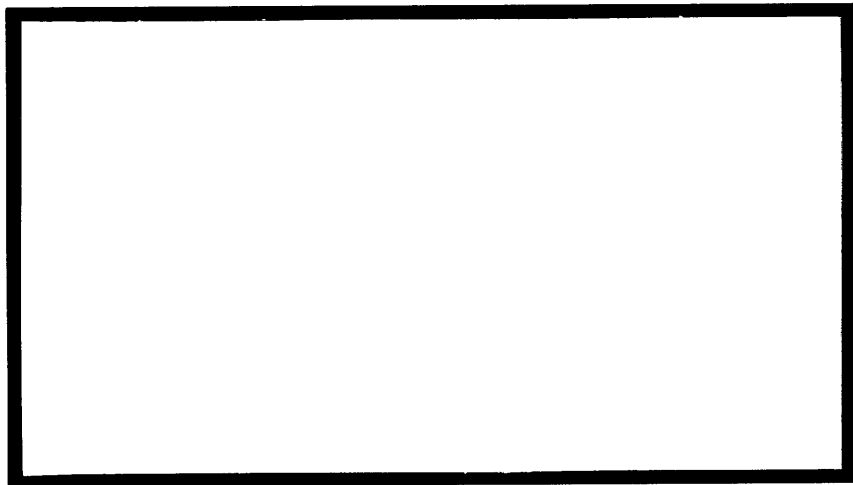


# PRICE AND COST COMPETITIVENESS

EUROPEAN COMMISSION  
DIRECTORATE-GENERAL FOR ECONOMIC AND FINANCIAL AFFAIRS



*The quarterly reports on "Price and Cost Competitiveness" provide a periodic assessment by the Commission services of the price and cost competitiveness of the European Union and its Member States. Comments and enquiries should be addressed to :*

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# **PRICE AND COST COMPETITIVENESS**

DG II-C-1

Fourth quarter 1998

## **Quarterly report on the price and cost competitiveness of the European Union and its Member States**

# PRICE AND COST COMPETITIVENESS

QUARTERLY REPORT –FOURTH QUARTER 1998

This report provides a periodic assessment of the **price and cost competitiveness of the European Union (EUR15), the group of countries participating in the Exchange Rate Mechanism (ERM), the 15 EU Member States individually, as well as 5 other industrial countries**<sup>1</sup>. It appears quarterly<sup>2</sup> and consists of two parts. *Part 1* offers an overview of recent developments. *Part 2* provides detailed information for each country.

The **nominal effective exchange rate (NEER)** aims to track changes in the value of a nation's currency relative to the currencies of its principal trading partners. It is calculated as a weighted average of the bilateral exchange rates with those currencies.

The **real effective exchange rate (REER)** aims to assess a nation's price or cost competitiveness relative to its principal competitors<sup>3</sup> in international markets. It corresponds to the NEER deflated by selected relative (or 'effective') price or cost deflators. **The discussion in *Part 1* focuses on real rates based on unit labour costs in the manufacturing sector and in the whole economy.** *Part 2* of the report presents real rates based on the deflator of private consumption, the GDP deflator, the price deflator of exports of goods and services (PX), unit labour costs in the whole economy (ULCE); as well as unit labour costs in manufacturing (ULCM).

**1987 is taken as the base period** for the various indicators of price and cost competitiveness. That year saw the conclusion of the Louvre accord, which aimed at greater exchange rate stability between the USD, the JPY and the DEM. It also marked the beginning of a period of exchange-rate stability within the Exchange rate Mechanism of the European Monetary System that lasted until September 1992. This does not imply that 1987 exchange rates should be treated as equilibrium rates.

***Part 1* of the report focuses on developments in the European Union, the United States and Japan.** It consists of two main sections. The *first section* describes the changes observed in the cost competitiveness of the US, Japanese and EU economies relative to 23 industrial countries. The bilateral position of the European Union relative to the United States and Japan is also examined. The *second section* comments on exchange rate developments within the European Union.

**The quarterly report is also available on the Internet. Our Web site, "<http://europa.eu.int/comm/off/rep/pccr/>", permits the downloading of standard statistics to your PC or Macintosh.** Moreover, differently defined nominal and real exchange rates are available upon request. A technical annex provides further details.

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<sup>1</sup> Norway, Australia, Canada, Japan and the United States.

<sup>2</sup> Due to delays in the production of the data for the second quarter, this report covers the second and third quarters together. The report for the fourth quarter of 1998, which is due in January 1999, will contain data on the nominal and real effective exchange rates of the euro area.

<sup>3</sup> In this report three alternative groups of competitor countries are considered: 23 industrial countries (IC 23), the 15 Member states of the European Union (EUR 15) and the 12 participants in the Exchange Rate Mechanism (ERM).

# PRICE AND COST COMPETITIVENESS

QUARTERLY REPORT – FOURTH QUARTER 1998

## Table of Contents

### **Part 1: Developments in the cost competitiveness of the European Union, the United States and Japan**

Main features .....	p. 1
I. International developments .....	p. 2
1. Bilateral Exchange Rates .....	p. 2
2. Nominal Effective Exchange Rates .....	p. 4
3. Real Effective Exchange Rates.....	
4. Cost Competitiveness of the European Union.....	p. 6
II Intra-Union developments .....	p. 10
III Annex : The Effective Exchange Rate of the Euro Area (EUR11).....	p. 14

### **Part 2: Tables and graphs by country**

### **Technical Annex**

**PART 1**

**DEVELOPMENTS IN  
THE COST COMPETITIVENESS OF  
THE EUROPEAN UNION,  
THE UNITED STATES AND JAPAN**

## **DEVELOPMENTS IN THE COST COMPETITIVENESS OF THE EUROPEAN UNION, THE UNITED STATES AND JAPAN**

### **MAIN FEATURES**

#### **In the fourth quarter of 1998:**

- The EU currencies appreciated by 5% against the US dollar but fell by 10.5% against the Japanese yen. These currency movements contributed to a small gain (about 1%) in the Union's average cost competitiveness relative to 9 non-EU industrial countries. For the countries participating in the euro area (EUR11)<sup>1</sup>, cost competitiveness worsened by about 1% relative to 13 non-EMU countries.
- Within the EU, exchange rate depreciation led to competitiveness gains in Sweden and the UK relative to the rest of the EU (by 3% or more). Partly as a result, the cost competitiveness of Denmark, France, Spain and Finland deteriorated by between 1 and 2½%.

#### **Since the fourth quarter of 1997:**

- The EU currencies have appreciated by 4% against the US dollar but they have depreciated by 1% against the Japanese yen. These currency movements contributed to a 2% loss in the Union's average cost competitiveness relative to 9 non-EU industrial countries. The EUR11 suffered a loss of 2% relative to 13 non-EMU countries.
- Countries whose currencies have depreciated inside the EU (Greece, Ireland, Sweden and the UK) have gained intra-EU cost competitiveness. In most other Member States, cost competitiveness has deteriorated. Denmark experienced the largest competitiveness loss relative to other EU countries, partly due to relatively high growth in unit labour costs.

#### **Since 1987:**

- The EU currencies depreciated on average by ½% against the US dollar and by 17½% against the Japanese yen. These currency movements contributed to a 5% gain in the Union's cost competitiveness in manufacturing relative to 9 non-EU industrial countries. If unit labour costs are measured for the whole economy, the improvement in cost competitiveness amounts to 2%. The EUR11 has seen a decline in relative unit labour costs of around 11%, both in manufacturing and the economy as a whole.

#### **Notes on the euro and on the international currency turmoil**

The Third Stage of Economic and Monetary Union began on 1.1.1999. The introduction of the euro will be reflected in future Quarterly Reports. This report contains an annex on the historical effective exchange rate indices for the EUR11.

During 1997 and 1998, the currencies of several emerging market countries weakened very substantially. However, since not all the necessary data are available for these countries, they are not taken into account in the competitiveness measures in this report.

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<sup>1</sup> EUR11 : Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland

# PRICE AND COST COMPETITIVENESS

QUARTERLY REPORT – FOURTH QUARTER 1998

## I. INTERNATIONAL DEVELOPMENTS

### 1. BILATERAL EXCHANGE RATES: THE USD, JPY AND DEM

The U.S. dollar fell sharply from around DEM 1.80 in mid-August to DEM 1.65 (-8%) by 1 October. The decline in the USD was related to the international financial turmoil that followed the currency crisis in Russia and led to expectations of lower US interest rates. Subsequently, as interest rates were seen to come down also in Europe, the USD/DEM rate stabilised. The USD/DEM rate was broadly unchanged during the fourth quarter (see Table 1).

The Japanese yen strengthened from around JPY 135 per USD to JPY 117 (14%) in the space of just 2 days in early October, notwithstanding the poor state of the Japanese economy. The rebound was related to technical factors (in particular, repatriation by Japanese financial institutions of USD assets) but the JPY/USD rate remained at the higher level, ending the year at around 114 JPY per USD.

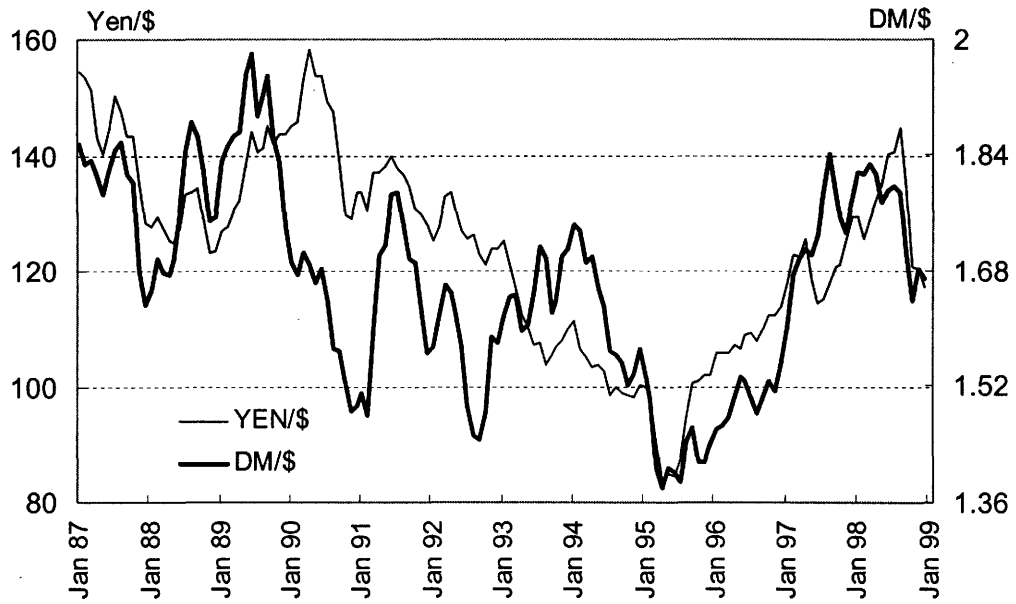
TABLE 1: EVOLUTION OF MAIN BILATERAL EXCHANGE RATES

	During the fourth quarter of 1998			Relative to the previous quarter		
	1 Oct. 1998	31 Dec. 1998	% change	Average 98q3	Average 98q4	% change
DEM/USD	1.649	1.676	1.7	1.763	1.663	-5.6
JPY/USD	135.2	113.8	-15.8	139.9	119.4	-14.4
JPY/DEM	82.0	67.9	-17.2	79.4	71.8	-9.5

Source: European Commission

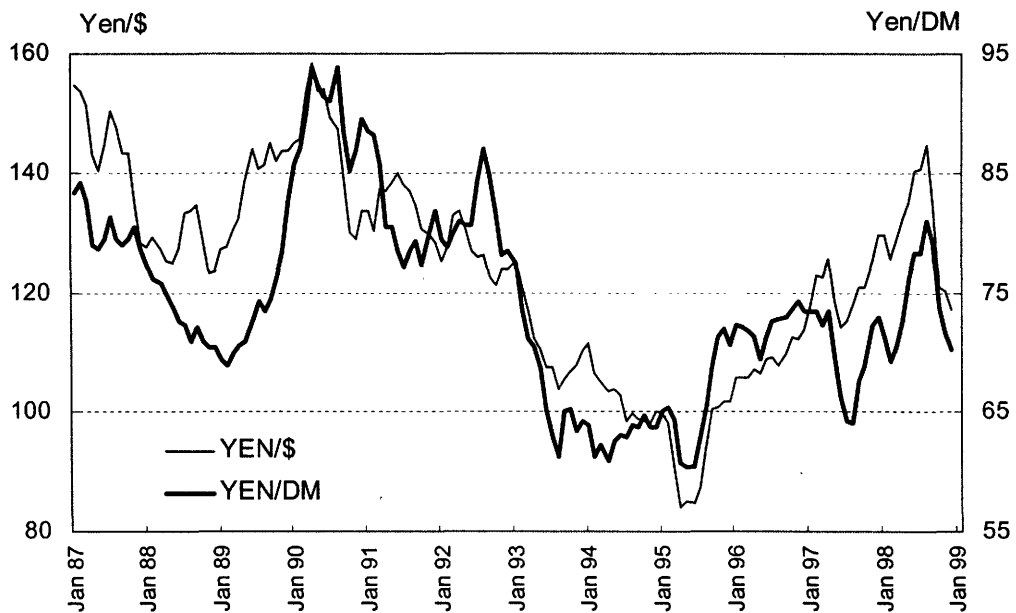


**GRAPH 1A: BILATERAL EXCHANGE RATE AGAINST THE US DOLLAR**  
(Monthly averages since 1987)



Source: European Commission

**GRAPH 1B: BILATERAL EXCHANGE RATE OF THE YEN**  
(Monthly averages since 1987)



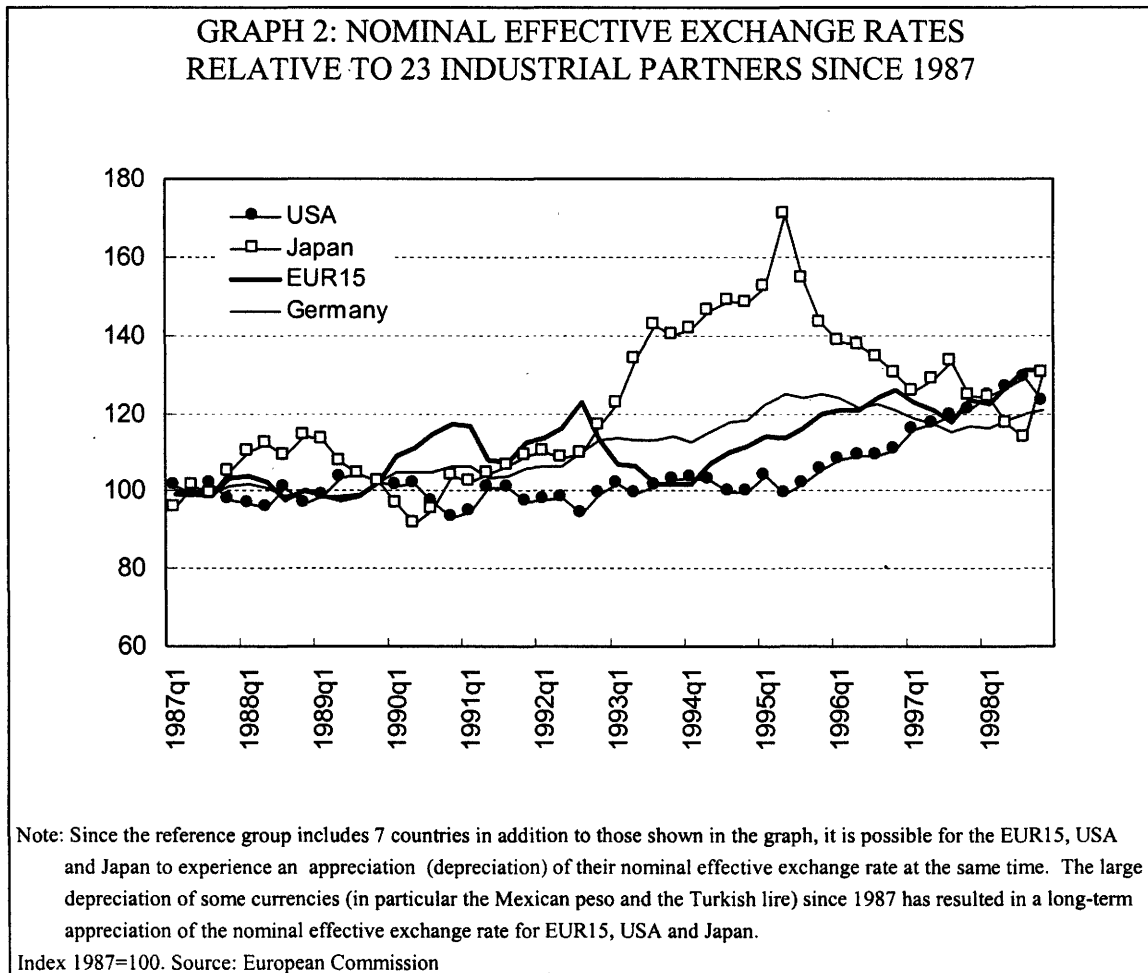
Source: European Commission

## 2. NOMINAL EFFECTIVE EXCHANGE RATES (RELATIVE TO 23 INDUSTRIAL COUNTRIES)

In the fourth quarter of 1998, the nominal effective exchange rate of the US dollar depreciated by 5% as the currency weakened against the Japanese yen, the EU currencies, and some other currencies. The weakening of the US-dollar marked a reversal of the rising trend since the spring of 1995.

