time working, with hours worked being well above the EU15 average in all countries.

Table 16 – Average hours worked in market services and industry, 2000

	EU15	BE	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Average hours worked per year																												
Distributive trades (G)	1473	1752	1804	1417	1352	1765	1772	1636	1548	1489	1741	1844	1809	1753	1621	1801	:	1261	1553	1952	1773	1735	1776	1309	1460	1436	1847	1887
Hotels and restaurants (H)	1426	1871	1799	808	1306	1718	1681	1497	1659	1369	1639	1682	1773	1638	1584	1771	:	1132	1639	2063	1788	1708	1804	1184	1196	1294	1793	1981
Transport, communications (I)	1750	1786	1773	1476	:	1767	1849	1658	:	1894	1717	1916	1787	1668	1663	1703	:	1555	1705	1791	1833	1700	1763	1441	1458	1859	1713	1769
Business services (K)	1509	1671	1763	1337	:	1757	1800	1549	1485	1570	1633	1717	1790	1743	1610	1789	:	1262	1485	2067	1684	1731	1792	1459	1523	1556	1686	1993
Total market services (G+H+I+K)	1521	1746	1787	1347	:	1760	1783	1592	1246	1542	1693	1810	1798	1722	1621	1767	:	1290	1580	1941	1764	1723	1777	1374	1465	1510	1779	1877
Manufacturing (D)	*1632*	*1714*	*1762*	*1511*	*1499*	*1749*	*1787*	*1685*	*1568*	*1846*	*1717*	*1847*	*1759*	*1694*	*1672*	*1726*	*:*	*1523*	*1709*	*1870*	*1707*	*1708*	*1677*	*1627*	*1646*	*1820*	*1701*	*1780*
Industry (C+D+F)	*1639*	*1734*	*1762*	*1499*	*1519*	*1743*	*1784*	*1683*	*1555*	*1886*	*1714*	*1813*	*1770*	*1690*	*1689*	*1732*	*:*	*1538*	*1697*	*1848*	*1721*	*1714*	*1694*	*1630*	*1651*	*1851*	*1700*	*1802*

Note: MT: n.a.

Source: Eurostat, LCS except BE: LFS

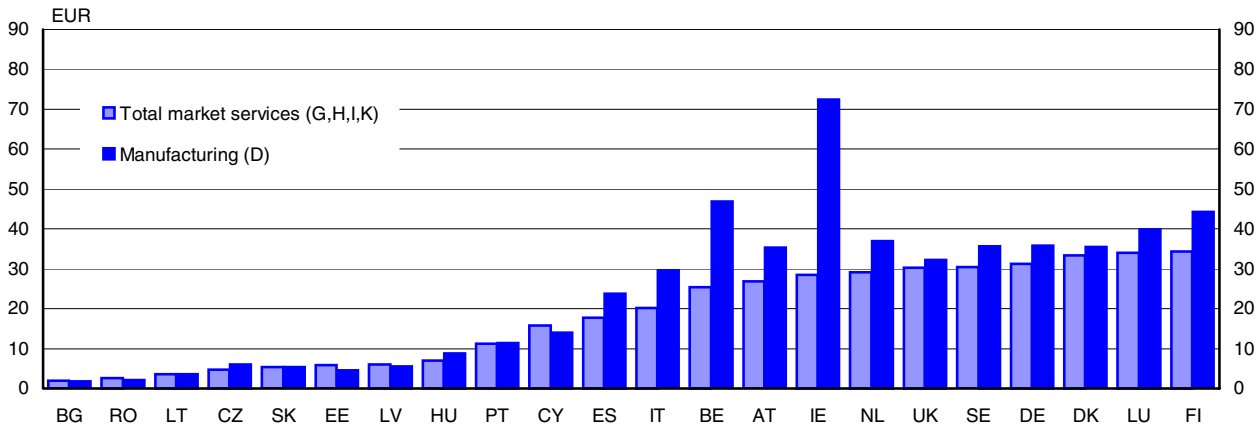
Table 17 – Value-added per hour worked in market services, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
EUR																											
Sale+service of motor vehicles (50)	23	25	4	17	27	5	16	22	23	15	13	4	3	29	7	:	28	22	:	10	:	7	28	25	29	3	2
Wholesale trade (51)	32	34	8	36	39	7	21	33	40	23	17	12	5	44	9	:	39	36	:	16	:	6	39	31	39	3	3
Retail trade (52)	19	16	2	23	22	3	12	23	18	13	11	3	2	22	4	:	22	19	:	7	:	3	34	24	19	1	1
Hotels+restaurants (55)	14	11	2	24	15	3	11	17	14	13	16	3	1	22	3	:	18	15	:	5	:	2	25	21	15	1	1
Land transport, pipelines (60)	21	26	3	29	22	4	18	:	18	20	8	4	3	29	5	:	25	25	:	11	:	3	30	23	21	2	3
Water transport (61)	52	50	0	113	68	:	34	:	:	43	13	12	:	:	4	:	:	:	:	28	:	:	46	34	74	:	:
Air transport (62)	39	50	:	41	1	:	35	:	:	45	30	16	:	:	5	:	:	:	:	35	:	:	38	33	56	:	:
Travel agencies (63)	30	39	8	34	35	15	29	:	:	24	18	11	7	37	7	:	41	34	:	25	:	9	32	30	39	3	5
Post+telecommunications (64)	43	41	16	40	42	16	46	:	60	51	55	15	10	162	17	:	51	43	:	42	:	10	47	48	44	10	7
Real estate activities (70)	65	46	7	83	109	8	51	55	43	30	:	7	5	66	10	:	119	72	:	19	:	7	68	83	54	3	4
Rental activities (71)	61	114	9	54	96	12	32	76	26	29	:	7	4	125	24	:	84	135	:	54	:	17	64	50	54	3	12
Computer+related activities (72)	36	33	8	34	43	8	22	35	75	24	:	9	6	34	12	:	36	34	:	19	:	9	30	28	43	2	5
Research+development (73)	26	40	5	30	28	3	18	:	87	25	:	3	4	36	8	:	28	34	:	20	:	4	10	8	24	2	2
Other business activities (74)	26	23	5	32	30	5	14	27	28	21	:	5	4	23	6	:	23	27	:	8	:	5	28	24	32	1	2
Distributive trades (G)	24	24	4	28	28	5	16	26	26	17	13	6	3	31	6	:	30	26	:	10	:	5	35	28	27	1	2
Hotels and restaurants (H)	14	11	2	24	15	3	11	17	14	13	16	3	1	22	3	:	18	15	:	5	:	2	25	21	15	1	1
Transport, communications (I)	31	33	6	39	32	9	26	:	39	30	22	8	5	56	9	:	36	31	:	22	:	6	36	33	35	4	4
Business services (K)	32	27	5	40	40	6	20	33	37	23	:	6	4	28	8	:	27	36	:	12	:	6	34	33	37	1	3
Business services excl. real estate and renting (K)	28	24	5	32	31	5	15	28	37	22	:	6	4	25	7	:	20	28	:	9	:	6	28	25	34	1	2
Total market services (G+H+I+K)	27	25	5	33	31	6	18	:	29	20	:	6	4	34	7	:	29	27	:	11	:	5	34	30	30	2	3
Manufacturing (D)	*:*	*47*	*6*	*35*	*36*	*5*	*24*	*28*	*72*	*30*	*14*	*6*	*4*	*40*	*9*	*:*	*37*	*35*	*:*	*11*	*:*	*5*	*44*	*36*	*32*	*2*	*2*

Notes: EL, MT, PL, SI: n.a.; DK: 2000 excl. NACE G: 1999; DE, IE: 2000; NL: NACE K73: 2000.

Source: Eurostat, SBS, LCS and LFS

10 Value-added per hour worked in market services and manufacturing, 2001



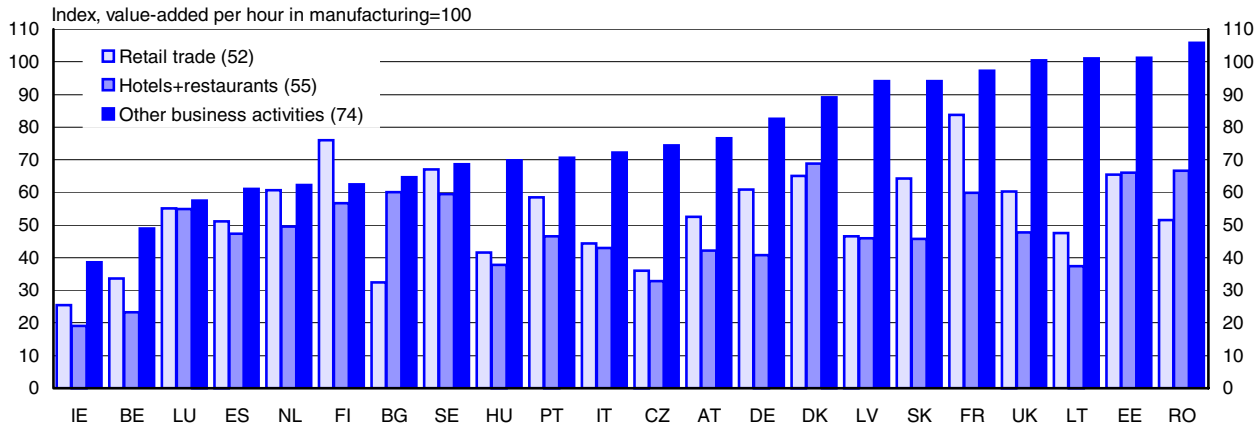
EL, EU15, FR, MT, PL, SI: n.a ; CY: excluding business services

Source: Eurostat, SBS, LCS and LFS

In most Member States, average hours worked per year were shortest in hotels and restaurants and longest in transport and communications. Labour productivity was lower in market services than in manufacturing in 2001 in all Member States, except Portugal, Latvia and Slovakia, where it was similar and Estonia, where it was higher. Productivity was particularly low in market services relative to manufacturing (over 30% lower) in Spain, Italy, Belgium and Ireland Ireland (though in Ireland, productivity in manufacturing was unusually high, as noted above)(Graph 10 and Table 17).

Within market services, productivity was highest in real estate (NACE 70) and rental activities (NACE 71 — 61 euros per hour worked in the EU15) and in water transport (NACE 61 — 52 euros per hour worked) and lowest in retailing (NACE 52 — 19 euros per hour) and hotels and restaurants (NACE 55 — 14 euros). Productivity was substantially lower in the latter two sectors of activity than in manufacturing in all Member States, but it was also lower than in manufacturing, if to a smaller extent, in business services, excluding real estate and renting (Graph 11).

11 Value-added per hour worked in other business services, retailing and hotels and restaurants relative to manufacturing, 2001



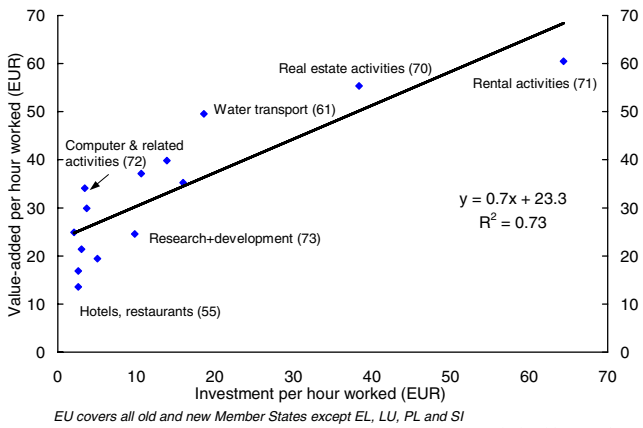
EL, CY, MT, PL, SI: n.a. ; DK: NACE G: 1999, NACE H-K: 2000; DE, IE: 2000

Source: Eurostat, SBS, LCS and LFS

Labour productivity and investment

Capital employed in market services can be estimated in the same way as for industry, namely, by relating investment to hours worked to give a measure of capital used per unit of labour input. Investment per hour worked can then be related to value-added per hour worked to measure the importance of capital in generating value-added. Results confirm a clear relationship between the two variables over the enlarged EU as a whole, with sectors with the highest level of productivity being also those with the highest levels of capital per hour worked (Graph 12).

12 Correlation between value-added per hour and investment per hour in market services in the EU, 2001



EU covers all old and new Member States except EL, LU, PL and SI

Source: Eurostat, SBS, LCS and LFS

Value-added and investment per hour worked in market services

As noted in respect of industry, there is likely to be a positive relationship between value-added and investment in market services, especially insofar as investment reflects the capital used in service activities. Value-added, therefore, will tend to be higher for any given level of labour input, the larger the amount of capital employed and, accordingly, the higher the cost of that capital (in terms of rent and servicing borrowing) and the required return on investment. The amount of capital employed in service activities is particularly large in real estate (NACE 70) and leasing (NACE 71), which, accordingly, tends to imply relatively high value-added per hour worked. It is also large in parts of the transport industry and communications, in which, accordingly, value-added per hour worked is high as well (Graph 12).

The relationship between investment and value-added, however, is also affected by the skill level of the workers employed and their productivity per se, which will tend to be reflected in their average earnings. In computers and related activities, therefore, value-added per hour worked is higher than would be expected given the level of investment (ie the sector lies above the regression line describing the average relationship in the graph). On the other hand, in Hotels and restaurants, value-added per hour worked is lower than would be expected given investment because of the relatively low skill, and wage, level of those employed in the sector.

Chapter 2 — Employment and productivity by size of enterprise

This chapter, first, examines the division of employment between different-sized enterprises in the various sectors of activity and in different Member States and secondly, the extent of variation in value-added per person employed. Although there are some gaps in the SBS data published, mainly for reasons of confidentiality, in most cases, there are sufficient data to give a reasonably good indication of the size distribution of enterprises. There are, however, more countries for which data are missing than in the case of the data examined in Chapter 1 (see Box on this page). In addition, Hungary and Slovakia, for which data are available, are excluded from much of the analysis because in both cases, there is incomplete coverage of small enterprises.

As in Chapter 1, the analysis focuses, first, on industry, especially manufacturing, and then on market services.

Industry

Division of employment between enterprises of different size

Small firms, defined as those employing under 50 people, accounted for 35% of total employment in manufacturing in the EU15 in 2001. The proportion was similar in mining

Data on employment by size of enterprise

The SBS data by size of enterprise are broken down according to the number of persons employed into the following size classes: 1 to 9, 10 to 19, 20 to 49, 50–99, 100–249, 250–499, 500 to 999, 1000 and over. Data, however, are not always complete in each Member State for every size class, in part for reasons of confidentiality if there are comparatively few enterprises in particular size classes (ie the small number of enterprises in particular size classes in certain sectors in some countries risks revealing details of individual companies).

The data are available for most Member States; but not for Greece and Luxembourg or for Cyprus, Malta and Bulgaria as well as for industry for Slovenia. Data for both Hungary and Slovakia are incomplete for small enterprises (see Methodological notes) and are therefore not included in the analysis in order to avoid giving a misleading indication of the size distribution of enterprises. Data are disaggregated where possible to the NACE 3-digit level, though in many cases there are gaps in the statistics published largely because of confidentiality problems (where there is only a small number of enterprises in a particular size class). Data are also missing for some NACE 2-digit sectors in a number of countries for the same reason.

The data presented here, therefore, are also incomplete, in that they cover only those sectors, or industries, within industry and market services for which data are available. Nevertheless, despite the gaps, the data give a reasonable indication of the relative importance of enterprises of different size for employment in the main industries and in most of the NACE 2-digit sectors of activity in nearly all Member States.

As for the other SBS data, the latest figures available relate to 2001. Since the size structure of enterprises changes only slowly over time, these data are likely to give a good guide to the present division of employment between enterprises across the Union.

For all the variables included in the SBS, data are broken down by size of enterprise. Statistics are, therefore, available, for example, for value-added, investment and labour costs as well as the number employed. The analysis here is confined to employment and value-added.

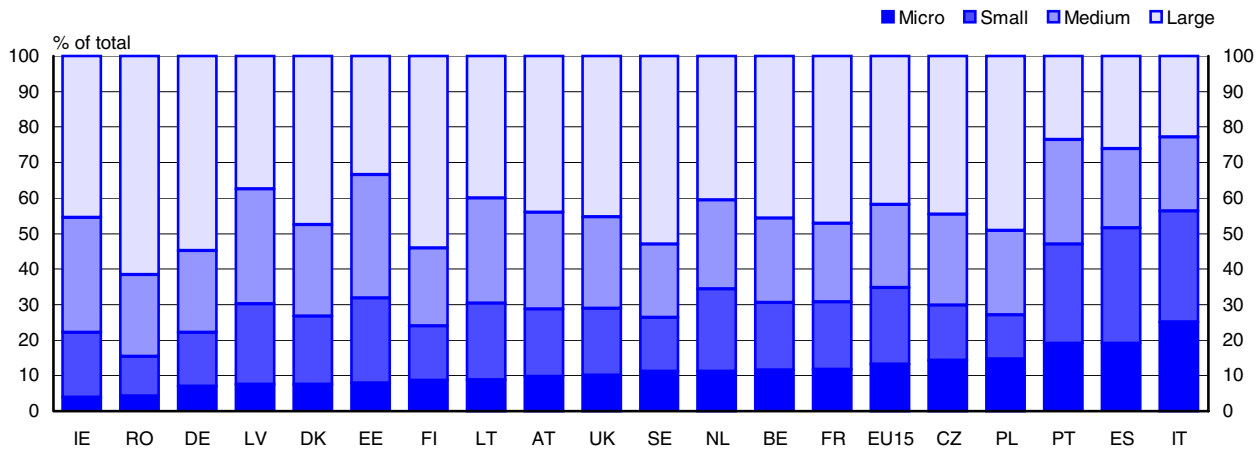
Table 18 – Employment in mining, manufacturing and construction by size of enterprise, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	NL	AT	PL	PT	FI	SE	UK	RO
% of total																					
Mining and quarrying (C)																					
1-9	9.7	:	0.5	17.2	3.6	1.7	13.8	11.2	:	26.8	7.2	:	2.6	5.0	12.6	0.6	20.6	32.2	13.6	4.0	0.2
10-49	23.2	32.7	3.5	22.1	15.4	9.8	34.5	33.9	:	43.7	:	:	25.1	18.5	41.0	1.0	43.2	:	11.3	8.1	1.2
50-249	17.3	:	:	:	12.1	:	18.9	18.2	:	:	:	:	72.2	21.8	:	3.9	:	25.9	:	17.7	2.8
250 and more	49.7	:	:	:	68.9	:	32.8	36.8	:	:	:	0.0	0.0	54.7	:	94.5	:	:	:	70.2	95.8
Manufacturing (D)																					
1-9	13.1	11.6	14.2	7.6	7.0	7.9	19.0	11.8	3.8	25.1	34.5	7.5	8.8	11.2	9.8	14.7	18.9	8.6	11.1	10.1	4.3
10-49	21.6	18.9	15.6	19.1	15.1	24.0	32.5	18.9	18.4	31.2	31.7	22.6	21.6	23.3	19.0	12.3	28.1	15.4	15.2	18.8	11.0
50-249	23.4	23.8	25.5	25.9	23.1	34.6	22.4	22.2	32.2	20.9	:	32.5	29.5	25.0	27.1	23.9	29.3	21.9	20.7	25.8	23.1
250 and more	41.9	45.8	44.7	47.5	54.8	33.5	26.1	47.1	45.6	22.8	:	37.4	40.1	40.5	44.1	49.1	23.7	54.1	53.0	45.3	61.6
Construction (F)																					
1-9	40.7	39.6	41.3	30.1	30.9	18.0	40.2	43.5	:	66.4	40.9	13.3	10.5	23.4	20.7	38.4	47.6	34.9	38.6	34.8	7.1
10-49	32.6	27.1	27.1	38.3	42.5	40.9	37.2	30.6	:	24.4	21.4	34.5	25.9	35.7	39.4	16.3	27.3	28.1	24.9	24.5	17.7
50-249	14.1	17.0	18.8	15.3	17.7	31.5	13.9	13.2	:	6.2	12.7	39.0	48.4	20.2	22.6	24.6	14.7	14.1	9.8	14.8	34.6
250 and more	12.6	16.3	12.9	16.4	8.9	9.6	8.7	12.6	:	3.0	25.0	13.1	15.2	20.7	17.4	20.8	10.5	23.0	26.8	25.9	40.6

Note: EL, LU, HU, MT, SI, SK, BG: no data available. IE: 2000; PL: 1998

Source: Eurostat, SBS (theme4/SBS/sizclass)

13 Division of employment in manufacturing by size of enterprise, 2001



EL, CY, LU, HU, MT, SI, SK, BG: n.a. ; IE: 2000; PL: 1998

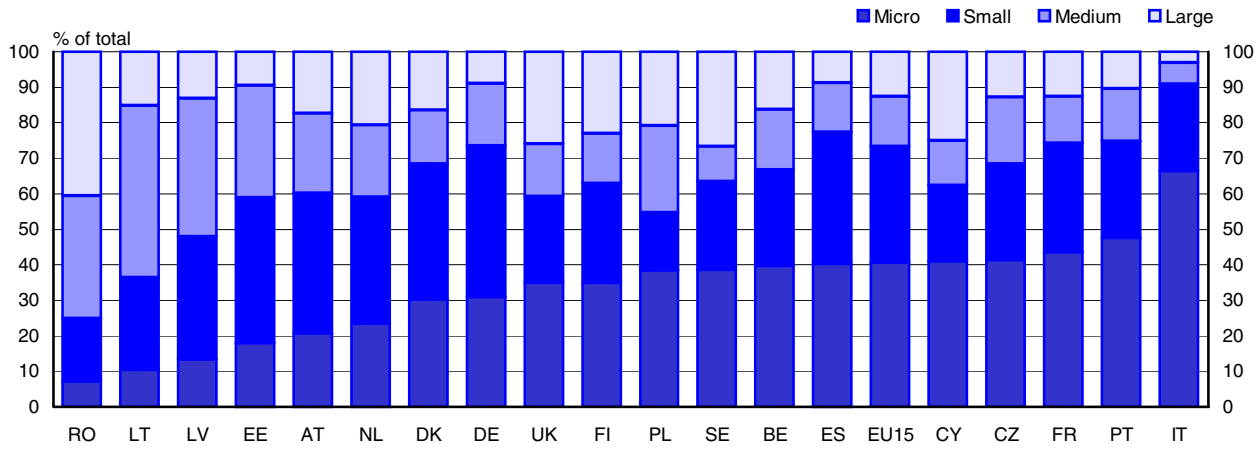
Source: Eurostat, SBS

and quarrying (33%). Large firms, defined as those employing 250 or more people, accounted for 42% of total manufacturing employment and 50% of the total in mining. In construction, small enterprises were more important, employing 73% of all workers in the sector, while only 13% of those employed worked in large firms. In Germany and the UK, employment in large enterprises accounted for 70% of total employment in mining and quarrying (Table 18).

Small firms were generally a bigger source of employment in the southern EU countries than elsewhere. The number employed in small enterprises was over 50% of the total in manufacturing in Italy and Spain, and just under 50% in Portugal (Graph 13). By contrast, large firms employed over 50% of the total working in manufacturing in Germany, Sweden and Finland. In construction, over 25% of the total employed worked in large enterprises in Sweden and the UK as compared with only 3% in Italy and 9% in Spain as well as Germany (Graph 14).

In the new Member States for which data are available, small enterprises were in general less important in mining than in the EU15 and, by implication, larger enterprises more important, though data are missing in a number of cases on the split between large and medium-sized firms.

