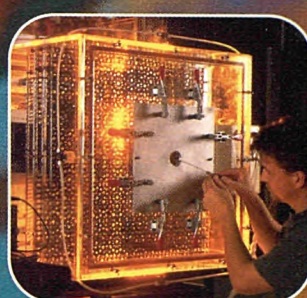
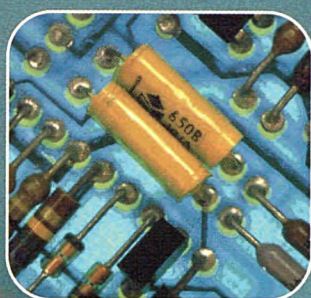


# Monthly **Panorama** of European Industry



OFICINA ESTADÍSTICA DE LAS COMUNIDADES EUROPEAS  
DE EUROPÆISKE FÆLLESSKABERS STATISTISKE KONTOR  
STATISTISCHES AMT DER EUROPÄISCHEN GEMEINSCHAFTEN  
ΣΤΑΤΙΣΤΙΚΗ ΥΠΗΡΕΣΙΑ ΤΩΝ ΕΥΡΩΠΑΪΚΩΝ ΚΟΙΝΟΤΗΤΩΝ  
STATISTICAL OFFICE OF THE EUROPEAN COMMUNITIES  
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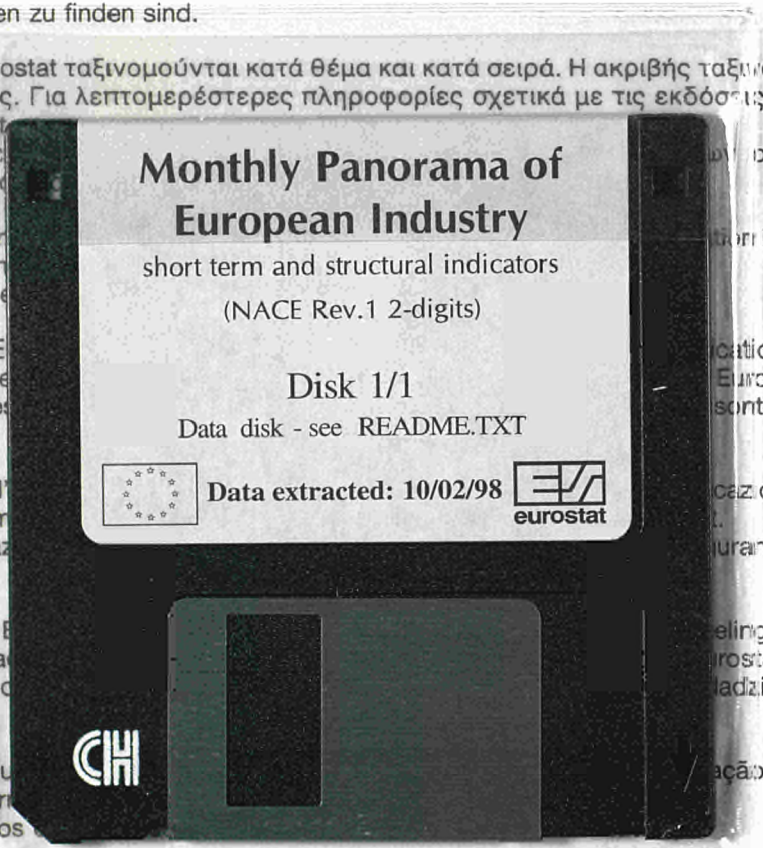
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Monthly **Panorama**

of European Industry

ISSUE 2/98 ■ FEBRUARY 1998

Theme **4**  
Energy and industry  
Series **B**  
Short-term statistics

Sent to press in February 1998

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

Luxembourg: Office for Official Publications of the European Communities, 1998

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Data for this edition of the Monthly Panorama of European Industry is in the main up until November 1997. Industrial production for EU-15 rose by 1.2% in the three months to November 1997 - continuing the trend of just above one per cent growth that has been seen for the last three months. Growth for the individual Member States showed that total industrial production was positive across all countries in November.

The second half of this month's edition of the Monthly Panorama of European Industry concentrates on the electrical machinery industry (NACE Revision 1 division 31) and a study on sub-contracting in the electronics industry. More than four per cent of Europe's manufacturing base is accounted for by electrical machinery. Europe had a level of output in excess of both Japan or the USA in 1996. Latest data for November 1997, reported that EU production of electrical machinery was up by 0.9% (compared to the previous three months).

The process of sub-contracting has been a phenomena on the increase in recent years across Europe. The final article in this issue is the first in a series of three that will be presented during the course of 1998. It will be followed later in the year by two other studies of industries that rely to a large degree on sub-contracting, the textile industry and the automobile industry. The pilot study presented reveals data (for a limited number of countries) from both the point of view of the sub-contractor and the sub-contractee.

**Pedro Díaz Muñoz,**  
Luxembourg



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**In depth** - a close look into the electrical machinery industry, page 51



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The Monthly Panorama of European Industry has the objective of furnishing readers with an instrument which will allow them to follow the evolution of industrial short-term trends and also show the structure and activity of an industry. The publication appears eleven times during the course of the year. When the occasion warrants topical articles may well be treated in the form of a special edition, up to six of which are planned for 1998.

This publication is a joint project of Eurostat and Directorate General III (Industry policy).

The opinions expressed in this publication are those of the individual authors alone and do not necessarily reflect the position of the European Commission.

**Next issue:**

Coke, petroleum and nuclear fuels

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# 1.

## Total industry

Commentary 8  
current situation in the EU, Japan and United States

Data in this section 9  
index of production  
producer price index  
new orders  
trade balance



# 1. Total industry

## Industrial production continues to grow

Data for the index of industrial production for the period to November 1997 (three months compared to the previous three months) showed that the growth of the European industrial economy was equal to 1.2% (compared to a figure of 1.2% in October). Growth rates for industrial production remained positive in all the Member States, ranging from 0.01% in Belgium to 3.1% in Luxembourg. For the largest Member States the following growth rates were recorded (with the October figure given in brackets): Germany 1.3% (1.3%); France 1.9% (1.8%); Italy 0.7% (1.0%) and the United Kingdom 0.2% (0.3%).

The comparatively high growth rates seen in the French industrial economy have been in evidence since the second quarter of 1997. Back in January 1997, French industrial production rose by only 0.2% (again compared to the previous three months) - this figure grew quickly to 1.1% by March 1997, rising to 1.8% by May 1997, before fluctuating between 1.5% and 1.9% since.

The growth rate of 1.3% seen in Germany was the tenth successive month that growth was above one per cent. German growth has remained within the boundaries of 0.9% to 1.3% during the whole of 1997.

In Italy, industrial production has fluctuated far more, with a rapid expansion in the first six months of 1997 followed by a gradual slowing of the rate of increase in the second half. Growth was even negative in January of 1997, from where it picked up at a substantial pace - reaching 1.9% by May 1997. The rate of increase has since slowed in successive months through to November 1997 (0.7%).

In the United Kingdom there has been less of a change in the level of industrial activity during 1997. For much of the year the growth of the United Kingdom industrial economy has remained just above zero per cent. Nevertheless, data for the third and fourth quarters has shown some moderate signs of renewed vigour in the industrial economy.



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Industrial production (trend cycle) and producer prices

EU-15 industrial production rises

by 1.2% in November 1997

Turning attention to the year-on-year change between the same month of 1996 and 1997 the EU recorded growth of 4.4% in November 1997 (compared to a year-on-year growth rate of 5.5% in October 1997). Growth rates for the EU have risen markedly during the second half of 1997, when they have been consistently over the level of three per cent. Once again all Member States (with the exception of Belgium and the United Kingdom) displayed growth rates that were positive. Indeed, there was growth of over ten per cent in Luxembourg and Finland (data again for November 1997).

Production growth for the different goods sectors

Looking at the development of intermediate goods, there has been a high level of growth in Germany and France for this sector throughout 1997 (three months compared to the previous three months). German rates of increase have fluctuated between 1.4% and 2.0% during the first eleven months of 1997. After moderate increases in the first quarter of 1997, French rates also quickened to around 1.4% during the second half of 1997. In Italy growth was even more pronounced during the early summer of 1997 - reaching 3.0% by May 1997 (in common with the development of the index for total industry). Italian output has since slowed to 0.8% growth (November 1997). In the United Kingdom, the intermediate goods sector performed less dynamically, with growth at levels of between 0.0% and 0.4% in the second half of 1997.

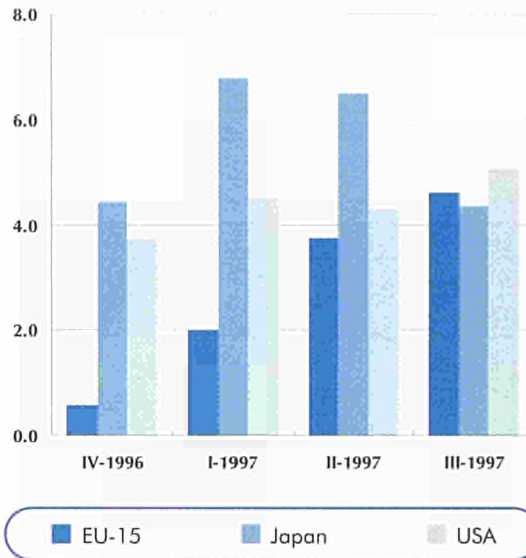


Figure 1.1

Industrial production: growth rate, three months compared to the previous three months (%)

Source: eurostat

For the capital goods sector in the Member States, only Greece (-1.2%) recorded a decline in output for the latest month data was available. Developments in Italy and the United Kingdom did not follow those of the other large Member States, where growth was generally pronounced (when compared to those of total industry). Growth rates for November 1997 were as follows: Germany (1.5%), France (2.5%), Italy (0.1%) and the United Kingdom (0.1%). Investment in capital goods was generally in a good state across much of the EU towards the end of 1997.

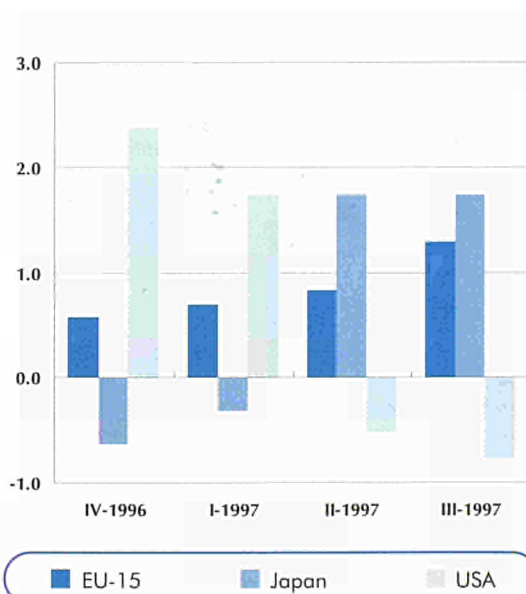
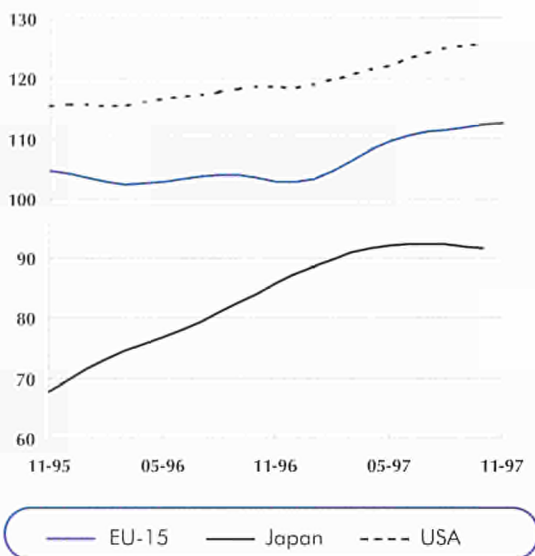


Figure 1.2

Producer prices: growth rate, year on year (%)

Source: eurostat

Figure 1.3



New orders index (1990 = 100)

Source: eurostat

Looking at the consumer goods sectors the picture was mixed: with German and Italian industry displaying growth well below total industry averages, whilst French and United Kingdom growth rates were well in excess of their respective series for total industry. Data for November was as follows: Germany (0.0%), France (2.1%), Italy (-3.6%) and the United Kingdom (1.0%). Consumer non-durables reflected much the same developments: with lower than average growth in Germany (-0.1%) and Italy (0.5%), whilst in France growth was equal to 1.3%.

Year-on-year producer price

growth for EU-15 equal to 1.2%

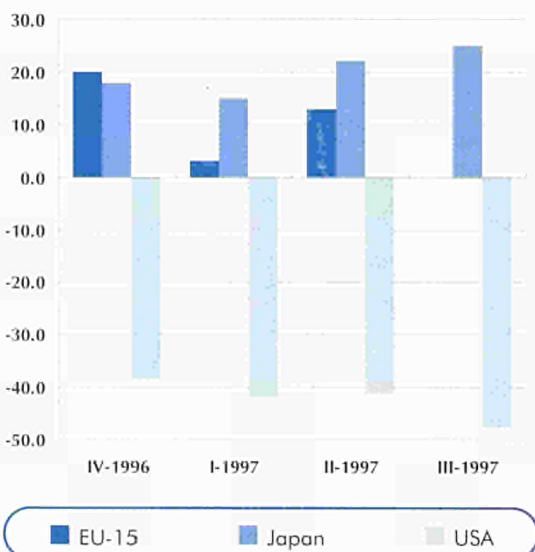
in November 1997

**International comparison of the production index**

The Japanese industrial economy continued to show signs of going into recession. For the third successive month industrial production in Japan was negative (-0.9%, following -0.7% the month before). The decline in the Japanese data can be largely attributed to the performance of the consumer durables sector (which recorded a decline of 3.5% in November 1997). Expressed as a year-on-year change, total Japanese industrial production still showed signs of positive change (although at much reduced rates of growth, when compared to earlier in 1997). Indeed, total Japanese production expanded at a rate of over 7.0% during the first six months of 1997, but it had slowed to 0.4% by November 1997.

In the United States growth in total industrial production (three months compared to the previous three months) continued above the level of one per cent. Every month of 1997 has so far seen growth between 0.8% and 2.5% (November 1997). Expressed as a year-on-year growth rate the American industrial economy expanded by 8.8%.

Figure 1.4



Quarterly trade balance - manufactured goods (billion ECU)

Source: eurostat

**Producer price developments**

EU-15 producer prices continued to rise at a moderate pace (up by 1.2% during the year to November 1997). The main component of price increases was the consumer non durables sector

## Industrial production (working day adjusted) &amp; trade balance

which saw year-on-year changes of 1.9%. The sector has displayed quickening growth in producer prices since the summer months of 1997. As regards intermediate and capital goods, EU-15 growth was equal to 0.5% and 0.9% respectively (in November 1997).

Price changes in the individual Member States for total industry ranged between 0.5% in France and 2.8% in Luxembourg (data again for November 1997 compared to the same month of a year before). Growth rates in the main European economies were as follows (with data for the November 1996 in brackets): Germany 1.2% (-0.3%), France 0.5% (0.4%), Italy 1.6% (0.9%) and the United Kingdom 0.7% (0.6%).

The period of deflation witnessed in the American industrial economy since April 1997 continued, with prices falling by 0.3% when compared to those of November 1996. In October 1997, the rate of deflation was equal to 0.2%, after having been more pronounced during the summer and early autumn.

In Japan the gradual slowing down of producer price inflation since July 1997 (when prices increases were running at 1.9%) continued, with the latest data for November 1997 recording growth of 1.3%.

### Trends in deflated new orders for manufacturing industry

With the exception of January 1997, each month for which data has been available for the EU-15 in 1997 has shown a positive trend in the development of deflated new orders for total manufacturing (three months compared to the previous three months). The latest data available (for October 1997) recorded an increase of 1.3% for EU-15.

	EU-15	Japan	USA
12-96	-3.4	-11.4	0.5
01-97	3.7	13.8	2.3
02-97	6.2	5.3	-0.5
03-97	-6.2	-6.9	-0.6
04-97	-0.1	-6.5	0.6
05-97	3.8	9.5	3.8
06-97	-7.5	1.7	-3.4
07-97	-18.0	-11.5	4.7
08-97	31.5	15.8	0.2
09-97	2.2	-3.0	-1.3
10-97	1.6	2.4	-1.3
11-97	4.4	0.4	8.8

Table 1.1

Industrial production:  
growth rate,  
year on year  
(%)

Source:  eurostat

	EU-15	Japan	USA
12-96	5.8	7.3	-14.2
01-97	-2.9	1.6	-14.9
02-97	2.5	6.1	-14.4
03-97	3.4	7.3	-12.9
04-97	2.9	7.0	-13.6
05-97	4.4	6.8	-14.2
06-97	5.6	8.4	-13.4
07-97	10.0	8.3	-15.2
08-97	3.2	7.1	-15.4
09-97	:	9.6	-16.9
10-97	:	9.4	-15.2
11-97	:	8.8	-13.3

Table 1.2

Monthly trade  
balance -  
manufactured goods  
(billion ECU)

Source:  eurostat

The most recent data available for Germany, Italy and the United Kingdom for October 1997 (again compared to the previous three months) saw growth rates of: 1.2%, 1.8% and 0.9% respectively. Since February 1997, none of the above mentioned countries recorded a negative rate of change in deflated new orders.

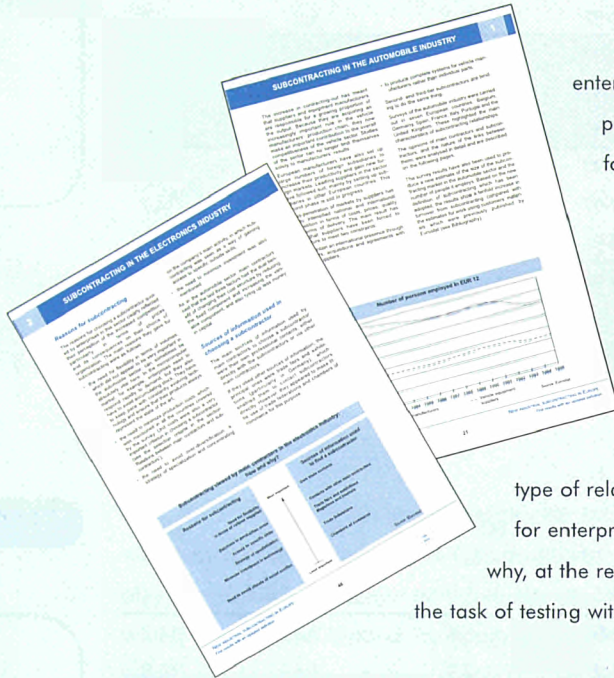
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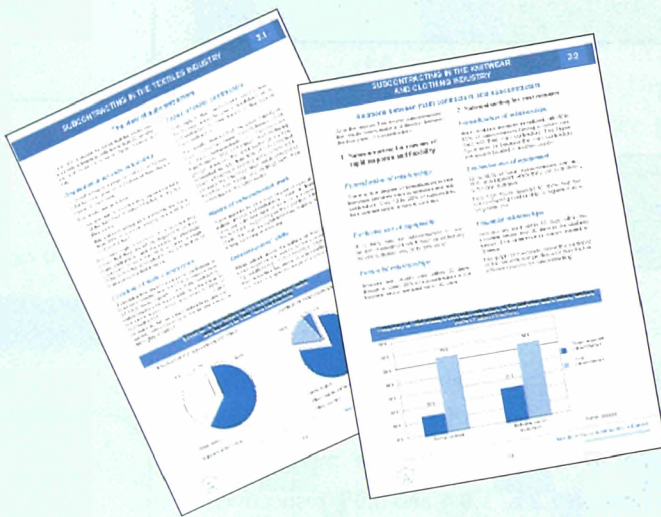
**New industrial sub-contracting in Europe**

Within a context of increased international competition, European enterprises have been forced to restructure and to outsource a number of production functions. Recourse to subcontracting constitutes one of the forms of this outsourcing. However, subcontracting itself is evolving: in most cases, it is not restricted to the simple processing of materials supplied by a main contractor. Subcontractors are increasingly responsible for key operations in the production process (purchase of raw materials, design of products, investment, etc).

The nature of the interdependence between subcontractors and main contractors is therefore changing, and is bringing about a new type of relationship which must be taken into account in the policies carried out for enterprises. Information about enterprises must adapt to this change. This is why, at the request of the European Commission's DG XXIII, Eurostat has taken on the task of testing within volunteer Member States a new concept of subcontracting and of evaluating its importance and characteristics.

*New industrial subcontracting in Europe* presents the results of Eurostat's pilot statistical exercise in which four sectors were the subject of surveys or studies:

- ★ the automobile sector;
- ★ electronics;
- ★ textiles/clothing;
- ★ aeronautics.



For each sector, a study was made of the importance of subcontracting within the purchases of main contractors, the importance of subcontracting sales within the subcontractors' turnover figures, the geographical extent of subcontracting transactions, and finally the main characteristics of the links established between main contractors and subcontractors (existence of contracts, supply of materials, cooperation in research and development, etc).

The measurements that were carried out within this pilot exercise, using harmonised methodology and concepts, contribute today to a better understanding of the organisation of industrial relationships which underpin four essential sectors of the European economy.

The publication is available in French and English.  
 Catalogue number in French, CA-01-96-139-FR-C; in English, CA-01-96-139-EN-C.

Price: 19 ECU.

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# 2. Latest outlook

Business cycle at a glance 14

Short-term indicators 15

production index

expected output index

producer price index

employment index

the construction sector

capacity utilisation

foreign trade indices

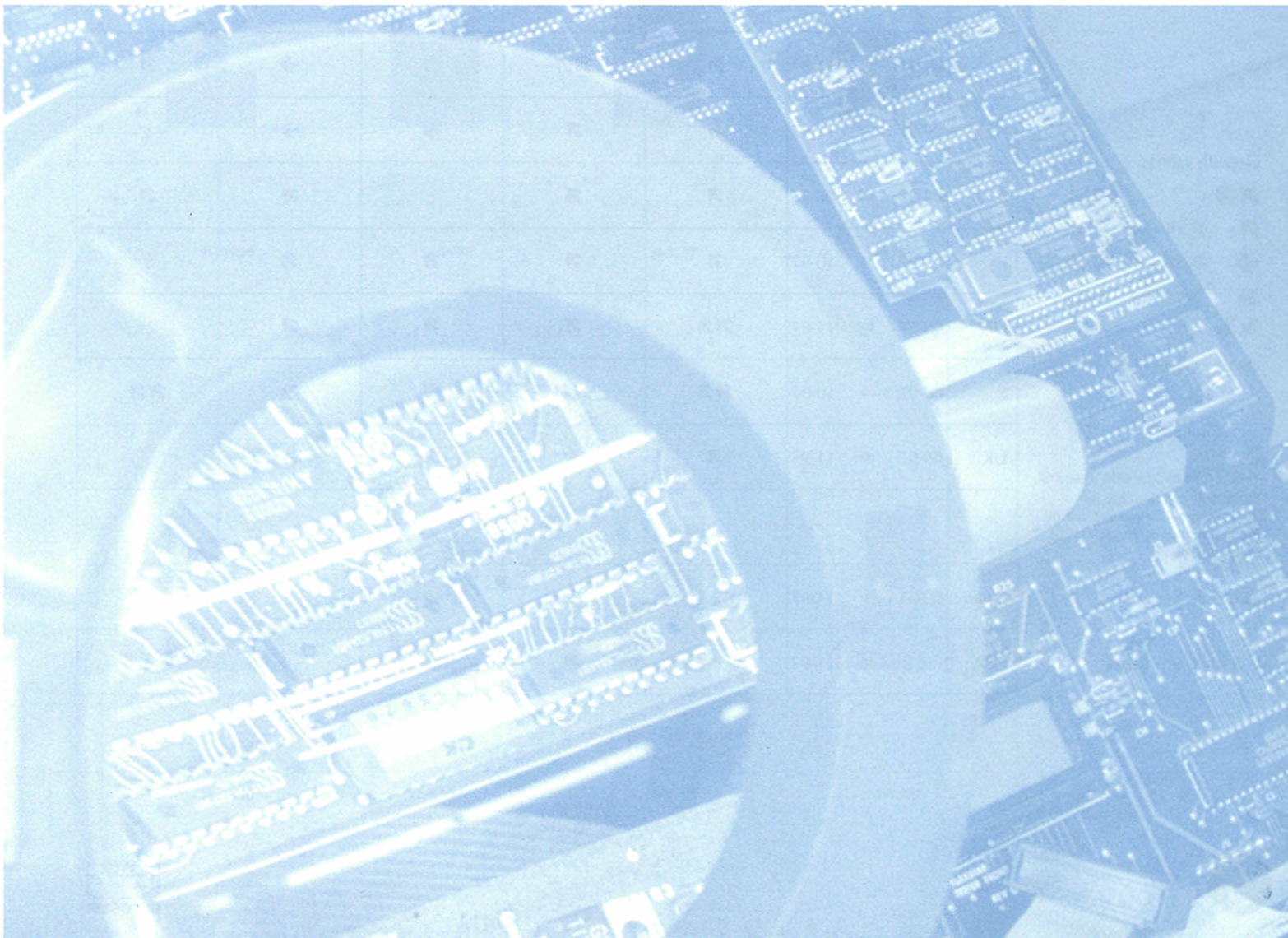


Table 2.1

Business cycle at a glance: growth rate, three months compared to the previous three months (%)

	Latest 3 months available	Estimated output index (1)	Production	Producer prices	Capacity utilisation (2)	New orders
EU-15	09-97 ⇔ 11-97	↗	↗	→	↗	↗
B	09-97 ⇔ 11-97	:	→	:	↗	:
DK	08-97 ⇔ 10-97	:	↗	→	↘	↗
D	09-97 ⇔ 11-97	↗	↗	→	↗	↗
EL	09-97 ⇔ 11-97	:	→	:	↘↘	:
E	09-97 ⇔ 11-97	↗	↗	↗	↗	:
F	09-97 ⇔ 11-97	↗	↗	→	↗	:
IRL	07-97 ⇔ 09-97	↗↗	↗↗	→	↘↘	:
I	09-97 ⇔ 11-97	↗	↗	→	→	:
L	09-97 ⇔ 11-97	↗	↗↗	↗	→	↗
NL	09-97 ⇔ 11-97	↗	↗	→	→	:
A	04-97 ⇔ 06-97	↗	↗	:	↗	↗
P	08-97 ⇔ 10-97	↗	↗	↗	↗	:
FIN	09-97 ⇔ 11-97	↗↗	↗	↗	↗	:
S	08-97 ⇔ 10-97	↗↗	↗↗	→	↘	↗↗
UK	09-97 ⇔ 11-97	↗	→	↗	↗	:
Japan	09-97 ⇔ 11-97	:	↘	→	:	:
USA	09-97 ⇔ 11-97	:	↗	→	:	:

Growth rates:

↗↗	>2.5%
↗	0.5% → 2.5%
→	-0.5% → 0.5%
↘	-2.5% → -0.5%
↘↘	<-2.5%

1) EOI runs two months ahead of the period given

2) capacity utilisation is fixed on the first month of the quarter of the period given

Source:  eurostat

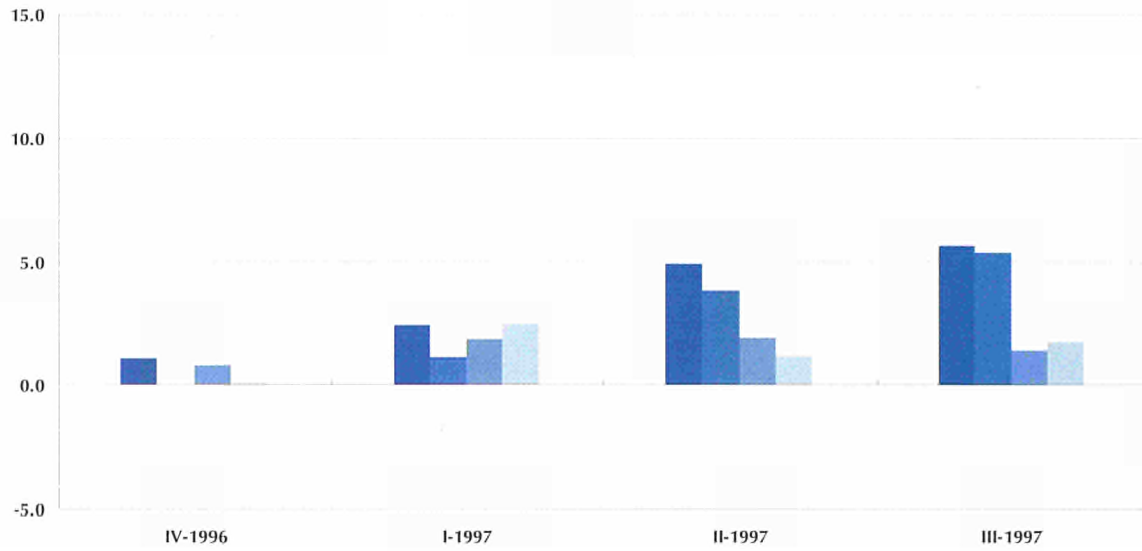


Production index (working day adjusted)

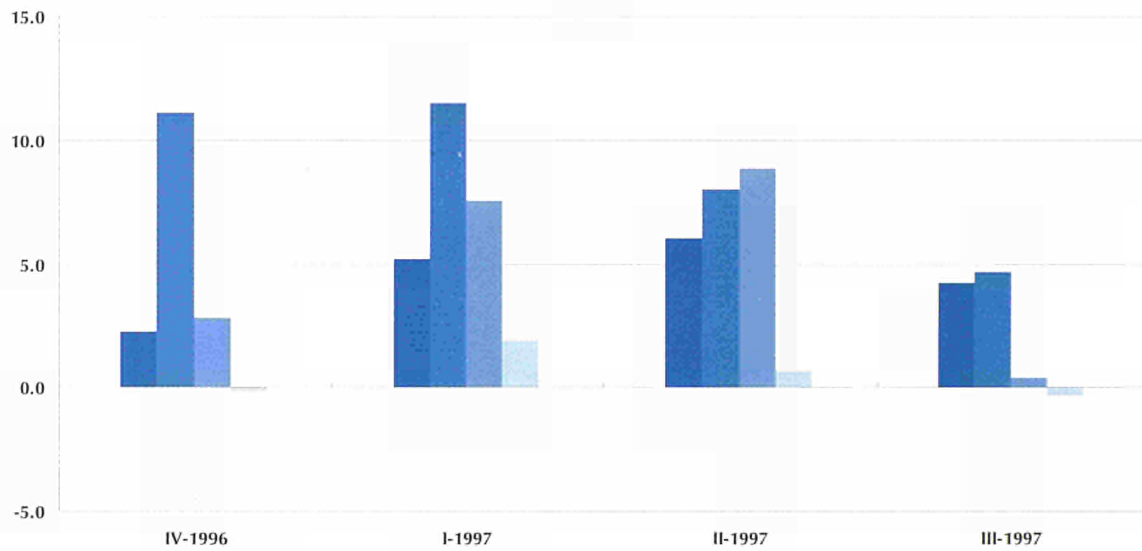
Figure 2.1

Industrial production for the main industrial groupings: growth rate, year on year (%)

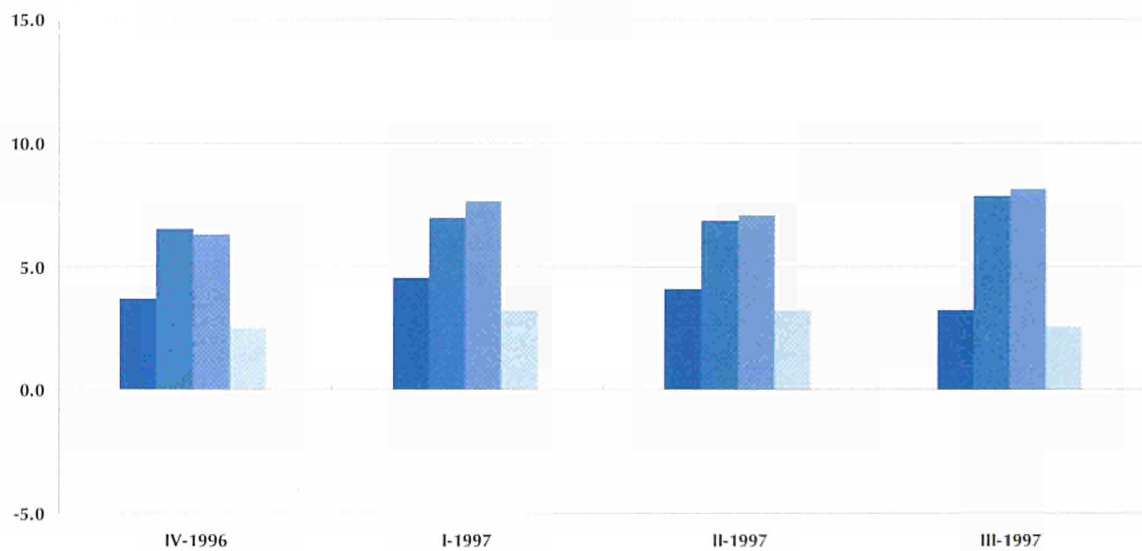
EU-15



Japan



USA



- Intermediate goods
- Capital goods
- Consumer durables
- Consumer non-durables

Source:  eurostat

Table 2.2

Industrial production:  
indices  
(1990 = 100)

	1994	1995	1996	06-97	07-97	08-97	09-97	10-97	11-97
<b>EU-15</b>	99.5	103.4	103.5	107.6	108.1	108.0	108.4	109.2	109.7
<b>B</b>	94.7	100.9	101.7	105.1	113.8	110.2	104.7	104.8	104.5
<b>DK</b>	111.1	115.8	117.1	121.1	124.6	122.1	124.1	123.0	:
<b>D</b>	93.9	95.9	96.0	101.9	102.8	99.6	101.5	102.3	103.0
<b>EL</b>	95.7	97.4	98.4	100.2	101.0	99.1	101.2	99.4	100.1
<b>E</b>	98.7	103.2	102.1	108.9	109.8	112.8	111.6	113.1	112.3
<b>F</b>	97.7	99.6	99.7	102.9	104.9	104.9	103.9	107.5	105.5
<b>IRL</b>	133.3	158.5	171.1	195.2	201.4	206.0	205.4	:	:
<b>I</b>	101.7	107.9	104.8	108.0	108.8	110.6	108.8	109.0	109.3
<b>L</b>	100.5	101.0	100.6	104.5	110.3	109.2	108.5	113.0	111.9
<b>NL</b>	105.3	108.3	111.2	113.5	113.7	113.3	112.9	114.0	116.1
<b>A</b>	105.9	112.3	:	115.9	:	:	:	:	:
<b>P</b>	94.9	99.4	100.8	103.7	103.9	103.8	106.0	106.1	:
<b>FIN</b>	106.5	114.1	118.3	127.4	132.8	128.6	127.4	129.9	133.1
<b>S</b>	103.8	116.8	120.4	128.0	128.5	129.5	134.1	131.5	:
<b>UK</b>	103.8	106.2	107.1	110.3	111.4	110.5	110.4	110.2	109.5
<b>Japan</b>	93.1	96.3	98.6	103.0	104.3	101.4	104.0	103.9	99.8
<b>USA</b>	110.3	115.8	119.8	121.3	122.2	122.9	123.5	124.1	128.7

Source:  eurostat

Table 2.3

Industrial production  
for the main  
industrial groupings:  
indices  
(1990 = 100)

	1994	1995	1996	06-97	07-97	08-97	09-97	10-97	11-97
<b>Total industry</b>									
<b>EU-15</b>	99.5	103.4	103.5	107.6	108.1	108.0	108.4	109.2	109.7
<b>Japan</b>	93.1	96.3	98.6	103.0	104.3	101.4	104.0	103.9	99.8
<b>USA</b>	110.3	115.8	119.8	121.3	122.2	122.9	123.5	124.1	128.7
<b>Intermediate goods</b>									
<b>EU-15</b>	101.8	105.1	104.3	109.6	110.1	110.0	110.5	111.3	111.9
<b>Japan</b>	95.5	99.4	99.7	103.0	104.4	102.8	104.8	104.1	100.9
<b>USA</b>	104.3	106.2	108.7	112.5	112.5	113.1	113.2	113.9	114.5
<b>Capital goods</b>									
<b>EU-15</b>	92.2	99.5	101.5	106.6	108.3	105.7	106.1	107.5	107.7
<b>Japan</b>	85.6	89.5	97.5	104.8	105.6	102.9	102.8	103.0	98.8
<b>USA</b>	104.7	110.2	115.9	123.7	124.6	126.8	126.7	127.2	128.8
<b>Consumer durables</b>									
<b>EU-15</b>	95.2	96.6	97.0	99.9	105.1	96.0	98.9	99.8	100.1
<b>Japan</b>	82.3	81.3	79.6	82.4	84.3	76.3	80.8	83.1	74.3
<b>USA</b>	115.5	125.2	132.9	142.6	143.8	145.7	146.0	146.9	149.0
<b>Consumer non-durables</b>									
<b>EU-15</b>	102.6	104.5	103.7	105.1	105.6	105.4	105.9	106.4	105.7
<b>Japan</b>	98.8	98.7	98.3	96.8	100.5	93.0	99.1	99.5	98.8
<b>USA</b>	107.4	109.7	110.3	112.8	113.3	113.4	113.7	114.4	114.8

Source:  eurostat

Production index (trend cycle)

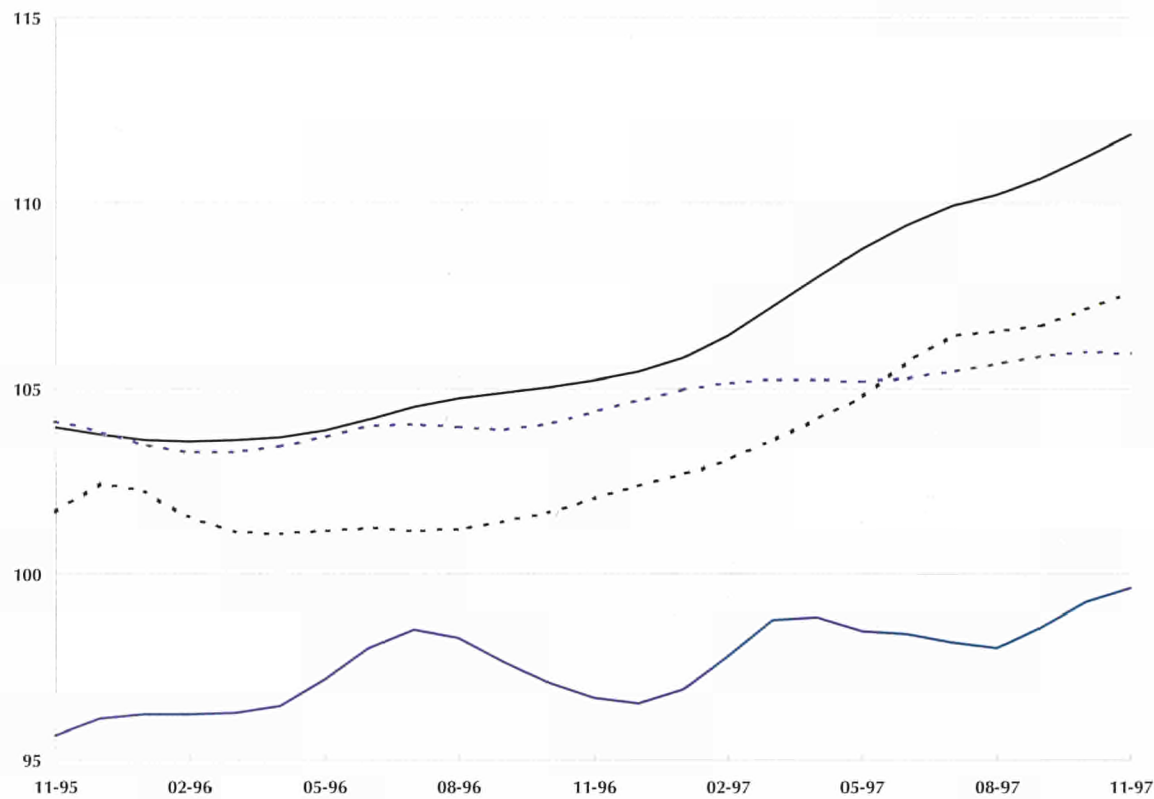


Figure 2.2

EU-15 industrial production for the main industrial groupings: indices (1990 = 100)

— Intermediate goods  
 - - - Capital goods  
 — Consumer durables  
 - - - Consumer non-durables

Source: eurostat

	Latest 3 months available		Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables
<b>EU-15</b>	09-97	⇒ 11-97	1.2	1.3	0.9	1.0	0.5
<b>B</b>	09-97	⇒ 11-97	0.0	-0.2	:	-0.5	-0.5
<b>DK</b>	08-97	⇒ 10-97	1.3	1.2	1.9	4.2	0.7
<b>D</b>	09-97	⇒ 11-97	1.3	2.0	1.5	0.0	-0.1
<b>EL</b>	09-97	⇒ 11-97	0.0	0.3	-1.2	3.4	-0.1
<b>E</b>	09-97	⇒ 11-97	2.0	2.0	2.8	5.3	0.4
<b>F</b>	09-97	⇒ 11-97	1.9	1.4	2.5	2.1	1.3
<b>IRL</b>	07-97	⇒ 09-97	4.6	6.5	4.5	:	:
<b>I</b>	09-97	⇒ 11-97	0.7	0.8	0.1	-3.6	0.5
<b>L</b>	09-97	⇒ 11-97	3.1	3.7	1.5	-2.5	1.4
<b>NL</b>	09-97	⇒ 11-97	0.9	1.0	0.7	1.5	0.5
<b>A</b>	04-97	⇒ 06-97	0.7	:	0.1	-3.6	-0.8
<b>P</b>	08-97	⇒ 10-97	1.8	2.2	5.0	4.4	-0.6
<b>FIN</b>	09-97	⇒ 11-97	2.2	2.4	3.0	5.4	0.9
<b>S</b>	08-97	⇒ 10-97	2.6	1.8	5.2	3.5	-0.2
<b>UK</b>	09-97	⇒ 11-97	0.2	0.0	0.1	1.0	0.3
<b>Japan</b>	09-97	⇒ 11-97	-0.9	-0.9	-1.8	-3.5	0.1
<b>USA</b>	09-97	⇒ 11-97	2.5	0.8	2.5	2.4	0.8

