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STRUCTURAL BUSINESS STATISTICS

STRUCTURE OF THE EUROPEAN MARKET ACTIVITY IN 1996: Elements of comparison between the European Union, the United States and Japan

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The structural statistics for 1996 confirm the dominant role of market services (including the distributive trades) in the activity (without agriculture) of the economies of the Triad (European Union, United States and Japan). They account for nearly 2/3 of value added and employment. However, this predominance is less marked in the European Union (EU) than in the United States.

If the various sectors of activity are looked at in detail, the principal economic ratios reveal structural differences between the European Union and its partners in the Triad, as well as between the Member States themselves.

In manufacturing industry, an analysis of specialisation shows that some countries do not fit into the pattern of small specialised countries and large diversified countries.

In the European Union, market services in 1996 accounted for 63 % of the total value added of market activity (without agriculture). This share is substantially lower than in the United States (69 %) but higher than in Japan (59 %). On the other hand, the relative share of manufacturing industry is lower in the United States (22 %) than in the EU (25 %), and is more or less the same in Japan (26 %), where construction contributes more than twice as much to GDP than in the USA and the EU (11 % compared with 5 % and 6 % respectively).

These structural differences are even more marked in employment, where the relative shares of services and manufacturing industry are 62 % and 27 % in the EU, 71 % and 20 % in the United States, and 61 % and 26 % in Japan.

Figure 1
Source: Eurostat – National Accounts

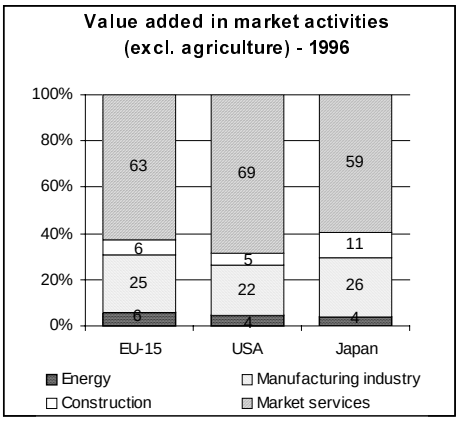


Figure 2
Source: Eurostat – National Accounts

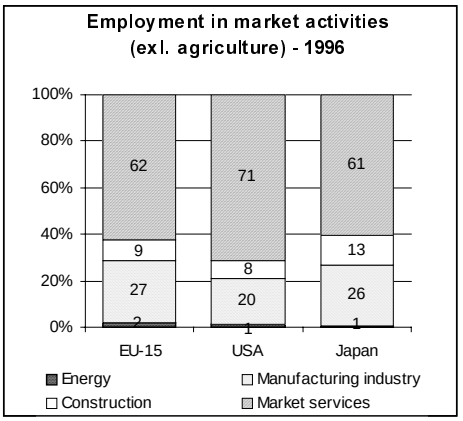


Table 1 shows the main economic ratios for the Triad calculated for the major sectors of activity: manufacturing, (section D of NACE Rev.1), construction (section F of NACE Rev.1), distributive trades (section G of NACE Rev.1) and market services excl. financial services (NACE Rev.1 sections H, I and K).

Table 2 gives a breakdown of these ratios by activity for the three components of the Triad.

Comparable production processes despite some structural differences

In the EU, the share of value added in production in the distributive trades and services (excl. financial services) is higher than in industry and construction, at 43 % and 48 % respectively, as against 31 % and 36 %. In the tertiary sector, this rate is very high in post and telecommunications (67 %), renting without operator (56 %), and computer and related activities (51 %). Retail trade has a rate of 53 %, which is considerably higher than for wholesale trade (37 %).

In manufacturing industry in the countries of the Triad, one finds the same activities amongst those with the highest and lowest shares of value added. This only underlines the interpenetration of these three economies.

The activities with a low share of value added in production are manufacture of coke, refined petroleum products and nuclear fuel, manufacture of tobacco products (except in the United States), manufacture of food products and manufacture of transport equipment. The activities with a high share of value added are manufacture of precision instruments, publishing and printing and fabricated metal products - all of which are activities in which technology and automation play an important role in the production process.

There is one high-technology sector that distinguishes the United States from its partners in the Triad. In that country, manufacture of radio, television and communication equipment has a share amongst the highest in American manufacturing industry, whereas it is only average in Europe and Japan.