14 Division of employment in construction by size of enterprise, 2001



EL, IE, LU, HU, MT, SI, SK, BG: n.a. ; PL: 1998

Source: Eurostat, SBS

Table 19 – Employment in manufacturing by size of enterprise, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	NL	AT	PL	PT	FI	SE	UK	RO
% of total																					
Basic manufacturing																					
1-9	17	:	17	9	:	9	23	16	:	30	35	7	:	14	:	:	21	11	:	13	:
10-49	27	24	:	21	:	:	36	24	:	35	:	:	:	27	:	:	30	:	:	22	:
50-249	26	:	27	:	29	:	23	25	:	:	:	:	:	26	:	:	:	:	:	27	:
250 and more	30	:	:	:	40	:	18	35	:	:	:	:	:	34	:	:	:	:	:	38	:
Food, drink, tobacco (DA)																					
1-9	17	22	9	4	:	6	20	26	:	38	20	4	:	14	:	:	21	7	9	3	9
10-49	21	21	20	16	:	:	29	18	:	23	:	:	20	20	:	:	29	16	16	9	23
50-249	22	23	34	16	27	37	23	20	37	16	:	:	:	20	:	:	28	16	16	19	30
250 and more	40	34	37	64	36	:	28	36	47	22	:	:	:	46	:	:	22	60	60	69	38
Textiles, clothing (DB+DC)																					
1-9	18	10	13	18	8	5	22	10	:	27	35	6	4	20	11	19	13	19	:	12	3
10-49	33	27	17	29	19	:	42	28	:	40	:	14	16	30	:	13	29	:	:	25	8
50-249	29	:	24	39	37	23	24	37	:	:	:	26	30	35	:	28	37	:	:	34	31
250 and more	20	:	47	14	36	:	12	24	:	:	:	54	49	15	:	41	21	:	:	29	58
Metals+metal products (DJ)																					
1-9	17	12	18	13	10	14	24	11	10	28	62	9	12	13	7	15	33	14	16	17	4
10-49	30	24	17	32	21	40	38	31	38	39	:	23	:	32	20	11	31	25	25	32	10
50-249	25	22	26	35	28	:	20	26	41	20	:	:	:	27	28	19	26	26	23	31	17
250 and more	28	42	40	20	40	:	18	33	11	13	:	:	:	28	45	55	11	34	36	21	69
Other manufacturing (DD,DE,DH,DI,DN)																					
1-9	17	:	21	9	11	11	23	14	:	31	41	10	:	14	14	:	25	10	17	16	:
10-49	26	25	:	20	19	:	37	23	:	34	:	:	:	28	23	:	32	:	18	23	:
50-249	26	:	26	:	29	:	24	25	:	21	:	:	:	27	:	26	:	:	:	27	:
250 and more	31	:	:	:	41	:	16	38	:	15	:	:	:	32	:	:	:	:	:	33	:
Chemicals, fuel (DG+DF)																					
1-9	3	2	5	2	1	4	6	2	:	6	6	6	:	2	3	3	7	2	3	3	3
10-49	8	7	9	7	4	13	18	7	:	15	:	:	14	7	8	5	21	7	7	8	8
50-249	20	19	20	14	14	:	27	19	31	26	:	:	:	23	28	16	35	24	:	21	12
250 and more	69	72	66	77	81	:	48	73	:	53	:	:	:	68	61	75	37	66	:	69	77
Engineering																					
1-9	7	6	:	6	4	6	:	6	2	16	:	8	:	8	5	9	10	6	6	6	:
10-49	14	11	:	17	10	:	:	12	:	24	:	17	11	20	11	8	18	12	10	15	:
50-249	20	17	23	29	18	:	20	17	23	22	:	:	:	24	24	20	21	22	17	25	10
250 and more	59	66	56	49	69	:	47	65	:	38	:	:	:	48	59	63	50	61	68	54	85
Machinery+equipment (DK)																					
1-9	9	8	6	6	4	9	17	9	5	15	51	9	5	9	5	8	18	8	8	8	1
10-49	20	20	15	18	13	20	34	20	29	29	:	14	15	29	15	9	35	16	15	22	3
50-249	28	26	33	30	27	42	25	26	34	27	:	:	:	34	31	26	30	31	25	31	10
250 and more	43	46	46	46	57	29	24	45	32	28	:	:	:	28	49	57	18	46	52	38	86
Elect+precision engineering (DL)																					
1-9	9	7	19	6	6	5	12	7	1	23	:	10	7	8	6	16	8	4	6	7	4
10-49	15	11	11	14	14	11	23	13	6	26	:	25	10	15	10	9	8	8	10	16	7
50-249	20	17	21	26	19	29	21	18	20	19	:	:	19	16	24	21	14	14	13	27	15
250 and more	56	65	50	53	61	54	44	62	73	32	:	:	65	61	60	55	70	74	71	50	75
Transport equipment (DM)																					
1-9	2	2	:	6	1	3	:	2	3	5	:	4	:	7	2	4	5	6	3	3	:
10-49	6	5	:	16	2	:	:	5	:	11	:	13	9	17	6	5	13	12	5	6	:
50-249	11	11	14	30	6	:	15	8	21	16	:	:	18	21	11	13	22	22	12	17	8
250 and more	81	81	81	48	91	:	69	85	:	68	:	:	:	56	82	79	60	60	79	74	89

Note: EL, LU, HU, MT, SI, SK, BG: no data available. IE: 2000; PL: 1998; BE, DK, ES: NACE DB only; BE, DK, DE, ES, IE, IT, AT, FI, SE: NACE DG only. Basic manufacturing is DA+DB+DC+DG+DH+DI+DN; Chemicals and fuel is DF+DG; Engineering is DK+DL+DM.

Source: Eurostat, SBS (theme4/SBS/sizclass)

Large enterprises, therefore, accounted for 95% of employment in Poland. The proportion was the same in Romania (Table 18).

In manufacturing, the size distribution of enterprises was more similar in the new Member States to that in the EU15 countries. In Romania, however, over 60% of employment was in large firms, significantly more than in the EU15 and reflecting the organisation of production under the previous regime (Table 18 and Graph 13).

In construction, small firms were responsible for a smaller share of employment in the new Member States than in the EU15 and medium-sized firms for a larger share. In Romania, small firms accounted for only 25% of employment and large ones for over 40% (Table 18 and Graph 14).

Manufacturing sectors

Within manufacturing, small firms are particularly important in basic manufacturing, while large enterprises tend to predominate in both Chemicals and fuel and engineering. In basic manufacturing, therefore, 44% of the total employed in the EU15 worked in small enterprises in 2001, while 30% worked in large enterprises. In Spain and Italy, around 60% or more were employed in small firms. In Chemicals and fuel, over two-thirds of employment was in large enterprises and almost 60% in engineering. In Italy, by contrast, small firms accounted for a bigger share of employment (40%) in these industries than large ones, while in Germany and the UK, over two-thirds of employment was in large enterprises (Table 19).

Within basic manufacturing, small firms were particularly important in the EU in textiles and clothing sector, though less so in the new Member States (NACE DB). In the EU15 countries, over 50% of those employed in the industry worked in small enterprises in 2001. In Spain and Italy, the proportion was around two-thirds. In the new Member States, on the other hand, under a third were employed in small firms in all the countries for which data are available. In the Czech Republic, Latvia and Lithuania, around half of employment was in large enterprises. In Romania, the figure was almost 60%. A similar difference is also apparent between the EU15 countries and the new Member States in metals and metal products, though it is less marked. In Poland, 55% of those employed in this sector worked in large firms as against an EU15 average of under 30%. In Romania, the figure was almost 70%.

In engineering, the division of employment between different-sized enterprises was more similar between the EU15 countries and the new Member States. In Romania, however, large enterprises accounted for a bigger share of employment than the EU15 average in all the activities included in the sector.

Labour productivity in enterprises of different size

In all countries, including the new Member States, value-added per person employed — here used as an indicator of labour productivity — (see Box on this page), was much higher in 2001 in large enterprises than in smaller ones and over twice the level in micro enterprises (Table 20). In general, therefore, the smaller the size of the enterprise, the lower the level of labour productivity, whch may be a reflection of the tendency for the capital intensity of production to increase with the size of enterprise (Graph 15). Labour productivity is also generally higher in larger firms than smaller ones in construction in most countries, though the difference was generally less pronounced than in manufacturing and there were some exceptions. In Belgium, the UK and Cyprus, medium size enterprises had the highest levels of productivity and in the Netherlands, the level in micro enterprises was similar to that in large enterprises. In all these cases, this might be a reflection of firms being involved in different sectors of manufacturing.

Value-added per person employed and labour productivity

In the previous chapter, labour productivity was measured by value-added per hour worked. In this chapter, different sized enterprises are compared in terms of value-added per person employed, largely because the data on average hours worked by size of enterprise are incomplete. Although this is a less satisfactory measure of productivity, it is unlikely to be affected very much by variations in average working time between enterprises of different size. This is confirmed for manufacturing at least (there are no data for services) by an examination of the SBS data which are available by enterprise size, which show in most countries relatively little variation between size categories of enterprise. The differences in value-added per person employed between enterprises of different size reported in the analysis should, therefore, be indicative of differences in labour productivity. These, in turn, as explained in Chapter 1, are likely to be related to differences in the capital-intensity of production.

Table 20 – Value-added per person employed in industry in the enlarged EU by size of enterprise, 2001

	EU15	BE	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	HU	NL	AT	PL	PT	FI	SE	UK	RO
EUR (thousand)																							
Mining and quarrying (C)																							
1-9	233.6	:	3.3	7182.9	66.3	3.1	:	41.5	25.1	:	43.8	12.9	4.4	0.3	4.0	321.7	80.5	3.8	18.7	63.3	45.3	1259.0	2.0
10-49	72.7	72.1	4.2	470.7	64.3	:	:	53.6	63.7	:	50.5	:	4.3	2.7	4.3	289.4	73.4	4.9	27.5	:	65.6	194.0	2.0
50-249	194.4	:	6.9	:	66.4	5.1	69.5	62.6	70.0	:	:	:	5.7	3.3	6.4	:	:	4.3	:	61.2	:	620.8	2.2
250 and more	216.0	:	7.3	:	65.2	:	:	:	49.6	:	:	:	8.5	4.8	5.0	:	:	5.4	:	:	:	473.3	2.5
Total	180.7	87.4	6.2	1443.6	65.3	5.8	56.3	48.7	55.3	82.0	131.0	14.6	6.9	3.8	5.3	643.3	102.0	4.8	36.7	61.4	65.1	508.4	2.3
Manufacturing (D)																							
1-9	29.6	34.4	3.7	46.5	31.3	5.0	:	21.0	33.7	37.7	25.1	18.3	10.0	1.7	7.6	47.0	35.0	4.7	10.2	44.0	30.4	47.4	2.1
10-49	38.0	48.4	7.3	45.2	38.4	6.8	23.4	29.6	41.5	47.3	36.9	24.4	8.3	3.2	8.2	44.4	43.2	7.5	14.9	44.2	43.5	47.8	2.9
50-249	47.4	59.5	10.3	49.4	47.3	9.4	33.3	42.8	43.8	80.0	50.2	:	10.3	5.3	11.8	51.0	53.4	8.1	19.5	51.1	49.7	51.8	3.7
250 and more	67.0	83.0	14.4	60.3	65.3	8.2	56.5	61.3	62.3	211.8	59.9	:	12.3	7.8	19.9	77.8	70.0	14.1	33.2	91.5	60.3	70.5	4.2
Total	51.2	65.2	10.7	53.6	54.7	8.0	39.8	39.2	50.9	132.5	42.0	25.0	10.6	5.5	15.3	59.9	57.0	10.5	19.7	71.3	52.2	59.1	3.8
Construction (F)																							
1-9	28.3	26.9	3.2	40.7	27.0	5.1	:	19.9	31.6	:	23.5	22.2	8.2	3.1	6.4	54.9	42.7	4.5	10.9	43.8	32.8	45.1	2.2
10-49	35.8	40.6	6.8	38.0	:	5.9	:	26.3	36.6	:	35.0	28.8	7.0	4.0	8.8	40.4	42.7	9.1	17.8	42.0	42.1	57.9	3.2
50-249	42.6	50.7	9.5	41.6	39.9	9.7	:	30.4	39.3	68.1	42.4	36.7	8.8	5.3	12.6	45.2	47.1	8.9	23.7	45.9	47.2	65.3	3.8
250 and more	50.8	24.4	12.9	43.4	46.6	12.0	:	45.4	43.9	:	51.4	28.9	23.5	6.5	12.7	53.3	52.4	9.7	30.9	47.4	54.5	63.1	3.4
Total	35.6	34.2	6.6	40.3	34.0	7.5	:	26.0	35.7	:	28.3	27.1	10.0	4.9	9.8	47.4	45.4	7.4	16.8	44.4	42.3	55.9	3.4
Enterprises of 250 or more employees=100																							
Mining and quarrying (C)																							
1-9	108	:	5	:	102	6	:	:	51	:	:	22	7	4	13	:	:	117	:	:	:	266	179
10-49	34	:	11	:	99	10	:	:	128	:	:	:	5	4	10	:	:	73	:	:	:	41	332
50-249	90	:	9	:	102	8	:	:	141	:	:	:	:	:	11	:	:	84	:	:	:	131	329
Manufacturing (D)																							
1-9	44	41	26	77	48	61	:	34	54	18	42	:	82	22	38	60	50	34	31	48	51	67	0
10-49	57	58	51	75	59	83	41	48	67	22	62	:	67	40	41	57	62	53	45	48	72	68	4
50-249	71	72	72	82	72	114	59	70	70	38	84	:	84	67	59	66	76	57	59	56	82	73	7
Construction (F)																							
1-9	56	111	25	94	58	43	:	44	72	:	46	77	35	48	50	103	82	46	35	92	60	72	66
10-49	70	166	52	88	:	49	:	58	83	:	68	99	30	62	69	76	81	95	58	88	77	92	96
50-249	84	208	74	96	86	81	:	67	89	:	82	127	37	83	99	85	90	92	77	97	87	104	113

Note: LU, BG, MT, SI, SK: no data available. EL, IE: 2000; PL: 1998; HU: enterprises with 5 persons employed or more; BE, DK, ES: NACE DB only; BE, DK, DE, ES, IE, IT, AT, FI, SE: NACE DG only.
Source: Eurostat, SBS (theme4/SBS/sizclass)

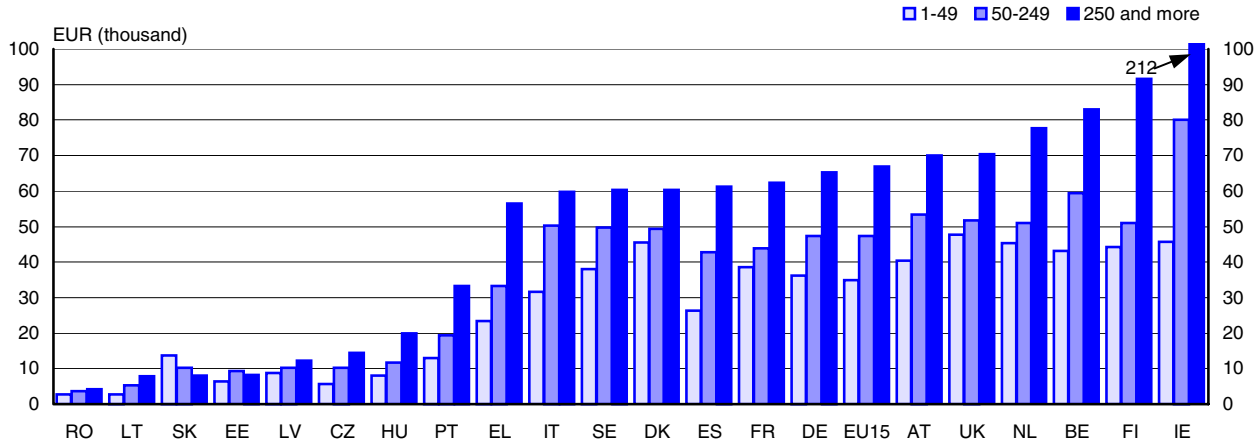
Table 21 – Value-added per person employed in manufacturing by size of enterprise, 2001

	EU15	BE	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	HU	NL	AT	PL	PT	FI	SE	UK	RO
EUR (thousand)																							
Basic manufacturing																							
1-9	28	:	3	43	:	5	:	20	31	:	24	18	10	:	7	44	33	:	10	41	:	46	:
10-49	36	45	:	43	:	:	:	29	40	:	35	:	:	:	:	42	:	:	14	:	:	47	:
50-249	44	:	10	:	45	:	:	41	41	:	:	:	:	:	:	48	:	:	:	:	:	49	:
250 and more	61	:	:	:	:	:	:	62	:	:	:	:	:	:	:	79	:	:	:	:	:	:	:
Total	44	54	10	48	47	8	35	36	44	:	38	24	11	5	13	57	:	9	17	61	52	54	3
Food, drink, tobacco (DA)																							
1-9	24	26	3	38	:	3	:	22	27	:	21	18	10	:	4	25	26	:	9	35	28	43	1
10-49	34	43	5	33	:	:	24	32	37	:	42	:	:	3	7	38	:	:	15	32	40	63	2
50-249	45	61	11	51	41	10	32	43	44	72	55	:	:	:	15	53	44	:	24	58	54	48	6
250 and more	66	73	18	60	59	:	:	64	60	130	62	:	:	:	27	104	:	:	45	55	61	68	8
Total	47	53	12	54	41	8	38	41	44	95	41	26	13	7	20	70	:	15	23	50	54	63	6
Textiles, clothing (DB+DC)																							
1-9	23	29	3	32	19	3	:	17	29	:	24	13	4	0	4	39	24	4	7	31	:	51	2
10-49	25	36	4	44	29	:	20	19	35	:	26	:	4	3	4	31	:	5	10	:	:	35	2
50-249	32	:	7	45	40	5	26	26	31	:	:	:	6	3	6	38	:	4	12	:	:	39	2
250 and more	41	:	7	58	:	:	:	35	:	:	:	:	8	5	5	57	:	5	14	:	:	:	2
Total	30	44	6	44	38	6	25	22	34	30	31	15	7	4	5	39	38	5	11	37	34	40	2
Metals+metal products (DJ)																							
1-9	32	34	6	43	34	7	:	21	41	35	28	19	9	2	8	49	41	4	11	46	35	45	3
10-49	40	45	8	44	44	8	25	32	41	40	38	:	8	:	10	46	46	8	17	47	44	46	3
50-249	46	57	10	47	47	:	36	42	41	47	49	:	:	:	11	47	51	9	24	51	48	51	4
250 and more	58	61	13	50	59	:	:	61	51	60	52	:	:	:	13	60	76	10	31	65	59	55	4
Total	45	53	10	46	50	8	45	37	44	45	39	23	12	4	11	50	60	9	18	54	49	49	4
Other manufacturing (DD,DE,DH,DI,DN)																							
1-9	30	:	2	46	33	5	:	20	32	:	23	19	11	:	7	54	36	:	11	41	27	46	:
10-49	39	49	:	46	40	:	:	30	41	:	37	:	:	:	:	43	44	:	17	:	43	48	:
50-249	48	:	11	:	47	:	:	44	44	:	50	:	:	:	:	48	:	9	:	:	:	52	:
250 and more	64	:	:	:	57	:	:	66	55	:	69	:	:	:	:	69	:	:	:	:	:	68	:
Total	47	58	10	47	48	9	35	37	46	:	40	26	11	5	12	54	55	9	22	69	54	55	4
Chemicals, fuel (DG+DF)																							
1-9	45	104	6	73	57	6	:	25	50	:	35	29	19	:	19	79	87	8	20	100	38	57	4
10-49	61	102	15	66	51	8	:	46	71	:	63	:	:	5	16	99	85	11	26	90	56	55	7
50-249	75	93	19	69	65	:	:	64	69	268	78	:	:	:	19	83	70	13	46	94	:	68	9
250 and more	112	141	24	117	87	:	:	87	95	:	79	:	:	:	37	122	77	17	84	87	:	120	6
Total	99	129	21	106	83	15	96	69	88	533	74	36	14	9	31	110	76	15	54	89	114	102	6
Engineering																							
1-9	36	36	:	57	35	7	:	:	44	46	28	:	11	:	:	57	41	7	14	52	35	52	:
10-49	42	50	:	51	42	:	:	:	44	:	42	:	9	0	:	45	49	10	20	44	44	48	:
50-249	49	56	10	50	49	:	:	45	45	59	51	:	:	:	12	48	55	9	25	47	48	54	5
250 and more	62	69	14	57	65	:	:	50	61	:	51	:	:	:	17	56	69	10	30	111	44	65	4
Total	55	63	12	54	59	9	35	43	55	105	45	:	8	7	15	52	62	10	25	86	44	59	4
Machinery+equipment (DK)																							
1-9	37	41	5	52	39	6	:	28	40	34	34	22	7	4	13	58	49	7	15	50	38	47	8
10-49	44	52	11	51	46	10	:	36	45	35	44	:	5	4	10	47	49	9	22	43	46	46	6
50-249	51	57	9	49	51	8	32	45	48	43	55	:	:	:	11	52	54	8	24	48	54	53	4
250 and more	59	74	10	52	63	5	:	47	53	69	54	:	:	:	10	58	65	8	30	68	62	58	3
Total	52	62	10	51	57	7	28	40	49	49	48	24	7	4	11	53	58	8	23	56	55	53	3
Elect+precision engineering (DL)																							
1-9	35	30	5	65	33	5	:	23	50	75	24	:	13	5	6	53	34	6	13	60	32	58	4
10-49	41	48	9	53	39	9	:	31	43	53	39	:	12	-6	11	44	44	11	18	46	40	51	7
50-249	48	58	10	50	47	8	:	45	44	66	48	:	:	7	13	46	58	9	29	46	45	53	6
250 and more	61	74	12	65	59	8	:	57	59	143	56	:	:	11	13	51	72	14	24	151	15	54	5
Total	53	65	10	60	53	8	48	44	53	122	42	24	9	8	13	49	63	11	23	124	22	53	6
Transport equipment (DM)																							
1-9	35	38	:	47	35	18	:	:	35	23	27	:	17	:	:	61	41	10	13	41	31	49	:
10-49	40	49	:	41	39	:	:	:	42	:	40	:	9	4	:	42	68	9	18	44	45	49	:
50-249	46	49	11	51	47	:	:	44	41	55	44	:	:	6	17	42	52	9	22	46	42	56	4
250 and more	65	64	19	51	69	:	:	47	67	:	44	:	:	:	32	62	70	11	41	47	66	77	4
Total	61	61	18	49	67	12	33	44	63	55	43	:	10	7	28	55	68	10	32	46	61	71	4

Note: LU, BG, MT, SI: no data available. EL, IE: 2000; PL: 1998; HU: enterprises with 5 persons employed or more; BE, DK, ES: NACE DB only; BE, DK, DE, ES, IE, IT, AT, FI, SE: NACE DG only.
Basic manufacturing is DA+DB+DC+DG+DH+DI+DN; Chemicals and fuel is DF+DG; Engineering is DK+DL+DM.

Source: Eurostat, SBS (theme4/SBS/sizclass)

15 Value-added per person employed by size of enterprise in manufacturing, 2001



LU, CY, MT, PL, SI, BG: n.a ; EL: 10-49; HU: 5-49; SK: data uncertain for enterprises with <20 employees

Source: Eurostat, SBS

Productivity in manufacturing

In all countries for which data are available, labour productivity seems to have been higher in 2001 in larger enterprises than in smaller ones in all industries within manufacturing (Table 21).

Differences between small and large enterprises were particularly wide in food, drink and tobacco, where in the EU15 countries, productivity in micro enterprises was only just over a third of that in large ones. They were also wide in chemicals and fuel but generally slightly narrower in engineering, though more so in machinery and equipment than in the other engineering sectors (productivity in micro enterprises being over 60% of that in large ones). In Estonia and Hungary, productivity in large enterprises in machinery and equipment was lower than in smaller ones. This was also the case in Romania, while in Poland, the difference was small.

Market services

Division of employment between enterprises of different size

Small firms are much more important in the EU for employment in market services (NACE G, H, I and K excluding J) than in manufacturing. This is particularly so in the new Member States, where market services are less developed. In 2001, small firms accounted for the majority of employment in market services in most countries, while a third of employment was in micro firms (Graph 16).