Table 2.4

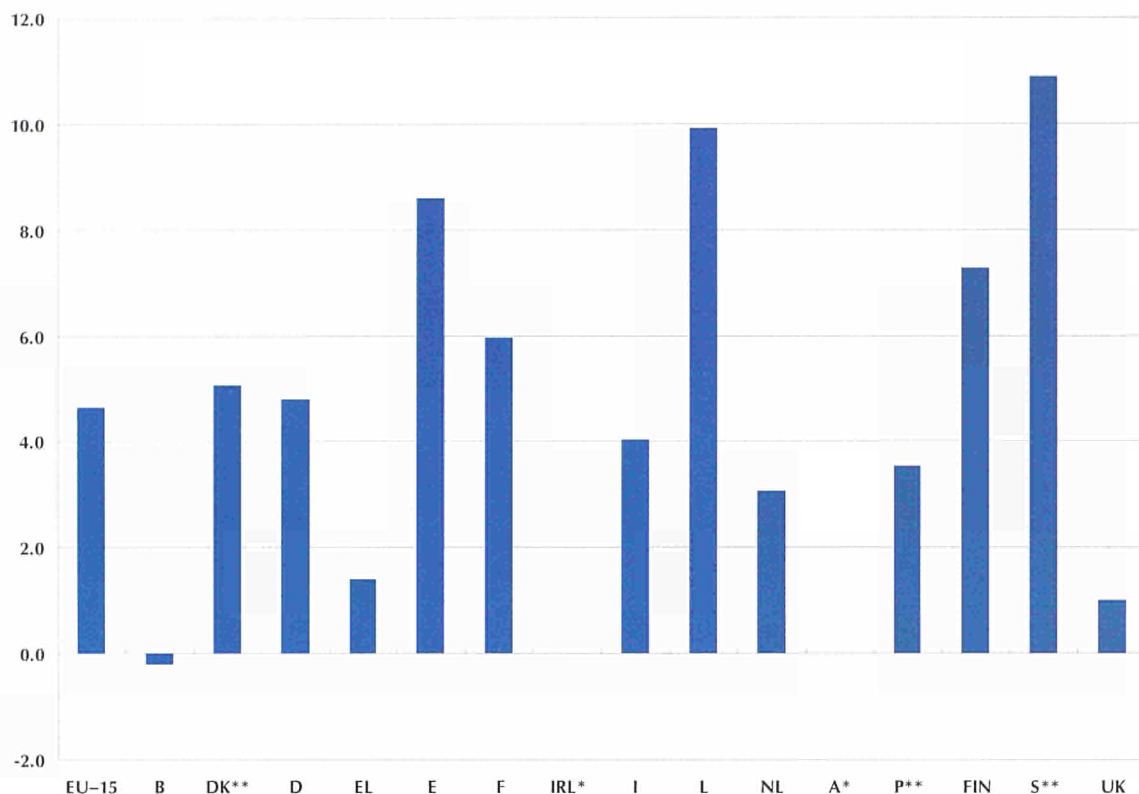
Industrial production for the main industrial groupings: growth rate, three months compared to the previous three months (%)

Source: eurostat



Figure 2.3

Industrial production for total industry: growth rate, three months compared to the same three months of the previous year, 09-97 to 11-97 (%)



Source:  eurostat

Table 2.5

Industrial production for the main industrial groupings: growth rate, three months compared to the same three months of the previous year (%)

	Latest 3 months available		Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables
<b>EU-15</b>	09-97	⇒ 11-97	4.6	5.6	5.2	2.5	2.0
<b>B</b>	09-97	⇒ 11-97	-0.2	1.5	-4.5	-11.8	-0.8
<b>DK</b>	08-97	⇒ 10-97	4.6	5.1	2.7	6.5	5.1
<b>D</b>	09-97	⇒ 11-97	4.8	7.4	5.5	0.6	-1.1
<b>EL</b>	09-97	⇒ 11-97	1.4	2.2	-1.5	1.9	0.7
<b>E</b>	09-97	⇒ 11-97	8.6	8.0	11.3	16.7	5.0
<b>F</b>	09-97	⇒ 11-97	6.0	5.2	9.3	7.8	5.7
<b>IRL</b>	07-97	⇒ 09-97	20.0	31.7	23.8	:	:
<b>I</b>	09-97	⇒ 11-97	4.0	5.6	-0.6	-3.7	3.3
<b>L</b>	09-97	⇒ 11-97	9.9	12.5	3.9	8.2	7.8
<b>NL</b>	09-97	⇒ 11-97	3.1	3.9	1.5	5.7	1.9
<b>A</b>	04-97	⇒ 06-97	4.4	:	1.5	-9.6	-1.0
<b>P</b>	08-97	⇒ 10-97	3.4	5.5	6.9	5.2	-4.0
<b>FIN</b>	09-97	⇒ 11-97	7.3	9.8	13.9	17.7	2.8
<b>S</b>	08-97	⇒ 10-97	9.8	6.2	19.0	9.9	-1.6
<b>UK</b>	09-97	⇒ 11-97	1.0	0.5	2.7	5.2	0.9
<b>Japan</b>	09-97	⇒ 11-97	1.7	2.2	0.2	-4.2	0.9
<b>USA</b>	09-97	⇒ 11-97	6.6	3.2	8.5	9.0	2.5

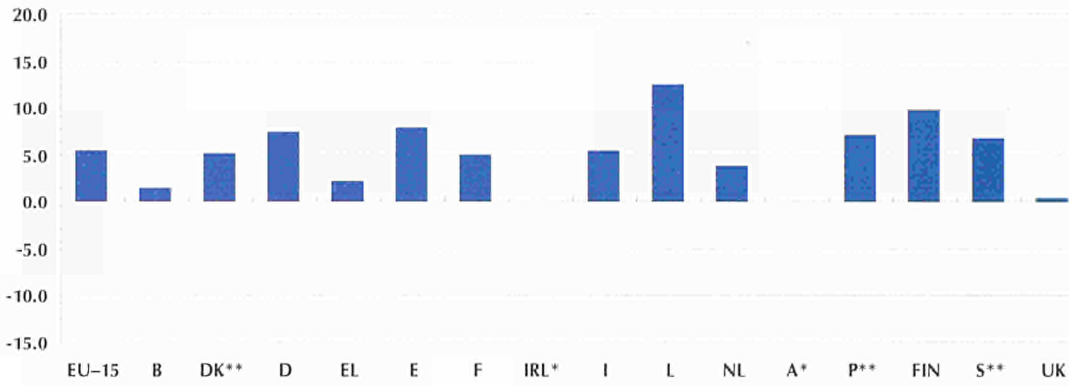
Source:  eurostat

Production index (working day adjusted)

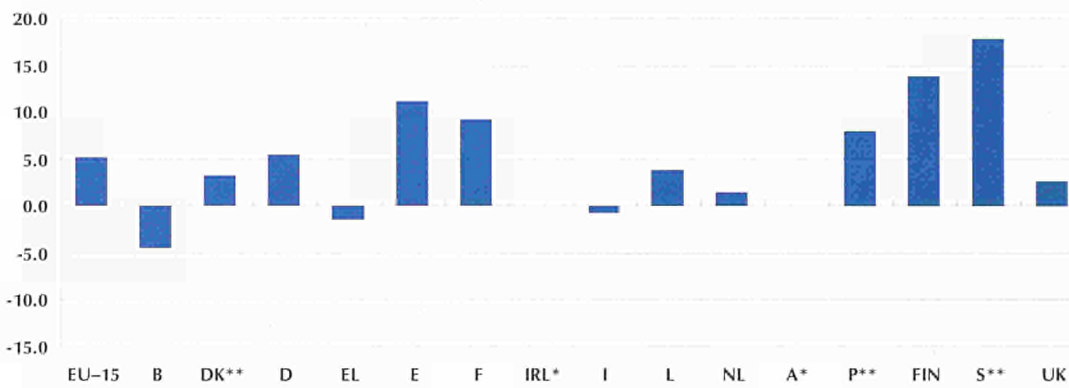
Figure 2.4

Industrial production for EU-15 for the main industrial groupings: growth rate, three months compared to the same three months of the previous year, 09-97 to 11-97 (%)

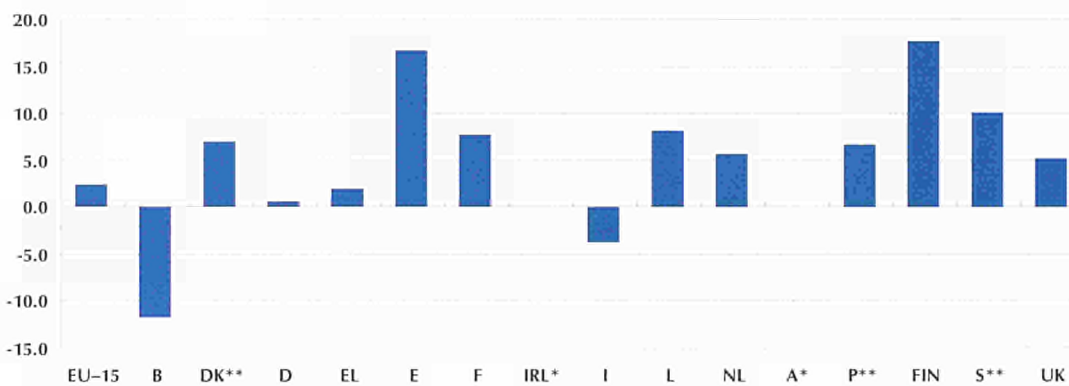
Intermediate goods



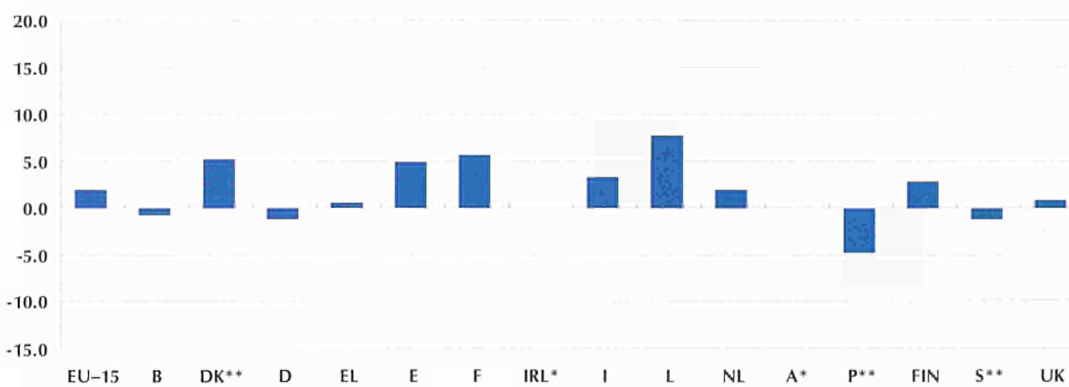
Capital goods



Consumer durables goods



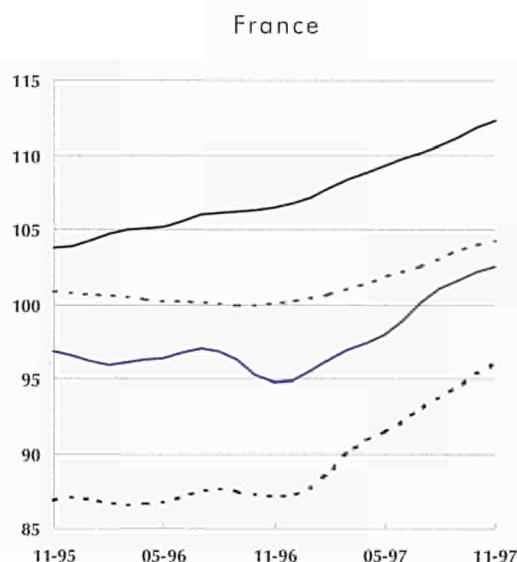
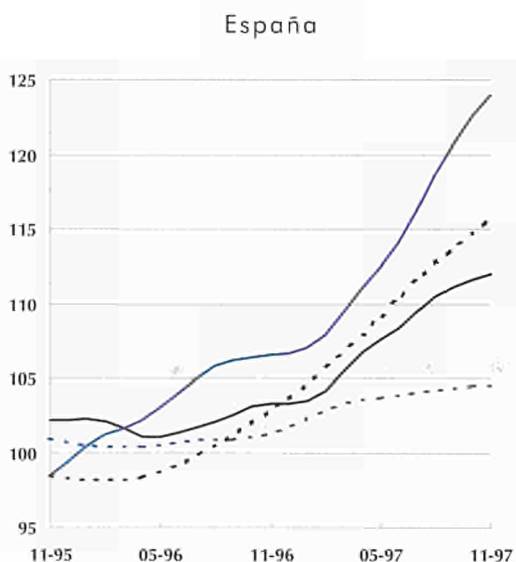
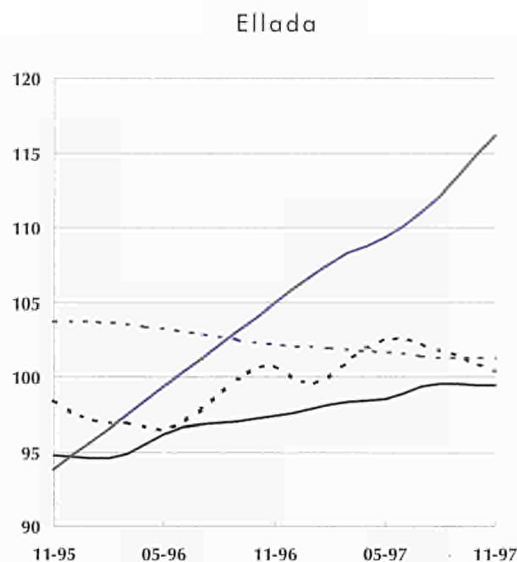
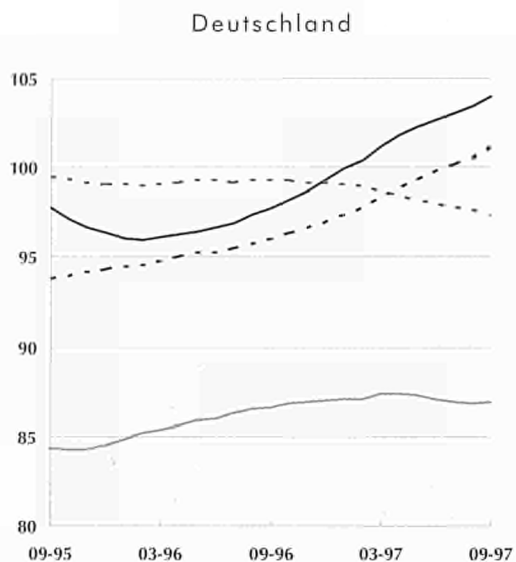
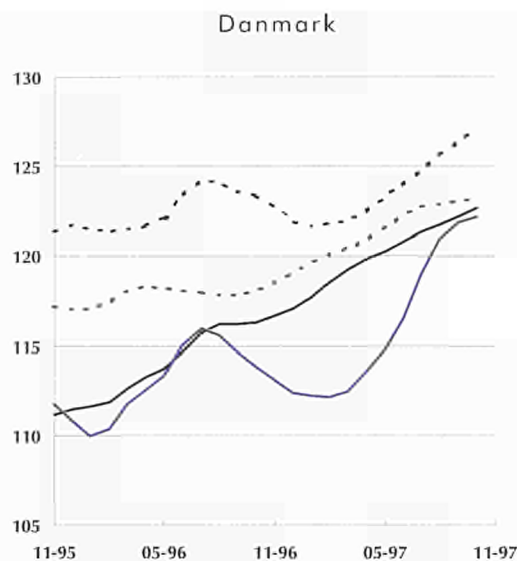
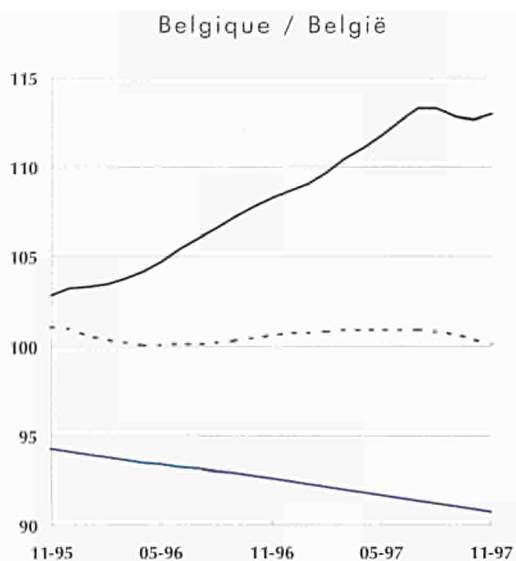
Consumer non-durables goods



Source: eurostat

Figure 2.5

Industrial production for the main industrial groupings: indices (1990 = 100)



Intermediate goods —  
 Capital goods - - -  
 Consumer durables —  
 Consumer non-durables - - -

Source: eurostat

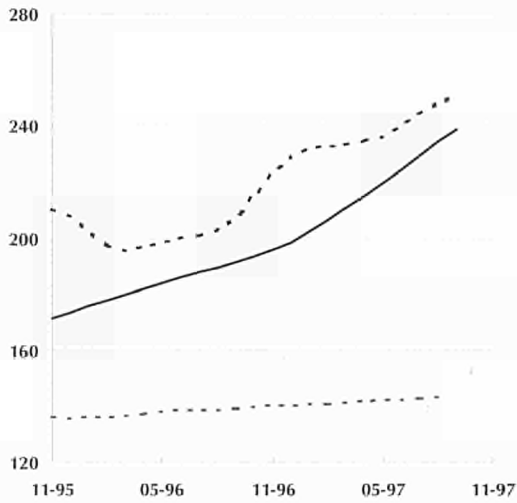
Production index (trend cycle)

Figure 2.5

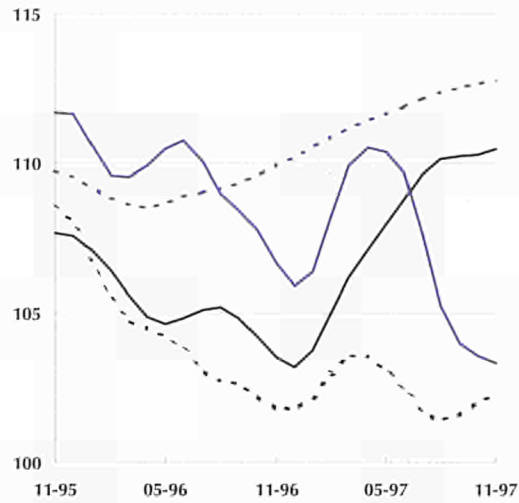
Industrial production for the main industrial groupings: indices (1990 = 100)

- Intermediate goods
- - - Capital goods
- Consumer durables
- Consumer non-durables

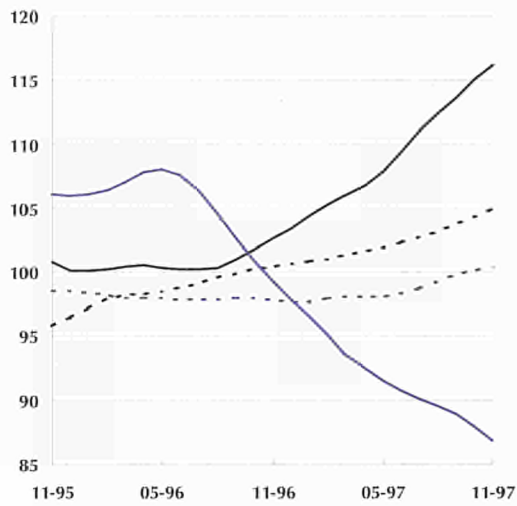
Ireland



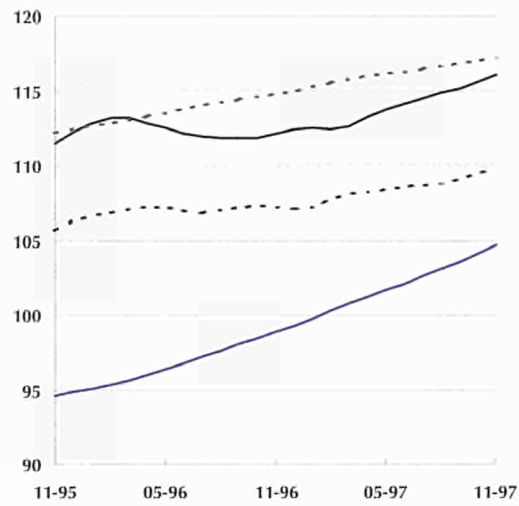
Italia



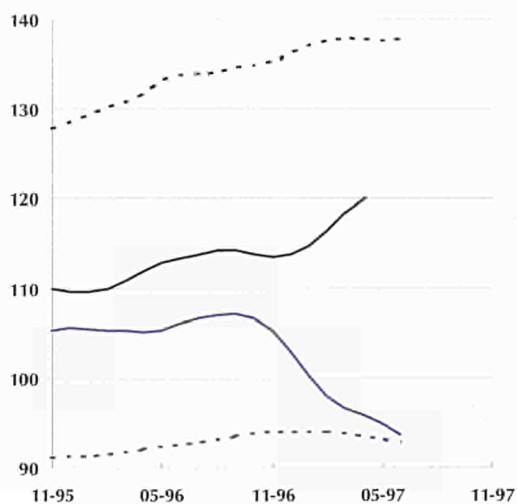
Luxembourg



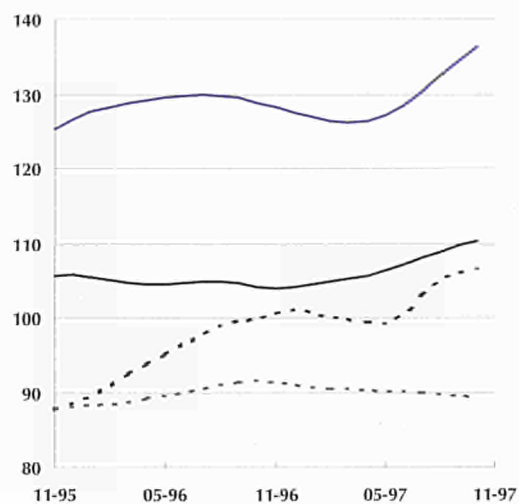
Nederland



Österreich



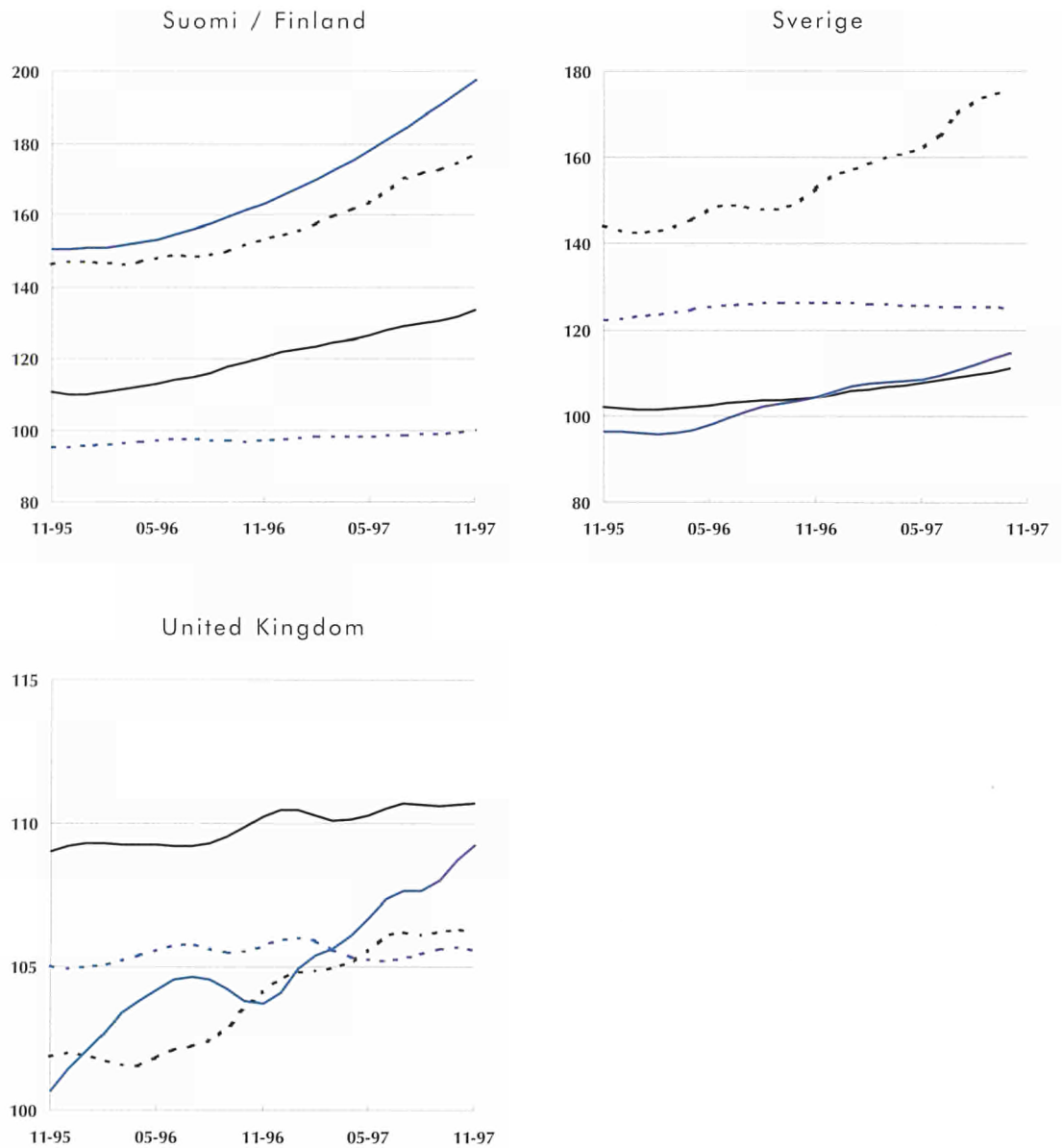
Portugal



Source:  eurostat

Figure 2.5

Industrial production for the main industrial groupings: indices (1990 = 100)



- Intermediate goods ———
- Capital goods - - - - -
- Consumer durables ———
- Consumer non-durables - - - - -

**Further information - the production index:**

The index of production aims to measure changes in volume (at constant prices) of gross value added created by a given activity, the activity indices being aggregated (like the aggregation at Community level) by means of a system of weighting according to gross value added at factor cost. Since the monthly evolution of value added can not be measured, as an approximation, product output or deflated turnover is used.

The indices of production are adjusted in two stages. Firstly, account is taken of the variation in the number of working days in the month. The national Statistical Offices provide Eurostat with these series (except Denmark, France and Spain). Secondly, for EU-15 and most of the Member States a correction is made using seasonal adjustment with TRAMO / SEATS, a method developed by Professor Maravall and V.Gomez. For France, Finland, Sweden and the United Kingdom, the indices are adjusted by the national statistical offices themselves. For Germany, the trend and seasonally adjusted figures are calculated by the German NSO. Full methodological notes may be found on page 73.

Source: eurostat



Production index (expected output index)

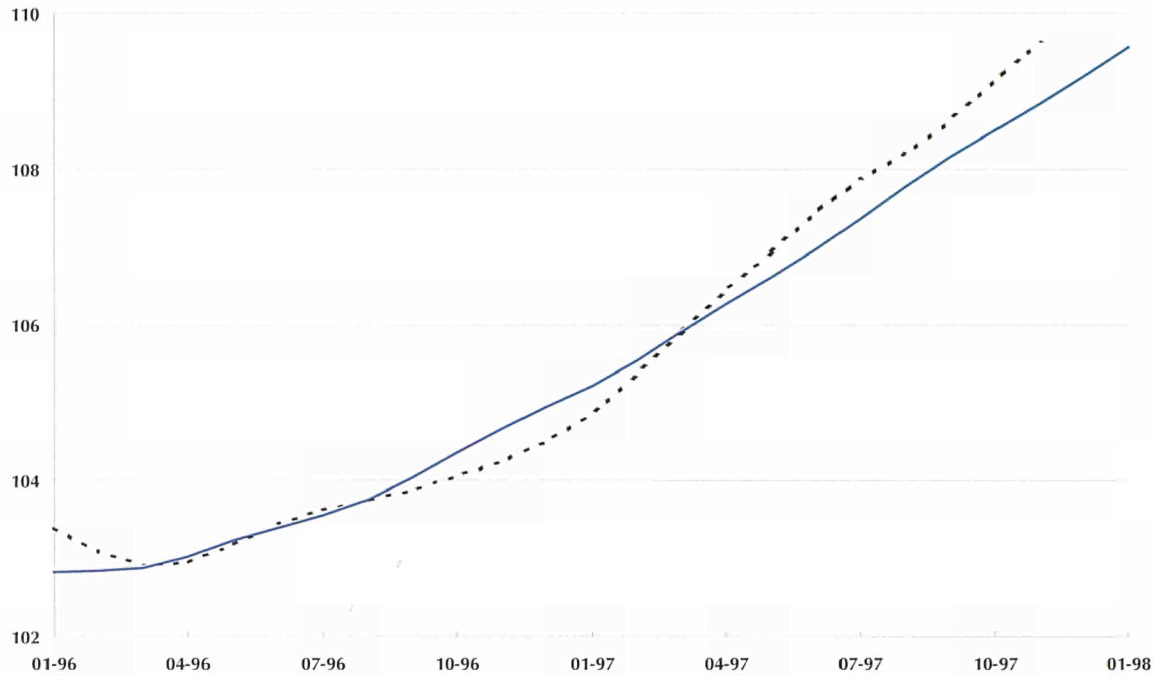
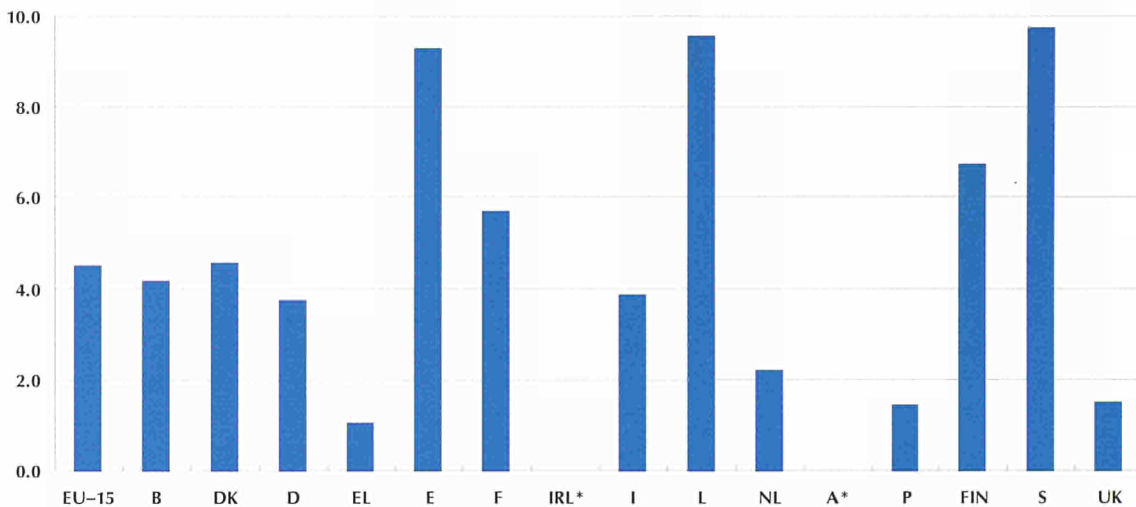


Figure 2.6

EU-15 expected output index for total industry: indices (1990 = 100)

----- Production index  
 ——— Expected output index

Expected output index for total industry, three months compared to the previous three months, 11-97 to 01-98 (%)



Source: eurostat

**Further information - expected output index:**

The Expected Output Index (EOI) links several aspects of information from qualitative business opinion surveys (questions on order books and questions on production expectations) with the index of industrial production. As the data from the business opinion surveys are available earlier and lead the evolution of industrial production, they can be used to compute a short-term estimate of the production index.

A multiple regression is run, using the growth rate of the industrial production lagged with values of the business opinion survey data. The result of this regression is "integrated" from a growth rate to an evolution, and after that the trend cycle is calculated for a clearer interpretation of the results.

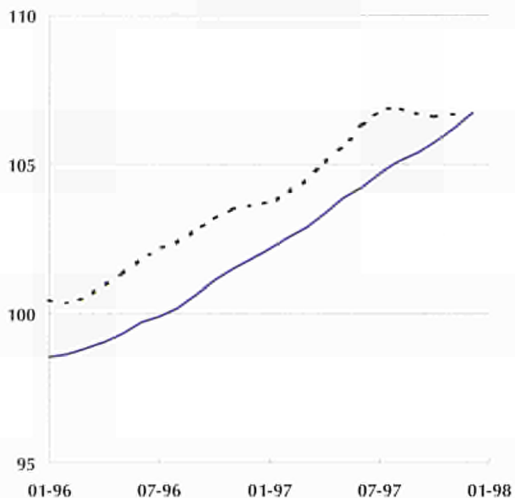
Details of the estimation method can be found in a more thorough article that was published in Special Edition 5/97 of the Monthly Panorama of the European Industry.

Full methodological notes may be found on page 73.

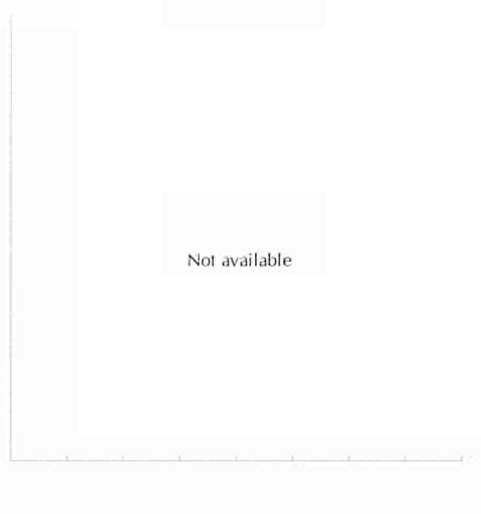
Figure 2.7

Expected output index for total industry: indices (1990 = 100)

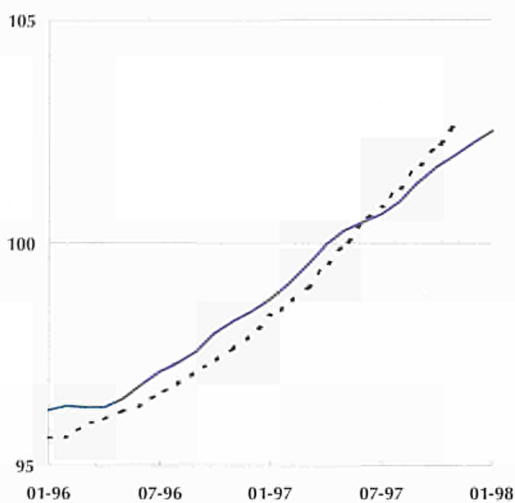
Belgique / België



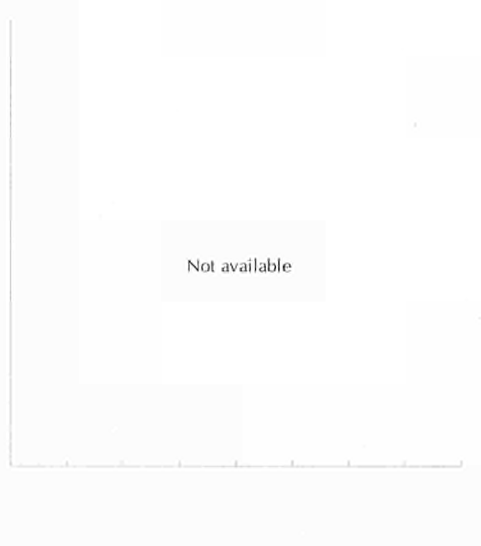
Danmark



Deutschland

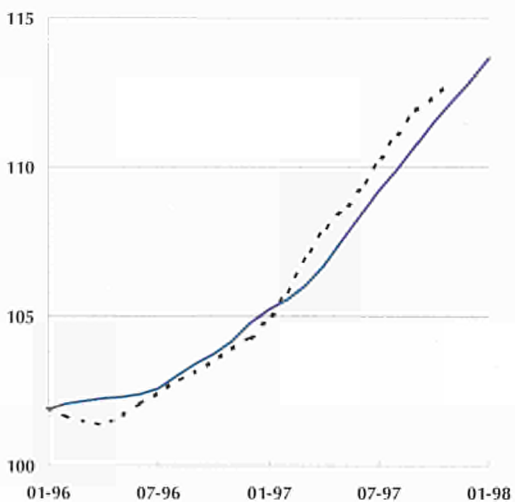


Ellada

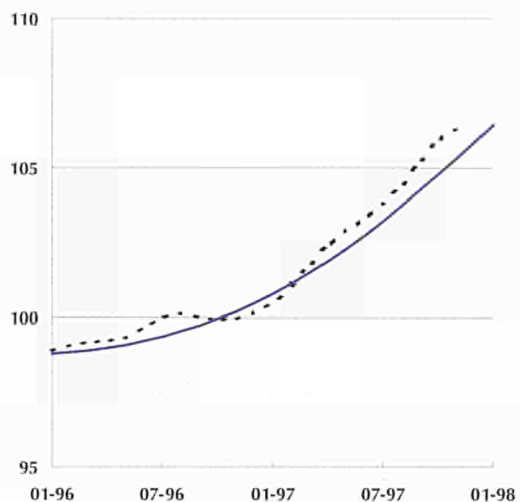


España

Production index - - - -  
Expected output index —



France

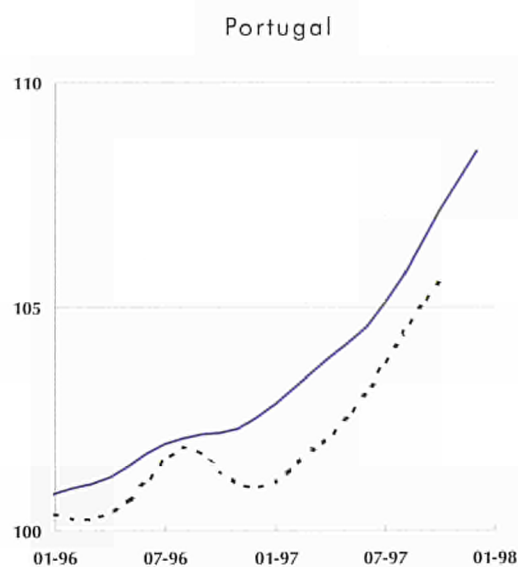
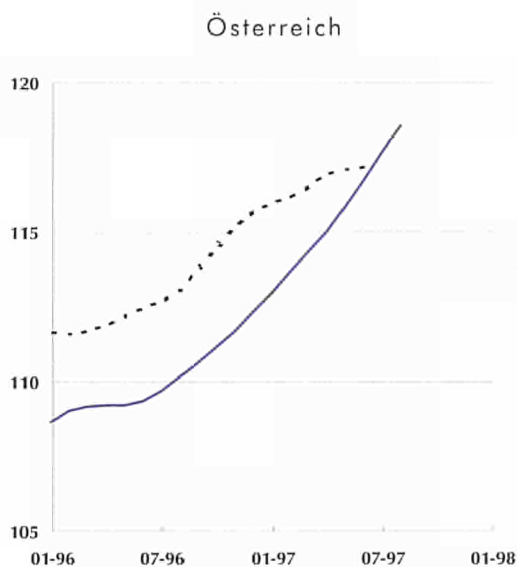
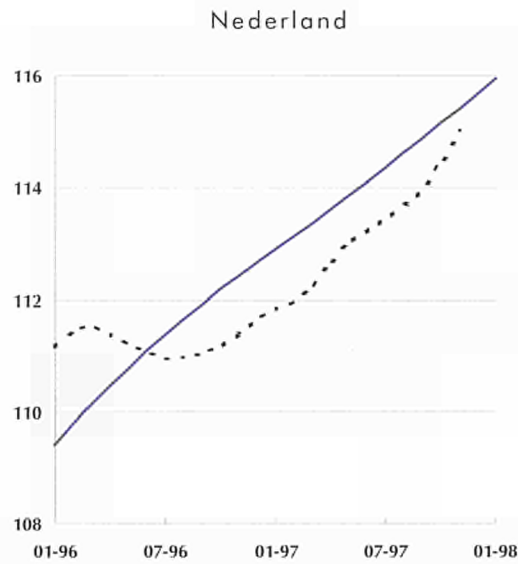
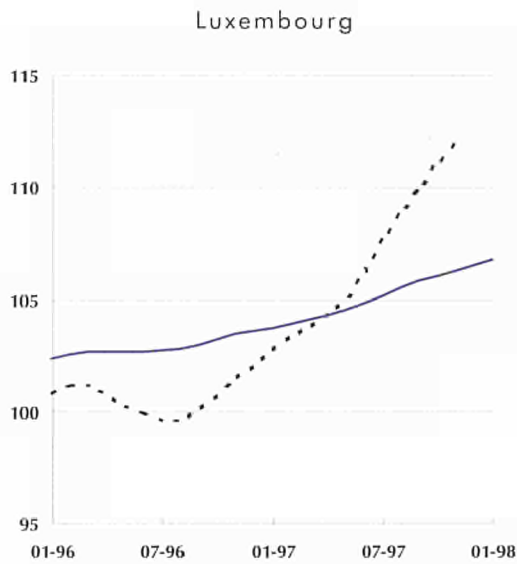
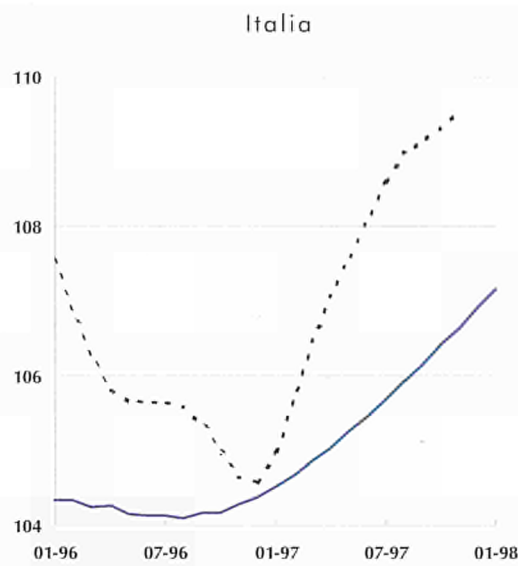
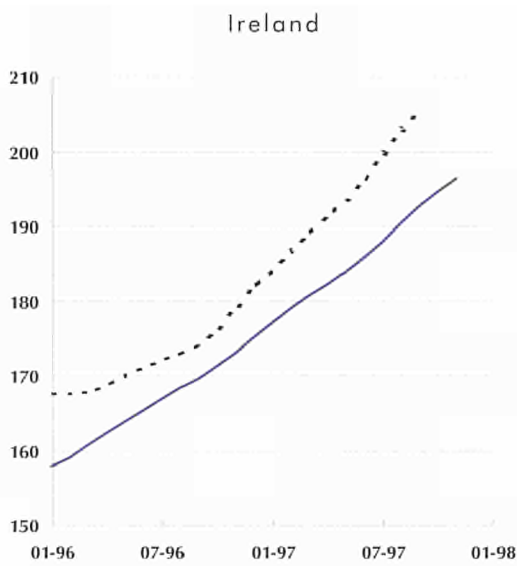


