

# Business services in Europe



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

































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# Business services in Europe



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**Yves Franchet**  
**Director-General**

**Business Services in Europe**

This publication has been managed by Unit D2 of Eurostat, responsible for structural business statistics (Head of Unit, Mr Bernard Langevin). The opinions expressed are those of the individual authors alone and do not necessarily reflect the position of the European Commission.

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# **Introduction**

## **Chapter 1**



## What are business services?

Business services are those services that are purchased by other businesses in the pursuance of their own activities. They do not therefore include services that are purchased for resale. Examples of business services would be the auditing of accounts by an accountant, the preparation of building plans by an architect, or the cleaning of business premises. Businesses offering these services are, along with many others, classified to Section K of NACE Rev.1 which covers "Real estate, renting and business activities". However, some of the services offered by such businesses are often purchased by private individuals, and therefore, their output is not exclusively providing services to business. On the other hand business services are often provided by businesses that are classified outside Section K; maintenance of motor vehicles is one example.

There are other business services which are carried out as part of in-house activities. A business may employ its own computer personnel rather than making use of specialist enterprises or may carry out its own research and development. Changes over the past 30 or so years, particularly in industry, have led to many such in-house activities being contracted out. These changes have taken place because business services can be offered more cheaply by enterprises that specialise in such services. This allows for increased efficiency in the enterprises that buy the services and allows them more flexibility when changes need to be made in response to changes in the market. This enables them to expand or contract more easily than if they provided their own business services in-house. The increased use of outsourcing has contributed to an apparent decline in the fortunes of industry; it has also contributed to a growth in the business services

No comprehensive information is available on the proportion of output of Section K businesses which is purchased by other businesses; nor do we know the extent to which the output of other individual service trade activities is purchased by businesses as a business activity.

It should therefore be borne in mind that the data presented in this publication are limited to the output of enterprises classified to activities in Section K of NACE Rev. I

At the 2 digit level Section K covers:

Division 70	Real estate activities;
Division 71	Renting of machinery and equipment;
Division 72	Computer and related activities;
Division 73	Research and development;
Division 74	Other business activities.

This Section covers a very wide and diverse spectrum of businesses engaged in market services activity but there is no one clearly defined characteristic that identifies each of these businesses. However, for each of the first four Divisions of this Section there is a separate, distinct theme. Division 70 is concerned with businesses active in real estate activity which includes the development and letting of property and of selling property on a commission basis. Division 71 encompasses the renting of various items including cars, office machinery and even personal goods such as televisions. The services covered by Division 72 includes hardware and software consultancy services, analysis, design and programming of ready to use software (customised or not), data processing and database activities, as well as the maintenance and repair of office machinery. Enterprises classified to Division 73 are those that carry out research and development (R&D) into natural sciences and engineering or social services and humanities as a main activity. Division 73, however, does not cover the great deal of R&D that is produced and consumed in-house.

Division 74 has no unifying theme in its description, as its name "Other business activities" immediately suggests and it is itself subdivided into a number of Groups:

- Group 74.1 Legal, accounting, tax consultancy, market research etc;
- Group 74.2 Architectural and engineering activities;
- Group 74.3 Technical testing and analysis;
- Group 74.4 Advertising;
- Group 75.5 Labour recruitment and provision of personnel;
- Group 74.6 Investigation and security activity;
- Group 74.7 Industrial cleaning;
- Group 74.8 Miscellaneous business activities not elsewhere classified.

Apart from the first and last of these Groups each, like the first four Divisions of Section K, have a clearly defined separate aspect of activity which identifies each business within its own Group.

For the most part Group 74.1 covers activities which can be thought of as "professional services" although the provision of professional services is not restricted to this Group since Groups 74.2

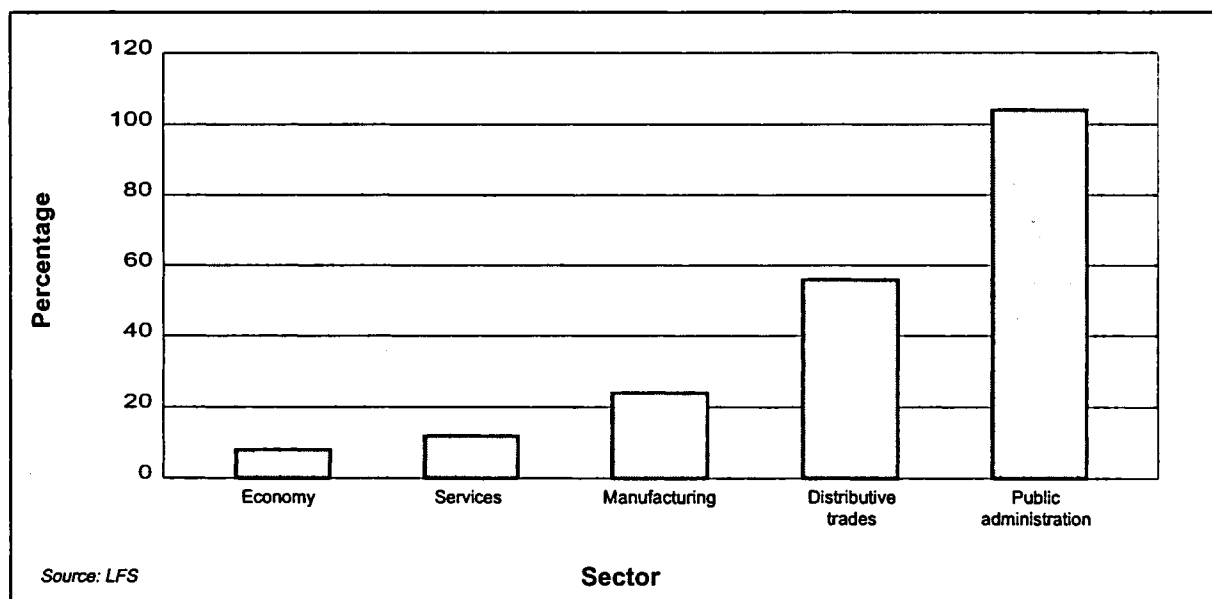
and 74.3 also fall into this category. However, not all business services are provided by enterprises employing large numbers of well-educated personnel.

Some, like industrial cleaning, operate at the other end of the scale; making use of largely unqualified personnel. The last of the above Groups, 74.8, is miscellaneous business services and this covers the remaining business services enterprises that are not classified elsewhere within business services. Included are photographic, packaging, secretarial and translation activities.

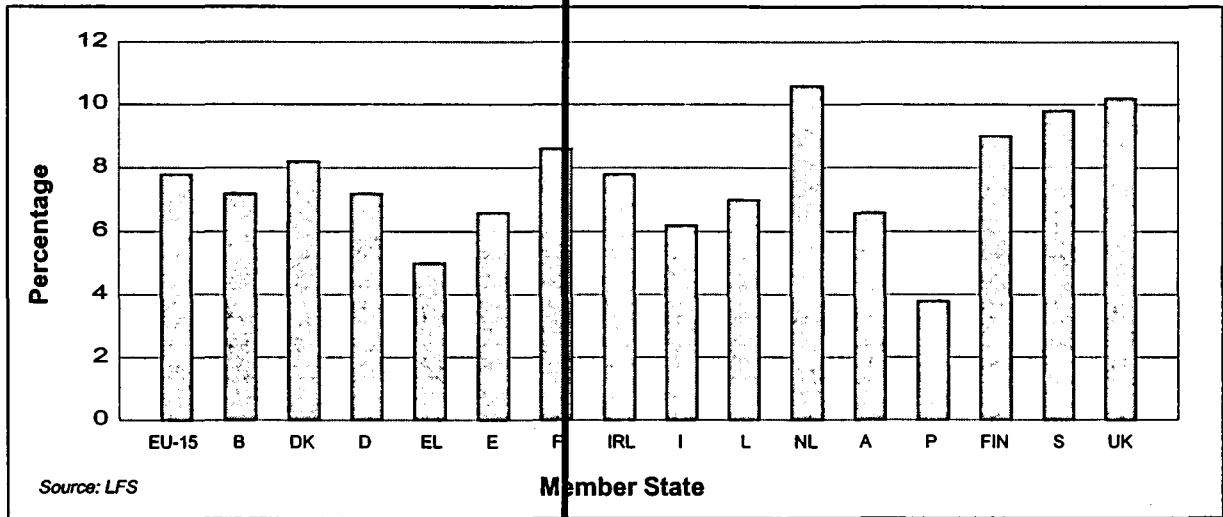
### The importance of business services

Data from the 1998 Labour Force Survey makes it possible to determine one measure of the relative importance of business services in relation to the economy as a whole or to various parts of the economy. Figure 1.1 shows for the EU as a whole the size of business services, in employment terms, compared with the total economy, the service sector, total manufacturing, the distributive trades sector and the public administration sector.

**Figure 1.1 Business Services in the EU-15 countries as a percentage of other parts of economy - Number of Persons Employed, 1998**



**Figure 1.2 Business Services for EU-15 countries as a percentage of the total Economy in Member States – Number of Persons Employed, 1998**



Business services represents 8% of the total economy for the EU as a whole but this clearly varies for individual countries with the percentage ranging from 3.7% for Portugal to 10.7% for the Netherlands. It is interesting to note that all the percentages for the southern member states comprising Greece, Spain, Italy and Portugal are 6.5% or below, while those for other member states are higher.

**Figure 1.3 Share of each division of Section K in total business services within EU-15 countries – Number of Persons Employed, 1997**

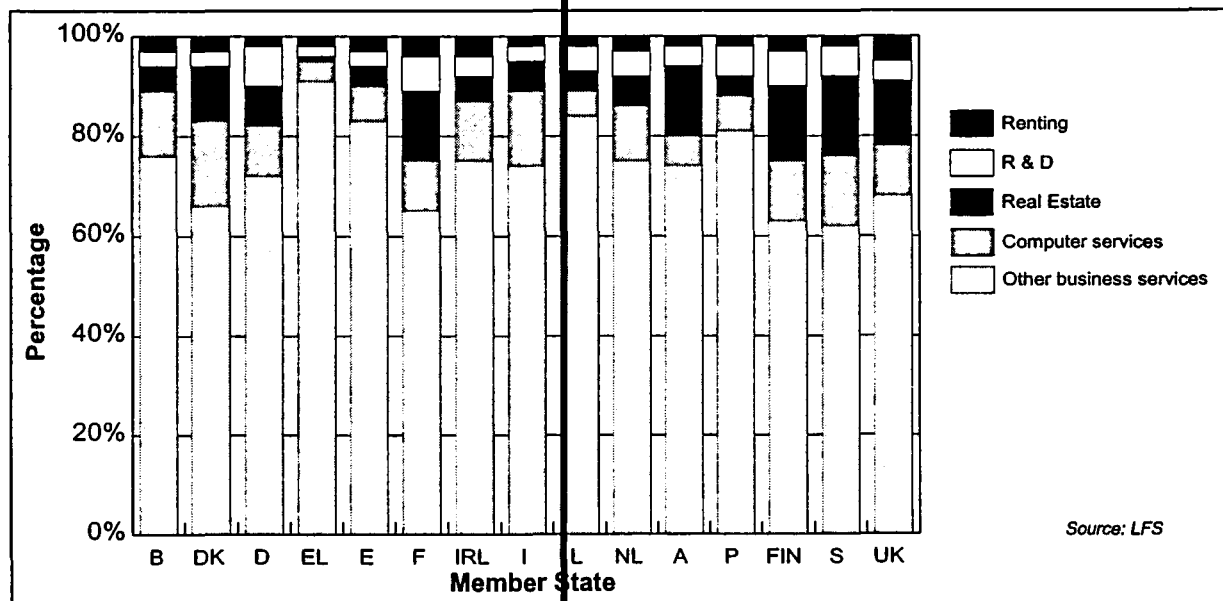
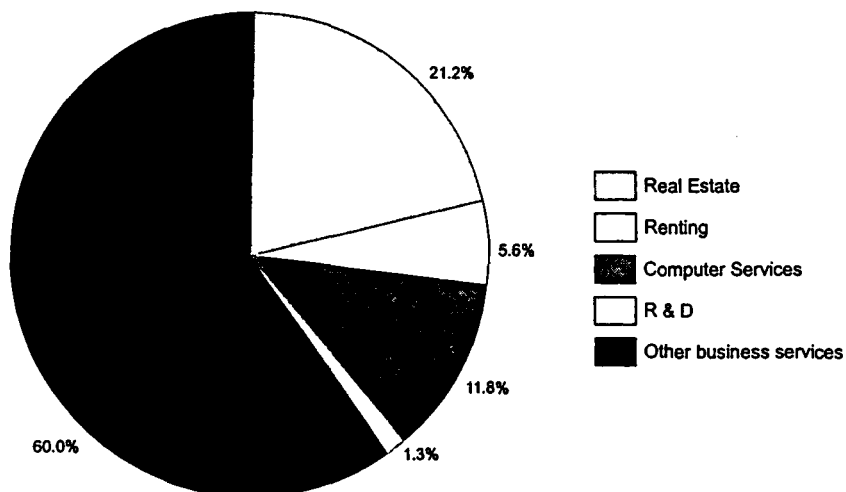


Figure 1.3 shows the share of each Division of Section K in total business services using the employment data collected in the Labour Force Survey (LFS). However it is dangerous to rely solely on the employment figures from the LFS as indicators of the relative importance of sectors of the economy because they represent head counts and are not adjusted to take account of the extent of part-time working. A better measure would be afforded if full-time equivalents were available, unfortunately this is not the case.

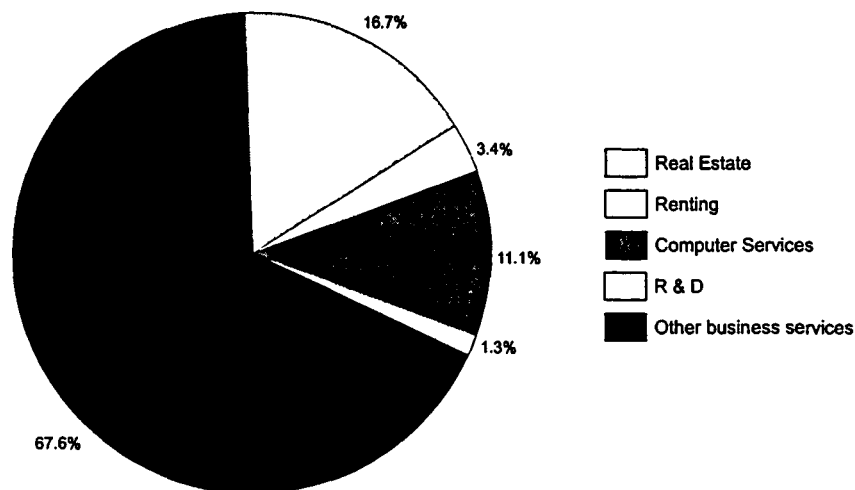
More information about business services can be gleaned from the data collected under the Structural Business Statistics Regulation. Employment aside, the SBSR collects a wide variety of data including turnover, purchases and investment. Figures 1.4 and 1.5 below show turnover and employment collected under the SBSR. Unfortunately data from this source, for both variables, are only available for Belgium, France, Ireland, Italy, Austria, Portugal and Finland and the figures are restricted to data collected from these countries.

Figure 1.4 Percentage of Turnover, within EU, within Section K, by Division, 1997



Source: SBSR

Figure 1.5 Percentage of persons employed, within EU, within Section K, by Division, 1997



Source: SBSR

The figures show the percentage share that each Division has of the business services in terms of these variables. Viewed from the perspective of the aggregate of the seven countries, the charts, in terms of employment, generally confirm the picture drawn by the Labour Force Survey.

The picture, as presented by the data in terms of SBSR turnover, is a little different from that for LFS employment. There are a number of reasons for this. The most transparent is that turnover per head varies considerably from one activity to another. For example, turnover per head in Division 71 (renting of machinery and equipment without operator) is very much higher than in Division 74 (other business activities). This is because for renting, the level of turnover has to be high in order to finance the high costs of equipment to be rented out as well as to meet the employment costs and to contribute to profits. For industrial cleaning, equipment costs are low and the turnover need not be so high. There are also differences in wage rates among the different activities that contribute further to this different picture, but a less obvious reason is the difference in the source of the data.

SBSR data are generally collected from a sample of enterprises classified to the different economic activities using a Register of businesses. There may be errors in the Register but, apart from sampling errors, the data provide the best estimates for individual activities in Member States. The Labour Force Survey is intended to provide a range of information about the people and their jobs. One of the products of the survey is an estimate of the number of people working in the different activities, but the information about those activities comes from the individual workers and not from the more accurate information on the classification of individual businesses held on Business Registers.

This means that someone being interviewed for the LFS may well suggest an alternative classification for the enterprise where he works than is held on the Business Register. Indeed, if the person to be interviewed is not available then another member of the family is often required to provide the required information. Given the difficulties of classifying individual enterprises, particularly those which carry out more than one economic activity it would be surprising if the results of the LFS were as accurate as the SBSR data in this regard.

**1.1 Business services importance to the whole economy**

It has been postulated that the size of the economy, the development of the economy as measured by GDP per head or the success of the economy as measured by the employment rate in the economy might be associated with the strength of business services in the economy. The interrelationship between these and the limited availability of data available for Member States make it difficult to carry out comprehensive studies but the following charts plot a possible relationship between Section K as a percentage of the whole economy, firstly with GDP per head, and secondly with the employment rate.

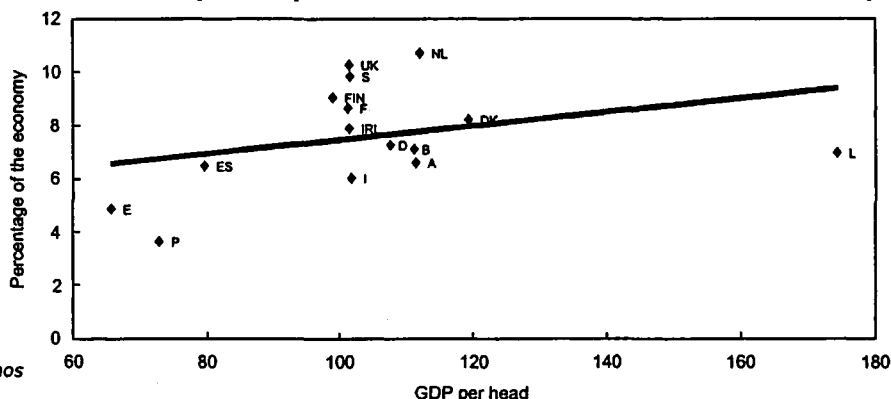
The correlation between the variables in the above table is not statistically significant but the exclusion of Luxembourg, which in many ways is different from other Member States and

can be considered atypical, leads to a correlation coefficient, at 0.626, is significant at the 1% level. The regression line shown on the chart ignores Luxembourg.

This relationship, if it can be said to exist is less strong. The correlation coefficient almost makes it to the 5% level, the level normally taken to imply a significant relationship, but not quite.

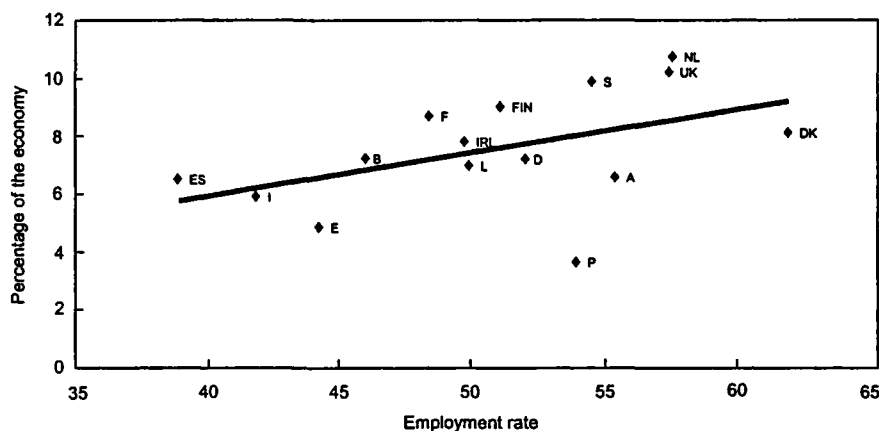
Just using the above, it is difficult to be precise about the relationship between the importance of business services in the economy and either GDP per head or the employment rate in the economy. There are undoubtedly other interrelated causal variables and the existence of these make it difficult to the true relationship. However, it does appear to be the case that GDP per head is associated with the relative strength of business services in any economy.

**Figure 1.6 Relationship of importance of business services with GDP per head**



Source: New Cronos

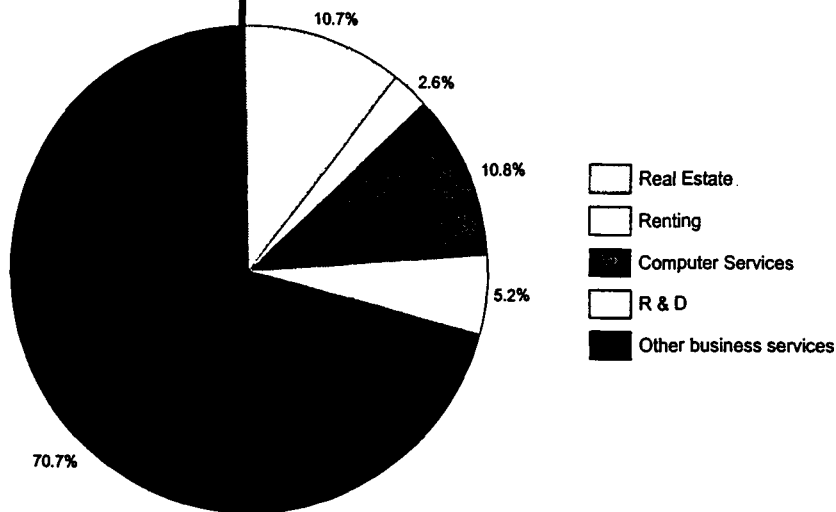
**Figure 1.7 Relationship of importance of business services with the employment rate**



Source: LFS



**Figure 1.8 Share of each Division within business services by number of persons employed, 1997**



Source: LFS

**1.2 The importance of other business services**

The most obvious feature of the Figure 1.8 is the predominance of Division 74, which is "Other business services" and the relatively small contribution from Divisions 71 and 73. This is shown more starkly in the above pie chart but this hides some significant differences from the overall EU picture in the patterns shown for individual Member States. The extent to which individual countries deviate from the average can more easily be seen by constructing a statistic designed to show such deviations.

Such a statistic is the sum of squares of the deviations of each Member's share from the EU total. Clearly the closer this statistic is to zero the closer the Member State to the European average. The figures, which appear below show, that the central European countries form a group which are all relatively close to the European average with Germany and the UK being the closest. Greece, Spain and Portugal are quite different and the Scandinavian countries though generally not as different as the Southern States are nevertheless less close. Luxembourg appears to be atypical.

**Table 1.1 Sum of the squares of the deviations of each members' share from the EU total, 1997**

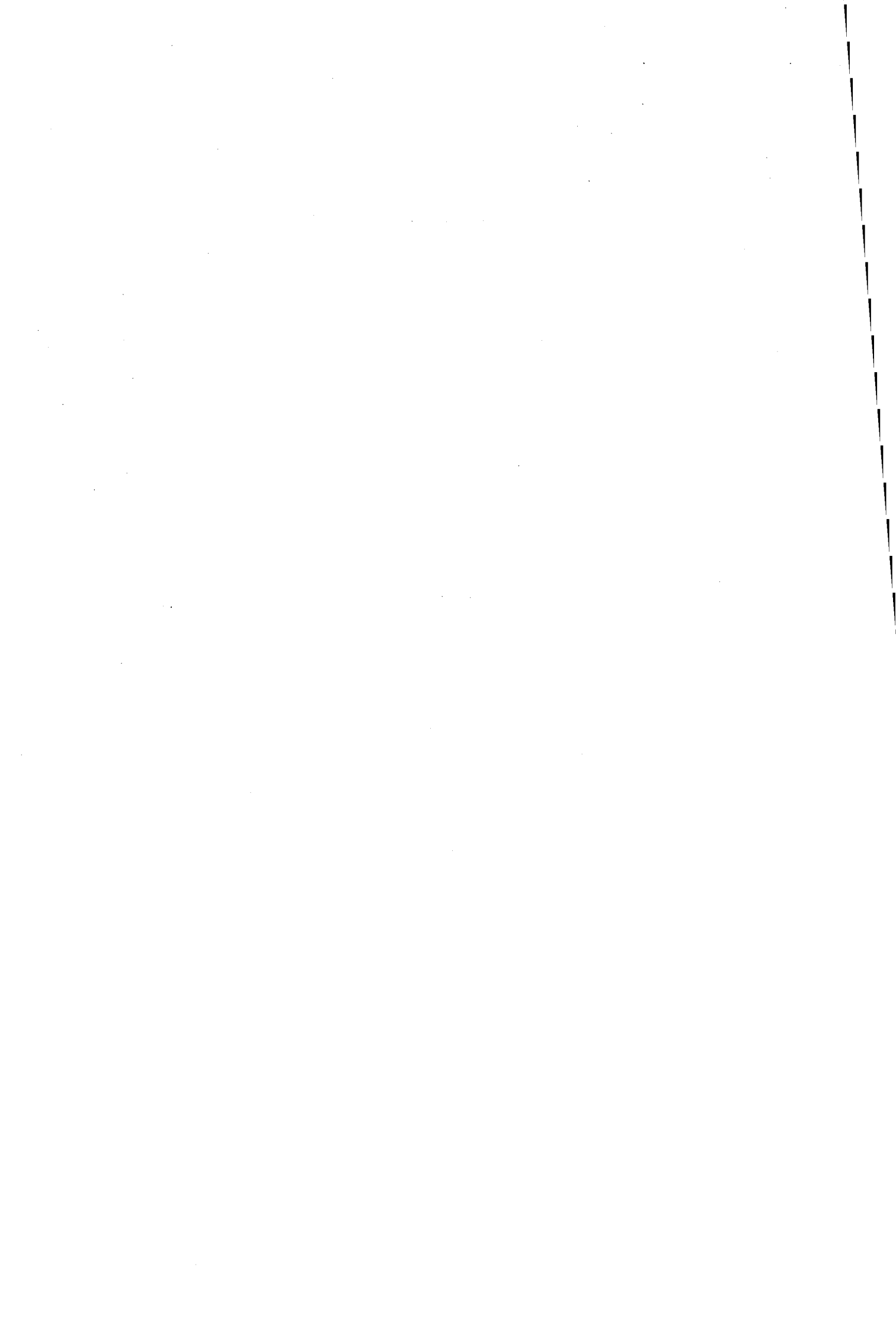
D	11	DK	62
UK	30	FIN	92
NL	41	P	135
A	46	S	139
IRL	48	E	226
F	50	L	242
B	52	EL	552

Source: LFS



# Summary Data

## Chapter 2



The data shown in the following tables has been collected under the Council Regulation No 58/97 concerning structural business statistics. The Regulation was passed following extensive discussion with Member States about which data should be collected, for which grouping of activities and with which periodicity since not all data collected under the Regulation is required to be collected annually.

Even though the discussions leading to the passing of the Regulation were carried out over a long period of time, it was not possible for all Member States to set up the collection of data for all variables and for all activities immediately. Derogations were given to Member States, where this was requested, which means that, at the time of writing, it is not always possible to create European aggregates for all the data items specified in the Regulation.

The SBSR requires that Member States provide data to Eurostat using the classification system set down in NACE Rev.1

- The data in this section is provided for:
- Division 70 real estate activities;
  - Division 71 renting of machinery and equipment without operator and of personal and household goods;
  - Division 72 computer and related activities;
  - Division 73 research and development;
  - Division 74 other business activities.

Consistent data is not available for all Member States which means that a full analysis for the fourteen Member States, (there is no data at all for Greece), is not possible and the observations made about the data are generally confined to those Member States who have provided figures.

The SBSR data used in this chapter appears in tables 2.1 to 2.4.

In order to provide an overview of the relationship between some of the more important variables Figures 2.1 and 2.2 show the number of persons employed, and the value-added in each Division as a percentage of the total of each of these variables for Section K. The tables are necessarily limited to those Member States for which data is available for all of these variables. If all enterprises were performing to the same set of operating characteristics then the relative importance of each Division within Section K would remain the same whichever of the three variables was used to measure it.

Figure 2.1 provides data that might be expected to compare favourably with a similar figure drawn from data collected in the Labour Force Survey, although the figures relate to different years. The only significant difference relates to data for Division 73 (research and development) which, although only a small percentage of Section K employment, accounts for a very much smaller percentage of the SBSR data than it does of the LFS data. A plausible explanation is that those providing information in respect of the LFS tend to provide an answer which depends less upon the activity of the enterprise in which they work than on the specific activity they are undertaking. For example in a LFS interview someone working on R&D in an enterprise classified to aerospace might be more likely to define himself as working on R&D rather than in the aerospace industry thus leaving R&D as an activity overstated in the LFS as compared with the SBSR data.

**Figure 2.1 Divisional share of persons employed within Section K in the EU, 1997**

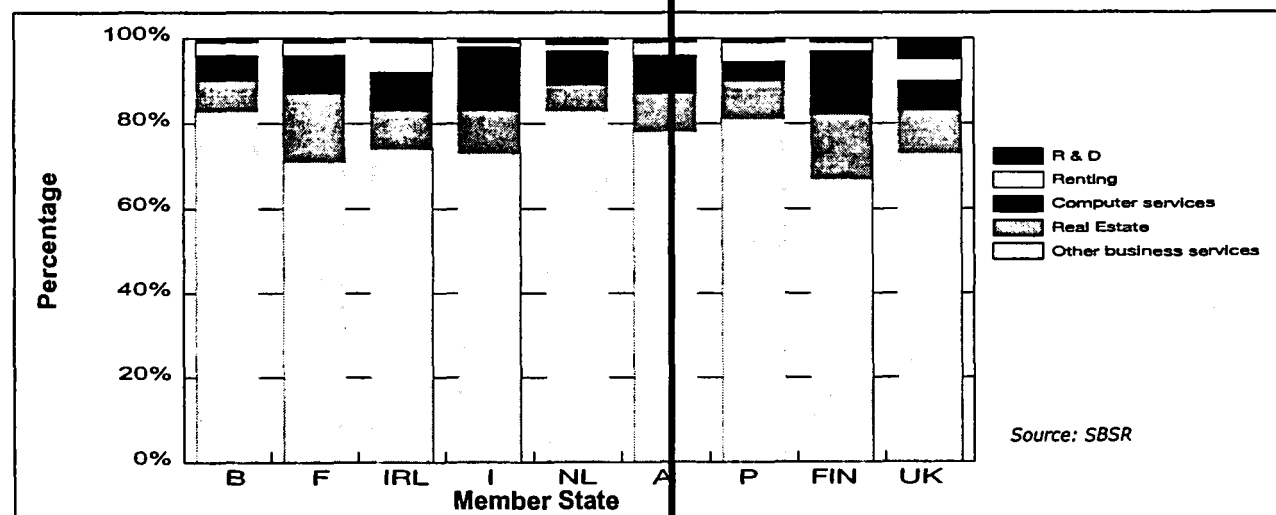


Figure 2.2 Divisional share of value added within Section K in the EU, 1997

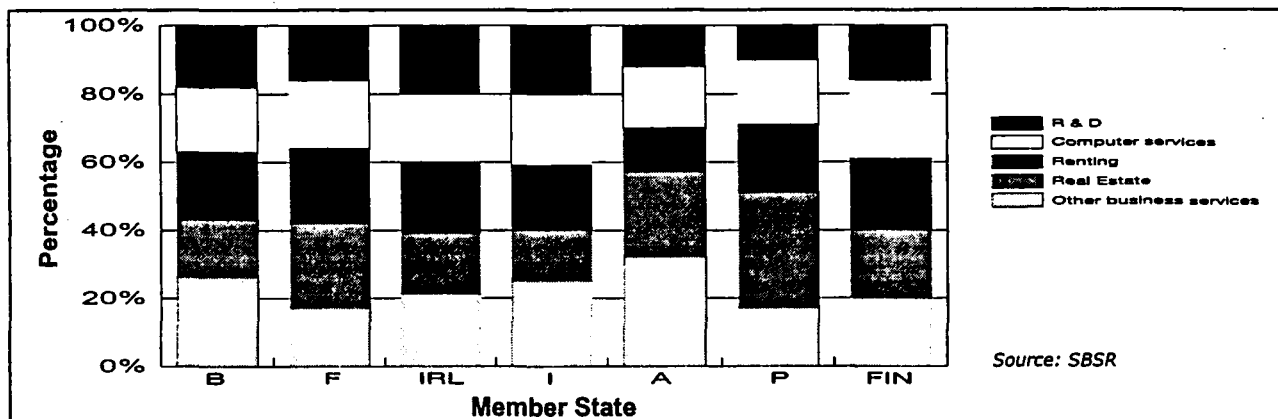


Figure 2.3 Persons employed per enterprise in selected member states, 1997

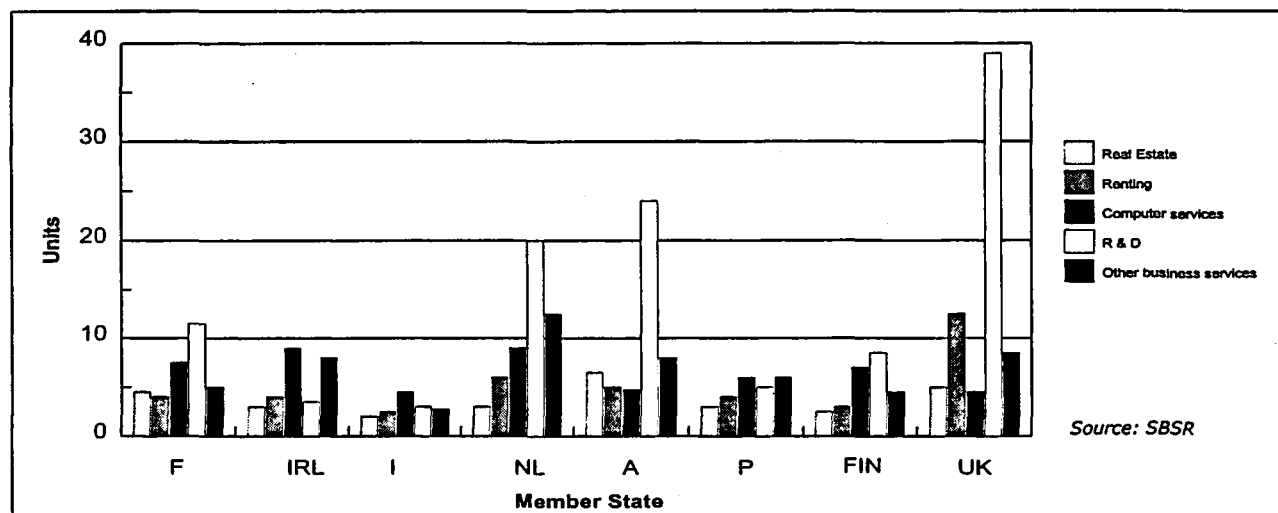


Figure 2.4 Value added per person employed within Section K in the EU, 1997

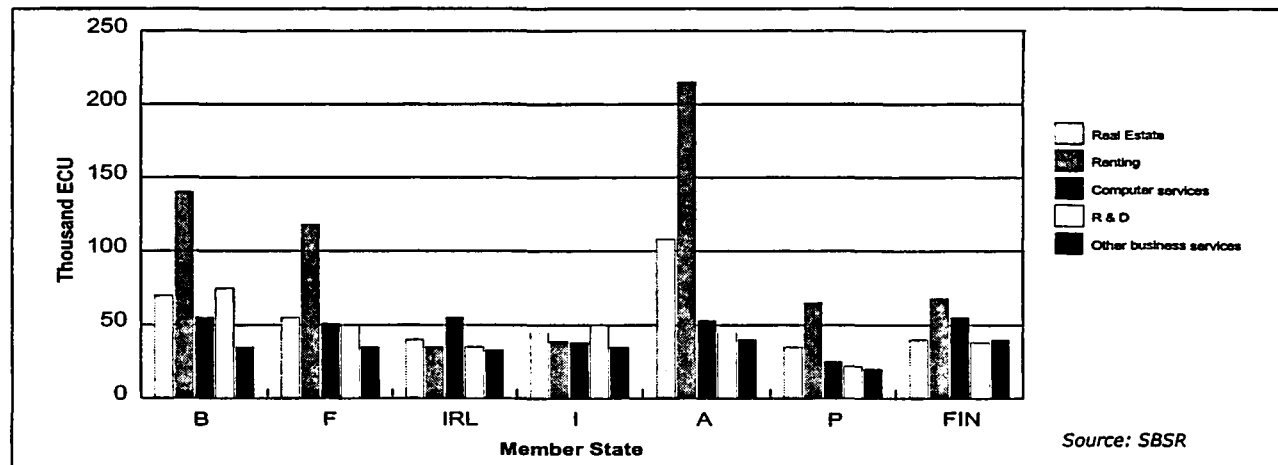


Table 2.1 Enterprise and employment characteristics in the EU, 1997<sup>(1)</sup>

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
<b>Real estate, renting and business activities, Nace Rev. 1 Section K</b>															
Enterprises (hundred)	:	:	6,325	:	3,781	3,577	142	6,666	45	1,032	329	492	377	1,363	3,955
Enterprise density (per 10,000 inhabitants)	:	:	83.2	:	:	7.5	38.7	115.9	107.3	66.1	40.7	49.5	73.4	:	62.9
Persons employed (hundred)	3,502	:	:	:	20,111	919	15,184	257	10,899	2,063	2,440	1,311	4,178	29,263	
Ratio of employees to persons employed (%)	79.3	:	:	:	:	3.6	82.6	50.1	90.7	:	83.9	85.6	87.2 <sup>(m)</sup>	78.7	84.3
Persons employed per enterprise (units)	:	:	:	:	:	5.2	6.5	2.3	5.7	10.6	6.3	5.0	3.5	3.1	7.4
<b>Real estate activities, Nace Rev. 1 Division 70</b>															
Enterprises (hundred)	:	:	2,249	:	615	593	23	1,050	8	180	33	90	98	281	552
Enterprise density (per 10,000 inhabitants)	:	:	27.4	:	15.6	11.8	6.2	18.3	18.6	11.6	4.1	9.0	19.2	:	9.4
Persons employed (hundred)	199	:	:	:	3,025	69	1,652	16	577	208	236	223	726	2,859 <sup>(m)</sup>	
Ratio of employees to persons employed (%)	56.8	:	:	:	:	0.0	54.1	24.3	64.1	:	86.7	75.2	82.4 <sup>(m)</sup>	70.4	84.3 <sup>(m)</sup>
Persons employed per enterprise (units)	:	:	:	:	:	4.4	3.0	1.6	2.0	3.2	6.3	2.6	2.3	2.6	4.8 <sup>(m)</sup>
<b>Renting of machinery and equipment without operator ..., Nace Rev. 1 Division 71</b>															
Enterprises (hundred)	:	44	250	:	168	200	12	79	2	40	13	25	10	48	108
Enterprise density (per 10,000 inhabitants)	:	8.3	3.1	:	4.3	3.4	3.3	1.4	4.6	2.6	1.7	2.5	1.9	:	1.8
Persons employed (hundred)	88	65	:	:	:	553	57	151	5	228	59	90	26	118	1,460 <sup>(m)</sup>
Ratio of employees to persons employed (%)	71.2	53.0	:	:	:	8.0	79.5	40.1	91.1	:	79.4	78.0	:	72.8	84.3 <sup>(m)</sup>
Persons employed per enterprise (units)	:	1.5	:	:	:	3.3	4.7	1.9	2.6	5.7	4.4	3.6	2.6	2.5	12.4 <sup>(m)</sup>
<b>Computer and related activities, Nace Rev. 1 Division 72</b>															
Enterprises (hundred)	:	67	375	:	154	274	11	473	4	90	46	22	29	153	643
Enterprise density (per 10,000 inhabitants)	:	12.7	4.6	:	3.9	4.7	3.0	8.2	c	5.7	5.8	2.2	5.7	:	11.0
Persons employed (hundred)	265	215	:	:	656 <sup>(m)</sup>	2,000	97	2,001	c	790	198	118	181	610	2,268 <sup>(m)</sup>
Ratio of employees to persons employed (%)	82.3	79.9	:	:	85.4 <sup>(m)</sup>	9.0	92.3	70.3	c	86.6 <sup>(m)</sup>	76.1	89.7	92.7 <sup>(m)</sup>	83.6	84.3 <sup>(m)</sup>
Persons employed per enterprise (units)	:	3.2	:	:	5.2 <sup>(m)</sup>	7.3	8.8	4.2	c	8.8	4.3	5.5	6.2	4.0	4.0 <sup>(m)</sup>
<b>Research and development, Nace Rev. 1 Division 73</b>															
Enterprises (hundred)	:	:	56	:	115	19	1	62	0	14	1	0	2	16	25
Enterprise density (per 10,000 inhabitants)	:	:	0.7	:	2.9	0.3	0.3	1.1	c	0.9	0.1	0.0	0.3	:	0.4
Persons employed (hundred)	36	:	:	:	:	219	4	189	c	285	13	1	14	121	1,085 <sup>(m)</sup>
Ratio of employees to persons employed (%)	95.9	:	:	:	:	9.9	67.0	65.2	c	96.8	60.0	95.3 <sup>(m)</sup>	92.2	84.3 <sup>(m)</sup>	
Persons employed per enterprise (units)	:	:	:	:	:	1.3	3.6	3.1	c	19.8 <sup>(m)</sup>	24.5	3.7	8.3	7.8	39.0 <sup>(m)</sup>
<b>Other business activities, Nace Rev. 1 Division 74</b>															
Enterprises (hundred)	:	407	3,898	:	2,951	2,771	95	5,003	31	708	236	355	238	866	2,383
Enterprise density (per 10,000 inhabitants)	:	77.1	47.5	:	75.1	77.3	25.9	87.0	73.4	45.4	29.2	35.7	46.3	:	40.5
Persons employed (hundred)	2,914	1,391	:	:	14,714	692	11,192	194	9,018	1,584	1,995	867	2,604	21,591 <sup>(m)</sup>	
Ratio of employees to persons employed (%)	80.6	55.8	:	:	:	8.0	84.4	50.2	91.4	:	84.6	87.0	87.2 <sup>(m)</sup>	79.5	84.3 <sup>(m)</sup>
Persons employed per enterprise (units)	:	3.4	:	:	:	5.3	7.3	2.2	6.3	12.7	6.7	5.6	3.6	3.0	8.2 <sup>(m)</sup>