In Italy, 60% of employment in market services was in micro firms and in Portugal, 50%, while in Spain it was just under 50%. In Estonia and Slovenia, the figure was also around 50%. In Romania, in sharp contrast to the division of employment in industry, over half of employment in market services was in micro enterprises. In all these countries, only around 20% of employment or less was in large enterprises.

By contrast, large firms accounted for a bigger share of employment than small firms in the UK (47% of the total as against 40% in small firms and only 23% in micro firms). In Germany, France, the Netherlands and Finland, less than half of employment in market services was in small enterprises.

Sectors within market services

Small enterprises are of most importance for employment in Hotels and restaurants. In 2001, 70% of employment in this sector in the EU15 was in small firms and 45% in micro firms (Table 22). In Belgium, Italy, Austria and Portugal, small enterprises accounted for around 80% or more of total employment. This was also the case in the Czech Republic, Lithuania and Slovenia. In Poland, as in the Czech Republic, Italy and Portugal, 60% of employment was in micro enterprises (Graph 17).

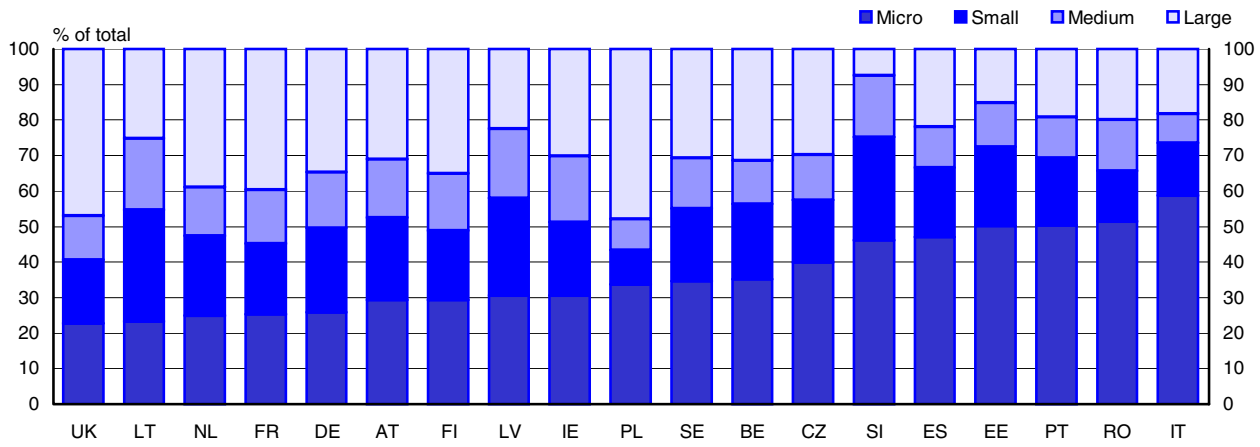
Table 22 – Employment in market services by size of enterprise, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	LV	LT	NL	AT	PL	PT	SI	FI	SE	UK	RO
% of total																					
Distributive trades (G)																					
1-9	37	44	58	24	25	53	54	33	33	70	39	22	30	28	38	57	47	30	37	22	63
10-49	21	26	24	30	25	22	22	24	22	15	31	34	26	23	35	22.4	29	22	24	17	15
50-249	12	12	:	19	16	11	9	16	18	6	19	21	13	17	20	10.9	17	15	14	10	13
250 and more	29	18	:	27	34	14	15	27	27	9	11	23	31	32	8	9.69	7	33	25	51	9
Wholesale trade (51)																					
1-9	32	36	:	19	17	47	42	22	21	65	:	32	26	21	40	44.4	:	26	33	23	:
10-49	29	34	31	31	28	36	33	33	28	21	36	:	33	26	25	33	35	25	:	27	31
50-249	20	19	19	29	27	:	16	23	28	8	25	:	21	27	20	16.2	17	:	18	20	24
250 and more	19	11	:	21	27	:	8	22	22	6	:	:	20	25	15	6.39	:	:	:	30	:
Retail trade (52)																					
1-9	40	49	60	26	29	36	62	38	36	73	:	43	30	32	75	67.9	:	29	39	20	:
10-49	15	18	15	26	20	30	12	18	16	10	33	27	19	17	8	13.7	28	21	19	11	28
50-249	7	6	6	12	8	18	5	10	:	5	17	17	8	9	9	4.95	16	9	9	5	11
250 and more	39	27	19	36	43	16	22	35	:	12	:	13	43	42	7	13.4	:	41	33	65	:
Hotels+restaurants (H)																					
1-9	45	54	63	27	48	28	54	49	32	65	32	39	49	48	60	62.7	51	38	37	24	:
10-49	25	28	19	35	30	45	22	23	26	18	41	42	26	33	15	17.5	28	21	30	25	30
50-249	10	7	10	24	11	:	12	8	26	6	:	17	8	13	8	8.81	17	15	15	10	27
250 and more	20	11	8	14	11	:	12	20	17	11	:	1	17	5	17	11	4	27	18	40	:
Hotels, accommodation (55.1-2)																					
1-9	27	23	31	11	34	15	16	42	16	45	12	13	19	36	31	19.7	:	18	18	12	:
10-49	33	29	30	35	41	34	28	31	18	35	37	47	30	42	18	27	31	24	37	28	18
50-249	21	27	28	37	14	:	33	13	51	13	:	40	25	18	:	31.7	:	30	29	22	46
250 and more	19	21	12	18	11	:	23	14	15	6	:	0	25	3	:	21.7	:	28	16	38	:
Restaurants, bars, canteens (55.3-5)																					
1-9	51	59	71	32	53	34	67	52	40	73	36	45	56	61	72	73	:	44	44	27	:
10-49	22	28	16	35	26	50	20	20	30	12	42	41	25	24	13	15.2	26	20	27	25	38
50-249	6	4	5	20	9	:	5	6	13	3	:	12	4	9	:	3.39	:	10	9	7	15
250 and more	21	9	7	13	12	:	8	22	17	12	:	2	16	7	:	8.44	:	27	19	41	:
Transport, communications (I)																					
1-9	:	11	18	15	12	16	37	9	16	24	11	16	10	12	28	22.1	33	24	18	12	8
10-49	:	19	11	19	19	19	17	13	11	14	14	21	20	15	4	16	24	12	15	12	8
50-249	:	13	9	16	13	24	10	13	8	11	15	15	14	14	7	13.1	24	14	11	10	13
250 and more	:	57	62	50	55	41	35	65	65	51	60	48	56	59	61	48.7	19	50	56	66	72
Business services (K)																					
1-9	31	31	48	:	26	35	37	19	34	58	26	38	20	34	44	40.1	43	30	40	27	20
10-49	18	14	23	:	22	31	16	18	18	13	31	28	19	23	12	14.1	29	22	18	18	20
50-249	16	14	17	:	19	20	15	18	20	11	30	25	15	20	21	14.5	:	21	16	17	30
250 and more	35	40	11	:	33	14	31	45	28	18	13	9	46	24	24	31.3	:	27	26	38	30
Computer+related activities (72)																					
1-9	29	28	:	22	15	:	19	13	31	44	30	45	20	34	:	:	41	15	:	42	:
10-49	21	23	31	21	22	:	:	22	16	22	35	41	21	24	16	:	36	21	20	18	35
50-249	19	26	16	23	21	:	21	25	21	:	:	15	15	23	20	25.7	:	30	17	15	22
250 and more	32	23	:	34	42	0	:	41	32	:	:	0	44	:	:	:	:	:	:	25	:
Research+development (73)																					
1-9	13	14	:	8	9	:	24	:	:	55	8	45	7	11	:	:	17	18	:	6	:
10-49	14	10	18	22	15	:	:	19	40	15	19	30	11	22	4	:	28	30	16	10	5
50-249	20	:	56	34	19	0	35	29	:	:	:	25	13	:	:	0	:	:	:	15	41
250 and more	53	:	:	35	57	0	:	:	:	:	:	0	69	:	62	0	:	:	:	69	:
Other business activities (74)																					
1-9	28	28	50	21	23	33	34	15	:	56	33	38	18	34	54	35	:	32	42	23	:
10-49	18	12	20	20	22	27	15	17	18	12	35	26	18	23	11	12.8	:	20	18	18	18
50-249	16	13	17	22	19	:	15	16	:	11	:	22	14	18	14	14.6	:	19	14	18	29
250 and more	38	47	13	37	36	:	36	51	:	20	:	14	49	26	21	37.6	:	28	25	41	:
Total market services (G, H, I, K)																					
1-9	:	35	40	:	26	50	47	25	31	59	31	23	25	29	34	50.2	46	29	35	23	51
10-49	:	21	18	:	24	22	20	20	21	15	27	31	23	23	10	19.1	29	20	20	18	14
50-249	:	12	13	:	16	12	12	15	19	8	20	20	14	16	9	11.6	17	16	14	12	14
250 and more	:	31	30	:	35	15	22	40	30	18	22	25	39	31	48	19.2	8	35	31	47	20

Note: EL, CY, LU, HU, MT, SK, BG: no data available; DK: NACE G: 2000; DE: 2000 except NACE H: 1999; NL: NACE H to K: 2000; PL: 1998

Source: Eurostat, SBS (theme4/SBS/sizclass)

16 Division of employment in market services by size of enterprise, 2001



DK, EL, LU, HU, MT, CY, SK, BG: n.a. ; DE: 2000 excl. H 1999; NL: 2000 excl. G 1999; PL: 1998; LV, RO: excl. NACE K ; CZ, LT, PL, SI: excl. NACE H

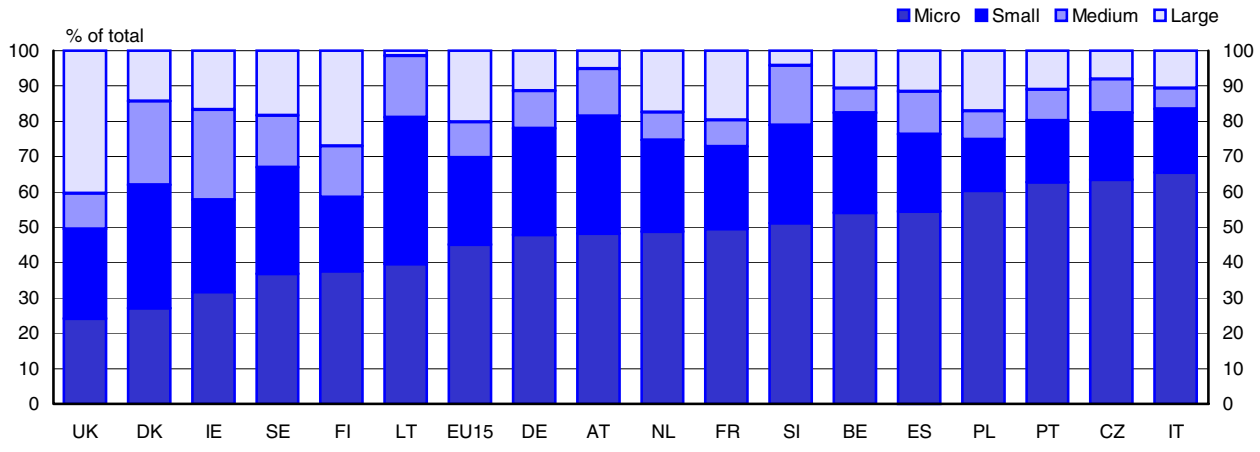
Source: Eurostat, SBS

Employment in the distributive trade was also concentrated in small enterprises, if generally to a lesser extent, except in the southern EU countries and many of the new Member States. Just under 60% of those employed in the distributive trades in the EU15 worked in small firms. The figure, however, was over 75% in Spain, Italy and Portugal, as it was in the Czech Republic, Estonia, Slovenia and Romania, while in Poland, it was only slightly less (Graph 18). In the UK, on the other hand, half of employment was in large enterprises .

In business services, the share of employment in small firms is, in general, relatively low. In the EU15, just under half of those in employment worked in small enterprises and 35% in large firms. Small firms, however, predominated in Italy (accounting for 70% of total employment), though not in Spain or Portugal as in other service sectors. This was also the case in the Czech Republic, Estonia, Lithuania and Slovenia, in each of which 65% or more of employment was in small firms. In France and the Netherlands, by contrast, around 45% of employment was in large enterprises (Graph 19).

In transport and communications, the majority of those employed tended to work in large enterprises throughout the EU. The two main exceptions were Spain, with only

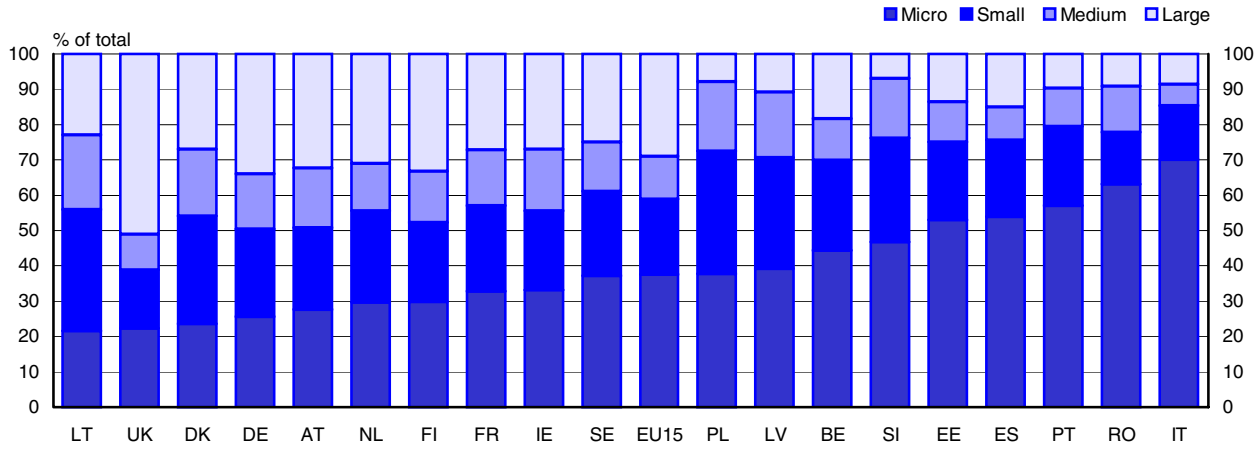
17 Division of employment in hotels and restaurants by size of enterprise, 2001



EL, LU, CY, HU, LV, LT, MT, SK, RO, BG: n.a. ; DE: 1999; NL: 2000 ; PL: 1998

Source: Eurostat, SBS

18 Division of employment in distributive trades by size of enterprise, 2001



CZ, EL, LU, CY, HU, MT, SK, BG: n.a. ; DK, DE: 2000 ; PL: 1998

Source: Eurostat, SBS

35% of employment in large firms, and Slovenia, where the figure was under 20%. In the other new Member States, apart from Estonia, around half or more of employment was in large firms. In Romania, the figure was over 70%. (Graph 20).

Value-added per person employed in enterprises of different sizes

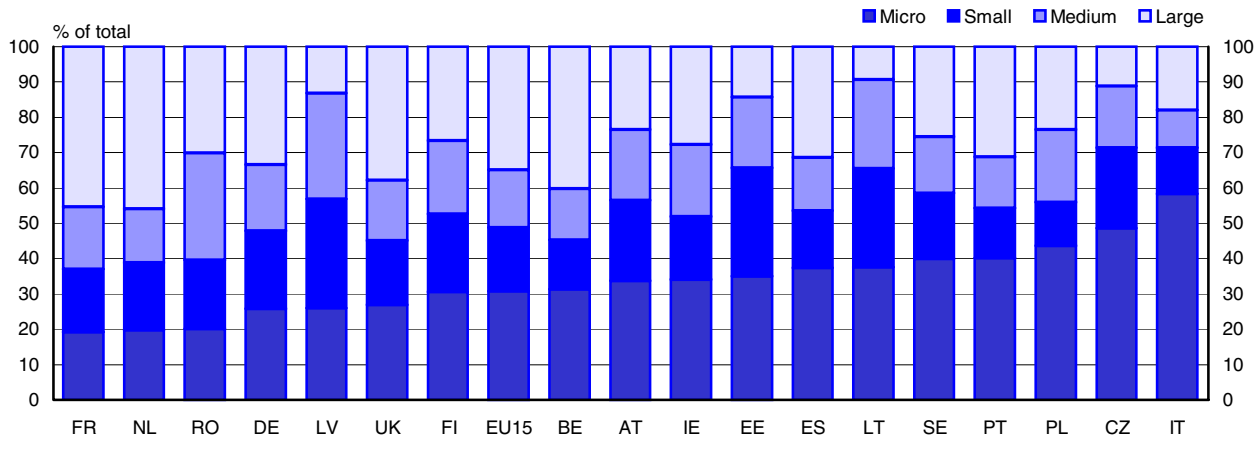
Differences in value-added per person employed between enterprises of different sizes were less pronounced in market services than in industry. Indeed, in a number of countries, including in some of the new Member States, labour productivity was higher in medium-size enterprises in 2001 than in large ones (Graph 21).

Sectors within market services

Value-added per person employed in the EU15 countries was, on average, 30% higher in medium-size enterprises than in large firms in both the distributive trades and business services.

In business services, both micro and small firms had levels higher than for large enterprises (Table 23).This

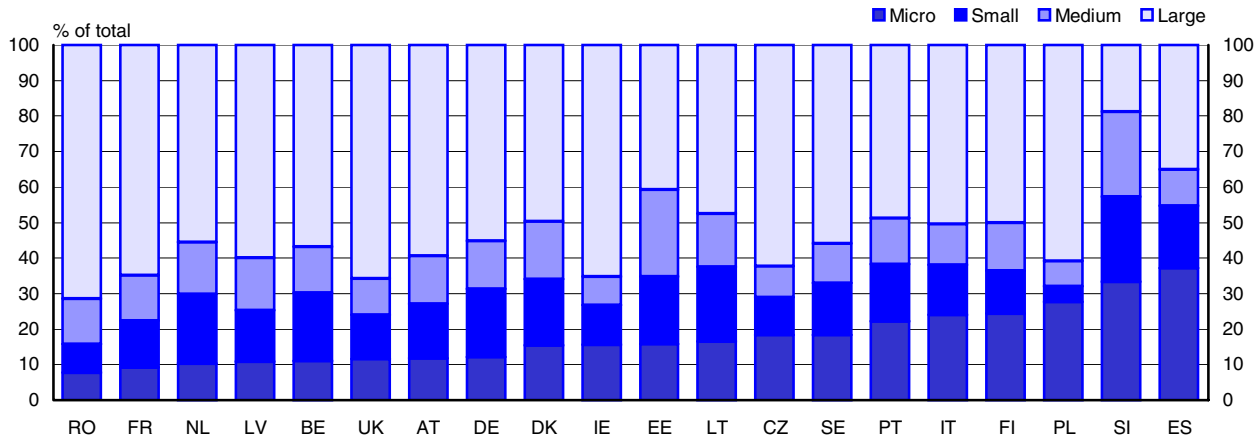
19 Division of employment in business services by size of enterprise, 2001



DK, EL, LU, CY, HU, MT, SI, SK, BG: n.a. ; DE, NL: 2000 ; PL: 1998

Source: Eurostat, SBS

20 Division of employment in transport and communications by size of enterprise, 2001



EL, LU, CY, HU, MT, SK, BG: n.a. ; DE, NL: 2000 ; PL: 1998

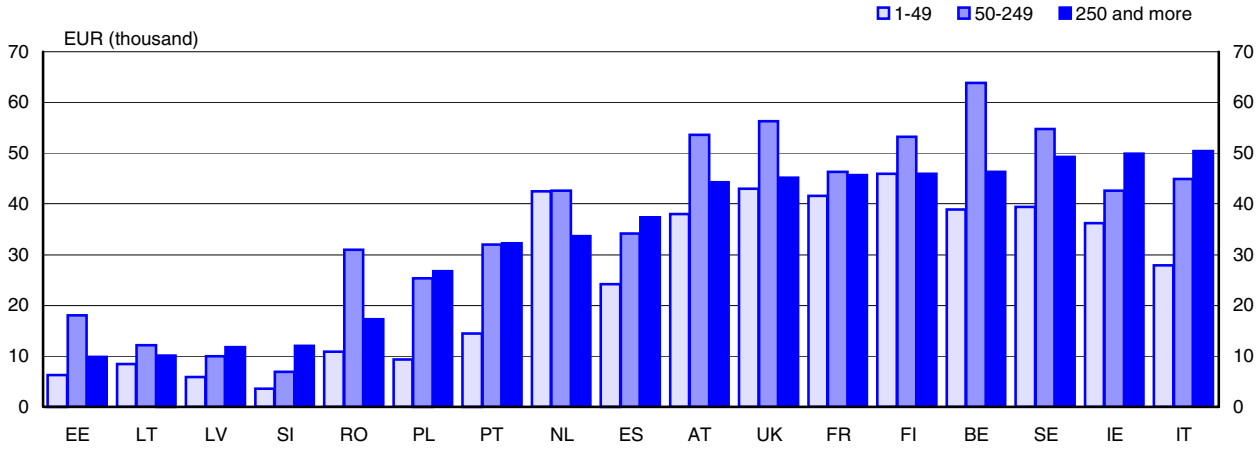
Source: Eurostat, SBS

was the case in most of the new Member States as well as in EU15 countries. It was also the case in Romania. In a number of countries, labour productivity was also higher in small firms than in large ones in the distributive trades.

In hotels and restaurants, labour productivity seems to have been higher in most countries in firms of 50 or more persons employed than for those smaller than this, but the difference was not big and there was little apparent difference in general between medium-sized and larger enterprises.

In Transport and communications, on the other hand, labour productivity was higher in large enterprises than in smaller ones in all EU15 countries but not in most of the new Member States.

21 Value-added per person employed in market services by size of enterprise, 2001



DK, DE, EL, LU, CZ, CY, HU, MT, SK, BG: n.a. ; PL: 1998; EE, LV, RO: NACE H excl. ; PL, SI: NACE K excl.