The Japanese yen, which had come down from its peak in early 1995, appreciated by almost 15% in nominal effective terms in the fourth quarter of 1998.

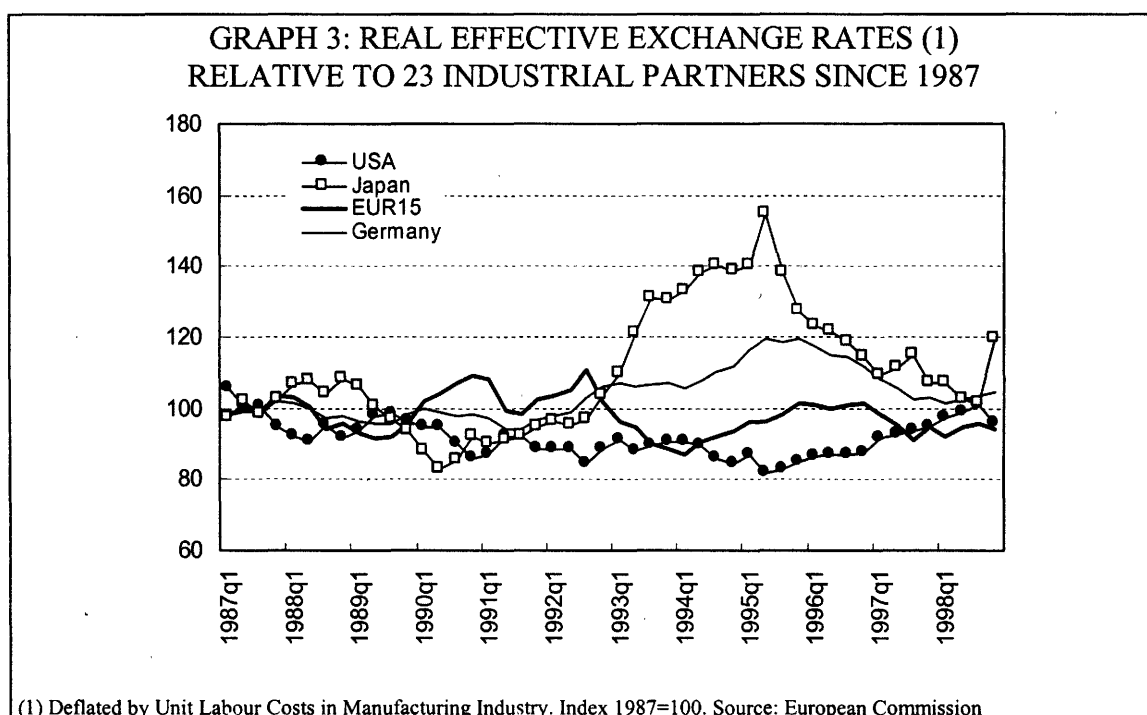
For EUR15, the weaker USD and the stronger JPY tended to cancel each other out, and the nominal effective exchange rate of the EUR15 appreciated by a mere 0.3%.



### 3. REAL EFFECTIVE EXCHANGE RATES (RELATIVE TO 23 INDUSTRIAL COUNTRIES)

In the fourth quarter of 1998, the cost competitiveness of the USA improved by 4½-5% (depending on whether unit labour costs are measured in the manufacturing sector or the economy as a whole<sup>2</sup>, cf. Table 2). For EUR15, an improvement in relative unit labour costs led to a small gain in cost competitiveness by ½-1½%. For Japan, the stronger yen translated into a 13-18% deterioration in cost competitiveness (according to the measure used).

Since the fourth quarter of 1997, all of the three major areas have lost cost competitiveness. This unusual situation reflects the large real effective depreciation for some of the remaining currencies in the reference group, namely the Canadian, Australian and New Zealand dollar, the Norwegian krone, and the Mexican peso. When relative unit labour costs in the economy as a whole are considered, the real effective exchange rate appreciation since 1997Q4 amounts to 1½% for Japan, 2% for EUR15 and 3% for the USA.



<sup>2</sup> Most international trade is in manufactured goods and, in order to measure and analyse cost competitiveness, it may seem natural to focus on costs in the manufacturing industry. However, data on unit labour costs in manufacturing industry are subject to larger statistical revisions than are data on unit labour costs in the whole economy, and may be less comparable across countries. Moreover, labour costs account for only a limited share of total costs in the manufacturing industry. The sector purchases a growing amount of inputs from the rest of the economy, including from service sectors such as financial services, marketing, etc. In addition, an increasing amount of services are traded internationally. To enhance the picture of movements in cost competitiveness, it is therefore necessary also to consider developments in unit labour costs in the whole economy. Moreover, capital costs account for a sizeable fraction of total costs, and one should also take into account measures which include these costs. The GDP-deflator includes the return on capital, but also indirect taxes.

**TABLE 2:**  
**NOMINAL AND REAL EFFECTIVE EXCHANGE RATES**  
**OF THE UNITED STATES, JAPAN, THE EUROPEAN UNION AND GERMANY**  
**RELATIVE TO 23 INDUSTRIAL COUNTRIES.**

A. EVOLUTION IN MANUFACTURING INDUSTRY									
% Change	During fourth quarter 1998 (98 Q4 / 98 Q3)			Since the end of 1997 (98 Q4 / 97 Q4)			Since 1987 (98 Q4 / 87)		
	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)
USA	-5.0	-0.2	-5.2	1.7	-0.8	0.9	22.7	-22.1	-4.5
Japan	14.6	3.1	18.2	4.5	6.9	11.7	30.2	-8.1	19.7
EUR15	0.3	-1.8	-1.5	6.6	-6.3	-0.1	31.3	-28.1	-5.6
Germany	1.0	0.2	1.2	3.4	-1.4	1.9	20.8	-13.3	4.7
B. EVOLUTION IN WHOLE ECONOMY									
% Change	During fourth quarter 1998 (98 Q4 / 98 Q3)			Since the end of 1997 (98 Q4 / 97 Q4)			Since 1987 (98 Q4 / 87)		
	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)
USA	-5.0	0.4	-4.6	1.7	1.2	2.9	22.7	-13.0	6.8
Japan	14.6	-1.6	12.7	4.5	-3.0	1.4	30.2	-23.7	-0.7
EUR15	0.3	-0.8	-0.5	6.6	-4.2	2.1	31.3	-25.2	-1.8
Germany	1.0	-0.4	0.6	3.4	-2.4	0.9	20.8	-21.2	-4.9

Source : European Commission

(1) NEER = Nominal Effective Exchange Rate. A negative sign indicates a depreciation of the NEER.

(2) ULC = Relative Unit Labour Costs (in national currency).

(3) REER = Real Effective Exchange Rate = relative unit labour costs (in common currency).

A minus means an improvement in cost competitiveness.

#### 4. COST COMPETITIVENESS OF THE EU RELATIVE TO THE USA AND JAPAN

In the fourth quarter of 1998, the strengthening of the European currencies (EUR15) against the dollar led to a loss of cost competitiveness relative to US producers of around 4½%. The depreciation of the European currencies against the yen overshadowed differences in the rate of increase in unit labour costs and led to a gain of European (EUR15) cost competitiveness by 9-13% relative to Japan (according to the measure used, cf. Table 3).

TABLE 3: COST COMPETITIVENESS OF THE EUROPEAN UNION  
RELATIVE TO THE UNITED STATES AND JAPAN

	During fourth quarter 1998 (98 Q4 / 98 Q3)			Since the end of 1997 (98 Q4 / 97 Q4)			Since 1987 (98 Q4 / 87)		
	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)
USA	5.0	-0.7	4.3	4.1	-2.3	1.7	-0.5	3.7	3.2
Japan	-10.5	-3.2	-13.4	-0.8	-7.6	-8.3	-17.4	4.0	-14.1

#### B. EVOLUTION IN WHOLE ECONOMY

	During fourth quarter 1998 (98 Q4 / 98 Q3)			Since the end of 1997 (98 Q4 / 97 Q4)			Since 1987 (98 Q4 / 87)		
	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)
USA	5.0	-0.2	4.7	4.1	-1.8	2.2	-0.5	-2.6	-3.1
Japan	-10.5	1.5	-9.2	-0.8	1.8	1.0	-17.4	22.7	1.3

Source : European Commission

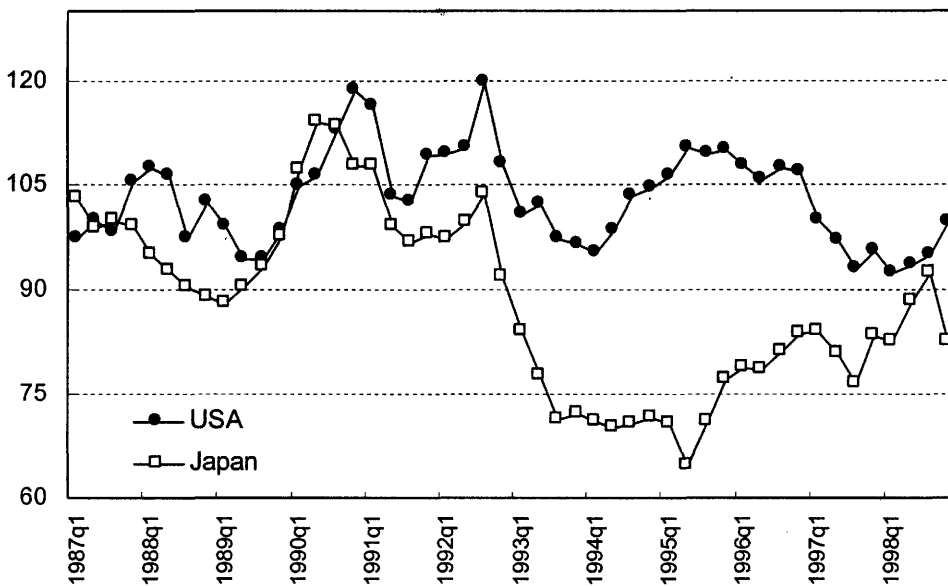
(1) NEER = Nominal Effective Exchange Rate. A negative sign indicates a depreciation of the NEER.

(2) ULC = Relative Unit Labour Costs (in national currency).

(3) REER = Real Effective Exchange Rate = relative unit labour costs (in common currency).

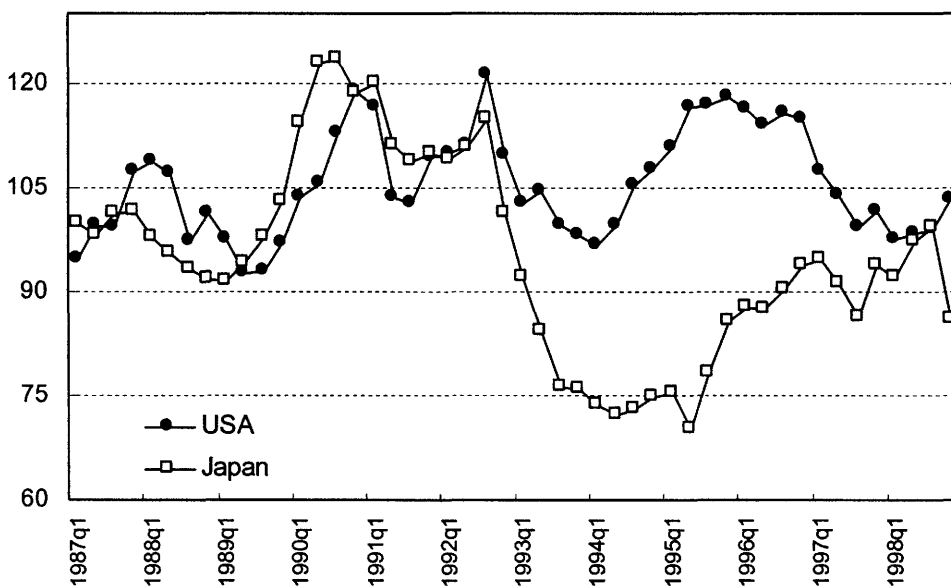
A minus means an improvement in European cost competitiveness.

**GRAPH 4A: NOMINAL EFFECTIVE EXCHANGE RATES OF THE EUROPEAN CURRENCIES RELATIVE TO THE US DOLLAR AND JAPANESE YEN**



Index 1987=100. Source: European Commission

**GRAPH 4B: REAL EFFECTIVE EXCHANGE RATES (1) OF THE EUROPEAN CURRENCIES RELATIVE TO THE US DOLLAR AND JAPANESE YEN**



(1) Deflated by Unit Labour Costs in Manufacturing Industry. Index 1987=100.

Source: European Commission

## II. INTRA-UNION DEVELOPMENTS

**In the fourth quarter of 1998**, in the run-up to the third stage of Economic and Monetary Union, exchange rates were stable within the Exchange Rate Mechanism. However, the two currencies which do not participate in the ERM, namely the pound sterling and the Swedish krona, experienced a depreciation of around 4½% relative to the rest of the EUR15 (see Table 4). This led to a nominal effective appreciation for the ERM countries in the range of ½-1½%. The largest appreciation occurred in countries such as Denmark, Finland and Germany where trade with Sweden and the UK plays a significant role.

Depreciation led to cost competitiveness gains in Sweden and the UK (3% economy-wide and even more for unit labour costs in manufacturing). In Italy, a shift in taxes from labour to value-added lowered relative unit labour costs there, but it is not obvious whether this shift should be considered an improvement in competitiveness<sup>3</sup>. The real effective exchange rates of Denmark, France, Spain and Finland appreciated by between 1 and 2½% relative to EUR15.

**Since the fourth quarter of 1997**, the pound sterling has depreciated by 3½% relative to the other Member States, from a high level. The Swedish krona depreciated by 8½% as it was hit by contagion from the global financial turbulence. The Greek drachma has depreciated by 6%, reflecting the impact of its devaluation on entering the ERM on 16 March 1998. The Irish pound has depreciated by 2½% as it gradually came down to its ERM central rate in anticipation of the third stage of EMU. All other Member States recorded an appreciation of their currency relative to the EUR15.

The countries whose currencies depreciated inside the EU (Greece, Ireland, Sweden and the UK) also experienced an improvement in competitiveness over the period. In addition, relative unit labour costs decreased markedly in Italy due to the tax shift mentioned above. In all remaining Member States, cost competitiveness deteriorated or was broadly unchanged. Denmark saw the largest loss in competitiveness (about 4½-5%) due to a large exposure to trade with Sweden and the UK, but mainly due to relatively high growth of unit labour costs.

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<sup>3</sup> This shift in taxation took effect from the beginning of 1998 but is distributed across the year in the quarterly data.

**TABLE 4: COST COMPETITIVENESS OF THE MEMBER STATES  
RELATIVE TO THE EUROPEAN UNION AS A WHOLE**

A. EVOLUTION IN MANUFACTURING INDUSTRY									
% Change	During fourth quarter 1998 (98 Q4 / 98 Q3)			Since the end of 1997 (98 Q4 / 97 Q4)			Since 1987 (98 Q4 / 87)		
	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)
BLEU	0.7	1.3	2.0	1.1	3.1	4.2	8.0	-3.7	4.0
Denmark	1.4	-0.2	1.2	2.1	3.0	5.2	10.6	5.3	16.5
Germany	1.1	0.8	1.9	1.7	0.5	2.1	11.4	-4.2	6.8
Greece	0.5	-1.4	-0.9	-6.2	-1.0	-7.1	-51.0	161.8	28.2
Spain	0.6	1.4	2.0	0.4	4.3	4.7	-11.9	37.4	21.1
France	0.9	0.8	1.8	1.3	0.9	2.2	11.1	-19.6	-10.8
Ireland	0.5	1.4	2.0	-2.4	1.2	-1.3	0.9	-34.9	-34.3
Italy	0.5	-2.4	-1.9	0.2	-5.7	-5.6	-22.9	12.0	-13.6
Netherlands	0.8	-0.8	0.1	1.1	-1.5	-0.4	7.4	-21.5	-15.7
Austria	0.6	1.9	2.5	1.0	4.1	5.2	7.8	-7.7	-0.4
Portugal	0.7	0.0	0.6	0.6	-0.4	0.3	-16.3	75.6	47.0
Finland	1.3	-1.5	-0.2	0.9	-3.9	-3.1	-11.5	-19.4	-28.7
Sweden	-4.5	0.8	-3.7	-8.3	-0.1	-8.4	-20.7	0.8	-20.0
UK	-4.0	-1.6	-5.5	-3.4	0.2	-3.3	3.1	22.3	26.1

B. EVOLUTION IN WHOLE ECONOMY									
% Change	During fourth quarter 1998 (98 Q4 / 98 Q3)			Since the end of 1997 (98 Q4 / 97 Q4)			Since 1987 (98 Q4 / 87)		
	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)	NEER (1)	ULC (2)	REER (3)
BLEU	0.7	-0.2	0.5	1.1	0.0	1.1	8.0	-2.7	5.1
Denmark	1.4	0.2	1.6	2.1	2.3	4.5	10.6	-7.7	2.1
Germany	1.1	-0.2	0.9	1.7	-1.5	0.2	11.4	-15.2	-5.5
Greece	0.5	-0.5	0.0	-6.2	0.9	-5.4	-51.0	178.8	36.6
Spain	0.6	0.4	1.0	0.4	1.2	1.7	-11.9	20.8	6.4
France	0.9	0.4	1.4	1.3	0.8	2.1	11.1	-12.5	-2.9
Ireland	0.5	0.2	0.7	-2.4	-0.4	-2.8	0.9	-24.4	-23.7
Italy	0.5	-1.9	-1.4	0.2	-4.9	-4.8	-22.9	12.6	-13.2
Netherlands	0.8	0.1	0.9	1.1	1.0	2.1	7.4	-13.5	-7.1
Austria	0.6	0.2	0.8	1.0	0.4	1.4	7.8	-7.9	-0.6
Portugal	0.7	-0.1	0.5	0.6	1.0	1.7	-16.3	70.7	42.9
Finland	1.3	1.0	2.3	0.9	1.8	2.7	-11.5	-10.3	-20.6
Sweden	-4.5	1.5	-3.0	-8.3	2.8	-5.7	-20.7	19.3	-5.4
UK	-4.0	0.9	-3.2	-3.4	3.7	0.1	3.1	27.3	31.3

Source : European Commission

(1) NEER = Nominal Effective Exchange Rate. A negative sign indicates a depreciation of the NEER.