(1) Per Nace and country there are different years available. If the year for a value in a cell does not correspond to the year given in the headline or in the comments for each Nace category it is indicated in brackets. The years are as follows per Nace and country:

Nace Section K: I data for 1996

Nace Division 70: I data for 1996

Nace Division 71: E and I data for 1996; DK data for 1995

Nace Division 72: I and L data for 1996; DK data for 1995

Nace Division 73: I data for 1996

Nace Division 74: I data for 1996; DK data for 1995

All data for Luxembourg are provisional. 1997 data for the Netherlands

: = not available

e = estimation

c = confidential

Source: Eurostat (SBS database)

Table 2.2 Turnover characteristics in the EU, 1997<sup>(1)</sup>

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
<b>Real estate, renting and business activities, Nace Rev. 1 Section K</b>															
Turnover (billion ECU)	32.3	:	385.9	:	:	227.5	5.9	98.4	2.3	:	21.8	14.1	10.7	46.8	250.6
Turnover/person employed (thousand ECU)	92.2	:	:	:	:	110.4	64.4	64.8	88.7	:	105.7	58.0	81.8	112.0	:
Turnover per enterprise (thousand ECU)	:	:	565.2	:	:	574.9	417.3	147.6	504.2	:	663.1	287.4	284.1	343.4	:
<b>Real estate activities, Nace Rev. 1 Division 70</b>															
Turnover (billion ECU)	3.5	:	107.4	:	:	53.9	0.5	14.6	0.3	:	5.6	4.3	2.3	15.7	33.3
Turnover/person employed (thousand ECU)	175.2	:	:	:	:	178.1	72.6	88.6	179.1	:	269.3	181.0	102.6	216.7	:
Turnover per enterprise (thousand ECU)	:	:	477.4	:	:	777.3	219.6	139.4	355.0	:	1,707.6	475.6	232.6	558.8	603.2
<b>Renting of machinery and equipment without operator ..., Nace Rev. 1 Division 71</b>															
Turnover (billion ECU)	3.0	0.9	32.4	:	:	13.5	0.5	1.6	0.3	4.6	1.9	1.0	0.4	1.9	17.1
Turnover/person employed (thousand ECU)	339.0	143.6	:	:	:	207.5	82.1	107.1	521.8	199.5	320.9	107.2	149.6	158.6	54.3 <sup>(m)</sup>
Turnover per enterprise (thousand ECU)	:	212.5	1,295.4	:	:	678.1	385.1	203.8	1,349.2	1,144.2	1,419.6	383.1	392.3	392.5	1,591.3
<b>Computer and related activities, Nace Rev. 1 Division 72</b>															
Turnover (billion ECU)	3.3	2.6	24.9	:	3.8	22.0	0.9	16.2	c	7.7	2.3	0.8	1.9	6.7	33.1
Turnover/person employed (thousand ECU)	124.9	122.0	:	:	58.6	109.8	92.2	81.2	c	98.1	116.7	71.0	103.0	109.9	82.2 <sup>(m)</sup>
Turnover per enterprise (thousand ECU)	:	389.7	664.9	:	304.2	801.9	813.8	343.5	c	864.4	498.7	389.8	636.8	439.2	338.6 <sup>(m)</sup>
<b>Research and development, Nace Rev. 1 Division 73</b>															
Turnover (billion ECU)	0.5	:	3.0	:	:	3.2	0.0	1.5	c	:	0.1	0.0	0.1	1.3	6.0
Turnover/person employed (thousand ECU)	142.0	:	:	:	:	146.5	56.4	81.1	c	:	45.7	51.4	77.2	110.5	:
Turnover per enterprise (thousand ECU)	:	:	532.0	:	:	1,657.6	204.9	247.6	c	:	1,120.7	188.8	643.8	859.5	2,382.5
<b>Other business activities, Nace Rev. 1 Division 74</b>															
Turnover (billion ECU)	22.0	9.1	218.2	:	:	134.9	4.0	64.4	1.3	41.5	11.9	8.1	6.1	21.2	161.1
Turnover/person employed (thousand ECU)	75.5	65.1	:	:	:	91.7	58.2	57.5	65.7	46.0	75.3	40.4	70.1	81.3	44.0 <sup>(m)</sup>
Turnover per enterprise (thousand ECU)	:	222.4	560.0	:	:	486.8	425.3	128.6	412.6	585.3	506.3	227.1	255.0	244.6	676.0

(1) Per Nace and country there are different years available. If the value in a cell does not correspond to the year given in the headline, the year is indicated in brackets. The years are as follows per Nace and country:

Nace Section K: I data for 1996

Nace Division 70: I data for 1996

Nace Division 71: I data for 1996; DK data for 1995

Nace Division 72: I and L data for 1996; DK and E data for 1995

Nace Division 73: I data for 1996

Nace Division 74: I data for 1996; DK data for 1995

All data for Luxembourg are provisional and data for the Netherlands are provisional for Nace division 71, 72 and 74

: = not available

c = confidential

Source: Eurostat (SBS database)



**Table 2.3 Main indicators as a share of turnover in each sector in the EU(%), 1997<sup>(1)</sup>**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK	
<b>Real estate, renting and business activities, Nace Rev. 1 Section K</b>																
Production value	u	:	:	:	:	87.6	81.6	96.2	83.0	:	79.1	97.5	99.7	105.1	:	
Value added factor costs	42.2	:	:	:	:	39.4	53.2	50.6	52.5	:	48.5	31.3	50.5	48.7	:	
Personnel costs	25.2	:	:	:	:	28.8	:	19.7	32.5	:	24.3	17.6	31.3	25.7	28.9	
Gross investment	:	:	:	:	:	13.3	7.5	7.9	:	:	22.8	15.9	11.4	30.7	13.1	
<b>Real estate activities, Nace Rev. 1 Division 70</b>																
Production value	u	:	:	:	:	84.9	86.0	115.3	43.5	:	64.3	91.1	98.3	106.6	:	
Value added factor costs	41.0	:	:	:	:	31.3	53.8	50.0	28.8	:	39.4	19.5	36.3	55.2	:	
Personnel costs	9.8	:	:	:	:	12.3	:	6.5	10.4	:	10.7	5.0	17.3	10.4	17.5	
Gross investment	:	:	:	:	:	26.3	26.7	19.4	1.1 <sup>(u)</sup>	:	54.9	10.3	27.2	74.5	50.7	
<b>Renting of machinery and equipment without operator ..., Nace Rev. 1 Division 71</b>																
Production value	u	:	:	:	:	98.4	79.5	93.5	83.7	96.0	86.2	99.0	97.3	102.8	:	
Value added factor costs	41.5	:	:	:	:	56.8	41.6	36.7	57.0	60.4	66.0	63.8	49.0	43.1	:	
Personnel costs	7.0	12.5	:	:	:	12.0	:	11.5	6.7	10.3	7.5	8.8	14.9	14.4	18.0	
Gross investment	:	:	:	:	:	77.3	25.8	65.9	27.0 <sup>(u)</sup>	69.7	61.0	92.1	32.2	36.3	47.3	
<b>Computer and related activities, Nace Rev. 1 Division 72</b>																
Production value	u	:	:	:	:	76.2	91.2	88.1	89.6	79.8	89.4	82.8	97.1	98.1	97.4	:
Value added factor costs	43.5	:	:	:	:	52.1	47.0	57.7	43.9	44.4	73.2	44.3	34.9	51.8	47.7	:
Personnel costs	32.8	30.8	:	:	:	38.2	41.7	:	27.8	37.3	43.8	28.7	25.3	37.0	36.7	33.5
Gross investment	:	:	:	:	:	6.8	3.2	7.1	4.3	3.0 <sup>(u)</sup>	3.6	5.0	7.0	4.8	4.7	5.2
<b>Research and development, Nace Rev. 1 Division 73</b>																
Production value	u	:	:	:	:	99.0	87.2	105.6	c	:	90.9	100.0	99.1	103.2	:	
Value added factor costs	59.5	:	:	:	:	33.2	57.9	62.3	c	:	94.4	28.5	47.3	39.0	:	
Personnel costs	43.0	:	:	:	:	32.4	:	33.1	c	:	100.8	10.9	39.9	34.8	42.2	
Gross investment	:	:	:	:	:	7.3	4.8	9.7	c	:	13.1	10.9	7.2	9.6	12.7	
<b>Other business activities, Nace Rev. 1 Division 74</b>																
Production value	u	:	:	:	:	86.8	79.8	93.4	88.4	99.6	84.2	100.7	100.9	106.9	:	
Value added factor costs	41.8	:	:	:	:	39.8	53.4	52.5	57.7	62.5	50.6	33.4	55.6	45.4	:	
Personnel costs	28.5	33.4	:	:	:	34.8	:	20.5	36.8	37.0	32.2	24.5	35.7	34.1	31.0	
Gross investment	:	:	:	:	:	3.4	3.2	4.8	3.3 <sup>(u)</sup>	7.2	5.1	10.6	6.2	7.3	3.4	

(1) Per Nace and country there are different years available. The years are as follows per Nace and country:

Nace Section K: I data for 1996

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Nace Division 71: I data for 1996; DK data for 1995

Nace Division 72: I and L data for 1996; DK and E data for 1995

Nace Division 73: I data for 1996

Nace Division 74: I data for 1996; DK data for 1995

All data for Luxembourg are provisional

: = not available

c = confidential

u = unreliable data

Source: Eurostat (SBS database)

## 2 SUMMARY DATA

## BUSINESS SERVICES IN EUROPE

**Table 2.4 Productivity / competitiveness indicators in the EU, 1997<sup>(1)</sup>**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
<b>Real estate, renting and business activities, Nace Rev. 1 Section K</b>															
Personnel costs (billion ECU)	8.1	:	:	:	:	65.4	:	19.4	0.7	:	5.3	2.5	3.4	12.0	72.4
Personnel cost/employee (1000 ECU)	29.3	:	:	:	:	33.9	:	25.5	31.8	:	30.7	11.9	31.3 <sup>(m)</sup>	36.6	23.2
Share of personnel costs in total production (%)	:	:	:	:	:	32.8	:	20.5	39.2	:	30.8	18.1	31.4	24.5	:
Value added at factor costs (billion ECU)	13.6	:	:	:	:	89.6	3.1	49.8	1.2	:	10.6	4.4	5.4	22.8	:
Value added/person emp. (1000 ECU)	38.9	:	:	:	:	43.5	34.2	32.8	46.5	:	51.3	18.2	41.3	54.6	:
Wage adjusted labour productivity (%)	132.6	:	:	:	:	128.0	:	128.7	146.3	:	167.2	152.4	141.1 <sup>(m)</sup>	149.1	:
Gross investment in tangible goods (billion ECU)	:	:	:	:	:	30.2	0.4	7.8	0.1 <sup>(m)</sup>	:	5.0	2.2	1.2	14.4	32.8
Investment/person employed (1000 ECU)	:	:	:	:	:	14.6	4.9	5.1	5.2 <sup>(m)</sup>	:	24.0	9.2	9.3	34.4	:
Gross operating rate (%)	17.0	:	:	:	:	10.6	:	30.9	19.9	:	24.2	13.7	19.2	23.0	:
<b>Real estate activities, Nace Rev. 1 Division 70</b>															
Personnel costs (billion ECU)	0.3	:	:	:	:	6.6	:	1.0	0.0	:	0.6	0.2	0.4	1.6	5.8
Personnel cost/employee (1000 ECU)	30.3	:	:	:	:	31.2	:	23.8	29.0	:	33.3	12.1	:	31.9	21.0
Share of personnel costs in total production (%)	:	:	:	:	:	14.4	:	5.7	23.8	:	16.7	5.5	17.5	9.7	:
Value added at factor costs (billion ECU)	1.4	:	:	:	:	16.9	0.3	7.3	0.1	:	2.2	0.8	0.8	8.7	:
Value added/person emp. (1000 ECU)	71.8	:	:	:	:	55.8	39.1	44.3	51.5	:	106.2	35.3	37.2	119.7	:
Wage adjusted labour productivity (%)	237.2	:	:	:	:	179.0	:	186.3	177.7	:	319.4	291.6	:	374.9	:
Gross investment in tangible goods (billion ECU)	:	:	:	:	:	14.2	0.1	2.8	:	:	3.1	0.4	0.6	11.7	16.9
Investment/person employed (1000 ECU)	:	:	:	:	:	46.8	19.4	17.2	:	:	147.7	18.6	27.9	161.5	:
Gross operating rate (%)	31.2	:	:	:	:	19.0	:	43.5	18.4	:	28.7	14.5	19.0	44.9	:
<b>Renting of machinery and equipment without operator ..., Nace Rev. 1 Division 71</b>															
Personnel costs (billion ECU)	0.2	0.1	:	:	:	1.6	:	0.2	0.0	0.5	0.1	0.1	0.1	0.3	3.1
Personnel cost/employee (1000 ECU)	33.4	33.8	:	:	:	28.1	:	30.6	38.2	24.4 <sup>(m)</sup>	30.2	12.1	28.6 <sup>(m)</sup>	31.3	23.0
Share of personnel costs in total production (%)	:	:	:	:	:	12.1	:	12.3	8.0	10.8	8.7	8.9	15.3	14.0	:
Value added at factor costs (billion ECU)	1.2	:	:	:	:	7.7	0.2	0.6	0.1	2.8	1.2	0.6	0.2	0.8	:
Value added/person emp. (1000 ECU)	140.7	:	:	:	:	117.9	34.1	39.3	297.4	120.5	211.8	68.4	73.3	68.4	:
Wage adjusted labour productivity (%)	421.2	:	:	:	:	420.0	:	128.5	779.4	496.6 <sup>(m)</sup>	700.8	564.9	241.6 <sup>(m)</sup>	218.1	:
Gross investment in tangible goods (billion ECU)	:	:	:	:	:	10.5	0.1	1.1	0.1 <sup>(m)</sup>	3.2	1.2	0.9	0.1	0.7	8.1
Investment/person employed (1000 ECU)	:	:	:	:	:	160.3	21.2	70.6	124.7 <sup>(m)</sup>	139.1	195.9	98.7	48.2	57.6	150.0 <sup>(m)</sup>
Gross operating rate (%)	34.5	:	:	:	:	44.9	:	25.2	50.3	50.0	58.5	55.0	34.1	28.7	:
<b>Computer and related activities, Nace Rev. 1 Division 72</b>															
Personnel costs (billion ECU)	1.1	0.8	:	:	:	1.5	9.2	:	4.5	c	3.4	0.7	0.2	0.7	11.1
Personnel cost/employee (1000 ECU)	49.7	47.0	:	:	:	20.2	46.3	:	32.1	c	43.8 <sup>(m)</sup>	44.0	20.0	41.3 <sup>(m)</sup>	31.5
Share of personnel costs in total production (%)	:	:	:	:	:	50.1	45.7	:	31.1	c	49.0	34.7	26.0	37.7	37.7
Value added at factor costs (billion ECU)	1.4	:	:	:	:	2.0	10.3	0.5	7.1	c	5.7	1.0	0.3	1.0	3.2
Value added/person emp. (1000 ECU)	54.3	:	:	:	:	30.5	51.6	53.2	35.7	c	:	51.7	24.8	53.3	52.5
Wage adjusted labour productivity (%)	109.2	:	:	:	:	116.5	112.0	:	110.9	c	:	117.5	123.9	131.0 <sup>(m)</sup>	108.8
Gross investment in tangible goods (billion ECU)	:	:	:	:	:	0.3	0.7	0.1	0.7	c	0.0	0.1	0.1	0.1	0.3
Investment/person employed (1000 ECU)	:	:	:	:	:	4.0	3.5	6.6	3.5	c	:	5.9	5.0	4.9	5.2
Gross operating rate (%)	10.7	:	:	:	:	13.9	5.4	:	16.1	c	29.4	15.6	9.7	14.8	11.0

Table 2.4 Productivity / competitiveness indicators in the EU, 1997<sup>(1)</sup>

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
<b>Research and development, Nace Rev. 1 Division 73</b>															
Personnel costs (billion ECU)	0.2	:	:	:	:	1.0	:	0.5	c	:	0.1	0.2	0.0	0.5	2.5
Personnel cost/employee (1000 ECU)	63.7	:	:	:	:	47.4	:	41.2	c	:	47.6	9.3	36.4 <sup>(m)</sup>	409.9	28.0
Share of personnel costs in total production (%)	:	:	:	:	:	32.7	:	31.4	c	:	111.0	10.9	40.3	33.7	:
Value added at factor costs (billion ECU)	0.3	:	:	:	:	1.1	0.0	1.0	c	:	0.1	0.0	0.1	0.5	:
Value added/person emp. (1000 ECU)	84.5	:	:	:	:	48.6	32.7	50.6	c	:	43.2	14.6	36.5	43.1	:
Wage adjusted labour productivity (%)	132.8	:	:	:	:	102.4	:	122.8	c	:	90.7	154.3	117.0 <sup>(m)</sup>	10.5	:
Gross investment in tangible goods (billion ECU)	:	:	:	:	:	0.2	0.0	0.1	c	:	0.0	0.0	0.0	0.1	0.8
Investment/person employed (1000 ECU)	:	:	:	:	:	10.7	2.9	7.9	c	:	6.0	5.6	5.6	10.6	:
Gross operating rate (%)	16.5	:	:	:	:	0.8	:	29.2	c	:	:	17.6	7.4	4.3	:
<b>Other business activities, Nace Rev. 1 Division 74</b>															
Personnel costs (billion ECU)	6.3	3.0	:	:	:	47.0	:	13.2	0.5	15.4	3.8	2.0	2.2	7.2	49.9
Personnel cost/employee (1000 ECU)	26.8	39.0	:	:	:	32.7	:	23.5	26.4	:	28.7	11.4	:	34.9	22.1
Share of personnel costs in total production (%)	:	:	:	:	:	40.2	:	22.0	41.6	37.2	38.2	24.4	35.4	31.9	:
Value added at factor costs (billion ECU)	9.2	:	:	:	:	53.7	2.2	33.8	0.7	25.9	6.0	2.7	3.4	9.6	:
Value added/person emp. (1000 ECU)	31.6	:	:	:	:	36.5	31.1	30.2	37.9	28.8	38.1	13.5	39.0	36.9	:
Wage adjusted labour productivity (%)	118.0	:	:	:	:	112.0	:	128.3	143.4	:	133.0	118.3	131.5 <sup>(m)</sup>	105.8	:
Gross investment in tangible goods (billion ECU)	:	:	:	:	:	4.6	0.1	3.1	0.0 <sup>(m)</sup>	3.0	0.6	0.9	0.4	1.5	5.4
Investment/person employed (1000 ECU)	:	:	:	:	:	3.1	1.8	2.7	2.1 <sup>(m)</sup>	3.3	3.9	4.3	4.3	5.9	:
Gross operating rate (%)	13.3	:	:	:	:	4.9	:	32.0	20.9	25.5	18.4	8.8	19.9	11.3	:

(1) Per Nace and country there are different years available. All data for Luxembourg are provisional. The years are as follows per Nace and country:

Nace Section K: I data for 1996

Nace Division 70: I data for 1996

Nace Division 71: I data for 1996; DK data for 1995

Nace Division 72: I data for 1996; DK and E data for 1995

Nace Division 73: I data for 1996

Nace Division 74: I data for 1996; DK data for 1995

: = not available

c = confidential

Source: Eurostat (SBS database)

## Turnover

The aggregate values of turnover shown in Table 2.1 highlight those activities and countries that generate the highest and lowest levels of turnover. Turnover, in each country, is highest in other business services, the next highest, across all countries, is in real estate followed by renting of machinery.

But enterprises within individual industries may have very different methods of operation. For example, one business might buy the output of other businesses and then resell this output with little additional work; a process known as merchanting. Another business may have the same turnover but provide most of the output from its own resources. The latter contributes far more to industry output than does the former. For this reason it is often more informative to look at other measures of output such as production value and value added. A similar position occurs when the business subcontracts much of its work to others.

### 2.1 Enterprises

Enterprises can take different legal forms, have varying types of ownership, as well as being of different sizes (as measured in terms of persons employed, turnover per person employed, or, turnover per enterprise).

Enterprises, although in the same activity grouping, sell different ranges of goods and services to varying types of customers. Customers can be other enterprises, private households and these customers can reside within national boundaries, within the EU area or outside. Any, or, all these factors could play a part in the profitability of enterprises. Policy makers need information on these factors in order to prepare policy instruments that enable EU enterprises to be more competitive and efficient so that the general population can enjoy a good standard of living.

Some countries, as demonstrated by the collection of voluntary data from participating countries, have the ability to analyse aggregate turnover against some of these aspects.

## Enterprise size

There are two main indicators of enterprise size. The first the number of persons employed per enterprise appears in table 2.1 and the second, turnover per enterprise appears in table 2.2.

In terms of persons employed per enterprise the smallest businesses tend to be in Italy, while the largest businesses are generally found in the Netherlands. In the breakdown of these figures by NACE Rev. 1 Divisions, the smallest enterprises, Austria excepted, appear in real estate activities. The largest appear in either, computer and related activities or research and development, depending on the Member State.

In terms of turnover per enterprise Italy still tends to have the smallest businesses while the largest businesses are generally in Austria and France. Data on both bases is not available for the Netherlands, but where it exists it shows that businesses in the Netherlands tend to be amongst the largest across the countries.

The ratio of employees to persons employed (Table 2.1) holds the key as to why Italy has the smallest businesses. Across all activities, apart from research and development, this ratio, for Italy, is by far the smallest. There are also some large differences between Member States; in Italy only half the people working in Section K enterprises are employees; for all other countries the figure is least four out of five while in France fourteen out of fifteen in employment are employees. However, the possibility of other factors affecting the ratio must not be ruled out. Although there are no figures for Denmark covering the whole of Section K there are figures for individual activities that look low in comparison with those of other countries. A major factor in this is that for Denmark the number of employees is measured in terms of full time equivalents and the number of persons employed as head counts. The same is true for Sweden.

The reason that Italy shows so many small businesses, whether in terms of employment, or turnover per enterprise, is that there are many small family businesses in all kinds of activity. This makes for large numbers of small enterprises which reduces both the average employment size and the average employment in each activity.

## 2.2 Enterprises proximity to their customer base

The proximity of enterprises to their customer base can, for many activities, be described in terms of the number of enterprises to the number of households in the population. This can be useful for services that are bought by households but less so for services bought by other businesses. Even so the number of enterprises can also be misleading if it is intended to show proximity to their customer base since a single enterprise may have a large number of local units each providing a service to a different geographical area. Although businesses classified to Section K, are regarded as mainly providing services to other businesses many of them also provide services to households. It would be necessary to collect turnover data by type of client to assess the true extent of this.

Where households are important as customers another way of assessing the relationship between an activity and its customers might be in terms of the number of persons it employs per 10,000 inhabitants. This information is given in the table below. The table also has the purpose of showing the proportion of its population engaged in a particular activity.

Section K shows itself as being more important in the Netherlands than any of the other Member States for which data are available although Luxembourg follows close behind. The data for other Divisions indicate that France has the greatest proportion of its population working in real estate activities and the Netherlands has the greatest proportion working in research and development.

Where other enterprises are clients similar data might be compiled relating the number of local units to the number of potential business customers.

**Table 2.5 Persons employed per 10,000 inhabitants, 1997**

	DK	F	IRL	I	L	NL	A	P	FIN
Section K	:	351.6	250.5	264.0	612.8	698.1	255.2	245.5	255.2
Real Estate	:	51.6	18.8	28.7	38.2	37.0	25.7	23.7	43.4
Renting	12.3	11.1	15.5	2.6	11.9	14.6	7.3	9.1	5.1
Computer services	40.6	34.1	26.4	34.8	:	50.6	24.5	11.9	35.2
R & D	:	3.7	1.1	3.3	:	18.3	16.2	0.1	2.7
Other business services	262.4	251.0	188.6	194.6	462.6	577.6	196.0	200.7	169.2

Source: Eurostat (SBS Database)

## Turnover characteristics

### Main indicators as a share of Turnover

The indicators in Table 2.3 provide information on four important measures in relation to total turnover. The first measure in the table is Production value. This represents turnover after removing the costs of goods and services purchased for resale (merchandising) and adjusted for any changes during the year in stocks of goods and services. A value substantially less than 100 would usually show a high degree of merchandising activity but a value of more than 100 would be due to changes in stocks.

Value added measures the output of an enterprise after removing all costs from turnover except personnel costs and costs associated with investment. Usually the largest costs are the purchases of goods and services used up by the business in generating their own goods and services for sale to their customers. Value added represents the amount available for payment to the personnel working in the enterprise, for investment, for taxation and for distribution as profits. Overall, value added as a percentage of turnover is highest in Division 71, but a high value added is necessary to finance the high levels of investment in this activity.

The percentage of turnover accounted for by value added needs to be looked at within activities that are as comparable as possible between countries because, as it has been mentioned before, it is only to be expected that cost structures for different activities would necessarily be different from one another. One activity may have a much higher percentage of merchandising in its output than another and if two countries had different mixes of these activities in its total then it may not be meaningful to compare them without taking these values into consideration.

As would be expected investment shows some very different patterns between activities but the differences between individual Member States are often quite large suggesting that the pattern of activity might be very different between them. Since Division 74 (other business services) predominates in Section K, it must be expected that the data for this Division will heavily influence the total. And since other business services have such a diverse set of activities, and therefore, a diverse set of cost structures it is difficult to draw any conclusions from the data at this aggregate level. It is therefore necessary to look at the main indicators at a more detailed level. Even data at Division level is difficult to interpret. For example, in real estate activities value added as a percentage of turnover in Ireland and Italy, at over 50 per cent, was very much higher than in Portugal at 19.5 per cent. This suggests that data is required at class level of NACE Rev. 1 to appreciate whether the difference in performance arises because different activities are being pursued, or similar activities are being undertaken with different levels of efficiency.

It is also to be expected that personnel costs, as a percentage of turnover, are highest in those activities which are labour intensive. These are Divisions 72 to 74, and for these Divisions a large proportion of value added is used as compensation for employment. On the other hand, enterprises in Divisions 70 and 71 require higher proportions of capital to operate effectively, and hence investment takes a greater share of value added.

For research and development value added as a percentage of turnover, at 99.4 percent, is very high for Austria suggesting that by far the major input into the activity comes from the labour force. The fact that personnel costs exceed production value might also suggest that there is considerable activity taking place by the labour force in anticipation of future profits. By contrast personnel costs in Portugal by comparison are a mere 10.9 per cent of turnover.

Personnel costs in Italy and Portugal were much lower than elsewhere. For Italy, this almost certainly reflects the lower proportion of employment accounted for by employees. For Portugal it suggests that more of the output of the activity might be bought in from other businesses.

In France, Austria, the Netherlands and Portugal the total for personnel costs and investment in Division 71 is considerably greater than the value added. This would suggest that enterprises engaged in this activity are collectively making a substantial investment for the future. For Austria, of the 5.0 billion ECU of gross investment in tangible goods expended on business services, 3.1 billion ECUs were spent in this sector. However there is a need to be careful in looking at investment data since the figures shown are gross and not net. Some of the funds used to buy new capital goods, for example new cars in the renting, may have been obtained from the sale of older vehicles that were being replaced.

For most activities there is a large variation in the percentage of turnover accounted for by personnel costs; this is probably because of the disparate nature of activity being undertaken within the broad activity classification. However, computer services show relatively little of this variation suggesting that there is a greater harmony in activity for this sector of the economy than elsewhere. This might be explained by the greater effect of globalisation bearing down on efficiency in this activity.

For both Austria and Portugal the percentage of turnover accounted for by personnel costs in renting is very small compared with that for value added. The levels of investment for these two countries would suggest that this is a result of capital playing a greater part in the activity for these countries than it does elsewhere.

## Competitiveness and productivity

The broad range of indicators shown in table 2.4 can be loosely grouped together under the term of competitiveness/productivity indicators. Competitiveness implies that an activity is being undertaken in such a way that its existence is sustainable into the future. Enterprises need to sell their goods and services at a volume and price that enable them to pay for their purchases of goods and services, compensate their workforce, invest in tangible and intangible assets and make reasonable profits, to assure their continued existence.

Value added measures the output of an enterprise after removing all costs from turnover except personnel costs and costs associated with investment. It represents the amount available for payment to personnel working in the enterprise, for investment, for taxation and for distribution as profits. Value added, therefore, is a powerful indicator of the likelihood of sustainability. Clearly an activity cannot continue to exist where value added does not cover the elements discussed above; it might continue in the short term when enterprises are going through cost cutting exercises or investing heavily for the future. In these circumstances, the gross operating rate, as the nearest measure to profits, will be negative.

Productivity measures the relationship between the outputs of the business and the factors of production used to create that output. Businesses can survive with poor productive use of their assets as long as the more productive businesses do not target their markets. But poor productive use of assets represents a threat to the continued existence of businesses.

As with the preceding tables data is not available for all Member States for all variables and observations on the data is therefore restricted to what information is available.

The percentage gross operating rate is the closest measure that can be calculated from the data collected under the SBSR with respect to an indicator of profitability. Gross operating rate is defined as value added less personnel costs expressed as a percentage of turnover. It represents the amount remaining to finance net investment and the distribution of profits. The highest gross operating rates are found in renting of machinery, apart from Italy, followed by real estate. Across countries by far the highest gross operating percentages were observed for Italy: only in the activity of renting of machinery did any other country report a higher figure. The high figures for Italy are perhaps a reflection of the low share of employees in total employment and it is surmised that a sizeable share of the gross operating surplus is used to remunerate working proprietors and those of their family working in the enterprise.

As can be expected given that personnel costs in Austria in Division 73 exceed value added, the gross operating surplus is negative. It would be interesting to establish the reasons why personnel costs are so high, and whether they represent a threat to the sustainability of this activity for those enterprises existing in Austria.

For Section K, the highest available figures for value added per person employed appear for Austria followed closely by Luxembourg and France, thus justifying the relatively high personnel costs in those countries. Italy had a relatively low rate of value added per person employed when compared with the personnel cost. High levels of value added per person employed here defined as high levels of productivity are often associated with a higher skilled workforce and higher levels of capital investment. Both of these require less labour to produce the same output.

For Section K total personnel costs are highest in the UK but personnel costs per employee are lower than for any of the countries for which data are provided apart from Portugal where personnel costs are significantly lower than those for other Member States. France had the highest personnel cost per employee which, at 33.9 thousand ECU per person, was almost half as much again as that of the UK and almost three times that of Portugal.

The same picture is broadly reflected in all other activities, but in general, the highest personnel costs per employee are observed for research and development. This is hardly surprising because it is to be expected that personnel in this activity would, on average, be more highly qualified than in the other activities and would, therefore, command a higher wage. Portugal alone showed lower costs.

For computer services and research and development the levels of personnel costs per employee compared with value added per person employed tended to be nearer in value than for other activities reflecting a closer association being labour and output for these activities. This would suggest that the operation of these activities between Member States is very similar. Given that these activities tend to be those which are most global in their nature this is perhaps not surprising.

Wage adjusted labour productivity is defined as value added divided by personnel costs, which is then divided by the ratio of persons employed to the number of employees. This is done to adjust for the fact that persons employed are used to produce value added but only employees are included in personnel costs.

Employers benefit from a share in the distribution of profits, but in a sense these are only a substitution for wages paid to employees. For business services as a whole, Austria has the highest value with a figure that showed that value added covered personnel costs by almost 70 per cent. Italy recorded the lowest figure of 29 per cent.



**2.2 Wage adjusted labour productivity**

Comparisons based on wage adjusted labour productivity are only truly valid if they are produced, by all countries, on a consistent basis. The best comparison would be therefore be from data where both variables were measured as full-time equivalents. Comparisons where both variables were measured as head-counts are only acceptable provided that there are no large differences, between countries, in the number of part time workers. Ideally, even when using the number of full-time equivalents, the figures should be measured using a common working week and consistency in holiday entitlements but this would be impractical. Clearly where employment is measured as a head-count and the number of employees is measured in full time equivalents, as is the case for Denmark and Sweden, wage adjusted labour productivity lacks meaning. This is particularly the case for activities with large numbers of part-time workers.

For individual activities the highest figures were predominantly in renting of machinery, reflecting the relatively high investment costs that need to be funded in this activity. The lowest values tended to occur in computer and related services where labour costs form a relatively high proportion of value added. In all countries personnel costs per employee are higher in computer activity than in renting of machinery, and from Table 2.3 it can be seen that gross investment as a percentage of turnover is very much higher in renting of machinery than it is in computer activity.



# **Business Services**

## **Chapter 3**



## Detailed data

Data is often collected for the Structural Business Statistics Regulation at a more detailed level than appears in the preceding sections of this publication. While this section presents this data by looking at what is available, from the Regulation, within each of the 2 digit levels of NACE Rev. 1 in turn, it also looks briefly at some of the additional data that is collected by Member States. This additional data is collected by Member States for their own purposes and might include the collection of data on disposals of capital assets or a detailed breakdown or turnover. Some of the additional data is used here to see how it might enable a better understanding of the data collected under the SBSR. This immediately poses the question of whether a future development of the SBSR should include some or all of these variables.

A complete list of additional data available within Member States is not available but a survey of Member States was carried out to see whether data was available for a predetermined list of variables. Further details are provided in the section on methodology.

### Division 70 Real estate activities

For real estate data is only required to be collected at the Division (two digit) level of NACE Rev.1 although real estate contains three different activities at the Group (three digit) level and five at the Class (four digit) level. Each of these has a number of different attributes that make it difficult to make comparisons between countries since the mix of activities may be different in each. At the Group level the activities are:

- Group 70.1 Real estate activity with own property.
- Group 70.2 Letting services of own property
- Group 70.3 Real estate activities on a fee or contract basis

Group 70.1 covers activities related to an enterprise's own property. This includes the development of property already owned or just buying and selling property. These form two separate activities at the four digit level.

Group 70.2 again deals with an enterprise's own property but only with letting services. This includes both residential and commercial property.

Group 70.3 covers the bulk of what most people see as real estate activity that is the selling, usually on a commission basis, of household or business properties. It also covers the management of real estate for others.

Businesses engaged in these activities need a different mix of inputs. Those developing real estate would usually need to own the buildings under development causing them to have higher levels of purchases and investment than businesses which merely rented out properties on a commission basis. The different structure of the businesses would also lead to differences in size of businesses and in the use of labour and the skills employed resulting in different patterns of labour costs.

Thus it is difficult, without some idea of the different mix of real estate activities in different Member States, to understand and interpret fully the wide variations that can be seen in the data which is shown in tables 3.1 to 3.4.

For example, the average turnover per enterprise is very low in Italy compared with that for Austria. One reason is undoubtedly the small average enterprise size in Italy because of the large numbers of family businesses but this is only part of the explanation. The turnover per head is also very different between the individual countries and this also contributes to differences in the average turnover per enterprise. In Austria, for example, the turnover per person is over three times that for Italy but Ireland had an even lower turnover per head than Italy. All this suggests that within Division 70 there is a very different mix of development and commission work in Member States and that this mix has contributed to the differences in the data between them.

One factor affecting turnover is the level of development work being undertaken. For individual enterprises turnover might be nil in a given year because development work is being carried out for which income might not be received until the following year. Depending on the treatment of development work in their accounts, income from the sale of these developments might be shown either as turnover or as a disposal of capital.

## NACE Rev. 1 Division 70 – Real Estate activities, 1997

Table 3.1 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	3.5	:	107.4	:	:	53.9	0.5	14.6	0.3	:	5.6	4.3	2.3	15.7	33.3
Turnover/enterprise (million)	:	:	0.5	:	:	0.8	0.2	0.1	0.4	:	1.7	0.5	0.2	0.6	:
Turnover/person employed (thousand ECU)	92.2	:	:	:	:	110.4	64.4	64.8	88.7	:	105.7	58.0	81.8	216.7	:

Table 3.2 Main indicators as a share of turnover of Division 70 – Real estate activities (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	84.9	86.0	115.3	43.5	:	64.3	91.1	98.3	106.6	:
Value added at factor cost	41.0	:	:	:	:	31.3	53.8	50.0	28.8	:	39.4	19.5	36.3	55.2	:
Personnel costs	9.8	:	:	:	:	12.3	:	6.5	10.4	:	10.7	5.0	17.3	10.4	17.5
Gross operating surplus	29.1	:	:	:	:	24.2	:	43.6	17.4	:	:	35.0	22.6	44.9	:
Gross investment in tangible goods	:	:	:	:	:	26.3	20.0	19.2	:	:	55.4	9.3	26.1	74.5	50.8

Table 3.3 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	:	224.9	:	61.5	69.3	2.3	105.0	78.4	18.0	3.3	9.0	1.0	28.1	55.2
Number of persons employed (thousands)	19.9	:	:	:	302.5	6.9	165.2 <sup>(m)</sup>	1.6	57.7	20.8	23.6	22.3	72.6	285.9 <sup>(m)</sup>	
Number of persons employed/enterprise (units)	:	:	:	:	4.4	3.0	1.6	2.0	3.2	6.3	2.6	2.3	2.6	4.8 <sup>(m)</sup>	
Employees/persons employed (%)	56.8	:	:	:	70.0	54.1	24.3	64.1	:	86.7	75.2	82.4 <sup>(m)</sup>	70.4	84.3 <sup>(m)</sup>	
Personnel costs/employee (thousands ECU)	30.3	:	:	:	31.2	:	23.8	29.0	:	33.3	12.1	:	31.9	21.0	
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	:	:	:	66.1 <sup>(m)</sup>	:	:	:	

Table 3.4 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	1.4	:	:	:	:	16.9	0.3	7.3	0.1	:	2.2	0.8	0.8	8.7	:
Value added/person employed (thousand ECU)	71.8	:	:	:	:	55.8	39.1	44.3	51.5	:	106.2	35.3	37.2	119.7	:
Gross operating surplus/ person employed (thousand ECU)	51.2	:	:	:	:	43.1	:	38.5	33.6	:	:	63.8	23.3	97.2	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	:	46.8	19.4	17.2	:	:	147.7	18.6	27.9	161.5	:
Wage adjusted labour productivity (%)	237.2	:	:	:	:	179.0	:	186.3	177.7	:	319.4	291.6	:	374.9	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Table 3.1, 3.2, 3.3: 1996 for Italy, 1995 for Denmark.

Table 3.4: 1996 for Italy.

Data are provisional for Luxembourg.

: = not available

Source: Eurostat (SBS database)

In Class 70.12 (buying and selling of self-owned real estate), if a property is purchased and sold in the same year without any development work being undertaken then it may be recorded in the accounts as purchases of goods for resale. If it is bought/sold in a different year it may be shown as gross investment/capital disposal.

A low figure for the share of turnover accounted for by value added occurs when purchases of goods and services are high. Portugal has a lower figure than Ireland, which could mean that, compared with Ireland, more of the Portuguese activity is concentrated in development work than in work undertaken on

commission. If this is so the very low figure for investment as a percentage of turnover in Portugal would suggest that much of the development work is being funded from current rather than capital expenditure which would suggest development of a short term rather than a long term nature. However this is speculative and there can be no substitute for having more detailed figures either at the three digit level or by having a breakdown of turnover by product. The former is preferable since this provides a more detailed breakdown of all of the data.