Source: Eurostat, SBS

Table 23 – Value-added per person employed in market services by size of enterprise, 2001

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	LV	LT	HU	NL	AT	PL	PT	SI	SK	FI	SE	UK	RO
EUR (thousand)																							
Distributive trades (G)																							
1-9	26	29	19	38	:	4	19	37	28	23	3	8	7	42	33	10	11	3	11	41	28	31	3
10-49	39	50	29	39	:	11	28	42	35	41	6	12	9	40	44	10	22	4	17	49	47	46	49
50-249	50	65	:	44	:	18	38	44	47	62	7	15	11	43	54	12	37	6	25	58	52	54	42
250 and more	38	51	:	36	:	9	37	42	41	38	6	9	7	31	36	8	31	7	32	44	45	36	33
Total	35	43	24	39	:	8	25	41	37	29	5	11	8	38	40	10	18	4	17	46	40	39	17
Wholesale trade (51)																							
1-9	40	43	:	59	:	9	27	53	50	33	:	5	:	64	52	17	:	:	:	58	37	50	:
10-49	52	66	16	54	:	12	33	53	38	50	22	:	17	58	61	65	28	19	11	64	:	67	6
50-249	57	77	22	54	:	:	44	53	74	62	21	:	22	55	69	62	45	34	12	:	62	69	6
250 and more	71	:	:	61	:	:	59	57	80	67	:	:	:	:	:	:	:	:	:	:	:	81	:
Total	53	61	14	56	:	12	34	54	60	41	22	8	16	61	59	42	28	20	11	63	52	68	6
Retail trade (52)																							
1-9	20	21	2	27	:	4	16	33	24	18	:	2	:	30	24	-2	:	:	:	32	21	21	:
10-49	28	28	6	26	:	5	19	33	25	31	4	3	6	21	29	23	17	9	6	37	33	25	2
50-249	42	34	:	24	:	7	22	32	:	62	7	4	:	20	27	15	20	17	5	33	33	26	3
250 and more	26	36	:	:	:	6	29	36	:	:	:	:	:	:	27	:	:	:	:	35	36	25	:
Total	25	27	4	25	:	5	19	34	26	22	5	3	6	23	26	4	12	13	6	34	30	24	2
Hotels+restaurants (H)																							
1-9	17	18	:	23	18	2	13	27	20	17	2	1	3	21	21	3	6	7	:	27	22	16	:
10-49	20	17	3	17	19	4	18	30	17	28	3	2	4	17	26	10	12	10	4	31	27	16	2
50-249	25	29	10	17	21	:	25	32	20	32	:	5	7	25	29	16	19	15	7	32	28	24	4
250 and more	25	34	:	22	26	:	25	27	18	26	:	5	10	25	31	16	17	19	:	31	28	24	:
Total	20	20	4	19	19	5	17	28	19	21	4	2	6	21	24	7	9	10	4	30	25	20	3
Hotels, accomodation (55.1-2)																							
1-9	25	25	:	43	23	2	18	32	25	24	4	0	:	39	23	:	9	:	:	31	27	23	:
10-49	27	35	4	22	24	7	25	35	17	34	7	3	6	28	28	:	16	10	5	34	33	22	3
50-249	31	40	15	23	29	:	31	39	20	40	:	7	9	33	32	:	22	:	8	37	33	29	4
250 and more	38	52	:	25	31	:	32	41	27	48	:	:	:	34	37	:	23	:	:	42	42	42	:
Total	29	37	9	25	25	11	27	35	21	31	11	4	11	33	27	13	18	13	6	37	33	31	5
Restaurants, bars, canteens (55.3-5)																							
1-9	16	18	:	21	16	2	12	25	19	16	2	1	:	19	21	:	6	:	:	27	21	16	:
10-49	17	14	3	15	15	3	15	27	17	22	2	2	3	13	22	:	10	11	3	30	24	14	1
50-249	19	16	5	14	16	:	15	26	21	20	:	3	6	12	25	:	13	:	4	27	21	20	4
250 and more	21	27	:	20	24	:	18	24	15	22	:	:	:	22	28	:	13	:	:	27	23	20	:
Total	17	18	2	18	17	3	13	25	18	17	3	2	4	18	22	5	7	9	3	28	22	17	2
Transport, communications (I)																							
1-9	:	53	3	71	47	9	24	37	48	28	9	4	14	69	30	7	16	11	13	45	37	52	2
10-49	:	48	6	43	47	16	31	36	47	38	10	7	12	41	50	43	31	9	10	47	38	51	4
50-249	:	57	12	51	46	25	40	36	20	40	18	6	16	39	45	33	30	18	11	51	45	68	6
250 and more	:	65	14	73	53	13	72	57	70	68	15	13	15	57	59	28	59	41	10	56	54	71	9
Total	:	59	11	64	50	16	44	50	60	51	14	9	15	52	52	23	41	18	10	52	48	66	8
Business services (K)																							
1-9	52	45	8	:	83	12	37	60	60	33	11	6	13	62	47	:	15	18	12	53	44	58	4
10-49	53	69	11	:	61	11	36	51	57	37	11	10	16	42	61	:	32	21	13	54	53	61	7
50-249	54	72	13	:	59	9	33	55	65	36	11	7	16	46	71	39	29	:	10	54	65	63	5
250 and more	41	29	9	:	42	7	22	41	54	39	11	6	11	26	38	24	14	:	7	37	51	52	4
Total	49	46	9	:	60	10	31	49	59	35	11	7	14	39	53	23	19	18	11	49	51	57	5
Computer+related activities (72)																							
1-9	42	28	:	49	49	:	22	36	97	27	7	6	16	67	32	:	:	19	:	49	:	53	:
10-49	50	62	17	50	58	:	:	49	58	39	12	12	19	41	59	:	:	30	17	36	44	63	10
50-249	61	81	30	57	68	:	38	52	140	:	:	21	35	45	64	:	47	:	:	35	54	84	13
250 and more	79	70	:	71	91	:	:	67	142	:	:	:	20	60	:	:	:	:	:	:	:	102	:
Total	59	59	16	59	73	14	37	55	114	42	16	10	23	55	56	36	35	27	15	49	50	72	8
Research+development (73)																							
1-9	29	64	:	55	62	:	25	:	:	33	11	7	:	36	25	:	:	14	10	36	:	-35	:
10-49	28	43	11	12	34	:	:	38	122	41	5	6	17	39	36	25	:	9	6	4	33	11	4
50-249	55	:	10	20	48	:	38	46	:	:	:	6	:	48	:	:	:	:	7	:	:	79	3
250 and more	43	:	:	57	41	:	:	:	:	:	:	:	:	42	:	:	:	:	6	:	:	41	:
Total	42	78	10	34	43	5	30	54	85	42	5	6	15	42	54	19	34	7	7	16	12	39	4
Other business activities (74)																							
1-9	42	41	7	47	62	7	24	50	:	32	7	5	8	50	39	:	10	:	10	44	29	52	:
10-49	45	62	9	45	49	11	27	48	51	32	12	7	13	25	49	:	21	:	11	43	41	58	5
50-249	41	57	10	39	46	:	24	42	:	30	:	7	12	22	45	:	19	:	:	46	43	53	5
250 and more	32	26	7	35	31	:	17	33	:	30	:	6	9	18	29	:	12	:	:	23	38	43	:
Total	39	38	8	41	45	8	22	40	45	31	9	6	11	26	40	19	13	18	9	38	35	49	5
Total market services (G, H, I, K)																							
1-9	:	33	:	:	:	4	22	41	37	25	4	6	9	46	33	6	11	3	12	44	36	41	3
10-49	:	49	11	:	:	11	28	43	36	38	8	10	11	39	44	21	23	4	14	49	45	46	40
50-249	:	64	:	:	:	18	34	46	43	45	10	12	14	43	54	25	32	7	15	53	55	56	31
250 and more	:	46	:	:	:	10	37	46	50	50	12	10	14	34	44	27	32	12	11	46	49	45	17
Total	:	44	10	:	:	8	28	44	42	33	8	10	13	39	43	19	20	5	12	47	45	46	15

Note: EL, LU, BG, CY, MT: no data available; DK: NACE G: 2000; DE: 2000 except H: 1999; NL: NACE H to K: 2000; HU: enterprises with 5 persons employed or more.

Source: Eurostat, SBS (theme4/SBS/sizclass)

Chapter 3 — Labour costs and value-added

The aim here is, first, to examine the variation in average labour costs per employee both between sectors and across the enlarged EU and, secondly, to relate average labour costs to value-added per person employed, or productivity.

Industry

Average annual labour costs

In the EU15, annual labour costs per employee in industry were highest in Belgium, Germany, the Netherlands, Austria and Sweden in 2001, in all cases, close to or just over 40 thousand euros per employee. They were lowest in Portugal at only 13 thousand euros per employee. In the EU15 countries together, they averaged some 35 thousand euros (30 thousand euros in EU25) (Table 24).

In the new Member States, they were just under half the EU15 average in terms of euros in Cyprus (on the basis of the data available for manufacturing), Malta and Slovenia (in the last, much the same as in Portugal). In the other new Member States, they were only around a quarter or less of the EU15 average, again in euro terms. (It should be noted that the figures adjusted to purchasing power parity terms would give a better indication of the true cost of labour.) In Bulgaria and Romania, labour costs were under 10% of the EU15 average.

Labour costs in manufacturing were much the same or slightly higher than in industry as a whole, while in mining,

Adjusting labour costs for the self-employed

An allowance needs to be made for the self-employed when computing labour costs in order both to give an accurate indication of their scale and to improve the comparability of the data across sectors of activity and Member States. The assumption made is that the earnings of the self-employed are the same as those of employees, which is the most neutral assumption to make in the absence of data. The scale of the adjustment, therefore, varies in proportion to the share of the self-employed in the work force (ie making no allowance for the self-employed tends to understate labour costs by a larger amount the greater the number of self-employed relative to employees).

The adjustment in question is relatively small in most Member States in respect of manufacturing where those recorded as self-employed in the SBS data represented only around 6% of the work force in the EU15 in 2001. It is, however, larger in construction where 18% of those in work were self-employed. The proportion in manufacturing varied, however, from only around 1% in Luxembourg to 17% in Italy. In the new Member States, it varied from under 0.5% in Latvia, Slovakia and Hungary (in the last two reflecting the incomplete data on small firms) to 10% in the Czech Republic. In market services, on the other hand, the adjustment required is much larger since some 16% of the total in the work force in the EU15 were self-employed in 2001 according to the SBS. This proportion varied from only around 6% in France to 23% in Spain and 45% in Italy. In the new Member States and candidate countries it varied between 1% in Latvia to 28% in the Czech Republic, though in most countries, it was under 10%, apart from in Malta (25%). It was also high in Bulgaria (32%), while in Romania, it was 10%.

Unit labour costs — and the share of labour in value-added — can, therefore, be estimated by the equation:

(Total employed/Employees) x (Labour costs/Value-added)

which can be rearranged as:

(Labour costs/Employees)/(Value-added/Total employed)

which is equivalent to the ratio of average labour costs per employee to labour productivity, expressed in terms of the number employed rather than hours worked.

Table 24 – Labour costs per employee in industries, 2001

	EU25	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Labour costs per employee (EUR thousand)																												
Mining, quarrying (C)	30	45	42	9	49	49	7	29	43	40	35	21	4	6	41	10	11	55	48	14	15	20	6	35	40	61	4	5
Manufacturing (D)	31	36	44	7	37	42	5	26	38	30	29	15	4	4	43	7	14	38	39	8	13	14	5	38	40	38	2	2
Basic manufacturing	26	31	39	6	35	35	5	23	33	29	26	15	4	3	43	6	13	36	36	4	11	13	5	36	36	33	2	2
Food, drink, tobacco (DA)	24	29	36	6	34	28	5	23	29	30	28	15	4	4	31	7	13	36	31	:	13	14	5	34	36	32	2	2
Textiles, clothing (DB+DC)	17	22	30	5	34	30	4	17	27	20	22	11	3	3	43	4	12	30	30	5	9	10	3	28	31	25	1	2
Metals+metal products (DJ)	30	34	44	7	36	39	5	26	35	27	28	16	4	3	47	7	12	37	41	8	13	13	6	36	36	35	3	3
Other manufacturing (DD,DE,DH,DI,DN)	28	33	41	7	34	37	5	24	35	31	27	16	4	3	44	7	13	37	37	6	13	13	5	38	37	35	2	2
Chemicals, fuel (DG+DF)	46	51	64	9	50	57	6	40	53	39	44	19	5	6	45	13	14	52	49	10	27	23	6	44	51	51	3	4
Engineering	37	42	46	7	39	48	6	31	43	30	32	15	4	5	40	8	17	39	44	9	17	14	5	40	42	42	2	3
Machinery+equipment (DK)	35	39	45	7	39	46	5	29	39	28	32	15	4	4	46	7	13	39	42	8	16	13	5	40	42	39	2	2
Elect+precn engineering (DL)	36	41	49	7	38	46	6	31	45	30	31	15	4	5	33	8	15	40	46	9	17	15	5	41	43	44	2	3
Transport equipment (DM)	40	45	45	8	38	54	6	32	43	33	33	14	4	6	31	10	19	36	43	9	18	14	7	35	41	44	2	3
Construction (F)	26	29	30	7	35	31	5	22	32	:	23	:	3	3	31	6	11	40	35	7	12	11	5	34	36	32	3	2
Total Industry (C+D+E+F)	30	35	41	7	36	41	5	25	37	:	28	:	4	4	38	7	14	40	39	8	13	13	5	37	39	37	2	3

Note: EL: no data available; IE, CY, PL NACE DG+DF, AT NACE DA, SK NACE DA: 2000; BG, EE, HU, LT, LV, SI: DB only ; DK, IE, AT, BG, EE, HU, LT, LV, MT, SI, SK: DG only.
Basic manufacturing is DA+DB+DC+DG+DH+DI+DN; Chemicals and fuel is DF+DG; Engineering is DK+DL+DM.

Source: Eurostat, SBS

Table 25 – Comparison of average annual labour costs per employee in industry

	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Total Industry (C+D+E+F)																											
SBS	32.5	41.5	6.9	33.6	40.0	4.7	22.9	36.2	:	28.1	:	3.8	3.9	37.3	5.8	13.8	39.5	38.1	7.5	12.3	11.4	4.9	34.9	41.3	35.8	2.4	3.2
LCS	:	:	6.5	39.2	41.9	5.1	24.4	36.4	33.3	31.5	17.9	4.0	4.5	35.0	6.5	:	37.3	41.7	8.0	12.3	14.2	5.1	35.7	46.1	44.1	2.3	2.6
% difference	:	:	6.3	-14.3	-4.5	-7.0	-6.0	-0.6	:	-10.7	:	-6.9	-11.8	6.4	-10.7	:	6.0	-8.5	-5.7	0.4	-20.0	-5.0	-2.2	-10.5	-18.8	2.5	22.1
Mining, quarrying (C)																											
SBS	44.1	38.7	9.2	44.0	49.0	6.1	29.1	39.6	39.6	32.5	20.8	5.0	5.5	41.9	8.0	11.6	54.8	46.3	12.1	13.9	18.6	5.3	34.6	42.5	58.0	3.5	9.9
LCS	:	:	8.4	53.2	52.2	6.2	29.6	27.9	38.7	36.3	24.8	4.1	5.8	36.3	8.5	:	61.9	46.1	12.3	13.5	18.4	6.4	36.6	47.5	64.7	3.7	4.4
% difference	:	:	9.9	-17.4	-6.1	-1.1	-1.5	41.8	2.5	-10.4	-16.1	22.2	-5.4	15.4	-5.9	:	-11.4	0.4	-1.6	3.0	1.3	-16.5	-5.6	-10.4	-10.5	-7.4	125.8
Manufacturing (D)																											
SBS	34.8	42.2	6.7	34.7	40.8	4.6	24.6	36.9	30.1	28.6	15.4	3.6	3.8	41.7	5.7	14.1	38.2	38.0	6.9	11.9	11.8	4.7	35.6	42.0	36.5	2.0	2.5
LCS	:	:	6.3	39.2	42.7	4.9	25.5	37.6	32.0	31.4	16.7	3.8	4.4	37.9	6.3	:	36.7	41.6	7.4	11.8	14.0	5.1	35.8	46.6	42.8	2.1	2.3
% difference	:	:	6.4	-11.5	-4.3	-6.9	-3.5	-2.0	-5.9	-8.8	-7.5	-6.7	-12.8	9.9	-9.5	:	4.1	-8.5	-6.6	0.6	-15.9	-7.1	-0.5	-9.9	-14.7	-3.2	8.8
Construction (F)																											
SBS	28.6	34.6	6.8	33.4	33.1	4.3	19.1	30.8	:	23.0	:	3.2	3.4	29.9	4.3	10.5	39.9	34.6	7.1	12.0	8.0	4.5	31.4	37.5	30.6	2.9	2.1
LCS	:	:	6.4	37.3	33.9	4.8	20.4	33.2	35.7	28.0	17.5	3.6	3.9	28.8	5.2	:	36.6	37.7	7.5	12.4	13.6	5.2	34.2	42.9	46.2	1.9	2.2
% difference	:	:	6.3	-10.2	-2.3	-10.4	-6.1	-7.3	:	-17.7	:	-10.0	-13.5	4.0	-16.7	:	9.0	-8.3	-4.9	-2.9	-40.8	-13.0	-8.3	-12.5	-33.9	49.8	-3.9

Note: EL: SBS data not available. BE, MT: LCS data not available. % difference: SBS relative to LCS. LCS data are available for 2000 only. For comparison purposes, 2000 is also the reference year for SBS except for CZ and NL where it is 2001.

Source: Eurostat, SBS and LCS

The SBS data on labour costs and the LCS

The SBS data on labour costs relate to the cost of personnel employed in businesses. As such, they include non-wage labour costs — social contributions paid by employers in particular — as well as wages and salaries. They are on a similar basis to the data collected as part of the periodic Labour Cost Survey (LCS), conducted by national statistical institutes for Eurostat every four years, which provide details of the main components which make up overall labour costs (basic wages, overtime and other bonuses, non-wage labour costs and so on).

Unlike the LCS, however, the SBS uses the enterprise as the statistical unit of classification rather than the local unit. This difference in the basis of classification may mean that the LCS may assign the local units of an enterprise to a different sector of activity than the enterprise itself, if their main activity differs from that of the enterprise. While data from both surveys are disaggregated to the NACE 2-digit level and relate to the same NACE Rev.1 sectors of activity, the use of local units instead of enterprises to perform this disaggregation may, therefore, produce different results. In addition, unlike the SBS, the LCS does not include enterprises with under 10 people employed, or more precisely, Member States are not required to cover these in the data collection.

The coverage of employees may also differ in that management staff and sales representatives, for example, are excluded from the LCS but may be included in the SBS. It is possible as well that the average number of employees counted as being in work over the year may vary between the two sources, especially as regards temporary workers. The LCS, moreover, includes the cost of training (other than those for apprentices) and direct subsidies, which are not included in the SBS data, but both of which tend to be small.

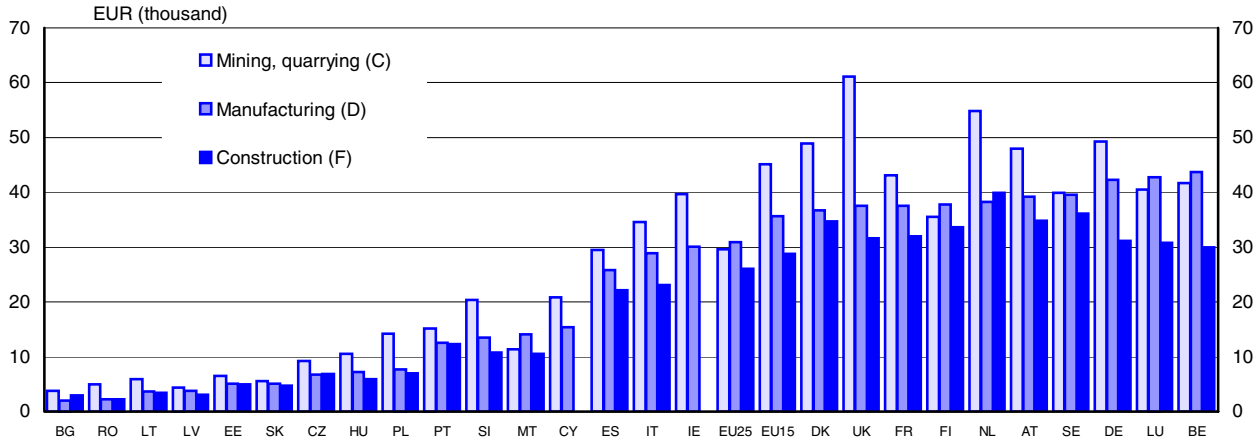
A comparison of average annual labour costs per employee as reported by the two surveys for 2000 is shown in Table 25.

they were significantly higher in most countries, including in the new Member States. In construction, the average cost of labour was generally lower than in other parts of industry (Graph 22).

Within manufacturing, labour costs were highest in chemicals and fuel in all countries, followed, in most cases, by transport equipment. Average labour costs were also relatively high in other engineering sectors, while the reverse was the case in basic manufacturing (where labour costs were only just over 70% of the average level in engineering). This was especially true in textiles and clothing, where labour costs were under 60% of the average level in manufacturing as a whole. These differences reflect the different average skill levels of the labour employed.

A similar pattern of labour costs differentials is evident for most countries, though the extent of the variation between sectors differs significantly. In Ireland, therefore, average labour costs in engineering were only some 3% higher than in basic manufacturing and in Denmark, Finland and the Netherlands, only around 10% higher, while in Germany, they were almost 40% higher. (Labour costs in engineering were lower than in basic manufacturing in Luxembourg, but only few people — only some 5 thousand — were employed in engineering.) The difference was even bigger in Lithuania, at over 50%. In the other new Member States,

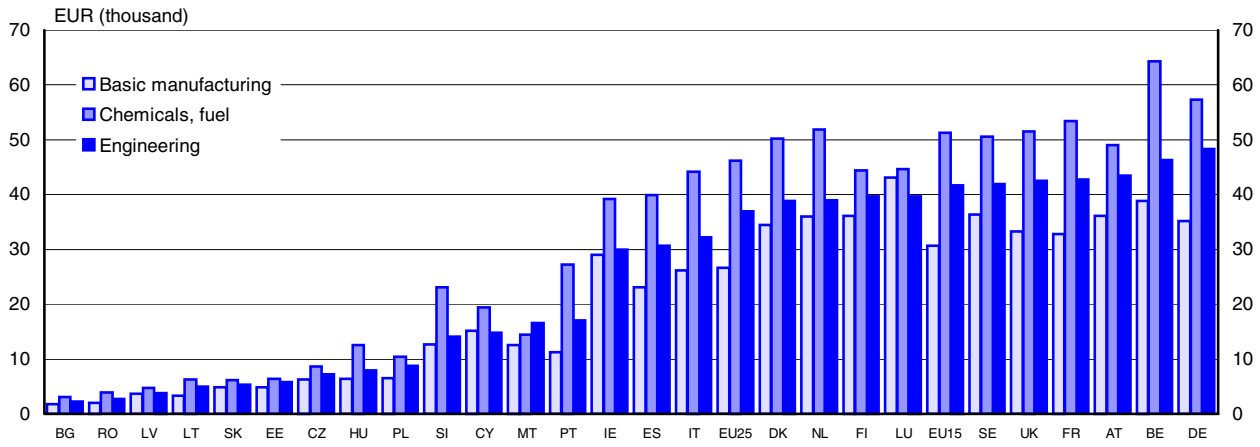
22 Average annual labour costs per employee in industry, 2001



EL: n.a. ; IE, CY: 2000

Source: Eurostat, SBS

23 Average annual labour costs per employee in manufacturing sectors, 2001



EL: n.a.; IE, CY, PL Chemicals&fuel, AT NACE DA, SK NACE DA: 2000; BG, EE, HU, LT, LV, SI: excl. DC; DK, IE, AT, BG, EE, HU, LT, LV, MT, SI, SK: excl. DF

Source: Eurostat, SBS

however, the difference was in most cases smaller than in the EU15 countries, Poland being the main exception (the difference being similar to the EU15 average) (Table 24 and Graph 23).

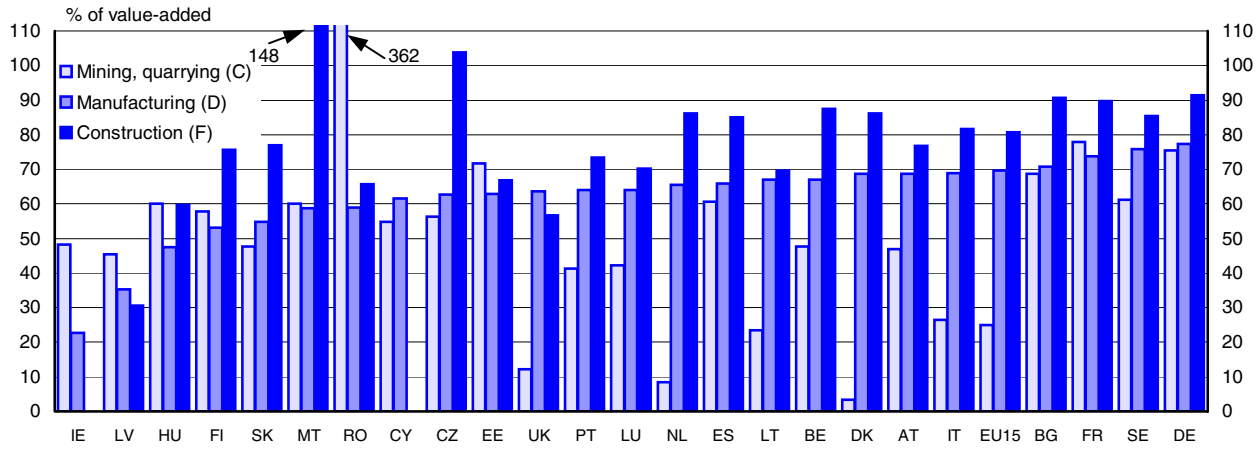
Labour costs, value-added and unit labour costs

The average share of labour costs in value-added in manufacturing in the EU15 (adjusted for the self-employed — see Box) was 70% in 2001. The only countries where the share was significantly higher than this were France (74%), Sweden (76%) and Germany (77%). The cost of labour in relation to value-added was much lower than average in Finland (53%) and even more so in Ireland (only 23%, reflecting the high value-added figures) (Table 26).