Source: eurostat

Production index (expected output index)

Figure 2.7

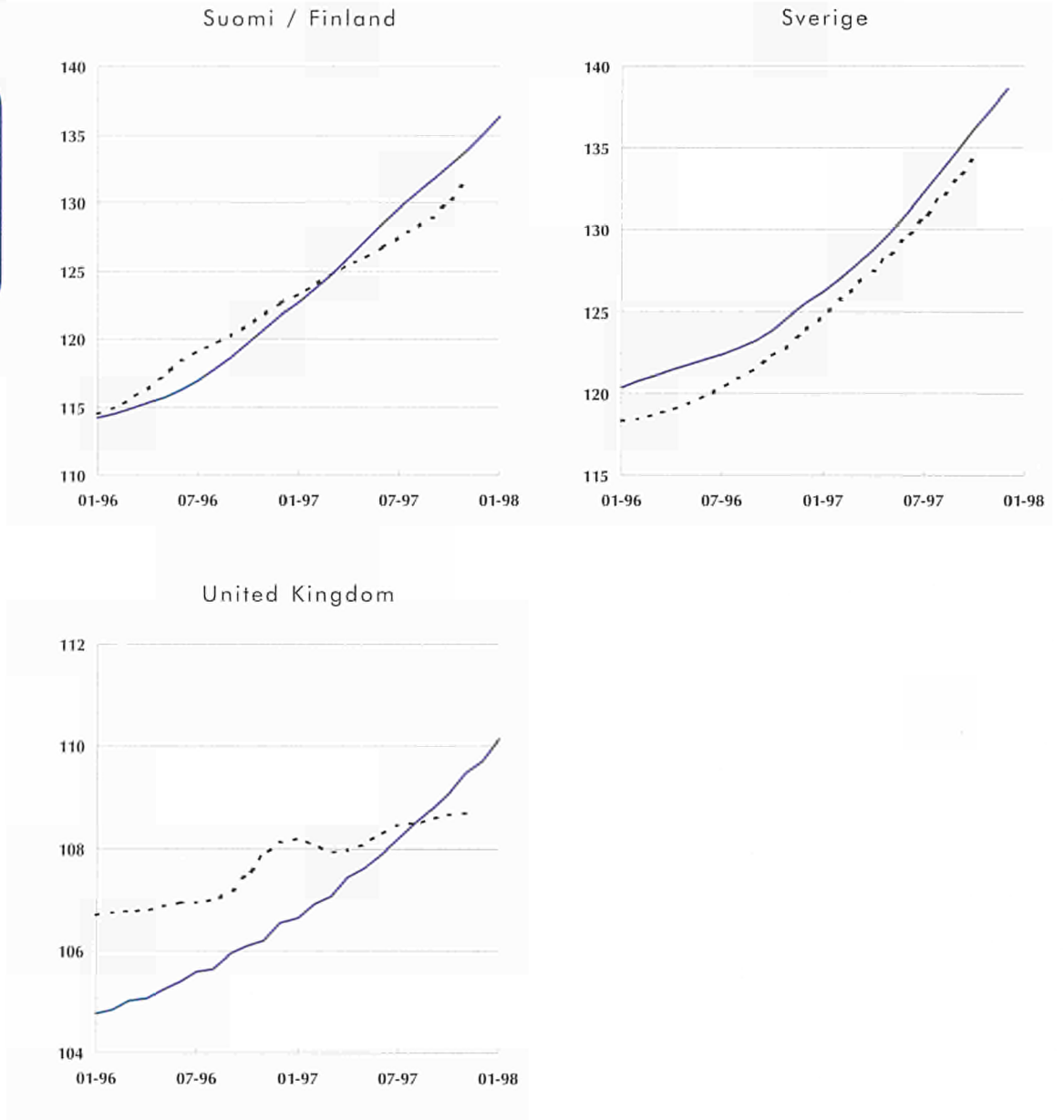
Expected output index  
for total industry:  
indices  
(1990 = 100)



----- Production index  
————— Expected output index

Figure 2.7

Expected output index for total industry: indices (1990 = 100)



Production index - - - - -  
Expected output index ———

Domestic producer price index

EU-15

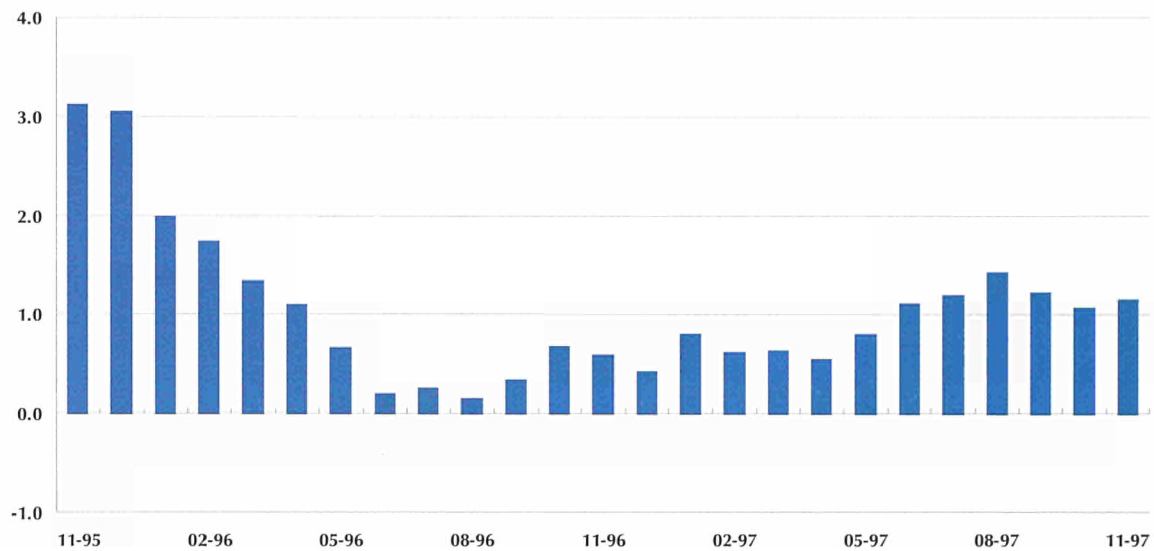
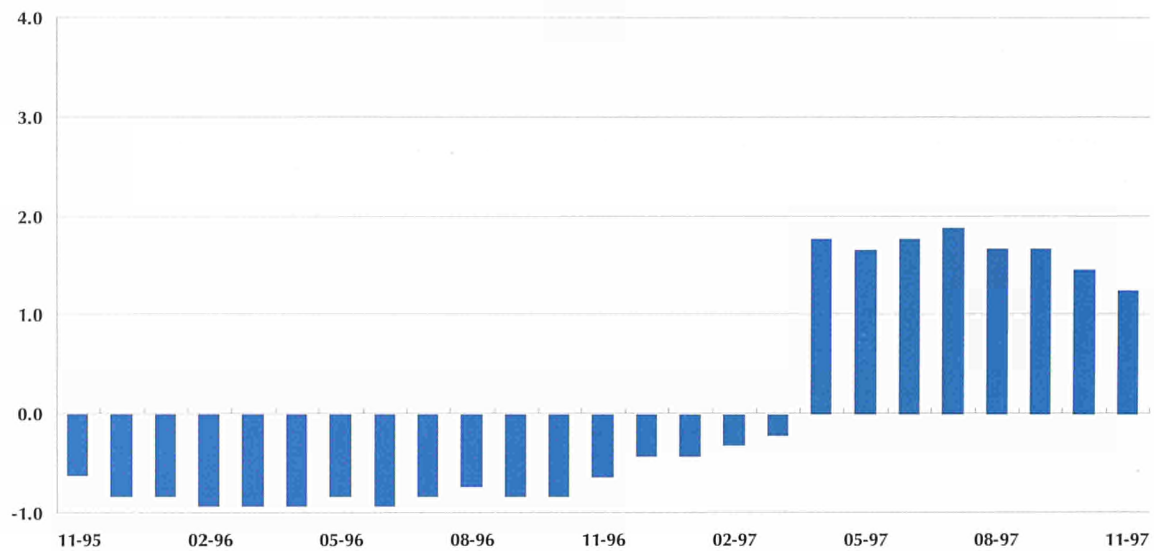


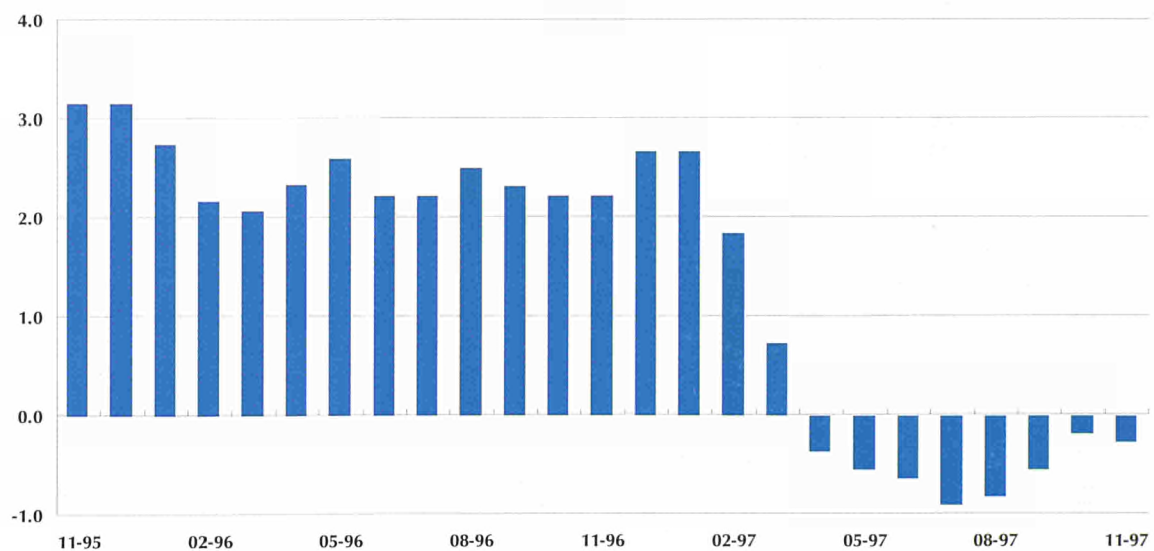
Figure 2.8

Domestic producer price index: growth rate, year on year (%)

Japan



USA

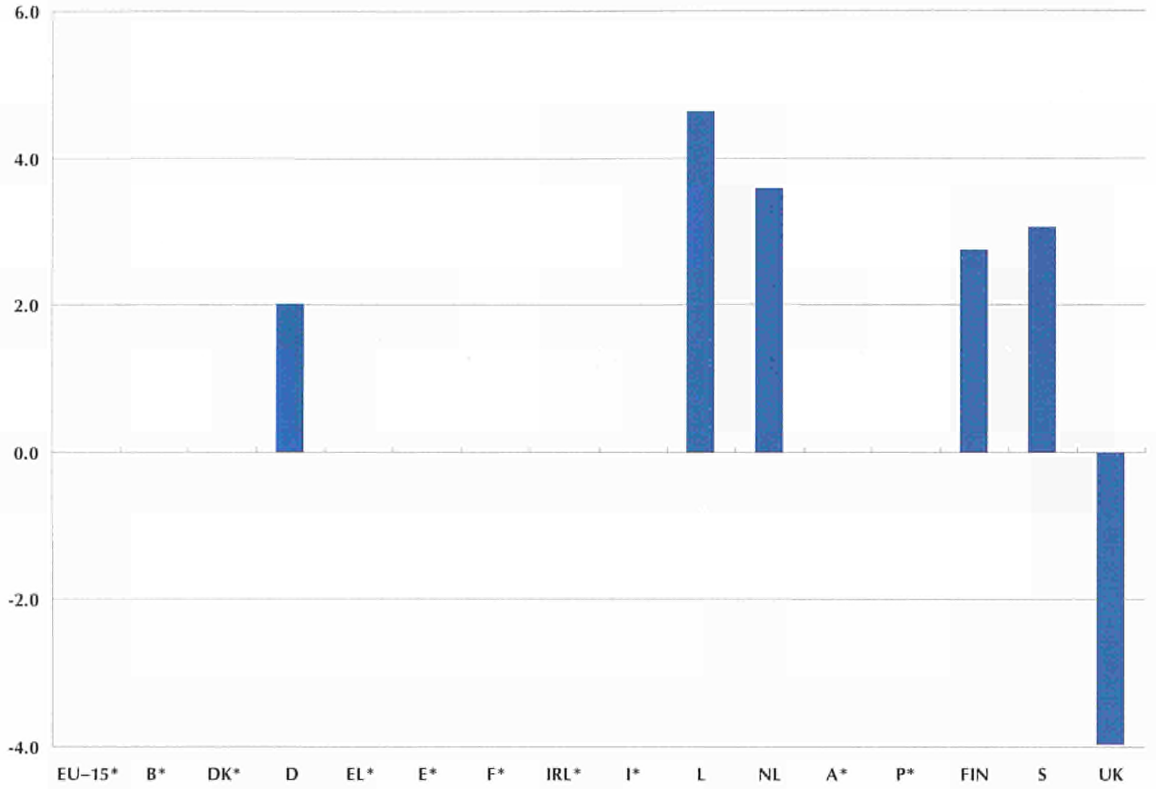


Source: eurostat



Figure 2.9

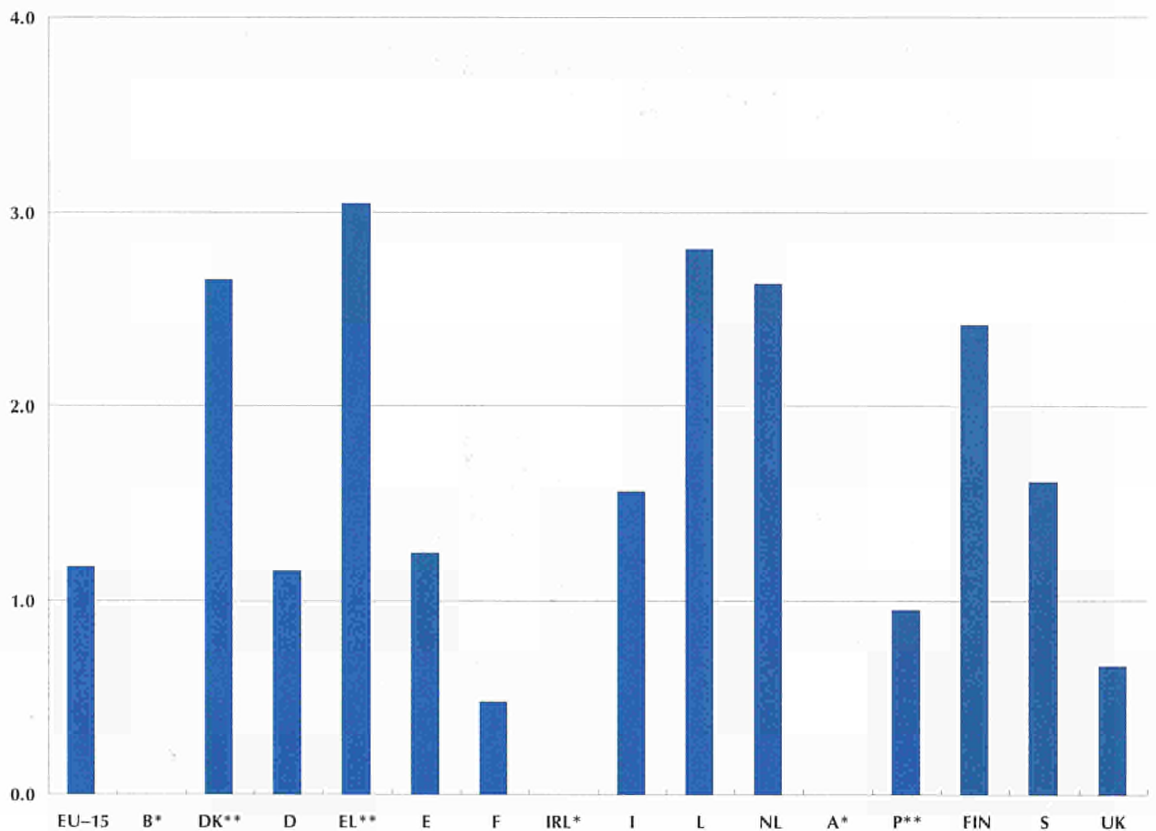
Export prices for manufacturing industry: growth rate, year on year, 11-97 (%)



Source: eurostat

Figure 2.10

Domestic producer price index: growth rate, year on year, 11-97 (%)



Source: eurostat

## Domestic producer price index

Table 2.6

	1995	1996	1997	07-97	08-97	09-97	10-97	11-97	12-97
<b>EU-15</b>	112.4	113.3	:	114.3	114.6	114.7	114.8	115.1	:
<b>B</b>	101.7	102.4	:	104.5	105.4	105.2	:	:	:
<b>DK</b>	103.4	105.1	:	107.7	108.5	108.4	108.3	:	:
<b>D</b>	106.5	106.0	107.2	107.3	107.5	107.6	107.5	107.5	107.4
<b>EL</b>	171.4	184.1	:	189.9	191.4	191.8	193.0	:	:
<b>E</b>	116.8	118.7	:	119.9	120.4	120.6	120.7	120.8	:
<b>F</b>	103.1	103.5	:	103.7	104.0	103.9	104.0	104.1	:
<b>IRL</b>	111.6	113.6	:	113.7	113.8	113.5	:	:	:
<b>I</b>	122.2	124.5	:	126.0	126.3	126.5	126.7	127.0	:
<b>L</b>	110.9	110.4	:	112.5	113.2	113.7	113.7	113.4	:
<b>NL</b>	103.9	105.8	:	108.6	109.4	109.3	109.2	109.2	:
<b>A</b>	:	:	:	:	:	:	:	:	:
<b>P</b>	116.6	120.2	:	121.9	122.7	123.3	122.9	:	:
<b>FIN</b>	107.7	107.6	109.1	109.3	109.9	110.0	110.0	110.0	109.7
<b>S</b>	117.3	118.0	119.3	119.8	119.9	120.1	120.1	119.7	119.8
<b>UK</b>	118.5	119.4	119.9	118.8	118.9	119.4	119.8	120.8	122.4
<b>Japan</b>	96.1	95.4	:	97.0	96.8	96.7	96.5	96.4	:
<b>USA</b>	107.3	109.8	:	109.1	109.4	109.6	109.9	109.9	:

Domestic producer  
price index:  
indices  
(1990 = 100)

Source:  eurostat

Table 2.7

	1995	1996	1997	07-97	08-97	09-97	10-97	11-97	12-97
<b>EU-15</b>	104.2	106.5	:	109.5	109.7	109.7	109.8	110.1	:
<b>B</b>	112.0	110.5	:	108.5	109.6	109.9	:	:	:
<b>DK</b>	110.9	112.2	:	112.3	113.3	113.7	113.6	:	:
<b>D</b>	116.6	113.9	112.0	111.3	111.7	112.2	112.1	111.8	111.6
<b>EL</b>	114.0	121.5	:	123.3	124.7	124.6	125.6	:	:
<b>E</b>	92.8	95.6	:	92.9	93.4	94.0	94.0	93.8	:
<b>F</b>	109.2	110.3	:	107.4	108.0	108.6	108.9	108.9	:
<b>IRL</b>	105.0	110.0	:	118.3	118.3	117.2	:	:	:
<b>I</b>	87.3	96.8	:	99.5	99.7	100.2	100.0	99.9	:
<b>L</b>	122.0	119.2	:	116.8	117.8	118.7	118.8	118.2	:
<b>NL</b>	114.5	114.3	:	112.7	113.7	114.0	113.9	113.5	:
<b>A</b>	:	:	:	:	:	:	:	:	:
<b>P</b>	107.7	111.2	:	110.5	111.1	111.7	111.0	:	:
<b>FIN</b>	91.6	89.6	90.1	90.5	90.4	90.6	90.6	89.8	89.2
<b>S</b>	94.7	104.3	103.7	104.4	105.3	106.6	106.5	104.5	104.1
<b>UK</b>	102.1	104.9	123.7	128.3	126.8	124.0	124.5	127.8	130.5
<b>Japan</b>	144.2	126.9	:	140.0	140.5	133.7	130.7	124.1	:
<b>USA</b>	104.2	109.9	:	125.5	129.6	126.6	124.7	122.6	:

Domestic producer  
price index  
in ECU terms:  
indices  
(1990 = 100)

Source:  eurostat



Figure 2.11

EU-15 domestic producer price index for the main industrial groupings: indices (1990 = 100)

Intermediate goods —  
Capital goods - - - -  
Consumer durables —  
Consumer non-durables - - - -

Source:  eurostat

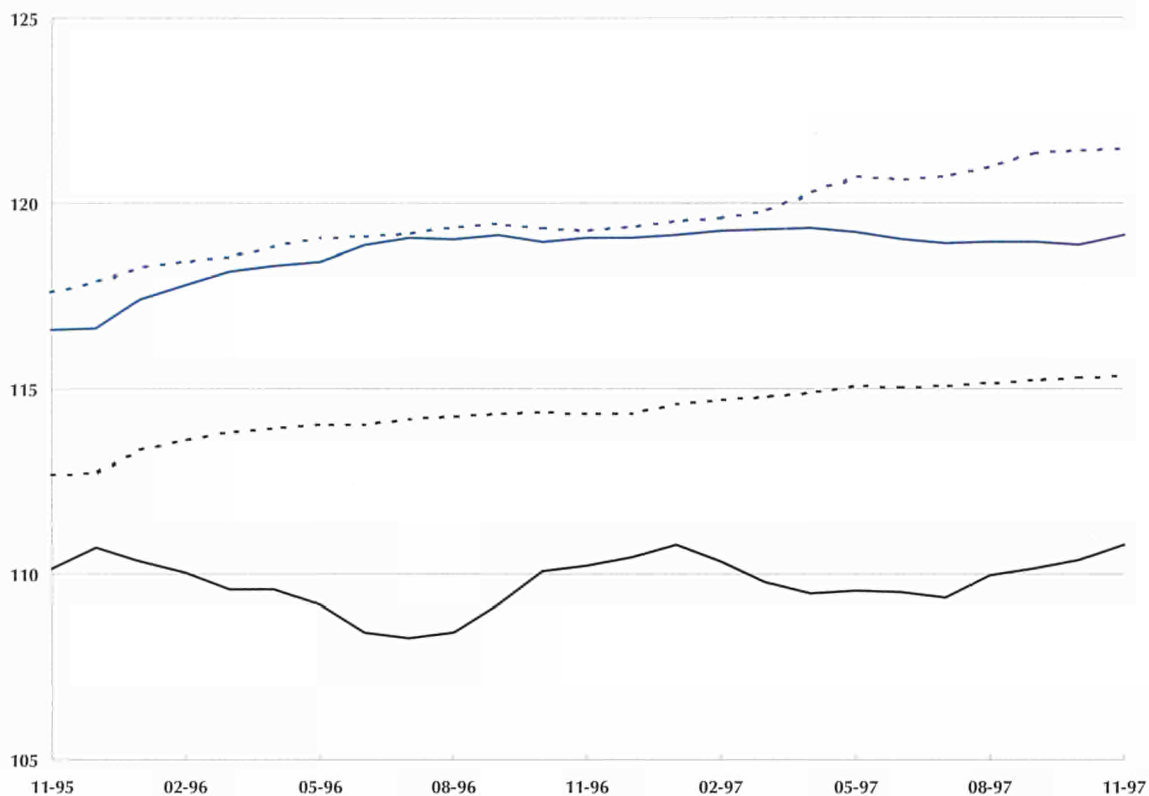



Table 2.8

Domestic producer price index for the main industrial groupings: indices (1990 = 100)

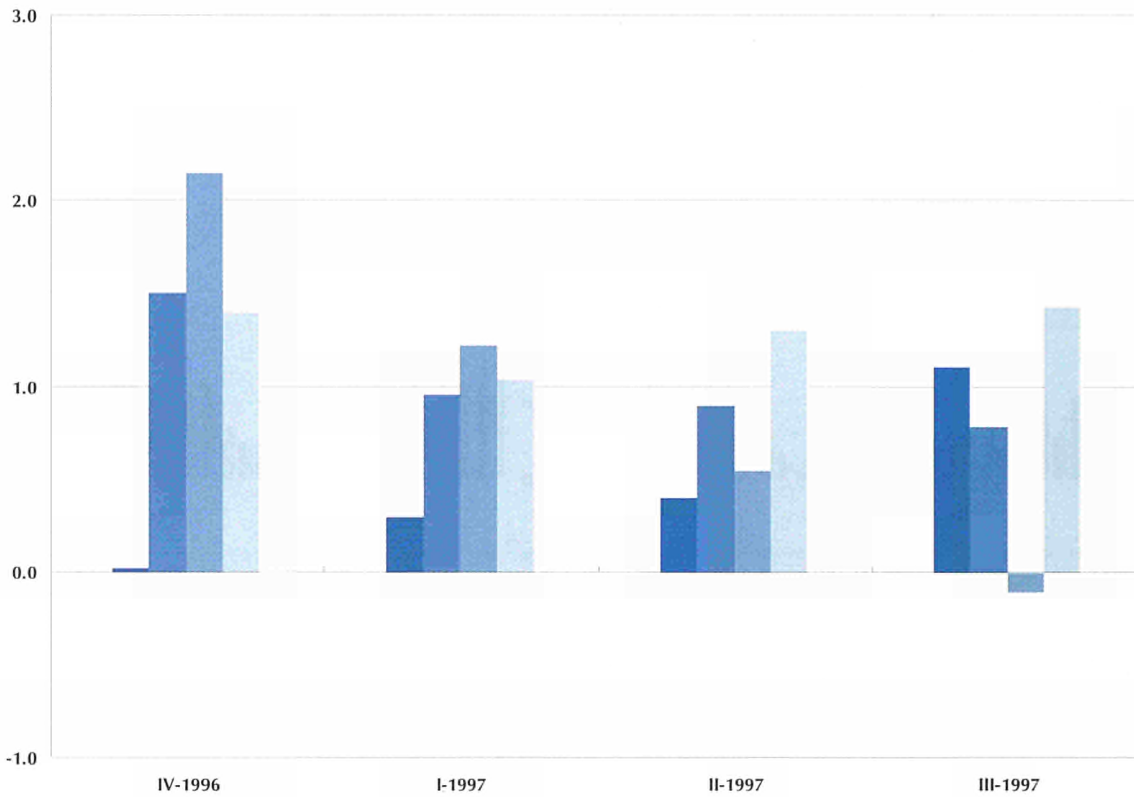
Source:  eurostat

	1994	1995	1996	06-97	07-97	08-97	09-97	10-97	11-97
<b>Total industry</b>									
EU-15	108.2	112.4	113.3	114.2	114.3	114.6	114.7	114.8	115.1
Japan	96.8	96.1	95.4	97.0	97.0	96.8	96.7	96.5	96.4
USA	103.6	107.3	109.8	109.4	109.1	109.4	109.6	109.9	109.9
<b>Intermediate goods</b>									
EU-15	104.9	109.9	109.5	109.5	109.4	110.0	110.1	110.4	110.8
Japan	:	:	:	:	:	:	:	:	:
USA	:	:	:	:	:	:	:	:	:
<b>Capital goods</b>									
EU-15	109.0	111.8	114.0	115.0	115.1	115.2	115.2	115.3	115.3
Japan	:	:	:	:	:	:	:	:	:
USA	:	:	:	:	:	:	:	:	:
<b>Consumer durables</b>									
EU-15	112.7	115.6	118.6	119.0	118.9	118.9	118.9	118.8	119.1
Japan	:	:	:	:	:	:	:	:	:
USA	:	:	:	:	:	:	:	:	:
<b>Consumer non-durables</b>									
EU-15	113.1	116.7	119.0	120.6	120.7	121.0	121.3	121.4	121.4
Japan	:	:	:	:	:	:	:	:	:
USA	:	:	:	:	:	:	:	:	:



Domestic producer price index

Figure 2.12



EU-15 domestic producer price index for the main industrial groupings: growth rate, year on year (%)

- Intermediate goods
- Capital goods
- Consumer durables
- Consumer non-durables

Source: eurostat

Table 2.9

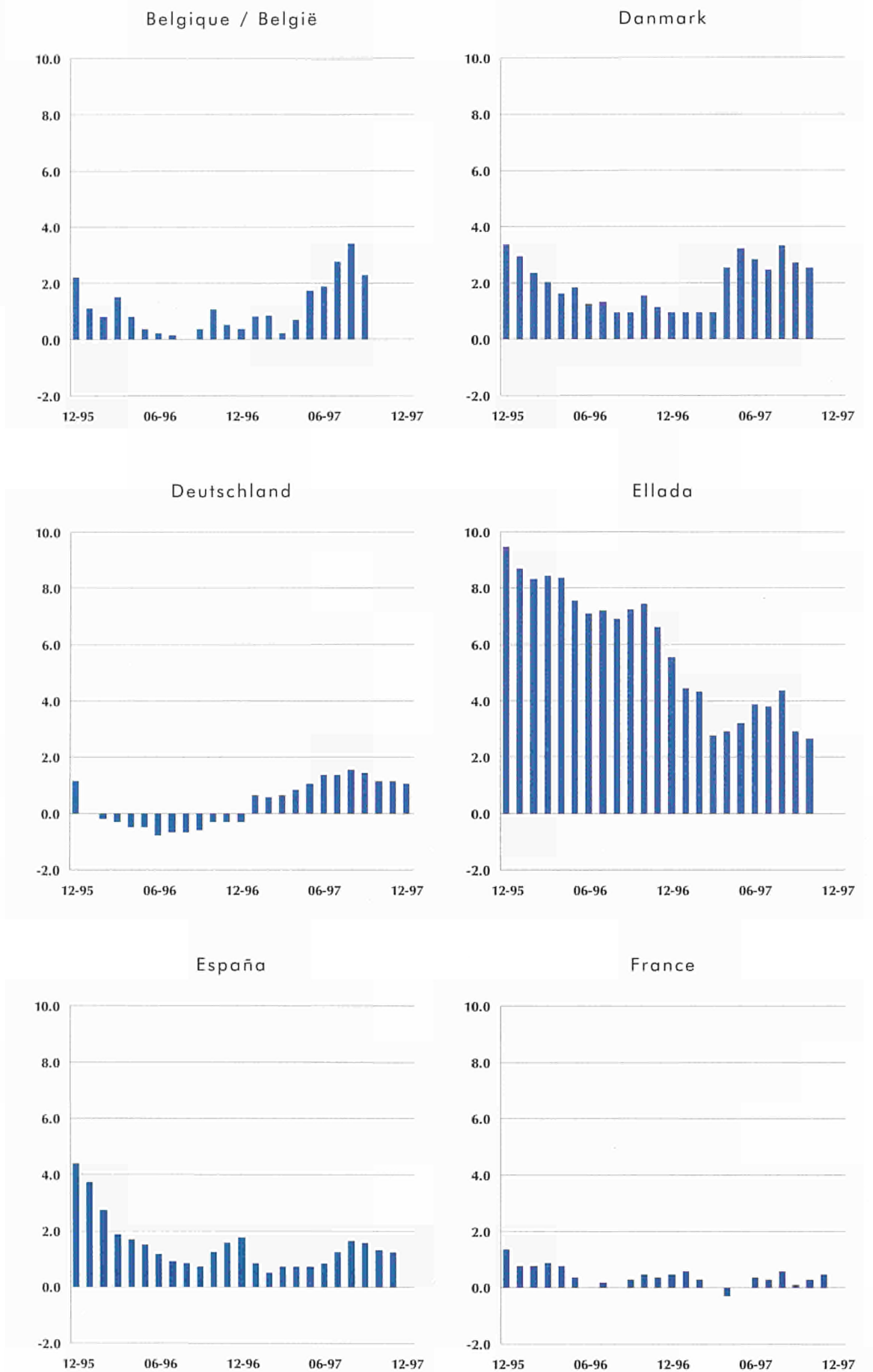
	Latest month available	Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables
<b>EU-15</b>	11-97	1.2	0.5	0.9	0.1	1.9
<b>B</b>	09-97	2.3	2.7	-0.1	:	4.9
<b>DK</b>	10-97	2.6	0.5	3.6	1.6	4.4
<b>D</b>	12-97	1.1	1.1	0.8	0.5	1.4
<b>EL</b>	10-97	2.7	2.8	6.3	5.3	1.7
<b>E</b>	11-97	1.2	1.5	1.3	0.6	1.3
<b>F</b>	12-97	:	-0.5	:	:	1.7
<b>IRL</b>	09-97	0.2	6.8	:	:	0.2
<b>I</b>	11-97	1.6	1.7	1.2	-1.6	2.3
<b>L</b>	11-97	2.8	5.9	1.7	0.0	1.3
<b>NL</b>	11-97	2.6	2.1	1.3	1.0	4.9
<b>A</b>		:	:	:	:	:
<b>P</b>	10-97	1.0	0.6	:	:	1.7
<b>FIN</b>	12-97	1.8	1.8	1.1	1.6	2.2
<b>S</b>	12-97	1.9	1.3	1.4	0.7	2.8
<b>UK</b>	12-97	0.8	-1.4	1.2	0.3	1.6
<b>Japan</b>	11-97	1.3	:	:	:	:
<b>USA</b>	11-97	-0.3	:	:	:	:

Domestic producer price index for the main industrial groupings: growth rate, year on year (%)

Source: eurostat

Figure 2.13

Domestic producer price index: growth rate, year on year (%)

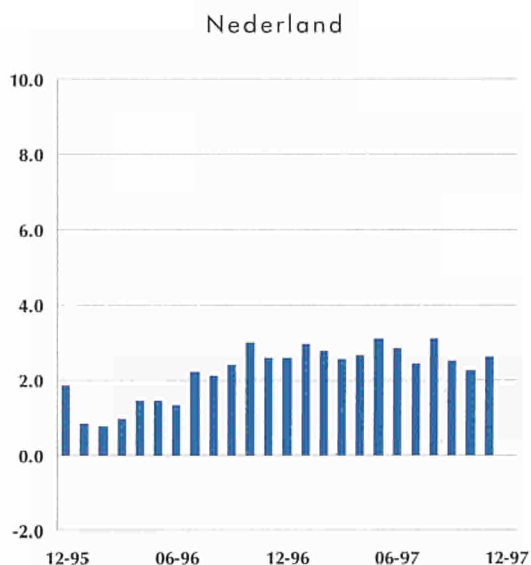
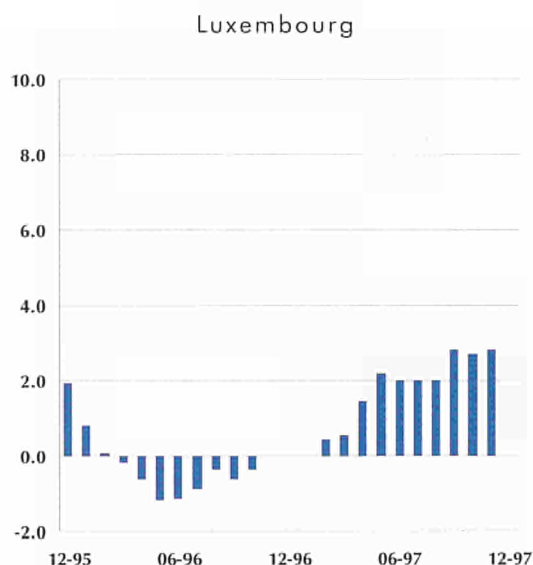
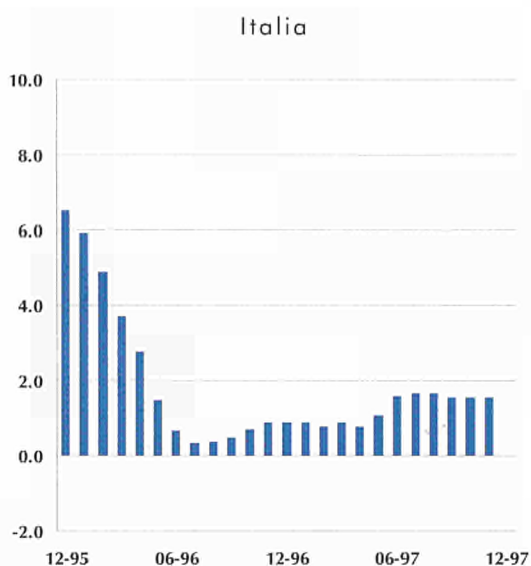
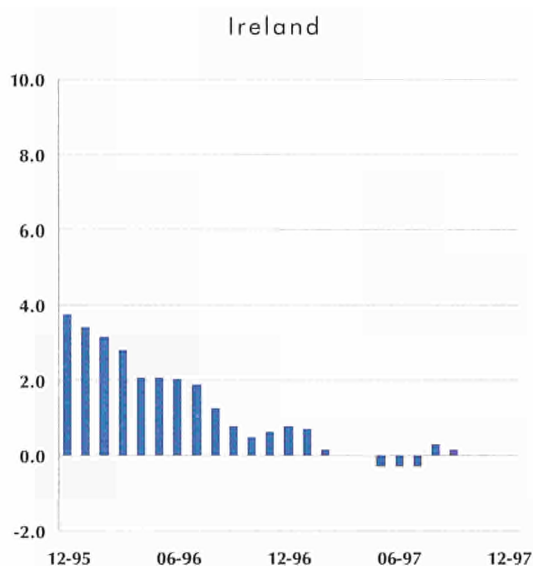


Source:  eurostat

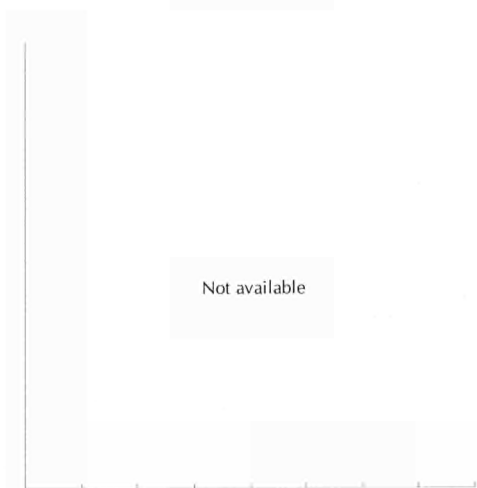
Domestic producer price index

Figure 2.13

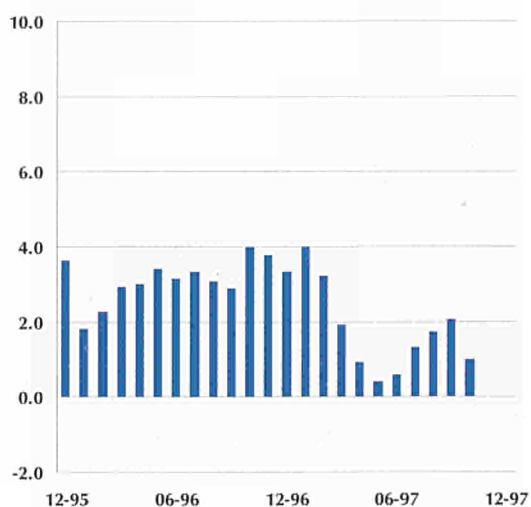
Domestic producer price index: growth rate, year on year (%)



### Österreich



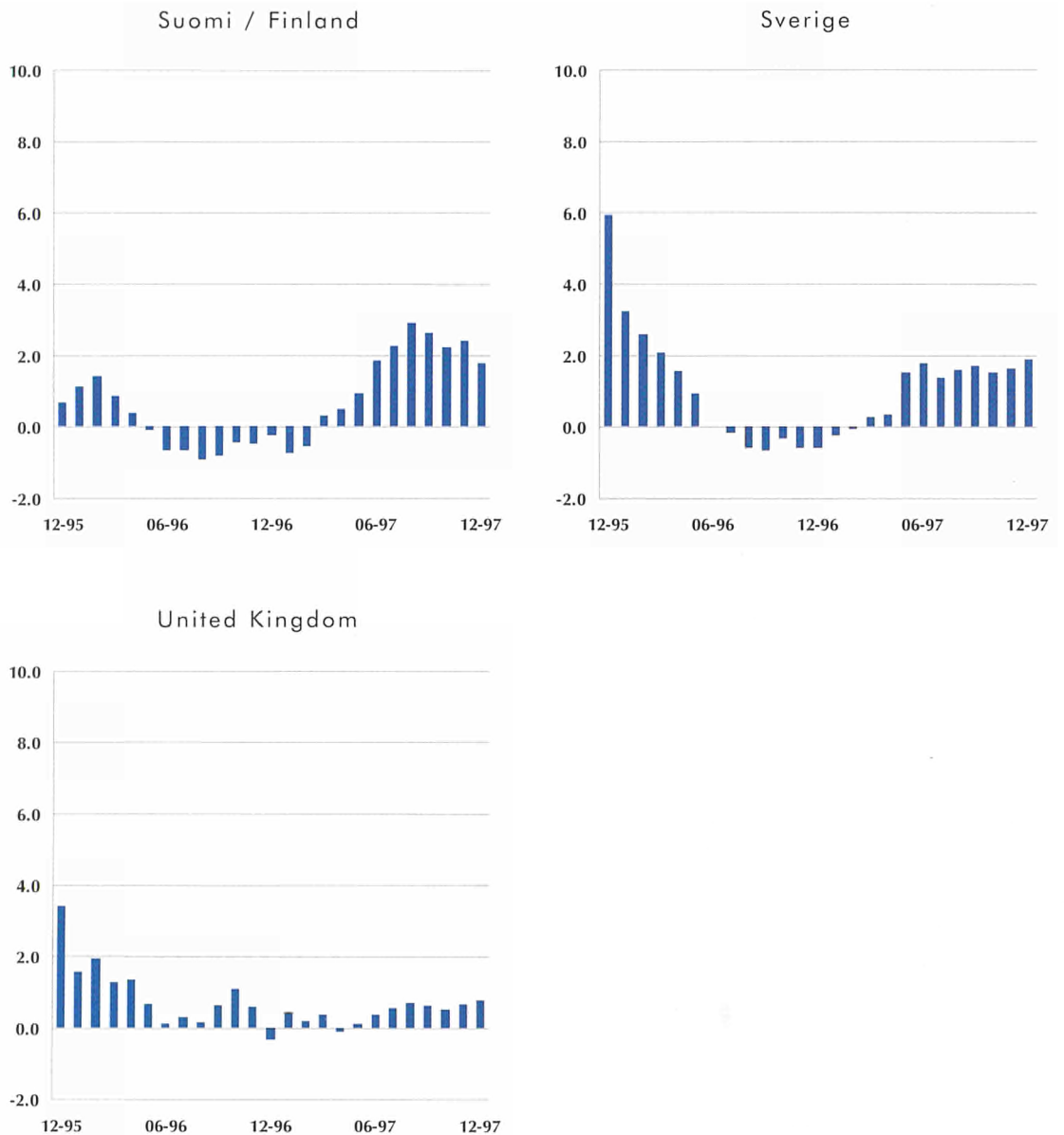
### Portugal



Source: eurostat

Figure 2.13

Domestic producer price index: growth rate, year on year (%)



**Further information - price indices:**

The index of domestic producer prices shows (in the national currency of the Member State in question) changes in the ex-works selling prices of all products sold on the domestic market. Since we deal with producer prices, imports are not included in these price indices. The Community indices (EU-14, since there are no producer price indices for Austria yet) refer to overall weighted price changes. Producer price indices are not seasonally adjusted. The system used for the collection of export price indices is a duplicate of the model for domestic producer price indices.