For most member states the average number of persons employed seems uniformly low with Austria and the UK showing very much higher

figures. The reasons for this are not clear but there has been a move over a number of years, in the UK, for the smaller businesses, usually partnerships engaged in bringing together buyers and sellers of property, to be taken over by larger groups, often banks. For Austria over half of its turnover is being re-invested and this would suggest more activity in development where the largest businesses can be expected to exist. The fact that gross investment exceeds value added by over 40 per cent suggests longer-term investment in development. Clearly investments which are so large cannot be sustained over a long period unless they are being partially financed by income from the sale of investments (which is not a part of turnover).

**3.1 The importance of specific classes within Division 70**

Data for individual activities within Division 70 would help to throw some light of the unexplained differences between Member States and would improve the understanding of the data. Information is available from some Member States and France is one of the countries from which more detailed information is available. Data on turnover is collected, within the three digit level of NACE, of turnover by the principal products of Division 70 at the four digit Class. This has been converted into percentage shares in the following table.

The data relates to 1996. The turnover relating to activities outside of Division 70 was also collected but this is not shown in the tables.

The table shows that in 1996 more than half the turnover of Division 70 comes from Letting activities (Group 70.2) while around a quarter comes from each of the other two Classes.

**Table 3.5 Turnover of individual Division 70 Groups by products of individual Classes in France for 1996 (%)**

Group	Principal product					Total
	70.11	70.12	70.2	70.31	70.32	
70.1	72	18	4	6	1	100
70.2	2	1	94	2	1	100
70.3	2	1	1	57	40	100
<b>Total</b>	<b>22</b>	<b>3</b>	<b>51</b>	<b>14</b>	<b>8</b>	<b>100</b>

Source Eurostat (SBSR)

**Table 3.6 Turnover of Division 70 by Group (%)**

Group	Percentage of Division
70.1	28
70.2	53
70.3	19

Source Eurostat (SBSR)

The collection of data by Class, even if it did not provide a further breakdown of turnover by product, would be useful in helping some of the variation seen in the economic data might be understood more fully. The collection of other data would also be very helpful.

**Division 71 Renting of machinery and equipment without operator and of personal and household goods**

Division 71 is subdivided into four Groups. The SBSR requires data for the first two Groups combined and for each of the remaining two

Groups separately. However, even though the Regulation specifies the supply of data for the first two Groups combined, many Member States supply data for each separately. The four Groups are:

- Group 71.1 Renting of automobiles
- Group 71.2 Renting of other transport equipment

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- Group 71.3 Renting of other machinery and equipment  
 Group 71.4 Renting of personal and household goods

The different activities are discussed below but it is clear that they are diverse and are likely to have a different customer base. Enterprises in the second and third groups, in particular, will rent goods mainly to the other enterprises whereas the last group will mostly cover renting to households although the renting of such goods to enterprises cannot be ruled out altogether.

Tables 3.7 to 3.10 provide data for the whole of Division 71 and shows that renting, as an activity is least well developed in Italy where it represents less than 2 per cent of the total turnover in Section K. This is not the result of limited activity in any particular Group but is apparent, for Italy, in all the Groups of Division 71. This does not necessarily mean that this activity does not take place to the same extent as it does in other countries since it is possible that it occurs as a secondary activity of businesses classified elsewhere. Only a breakdown of turnover in other activities, providing information on income

#### NACE Rev. 1 Division 71 – Renting of machinery and equipment without operator, 1997

Table 3.7 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	3.0	0.9	32.4	:	:	13.5	0.5	1.6	0.3	4.6	1.9	1.0	0.4	1.9	17.1
Turnover/enterprise (million ECU)	:	0.2	1.3	:	:	0.7	0.4	0.2	1.3	1.1	1.4	0.4	0.4	0.4	1.6
Turnover/person employed (thousand ECU)	339.0	143.6	:	:	:	207.5	82.1	107.1	521.8	199.5	320.9	107.2	149.6	158.6	54.32 <sup>(a)</sup>

Table 3.8 Main indicators as a share of turnover of Division 71 – Renting of machinery and equipment without operator (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	98.4	79.5	93.5	83.7	96.0	86.2	99.0	97.3	102.8	:
Value added at factor cost	41.5	:	:	:	:	56.8	41.6	36.7	57.0	60.4	66.0	63.8	49.0	43.1	:
Personnel costs	7.0	12.5	:	:	:	12.0	:	11.5	6.	10.3	7.5	8.8	14.9	14.4	18.0
Gross operating surplus	34.5	:	:	:	:	44.9	:	:	50.3	50.0	58.5	55.0	34.1	28.7	:
Gross investment in tangible goods	:	:	:	:	:	77.6	21.4	68.1	38.4	70.3	63.6	93.2	26.1	36.3	47.3

Table 3.9 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	4.4	25.0	:	16.8	20.0	1.2	7.9	0.2	4.0	1.3	2.5	1.0	4.8	10.8
Number of persons employed (thousands)	8.8	6.5	:	:	:	65.3	5.7	15.1	0.5	22.8	5.9	9.0	2.6	11.8	146.0 <sup>(a)</sup>
Number of persons employed/enterprise (units)	:	1.5	:	:	:	3.3	4.7	1.9	2.6	5.7	4.4	3.6	2.6	2.5	12.4 <sup>(a)</sup>
Employees/persons employed (%)	71.2	53.0	:	:	:	88.0	79.5	40.1	91.1	:	79.4	78.0	:	72.8	84.3 <sup>(a)</sup>
Personnel costs/employee (thousands ECU)	33.4	33.8	:	:	:	28.1	:	30.6	38.2	24.4 <sup>(a)</sup>	30.2	12.1	28.6 <sup>(a)</sup>	31.3	23.0
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	89.8 <sup>(a)</sup>

Table 3.10 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	1.2	:	:	:	:	7.7	0.2	0.6	0.1	2.8	1.2	0.6	0.2	0.8	:
Value added/person employed (thousand ECU)	140.7	:	:	:	:	117.9	34.1	39.3	297.4	120.5	211.8	68.4	73.3	68.4	:
Gross operating surplus/person employed (thousand ECU)	116.9	:	:	:	:	93.1	:	:	262.5	99.8	187.8	58.9	51.0	45.5	:
Gross investment/person employed (thousand ECU)	:	:	:	:	:	160.3	21.2	70.6	124.7 <sup>(a)</sup>	139.1	195.9	98.7	48.2	57.6	150.0 <sup>(a)</sup>
Wage adjusted labour productivity (%)	421.2	:	:	:	:	420.0	:	128.5	779.4	496.6 <sup>(a)</sup>	700.8	564.9	241.6 <sup>(a)</sup>	218.1	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Table 3.7: 1996 for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for France and Finland.

Table 3.8: 1996 for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for France.

Table 3.9: 1996 for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for Spain, France and Finland.

Table 3.10: 1996 for Italy, 1995 for the Netherlands and 1994 for France.

: = not available

Source: Eurostat (SBS database)



received from renting, would enable the extent of this in Italy and in other Member States to be explored. In most other countries, Finland excepted, the activity accounts for at least three times this level suggesting a different attitude to renting. As might be expected, the position is similar when the activity is looked at in terms of the share of employment.

There are large differences in the level of value added as a percentage of turnover. This suggests a different pattern of purchases in Member States. This could be due to a number of factors. It may reflect different levels of subcontracting although it is also very likely that it relates to the way in which goods bought for renting are treated in the accounts which may be either as capital, or as current expenditure.

Gross investment is very high in most countries in relation to turnover but much of the money to pay for investment might well be derived from the sale of older equipment no longer needed. This is likely to be particularly true for motor vehicles and is discussed below.

#### **Group 71.1 Renting of automobiles**

The renting of automobiles covers the renting of cars and light vans without a driver both to enterprises and to households. It does not cover operational or finance leasing, both of which can be considered to be a mixture of purchase and hire at the same time. Since the activity requires the renting of vehicles most of which will be relatively new, it is capital rather than labour intensive. The workforce is not particularly highly skilled.

Tables 3.11 to 3.14 provide the available structural information for 1997. It is very limited and full details are only available for Italy. Even from the limited information that is available it can be seen that investment, as expected, is very much higher than expenditure on personnel. For the three countries where data is available investment ranges from ten times higher than personnel costs to almost twenty times higher. Gross investment in tangible goods exceeds of turnover in both France and Italy. This might suggest a planned expansion of the activity, but it is far more likely that much of the investment in new vehicles is financed by the disposal of older ones. In the vehicle renting activity this is usually the case. The lack of information on net investment (gross investment less the proceeds for the sale of old investments) is a serious

limitation on the value of the investment data provided. The same is true, although to a more limited extent for the data on real estate.

#### **3.2 Gross investment**

Gross investment data, for many activities, can be a good measure of the confidence being placed in an activity. Where it is exceptionally high it might show that the activity is expanding rapidly. But the figures need to be treated with caution. First, investment is for the long term. If it were not then the amounts spent would be included in current expenditure. This means that it is necessary to look at investment over a number of years since a single year's figures can be misleading. Second, there are activities where large figures for gross expenditure, even over a number of years, might look impressive, but nevertheless might be misleading. These activities include the renting of automobiles where a large investment in new cars is necessary for the business but where investment is partially funded by the sale of older vehicles that the enterprise would find it difficult to rent out.

For the UK gross investment for Group 71.1 formed over 90 per cent of turnover in 1997, but half of this was funded from the disposal of capital assets. Without knowing, for individual Member States, the value of asset disposals, it is impossible to read too much into the figure for gross investment. It is possible that many other Member States have data relating to the disposal of capital goods since this knowledge is essential in determining Gross domestic fixed capital formation. It may be, however, that currently this data is not held at the necessary level of aggregation.

Production value in Italy was almost 125 per cent of turnover. Production value normally only exceeds turnover when there has been an increase in stocks or where there is capitalised production although a value as high as 125 per cent is unusual. Given the high level of acquisitions and disposals of vehicles in this activity a possible reason is that some enterprises may be treating new vehicles as stocks rather than as capital in their accounts.

Renting of automobiles in the Netherlands accounts for a large proportion of Division 71 activity suggesting that the activity is more prevalent there than in the other countries for which data is available.

There are only three countries for which information on the number of persons employed and the percentage of employees in the total workforce is provided. All are suggestive of small family businesses that are more likely to rent to

households than to businesses. However, for these three countries, turnover from the activity is also small and they may not be representative of the picture in other member states.

### NACE Rev. 1 Group 711 – Renting of automobiles, 1997

Table 3.11 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	:	0.2	:	:	:	2.9	:	0.6	:	2.5	:	:	0.1	:	4.6
Turnover/enterprise (million)	:	0.2	:	:	:	2.8	:	0.6	:	4.5	:	:	0.3	:	3.1
Turnover/person employed (thousand ECU)	:	131.8	:	:	:	257.0	:	160.0	:	:	:	:	219.1	:	:
Turnover share in NACE Rev. 1, Division 71 (%)	:	16.6	:	:	:	27.4	:	35.4	:	59.9	:	:	:	:	30.4

Table 3.12 Main Indicators as a share of turnover of Group 711 – Renting of automobiles (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	93.0	:	124.8	:	96.6	:	:	:	:	:
Value added at factor cost	:	:	:	:	:	:	:	55.0	:	54.9	:	:	:	:	:
Personnel costs	:	14.2	:	:	:	10.4	:	14.3	:	4.7	:	:	:	:	10.1
Gross operating surplus	:	:	:	:	:	:	:	40.6	:	:	:	:	:	:	:
Gross investment in tangible goods	:	:	:	:	:	111.9	:	161.5	:	82.0	:	:	:	:	91.1

Table 3.13 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	0.7	:	:	2.5	1.0	:	1.0	:	0.5	:	:	0.2	:	1.5
Number of persons employed (thousands)	:	1.2	:	:	:	11.3	:	3.5	:	:	:	:	0.3	:	:
Number of persons employed/enterprise (units)	:	1.6	:	:	:	10.8	:	3.6	:	:	:	:	1.5	:	:
Employees/persons employed (%)	:	56.6	:	:	:	91.9	:	64.8	:	:	:	:	74.1	:	:
Personnel costs/employee (thousand ECU)	:	33.0	:	:	:	29.1	:	35.8	:	:	:	:	:	:	:
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	67.0 <sup>(1)</sup>	:	:	:	:	:	:	89.7
Persons employed, share in NACE Rev. 1 Division 71 (%)	:	18.1	:	:	:	18.5	:	23.4	:	:	:	:	:	:	:

Table 3.14 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	:	:	:	:	:	:	:	0.3	:	1.4	:	:	:	:	:
Value added/person employed (thousand ECU)	:	:	:	:	:	:	:	89.1	:	:	:	:	:	:	:
Gross operating surplus/ person employed (thousand ECU)	:	:	:	:	:	:	:	65.9	:	:	:	:	:	:	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	:	287.7	:	261.7	:	:	:	:	:	:	:
Wage adjusted labour productivity (%)	:	:	:	:	:	:	:	248.6	:	:	:	:	:	:	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Table 3.11: 1996 for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for France and Finland.

Table 3.12: 1996 for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for France.

Table 3.13: 1996 for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for Spain, France and Finland.

Table 3.14: 1996 for Italy, 1995 for the Netherlands and 1994 for France.

: = not available

Source: Eurostat (SBS database)

**Group 71.2 Renting of other transport equipment**

This activity covers the renting of all forms of transport equipment except for automobiles. Thus it covers the renting of tractors, lorries and freight vans as well as water (except pleasure craft) and air transport. It only covers rental of such goods without drivers or crew.

Tables 3.15 to 3.18 provide the available structural information for 1997. It is very limited and, as with the renting of automobiles, a comprehensive set of details is only available for Italy. On limited information gross investment is not as high as for renting of automobiles but it is unlikely that those renting other transport equipment would be as demanding, in the requirement for new vehicles as those renting

**NACE Rev. 1 Group 712 – Renting of other transport equipment, 1997****Table 3.15 Turnover characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	:	0.2	:	:	:	1.2	:	0.3	:	0.4	:	:	0.0	:	2.7
Turnover/enterprise (million ECU)	:	0.7	:	:	:	1.3	:	0.2	:	0.6	:	:	0.5	:	3.2
Turnover/person employed (thousand ECU)	:	432.3	:	:	:	291.8	:	120.7	:	:	:	:	366.9	:	:
Turnover share in NACE Rev. 1, Division 71 (%)	:	17.6	:	:	:	11.0	:	17.0	:	8.7	:	:	:	:	17.8

**Table 3.16 Main indicators as a share of turnover of Group 712 – Renting of other transport equipment (%), 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	88.4	:	100.7	:	99.2	:	:	:	:	:
Value added at factor cost	:	:	:	:	:	:	:	20.1	:	66.4	:	:	:	:	:
Personnel costs	:	6.4	:	:	:	10.9	:	8.7	:	9.8	:	:	:	:	11.9
Gross operating surplus	:	:	:	:	:	:	:	11.4	:	:	:	:	:	:	:
Gross investment in tangible goods	:	:	:	:	:	35.5	:	6.7	:	54.4	:	:	:	:	34.6

**Table 3.17 Enterprise and employment characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (units)	:	231	:	:	2,008	874	:	1,391	:	604	:	:	63	:	841
Number of persons employed (units)	:	382	:	:	:	3,998	:	2,269	:	:	:	:	92	:	:
Number of persons employed/enterprise (units)	:	1.7	:	:	:	4.6	:	1.6	:	:	:	:	1.4	:	:
Employees/persons employed (%)	:	72.0	:	:	:	80.9	:	38.1	:	:	:	:	77.1	:	:
Personnel costs/employee (thousand ECU)	:	38.2	:	:	:	39.3	:	27.6	:	:	:	:	:	:	:
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	88.5
Persons employed, share in NACE Rev. 1 Division 71 (%)	:	5.9	:	:	:	6.6	:	15.0	:	:	:	:	:	:	:

**Table 3.18 Productivity/competitiveness characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	:	:	:	:	:	:	:	0.1	:	0.2	:	:	:	:	:
Value added/person employed (thousand ECU)	:	:	:	:	:	:	:	24.2	:	:	:	:	:	:	:
Gross operating surplus/person employed (thousand ECU)	:	:	:	:	:	:	:	13.7	:	:	:	:	:	:	:
Gross investment/person employed (thousand ECU)	:	:	:	:	:	103.6	:	8.1	:	:	:	:	:	:	:
Wage adjusted labour productivity (%)	:	:	:	:	:	:	:	87.7	:	:	:	:	:	:	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Table 3.15: 1996 for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for France and Finland.

Table 3.16: 1996 for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for France.

Table 3.17: 1996 for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for Spain, France and Finland.

Table 3.18: 1996 for Italy, 1995 for the Netherlands, 1994 for France.

: = not available

Source: Eurostat (SBS database)

automobiles. For Italy, gross investment as a percentage of turnover seems particularly low but part of the reason is that value added as a percentage of turnover is also low. This would suggest a high level of purchases of goods and services in this activity in Italy. A high level of subcontracting, since this is what is implied, would inflate turnover in relation to total activity and this would result in a lower percentage of turnover being accounted for by gross investment. Data on subcontracting would be informative in this respect.

As with many other activities Italy also shows a large number of enterprises in this activity compared with other countries but these enterprises are much smaller than those in other countries and each generates far less turnover in comparison.

### NACE Rev. 1 Group 713 – Renting of other machinery and equipment, 1997

Table 3.19 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	0.8	0.5	14.9	:	:	6.1	0.2	0.6	0.2	0.6	0.5	0.3	0.2	1.0	7.2
Turnover/enterprise (million ECU)	:	0.2	1.1	:	:	0.6	0.3	0.3	2.5	0.9	1.5	0.2	0.4	0.4	1.2
Turnover/person employed (thousand ECU)	292.8	179.7	:	:	:	296.9	75.0	128.9	694.2	150.9	286.6	55.1	126.5	138.7	:
Turnover share in NACE Rev. 1, Division 71 (%)	27.9	49.1	45.8	:	:	45.0	43.9	34.9	62.9	14.2	26.9	27.1	52.0	52.6	41.8

Table 3.20 Main indicators as a share of turnover of Group 713 – Renting of other machinery and equipment (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	94.2	87.9	60.6	75.2	87.9	90.1	97.2	98.9	101.5	:
Value added at factor cost	46.9	:	:	:	:	61.8	48.4	24.3	45.9	63.1	71.8	43.4	52.8	47.4	:
Personnel costs	8.6	12.6	:	:	:	10.7	:	10.2	6.7	17.1	10.1	15.3	18.8	18.1	20.9
Gross operating surplus	38.2	:	:	:	:	51.3	:	14.2	39.1	46.0	61.7	28.1	33.9	29.3	:
Gross investment in tangible goods	:	:	:	:	:	59.3	22.1	12.2	5.6 <sup>(m)</sup>	23.4	54.0	24.3	27.8	33.8	22.9

Table 3.21 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	2.5	13.6	:	8.7	10.5	0.7	2.1	0.1	0.7	0.3	1.7	0.5	2.7	5.9
Number of persons employed (thousands)	2.8	2.6	:	:	:	20.5	2.7	4.4	0.2	4.3	1.8	4.8	1.6	7.1	:
Number of persons employed/enterprise (units)	:	1.0	:	:	:	1.9	3.8	2.1	3.6	6.0	5.3	2.9	3.2	2.6	:
Employees/persons employed (%)	71.9	62.7	:	:	:	92.2	77.4	43.0	93.2	:	83.3	70.1	87.1 <sup>(m)</sup>	74.6	:
Personnel costs/employee (thousand ECU)	35.2	36.2	:	:	:	33.7	:	30.5	50.0	:	34.7	12.1	27.8 <sup>(m)</sup>	33.7	23.6
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	89.4 <sup>(m)</sup>
Persons employed, share in NACE Rev. 1 Division 71 (%)	32.3	39.2	:	:	:	31.4	48.0	29.0	47.3	18.8	30.1	52.7	61.4	60.1	:

Table 3.22 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (million ECU)	390.4	:	:	:	:	3,761.0	99.4	137.1	75.1	408.0	364.1	113.6	105.2	467.7	:
Value added/person employed (thousand ECU)	137.2	:	:	:	:	183.3	36.3	31.4	318.3	95.3	205.8	23.9	66.7	65.8	:
Gross operating surplus/person employed (thousand ECU)	111.9	:	:	:	:	152.3	:	18.3	271.7	69.4	176.9	15.4	42.9	40.6	:
Gross investment/person employed (thousand ECU)	:	:	:	:	:	176.1	16.5	15.7	3.0 <sup>(m)</sup>	47.1	154.7	13.4	35.2	46.6	:
Wage adjusted labour productivity (%)	390.0	:	:	:	:	543.9	:	102.9	636.4	291.8 <sup>(m)</sup>	594.5	198.5	181.9	194.9	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.19, 3.20, 3.21 and 3.22: 1996 for Italy, 1995 for Denmark.

Data for Luxembourg are provisional.

: = not available

Source: Eurostat (SBS database)

**Group 71.3 Renting of other machinery and equipment**

This activity covers the renting of machinery and equipment for agriculture, civil engineering as well as that for use in offices. This covers a wide spread of activities and it is to be expected that businesses involved in the different renting activities may, themselves, be very different in nature. The mix of these activities may vary considerably between member states. Higher levels of industrial activity in such countries as France, Germany and the UK might account for some of the difference.

Both Luxembourg and Italy have relatively low figures for production value as a percentage of turnover. In particular the figure for Italy at 61 per cent seems too low for comfort. There could be a number of reasons for these low figures. One might be a net disposal of items used for renting that have been and held as stocks rather than as capital. Another possible cause of low figures for production value is a high level of merchanting activity, but this seems a little unlikely here although it may be that in Italy renting and retail activity are somewhat intertwined.

Italy shows the lowest figure for value added as a percentage of turnover. At 24 per cent it is around half of that for most other countries. Personnel costs in Italy although low as a percentage of turnover represent a much higher proportion of value added than they do elsewhere. As with Group 71.2 the low level of value added as a percentage of turnover indicates a much higher level of purchases of goods and services, possibly subcontracting, than is observed elsewhere.

Germany and France have considerably more enterprises than have other countries. For France, where more data is available, there is a smaller than average employment size per enterprise although this does not fully explain the larger number of enterprises.

Wage adjusted labour productivity is high in all seven countries for which data are available, particularly so in France, Luxembourg and Austria where it is over 500 per cent. This reflects the high level of gross operating surplus most of which is ploughed back into the activity as investment.

**Group 71.4 Renting of personal and household goods**

As the name suggests this is clearly an activity which is not a business service although this does not preclude businesses renting small quantities of such items. The activity covers a wide range of services to the personal sector and ranges from the hire of sporting goods to the renting of electronic equipment and video tapes.

Not unexpectedly the highest levels of turnover are generated in the larger northern economies although the activity is not large in relation to other activities in the same division. Comparisons between countries are difficult because there is the possibility that this activity might be a secondary activity for retailers in the southern States resulting in a different mix of activity. A breakdown of turnover by product might clarify the picture.

Value added as a percentage of turnover is around 40 to 50 per cent on average which indicates a high level of purchases of goods and services. Around a third of value added finances employment costs (more than in other renting activities) while most of the remainder is used for investment. Only in France and Portugal does investment exceed the gross operating surplus which either suggests that there is a lot of investment taking place or, more likely, that the deficiency is being financed by the sale of those capital goods which are no longer required.

Spain shows a very high number of enterprises for its size, almost three times that of the UK, but since this is the only information provided for Spain it is not possible to draw any conclusions.

Small enterprises are the norm in this activity for most countries, but in Italy, where small family businesses are common, the average employment per enterprise is particularly low at only 1.4, with employees forming only one in. workforce. The low average employment means that many of the enterprises are run by a single person. A large number of these, and similar businesses in Portugal, are likely to have a turnover so low that it would put them out of scope of the Register of Businesses in the UK. If the smaller businesses in the UK. This artificially inflates the turnover per enterprise in the UK and makes a direct comparison between the countries less valid.

## NACE Rev. 1 Group 714 – Renting of personal and household goods n.e.c., 1997

Table 3.23 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	0.2	0.2	1.7	:	:	1.6	0.1	0.2	0.0	0.9	0.3	0.0	0.0	0.2	2.2
Turnover/enterprise (million ECU)	:	0.2	0.5	:	:	0.3	0.2	0.1	0.2	0.3	0.4	0.0	0.2	0.2	1.1
Turnover/person employed (thousand ECU)	78.2	65.0	:	:	:	63.2	38.8	41.9	101.7	79.2	119.6	23.4	84.5	98.3	:
Turnover share in NACE Rev. 1, Division 71 (%)	7.6	16.7	5.3	:	:	11.5	17.1	12.8	2.4	18.9	15.5	2.1	8.1	12.0	12.6

Table 3.24 Main indicators as a share of turnover of Group 714 – Renting of personal and household goods n.e.c. (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	91.7	73.9	86.6	100.0	95.2	82.2	100.5	94.8	93.8	:
Value added at factor cost	45.2	:	:	:	:	44.0	43.0	42.0	47.5	71.3	47.3	32.2	39.4	35.1	:
Personnel costs	17.5	16.8	:	:	:	28.7	:	10.8	16.4	20.6	11.8	12.9	20.7	18.0	23.5
Gross operating surplus	27.7	:	:	:	:	15.3	:	31.2	31.1	49.7	35.5	19.3	18.6	17.1	:
Gross investment in tangible goods	:	:	:	:	:	21.5	11.0	25.8	27.1 <sup>(m)</sup>	21.4	14.7	31.2	14.2	18.8	15.7

Table 3.25 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	0.9	3.4	:	5.7	5.8	0.4	3.4	0.0	2.5	0.7	0.5	0.2	1.0	1.9
Number of persons employed (thousands)	2.9	2.4	:	:	24.7	2.1	4.9	0.1	10.9	2.5	0.9	0.4	2.3	:	:
Number of persons employed/enterprise (units)	:	2.7	:	:	4.3	5.2	1.4	2.4	4.4	3.3	1.7	2.0	2.2	:	:
Employees/persons employed (%)	64.5	38.0	:	:	89.1	76.9	20.9	88.3	72.8 <sup>(m)</sup>	70.9	47.9	78.9 <sup>(m)</sup>	68.5	:	:
Personnel costs/employee (thousand ECU)	21.2	28.8	:	:	20.4	:	21.7	18.3	20.9 <sup>(m)</sup>	19.9	6.2	24.9 <sup>(m)</sup>	25.8	15.9	:
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	67.3 <sup>(m)</sup>	:	:	:	:	:	:	:	:
Persons employed, share in NACE Rev. 1 Division 71 (%)	32.9	36.8	:	:	37.9	36.1	32.6	12.0	47.7	41.7	9.6	14.3	19.3	:	:

Table 3.26 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (million ECU)	102.2	:	:	:	687.8	34.3	86.6	2.9	606.3	138.8	6.5	12.2	78.7	:	:
Value added/person employed (thousand ECU)	35.2	:	:	:	27.8	16.7	17.6	47.8	55.6	56.5	7.5	33.2	34.5	:	:
Gross operating surplus/person employed (thousand ECU)	21.6	:	:	:	9.7	:	13.1	31.8	39.3	42.4	4.5	15.6	16.8	:	:
Gross investment/person employed (thousand ECU)	:	:	:	:	13.6	4.2	10.8	26.7 <sup>(m)</sup>	16.9	17.5	7.3	12.0	18.5	:	:
Wage adjusted labour productivity (%)	166.7	:	:	:	136.7	:	81.3	256.2	455.8 <sup>(m)</sup>	284.3	119.8	138.3 <sup>(m)</sup>	133.8	:	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.23 and 3.24: 1996 for Italy, 1995 for Denmark. Table 3.25: 1996 for Spain and Italy, 1995 for Denmark. Table 3.26: 1996 for Italy. Data for Luxembourg are provisional.

: = not available

Source: Eurostat (SBS database)

## Division 72 Computer and related services

Division 72 covers a wide range of activities associated with computers; it consists of six Groups and although these are diverse in nature the SBSR requires data to be collected at only Division level. The activities provided at Group level are:

- Group 72.1 Hardware consultancy services
- Group 72.2 Software consultancy and supply services
- Group 72.3 Data processing services
- Group 72.4 Database services
- Group 72.5 Maintenance and repair of office, accounting and computing machinery
- Group 72.6 Other computer-related services

Enterprises classified to Group 72.1 provide advice relating to the computer needs of enterprise and often plan the way in which these needs are to be met. Where software is a part of the overall package advice is provided on this as well.

## NACE Rev. 1 Division 72 – Computer and related activities, 1997

Table 3.27 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	3.3	2.6	24.9	:	3.8	22.0	0.9	16.2	c	7.7	2.3	0.8	1.9	6.7	33.1
Turnover/enterprise (million)	:	0.4	0.7	:	0.3	0.8	0.8	0.3	c	0.9	0.5	0.4	0.6	0.4	0.3 <sup>(96)</sup>
Turnover/person employed (thousand ECU)	124.9	122.0	:	:	58.6	109.8	92.2	81.2	c	98.1	116.7	71.0	103.0	109.9	82.2 <sup>(96)</sup>

Table 3.28 Main indicators as a share of turnover of Division 72 – Computer and related activities (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	76.2	91.2	88.1	89.6	79.8	89.4	82.8	97.1	98.1	97.4	:
Value added at factor cost	43.5	:	:	:	52.1	47.0	57.7	43.9	44.4	73.2	44.3	34.9	51.8	47.7	:
Personnel costs	32.8	30.8	:	:	38.2	41.7	:	27.8	37.3	43.8	28.7	25.3	37.0	36.7	33.5
Gross operating surplus	10.7	:	:	:	:	5.4	:	:	c	29.4	15.6	9.6	14.8	11.0	:
Gross investment in tangible goods	:	:	:	:	7.9	3.2	11.1	4.3	c	:	0.0	0.0	0.0	4.7	2.4

Table 3.29 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	6.7	37.5	:	15.4	27.4	1.1	47.3	0.4	9.0	4.6	2.2	2.9	15.3	64.3
Number of persons employed (thousands)	26.5	21.5 <sup>(96)</sup>	:	:	65.6 <sup>(96)</sup>	200.0	9.7	200.1	c	79.0	19.8	11.8	18.1	61.0	226.8 <sup>(96)</sup>
Number of persons employed/enterprise (units)	:	3.2	:	:	5.2 <sup>(96)</sup>	7.3	8.8	4.2	c	8.8	4.3	5.5	6.2	4.0	4.0 <sup>(96)</sup>
Employees/persons employed (%)	82.3	79.9	:	:	85.4 <sup>(96)</sup>	99.0	92.3	70.3	c	86.6 <sup>(96)</sup>	76.1	89.7	92.7 <sup>(96)</sup>	83.6	84.3 <sup>(96)</sup>
Personnel costs/employee (thousands ECU)	49.7	47.0	:	:	20.2	46.3	:	32.1	c	43.8 <sup>(96)</sup>	44.0	20.0	41.3 <sup>(96)</sup>	48.2	31.5
Wages and salaries/personnel costs (%)	:	:	:	:	90.3 <sup>(96)</sup>	:	69.0 <sup>(96)</sup>	:	c	:	89.8 <sup>(96)</sup>	:	:	87.5 <sup>(96)</sup>	:

Table 3.30 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	1.4	:	:	:	2.0	10.3	0.5	7.1	c	5.7	1.0	0.3	1.0	3.2	:
Value added/person employed (thousand ECU)	54.3	:	:	:	30.5	51.6	53.2	35.7	c	:	51.7	24.8	53.3	52.5	:
Gross operating surplus/ person employed (thousand ECU)	13.4	:	:	:	:	5.9	:	:	c	28.8	18.2	6.8	15.2	12.1	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	4.0	3.5	6.6	3.5	c	:	5.9	5.0	4.9	5.2	3.6 <sup>(96)</sup>
Wage adjusted labour productivity (%)	109.2	:	:	:	116.5	112.0	:	110.9	c	:	117.5	123.9	131.0 <sup>(96)</sup>	108.8	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.27, 3.28, 3.29: 1996 for Italy, 1995 for Denmark.

Table 3.30: 1996 for Italy.

Data in Table 3.27 are provisional for Luxembourg.

: = not available

c = confidential

Source: Eurostat (SBS database)

Group 72.2 covers enterprises that provide services related to computer software. This often involves the provision of purpose built software or the development of packaged software. Other services covered include providing specifications of database systems or security.

Group 72.3 covers data processing services. These may be of a limited technical nature in that covered here is the processing of data that in some cases may be the provision of a simple tabulation. It can cover the leasing or rental of machine time or the provision of personnel to manage and operate client owned computer facilities.

Database services, Group 72.4 can be simply the provision of the organisation of an enterprise's data perhaps providing data in a certain order or sequence or providing on-line retrieval.

While all of the Groups above are very different, Group 72.5 is rather unusual in that it provides for the maintenance and repair of computing machinery, an activity usually associated with manufacturing. Further, it covers maintenance and repair of office and accounting machinery that may be unrelated to computers in concept.

Other computer related services fall to Group 72.6. This covers other professional computing services that are not defined above, such as, the training of personnel in the use of a computer system, but it does not cover the provision of those services by enterprises classified to Division 80 (Education), neither does it cover the provision of such services by businesses whose main activity is in one of the other computer groups.

### 3.3 The importance of individual groups within Division 72

Division 72 is very heterogeneous and the data is therefore difficult to interpret. It would be useful at the very least to know something of the relative importance of the individual Groups. Fortunately data is collected in a number of different countries that enable a picture to be built up.

**Table 3.31 Division turnover by Group expressed as a percentage**

Activity	Portugal	France	Italy	UK
72.1	18	30	2	15
72.2	36	33	49	65
72.3	35	28	25	11
72.4	0	2	1	-
72.5	4	6	15	6
72.6	7	-	8	4

Source: Eurostat (SBS)

Not only is the make up of Division 72 heterogeneous there seems to be a very different pattern of activity in the above Member States although two clear things emerge. First the most important activity is software consultancy and second, database activities are minimal. Hardware consultancy in France seems to be more important than in other countries but France also collects information within each activity on the principal products of the other activities. This gives France an advantage when it comes to verifying that enterprises are classified correctly and provides information that allows a better understanding of the structure of businesses classified to computer services.

The activity is more global than other activities and a closer association between the way the activity is conducted in different member states might reasonably have been expected. Nevertheless there are differences between the pattern of figures shown and these are almost certainly due to a different mix of the various constituent activities. Some may be due to a larger number of smaller businesses operating in a single member state. Software services may be offered by large enterprises or by individuals working from their own home.

Division 72 accounts for around ten per cent of the turnover of Section K and slightly less in employment terms but it is an activity that has been growing quickly for a number of years and is expected to continue to grow.

For six out of the nine countries, for which data is available, the production value is less than 90 per cent of turnover. The most likely cause is a relatively high level of merchanting activity, almost certainly of computer software by businesses classified to Group 72.2, although a net disposal of stocks might also be a contributory factor. A breakdown at the three digit level would have been useful in clarifying this and data on stocks and turnover even more so.

### Division 73 Research and development

Research and development is important for most activities since it is essential for many enterprises to keep ahead or at least level with their competitors. This activity is so important that most research and development is conducted within the individual enterprises that require it rather than within business whose main activity is research and development. Much research is also carried out within academic institutions classified elsewhere.



### 3.4 Data consultancy and data service companies, Sweden, 1996

A comprehensive survey was conducted by Sweden in respect of 1996 into Division 72. Only businesses with an employment of 10 or more were approached in the survey. Businesses were asked for details of the sales of individual groups of products. The following shows how the total turnover, for those covered by the survey, was apportioned.

**Table 3.32 Total turnover broken down by product, Sweden, 1996**

	%
Packaged products of own design	9
Systems and user tools software	2
Applications software	7
Other	0
Custom software products	8
System and user tools software	4
Applications software	3
Other	1
Professional computer services	45
Systems programming	20
Consultancy services related to the installation of hardware	6
Operation of customer computer systems	8
System administration services	4
Technical consulting services	1
Other computer related activities	6
Education and training services	1
Data processing services	11
Data processing	7
Other data processing services	4
Database services	2
Network services/telecom services	6
Network services/telecom services	5
Other services (incl. Internet)	1
Repair and maintenance services	2
Office machinery	2
Data processing equipment	1
Other computer related services	4
Sales or rental/lease of goods and intermediate services within computer services	
Resale of computer packages	3
Resale of computers and equipment	5
Rental/leasing of computer hardware and equipment	0
Other	0
Other revenue	
Income from rents, licences and royalties	1
Other	2

Source: Statistics Sweden

Such product detail of provides for a better understanding of the nature of the activity being undertaken in Division 72. Even if it is only collected periodically it provides valuable information on trends in the activity.

The income from the resale of computer packages and computers might be relatively high at 8 per cent of turnover and might well be higher in some other countries. If so this might then go some way to explaining the relatively low figures for production value which have been recorded.

The box containing detail of Division turnover by Group provides some indication of the relative importance of the different Groups within the Division. The above data does not provide this explicitly but it can provide data showing the relative importance of the principal products of the Division. As a percentage, this can be summarised as follows:

**Table 3.33 Division turnover by group, Sweden, 1996**

Group	Percentage
72.1	8
72.2	20
72.3	39
72.4	12
72.5	4
72.6	5
Other	12

Source: Statistics Sweden

Although this data is for a country not represented in the earlier comparison it shows some very significant things. First, the relatively low figure for the principal products of 72.2 as compared with the percentage of activity being undertaken by enterprises classified to that activity. Second, the high figure for the principal products of 72.4 as compared with the output of businesses classified to that activity. There are a number of possible reasons. The activity in Sweden might not be representative of other countries, the above is the result of a sample survey which may have a bias in response and which is directed only at enterprises with an employment of ten or more. Finally it may be indicative that there is a low index of specialisation within Groups i.e. enterprises classified to one activity may produce large amounts of products of other Groups.

## NACE Rev. 1 Division 73 – Research and development, 1997

Table 3.34 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	0.5	:	3.0	:	:	3.2	0.0	1.5	:	:	0.1	0.0	0.1	1.3	6.0
Turnover/enterprise (million)	:	:	0.5	:	:	1.7	0.2	0.2	:	:	1.1	0.2	0.6	0.9	2.8
Turnover/person employed (thousand ECU)	142.0	:	:	:	:	146.5	56.4	81.1	:	:	45.7	51.4	77.2	110.5	:

Table 3.35 Main indicators as a share of turnover of Division 73 – Research and development (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	99.0	87.2	105.6	:	:	90.9	100.0	99.1	103.2	:
Value added at factor cost	59.5	:	:	:	:	33.2	57.9	62.3	:	:	94.4	28.5	47.3	39.0	:
Personnel costs	43.0	:	:	:	:	32.4	:	33.1	:	:	100.8	10.9	39.9	34.8	42.2
Gross operating surplus	16.5	:	:	:	:	0.8	:	:	:	:	-6.4	17.2	7.4	4.3	:
Gross investment in tangible goods	:	:	:	:	:	7.3	5.1	:	:	:	13.1	10.9	7.3	9.6	:

Table 3.36 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	:	5.6	:	11.5	1.9	0.1	6.2	0.0	1.4	0.1	0.0	0.2	1.6	2.5
Number of persons employed (thousands)	3.6	:	:	:	:	21.9	0.4	18.9	:	28.5	1.3	0.1	1.4	12.1	108.5
Number of persons employed/enterprise (units)	:	:	:	:	:	11.30	3.60	3.10	:	19.8 <sup>(1)</sup>	24.50	3.70	8.30	7.8	39.0 <sup>(1)</sup>
Employees/persons employed (%)	95.9	:	:	:	:	99.9	67.0	65.2	:	:	96.8	60.0	95.3 <sup>(1)</sup>	9.4	84.3 <sup>(1)</sup>
Personnel costs/employee (thousands ECU)	63.7	:	:	:	:	47.4	:	41.2	:	:	47.6	9.3	36.4 <sup>(1)</sup>	409.9	28.0
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	:	:	:	:	29.3 <sup>(1)</sup>	93.0 <sup>(1)</sup>	:	86.0 <sup>(1)</sup>

Table 3.37 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	0.3	:	:	:	:	1.1	0.0	1.0	:	:	0.1	0.0	0.1	0.5	:
Value added/person employed (thousand ECU)	84.5	:	:	:	:	48.6	32.7	50.6	:	:	43.2	14.6	36.5	43.1	:
Gross operating surplus/ person employed (thousand ECU)	23.5	:	:	:	:	1.2	:	:	:	:	-2.9	8.8	5.7	4.7	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	:	10.7	2.9	7.9	:	:	6.0	5.6	5.6	10.6	:
Wage adjusted labour productivity (%)	132.8	:	:	:	:	102.4	:	122.8	:	:	90.7	154.3	117.0 <sup>(1)</sup>	10.5	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.34, 3.35, 3.36: 1996 for Italy, 1995 for Denmark.

Table 3.37: 1996 for Italy.

: = not available

Source: Eurostat (SBS database)

Enterprises classified to research and development tend to specialise in a single area of research and for most countries they tend to be larger than enterprises in many other activities. Most research and development covers research into natural sciences and engineering (Group 73.1) but the coverage also includes social sciences and humanities (Group 73.2). Research and development with a military objective is also included. Medical research particularly into pharmacology is an important activity in this field. But data for the SBSR is only required at Division level.