In the new Member States, the share of labour costs in value-added was in general below the EU15 average, varying from 67% in Lithuania and 63% in the Czech Republic and Estonia to 48% in Hungary.

In mining, labour costs were in most countries lower than in manufacturing and were especially low in Denmark, the

24 Unit labour costs in industry, 2001



EL, PL, SI: n.a. ; IE, CY: 2000

Source: Eurostat, SBS

Table 26 - Unit labour costs in manufacturing sectors, 2001

% of value-added	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Mining, quarrying (C)	25	48	56	3	75	72	61	78	48	26	55	45	23	42	60	60	8	47	:	41	:	48	58	61	12	69	362
Manufacturing (D)	70	67	63	69	77	63	66	74	23	69	62	35	67	64	48	59	65	69	:	64	:	55	53	76	64	71	59
Basic manufacturing	69	72	66	71	75	63	66	75	34	69	63	34	64	62	52	59	66	69	:	64	:	58	59	70	61	71	59
Food and beverages (15)	62	67	:	65	68	62	57	:	32	70	:	:	:	:	:	:	:	74	:	57	:	63	67	:	52	58	48
Tobacco (16)	34	49	:	24	43	:	52	:	19	63	:	:	:	:	:	:	:	:	:	35	:	:	96	:	24	65	11
Textiles and textile products (17)	73	68	67	74	81	61	73	82	70	67	64	39	84	34	76	50	76	80	:	70	:	80	69	85	72	70	63
Clothing products (18)	75	62	93	79	81	78	80	80	64	74	79	61	76	180	80	73	95	88	:	82	:	89	85	112	54	82	67
Leather and footwear (19)	69	80	100	69	79	:	76	73	69	68	66	:	:	:	:	78	71	60	:	77	:	75	72	99	51	:	73
Wood and wood products (20)	77	66	135	77	83	56	76	75	62	80	83	31	60	60	65	:	79	71	:	72	:	78	76	81	65	:	54
Pulp, paper and paper products (21)	56	59	37	69	66	46	51	65	55	54	55	28	54	:	44	71	62	45	:	36	:	27	39	41	62	85	46
Publishing and printing (22)	69	78	87	79	76	73	70	83	18	71	68	37	60	:	59	48	70	67	:	70	:	61	71	91	60	62	45
Rubber and plastic (25)	71	69	56	69	77	57	67	77	57	62	63	23	45	56	54	55	66	71	:	56	:	53	62	77	66	66	56
Non-metallic mineral products (26)	65	68	50	73	75	49	55	70	46	64	51	24	70	50	45	63	60	71	:	51	:	48	58	72	62	53	55
Basic metals (27)	70	86	63	79	74	61	56	75	69	67	45	31	83	71	71	102	70	60	:	59	:	44	59	65	82	104	93
Fabricated metal products (28)	76	80	77	78	79	68	77	80	60	70	77	39	70	72	64	67	75	72	:	74	:	65	70	79	68	73	68
Furniture; manufacturing n.e.c. (36)	77	80	80	73	83	68	78	85	:	75	71	40	76	128	77	71	83	75	:	77	:	79	74	94	66	76	65
Recycling (37)	60	52	101	:	64	46	56	69	38	59	45	39	48	56	82	54	58	57	:	58	:	30	44	58	51	27	50
Chemicals, fuel	52	47	40	46	62	44	51	61	7	54	47	34	72	67	36	50	47	64	:	50	:	49	48	45	51	47	48
Coke and fuel (23)	35	35	37	:	29	:	26	63	:	33	49	:	:	:	:	:	30	:	:	32	:	:	45	58	33	:	33
Chemicals and chemical products (24)	55	49	41	47	68	44	56	61	7	59	47	34	72	67	40	50	51	64	:	58	:	49	48	44	54	47	55
Engineering	76	74	61	72	82	68	72	77	29	71	62	46	76	79	53	58	75	70	:	67	:	60	46	95	73	83	64
Machinery and equipment (29)	76	72	75	77	81	74	72	79	58	67	63	52	102	78	70	44	75	71	:	69	:	71	71	75	75	81	70
Office machinery and computers (30)	67	82	64	62	78	64	64	83	24	49	:	:	42	:	46	119	76	39	:	60	:	80	81	93	80	85	39
Electrical machinery (31)	81	74	68	68	89	67	70	77	37	76	55	49	56	128	71	65	71	72	:	83	:	66	66	104	74	73	54
Radio, TV and communication equipment (32)	84	72	59	77	101	76	80	98	18	73	80	:	53	:	50	29	:	72	:	64	:	71	24	:	125	60	42
Medical, precision and optical instruments (33)	73	82	67	55	77	81	65	80	29	76	78	33	232	72	66	55	:	75	:	73	:	62	62	90	68	82	53
Motor vehicles (34)	75	75	43	76	81	48	69	66	58	80	64	41	70	:	30	59	57	61	:	47	:	37	73	64	69	68	75
Other transport equipment (35)	70	71	57	79	75	56	94	72	61	74	61	43	77	:	91	173	77	85	:	95	:	76	78	88	56	342	65
Construction (F)	81	87	104	86	91	67	85	90	:	82	:	31	70	70	60	148	86	77	:	73	:	77	76	85	57	91	66
Total Industry (C+D+E+F)	69	68	63	64	78	61	69	76	:	69	:	33	62	64	48	70	65	68	:	62	:	51	55	73	55	68	69

Note: EL, PL, SI: no data available; IE, CY: 2000.

Basic manufacturing is DA+DB+DC+DG+DH+DI+DN; Chemicals and fuel is DF+DG; Engineering is DK+DL+DM.

Source: Eurostat, SBS

Netherlands and the UK, where the industry consists mainly of oil or natural gas extraction.

In the labour intensive construction sector, labour costs per unit of value-added were in general higher than in manufacturing and in some cases, close to or above 100%, which implies that the sector made a financial loss (though it may also be a consequence of the assumption made about the earnings of the self-employed). The main exception, leaving aside Latvia, was the UK, where labour costs were under 60% of value-added (Graph 24).

Within manufacturing, the ratio of labour costs to value-added was higher in engineering taken together than in basic manufacturing which in turn was higher than in the chemicals and fuel industry. In chemicals and fuel, the low ratio reflects the capital-intensive nature of production, a large share of value-added, therefore, going to capital. In engineering, the relatively high ratio may in part be a result of the relatively depressed state of the sector in 2001, which may have reduced value-added more than labour (adjustment of labour costs to lower value-added tends to take a little time).

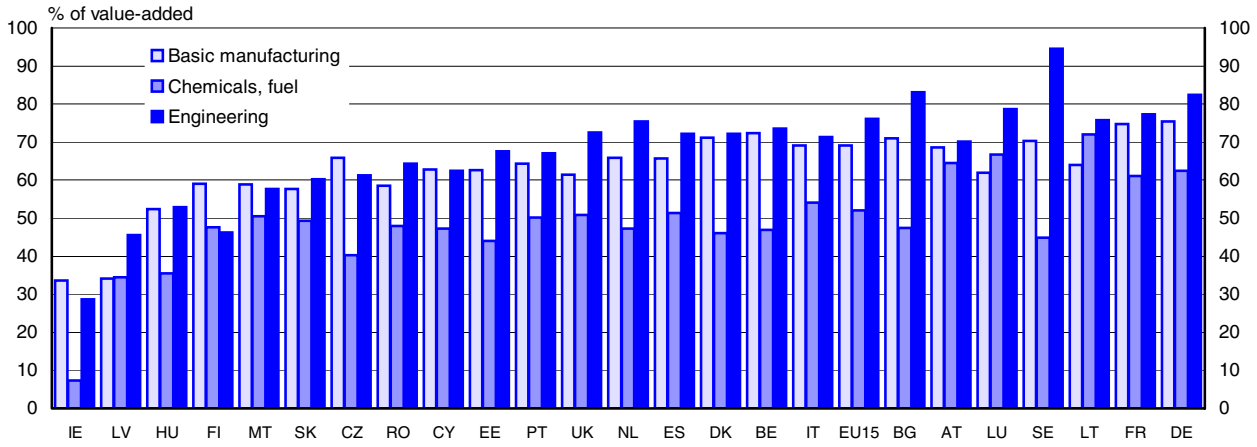
Much the same pattern of differences between sectors is evident in most countries including the new Member States. The main exceptions are Finland, Ireland (where value-added in engineering is particularly high) and the Czech Republic. In most of the new Member States, however, the share of labour costs in value-added was lower than the EU15 average in both basic manufacturing and engineering (Graph 25).

Unit labour costs and investment

Unit labour costs can be related to investment per person employed to examine how far high investment — used as an indicator of capital per worker — can explain low labour costs per unit of value-added and *vice versa*. (For this purpose, a EU21 aggregate has been calculated covering the countries for which data are available — data are missing for Greece, Luxembourg, Poland and Slovenia.) In mining, a high level of investment per person employed was associated with low unit labour costs and, correspondingly, a large share of value-added going to capital. The same was the case in Chemicals and fuel.

In other sectors, however, the same kind of inverse relationship is much less evident. In textiles and clothing and construction, therefore, investment per worker was close to or above the manufacturing average while unit labour costs were much lower than manufacturing average. In transport equipment and in electrical and precision instruments, both investment per person employed and unit labour costs were higher than the average for manufacturing (Graph 26).

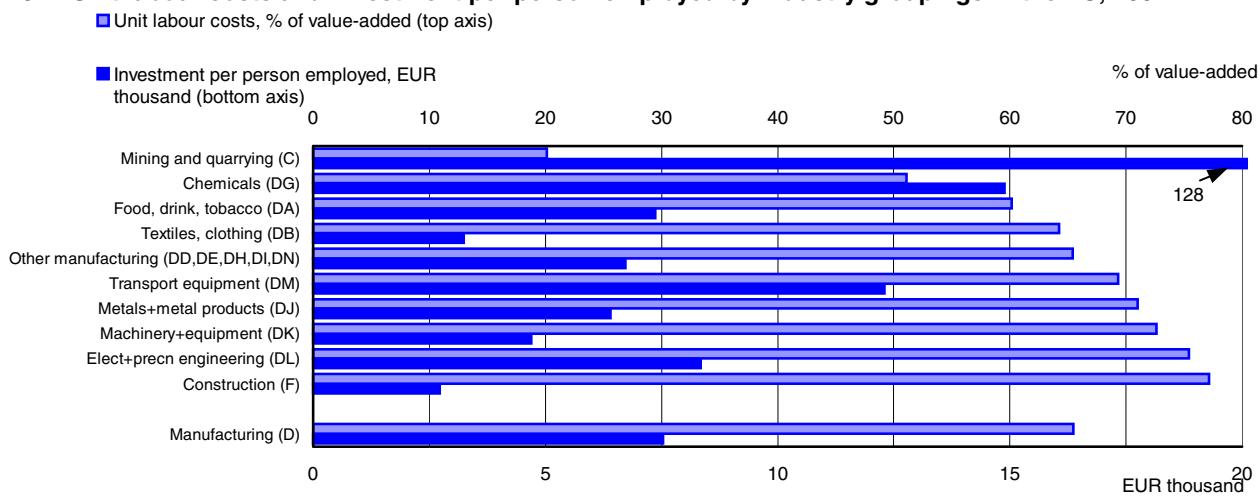
25 Unit labour costs in manufacturing sectors, 2001



EL, PL, SI: n.a.; IE, CY, AT NACE DA, SK NACE DA: 2000; BG, EE, HU, LT, LV: excl. DC; DK, IE, AT, BG, EE, HU, LT, LV, MT, SK: excl. DF

Source: Eurostat, SBS

26 Unit labour costs and investment per person employed by industry groupings in the EU, 2001



EU covers all existing and new Member States except EL, LU, PL and SI *Source: Eurostat, SBS*

Market services

Average annual labour costs

Average annual labour costs per employee averaged 25 thousand euros in market services in the enlarged Union in 2001. This was some 6 thousand euros less than in manufacturing (Graph 27). Labour costs varied from around 35 thousand euros in Sweden, Belgium and Luxembourg and over 25 thousand euros in most EU15 countries to around 8 thousand euros or less in most new Member States except in Cyprus, Malta and Slovenia where it was higher. In Bulgaria and Romania, average labour costs were under 3 thousand euros, only around 10% of the EU15 level, much the same as in manufacturing.

In most EU15 countries, labour costs per employee were less than in manufacturing, in the new Member States, they were much the same.

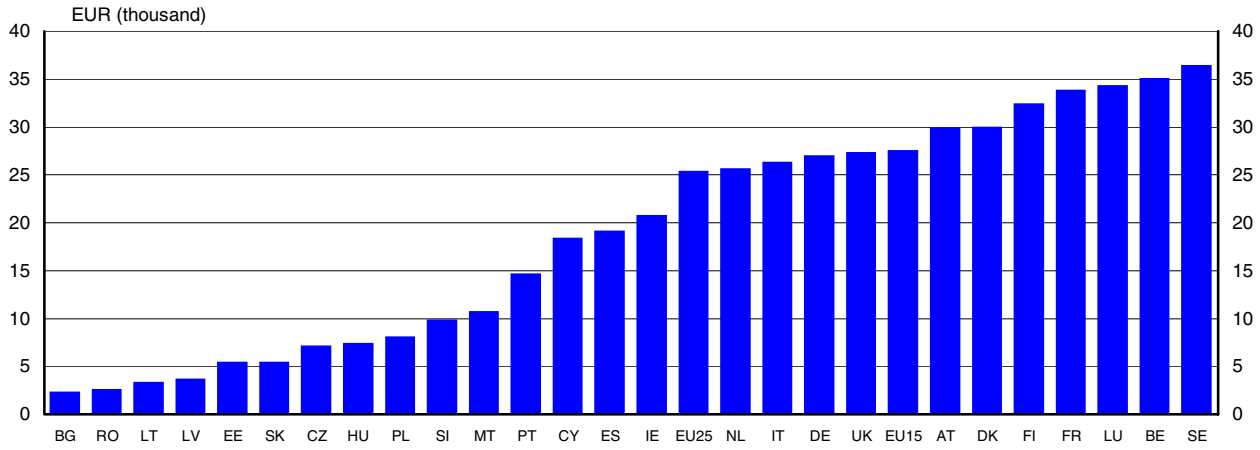
Within market services, labour costs per employee varied significantly between sectors. They were highest in transport and communications and business services, where the average was around a third higher than in the distributive trades and over twice as high as in hotels and restaurants (Graph 28). This is in large part a reflection of differences in the skill levels of the work force.

The same pattern of differences was evident in most countries, though there were some differences, especially in the new Member States. In 3 of the 14 EU countries for which data are available — Sweden, France and Denmark — therefore, average labour costs in business services were higher than in transport and communications. The same was the case in 4 of the 8 new Member States, for which there are data (the Czech Republic, Cyprus, Slovenia and Slovakia) and in a fifth (Lithuania), there was no difference. This may reflect a larger presence of foreign-owned enterprises in business services in these countries than in other service sectors.

Average labour costs in services

Any comparison of labour costs between either countries or sectors needs to take account of variations in average working time and in the importance of part-time employment which this reflects. This is not done in the analysis here because the focus is ultimately on unit labour costs rather than on average costs per employee. For this purpose, there is no need to make an adjustment for differences in hours worked, since, essentially the total cost of labour to businesses is being related to their total value-added.

27 Average annual labour costs per employee in market services (Nace G to K excluding J), 2001



EL: n.a. ; DE, IE: 2000 ; DK: NACE G 1999, NACE H to K 2000 *Source: Eurostat, SBS*

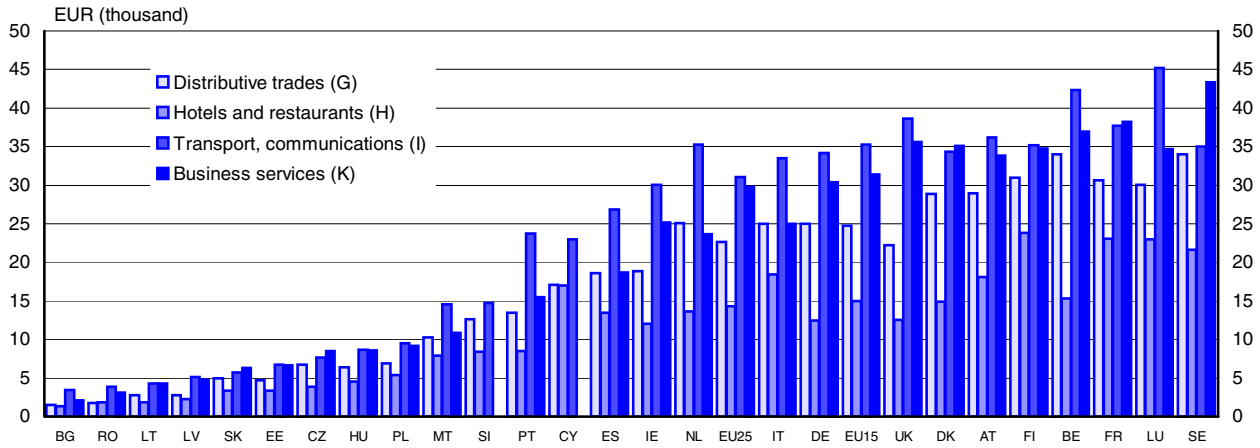
Labour costs, value-added and unit labour costs

The differences in average labour costs between service sectors reflect similar differences in value-added per person employed, for which the level was also relatively high in transport and communications and business services.

Labour costs in market services amounted to some 68% of value-added in the EU15 in 2001, slightly less than in manufacturing (70%). This difference, however, is attributable to the particularly high level of value-added in the real estate and renting activities, which are not representative of market services in general. In 13 Member States, including the new entrants, unit labour costs were higher in market services than in industry (Tables 26 and 27).

In the EU15 countries, unit labour costs in market services ranged from around 80% in Sweden and Belgium, the countries with the highest average cost of labour, to around 60% in Germany and the UK and only 47% in Ireland (Table 27). In the new Member States, unit labour costs were generally lower than in the EU15, except in the Czech Republic (85%). This country apart, labour costs

28 Average labour costs per employee in market service sectors (Nace G to K excluding J), 2001



EL: n.a. ; DE, IE: 2000; DK: NACE G 1999, NACE H to K 2000. Business services exclude real estate and renting Source: Eurostat, SBS

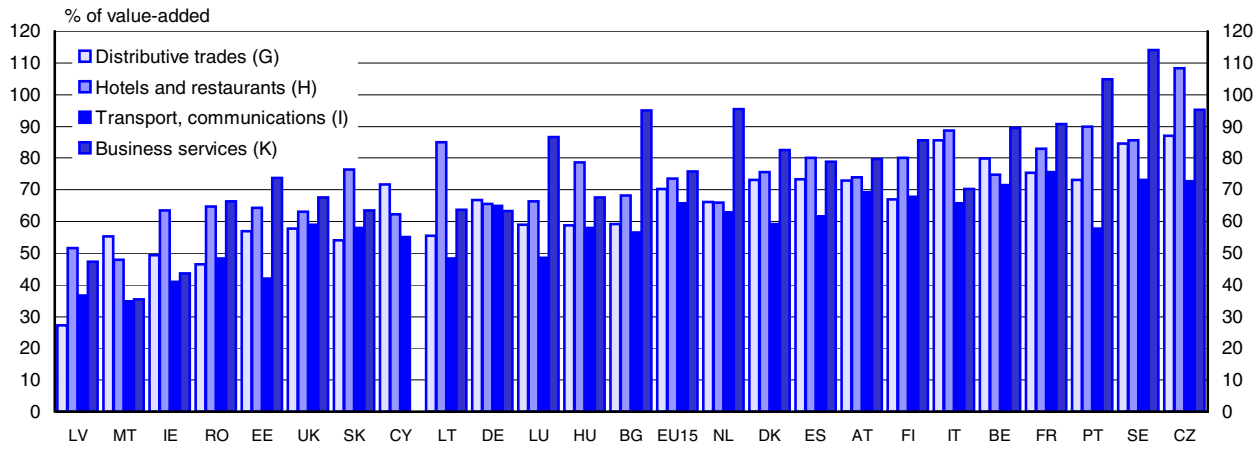
Table 27 - Unit labour costs in market services, 2001

% of value-added	EU15	BE	CZ	DK	DE	EE	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	RO
Services (G+H+I+K)	68	79	85	66	59	52	67	77	47	77	:	33	54	62	59	44	68	70	:	73	:	57	69	81	60	63	50
Distributive trades (G)	70	80	87	73	67	57	73	75	49	86	72	27	56	59	59	55	66	73	:	73	:	54	67	85	58	59	47
Sale+service of motor vehicles (50)	69	82	93	74	66	55	73	83	52	87	76	36	47	61	46	53	69	79	:	72	:	41	67	81	50	36	47
Wholesale trade (51)	65	74	64	69	62	50	65	72	42	72	58	18	44	51	52	45	64	66	:	60	:	52	63	81	55	40	36
Retail trade (52)	75	83	126	78	72	70	79	75	56	98	82	47	77	71	77	66	67	80	:	88	:	64	71	91	64	109	66
Hotels+restaurants (55)	74	75	108	76	66	64	80	83	64	89	62	52	85	66	79	48	66	74	:	90	:	76	80	86	63	68	65
Hotels, accommodation (551-2)	64	70	63	67	62	48	62	73	68	67	53	43	78	59	67	44	60	69	:	68	:	62	71	76	54	54	51
Restaurants, bars, canteens (553-5)	78	73	150	79	67	86	89	88	61	100	74	57	87	69	95	64	68	80	:	100	:	96	84	90	67	69	89
Transport, communications (I)	66	71	73	59	65	42	62	76	41	66	55	37	48	49	58	35	63	69	:	58	:	58	68	73	59	56	48
Land transport, pipelines (60)	81	80	142	74	80	67	76	90	67	92	141	62	61	80	78	63	77	75	:	87	:	87	79	89	69	106	57
Water transport (61)	43	57	:	24	30	:	46	81	:	51	53	31	48	127	100	63	35	45	:	45	:	:	53	64	43	:	:
Air transport (62)	84	73	:	79	:	:	81	100	:	84	78	43	195	44	187	25	:	108	:	74	:	:	80	102	58	:	:
Travel agencies (63)	61	67	61	72	53	34	58	62	:	73	57	31	43	68	66	39	58	68	:	55	:	44	69	81	54	69	52
Post+telecommunications (64)	54	64	32	56	57	31	40	66	30	40	28	25	34	23	41	32	50	57	:	38	:	38	55	55	57	23	38
Business services (K)	64	80	89	63	50	58	60	77	43	67	:	39	54	77	59	38	72	64	:	80	:	57	70	84	61	87	59
Business services, excl real estate, renting (K)	76	89	95	83	63	74	79	91	44	70	:	47	64	87	68	35	95	80	:	105	:	64	86	114	68	95	66
Real estate activities (70)	32	50	60	19	23	34	25	44	41	53	:	29	41	32	42	30	27	32	:	47	:	44	28	27	38	53	35
Rental activities (71)	28	23	55	36	23	28	37	26	43	55	:	54	38	19	18	:	24	15	:	16	:	19	35	44	31	36	14
Computer+related activities (72)	84	98	89	95	75	77	87	96	30	84	:	49	49	88	60	52	81	87	:	82	:	63	95	110	77	95	59
Research+development (73)	:	78	94	110	96	98	101	94	16	101	:	69	50	99	78	:	:	94	:	98	:	87	225	457	130	87	83
Other business activities (74)	73	88	96	78	60	73	76	89	53	64	:	45	67	85	70	37	78	78	:	109	:	62	80	110	64	95	65
of which: Accounting, consultancy (741)	66	98	119	69	45	70	76	88	49	49	:	40	61	66	67	34	79	69	:	178	:	52	80	143	60	127	86
Architecture, engineering (742-3)	81	100	102	87	65	75	74	88	61	117	:	64	73	76	68	46	96	83	:	79	:	66	81	98	66	103	59
Advertising (744)	72	83	85	80	63	63	74	79	46	82	:	32	53	103	59	35	90	80	:	64	:	56	72	99	60	64	74
Labour recruitment, staff provision (745)	87	97	83	91	92	98	95	96	70	101	:	52	79	189	90	73	83	95	:	102	:	63	95	103	74	97	89
Misc business activities nec (746-8)	:	92	91	82	84	73	86	90	56	82	:	49	73	84	74	44	:	83	:	93	:	67	81	98	65	96	62

Note: EL, PL, SI: no data available; DK: NACE G:1999, NACE H to K: 2000; DE, IE: 2000

Source: Eurostat, SBS

29 Unit labour costs in market services, 2001



EL, PL, SI: n.a. ; DE, IE: 2000; DK: NACE G 1999, NACE H to K 2000. Business services exclude real estate and renting

Source: Eurostat, SBS

were less than 60% of value-added in all of the countries for which there are data.