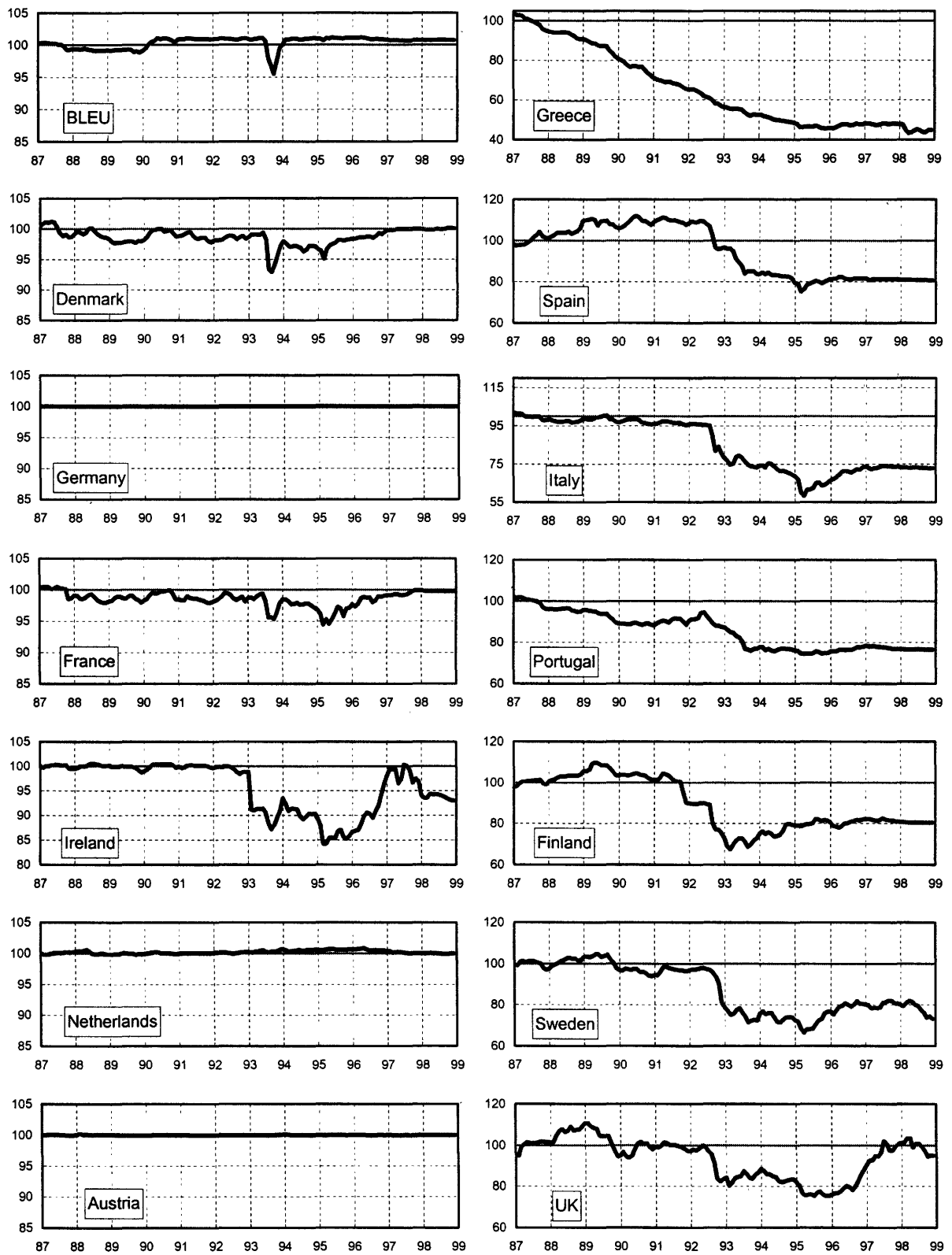
(2) ULC = Relative Unit Labour Costs (in national currency).

(3) REER = Real Effective Exchange Rate = relative unit labour costs (in common currency).

A minus means an improvement in cost competitiveness.



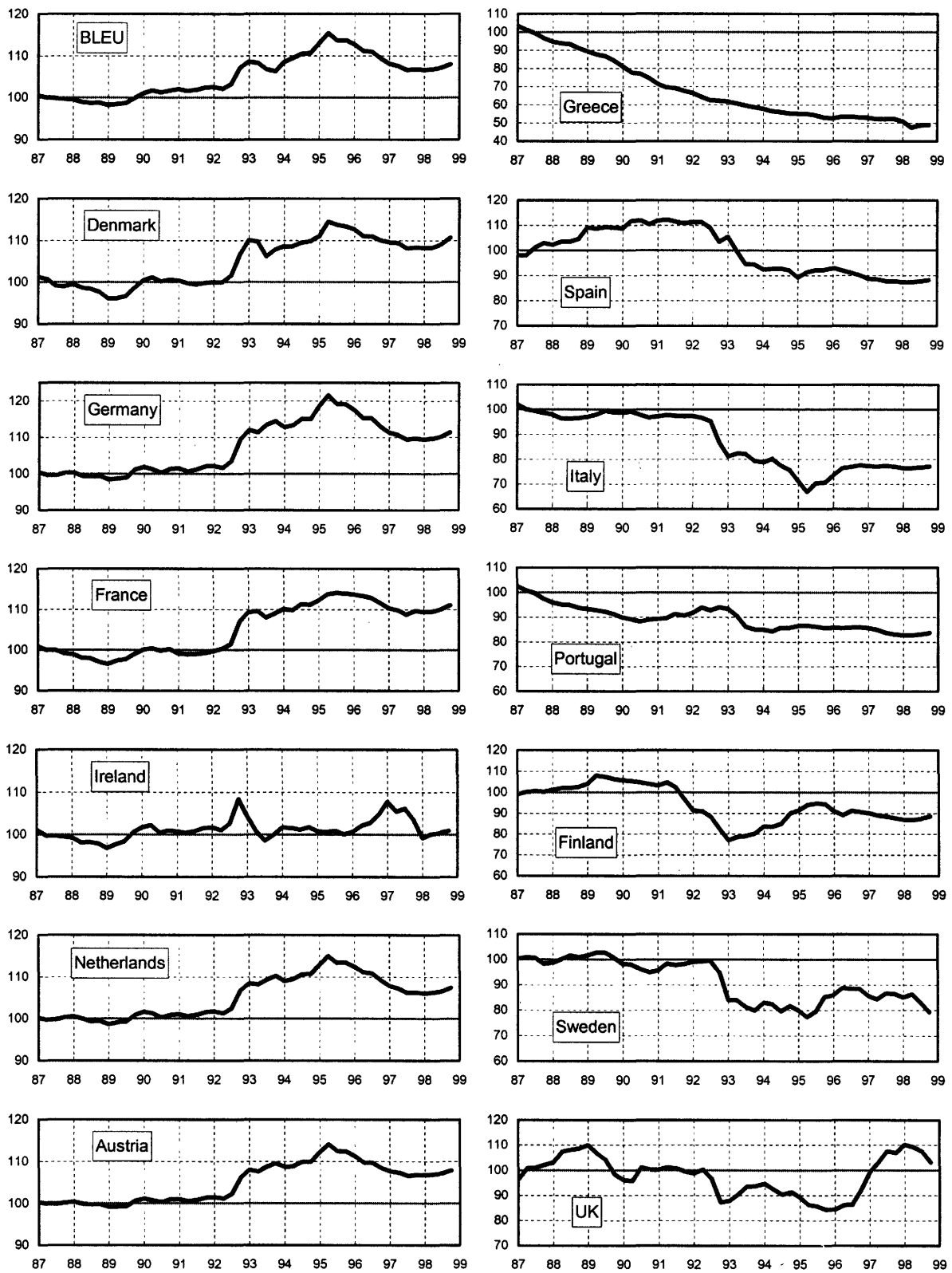
GRAPH 5  
BILATERAL EXCHANGE RATES AGAINST THE GERMAN MARK.



Monthly Averages.

Index 1987 = 100

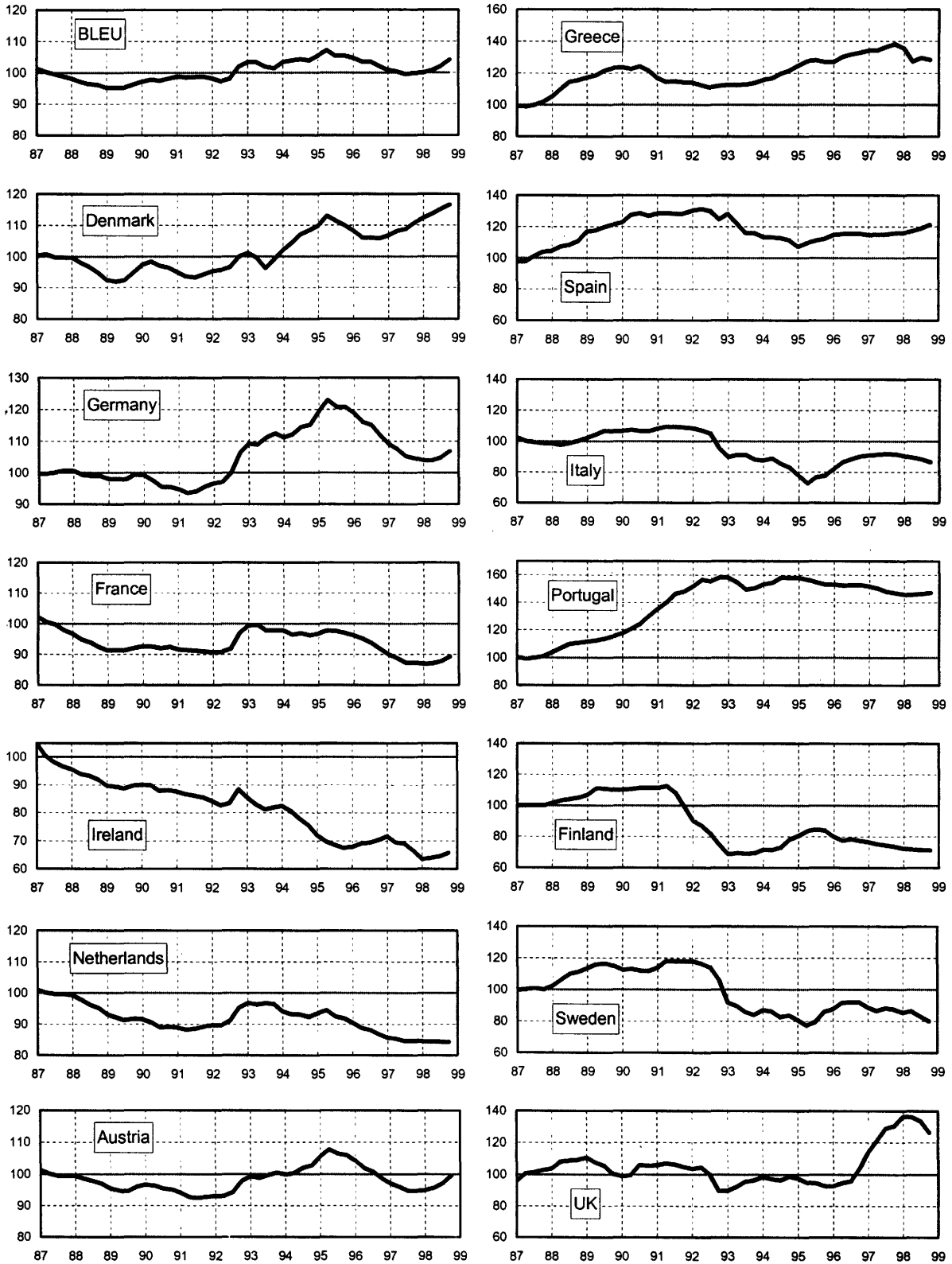
GRAPH 6  
 NOMINAL EFFECTIVE EXCHANGE RATES RELATIVE TO THE EUROPEAN UNION.



Quarterly averages.

Index 1987 = 100

GRAPH 7  
REAL EFFECTIVE EXCHANGE RATES (1) RELATIVE TO THE EUROPEAN UNION.



(1) Deflated by Unit Labour Costs in Manufacturing. Quarterly averages.

Index 1987 = 100

## ANNEX: THE EFFECTIVE EXCHANGE RATE OF THE EURO AREA (EUR11)

On 1 January 1999, the euro became the single currency of 11 EU Member States<sup>4</sup>. This change will be reflected in future Quarterly Reports, beginning with the report for the first quarter 1999 (due in April 1999). Nominal and real effective exchange rates will be included for the euro area (EUR11), but the effective exchange rate indices will continue to be calculated for individual euro area participants, using the same weighting scheme as in the past<sup>5</sup>. This box gives a preview of the historical data for the effective exchange rates of the EUR11 area.

### *Calculating the EUR11 effective exchange rate*

With the euro in operation, the market rates of the euro against other currencies can be used to calculate a nominal effective exchange rate index of the euro area starting from 1.1.1999. The area is treated as one economic entity and the weights are based on extra-EUR11 trade. To calculate the *real* effective exchange rate, the cost (or price) deflator of EUR11 is calculated as an average of the deflators of individual EMU members using their share in extra-EMU trade as weights.

One may calculate historical series for the effective exchange rate indices of the EUR11. These "synthetic" data should *not* be taken as the history of the euro: they are merely an average of the 11 currencies which the euro replaces. The euro will have different economic properties than might be indicated by such an average. In particular, the euro countries now share a single monetary framework aimed at maintaining price stability. In many respects, the euro is more likely to behave as the strongest and most stable of the currencies that it replaces than as the average (especially as concerns the nominal rate).

Nevertheless, the *real* effective exchange rate indices for EUR11 are helpful in assessing the euro area's competitiveness at current exchange rates, costs and prices in a historical perspective. The EUR11 effective rates are calculated by weighing together the real effective exchange rates of each EMU-member calculated *relative to non-EMU countries*, with the weights depending on each member's share in total extra-EMU trade.

### *Double export weights for the EUR11 indices*

The standard reference group in the Commission services' calculations of effective exchange rates consist of 24 countries, namely the 11 EMU members and 13 other countries (see table). For an individual EMU member, trade with the 23 partner countries covers a large share of its total trade (typically around 80%). For the EUR11 as a whole, however, intra-EUR11 trade is disregarded, and exports to the 13 remaining countries only cover around 60% of total extra-EUR11 exports.

<b>Double export weights for EUR11 (1995)</b>		
	Share in EUR11 exports <sup>1</sup> (%)	Double export weights (%)
USA	22.1	27.2
UK	30.4	22.8
Denmark	4.9	4.0
Norway	2.6	2.2
Sweden	6.9	5.5
Switzerland	13.5	9.3
Canada	2.4	2.4
Japan	7.2	16.2
Greece	3.2	2.7
Turkey	3.3	3.7
Australia	2.0	2.4
New Zealand	0.3	0.5
Mexico	1.2	1.1
<b>Sum</b>	<b>100.0</b>	<b>100.0</b>
<sup>1</sup> The share of each country in total EUR11 exports to the 13 countries. Exports to the 13 countries amounted to 59% of total extra-EUR11 exports.		

<sup>4</sup> EUR11 : Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland

<sup>5</sup> Since there is no longer any exchange rate between countries sharing the same currency, the nominal effective exchange rate of individual euro participants will be referred to as the *trade-weighted currency index*. These indices may evolve differently for different euro area countries because of dissimilarities in their trading patterns. The real effective exchange rate measures will be referred to as *relative cost (or price) indicators*. These indices may further deviate between euro participants due to diverging price and cost developments.

The table shows that the UK and US markets are by far the largest destinations of euro-area exports, followed with some distance by Switzerland, Japan and Sweden.

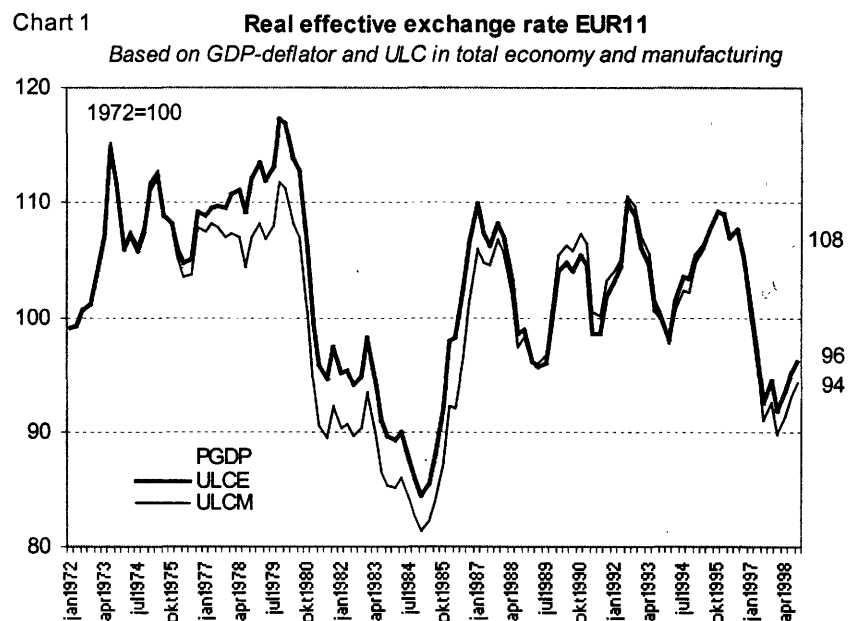
The double export weights used in the calculation of the effective exchange rates recognise that the 24 countries compete against each other in their own markets and on all other markets around the globe. Because US and Japanese producers have a strong presence in many non-EUR11 markets (including in Latin America and South East Asia), their weight is higher than indicated by the bilateral trade flows with the EUR11. The US surpasses the UK as the largest competitor, and Japan overtakes Switzerland as the third largest. In most other cases, the differences with the bilateral weights are moderate.