Research and development activity, carried out by enterprises classified to this activity account for only around 1 per cent or less of the total activity of Section K but this must not be taken to represent the full amounts of R&D undertaken. Many countries, conscious of the need to measure the amount of R&D undertaken, conduct separate R&D surveys which are directed at the larger establishments in production and at universities to establish the true amount of R&D being undertaken.

Turnover is highest in the UK which also has the highest turnover per enterprise. A contributory factor to the latter is the fact that the average number of persons employed is over three times that for any other country for which data are available, except for Austria.

The figures for Austria seem to tell opposing stories. When production value is less than turnover it can either mean that some of the turnover has been achieved by selling from stock or from the sale of merchantable goods. In the case of R&D the former might be expected to be from work in progress that has not been invoiced in a previous year. On the other hand when personnel costs exceed turnover this usually means that work is being carried out on activity designed to generate profits in the future. Some increase in stocks might then be expected. Otherwise it is difficult to see how individual enterprises can survive in the longer term.

The number of employees as a percentage of the total workforce is high at over 95 per cent for four of the countries for which data is available compared with 60 to 67 per cent in the other three countries. However, a factor might be the way in which countries measure employment. Some might measure head counts of those working whether full-time or part-time; others might provide a measure of full-time equivalents. From the limited information available the lower percentages appear to be associated with smaller average employment which suggests that the type of research being carried out is substantially different in these countries.

#### **Division 74 Other business activities**

Although the activities carried out within other Divisions of Section K are less heterogeneous than might have appeared from their descriptions, the activities within Division 74 are certainly different. This is why the SBSR requests more activity detail than from all of the other Divisions combined. Indeed even at the Group level there are some diverse activities.

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

For the first activity, the Regulation requires data to be supplied for market research and public opinion polling separately from all the other activities in the Group. It requires data for the next two Groups combined and for all the other Groups separately. The activities carried out at the Group level are:

- Group 74.2 Architectural and engineering activities and related technical consultancy
- Group 74.3 Technical testing and analysis
- Group 74.4 Advertising
- Group 74.5 Labour recruitment and provision of personnel
- Group 74.6 Investigation and security services
- Group 74.7 Industrial cleaning
- Group 74.8 Miscellaneous business activities not elsewhere classified.

## NACE Rev. 1 Division 74 – Other business services, 1997

Table 3.38 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	22.0	9.1	218.2	:	:	134.9	4.0	64.4	1.3	41.5	11.9	8.1	6.1	21.2	161.1
Turnover/enterprise (million)	:	0.2	0.6	:	:	0.5	0.4	0.1	0.4	0.6	0.5	0.2	0.3	0.2	0.7
Turnover/person employed (thousand ECU)	75.5	65.1	:	:	:	91.7	58.2	57.5	65.7	46.0	75.3	40.4	70.1	81.3	44.0 <sup>(a)</sup>

Table 3.39 Main indicators as a share of turnover of Division 73 – Other business activities (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	86.8	79.8	93.4	88.4	99.6	84.2	100.7	100.9	106.9	:
Value added at factor cost	41.8	:	:	:	:	39.8	53.4	52.5	57.7	62.5	50.6	33.4	55.6	45.4	:
Personnel costs	28.5	33.4	:	:	:	34.8	:	20.5	36.8	37.0	32.2	24.5	35.7	34.1	31.0
Gross operating surplus	13.3	:	:	:	:	4.9	:	:	20.9	25.5	18.4	8.8	19.9	11.3	:
Gross investment in tangible goods	:	:	:	:	:	3.4	2.5	4.8	:	7.2	5.0	11.2	6.6	7.3	3.4

Table 3.40 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	40.7	389.8	:	295.1	277.1	9.5	500.3	3.1	70.8	23.6	35.5	23.8	86.6	238.3
Number of persons employed (thousands)	291.4	139.1	:	:	:	1471.4	69.2	1119.2	19.4	901.8	158.4	199.4	86.7	260.4	2159.1 <sup>(a)</sup>
Number of persons employed/enterprise (units)	:	3.4	:	:	:	5.3	7.3	2.2	6.3	12.7	6.7	5.6	3.6	3.0	8.2 <sup>(a)</sup>
Employees/persons employed (%)	80.6	55.8	:	:	:	98.0	84.4	50.2	91.4	:	84.6	87.0	87.2 <sup>(a)</sup>	79.5	84.3 <sup>(a)</sup>
Personnel costs/employee (thousands ECU)	26.8	39.0	:	:	:	32.7	:	23.5	26.4	:	28.7	11.4	:	34.9	22.1
Wages and salaries/personnel costs (%)	:	:	:	:	:	87.9 <sup>(a)</sup>	:	:	:	:	87.6 <sup>(a)</sup>	:	:	84.3 <sup>(a)</sup>	:

Table 3.41 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	9.2	:	:	:	:	53.7	2.2	33.8	0.7	25.9	6.0	2.7	3.4	9.6	:
Value added/person employed (thousand ECU)	31.6	:	:	:	:	36.5	31.1	30.2	37.9	28.8	38.1	13.5	39.0	36.9	:
Gross operating surplus/ person employed (thousand ECU)	10.0	:	:	:	:	4.5	:	:	13.8	11.7	13.9	3.6	14.0	9.2	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	:	3.1	1.8	2.7	2.1 <sup>(a)</sup>	3.3	3.9	4.3	4.3	5.9	:
Wage adjusted labour productivity (%)	118.0	:	:	:	:	112.0	:	128.3	143.4	:	133.0	118.3	131.5 <sup>(a)</sup>	105.8	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.38, 3.39, 3.40: 1996 for Italy, 1995 for Denmark.

Table 3.41: 1996 for Italy.

Data in Table 4.38 are provisional for Luxembourg.

: = not available

Source: Eurostat (SBS database)

Division 74 is by far the largest Division in Section K accounting for 60 percent of the total turnover and considerably more in terms of employment.

### 3.5 Turnover and purchases in relation to the external market, Portugal, 1997

Data for Portugal for 1997 is available showing turnover and purchases in relation to the external market. Although it is only available for the larger enterprises (those with an employment of 20 or more) it provides an insight into trade with other members of the EU and with the rest of the world. The following table apportions the available data for turnover, services rendered and total purchases (including tangible capital assets) between the various trading blocks.

**Table 3.42 Percentage share of market within other business services, Portugal**

Activity	Turnover			Purchases		
	Home	EU	Rest of the World	Home	EU	Rest of the World
7411	45.4	30.8	23.8	94.4	1.5	4.0
7412	85.8	5.1	9.1	82.8	3.4	13.8
7413	81.9	18.1	9.0	99.5	0.5	0.1
7414	85.6	3.6	10.8	82.3	2.3	15.4
7415	96.2	0.7	3.0	97.5	1.8	0.7
7420	92.2	4.5	3.3	94.4	5.1	0.5
7430	98.6	0.3	1.1	100.0	0.0	0.0
7440	97.8	2.2	0.0	96.6	3.1	0.3
7450	97.6	1.4	1.0	99.1	0.2	0.7
7460	99.8	0.2	0.0	87.4	12.5	0.1
7470	99.9	0.0	0.1	97.9	1.9	0.2
7481	100.0	0.0	0.0	100.0	0.0	0.0
7484	92.6	5.7	1.6	97.2	2.2	0.6

Source: INE, Portugal

From this table it is possible to see which activities within Division 74 rely on internal trade in Portugal and which are more reliant on trade with other countries.

For most of the activities there is a very limited amount of trade with other countries. For example for 7481 (photographic services) a hundred per cent reliance on sales and purchases from the home market is not unexpected even though many of the purchases may have been originated in other countries.

The non domestic trade increases a little for 7415 which covers management holding services. This is not unexpected since the scope for cross border trade is larger although not particularly significant.

The amount of cross border sales increases significantly for 7412 (Accounting etc activities) 7413 (Market research and opinion polling) and 74.14 (Business and management consultancy services). These are activities where there is little to prevent international trade and where it might be expected to increase in the future. Of the three the first and last also rely on significant amounts of overseas purchases, probably as subcontracted services. Only the second relies heavily on domestic purchases since it is less likely, for this activity, that any work would be subcontracted.

Legal services (7411) seems to rely heavily on cross border sales although it is not clear why. Similar data for 1966 only shows sales to other countries totalling 23 per cent of the total while still large is significantly less than the 55 per cent recorded for 1997. Much of legal services must be expected to be domestic activities although it does include such things as patent and copyright consultancy services which can be expected to obtain significant amounts of revenue from abroad.

### 3.6 Percentage share of total turnover by legal form, Germany

The share of turnover taken by different types of businesses says a lot about the structure of a business and changes over time shows where that structure is changing. This helps policy makers to plan for the future. Data relating to tax, from Statistics Germany, taken from the years 1994, 1996 and 1997 provide the following picture for Division 74.

**Table 3.43 Percentage share of total turn-over by legal form, Germany**

Legal form	Year	74.2	74.4	74.5	74.6	74.7	74.8
Sole proprietor	1994	79	70	29	62	81	78
	1996	78	69	31	65	80	77
	1997	78	69	32	67	80	77
General partnership	1994	9	7	5	5	4	6
	1996	9	7	5	6	4	6
	1997	9	7	5	5	4	6
Public limited company	1994	0	2	5	4	2	2
	1996	0	2	5	4	2	2
	1997	0	2	6	4	2	2
Limited liability company	1994	12	21	61	28	13	13
	1996	12	21	59	25	14	14
	1997	12	21	58	24	14	14
Other	1994	0	0	1	0	0	1
	1996	0	1	0	0	0	1
	1997	0	2	0	0	0	1

Source: Federal Statistical Office, Germany

The pattern shown by the figures does not change much from year to year but large changes between successive years would be unexpected. Any changes are likely to become apparent only over relatively long periods of time which makes annual figures a luxury unless they can be compiled at minimum cost.

Sole proprietors and partnerships dominate in all activities except in labour recruitment (74.5) where larger businesses can be expected to be the norm.

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

Group 74.1 covers a number of diverse activities. The Regulation asks for this data from this Group to be split between market research and public opinion polling and the rest. Although not required by the Regulation a limited range of information is available separately for legal activities.

Tables 3.44 to 3.47 provide composite information for the whole of Group 74.1. They provide more information than do the tables for the component parts although there are still large gaps in the information provided.

The Group, being a composite one in itself, forms a large proportion of the activity of Division 74 (other business services). It has the smallest share in Denmark, where it accounts for a little more than a quarter of the Division's turnover, and the largest in Luxembourg where it accounts for almost half.

It is an activity that is mostly carried out from offices so that gross investment costs are not particularly high. Value added, as a percentage of turnover, appears to be in two bands. Around 40 per cent for Belgium, France, Portugal and Spain, and is around 60-70 per cent for Ireland, Italy, Luxembourg, Austria and Finland. Without more detailed information for the different activities it is not possible to examine whether this represents fundamental differences in the way businesses operate in the Member States or whether it represents a different mix of the activities carried out within the Group.

Personnel costs, as a percentage of turnover, are far more consistent between countries, although Italy shows a different picture. Given that Italy had one of the highest values for value added as a percentage of turnover this must be partly explained by the low percentage of employees in total employment. It may also be that legal services account for a higher proportion of the total activity of the Group than in many of the other countries, although this cannot be verified from the available information.

**NACE Rev. 1 Division 74.1 – Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holding, 1997**

**Table 3.44 Turnover characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	9.4	2.3	87.9	:	:	53.9	1.7	21.3	0.6	15.0	3.9	2.3	1.8	:	44.6
Turnover/enterprise (million ECU)	:	0.2	0.7	:	:	0.4	0.3	0.1	0.4	0.5	0.4	0.3	0.2	:	0.5
Turnover/person employed (thousand ECU)	131.6	61.3	:	:	:	178.3	58.7	57.2	110.7	67.7	80.0	52.3	87.0	:	:
Turnover share in NACE Rev. 1, Division 74 (%)	42.6	25.2	40.3	:	:	39.9	43.1	33.2	49.8	36.3	32.5	28.2	30.1	:	27.7

**Table 3.45 Main indicators as a share of turnover of Group 741 – Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings (%), 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	74.9	96.2	101.8	94.3	100.0	89.5	101.0	112.6	:	:
Value added at factor cost	42.4	:	:	:	:	32.1	68.8	67.3	60.7	73.6	60.6	39.9	67.9	:	:
Personnel costs	25.3	41.3	:	:	:	26.0	:	18.2	28.7	43.6	33.8	28.0	33.8	:	31.6
Gross operating surplus	17.1	:	:	:	:	6.1	:	49.1	32.0	30.0	26.9	11.9	34.1	:	:
Gross investment in tangible goods	:	:	:	:	:	4.0	3.2	4.7	2.4 <sup>(1)</sup>	13.6	7.4	9.9	10.9	:	3.5

**Table 3.46 Enterprise and employment characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	12.5	127.8	:	127.3	124.8	5.0	193.9	1.7	30.7	8.8	9.0	9.4	:	87.2
Number of persons employed (thousands)	71.3	37.2	:	:	:	302.2	29.6	373.0	5.7	222.4	48.6	43.5	21.0	:	:
Number of persons employed/enterprise (units)	:	3.0	:	:	:	2.4	5.9	1.9	3.4	7.2	5.5	4.9	2.2	:	:
Employees/persons employed (%)	62.9	64.9	:	:	:	96.7	77.2	42.5	84.1	75.6 <sup>(1)</sup>	80.7	88.5	82.8 <sup>(1)</sup>	:	:
Personnel costs/employee (thousand ECU)	52.9	39.0	:	:	:	47.9	:	24.6	37.7	:	33.5	16.6	34.2 <sup>(1)</sup>	:	26.1
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Persons employed, share in NACE Rev. 1 Division 74 (%)	24.5	26.7	:	:	:	20.5	42.8	33.3	29.6	24.7	30.6	21.8	24.2	:	:

**Table 3.47 Productivity/competitiveness characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	4.0	:	:	:	:	17.3	1.2	14.4	0.4	110.7	2.4	0.9	1.2	:	:
Value added/person employed (thousand ECU)	55.8	:	:	:	:	57.2	40.3	38.5	67.1	49.8	48.4	20.8	59.0	:	:
Gross operating surplus/person employed (thousand ECU)	22.5	:	:	:	:	10.9	:	28.1	35.4	20.3	21.4	6.2	29.7	:	:
Gross investment/person employed (thousand ECU)	:	:	:	:	:	8.3 <sup>(1)</sup>	7.2	1.6	2.5 <sup>(1)</sup>	:	9.2	5.1	5.2	:	:
Wage adjusted labour productivity (%)	105.5	:	:	:	:	119.5	:	156.8	178.1	:	144.9	126.0	148.9 <sup>(1)</sup>	:	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.44, 3.45, 3.46: 1996 for Italy, 1995 for Denmark.

Table 3.47: 1996 for Italy.

Data in Table 3.44 are provisional for Luxembourg.

: = not available

Source: Eurostat (SBS database)

**Class 74.11 Legal Services**

Legal activities cover advisory and representation services concerning both criminal and civil law. They cover not only work connected with courts of law but also the drafting of legal documents such as wills and the transfer of property, in particular real estate. They also cover work related to the certification of patents and copyrights.

The activity tends to be dominated by well-qualified, self-employed, personnel who operate with a small number of less qualified employees. Costs in the activity tend to be for purchases of services in connection with the legal activity rather than for goods, but they are small in relation to the value added since the activity tends to be labour intensive. For the same reason investment costs are also small. Personnel costs are not usually high in relation to value added because most of the value added comes from the legal specialists who generally own the businesses. An exception to this appears to be Sweden where personnel costs account for almost 80 per cent of value added. For Italy we know from table 3.50 that employees account for only 33 per cent of employment but data supplied by Italy on a voluntary basis provides the additional information that almost 99 per cent of persons employed are in enterprises that are in personal ownership.

**Class 74.13 Market research and public opinion polling**

Two distinct needs are met by the enterprises classified to this activity although individual enterprises may be able to satisfy both needs. Market research provides information on the future potential for existing or new products and likely consumer reaction, while opinion polling provides information on public attitudes to particular ideas, especially political ones.

The work of many individual enterprises can take place in many different locations depending on the individual contracts on which they are working. This requires a flexible work force and while there is usually a core of permanently employed staff, many employees are recruited for individual projects at individual locations.

Expenses can be relatively high for market research which is why value added as a percentage of turnover is relatively low for the two activities combined at around fifty per cent for most countries. Labour costs, inevitably, account for a large proportion of value added and investment costs are low.

Belgium shows a surprisingly low percentage of employees (no figures are available here for Italy) with only half of those in employment being employees. In most other countries it was more than 90 per cent.



**NACE Rev. 1 Class 7411 – Legal activities, 1997**

**Table 3.48 Turnover characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	:	:	:	:	4.0	9.6	:	7.8	:	1.8	:	:	:	:	12.7
Turnover/enterprise (million ECU)	:	:	:	:	0.1	0.4	:	0.1	:	0.5	:	:	:	:	0.6
Turnover/person employed (thousand ECU)	:	:	:	:	33.4	72.1	:	59.5	:	64.1	:	:	:	:	:
Turnover share in NACE Rev. 1, Division 741 (%)	:	:	:	:	26.8	:	36.7	:	:	:	:	:	:	:	:

**Table 3.49 Main indicators as a share of turnover of class 7411 – Legal activities (%), 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	99.4	93.0	:	102.0	:	:	:	:	:	:	:
Value added at factor cost	:	:	:	:	74.6	:	76.3	:	:	:	:	:	:	:	:
Personnel costs	:	:	:	:	22.2	32.1	:	12.2	:	:	:	:	:	:	32.6
Gross operating surplus	:	:	:	:	52.4	:	64.2	:	:	:	:	:	:	:	:
Gross investment in tangible goods	:	:	:	:	2.4	1.5	:	4.7	:	:	:	:	:	:	2.3

**Table 3.50 Enterprise and employment characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	:	:	:	71.8	24.8	:	77.4	:	3.4	:	:	:	:	22.3
Number of persons employed (thousands)	:	:	:	:	119.8	132.9	:	131.4	:	28.3	:	:	:	:	:
Number of persons employed/enterprise (units)	:	:	:	:	1.7	5.4	:	1.7	:	8.3	:	:	:	:	:
Employees/persons employed (%)	:	:	:	:	35.2	74.2	:	33.0	:	:	:	:	:	:	:
Personnel costs/employee (thousand ECU)	:	:	:	:	21.0	31.2	:	22.0	:	:	:	:	:	:	:
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	64.8 <sup>(1)</sup>	:	:	:	:	:	:	90.0
Persons employed, share in NACE Rev. 1 Division 741 (%)	:	:	:	:	32.9	:	35.2	:	:	:	:	:	:	:	:

**Table 3.51 Productivity/competitiveness characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	:	:	:	:	3.0	:	6.0	:	:	:	:	:	:	:	:
Value added/person employed (thousand ECU)	:	:	:	:	24.9	:	45.5	:	:	:	:	:	:	:	:
Gross operating surplus/ person employed (thousand ECU)	:	:	:	:	17.5	:	38.2	:	:	:	:	:	:	:	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	0.8	1.1	2.8	:	:	:	:	:	:	:	:
Wage adjusted labour productivity (%)	:	:	:	:	50.1	:	39.3	:	:	:	:	:	:	:	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.48 and 3.50: 1996 for Spain, Italy and the United Kingdom, 1994 for France and the Netherlands.

Tables 3.49 and 3.51: 1996 for Spain, Italy and the United Kingdom, 1994 for France.

: = not available

Source: Eurostat (SBS database)

## NACE Rev. 1 Class 7413 – Market research and public opinion polling, 1997

Table 3.52 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	0.8	:	2.4	:	:	1.5	0.0	c	0.1	0.6	0.1	0.1	0.1	0.2	2.6
Turnover/enterprise (million ECU)	:	:	0.9	:	:	0.4	0.5	c	0.9	0.3	0.3	0.1	0.6	0.4	1.4
Turnover/person employed (thousand ECU)	132.5	:	:	:	:	109.4	102.9	c	336.0	49.3	78.0	47.8	65.1	63.0	:
Turnover share in NACE Rev. 1, Division 741 (%)	8.4	:	2.7	:	:	2.8	1.7	c	10.6	4.1	1.6	2.3	3.4	0.9	5.7

Table 3.53 Main indicators as a share of turnover of class 7413 – Market research and public opinion polling (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	98.5	67.8	c	97.0	100.2	89.9	99.8	100.1	105.9	:
Value added at factor cost	30.3	:	:	:	:	42.8	30.8	c	53.3	77.6	48.5	35.9	57.2	47.4	:
Personnel costs	19.1	:	:	:	:	37.4	:	c	12.8	38.4	30.6	20.2	42.9	40.5	31.5
Gross operating surplus	11.2	:	:	:	:	5.4	:	c	40.5	39.2	18.0	15.6	14.3	6.9	:
Gross investment in tangible goods	:	:	:	:	:	2.2	1.5	c	1.0 <sup>(1)</sup>	6.0	2.6	7.7	2.9	3.3	3.7

Table 3.54 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousands)	:	:	2.8	:	3.1	3.6	0.1	c	0.1	2.3	0.2	0.4	0.1	0.5	1.8
Number of persons employed (thousands)	5.9	:	:	:	:	13.9	0.3	c	0.2	12.4	0.8	1.1	1.0	3.2	:
Number of persons employed/enterprise (units)	:	:	:	:	:	3.9	5.3	c	2.6	5.4	4.1	3.1	8.5	6.2	:
Employees/persons employed (%)	50.2	:	:	:	:	99.2	98.6	c	92.0	61.7 <sup>(1)</sup>	75.2	76.3	96.5 <sup>(1)</sup>	90.2	:
Personnel costs/employee (thousand ECU)	50.5	:	:	:	:	41.2	:	c	46.7	24.8 <sup>(1)</sup>	31.7	12.7	30.0 <sup>(1)</sup>	28.3	22.3
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	c	:	:	:	:	:	:	89.4 <sup>(1)</sup>
Persons employed, share in NACE Rev. 1 Division 741 (%)	8.3	:	:	:	:	4.6	1.0	c	3.5	5.6	1.6	2.5	4.5	1.2	:

Table 3.55 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	0.2	:	:	:	:	0.7	0.0	c	0.0	0.5	0.0	0.0	0.0	0.1	:
Value added/person employed (thousand ECU)	40.1	:	:	:	:	46.8	31.7	c	179.2	38.3	37.8	17.1	37.2	29.9	:
Gross operating surplus/ person employed (thousand ECU)	14.8	:	:	:	:	5.9	:	c	136.2	19.3	14.0	7.4	9.3	4.3	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	:	2.4	1.4	c	2.5 <sup>(1)</sup>	2.9	2.0	3.6	1.8	2.1	:
Wage adjusted labour productivity (%)	79.6	:	:	:	:	113.6	:	c	383.6	:	119.5	135.2	135.5 <sup>(1)</sup>	105.7	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

c = confidential

: = not available

Source: Eurostat (SBS database)

### Group 742 Architectural and engineering activities and related technical consultancy

Despite the Regulation requiring that data need only be supplied for Groups 742 and 743 in combination separate data, although limited, is available for both. Group 742 covers architectural services such as design and drawing plans, and advice concerning maintenance. The engineering

activities include design services load bearing frameworks for buildings as well as for bridges etc.

It also includes electrical engineering design services for refrigeration, fire alarm systems and ventilation for example. Many other related services are also included, such as work relating to the location of mineral deposits and map making services and weather forecasting services.

Engineering activities and related technical consultancy are almost exclusively business services but architects are also involved in supplying services to the public inasmuch as they provide plans for domestic properties and related building extensions. Some architects specialise in domestic properties and exist as sole proprietors or partnerships located close to the communities they serve. As a result businesses tend to be small.

The data available for Group 742 is very limited with only three countries providing a broad range of data. This makes it difficult to draw any conclusions about differences between the Member States. Investment tends to be low because most of the work is carried out in an office environment where the major costs tend to be computers and computer software required to produce the necessary drawings. The work tends to be labour intensive and relatively highly skilled.

**NACE Rev. 1 Group 742 – Architectural and engineering activities and related technical consultancy, 1997**

**Table 3.56 Turnover characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	:	3.1	:	:	:	18.8	:	14.2	:	5.8	:	:	:	:	22.2
Turnover/enterprise (million ECU)	:	0.3	:	:	:	0.4	:	0.1	:	0.5	:	:	:	:	0.5
Turnover/person employed (thousand ECU)	:	104.7	:	:	:	93.0	:	56.7	:	:	:	:	:	:	:
Turnover share in NACE Rev. 1, Division 74 (%)	:	34.1	:	:	:	18.4	:	22.0	:	:	:	:	:	:	:

**Table 3.57 Main indicators as a share of turnover of class 7411 – Legal activities (%), 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	71.1	:	98.1	:	98.3	:	:	:	:	:
Value added at factor cost	:	:	:	:	:	:	:	48.5	:	87.7	:	:	:	:	:
Personnel costs	:	32.1	:	:	:	34.6	:	13.7	:	44.5	:	:	:	:	29.2
Gross operating surplus	:	:	:	:	:	:	:	34.9	:	:	:	:	:	:	:
Gross investment in tangible goods	:	:	:	:	:	2.0	:	4.6	:	4.7	:	:	:	:	3.0

**Table 3.58 Enterprise and employment characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousand)	:	98.8	:	:	61.0	43.7	:	181.4	:	11.8	:	:	:	:	48.9
Number of persons employed (thousand)	:	29.4	:	:	:	202.2	:	250.3	:	:	:	:	:	:	:
Number of persons employed/enterprise (units)	:	3.3	:	:	:	4.6	:	1.4	:	:	:	:	:	:	:
Employees/persons employed (%)	:	74.8	:	:	:	77.5	:	24.2	:	:	:	:	:	:	:
Personnel costs/employee (thousand ECU)	:	44.9	:	:	:	41.5	:	31.9	:	:	:	:	:	:	:
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	66.8 <sup>(1)</sup>	:	:	:	:	:	:	89.7
Persons employed, share in NACE Rev. 1 Division 74 (%)	:	21.2	:	:	:	12.6	:	22.4	:	:	:	:	:	:	:

**Table 3.59 Productivity/competitiveness characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	:	:	:	:	:	:	:	6.9	:	5.1	:	:	:	:	:
Value added/person employed (thousand ECU)	:	:	:	:	:	:	:	27.5	:	:	:	:	:	:	:
Gross operating surplus/person employed (thousand ECU)	:	:	:	:	:	:	:	19.8	:	:	:	:	:	:	:
Gross investment/person employed (thousand ECU)	:	:	:	:	:	2.2	:	2.6	:	:	:	:	:	:	:
Wage adjusted labour productivity (%)	:	:	:	:	:	:	:	86.2	:	:	:	:	:	:	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.56, 3.57: 1996 for Italy and United Kingdom, 1995 for Denmark and the Netherlands, 1994 for France.

Table 3.58: 1996 for Italy and United Kingdom, 1995 for Denmark and the Netherlands, 1994 for Spain and France.

Table 3.59: 1996 for Italy, 1995 for Denmark, 1994 for Spain and France.

: = not available

Source: Eurostat (SBS database)

**Group 74.3 Technical testing and analysis**

This Group is quite small in relation to others in the Division and is made up of a wide variety of businesses engaged in providing analyses of the chemical and biological properties of for example, air, water, metals, and food. Also covered are the physical testing of properties such as strength, ductility and electrical conductivity of various materials. Even technical inspection of motor vehicles is included.

As with Group 742 there is a very limited amount of information available on this activity but the data that is available is provided in tables 3.60 to 3.63.

Again the activity tends to be labour intensive and relatively highly skilled but, in view of the nature of the work it requires the provision of technical facilities. Investment levels are comparatively low.

**Group 74.4 Advertising services**

The Regulation requires the collection of data not only to find out what is happening in individual activities, but also to build up a picture of the economy in each member state and in the EU as a whole. To obtain the required information individual enterprises are classified to a single economic activity and data is collected or estimated for them on that basis. For advertising this means that businesses which carry out advertising as their main activity are classified to NACE.Rev.1 Group 74.4 and the data which then becomes available for that activity relates only to them.

The problem with this approach, for those who wish to use advertising statistics, is that the information collected in this way does not cover anything like the full range of advertising activity. This is because the bulk of advertising is carried out by individuals, or by enterprises which are classified to other activities.

Advertising can be carried out in a number of ways. The ones that most readily come to mind are posters, newspapers, magazine, television and, of course, junk mail. While these are often the product of advertising campaigns created by businesses classified to advertising, many are not.

Much advertising, for example, is placed directly with newspapers by members of the public, and clearly will not appear in the data collected for this activity. Nor do enterprises always need to employ specialist businesses classified to the advertising industry for much of their advertising requirements. Many may be too small to justify the expense involved, and many advertisements, such as those advertising job vacancies, are relatively simple to compile and do not need specialist expertise.

Thus the figures collected for this activity do not cover the whole of advertising but only such things as advertising devised by specialist agencies which devise advertising campaigns or which buy and sell advertising space in bulk. For this reason, advertising is probably the activity that generates the least interest in the figures collected under the Structural Business Statistics Regulation.

Business classified to advertising may operate in different ways. Some businesses purchase advertising space in bulk and then sell this directly to the advertisers. Others may act as a go between with the effect that any amounts actually paid for advertising will not be shown in their accounts as turnover. There are those businesses which design expensive advertising campaigns and those who own advertising billboards on which advertisements are placed.

From the available data in tables 3.64 to 3.67 it is estimated that advertising turnover accounts for a little under twelve per cent of the turnover of Division 74, although there are some large differences between individual countries. Since turnover per head is relatively high in this activity it would be expected that employment would show a lower percentage of the Divisions total. In fact the figures are under half that shown by turnover.

The largest enterprises are to be found in Ireland and the United Kingdom where the turnover per enterprise was more than double that found in any other Member State. No figure is available for employment size per enterprise in the UK but for Ireland it is over four times the size of enterprises in all other Member States except for Portugal.

**NACE Rev. 1 Group 743 – Technical testing and analysis, 1997**

**Table 3.60 Turnover characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	:	0.1	:	:	:	1.8	:	0.6	:	0.4	:	:	:	:	1.4
Turnover/enterprise (million ECU)	:	0.3	:	:	:	0.6	:	0.3	:	1.1	:	:	:	:	1.0
Turnover/person employed (thousand ECU)	:	77.8	:	:	:	58.3	:	71.1	:	:	:	:	:	:	:
Turnover share in NACE Rev. 1, Division 74 (%)	:	1.3	:	:	:	1.8	:	0.9	:	:	:	:	:	:	:

**Table 3.61 Main indicators as a share of turnover of class 743 – Technical testing and analysis (%), 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	99.5	:	101.7	:	101.7	:	:	:	:	:
Value added at factor cost	:	:	:	:	:	:	:	59.9	:	93.4	:	:	:	:	:
Personnel costs	:	36.8	:	:	:	54.3	:	37.0	:	52.7	:	:	:	:	43.5
Gross operating surplus	:	:	:	:	:	:	:	22.8	:	:	:	:	:	:	:
Gross investment in tangible goods	:	:	:	:	:	3.9	:	5.3	:	7.5	:	:	:	:	8.9

**Table 3.62 Enterprise and employment characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousand)	:	0.4	:	:	2.7	3.2	:	2.3	:	0.3	:	:	:	:	1.4
Number of persons employed (thousand)	:	1.5	:	:	:	31.5	:	8.6	:	:	:	:	:	:	:
Number of persons employed/enterprise (units)	:	4.4	:	:	:	10.0	:	3.7	:	:	:	:	:	:	:
Employees/persons employed (%)	:	74.6	:	:	:	90.1	:	67.5	:	:	:	:	:	:	:
Personnel costs/employee (thousand ECU)	:	38.4	:	:	:	35.1	:	39.0	:	:	:	:	:	:	:
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	89.0
Persons employed, share in NACE Rev. 1 Division 74 (%)	:	1.1	:	:	:	2.1	:	0.8	:	:	:	:	:	:	:

**Table 3.63 Productivity/competitiveness characteristics, 1997**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	:	:	:	:	:	:	:	0.4	:	0.4	:	:	:	:	:
Value added/person employed (thousand ECU)	:	:	:	:	:	:	:	42.5	:	:	:	:	:	:	:
Gross operating surplus/ person employed (thousand ECU)	:	:	:	:	:	:	:	16.2	:	:	:	:	:	:	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	:	:	:	89.3	:	80.0	:	:	:	:	:
Wage adjusted labour productivity (%)	:	:	:	:	:	:	:	109.1	:	:	:	:	:	:	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.60, 3.62: 1996 for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for Spain and France.

Table 3.61: 1996 data for Italy and the United Kingdom, 1995 for Denmark and the Netherlands, 1994 for Spain and France.

Table 3.63: 1996 for Italy, 1995 for the Netherlands, 1994 for France.

: = not available

Source: Eurostat (SBS database)

## NACE Rev. 1 Group 744 – Advertising services, 1997

Table 3.64 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	3.5	1.7	21.4	:	:	16.5	0.5	4.2	0.1	5.2	2.0	1.9	1.0	3.7	22.4
Turnover/enterprise (million ECU)	:	0.4	0.6	:	:	0.8	2.0	0.4	0.5	0.6	0.7	0.7	0.5	0.4	2.0
Turnover/person employed (thousand ECU)	286.0	174.2	:	:	:	175.5	123.1	140.6	167.4	139.4	192.4	120.1	182.9	145.3	:
Turnover share in NACE Rev. 1, Division 74 (%)	16.0	18.5	9.8	:	:	12.2	12.2	6.6	7.9	12.5	16.5	23.9	16.5	17.4	13.9

Table 3.65 Main Indicators as a share of turnover of class 744 – Advertising (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	92.8	43.9	99.9	39.9	100.0	47.5	101.7	88.9	101.7	:
Value added at factor cost	14.7	:	:	:	:	86.9	21.9	35.2	25.3	35.1	27.0	13.7	26.8	25.9	:
Personnel costs	7.7	13.8	:	:	:	21.3	:	14.9	17.1	13.1	13.5	9.1	16.8	17.7	12.5
Gross operating surplus	7.0	:	:	:	:	5.6	:	20.3	8.2	22.0	13.5	4.6	10.0	8.2	:
Gross investment in tangible goods	:	:	:	:	:	1.6	1.9	3.1	3.2 <sup>(a)</sup>	2.7	3.1	3.0	2.2	3.2	2.0

Table 3.66 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousand)	:	3.8	34.7	:	15.5	20.2	0.3	10.9	0.2	8.7	2.8	2.7	2.2	10.1	11.1
Number of persons employed (thousand)	12.3	9.6	:	:	:	93.9	4.0	30.1	0.6	37.1	10.3	16.0	5.5	25.4	:
Number of persons employed/enterprise (units)	:	2.5	:	:	:	4.7	16.0	2.8	3.0	4.3	3.6	6.0	2.5	2.5	:
Employees/persons employed (%)	63.7	57.6	:	:	:	96.9	94.9	57.6	87.4	54.3 <sup>(a)</sup>	71.9	91.1	82.9 <sup>(a)</sup>	76.3	:
Personnel costs/employee (thousand ECU)	34.5	41.9	:	:	:	38.7	:	36.5	32.7	37.9 <sup>(a)</sup>	36.0	12.0	32.6 <sup>(a)</sup>	33.7	33.5
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	67.3 <sup>(a)</sup>	:	:	:	:	:	:	:
Persons employed, share in NACE Rev. 1 Division 74 (%)	4.2	6.9	:	:	:	6.4	5.8	2.7	3.1	4.1	6.5	8.0	6.3	9.8	:

Table 3.67 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	0.5	:	:	:	:	4.4	0.1	1.5	0.0	1.8	0.5	0.3	0.3	1.0	:
Value added/person employed (thousand ECU)	42.0	:	:	:	:	47.2	26.9	49.5	42.4	48.9	51.9	16.4	48.9	37.6	:
Gross operating surplus/ person employed (thousand ECU)	20.1	:	:	:	:	9.7	:	28.5	13.8	30.7	26.0	5.5	18.3	11.9	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	:	2.8	2.3	4.3	5.8 <sup>(a)</sup>	3.7	6.0	3.6	4.0	4.6	:
Wage adjusted labour productivity (%)	122.0	:	:	:	:	122.1	:	135.8	129.6	180.6 <sup>(a)</sup>	144.2	137.2	129.6 <sup>(a)</sup>	111.7	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.64, 3.65, 3.66: 1996 for Italy, 1995 for Denmark.

Table 3.67: 1996 for Italy.

Data for Luxembourg are provisional.

: = not available

Source: Eurostat (SBS database)

In Ireland, Luxembourg and Austria the production value in 1997 was less than 50 per cent of turnover, while other countries had a figure closer to the expected level of around 100 per cent. Figures as low as 50 per cent are difficult to explain but one possibility, although it may seem unlikely, is that a large amount of revenue in 1997 was derived from work in progress carried forward from the previous year. A more likely possibility is a difference in the treatment of advertising space purchased by businesses in anticipation of selling it on later to clients. It is possible that some countries may treat such expenditure as merchanting, in which case it would reduce the level of production value as a percentage of turnover. Data on stocks and on a breakdown of turnover or purchases designed to show levels of merchanting activity would have been very useful. Detailed purchases data in the UK show that there were no purchases of goods intended for resale.

Value added for all countries except France was 35 per cent of turnover or less. For Portugal it was only 14 per cent. This implies a high value of purchases and the level of this can depend on how the industry operates in each country. Enterprises involved in buying and selling advertising space will normally incur high costs, taking only a relatively small mark up on purchases. However this will depend on whether money obtained from those purchasing advertising services and passed directly to those ultimate supplier (the media) are included in turnover or not. Enterprises involved in producing advertising campaigns will have relatively lower costs.

Value added, as a percentage of turnover at 89 per cent is very high in France and at a level of around three times that for other Member States. This would suggest that little of the money representing advertising expenditure passed on to the media is recorded in the accounts as turnover. If this occurs then it may demonstrate differences in recording data between countries which distort comparisons of turnover but not, of course, value added.

There was a variation in the number of employees as a percentage of employment. As for many other activities Italy showed the lowest figure, with around 3 in 5 being employees but this was matched by a number of other countries. This contrasted markedly with the figure for some of the other countries particularly France where it was 1 in 28.

#### **Group 74.5 Labour recruitment and provision of personnel services**

Although the activities in this Group are related, as with other Groups, they can be split into a number of different areas each the province of different groups of businesses. There are three main parts, the first covering the provision of personnel by what is often known as "head hunting" services. These businesses proactively search for personnel to fill vacancies rather than, as businesses in the second category, have the individuals approach them in search of work. The final part involves the placement of staff to fill temporary vacancies. The staff, in this last category, is paid by the agency whose fee to individual enterprises includes both their commission and the amounts needed to remunerate the staff placed.

Production value in Ireland is only 67 per cent whereas in other countries it is closer to the expected 100 per cent. Neither changes in stock levels nor merchanting activity would seem to provide an explanation.

Personnel costs exceeded turnover in Luxembourg and greatly exceeded value added. This is an activity where personnel costs might be expected to account for a large amount of turnover but there would seem to be no reason why personnel costs should be this high.

## NACE Rev. 1 Group 745 – Labour recruitment and provision of personnel, 1997

Table 3.68 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	1.8	0.1	4.5	:	:	12.1	0.2	c	0.1	7.6	0.6	0.3	0.1	0.0	16.4
Turnover/enterprise (thousand ECU)	:	0.3	1.7	:	:	5.3	1.1	c	1.6	3.4	2.2	1.4	0.5	0.3	1.8
Turnover/person employed (thousand ECU)	17.2	11.4	:	:	:	29.9	53.5	c	17.3	22.3	38.6	13.5	29.0	61.4	:
Turnover share in NACE Rev. 1, Division 74 (%)	8.4	1.3	2.1	:	:	9.0	5.1	c	6.5	18.3	5.0	3.5	2.2	0.2	10.2

Table 3.69 Main indicators as a share of turnover of group 745 – Labour recruitment and provision of personnel (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	:	100.3	66.6	c	100.6	100.0	98.0	100.5	100.5	102.9	:
Value added at factor cost	91.5	:	:	:	:	88.8	49.1	c	87.8	49.0	79.3	68.9	83.3	58.7	:
Personnel costs	86.6	92.3	:	:	:	85.3	:	c	109.3	33.0	75.1	64.2	74.6	46.3	60.9
Gross operating surplus	4.8	:	:	:	:	3.4	:	c	-21.5	16.1	4.1	4.7	8.7	12.4	:
Gross investment in tangible goods	:	:	:	:	:	0.6	1.7	c	1.9 <sup>(95)</sup>	2.2	0.8	1.4	2.0	4.4	1.8

Table 3.70 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousand)	:	0.3	2.6	:	2.1	2.3	0.2	c	0.1	2.2	0.3	0.2	0.3	0.2	9.3
Number of persons employed (thousand)	106.9	10.3	:	:	:	406.9	3.9	c	4.8	340.7	15.5	21.0	4.5	0.8	:
Number of persons employed/enterprise (units)	:	30.0	:	:	:	176.8	20.9	c	93.9	153.8	56.7	104.0	15.7	4.1	:
Employees/persons employed (%)	99.7	27.9	:	:	:	100.0	96.1	c	99.9	99.7 <sup>(95)</sup>	98.5	99.8	96.6 <sup>(95)</sup>	88.2	:
Personnel costs/employee (thousand ECU)	14.9	37.8	:	:	:	25.4	:	c	19.0	5.8 <sup>(95)</sup>	29.5	8.7	19.6 <sup>(95)</sup>	32.3	19.7
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	c	:	:	:	:	:	:	91.3 <sup>(95)</sup>
Persons employed, share in NACE Rev. 1 Division 74 (%)	36.7	7.4	:	:	:	27.7	5.6	c	24.7	37.8	9.8	10.5	5.2	0.3	:

Table 3.71 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	1.7	:	:	:	:	10.7	0.1	c	0.1	3.7	0.5	0.2	0.1	0.0	:
Value added/person employed (thousand ECU)	15.7	:	:	:	:	26.4	26.3	c	15.2	10.9	30.6	9.3	24.2	36.0	:
Gross operating surplus/ person employed (thousand ECU)	0.8	:	:	:	:	1.0	:	c	-3.7	3.6	1.6	0.6	2.5	7.6	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	:	0.2	1.0	c	0.4 <sup>(95)</sup>	0.5	0.3	0.2	0.6	2.7	:
Wage adjusted labour productivity (%)	105.2	:	:	:	:	122.1	:	c	80.2	:	103.9	107.2	111.9 <sup>(95)</sup>	111.7	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Tables 3.68, 3.69, 3.70: 1995 for Denmark.