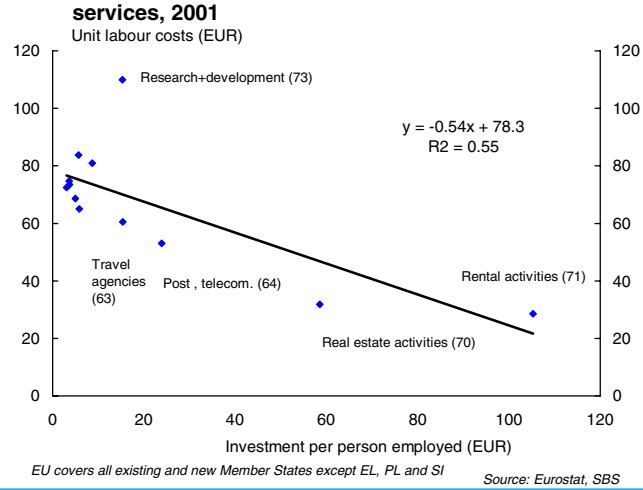
Within market services, the share of labour costs in value-added in both the EU15 and the new Member States was relatively high in hotels and restaurants and business services once real estate and rental activities are excluded. It was lowest in transport and communications (Graph 29).

Within business services, high unit labour costs were high in computer and related activities (over 80%) and research and development. In the latter, this partly reflects a relatively high level of public sector involvement (and so an absence of profits) and partly the fact that R&D is an activity which feeds into production rather than necessarily generating income independently. In computer and related activities, labour costs amounts to around 80% or more in most EU15 countries, but were in most cases much lower in the new Member States.

In transport and communications, unit labour costs were highest in air transport and were over 100% in Austria and Sweden and were exactly 100% in France, while in Hungary and Lithuania, they were close to 200%. In all these countries, therefore, subsidies were necessary in order to maintain operations (Table 27).

Investment per person employed in market services was higher than in manufacturing in most countries. There is evidence of an inverse relationship between investment per worker and unit labour costs across service sectors in the enlarged EU. The share of value-added going to capital rather than labour, therefore, tends to be larger in the sectors where investment is highest — in real estate and rental activities in particular, but also in post and telecommunications (Graph 30).

30 Correlation between unit labour costs and investment per person employed in the EU market services, 2001



EU covers all existing and new Member States except EL, PL and SI

Source: Eurostat, SBS

Chapter 4 — Employment and wages in industry by region

The SBS contain data for regions within EU Member States as well as national aggregates. Regions are defined at both a NUTS 1 and NUTS 2 level and the analysis here focuses on the latter in both the EU15 countries and the new Member States as well as in Bulgaria and Romania (see Box, p. 61). Although the regional data included in the SBS are for a more restricted set of variables, they can, nevertheless, be used to give an indication of regional variations in certain aspects of the structure of the market economy. Data, however, are mainly confined to industry and are available only for a limited number of service activities.

The aim here is twofold. First, it is, to examine the relative numbers employed in particular sectors of activity, specifically for selected manufacturing industries, and, secondly, to assess the variation in average wages in these sectors across regions in different countries. This focus rather than a comparison of regional wage levels across the EU as a whole has been chosen in order to limit the extent of the variation being examined. As indicated by the data on labour costs in the previous chapter, therefore, average wages are many times higher in some of the EU15 countries than in most of the new Member States. Regional variations, therefore, tend to be dominated by national variations.

The manufacturing industries chosen for study are textiles and clothing (NACE, sub-section DB), basic metals — ie iron and steel — (NACE, division 27), machinery and equipment (NACE, division 29), electrical machinery and equipment (NACE. division 31) and transport equipment (NACE, sub-section DM). These together cover many of the main types of industry (capital intensive as well as labour-intensive, technologically advanced as well as relatively basic). The number employed in each of these in each region is, first, related to working-age population to give an indication of the relative importance of the industry concerned for jobs in different parts of the enlarged EU. Population of working age, therefore, is effectively used as a scalar to enable meaningful comparisons to be made of employment in different regions in the selected industries. In consequence, the resulting measure is not affected by the size of the region *per se* or by the scale of business activities in the regional economy (as comparisons of the share of the selected industries in market sector employment would be).

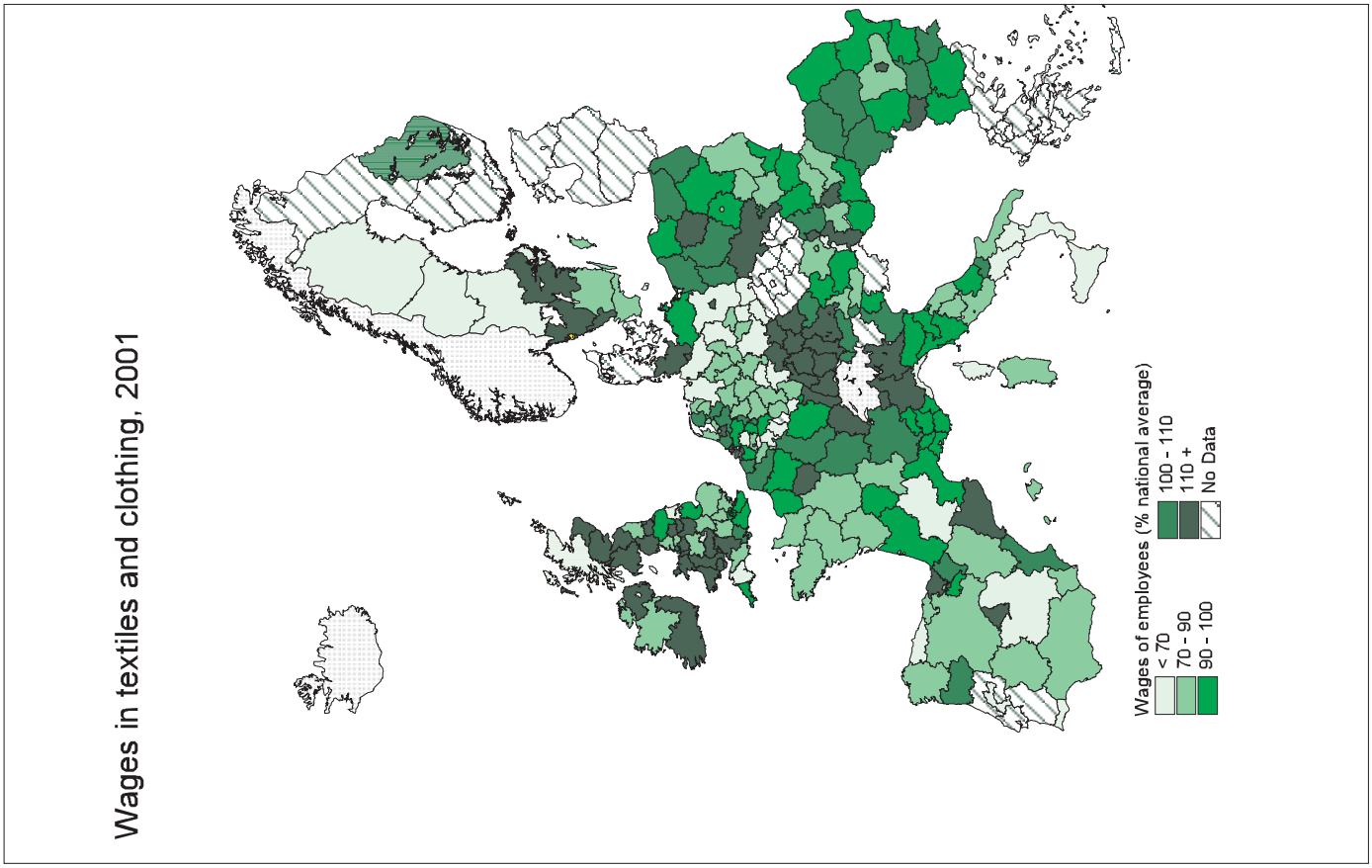
Regional employment in the selected industries

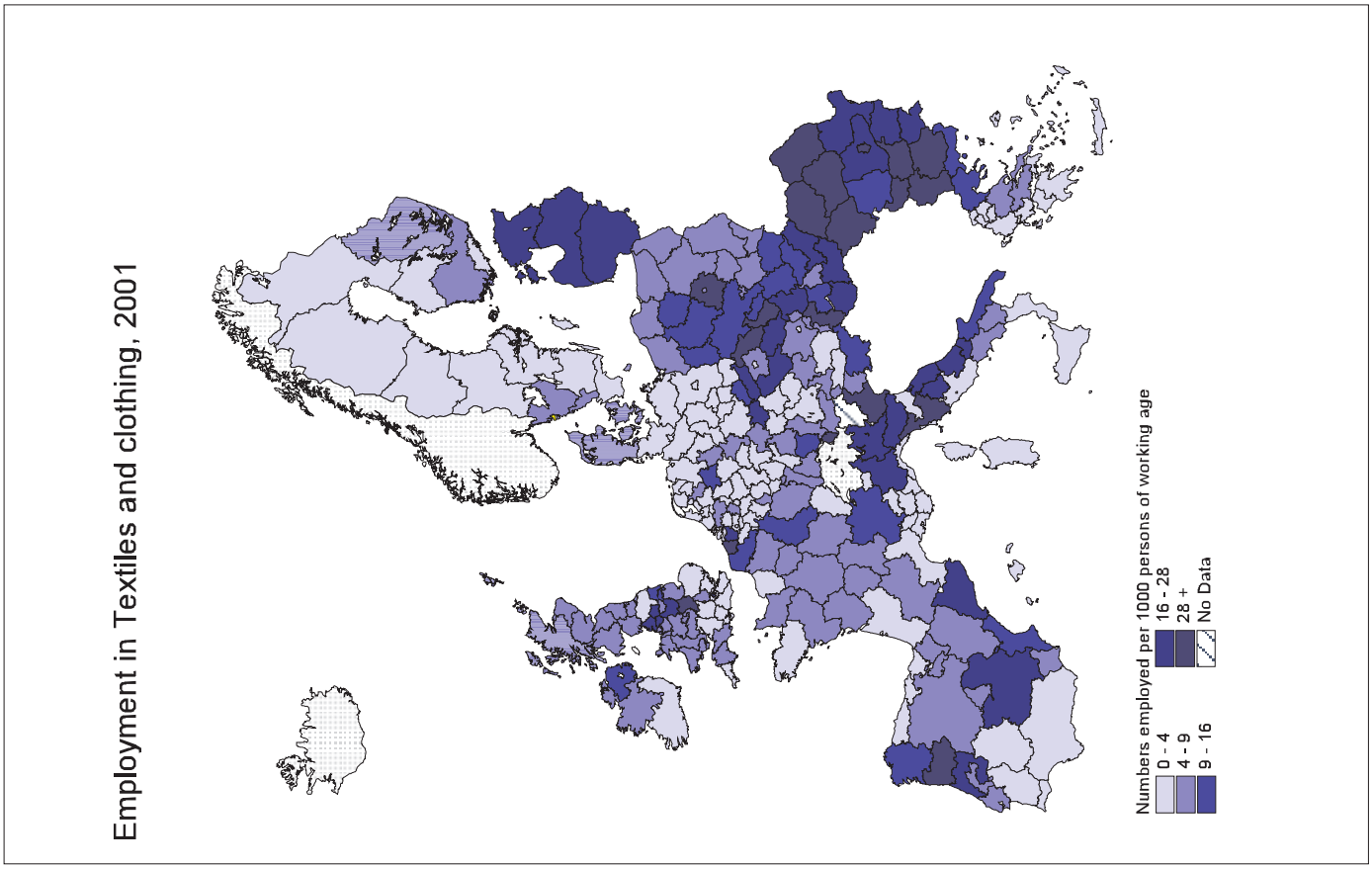
Textiles and clothing

The number employed in textiles and clothing (NACE sub-section DB) is relatively high in most parts of the new Member States, as well as in Bulgaria and Romania. The main exceptions are in the capital city regions (Praha, Bratislavsky, Közép-Magyarország, where Budapest is situated, and Mazowieckie, where Warsaw is located). The industry is also a relatively large source of employment in Portugal (in Norte, it employs 7% of working-age population), northern and central parts of Italy, Cataluña in Spain, Flanders in Belgium and in the East Midlands, North West and West Yorkshire in the UK.

Basic metals

Employment in basic metals (NACE division 27) is generally lower than in textiles and clothing (only around 40% of employment in the enlarged EU) and is concentrated in different regions. It accounts for a relatively large number of jobs in Moravskoslezko in the east of the Czech Republic (5% of working-age population), Východné Slovensko and Stredné Slovensko in Slovakia (in the east and centre, respectively), Közép-Dunántúl in the west of Hungary and Slaskie in the south of Poland as well as in Yugozapaden (where Sofia is situated) and Vest in Romania. In the EU15 countries, it is relatively important in Düsseldorf, Arnsberg and Saarland in


Wages in textiles and clothing, 2001
Wages of employees (% national average)
< 70
70 - 90
90 - 100
100 - 110
110 +
No Data


Employment in Textiles and clothing, 2001
Numbers employed per 1000 persons of working age
0 - 4
4 - 9
9 - 16
16 - 28
28 +
No Data

The SBS regional data

The SBS regional data cover a limited number of variables (at present, the number employed, local units, wages and salaries and gross investment), disaggregated at a NACE 2-digit level, for NUTS 2-level regions across the EU. Unlike the data analysed in previous chapters, these variables are classified to NACE sectors of activity according to the main activity of local units (ie enterprises or parts of enterprises — eg workshops, factories, warehouses, offices and so on — situated in a geographically identified place). This should give a more accurate representation of the actual regional distribution of employment and the other variables than if the basis of classification of activities were the enterprise as in previous chapters.

The regional basis of classification of these data is the standard NUTS — ie the nomenclature of territorial units for statistics — system used by Eurostat. This, so far as possible, divides countries into administrative areas which are similar in terms of population. In practice, there are large differences in both the population size of regions and their land area. Overall, there are some 206 NUTS 2-level regions in the EU15 and a further 41 in the 10 new Member States. Bulgaria and Romania are divided into 6 regions and 8 respectively.

The data used in the analysis relate mainly to 2001 but to 2000 where data for the later year are not yet available. This applies to Belgium, Denmark, Greece, France, Ireland, Finland and the UK. This does not affect the results presented here significantly. In some countries where regional data are not available, specifically Denmark and Slovenia, national data have been used instead. (For Slovenia, data are for employees rather than the total employed.) As a result, data are enterprise-based, as in previous chapters, rather than based on the main activity of local units as for other countries. In Portugal and Finland, where the NUTS classification have recently changed and where because of this no SBS data are as yet available for the regions affected, the data shown for employment are based on LFS regional data which have been aligned with the SBS national figures. This is also the case for the Czech Republic, where there are no SBS regional data.

In addition, there are a number of regions where data are missing for the industries selected for analysis here, mainly for confidentiality reasons, and where estimates based on available data are presented instead in order to have a complete a map as possible. Estimates in these cases are derived from NUTS 1 level data for the industry in question or from the data for 2000 or 1999. These estimates ought not to be a major source of error given the relatively wide sectors into which the data are divided.

No such estimates have been made for average wages since there is no readily available alternative data source to use.

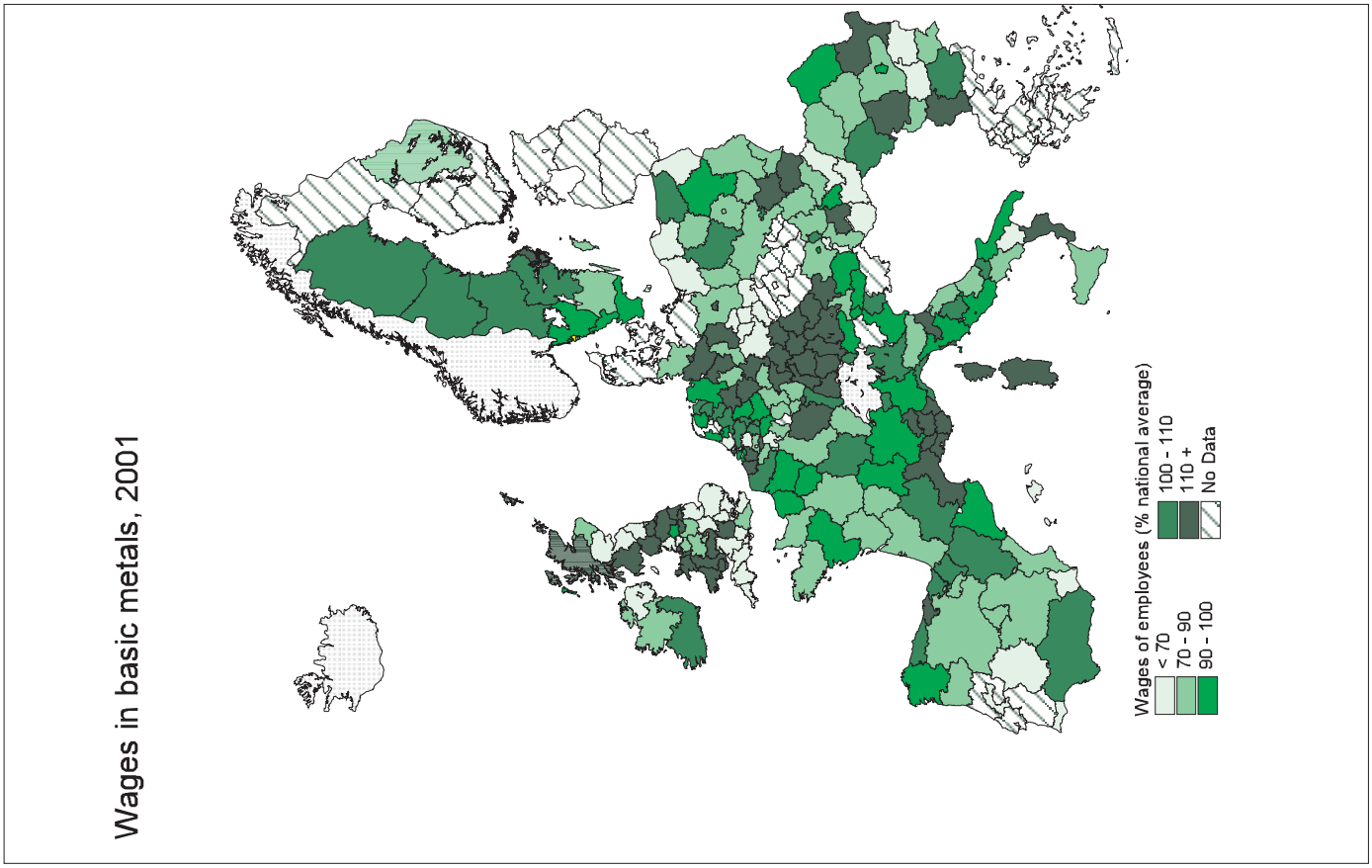
Germany, Luxembourg, Champagne-Ardenne in France, Norra Mellansverige in Sweden, Pohjois-Suomi in Finland, Asturias and Pais Vasco in Spain, Sterea Ellada in Greece and West Midlands in the UK.

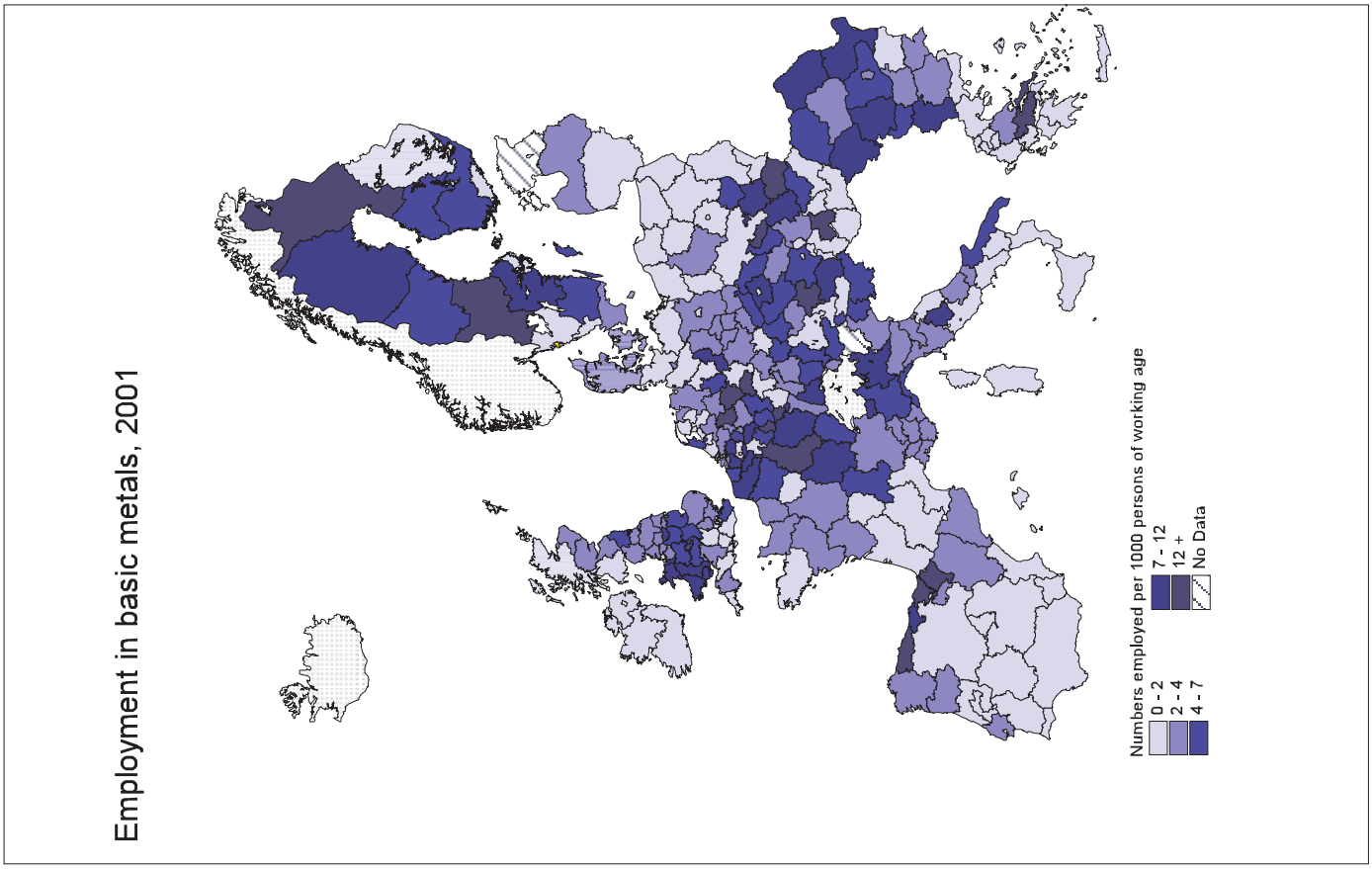
Machinery and equipment

There are some three times the numbers employed in machinery and equipment (NACE sector 29), ie mechanical engineering, in the enlarged EU than in basic metals. Employment is also more dispersed across the EU. It is particularly high in most parts of the Czech Republic (over 2% of working-age population) as well as in Severen Tsentralen and Yuzhen Tsentralen in Bulgaria and Centru in Romania (where it also accounts for over 2% of working-age population). It is even higher in Baden-Württemberg, Unterfranken and Schwaben in Germany (4% or more of working-age population). Employment in the sector is equally important in Emilia-Romagna in Italy and only slightly less so in Piemonte, Veneto, Lombardia and Marche. Elsewhere, there are relatively large numbers employed (over 2% of working-age population) in Småland med Öarna (almost 4% of working-age population) and Norra Mellansverige in Sweden, Etelä-Suomi in Finland, Pais Vasco in Spain and the West Midlands in the UK.