Again in the United States, the tobacco industry stands out as having a very high value added share, whereas it is one of the weakest in Europe and Japan. This difference is probably due to the strong vertical integration of the tobacco chain in the United States, which is the only country of the Triad that also produces this raw material.

Table 1: principal economic ratios for the EU, the United States and Japan by major sector of activity

Share of VA in production	EU-15 1996		USA 1996		Japan 1996		EU-15 1995
Manufacturing industry	31 %	:	47 %	:	38 %	:	31 %
Construction	36 %	:	:	:	:	:	37 %
Distributive trades	43 %	:	:	:	:	:	:
Services (excl. financial services)	48 %	:	:	:	:	:	:
Labour productivity (in thousands of ECUs)	**EU-15 1996**		**USA 1996**		**Japan 1996**		**EU-15 1995**
Manufacturing industry	44.700	100	56.300	100	58.100	100	45.700
Construction	32.300	72	35.100	62	52.500	90	36.100
Distributive trades	33.100	74	37.000	66	39.700	68	:
Services (excl. financial services)	35.600	80	54.400	97	66.100	114	:
Share of gross operating surplus in VA	**EU-15 1996**		**USA 1996**		**Japan 1996**		**EU-15 1995**
Manufacturing industry	32 %	:	:	:	:	:	31 %
Construction	21 %	:	:	:	:	:	17 %
Distributive trades	28 %	:	:	:	:	:	33 %
Services (excl. financial services)	32 %	:	:	:	:	:	:
Share of investment in VA	**EU-15 1996**		**USA 1996**		**Japan 1996**		**EU-15 1995**
Manufacturing industry	14 %	:	8 %	:	10 %	:	14 %
Construction	8 %	:	3 %	:	7 %	:	8 %
Distributive trades	13 %	:	:	:	:	:	15 %
Services (excl. financial services)	24 %	:	:	:	:	:	:

Source : Eurostat - SSE and National Accounts (grey)

For manufacturing industry as a whole, the EU has a much lower share of value added in production (31 %) than the United States (47 %) or Japan (38 %). This difference is mainly due to the fact that the share of value added is lower in each of the industries ([1]), but also to structural effects. The analysis of specialisation by country given below shows that the United States is more specialised than the EU in industries with a high share of value added: the tobacco industry, the manufacture of radio, television and communication equipment, and the manufacture of precision instruments.

The relative weakness of labour productivity in the EU is more marked in industry than in the other sectors

The 1996 results of the annual surveys on the structure and activity of enterprises in Europe confirms the findings of the last Commission report on the competitiveness of European industry, which noted that labour productivity per employed person remains about 20 % lower than in the United States.

This is particularly true of European manufacturing industry, where labour productivity, which fell slightly compared with 1995 (-2.4 %), stood at 44 700 ECU per employed person in 1996, as against 56 300 ECU in the United States and 58 100 ECU in Japan. In construction and the distributive trades, the rates in the EU are comparable to those in the United States and Japan.

Labour productivity varies widely from industry to industry. However, while the differences for the construction, distributive trades and services sectors (cf. Table 1, base 100 for industry) are similar in the United States and in the EU (72, 74, 80 respectively in the European Union, as against 62, 66, 97 in the United States), they diverge widely from Japan: 90, 68 and 114. The other salient feature is the relative weakness of labour productivity in services in the European Union compared with the United States and Japan (80, 97 and 114 respectively).

([1]) The relative weakness of the share of value added in production for the EU is partly due to methodological differences between European, American and Japanese statistics, in particular as regards the definition of value added.

Table 2: economic ratios for main activities in industry, construction, distributive trades and services in 1996