*Trends in the EUR11 real effective exchange rate*

Chart 1 shows the development since 1972 of various measures of the real effective exchange rate of the EUR11 group of countries. The long-term trend differs between the measures based on unit labour costs and that based on the GDP-deflator. By the fourth quarter of 1998, relative unit labour costs were below their long-term average, while relative GDP-prices were above.

Part of the explanation for this divergence may be that companies in EUR11 have been induced to adopt relatively more capital-intensive technologies (due to the high cost of labour and other factors) and this has led to rising capital costs which are reflected in the GDP-deflator but not in the ULC measures.

If this is the case, the measure based on the GDP-deflator may give the best indication of relative cost trends. On the other hand, trends in profitability may have been stronger in EUR11, which could be a sign of improving (non-price) competitiveness, and indirect tax increases may also have been more prominent in EUR11. About half of the gap between the ULC and GDP-based measures emerges during 1996-98, and may in part be due to special factors.



Whatever measure is used, chart 1 shows an improvement in EUR11 cost competitiveness between mid-1995 and late 1997. The EUR11 currencies fell relative to the US-dollar, the pound sterling and other currencies, and significant cost-cutting took place in some EUR11 countries. At the same time, wage and price increases were increasingly subdued. However, subsequent exchange rate developments have contributed to a significant worsening of price competitiveness, by 4-7% between 1997Q3 and 1998Q4 depending on the deflator used. During the 1998Q4, average cost competitiveness of the EU 11 worsened by more than 1%.

The series for the EUR11 effective exchange rates are available on the Commission Services' web-site: "<http://europa.eu.int/comm/off/rep/pccr>".

**PART 2**

**TABLES AND GRAPHS  
BY COUNTRY**

## **PART 2:**

# **TABLES AND GRAPHS BY COUNTRY**

The tables and graphs on **Pages 1 to 40** present nominal and real effective exchange rates of the currencies of the European Union Member States and five other industrial countries. Aggregate measures for the European Union as a whole (EUR15) and the group of countries participating in the Exchange Rate Mechanism (ERM) are presented as well. Each country (or country group) is compared with 23 industrial countries (the 15 EU countries, Norway, Australia, Canada, Japan, the United States, Mexico, New Zealand, Turkey and Switzerland), with the European Union and with the group of ERM participants.

The tables on **Pages 41 to 58** present bilateral exchange rates of the US dollar against the currencies of the 23 industrial countries; and nominal and real effective exchange rates of the EU currencies, the US dollar and Japanese yen (as well as aggregate measures for EUR15 and the ERM). Each cross-national table of real effective exchange rates is based on a single price or cost deflator. Price and cost indices in national currency are presented as well. These tables aim to facilitate a comparison of developments in the different industrial countries. The final table shows the latest double export weight matrices that were used to calculate effective exchange rates.<sup>1</sup>

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<sup>1</sup> The technical annex provides further details.

## Part 2: Table of Contents

EUR 15 - ERM .....	p. 1
BLEU .....	p. 3
Denmark .....	p. 5
Germany .....	p. 7
Greece .....	p. 9
Spain .....	p. 11
France .....	p. 13
Ireland .....	p. 15
Italy .....	p. 17
Netherlands .....	p. 19
Austria .....	p. 21
Portugal .....	p. 23
Finland .....	p. 25
Sweden .....	p. 27
United Kingdom .....	p. 29
Norway .....	p. 31
Australia .....	p. 33
Canada .....	p. 35
Japan .....	p. 37
USA .....	p. 39
Table A: Bilateral exchange rate of the US dollar .....	p. 41
Table B: Nominal effective exchange rate .....	p. 46
Table C: Real effective exchange rate based on Consumer Price Index (CPI) .....	p. 48
Table D: Real effective exchange rate based on GDP deflator .....	p. 50
Table E: Real effective exchange rate based on Export price deflator .....	p. 52
Table F: Real effective exchange rate based on ULC in economy as a whole.....	p. 54
Table G: Real effective exchange rate based on ULC in manufacturing .....	p. 56
Table H: Double export weights .....	p. 58



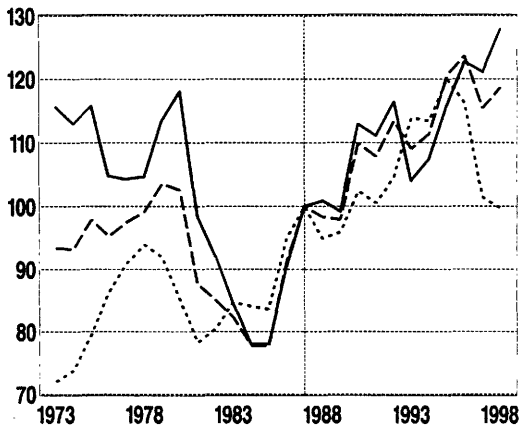
# EUR15 – ERM

## Nominal Effective Exchange Rate

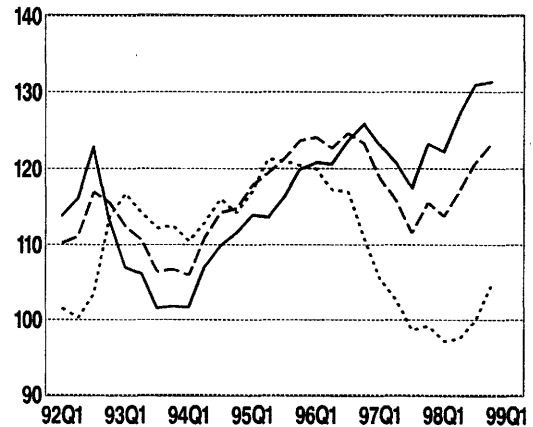
	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	EUR15 IC23	ERM Relative to IC23	ERM to EUR15		EUR15 IC23	ERM Relative to IC23	ERM to EUR15		EUR15 Relative to IC23	ERM Relative to IC23	ERM to EUR15
86	90.4	91.2	94.9	95Q4	119.9	123.7	120.4	DEC97	-0.7	-0.7	-0.5
87	100.0	100.0	100.0	96Q1	120.8	124.0	120.0	JAN98	-1.2	-1.1	-0.7
88	100.9	98.3	94.9	96Q2	120.6	122.6	117.2	FEB98	-0.6	-0.4	-0.0
89	99.2	97.9	95.9	96Q3	123.6	124.6	117.0	MAR98	0.9	-0.2	-2.0
90	112.9	109.9	102.4	96Q4	125.8	123.3	110.9	APR98	1.8	1.1	-0.3
91	111.1	107.8	100.5	97Q1	123.0	118.7	105.4	MAY98	2.2	3.0	-3.4
92	116.4	113.4	104.5	97Q2	120.8	115.8	102.7	JUN98	1.0	0.3	-0.8
93	104.1	109.0	113.9	97Q3	117.4	111.5	99.6	JUL98	0.0	0.1	0.2
94	107.4	111.4	113.4	97Q4	123.2	115.5	99.2	AUG98	1.4	1.6	1.4
95	115.9	120.5	119.9	98Q1	122.2	113.7	97.1	SEP98	2.0	2.2	2.0
96	122.7	123.6	116.2	98Q2	127.1	117.0	97.5	OCT98	-0.2	1.1	3.0
97	121.1	115.4	101.4	98Q3	130.9	120.7	99.8	NOV98	-1.9	-1.6	-0.7
98	127.8	118.6	99.7	98Q4	131.3	123.2	104.4	DEC98	0.1	0.3	0.5

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

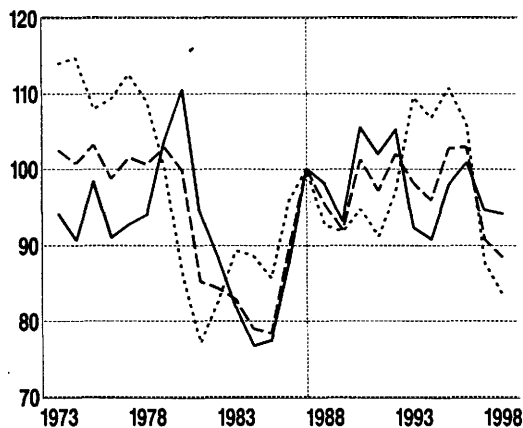


Quarterly figures (index 1987=100)

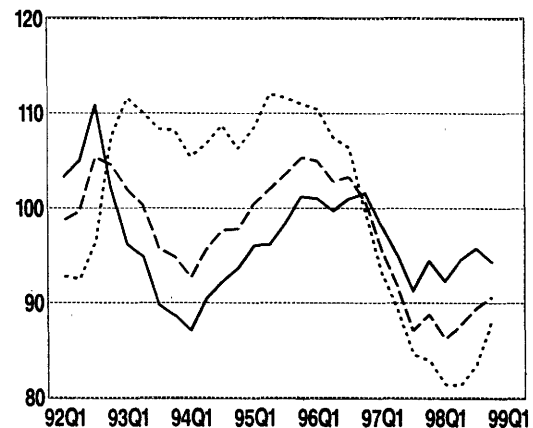


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# EUR15 – ERM

## Real Effective Exchange Rate of EUR15 relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	92.6	91.6	92.8	92.3	87.6	95Q4	104.5	106.5	110.6	102.5	101.2
87	100.0	100.0	100.0	100.0	100.0	96Q1	104.7	106.5	110.0	102.6	101.0
88	98.7	99.0	98.4	98.1	98.2	96Q2	104.0	105.6	108.5	101.6	99.7
89	95.3	95.9	96.6	94.9	93.2	96Q3	105.9	107.4	110.1	103.1	101.0
90	106.8	108.5	108.5	106.8	105.5	96Q4	106.9	108.3	111.3	103.8	101.6
91	104.2	106.0	106.0	103.2	102.0	97Q1	103.6	105.0	108.3	100.2	98.1
92	108.2	110.7	110.2	108.3	105.2	97Q2	100.7	102.1	106.0	97.0	95.1
93	96.0	98.1	100.9	95.7	92.3	97Q3	96.9	98.4	102.7	93.0	91.3
94	96.8	98.5	100.9	95.0	90.8	97Q4	100.8	102.4	107.3	96.2	94.4
95	101.7	103.7	107.7	99.8	98.0	98Q1	99.1	100.7	105.7	94.2	92.3
96	105.4	106.9	110.0	102.8	100.8	98Q2	102.4	104.1	108.9	96.8	94.5
97	100.5	101.9	106.0	96.5	94.7	98Q3	105.0	106.7	110.6	98.7	95.8
98	102.9	104.5	108.5	96.9	94.2	98Q4	105.2	106.6	108.9	98.2	94.4

## Real Effective Exchange Rate of the countries in the ERM relative to 23 industrial Countries (IC23)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	93.6	92.9	94.3	93.2	89.7	95Q4	105.3	107.8	108.4	102.1	105.3
87	100.0	100.0	100.0	100.0	100.0	96Q1	105.3	107.5	108.0	101.8	104.9
88	95.8	95.7	97.1	94.3	95.5	96Q2	103.7	105.7	106.1	99.9	102.8
89	93.1	92.8	95.2	89.6	92.0	96Q3	104.8	106.8	107.5	100.6	103.2
90	101.4	101.9	104.0	97.3	101.2	96Q4	103.1	104.9	106.4	98.5	100.7
91	97.1	98.3	101.2	93.2	97.2	97Q1	98.6	100.3	102.8	93.9	95.6
92	101.3	103.4	105.7	98.7	102.0	97Q2	95.5	97.2	100.6	90.4	91.8
93	96.7	99.1	100.0	95.0	98.2	97Q3	91.3	93.0	97.3	88.0	87.0
94	97.4	99.5	99.8	94.1	95.9	97Q4	93.9	95.7	101.1	88.0	88.8
95	103.2	105.7	106.4	100.0	102.8	98Q1	91.9	93.6	99.6	85.6	86.2
96	104.2	106.2	107.0	100.2	102.9	98Q2	94.2	95.8	102.2	87.1	87.6
97	94.8	96.5	100.4	89.5	90.7	98Q3	96.8	98.3	104.5	88.8	89.4
98	95.4	96.9	102.9	87.8	88.4	98Q4	98.8	100.1	105.3	89.8	90.6

## Real Effective Exchange Rate of the countries in the ERM relative to European Union as a whole (EUR15)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	96.8	96.8	98.2	96.4	95.8	95Q4	105.2	108.0	103.3	102.0	111.0
87	100.0	100.0	100.0	100.0	100.0	96Q1	104.8	107.4	103.3	101.2	110.4
88	92.5	92.1	95.7	90.4	92.6	96Q2	102.4	104.7	101.6	99.7	107.4
89	91.3	92.7	96.8	84.6	91.1	96Q3	102.1	104.3	102.4	99.7	106.3
90	93.3	93.3	96.7	85.6	88.8	96Q4	96.6	98.0	98.2	88.0	99.0
91	88.0	88.2	94.7	82.2	91.2	97Q1	91.6	93.0	94.5	85.0	93.2
92	91.6	92.8	98.3	87.0	97.1	97Q2	89.1	90.9	93.3	84.4	89.4
93	99.5	101.9	99.1	87.0	109.5	97Q3	85.4	87.1	90.8	80.0	84.4
94	99.7	102.2	99.1	95.8	106.8	97Q4	85.7	87.4	92.5	80.2	83.9
95	105.0	107.6	103.3	101.7	110.8	98Q1	83.9	85.4	91.6	77.7	81.4
96	101.4	103.7	101.3	97.2	105.9	98Q2	84.1	85.4	92.6	77.5	81.4
97	87.9	89.7	92.8	82.9	87.7	98Q3	86.2	87.5	95.3	78.6	83.4
98	86.1	87.3	94.7	78.8	83.5	98Q4	90.3	91.2	99.7	81.3	88.2

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

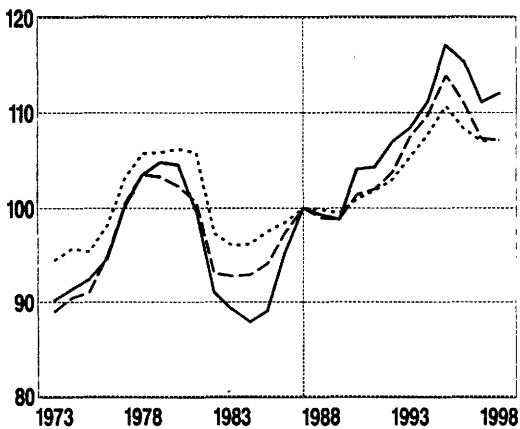
# BLEU – franc

## Nominal Effective Exchange Rate

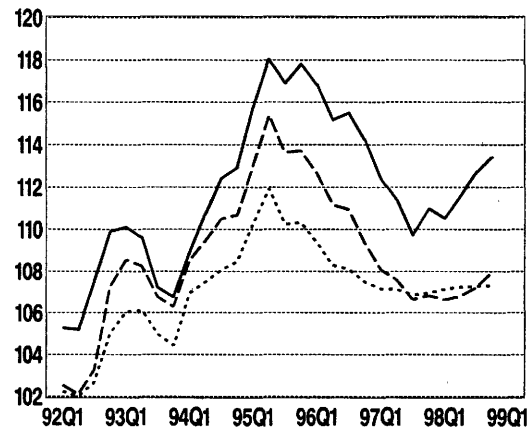
	Annual figures index (1987=100)				Quarterly figures index (1987=100)				Monthly figures monthly % change		
	IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM
86	95.4	97.5	98.5	95Q4	117.8	113.7	110.3	DEC97	-0.2	-0.1	-0.0
87	100.0	100.0	100.0	96Q1	116.8	112.7	109.4	JAN98	-0.2	0.0	0.1
88	99.3	99.0	99.8	96Q2	115.2	111.2	108.3	FEB98	-0.1	0.0	0.0
89	98.8	98.8	99.4	96Q3	115.5	110.9	108.1	MAR98	-0.0	-0.2	0.1
90	104.1	101.4	101.0	96Q4	114.2	109.3	107.5	APR98	0.3	-0.0	0.0
91	104.3	102.0	101.9	97Q1	112.4	108.1	107.1	MAY98	1.0	0.6	0.0
92	106.9	103.7	103.0	97Q2	111.4	107.6	107.1	JUN98	0.0	-0.2	-0.0
93	108.4	107.5	105.4	97Q3	109.7	106.6	106.9	JUL98	0.0	0.0	0.0
94	111.2	109.8	107.7	97Q4	111.0	106.8	106.9	AUG98	0.5	0.2	0.0
95	117.1	113.9	110.7	98Q1	110.5	106.6	107.1	SEP98	0.7	0.3	0.0
96	115.4	111.0	108.3	98Q2	111.6	106.8	107.2	OCT98	-0.3	-0.5	0.0
97	111.1	107.3	107.0	98Q3	112.7	107.2	107.3	NOV98	-0.5	-0.1	0.0
98	112.0	107.1	107.2	98Q4	113.4	108.0	107.3	DEC98	0.1	0.1	0.0