Data for Luxembourg are provisional.

c = confidential

: = not available

Source: Eurostat (SBS database)

### Group 74.6 Investigation and security services

This covers two, to some extent, different activities. At one time investigation and security might have been more closely related but the emergence of large security businesses has tended to result in the two activities becoming more separate. Even security services have two distinct aspects. One covering security guards to

patrol premises whether during or after normal working hours and the other covering the activities involved with the movement of money or prisoners (non-public sector) Other activities carried out include alarm monitoring services which increasingly are covering domestic premises as well as commercial ones. Security activities tend to be carried out by enterprises that are much larger than those carrying out investigation services.



## NACE Rev. 1 Group 746 – Investigation and security activities, 1997

Table 3.72 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	0.4	0.0	2.7	:	1.4	2.9	0.2	c	c	0.6	0.2	0.2	0.1	0.5	3.3
Turnover/enterprise (million ECU)	:	0.2	0.8	:	0.9	0.6	0.7	c	c	1.9 <sup>(1)</sup>	2.1	0.4	0.4	1.0	1.1
Turnover/person employed (thousand ECU)	41.2	44.4	:	:	19.4	30.1	27.2	c	c	33.0 <sup>(1)</sup>	30.3	14.4	33.1	36.5	:
Turnover share in NACE Rev. 1, Division 74 (%)	1.7	0.5	1.2	:	:	2.1	3.8	c	c	1.4	1.5	2.9	2.1	2.4	2.1

Table 3.73 Main indicators as a share of turnover of group 746 – Investigation and security activities (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	98.4	98.7	97.9	c	c	100.1	97.7	95.9	100.0	100.5	:
Value added at factor cost	80.0	:	:	:	84.4	69.1	80.3	c	c	85.1	78.9	74.4	75.5	73.5	:
Personnel costs	72.6	39.7	:	:	76.2	66.9	:	c	c	79.1	73.6	66.3	65.9	61.8	62.8
Gross operating surplus	7.4	:	:	:	8.1	2.2	:	c	c	6.0	5.4	8.0	9.6	11.7	:
Gross investment in tangible goods	:	:	:	:	3.9	2.3	2.0	c	c	2.0	2.4	3.1	7.4	7.8	3.4

Table 3.74 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousand)	:	0.3	3.2	:	1.7	4.9	0.2	c	0.0	0.5	0.1	0.5	0.3	0.5	3.1
Number of persons employed (thousand)	9.3	1.0	:	:	73.2 <sup>(1)</sup>	96.2	5.6	c	c	15.1	5.9	16.2	3.9	13.7	:
Number of persons employed/enterprise (units)	:	3.9	:	:	44.9 <sup>(1)</sup>	19.7	26.8	c	c	30.5	69.9	31.1	12.6	27.2	:
Employees/persons employed (%)	96.8	47.7	:	:	98.5 <sup>(1)</sup>	98.9	98.0	c	c	:	98.7	97.2	:	97.9	:
Personnel costs/employee (thousand ECU)	30.9	37.0	:	:	15.0 <sup>(1)</sup>	20.3	:	c	c	:	22.6	9.8	:	23.0	19.3
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	c	c	:	:	:	:	:	:
Persons employed, share in NACE Rev. 1 Division 74 (%)	3.2	0.7	:	:	:	6.5	8.1	c	c	1.7	3.7	8.1	4.5	5.3	:

Table 3.75 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	0.3	:	:	:	1.2	2.0	0.1	c	c	0.5	0.1	0.2	0.1	0.4	:
Value added/person employed (thousand ECU)	32.9	:	:	:	16.4	20.8	21.8	c	c	31.6	23.9	10.7	24.9	26.8	:
Gross operating surplus/ person employed (thousand ECU)	3.0	:	:	:	1.6	0.7	:	c	c	2.2	1.6	1.2	3.2	4.3	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	0.8	0.7	0.5	c	c	0.8	0.7	0.4	2.5	2.9	:
Wage adjusted labour productivity (%)	106.6	:	:	:	109.0	102.2	:	c	c	:	105.9	109.0	112.9 <sup>(1)</sup>	116.4	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Table 3.72: 1996 for Spain, 1995 for Denmark.

Table 3.73: 1996 for Spain.

Table 3.74: 1995 for Denmark.

Table 3.75: 1996 for Spain

c = confidential

: = not available

Source: Eurostat (SBS database)

Much of the activity of this Group is labour intensive and relatively poorly paid. Work involving the supply of security guards to man the premises of other enterprises requires little in the way of capital expenditure or purchases of consumable items.

In labour intensive activities value added as a percentage of turnover is high and this activity is no exception. Values vary for individual Member States but centre fairly closely on 75 per cent.

A high proportion of value added is used up in personnel costs leaving a small gross operating surplus that is mostly consumed by relatively small scale investment. Denmark would appear to be an exception, but data on the share of turnover taken up by the main indicators is available for only personnel costs. Here the figure is a very low 39.7 per cent. The reason would appear to be that in Denmark only half of the employment is accounted for by employees, a large share of value added needs therefore to go towards remunerating the working proprietors. Denmark also shows a small average number of employees per enterprise (3.9) which would suggest that small family based businesses predominate. However, things are not always what they seem and comparisons must be tempered by other knowledge.

Contributing to the low average number of employees in Denmark is the practice of measuring data on employees in terms of full time equivalents rather than head counts which tends to reduce numbers. On the other hand data on the number of persons employed are head counts.

Apart from Denmark, in all other Member States employees account for over 96 per cent of the workforce and a relatively large average enterprise size. Italy might be expected to differ but no figures are available.

The activity forms a relatively small part of the total for the Division.

#### Group 747 Industrial cleaning services

Industrial cleaning covers mainly the cleaning of business premises. It is an activity that has been traditionally carried out by individual businesses themselves "in house" but in recent years they have tended to be contracted out to specialist businesses. This activity requires little in the way of capital or consumable items and is thus very labour intensive. Wages and salaries tend to be low since much of the work is relatively unskilled.

Also covered by this activity are window cleaning services even those provided to domestic households.

For those countries, where data is available, turnover in this activity accounted for 5 per cent, while persons employed amounted to more than 13 per cent of the respective Division's total; with the highest figures being shown for the Scandinavian countries.

As might be expected the level of value added as a percentage of turnover is very high at around 70 to 80 per cent with personnel costs at 60 per cent of turnover taking the lions share of this and very little being accounted for by investment. Portugal, surprisingly, shows a percentage of only 39 per cent and also has the lowest investment rate. The structure of activity would seem to be very different from that in other Member States, a possible explanation being high levels of subcontracting. Compared with Division 74 as a whole, value added in industrial cleaning accounts for around 50 per cent more of turnover.

From the available data, by far the largest average enterprise size in terms of the numbers employed occurs in Ireland where it is 59. For no other country is it greater than half of this. For all countries the average size is higher than that for the Division but by a varying amounts as is shown in table 3.76.

**Table 3.76** Number of persons employed per enterprise

	Division 74	Group 74.7
DK	3.4	5.8
F	5.0	16.6
IRL	7.3	59.1
I	2.2	9.4
NL	12.7	23.6
A	6.7	28.1
P	5.6	28.7
FIN	3.6	8.6

Source: Eurostat (SBSR)

## NACE Rev. 1 Group 747 – Industrial cleaning services, 1997

Table 3.77 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	1.1	0.9	9.9	:	2.6	5.7	0.1	4.7	c	2.3	0.7	0.6	0.5	1.1	5.1
Turnover/enterprise (million ECU)	:	0.1	0.5	:	0.2	0.4	0.6	0.2	c	0.4	0.6	0.4	0.2	0.2	0.6
Turnover/person employed (thousand ECU)	29.3	23.4	:	:	11.1	25.2	10.5	19.8	c	13.9	21.1	14.3	25.9	33.3	:
Turnover share in NACE Rev. 1, Division 74 (%)	5.1	9.4	4.6	:	:	4.2	2.4	7.3	c	5.5	6.1	7.3	8.5	5.2	3.2

Table 3.78 Main indicators as a share of turnover of group 747 – Industrial cleaning (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	97.9	99.7	92.1	100.3	c	99.1	95.2	99.9	99.1	100.5	:
Value added at factor cost	65.1	:	:	:	85.7	70.5	73.1	78.1	c	82.9	78.5	39.0	72.5	67.7	:
Personnel costs	55.9	56.8	:	:	77.8	64.5	:	68.3	c	56.7	63.9	34.0	57.0	55.4	60.7
Gross operating surplus	9.2	:	:	:	7.9	6.0	:	9.8	c	26.2	14.6	5.0	15.5	12.4	:
Gross investment in tangible goods	:	:	:	:	4.5	2.4	4.8	3.3	c	3.6	2.4	2.0	4.6	4.6	3.3

Table 3.79 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousand)	:	6.3	21.9	:	13.2	13.6	0.2	25.1	c	5.8	1.2	1.4	2.3	5.2	7.9
Number of persons employed (thousand)	38.3	36.4	:	:	231.3 <sup>(1)</sup>	225.5	9.3	236.3	c	137.0	34.4	41.4	20.0	32.9	:
Number of persons employed/enterprise (units)	:	5.8	:	:	18.6 <sup>(1)</sup>	16.6	59.1	9.4	c	23.6	28.1	28.7	8.6	6.4	:
Employees/persons employed (%)	94.4	42.7	:	:	96.1 <sup>(1)</sup>	97.2	98.5	84.7	c	94.8 <sup>(1)</sup>	96.7	97.6	90.1 <sup>(1)</sup>	90.2	:
Personnel costs/employee (thousand ECU)	17.3	31.1	:	:	8.9 <sup>(1)</sup>	16.7	:	16.0	c	9.6 <sup>(1)</sup>	13.9	5.0	20.2 <sup>(1)</sup>	20.4	7.8
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	69.4 <sup>(1)</sup>	c	:	:	:	:	:	:
Persons employed, share in NACE Rev. 1 Division 74 (%)	13.1	26.2	:	:	:	15.3	13.5	21.1	c	15.2	21.7	20.8	23.1	12.6	:

Table 3.80 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	0.7	:	:	:	2.2	4.0	0.1	3.7	c	1.9	0.6	0.2	0.4	0.7	:
Value added/person employed (thousand ECU)	19.1	:	:	:	9.5	17.8	7.6	15.5	c	13.8	16.6	5.6	18.8	22.5	:
Gross operating surplus/ person employed (thousand ECU)	2.7	:	:	:	0.9	1.5	:	1.9	c	4.4	3.1	0.7	4.0	4.1	:
Gross investment/ person employed (thousand ECU)	:	:	:	:	0.5	0.6	0.5	0.7	c	0.6	0.5	0.3	1.2	1.5	:
Wage adjusted labour productivity (%)	110.0	:	:	:	105.9	106.3	:	96.8	c	151.1 <sup>(1)</sup>	118.7	112.0	118.5 <sup>(1)</sup>	110.3	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Table 3.77, 3.78, 3.79: 1996 for Italy, 1995 for Denmark and Spain.

Table 3.80: 1996 for Italy, 1995 for Spain.

c = confidential

: = not available

Source: Eurostat (SBS database)

In addition to having the highest average employment size per enterprise, Ireland also has relatively few enterprises. It also has the lowest turnover per employee.

Another significant statistic about this activity is the large percentage of employees to persons employed compared with Division 74. Even for Italy the employees outnumber working proprietors by almost six to one. The only exception is for Denmark where employees are in a minority and this is well out of line with the

values shown for other countries. As explained earlier Denmark measures employees in terms of full time equivalents and employment as a head count. This tends to reduce the apparent number of employees in relation to total employment.

Not unexpectedly the average number employed per enterprise at 5.8 in Denmark is also low as is the turnover per enterprise. Part of the difference may be in the classification of individual businesses. In Denmark a business

can find itself on the business register and classified to an activity if it makes so much as a single purchase whereas in other countries a higher threshold may need to be satisfied.

There are some large differences, between Member States, in the relative importance of industrial cleaning within Group 74 and this will undoubtedly account for some of the variation in data observed, between countries, for this Group.

### Group 74.8 Miscellaneous business services

This is the remnant of the remnant and contains a large number of activities which are considered to be too small to justify inclusion as a recognisable Group at the three digit level. At the four digit level it includes Photographic services, packaging services, secretarial and translation services and even a further remnant of other business services.

## NACE Rev. 1 Group 748 – Miscellaneous business activities n.e.c., 1997

Table 3.81 Turnover characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Turnover (billion ECU)	2.5	0.9	52.2	:	4.5	18.6	0.4	17.2	c	4.3	1.3	1.2	0.7	2.4	37.9
Turnover/enterprise (million ECU)	:	0.1	0.6	:	0.1	0.4	0.2	0.2	c	0.4	0.4	0.1	0.2	0.2	0.6
Turnover/person employed (thousand ECU)	123.2	64.8	:	:	41.1	118.1	58.0	99.5	c	82.1	122.0	30.5	81.8	68.5	:
Turnover share in NACE Rev. 1, Division 74 (%)	11.4	9.7	23.9	:	:	13.8	10.9	26.8	c	103.0	11.0	14.6	11.1	11.2	23.5

Table 3.82 Main indicators as a share of turnover of group 748 – Miscellaneous business activities n.e.c. (%), 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Production value	:	:	:	:	81.9	91.4	78.5	74.7	c	94.9	88.3	99.8	96.4	101.6	:
Value added at factor cost	26.2	:	:	:	47.4	32.9	48.0	32.0	c	56.0	40.0	34.6	46.3	39.8	:
Personnel costs	12.3	23.8	:	:	23.0	28.3	:	12.0	c	23.9	19.4	22.8	29.7	26.8	21.3
Gross operating surplus	13.9	:	:	:	24.4	4.6	:	20.0	c	32.2	20.6	11.8	16.6	13.0	:
Gross investment in tangible goods	:	:	:	:	5.7	5.6	6.4	5.8	c	7.9	6.2	39.5	8.0	6.9	4.5

Table 3.83 Enterprise and employment characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Number of enterprises (thousand)	:	8.3	80.8	:	64.4	49.5	1.9	83.9	c	11.4	3.0	18.0	3.4	14.1	68.3
Number of persons employed (thousand)	20.3	13.6	:	:	109.0 <sup>(1)</sup>	157.6	7.6	173.3	c	51.8	10.7	38.7	8.2	34.5	:
Number of persons employed/enterprise (units)	:	1.6	:	:	2.1 <sup>(1)</sup>	3.2	4.0	2.1	c	4.6	3.6	2.1	2.4	2.4	:
Employees/persons employed (%)	56.9	43.5	:	:	58.8 <sup>(1)</sup>	93.8	78.1	43.4	c	54.0 <sup>(1)</sup>	73.8	57.0	82.7 <sup>(1)</sup>	69.7	:
Personnel costs/employee (thousand ECU)	26.7	35.5	:	:	16.0 <sup>(1)</sup>	35.7	:	27.5	c	:	32.1	12.2	29.7 <sup>(1)</sup>	26.4	25.5
Wages and salaries/personnel costs (%)	:	:	:	:	:	:	:	:	c	:	:	:	:	:	88.5 <sup>(1)</sup>
Persons employed, share in NACE Rev. 1 Division 74 (%)	7.0	9.8	:	:	:	10.7	10.9	15.5	c	5.7	6.8	19.4	9.5	13.2	:

Table 3.84 Productivity/competitiveness characteristics, 1997

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Value added at factor cost (billion ECU)	0.7	:	:	:	2.1	6.1	0.2	5.5	c	2.4	0.5	0.4	0.3	0.9	:
Value added/person employed (thousand ECU)	32.3	:	:	:	19.5	38.9	27.8	31.9	c	46.0	48.8	10.5	37.8	27.3	:
Gross operating surplus/person employed (thousand ECU)	17.1	:	:	:	10.0	5.4	:	19.9	c	26.4	25.1	3.6	13.5	8.9	:
Gross investment/person employed (thousand ECU)	:	:	:	:	2.4	6.6	3.7	5.8	c	6.5	7.6	12.0	6.5	4.8	:
Wage adjusted labour productivity (%)	121.0	:	:	:	121.5	109.1	:	115.9	c	:	152.0	86.6	128.9 <sup>(1)</sup>	103.4	:

(1) By country there are different years available. If the value in a cell does not correspond to the year given in the general comment, the year is indicated in brackets.

Table 3.81, 3.82, 3.83: 1996 for Spain and Italy, 1995 for Denmark.

Table 3.84: 1996 for Spain and Italy.

c = confidential

: = not available

Source: Eurostat (SBS database)

# **Employment and earnings**

## **Chapter 4**



## Introduction

Employment in business services as an activity has grown considerably over the past thirty or so years. This does not necessarily imply a large surge in the growth of the jobs associated with business services but rather that there has been a large movement of such jobs out of other sectors of the economy. This is particularly noticeable in jobs related to industrial cleaning and catering which at one time were carried out by most companies "in house". The larger businesses also had whole departments employing accountants, architects and computer personnel but they now find it easier to buy in these services. This process enabled businesses in other sectors to operate more efficiently. They

no longer had to retain the services of specialist staff when times were such that they was no internal demand for their services and it was now easier to obtain the precise skills needed for one off projects as and when they were needed.

The annual employment growth rate for business services was 5% between 1991 and 1997 in Germany. Highest growth rates were reached in real estate activities, computer services and other business services. With 7% the average annual growth rate in the number of self-employed in business services was even more remarkable and in computer services the average annual growth rate reached a healthy 17%.

**Table 4.1 Employment within business services in Germany (thousands)**

	1991	1992	1993	1994	1995	1996	1997	Average annual growth rate (%)
<b>Total Employment</b>								
Business Services	2,362	2,516	2,627	2,782	2,917	3,049	3,157	5.0
Real Estate	232	249	268	288	300	310	325	5.8
Renting	59	63	66	66	64	65	66	1.9
Computer services	203	218	228	238	248	258	267	4.7
R & D	99	104	106	108	112	118	117	2.8
Other business services	1,769	1,882	1,959	2,082	2,193	2,298	2,382	5.1
<b>Employees</b>								
Business Services	1,991	2,120	2,204	2,317	2,428	2,525	2,586	4.5
Real Estate	184	197	213	229	241	251	258	5.8
Renting	51	54	56	56	56	56	57	1.9
Computer services	184	195	201	207	212	217	218	2.9
R & D	92	97	99	100	103	107	108	2.7
Other business services	1,480	1,577	1,635	1,725	1,816	1,894	1,945	4.7
<b>Self-employed</b>								
Business Services	371	396	423	465	489	524	571	7.5
Real Estate	48	52	55	59	59	59	67	5.7
Renting	8	9	10	10	8	9	9	2.0
Computer services	19	23	27	31	36	41	49	17.1
R & D	7	7	7	8	9	11	9	4.3
Other business services	289	305	324	357	377	404	437	7.1

Source: Federal Statistical Office, Germany

The average annual employment growth rate from 1995 to 1998 was 0.9% in the 15 EU Member States. With 3.9% business services was by far the fastest growing part of the economy followed by hotels and restaurants with average annual employment growth at 1.7%,

The nature of business services is such that it tends to be labour intensive compared with jobs in many other sectors. Manufacturing activity usually requires considerable capital investment. Distribution requires large-scale purchases of the goods that are being marketed. Health and Education likewise require heavy purchases of materials and investment in accommodation.

This is not to say that all business service activities and labour intensive. Those associated with renting will, of necessity, require a large amount of capital being invested in those goods that are being hired out. But most activities associated with business services are labour intensive and, industrial cleaning apart, require a high level of education and training amongst the workforce. The following section looks at the education and training levels of employees in business services and also makes some comparisons with other sectors.

**Table 4.2 Employment growth in the EU-15, 1995-1998 (thousands)**

	1995	1996	1997	1998	Average annual growth rate (%)
Agriculture (A, B)	2,349	2,324	2,327	2,295	-0.8
Industry (C - F)	39,379	38,889	38,806	39,583	0.2
Mining and quarrying (C)	615	579	570	530	-4.8
Manufacturing (D)	28,594	28,200	28,135	28,894	0.3
Electricity, gas and water supply (E)	1,338	1,264	1,252	1,223	-3.0
Construction (F)	8,831	8,845	8,848	8,935	0.4
Services (G - Q)	80,794	8,209	83,134	84,838	1.6
Wholesale and retail, repairs (G)	16,306	16,510	16,595	16,848	1.1
Hotels and restaurants (H)	4,046	4,167	4,347	4,332	2.3
Transports, communications (I)	7,917	7,834	7,842	8,006	0.4
Financial intermediation (J)	4,842	4,775	4,857	4,817	-0.2
Real estate, business activities (K)	7,964	8,307	8,725	9,271	5.2
Public administration (L)	11,372	11,317	11,410	11,518	0.4
Other services (M - Q)	28,348	29,100	29,358	30,046	2.0

Source: Eurostat (LFS)

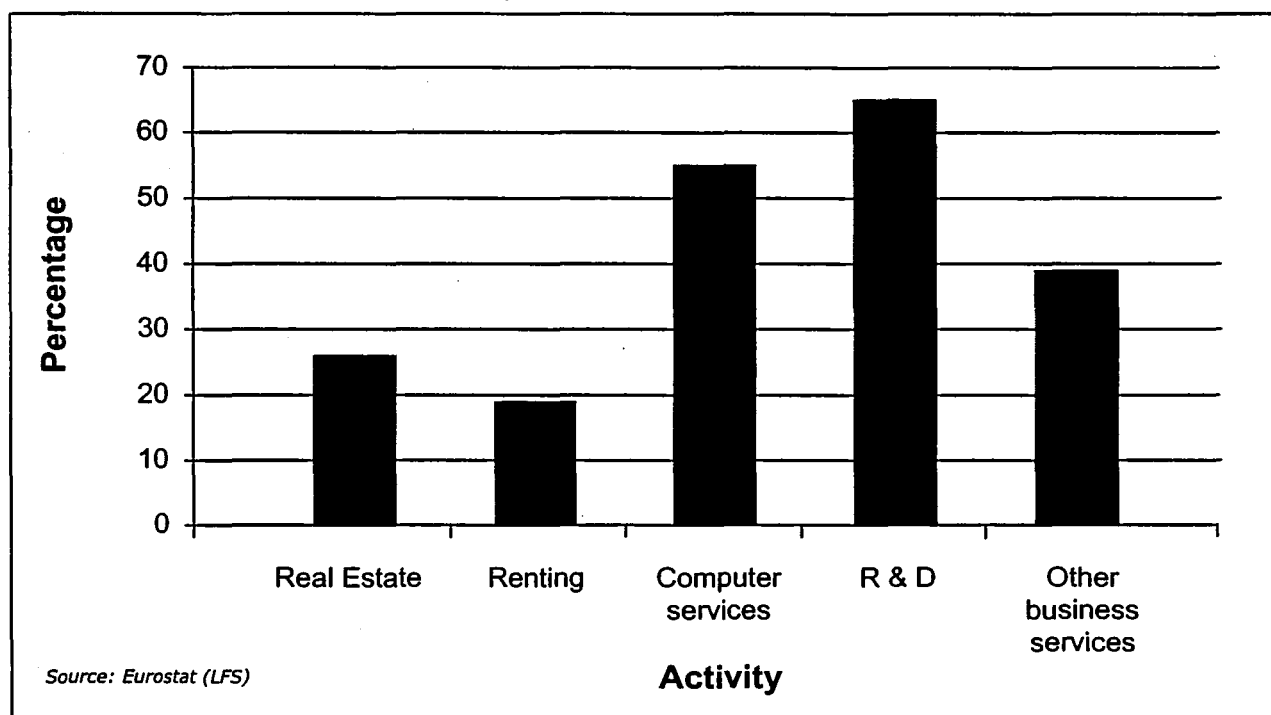
### Education and training

Figure 4.1 shows the qualification levels within business services and clearly shows the differences in qualifications required in each of the different sectors. As might be expected Renting, which is more capital than labour intensive, shows much lower qualification levels than any of the other sectors with Research and

Development and Computing showing the highest qualification levels. Other business services, with its mix of activities requiring low and high levels of qualifications, lies somewhere between these extremes. These patterns are quite consistent within countries although different levels of qualifications between countries can be noted.



**Figure 4.1 Share of persons in employment with high level of education in business services within EU-15, 1999**



The need for qualifications is becoming increasingly important for those seeking work in the EU for a variety of reasons. The more technical nature of many jobs requires skills unimagined just a few decades ago. Computer skills are almost mandatory for most office jobs, even if the requirements are limited to an ability to work with word processing packages. A higher activity rate in the population, with women now taking an equal place with men in the work market, has led to increasing competition for the best jobs. Employers are now able to select from a large pool of candidates and this has driven the need for better qualifications among the applicants who between them now hold a wide range of university degrees.

At one time the main route to becoming proficient at a job, whatever the levels of qualifications held prior to being appointed, was on the job training. This was rarely formalised and the skills learned were generally picked up over a number of years. Now businesses pay more attention to formal learning and staff often need to be retrained at regular intervals to keep up with new ideas whether in management, computing or other skills. Table 4.3 shows the percentage of people being interviewed in the Labour Force Survey during 1999 who have said that they have participated in training programmes in the previous four week period.

**Table 4.3 Rates of participation in education within the EU, 1999**

	Percentage															
	EU	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Real Estate	12.1	-	15.9	7.6	-	5.1	2.1	-	-	-	18.2	-	-	16.8	20.6	24.7
Renting	10.4	-	-	-	-	-	-	-	-	-	23.3	-	-	-	-	18.1
Computer services	16.5	15.7	21.4	12.5	-	9.6	3.2	-	10.9	-	31.3	-	-	29.7	24.2	24.8
R & D	15.8	-	22.3	18.7	-	12.9	6.4	-	8.3	-	19.6	-	-	30.2	-	30.1
Other business services	13.3	10.1	24.8	10.6	2.4	6.4	3.3	14.2	5.5	5.4	23.4	-	8.2	28.7	22.4	25.3

F, NL, P: Information on participation is collected only if education or training is under way on the date of the survey.

Source: Eurostat (LFS)

### Personnel costs

With differences in qualifications between the various activities differences might also be expected in personnel costs. Table 4.4 provides a comparison of personnel costs per employee taken from data collected under the SBSR. It shows personnel costs per employee in business services compared with other sectors of the economy.

However, personnel costs per employee hide the important differences in hourly rates of remuneration, the number of full and part-time workers, the average number of hours worked by full and part-time employees and the significant difference in the earning capacity of females and males. It also tells us little of the relative value of workers in relation to any relevant training. The following sections bring out, where data is available, some of these aspects in order to flesh out the bare bones of the simple statistic of personnel costs per employee.

**Table 4.4 Personnel costs per employee, 1997 (thousand ECU)**

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Manufacturing	39.7	:	:	:	20.0	34.5	25.9	:	38.4	:	34.7	10.0	32.3	36.7	28.7
Manufacture of basic metals	49.1	:	:	:	30.0	38.3	30.6	:	46.9	:	28.8	13.1	36.1	39.6	31.5
Distributive trades	30.4	:	:	:	:	28.7	:	30.0	:	:	27.5	10.3	28.6	30.4	:
Real estate, renting and business activities	29.3	:	:	:	:	33.9	:	:	31.8	:	30.7	11.9	:	36.6	23.2
Real Estate	30.3	:	:	:	:	31.2	:	:	29.0	:	33.3	12.1	:	31.9	21.0
Renting of machinery and equipment without operator and of personal and household goods	33.4	:	:	:	:	28.1	:	:	38.2	:	30.2	12.1	:	31.3	23.0
Computer and related activities	49.7	:	:	:	:	46.3	:	:	:	:	44.0	20.0	:	48.2	31.5
Research and development	63.7	:	:	:	:	47.5	:	:	:	:	47.6	9.4	:	41.7	28.0
Other business activities	26.8	:	:	:	:	32.7	:	:	26.5	:	28.7	11.4	:	34.9	22.1

Source: Eurostat (SBSR)

### Hourly remuneration

Hourly remuneration is generally a reflection of the competency and skills required to undertake a particular job; both these aspects tend to be correlated with age and training. Data on hourly remuneration in business services is available from the Labour costs survey. A significant difference between the SBSR and the labour costs survey as sources of data is that the former is collected from businesses and the latter from individuals, which makes direct comparison of data collected from the two sources impossible.

Table 4.5 shows data on hourly remuneration for each of the sectors in business services. As would be expected, the employees with the highest hourly remuneration are those in computer related activities and in research and development, where high levels of competency and skills are required and where employees have the highest levels of qualifications, while those with the lowest hourly remuneration are in real estate and renting.

**Table 4.5** Hourly remuneration in business services per employee and enterprise size, 1996 (ECU)

		Enterprise size by number of employees											
		B	DK	E	F	IRL	I	L	NL	A	P	FIN	S
Real estate, renting and business activities	10+	14.8	20.5	8.6	14.2	10.2	11.0	13.6	10.7	13.6	4.4	12.2	15.3
	10 to 49	15.9	20.1	8.8	14.6	10.2	10.0	15.6	12.1	14.1	5.2	12.4	16.1
	50 to 249	15.5	21.1	9.1	14.7	10.3	11.0	c	12.4	13.2	4.3	11.8	16.0
	250 to 499	:	22.5	9.4	15.0	11.9	13.5	c	12.0	9.5	4.9	13.2	16.7
	500+	12.6	19.6	7.7	13.1	7.5	12.1	c	9.4	10.1	3.5	11.8	14.0
Real Estate	10+	13.8	17.0	10.9	13.4	10.1	11.7	12.9	14.0	13.2	5.0	10.9	13.2
	10 to 49	13.7	17.1	10.6	13.5	10.4	10.6	c	13.5	13.1	5.0	10.3	14.8
	50 to 249	14.3	17.3	11.4	13.3	9.5	13.4	c	14.7	c	c	10.9	13.8
	250 to 499	:	15.3	c	14.5	:	:	:	c	c	c	c	14.3
	500+	:	16.7	c	12.7	:	:	:	c	:	:	c	12.0
Renting	10+	14.2	18.3	8.8	11.6	8.4	11.3	16.0	11.1	12.7	4.2	10.2	14.8
	10 to 49	13.9	18.0	7.2	14.0	9.9	9.4	c	9.7	11.8	4.6	10.7	13.8
	50 to 249	14.7	19.0	c	10.9	c	13.4	c	11.9	12.5	3.5	c	13.0
	250 to 499	:	:	c	12.7	:	12.4	:	c	:	:	c	17.2
	500+	:	:	c	10.9	c	:	:	c	:	:	:	c
Computer services	10+	17.8	24.0	13.7	17.8	12.9	11.8	17.4	14.9	16.1	7.1	15.2	18.6
	10 to 49	16.9	23.5	10.7	16.4	12.2	10.3	17.4	13.1	15.8	6.4	14.3	18.1
	50 to 249	18.7	24.3	13.3	17.6	c	12.3	17.5	13.4	16.9	8.1	15.0	18.4
	250 to 499	:	24.4	14.9	17.4	17.3	20.2	:	14.6	c	:	15.8	19.2
	500+	18.2	23.6	16.4	20.5	c	14.4	:	17.7	c	:	15.8	19.0
R & D	10+	18.0	22.8	12.1	:	10.1	16.5	21.6	15.5	13.4	7.1	13.4	16.5
	10 to 49	15.2	22.8	11.7	:	c	12.1	20.2	15.7	c	6.2	12.3	18.2
	50 to 249	19.6	22.8	c	:	c	14.8	c	15.3	c	c	c	18.0
	250 to 499	:	:	:	:	:	20.4	c	16.1	:	c	:	c
	500+	16.9	:	c	:	:	18.7	:	15.4	:	:	c	c
Other business services	10+	14.2	20.4	8.0	13.9	9.8	10.4	11.9	10.0	13.5	4.2	11.7	14.6
	10 to 49	16.1	20.2	8.5	14.5	10.0	9.8	14.9	11.7	c	5.2	12.6	15.8
	50 to 249	14.6	21.5	8.5	14.8	10.1	10.4	11.6	11.9	12.0	4.1	11.4	15.5
	250 to 499	:	22.6	8.4	14.8	10.7	11.9	c	11.3	9.2	4.8	11.5	15.9
	500+	11.9	19.1	7.2	12.6	6.9	10.9	c	8.7	c	3.5	9.9	13.0

c = confidential

: = not available

(1) Only enterprises with 10 and more employees

(2) Renting of machinery and equipment without operator and of personal and household goods

Source: Eurostat (LFS)

## Earnings by gender

Table 4.6 shows, for 1995, the difference in gross monthly earnings by both gender and age. The clear picture that emerges is that, for both men and women, earnings increase with age. But more significantly men earn considerably more than women. Not only this, but the differences in earnings between men and women increase markedly with increasing age.

For those below the age of 21 men earn around 10 per cent more than women in business services, but this increases alarmingly as we move through the age bands. By the time employees have passed the age of 55 the difference has increased to 64 per cent. Only France and Luxembourg produce any figures at all where women earn more than men at the Section level. For employees under the age of 25, both show female earnings exceeding that of men, but by the 55 plus age-group men in France earn more than double that of women.

Table 4.6 Mean gross monthly earnings in business services by gender and age, 1995 (ECU)

Age	Real estate		Renting		Computer services		R & D		Other business services		Real estate, renting, business services	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
B less than 21	c	c	c	c	c	c	:	:	1,196	1,420	1,209	1,425
20 - 24	1,469	1,459	1,515	1,563	1,543	1,769	1,616	1,718	1,520	1,641	1,528	1,659
25 - 29	1,747	1,780	1,842	1,821	1,944	2,261	1,922	2,221	1,891	2,056	1,894	2,092
30 - 44	1,788	2,104	2,282	2,229	2,977	3,148	2,575	3,014	2,192	2,729	2,265	2,780
45 - 54	1,976	2,550	3,085	2,458	2,533	4,163	2,944	3,717	2,245	3,210	2,316	3,289
55+	2,226	2,501	c	2,813	c	3,029	3,006	4,134	2,154	3,590	2,195	3,502
DK less than 21	1,732	1,735	1,686	c	1,551	1,883	:	:	1,635	1,771	1,636	1,772
20 - 24	2,122	2,073	2,024	2,168	2,496	2,601	3,029	2,433	1,945	2,157	2,000	2,210
25 - 29	2,322	2,356	2,480	2,876	2,866	3,362	3,165	3,424	2,403	2,893	2,479	2,963
30 - 44	2,544	2,664	2,849	3,018	3,492	4,299	3,378	4,543	2,591	3,835	2,745	3,827
45 - 54	2,684	2,910	2,581	3,449	3,320	4,715	3,067	5,201	2,529	4,365	2,642	4,172
55+	2,590	2,808	2,668	2,644	3,294	4,572	2,875	4,638	2,467	4,241	2,552	3,920
E less than 21	c	645	:	409	c	c	:	:	493	604	498	584
20 - 24	758	794	595	605	700	719	:	:	686	726	685	721
25 - 29	1,070	937	849	787	999	1,141	:	:	922	1,029	938	1,027
30 - 44	1,134	1,750	1,177	1,058	1,349	1,750	:	:	1,094	1,515	1,122	1,522
45 - 54	1,045	1,767	950	1,196	1,747	1,745	:	:	1,308	2,110	1,298	1,984
55+	1,501	2,534	c	1,286	c	1,182	:	:	1,003	1,770	1,112	1,908
F <sup>(2)</sup> less than 21	850	911	c	1,101	:	c	:	:	1,216	1,039	1,185	1,037
20 - 24	1,106	994	1,573	1,101	1,223	1,589	1,642	1,317	1,458	1,166	1,415	1,181
25 - 29	1,330	1,340	1,285	1,598	1,990	2,112	1,808	2,170	1,502	1,783	1,555	1,853
30 - 44	1,608	1,870	2,531	1,603	1,736	3,222	2,261	2,877	1,695	2,564	1,752	2,589
45 - 54	1,325	2,075	:	2,205	2,385	4,272	2,289	3,683	2,265	3,330	2,075	3,254
55+	1,513	2,867	c	2,880	1,942	3,793	2,000	3,654	1,915	4,403	1,830	3,997
I less than 21	:	c	:	:	c	c	c	:	851	881	857	884
20 - 24	c	c	c	c	1,028	1,196	1,070	1,093	962	1,021	978	1,053
25 - 29	1,127	1,055	c	c	1,311	1,343	1,147	1,237	1,009	1,140	1,130	1,182
30 - 44	1,436	3,063	c	:	1,540	1,860	1,392	1,946	1,147	1,504	1,267	1,634
45 - 54	c	5,011	:	:	1,751	2,301	1,745	2,164	1,184	1,815	1,289	2,074
55+	:	c	:	c	c	6,421	c	2,267	1,576	1,523	1,512	1,869
L less than 21	:	:	:	:	:	:	c	:	c	c	c	c
20 - 24	:	c	:	c	1,976	2,358	2,261	2,585	1,760	1,592	1,803	1,774
25 - 29	c	2,105	2,005	c	2,369	2,899	2,892	2,966	2,493	2,236	2,445	2,368
30 - 44	2,394	3,434	c	3,052	3,053	3,948	3,539	4,019	2,472	2,511	2,564	2,841
45 - 54	c	2,562	:	4,257	C	4,142	3,916	4,642	2,130	2,735	2,237	3,113
55+	:	c	:	c	:	c	:	:	2,739	3,955	2,739	4,087
NL less than 21	c	:	:	:	c	:	:	:	c	834	c	834
20 - 24	c	c	c	c	c	1,617	c	c	1,283	1,420	1,285	1,442
25 - 29	c	c	c	c	c	2,020	c	c	1,610	1,841	1,648	1,867
30 - 44	c	2,527	c	2,245	c	3,076	c	2,851	1,778	2,590	1,880	2,656
45 - 54	c	3,074	c	c	c	3,723	c	3,338	1,626	3,496	1,671	3,420
55+	c	c	:	c	c	c	c	c	c	3,380	c	3,309

Table 4.6 Mean gross monthly earnings in business services by gender and age, 1995 (ECU)

Age	Real estate		Renting		Computer services		R & D		Other business services		Real estate, renting, business services	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
A less than 21	:	:	:	:	:	:	:	:	:	:	1,136	1,389
20 - 24	:	:	:	:	:	:	:	:	:	:	1,316	1,760
25 - 29	:	:	:	:	:	:	:	:	:	:	1,666	2,089
30 - 44	:	:	:	:	:	:	:	:	:	:	1,586	2,523
45 - 54	:	:	:	:	:	:	:	:	:	:	1,752	3,406
55+	:	:	:	:	:	:	:	:	:	:	1,532	3,814
P less than 21	395	421	:	508	:	:	:	:	365	425	366	428
20 - 24	688	603	515	580	768	883	537	839	476	503	485	521
25 - 29	462	946	612	588	849	1,138	775	1,744	698	740	697	758
30 - 44	675	1,053	777	833	798	1,388	706	2,213	790	855	779	894
45 - 54	761	1,511	761	747	1,206	1,764	:	600	993	1,008	961	1,042
55+	338	645	265	1,637	579	1,783	:	5,183	705	966	658	985
FIN less than 21	1,066	973	:	1,316	990	c	1,320	1,649	1,005	1,098	1,011	1,112
20 - 24	1,181	1,355	1,039	1,488	1,360	1,568	1,524	1,688	1,098	1,332	1,138	1,380
25 - 29	1,371	1,705	1,612	1,629	1,916	2,093	1,632	1,896	1,467	1,774	1,522	1,821
30 - 44	1,546	1,925	1,774	2,085	2,284	2,761	1,800	2,325	1,653	2,333	1,747	2,364
45 - 54	1,657	2,101	1,902	2,206	2,467	3,103	1,883	2,609	1,592	2,711	1,713	2,651
55+	1,583	1,963	1,522	2,265	2,135	3,188	1,829	2,913	1,451	2,667	1,524	2,543
S less than 21	:	:	:	:	:	:	:	:	c	1,344	c	1,344
20 - 24	c	:	c	c	c	c	c	c	1,604	1,592	1,593	1,546
25 - 29	1,512	1,863	c	c	c	2,046	c	1,687	1,833	1,775	1,725	1,831
30 - 44	1,577	1,772	:	2,050	2,144	2,990	1,997	2,302	1,820	2,555	1,861	2,536
45 - 54	1,657	2,220	1,870	2,174	c	3,046	2,126	2,916	2,017	2,767	1,934	2,683
55+	c	1,941	c	1,834	:	c	c	2,983	1,809	3,240	1,773	2,916
UK less than 21	797	881	864	868	685	c	c	c	862	1,006	849	992
20 - 24	1,155	1,761	1,165	1,296	1,366	1,615	1,419	1,903	1,240	1,603	1,242	1,601
25 - 29	1,381	1,697	1,318	1,434	1,853	2,315	1,856	1,896	1,657	2,049	1,641	2,012
30 - 44	1,499	2,358	1,362	1,869	2,152	3,059	2,112	2,803	1,691	2,545	1,704	2,564
45 - 54	1,248	2,126	1,248	2,214	1,820	3,234	1,650	2,884	1,318	2,433	1,340	2,458
55+	1,555	1,736	c	1,580	c	2,860	1,463	1,780	1,293	2,010	1,342	1,964

(1) Renting of machinery and equipment without operator and of personal and household goods

(2) 1994 data

c = confidential

: = not available

Source: Eurostat (SES database)

However, gross earnings, at their simplest, are the product of the hourly rates of remuneration and the number of hours worked. It has already been shown that hourly rates of remuneration are highest in computers and research and development, but there are a number of reasons why total remuneration of men and women differ: more women than men work on a part-time basis, while the numbers of hours worked by men in full-time employment are greater than those of women in full-time work.