	Share of value added in production			*Labour productivity (in 1 000 ECU per person employed)*			*Share of gross operating surplus in value added*			*Share of investment in value added*		
Economic activities	EU-15	US	JP	EU-15	US	JP	EU-15	US	JP	EU-15	US	JP
Manufacturing	31 %	47 %	38 %	44,700	:	:	32 %	:	:	14 %	8 %	10 %
Manufacture of food products and beverages	23 %	39 %	37 %	43,700	:	:	47 %	:	:	16 %	7 %	8 %
Manufacture of tobacco products	14 %	75 %	17 %	95,900	:	:	66 %	:	:	8 %	3 %	10 %
Manufacture of textiles	33 %	42 %	43 %	33,200	:	:	30 %	:	:	12 %	7 %	6 %
Manufacture of clothing and furs	32 %	51 %	53 %	24,700	:	:	28 %	:	:	5 %	2 %	2 %
Leather and footwear	28 %	50 %	41 %	28,200	:	:	32 %	:	:	6 %	3 %	3 %
Manufacture of wood and wood products	31 %	38 %	38 %	32,700	:	:	27 %	:	:	15 %	8 %	4 %
Manufacture of pulp, paper and paper products	31 %	45 %	38 %	54,900	:	:	41 %	:	:	25 %	13 %	14 %
Publishing, printing, reproduction of recorded media	40 %	67 %	51 %	44,000	:	:	31 %	:	:	11 %	4 %	6 %
Manufacture of coke, refined petroleum and nuclear fuel	9 %	17 %	12 %	124,200	:	:	57 %	:	:	32 %	19 %	48 %
Manufacture of chemicals and chemical products	33 %	52 %	51 %	73,500	:	:	44 %	:	:	18 %	10 %	10 %
Manufacture of rubber and plastic products	38 %	50 %	42 %	43,000	:	:	32 %	:	:	15 %	10 %	11 %
Manufacture of other non-metallic mineral products	40 %	54 %	48 %	45,800	:	:	35 %	:	:	17 %	9 %	9 %
Manufacture of basic metals	28 %	39 %	34 %	52,700	:	:	30 %	:	:	16 %	10 %	18 %
Manufacture of fabricated metal products	40 %	51 %	45 %	38,300	:	:	25 %	:	:	11 %	6 %	7 %
Manufacture of machinery and equipment n.e.c.	37 %	52 %	42 %	46,700	:	:	24 %	:	:	9 %	6 %	7 %
Manufacture of office machinery and computers	27 %	40 %	25 %	68,900	:	:	38 %	:	:	13 %	7 %	12 %
Manufacture of electrical machinery and apparatus n.e.c.	38 %	53 %	38 %	46,600	:	:	25 %	:	:	10 %	6 %	11 %
Manufacture of radio, television and communication equipment	32 %	61 %	35 %	48,100	:	:	34 %	:	:	21 %	14 %	20 %
Manufacture of medical, precision and optical instruments etc.	44 %	65 %	43 %	46,400	:	:	28 %	:	:	9 %	5 %	7 %
Manufacture of motor vehicles	27 %	33 %	29 %	51,800	:	:	25 %	:	:	20 %	10 %	12 %
Manufacture of other transport equipment	30 %	53 %	30 %	41,900	:	:	13 %	:	:	11 %	5 %	8 %
Manufacture of furniture; manufacturing n.e.c.	35 %	52 %	40 %	32,100	:	:	26 %	:	:	9 %	5 %	5 %
Recycling	28 %	48 %	39 %	40,600	:	:	36 %	:	:	21 %	9 %	6 %
Construction	36 %	:	:	32,300	:	:	21 %	:	:	8 %	:	:
Wholesale and retail trade; motor trade	43 %	:	:	33,100	:	:	28 %	:	:	13 %	:	:
Sale, maintenance and repair of motor vehicles	41 %	:	:	29,300	:	:	24 %	:	:	16 %	:	:
Wholesale and commission trade	37 %	:	:	46,200	:	:	27 %	:	:	12 %	:	:
Retail trade, repair of household goods	53 %	:	:	24,800	:	:	30 %	:	:	16 %	:	:
Services (excl. financial services)	48 %	:	:	35,700	:	:	32 %	:	:	24 %	:	:
Hotels and restaurants	45 %	:	:	19,100	:	:	33 %	:	:	22 %	:	:
Land transport; transport via pipelines	45 %	:	:	19,100	:	:	33 %	:	:	22 %	:	:
Water transport	26 %	:	:	51,800	:	:	38 %	:	:	88 %	:	:
Air transport	33 %	:	:	59,300	:	:	17 %	:	:	18 %	:	:
Supporting and auxiliairy transport activities	33 %	:	:	48,800	:	:	36 %	:	:	28 %	:	:
Post and telecommunications	67 %	:	:	59,800	:	:	45 %	:	:	22 %	:	:
Real estate activities	43 %	:	:	57,600	:	:	72 %	:	:	63 %	:	:
Renting of machinery and equipment without operator	56 %	:	:	98,200	:	:	77 %	:	:	133 %	:	:
Computer and related activities	51 %	:	:	43,900	:	:	22 %	:	:	9 %	:	:
Research and development	44 %	:	:	54,000	:	:	18 %	:	:	19 %	:	:
Other business activities	50 %	:	:	33,400	:	:	33 %	:	:	10 %	:	:

Source : Eurostat – Structural Business Statistics

In the European Union, it comes as no surprise that it is in the capital-intensive activities that labour productivity is highest: manufacture of coke, refined petroleum products and nuclear fuel (124 200 ECU per person employed), the tobacco industry (95 900 ECU), and the chemical industry (73 500 ECU).

On the other hand, the labour-intensive activities naturally have much lower productivity than in the manufacturing industry: textile (33 200 ECU), clothing and fur (24 700 ECU), leather and footwear (28 200 ECU).

In services, it is renting without operator which has the highest productivity (98 200 ECU per person employed). This is followed by post and telecommunications (59 800 ECU), air transport (59 300 ECU), real estate activities (57 600 ECU) and research and development (54 000 ECU).

There are wide variations in productivity between the Member States of the European Union ([2]). If one takes manufacturing industry in the five largest countries of the European Union, Germany and Italy have the highest rates of productivity, at 50 900 and 50 300 ECU per person employed, ahead of

([2]) Certain figures quoted in the text and relating to the member countries of the EU are not presented in the form of tables, but can be found in the Eurostat reference database New Cronos, theme 4, domain SBS.

France and the United Kingdom (44 900 and 40 100 ECU respectively) and Spain, where labour productivity (33 300 ECU per person employed) is much lower than the European average. However, while the differences at the level of manufacturing industry as a whole reflect the situation in most industries - and particularly in the most important ones such as metalworking and the manufacture of machinery and equipment - some activities stand out. In the agri-food industries, for instance, the United Kingdom is up with Germany and Italy thanks to very high productivity in the tobacco industry. In the automobile industry, the variations in productivity are less marked than for industry as a whole, with Spain, France and the United Kingdom showing labour productivity of about 48 000 ECU per person employed, ahead of Italy (43 200 ECU), but behind Germany (57 600 ECU). In the manufacture of office machinery and computers, finally, Spain and France have much higher productivity (94 500 and 85 000 ECU respectively) than Germany, Italy and the United Kingdom (around 62 000 ECU per person employed).

The high-productivity activities are also those with the highest share of gross operating surplus in value added

In the EU, the share of gross operating surplus in value added in both manufacturing and services was 32 % in 1996. This rate is naturally highest in the capital-intensive industries. These are the same as those in which labour productivity is highest: renting without operator (77 %), real estate activities (72 %), tobacco industry (66 %), manufacture of coke, refined petroleum products and nuclear fuel (57 %), agri-food industries (47 %) and chemical industry (44 %).

In the five largest countries in the EU, the highest share of gross operating surplus are naturally to be found in the countries with the lowest unit labour costs - Spain and the United Kingdom.

The highest rates are also found in those countries where the breakdown of value added is more in favour of capital. In Finland, for instance, despite a unit labour cost close to the European average, the share of gross operating surplus in value added is particularly high (42 %), above all in the activities in which the country is specialised. In the paper and paper products industry, this share is as high as 55 % in Finland, as against 41 % for the EU, while in the manufacture of radio, television and communication equipment it is 54 %, compared with 34 % for the EU. In these cases, specialisation equates with a high level of automation and use of advanced technologies, and this would explain the high shares observed.

Higher investment rates in the EU than in its two partners in the Triad

The share of investment in value added varies from one activity to the other, as well as from country to country.

In the EU, the investment rate in 1996 was highest in services (24 %), in particular in the renting of vehicles and equipment (133 %), water transport (88 %) and real estate activities (63 %) - all of which are based essentially on exploiting a stock of real estate, vehicles or equipment.

In the EU manufacturing industry, investment accounts for 14 % of value added. However, the nuclear, petroleum and coke industries, the paper and paper products industry, the manufacture of radio, television and communication equipment, and recycling are marked by a high level of investment, ranging from 21 % to 32 %.