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

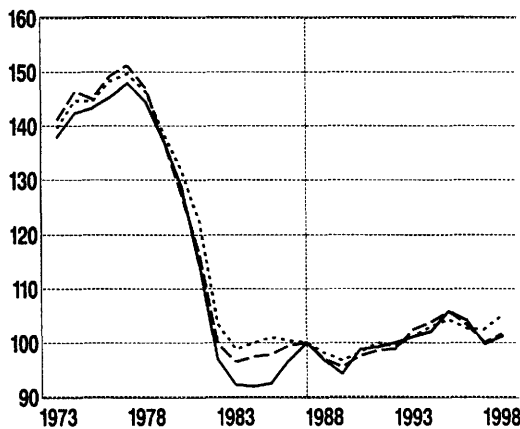


Quarterly figures (index 1987=100)

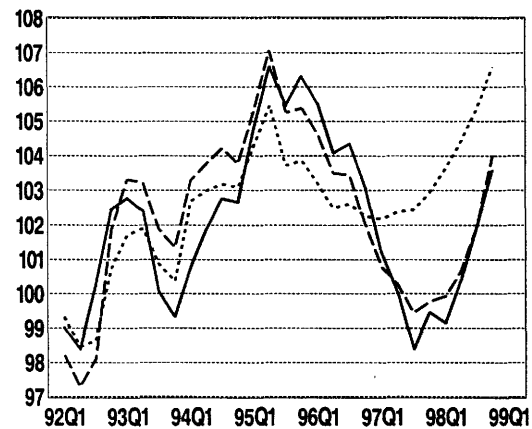


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# BLEU – franc

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	96.4	96.7	98.9	98.3	96.7	95Q4	107.3	110.4	107.0	112.9	106.3
87	100.0	100.0	100.0	100.0	100.0	96Q1	106.4	109.3	106.3	111.3	105.5
88	97.2	97.6	100.1	95.9	96.7	96Q2	104.8	107.6	105.2	109.2	104.1
89	96.2	97.3	101.4	93.8	94.2	96Q3	105.0	107.8	106.1	109.0	104.3
90	100.1	101.0	104.2	99.0	98.8	96Q4	103.7	106.5	105.8	107.5	103.1
91	98.6	99.6	102.4	99.9	99.2	97Q1	101.8	104.6	104.9	105.5	101.2
92	99.3	101.7	103.6	102.2	100.0	97Q2	100.6	103.5	104.8	104.4	100.0
93	100.5	103.7	102.7	104.8	101.1	97Q3	98.8	101.8	103.9	102.7	98.4
94	102.6	106.0	104.2	108.1	102.0	97Q4	99.7	102.9	105.4	103.8	99.4
95	106.9	110.3	107.0	113.0	105.8	98Q1	99.1	102.4	104.9	103.3	99.1
96	105.0	107.8	105.9	109.2	104.2	98Q2	99.9	103.2	105.4	104.2	100.4
97	100.2	103.2	104.7	104.1	99.8	98Q3	100.8	104.2	105.2	105.0	102.0
98	100.3	103.6	104.9	104.5	101.3	98Q4	101.6	104.8	104.0	105.4	103.6

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	97.9	98.4	100.5	100.0	99.5	95Q4	105.8	108.5	104.3	111.8	105.4
87	100.0	100.0	100.0	100.0	100.0	96Q1	104.8	107.4	103.7	110.2	104.6
88	97.3	97.7	100.4	96.2	96.9	96Q2	103.5	106.0	103.0	108.3	103.5
89	97.1	98.0	102.0	94.6	95.5	96Q3	103.3	105.7	103.6	107.8	103.4
90	98.6	99.2	102.5	97.6	97.6	96Q4	101.7	104.2	103.0	106.1	102.0
91	97.6	98.2	101.0	99.1	98.6	97Q1	100.4	102.9	102.7	104.8	100.8
92	97.6	99.6	101.5	100.5	98.9	97Q2	99.8	102.4	103.0	104.4	100.3
93	101.0	103.8	102.3	105.4	102.4	97Q3	98.8	101.6	102.8	103.6	99.4
94	103.1	106.2	103.7	109.0	103.8	97Q4	98.9	101.7	103.4	104.0	99.8
95	106.1	109.1	105.0	112.7	105.8	98Q1	98.6	101.5	103.2	103.9	99.9
96	103.3	105.8	103.3	108.1	103.4	98Q2	98.7	101.7	103.0	104.1	100.7
97	99.5	102.2	103.0	104.2	100.1	98Q3	99.1	102.1	102.5	104.5	102.0
98	99.1	102.0	102.6	104.4	101.6	98Q4	99.9	102.8	101.7	105.1	104.0

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	98.7	99.1	101.0	100.8	100.4	95Q4	105.0	107.3	103.8	111.8	103.9
87	100.0	100.0	100.0	100.0	100.0	96Q1	104.1	106.4	103.2	110.3	103.2
88	98.6	99.0	101.1	97.7	98.1	96Q2	103.1	105.3	102.8	108.8	102.5
89	98.5	99.0	103.1	97.2	96.7	96Q3	103.0	105.1	103.3	108.4	102.6
90	99.7	100.5	103.1	100.1	98.3	96Q4	102.3	104.5	103.4	107.7	102.3
91	99.7	100.2	102.0	102.4	100.0	97Q1	102.0	104.2	103.8	107.5	102.2
92	99.0	100.9	101.9	102.9	99.3	97Q2	101.8	104.2	104.3	107.6	102.4
93	101.3	103.8	102.5	106.4	101.2	97Q3	101.5	104.0	104.5	107.6	102.4
94	103.3	106.1	104.1	110.2	103.0	97Q4	101.5	104.1	104.8	108.0	102.9
95	105.4	108.0	104.5	112.8	104.3	98Q1	101.5	104.4	104.8	108.5	103.6
96	103.1	105.3	103.2	108.8	102.6	98Q2	101.6	104.5	104.4	108.8	104.4
97	101.7	104.2	104.4	107.7	102.5	98Q3	101.6	104.6	103.5	108.9	105.4
98	101.6	104.5	103.7	108.8	105.0	98Q4	101.7	104.6	102.0	109.0	106.6

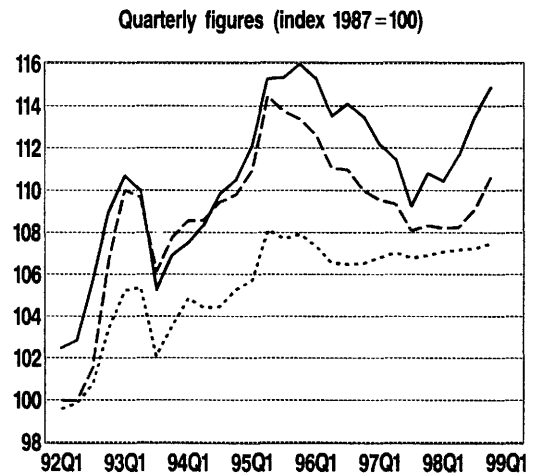
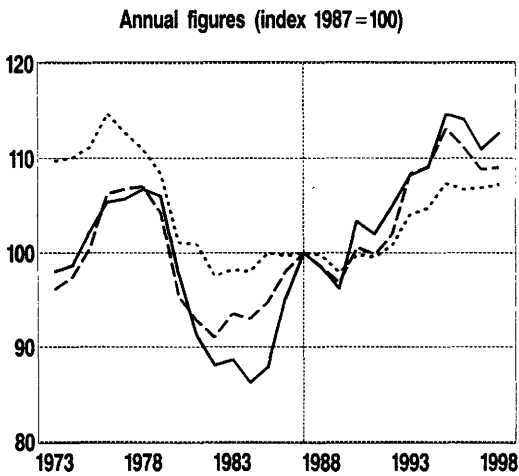
Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

# Denmark – krone

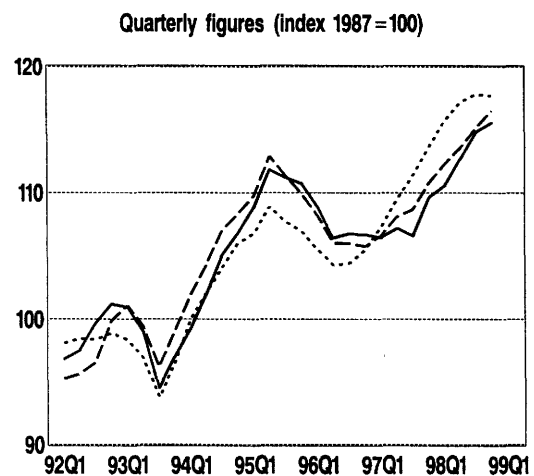
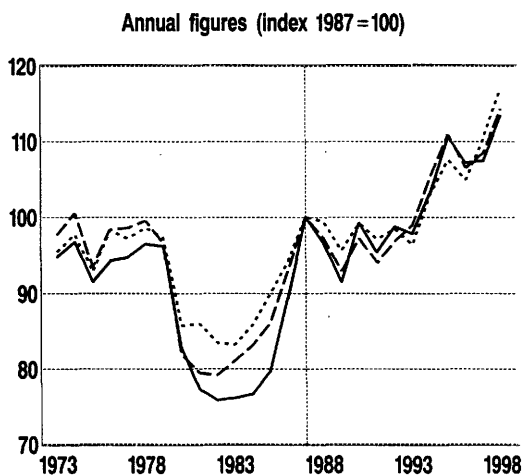
## Nominal Effective Exchange Rate

	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM		
86	95.2	98.1	99.7	95Q4	116.0	113.4	107.9	DEC97	-0.3	-0.1	-0.0
87	100.0	100.0	100.0	96Q1	115.3	112.6	107.3	JAN98	-0.2	0.1	0.2
88	98.5	98.5	99.8	96Q2	113.5	111.0	106.5	FEB98	-0.1	0.1	0.0
89	96.2	96.8	97.9	96Q3	114.1	111.0	106.5	MAR98	-0.2	-0.5	0.0
90	103.3	100.6	99.8	96Q4	113.5	110.0	106.5	APR98	0.3	-0.1	0.0
91	102.0	99.8	99.5	97Q1	112.2	109.5	106.8	MAY98	1.3	0.7	0.1
92	105.0	102.0	100.9	97Q2	111.5	109.4	107.0	JUN98	0.3	0.0	0.0
93	108.2	108.4	104.0	97Q3	109.3	108.1	106.8	JUL98	0.0	0.0	-0.1
94	109.0	109.1	104.7	97Q4	110.8	108.3	106.9	AUG98	1.0	0.5	0.1
95	114.7	113.1	107.3	98Q1	110.4	108.2	107.1	SEP98	1.0	0.6	0.1
96	114.1	111.1	106.7	98Q2	111.7	108.2	107.2	OCT98	-0.7	-0.9	0.2
97	110.9	108.8	106.9	98Q3	113.5	109.1	107.2	NOV98	-0.8	-0.2	-0.0
98	112.6	109.0	107.2	98Q4	114.9	110.6	107.5	DEC98	0.2	0.1	-0.1

## Nominal Effective Exchange Rate



## Real Effective Exchange Rate (based on ULCM)



# Denmark – krone

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	94.4	94.5	98.0	91.3	89.5	95Q4	102.3	104.9	104.2	100.7	110.7
87	100.0	100.0	100.0	100.0	100.0	96Q1	101.9	104.3	103.7	99.7	108.9
88	98.5	97.6	96.4	98.1	96.6	96Q2	100.4	102.7	102.4	97.9	106.4
89	96.4	95.6	95.6	95.0	91.5	96Q3	101.0	103.2	103.4	98.4	106.7
90	100.9	100.8	101.8	98.3	99.2	96Q4	100.4	102.6	103.4	98.1	106.6
91	96.8	97.1	100.2	93.9	95.4	97Q1	99.1	101.3	102.8	97.4	106.4
92	96.8	98.5	105.3	95.0	98.8	97Q2	98.4	100.7	102.8	97.3	107.2
93	96.5	99.1	103.6	94.9	97.8	97Q3	96.3	98.7	101.1	96.0	106.6
94	96.9	99.8	102.6	95.0	103.2	97Q4	97.6	100.0	102.8	98.0	109.6
95	101.2	104.0	104.0	99.9	110.6	98Q1	97.2	99.8	102.4	98.4	110.5
96	100.9	103.2	103.2	98.5	107.2	98Q2	98.4	101.0	103.2	100.0	112.7
97	97.8	100.2	102.4	97.2	107.4	98Q3	100.2	102.9	104.1	102.0	114.8
98	99.4	102.1	103.5	100.9	113.4	98Q4	101.7	104.5	104.1	103.3	115.5

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	96.6	97.0	100.3	93.5	93.1	95Q4	100.7	102.6	100.8	98.9	109.9
87	100.0	100.0	100.0	100.0	100.0	96Q1	100.1	102.0	100.5	97.9	108.2
88	99.0	97.9	96.7	98.7	97.2	96Q2	98.9	100.6	99.8	96.3	106.0
89	97.6	96.5	96.5	96.0	92.9	96Q3	98.9	100.7	100.4	96.3	106.0
90	98.9	98.4	99.7	95.9	97.2	96Q4	98.1	99.9	100.3	95.8	105.7
91	95.3	95.1	98.5	92.0	94.0	97Q1	97.7	99.5	100.5	96.1	106.6
92	94.6	95.6	102.4	92.1	96.8	97Q2	97.6	99.4	100.9	96.8	108.1
93	97.0	98.9	102.8	94.8	98.9	97Q3	96.4	98.3	100.1	96.5	108.7
94	97.3	99.6	101.6	95.2	105.3	97Q4	96.7	98.7	100.5	97.7	110.7
95	100.5	102.6	101.3	99.1	111.0	98Q1	96.6	98.7	100.3	98.5	112.3
96	99.0	100.8	100.2	96.6	108.5	98Q2	96.8	98.9	100.0	99.2	113.6
97	97.1	99.0	100.5	96.8	108.5	98Q3	97.8	99.8	100.2	100.5	115.1
98	97.7	99.7	100.3	100.0	114.3	98Q4	99.5	101.5	100.6	102.1	116.5

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	97.5	98.0	100.9	94.5	94.3	95Q4	99.9	101.0	100.1	98.8	106.9
87	100.0	100.0	100.0	100.0	100.0	96Q1	99.5	100.5	99.7	98.1	105.5
88	101.0	100.0	97.9	101.4	99.4	96Q2	98.9	99.8	99.3	97.3	104.3
89	100.2	99.6	98.3	100.7	95.6	96Q3	98.9	99.9	99.7	97.5	104.4
90	101.1	100.7	100.7	100.3	99.2	96Q4	99.1	100.1	100.2	98.1	105.5
91	99.1	98.6	100.0	97.3	97.1	97Q1	99.4	100.4	100.8	99.1	107.3
92	97.4	97.9	102.9	96.0	98.4	97Q2	99.7	100.7	101.4	100.3	109.5
93	97.1	98.1	102.2	95.3	96.4	97Q3	99.5	100.6	101.3	101.1	111.4
94	97.3	98.7	101.1	96.0	103.0	97Q4	99.7	100.9	101.5	102.3	113.6
95	99.4	100.6	100.3	98.6	107.6	98Q1	100.0	101.2	101.4	103.5	115.7
96	99.1	100.1	99.7	97.7	104.9	98Q2	100.2	101.5	101.0	104.6	117.1
97	99.6	100.7	101.3	100.7	110.4	98Q3	100.4	101.8	100.2	105.4	117.8
98	100.4	101.7	100.5	104.9	117.1	98Q4	100.9	102.3	99.3	106.2	117.7

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

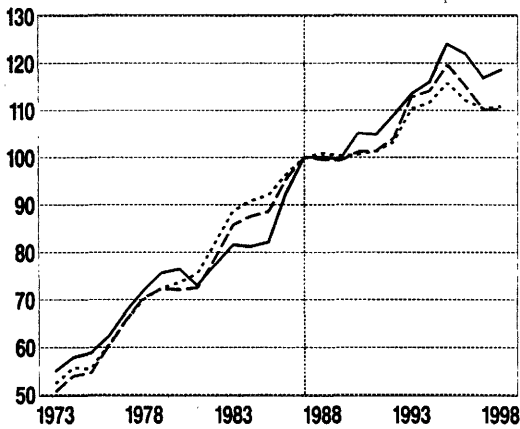
# Germany – mark

## Nominal Effective Exchange Rate

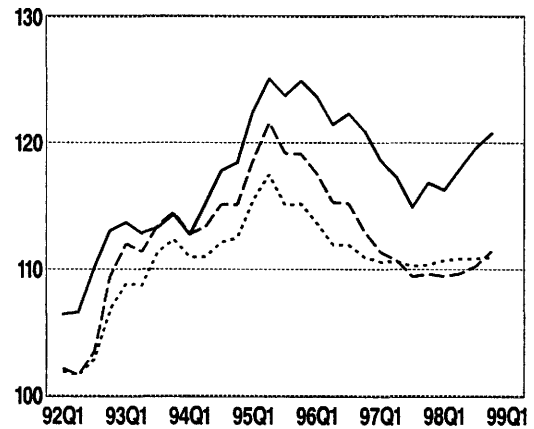
	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM		
86	92.6	95.5	96.5	95Q4	124.9	119.1	115.1	DEC97	-0.3	-0.1	0.0
87	100.0	100.0	100.0	96Q1	123.6	117.5	113.6	JAN98	-0.3	0.1	0.2
88	100.2	99.6	100.9	96Q2	121.4	115.3	111.9	FEB98	-0.1	0.1	0.1
89	99.5	99.3	100.3	96Q3	122.3	115.2	111.9	MAR98	-0.0	-0.4	0.0
90	105.1	101.2	100.6	96Q4	120.9	112.9	111.0	APR98	0.6	0.0	0.1
91	104.8	101.3	101.3	97Q1	118.6	111.3	110.6	MAY98	1.3	0.7	-0.1
92	109.0	104.1	103.3	97Q2	117.2	110.7	110.6	JUN98	0.1	-0.2	-0.1
93	113.5	112.8	110.3	97Q3	114.9	109.4	110.2	JUL98	0.0	0.0	-0.0
94	116.0	114.1	111.6	97Q4	116.8	109.6	110.3	AUG98	0.7	0.4	0.0
95	124.1	119.6	115.8	98Q1	116.3	109.4	110.7	SEP98	1.1	0.9	0.1
96	122.1	115.2	112.1	98Q2	117.9	109.6	110.8	OCT98	-0.5	-0.7	0.0
97	116.9	110.3	110.4	98Q3	119.6	110.2	110.8	NOV98	-0.8	-0.2	-0.0
98	118.6	110.2	110.8	98Q4	120.8	111.4	111.0	DEC98	0.1	0.1	0.0