Full methodological notes may be found on page 73.

Employment index

EU-15

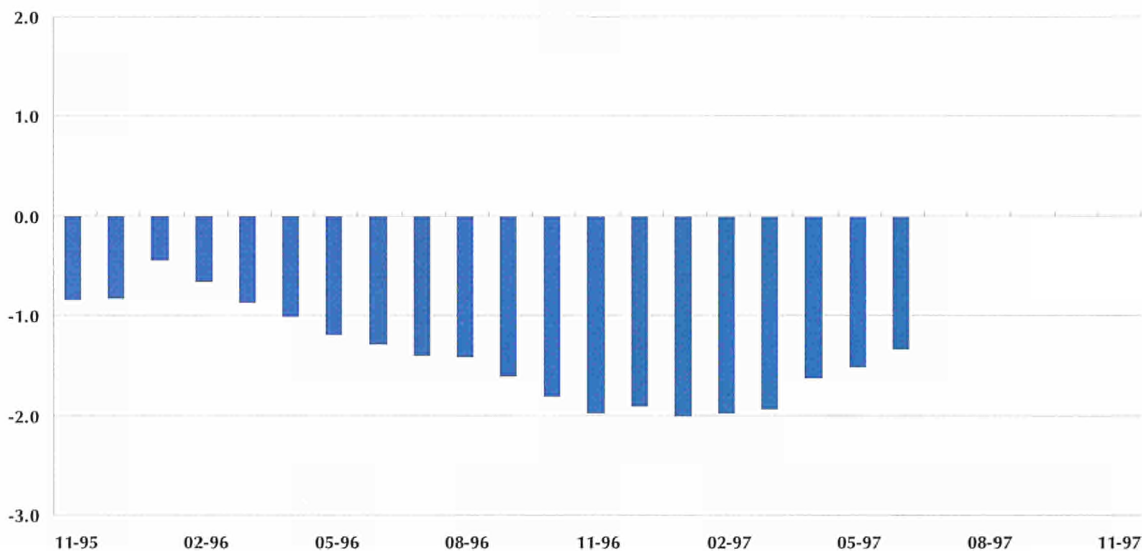
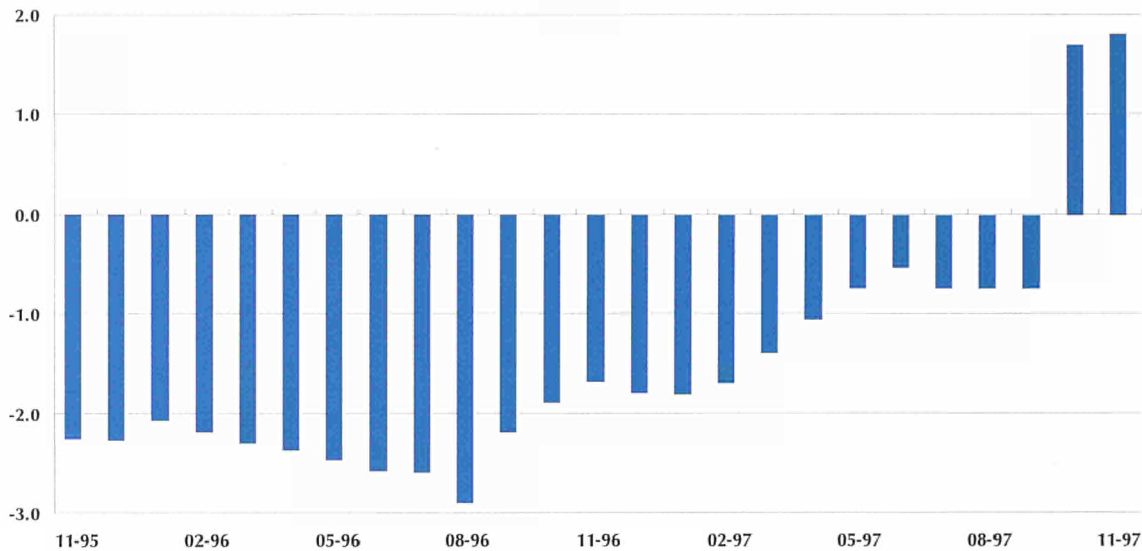


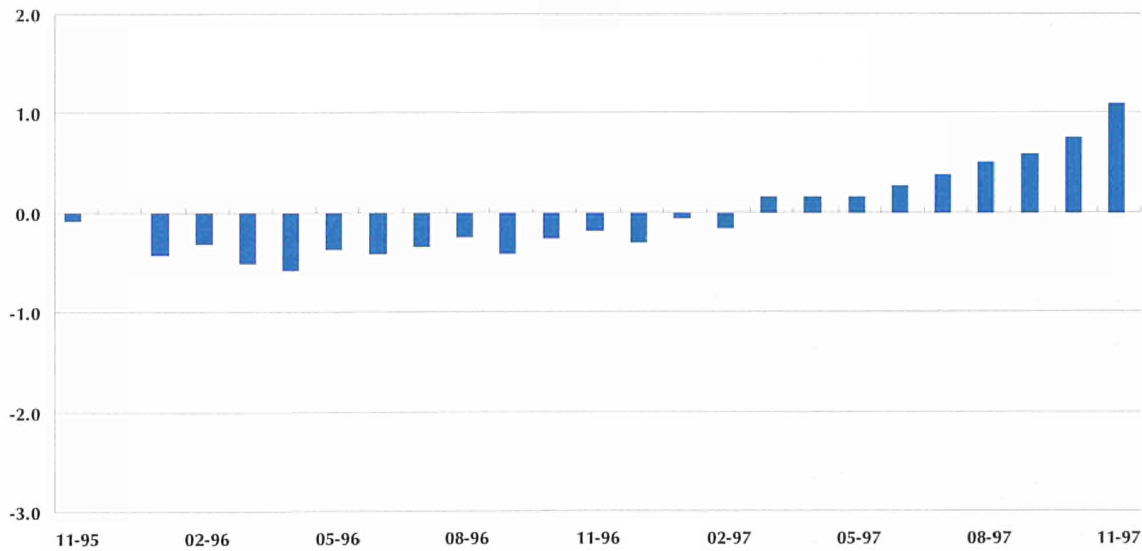
Figure 2.14

Employment index:  
growth rate,  
year on year  
(%)

Japan



USA



Source: eurostat

Figure 2.15

EU-15 employment index for the main industrial groupings: indices (1990 = 100)

Intermediate goods ———  
 Capital goods - - - - -  
 Consumer durables ———  
 Consumer non-durables - - - - -

Source:  eurostat

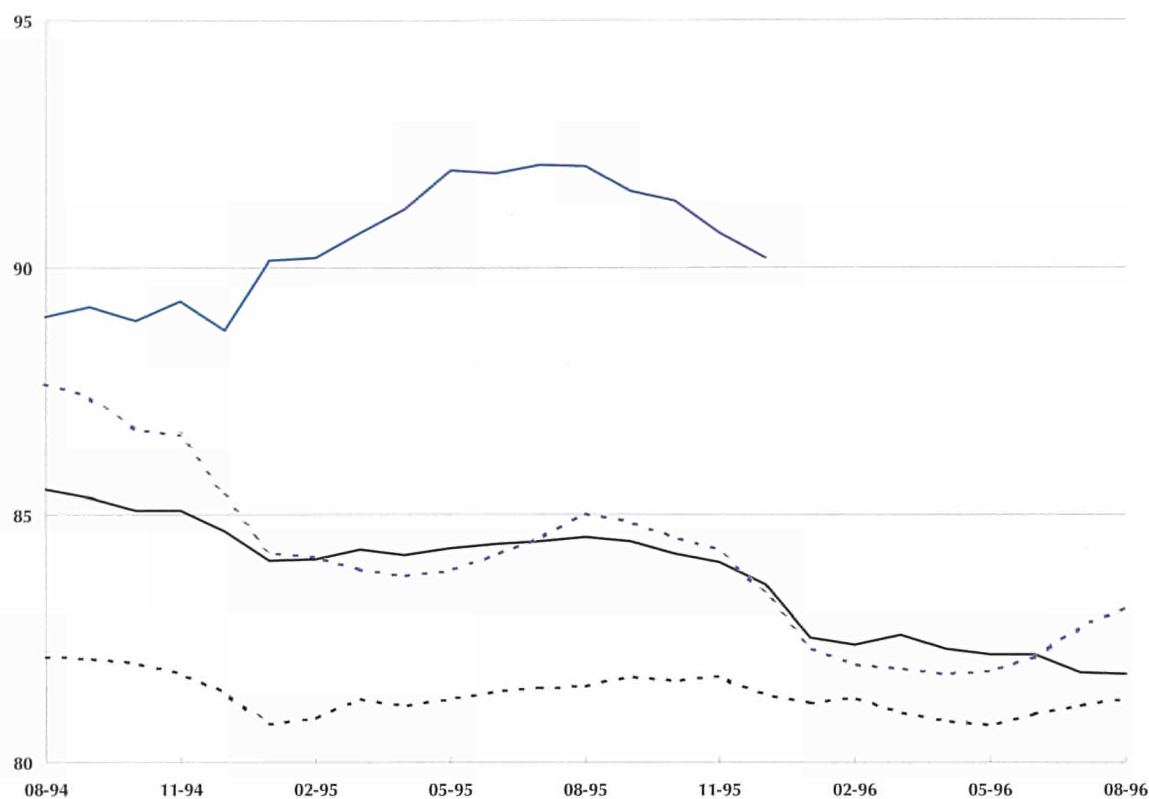


Table 2.10

Employment index for the main industrial groupings: growth rate, three months compared to the previous three months (%)

Source:  eurostat

	Latest 3 months available	Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables
<b>EU-15</b>	04-97 ⇒ 06-97	-0.1	:	:	:	:
<b>B</b>	05-97 ⇒ 07-97	-0.1	0.1	-0.1	:	:
<b>DK</b>	10-93 ⇒ 12-93	0.2	0.6	-0.3	:	0.0
<b>D</b>	09-97 ⇒ 11-97	:	:	0.0	-0.7	-1.0
<b>EL</b>	10-96 ⇒ 12-96	-0.5	-0.4	-1.5	-2.2	-1.2
<b>E</b>	07-97 ⇒ 09-97	2.0	:	:	2.4	0.1
<b>F</b>	07-97 ⇒ 09-97	:	:	0.2	-0.8	-0.5
<b>IRL</b>	01-97 ⇒ 03-97	2.0	1.3	3.7	:	:
<b>I</b>	04-97 ⇒ 06-97	-0.5	:	:	:	:
<b>L</b>	09-97 ⇒ 11-97	0.1	0.3	1.7	-0.1	0.1
<b>NL</b>	07-96 ⇒ 09-96	-1.7	:	:	:	:
<b>A</b>	04-97 ⇒ 06-97	-0.2	-0.1	1.4	-2.3	-1.0
<b>P</b>	08-97 ⇒ 10-97	-0.7	-0.1	0.2	0.7	-1.0
<b>FIN</b>	04-96 ⇒ 06-96	0.2	:	:	:	:
<b>S</b>	07-97 ⇒ 09-97	0.6	:	:	:	:
<b>UK</b>	09-97 ⇒ 11-97	-0.2	-0.8	0.2	0.8	-0.5
<b>Japan</b>	09-97 ⇒ 11-97	0.3	:	:	:	:
<b>USA</b>	09-97 ⇒ 11-97	0.4	:	:	:	:

Employment index

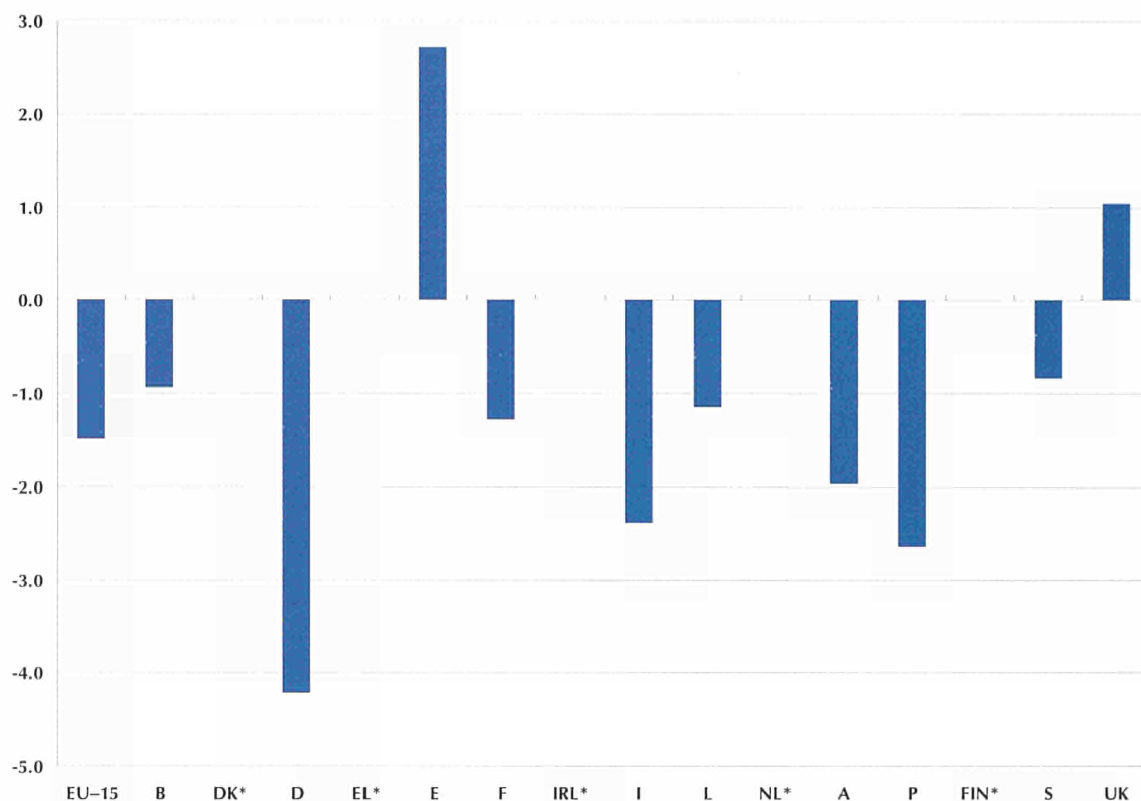


Figure 2.16

Employment index: growth rate, three months compared to the same three months of the previous year, 04-97 to 06-97 (%)

Source: eurostat

	Latest 3 months available		Total industry	Intermediate goods	Capital goods	Consumer durables	Consumer non-durables
EU-15	04-97	⇒ 06-97	-1.5	:	:	:	:
B	05-97	⇒ 07-97	-0.9	-0.7	0.1	:	:
DK	10-93	⇒ 12-93	-4.0	-3.4	-7.5	:	-1.6
D	09-97	⇒ 11-97	:	:	-2.5	-4.1	-4.3
EL	10-96	⇒ 12-96	-3.6	-1.2	-6.7	0.5	-6.3
E	07-97	⇒ 09-97	3.4	:	:	6.3	1.0
F	07-97	⇒ 09-97	:	:	0.0	-2.8	-1.5
IRL	01-97	⇒ 03-97	4.3	5.1	5.0	:	:
I	04-97	⇒ 06-97	-2.4	:	:	:	:
L	09-97	⇒ 11-97	0.2	-1.0	3.3	-2.0	2.0
NL	07-96	⇒ 09-96	-0.4	:	:	:	:
A	04-97	⇒ 06-97	-2.0	-2.4	2.3	-6.3	-4.4
P	08-97	⇒ 10-97	-2.9	-0.7	-0.7	0.2	-5.8
FIN	04-96	⇒ 06-96	1.1	:	:	:	:
S	07-97	⇒ 09-97	-0.3	:	:	:	:
UK	09-97	⇒ 11-97	0.0	-1.1	1.3	-1.7	0.2
Japan	09-97	⇒ 11-97	0.9	:	:	:	:
USA	09-97	⇒ 11-97	0.8	:	:	:	:

Table 2.11

Employment index for the main industrial groupings: growth rate, three months compared to the same three months of the previous year (%)

Source: eurostat

Figure 2.17

EU-15 production and employment trends in construction: indices (1990 = 100)

Total industry: production index —  
 Construction: production index —  
 Construction: employment index - - -

Source: 

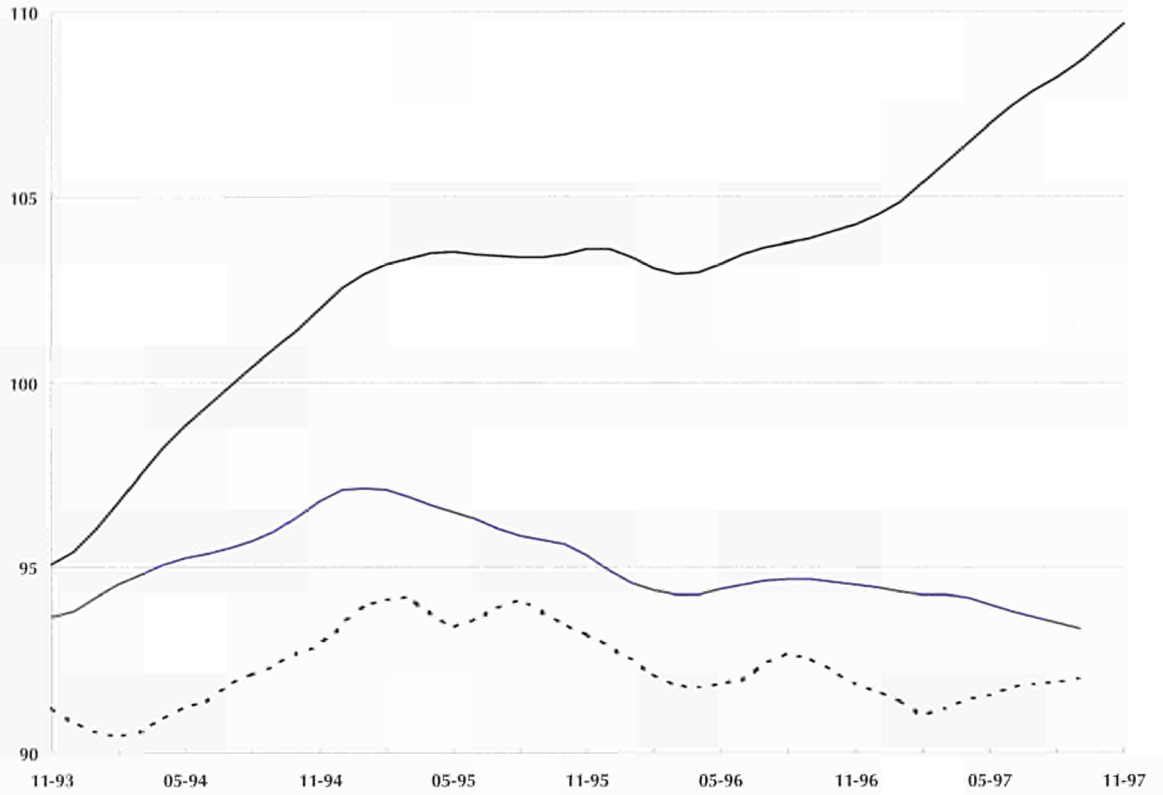
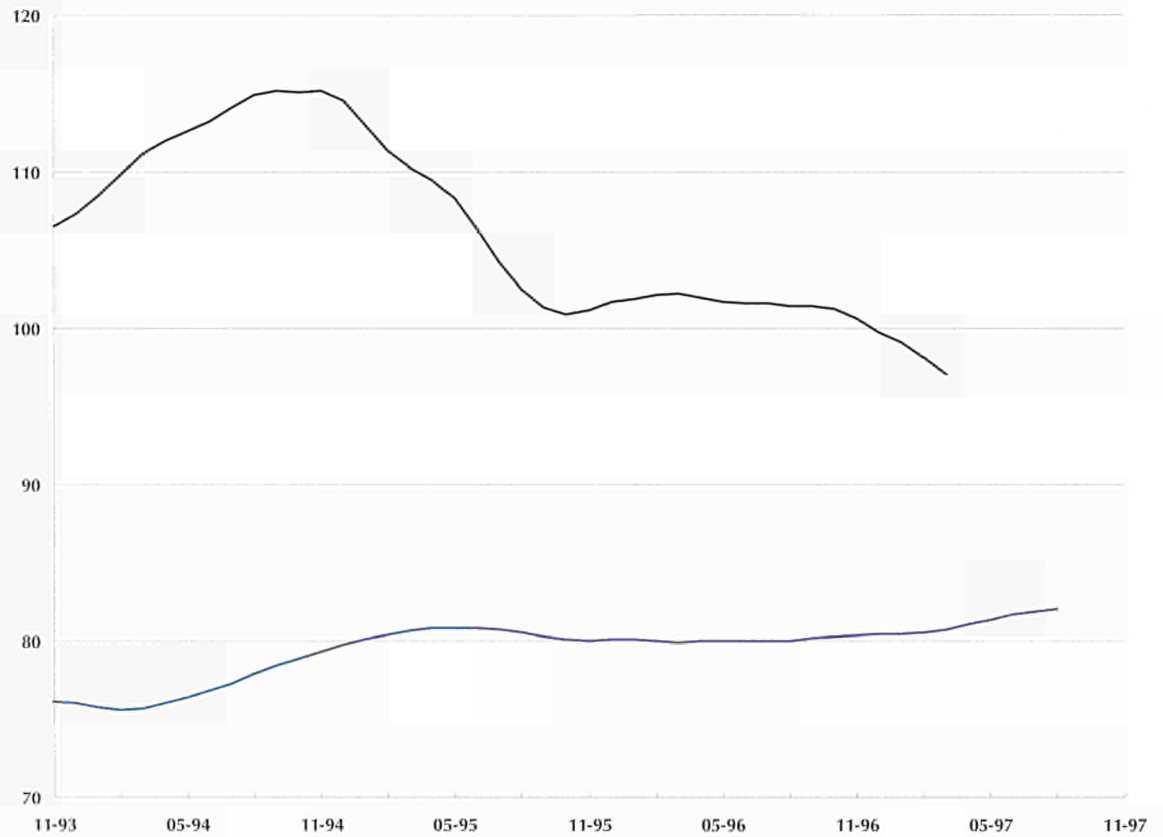


Figure 2.18

EU-15 building permits: indices (1990 = 100)

Residential —  
 Non-residential —

Source: 





Production index (working day adjusted & trend cycle)

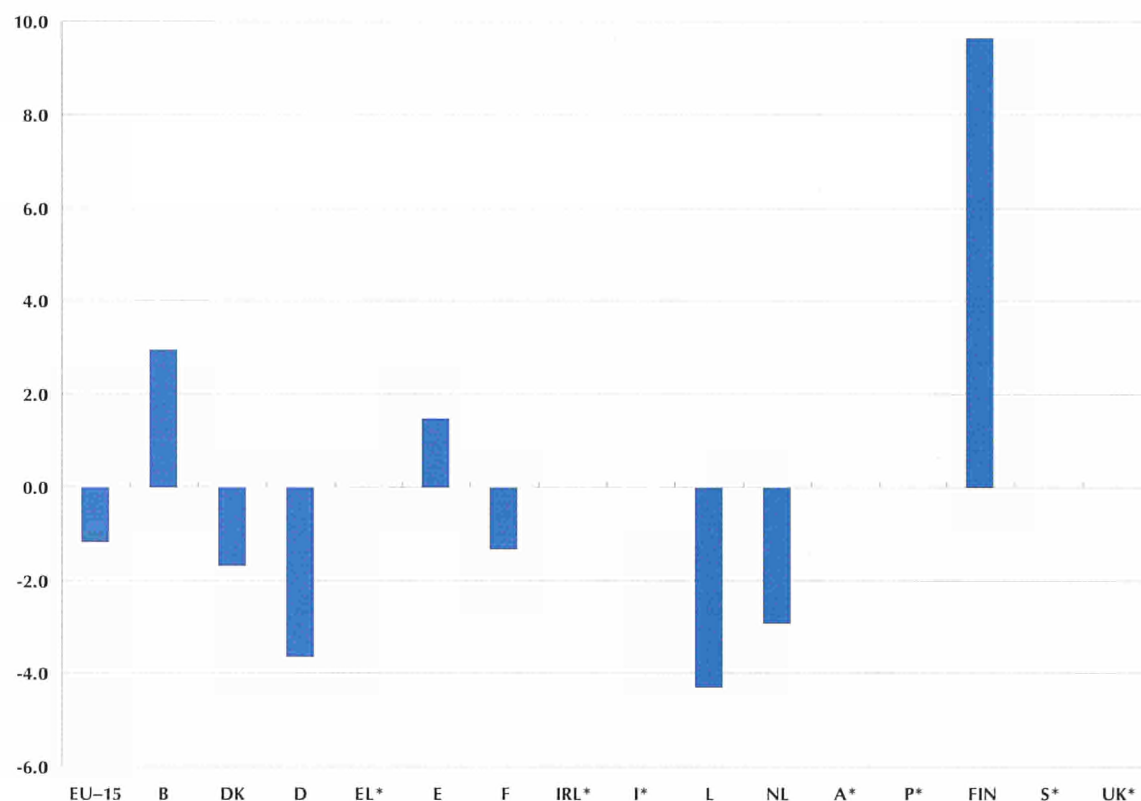


Figure 2.19

Production index for construction: growth rate, three months compared to the same three months of the previous year, 07-97 to 09-97 (%)

Source: eurostat

	Latest 3 months available		Building t / t-1 t / t-4		Latest 3 months available		Civil engineering t / t-1 t / t-4	
	Start	End	Start	End	Start	End	Start	End
EU-15	07-97	⇒ 09-97	-0.2	-0.5	07-97	⇒ 09-97	-0.2	-1.7
B	09-94	⇒ 11-94	4.1	14.0	09-94	⇒ 11-94	6.2	24.4
DK	08-97	⇒ 10-97	-5.1	-5.2	08-97	⇒ 10-97	-1.5	3.2
D	09-97	⇒ 11-97	0.2	-1.9	09-97	⇒ 11-97	-0.1	-0.2
EL		⇒	:	:		⇒	:	:
E	07-97	⇒ 09-97	0.8	4.6	07-97	⇒ 09-97	3.5	-3.1
F	09-97	⇒ 11-97	-0.9	-1.2	09-97	⇒ 11-97	-0.5	0.7
IRL		⇒	:	:		⇒	:	:
I	07-97	⇒ 09-97	-2.6	-6.3	01-97	⇒ 03-97	1.0	:
L	09-97	⇒ 11-97	-0.8	-4.7	09-97	⇒ 11-97	1.7	5.8
NL	04-97	⇒ 06-97	-5.1	2.9		⇒	:	:
A	04-97	⇒ 06-97	-4.3	0.0	04-97	⇒ 06-97	-4.1	2.6
P		⇒	:	:		⇒	:	:
FIN	07-97	⇒ 09-97	-14.3	-10.0	07-97	⇒ 09-97	-0.6	-3.0
S		⇒	:	:		⇒	:	:
UK	01-97	⇒ 03-97	1.4	:	01-97	⇒ 03-97	1.2	-3.6

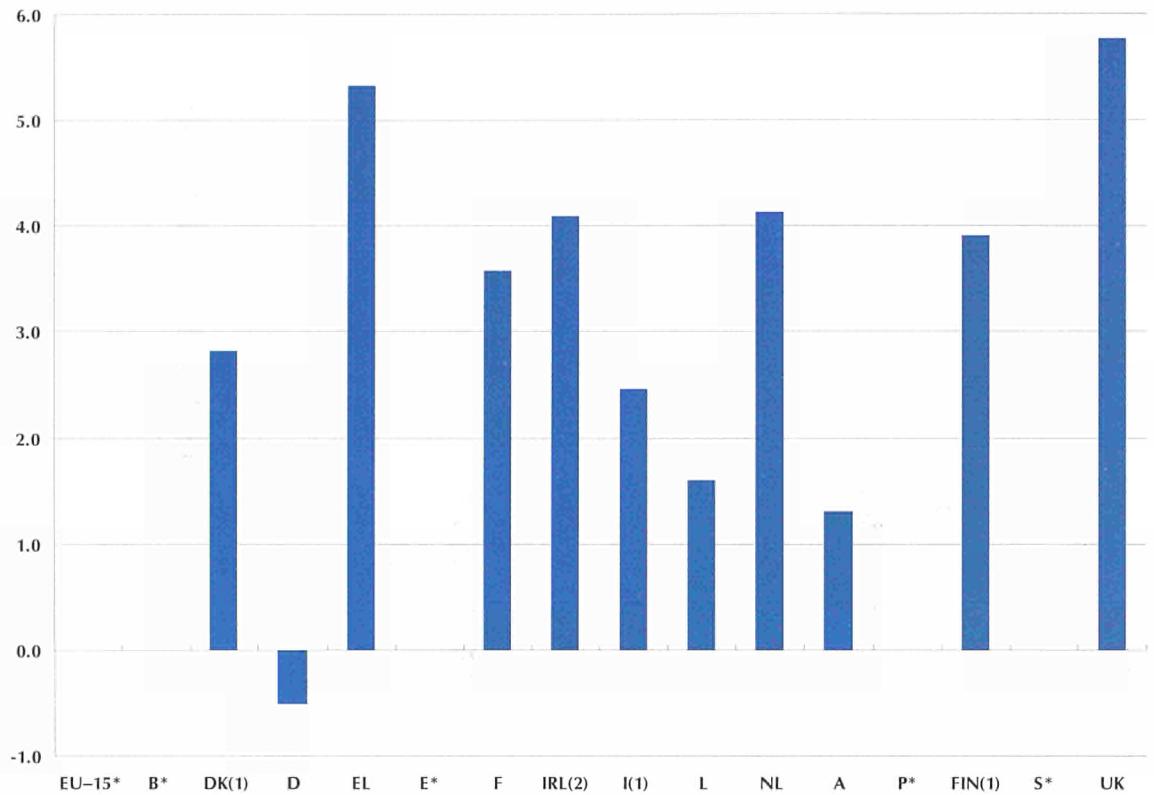
Table 2.12

Production index of building and civil engineering: growth rates (%)

Source: eurostat

Figure 2.20

Output prices for new residential buildings: growth rate, three months compared to the same three months of the previous year, 07-97 to 09-97 (%)



1) input prices  
2) input prices and one-dwelling buildings

Source: eurostat

Table 2.13

Output prices for new residential buildings: indices (1990 = 100)

	I-1996	II-1996	III-1996	IV-1996	I-1997	II-1997	III-1997	IV-1997
EU-15	:	:	:	:	:	:	:	:
B	:	:	:	:	:	:	:	:
DK (1)	117.6	118.5	119.3	120.2	121.0	121.8	122.7	123.5
D	124.2	124.2	124.1	123.8	123.6	123.5	123.5	123.0
EL	170.3	171.7	172.8	174.7	179.0	180.0	182.0	184.1
E	:	:	:	:	:	:	:	:
F	109.3	108.4	108.5	110.2	110.3	111.6	112.4	:
IRL (3)	117.4	117.5	117.9	118.8	120.1	121.5	122.7	:
I (1)	123.9	124.2	126.3	127.0	127.3	127.5	129.4	:
L	118.0	118.0	118.4	118.4	119.6	119.6	120.3	120.3
NL	121.0	121.0	121.0	122.0	124.0	125.0	126.0	:
A	121.2	121.8	122.1	122.1	122.9	123.4	123.7	:
P	:	:	:	:	:	:	:	:
FIN (1)	100.8	101.5	102.2	102.7	103.8	104.9	106.2	106.1
S (2)	91.5	94.0	110.6	99.5	:	:	:	:
UK	102.5	102.9	104.0	105.0	107.0	108.0	110.0	:

1) input prices  
2) one-dwelling buildings  
3) input prices and one-dwelling buildings

Source: eurostat

Building permits - useful floor area

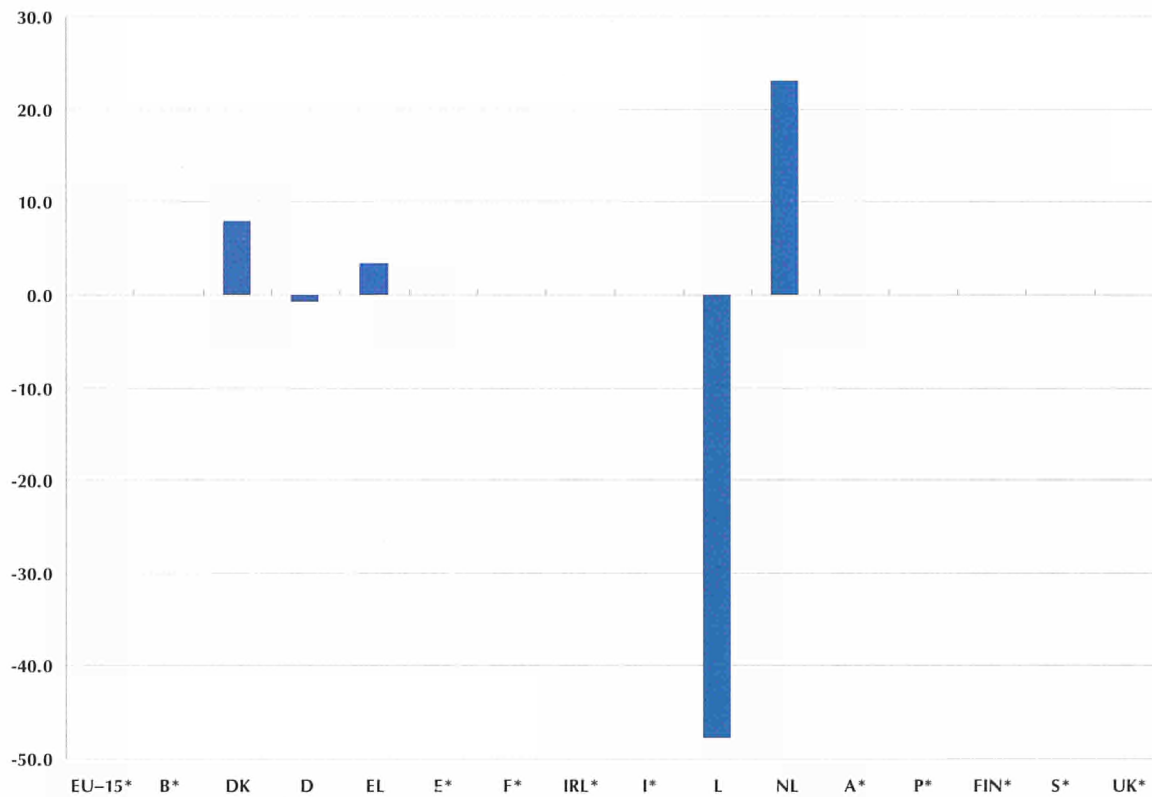


Figure 2.21

Building permits - useful floor area: growth rate, three months compared to the same three months of the previous year, 08-97 to 10-97 (%)

Source: eurostat

Latest 3 months available

Residential '000m<sup>2</sup> 1990=100

Latest 3 months available

Non-residential '000m<sup>2</sup> 1990=100

Table 2.14

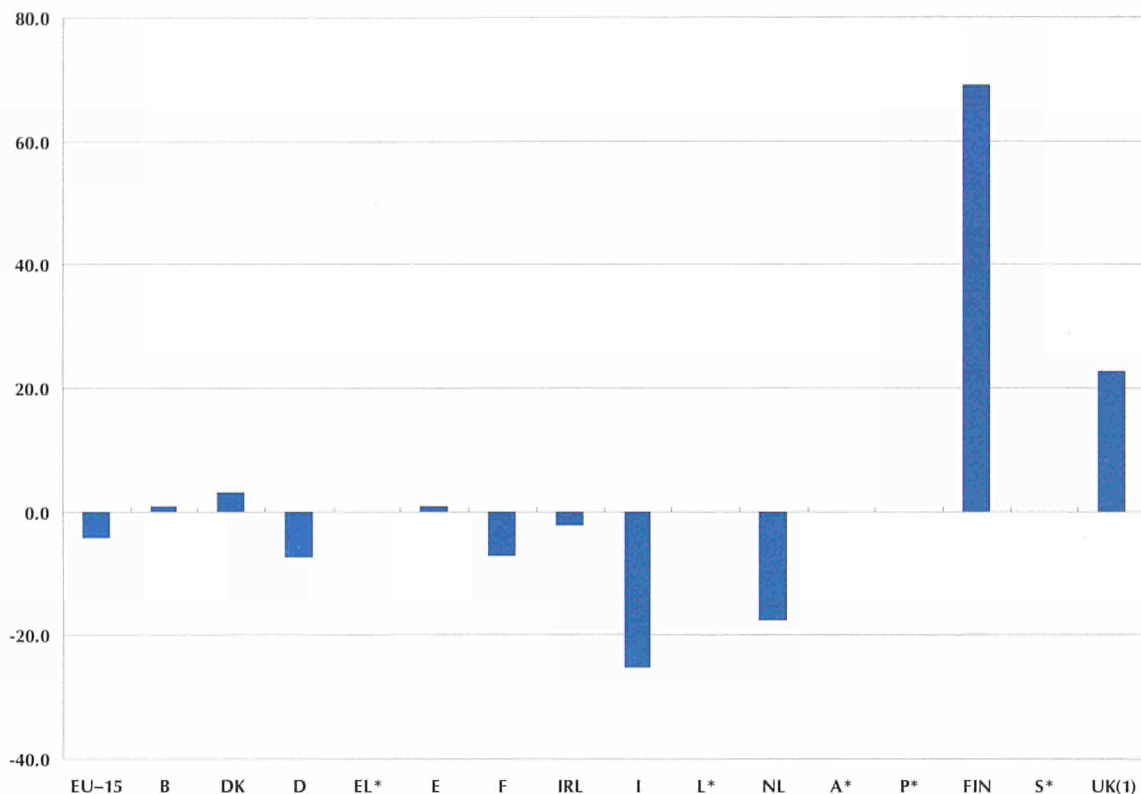
Country	Latest 3 months available	Residential '000m <sup>2</sup> 1990=100	Latest 3 months available	Non-residential '000m <sup>2</sup> 1990=100
EU-15	⇨	: : 88.9	06-97 ⇨ 08-97	: 88.9
B	07-97 ⇨ 09-97	2,552 100.5	07-97 ⇨ 09-97	2,020 79.6
DK	08-97 ⇨ 10-97	568 137.9	08-97 ⇨ 10-97	1,169 92.6
D	09-97 ⇨ 11-97	12,317 134.4	09-97 ⇨ 11-97	10,415 109.1
EL	10-95 ⇨ 12-95	2,288 62.9	10-95 ⇨ 12-95	1,028 76.6
E	06-97 ⇨ 08-97	12,714 125.4	06-97 ⇨ 08-97	2,534 82.9
F	⇨	: :	07-97 ⇨ 09-97	9,401 71.8
IRL	04-97 ⇨ 06-97	1,424 188.2	04-97 ⇨ 06-97	852 119.1
I	01-97 ⇨ 03-97	2,663 55.7	01-97 ⇨ 03-97	3,409 47.2
L	08-97 ⇨ 10-97	: 48.5	08-97 ⇨ 10-97	: 30.2
NL	09-97 ⇨ 11-97	5,335 162.1	09-97 ⇨ 11-97	5,907 119.0
A	⇨	: :	⇨	: :
P	⇨	: :	⇨	: :
FIN	07-97 ⇨ 09-97	668 47.1	07-97 ⇨ 09-97	824 56.5
S	09-97 ⇨ 11-97	358 :	09-97 ⇨ 11-97	560 :
UK	⇨	: :	⇨	: :