In manufacturing industry, the United States and Japan have a lower level of investment than the EU in 1996 (8 % and 10 % respectively, as against 14 %). This is particularly true in recycling (9 % and 6 % respectively, as against 21 %), the automobile industry (10 % and 12 % respectively, as against 20 %), the chemical industry (10 % and 10 % respectively, as against 18 %), and the paper and paper products industry (13 % and 14 % respectively, as against 25 %).

Within the EU, the Nordic countries have higher rates of investment than the other countries in the Union - 19 % in Denmark, 20 % in Sweden and 21 % in Finland. These differences are partly due to structural effects. In the paper and paper products industry, their main specialisation, Finland and Sweden have investment rates of 48 % and 46 % respectively, compared with only 25 % for the EU. In Denmark and Finland, this rate is as high as 50 % in recycling (compared with 21 % for the EU), probably reflecting the efforts being made to protect the environment and recycle waste.

Specialisation in European manufacturing industry: size isn't everything

An initial indicator of the concentration of a country's industry on a number of activities is the share of the value added of its manufacturing industry accounted for by the three largest activities. This share is 31 % in the EU, ranging from 32 % in the United Kingdom to 57 % in Ireland, and is lower than 40 % in half the countries of the EU, which are also the largest ones. This crude indicator gives an initial comparison between large diversified countries and small specialised ones.

Share of the three largest industries	EU-15	USA	JP	UK	S	F	E	I	B	D	FIN	NL	DK	EL	L	IRL
	31 %	32 %	32 %	32 %	33 %	34 %	35 %	36 %	38 %	39 %	41 %	41 %	43 %	45 %	46 %	57 %

Two specialisation indicators (cf. methodological note), one global and the other calculated in reference to the EU, refine this initial approach.

Figure 3, classifying countries according to their global specialisation index, highlights four groups of countries:

- highly specialised countries (Ireland, Luxembourg, Greece and Finland)
- averagely specialised countries (Netherlands, Sweden, Italy Denmark)
- diversified countries (Germany, Japan, United States and Belgium)
- highly diversified countries (United Kingdom, France, Spain)

The breakdown of countries into these four groups shows that some countries do not fit into the cliché of small specialised countries and large diversified ones. Belgium and Austria, for instance, appear to be more diversified than other countries of a similar size, while the Netherlands, and above all Italy, are particularly high up this specialisation table. Finally, Germany stands out from the group of large countries whose industrial structure is naturally close to that of the EU.

The fact that the EU appears more diversified than its Member States (apart from Spain) shows that the specialisation patterns of the countries of the EU are more complementary than similar. European diversification thus appears to be the result of the multiple specialisations of its member countries in different activities in manufacturing industry.

The rates of relative specialisation in Table 3 indicate the activities in which the countries stand out most from the structure of European manufacturing industry.

Highly specialised countries

In the first group of countries - the most specialised ones - one finds the small or very small countries whose activity is based on a limited number of activities. Ireland, whose global specialisation index is much higher than the others, is highly specialised relatively to the EU in the manufacture of office equipment and computer hardware (S_i=1.9), the agri-food industry (S_i=0.9) and the chemical industry (S_i=0.9). Another salient feature is that these three activities account for 57 % of Irish manufacturing industry with labour productivity rates above the European average. Luxembourg has a similar specialisation pattern, since the three activities in which it is relatively specialised in EU terms are also the three main ones and together account for close to 46 % of the value added in Luxembourg's manufacturing industry: metalworking (S_i=1.5), the rubber and plastics industry (S_i=1.2) and the manufacture of other non-metallic mineral products (S_i=0.9)).