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

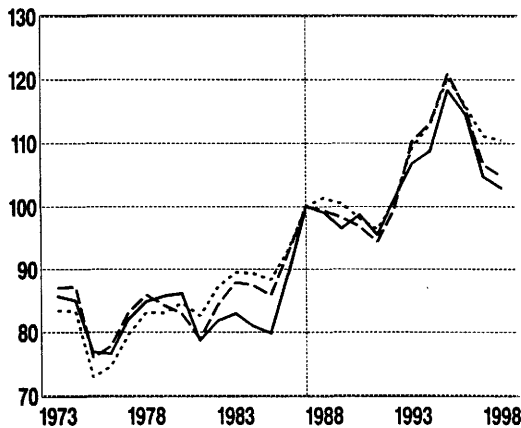


Quarterly figures (index 1987=100)

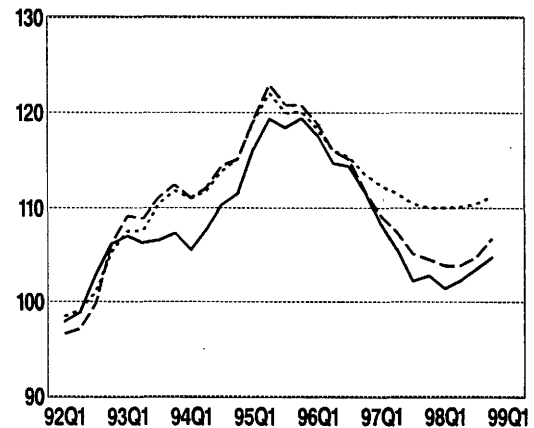


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Germany – mark

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	96.0	94.8	94.5	94.3	89.3	95Q4	110.2	112.2	110.2	109.1	119.4
87	100.0	100.0	100.0	100.0	100.0	96Q1	108.7	110.5	108.6	107.1	117.6
88	97.3	97.0	98.7	96.5	99.1	96Q2	106.4	107.9	106.4	104.2	114.7
89	94.6	93.7	95.3	92.3	96.6	96Q3	106.8	108.1	106.9	103.9	114.3
90	97.2	96.8	99.1	93.4	98.7	96Q4	105.3	106.3	105.5	101.6	111.7
91	95.3	95.2	98.6	90.4	95.5	97Q1	103.0	103.7	103.4	98.6	108.2
92	99.5	100.5	102.8	96.1	101.4	97Q2	101.5	101.9	102.3	96.5	105.6
93	103.6	105.0	104.8	100.9	106.8	97Q3	99.2	99.4	100.2	93.6	102.2
94	104.8	106.2	104.8	101.9	108.8	97Q4	100.5	100.5	101.9	94.3	102.8
95	110.1	112.1	110.1	108.8	118.3	98Q1	99.7	99.6	101.5	93.1	101.4
96	106.8	108.2	106.8	104.2	114.6	98Q2	100.8	100.6	102.9	93.8	102.3
97	101.0	101.4	102.0	95.7	104.7	98Q3	101.8	101.7	104.3	94.5	103.5
98	101.2	101.1	103.4	94.1	103.0	98Q4	102.4	102.3	105.1	95.1	104.7

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	98.3	97.4	96.6	96.6	92.7	95Q4	109.1	110.6	107.3	108.6	120.7
87	100.0	100.0	100.0	100.0	100.0	96Q1	107.4	108.7	105.8	106.5	118.8
88	97.2	96.8	98.9	96.5	99.4	96Q2	105.1	106.2	103.9	103.6	116.0
89	95.2	94.0	95.6	92.8	98.2	96Q3	104.9	105.7	103.9	102.6	115.1
90	94.7	93.7	96.3	90.5	96.9	96Q4	102.8	103.3	101.9	99.8	111.8
91	93.3	92.7	96.5	88.4	94.4	97Q1	101.3	101.5	100.6	97.7	109.1
92	96.8	97.0	99.8	93.1	99.8	97Q2	100.7	100.6	100.1	96.5	107.4
93	105.1	105.9	104.9	102.3	110.4	97Q3	99.4	99.1	99.1	94.7	105.1
94	106.0	107.0	104.9	103.5	113.1	97Q4	99.6	99.0	99.4	94.3	104.5
95	110.1	111.5	108.2	109.4	120.9	98Q1	99.3	98.6	99.5	93.7	103.8
96	105.0	106.0	103.9	103.1	115.4	98Q2	99.3	98.5	100.0	93.5	103.9
97	100.2	100.1	99.8	95.8	106.5	98Q3	99.5	98.8	100.8	93.7	104.7
98	99.6	98.9	100.7	93.8	104.8	98Q4	100.2	99.6	102.4	94.5	106.8

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	99.1	98.0	96.7	97.3	93.1	95Q4	108.7	109.7	107.1	109.3	120.1
87	100.0	100.0	100.0	100.0	100.0	96Q1	107.0	107.8	105.5	107.2	118.3
88	98.9	98.6	99.9	98.7	101.4	96Q2	105.2	105.9	103.9	104.8	116.0
89	97.1	96.2	96.8	96.3	100.5	96Q3	105.1	105.5	103.7	104.0	115.3
90	96.0	95.2	96.9	93.5	98.1	96Q4	104.1	104.2	102.6	102.9	113.5
91	95.9	95.1	97.6	92.1	96.4	97Q1	103.8	103.5	102.0	101.3	112.3
92	98.8	98.9	100.4	96.2	100.9	97Q2	103.8	103.3	101.8	100.7	111.6
93	106.0	106.3	105.5	103.7	109.3	97Q3	103.5	102.7	101.3	99.8	110.5
94	106.8	107.3	105.5	105.3	112.9	97Q4	103.6	102.5	101.3	99.5	110.0
95	109.8	110.7	108.1	110.2	120.3	98Q1	103.8	102.6	101.6	99.4	110.0
96	105.3	105.8	103.9	104.6	115.8	98Q2	103.7	102.5	101.8	99.3	110.1
97	103.7	103.0	101.6	100.3	111.1	98Q3	103.4	102.2	102.1	99.2	110.4
98	103.5	102.3	102.1	99.3	110.4	98Q4	103.0	102.1	102.7	99.3	111.2

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry



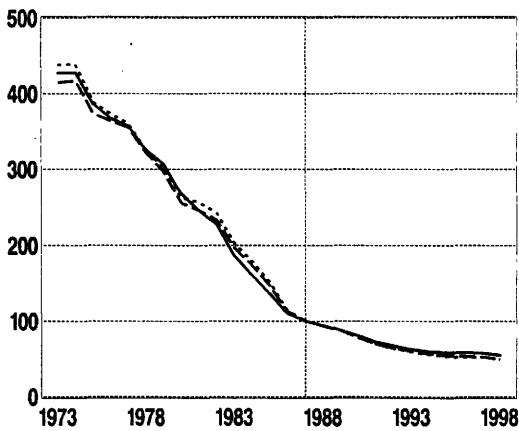
# Greece – drachma

## Nominal Effective Exchange Rate

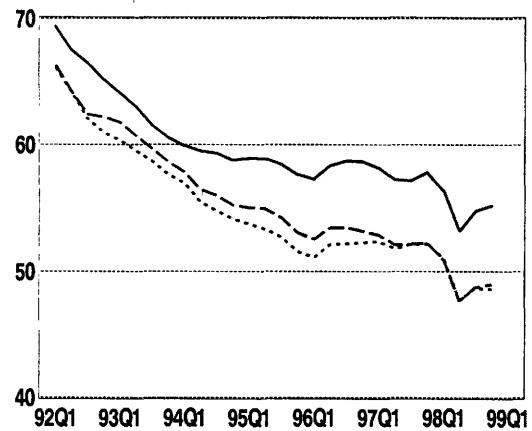
	Annual figures index (1987=100)				Quarterly figures index (1987=100)				Monthly figures monthly % change		
	IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM
86	110.0	113.0	114.1	95Q4	57.6	53.0	51.6	DEC97	-0.3	-0.2	-0.1
87	100.0	100.0	100.0	96Q1	57.3	52.5	51.1	JAN98	-0.7	-0.2	-0.4
88	94.0	93.2	94.0	96Q2	58.3	53.4	52.1	FEB98	-0.0	0.0	0.0
89	87.5	86.9	87.4	96Q3	58.7	53.4	52.2	MAR98	-5.7	-3.9	-3.8
90	80.4	77.5	77.2	96Q4	58.6	53.1	52.3	APR98	-3.5	-3.9	-3.8
91	72.0	69.3	69.3	97Q1	58.2	52.8	52.3	MAY98	1.6	1.2	0.7
92	67.1	63.7	63.3	97Q2	57.2	52.1	51.8	JUN98	2.0	1.8	1.9
93	62.3	60.2	59.9	97Q3	57.1	52.2	52.2	JUL98	1.9	1.9	1.9
94	59.4	56.3	55.9	97Q4	57.8	52.2	52.2	AUG98	-0.6	-0.1	-1.0
95	58.5	54.3	52.8	98Q1	56.3	50.9	51.0	SEP98	-1.4	-1.8	-2.1
96	58.2	53.1	51.9	98Q2	53.2	47.6	47.7	OCT98	0.5	0.5	0.0
97	57.6	52.3	52.1	98Q3	54.7	48.7	48.7	NOV98	1.9	2.2	2.3
98	54.8	49.1	49.0	98Q4	55.2	49.0	48.6	DEC98	0.2	0.1	0.1

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

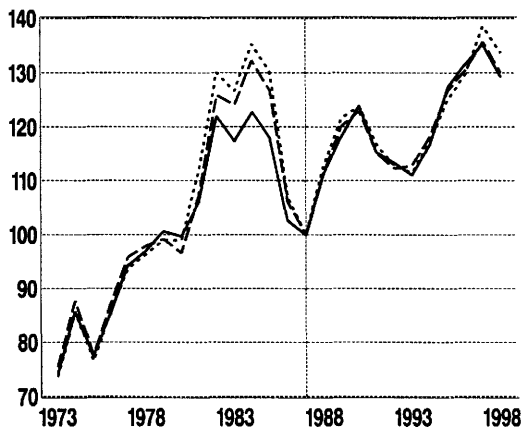


Quarterly figures (index 1987=100)

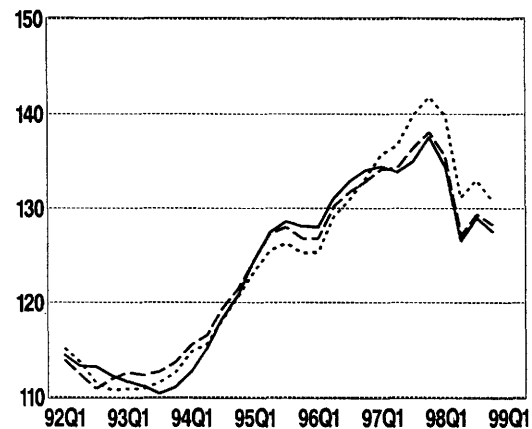


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Greece – drachma

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	98.4	99.9	102.9	102.0	102.5	95Q4	120.0	124.4	104.0	130.7	128.1
87	100.0	100.0	100.0	100.0	100.0	96Q1	120.8	125.1	104.8	131.7	128.0
88	103.2	103.9	97.7	104.7	111.2	96Q2	124.5	129.0	108.1	135.9	131.0
89	103.6	105.4	96.6	112.0	118.1	96Q3	126.5	131.4	110.0	138.6	132.8
90	108.4	110.7	101.5	120.9	123.9	96Q4	127.2	132.6	110.6	140.3	134.0
91	110.0	112.5	101.9	111.1	115.2	97Q1	126.7	132.7	110.2	140.9	134.4
92	113.0	115.1	102.8	111.6	113.3	97Q2	125.0	131.7	108.8	140.3	133.8
93	114.6	117.4	101.2	113.1	111.0	97Q3	125.1	132.5	108.9	141.4	135.0
94	116.2	120.0	102.6	119.4	116.7	97Q4	126.9	134.9	110.6	144.1	137.5
95	119.5	123.9	104.0	129.0	127.2	98Q1	124.2	132.3	108.4	141.2	134.5
96	124.7	129.5	108.3	136.5	131.5	98Q2	118.0	125.7	103.2	133.4	126.6
97	125.9	132.9	109.6	141.7	135.2	98Q3	122.5	130.1	107.5	136.8	129.0
98	122.4	129.9	107.3	137.0	129.4	98Q4	124.9	131.7	110.2	136.7	127.6

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	100.4	102.2	105.0	104.3	106.1	95Q4	118.1	122.0	101.5	129.1	126.8
87	100.0	100.0	100.0	100.0	100.0	96Q1	118.8	122.7	102.3	130.2	126.8
88	103.1	103.9	98.0	105.0	111.3	96Q2	122.6	126.7	105.8	134.6	130.1
89	104.6	106.3	97.2	113.4	120.0	96Q3	124.2	128.7	107.3	137.0	131.7
90	107.0	108.9	99.8	119.6	122.9	96Q4	124.6	129.7	107.7	138.5	132.8
91	109.0	111.1	100.6	110.7	115.1	97Q1	124.9	130.6	107.9	140.1	134.1
92	111.0	112.5	100.7	109.9	112.2	97Q2	124.0	130.3	106.8	140.3	134.2
93	115.2	117.4	100.8	114.1	112.8	97Q3	124.9	131.9	107.5	142.5	136.4
94	116.1	119.4	102.1	119.9	118.2	97Q4	125.8	133.4	108.3	144.3	138.1
95	118.2	122.1	102.0	128.1	126.7	98Q1	123.5	131.3	106.4	141.8	135.5
96	122.5	126.9	105.7	135.0	130.3	98Q2	116.7	124.0	100.8	133.4	127.1
97	124.9	131.6	107.6	141.8	135.7	98Q3	120.7	127.8	104.9	136.6	129.4
98	120.9	128.1	105.0	137.1	130.0	98Q4	122.9	129.4	107.9	136.6	128.2

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	101.0	102.9	105.4	105.0	106.9	95Q4	117.4	120.9	101.1	129.2	125.2
87	100.0	100.0	100.0	100.0	100.0	96Q1	118.2	121.7	101.9	130.4	125.4
88	104.5	105.3	98.6	106.7	112.7	96Q2	122.3	126.1	105.7	135.3	129.1
89	106.1	108.1	98.2	116.5	121.6	96Q3	124.0	128.1	107.1	137.9	130.9
90	108.1	110.3	100.3	122.6	123.6	96Q4	125.4	130.1	108.1	140.6	133.1
91	111.1	113.3	101.5	114.1	116.9	97Q1	126.6	132.1	108.8	144.1	135.7
92	112.5	113.9	101.0	112.4	112.7	97Q2	126.1	132.9	108.0	144.1	136.7
93	115.4	117.4	101.0	115.0	111.5	97Q3	126.1	132.9	108.0	144.1	136.7
94	116.4	119.3	102.3	121.0	117.3	97Q4	127.9	134.2	109.5	147.3	139.9
95	117.6	121.0	101.6	128.2	125.1	98Q1	128.8	134.4	107.8	147.3	139.8
96	122.4	126.5	105.7	136.0	129.6	98Q2	119.7	126.9	102.0	138.6	131.1
97	127.3	133.8	108.8	146.0	138.5	98Q3	123.4	130.5	105.7	141.6	133.0
98	123.7	130.8	105.9	142.1	133.6	98Q4	124.9	131.3	108.1	140.9	130.8