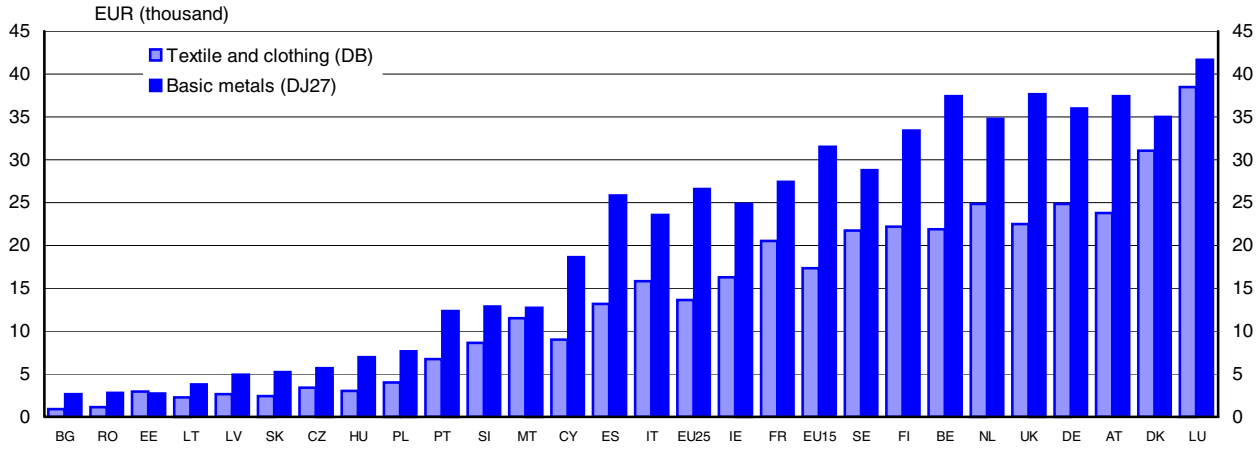
Electrical machinery and equipment

Electrical machinery and equipment (NACE sector 31), ie electrical engineering, has a similar regional distribution across the enlarged EU as machinery and equipment. However it employed around half the number of people in the Union as mechanical engineering in 2001. Again, employment is high in many Czech regions (close to 3% of working-age population in Jihozápad and Severovýchod, in the south-west and north, respectively), in Közép-Dunántúl and Nyugat-Dunántúl in the west of Hungary (2% of working-age


Wages in basic metals, 2001
Wages of employees (% national average)
< 70
70 - 90
90 - 100
100 - 110
110 +
No Data


Employment in basic metals, 2001
Numbers employed per 1000 persons of working age
0 - 2
2 - 4
4 - 7
7 - 12
12 +
No Data

31 Average annual wages per employee in textiles and clothing and in basic metals, 2001



EL: n.a.

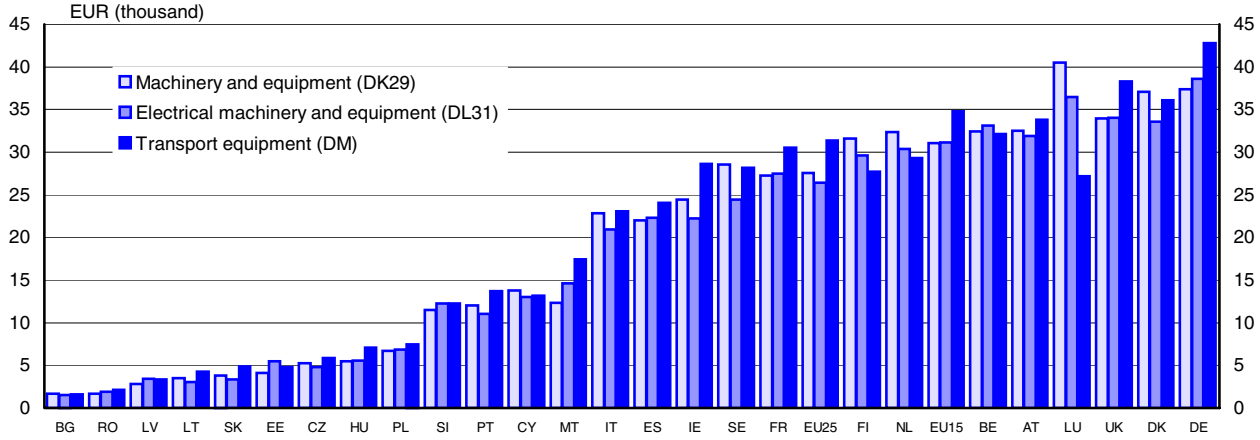
Source: Eurostat, SBS

population) and in the Západné Slovensko region in th west of Slovakia. The number employed is particularly large in Germany in Bayern (3% of working-age population in Oberpfalz and Mittelfranken) and Baden-Württemberg, in Sweden in Östra Mellansverige, Norra Mellansverige and Småland med Öarna, in northern Italy in Lombardia and in the UK, in the West Midlands.

Transport equipment

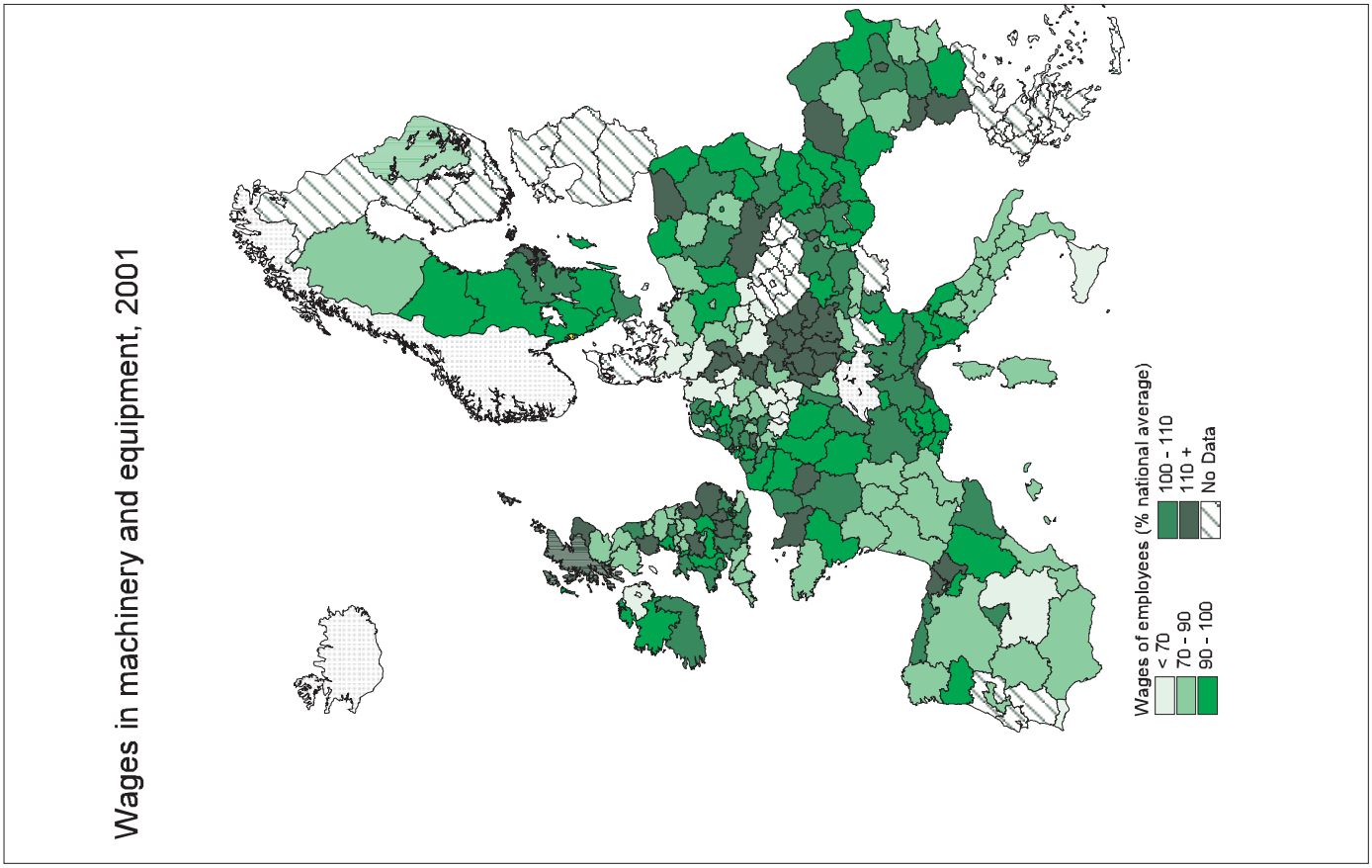
The number employed in transport equipment (NACE division DM) is similar to that in textiles and clothing. The regional location of employment in the industry in the enlarged Union is however very different. Employment in transport equipment was particularly concentrated in Niedersachsen, Bremen, Bayern and Baden-Württemberg in Germany (above 5% of working-age population in some regions), in Västsverige in Sweden (4% of working-age population), in Limburg in Belgium, in Comunidad Foral de Navarra in Spain, in Piemonte, around Turino, in Italy, in eastern parts of France, and the West Midlands, in the UK. In the new Member States, employment in the sector was high in several Czech regions, especially in **Střední Čechy**, the region surrounding Prague (4% of working-age popula-

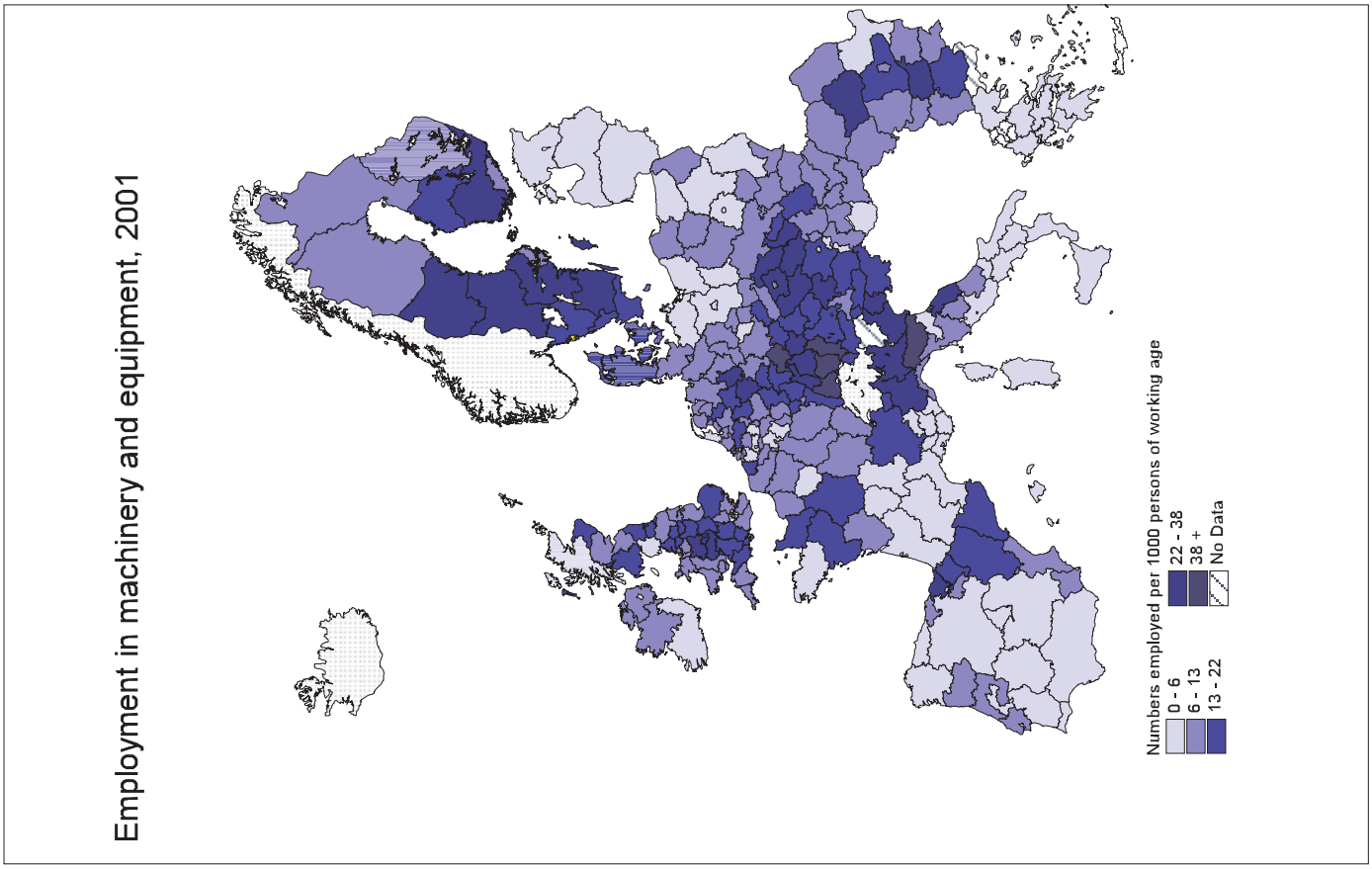
32 Average annual wages per employee in machinery and equipment, electric machinery and equipment and in transport equipment, 2001



EL: n.a.

Source: Eurostat, SBS


Wages in machinery and equipment, 2001
Wages of employees (% national average)
< 70
70 - 90
90 - 100
100 - 110
110 +
No Data


Employment in machinery and equipment, 2001
Numbers employed per 1000 persons of working age
0 - 6
6 - 13
13 - 22
22 - 38
38 +
No Data

tion), as well as in Nyugat-Dunántúl in the west of Hungary, Pomorskie in northern Poland and Bratislavsky in Slovakia (some 2% of working-age population in each case).

Regional wage variations

The main purpose here is to examine variations in average wages across NUTS 2 regions within countries. It begins, however, by indicating the extent of variation between countries in order to put regional variations into perspective The regional analysis covers only the countries which are large enough to have NUTS 2 regions. It, therefore, excludes Luxembourg and Denmark, which are both NUTS 2 regions in themselves, as well as the three Baltic States, Slovenia and Cyprus and Malta. It also excludes the Czech Republic, where no data are available, and much of Portugal and Finland, where the same applies because of a recent change in regional boundaries. There are, in addition, a few regions in other countries where there are no data for the sectors examined because of confidentiality reasons.

Average wages in the selected sectors vary markedly between countries, even if the new Member States are not taken into account, In textiles and clothing, they vary from 38 thousand euros per employee a year in Luxembourg and 31 thousand euros in Denmark to 13 thousand euros in Spain and only 7 thousand euros in Portugal (Graph 31). (It should be emphasised once more that these comparisons take no account of differences in price levels which affect the real value of wages. This is particularly relevant for comparisons between EU15 countries and the new Member States, since wages in euro terms greatly understate the relative level of real wages in the latter. It also affects comparisons between the UK and the other EU15 countries, since in the UK the exchange rate against the euro was unusually high in 2001, so increasing wages expressed in euros.)

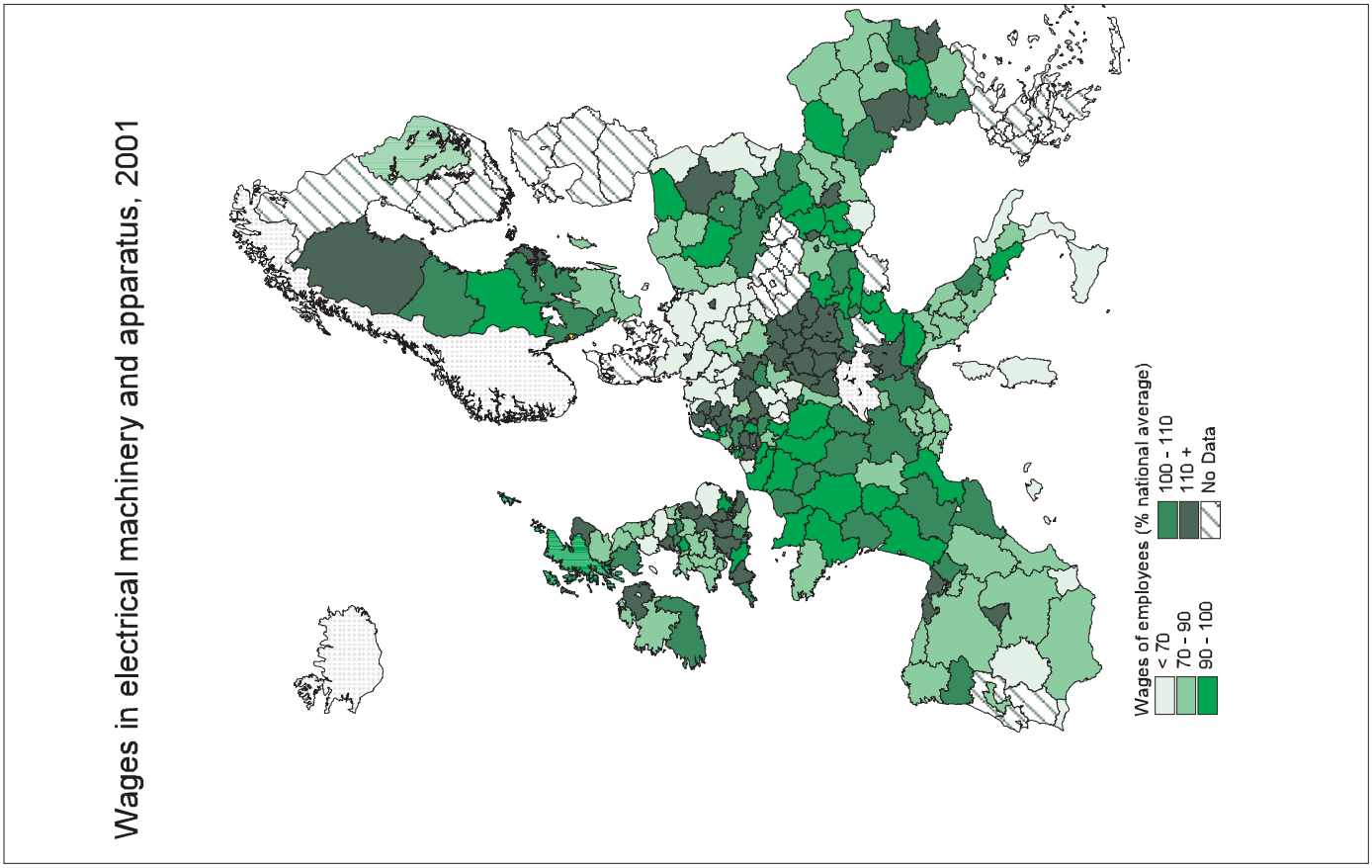
The extent of the variation in basic metals is much the same, with wages being significantly higher than in textiles and clothing in all Member States. A similar difference between wages in the two sectors is evident in the new Member States. Cyprus, Malta and Slovenia apart, however, the extent of the difference between countries is narrower(Graph 31).

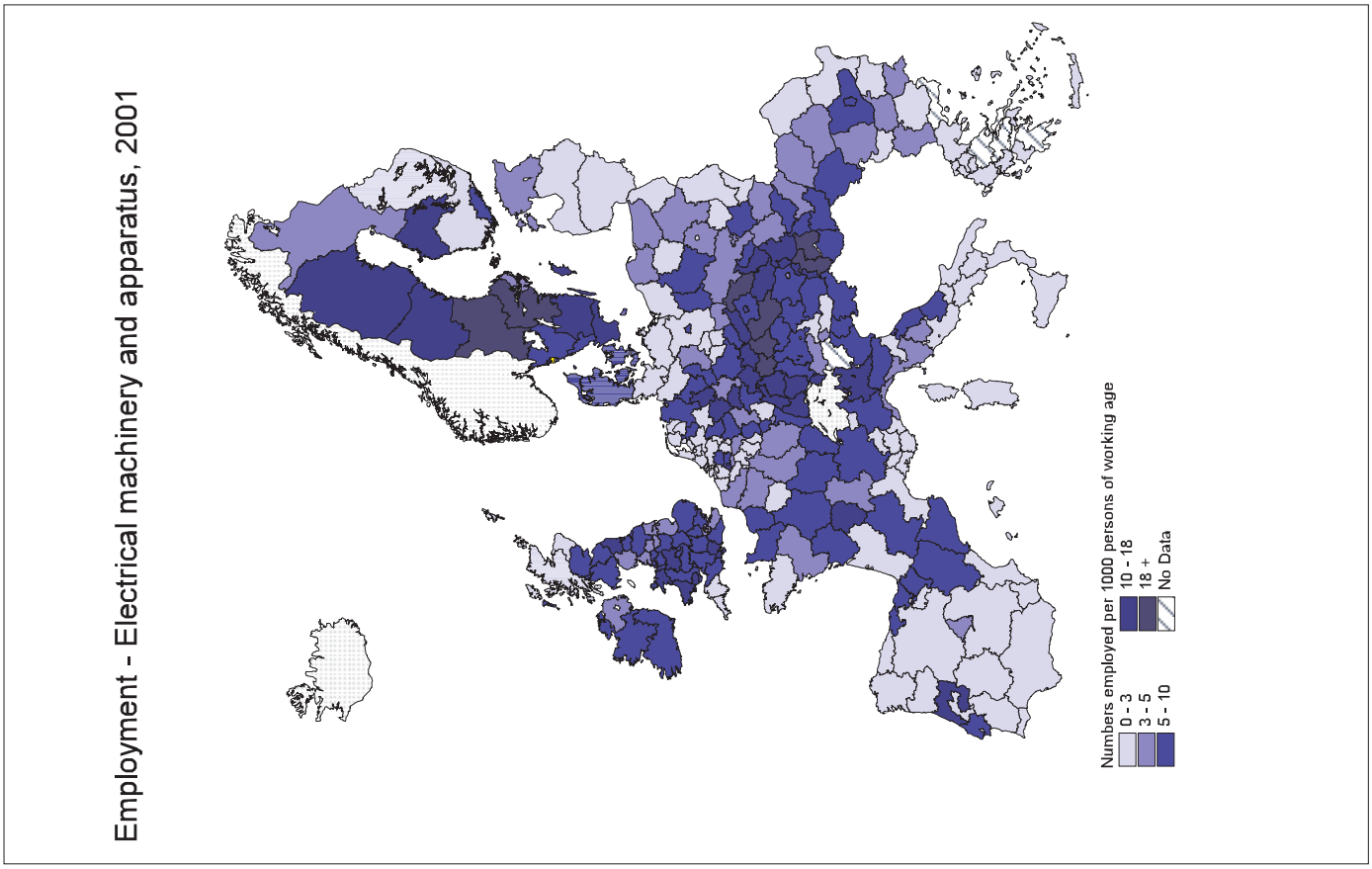
The regional data on average wages

The SBS contain data for only a limited number of variables at regional level. While there are data for wages and salaries and for the total number employed in the different NACE activities, there are no data for the number of employees. This means that it is not possible to calculate the average wage per employee. Although the number of self-employed are relatively small in most countries in the industries selected for analysis, they are sufficiently large in a few to distort comparisons between countries. The data presented here, therefore, are based on an estimate of the number of employees. The approach adopted is to calculate the ratio of the employees to total employed in each of the selected sectors at national level and to apply this ratio to the regional data for employees. This effectively assumes, therefore, that the relative number of self-employed is the same in each region, which may not be the case but it is unlikely to distort the results significantly.