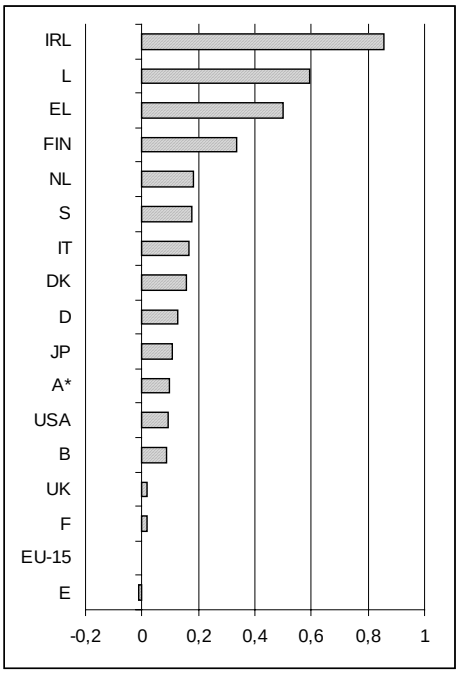
In the case of Finland, size is accompanied by the geophysical factor. The country is highly specialised in the manufacture of wood and wood products (S_i=1.0), and in the paper and paper products industry (S_i=1.7) - activities directly linked to the availability of wood in the country. In addition, Finland is also highly specialised in a rapidly-growing activity: the manufacture of radio, television and communication equipment (S_i=1). These activities, which account for close to 30 % of Finnish manufacturing industry, also have the highest investment rates in Finland.

Greece is relatively specialised in the manufacture of coke, refined petroleum products and nuclear fuel (S_i=1.7), the tobacco industry (S_i=1.4) and the clothing industry (S_i=1.3) - activities which are amongst the five main producers of wealth and have relatively high share of value added in production compared with the other countries of the EU.

Averagely specialised countries

The second group comprises small or medium-sized countries (Netherlands, Sweden and Denmark) specialising in one or several activities but whose size allows them to have a more diversified industrial apparatus. In EU terms, Sweden has a profile close to that of Finland, although its paper and paper products industry does not occupy the dominant position it does in Finland (9.3 % and 17 %, respectively, of manufacturing industry). In Denmark, the dominant position of the food industries is worthy of note; as the leading area of relative specialisation; it accounts for 18.5 % of the country's industry.

Figure 3: Global specialisation index



Source: Eurostat SBS

The presence in this group of one large country, Italy, is partly the result of its very high level of relative specialisation in the leather and footwear industry (S_i=1.3), and in the clothing industry (S_i=0.9). These industries account for nearly 14 % of manufacturing industry in Italy, while their share at European level is only 5.3 %.

Diversified countries

The third group comprises two small countries - Belgium and Austria - whose industry is not very concentrated and whose relative specialisation is based on industries that carry little weight at both national and European level. In these two countries, the first three activities with relative specialisation account for just under 13 % of manufacturing industry in the country, which is low compared with the percentages in other countries of comparable size.

The third group also includes three large countries whose industry is highly diversified, but to a lesser extent than for the EU as a whole. Germany stands out from the other countries of the EU with a high relative specialisation in activities which account for a large share of German (36 %) and European manufacturing activity (in particular the automobile industry and the manufacture of machinery and equipment). In the United States and Japan, the share of certain activities in the manufacturing industry marks them out from the structure in Europe. It is no surprise that in the United States it is the tobacco industry (S_i=0.9), and in Japan the manufacture of radio, television and communication equipment (S_i=1), which have the highest rate of relative specialisation.

Highly diversified countries

Finally, the last group comprises three of the five largest countries in the EU - Spain, the United Kingdom and France. These countries have rates of relative specialisation, which are fairly low compared with the other countries in the EU. It should be noted that the industries in which France is specialised account for only a very small share of French manufacturing industry (4.7 %).

Table 3 : Specialisation activities in the EU countries, the United States and Japan in relation to the structure of european industry

A Index of relative specialisation (cf. methodological note)
B Share of the country in this activity's european total
C Weight of the activity in the country's manufacturing total
D Weight, at the european level, of the activity in the manufacturing total