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

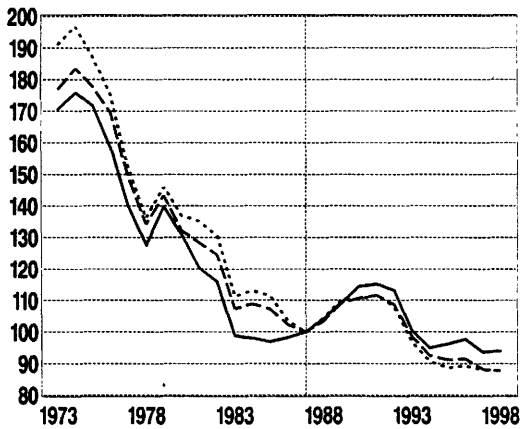
# Spain – peseta

## Nominal Effective Exchange Rate

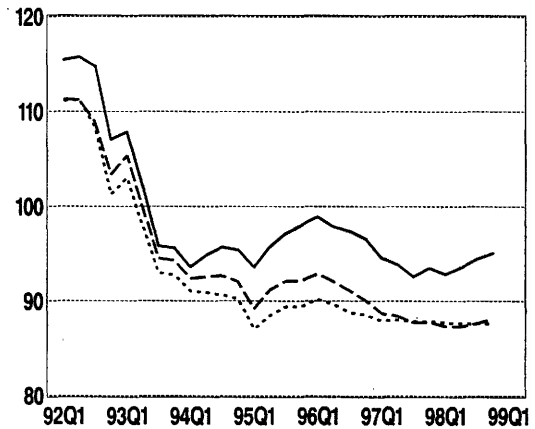
	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	IC23	Relative to EUR15	to ERM	IC23	Relative to EUR15	to ERM	IC23	Relative to EUR15	to ERM		
86	98.3	102.2	103.4	95Q4	98.1	92.2	89.4	DEC97	-0.4	-0.2	-0.1
87	100.0	100.0	100.0	96Q1	98.9	92.9	90.2	JAN98	-0.5	-0.2	-0.1
88	104.2	103.4	104.6	96Q2	97.9	92.0	89.6	FEB98	-0.0	0.1	-0.1
89	109.1	109.1	110.0	96Q3	97.4	91.1	88.8	MAR98	-0.1	-0.3	-0.0
90	114.4	110.7	110.3	96Q4	96.6	90.1	88.5	APR98	0.2	-0.1	-0.1
91	115.2	111.6	111.6	97Q1	94.6	88.7	87.9	MAY98	0.9	0.5	-0.1
92	113.2	108.6	107.9	97Q2	93.9	88.4	88.0	JUN98	0.1	-0.1	0.0
93	100.2	98.4	96.6	97Q3	92.6	87.7	87.9	JUL98	0.0	0.2	0.0
94	94.9	92.4	90.7	97Q4	93.5	87.8	87.8	AUG98	0.5	0.0	0.0
95	96.1	91.1	88.6	98Q1	92.6	87.3	87.7	SEP98	0.8	0.3	0.0
96	97.7	91.5	89.3	98Q2	93.6	87.3	87.7	OCT98	0.4	0.4	-0.0
97	93.6	88.1	87.9	98Q3	94.5	87.6	87.7	NOV98	-0.6	-0.2	-0.1
98	94.0	87.6	87.7	98Q4	95.1	88.1	87.6	DEC98	0.0	0.0	-0.0

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

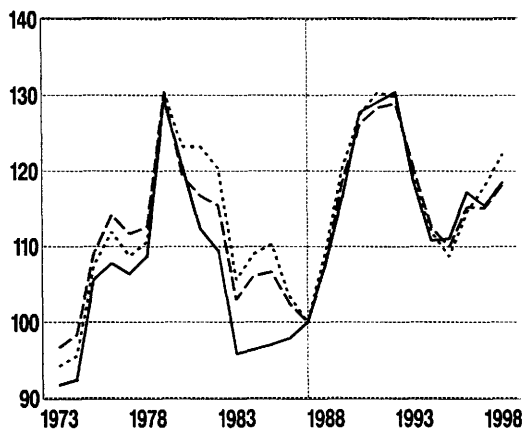


Quarterly figures (index 1987=100)

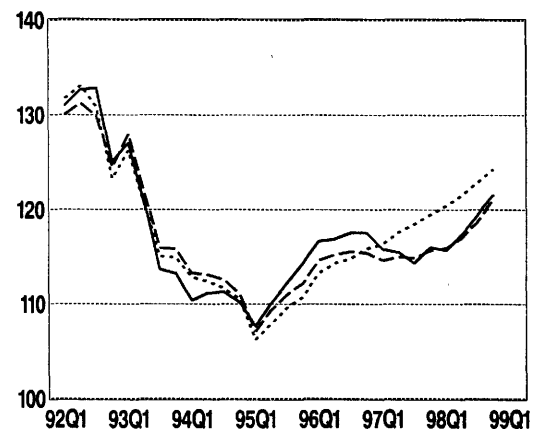


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Spain – peseta

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	97.0	97.0	97.3	97.1	97.9	95Q4	108.0	109.9	106.0	110.1	114.3
87	100.0	100.0	100.0	100.0	100.0	96Q1	109.0	111.0	107.1	111.3	116.7
88	104.8	105.1	103.7	106.2	107.4	96Q2	107.9	109.8	106.2	110.4	116.9
89	111.2	112.2	107.6	112.7	116.5	96Q3	107.4	109.3	106.0	109.9	117.6
90	117.9	119.8	113.0	121.7	127.7	96Q4	106.5	108.3	105.5	109.0	117.5
91	119.5	122.4	114.2	124.6	129.1	97Q1	104.3	106.0	103.9	106.7	115.8
92	119.6	123.3	115.2	126.6	130.4	97Q2	103.5	105.1	103.6	105.7	115.5
93	107.5	109.8	104.6	114.1	118.6	97Q3	102.0	103.5	102.6	104.1	114.3
94	103.1	104.9	101.1	107.1	110.8	97Q4	103.1	104.6	104.0	105.1	116.0
95	105.6	107.5	103.6	107.8	111.0	98Q1	102.5	103.8	103.5	104.3	115.7
96	107.7	109.6	106.2	110.2	117.2	98Q2	103.4	104.7	104.3	105.2	117.3
97	103.2	104.8	103.5	105.4	115.4	98Q3	104.6	105.9	105.0	106.4	119.4
98	104.0	105.4	104.5	105.8	118.5	98Q4	105.6	106.9	105.2	107.5	121.5

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	99.6	99.9	99.7	99.9	102.4	95Q4	105.7	107.1	102.8	108.1	112.2
87	100.0	100.0	100.0	100.0	100.0	96Q1	106.7	108.2	104.0	109.3	114.6
88	105.0	105.2	103.9	106.5	107.6	96Q2	105.9	107.4	103.5	108.7	115.2
89	112.8	113.5	108.5	114.2	118.8	96Q3	104.9	106.4	102.9	107.9	115.5
90	116.2	117.5	110.8	119.8	126.2	96Q4	103.9	105.3	102.3	106.8	115.4
91	118.3	120.6	112.3	123.5	128.3	97Q1	102.4	103.8	101.3	105.4	114.6
92	117.5	120.5	112.4	124.4	128.9	97Q2	102.3	103.5	101.5	105.2	115.0
93	108.3	110.0	103.9	115.0	120.3	97Q3	101.7	102.8	101.2	104.5	114.8
94	103.4	104.7	100.3	107.9	112.5	97Q4	101.9	103.0	101.6	104.7	115.7
95	104.0	105.4	101.0	106.6	109.9	98Q1	101.6	102.6	101.4	104.4	115.9
96	105.3	106.8	103.2	108.2	115.2	98Q2	101.9	102.8	101.6	104.7	117.0
97	102.1	103.3	101.4	104.9	115.0	98Q3	102.5	103.4	101.9	105.4	118.7
98	102.4	103.3	101.8	105.2	118.2	98Q4	103.4	104.3	102.3	106.4	121.1

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	100.4	100.7	100.2	100.7	103.3	95Q4	105.1	106.2	102.4	108.4	110.8
87	100.0	100.0	100.0	100.0	100.0	96Q1	106.1	107.0	103.6	109.7	113.3
88	106.6	106.9	104.8	108.6	109.1	96Q2	105.7	106.9	103.4	109.5	114.3
89	114.7	115.8	109.8	117.9	120.6	96Q3	104.8	106.1	102.8	108.8	114.8
90	117.7	119.4	111.1	123.4	127.4	96Q4	104.6	106.8	102.4	108.8	115.9
91	121.1	123.5	113.5	128.2	130.4	97Q1	104.1	105.9	102.4	108.3	116.0
92	119.4	122.4	113.1	128.0	129.7	97Q2	104.4	105.9	102.8	108.3	117.0
93	108.8	110.2	104.3	116.5	119.1	97Q3	104.5	105.4	102.9	108.8	118.0
94	103.8	104.9	100.7	109.5	111.9	97Q4	104.7	105.6	103.1	109.0	119.5
95	103.5	104.5	100.7	107.0	108.6	98Q1	104.8	105.6	103.1	109.2	120.4
96	105.3	106.5	103.1	109.2	114.6	98Q2	105.0	105.8	103.1	109.6	121.5
97	104.4	105.4	102.8	108.7	118.0	98Q3	105.3	106.1	103.0	110.1	122.9
98	105.1	105.9	103.0	109.9	122.3	98Q4	105.5	106.4	102.7	110.7	124.3

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

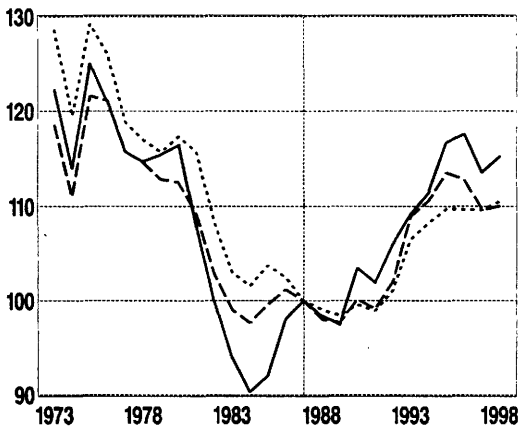
# France – franc

## Nominal Effective Exchange Rate

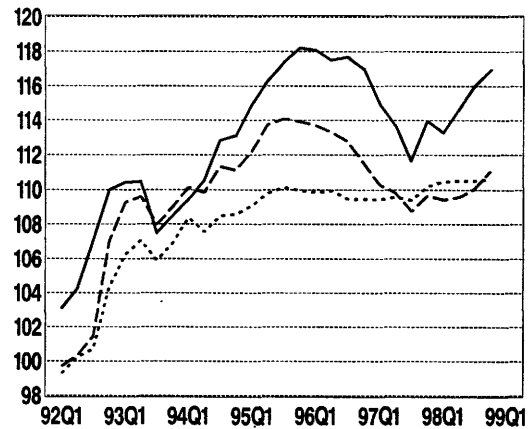
	Annual figures index (1987=100)				Quarterly figures index (1987=100)				Monthly figures monthly % change		
	IC23	Relative to EUR15	to ERM		IC23	Relative to EUR15	to ERM		IC23	Relative to EUR15	to ERM
86	98.1	101.2	102.5	95Q4	118.2	113.9	109.9	DEC97	-0.3	-0.1	0.0
87	100.0	100.0	100.0	96Q1	118.1	113.7	109.8	JAN98	-0.4	0.0	0.2
88	98.4	98.0	99.1	96Q2	117.5	113.3	109.9	FEB98	-0.2	0.0	-0.0
89	97.4	97.7	98.4	96Q3	117.7	112.8	109.5	MAR98	-0.1	-0.4	0.0
90	103.5	100.1	99.6	96Q4	117.0	111.5	109.5	APR98	0.5	0.1	0.1
91	101.9	99.1	98.9	97Q1	115.0	110.3	109.4	MAY98	1.2	0.6	-0.1
92	106.1	102.1	101.1	97Q2	113.7	109.8	109.6	JUN98	0.0	-0.2	-0.0
93	109.2	109.0	106.5	97Q3	111.6	108.8	109.4	JUL98	0.0	0.0	0.0
94	111.5	110.6	108.2	97Q4	113.9	109.6	110.2	AUG98	0.7	0.3	0.0
95	116.7	113.5	109.7	98Q1	113.3	109.4	110.5	SEP98	0.9	0.4	0.1
96	117.6	112.8	109.7	98Q2	114.6	109.6	110.5	OCT98	-0.4	0.6	0.0
97	113.6	109.8	109.6	98Q3	116.0	110.0	110.5	NOV98	-0.7	-0.1	-0.0
98	115.2	110.0	110.5	98Q4	116.9	111.1	110.6	DEC98	0.0	0.1	0.0

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

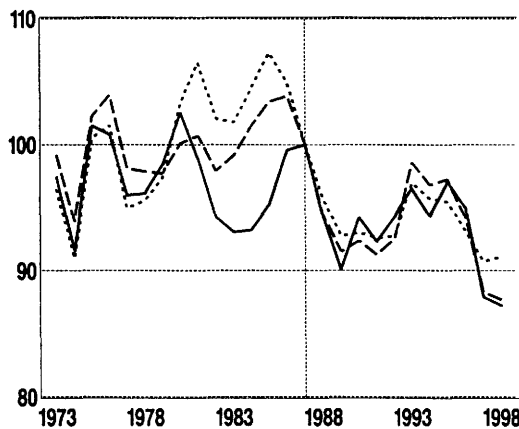


Quarterly figures (index 1987=100)

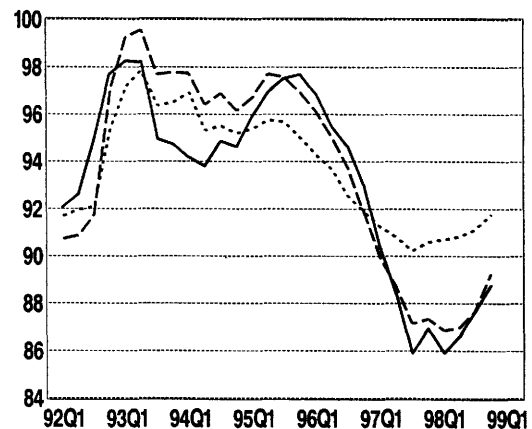


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# France – franc

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	98.6	99.1	99.4	100.6	99.6	95Q4	101.0	101.1	101.1	100.9	97.7
87	100.0	100.0	100.0	100.0	100.0	96Q1	100.7	100.7	100.6	100.7	96.8
88	97.1	96.9	98.0	95.6	94.2	96Q2	100.0	99.8	100.0	100.1	95.5
89	94.6	94.1	96.7	92.0	90.1	96Q3	99.9	99.6	100.3	99.9	94.6
90	98.1	97.7	99.7	95.3	94.2	96Q4	99.0	98.7	99.9	98.9	93.0
91	94.4	94.2	97.3	91.6	92.3	97Q1	96.9	96.7	98.5	96.8	90.3
92	96.0	95.7	98.6	93.1	94.3	97Q2	95.4	95.4	97.8	95.3	88.4
93	97.0	97.3	97.3	95.8	96.5	97Q3	93.3	93.4	96.3	93.1	85.9
94	97.5	97.7	99.3	96.0	94.4	97Q4	94.8	95.1	98.6	94.7	86.9
95	100.2	100.5	101.0	99.7	97.0	98Q1	93.9	94.2	98.2	93.9	85.9
96	99.9	99.7	100.2	99.9	95.0	98Q2	94.6	95.1	99.4	94.9	86.6
97	95.1	95.1	97.8	95.0	87.9	98Q3	95.5	95.9	100.4	96.1	87.7
98	95.0	95.4	99.7	95.5	87.2	98Q4	96.2	96.3	100.8	97.2	88.7

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	101.1	101.8	101.7	103.3	103.9	95Q4	99.5	99.1	97.9	100.0	96.9
87	100.0	100.0	100.0	100.0	100.0	96Q1	99.1	98.6	97.7	99.8	96.1
88	97.3	96.9	98.2	95.8	94.4	96Q2	98.7	98.0	97.4	99.4	95.0
89	95.7	94.9	97.4	93.0	91.5	96Q3	98.0	97.3	97.2	98.7	93.7
90	96.0	95.1	97.2	93.0	92.4	96Q4	96.7	96.0	96.5	97.5	91.8
91	92.9	92.3	95.4	90.1	91.3	97Q1	95.4	94.8	95.8	96.2	89.9
92	93.5	92.7	95.7	90.5	92.5	97Q2	94.7	94.2	95.7	95.5	88.7
93	97.9	97.7	96.9	96.8	98.6	97Q3	93.5	93.2	95.2	94.5	87.2
94	98.3	98.1	98.9	97.3	96.8	97Q4	94.0	93.8	96.3	95.1	87.3
95	99.5	99.2	98.6	99.6	97.2	98Q1	93.5	93.4	96.4	94.9	86.9
96	98.1	97.5	97.2	98.8	94.1	98Q2	93.4	93.3	96.8	95.2	87.0
97	94.4	94.0	95.8	95.3	88.3	98Q3	93.6	93.5	97.3	95.8	87.7
98	93.7	93.6	97.1	95.8	87.7	98Q4	94.3	94.0	98.1	97.1	89.2

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	101.9	102.7	102.2	104.3	105.0	95Q4	98.3	97.5	97.2	99.7	95.0
87	100.0	100.0	100.0	100.0	100.0	96Q1	98.1	97.2	97.0	99.7	94.9
88	98.8	98.6	99.1	97.7	95.7	96Q2	98.1	97.0	97.1	99.8	93.7
89	97.4	96.9	98.5	96.1	92.8	96Q3	97.5	96.4	96.8	99.3	92.6
90	97.2	96.5	97.8	95.9	93.0	96Q4	97.3	96.3	96.9	99.2	91.9
91	95.1	94.4	96.4	93.6	92.6	97Q1	97.1	96.1	97.0	99.1	91.2
92	94.9	93.9	96.0	92.9	92.8	97Q2	96.9	96.1	97.2	99.1	90.8
93	98.2	97.5	97.1	97.6	97.0	97Q3	96.5	95.9	97.1	98.9	90.2
94	98.4	97.8	99.3	98.4	95.7	97Q4	96.9	96.4	97.9	99.7	90.6
95	98.5	97.8	97.9	99.5	95.5	98Q1	96.9	96.5	98.2	100.1	90.7
96	97.7	96.7	96.9	99.5	93.1	98Q2	96.7	96.4	98.3	100.4	90.8
97	96.8	96.1	97.3	99.2	90.7	98Q3	96.5	96.2	98.4	100.9	91.1
98	96.6	96.3	98.3	100.7	91.1	98Q4	96.3	95.9	98.5	101.6	91.8