Building permits - useful floor area: actual values and indices

Source: eurostat

Figure 2.22

Building permits - no. of dwellings: growth rate, three months compared to the same three months of the previous year, 01-97 to 03-97 (%)



1) buildings starts

Source: eurostat

Table 2.15

Number of dwellings authorised (units)

	Latest year available	no. of dwellings	Latest month available	no. of dwellings	no. of dwellings per 1,000 inhabitants	Index, 1990 = 100
EU-15		:	03-97	:	:	96.7
B	1996	48,707	09-97	5,510	0.54	126.6
DK	1996	<b>15,809</b>	10-97	<b>1,307</b>	<b>0.25</b>	<b>82.0</b>
D	1996	576,376	11-97	39,576	0.49	119.7
EL	1995	70,865	12-95	6,326	0.61	63.1
E	1996	265,956	08-97	18,230	0.47	93.7
F	1996	304,186	11-97	25,600	0.44	80.0
IRL (1)	1996	34,864	06-97	:	:	194.8
I	1996	<b>160,553</b>	03-97	<b>10,560</b>	<b>0.18</b>	<b>60.2</b>
L	1996	2,797	02-97	204	0.50	64.5
NL	1996	102,119	11-97	10,077	0.65	134.7
A		:		:	:	:
P	1996	84,609	09-97	8,744	0.88	:
FIN	1996	24,211	09-97	1,884	0.37	39.2
S	1996	:	11-97	1,041	:	:
UK (2)	1996	173,300	11-97	14,000	0.24	102.4

1) quarterly data  
2) buildings starts

Source: eurostat

Capacity utilisation rates

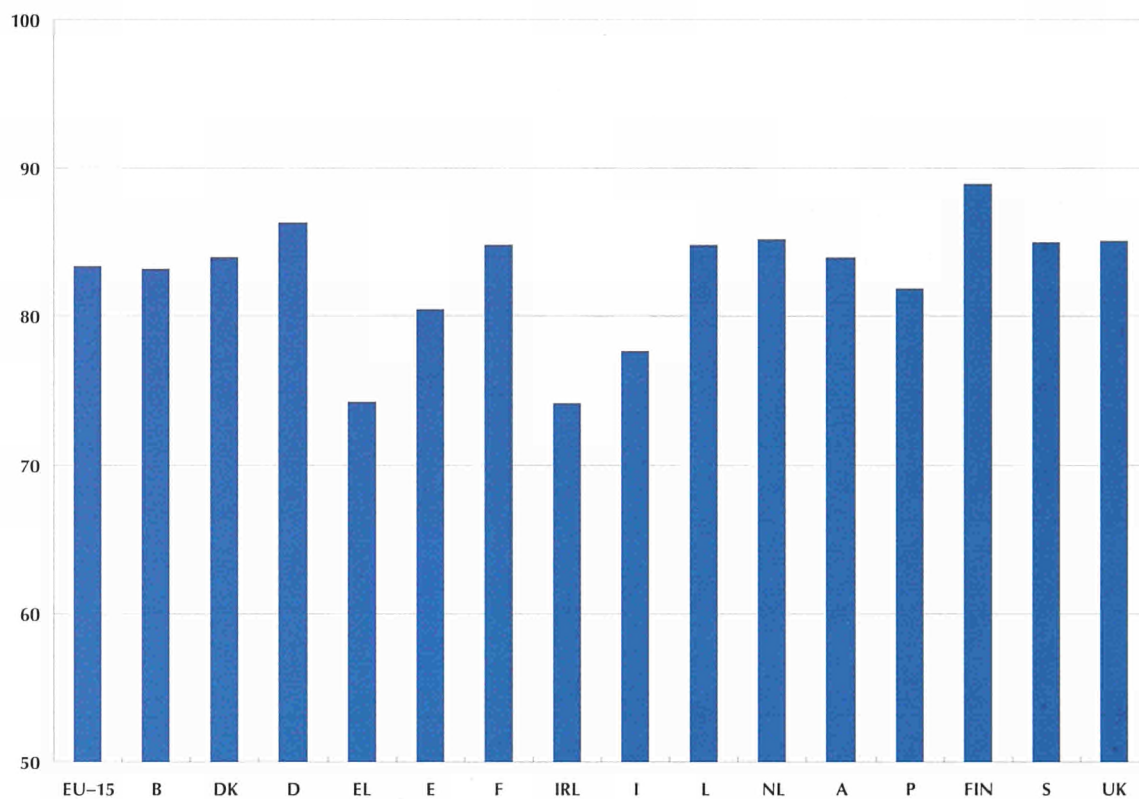


Figure 2.23

Capacity utilisation rates: 10-97 (%)

Source: DG II, Business Survey

Growth rate: latest month, t / t-12 (%)      01-97      04-97      07-97      10-97

	Growth rate: latest month, t / t-12 (%)	01-97	04-97	07-97	10-97
EU-15	2.7	80.8	81.7	82.6	83.4
B	3.6	80.3	80.3	82.4	83.2
DK	2.4	82.0	82.0	85.0	84.0
D	4.2	82.4	84.6	85.5	86.3
EL	-3.8	75.2	72.1	76.3	74.3
E	3.7	77.1	77.3	78.9	80.5
F	2.2	83.4	82.8	83.8	84.8
IRL	-2.1	76.9	80.5	73.0	74.2
I	2.8	75.1	76.2	77.7	77.7
L	9.3	79.0	82.7	84.5	84.8
NL	0.9	83.8	83.8	84.9	85.2
A	3.2	79.8	80.7	83.5	84.0
P	6.9	81.4	80.3	80.2	81.9
FIN	4.7	85.7	86.9	87.0	89.0
S	0.0	87.0	84.0	87.0	85.0
UK	2.5	82.8	83.5	83.8	85.1

Table 2.16

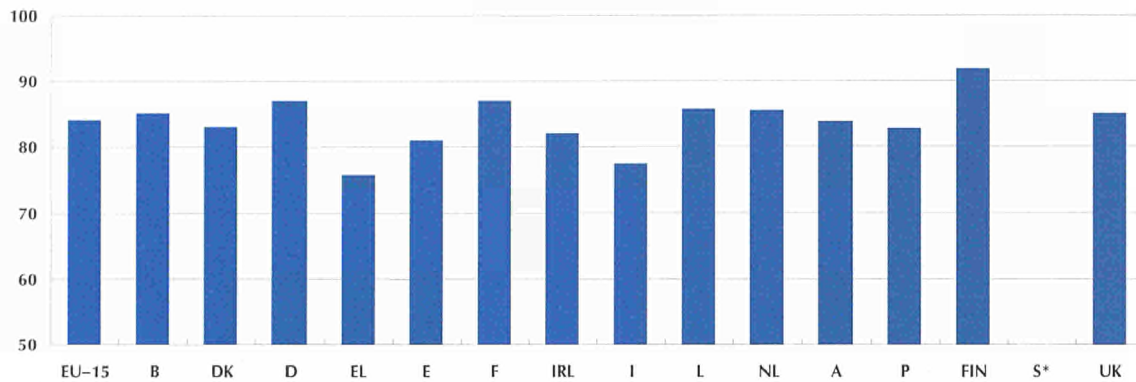
Capacity utilisation rates (%)

Source: DG II, Business Survey

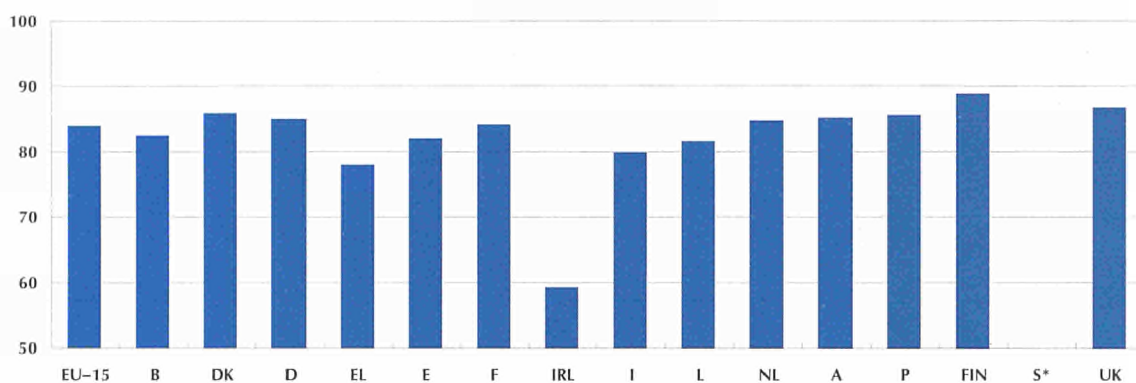
Figure 2.24

Capacity utilisation rates for the main industrial groupings, 10-97 (%)

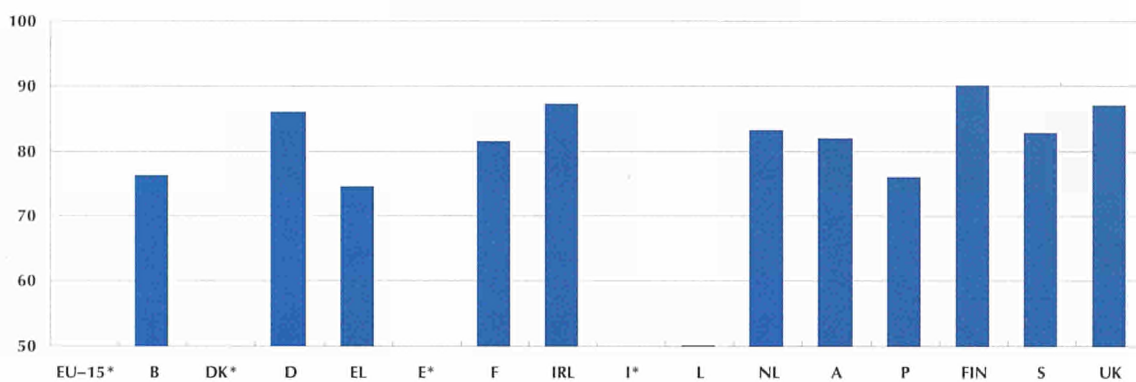
Intermediate goods



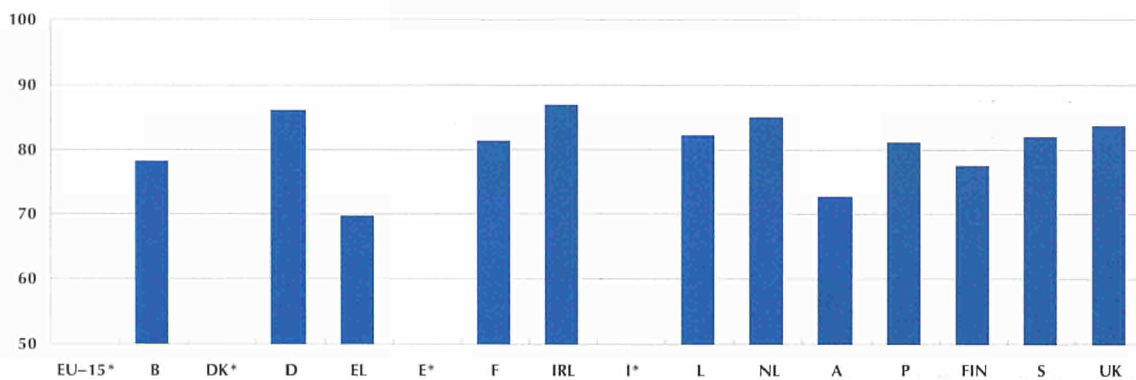
Capital goods



Consumer durables goods<sup>1</sup>



Consumer non-durables goods<sup>1</sup>



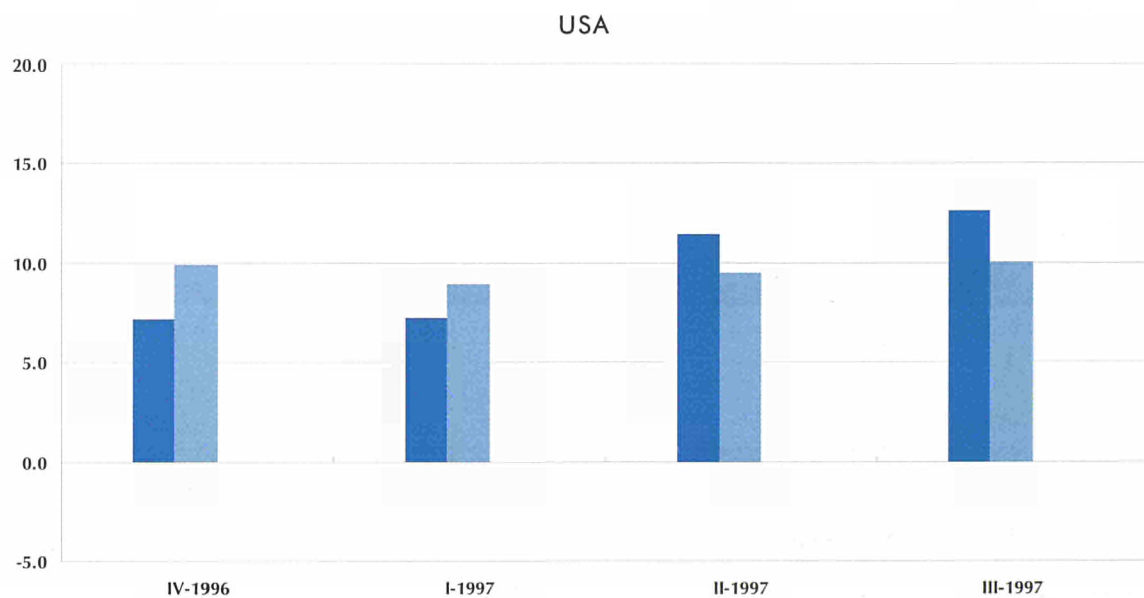
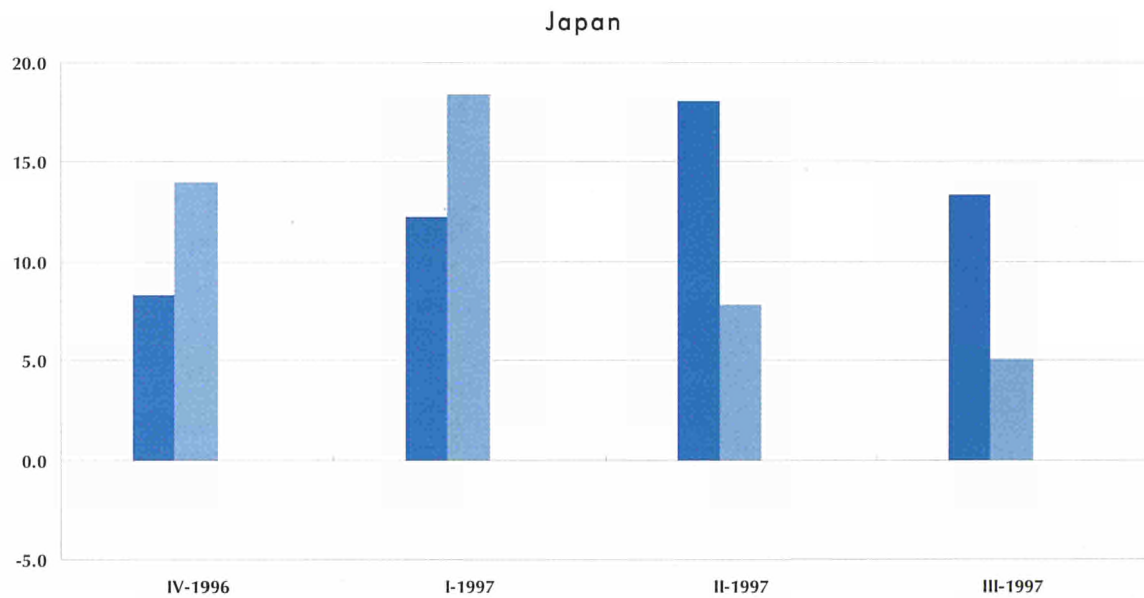
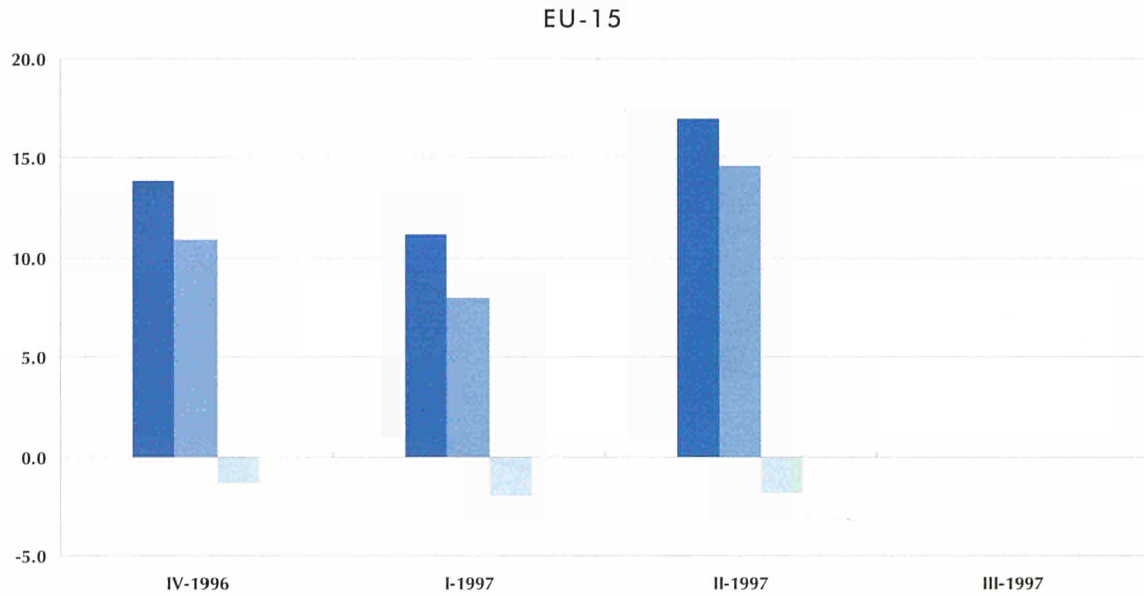
1) data is for 04-97

Source: DG II, Business Survey

Foreign trade indices

Figure 2.25

Foreign trade indices: growth rate, three months compared to the same three months of the previous year (%)

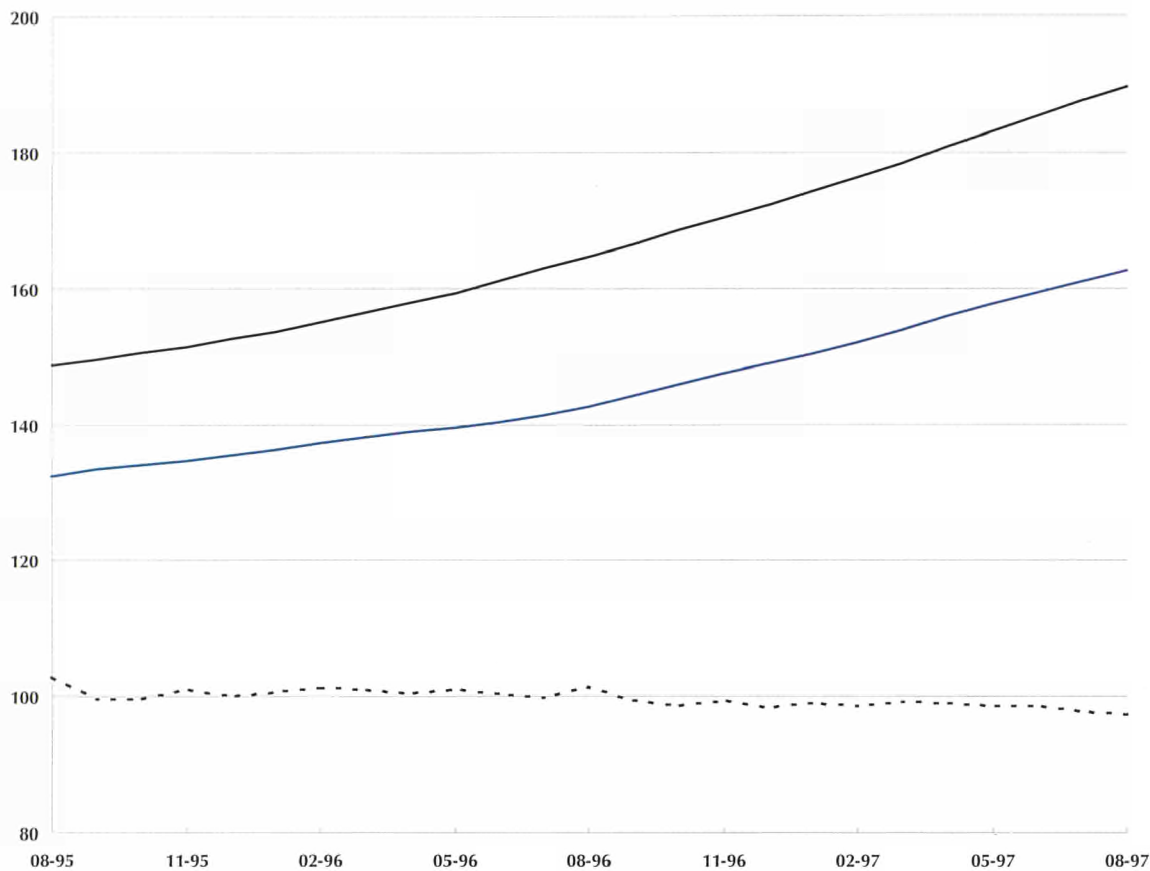


- Export value
- Import value
- Terms of trade

Source: eurostat

Figure 2.26

EU-15 foreign trade indices in ECU terms (1990 = 100)



Export value index —  
 Import value index —  
 Terms of trade - - - -

Source: eurostat

Table 2.17

Foreign trade indices (value indices are in ECU terms): growth rate, three months compared to the previous three months (%)

	Latest 3 months available			Exports		Imports		Terms of trade
				Value	Volume	Value	Volume	
EU-15	06-97	⇒	08-97	3.7	2.4	3.3	1.9	-1.0
B/L	08-97	⇒	10-97	2.9	0.3	2.7	1.5	-2.4
DK	07-97	⇒	09-97	2.4	0.9	7.5	3.5	-2.0
D	06-97	⇒	08-97	2.4	2.2	4.5	1.5	-0.2
EL	04-97	⇒	06-97	-1.5	13.1	10.0	5.4	2.2
E	08-97	⇒	10-97	5.5	2.0	6.9	5.4	-0.6
F	08-97	⇒	10-97	5.5	2.9	4.6	2.5	-0.4
IRL	06-97	⇒	08-97	8.3	7.6	5.1	2.8	3.0
I	07-97	⇒	09-97	3.6	1.9	5.8	3.5	-1.4
NL	07-97	⇒	09-97	0.6	-0.7	:	-0.7	0.5
A		⇒		:	:	:	:	:
P	05-97	⇒	07-97	3.3	1.4	1.6	0.9	-0.2
FIN		⇒		:	:	:	:	:
S		⇒		:	:	:	:	:
UK	08-97	⇒	10-97	1.2	1.0	0.9	1.5	1.6

Source: eurostat



Foreign trade indices

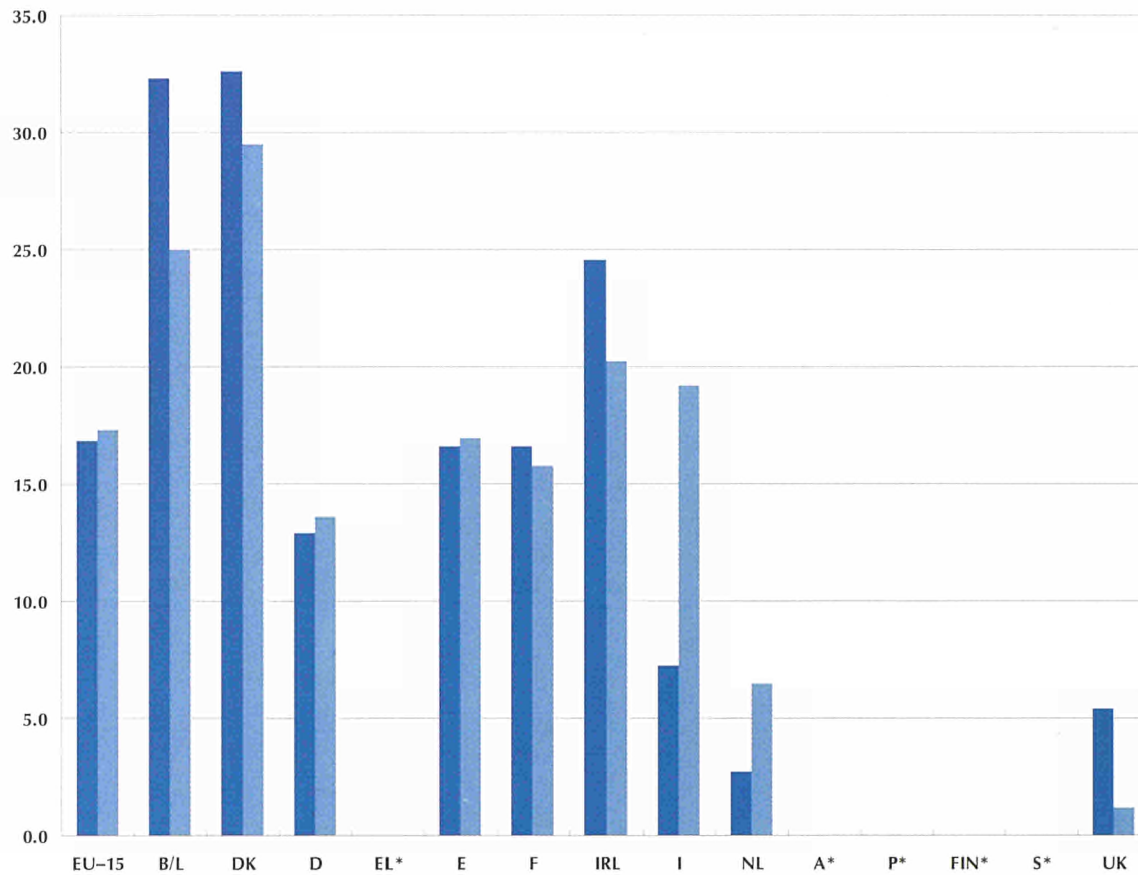


Figure 2.27

Foreign trade indices (in ECU terms): growth rate, three months compared to the same three months of the previous year, 06-97 to 08-97 (%)

■ Export value  
■ Import value

Source: eurostat

	Latest 3 months available			Exports		Imports		Terms of trade
	Value	Volume	Value	Volume	Value	Volume		
EU-15	06-97 ⇒ 08-97	16.8	11.2	17.3	8.8	-2.6		
B/L	08-97 ⇒ 10-97	13.2	7.6	12.4	5.7	-1.3		
DK	07-97 ⇒ 09-97	25.7	17.4	32.7	21.2	-2.3		
D	06-97 ⇒ 08-97	12.9	8.5	13.6	7.1	-1.9		
EL	04-97 ⇒ 06-97	19.9	14.0	7.8	-1.6	-4.0		
E	08-97 ⇒ 10-97	18.9	14.9	24.1	15.8	-3.3		
F	08-97 ⇒ 10-97	19.6	14.5	17.9	11.2	-1.5		
IRL	06-97 ⇒ 08-97	24.6	27.4	20.3	12.0	-9.2		
I	07-97 ⇒ 09-97	10.7	8.0	21.5	17.4	-0.9		
NL	07-97 ⇒ 09-97	1.4	-8.7	3.5	-5.7	1.2		
A	⇒	:	:	:	:	:		
P	05-97 ⇒ 07-97	7.3	4.3	10.9	7.4	-0.4		
FIN	⇒	:	:	:	:	:		
S	⇒	:	:	:	:	:		
UK	08-97 ⇒ 10-97	3.2	6.8	1.8	6.6	1.2		

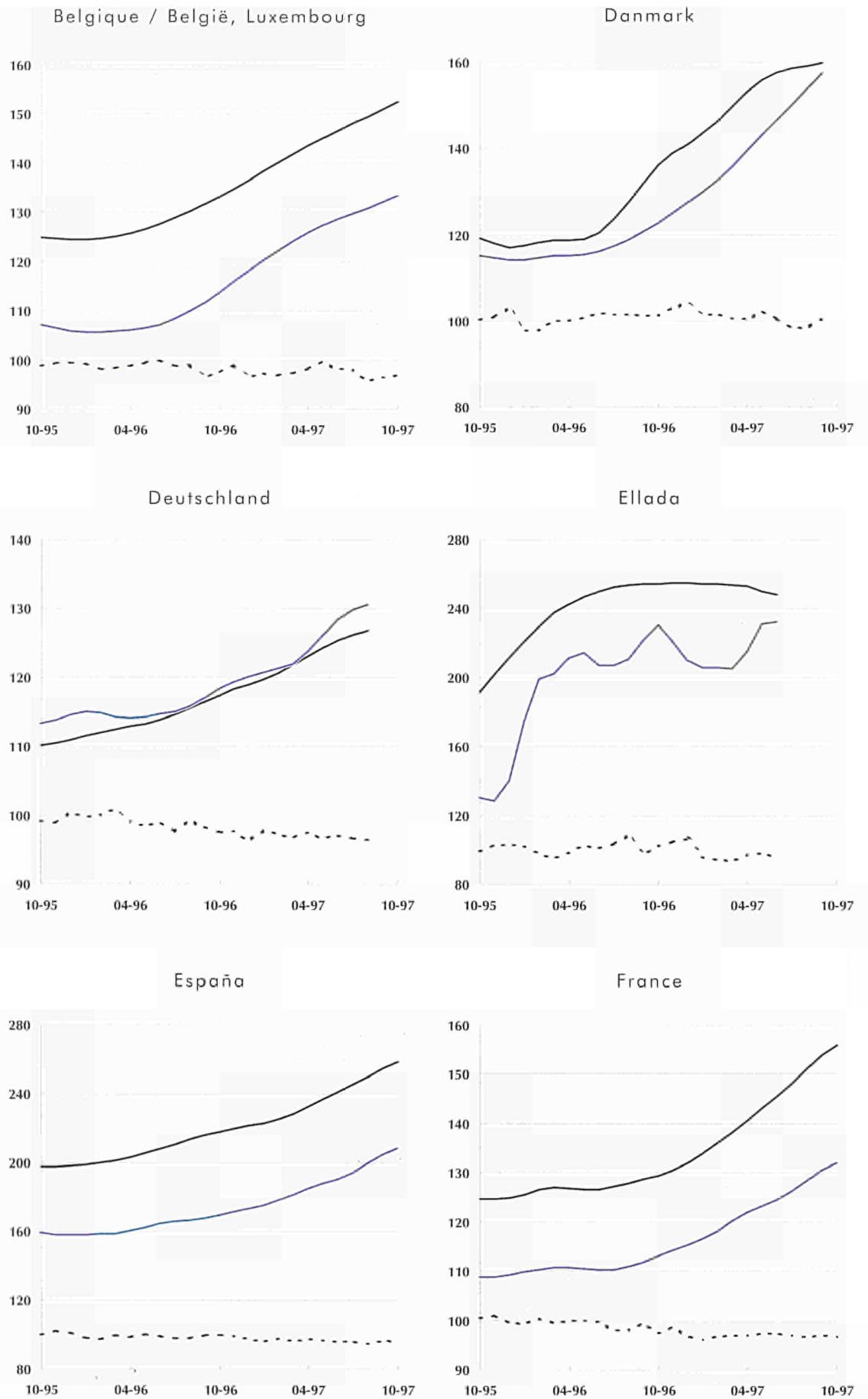
Table 2.18

Foreign trade indices (value indices are in ECU terms): three months compared to the same three months of the previous year (%)

Source: eurostat

Figure 2.28

Foreign trade indices  
in ECU terms  
(1990 = 100)



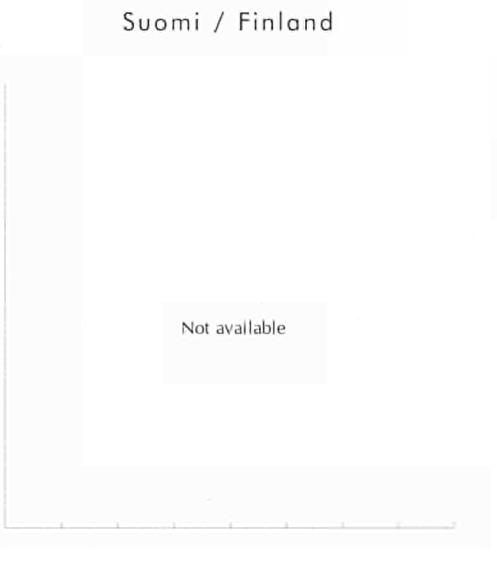
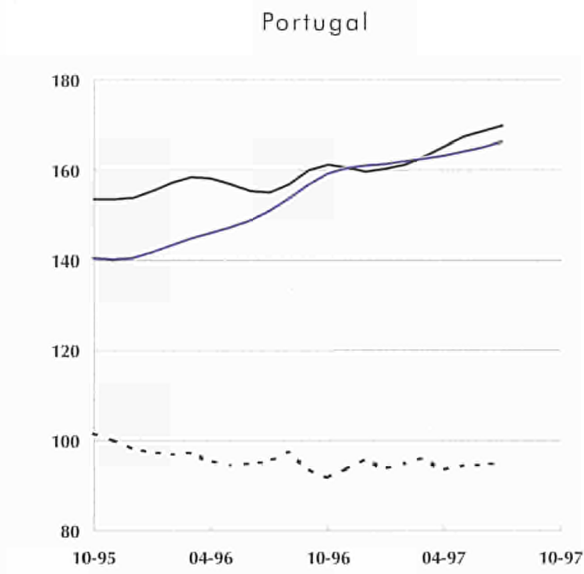
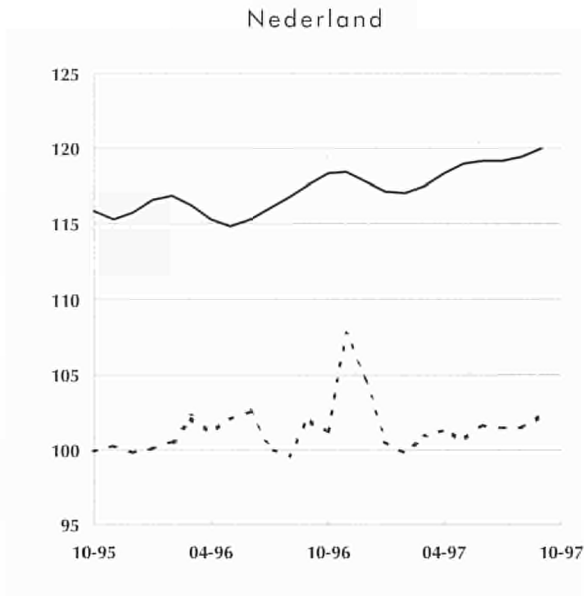
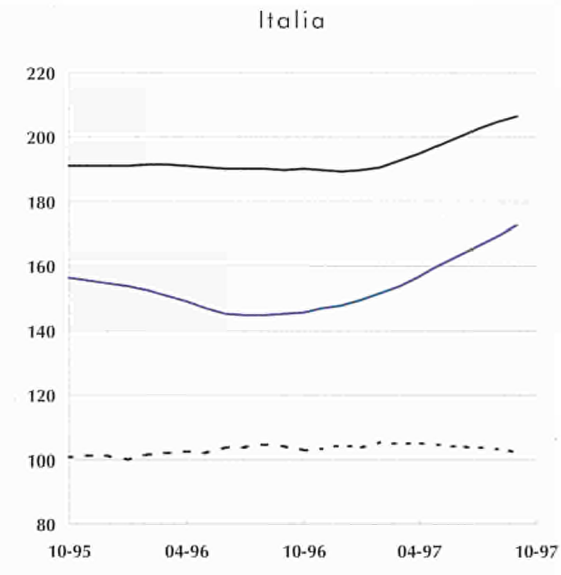
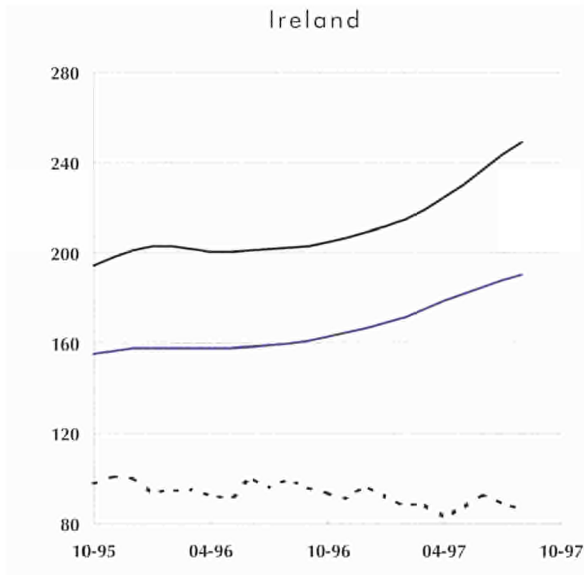
Export value index —  
Import value index —  
Terms of trade - - - -

Source: eurostat

Foreign trade indices (trend cycle)

**Figure 2.28**

Foreign trade indices  
in ECU terms  
(1990 = 100)

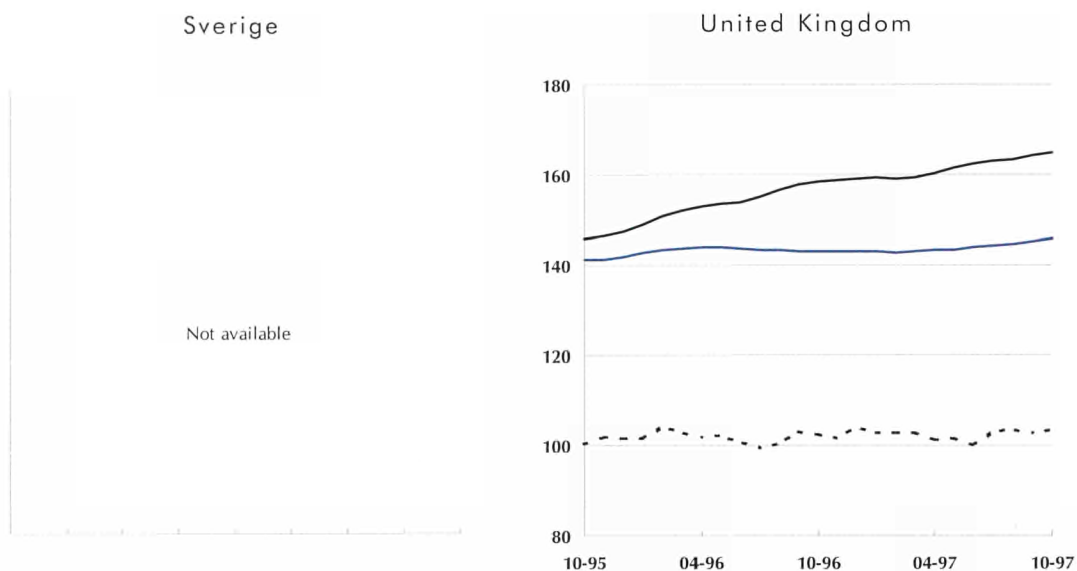


- Export value index
- Import value index
- - - Terms of trade

Source: eurostat

Figure 2.28

Foreign trade indices  
in ECU terms  
(1990 = 100)



Export value index ———

Import value index ———

Terms of trade - - - - -

**Further information - employment, construction and trade indices:**

Figures showing the number of persons employed include all persons employed by the firm (manual workers and salaried employees on the firm's payroll) plus the self-employed.

For the construction activity there are some very specific variables: for details of these please refer to the Eurostat publication "Methodology of Industrial Short-term Indicators" - CA-97-96-079-EN-C.

For the indices of imports and exports, foreign trade data of industrial products (following the nomenclature of the Harmonised System) were grouped according to the industrial NACE Rev.1 activity to which they belong. This grouping of products causes inevitably certain inaccuracies which can reduce the reliability of these foreign trade series. The indices for EU-15 refer only to extra-Union trade, the indices for Member States reflect also intra-Union trade.