Differences in wages between the three engineering sectors are much less, though much the same extent of variation between countries is evident, if with some change in their rank order. Germany, in particular, has higher relative wage levels in these sectors than in the more basic manufacturing sectors (Graph 32). In contrast to the EU15 countries, the rank order of the new Member States does not change. However, in the same way as in most of the EU15, wage levels in engineering are very similar to those in basic metals in all these countries. In both Bulgaria and Romania, however, wages are substantially higher in basic metals than in engineering, which is also the case in Belgium, the Netherlands and Austria.

Average wages in all of these sectors vary significantly across regions relative to the national average in the sector concerned (see Maps). In order to interpret these variations, however, they need to be looked at in relation to the scale of employment in the different regions. A high or low average wage might, therefore, be a result of the sector being comparatively small in the region in question and so unrepresentative of the composition and nature of employment in other regions. The commentary below on each of the sectors focuses on differences in wage levels between regions where the sector concerned employs a significant number of people relative to working-age population. Even taking account of differences in numbers employed, there are wide regional variations in average wages in particular sectors.


Wages in electrical machinery and apparatus, 2001
Wages of employees (% national average)
< 70
70 - 90
90 - 100
100 - 110
110 +
No Data


Employment - Electrical machinery and apparatus, 2001
Numbers employed per 1000 persons of working age
0 - 3
3 - 5
5 - 10
10 - 18
18 +
No Data

Textiles and clothing

In Belgium, the textiles and clothing sector is concentrated in Flanders. Average wages are around 10% higher in the west of the region than the east. In Germany, the sector employs more than 1% of working-age population only in three regions, Tübingen, Oberfranken and Chemnitz (in the new Länder). Wage levels are much the same in the first two but are only just over a third of this level in the last. In Spain, wage levels are some 15% higher in Cataluña than in Madrid, some 35% higher than in Galicia (an Objective 1 region, ie a region receiving EU Structural Fund support because its GDP is below 75% of the EU average) and 70% higher than in Castilla-la-Mancha (also an Objective 1 region). In Italy, average wages in Lombardia are some 10% above those in Veneto and 20–25% higher than in Toscana or Umbria. Wages in Puglia in the south, are some 20% below those in Umbria. In the UK, wages vary widely between 'textile' regions. They are some 30% higher in West Yorkshire than in Lancashire and Greater Manchester and some 25% higher than in inner London. In Leicestershire, they are lower still and half the level in neighbouring Derbyshire.

In the new Member States, wage differences are generally narrower in textiles and clothing than in the EU15. In Hungary, however, average wages are over 30% higher in Nyugat-Dunántúl in the west of the country than in the south and east. In Poland, wage levels in the 'textile' regions vary between 10 and 15%, as they do in Slovakia. The same is the case in Bulgaria and Romania, outside Bucuresti, where they are some 25% higher than elsewhere.

Basic metals

In Belgium, average wages are substantially higher in basic metal in Oost-Vlaanderen than in Liege or Hainaut in Wallonia. In Spain, they are much the same in the 'steel' regions, in Asturias (an Objective 1 region) as in Pais Vasco or Navarra. In France, they are some 20% higher in Lorraine than in Champagne-Ardenne.

In Italy, as in Spain, wage levels are very similar in 'steel' regions, though lower in Puglia in the south than in the northern regions. In Austria, levels in Oberösterreich are over 10% higher than in Steiermark and higher again than in Tirol. In Sweden, wage differences between regions are mostly small. In the UK, wages are around twice the level in South Yorkshire and East Wales than in West Midlands.

In the new Member States, wage levels tend to be relatively high in the regions where basic metals are most important, in Közép-Dunántúl in Hungary, for example, Slaskie in Poland and Východné Slovensko in Slovakia. This is also the case in Bulgaria, in the capital city region. The same is not the case in Romania, however, where wage differences are much wider.

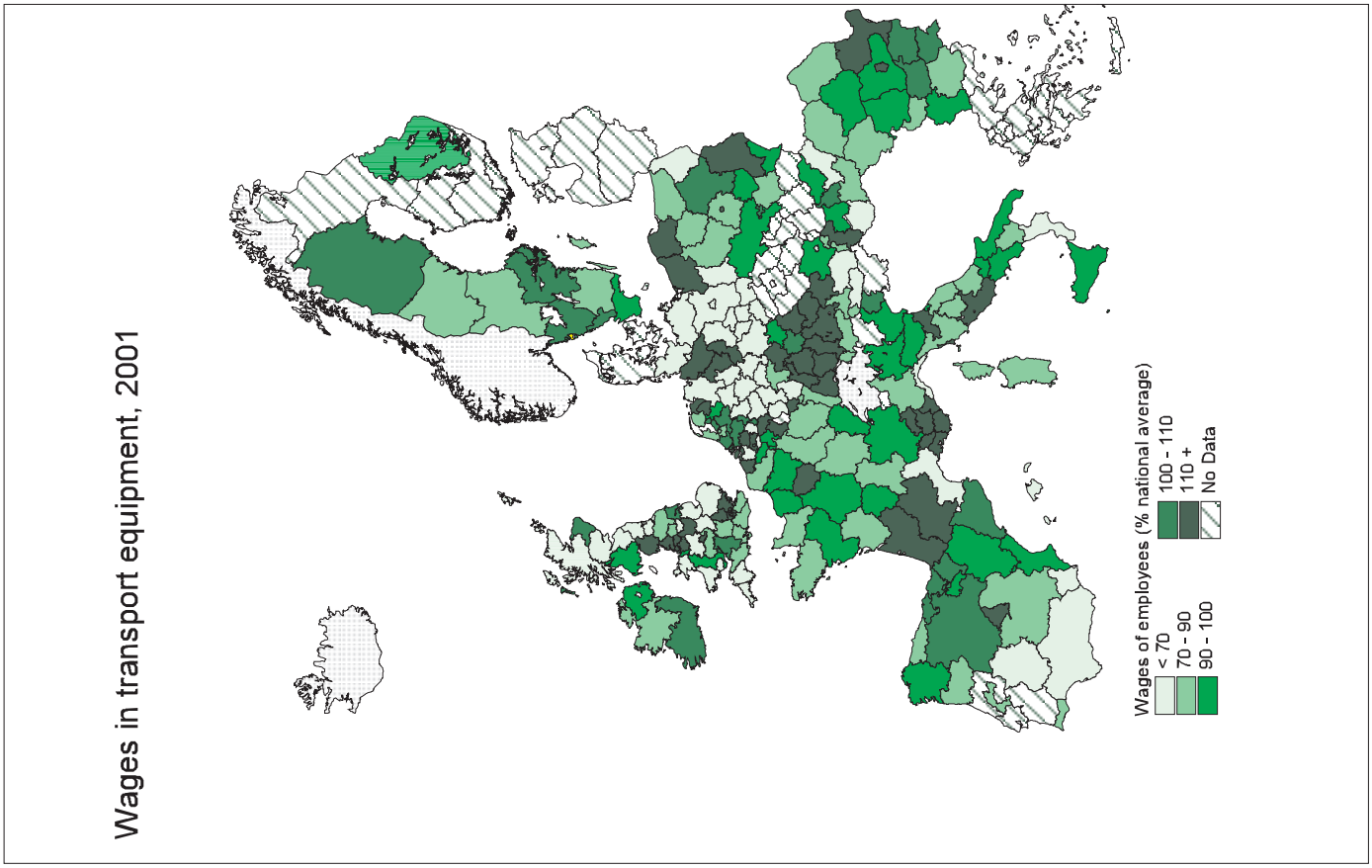
Machinery and equipment

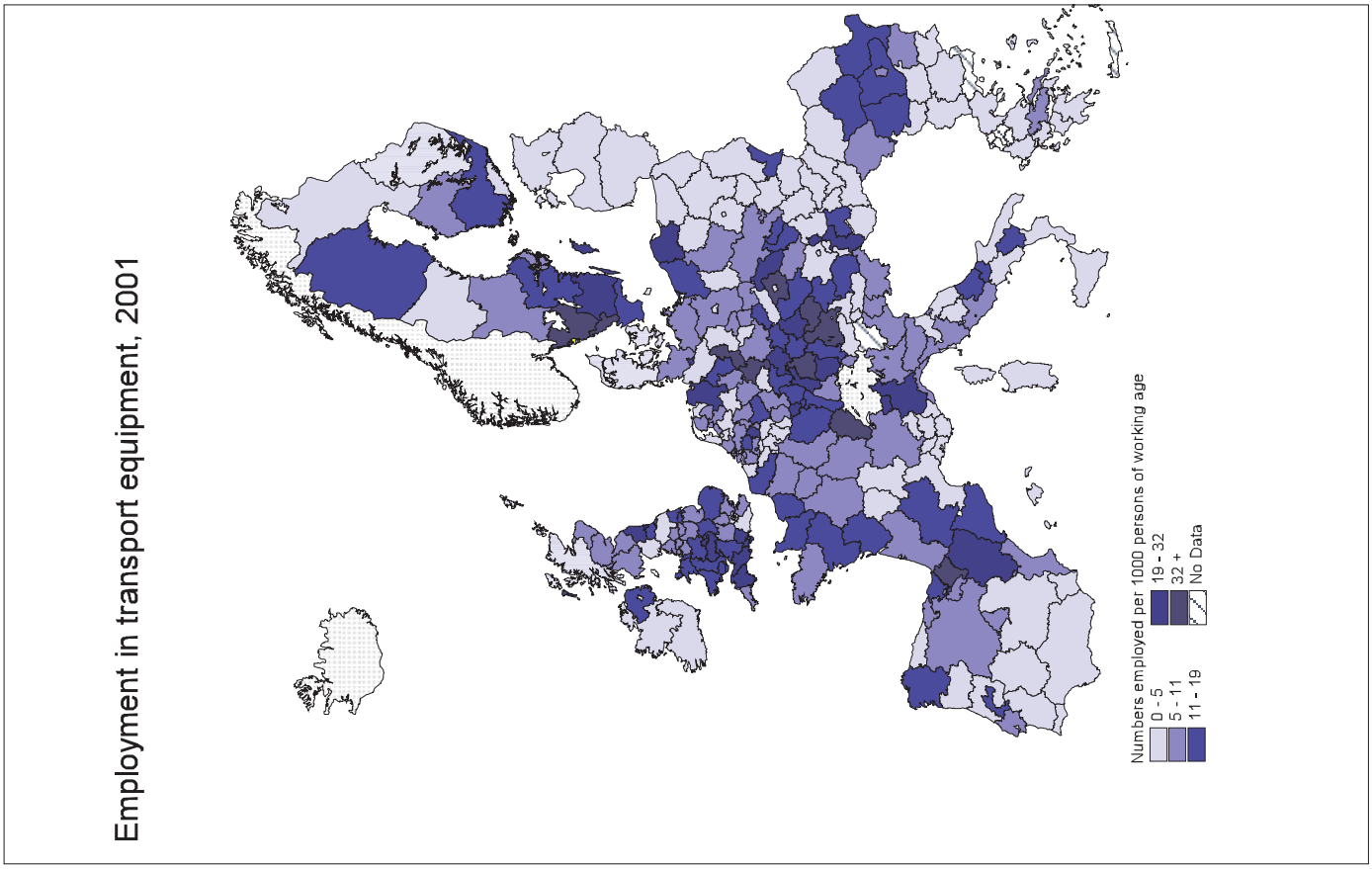
In Belgium, wage levels are relatively similar across regions, though lower in Brabant Wallon than elsewhere. In Germany, there are large differences in averages between the old and the new Länder. They are particularly high in Bayern and Baden-Württemberg, where the sector accounts for a high level of employment.

In Spain, wages are highest in Pais Vasco and Navarra, where the sector of activity employs most people relative to working-age population. In France, wage differences are relatively small between the regions where the sector employs more than 1% of working-age population, though some 10% lower in Picardie and Champagne-Ardenne in the north and north east than in Centre or Alsace and Lorraine.

Wage differences are also relatively small across the northern regions of Italy where the sector is concentrated, in the Netherlands and across the main Swedish regions, while in Austria, differences are slightly wider. In the UK, regional wage variations are wider still, wages being highest in the south east and East Anglia and lowest in the north east, the south west, South Western Scotland and Northern Ireland.

In the new Member States, wages differences are relatively narrow in Hungary but wider in Poland and Slovakia. In Poland, wages are highest in Dolnoslaskie and Slaskie in the south of the country (5–10% above the national average) and lowest in Podkarpackie in the south east. In Slovakia, wages in the sector are some 30% higher in Bratislavsky than in Východné Slovensko in the east. In Romania, differences are relatively large in Romania, especially between Bucuresti (over 40% above the national average) and the rest of the country.


Wages in transport equipment, 2001
Wages of employees (% national average)
< 70
70 - 90
90 - 100
100 - 110
110 +
No Data


Employment in transport equipment, 2001
Numbers employed per 1000 persons of working age
0 - 5
5 - 11
11 - 19
19 - 32
32 +
No Data

Electrical machinery and apparatus

In Germany, wages are again highest in electrical engineering in Bayern and Baden-Württemberg where the sector is of most importance (employment is generally low in the new Länder). In France, wage differences between the main regions are relatively small.

In Italy, wages are again high in Lombardia (10–15% above other parts of the north). In the Netherlands, wages are highest in Giederland and Limburg, the only two regions where employment in the sector is more than 1% of working-age population. In Austria, wages are substantially higher in Vorarlberg than in Burgenland (a former Objective 1 region) in both of which employment is similarly high.

Regional wage differences are also relatively wide in Sweden, where most regions have over 1% of working-age population in employment in the sector. In the UK, few regions have employment in electrical engineering this high, but in those that do, wages are around 30% higher in Hampshire in the south than in Shropshire in the west centre.

In the new Member States, employment in the sector is relatively small except in Hungary and Slovakia. In both cases, wages are much higher in the capital city regions than elsewhere.

Transport equipment

In Belgium, wage levels are similar in Brussels and in the Flemish regions where the transport equipment sector is concentrated. In Germany, wages are once more higher than elsewhere in Bayern and Baden-Württemberg, though also in Bremen, Braunschweig and Saarland. Wages are substantially lower in the new Länder, but few work in the sector. In Spain, average wages are similar in the main regions — Navarra, Aragon and Cataluña –except in Galicia (an Objective 1 region) where they are 10% lower. Wages are also similar across the main French regions — Franche-Comté, Alsace, Haute-Normandie — but 30% or so lower than in Île de France, where large numbers are employed in the sector in absolute terms.

In Italy, there is less of difference in wages between north and south than in other sectors, wages in Lombardia being some 15% higher than in Basilicata. In Sweden, wage levels are similar across regions. In the UK, differences are again very much wider, wages being around twice the level in the West Midlands than in Northumberland, where the sector is equally important.

In the new Member States, the sector employs sizeable numbers of people only in a relatively few places. In most cases, wages are relatively high in those places, such as Nyugat-Dunántúl in the west of Hungary, Pomorskie in the north of Poland and Bratislavsky in Slovakia.

Methodological notes

The data used for the analysis in this publication come mainly from the Structural Business Statistics (SBS) compiled by Eurostat. These are supplemented by data from the Labour Cost Survey (LCS) on average hours worked where SBS data are missing (essentially in market services).

The analysis contains several comparisons between different sources of data. In the first chapter a comparison is made of the SBS data on hours worked with data from the LCS and with estimates made from the EU Labour Force Survey (LFS). In the introductory chapter, data on total employed from the SBS are compared with data from the LFS. In the third chapter, SBS labour cost data are compared with LCS data. These three sources are described in turn below.

Structural Business Statistics (SBS)

Annual survey collected within the framework of Council regulation on structural business statistics (Regulation (EC, EURATOM) No. 58/97 of December 1996. The SBS Regulation governs the transmission of data to Eurostat from the reference year 1995 onwards and, in principle, covers all market activities in sections C to K and M to O of NACE Rev. 1, but, in practice, the data available are confined to NACE Rev. 1 sections C to K, excluding section J, financial services. For further information, visit:
http://forum.europa.eu.int/Public/irc/dsis/bmethods/info/data/new/main_en.html

More precisely, within the SBS, the data used in the Introduction, in Chapter 1 on employment, value-added, investment and hours of work and in Chapter 3 on labour costs are taken from:

SBS\ENTERPR series which covers all enterprises from 1995 onwards (though the data are less complete and less accurate for the years before 1999). The data available for Greece cover only enterprises with 20 persons or more employed and are, therefore, not included in the series. Data on total persons employed are not available for Poland and Slovenia because of missing data on self-employed in these two countries. In the analysis of employment, the number of employees has therefore been used instead. Data for Hungary do not cover enterprises with less than 5 persons employed and the coverage of small enterprises is also incomplete for Slovakia.

The data used in Chapter 2 on employment and value-added per person employed by size of enterprise are taken from: SBS\SIZCLASS series, which covers enterprises whose main activity is in industry (NACE Rev. 1. sections C to F) or in market services (NACE Rev. 1. sections G to K excluding section J) and which breaks data down by the employment-size of enterprise. In the analysis, these data are grouped into four size classes, micro enterprises with 1-9 persons employed, small enterprises with 10-49 persons employed, medium-sized enterprises with 50-249 persons employed and large enterprises with 250 or more persons employed. Data for Poland refer to the year 1998, the latest available. Data are not available for Greece, Cyprus, Luxembourg, Malta, Slovenia and Bulgaria and they are incomplete for Hungary and Slovakia.

The data used in Chapter 4 for the regional location of employment and average wages per employee in selected sectors of activity are taken from :

The SBS\REGION series, which, since 1995, covers all business activities whenever available (Sections C to K (except section J) of NACE Rev.1. The data are broken down to the 2-digit level of the activity nomenclature NACE Rev. 1 and to level 2 of the geographic nomenclature NUTS. To obtain the average wages per employee, the number of employees has been estimated by calculating the ratio of the employees to total employed in each of the selected sectors at national level and applying this ratio to the regional data for total employed.

Labour Force Survey (LFS): a harmonised survey of private households in all Member States which provides data on the population living in these by nationality and by work status as well as by sex and age on the basis of a common set of questions. The main focus is on employment, unemployment and inactivity and the various aspects of these, including the sector of activity in which people are employed and the number of hours per week they work. The survey is now carried out quarterly in most Member States. The data used in the report come from the survey conducted in the second quarter of 2001, which is generally taken to be representative of 2001 as a whole (the second quarter survey is the one generally used for annual data). The only exception is Malta for which data are available only from 2002.

Labour costs survey 2000 (LCS): the 2000 edition of the four-year survey is carried under Council Regulation (EC) No. 530/1999 and Commission Regulation (EC) No 1726/1999. It provides detailed harmonised data on hours worked, wages and salaries and other employment-related costs. It covers local units of enterprises with 10 or more employees in economic activities in NACE Rev.1, sections C-K. The survey covers all employees (including apprentices) with direct contracts with the local unit (or the enterprise to which it belongs) and who receive remuneration irrespective of the type of work they do, the contract duration or the hours worked. Data are missing for Belgium and Malta for 2000.

Division by sector of activity

The data are divided between sectors of activity using the NACE Rev. 1 system of classification. This is composed of Sections (1-letter codes), Sub-sections (2-letter codes), Divisions (2-digit codes), Groups (3-digit codes) and Classes (4-digit codes). The SBS data which are at present available cover the following sections:

C Mining and quarrying
D Manufacturing
- DA Food products, beverages and tobacco
- DB Textiles and textile products
- DC Leather and leather products
- DD Wood and wood products
- DE Pulp, paper and paper products; publishing and printing
- DF Coke, refined petroleum products and nuclear fuel
- DG Chemicals, chemical products and man-made fibres
- DH Rubber and plastic products
- DI Other non-metallic mineral products
- DJ Basic metals and fabricated metal products
- DK Machinery and equipment not elsewhere classified
- DL Electrical and optical equipment
- DM Transport equipment
- DN Manufacturing not elsewhere classified

E Electricity, gas and water supply
F Construction
G Wholesale and retail trade; repair of motor vehicles
H Hotels and restaurants
I Transport, storage and communication
K Real estate, renting and business activities

For analytical purposes, manufacturing sectors are grouped into three broad sectors: '*Basic manufacturing*' which include sub-sections DA, DB, DC, DD, DE, DH, DI and DN; '*Chemicals and fuel*' which cover sub-sections DF and DG; and '*Engineering*' defined as sub-sections DJ, DK, DL and DM.

The variables in respect of the data used in Chapter 1 to 3 are classified to sectors of activity on the basis of the main activity of enterprises, an enterprise being defined as '*the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources*'.

The employment data used in Chapter 4 are classified to sectors of activity and NUTS 2-level regions on the basis of the main activity of local units, a local unit being defined as '*an enterprise or part of an enterprise — eg a workshop, factory, warehouse, office, shop and so on — situated in a geographically identified place*'.

Definitions

Number of persons employed

The total number of persons who work in the observation unit (ie an enterprise or local unit), including working proprietors and partners working regularly in the unit and unpaid family helpers, as well as those working outside who belong to the unit and are paid by it (eg sales representatives, delivery personnel, repair and maintenance teams). It includes part-time and seasonal workers, apprentices and home workers who are on the payroll.

Value-added

Value-added measured at factor cost, which is the gross income from operating activities after adjusting for operating subsidies and indirect taxes (including value-added tax), or total revenue from sales and other activities less goods and services purchased, other than the services of labour and capital employed by the business.

Investment

Gross investment during the year in all tangible goods. All investment is valued prior to (ie gross of) value adjustments, and before the deduction of income from dispos-

als of fixed assets. It corresponds to the increase in the capital stock during the year.

Labour or personal costs

Wages and salaries paid to employees plus employers' social security costs, whether compulsory or voluntary. These are adjusted in the analysis to incorporate the earnings of the self-employed when relating labour costs to value-added.

Unit labour costs

labour costs per unit of value-added, adjusted for the earnings of the self-employed (ie including an imputed estimate of the latter. It is equivalent to the share of value-added going to labour.

Abbreviations

BE Belgium
CZ Czech Republic
DK Denmark
DE Germany
EE Estonia
EL Greece
ES Spain
FR France
IE Ireland
IT Italy
CY Cyprus
LV Latvia
LT Lithuania
LU Luxembourg
HU Hungary
MT Malta
NL Netherlands
AT Austria
PL Poland
PT Portugal
SI Slovenia
SK Slovak Republic
FI Finland
SE Sweden
UK United Kingdom
BG Bulgaria
RO Romania
EU15 the European Union before the enlargement of 1st May 2004.

EU25 The aggregate has been calculated when data are available for the EU15 and for the 10 new Member States (ie excluding Bulgaria and Romania.

EUR Euro

SBS Structural Business Statistics

LFS Labour Force Survey

LCS Labour Costs Survey

NACE Rev. 1 : the latest version of the statistical classification of economic activities in the EU

NUTS the system of nomenclature of territorial units used for statistical purposes in the EU

":" in the tables denotes data not available.