	1st activity of specialisation				2nd activity of specialisation				3rd activity of specialisation			
	A	B	C	D	A	B	C	D	A	B	C	D
B	*Recycling (dn37)*				*Manufacture of basic metals (dj27)*				*Textile industry (db17)*			
	0,8	7,7 %	0,4 %	0,2 %	0,6	6,1 %	7,7 %	4,3 %	0,5	5,8 %	4,7 %	2,8 %
DK	*Man. of food products and bev. (da15)*				*Man. of furniture; Man. n.e.c. (dn36)*				*Tobacco (da16)*			
	0,8	3,7 %	18,5 %	8,2 %	0,7	3,3 %	6,2 %	3,1 %	0,6	3,0 %	1,1 %	0,6 %
D	*Man. of electrical machinery (dl31)*				*Man. of motor vehicles (dm34)*				*Man. of machinery & equipment (dk29)*			
	0,4	46,5 %	8,1 %	5,2 %	0,4	46,1 %	12,9 %	8,4 %	0,3	40,6 %	15,3 %	11,3 %
EL	*Man. of coke, refined petroleum and nuclear fuel (df23)*				*Tobacco (da16)*				*Clothing and furs (db18)*			
	1,7	2,2 %	8,9 %	1,6 %	1,4	1,6 %	2,3 %	0,6 %	1,3	1,4 %	6,0 %	1,7 %
E	*Leather and footwear (dc19)*				*Man. of food products and bev. (da15)*				*Man. of other non-metallic mineral products (di26)*			
	0,7	13,5 %	1,6 %	0,8 %	0,7	13,1 %	15,8 %	8,2 %	0,5	11,1 %	7,2 %	4,4 %
F	*Recycling (dn37)*				*Man. of coke, refined petroleum and nuclear fuel (df23)*				*Man. of office machinery and computers (dl30)*			
	0,9	39,0 %	0,4 %	0,2 %	0,4	24,8 %	2,5 %	1,6 %	0,3	21,6 %	1,8 %	1,4 %
IRL	*Man. of office machinery and computers (dl30))*				*Man. of food products and bev. (da15)*				*Chemical industry (dg24)*			
	1,9	9,5 %	9,3 %	1,4 %	0,9	3,5 %	20,6 %	8,2 %	0,9	3,4 %	27,2 %	11,3 %
I	*Leather and footwear (dc19)*				*Clothing and furs (db18)*				*Textile industry (db17)*			
	1,3	40,1 %	3,0 %	0,8 %	0,9	27,4 %	4,1 %	1,7 %	0,9	27,2 %	6,7 %	2,8 %
L	*Manufacture of basic metals (dj27)*				*Man. of rubber and plastic products (dh25)*				*Man. of other non-metallic mineral products (di26)*			
	1,5	0,8 %	19,6 %	4,3 %	1,2	0,6 %	15,2 %	4,6 %	0,9	0,4 %	11,0 %	4,4 %
NL	*Tobacco (da16)*				*Man. of food products and bev. (da15)*				*Publishing, printing, reproduction (de22)*			
	1,4	17,9 %	2,4 %	0,6 %	0,7	8,6 %	16,4 %	8,2 %	0,5	7,5 %	10,2 %	5,9 %
A	*Manufacture of wood (dd20)*				*Man. of coke, refined petroleum and nuclear fuel (df23)*				*Man. of pulp, paper & paper products (de21)*			
	0,8	5,6 %	3,9 %	1,7 %	0,8	C	C	1,6 %	0,5	3,9 %	5,2 %	3,2 %
P												
	:	:	:	:	:	:		:	:	:	:	:
FIN	*Man. of pulp, paper & paper products (de21)*				*Man. of radio, television & communication equipment (dl32)*				*Manufacture of wood (dd20)*			
	1,7	10,0 %	17,0 %	3,2 %	1,0	5,0 %	8,1 %	3,0 %	1,0	4,9 %	4,4 %	1,7 %
S	*Man. of pulp, paper & paper products (de21)*				*Manufacture of wood (dd20)*				*Man. of radio, television & communication equipment (dl32)*			
	1,1	9,7 %	9,3 %	3,2 %	0,9	7,8 %	4,0 %	1,7 %	0,7	6,9 %	6,3 %	3,0 %
UK	*Tobacco (da16)*				*Man. of food products and bev. (da15)*				*Man. of office machinery and computers (dl30)*			
	0,7	31,5 %	1,2 %	0,6 %	0,4	23,6 %	12,7 %	8,2 %	0,4	23,4 %	2,1 %	1,4 %
US	*Tobacco (da16)*				*Man. of radio, television & communication equipment (dl32)*				*Man. of medical, precision & optical instruments (dl33)*			
	0,9	314,5 %	1,5 %	0,6 %	0,8	283,7 %	6,9 %	3,0 %	0,6	213,7 %	5,0 %	2,9 %
JP	*Man. of radio, television & communication equipment (dl32)*				*Man. of office machinery and computers (dl30)*				*Man. of food products and bev. (da15)*			
	1,0	214,5 %	8,3 %	3,0 %	0,7	151,6 %	2,7 %	1,4 %	0,2	94,0 %	10,0 %	8,2 %

Reading note: Recycling (NACE Rev.1 division 37) is the main activity in which Belgium is specialised relatively to the EU with an index of **0.8** (cf. methodological note). Belgium represents **7.7 %** of the EU recycling activity. In Belgium, this activity accounts for **0.4 %** of manufacturing, whereas its corresponding share in EU manufacturing is only **0.2 %**.