The progressive difference in gross monthly earnings can be put down partly to the different labour market conditions at the time many older workers were recruited. It is only relatively recently that women have taken the same position in the labour market as men and it was not uncommon, in the past, for businesses to regard women as not wanting the same level of career opportunities as men and many women accepted this position. Work, for women, was often regarded just as a means to earning extra money since their main job was regarded as looking after the family. There are still many women today under the age of 60 who have never considered entering the labour market. As women take an equal place with men in the labour force the large differences that are still to be observed, mostly because women were not offered the same promotion opportunities as men, the differences will quickly reduce.

## Part-time employment

Not everyone works full-time. There are jobs that can only be done on a part-time basis, and there have always been people who have only wanted to work on a part-time basis. In the past, the majority of these part-time jobs was carried out by women, but increasingly part-time working is becoming attractive to men. This may be because they have retired and are looking for something to take up a little of their time and provide a modest income, or because their partner has a career and they want to take responsibility for a share of domestic work.

There is a considerable difference between the figures for the different Divisions, but as might be expected the ratio is lowest for other business services which contains those activities most likely to offer employment to part-time workers. These are market research, labour recruitment, security activities and industrial cleaning. The highest ratio is for computer activities where there is a tendency for the larger firms to be less reliant on part-time employees than the smaller ones. This pattern can also be observed for other Divisions although for these it is less well marked.

The southern states again mark themselves out as being different from the rest in having a tendency for less reliance on part-time employees than other Member States, although an exception occurs for computer services where Italy has the greatest reliance on part-time workers. Finland is an exception among the northern states.

Not all of the variation in remuneration between activities can be attributed to differences in levels of qualifications. The number of full and part-time workers and the number of hours they work will clearly also have an effect. Computer related services and research and development are the activities that tend to offer the highest levels of remuneration, but they also have the lowest numbers of part-time workers. It would be necessary to examine more detailed data to determine the relative importance of qualifications and part time working.

Table 4.7 Number of full-time employees per part-time employee in business services per enterprise size, 1996 (units)

	Enterprise size class	Real estate	(1) Renting	Computer services	R & D	Other business services	Real estate renting and business services
B	10+	4.55	9.35	19.46	8.56	1.84	2.28
	10 to 49	4.05	7.46	17.18	5.89	4.12	4.75
	50 to 249	6.71	13.84	25.48	5.71	1.45	1.92
	250 to 499	:	:	:	:	:	:
	500+	:	:	15.54	44.30	1.45	1.65
DK	10+	3.19	2.13	22.20	7.99	1.55	2.11
	10 to 49	3.01	2.17	10.33	5.94	2.47	2.81
	50 to 249	3.75	2.04	21.71	8.80	2.26	3.08
	250 to 499	2.79	:	34.77	:	0.86	2.03
	500+	1.97	:	57.55	:	0.98	1.23
D	10+	:	:	:	:	:	:
	10 to 49	:	:	:	:	:	:
	50 to 249	:	:	:	:	:	:
	250 to 499	:	:	:	:	:	:
	500+	:	:	:	:	:	:
EL	10+	:	:	:	:	:	:
	10 to 49	:	:	:	:	:	:
	50 to 249	:	:	:	:	:	:
	250 to 499	:	:	:	:	:	:
	500+	:	:	:	:	:	:
E	10+	8.05	16.10	39.75	284.75	2.70	3.10
	10 to 49	7.44	11.77	13.73	39.75	2.45	2.92
	50 to 249	9.77	c	50.37	c	1.86	2.22
	250 to 499	c	c	84.71	:	3.04	3.63
	500+	c	c	1,652.80	c	4.26	4.57
F	10+	4.62	14.94	22.00	:	3.07	3.70
	10 to 49	5.70	10.65	17.59	:	2.79	3.33
	50 to 249	3.90	7.79	27.35	:	2.59	3.35
	250 to 499	3.40	32.33	43.78	:	2.76	3.42
	500+	7.06	46.97	19.19	:	4.06	4.75
IRL	10+	3.56	3.26	13.52	13.57	2.34	2.80
	10 to 49	3.81	5.92	25.39	c	7.19	7.36
	50 to 249	3.22	c	c	c	2.35	3.18
	250 to 499	:	:	60.87	:	2.72	3.37
	500+	:	c	c	c	0.40	0.46
I	10+	22.54	46.29	7.67	59.46	3.06	3.90
	10 to 49	22.54	25.28	8.87	31.66	3.03	4.01
	50 to 249	48.00	284.33	20.42	73.76	2.47	3.39
	250 to 499	:	71.35	44.38	57.59	3.72	4.86
	500+	:	:	2.77	157.43	4.76	4.20

Table 4.7 Number of full-time employees per part-time employee in business services per enterprise size, 1996 (units)

	Enterprise size class	Real estate	(1) Renting	Computer services	R & D	Other business services	Real estate renting and business services
L	10+	10.44	7.46	34.15	33.38	3.37	4.47
	10 to 49	c	c	24.42	11.71	8.58	9.65
	50 to 249	c	c	60.11	c	2.52	c
	250 to 499	:	:	:	c	c	c
	500+	:	:	:	:	c	c
NL	10+	3.38	4.39	11.24	4.76	0.62	0.82
	10 to 49	2.82	2.69	8.54	1.70	1.73	2.02
	50 to 249	4.28	6.86	12.52	5.42	1.30	1.70
	250 to 499	c	c	5.96	5.33	0.89	1.14
	500+	c	c	53.75	5.83	0.31	0.41
A	10+	5.85	5.39	15.66	7.70	2.92	3.48
	10 to 49	7.26	4.37	16.22	c	c	7.32
	50 to 249	c	10.73	15.47	c	2.85	3.86
	250 to 499	c	:	c	:	1.94	2.23
	500+	:	:	c	:	c	1.64
P	10+	20.65	102.71	114.29	65.50	2.46	2.87
	10 to 49	16.42	124.46	99.76	29.25	12.55	15.10
	50 to 249	c	77.00	149.57	c	3.56	4.20
	250 to 499	c	:	:	c	2.40	2.55
	500+	:	:	:	:	1.21	1.21
FIN	10+	17.82	25.44	73.34	15.27	2.80	4.31
	10 to 49	20.48	18.00	52.36	3.59	3.44	5.00
	50 to 249	12.24	c	41.01	c	1.78	2.58
	250 to 499	c	c	128.72	:	9.87	15.11
	500+	c	:	(2)	c	3.68	6.43
S	10+	3.03	5.56	21.08	5.46	1.94	2.86
	10 to 49	2.81	4.55	18.69	9.34	2.32	3.03
	50 to 249	5.50	2.90	15.34	5.07	2.23	3.67
	250 to 499	4.25	12.39	20.34	c	3.93	6.00
	500+	2.11	c	40.58	c	1.50	2.20
UK	10+	:	:	:	:	:	:
	10 to 49	:	:	:	:	:	:
	50 to 249	:	:	:	:	:	:
	250 to 499	:	:	:	:	:	:
	500+	:	:	:	:	:	:

(1) Renting of machinery and equipment without operator and of personal and household goods

(2) No part-time employees in that sector

c = confidential

: = not available

Source: Eurostat (LACOSTS database)



# **Country analysis**

## **Chapter 5**



## BELGIUM

Table 5.1 Main indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	32,291.1	:	42.2	25.2	17.0	
<b>70 - Real estate activities</b>	3,481.1	:	41.0	7.0	31.2	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	2,984.0	:	41.5	7.0	34.5	:
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	833.1	:	46.9	8.6	38.2	:
714 - Renting of personal and household goods n.e.c.	226.4	:	45.1	17.5	27.7	:
<b>72 - Computer and related activities</b>	3,310.9	:	43.5	32.8	10.7	:
<b>73 - Research and development</b>	511.0	:	59.5	43.0	16.5	:
<b>74 - Other business activities</b>	22,004.1	:	41.8	28.5	13.3	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	9,383.5	:	42.4	25.3	17.1	:
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	787.7	:	30.3	19.1	11.2	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	3,516.5	:	14.7	7.7	7.0	:
745 - Labour recruitment and provision of personnel	1,837.7	:	91.5	86.6	4.8	:
746 - Investigation and security activities	383.3	:	80.0	72.6	7.4	:
747 - Industrial cleaning	1,119.4	:	65.1	55.9	9.2	:
748 - Miscellaneous business activities n.e.c.	2,500.6	:	26.2	12.3	13.9	:

: = not available

Source: Eurostat (SBS database)

## BELGIUM

Table 5.2 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	:	350,200	:	79.3	29.3
<b>70 - Real estate activities</b>	:	19,867	:	56.8	30.3
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	:	8,803	:	71.2	33.4
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	:	2,845	:	71.9	35.2
714 - Renting of personal and household goods n.e.c.	:	2,896	:	64.5	21.2
<b>72 - Computer and related activities</b>	:	26,504	:	82.3	49.7
<b>73 - Research and development</b>	:	3,599	:	95.9	63.7
<b>74 - Other business activities</b>	:	291,427	:	80.6	26.7
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	:	71,311	:	62.9	52.9
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	:	5,945	:	50.2	50.5
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	:	12,294	:	63.7	34.5
745 - Labour recruitment and provision of personnel	:	106,927	:	99.7	14.9
746 - Investigation and security activities	:	9,302	:	96.8	30.9
747 - Industrial cleaning	:	38,254	:	94.4	17.3
748 - Miscellaneous business activities n.e.c.	:	20,290	:	56.9	26.7

: = not available

Source: Eurostat (SBS database)

## BELGIUM

Table 5.3 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	:	92.2	38.9	15.6	132.6
<b>70 - Real estate activities</b>	:	175.2	71.8	54.6	237.2
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	:	339.0	140.7	116.9	421.3
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	:	292.8	137.2	112.0	389.8
714 - Renting of personal and household goods n.e.c	:	78.2	35.3	21.7	166.5
<b>72 - Computer and related activities</b>	:	124.9	54.3	13.4	109.2
<b>73 - Research and development</b>	:	142.0	84.5	23.5	132.8
<b>74 - Other business activities</b>	:	75.5	31.6	10.0	118.1
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	:	131.6	55.8	22.5	105.5
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	:	132.5	40.2	14.9	79.6
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	:	286.0	42.1	20.1	122.0
745 - Labour recruitment and provision of personnel	:	17.2	15.7	0.8	105.2
746 - Investigation and security activities	:	41.2	33.0	3.0	106.6
747 - Industrial cleaning	:	29.3	19.0	2.7	110.0
748 - Miscellaneous business activities n.e.c.	:	123.2	32.3	17.1	121.0

: = not available

Source: Eurostat (SBS database)

## DENMARK

Table 5.4 Main indicators as a share of turnover, 1995

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	:	:	:	:	:	:
<b>70 - Real estate activities</b>	:	:	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	935.5	:	:	12.5	:	:
711 - Renting of automobiles	155.6	:	:	14.2	:	:
712 - Renting of other transport equipment	165.1	:	:	6.5	:	:
713 - Renting of other machinery and equipment	459.3	:	:	12.6	:	:
714 - Renting of personal and household goods n.e.c.	155.8	:	:	16.8	:	:
<b>72 - Computer and related activities</b>	2,624.3	:	:	30.8	:	:
<b>73 - Research and development</b>	:	:	:	:	:	:
<b>74 - Other business activities</b>	9,055.9	:	:	33.4	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	2,279.3	:	:	41.3	:	:
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	:	:	:	:	:	:
742 - Architectural and engineering activities and related technical consultancy	3,084.6	:	:	32.1	:	:
743 - Technical testing and analysis	120.5	:	:	36.8	:	:
744 - Advertising	1,677.3	:	:	13.8	:	:
745 - Labour recruitment and provision of personnel	117.4	:	:	92.3	:	:
746 - Investigation and security activities	46.0	:	:	39.8	:	:
747 - Industrial cleaning	851.5	:	:	56.8	:	:
748 - Miscellaneous business activities n.e.c.	879.4	:	:	23.8	:	:

: = not available

Source: Eurostat (SBS database)

## DENMARK

Table 5.5 Enterprise and employment characteristics, 1995

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	:	:	:	:	:
<b>70 - Real estate activities</b>	:	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	4,044	6,516	1.5	53.0	33.8
711 - Renting of automobiles	747	1,181	1.6	56.6	33.0
712 - Renting of other transport equipment	231	382	1.7	72.0	38.2
713 - Renting of other machinery and equipment	2,541	2,556	1.0	62.7	36.2
714 - Renting of personal and household goods n.e.c.	885	2,397	2.7	38.0	28.8
<b>72 - Computer and related activities</b>	6,734	21,515	3.2	79.9	47.0
<b>73 - Research and development</b>	:	:	:	:	:
<b>74 - Other business activities</b>	40,713	139,116	3.4	55.8	39.0
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	12,461	37,156	3.0	64.9	39.0
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	:	:	:	:	:
742 - Architectural and engineering activities and related technical consultancy	8,846	29,449	3.3	74.8	44.9
743 - Technical testing and analysis	352	1,549	4.4	74.6	38.4
744 - Advertising	3,815	9,626	2.5	57.6	41.9
745 - Labour recruitment and provision of personnel	342	10,273	30.0	27.9	37.8
746 - Investigation and security activities	263	1,036	3.9	47.7	37.0
747 - Industrial cleaning	6,303	36,448	5.8	42.7	31.1
748 - Miscellaneous business activities n.e.c.	8,331	13,579	1.6	43.5	35.5

: = not available

Source: Eurostat (SBS database)

## DENMARK

Table 5.6 Productivity / competitiveness characteristics, 1995

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	:	:	:	:	:
<b>70 - Real estate activities</b>	:	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	212.5	143.6	:	:	:
711 - Renting of automobiles	208.3	131.8	:	:	:
712 - Renting of other transport equipment	714.7	432.2	:	:	:
713 - Renting of other machinery and equipment	180.8	179.7	:	:	:
714 - Renting of personal and household goods n.e.c.	176.0	65.0	:	:	:
<b>72 - Computer and related activities</b>	389.7	122.0	:	:	:
<b>73 - Research and development</b>	:	:	:	:	:
<b>74 - Other business activities</b>	222.4	65.1	:	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	182.9	61.3	:	:	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	:	:	:	:	:
742 - Architectural and engineering activities and related technical consultancy	348.7	104.7	:	:	:
743 - Technical testing and analysis	342.3	77.8	:	:	:
744 - Advertising	439.7	174.2	:	:	:
745 - Labour recruitment and provision of personnel	343.3	11.4	:	:	:
746 - Investigation and security activities	174.9	44.4	:	:	:
747 - Industrial cleaning	135.1	23.4	:	:	:
748 - Miscellaneous business activities n.e.c.	105.6	64.8	:	:	:

: = not available

Source: Eurostat (SBS database)



## GERMANY

Table 5.7 Main indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	32,291.1	:	:	:	:	:
<b>70 - Real estate activities</b>	107,368.5	:	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	32,417.7	:	:	:	:	:
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	14,860.1	:	:	:	:	:
714 - Renting of personal and household goods n.e.c.	1,715.5	:	:	:	:	:
<b>72 - Computer and related activities</b>	24,931.6	:	:	:	:	:
<b>73 - Research and development</b>	2,969.7	:	:	:	:	:
<b>74 - Other business activities</b>	218,244.9	:	:	:	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	87,934.2	:	:	:	:	:
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	2,360.1	:	:	:	:	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	21,438.5	:	:	:	:	:
745 - Labour recruitment and provision of personnel	4,485.3	:	:	:	:	:
746 - Investigation and security activities	2,712.9	:	:	:	:	:
747 - Industrial cleaning	9,934.9	:	:	:	:	:
748 - Miscellaneous business activities n.e.c.	52,181.8	:	:	:	:	:

: = not available

Source: Eurostat (SBS database)

## GERMANY

Table 5.8 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	682,782	:	:	:	:
<b>70 - Real estate activities</b>	224,925	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	25,052	:	:	:	:
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	13,627	:	:	:	:
714 - Renting of personal and household goods n.e.c.	3,393	:	:	:	:
<b>72 - Computer and related activities</b>	37,495	:	:	:	:
<b>73 - Research and development</b>	5,582	:	:	:	:
<b>74 - Other business activities</b>	389,755	:	:	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	127,764	:	:	:	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	2,762	:	:	:	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	34,674	:	:	:	:
745 - Labour recruitment and provision of personnel	2,645	:	:	:	:
746 - Investigation and security activities	3,216	:	:	:	:
747 - Industrial cleaning	21,946	:	:	:	:
748 - Miscellaneous business activities n.e.c.	80,815	:	:	:	:

: = not available

Source: Eurostat (SBS database)

## GERMANY

Table 5.9 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	565.2	:	:	:	:
<b>70 - Real estate activities</b>	477.4	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	1,295.4	:	:	:	:
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	1,090.5	:	:	:	:
714 - Renting of personal and household goods n.e.c.	505.6	:	:	:	:
<b>72 - Computer and related activities</b>	664.9	:	:	:	:
<b>73 - Research and development</b>	532.0	:	:	:	:
<b>74 - Other business activities</b>	560.0	:	:	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	688.3	:	:	:	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	854.5	:	:	:	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	618.3	:	:	:	:
745 - Labour recruitment and provision of personnel	1,695.8	:	:	:	:
746 - Investigation and security activities	843.6	:	:	:	:
747 - Industrial cleaning	452.7	:	:	:	:
748 - Miscellaneous business activities n.e.c.	645.7	:	:	:	:

: = not available

Source: Eurostat (SBS database)

## SPAIN

Table 5.10 Main indicators as a share of turnover, 1996

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	:	:	:	:	:	:
<b>70 - Real estate activities</b>	:	:	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	:	:	:	:	:	:
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	:	:	:	:	:	:
714 - Renting of personal and household goods n.e.c.	:	:	:	:	:	:
<b>72 - Computer and related activities</b>	:	:	:	:	:	:
<b>73 - Research and development</b>	:	:	:	:	:	:
<b>74 - Other business activities</b>	:	:	:	:	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	:	:	:	:	:	:
7411 - Legal activities	3,997.5	99.4	74.6	22.2	52.4	2.4
7413 - Market research and public opinion polling	:	:	:	:	:	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	:	:	:	:	:	:
745 - Labour recruitment and provision of personnel	:	:	:	:	:	:
746 - Investigation and security activities	:	:	:	:	:	:
747 - Industrial cleaning	1,423.8	98.4	84.4	76.2	8.1	3.9
748 - Miscellaneous business activities n.e.c.	4,478.9	81.9	47.4	23.0	24.4	5.7

: = not available

Source: Eurostat (SBS database)

## SPAIN

Table 5.11 Enterprise and employment characteristics, 1996

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	378,120	:	:	:	:
<b>70 - Real estate activities</b>	54,967	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	16,754	:	:	:	:
711 - Renting of automobiles					
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	8,004	:	:	:	:
714 - Renting of personal and household goods n.e.c.	5,705	:	:	:	:
<b>72 - Computer and related activities</b>	13,449	:	:	:	:
<b>73 - Research and development</b>	10,136	:	:	:	:
<b>74 - Other business activities</b>	282,814	:	:	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	128,001	:	:	:	:
7411 - Legal activities	71,802	119,832	1.7	35.2	21.0
7413 - Market research and public opinion polling	2,958	:	:	:	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis					
744 - Advertising	14,866	:	:	:	:
745 - Labour recruitment and provision of personnel	2,027	:	:	:	:
746 - Investigation and security activities	1,631	73,238	44.9	98.5	15.0
747 - Industrial cleaning	13,412	:	:	:	:
748 - Miscellaneous business activities n.e.c.	50,028	109,035	2.2	58.9	16.0

: = not available

Source: Eurostat (SBS database)

## SPAIN

Table 5.12 Productivity / competitiveness characteristics, 1996

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	:	:	:	:	:
<b>70 - Real estate activities</b>	:	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	:	:	:	:	:
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	:	:	:	:	:
714 - Renting of personal and household goods n.e.c.	:	:	:	:	:
<b>72 - Computer and related activities</b>	:	:	:	:	:
<b>73 - Research and development</b>	:	:	:	:	:
<b>74 - Other business activities</b>	:	:	:	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	:	:	:	:	:
7411 - Legal activities	55.7	33.4	24.9	17.5	118.3
7413 - Market research and public opinion polling	:	:	:	:	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	:	:	:	:	:
745 - Labour recruitment and provision of personnel	:	:	:	:	:
746 - Investigation and security activities	873.0	19.4	16.4	1.6	109.0
747 - Industrial cleaning	:	:	:	:	:
748 - Miscellaneous business activities n.e.c.	89.5	41.1	19.5	10.0	121.5

: = not available

Source: Eurostat (SBS database)

## FRANCE

Table 5.13 Main indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	227,484.4	87.6	39.4	28.8	10.6	13.3
<b>70 - Real estate activities</b>	53,886.2	84.9	31.3	12.3	19.0	26.3
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	13,539.5	98.4	56.8	12.0	44.9	77.3
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	6,090.3	94.3	61.8	10.5	51.3	59.3
714 - Renting of personal and household goods n.e.c.	1,562.1	91.7	44.0	28.7	15.3	21.5
<b>72 - Computer and related activities</b>	21,957.5	91.2	47.0	41.7	5.4	3.2
<b>73 - Research and development</b>	3,205.8	99.0	33.2	32.4	0.8	7.3
<b>74 - Other business activities</b>	134,895.3	86.8	39.8	34.8	4.9	3.4
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	53,881.5	74.9	32.1	26.0	6.1	4.0
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	1,542.2	98.5	42.8	37.4	5.4	2.2
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	16,481.2	92.8	26.9	21.3	5.6	1.6
745 - Labour recruitment and provision of personnel	12,105.3	100.3	88.8	85.3	3.4	0.6
746 - Investigation and security activities	2,892.2	98.7	69.1	66.9	2.2	2.3
747 - Industrial cleaning	5,689.3	99.7	70.5	64.5	6.0	2.4
748 - Miscellaneous business activities n.e.c.	18,602.3	91.4	32.9	28.3	4.6	5.6

NACE Division 71 = Data for 1994  
 NACE Group 711 = Data for 1994  
 NACE Group 712 = Data for 1994  
 NACE Class 7411 = Data for 1994  
 NACE Group 942 = Data for 1994  
 NACE Group 743 = Data for 1994  
 : = not available

Source: Eurostat (SBS database)

## FRANCE

Table 5.14 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	395,711	2,061,140	5.2	93.6	33.9
<b>70 - Real estate activities</b>	69,322	302,529	4.4	70.0	31.2
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	19,966	65,265	3.3	88.4	28.1
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	10,549	20,514	1.9	92.2	33.7
714 - Renting of personal and household goods n.e.c.	5,798	24,711	4.3	89.1	20.4
<b>72 - Computer and related activities</b>	27,383	200,011	7.3	98.9	46.3
<b>73 - Research and development</b>	1,934	21,890	11.3	99.8	47.4
<b>74 - Other business activities</b>	277,106	1,471,445	5.3	97.9	32.6
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	124,775	302,157	2.4	96.7	47.9
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	3,553	13,932	3.9	99.2	41.2
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis					
744 - Advertising	20,180	93,904	4.7	96.9	38.7
745 - Labour recruitment and provision of personnel	2,301	406,905	176.8	100.0	25.4
746 - Investigation and security activities	4,886	96,179	19.7	98.9	20.3
747 - Industrial cleaning	13,565	225,460	16.6	97.2	16.7
748 - Miscellaneous business activities n.e.c.	49,487	157,556	3.2	93.8	35.7

NACE Division 71 = Data for 1994

NACE Group 711 = Data for 1994

NACE Group 712 = Data for 1994

NACE Class 7411 = Data for 1994

NACE Group 942 = Data for 1994

NACE Group 743 = Data for 1994

: = not available

Source: Eurostat (SBS database)



## FRANCE

Table 5.15 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	574.9	110.4	43.5	11.7	128.2
<b>70 - Real estate activities</b>	777.3	178.1	55.8	33.9	178.6
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	678.1	207.5	117.9	93.1	419.9
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	577.3	296.9	183.3	152.3	543.9
714 - Renting of personal and household goods n.e.c.	269.4	63.2	27.8	9.7	136.7
<b>72 - Computer and related activities</b>	801.9	109.8	51.6	5.9	111.6
<b>73 - Research and development</b>	1,657.6	146.5	48.6	1.2	102.4
<b>74 - Other business activities</b>	486.8	91.7	36.5	4.5	111.7
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	431.8	178.3	57.2	10.9	119.5
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	429.0	109.4	46.8	5.9	113.6
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	816.7	175.5	47.2	9.7	122.1
745 - Labour recruitment and provision of personnel	5,260.9	29.7	26.4	1.0	104.0
746 - Investigation and security activities	591.9	30.1	20.8	0.7	102.2
747 - Industrial cleaning	419.4	25.2	17.8	1.5	106.3
748 - Miscellaneous business activities n.e.c.	357.9	118.1	38.9	5.4	109.1

NACE Division 71 = Data for 1994

NACE Group 711 = Data for 1994

NACE Group 712 = Data for 1994

NACE Class 7411 = Data for 1994

NACE Group 942 = Data for 1994

NACE Group 743 = Data for 1994

: = not available

Source: Eurostat (SBS database)

## IRELAND

Table 5.16 Main indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	5,914.6	81.6	53.2	:	:	7.5
<b>70 - Real estate activities</b>	500.5	86.0	53.8	:	:	26.7
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	467.9	79.5	41.6	:	:	25.8
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	205.2	88.0	48.4	:	:	22.1
714 - Renting of personal and household goods n.e.c.	79.8	73.8	43.0	:	:	11.0
<b>72 - Computer and related activities</b>	893.5	88.1	57.7	:	:	7.1
<b>73 - Research and development</b>	21.7	87.6	58.1	:	:	5.1
<b>74 - Other business activities</b>	4,031.0	79.8	53.4	:	:	3.2
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	1,736.3	96.2	68.8	:	:	3.2
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	30.3	67.7	30.7	:	:	1.3
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	493.5	43.9	21.9	:	:	1.9
745 - Labour recruitment and provision of personnel	207.4	66.6	49.1	:	:	1.7
746 - Investigation and security activities	152.2	97.9	80.4	:	:	2.0
747 - Industrial cleaning	98.1	92.2	73.1	:	:	4.8
748 - Miscellaneous business activities n.e.c.	438.6	78.5	48.0	:	:	6.4

: = not available

Source: Eurostat (SBS database)

## IRELAND

Table 5.17 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	14,175	91,862	6.5	82.5	:
<b>70 - Real estate activities</b>	2,279	6,890	3.0	54.1	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	1,215	5,698	4.7	79.5	:
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	726	2,735	3.8	77.4	:
714 - Renting of personal and household goods n.e.c.	395	2,055	5.2	76.9	:
<b>72 - Computer and related activities</b>	1,098	9,688	8.8	92.3	:
<b>73 - Research and development</b>	106	385	3.6	67.0	:
<b>74 - Other business activities</b>	9,477	69,201	7.3	84.4	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	5,024	29,597	5.9	77.2	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	56	294	5.3	98.6	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	251	4,009	16.0	94.9	:
745 - Labour recruitment and provision of personnel	186	3,879	20.9	96.1	:
746 - Investigation and security activities	209	5,592	26.8	98.0	:
747 - Industrial cleaning	158	9,337	59.1	98.5	:
748 - Miscellaneous business activities n.e.c.	1,873	7,561	4.0	78.1	:

: = not available

Source: Eurostat (SBS database)

## IRELAND

Table 5.18 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	417.3	64.4	34.2	:	:
<b>70 - Real estate activities</b>	219.6	72.6	39.1	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	385.1	82.1	34.1	:	:
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	282.6	75.0	36.3	:	:
714 - Renting of personal and household goods n.e.c.	202.0	38.8	16.7	:	:
<b>72 - Computer and related activities</b>	813.8	92.2	53.2	:	:
<b>73 - Research and development</b>	204.7	56.4	32.7	:	:
<b>74 - Other business activities</b>	425.3	58.3	31.1	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	345.6	58.7	40.3	:	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	541.1	103.1	31.6	:	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	1,996.1	123.1	26.9	:	:
745 - Labour recruitment and provision of personnel	1,115.1	53.5	26.3	:	:
746 - Investigation and security activities	728.2	27.2	21.9	:	:
747 - Industrial cleaning	620.9	10.5	7.7	:	:
748 - Miscellaneous business activities n.e.c.	234.2	58.0	27.8	:	:

: = not available

Source: Eurostat (SBS database)

## ITALY

Table 5.19 Main indicators as a share of turnover, 1996

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	98,369.3	96.2	50.6	19.7	30.9	7.9
<b>70 - Real estate activities</b>	14,630.4	115.3	50.0	6.5	43.5	19.4
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	1,615.7	93.5	36.7	11.5	25.2	65.9
711 - Renting of automobiles	572.3	124.8	55.0	14.3	40.6	161.5
712 - Renting of other transport equipment	273.9	100.7	20.1	8.7	11.4	6.7
713 - Renting of other machinery and equipment	563.2	60.6	24.3	10.2	14.2	12.2
714 - Renting of personal and household goods n.e.c.	206.4	86.6	42.0	10.8	31.2	25.8
<b>72 - Computer and related activities</b>	16,235.9	89.6	43.9	27.8	16.1	4.2
<b>73 - Research and development</b>	1,536.4	105.6	62.3	33.1	29.2	9.7
<b>74 - Other business activities</b>	64,351.0	93.4	52.5	20.5	32.0	4.8
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	21,339.6	101.8	67.3	18.2	49.1	4.7
7411 - Legal activities	7,824.4	102.0	76.3	12.2	64.2	4.7
7413 - Market research and public opinion polling	c	c	c	c	c	c
742 - Architectural and engineering activities and related technical consultancy	14,188.1	98.1	48.5	13.7	34.9	4.6
743 - Technical testing and analysis	607.9	101.7	59.9	37.0	22.8	5.3
744 - Advertising	4,228.1	99.9	35.2	14.9	20.3	3.1
745 - Labour recruitment and provision of personnel	c	c	c	c	c	c
746 - Investigation and security activities	c	c	c	c	c	c
747 - Industrial cleaning	4,484.1	100.3	78.1	68.3	9.8	3.3
748 - Miscellaneous business activities n.e.c.	17,244.4	74.7	32.0	12.0	20.0	5.8

: = not available

Source: Eurostat (SBS database)

## ITALY

Table 5.20 Enterprise and employment characteristics, 1996

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	666,628	1,518,422	2.3	50.1	25.5
<b>70 - Real estate activities</b>	104,961	165,150	1.6	24.3	23.8
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	7,929	15,091	1.9	40.1	30.6
711 - Renting of automobiles	981	3,532	3.6	64.8	35.8
712 - Renting of other transport equipment	1,391	2,269	1.6	38.1	27.6
713 - Renting of other machinery and equipment	2,127	4,370	2.1	43.0	30.5
714 - Renting of personal and household goods n.e.c.	3,430	4,920	1.4	20.9	21.6
<b>72 - Computer and related activities</b>	47,261	200,051	4.2	70.3	32.1
<b>73 - Research and development</b>	6,205	18,941	3.1	65.2	41.2
<b>74 - Other business activities</b>	500,272	1,119,189	2.2	50.2	23.5
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	193,873	372,987	1.9	42.5	24.6
7411 - Legal activities	77,367	131,409	1.7	33.0	22.0
7413 - Market research and public opinion polling	c	c	c	c	c
742 - Architectural and engineering activities and related technical consultancy	181,403	250,321	1.4	24.2	31.9
743 - Technical testing and analysis	2,341	8,552	3.7	67.5	39.0
744 - Advertising	10,859	30,078	2.8	57.6	36.5
745 - Labour recruitment and provision of personnel	c	c	c	c	c
746 - Investigation and security activities	c	c	c	c	c
747 - Industrial cleaning	25,090	236,261	9.4	84.7	16.0
748 - Miscellaneous business activities n.e.c.	83,862	173,261	2.1	43.4	27.5

: = not available

Source: Eurostat (SBS database)

## ITALY

Table 5.21 Productivity / competitiveness characteristics, 1996

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	147.6	64.8	32.8	20.0	128.7
<b>70 - Real estate activities</b>	139.4	88.6	44.3	38.5	186.3
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	203.8	107.1	39.3	27.0	128.4
711 - Renting of automobiles	583.4	162.0	89.1	65.9	248.5
712 - Renting of other transport equipment	196.9	120.7	24.2	13.7	87.7
713 - Renting of other machinery and equipment	264.8	128.9	31.4	18.3	102.8
714 - Renting of personal and household goods n.e.c.	60.2	42.0	17.6	13.1	81.4
<b>72 - Computer and related activities</b>	343.5	81.2	35.7	13.1	110.9
<b>73 - Research and development</b>	247.6	81.1	50.6	23.7	122.8
<b>74 - Other business activities</b>	128.6	57.5	30.2	18.4	128.3
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	110.1	57.2	38.5	28.1	156.8
7411 - Legal activities	101.1	59.5	45.5	38.2	207.0
7413 - Market research and public opinion polling	c	c	c	c	c
742 - Architectural and engineering activities and related technical consultancy	78.2	56.7	27.5	19.8	86.2
743 - Technical testing and analysis	259.7	71.1	42.6	16.2	109.1
744 - Advertising	389.4	140.6	49.5	28.5	135.7
745 - Labour recruitment and provision of personnel	c	c	c	c	c
746 - Investigation and security activities	c	c	c	c	c
747 - Industrial cleaning	186.6	19.8	15.5	1.9	96.8
748 - Miscellaneous business activities n.e.c.	205.6	99.5	31.9	19.9	115.9

: = not available

Source: Eurostat (SBS database)

## LUXEMBOURG

Table 5.22 Main Indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	2,277.3	83.1	52.5	32.5	19.9	:
<b>70 - Real estate activities</b>	278.3	43.5	28.8	10.4	18.4	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	260.4	83.7	57.0	6.7	50.3	:
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	163.8	75.2	45.8	6.7	39.1	:
714 - Renting of personal and household goods n.e.c.	6.1	100.0	47.5	16.4	31.1	:
<b>72 - Computer and related activities</b>	:~c	c	c	c	c	:
<b>73 - Research and development</b>	:~c	c	c	c	c	:
<b>74 - Other business activities</b>	1,275.0	88.4	57.7	36.8	20.9	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	635.4	94.3	60.7	28.7	32.0	:
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	67.2	97.0	53.3	12.8	40.5	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	101.1	39.9	25.3	17.1	8.2	:
745 - Labour recruitment and provision of personnel	83.0	100.5	87.7	109.3	-21.4	:
746 - Investigation and security activities	c	c	c	c	c	:
747 - Industrial cleaning	c	c	c	c	c	:
748 - Miscellaneous business activities n.e.c.	c	c	c	c	c	:

Data for Luxembourg are provisional

: = not available

c = confidential

Source: Eurostat (SBS database)



## LUXEMBOURG

Table 5.23 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	4,517	25,667	5.7	90.7	31.8
<b>70 - Real estate activities</b>	784	1,554	2.0	64.1	29.0
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	193	499	2.6	91.4	38.2
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	66	236	3.6	93.2	50.0
714 - Renting of personal and household goods n.e.c.	25	60	2.4	88.3	18.9
<b>72 - Computer and related activities</b>	436	c	c	c	c
<b>73 - Research and development</b>	14	c	c	c	c
<b>74 - Other business activities</b>	3,090	19,397	6.3	91.4	26.4
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	1,668	5,738	3.4	84.1	37.7
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	77	200	2.6	92.0	46.7
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	199	604	3.0	87.4	32.8
745 - Labour recruitment and provision of personnel	51	4,788	93.9	99.9	19.0
746 - Investigation and security activities	20	c	c	c	c
747 - Industrial cleaning	101	c	c	c	c
748 - Miscellaneous business activities n.e.c.	399	c	c	c	c

Data for Luxembourg are provisional

: = not available

c = confidential

Source: Eurostat (SBS database)

## LUXEMBOURG

Table 5.24 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	504.2	88.7	46.5	17.7	146.3
<b>70 - Real estate activities</b>	355.0	179.1	51.5	32.9	177.6
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	1,349.2	521.8	297.4	262.5	779.4
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	2,481.8	694.1	318.2	271.6	636.4
714 - Renting of personal and household goods n.e.c.	244.0	101.7	48.3	31.7	256.2
<b>72 - Computer and related activities</b>	c	c	c	c	c
<b>73 - Research and development</b>	c	c	c	c	c
<b>74 - Other business activities</b>	412.6	65.7	37.9	13.8	143.4
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	380.9	110.7	67.2	35.4	178.1
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	872.7	336.0	179.0	136.0	383.0
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	508.0	167.4	42.4	13.7	129.4
745 - Labour recruitment and provision of personnel	1,627.5	17.3	15.2	-3.7	80.2
746 - Investigation and security activities	c	c	c	c	c
747 - Industrial cleaning	c	c	c	c	c
748 - Miscellaneous business activities n.e.c.	c	c	c	c	c

Data for Luxembourg are provisional

: = not available

c = confidential

Source: Eurostat (SBS database)

## NETHERLAND

Table 5.25 Main Indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	:	:	:	:	:	:
<b>70 - Real estate activities</b>	:	:	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	4,117.4	94.8	59.5	9.6	:	61.4
711 - Renting of automobiles	2,466.0	96.6	54.9	4.7	:	82.0
712 - Renting of other transport equipment	359.2	99.2	66.5	9.8	:	54.4
713 - Renting of other machinery and equipment	550.8	89.1	60.4	15.8	:	23.3
714 - Renting of personal and household goods n.e.c.	741.8	91.1	70.5	21.3	:	24.7
<b>72 - Computer and related activities</b>	5,016.9	89.0	:	41.5	:	:
<b>73 - Research and development</b>	:	:	:	:	:	:
<b>74 - Other business activities</b>	:	:	:	:	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	:	:	:	:	:	:
7411 - Legal activities	1,971.8	:	:	:	:	:
7413 - Market research and public opinion polling	460.7	100.5	:	38.2	:	:
742 - Architectural and engineering activities and related technical consultancy	5,801.1	98.3	87.7	44.5	:	4.7
743 - Technical testing and analysis	382.6	101.7	93.4	52.7	:	7.5
744 - Advertising	4,743.9	99.8	46.7	12.4	:	2.9
745 - Labour recruitment and provision of personnel	:	:	:	:	:	:
746 - Investigation and security activities	:	:	:	:	:	:
747 - Industrial cleaning	2,077.7	99.6	94.3	59.6	:	4.6
748 - Miscellaneous business activities n.e.c.	:	:	:	:	:	:

NACE Division 71 = Data for 1995

NACE Group 711 = Data for 1995

NACE Group 712 = Data for 1995

NACE Class 7411 = Data for 1994

NACE Group 942 = Data for 1995

NACE Group 743 = Data for 1995

: = not available

Source: Eurostat (SBS database)