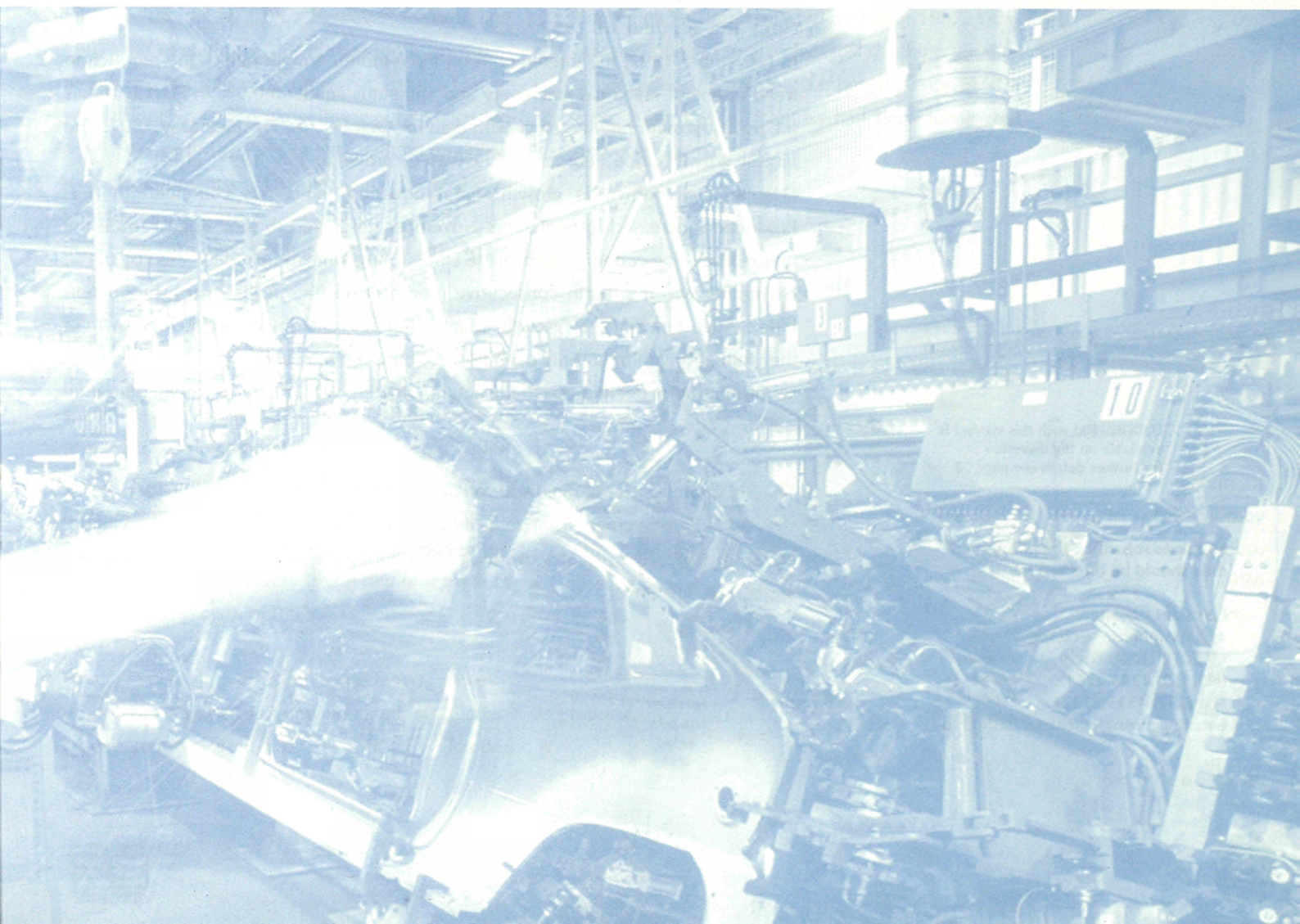
Full methodological notes may be found on page 73.

Source: eurostat

# 3.

## Electrical machinery

	Commentary	52
	Structural indicators	58
	value-added, production, employment and labour costs	
	External trade	60
	extra EU-15 exports and extra EU-15 imports	
	Short-term indicators	61
	production index, producer prices, capacity utilisation and foreign trade indices	



# 3. Electrical machinery

## Description of the NACE Rev.1 groups in division 31:

- 31.1: manufacture of electric motors, generators and transformers;
- 31.2: manufacture of electricity distribution and control apparatus;
- 31.3: manufacture of insulated wire and cable;
- 31.4: manufacture of accumulators, primary cells and primary batteries;
- 31.5: manufacture of lighting equipment and electric lamps;
- 31.6: manufacture of electrical equipment n.e.c.

## Breakdown of the electrical machinery industry by activity

The following activities make-up the electrical machinery and apparatus industry for NACE Rev.1 activity 31: electronic motors, generators and transformers (accounting for a 14% share in 1996 of EU-15 production in current prices for the whole of NACE Rev.1 31), electricity distribution and control apparatus (41%), insulated wires and cables (11%), accumulators, primary cells and primary batteries (4%), lighting equipment and electric lamps (8%), electrical equipment n.e.c. (22%).

The electrical machinery industry accounted for 4.4% of EU-15 manufacturing production in current prices in 1996, whilst in Japan and the USA the shares were 5.2% and 2.9% respectively. In the last six years (1990-1996), American production passed from 48% to 56% of the European total. In the meantime, Japan's share grew by 11 percentage points to 82% of the European figure.

## Rhythm of growth of European production is slowing down since the summer of 1997

In November 1997, the three-month on three-month growth rate of the production trend index for electrical machinery and apparatus equalled 0.9% in EU-15. This is the lowest growth rate (together with data for October, 0.7%) since May 1997. The largest growth since February 1995 was recorded in July 1997, equal to 2.4%. Despite a slowdown in growth, the production index has continued to rise. Production increased in September-November compared to June-August in all the major producing countries, except the United Kingdom where it decreased by 0.4%. November was the fourth consecutive month of decline in the British production index, August having seen growth equal to -0.3 per cent. Since May 1996, growth in the United Kingdom has only been positive between May and July of 1997, the most serious period of decline was in the autumn of 1996 with quarterly growth rates inferior to -2.0%.

The situation in Germany displayed a different trend: as the production index showed an improvement from zero per cent in January 1997 to 2.4% by November 1997. Quarterly growth rates overtook 2.0% during the summer and have remained above that rate since.



Data marked with this symbol is available on the diskette - for further details see page 72

## Enquiries regarding the purchase of data should be directed to:

Eurostat Data-Shop  
4, rue Alphonse Weicker  
L - 2014 Luxembourg  
tel: (352) 4335 2251  
fax: (352) 4335 2221  
e-mail: agnesn@eurostat.datashop.lu

Production & activity breakdown

Production trend up by 0.9%  
in the last three months

Since June 1997, production has evolved at a relatively constant rate in France, recording growth rates of just under 1.0%. However, before June 1997, the evolution of the three-month on three-month growth rate was somewhat erratic. France went through a period of declining output between May 1995 and May 1996 (a year without any positive developments). However, since June 1997, growth rates have been around the one per cent level - the latest figure equal to 0.9% in November 1997.

Although the spring of 1997 was expansive for Italian production of electrical machinery (with growth rates between 1.5% and 3.0%), the rhythm of growth has slowed down since. However, Italian output maintained a positive evolution. Growth rates declined between May 1997 and October 1997, from 3.0% to only 0.6%. Data for November 1997 saw a slight recovery in the rate of growth of activity, with growth of 0.9%.

Finally, Swedish production experienced a slowdown from August 1997 onwards, with production growth reduced from 1.6% to 1.0% by October 1997.

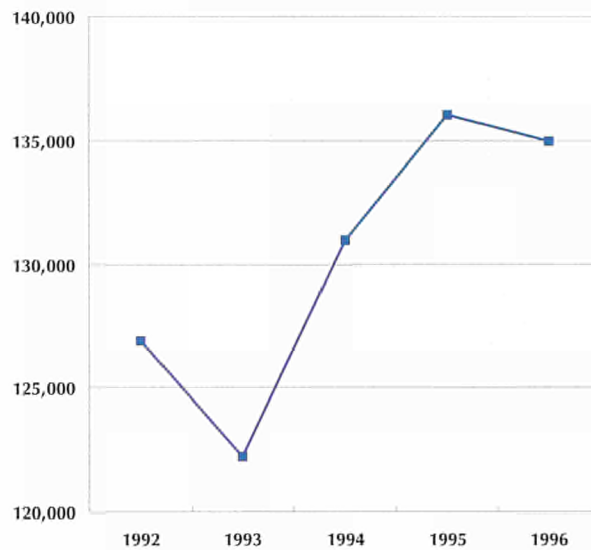


Figure 3.1

EU-15 production  
in constant prices  
(million ECU)

Source: eurostat

European producer prices increased  
by 0.7% between November 1996  
and November 1997

The lowest inflation rate of recent months was reached in the spring of 1997, with only 0.1% inflation being recorded in April and May 1997. Year-on-year inflation in the electrical machinery industry equalled 0.5% in November 1997 for EU-15. From August 1996 inflation had been lower, but remained above zero.

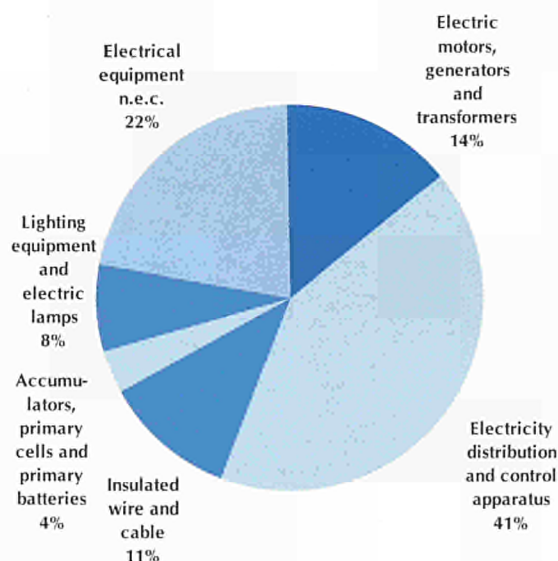


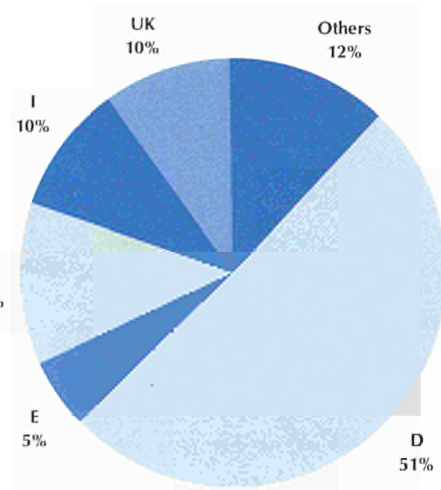
Figure 3.2

Share of  
production by  
industrial group,  
1996

Source: eurostat

Figure 3.3

Share of EU-15  
value-added  
at factor cost,  
1996



Source: eurostat

EU producer prices

increased by 0.7% in the

year to November 1997

The German inflation has been below 0.5% for more than one year and Germany even experienced deflation during April and May 1997, with respective rates of -0.1% and -0.2%. Since June 1997, German producer prices were seen to be increasing but at low levels, with year-on-year growth of prices equal to 0.4% in the early autumn and 0.2% in November 1997.

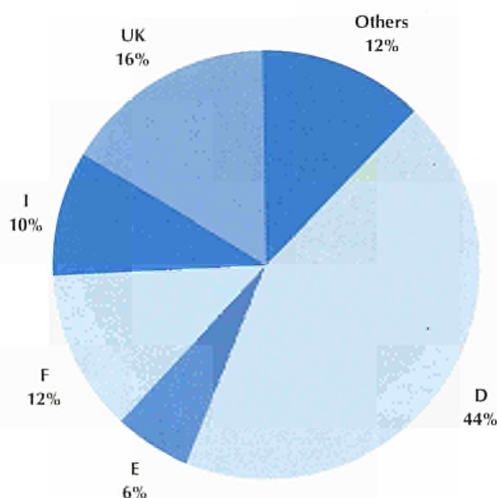
France experienced a low rate of expansion of prices for the latest four months for which data was available (August to November 1997). From June 1996 to July 1997, the level of prices in France was in decline. The largest reduction was recorded in January 1997, year-on-year changes of -1.2%.

Although inflation has slowed down in the United Kingdom since the beginning of 1995, the trend of producer price developments in the United Kingdom was markedly different from that seen in the other Member States. Indeed, the inflation rate remained equal to or above 1.0% during the whole of 1997, with the exception of July (when growth of 0.4% was recorded). This figure was bordered by 1.8% and 1.6% growth in June and August 1997. By November, the United Kingdom was recording expansion of 0.9% in producer prices, representing a 0.2 percentage point loss compared to the month before.

Finally, in Spain, Sweden and Italy (for November 1997), the following inflation rates were recorded (0.9%, 0.2% and 0.1% respectively). Among these three countries, only Italy experienced deflation during any month of 1997.

Figure 3.4

Share of EU-15  
number of persons  
employed,  
1996



Source: eurostat



## Labour costs &amp; production

**EU production fell by 0.8% in 1996**

Production in constant prices in the EU grew by 6.6% between 1990 and 1996 (1.1% as an annual average). In 1996, the annual growth rate was negative (-0.8%). 1993 was the low-point of recent years for EU-15 production, in current as well as in real terms. This recession was not evident in either the USA or Japan. Indeed, between 1990 and 1996, US production increased by 3.8% (annual average growth) whilst in Japan the corresponding figure was 4.0%. Production growth increased in 1996 in the USA and Japan, with real output rising by 4.0% and 10.2% respectively.

The largest producer of the EU, Germany, registered a real annual increase in 1996 of 0.6%. Average annual growth in Germany over the first six years of the 90s was however equal to only 0.2%. In 1996, production (in real terms) increased by 2.1% in the United Kingdom and by 2.8% in Spain, but fell by 1.3% in France. In the past six years, real production rose both in Spain (6.7%, annual average growth) and France (4.1%), whilst it decreased by 1.1% per annum in the United Kingdom.

**Germany appears to be the country the most specialised in the EU**

As a measure of specialisation, we can look at the share of electrical production in total manufacturing output. Germany was the largest producer of electrical machinery in 1996 with a share of 7.3% of total manufacturing. The less specialised countries, with shares in total manufacturing lower than those of the EU (4.4%) were: the Netherlands (1.7%) and Finland (2.0%).

The main feature of the electrical machinery and apparatus industry is that there are a number of very large firms operating world-wide in virtually all product segments, together with a large number of small and medium-sized enterprises. The most important firms in Europe are: Siemens (D), Philips (NL), Alcatel-Alsthom (F), Electrolux (S) and Ericsson (S).

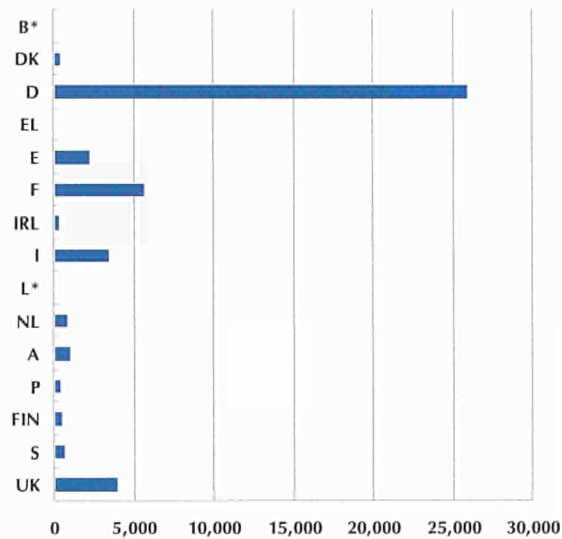


Figure 3.5

Labour costs,  
1995  
(million ECU)

Source: eurostat

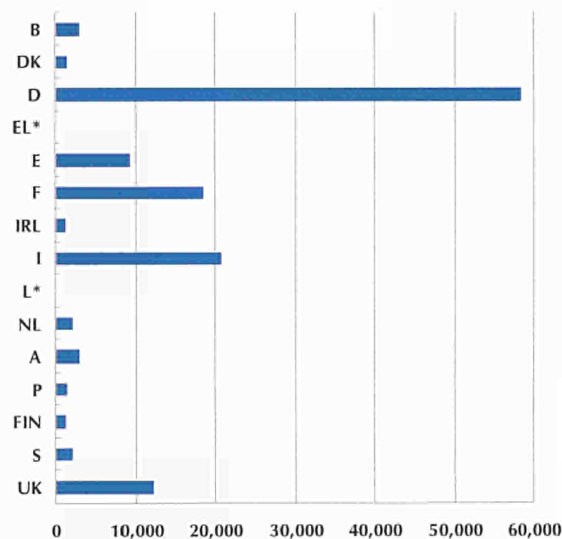


Figure 3.6

Production in  
constant prices,  
1996  
(million ECU)

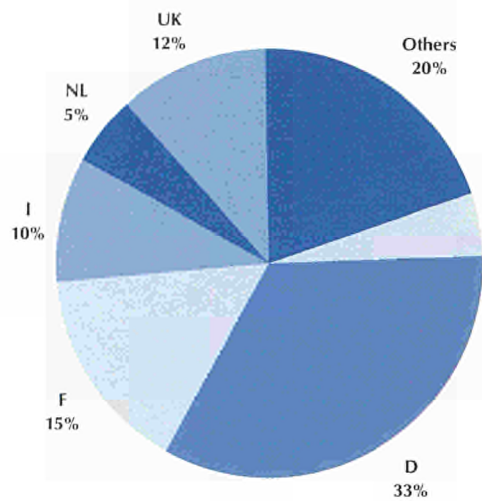
Source: eurostat

**Lighting equipment and electric lamps**

Looking at the evolution of the manufacture of lighting equipment and electric lamps (NACE Rev.1 31.5 - the only 3-digit Nace for which EU-15 constant price series are available), the EU recorded real growth equal to 3.5% over the last six years - an annual average of 0.6%. In 1996 the annual rate of change of the EU revealed a slight slowdown (-0.1%) after two years of increasing production levels (+4.7% in 1994 and +8.3% in 1995). Germany was again the largest producer: however, the output share fell by 2.2 percentage points during the six year period to 32.7% of EU-15 current production.

Figure 3.7

Share of European exports to the rest of the world, 1996



Source:  eurostat

### The electrical machinery industry employs 1.3 million workers in 1996

In 1996, the number of persons employed in the electrical machinery and apparatus industry recorded a decline of 1.6% with respect to the year before. When looking at the period 1990-96, the reduction in the number of persons employed was equal to -15.6% (-2.8% as an annual average). The number of persons employed in the EU was 1.3 million in 1996, of which 43.5% were in Germany, 16.3% in the United Kingdom, 12.3% in France and 9.8% in Italy.

From 1990 to 1996 only Portugal (24.3%), Ireland (15.9%), France (8.5%) and the Netherlands (5.3%) experienced gains in the number of persons employed. These figures corresponded to annual average gains of 3.7%, 2.5%, 1.4% and 0.9% respectively. Portugal, the United Kingdom and Ireland showed the fastest annual growth rates for employment in 1996, with the following percentage increases: 10.2%, 9.1%, and 5.9% respectively. On the other hand, Germany and Austria saw their workforces decline by 5.3% and 12.4%.

Comparisons with Japan and the USA show that these two countries accounted for 45.6% and 51.3% of European employment levels in 1996. Between 1990 and 1996, Japanese and US employment figures revealed annual average reductions of 2.5% and 0.2% respectively.

For more details, please contact: Angelo Montani

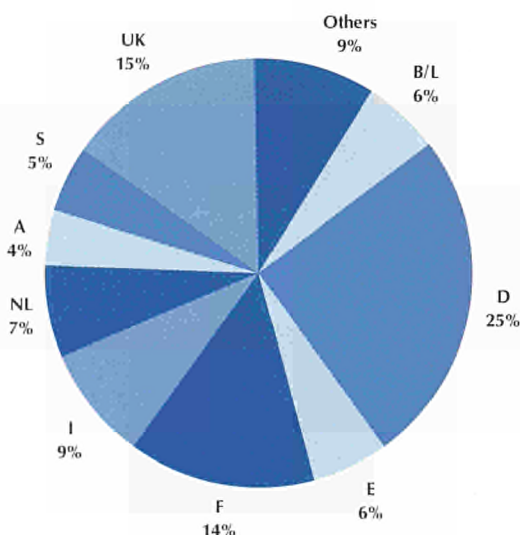
tel: (352) 42 66 40 524

fax: (352) 42 66 40 520

e-mail: xosa091@nopc.eurostat.cec.be

Figure 3.8

Share of European imports from the rest of the world, 1996



Source:  eurostat

## Enterprises in Europe: fourth report

This is a biennial publication produced by Eurostat in co-operation with DG XXIII of the European Commission.

There were around 16 million small and medium-sized enterprises (SMEs) in 1992 in the countries of EU-15, employing more than 100 million people.



The publication contains several parts which present the information that has been gathered by Eurostat. Each has been designed to facilitate the rapid acquisition of the facts. The interested reader may turn to detailed country or sectoral information. Besides this information, an update of the whole SME database will be published on CD-Rom in the first half of 1998. Eurostat Data-Shops also have the most recent data and can make user-specific extractions suited to customers' needs.

The paper publication is broken down into the following sections:

- Part 1: main information on European enterprises;
- Part 2: specific analyses, such as enterprise creation, the innovative behaviour of SMEs or regional analyses;
- Parts 3 & 4: sectoral and country analyses.

The sources used are normally existing business registers in the European countries. The following economic indicators are provided: employment, turnover and sometimes value added and labour costs.

**Enquiries regarding the purchase of data should be directed to:**

Eurostat Data-Shop  
4, rue Alphonse Weicker  
L - 2014 Luxembourg

tel: (352) 4335 2251  
fax: (352) 4335 22221  
e-mail: [agnesn@eurostat.datashop.lu](mailto:agnesn@eurostat.datashop.lu)

**An order form may be found at the back of this publication**

Table 3.1

Value-added at  
factor cost  
(million ECU)

	1992 t/t-1 (%)		1993 t/t-1 (%)		1994 t/t-1 (%)		1995 t/t-1 (%)		1996 t/t-1 (%)	
EU-15	55,148	0.9	52,308	-5.1	55,252	5.6	59,098	7.0	59,566	0.8
B	:	:	:	:	:	:	:	:	:	:
DK	337	-7.6	308	-8.5	400	29.9	600	49.9	643	7.3
D	28,491	5.8	27,036	-5.1	29,052	7.5	30,367	4.5	30,083	-0.9
EL	:	:	107	:	114	7.1	139	21.4	148	6.3
E	2,769	3.6	2,320	-16.2	2,376	2.4	2,988	25.7	3,226	8.0
F	5,904	4.6	6,535	10.7	6,989	6.9	7,449	6.6	7,431	-0.2
IRL	350	11.1	325	-7.1	375	15.5	448	19.3	531	18.6
I	7,011	-13.1	5,709	-18.6	5,448	-4.6	5,808	6.6	6,010	3.5
L	:	:	:	:	:	:	:	:	:	:
NL	850	9.2	770	-9.5	836	8.5	946	13.2	933	-1.3
A	:	:	:	:	:	:	:	:	:	:
P	437	32.2	409	-6.5	409	0.0	490	19.8	541	10.5
FIN	658	2.3	639	-3.0	583	-8.8	885	51.9	468	-47.1
S	991	-12.7	825	-16.7	782	-5.3	892	14.1	956	7.2
UK	5,040	-7.8	4,930	-2.2	5,433	10.2	5,332	-1.8	5,738	7.6

Source:  eurostat

Table 3.2

Production in  
constant prices  
(million ECU)

	1992 t/t-1 (%)		1993 t/t-1 (%)		1994 t/t-1 (%)		1995 t/t-1 (%)		1996 t/t-1 (%)	
EU-15	126,937	0.3	122,233	-3.7	130,967	7.1	136,069	3.9	134,993	-0.8
B	2,727	-2.3	2,795	2.5	2,997	7.2	2,894	-3.4	2,988	3.3
DK	865	-11.3	756	-12.6	1,067	41.1	1,294	21.3	1,392	7.6
D	58,968	1.7	54,826	-7.0	58,867	7.4	57,882	-1.7	58,215	0.6
EL	:	:	:	:	:	:	:	:	:	:
E	6,951	4.5	6,531	-6.0	7,369	12.8	8,997	22.1	9,249	2.8
F	15,449	3.6	16,812	8.8	17,993	7.0	18,592	3.3	18,353	-1.3
IRL	759	13.1	779	2.6	902	15.9	1,057	17.2	1,207	14.2
I	20,254	-2.8	18,530	-8.5	19,681	6.2	21,817	10.9	20,731	-5.0
L	:	:	:	:	:	:	:	:	:	:
NL	1,916	3.6	1,701	-11.2	1,874	10.2	2,053	9.5	2,057	0.2
A	2,454	-3.9	2,662	8.5	2,518	-5.4	2,912	15.7	2,970	2.0
P	1,122	19.6	1,116	-0.6	1,128	1.1	1,266	12.3	1,377	8.8
FIN	1,582	10.4	1,685	6.5	1,865	10.7	2,389	28.1	1,287	-46.1
S	2,067	-20.6	2,075	0.4	2,099	1.2	2,228	6.1	2,140	-4.0
UK	11,272	-4.5	11,396	1.1	12,007	5.4	12,000	-0.1	12,250	2.1

Source:  eurostat

## Number of persons employed &amp; labour costs

Table 3.3

	1992 t/t-1 (%)		1993 t/t-1 (%)		1994 t/t-1 (%)		1995 t/t-1 (%)		1996 t/t-1 (%)	
EU-15	1,410,506	-4.4	1,323,559	-6.2	1,272,936	-3.8	1,287,865	1.2	1,267,236	-1.6
B	28,159	-7.8	27,038	-4.0	25,725	-4.9	26,327	2.3	25,243	-4.1
DK	8,436	-11.6	7,417	-12.1	8,784	18.4	10,060	14.5	:	:
D	681,580	-3.5	625,813	-8.2	588,766	-5.9	582,314	-1.1	551,552	-5.3
EL	:	:	4,814	:	4,620	-4.0	4,590	-0.6	4,601	0.2
E	88,364	1.8	76,270	-13.7	74,719	-2.0	75,502	1.0	74,810	-0.9
F	143,648	0.0	150,774	5.0	151,786	0.7	157,389	3.7	155,797	-1.0
IRL	10,619	3.5	10,223	-3.7	10,640	4.1	11,338	6.6	12,007	5.9
I	158,680	-12.2	146,759	-7.5	134,337	-8.5	128,280	-4.5	123,698	-3.6
L	:	:	:	:	:	:	:	:	:	:
NL	20,316	4.6	19,420	-4.4	18,089	-6.9	19,117	5.7	19,396	1.5
A	26,966	-3.9	26,622	-1.3	25,429	-4.5	25,356	-0.3	22,210	-12.4
P	26,185	28.8	25,691	-1.9	24,516	-4.6	25,455	3.8	28,061	10.2
FIN	14,036	-9.3	12,974	-7.6	13,479	3.9	14,557	8.0	:	:
S	22,582	-17.4	19,713	-12.7	17,379	-11.8	17,979	3.5	17,939	-0.2
UK	175,314	-7.9	169,573	-3.3	174,183	2.7	189,067	8.5	206,267	9.1

Number of persons  
employed  
(units)

Source:  eurostat

Table 3.4

	1991 t/t-1 (%)		1992 t/t-1 (%)		1993 t/t-1 (%)		1994 t/t-1 (%)		1995 t/t-1 (%)	
EU-15	43,532	5.7	44,185	1.5	43,810	-0.8	44,156	0.8	45,723	3.5
B	:	:	:	:	:	:	:	:	:	:
DK	273	-11.6	250	-8.4	219	-12.2	280	27.7	337	20.3
D	23,664	7.3	24,818	4.9	25,405	2.4	25,093	-1.2	25,856	3.0
EL	:	:	:	:	84	:	83	-1.4	89	7.0
E	2,010	12.6	2,170	8.0	1,771	-18.4	2,211	24.8	2,142	-3.1
F	3,998	5.6	4,270	6.8	4,957	16.1	5,181	4.5	5,603	8.1
IRL	195	3.1	213	8.9	205	-3.8	224	9.3	238	6.4
I	5,663	7.1	4,985	-12.0	4,012	-19.5	3,726	-7.1	3,377	-9.4
L	:	:	:	:	:	:	:	:	:	:
NL	521	10.2	589	13.2	540	-8.4	582	7.7	748	28.7
A	761	9.1	797	4.7	882	10.7	870	-1.5	944	8.5
P	231	0.5	307	32.7	298	-2.8	288	-3.4	318	10.3
FIN	433	-6.0	352	-18.7	303	-13.9	365	20.6	455	24.5
S	920	-17.9	791	-14.0	609	-23.0	530	-13.0	575	8.4
UK	3,801	-0.3	3,515	-7.5	3,473	-1.2	3,648	5.0	3,887	6.6

Labour costs  
(million ECU)

Source:  eurostat

Table 3.5

Extra-EU-15  
exports  
(million ECU)


	1992 t/t-1 (%)		1993 t/t-1 (%)		1994 t/t-1 (%)		1995 t/t-1 (%)		1996 t/t-1 (%)	
<b>EU-15</b>	16,085	7.5	19,352	20.3	22,281	15.1	24,991	12.2	28,357	13.5
<b>B/L</b>	374	5.3	482	28.9	550	14.0	578	5.2	635	9.8
<b>DK</b>	202	-11.9	229	13.6	364	58.9	468	28.7	419	-10.6
<b>D</b>	5,876	7.8	7,372	25.5	8,433	14.4	9,582	13.6	10,469	9.3
<b>EL</b>	47	86.5	42	-10.0	55	30.6	63	14.0	71	12.6
<b>E</b>	485	24.3	567	16.9	660	16.3	737	11.6	828	12.4
<b>F</b>	2,910	4.7	3,337	14.7	3,694	10.7	4,150	12.3	4,380	5.6
<b>IRL</b>	100	16.9	123	22.8	132	7.0	196	48.7	213	8.8
<b>I</b>	1,669	6.2	1,879	12.6	2,107	12.1	2,259	7.2	2,694	19.2
<b>NL</b>	674	40.5	858	27.2	924	7.8	903	-2.3	1,064	17.8
<b>A</b>	512	10.8	591	15.4	762	28.9	752	-1.3	882	17.2
<b>P</b>	73	29.7	75	2.9	89	19.2	107	20.1	146	36.5
<b>FIN</b>	285	29.3	535	87.6	674	26.1	929	37.8	1,090	17.4
<b>S</b>	657	-10.2	720	9.6	872	21.1	977	12.1	1,453	48.7
<b>UK</b>	2,222	4.8	2,541	14.3	2,966	16.8	3,291	10.9	4,015	22.0

Source:  eurostat

Table 3.6

Extra EU-15  
imports  
(million ECU)

	1992 t/t-1 (%)		1993 t/t-1 (%)		1994 t/t-1 (%)		1995 t/t-1 (%)		1996 t/t-1 (%)	
<b>EU-15</b>	12,231	3.0	13,831	13.1	17,399	25.8	20,764	19.3	21,810	5.0
<b>B/L</b>	383	7.6	533	39.1	627	17.6	747	19.2	858	14.9
<b>DK</b>	157	6.1	180	14.4	214	18.8	230	7.8	244	5.9
<b>D</b>	4,338	2.7	5,142	18.5	6,768	31.6	8,430	24.6	8,243	-2.2
<b>EL</b>	93	11.1	120	29.0	95	-21.3	92	-2.5	122	32.6
<b>E</b>	497	-0.4	411	-17.3	447	8.8	485	8.5	477	-1.6
<b>F</b>	1,370	-6.4	1,579	15.3	1,773	12.3	2,135	20.4	2,298	7.7
<b>IRL</b>	195	27.7	296	52.1	377	27.3	487	29.3	574	17.8
<b>I</b>	976	5.3	956	-2.1	1,090	14.1	1,222	12.1	1,309	7.1
<b>NL</b>	807	4.5	786	-2.5	1,058	34.5	1,276	20.7	1,441	12.9
<b>A</b>	358	1.3	400	11.9	506	26.4	460	-9.0	611	32.8
<b>P</b>	74	-1.2	81	10.4	90	10.0	121	35.4	147	21.5
<b>FIN</b>	171	11.7	234	36.5	375	60.3	466	24.3	455	-2.4
<b>S</b>	493	-0.4	549	11.3	733	33.5	831	13.4	920	10.7
<b>UK</b>	2,318	6.8	2,563	10.6	3,248	26.7	3,781	16.4	4,112	8.8

Source:  eurostat

## Production (trend cycle) &amp; producer price indices

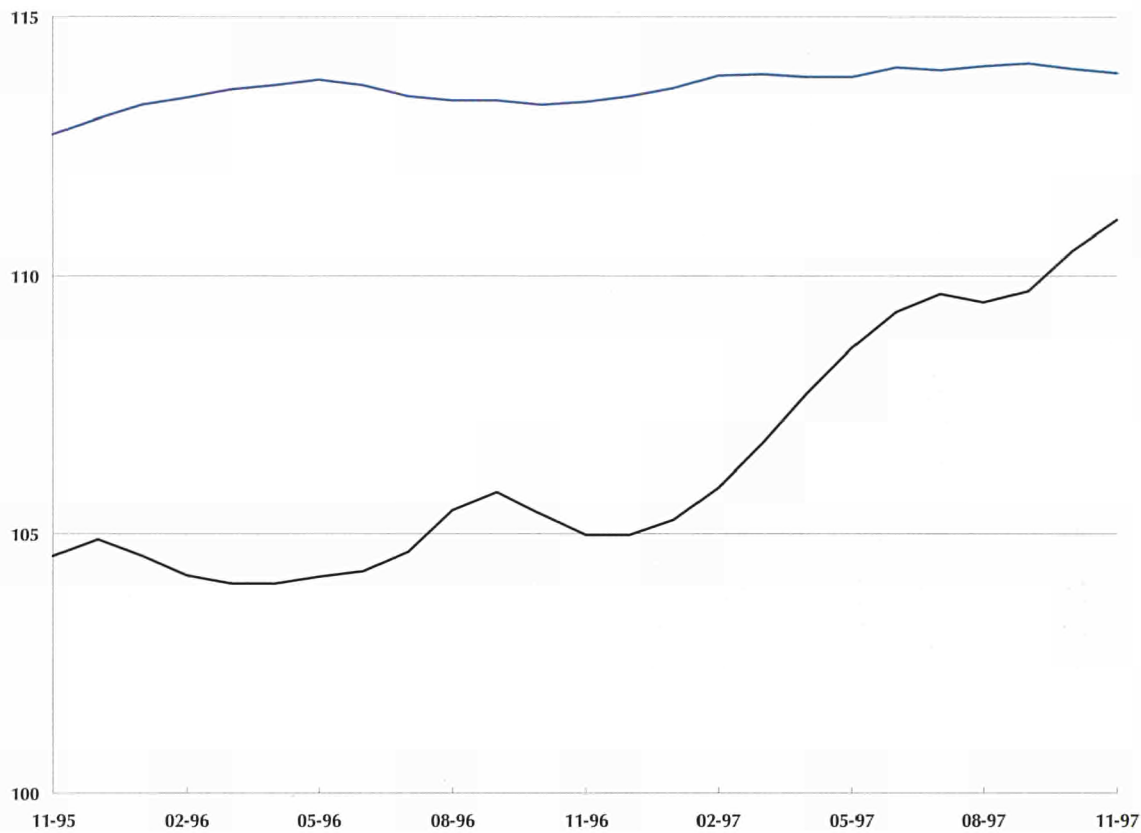


Figure 3.9

EU-15 production  
and producer  
price indices  
(1990 = 100)

— Production index  
— Producer price index

Source: eurostat

	Latest 3 months available			Production index		Latest month available	Producer price index	
		⇒		t / t-1	t / t-4		t / t-3	t / t-12
<b>EU-15</b>	09-97	⇒	11-97	0.9	4.5	11-97	-0.1	0.5
<b>B</b>		⇒		:	:		:	:
<b>DK</b>	08-97	⇒	10-97	3.8	12.3	10-97	-0.2	4.2
<b>D</b>	09-97	⇒	11-97	2.4	5.7	12-97	-0.3	0.0
<b>EL</b>	09-97	⇒	11-97	3.7	18.9	10-97	1.5	20.8
<b>E</b>	09-97	⇒	11-97	6.0	13.1	11-97	0.1	0.9
<b>F</b>	09-97	⇒	11-97	0.9	3.7	11-97	-0.9	0.2
<b>IRL</b>		⇒		:	:		:	:
<b>I</b>	09-97	⇒	11-97	0.9	5.2	11-97	0.3	0.1
<b>L</b>	09-97	⇒	11-97	11.3	:		:	:
<b>NL</b>	06-97	⇒	08-97	1.6	10.9	11-97	0.0	2.9
<b>A</b>	04-97	⇒	06-97	-1.0	-5.9		:	:
<b>P</b>	08-97	⇒	10-97	5.5	14.9		:	:
<b>FIN</b>	09-97	⇒	11-97	2.4	7.5	12-97	-0.3	1.4
<b>S</b>	08-97	⇒	10-97	1.0	8.1	12-97	-1.6	0.5
<b>UK</b>	09-97	⇒	11-97	-0.4	-1.5	12-97	-0.1	1.0

Table 3.7

Production  
and producer  
price indices:  
growth rates  
(%)


<b>Japan</b>		⇒		:	:		:	:
<b>USA</b>		⇒		:	:		:	:

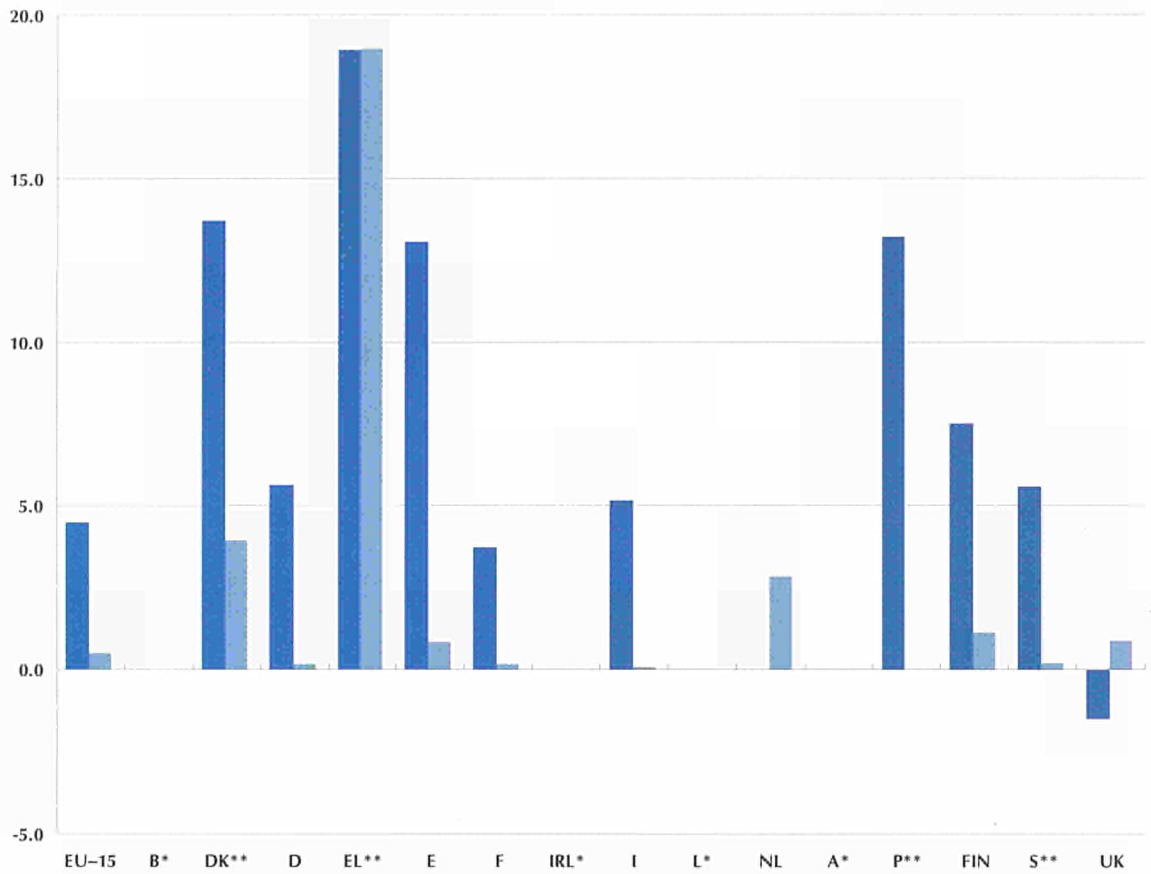
Source: eurostat

**Figure 3.10**

Production and producer price indices: growth rate, three months compared to the same three months of the previous year, 09-97 to 11-97 (%)

Production ■  
Producer price index ■

Source:  eurostat

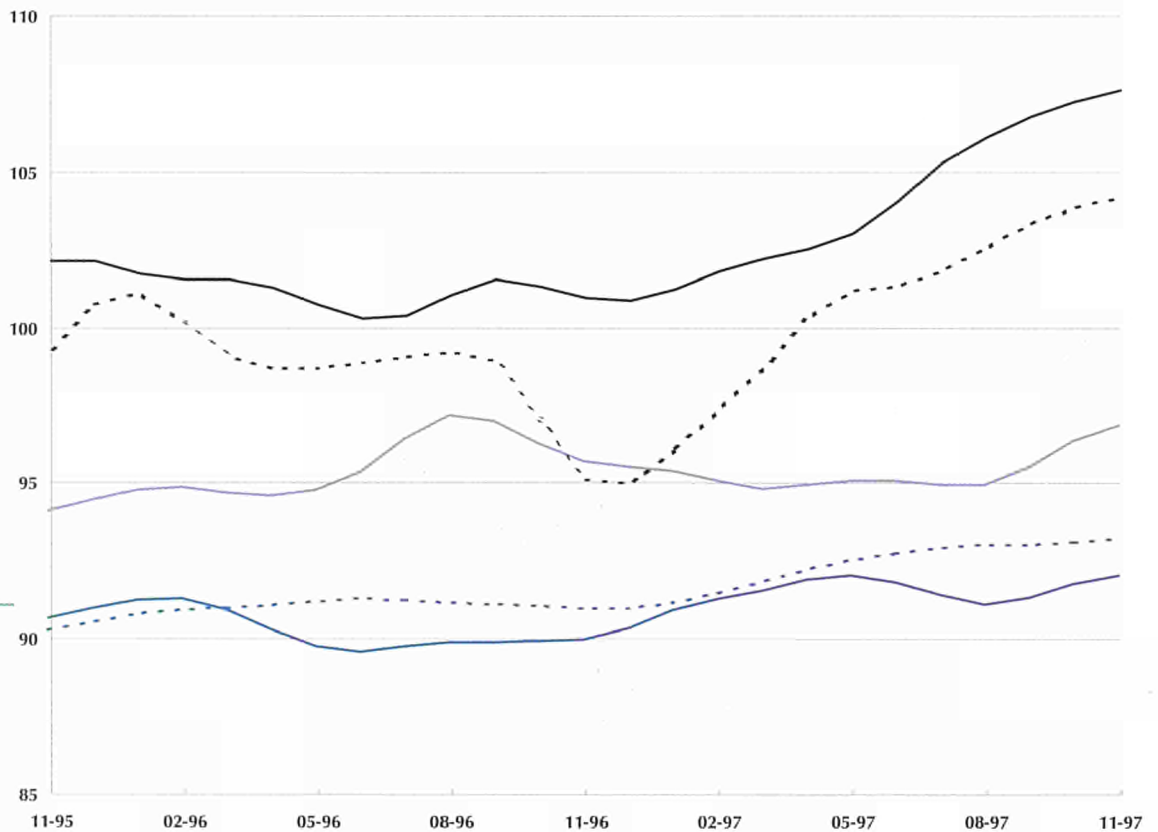


**Figure 3.11**

Production index for individual groups, trend cycle (1990 = 100)