➢ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

Sources

Apart from certain reference data taken from the National Accounts, the results presented in this Statistics in Focus come from Eurostat's SBS database, whose name is taken from the Council Regulation on structural business statistics. This Regulation provides a harmonised framework for the annual collection of data from businesses in the European Union. These surveys are carried out by the National Statistical Institutes, and the aggregated data are transmitted to Eurostat, which takes on the work of calculating the European totals. The Regulation applies to all market activities (except agriculture and financial services) normally included in industry, construction, the distributive trades and services [sections C to K of NACE Rev.1 (Statistical classification of economic activities in the European Community)].

Accessible in the Eurostat reference database NewCronos (theme 4, domain SBS), this database provides a large number of variables, of which the most important are value added, turnover, production value, employment, labour costs and investment.

Data availability

EU-15 ratios for 1996 are estimates partly based on 1995 results for the following sections and countries:

- Distributive trades (NACE Rev.1 section G): Denmark and Austria
- Services (NACE Rev.1 sections H, I and K): Portugal

In addition, In distributive trades and services EU-15 ratios for 1996 are estimated on solely the basis of the countries for which data is available.

Share of value added in production *(value added at factor costs / production value)*

The share of value added in production assesses the specific contribution of enterprises to their output. It depends on the more or less complex nature of the production process. It is generally stable over time and varies only as a function of major structural changes, such as the greater or lesser vertical integration of the production process.

Labour productivity

Labour productivity is expressed as the value added per person employed.

Share of gross operating surplus in value added

The share of gross operating surplus in value added gives an indication of the share of value added used to remunerate the invested capital. This rate is complementary to the one expressing the share of value added used for the personnel costs.

This rate is not available for the United States or Japan.

Unit labour cost

The unit labour cost is the ratio of personnel costs to the number of persons employed.

Investment rate: share of investment in value added

The investment rate relates the share of investment in tangible goods in value added at factor cost. It expresses the investment effort in a given year by enterprises classified in a given activity.

Specialisation indices in manufacturing industry

Global specialisation index(3) indicates the degree of homogeneity of the distribution of value added in the activities of a sector. The higher the index, the more industry is concentrated in a small number of activities; the lower the index, the more diversified it is. The global index given in Figure 3 allows countries to be classified by the degree of specialisation of their manufacturing industry, although it does not show whether this specialisation is in the same activities as in the EU or not. By convention, the index is standardised to give the EU an index equal to zero.

The index of relative specialisation(4) S_i of a given country in an activity *i* is calculated with reference to the structure of European industry. The relative share of an activity in the total manufacturing industry of a country is viewed in relation to the same share of this activity in European industry. This rate of specialisation is negative if the activity is underrepresented in the country compared with the EU, and is zero if the share of the activity in the country's industry is the same as in the EU. It is as high as 1.9 in the manufacture of office equipment and computer hardware in Ireland.

This rate is not available for the other sections of NACE Rev.1, for which the aggregates cannot be calculated.

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(3) $$I_X = \left(\sum_i \left(\frac{VA_i^X}{VA_D^X} \right)^2 \Big/ \sum_i \left(\frac{VA_i^{EU}}{VA_D^{EU}} \right)^2 \right) - 1$$

where i = industry i
D = manufacturing total
X = country X

(4) $$S_i^X = \ln \left(\frac{VA_i^X}{VA_D^X} \Big/ \frac{VA_i^{EU}}{VA_D^{EU}} \right)$$

Further information:

➢ Reference publications

Title Panorama of EU Industry – 1998 – CD Rom Pro Version
Catalogue No CA-14-98-154-3A-Z Price EUR 700

Title Panorama of European enterprises – publication and CD Rom
to be published: January 2000

Title Services in Europe – Data 1995
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