## NETHERLAND

Table 5.26 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	:	914,478	:	86.9	:
<b>70 - Real estate activities</b>	:	52,459	:	88.8	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	5,315	20,218	3.8	80.3	24.4
711 - Renting of automobiles	546	:	:	:	:
712 - Renting of other transport equipment	604	:	:	:	:
713 - Renting of other machinery and equipment	805	3,940	4.9	76.5	28.9
714 - Renting of personal and household goods n.e.c.	3,360	10,356	3.1	72.8	20.9
<b>72 - Computer and related activities</b>	9,573	54,813	5.7	86.7	43.8
<b>73 - Research and development</b>	:	21,363	:	96.0	:
<b>74 - Other business activities</b>	:	765,625	:	86.7	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	:	185,012	:	77.0	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	2,271	10,994	4.8	64.5	24.8
742 - Architectural and engineering activities and related technical consultancy	11,804	:	:	:	:
743 - Technical testing and analysis	342	:	:	:	:
744 - Advertising	9,817	32,375	3.3	48.2	37.9
745 - Labour recruitment and provision of personnel	1,491	266,228	178.6	99.4	5.8
746 - Investigation and security activities	:	12,899	:	97.9	:
747 - Industrial cleaning	6,193	134,832	21.8	95.5	9.6
748 - Miscellaneous business activities n.e.c.	:	42,488	:	57.0	:

NACE Division 71 = Data for 1995

NACE Group 711 = Data for 1995

NACE Group 712 = Data for 1995

NACE Class 7411 = Data for 1994

NACE Group 942 = Data for 1995

NACE Group 743 = Data for 1995

: = not available

Source: Eurostat (SBS database)

## NETHERLAND

Table 5.27 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	:	:	:	:	:
<b>70 - Real estate activities</b>	:	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	774.7	203.7	121.1	:	496.6
711 - Renting of automobiles	4,516.5	:	:	:	:
712 - Renting of other transport equipment	594.7	:	:	:	:
713 - Renting of other machinery and equipment	684.2	139.8	84.4	:	291.8
714 - Renting of personal and household goods n.e.c.	220.8	71.6	50.5	:	241.4
<b>72 - Computer and related activities</b>	524.1	91.5	:	:	:
<b>73 - Research and development</b>	:	:	:	:	:
<b>74 - Other business activities</b>	:	:	:	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	:	:	:	:	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	202.9	41.9	:	:	:
742 - Architectural and engineering activities and related technical consultancy	491.5	:	:	:	:
743 - Technical testing and analysis	1,118.7	:	:	:	:
744 - Advertising	:	:	:	:	:
745 - Labour recruitment and provision of personnel	:	:	:	:	:
746 - Investigation and security activities	:	:	:	:	:
747 - Industrial cleaning	335.5	15.4	14.5	:	151.1
748 - Miscellaneous business activities n.e.c.	:	:	:	:	:

NACE Division 71 = Data for 1995

NACE Group 711 = Data for 1995

NACE Group 712 = Data for 1995

NACE Class 7411 = Data for 1994

NACE Group 942 = Data for 1995

NACE Group 743 = Data for 1995

: = not available

Source: Eurostat (SBS database)

## AUSTRIA

Table 5.28 Main indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	21,796.2	79.1	48.5	24.3	24.2	22.8
<b>70 - Real estate activities</b>	5,604.2	64.3	39.4	10.7	28.7	54.9
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	1,886.7	86.2	66.0	7.5	58.5	61.0
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	507.0	90.1	71.8	10.1	61.7	54.0
714 - Renting of personal and household goods n.e.c.	293.2	82.2	47.3	11.8	35.5	14.7
<b>72 - Computer and related activities</b>	2,315.0	82.8	44.3	28.7	15.6	5.0
<b>73 - Research and development</b>	60.5	90.9	94.4	100.8	-6.4	13.1
<b>74 - Other business activities</b>	11,929.8	84.2	50.6	32.2	18.4	5.1
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	3,882.0	89.5	60.6	33.8	26.9	7.4
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	61.	89.9	48.6	30.6	18.0	2.6
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	1,973.9	47.5	27.0	13.5	13.5	3.1
745 - Labour recruitment and provision of personnel	598.4	98.1	79.3	75.1	4.1	0.8
746 - Investigation and security activities	178.2	97.6	78.9	73.6	5.3	2.5
747 - Industrial cleaning	725.2	95.2	78.5	63.9	14.6	2.4
748 - Miscellaneous business activities n.e.c.	1,308.4	88.3	40.0	19.4	20.6	6.2

: = not available

Source: Eurostat (SBS database)

## AUSTRIA

Table 5.29 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	32,868	206,304	6.3	83.9	30.7
<b>70 - Real estate activities</b>	3,282	20,810	6.3	86.7	33.3
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	1,329	5,879	4.4	79.4	30.2
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	332	1,769	5.3	83.3	34.6
714 - Renting of personal and household goods n.e.c.	735	2,452	3.3	70.9	19.9
<b>72 - Computer and related activities</b>	4,642	19,846	4.3	76.1	44.0
<b>73 - Research and development</b>	54	1,323	24.5	96.8	47.6
<b>74 - Other business activities</b>	23,561	158,446	6.7	84.5	28.7
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	8,797	48,553	5.5	80.7	33.5
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	191	783	4.1	75.2	31.7
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	2,819	10,261	3.6	71.9	36.0
745 - Labour recruitment and provision of personnel	273	15,489	56.7	98.5	29.5
746 - Investigation and security activities	84	5,873	69.9	98.7	22.6
747 - Industrial cleaning	1,222	34,399	28.1	96.7	13.9
748 - Miscellaneous business activities n.e.c.	2,977	10,722	3.6	73.8	32.1

: = not available

Source: Eurostat (SBS database)

## AUSTRIA

Table 5.30 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	663.1	105.7	51.3	25.5	167.2
<b>70 - Real estate activities</b>	1,707.6	269.3	106.2	77.4	319.4
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	1,419.6	320.9	211.8	187.8	700.7
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	1,527.1	286.6	205.8	176.9	594.5
714 - Renting of personal and household goods n.e.c.	398.9	119.6	56.6	42.5	284.3
<b>72 - Computer and related activities</b>	498.7	116.6	51.7	18.2	117.4
<b>73 - Research and development</b>	1,120.4	45.7	43.2	-2.9	90.6
<b>74 - Other business activities</b>	506.3	75.3	38.1	13.9	133.0
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	441.3	80.0	48.5	21.5	144.9
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	319.9	78.0	37.9	14.0	119.5
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	700.2	192.4	52.0	26.1	144.2
745 - Labour recruitment and provision of personnel	2,191.9	38.6	30.6	1.6	103.9
746 - Investigation and security activities	2,121.4	30.3	23.9	1.6	103.9
747 - Industrial cleaning	593.5	21.1	16.5	3.1	118.7
748 - Miscellaneous business activities n.e.c.	439.5	122.0	48.8	25.1	152.0

: = not available

Source: Eurostat (SBS database)



## PORTUGAL

Table 5.31 Main indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	14,141.3	97.5	31.3	17.6	13.7	15.9
<b>70 - Real estate activities</b>	4,264.0	91.1	19.5	5.0	14.5	10.3
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	965.3	99.0	63.8	8.8	55.0	92.1
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	261.7	97.2	43.4	15.3	28.1	24.3
714 - Renting of personal and household goods n.e.c.	20.2	100.5	32.2	12.9	19.3	31.2
<b>72 - Computer and related activities</b>	839.6	97.1	34.9	25.3	9.6	7.0
<b>73 - Research and development</b>	6.4	100.0	28.1	10.9	17.2	10.9
<b>74 - Other business activities</b>	8,066.0	100.7	33.4	24.5	8.8	10.6
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	2,274.9	101.0	39.9	28.0	11.9	9.9
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	51.9	99.8	35.8	20.2	15.6	7.7
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	1,925.1	101.7	13.7	9.1	4.6	3.0
745 - Labour recruitment and provision of personnel	283.9	100.5	68.9	64.2	4.7	1.4
746 - Investigation and security activities	232.2	95.9	74.4	66.4	8.0	3.1
747 - Industrial cleaning	591.3	99.9	39.0	34.0	5.0	2.0
748 - Miscellaneous business activities n.e.c.	1,181.0	99.8	34.6	22.8	11.8	39.5

: = not available

Source: Eurostat (SBS database)

## PORTUGAL

Table 5.32 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	49,197	243,991	5.0	85.6	11.9
<b>70 - Real estate activities</b>	8,965	23,559	2.6	75.2	12.1
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	2,520	9,006	3.6	78.0	12.1
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	1,657	4,750	2.9	70.1	12.0
714 - Renting of personal and household goods n.e.c.	500	864	1.7	47.9	6.3
<b>72 - Computer and related activities</b>	2,154	11,825	5.5	89.7	20.0
<b>73 - Research and development</b>	34	125	3.7	60.0	9.3
<b>74 - Other business activities</b>	35,524	199,476	5.6	87.0	11.4
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	8,857	43,461	4.9	88.5	16.6
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	353	1,087	3.1	76.3	12.7
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	2,688	16,032	6.0	91.1	12.0
745 - Labour recruitment and provision of personnel	202	21,008	104.0	99.8	8.7
746 - Investigation and security activities	520	16,171	31.1	97.2	9.8
747 - Industrial cleaning	1,445	41,409	28.7	97.6	5.0
748 - Miscellaneous business activities n.e.c.	18,021	38,741	2.1	57.0	12.2

: = not available

Source: Eurostat (SBS database)

## PORTUGAL

Table 5.33 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	287.4	58.0	18.2	8.0	152.4
<b>70 - Real estate activities</b>	475.6	181.0	35.3	26.2	291.6
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	383.1	107.2	68.4	58.9	564.7
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	157.9	55.1	23.9	15.5	198.5
714 - Renting of personal and household goods n.e.c.	40.4	23.4	7.5	4.5	119.8
<b>72 - Computer and related activities</b>	389.8	71.0	24.8	6.8	123.9
<b>73 - Research and development</b>	188.2	51.2	14.4	8.8	154.3
<b>74 - Other business activities</b>	227.1	40.4	13.5	3.6	118.3
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	254.0	52.3	20.9	6.2	126.0
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	147.0	47.7	17.1	7.5	135.1
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	716.2	120.1	16.5	5.5	137.2
745 - Labour recruitment and provision of personnel	1,405.4	13.5	9.3	0.6	107.2
746 - Investigation and security activities	446.5	14.4	10.7	1.2	109.0
747 - Industrial cleaning	409.2	14.3	5.6	0.7	112.1
748 - Miscellaneous business activities n.e.c.	65.5	30.5	10.5	3.6	86.7

: = not available

Source: Eurostat (SBS database)

## FINLAND

Table 5.34 Main indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	10,723.6	99.7	50.5	31.3	19.2	11.4
<b>70 - Real estate activities</b>	2,290.0	98.3	36.3	17.2	19.0	27.2
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	383.7	97.2	49.0	14.9	34.1	32.2
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	199.3	98.8	52.8	18.8	33.9	27.8
714 - Renting of personal and household goods n.e.c.	30.9	94.8	39.5	20.7	18.4	14.2
<b>72 - Computer and related activities</b>	1,868.5	98.1	51.8	37.0	14.8	4.8
<b>73 - Research and development</b>	108.8	99.1	47.3	39.9	7.4	7.3
<b>74 - Other business activities</b>	6,072.6	100.9	55.6	35.7	19.9	6.2
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	1,825.4	112.6	67.9	33.8	34.1	10.9
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	61.9	100.2	57.2	43.0	14.4	2.9
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	999.3	88.9	26.8	16.8	10.0	2.2
745 - Labour recruitment and provision of personnel	131.0	100.5	83.3	74.7	8.6	2.0
746 - Investigation and security activities	128.3	100.0	75.4	65.9	9.6	7.4
747 - Industrial cleaning	518.4	99.2	72.5	57.0	15.5	4.6
748 - Miscellaneous business activities n.e.c.	671.5	96.4	46.3	29.7	16.6	8.0

NACE Division 71 = Data for 1994

NACE Group 711 = Data for 1994

NACE Group 712 = Data for 1994

: = not available

Source: Eurostat (SBS database)

## FINLAND

Table 5.35 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	37,740	131,093	3.5	:	:
<b>70 - Real estate activities</b>	9,847	22,329	2.3	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	978	2,565	2.6	:	:
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	486	1,576	3.2	:	:
714 - Renting of personal and household goods n.e.c.	180	366	2.0	:	:
<b>72 - Computer and related activities</b>	2,934	18,139	6.2	:	:
<b>73 - Research and development</b>	169	1,410	8.3	:	:
<b>74 - Other business activities</b>	23,812	86,650	3.6	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	9,352	20,986	2.2	:	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	112	951	8.5	:	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	2,173	5,465	2.5	:	:
745 - Labour recruitment and provision of personnel	288	4,515	15.7	:	:
746 - Investigation and security activities	308	3,877	12.6	:	:
747 - Industrial cleaning	2,340	20,035	8.6	:	:
748 - Miscellaneous business activities n.e.c.	3,354	8,207	2.4	:	:

NACE Division 71 = Data for 1994

NACE Group 711 = Data for 1994

NACE Group 712 = Data for 1994

: = not available

Source: Eurostat (SBS database)

## FINLAND

Table 5.36 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	284.1	81.8	41.3	15.7	:
<b>70 - Real estate activities</b>	60.7	102.6	37.2	19.5	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	10.2	149.6	73.3	51.0	:
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	5.3	126.5	66.8	42.9	:
714 - Renting of personal and household goods n.e.c.	0.8	84.4	33.3	15.6	:
<b>72 - Computer and related activities</b>	49.5	103.0	53.3	15.2	:
<b>73 - Research and development</b>	2.9	77.2	36.5	5.7	:
<b>74 - Other business activities</b>	160.9	70.1	39.0	14.0	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	48.4	87.0	59.1	29.7	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	1.6	65.1	37.2	9.4	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	26.5	182.9	48.9	18.3	:
745 - Labour recruitment and provision of personnel	3.5	29.0	24.2	2.5	:
746 - Investigation and security activities	3.4	33.1	25.0	3.2	:
747 - Industrial cleaning	13.7	25.9	18.8	4.0	:
748 - Miscellaneous business activities n.e.c.	17.8	81.8	37.9	13.5	:

NACE Division 71 = Data for 1994

NACE Group 711 = Data for 1994

NACE Group 712 = Data for 1994

: = not available

Source: Eurostat (SBS database)

## SWEDEN

Table 5.37 Main Indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	46,814.8	105.1	48.7	25.7	23.0	30.7
<b>70 - Real estate activities</b>	15,724.8	106.6	55.2	10.4	44.9	74.5
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	1,876.2	102.8	43.1	14.4	28.7	36.3
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	986.4	101.5	47.4	18.1	29.3	33.8
714 - Renting of personal and household goods n.e.c.	224.4	93.8	35.1	18.0	17.1	18.8
<b>72 - Computer and related activities</b>	6,702.6	97.4	47.7	36.7	11.0	4.7
<b>73 - Research and development</b>	1,334.0	103.2	39.0	34.8	4.3	9.6
<b>74 - Other business activities</b>	21,177.1	106.9	45.4	34.1	11.3	7.3
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	:	:	:	:	:	:
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	200.3	105.9	47.4	40.5	6.9	3.3
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	3,690.5	101.7	25.9	17.7	8.2	3.2
745 - Labour recruitment and provision of personnel	47.7	102.9	58.7	46.3	12.4	4.4
746 - Investigation and security activities	500.6	100.5	73.5	61.8	11.7	7.8
747 - Industrial cleaning	1,094.5	100.5	67.7	55.4	12.4	4.6
748 - Miscellaneous business activities n.e.c.	2,363.2	101.6	39.8	26.8	13.0	6.9

: = not available

Source: Eurostat (SBS database)

## SWEDEN

Table 5.38 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	136,312	417,819	3.1	78.7	28.8
<b>70 - Real estate activities</b>	28,141	72,566	2.6	70.4	22.5
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	4,780	11,828	2.5	72.8	22.8
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	2,705	7,111	2.6	74.6	25.2
714 - Renting of personal and household goods n.e.c.	1,015	2,282	2.2	68.5	17.7
<b>72 - Computer and related activities</b>	15,262	60,985	4.0	83.6	40.3
<b>73 - Research and development</b>	1,552	12,077	7.8	92.2	38.4
<b>74 - Other business activities</b>	86,577	260,363	3.0	79.5	27.7
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	:	:	:	:	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	512	3,177	6.2	90.2	25.5
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	10,086	25,400	2.5	76.3	25.7
745 - Labour recruitment and provision of personnel	190	777	4.1	88.2	28.4
746 - Investigation and security activities	504	13,714	27.2	97.9	22.6
747 - Industrial cleaning	5,158	32,881	6.4	90.2	18.4
748 - Miscellaneous business activities n.e.c.	14,095	34,480	2.4	69.7	18.4

: = not available

Source: Eurostat (SBS database)



## SWEDEN

Table 5.39 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	343.4	112.0	54.6	25.8	149.1
<b>70 - Real estate activities</b>	558.8	216.7	119.7	97.2	374.9
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	392.5	158.6	68.4	45.5	218.1
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	364.7	138.7	65.8	40.6	194.9
714 - Renting of personal and household goods n.e.c.	221.1	98.3	35.4	16.8	133.8
<b>72 - Computer and related activities</b>	439.2	109.9	52.5	12.1	108.8
<b>73 - Research and development</b>	859.5	110.5	43.1	4.7	10.5
<b>74 - Other business activities</b>	244.6	81.3	36.9	9.2	105.8
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	:	:	:	:	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	391.2	63.0	29.9	4.3	105.7
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	365.9	145.3	37.6	11.9	111.7
745 - Labour recruitment and provision of personnel	251.1	61.4	36.0	7.6	111.7
746 - Investigation and security activities	993.3	36.5	26.8	4.3	116.4
747 - Industrial cleaning	212.2	33.3	22.5	4.1	110.3
748 - Miscellaneous business activities n.e.c.	167.7	68.5	27.3	8.9	103.4

: = not available

Source: Eurostat (SBS database)

## UNITED KINGDOM

Table 5.40 Main indicators as a share of turnover, 1997

	Turnover (million ECU)	Production value (%)	Value added at factor cost (%)	Personnel costs (%)	Gross operating surplus (%)	Gross investment in tangible goods (%)
<b>NACE Rev 1 Section K</b>	250,622.6	:	:	:	28.9	13.1
<b>70 - Real estate activities</b>	33,268.6	:	:	:	17.5	50.7
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	17,142.8	:	:	:	18.0	47.3
711 - Renting of automobiles	:	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:	:
713 - Renting of other machinery and equipment	7,168.8	:	:	:	20.9	22.9
714 - Renting of personal and household goods n.e.c.	2,160.9	:	:	:	23.5	15.7
<b>72 - Computer and related activities</b>	33,104.0	:	:	:	33.5	5.2
<b>73 - Research and development</b>	5,994.5	:	:	:	42.2	12.7
<b>74 - Other business activities</b>	161,112.7	:	:	:	31.0	3.4
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	44,616.2	:	:	:	31.6	3.5
7411 - Legal activities	:	:	:	:	:	:
7413 - Market research and public opinion polling	2,562.5	:	:	:	31.5	3.7
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:	:
744 - Advertising	22,443.9	:	:	:	12.5	2.0
745 - Labour recruitment and provision of personnel	16,417.6	:	:	:	60.9	1.8
746 - Investigation and security activities	3,315.0	:	:	:	62.8	3.4
747 - Industrial cleaning	5,083.0	:	:	:	60.7	3.3
748 - Miscellaneous business activities n.e.c.	37,889.4	:	:	:	21.3	4.5

NACE Division 71 = Data for 1996

NACE Group 711 = Data for 1996

NACE Group 712 = Data for 1996

NACE Class 7411 = Data for 1996

NACE Group 942 = Data for 1996

NACE Group 743 = Data for 1996

: = not available

Source: Eurostat (SBS database)

## UNITED KINGDOM

Table 5.41 Enterprise and employment characteristics, 1997

	Number of enterprises (units)	Number of persons employed (units)	Number of persons employed/enterprise (units)	Share of employees in the number of persons employed (%)	Personnel costs per employee (thousand ECU)
<b>NACE Rev 1 Section K</b>	:	:	:	:	23.2
<b>70 - Real estate activities</b>	55,158	:	:	:	21.0
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	10,773	:	:	:	23.0
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	5,874	:	:	:	23.6
714 - Renting of personal and household goods n.e.c	1,881	:	:	:	15.9
<b>72 - Computer and related activities</b>	:	:	:	:	31.5
<b>73 - Research and development</b>	2,516	:	:	:	28.0
<b>74 - Other business activities</b>	238,321	:	:	:	22.1
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	87,154	:	:	:	26.1
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	1,814	:	:	:	22.3
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	11,062	:	:	:	33.5
745 - Labour recruitment and provision of personnel	9,338	:	:	:	19.7
746 - Investigation and security activities	3,118	:	:	:	19.3
747 - Industrial cleaning	7,933	:	:	:	7.8
748 - Miscellaneous business activities n.e.c.	68,321	:	:	:	25.5

NACE Division 71 = Data for 1996

NACE Group 711 = Data for 1996

NACE Group 712 = Data for 1996

NACE Class 7411 = Data for 1996

NACE Group 942 = Data for 1996

NACE Group 743 = Data for 1996

: = not available

Source: Eurostat (SBS database)

## UNITED KINGDOM

Table 5.42 Productivity / competitiveness characteristics, 1997

	Turnover per enterprise (thousand ECU)	Turnover per person employed (thousand ECU)	Value added per person employed (thousand ECU)	Gross operating surplus per person employed (thousand ECU)	Wage adjusted labour productivity (%)
<b>NACE Rev 1 Section K</b>	:	:	:	:	:
<b>70 - Real estate activities</b>	603.2	:	:	:	:
<b>71 - Renting of machinery and equipment without operator and of personal and household goods</b>	1,591.3	:	:	:	:
711 - Renting of automobiles	:	:	:	:	:
712 - Renting of other transport equipment	:	:	:	:	:
713 - Renting of other machinery and equipment	1,220.4	:	:	:	:
714 - Renting of personal and household goods n.e.c	1,148.8	:	:	:	:
<b>72 - Computer and related activities</b>	:	:	:	:	:
<b>73 - Research and development</b>	2,382.6	:	:	:	:
<b>74 - Other business activities</b>	676.0	:	:	:	:
741 - Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	511.9	:	:	:	:
7411 - Legal activities	:	:	:	:	:
7413 - Market research and public opinion polling	1,412.6	:	:	:	:
742 - Architectural and engineering activities and related technical consultancy	:	:	:	:	:
743 - Technical testing and analysis	:	:	:	:	:
744 - Advertising	2,028.9	:	:	:	:
745 - Labour recruitment and provision of personnel	1,758.1	:	:	:	:
746 - Investigation and security activities	1,063.2	:	:	:	:
747 - Industrial cleaning	640.7	:	:	:	:
748 - Miscellaneous business activities n.e.c.	554.6	:	:	:	:

NACE Division 71 = Data for 1996

NACE Group 711 = Data for 1996

NACE Group 712 = Data for 1996

NACE Class 7411 = Data for 1996

NACE Group 942 = Data for 1996

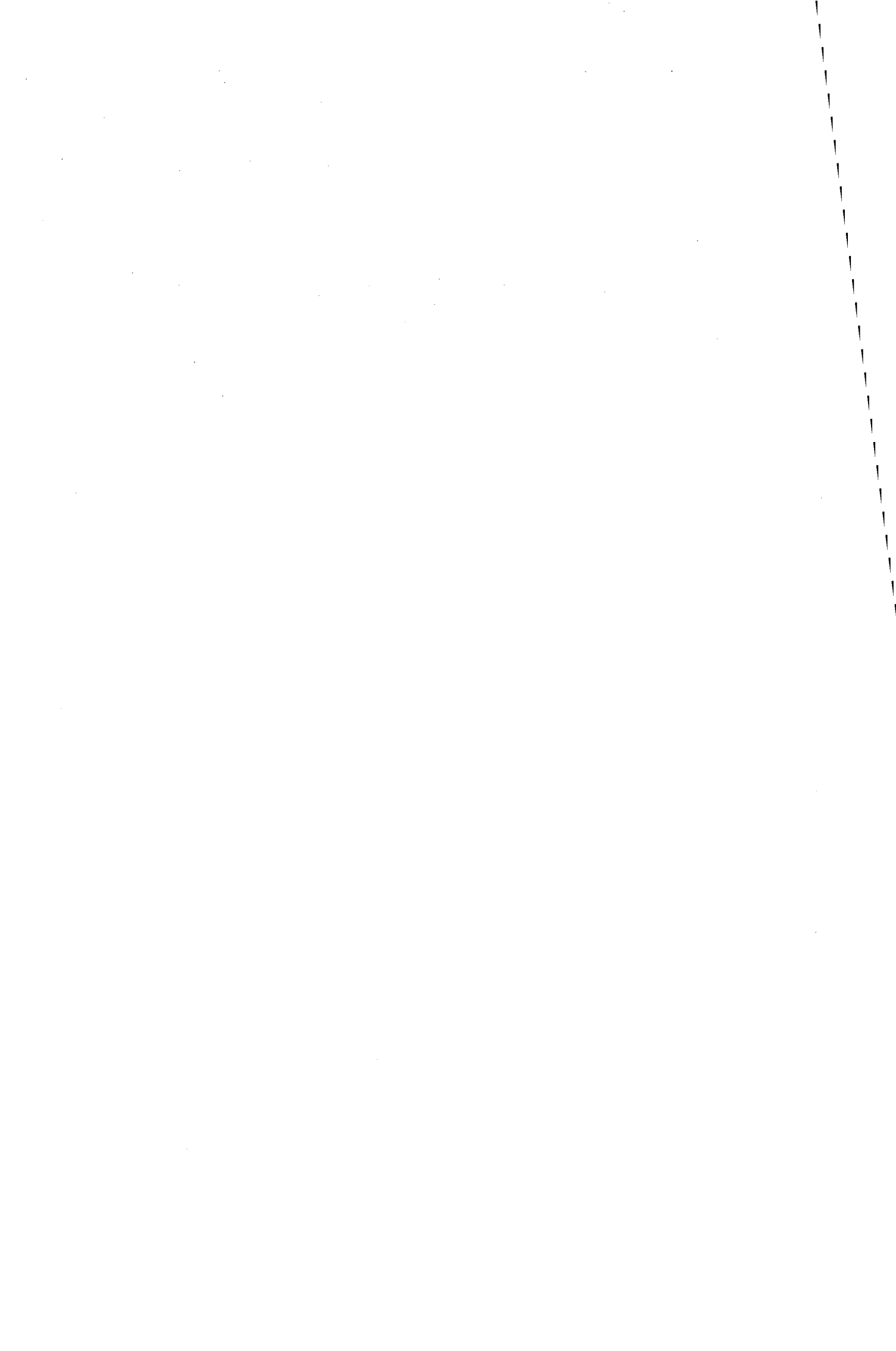
NACE Group 743 = Data for 1996

: = not available

Source: Eurostat (SBS database)

# Data Collection

## Chapter 6



## Voluntary data

Data collection on business services in Member States did not begin with the passing of the SBSR. For many member states data has been collected for a number of years. While data on production had always been the mainstay of data collection in NSIs increasing interest in data for services, beginning with distribution, emerged in the early 1980s.

Agreement on the SBSR meant the adoption of a framework which could be implemented in all Member States, and on which agreement could be reached. For those countries that already had a comprehensive data collection system this meant that there was a range of information collected by them which was not required by the Regulation. Some of this information has already been used in earlier parts of this publication.

Because of the increasing political focus on business services the Directors of business statistics in the NSIs decided that, in any development of the SBSR, business services should be one of the priority areas. Annexes requiring additional information to be collected from production, financial services and distribution are already included in the Regulation.

Pilot surveys were carried out a few years earlier into computer services, industrial cleaning, labour recruitment and engineering services, and the results of these surveys indicated that an extension of data collection under the Regulation was feasible.

As part of the plan to extend the collection of data on business services under the Regulation, Eurostat set up a project to look at what common variables were already being collected from differing sources, within Member States. First, participating countries were asked to provide a full overview of all the additional information that was already available within the National Statistical Offices and they were then asked to transmit those variables which had been identified as being available in more than one country. For most of these variables limited employment breakdowns were requested. For a number of other variables, other breakdowns were also specified. These included a breakdown of employment by things such as age, gender and education, and foreign direct investment data by country of supply, by destination, or origin. Member states were asked to indicate which of the listed variables they were able to provide data together with an indication of the coverage and reliability; the periods for which data was available, exhaustive definitions and the breakdowns available.

Reports on the availability of data were received from seven Member States. Not all of these provided examples of the additional data that they held, but each provided broad descriptions of the data and some of the sources.

## Germany

The report from Germany contained little data, but recognised that while business services formed one of the most dynamic areas of economic development, the statistical base for business services in Germany was still very weak. There were no primary surveys conducted in this sector, and none were possible in the short term, although some data was available from a micro census, from value added data and from other data collected for the National Accounts. These sources, although not perfect, allowed a rough overview of the sector. Data from VAT statistics is available for even numbered years up until 1996, from when data is available on an annual basis. The VAT data is adjusted in some cases to allow for enterprises below the VAT threshold, or not otherwise registered for VAT.

Sample surveys carried out at four yearly intervals allow for the creation of cost structure statistics from which intermediate consumption can be estimated for many activities but, for example, for holding companies annual reports have been used. Data for intervening years rely on interpolation or other suitable procedures.

Gross value added estimates are produced as the difference between output and intermediate consumption, but some adjustments have to be made to take account of things such as goods bought for resale and taxes on products.

Employment data is generated by summing the number of employees, mostly obtained from social security data, and from self-employed data produced from annual micro-censuses. Data from macro-censuses also enable the construction of estimates of employment by gender, and employees by both gender and whether full or part-time.

Gross fixed capital formation data, is estimated from commodity flow calculations of gross fixed capital formation in machinery and equipment and in construction.

Legal forms are taken from information available for value added statistics, and some of the information presented by Germany has been used in Chapter 3 of this publication.

Information on the number of persons employed in business services, by gender is shown in table 6.1.

Table 6.1 Employment by gender, Germany

Year	NACE 70 of which			NACE 71 of which			NACE 72 of which			NACE 73 of which			NACE 74 of which		
	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male
1995	202	105	97	34	22	12	194	141	52	186	126	60	1,536	715	823
1996	202	107	95	51	32	19	186	137	50	213	136	78	1,630	757	873
1997	243	129	113	53	33	20	232	173	60	205	137	68	1,739	816	926
1998	262	141	122	49	27	22	268	202	65	118	74	44	1,883	901	981

Source: Mikrozensus, Federal Statistical Office, Germany

## France

Probably the most comprehensive range of data within the countries of the EU is available for France. The main sources are the annual surveys of enterprises, Statements of social Data (DADS), Balance of Payments data and the national Register of Companies and their Establishments (SIRENE directory). While there are some limitations on the coverage of data in the annual surveys, for example, the exclusion of 72.60 (other computer related activities), the range of data available for those activities which are covered tends to be extensive, although the range of data collected may be tailored to the activity in question. Analyses of data are available for such things as exports by enterprise size and destination, for turnover by product and for turnover by customer (other enterprises, public sector, private individuals). Some details are provided in the report on the coverage of the survey. For example, the survey is exhaustive in most activities for enterprises with 30 or more employees (not employment as with surveys conducted by many other countries), and for those with a turnover higher than 30 million francs. Smaller businesses are covered by a sample survey only one year in two.

For some activities the thresholds are varied to take account of the different size of the businesses operating in the activity or different circumstances.

The concept of having dual thresholds for industrial surveys is important. There are activities where the relationship between turnover and employment might not be very strong. Estimating turnover from samples stratified only by employment can result in large sampling errors, particularly, if sample sizes are small.

The DADS are an administrative source that covers all businesses with employees. Data on the distribution of paid employment by gender comes from this source. The total number of employees generated from this source differs from that generated from the annual survey.

Balance of Payments data is obtained from data collected by the Banque de France. Information is available on direct investment flows and is available for both inward and outward investment.

## Italy

The sources of the voluntary data provided in the report for Italy are the Business Register (ASIA), the Labour Force Survey, a survey for 1997 on technological innovation in services, an R&D survey for 1997, and a survey in respect of 1996 for small and medium size enterprises.

The ASIA statistical units consist of economically active enterprises and institutions together with information on their local units. It also identifies groups of enterprises under common ownership or control and economic activity units.

The ASIA obtains its information from many different sources. At the highest level these consist of the Tax Register, the Register of Enterprises and local units managed by the Chambers of Commerce, Industry, Craft and Agriculture, Social Security Registers, The Works Accidents Insurance Register and the Register of users of the Electric power Board. There are also sources of information at a lower level including data on freight businesses from the Ministry of Transport and information obtained during the course of business surveys that use ASIA as a sampling frame. ASIA only covers businesses that are economically active.

The survey on technological innovation in services was a pilot survey carried out in 1997 in respect of 1995. The survey covered the service sector and was stratified into 18 economic sectors, 5 employee classes and 4 geographical areas. In the survey enterprises were asked if, from 1993 to 1995, and according to specific definitions, new or improved services or processes had been introduced. Some key variables related to this were the costs associated with R&D, design, acquisition of know-how, software, training and marketing, as well as expenditure on innovative investments.



The 1997 R&D survey provided information on expenditure and human resources devoted to R&D. The survey was divided into two parts, one directed at business enterprises and the other at public sector institutions carrying out R&D, regardless of the number of employees. Key variables covered by the survey were intra-mural R&D, extra-mural R&D and the number of employees engaged in R&D expressed in full time equivalents.

The 1996 inquiry into small and medium size enterprises covered only businesses with an employment of less than 20 and covered all economic activities. The main variables included in the inquiry were turnover, costs, investments, employment and personnel costs, although other variables were included. Table 6.2 shows some results of the survey for business services.

**Table 6.2 Economic and employment data - Enterprises with less than 20 employed, Italy, 1996**

Code	NACE	Number of enterprises	Turnover	Value added (FC)	Gross operative surplus	Personnel costs	Wages and salaries
		(Units)	(MIO lira)	(MIO lira)	(MIO lira)	(MIO lira)	(MIO lira)
701	Real estate activities with own property	30,241	11,522,643	3,252,327	2,749,760	341,922	228,517
702	Letting of own property	49,106	11,688,314	8,359,721	7,466,191	674,413	447,755
703	Real estate activities on a fee or contract basis	25,492	3,568,195	1,681,388	1,189,386	423,166	282,967
711	Renting of automobiles	963	198,864	93,305	71,526	15,509	10,502
712	Renting of other transport equipment	1,379	485,557	81,934	56,492	22,447	15,064
713	Renting of other machinery and equipment	2,108	563,933	210,576	137,489	59,861	40,411
714	Renting of personal and household goods n.e.c.	1,000	281,908	113,941	65,235	38,368	25,751
721	Hardware consultancy	1,000	281,908	113,941	65,235	38,368	25,751
722	Software consultancy and supply	16,016	6,206,825	2,221,542	1,026,242	899,458	619,023
723	Data processing	20,359	4,979,771	3,082,153	1,355,561	1,425,236	971,972
724	Data base activities	290	65,667	23,808	10,864	10,896	7,509
725	Maintenance and repair of office, accounting and computing machinery	4,059	1,237,066	348,170	158,448	153,121	108,200
726	Other computer related activities	4,466	1,698,689	296,292	167,079	105,286	72,265
731	Research and experimental development on natural sciences and engineering	4,481	562,712	328,814	245,921	70,093	47,801
732	Research and experimental development on natural sciences and humanities	1,644	231,129	114,183	90,860	14,492	9,751
741	Legal accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings	193,279	35,504,057	24,801,589	19,233,045	5,257,986	3,528,282
742	Architectural and engineering activities and related technical consultancy	181,118	17,469,445	10,565,014	8,752,616	1,694,203	1,134,306
743	Technical testing and analysis	2,283	529,674	293,636	162,176	104,845	69,660
744	Advertising	10,735	4,563,583	1,361,757	795,210	417,555	278,554
745	Labour recruitment and provision of personnel	1,038	462,590	116,791	59,072	42,693	28,307
746	Investigation and security activities	1,365	462,193	240,584	48,989	154,569	103,811
747	Industrial cleaning	23,208	2,582,511	1,794,694	809,481	923,528	627,709
748	Miscellaneous business activities n.e.c.	83,205	22,781,103	6,349,898	4,273,164	1,668,155	896,945

Source: PMI 1996 Survey, ISTAT, Italy

## Portugal

Portugal provided many detailed tables together with information on the sources of the data. These were their General Files on Statistical units, data from the Harmonised Business Survey and data from enterprise income tax returns. The activity classification for the last of these may not be the same as for the other sources since it is based on the activity on the National Business Register at the time the company was founded. Data was provided on the distribution of the Universe and of the units sampled for the 1996 business survey. This survey was stratified by geographic location, economic activity, by the number of employees, legal status and business volume.

The employment strata also included a stratum with zero employees in order to enable the efficient estimation of data for enterprises where the only employment consisted of those owning the business, and their family.

Examples of the data provided are shown in tables 6.3 and 6.4. Table 6.3 shows how the collected data from the 1997 business survey can be used to provide details for Division 72, both by more detailed activity and by region. The data included in this table covers a breakdown of purchases and services not required by the Regulation.

**Table 6.3 Main variables by economic activity, 1997**

Class of economic activity	Enterprises (Number)	Persons employed (Number)	Personnel costs (Thousand PTE)	Wages and salaries (Thousand PTE)	Other purchases and external charges (Thousand PTE)	Cost of Raw materials consumables, and goods for resale (Thousand PTE)	Sales (Thousand PTE)	Services rendered (Thousand PTE)
72.1 Hardware consultancy services	167	571	970,133	757,158	1,577,830	1,182,296	1,368,836	2,668,419
72.2 Software consultancy and supply services	757	4,883	18,948,939	14,985,745	28,789,153	19,775,453	25,855,745	47,712,952
72.3 Data processing services	698	4,500	17,904,634	13,729,088	23,588,683	20,303,481	25,835,615	43,838,733
72.4 Database services	29	149	377,383	279,139	729,390	1,193,116	1,750,361	954,501
72.5 Maintenance and repair of office, accounting and computing machinery	318	1,147	2,324,301	1,567,884	4,608,305	2,485,622	2,732,880	7,696,617
72.6 Other computer-related services	184	574	1,633,935	1,294,039	4,073,451	1,208,551	1,572,468	4,738,805

Source: INE/DEE, Portugal

Table 6.4 provides a breakdown of the number of enterprises, persons employed and turnover, for Division 74, by legal form.

**Table 6.4 Number of enterprises, persons employed and turnover by legal form, Portugal, 1997**

Class of economic activity and legal form	Enterprises (Number)	Persons employed (Number)	Turnover (Thousand PTE)
<b>7411</b>	230	1,277	20,530,741
Limited liabilities	221	1,264	20,515,402
Sole proprietorship	9	14	15,339
<b>7412</b>	5,000	25,562	171,050,726
Public sector enterprise	:	:	:
Limited liabilities	4,419	24,140	167,562,583
Sole proprietorship	:	:	:
<b>7413</b>	353	1,087	10,308,860
Limited liabilities	128	862	9,727,106
Sole proprietorship	225	225	581,753
<b>7414</b>	2,738	12,275	144,520,613
Public sector enterprise	11	189	2,339,113
Limited liabilities	2,345	11,680	141,331,357
Sole proprietorship	382	406	850,143
<b>7415</b>	636	3,259	105,367,292
Public sector enterprise	:	:	:
Limited liabilities	616	2,890	92,979,530
Sole proprietorship	:	:	:
<b>7420</b>	3,540	21,303	301,224,704
Public sector enterprise	16	1,072	13,469,957
Limited liabilities	3,422	20,086	287,308,859
Sole proprietorship	102,144	445,888	
<b>7430</b>	151	1,351	12,065,362
Limited liabilities	140.0	1,339	12,031,568
Sole proprietorship	12	12	33,795
<b>7440</b>	2,688	16,032	382,298,838
Public sector enterprise	:	:	:
Limited liabilities	1,536	14,630	361,428,863
Sole proprietorship	:	:	:
<b>7450</b>	202	21,008	56,381,541
Limited liabilities	179	20,567	55,279,058
Sole proprietorship	23	441	1,102,483
<b>7460</b>	520	16,171	46,117,368
Limited liabilities	76	15,726	45,514,055
Sole proprietorship	444	445	603,313
<b>7470</b>	1,445	41,409	117,422,649
Limited liabilities	470	39,692	107,376,740
Sole proprietorship	975	1,717	10,045,909
<b>7481</b>	2,040	4,904	28,652,618
Limited liabilities	464.0	2,456.0	18,832,813.0
Sole proprietorship	1,576	2,448	9,819,805
<b>7482</b>	52.0	128.0	1,652,396.0
Limited liabilities	10	86	1,600,121
Sole proprietorship	42	42	52,275
<b>7483</b>	580	1,097	4,775,618
Limited liabilities	167	626	3,652,730
Sole proprietorship	413	471	1,122,888
<b>7484</b>	15,348	32,612	199,453,067
Public sector enterprise	:	:	:
Limited liabilities	1,608	15,807	150,304,679
Sole proprietorship	:	:	:

Source: INE/DEE, Portugal

## Finland

The report for Finland was divided into two sections, one covering employment variables, and the second, other variables. The employment data was obtained from a number of different sources; the Labour Force Survey, National Accounts, Regional Employment Statistics and the Business Register. Some of these sources provide information for the same variable e.g. the number of persons employed is covered by all four sources, but only the Business Register provides estimates of the number of persons employed in terms of full-time equivalents. As might be expected, data on the same variable from the differing sources is not identical.