Electric motors, generators and transformers —  
Electricity distribution and control apparatus - - -  
Insulated wire and cable —  
Accumulators, primary cells and primary batteries —  
Lighting and lamps - - -

Source:  eurostat



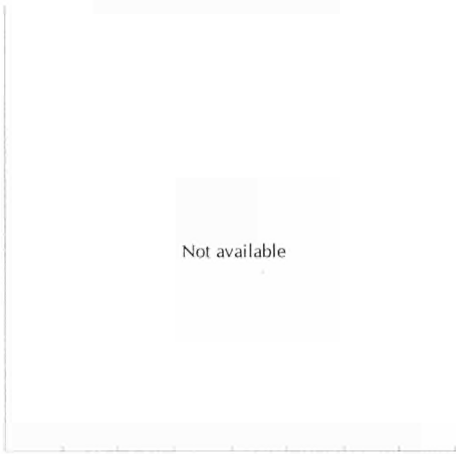


Production & producer price indices

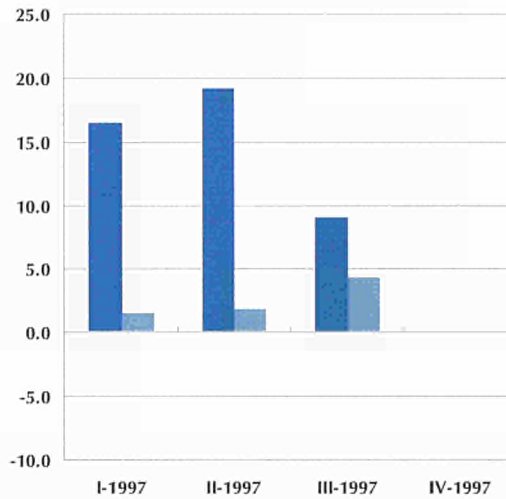
Figure 3.12

Production and producer price indices: growth rate, three months compared to the same three months of the previous year (%)

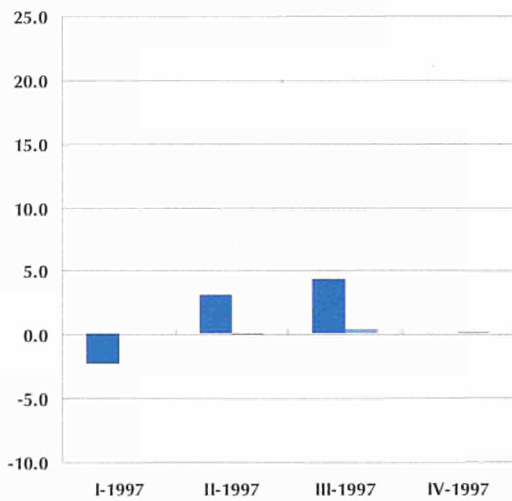
Belgique / België



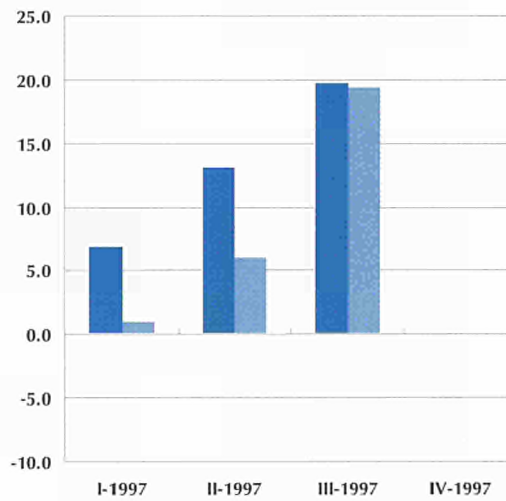
Danmark



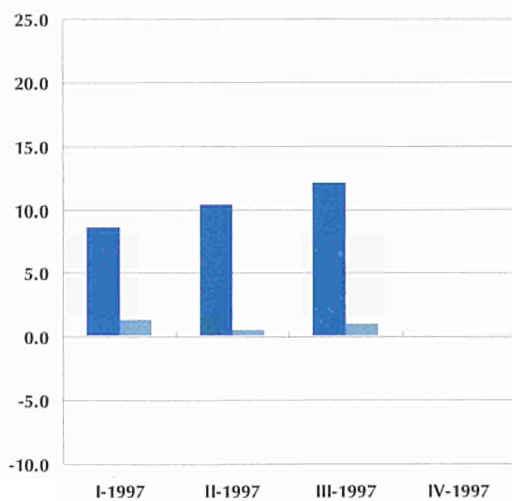
Deutschland



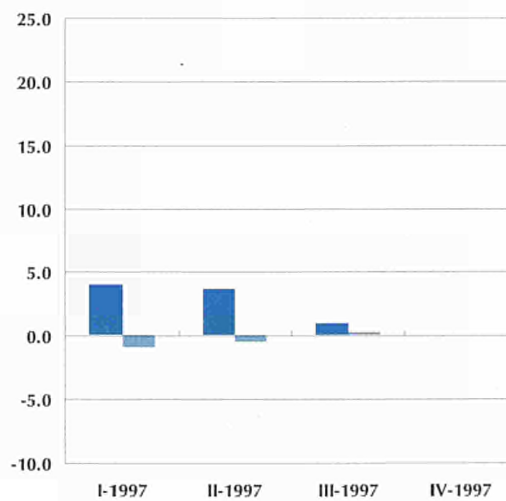
Ellada



España



France

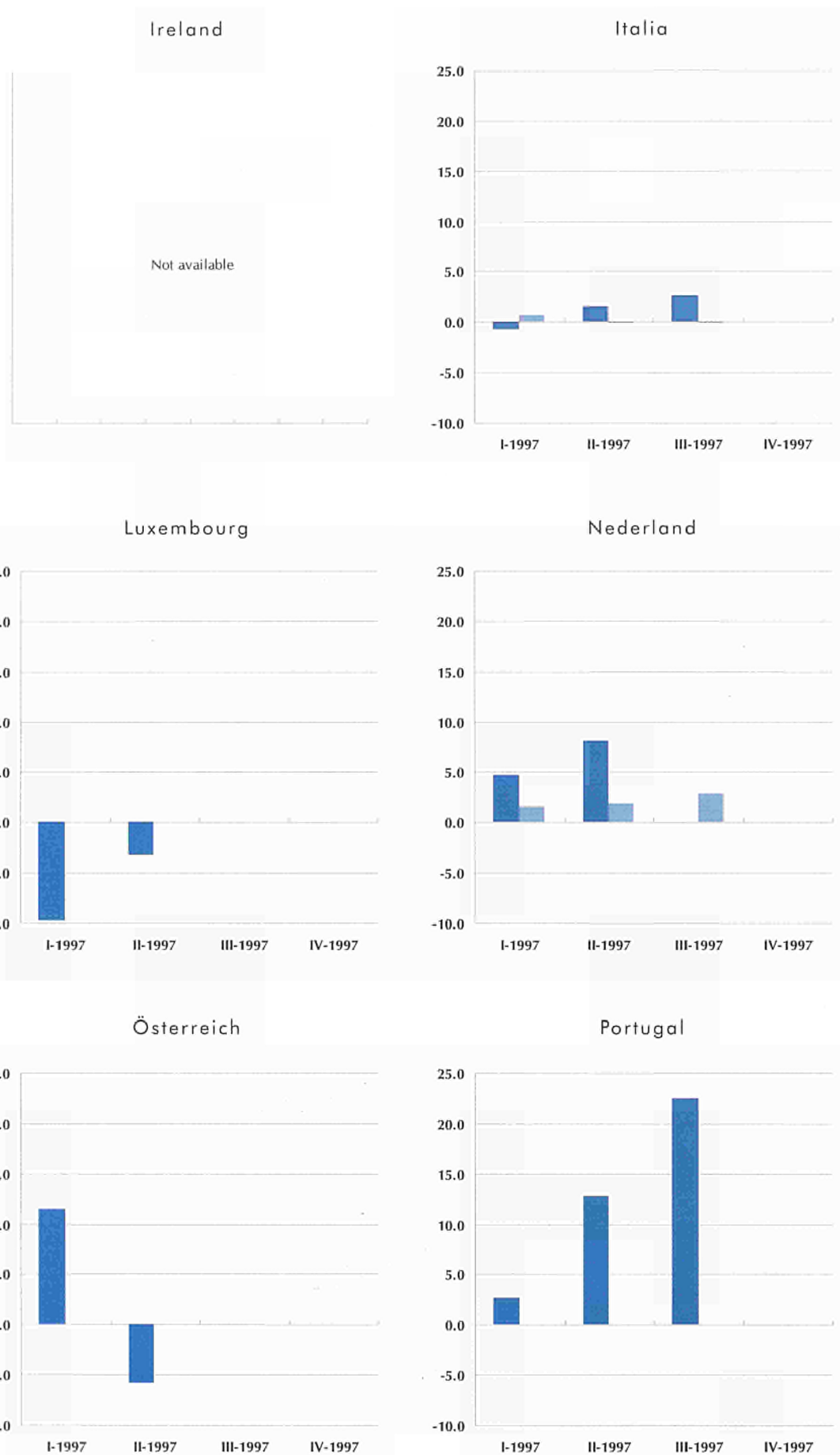


■ Production index  
■ Producer price index

Source: eurostat

Figure 3.12

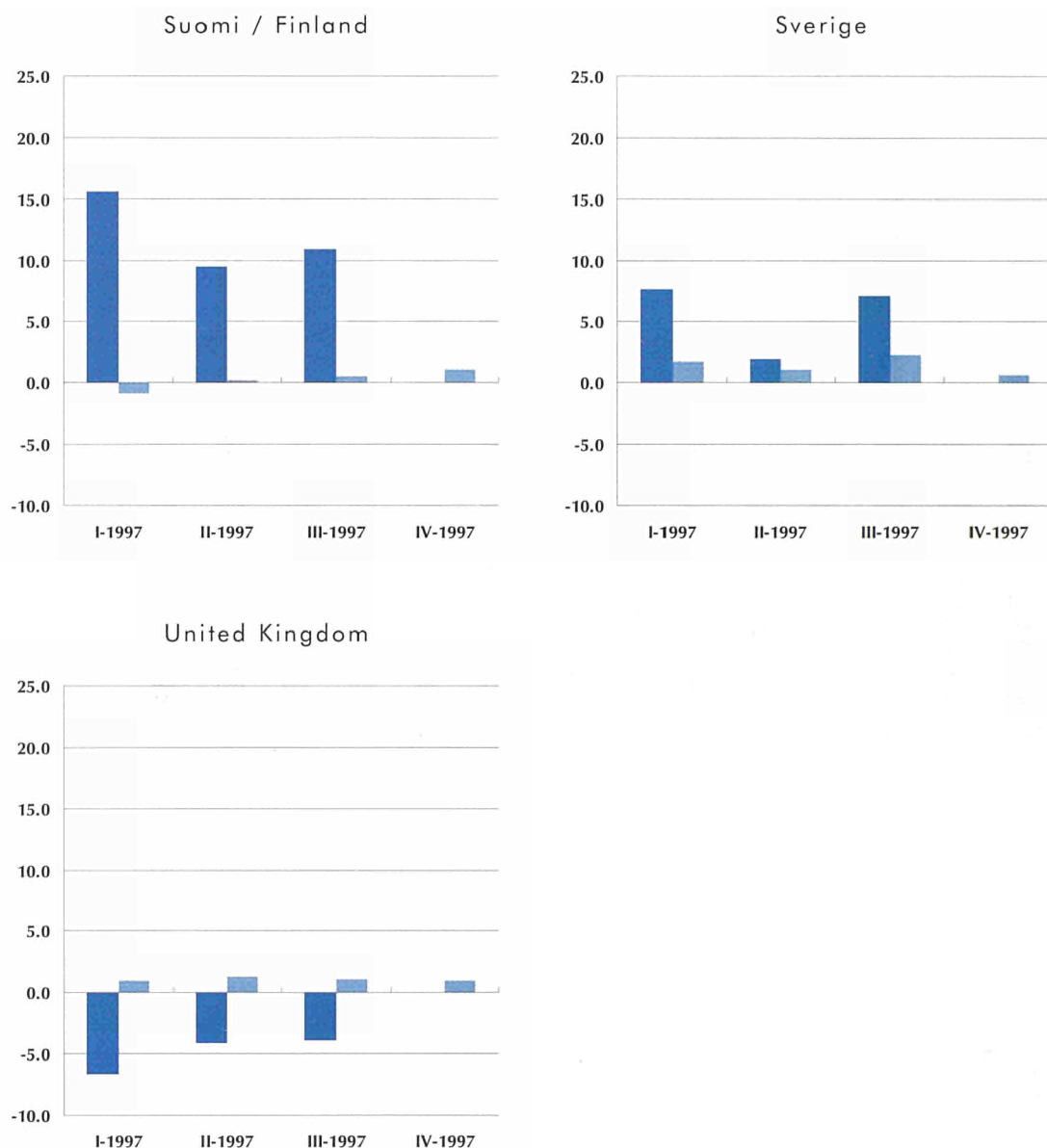
Production and producer price indices: growth rate, three months compared to the same three months of the previous year (%)



Source: eurostat

Production & producer price indices

Figure 3.12



Production and producer price indices: growth rate, three months compared to the same three months of the previous year (%)

■ Production index  
■ Producer price index

**Further information - the production and producer price indices:**

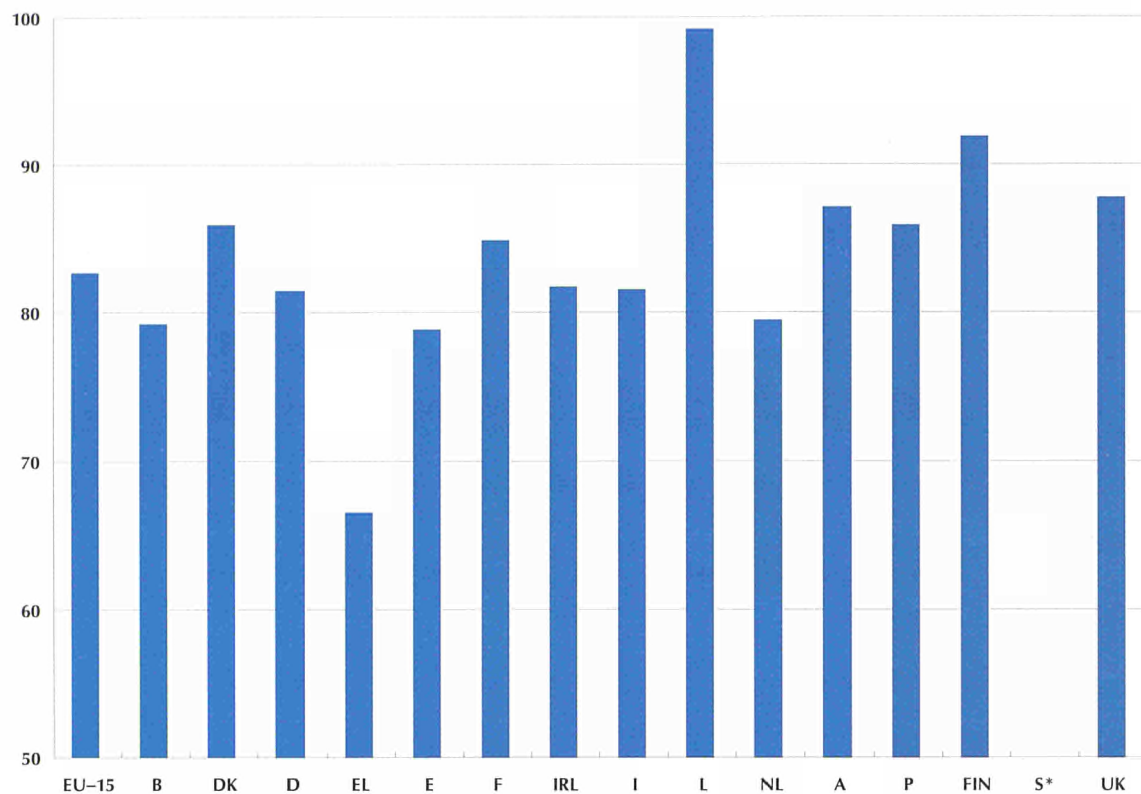
The indices of production are adjusted in two stages. Firstly, account is taken of the variation in the number of working days in the month. The national Statistical Offices provide Eurostat with these series (except Denmark, France and Spain). Secondly, for EU-15 and most of the Member States a correction is made using seasonal adjustment with TRAMO / SEATS, a method developed by Professor Maravall and V. Gomez. For France, Finland, Sweden and the United Kingdom, the indices are adjusted by the national statistical offices themselves. For Germany, the trend and seasonally adjusted figures are calculated by the German NSO.

The index of producer prices shows (in the national currency of the Member State in question) changes in the ex-works selling prices of all products sold on the domestic market. Since we deal with producer prices, imports are not included in these price indices. Producer price indices are not seasonally adjusted. Full methodological notes may be found on page 73.

Source: eurostat

Figure 3.13

Capacity  
utilisation rates,  
10-97  
(%)



Source: DG II,  
Business Survey

Table 3.8

Capacity  
utilisation rates  
(%)

	Growth rate: latest month, t / t-12 (%)	01-97	04-97	07-97	10-97
EU-15	0.7	82.6	81.9	83.8	82.8
B	1.4	80.1	80.3	81.0	79.3
DK	3.6	83.0	82.0	85.0	86.0
D	-1.1	80.4	83.3	84.2	81.5
EL	-4.0	46.9	54.2	67.4	66.6
E	-1.9	75.9	75.9	77.4	78.9
F	5.1	84.2	82.7	81.4	84.9
IRL	7.5	75.1	71.6	78.8	81.8
I	-5.9	86.0	81.2	86.7	81.6
L	6.8	92.9	94.0	93.9	99.2
NL	-0.4	79.7	79.2	79.3	79.6
A	6.9	81.7	84.0	85.7	87.2
P	:	:	:	:	86.0
FIN	0.0	91.6	90.9	91.0	92.0
S	:	84.0	82.0	85.0	:
UK	7.2	89.2	82.8	88.5	87.9

Source: DG II,  
Business Survey

## Foreign trade indices (trend cycle)

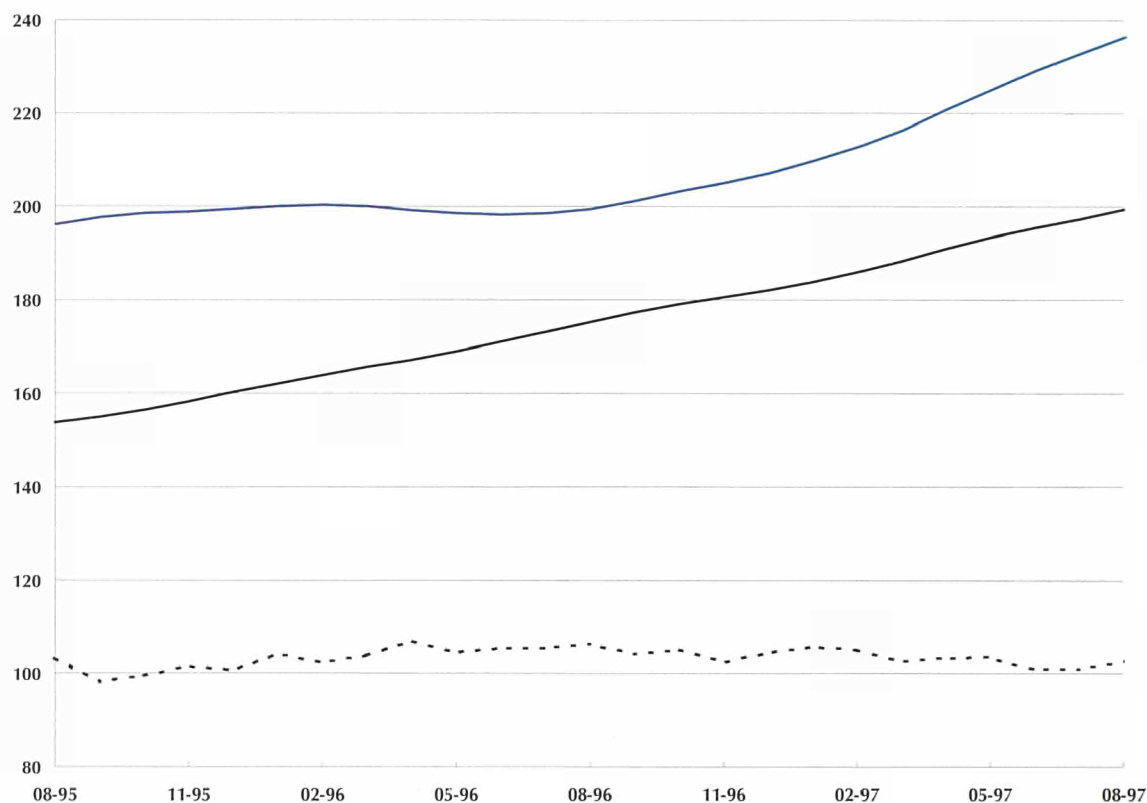


Figure 3.14

EU-15 foreign trade indices in ECU terms (1990 = 100)

— Export value index  
— Import value index  
- - - Terms of trade

Source:  eurostat

	Latest 3 months available	Exports		Imports		Terms of trade
		Value	Volume	Value	Volume	
EU-15	06-97 ⇒ 08-97	3.4	2.3	5.5	3.5	-1.7
B / L	08-97 ⇒ 10-97	1.1	2.0	0.4	1.1	-7.2
DK	07-97 ⇒ 09-97	4.4	3.4	9.5	2.9	-8.0
D	06-97 ⇒ 08-97	3.2	3.0	8.0	4.6	-1.9
EL	04-97 ⇒ 06-97	3.5	-4.8	0.7	0.9	10.2
E	08-97 ⇒ 10-97	11.6	9.9	12.5	13.4	2.0
F	08-97 ⇒ 10-97	3.5	1.3	5.2	2.5	1.4
IRL	06-97 ⇒ 08-97	13.6	5.6	6.4	7.3	8.8
I	07-97 ⇒ 09-97	3.9	1.9	4.9	3.9	-3.2
NL	07-97 ⇒ 09-97	1.4	-0.2	-1.5	-1.0	-1.5
A	⇒	:	:	:	:	:
P	05-97 ⇒ 07-97	0.1	-0.5	3.5	4.0	-5.2
FIN	⇒	:	:	:	:	:
S	⇒	:	:	:	:	:
UK	08-97 ⇒ 10-97	1.8	0.5	3.8	4.9	6.4

Table 3.9

Foreign trade indices (value indices are in ECU terms): growth rate, three months compared to the previous three months (%)

Source:  eurostat

Figure 3.15

Foreign trade indices in ECU terms: growth rate, three months compared to the same three months of the previous year, 06-97 to 08-97 (%)

Export value ■  
Import value ■

Source:  eurostat

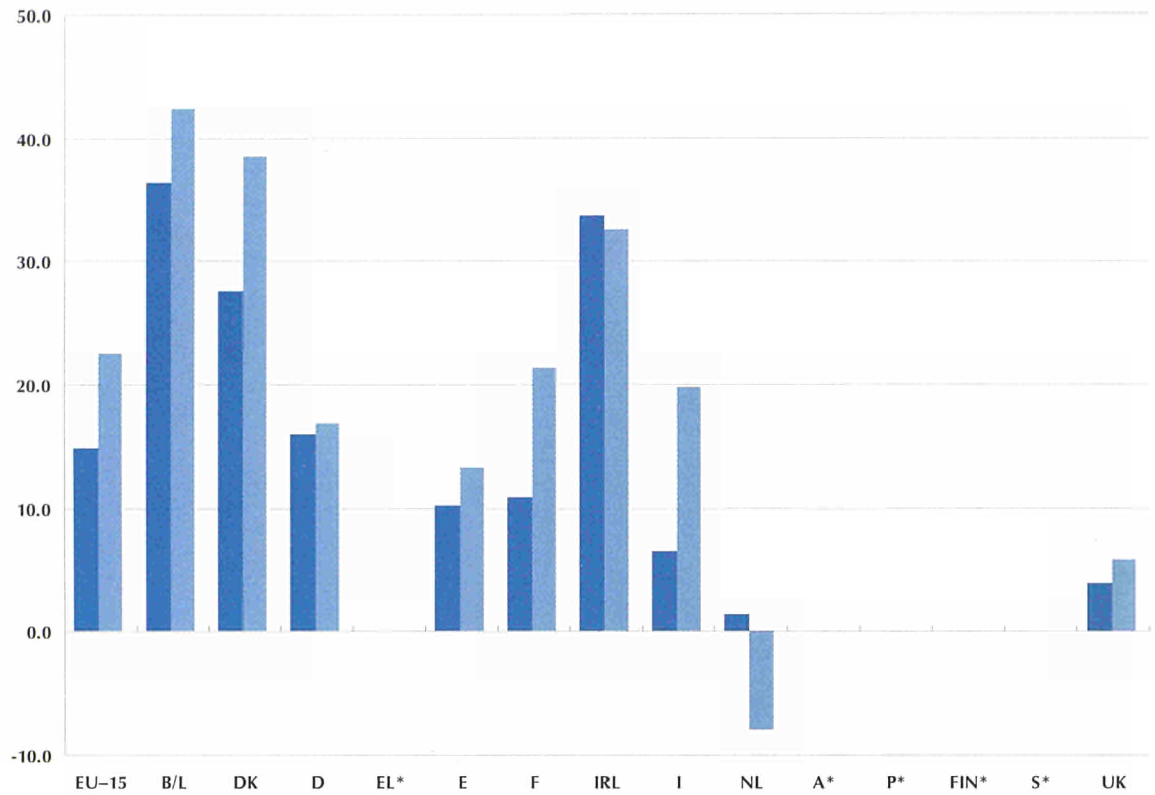


Table 3.10

Foreign trade indices (value indices are in ECU terms): growth rates (%)

Source:  eurostat

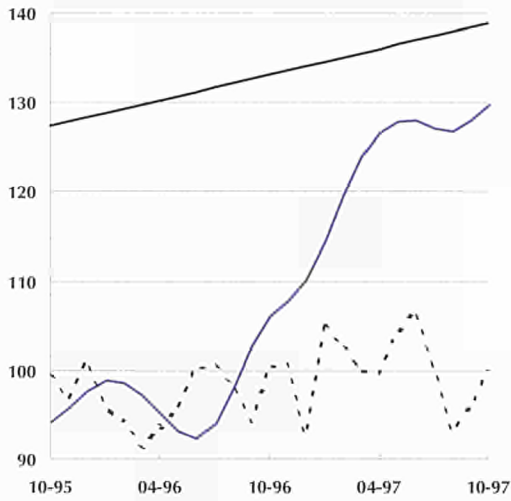
	Latest 3 months available	Exports		Imports		Terms of trade
		Value	Volume	Value	Volume	
EU-15	06-97 ⇒ 08-97	14.8	13.0	22.5	15.7	-4.0
B / L	08-97 ⇒ 10-97	13.8	13.9	22.2	20.9	-1.4
DK	07-97 ⇒ 09-97	22.9	21.4	40.9	27.2	-9.1
D	06-97 ⇒ 08-97	15.9	15.1	16.9	9.7	-5.3
EL	04-97 ⇒ 06-97	0.9	-2.1	-5.4	-9.8	-1.3
E	08-97 ⇒ 10-97	22.5	21.2	29.3	32.1	2.2
F	08-97 ⇒ 10-97	13.7	8.9	22.0	13.1	-3.4
IRL	06-97 ⇒ 08-97	33.7	30.9	32.5	34.8	3.3
I	07-97 ⇒ 09-97	11.8	8.8	19.4	14.0	-2.0
NL	07-97 ⇒ 09-97	-1.8	-7.7	-8.6	-17.0	-3.7
A	⇒	:	:	:	:	:
P	05-97 ⇒ 07-97	7.4	12.4	19.0	27.9	2.4
FIN	⇒	:	:	:	:	:
S	⇒	:	:	:	:	:
UK	08-97 ⇒ 10-97	4.3	1.9	6.9	9.9	4.9

Foreign trade indices (trend cycle)

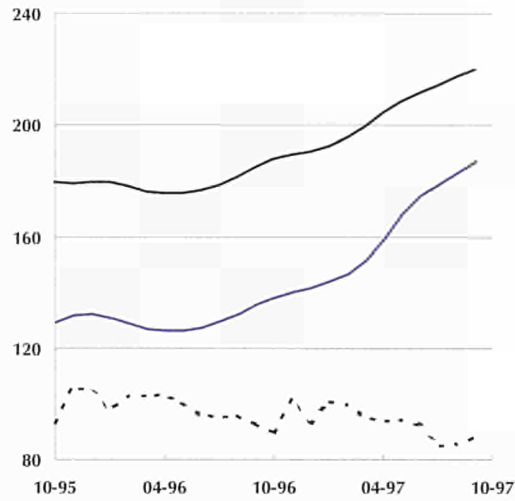
Figure 3.16

Foreign trade indices  
in ECU terms  
(1990 = 100)

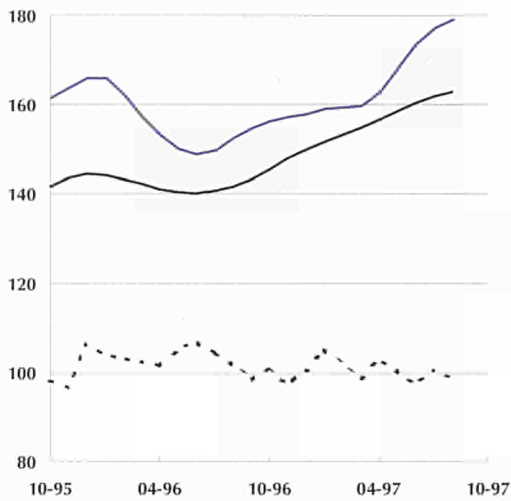
Belgique / België, Luxembourg



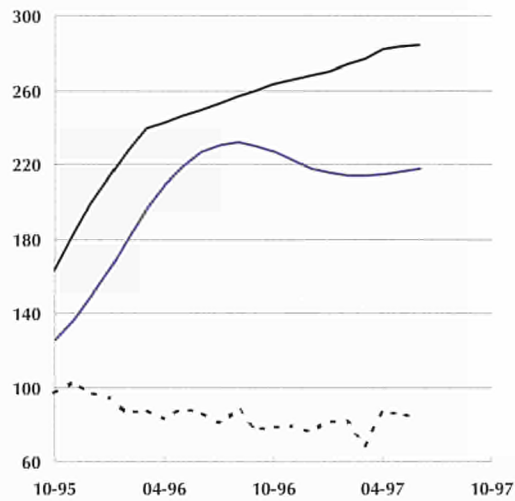
Danmark



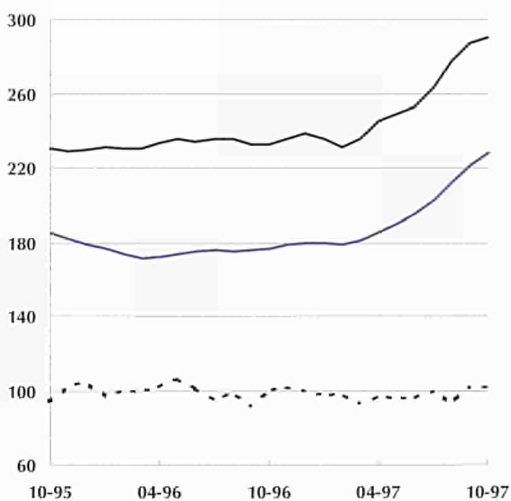
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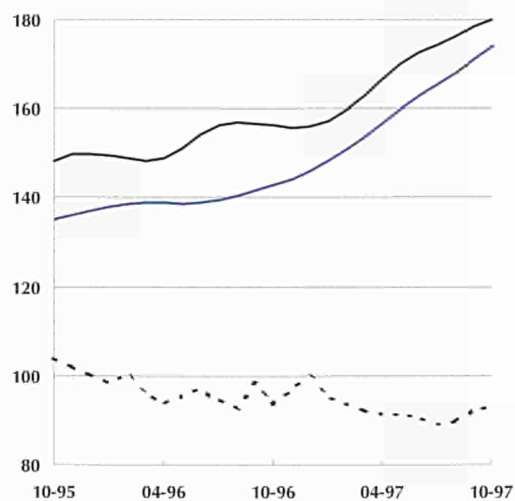
Ellada



España



France

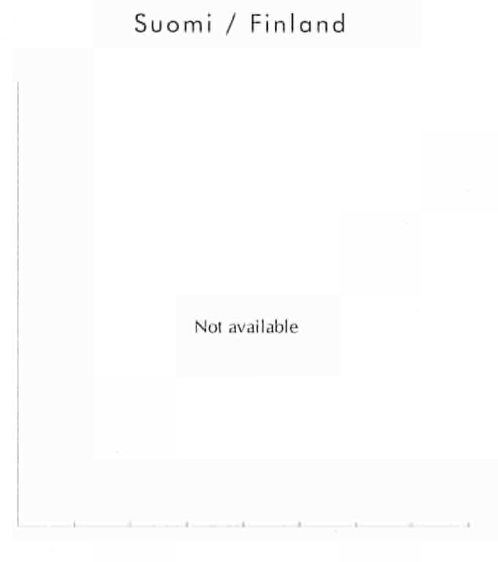
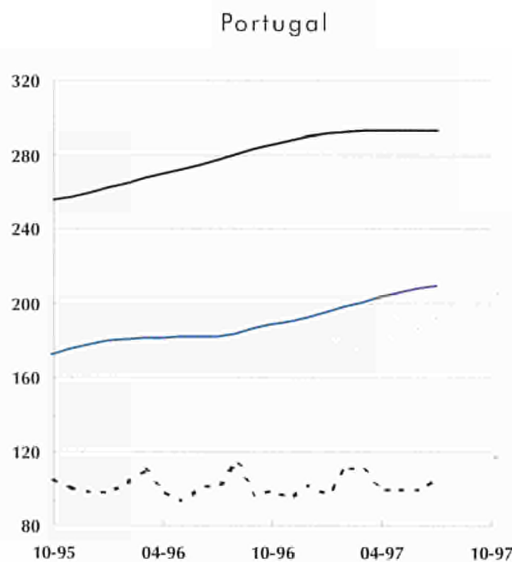
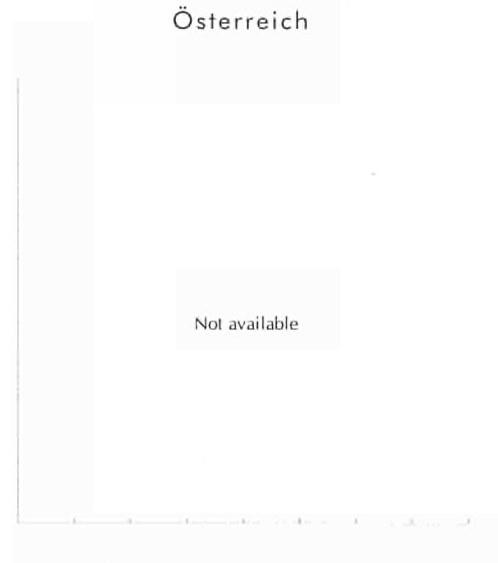
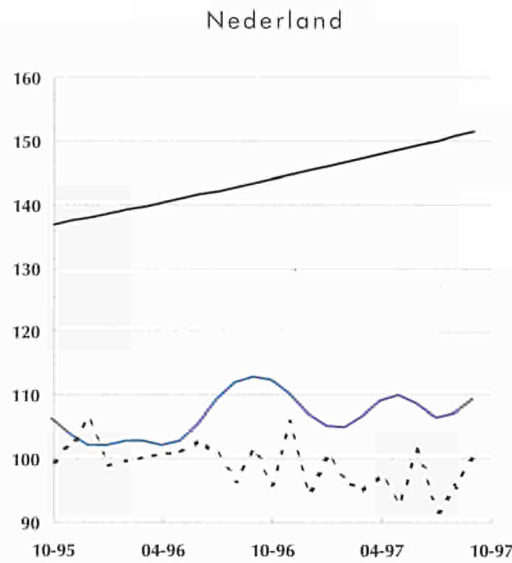
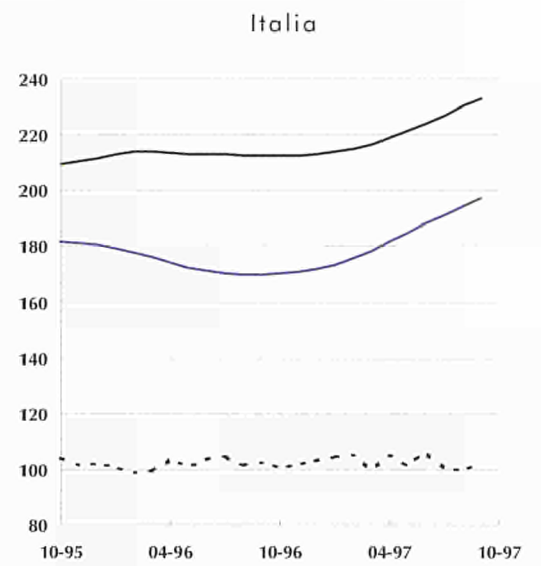
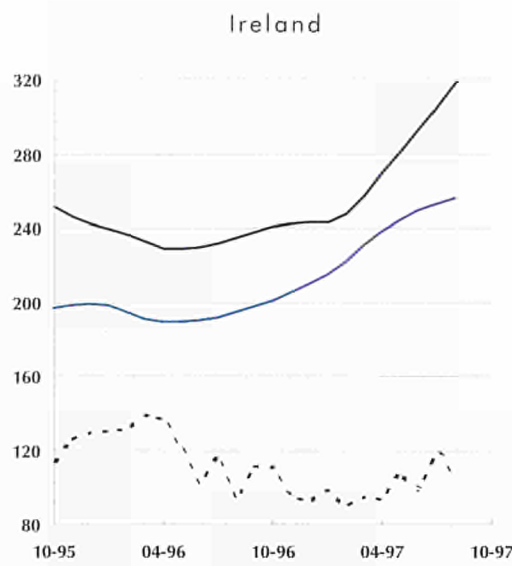


— Export value index  
— Import value index  
- - - Terms of trade

Source:  eurostat

Figure 3.16

Foreign trade indices  
in ECU terms  
(1990 = 100)



Export value index —  
Import value index —  
Terms of trade - - -

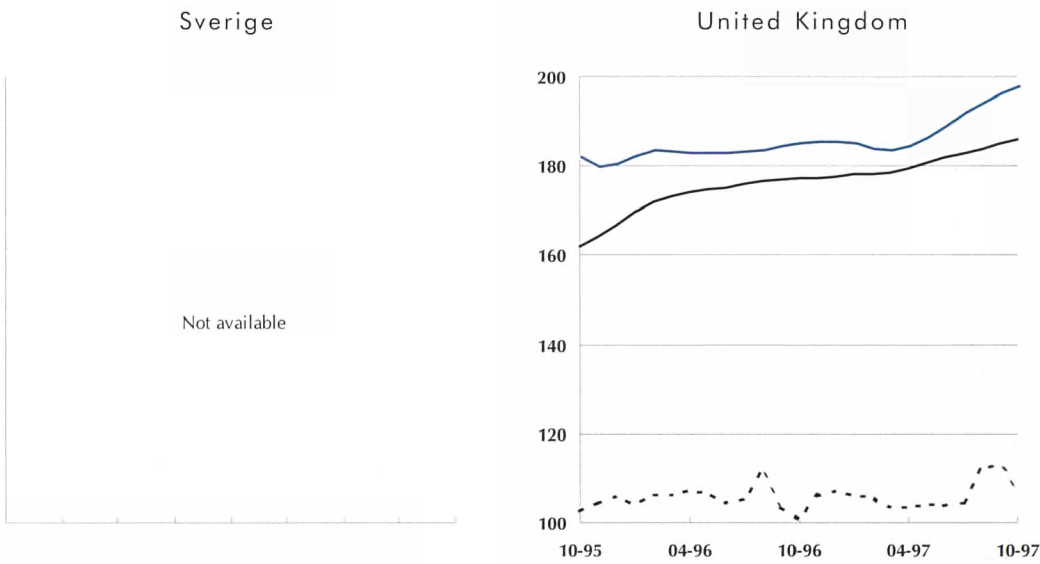
Source: eurostat



Foreign trade indices (trend cycle)

Figure 3.16

Foreign trade indices  
in ECU terms  
(1990 = 100)



- Export value index
- Import value index
- - - - Terms of trade

**Further information - the foreign trade indices:**

For the indices of imports and exports, foreign trade data of industrial products (following the nomenclature of the Harmonised System) were grouped according to the industrial NACE Rev.1 activity to which they belong. This grouping of products causes inevitably certain inaccuracies which can reduce the reliability of these foreign trade series. The indices for EU-15 refer only to extra-Union trade, the indices for Member States reflect also intra-Union trade.

For more extensive details of the methodology of short-term indicators please refer to the Eurostat publication "Methodology of Industrial Short-term Indicators" - CA-97-96-079-EN-C. Full methodological notes for this publication may be found on page 73.

Source: eurostat

# 4.

## Data diskette



The files on the diskette are broken down by industrial branch. Each file contains all countries and indicators for a particular industry. The files have the following format: country, indicator, branch, periodicity,

datatype, flag, data,

e.g. EF;PROD;B0020;M;S;\*;85.14164...

### Step by step guide to using the data on the diskette:

1. Copy the file MPEI1.EXE (English number format) or MPEI2.EXE (continental European number format) from the diskette to a directory on your hard disk (usually C:\....).
2. If in WINDOWS, switch to the File Manager and double-click on the file. The files will self-extract themselves (into the directory from which the program is run). You may need to perform WINDOW - REFRESH <F5> to see the files once the procedure has finished.
3. If in DOS move to the directory you placed the file in (for example, C:\DATA>) and then type the name of the

file (MPEI1.EXE or MPEI2.EXE) and press <ENTER>, the files will self-extract and be placed in the same directory as the .EXE file.