Regional employment statistics include the number of persons employed by age, gender and education, the number of employees and the number of self-employed persons. The latter can be further subdivided into those employing other workers and those who do not. The statistics are compiled by combining together data from around 30 Registers. Information about age, for example, is gathered from the central population register. The quality of regional employment statistics is considered to be very high.

No data is available from regional employment statistics on a breakdown between the private and public sector, but data from other employment sources can be used to provide estimates that enable the regional employment statistics to be apportioned in this way.

The Business Register maintains data files on enterprises and establishments and is the only source of data that enables data by size class to be obtained. Employment data is collected from all new enterprises subject to value added tax, from all multi-establishment enterprises and all single-establishment enterprises with more than 20 employees. Data for most of the enterprises with fewer than 20 employees is estimated from wages and salaries and from turnover. The Business Register covers enterprises that are subject to value added tax and which have been trading for more than six months. These include all enterprises employing more than half a person or with a turnover in excess of FIM 50,000. Such businesses cover 99 per cent of the non-agricultural enterprise sector. Employment data is expressed in terms of full time equivalents.

The employment estimates used in the National Accounts are drawn from the Labour Force Survey, but are supplemented, using a large variety of methods and data sources, to take account of such things as the black economy, or to make adjustments to assign employment to the correct activities.

Table 6.5 shows some of the variation between the various sources for 1997.

Other data is available from the National Accounts, the Business Register and from Science and Technology Statistics but data is also obtained from other sources.

**Table 6.5 Persons employed, Finland, 1997**

SIC - 95	Labour Force Survey (Units)	National Accounts (Units)	Regional Employment Services (Units)	Range	Average	Range/ Average %
K	146,200	142,500	146,303	3,803	145,001	2.6
70	25,824	26,700	22,289	4,411	24,938	17.7
71	2,608	3,100	2,464	636	2,724	23.3
72	15,199	20,800	18,142	5,601	18,047	31.0
73	12,029	1,300	4,492	10,729	5,940	180.6
741	17,648	19,500	23,572	5,924	20,240	29.3
742 + 743	34,359	23,700	25,525	10,659	27,861	38.3
744	6,483	7,600	5,596	2,004	6,560	30.6
747	18,955	21,900	19,953	2,945	20,269	14.5
745 + 746 + 748	13,182	17,900	21,124	7,942	17,402	45.6

Source: Statistics Finland

The National Accounts derives its data from very many sources, including structural business statistics, Insurance company statistics and even the Business Register itself. As well as data on employment it provides, at a macro level, information on output, intermediate consumption, value added, consumption of fixed capital and wages and salaries.

The Business Register derives its data from two main sources; the files of the National Board of Taxation, and inquiries made by the Business Register itself. The former provides data on such things as enterprise births and deaths, classification, turnover, and wages and salaries, but the Register supplements these by collecting information, much of it covering the same variables, in its own inquiries.

As with employment estimates, different estimates can be obtained for wages and salaries from the National Account and the Business Register and these are shown for 1997 in table 6.6.

Data on R&D is collected by the Science and Technology Statistics unit every two years. They conform to the requirements of the OECD and the EU and cover R&D data from the public sector, universities and central university hospital. Enterprises covered by these statistics were those which had reported R&D expenditure in the 1996 innovation survey, or for which other sources indicated that they were carrying out R&D.

**Table 6.6 Wages and salaries, Finland, 1997**

SIC - 95	Business Register (Units)	National Accounts (Units)	Range	Average	Range/ Average %
K	17,185,432	17,975,000	789,568	17,580,216	4.5
70	2,309,777	3,125,000	815,223	2,717,389	30.0
71	262,672	274,000	11,328	268,336	4.2
72	3,033,095	3,196,000	162,905	3,114,548	5.2
73	335,340	236,000	99,340	285,670	34.8
741	3,645,103	19,500	114,103	3,588,052	3.2
744	832,757	7,600	9,243	837,379	1.1
747	1,425,585	21,900	14,415	1,431,793	0.9

Source: Statistics Finland

## Sweden

Much of the data for Sweden is available through the collection of structural business statistics in an annual inquiry. Questionnaires are sent to all enterprises offering business services with 50 or more employees, while administrative records from tax authorities are used for the remaining businesses.

Employment data resides on a number of Registers, the most important of which is the Employment Register. This Register contains data on the whole population living in Sweden and focuses on labour market aspects.

A detailed survey was carried out in 1997 in respect of 1996 on data consultancy and data service companies. This covered all enterprises with an employment of 10 or more in Division 72. The survey collected information on a number of variables including a breakdown of operating income and costs, type of customer and investments. Some information derived from the survey appears in Chapter 3 of this publication.

Data on exports and imports of services and on direct investment is obtainable from information collected for the Balance of Payments. Data on foreign direct investment in Sweden covering the years 1995 to 1999 is shown in tables 6.7.

Table 6.7 Foreign direct investment in Sweden, geographical allocation of total, net <sup>1,2,3</sup>

Flows, SEK Million	1995	1996	1997	1998	1999
EU	7,159	18,773	42,995	115,144	406,427
USA	60,870	2,489	16,676	5,294	51,373
Others	17,051	8,700	8,634	8,097	-10,756
Not allocated	845	274	4,511	7,062	2,148
Reinvested earnings	17,139	3,810	10,920	19,798	35,919
<b>Total</b>	<b>103,064</b>	<b>34,046</b>	<b>83,736</b>	<b>155,395</b>	<b>485,111</b>
<i>of which:</i>					
Financing, insurance, real estate and business services	1,227	2,489	9,184	67,997	17,663
<i>of which:</i>					
Financial institutions	-461	329	3,065	68,510	2,468
Insurance	16	128	13	1,060	1,760
Real estate, business services	1,672	2,032	6,106	-1,573	13,435

<sup>1</sup> Here a positive figure denotes an inflow (foreign investment in Sweden exceeds disinvestment), while a minus sign represents net disinvestment (disinvestment exceeds investment).

<sup>2</sup> Figures for a particular country may have been omitted for reasons of secrecy.

<sup>3</sup> As of October 1997 the concept of direct investment includes short-term loan transactions between direct investment companies; for earlier periods these transactions are included in "Other investment"

Source: Balance of payments statistics, Swedish Central Bank

## United Kingdom

The UK holds a wide range of data about enterprises on its Business Register. These are obtained from a wide variety of sources, including employment inquiries, structural inquiries and value added tax (VAT) data. It covers all enterprises registered for VAT and enterprises which, although not registered for VAT, have employees required to pay tax, or National Insurance contributions. The Register includes turnover and employment information as well as information on region, legal form, country of ownership. The statistical units are the enterprise group, the enterprise, the local unit and the reporting unit.

The annual structural inquiries collect data to meet the requirements of the SBSR and, in addition, other information required to meet the needs of the National Accountants. This includes a breakdown of purchases and sometimes of turnover. Investment is broken down into a number of categories, and details of both acquisitions and disposals are sought. The information is collected in a sample survey in which all of the larger businesses are required to provide information together with a sample of smaller businesses. For computer services a detailed breakdown of turnover is collected annually. Employment costs are also collected in the inquiries.

The main source of employment data is the Annual Employment Survey. This is a sample survey and is smaller businesses are covered by a sample survey only one year in two. Data is also available from the Labour Force Survey.

## Denmark

There are a number of problems for Denmark at the present time one of which is the disclosure which makes it difficult to provide data at the disaggregated levels of NACE Rev.1 especially where employment size breakdowns are required at the same time. Not all the existing statistical registers cover the full range of NACE classes in Business services, for example data on new enterprises are only available on enterprises subject to value added tax. Some of the existing sources of data such as those used for the production of the National Accounts currently use different aggregations of activities.

Even so data is available for a wide range of the data sought in the voluntary data project. The employment data which is based on several administrative and statistical sources but while the total number of persons employed is available as a head count, the number of employees is available only as full time equivalents and are therefore not directly comparable.

Data on enterprises is also available but this excludes 70.20 (letting services of own property), 70.32 (management services of real estate), Division 72 (research and development), 74.15 (management holdings services) and the employment service part of 74.50. Amongst the more usual data collected from enterprises is data on exports.

Some sector specific product data is also available. Originally this was collected using the CPA but changes have been made in consultation with business organisations to reflect current needs. The areas where specific product data is collected are Computer services, Engineering services and Recruitment of personnel. This data is collected in a stratified sample with estimates being made for the unsampled businesses.

### Future developments

The economy does not remain static. Changes occur all the time in the importance of one sector as opposed to another, and the same is true of individual activities within these. An information system based upon the requirements of the nineteenth century would have been heavily loaded in favour of agriculture. As we move through the twenty-first century the needs might well be for far more information about computer services.

To meet the needs of users, classification systems need to adapt to take account of newly emerging economic activities, but users also require continuity in their statistics if they are to make the best use of them. Conversely this means as little change to classification systems as possible.

Both of the main central classifications, NACE and CPA, are being revised for 2002 by the Eurostat NACE/CPA working group, who are working in close collaboration with the UN Expert Group on Classifications. This latter group are also revising the related international classifications, ISIC and CPC. As there is a need to maintain continuity with existing data, any revisions will therefore be very limited. However, a major revision is planned for 2007, where large scale changes are foreseen in the service sector, to take into account new and emerging activities. At the same time Eurostat, USA and Canada are working towards convergence between NACE/ISIC and the North American activity classification NAICS.

It is necessary to review the data collected under the SBSR at intervals to see what improvements could be made in the collection of data or indeed in the industrial classification itself.

It has already been observed earlier in this publication that it is difficult to make comparisons of all the data collected in different member states without a more detailed knowledge of the activities within individual member states. For example, the degree to which work is subcontracted can be important when comparing levels of turnover since subcontracting often leads to double (or more) counting of the same turnover in a single activity. Also each activity is also associated with a large number of different products as can be seen from an examination of the CPA. The mix of these products within an activity is also important and it would make the data more useful if the value of turnover on the major "products" of an activity could be measured. An example might be the separate collection of turnover from conveyancing and litigation activity from those supplying legal services. These could be collected without changes to NACE Rev.1.

The advantages of the collection of product data would be a better understanding of the structure of activities between member states, and over time would indicate where changes in activity structure were taking place. The availability of product data would also enhance the quality of classification, but a further major use of product data would be in providing necessary weighting data for the calculation of service sector prices indices. This is particularly important for business services.

Investment data is also key in looking at the structure of activities but gross investment only tells part of the picture. For many enterprises capital investment consists of the purchase of items which are used up over the course of a number of years and having little value at the end of that period. For a number of activities there is a regular disposal of capital items for considerable amounts of money, and the revenue from these is often used to supply a great deal of the income for investment in new items. Renting of motor vehicles is perhaps the one that stands out the most, but it is not only here that the information on capital disposals is essential to building up an accurate picture of what is happening. Many, although not all, countries already collect information on disposals in their quest for an accurate picture of gross domestic fixed capital formation, which is only gross in the sense that no allowance is made for depreciation. In all other respects it relates to net capital expenditure i.e. capital acquisitions less disposals of capital assets.

Data collected under the Regulation is not always consistent between countries, nor indeed, between enterprises in the same country. Many items of what might be regarded as capital expenditure may well be treated as current expenditure because they are relatively inexpensive, or because it is

more convenient to treat them in this way. The extent to which this is done might depend on the different tax regimes in different countries, but when enterprises have entered expenditure in one part of their accounts it is extremely difficult to persuade them to provide anything other than these figures to the NSIs. However complete the guidance given to an enterprise, it would be difficult to compel them to provide information which does not conform with their accounts.

It is also difficult to ensure that the value of turnover is collected on a consistent basis. In advertising in particular, the amounts recorded as turnover may or may not include amounts that are being passed, by the advertising company, directly from its client to the business in which the advertising is being placed. Even where gross margin data are specifically asked for, there is no guarantee that this is what will be supplied. In order to know exactly what is being collected, and to ensure that the figures are consistent between enterprises and countries, it is necessary to collect a breakdown of income that includes commission as a variable.

From time to time changes to NACE will be proposed, and these are particularly difficult to make. With increasing globalisation it is increasingly necessary for changes in classification to be made at a world level to ensure that major changes are reflected in all classification systems. Even when changes are agreed, the implementation of those changes requires careful planning. However, any improvements achieved should not result in any greater burden on enterprises supplying data since changes in their industrial classification, with minor exceptions, should not change the amount of information they are required to supply. Because of the difficulties resulting from revisions to classification, those looking at such potential changes need to consider the longer term. There is no point in making changes that will need to be reversed, or which will become outdated in just a few years.

However, there is scope within NACE Rev.1 as it now exists to make improvement in data collection. In its present form, the Regulation does not require that data be supplied for all individual activities, even at the three digit level. For example data for computer-related activities are requested at only the two-digit level. The supply of data at a more detailed level might be possible for many Member States with little additional effort. Registers of Businesses might need to be improved to enable the classification of businesses to this level; and some changes to sample sizes, where the data is collected in a sample survey, might be required to achieve the desired accuracy.

The structure of an activity is important. There is a need to know about the size distribution of enterprises within an activity not only to enable comparisons to be made between industries in different Member States, but in order to compare the performance of small and medium size enterprises against their larger competitors. Information of this kind is extremely important for policy making and should be achievable by making use of improved statistical techniques in conjunction with register data rather than by imposing a larger burden on contributors.

Although this publication is concerned with enterprises classified to business services it has already been stated that many of the services that they offer are purchased by households. Data by type of customer would be of great assistance in measuring the full extent of this, and indeed might point to some activities where business customers are in the minority. Policy makers need such information to prepare policy instruments that enable EU enterprises to be competitive and efficient.

As the single market matures, one would expect structures within countries to start to converge to the EU average, for example, we might expect small enterprises to die and to be replaced by larger more efficient enterprises, or, at least to a "normal" size of enterprise ("normal" in the economic sense of the word where changes are induced to put the system into equilibrium). For example, businesses will enter a market where above "normal" profits are being earned and will continue until a "normal" level of profits obtains, at which time there is no motivation to enter the market. On this basis we would expect foreign ownership and investment to occur in these circumstances, e.g. the recent take-over, in the UK, of the ASDA supermarket chain by Walmart, a USA based corporation. We could also expect legal forms to change, especially where markets are vulnerable to "globalisation", e.g., in Italy and Portugal where small businesses, and particularly family businesses, predominate.

It must always be remembered that however desirable, from the point of view of users of data, the collection of additional data is, it will inevitably be resisted by those who would incur costs in supplying the data unless a convincing case could be made for their delivery or unless they, themselves can see the benefit. Even so, improvements in the way data is held by individual enterprises, and in the development of data collection methodology should mean that progress on these issues should be achieved in the longer term with a minimum effect on the burden of form filling.



# **Data Collection – Methodology**

## **Chapter 6.1**



## Methodology

This publication contains data extracted from a number of different sources and uses terms that may not be widely understood. Some background on the different sources of the data, and the reasons for collecting it is described, together with a description of some of the terms used. All of the data used in this publication and updated information are available from the Statistical Office of the European Communities (Eurostat).

## The Structural Business Statistics Regulation

From the early days of the European Community there was a need for economic data from Member States in order to formulate economic policy and to establish the pattern of growth in different activities within Member States, and therefore the Community as a whole. Initially, thoughts were concentrated on production and construction statistics, and these led to the collection of harmonised structural business statistics data from Member States under Council Directive 64/475/EEC of 30 July 1964, covering capital expenditure, and Council Directive 72/221/EEC of 6 June 1972, concerning annual surveys of industrial activity. With the enlargement of the European Community and the need to collect a more comprehensive range of statistics, covering services as well as production, there was need for Member States to agree a new legal framework based on a shared standard industrial classification.

Work began on updating the legal framework in the late 1980s but progress was slow even though it was, initially, restricted to the production and construction sectors. Later, similar work began on proposals to collect data from the service sector, and eventually it was decided to bring the work together under a single Regulation. Reaching agreement on what was to be collected was not easy. Many Member States already had well developed data collection systems and naturally regarded the information that they already collected as an essential ingredient of any proposed Regulation. Not all countries collected the same data, and the collection of statistics additional to what they already collected was regarded by many Member States as imposing an unacceptable burden; both to governments, which had to pay for the collection and processing of statistics, and to businesses which had to supply them.

The Regulation eventually became law in 1997, but it was recognised that, because of the need for Member States to revise their data collection systems, and possibly to amend domestic legislation, it would take some time before it could be fully implemented. Member States were, therefore, allowed to delay the collection of data for specific variables or activities until they had had time to put in place the mechanism for obtaining and processing the required information. This has meant that while the data in this publication is not complete, the availability of information will increase year by year. This increased availability, together with the eventual ability to look at a time series of data, will make it increasingly useful.

Because of differences between the various parts of the economy the information required to understand how the different sectors function is not the same. The Regulation comprises a common part, defining what is to be collected for all business activities, and separate annexes covering the additional collection of data for production, financial services and distribution. There are no separate requirements, as yet, covering other services, although it is the intention to introduce these as soon as it is feasible.

The data required for business services under the regulation on an annual basis is:

### Number of enterprises

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

### Turnover

Turnover comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods and services supplied to third parties.

Turnover includes all duties and taxes on the goods and services invoiced by the unit with the exception of the Value Added Tax (VAT) invoiced by the unit vis-à-vis its customer and other similar deductible taxes directly linked to turnover.

It also includes all other charges (e.g. transport, packaging etc.) passed on to the customer, even if these charges are listed separately in the invoice. Reduction in prices, rebates and discounts as well as the value of returned packing must be deducted.

Income classified as other operating income, financial income and extra-ordinary income in company accounts is excluded from turnover. Operating subsidies received from public authorities or the Institutions of the European Union are also excluded.

Indirect taxes can be separated into three groups:

- The first comprises VAT and other deductible taxes directly linked to turnover which are excluded from turnover. These taxes are collected in stages by the enterprise and fully borne by the final purchaser;
- The second group concerns all other taxes and duties linked to products which are either:
  1. Linked to turnover and not deductible or
  2. Taxes on products not linked to turnover. Included here are taxes and duties on imports and taxes on the production, export, sale, transfer, leasing or delivery of goods and services or as a result of their use for own consumption or own capital formation.
- The third group concerns taxes and duties linked to production. These are compulsory, unrequited payments, in cash or in kind which are levied by general government, or by the Institutions of the European Union, in respect of the production and importation of goods and services, the employment of labour, the ownership or use of land, buildings or other assets used in production irrespective of the quantity or the value of goods and services produced or sold.

### Production value

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

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

### Value added at basic prices

Value added at basic prices is calculated from the production value plus subsidies on products less the purchases of goods and services (other than those purchased for resale in the same condition) plus or minus the change in stocks of raw materials and consumables less other taxes on products which are linked to turnover but not deductible. It represents the value added by the various factor inputs in the operating activities of the units concerned.

Income and expenditure classified as financial or extra-ordinary in company accounts is excluded.

Value added at basic prices is calculated 'gross' because value adjustments (such as depreciation) are not subtracted.

### Value added at factor cost

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

It can be calculated from turnover, plus capitalised production, plus other operating income, plus or minus the changes in stocks, minus the purchases of goods and services, minus other taxes on products which are linked to turnover but not deductible, minus the duties and taxes linked to production. Alternatively it can be calculated from gross operating surplus by adding personnel costs.

Income and expenditure classified as financial or extra-ordinary in company accounts is excluded.

Value added at basic prices is calculated 'gross' because value adjustments (such as depreciation) are not subtracted.

### Personnel costs

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

Personnel costs are made up of:

- wages and salaries;
- employers' social security costs.

All remuneration paid during the reference period is included, regardless of whether it is paid on the basis of working time, output or piecework, and whether it is paid regularly or not. Included are all gratuities, workplace and performance bonuses, ex gratia payments, thirteenth month pay (and similar fixed bonuses), payments made to employees in consideration of dismissal, lodging, transport, cost of living and family allowances, commissions, attendance fees, overtime, night work etc. as well as taxes social security contributions and other amounts owed by the employees and retained at source by the employers.

Also included are the social security costs for the employer. These include employers' social security contributions to schemes for retirement pensions, sickness, maternity disability, unemployment, occupational accidents and diseases, family allowances as well as other schemes. These costs are included regardless of whether they are statutory, collectively agreed, contractual or voluntary in nature.

Payments for agency workers are not included in personnel costs.

### **Total purchases of goods and services**

Purchases of goods and services include the value of all goods and services purchased during the accounting period for resale or consumption in the production process, excluding capital goods the consumption of which is registered as consumption of fixed capital. The goods and services concerned may be either resold with or without further transformation, completely used up in the production process or, finally, be stocked.

Included in these purchases are the materials that enter directly into the goods produced (raw materials, intermediary products, components), plus non-capitalised small tools and equipment. Also included are the value of ancillary materials (lubricants, water, packaging, maintenance and repair materials, office materials) as well as energy products. Included in this variable are the purchases of materials made for the production of capital goods by the unit.

Services paid for during the period are also included regardless of whether they are industrial or non-industrial. In this figure are payments for all work carried out by third parties on behalf of the unit including current repairs and maintenance, installation work and technical studies. Amounts paid for the installation of capital goods and the value of capitalised goods are excluded.

Also included are payments made for non-industrial services such as legal and accountancy fees, patents and licence fees (where they are not capitalised), insurance premiums, costs of meetings of shareholders and governing bodies, contributions to business and professional associations, postal, telephone, electronic communication, telegraph and fax charges, transport services for goods and personnel, advertising costs, commissions (where they are not included in wages and salaries), rents, bank charges (excluding interest payments) and all other business services provided by third parties. Included are services which are transformed and capitalised by the unit as capitalised production.

Expenditure classified as financial expenditure or extra-ordinary expenditure in company accounts is excluded from the total purchases of goods and services.

Purchases of goods and services are valued at the purchase price excluding deductible VAT and other deductible taxes linked directly to turnover.

Purchases of goods and services purchased for resale in the same condition as received.

Purchases for resale are purchases of goods for resale to third parties without further processing. It also includes purchases of services by 'invoicing' service companies, i.e. those whose turnover is composed not only of agency fees charged on a service transaction (as in the case of estate agents) but also the actual amount involved in the service transaction, e.g. transport purchases by travel agents. The value of goods and services which are sold to third parties on a commission basis are excluded since these goods are neither bought nor sold by the agent receiving the commission.

When services for resale are referred to here, the services concerned are the output from service activities, rights to use pre-determined services, or physical supports for services. Purchases of goods and services purchased for resale in the same condition as received are valued at the purchase price excluding deductible VAT and other deductible taxes linked directly to turnover. All other taxes and duties on the products are therefore not deducted from the valuation of the purchases of goods and services.

The treatment of taxes on production is not relevant in the valuation of these purchases.

### Gross investment in tangible goods

Gross investment in tangible goods is the investment, during the reference period, in all tangible goods. Included are new and existing tangible capital goods, whether bought from third parties or produced for own use (i.e. Capitalised production of tangible capital goods), having a useful life of more than one year including non-produced tangible goods such as land. The threshold for the useful life of a good that can be capitalised may be increased according to company accounting practices where these practices require a greater expected useful life than the one year threshold indicated above.

All investments are valued prior to (i.e. gross of) value adjustments, and before the deduction of income from disposals. Purchased goods are valued at purchase price, i.e. transport and installation charges, fees, taxes and other costs of ownership transfer are included. Own produced tangible goods are valued at production cost. Goods acquired through restructurings (such as mergers, take-overs, break-ups, split-off etc.) are excluded. Purchases of small tools which are not capitalised are included under current expenditure.

Also included are all additions, improvements and renovations which prolong the service life or increase the productive capacity of capital goods.

Current maintenance costs are excluded as is the value and current expenditure on capital goods used under rental or lease contracts. Investment in intangible or financial assets are excluded.

Concerning the recording of investments where the invoicing, delivery, payment and first use of the good may take place in different reference periods, the following method is proposed as an objective:

- Investments are recorded when the ownership is transferred to the unit that intends to use them. Capitalised production is recorded when produced. Concerning the recording of investments made in identifiable stages, each pre-investment should be recorded in the reference period in which they are made.

In practice this may not be possible and company accounting conventions may mean that the following approximations to this method need to be used:

- investments are recorded in the reference period in which they are delivered;
- investments are recorded in the reference period in which they enter into the production process;
- investments are recorded in the reference period in which they are invoiced;
- investments are recorded in the reference period in which they are paid for.

### Number of persons employed

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

The number of persons employed excludes manpower supplied to the unit by other enterprises, persons carrying out repair and maintenance work in the enquiry unit on behalf of other enterprises, as well as those on compulsory military service.

Unpaid family workers refer to persons who live with the proprietor of the unit and work regularly for the unit, but do not have a contract of service and do not receive a fixed sum for the work they perform. This is limited to those persons who are not included on the payroll of another unit as their principal occupation.

### Number of employees

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

The relationship of employer to employee exists when there is an agreement, which may be formal or informal, between an enterprise and a person, normally entered into voluntarily by both parties, whereby the person works for the enterprise in return for remuneration in cash or in kind.

A worker is considered to be a wage or salary earner of a particular unit if he or she receives a wage or salary from the unit regardless of where the work is done (in or outside the production unit). A worker from a temporary employment agency is considered to be an employee of the temporary employment agency and not of the unit (customer) in which they work.

In particular the following are considered as employees:

- paid working proprietors;
- students who have a formal commitment whereby they contribute to the unit's process of production in return for remuneration and/or education services;
- employees engaged under a contract specifically designed to encourage the recruitment of unemployed persons;
- homeworkers if there is an explicit agreement that the homeworker is remunerated on the basis of work done and they are included on the pay-roll.

The number of employees includes part-time workers, seasonal workers, persons on strike or on short-term leave but excludes those persons on long-term leave.

The number of employees does not include voluntary workers.

The number of employees is calculated in the same manner as the number of persons employed, namely as the number of jobs and is measured as an annual average.

These are required for the following activities of Sector K:

70	Real estate activities
71.1 + 71.2	'Renting of automobiles' + 'renting of other transport equipment'
71.3	Renting of other machinery and equipment
71.4	Renting of personal and household goods
72	Computer related activities
73	Research and development
74.11 + 74.12 + 74.14 + 74.15	'Legal activities' + 'accounting, book-keeping and auditing activities, tax consultancy' + 'business and market consultancy activities' + 'management activities of holding companies'
74.13	Market research and public opinion polling
74.2 + 74.3	'Architectural and engineering activities and related technical consultancy' + 'Technical testing and analysis'
74.4	Advertising
74.5	Labour recruitment and provision of personnel
74.6	Investigation and security services
74.7	Industrial cleaning
74.8	Other business activities n.e.c.

The method of compilation of the required data is not prescribed, but typically the data is collected in sample surveys making use of a Register of businesses. Such data is, therefore, subject to sampling errors resulting from the design of the survey, and non-sampling errors such as those arising from possible errors in the Register of businesses from which the sample is taken, or non-response.

The timeliness of the data is important if the maximum benefit is to be obtained from its use. Enterprises can only complete inquiry forms after the inquiry year has finished and they have completed their accounts, but usually they also need a lot of persuasion to provide information for which they are not being paid. Only when sufficient data has been received can the National Statistical Offices start to prepare estimates. While some data will have been validated while it is being received additional "suspect" data will emerge when the results are being processed. Most validation will involve contact with businesses to confirm data as being correct, or to request revised figures. All of this can mean that there is a considerable delay after the end of the reference period before results can be compiled. To encourage Member States to provide data at the earliest opportunity, the Regulation stipulates that the required data is to be provided within 18 months of the end of the reference year. As with the collection of data for specific variables or activities the timetable for the provision of data has not yet been met by all Member States.

### The Labour Force Survey

The Labour Force Survey is carried out in Member States under an EU Regulation. The most recent was agreed in 1998. The Regulation specifies exactly what data should be provided to Eurostat on a quarterly basis. It is designed to provide information about the number of people with jobs, the details of these jobs, the job search activities of those without work and such things as, for example, whether people are looking for work or not. Such things as marital status, age, earnings, hours worked, education and training and ethnic group are also collected. The EU uses the data collected in the LFS to improve policy making and as a basis for the allocation of special funding.

The data is collected not from businesses but from private individuals chosen at random. The data is collected by interview rather than requiring those selected to complete a questionnaire, and this enables the results of the inquiry to be more consistent than would otherwise be the case. Even so, the person covered by the survey may not be available, and in these cases the data is collected by proxy. The data is collected in respect of a single specified week (the reference week).

The survey covers everyone of working age (aged 15 or above) and divides them into three groups, those in employment, those unemployed but seeking work and those who are not looking for work, typically those who have retired or who have family responsibilities. A person may be defined as being in employment if they have carried out paid work for an hour or more during the reference week.

The interviewers ask about the industry that people work in, and enter a classification based on NACE and from this it is possible to analyse LFS data by activity. However, it should be noted that it is often difficult to classify enterprises to NACE even when this is done from a written description of activity provided by the enterprises themselves. How much more difficult it must be for an employee to provide an accurate classification for the activity of their employer. It is even more difficult to obtain the correct classification when the LFS data is collected by proxy. This does not mean that the classification obtained from the LFS is always wrong. Most of the classification will be correct, but clearly there is room for error. A problem, already referred to earlier in this publication, is that of the classification of Research and Development enterprises in the LFS. The classification entered here may well relate to the activity on which the R&D is being carried out rather than R&D itself. In analysing SBS data it is therefore much better to use employment data that is estimated on the same basis as the other economic data collected in the survey. However, the LFS produces a lot of information that is not collected for the SBSR, and it is often useful to look at the results of the two surveys in conjunction.

One of the reasons that it is difficult to classify enterprises accurately is that many enterprises carry out more than one activity, but can only be classified to the predominant one.

### The Labour Costs Inquiry

Data from the Labour Cost Survey is held on the Lacost database (Labour cost database). The Labour Cost survey is conducted periodically. The last survey from which data are available is 1996. Previous surveys were carried out in 1978, 1981, 1984, 1988 and 1992. For intervening years, Eurostat has devised a method to update figures in co-operation with the statistical services of the Member States that allows each country to make estimates according to the availability of basic data. The next Survey is planned for 2003. The data collected covers industry, distributive trades, banking, insurance and other services.

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

### Structure of Earnings Survey

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

The data are based on a survey carried out through the statistical services of the Member States, unless information is already available from other sources that can provide equivalent data in terms of accuracy, quality and timeliness. For each employee the following information is collected.

**Gross earnings** for a complete pay period for the representative month, including the various bonuses regularly paid, additional payments for overtime, shift work, night work, weekend work and commissions; likewise included are remuneration for periods of absence (leave or sickness) entirely paid by the employer and family allowances and other benefits laid down by collective agreements or voluntarily within the local unit; total earnings related to overtime and special payments for shift work, night work or weekend work are to be specified separately.



**Annual gross earnings** in the relevant financial year, i.e. the gross earnings as defined above referred to on an annual basis, plus occasional bonuses (such as holiday bonuses, 13th month and profit sharing); the amount of occasional bonuses must be specified separately.

**The number of hours paid** or the number of hours in a standard week or month for which payment is made, the number of paid overtime hours in the pay period and the number of holidays, excluding public holidays, per year.

The sex, age and occupation classified according to the international Standard Classification of Occupations, level of education and training, length of service in the enterprise, working arrangements, i.e. full-time or part-time and type of employment contract.

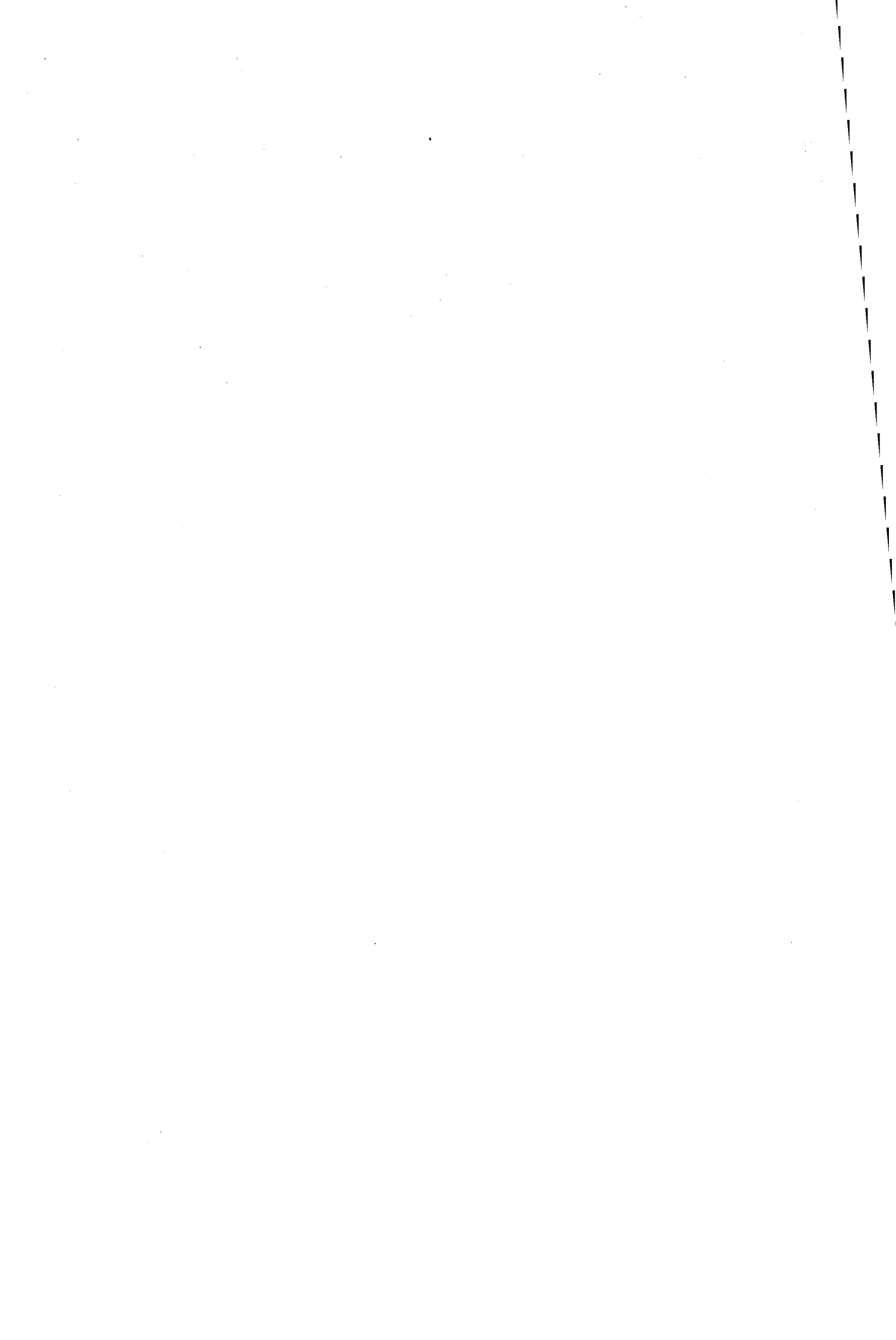
## Classifications

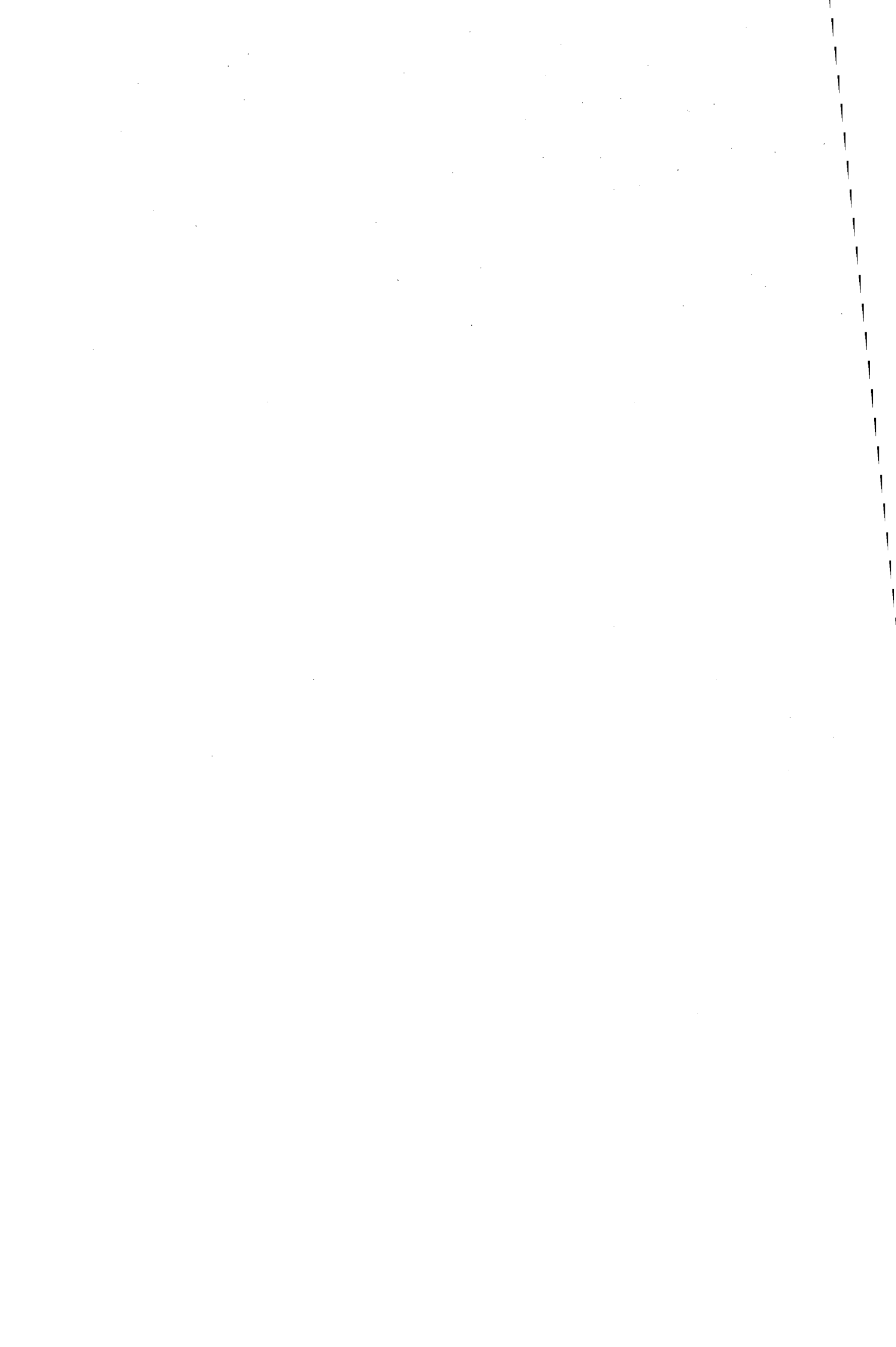
No collection of economic statistics can begin without a system for classifying economic activities to individual industries. In the past, many countries compiled their own classification systems that may have served their needs adequately, but this made it difficult to compare statistics across different countries. Over recent years, international classification systems have moved closer together, and the EU has adopted a standard, NACE Rev.1, which all member states are required to use for structural economic statistics.

Classification systems break down activity into major sectors, for example, agriculture, production and services, and each of these is further subdivided to produce even more well defined activities. NACE Rev.1, at its most detailed, is defined at the four-digit level, although Member states may, if they wish, break each of these down further to produce activities at the five digit level.

To help in classifying individual enterprises there is a product classification (CPA, Classification of Products by Activity) which allocates products to individual activities. Ideally an enterprise is classified to an activity on the basis of the value added from the products of each of these activities; but clearly it is not always possible to obtain estimates of value added at product level. It is, therefore, often necessary to classify many mixed activity enterprises on the basis of employment, or turnover, in each activity where this is a practical alternative, and data is available.

In many cases no detailed data is available and many businesses will be asked to allocate themselves to NACE Rev.1 on the basis of their detailed knowledge of their businesses. Even this does not always result in the correct classification. Other enterprises, usually the smallest businesses, may be classified by specialised computer software on the basis of the name of the company, or a description provided by the business. Again the classification produced by such means may be suspect. Even so, the bulk of the information obtained for an activity is obtained from the larger businesses where classification is correct. Any errors are likely to be found in the information about the number of enterprises, particularly small ones classified to an activity, rather than in the information about the other variables, such as turnover, that is collected.







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