4. The files are simple, plain text files, with the .TXT extension. The files are semi-colon separated (;) and use speech marks as a delimiter.

5. It should be easy to import/open the data-files into any standard spreadsheet or database package.

6. There is a file for each branch available at the NACE 2-digit level, codes are given in the README.TXT file supplied on the diskette.

7. Furthermore, there are two files called STRUCT1.EXE (English number format) and STRUCT2.EXE (continental European number format) with the structural data, for the industry covered in section 3 of the publication. It is also detailed in the README.TXT file.

If you would like to receive the data by e-mail as soon as it is extracted, please send a message to Raffaella Turci ([raffaella.turci@eurostat.cec.be](mailto:raffaella.turci@eurostat.cec.be)) requesting the data.

### Divisions:

B0020	Total Industry excluding Construction	B2400	Chemical Industry
B0040	Intermediate Goods Industry	B2500	Manufacture of Rubber and Plastic Products
B0050	Capital Goods Industry	B2600	Manufacture of other Non-Metallic Mineral Products
B0060	Durable Consumer Goods Industry	B2700	Manufacture of Basic Metals
B0070	Non-Durable Consumer Goods Industry	B2800	Manufacture of Fabricated Metal Products
B1000	Mining of Coal and Lignite; Extraction of Peat	B2900	Mechanical Engineering
B1100	Extraction of Crude Petroleum and Natural Gas; Service Activities incidental to Oil and Gas Extraction, excluding Surveying	B3000	Manufacture of Office Machinery, Computers
B1200	Mining of Uranium and Thorium Ores	B3100	Manufacture of Electrical Machinery
B1500	Food and Drink Industry	B3200	Manufacture of Radio, TV and Communication Equipment
B1600	Tobacco	B3300	Manufacture of Medical, Precision and Optical Instruments
B1700	Manufacture of Textiles	B3400	Manufacture of Motor Vehicles
B1800	Clothing Industry	B3500	Manufacture of Other Transport Equipment
B1900	Leather and Shoe Industry	B3600	Manufacture of Furniture; Manufacturing not elsewhere classified
B2000	Manufacture of Wood and Products of Wood	B4000	Electricity, Gas, Steam and Hot Water Supply
B2100	Paper Industry	B4500	Construction
B2200	Publishing, Printing, Reproduction of Recorded Media		
B2300	Manufacture of Coke, Refined Petroleum Products, Nuclear Fuel		

# 5.

## Methodological notes

Industry classification Nace Rev.1, definitions of main industrial groupings	74
Statistical sources sources and methods used for short-term indicators and structural data; notes on series used and calculation methods	74
Signs and abbreviations specific to use in this publication	75

### Industry classification system

The economic activities used in this publication are defined in the revised Classification of Economic Activities within the European Communities, NACE Rev.1. This classification was laid down in a Council Regulation in 1990 (OJ L293 24th October 1990). It should be noted that many series before 1990 and a large amount of annual data even between 1990 and now had to be converted from the old classification NACE 1970. This estimation process can reduce the reliability of the data.

Main industrial groupings that are used in Section 2 of this publication have the following definitions in terms of NACE Rev.1.

#### Total industry

C + D + E,

i.e. mining, manufacturing and energy supply

#### Intermediate goods industries

13.1, 13.2, 14.1-14.5, 15.6, 15.7, 17.1-17.3,  
20.1-20.5, 21.1, 21.2, 24.1-24.3, 24.6, 24.7,  
25.1, 25.2, 26.1-26.8, 27.1-27.5, 28.4-28.7,  
31.2-31.6, 32.1, 34.3, 37.1, 37.2

#### Capital goods industries

28.1-28.3, 29.1-29.6, 30.0, 31.1, 32.2, 33.1-33.3, 34.1,  
34.2, 35.1-35.3

#### Durable consumer goods industries

29.7, 32.3, 33.4, 33.5, 35.4, 35.5, 36.1-36.3

#### Non-durable consumer goods industries

15.1-15.5, 15.8-16.0, 17.4-17.7, 18.1-18.3, 19.1-19.3,  
22.1-22.3, 24.4, 24.5, 36.4-36.6

If Member States dispose of more detailed data series at the 4 digit level of NACE Rev.1, a more elaborate definition at this level of disaggregation is used.

### Statistical sources

Most of the data in this publication is harmonised data supplied to Eurostat by the EU Member States. The exceptions are:

- 1) the capacity utilisation series which come from the business surveys carried out on behalf of the Directorate General for Economic Affairs of the Commission (DG II);
- 2) the estimates for the latest years' structural data, which are supplied by sub-contractors to Eurostat;
- 3) the data for the USA and Japan, which are supplied by the OECD.

Every effort has been made to include data for the EU-15 Member States. The indices from 1991 onwards are on a post-unification basis and include East-Germany.

### Short term indicators

The index of production measures changes in the volume of the gross value added created by industry, the branch indices being aggregated by means of a system of weighting according to gross value added at factor cost. The indices are adjusted to take account of the varying number of working days in the month.

The index of producer prices shows (in national currencies) the changes in the ex-works selling prices of all products sold on the domestic markets of the various countries. The EU indices refer to overall weighted price changes. There are not yet indices for Austria. No seasonal adjustment is carried out on these indices.

Sometimes statistics are collected at the product level. This may be the case for prices, production, imports and exports. Thus, data is not strictly speaking following an activity classification (NACE Rev.1) but a product classification (Classification of Products by Activity "CPA"). CPA, was laid down in a Council Regulation in 1993. It is a six digit classification which for the 2-digit, 3-digit and 4-digit level is identical to NACE Rev.1 in its coding.

For the indices of imports and exports, external trade data of 9,000 industrial products were grouped according to the industrial NACE Rev.1 activity to which they belong. This grouping can cause certain inaccuracies in the data, which may reduce the reliability of foreign trade series.

## Statistical sources, signs &amp; abbreviations

The value indices are all in ECU terms. The indices for the EU refer only to extra-Union trade, the indices for Member States reflect also intra-Union trade.

*For further details of the methodology employed, please refer to the Eurostat publication "Methodology of Industrial Short-term Indicators" CA-97-96-079-EN-C.*

### Seasonal adjustment

All series, except prices and capacity utilisation, are seasonally adjusted with TRAMO / SEATS, a method developed by Professor Maravall and V. Gomez. For France, Finland, Sweden and the United Kingdom the indices are seasonally adjusted by the national statistical office. For Germany, the trend and seasonally adjusted figures for the production index are calculated by the national statistical office. Otherwise, Eurostat calculates the trend cycle, i.e. seasonally adjusted series, where additionally the irregular fluctuations have been excluded (using the program TRAMO / SEATS).

### Growth rates

The changes which are given in the tables show three different growth rates. The first being for the latest three months data compared to the previous three months data - here the trend cycle is used. The second growth rate is for the latest three months data compared to the same three months of the previous year - here a series only adjusted for the number of working days is used. The third is a year on year growth rate for a particular month - here gross data for prices is used. Estimates are sometimes made to create a EU-15 total.

### Graphs

The line graphs show the trend cycle. The bar graphs show the annual growth of the index, using a working day adjusted series. For Member States where just one month is missing (and not more), this missing value was estimated in order to bring the growth rate for all Member States up to the same date. This estimation is indicated by \*\* in the graph.

### Structural data

Data for structural statistics are in current ECU unless otherwise stated. Data for value added at factor cost, production, labour costs and employment come from annual enquiries conducted by Member States involving all enterprises with 20 or more employees. The exceptions to this are Spain (local units of all sizes), Portugal (enterprises with 10 or more employees) and Finland (establishments employing 5 or more persons). The employment data relates to the number of persons employed, excluding home workers.

Estimates are not supplied to Eurostat by Member States for the smaller firms not covered by the enquiries, and hence the figures under-report the actual values. In certain industries this may be a serious problem in the interpretation of series, especially when comparing with other industries.

Gaps in Eurostat's data have been filled by estimates supplied by sub-contractors to Eurostat. Thus, EU-15 totals often contain estimates for missing countries. Estimates are shown in bold. Attention should be drawn to the fact that the data has switched to the NACE Rev.1 classification, this may result in revisions of data being made in the medium-term.

Annual foreign trade data comes from the COMEXT database. Statistical régime 4 (total trade) is used.

### Signs and abbreviations

B / L	Belgo-Luxembourg Economic Union
ECU	European currency unit
TRIAD	EU-15, Japan and the USA
Billion	thousand million
*	not available (in graphs)
:	not available (in tables)
**	estimation (in graphs)
data in bold	estimation (in tables)
1990 = 100	reference year

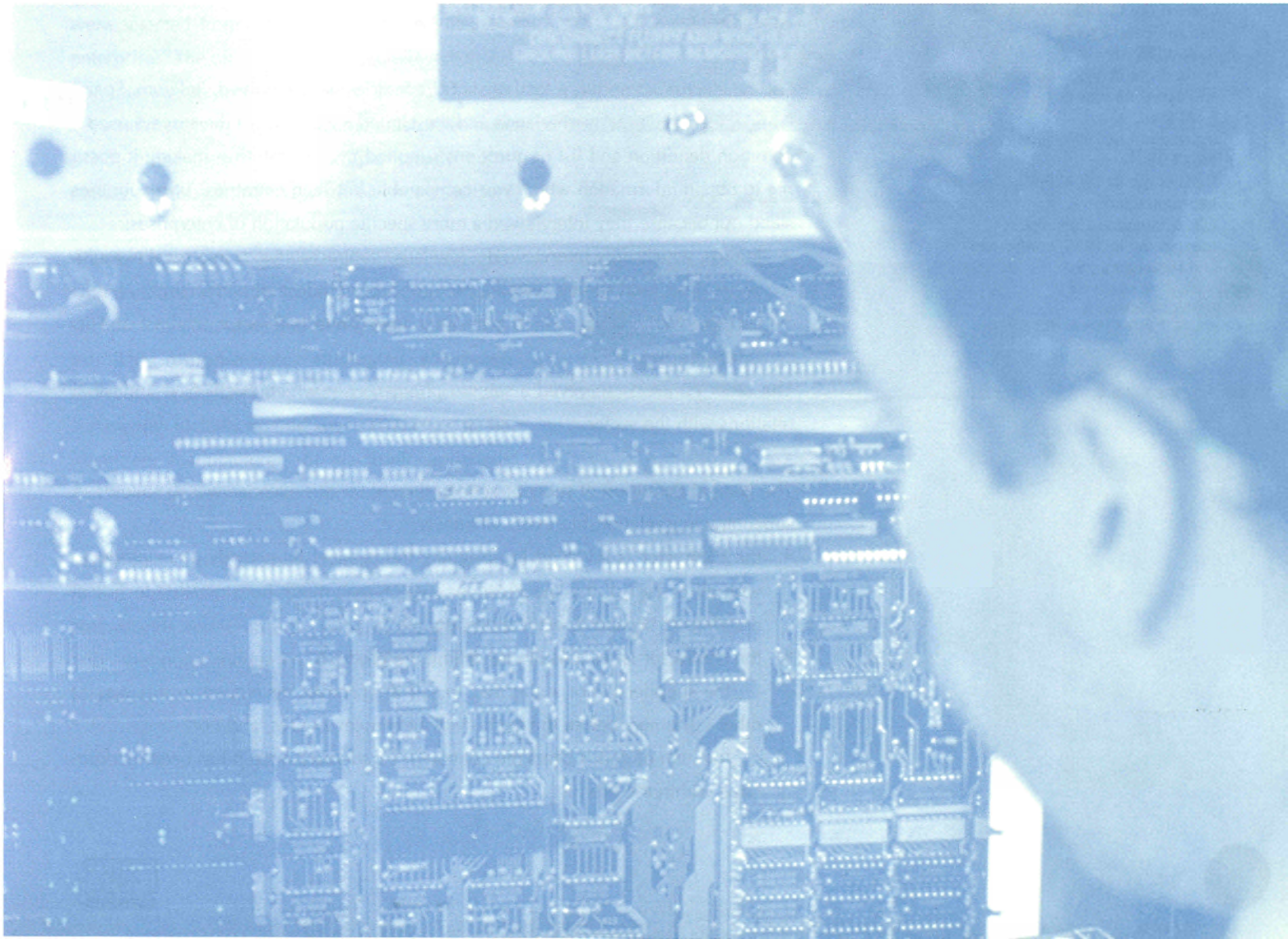
For more information on methodology, please contact Berthold Feldmann - tel: (352) 4301 34401 or e-mail: [berthold.feldmann@eurostat.cec.be](mailto:berthold.feldmann@eurostat.cec.be).



# 6.

## Sub-contracting in the European Union: electronics industry

Introduction	78
The contractors' viewpoint	79
The subcontractors' viewpoint	85
Relations between contractors and subcontractors	88



## 6. Sub-contracting in the European Union: electronics industry

### For more information:

The synthesis of these results aggregated at Community level can be found in "New Industrial Subcontracting in Europe - initial results using an updated definition" - Office for Official Publications of the European Communities - 1997 - Luxembourg - Catalogue No. CA-01-96-139-EN-C

### Surveys carried out by:

B - Fabrimétal  
(carried out in 1995, contractors and sub-contractors)  
D - Scientific Consulting  
(carried out in 1995, contractors and sub-contractors)  
E - IMPI/CEAM  
(carried out in 1995, contractors and sub-contractors)  
F - SSSI  
(carried out in 1994, large contractors)  
NL - CBS  
(carried out in 1994, Philips and its sub-contractors)  
UK - Clarendon Consultants  
(carried out in 1995, contractors and sub-contractors)

### Introduction

This project aims to meet the information requirements of economic operators who wish to obtain information on trends in subcontracting markets, and the Commission, which seeks to monitor and assess the actions it carries out in order to assist the development of transnational subcontracting within the internal market and to non-EU countries.

Pilot surveys were conducted in 10 voluntary Member States to test a new harmonised definition of subcontracting, to measure its economic significance and to attempt to characterise industrial relations between subcontractors and contractors in three sectors of the economy (automobile, electronics, textiles / clothing). The surveys were conducted either by the National Statistical Institutes themselves or by private consultants.

For the electronics sector, a total of six EU countries were involved: Belgium, Spain, France, Germany, the Netherlands and the United Kingdom. All the surveys used a common definition and list of questions supplied by Eurostat, thus making it possible to obtain information which was comparable between countries. Two countries stand out because they interviewed a more specific population of enterprises:

- ★ France, which only interviewed a few large contractors (and, in a parallel multi-sectoral national survey, tested a new concept of industrial partnership);
- ★ and the Netherlands, which only interviewed one contractor (Philips) and its subcontractors.

The other countries surveyed a sample of enterprises which might have industrial relations with the sector.

The general definition of subcontracting adopted for this exercise was as follows. A subcontracting relationship exists whenever:

- ★ the contractor is involved in designing the product by providing the producer with all or part of the specifications, which may range from detailed technical drawings to broader specifications, and
- ★ the contractor is responsible for selling the product:
  - the supplier is not authorised to sell the product developed in this way to other customers before the exclusivity agreement expires, and / or
  - the item of goods bears the contractor's trademark once it has been incorporated within the product.



## The contractors' viewpoint

For the survey of contractors, the intention was to ask respondents to provide information on subcontracting for their group as a whole, but this turned out to be very difficult in practice and some groups were interviewed in several different countries. There was, however, one exception to this: the Philips group in the Netherlands, which made every attempt to centralise the information provided for the group.

Finally, since each country adapted the survey and questionnaires to its own fields of interest and specific national characteristics, the analysis of the answers to a specific question is not always based on all of the countries which took part in these surveys.

## THE CONTRACTORS' VIEWPOINT

### Survey methodology

The contractors interviewed during these surveys were selected from the available sectoral files on enterprises. The only responses selected were those from contractors in the electronics sector. The surveys did, however, show that some enterprises classified in the "services" sector (particularly commerce) are also contractors in the electronics sector.

All the countries carried out individual interviews with their largest contractors and posted out a questionnaire to other potential contractors in the sector. The response rates fluctuated somewhat between the different countries, but were generally sufficiently high to enable two sub-sectors to be identified: manufacturers of electronic apparatus and manufacturers of electronic components.

With Philips being the only contractor interviewed in the Netherlands, results for contractors in the Netherlands appear in only some of the tables, as only the non-confidential information could be included.

### Characterisation of contractors

Contractors in Germany are much larger than those in other countries (with the exception of Philips in the Netherlands).

In the United Kingdom, the largest contractors did not reply to the survey, which explains why the staff and turnover figures are so low for the United Kingdom.

Only three countries surveyed contractors from the electronic components manufacturing sector. The number of respondents in the United Kingdom was very low, making it impossible to provide representative results.

**Table 6.1**

	B	D	E (1)	F	NL	UK
<b>Number</b>	10	5	8	4	1	9
<b>Staff (thousands)</b>	15.0	454.5	2.3	-	238.0	8.3
<b>Turnover (million ECU)</b>	2,495	22,620	335	-	27,600	1,470

Characteristics of contractors for NACE Rev.1 32.2 and 32.3

1) the results for Spain include 2 contractors who are not from NACE Rev.1 32.2 or 32.3

Source:  eurostat

Table 6.2

Characteristics of contractors for NACE Rev.1 32.1

	D	E	UK
Number	9	36	2
Staff	8,010	10,400	1,256
Turnover (million ECU)	1,170	1,430	92

Source:  eurostat

Table 6.3

Subcontracting as a proportion of total purchases by contractors (%)

	B	D	E	NL (1)	UK
Manufacturers of electronic components (32.1)	-	54	28	-	22
Manufacturers of electronic apparatus (32.2 and 32.3)	6	42	30	12	49
Total	6	48	29	12	41

1) Dutch branch of Philips only and excluding intra-group purchases

Source:  eurostat

Table 6.4

Geographical breakdown of subcontracting purchases - NACE Rev.1 32.2 and 32.3 (%)

	B	D	E	NL (1)	UK
Same region	-	15	37	-	-
Different region, same country	25	25	45	80	54
Different country, EU	40	15	10	14	13
Different country, non-EU	35	45	8	6	33
Total	100	100	100	100	100

1) for the Philips group, excluding subcontracting purchases within the group

Source:  eurostat

### Importance of subcontracting in purchases by contractors

The results obtained from the French survey are not sufficiently detailed to allow summary figures to be given in the table below.

On average, subcontracting purchases make up more or less the same proportion of total purchases by contractors in Germany and the United Kingdom. In Spain, on the other hand, the figure is a little lower. The very low proportion recorded in Belgium is due to the fact that the enterprises surveyed were often subsidiaries of foreign groups (German, Dutch, etc.) which did not carry out the whole of the production process.

The information for the Netherlands only refers to Philip's Dutch subsidiary and only external purchases by the group were taken into consideration. The proportion for subcontracting (12%) seems very low compared to the results for other countries.

### Geographical breakdown of subcontracting purchases

The questionnaires drawn up by each country did not use the same geographical breakdown. The tables below are therefore the result of a compromise between the different analyses produced by the surveys. No geographical breakdown was provided by France.

The majority of subcontracting purchases are from enterprises in the European Union, although extra-EU purchases do make up a relatively large share of the total in Belgium, Germany and the United Kingdom in particular.

In the case of the Netherlands, or to be more precise the Philips group, the situation is unique, as the results only cover subcontracting purchases from outside the group. The proportion of national pur-

## The contractors' viewpoint

chases is therefore very high (80%) at the expense of extra-EU purchases (6%).

The geographical breakdown of subcontracting purchases by components manufacturers seems to show a higher proportion of national purchases than is the case for manufacturers of electronic apparatus (e.g.: Germany, 75% as opposed to 40%).

#### Sectoral breakdown of subcontracting purchases

The contractors broke down their subcontracting purchases by the sector of activity of their subcontractors. When this was not known, the purchases in question were placed under the "no breakdown" heading.

Manufacturers of electronic apparatus seem to make use of subcontracting in very specific sectors: the electronics sector in the manufacturing of components (mainly in Germany), the manufacture of electrical machinery and apparatus and of metal products (mainly in Spain).

Contractors in the manufacture of electronic components sector gave a very wide range of answers regarding the sectoral breakdown of their subcontracting purchases.

	D	E	UK
Same region	15	68	-
Different region, same country	60	18	50
Different country, EU	10	7	1
Different country, non-EU	15	7	49
Total	100	100	100

Table 6.5

Geographical breakdown of subcontracting purchases - NACE Rev.1 32.1 (%)

Source:  eurostat

NACE Rev.1	D	E	UK
21: Paper and paperboard industry	-	-	1
25: Rubber and plastics industry	-	2	8
27: Basic metals	9	-	-
28: Manufacture of fabricated metal products	2	65	7
31: Manufacture of electrical machinery and apparatus	6	6	7
32: Manufacture of radio, television and communication equipment	81	-	33
33: Manufacture of medical, precision and optical instruments, watches and clocks	2	-	1
34: Manufacture of motor vehicles	-	9	-
No breakdown	-	63	-
Total	100	100	100

Table 6.6

Breakdown of subcontracting purchases - NACE Rev.1 32.2 and 32.3, by subcontractor's sector of activity (%)

Source:  eurostat

Table 6.7

Breakdown of subcontracting purchases - NACE Rev.1 32.1, by subcontractor's sector of activity (%)

NACE Rev.1	D	E	UK
25: Rubber and plastics industry	-	4	-
26: Manufacture of other non-metallic mineral products	17	-	-
27: Basic metals	75	-	-
28: Manufacture of fabricated metal products	-	16	9
31: Manufacture of electrical machinery and apparatus	-	2	-
32: Manufacture of radio, television and communication equipment	8	-	91
34: Manufacture of motor vehicles	-	15	-
No breakdown	-	63	-
Total	100	100	100

Source:  eurostat

Table 6.8

Reasons given by contractors for subcontracting (1=most important)

	B	D	E	F	UK
Concentration on main activity	1	-	-	-	-
Flexibility	3	2	5	2	4
Specialisation	2	3	4	1	2
Reducing costs	3	1	2	2	2
Minimising investment	5	4	2	4	4
Access to specialist know-how	-	4	1	5	1
Avoiding industrial action	6	6	6	6	6

Source:  eurostat

Table 6.9

Sources of information used to find a subcontractor (1=most important)

	B	D	E	F	UK
Professional contacts	1	1	1	1	1
Trade fairs and exhibitions	2	2	3	4	5
Magazines and journals	2	3	4	5	3
Trade federations	5	5	5	3	4
Chambers of commerce	6	6	6	6	6
Contacts with other manufacturers	4	3	2	2	2

Source:  eurostat

### Why and how is subcontracting used?

Contractors were asked about the reasons why they made use of subcontractors and the sources of information and criteria they used in selecting them.

For each question they were asked to rank the different headings suggested, in order of most important to least important. A national classification of the reasons suggested was then drawn up from their answers and the average ranking calculated for each reason.

Each country proposed the same list of reasons for subcontracting, with the exception of Belgium which replaced the heading "access to specialist know-how" with "concentration on main activity".

Since the rankings fluctuate considerably from one country to the next, it is difficult to come up with a clear average picture.

Contractors see subcontracting as a way of gaining flexibility and specialisation whilst reducing costs. They regard it as a gateway to specialist know-how and minimising investment.

It should be noted that the use of subcontracting "to avoid industrial action", as suggested in the questionnaire, seemed to be irrelevant for most contractors.

The answers given by contractors in all countries are very similar: it appears that contractors rely mainly on their own professional contacts to find a subcontractor. Most of them even set up databases listing enterprises which might be of interest to them, giving individual information on each of these.

## The contractors' viewpoint

	B	D	E	F	NL	UK
Geographical proximity	7	7	4	6	2	8
Cost	2	2	2	5	1	2
EDI	10	8	9	8	-	10
Quality	2	1	1	1	-	1
Language	11	-	8	-	-	9
Reputation	1	6	4	-	-	7
New technology	6	4	6	7	-	5
Capacity to provide the volumes required	5	3	2	3	-	2
Approved suppliers	4	5	6	3	-	2
ISO/AQUAP	7	-	-	1	-	6
Delivery terms	9	-	-	-	-	-

Table 6.10

Criteria used by contractors in selecting subcontractors (1=most important)

Source:  eurostat

When the contractors were asked about the criteria they used in choosing their subcontractors, most of them came up with their own selection criteria. These criteria generally took the form of the subcontractors complying with the specific standards set by each contractor. In order to make the results comparable, they were, however, asked to reformulate these criteria to conform with the list proposed in the questionnaire.

The upshot was a systematic demand for quality, followed at some distance by other criteria such as unit cost and capacity to provide the volumes required.

### Forecasts for the next five years

The contractors were asked to reply to various questions about expected developments over the next five years. These covered the trends which they anticipated in:

- ★ the proportion of subcontracting in their total purchases;
- ★ geographical coverage;
- ★ quality requirements;
- ★ quantities of subcontracted products;
- ★ the diversification of the range of products subcontracted.

	B	D	E	UK
Manufacturers of electronic apparatus (32.2 and 32.3)	50	100	71	75
Manufacturers of electronic components (32.1)	-	67	71	50
Total	50	83	71	67

Table 6.11

Contractors predicting an increase in subcontracting (%)

Source:  eurostat

	B	D	E	UK
Manufacturers of electronic apparatus (32.2 and 32.3)	20	100	50	33
Manufacturers of electronic components (32.1)	-	75	100	50
Total	20	86	92	40

Table 6.12

Contractors predicting an extension of geographical coverage (%)

Source:  eurostat

Table 6.13

Proportion of contractors predicting higher demands for quality in their subcontracting purchases (%)

	B	D	E	UK
Manufacturers of electronic apparatus (32.2 and 32.3)	70	67	100	100
Manufacturers of electronic components (32.1)	-	75	100	100
<b>Total</b>	<b>70</b>	<b>71</b>	<b>100</b>	<b>100</b>

Source:  eurostat

Most of the contractors thought that they would make greater use of subcontracting, although contractors in Belgium were more divided on this issue.

Contractors also gave their views on developments in the geographical breakdown of their subcontracting purchases. It should be noted that the question did not relate to the volume of subcontracted work purchased abroad, but to the number of countries from which the contractor purchased these services.

Table 6.14

Proportion of contractors predicting an increase in the quantities of products purchased through subcontracting (%)

	D	E	UK
Manufacturers of electronic apparatus (32.2 and 32.3)	100	100	80
Manufacturers of electronic components (32.1)	100	92	50
<b>Total</b>	<b>100</b>	<b>93</b>	<b>71</b>

Source:  eurostat

Contractors were fairly divided as to trends over the next five years in the geographical breakdown of their subcontracting purchases. Manufacturers of electronic components thought an increase more likely than did manufacturers of electronic apparatus. On a national basis, the likelihood of such an increase was felt to be higher in Germany, doubtless due to the opportunity of purchasing services from eastern Europe.

Contractors in all countries felt that the current quality of their subcontracted products was unsatisfactory and stated that they would become more demanding in this respect over the next five years.

Table 6.15

Proportion of contractors predicting a diversification of the range of products purchased through subcontracting (%)

	B	D	E	UK
Manufacturers of electronic apparatus (32.2 and 32.3)	40	67	80	40
Manufacturers of electronic components (32.1)	-	67	90	50
<b>Total</b>	<b>40</b>	<b>67</b>	<b>88</b>	<b>43</b>

Source:  eurostat

Contractors in all countries predicted an increase in the volume of products purchased through subcontracting.

The results here vary considerably depending on the country and sector of activity concerned. In Spain, for example, an increase in the range of products subcontracted was seen as a certainty. At the same time, opinions in Belgium and the United Kingdom were much more divided.

## The subcontractors' viewpoint

## THE SUBCONTRACTORS' VIEWPOINT

## Survey methodology

The subcontractors interviewed during these surveys could belong to all sectors of industrial activity. A number of enterprises were, however, selected in advance from the national business registers (cf. "survey methodology" for the contractors). These registers could, for example, be used to select only subcontractors or only suppliers in the electronics sector. The enterprises received a postal questionnaire. In the Netherlands, the only subcontractors interviewed were those working for Philips.

The following analysis deals only with enterprises which stated that they were subcontractors in the electronics sector according to the definition in the survey. The final results are no doubt mainly representative of enterprises which are very dependent on this type of economic relationship, since these are naturally more inclined to answer questions on a subject which directly concerns them. The response rates varied from one country to another. France did not interview subcontractors in the electronics sector as part of the actual pilot surveys.

## Characterisation of subcontractors

Looking at the situation of subcontractors in the electronics sector, background information on the respondents in each country is provided (number of respondents, staff and turnover in million ECUs, cumulative).

Table 6.16 presents the characteristics of the electronics subcontractors who have electronics as their main line of activity. One can note that in the list of subcontractors provided by Philips, not one subcontractor was from the electronics sector.

German subcontractors are much larger than those in other countries. The breakdown of the number of respondents does not, of course, reflect the breakdown of subcontractors in general.

Table 6.16

	B	D	E (1)	NL	UK
<b>Number</b>	12	13	10	0	14
<b>Staff</b>	2,814	11,350	-	-	-
<b>Turnover (million ECU)</b>	386	1,631	-	-	-

Characteristics of respondents with electronics as their main activity

1) no details were given on the composition of the sample

Source:  eurostat

Table 6.17

	B	D	E (1)	NL (1)	UK (1)
<b>Number</b>	25	33	10	16	2
<b>Staff</b>	5,050	68,300	-	-	-
<b>Turnover (million ECU)</b>	615	2,230	-	-	-

Characteristics of respondents with a main activity other than electronics

1) no details were given on the composition of the sample

Source:  eurostat

## Number of replies according to activity - NACE Rev.1

NACE 19	1	-	-	-	-
NACE 21	-	1	-	3	-
NACE 24	-	1	-	2	-
NACE 25	9	1	1	6	-
NACE 26	-	2	-	-	-
NACE 27	2	-	-	-	-
NACE 28	1	3	9	5	1
NACE 31	6	10	-	-	-
NACE 33	1	5	-	-	1
NACE 34	3	2	-	-	-
NACE 45	-	1	-	-	-
NACE 51	1	8	-	-	-
NACE 72	1	-	-	-	-

Table 6.18

Proportion of sub-contracted work in total sales by subcontractors in the electronics sector (%)

Source:  eurostat

NACE Rev.1	B	D	E	NL	UK
NACE 30 and 32	25	72	67	-	92
Other sectors:	65	77	98	85	85
of which: NACE 25	70	35	-	-	-
NACE 27 and 28	93	55	98	-	-
NACE 31 and 33	57	73	-	-	-
<b>Total</b>	<b>53</b>	<b>76</b>	<b>88</b>	<b>85</b>	<b>91</b>

Table 6.19

Breakdown of sales: subcontractors with electronics as their main activity (%)

Source:  eurostat

	B	D	E	UK
Same region	-	24	74	-
Different region, same country	12	54	11	82
Different country, EU	84	11	15	13
Different country, non-EU	4	11	0	5
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Table 6.20

Breakdown of sales: subcontractors with a main activity other than electronics (%)

Source:  eurostat

	B	D	E
Same region	-	30	44
Different region, same country	29	45	42
Different country, EU	58	12	13
Different country, non-EU	13	13	1
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

### Importance of subcontracting in sales by subcontractors

Since one of the main aims of these European surveys was to identify interdependence between enterprises, and particularly between small and large enterprises, two of the key variables in the study were subcontract work as a proportion of the total turnover of subcontractors and the proportion of subcontracting in the total purchases of contractors.

We should, however, bear in mind that this proportion is only calculated for subcontracting enterprises and cannot be extrapolated to apply to all of the sectors of activity concerned.

It is difficult to trace the profiles of subcontractors according to their sector of activity on the basis of the sectoral results in the table 6.18. These results illustrate specific national characteristics rather than sectoral characteristics. Thus, whilst the proportion of subcontracting is generally over 70%, there are some exceptions, such as Belgian subcontractors in the electronics sector (25%).

### Geographical breakdown of subcontracting sales

Subcontractors broke down their subcontracting sales by the location of their contractors.

The vast majority of subcontracting sales are to contractors in the European Union. These contractors are also most often located in the same country as the subcontractor. Belgium alone stands out for the low proportion of sales to Belgian contractors (12%).

As is the case for subcontractors with electronics as their main activity, subcontracting sales are mainly to European Union contractors, who are generally located in the same country as the subcontractor. Once again the results for Belgium stand out from the rest, although the difference is less pronounced with sales to Belgian contractors making up 29% of



## The subcontractors' viewpoint

the total (as against 12% for subcontractors in the electronics sector).

### Financing

In order to be competitive, subcontractors themselves often have to make substantial investments. They were asked to classify the means of finance used (assistance from contractors, own resources, bank loans), ranging from the most important to the least important.

Subcontractors do not seem to count on their contractors to help them finance investment. They only use their own resources or take out bank loans.

### Subcontractors' expectations

The subcontractors indicated areas in which they like to see the public authorities take action, specifying which level of authority they felt was the most appropriate for the task.

Vocational training tops the list most often, except in Germany where subcontractors are more concerned about technical aspects, certification and terms of payment.

The public authorities considered best placed to carry out these actions depend very much on the country in which the respondent is located. Whilst the national government comes out near the top in all countries, the roles of Europe and the regions are not always perceived in the same way. Belgian subcontractors, for example, want action to be taken at European level, whilst Spanish subcontractors prefer the regional level. It should also be noted that sectoral organisations are listed in second place in Germany, Spain and the United Kingdom.

Table 6.21

	B	E	UK
Assistance from contractors	3	3	3
Own resources	1	1	2
Bank loans	1	1	1

Classification of the means of financing investment (1=most important)

Source:  eurostat

Table 6.22

	B	D	E	NL	UK
Vocational training	2	4	1	1	1
Legal aspects	1	4	5	1	3
Technical aspects	5	1	4	5	4
Certification	2	1	1	3	5
Terms of payment	4	1	3	4	2

Areas in which the public authorities should take action (1=most important)

Source:  eurostat

Table 6.23

	B	D	E	UK
European	1	4	4	3
National	2	1	2	1
Regional	3	2	1	4
Local	4	5	4	5
Sectoral organisations	5	2	2	2

Best level of authority to take action (1=most important)

Source:  eurostat

## RELATIONS BETWEEN CONTRACTORS AND SUBCONTRACTORS

A common part of the survey questionnaires was directed at both parties of the sub-contracting relationship. The tables below present in parallel the replies provided by the contractors and subcontractors.

Country by country, the replies of the two parties were not however strictly comparable: a contractor generally has several subcontractors; he can, with good intentions, declare for example that he provides equipment to his subcontractors, but he only in fact does this for one subcontractor; the other

subcontractors, on the other hand, will declare that they receive no equipment from their contractor. Furthermore, contractors and subcontractors may work with companies of another country, the replies of contractors for a particular country have to therefore be looked at with respect to the replies of subcontractors from another country.

### Formalising the relationship

The relationship between contractor and subcontractor can be characterised by the degree of formality in the relationship that links the two parties.

The level of formality fluctuates between countries to a high degree. It would appear that Spanish enterprises like to introduce formality far more than their Belgian or British counterparts, although there is nevertheless a noticeably low percentage even in Spain for those dealing in the main activity of electronics (2%).

### Participation in the conceiving new products

The survey allowed a check to be made on whether or not the subcontractor participated in the conception of new products for the contractor.

The producers of electronic goods considered that their subcontractors participated most in the conception of their products. On the other hand, the participation of subcontractors in the production of electronic components was much less.

The point of view of the subcontractors is somewhat different: as they are more numerous in declaring their participation in the conception of products.

Table 6.24

Contractors and subcontractors who consider they have formal relationships (%)

	B	E	UK
<b>Contractors:</b>	48	84	35
- <i>Electronic articles</i>	48	82	40
- <i>Electronic components</i>	-	84	22
<b>Subcontractors:</b>	32	62	31
- <i>Electronics</i>	29	2	36
- <i>Other sectors</i>	33	95	0

Source:  eurostat

Table 6.25

Contractors and subcontractors who consider that subcontractors participate strongly in the conception of the product<sup>1</sup> (%)

	B	D	E	UK
<b>Contractors:</b>	20	35	39	58
- <i>Electronic articles</i>	20	50	77	65
- <i>Electronic components</i>	-	26	25	0
<b>Subcontractors:</b>	-	53	77	-
- <i>Electronics</i>	-	45	66	-
- <i>Other sectors</i>	-	58	84	-

1) In the United Kingdom, 17% of the contractors stated their reply as "average" to the question. In the other countries only the options "strongly" or "limited" were given as possible answers to the question.

Source:  eurostat

## Relations between contractors and subcontractors

**Co-operation on R&D aspects**

The survey also attempted to reveal the amount of co-operation taking place between parties with respect to R&D.

The agreements reached between contractors and subcontractors in this area are limited. Only, electronic goods in Britain did contractors reveal that they had a large number of agreements with their subcontractors (70%).

**Provision of supplying equipment**

A further area of study between the two parties concentrated on the relationship with respect to whether or not subcontractors received supplies or equipment from their contractor.

**Professional training**

The two parties were also questioned on whether or not they received any professional training or had to spend money on professional training.

Professional training is more often cited by contractors, as what is true for a particular contractor is not necessarily true for all of his subcontractors. Table 6.28 shows one exception from this general rule: in Belgium, although it should be remembered that most Belgian relationships are with foreign contractors.

Table 6.26

	B	D	E	NL	UK
<b>Contractors:</b>	17	12	2	-	60
- <i>Electronic articles</i>	17	28	2	-	70
- <i>Electronic components</i>	-	3	2	-	0
<b>Subcontractors:</b>	15	15	3	0	28
- <i>Electronics</i>	14	20	11	-	32
- <i>Other sectors</i>	17	12	0	-	0

Contractors and subcontractors who have an agreement as regards R&D (%)

Source:  eurostat

Table 6.27

	B	D	E	NL	UK
<b>Contractors:</b>	16	18	33	-	29
- <i>Electronic articles</i>	16	30	2	-	35
- <i>Electronic components</i>	-	10	44	-	11
<b>Subcontractors:</b>	11	-	0	0	42
- <i>Electronics</i>	3	-	0	-	48
- <i>Other sectors</i>	17	-	0	-	0

Contractors/subcontractors who provide/receive equipment (%)

Source:  eurostat

Table 6.28

	B	D	E	NL	UK
<b>Contractors:</b>	4	20	36	-	25
- <i>Electronic articles</i>	4	40	0	-	20
- <i>Electronic components</i>	-	7	50	-	44
<b>Subcontractors:</b>	11	9	16	0	7
- <i>Electronics</i>	3	8	1	-	8
- <i>Other sectors</i>	17	10	25	-	0

Contractors/subcontractors who provide/receive professional training (%)

Source:  eurostat

Table 6.29

Contractors/  
subcontractors who  
provide/receive  
financial assistance  
(%)

	B	D	E	NL	UK
<b>Contractors:</b>	1	8	6	-	5
- <i>Electronic articles</i>	1	12	0	-	7
- <i>Electronic components</i>	-	5	8	-	0
<b>Subcontractors:</b>	0	2	0	0	7
- <i>Electronics</i>	0	3	0	-	7
- <i>Other sectors</i>	0	1	0	-	8

Source:  eurostat

Table 6.30

Crucial elements in  
relations between  
contractors and  
subcontractors  
(1 = the most  
important)

	B	D	E	NL	UK
<b>Contractors:</b>					
<i>Quick delivery in time</i>	2	1	2	-	2
<i>Quality</i>	1	-	2	1	1
<i>Capacity to conceive product development</i>	6	4	7	-	3
<i>Cost effectiveness</i>	3	2	5	2	3
<i>Production capacity</i>	5	4	1	-	6
<i>Adaptability to changes in orders</i>	3	2	4	3	3
<i>Geographical proximity</i>	7	6	6	-	-
<b>Subcontractors:</b>					
<i>Quick delivery in time</i>	3	1	1	1	2
<i>Quality</i>	2	-	2	1	3
<i>Capacity to conceive product development</i>	4	4	6	-	4
<i>Cost effectiveness</i>	1	3	4	1	1
<i>Production capacity</i>	5	5	3	1	6
<i>Adaptability to changes in orders</i>	5	2	5	-	5
<i>Geographical proximity</i>	7	6	7	1	-

Source:  eurostat

### Financial assistance

Another interesting area of study is that of financial assistance provided between the two parties.

The contractors rarely consider that they provide financial assistance to their subcontractors. Equally, subcontractors do not count on the aid from the contractor as regards financing their investments.

### Crucial elements in the relationship

The two parties were also asked which elements constituted crucial elements in their relationships, in order that they could carry on work together.

The results presented in the table 6.30 show that the quality of products is the most important in the relationship. This was followed by differing replies based more on national criteria, rather than global phenomena. The most important items in general would appear to be the control of costs, the ability to adapt and meet changes with regard to orders of goods and rapid delivery of supplies to deadlines.

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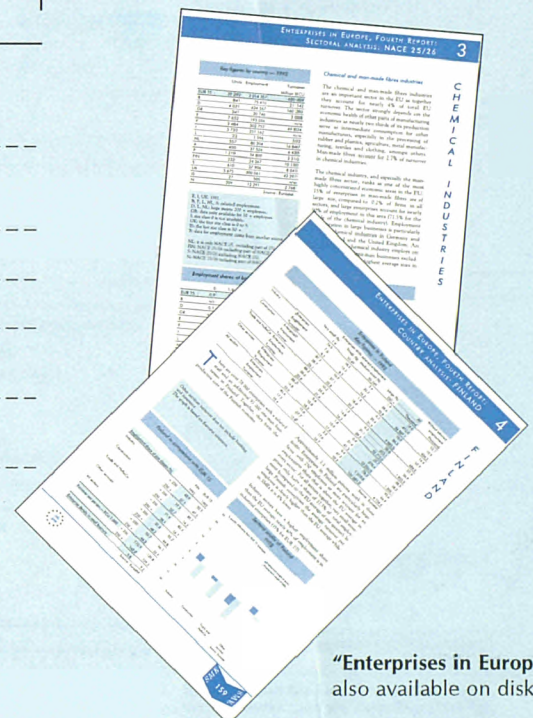
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