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

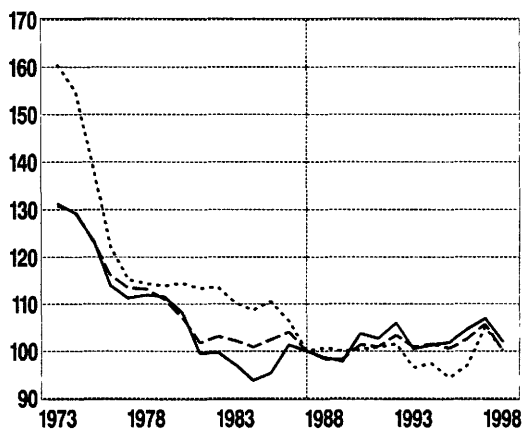
# Ireland – pound

## Nominal Effective Exchange Rate

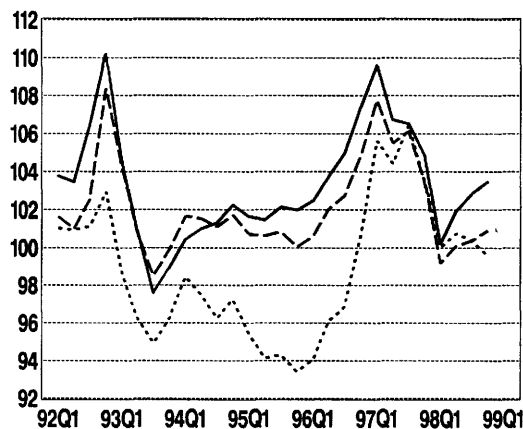
	Annual figures index (1987=100)				Quarterly figures index (1987=100)				Monthly figures monthly % change		
	IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM
86	101.3	104.0	106.3	95Q4	102.0	100.0	93.4	DEC97	-0.7	-0.5	-0.3
87	100.0	100.0	100.0	96Q1	102.5	100.6	94.0	JAN98	-3.7	-3.4	-3.1
88	98.6	98.4	100.7	96Q2	103.7	102.0	96.1	FEB98	-0.8	-0.6	-0.6
89	97.8	98.3	99.9	96Q3	105.0	102.8	96.8	MAR98	-0.3	-0.0	0.1
90	103.6	101.3	100.4	96Q4	107.4	104.8	100.7	APR98	-1.7	0.9	-0.9
91	102.6	100.9	100.7	97Q1	109.6	107.8	105.6	MAY98	-1.5	1.1	-0.1
92	105.9	103.3	101.5	97Q2	106.7	105.5	104.4	JUN98	-0.1	-0.3	-0.1
93	100.5	100.8	96.7	97Q3	106.5	106.1	106.4	JUL98	-0.2	0.2	-0.2
94	101.2	101.5	97.4	97Q4	104.8	103.4	103.5	AUG98	0.9	0.6	-0.4
95	101.8	100.6	94.3	98Q1	100.2	99.2	100.0	SEP98	0.5	0.4	-0.2
96	104.6	102.5	96.9	98Q2	101.9	100.1	100.8	OCT98	-1.0	-0.5	-0.3
97	106.9	105.7	105.0	98Q3	102.8	100.4	100.4	NOV98	-0.0	-0.0	-0.1
98	102.1	100.1	100.2	98Q4	103.4	100.9	99.6	DEC98	-0.0	-0.0	-0.1

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

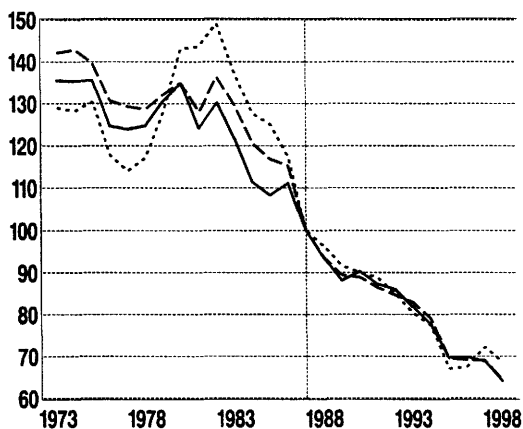


Quarterly figures (index 1987=100)

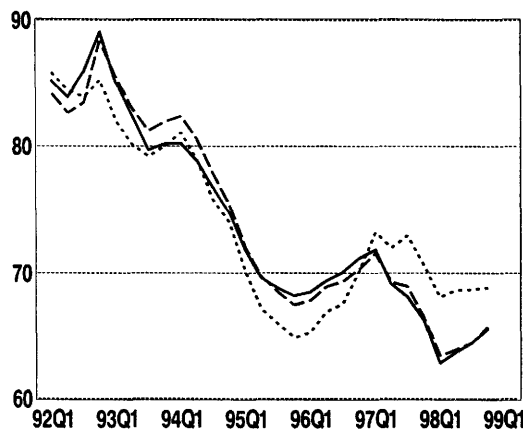


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Ireland – pound

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	102.6	103.1	102.0	104.1	111.1	95Q4	91.6	88.6	93.7	79.5	68.2
87	100.0	100.0	100.0	100.0	100.0	96Q1	91.8	88.9	93.7	79.5	68.5
88	98.6	97.6	101.8	97.5	93.5	96Q2	92.6	90.0	94.4	80.2	69.4
89	96.9	96.8	102.5	92.3	88.1	96Q3	93.4	91.0	95.3	80.9	70.1
90	99.5	97.0	98.1	92.9	90.3	96Q4	95.1	93.1	97.6	82.3	71.2
91	96.0	92.8	95.7	88.6	87.3	97Q1	96.7	95.0	99.9	83.5	71.9
92	97.6	94.4	96.2	90.9	86.0	97Q2	93.8	92.6	97.8	80.7	69.1
93	91.1	90.7	94.3	87.4	81.8	97Q3	93.4	92.5	98.3	80.0	68.1
94	91.8	90.4	94.3	85.5	77.6	97Q4	91.9	91.3	97.6	78.3	66.3
95	91.8	88.9	94.0	80.6	69.6	98Q1	88.0	87.5	94.2	74.5	62.8
96	93.2	90.7	95.2	80.7	69.8	98Q2	89.9	89.5	96.8	75.5	63.7
97	93.9	92.8	98.4	80.6	68.8	98Q3	91.5	90.8	98.8	76.1	64.4
98	90.6	89.9	97.5	75.7	64.1	98Q4	93.1	92.0	100.5	76.6	65.5

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	104.8	105.6	104.0	106.4	115.2	95Q4	90.3	87.0	91.1	78.6	67.4
87	100.0	100.0	100.0	100.0	100.0	96Q1	90.5	87.4	91.3	78.7	67.8
88	98.8	97.6	102.1	97.7	93.6	96Q2	91.6	88.6	92.3	79.5	68.9
89	98.0	97.6	103.3	93.1	89.3	96Q3	91.9	89.2	92.9	79.8	69.3
90	97.9	95.0	98.3	91.1	88.9	96Q4	93.4	91.1	94.8	81.1	70.3
91	95.0	91.4	94.3	87.4	86.4	97Q1	95.7	93.7	97.8	83.0	71.6
92	95.7	92.1	94.0	88.7	84.6	97Q2	93.4	91.9	96.2	80.8	69.3
93	91.7	91.0	94.0	87.8	82.9	97Q3	93.8	92.6	97.5	80.9	68.9
94	92.3	90.6	93.8	86.2	79.0	97Q4	91.4	90.5	95.8	78.6	66.5
95	91.0	87.9	92.0	80.3	69.4	98Q1	87.9	87.1	92.8	75.1	63.4
96	91.8	89.1	92.8	79.8	69.1	98Q2	89.1	88.3	94.7	75.6	63.9
97	93.6	92.2	96.8	80.8	69.1	98Q3	90.1	89.1	96.2	75.8	64.4
98	89.7	88.7	95.4	75.7	64.4	98Q4	91.6	90.2	98.0	76.3	65.7

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	106.3	107.0	104.9	108.1	117.4	95Q4	88.5	84.7	90.1	78.3	64.8
87	100.0	100.0	100.0	100.0	100.0	96Q1	88.9	85.3	90.4	78.6	65.3
88	102.0	101.1	103.8	101.9	96.2	96Q2	90.6	87.2	92.0	80.1	66.9
89	101.5	101.8	105.9	99.4	91.6	96Q3	91.0	88.0	92.4	80.6	67.5
90	100.4	97.9	97.5	96.8	90.0	96Q4	94.4	91.0	95.8	83.6	70.1
91	99.5	95.8	96.5	94.3	88.8	97Q1	98.7	96.2	100.4	87.5	73.2
92	98.7	94.8	94.7	93.7	84.8	97Q2	97.4	95.5	99.2	86.3	72.0
93	92.2	91.0	94.8	89.6	80.3	97Q3	97.4	95.5	101.3	87.7	73.0
94	92.8	90.5	94.8	88.3	77.4	97Q4	96.5	95.1	98.9	85.5	70.6
95	89.6	85.9	91.2	80.4	67.4	98Q1	93.5	92.3	96.2	82.5	68.1
96	91.2	88.0	92.7	80.7	67.4	98Q2	94.7	93.6	97.7	83.0	68.6
97	97.9	96.0	99.9	86.7	72.2	98Q3	95.1	93.8	98.5	82.9	68.7
98	94.7	93.4	97.9	82.7	68.6	98Q4	95.4	93.8	99.2	82.6	68.8

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry



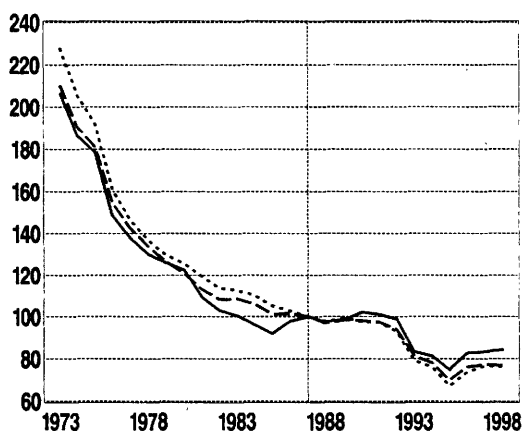
# Italy – lira

## Nominal Effective Exchange Rate

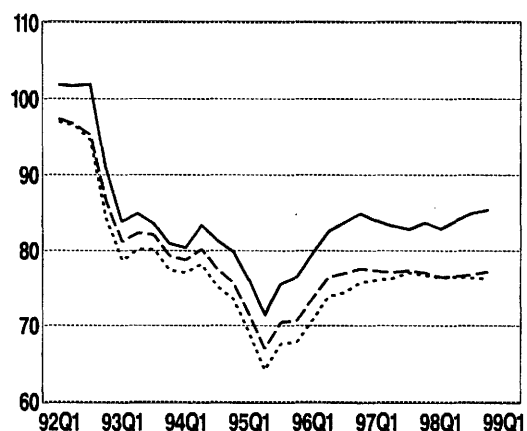
	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM		
86	97.8	101.4	102.6	95Q4	76.5	70.6	67.8	DEC97	-0.3	-0.1	0.0
87	100.0	100.0	100.0	96Q1	79.6	73.6	70.7	JAN98	-0.8	-0.5	-0.3
88	97.5	96.8	97.7	96Q2	82.5	76.4	73.8	FEB98	-0.4	-0.2	-0.2
89	98.5	98.3	99.0	96Q3	83.7	76.9	74.4	MAR98	0.3	0.0	-0.3
90	102.1	98.1	97.5	96Q4	84.9	77.6	75.7	APR98	0.3	-0.3	-0.2
91	101.1	97.4	97.2	97Q1	83.9	77.2	76.1	MAY98	1.3	0.7	0.2
92	98.9	93.8	92.9	97Q2	83.2	77.0	76.2	JUN98	0.2	-0.1	0.0
93	83.3	81.2	79.1	97Q3	82.8	77.3	77.0	JUL98	-0.1	-0.1	-0.1
94	81.2	78.0	76.0	97Q4	83.7	77.0	76.7	AUG98	0.6	0.2	-0.0
95	74.8	69.8	67.1	98Q1	82.9	76.4	76.4	SEP98	0.9	0.3	-0.1
96	82.7	76.1	73.6	98Q2	83.9	76.5	76.4	OCT98	0.3	0.4	-0.1
97	83.4	77.1	76.5	98Q3	84.9	76.8	76.3	NOV98	-0.8	-0.2	-0.1
98	84.3	76.7	76.3	98Q4	85.4	77.1	76.2	DEC98	0.0	0.0	-0.1

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

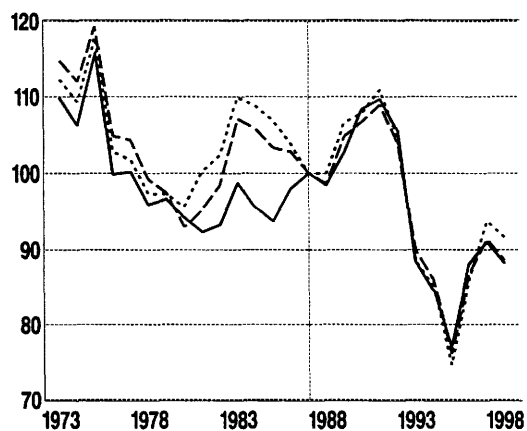


Quarterly figures (index 1987=100)

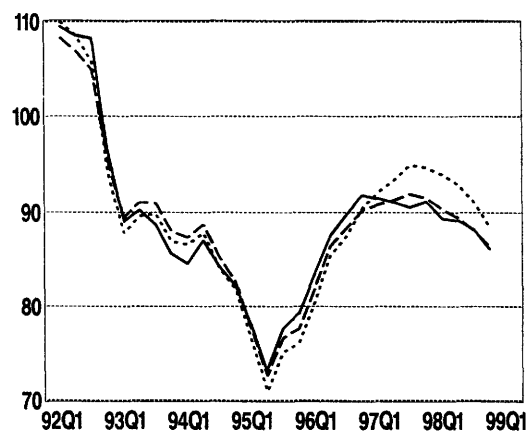


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Italy – lira

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	96.3	95.6	97.6	96.4	98.0	95Q4	86.7	86.4	94.6	80.7	79.3
87	100.0	100.0	100.0	100.0	100.0	96Q1	90.6	90.5	98.4	85.0	83.5
88	99.5	100.0	97.6	99.8	98.5	96Q2	94.0	94.3	101.4	89.1	87.5
89	102.2	102.5	100.3	102.7	102.7	96Q3	95.4	96.0	102.2	91.2	89.7
90	107.1	108.9	105.6	110.3	108.3	96Q4	96.6	97.4	103.2	93.0	91.8
91	107.7	110.6	106.2	112.1	109.6	97Q1	95.4	96.3	101.7	92.3	91.5
92	106.4	108.3	105.1	109.1	105.5	97Q2	94.4	95.3	100.7	91.5	91.0
93	90.7	91.7	95.7	90.5	88.4	97Q3	93.7	94.6	99.9	90.7	90.5
94	89.1	89.3	92.6	86.3	84.5	97Q4	94.7	95.5	100.9	91.1	91.1
95	84.1	83.7	90.9	78.4	77.0	98Q1	93.7	94.5	99.8	89.3	89.4
96	94.1	94.5	101.3	89.5	88.1	98Q2	94.9	95.8	101.0	89.3	89.1
97	94.6	95.5	100.8	91.4	91.0	98Q3	96.2	97.2	102.0	88.8	88.2
98	95.5	96.4	101.3	88.7	88.2	98Q4	97.1	98.3	102.3	87.5	86.2

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	98.9	98.6	100.2	99.2	102.8	95Q4	84.5	83.7	91.1	78.9	77.6
87	100.0	100.0	100.0	100.0	100.0	96Q1	88.3	87.9	95.0	83.2	81.9
88	99.6	100.0	97.9	100.1	98.6	96Q2	92.0	92.0	98.5	87.6	86.4
89	103.5	103.6	101.1	104.2	104.8	96Q3	92.9	93.1	98.9	89.4	88.3
90	105.0	106.3	103.0	108.2	106.7	96Q4	93.8	94.2	99.4	91.0	90.2
91	106.2	108.5	104.2	111.0	108.9	97Q1	93.5	94.0	98.8	91.3	90.8
92	103.7	105.0	102.0	106.5	103.7	97Q2	93.4	93.9	98.4	91.4	91.3
93	91.2	91.6	95.0	91.1	89.9	97Q3	93.8	94.3	98.7	91.8	91.9
94	89.1	88.9	91.8	86.8	86.0	97Q4	93.5	94.0	98.4	91.2	91.5
95	82.5	81.6	88.2	77.2	76.1	98Q1	93.0	93.4	97.7	89.9	90.3
96	91.7	91.8	97.9	87.8	86.7	98Q2	93.3	93.8	98.0	89.1	89.4
97	93.5	94.0	98.6	91.4	91.4	98Q3	93.9	94.5	98.6	88.1	88.1
98	93.8	94.3	98.5	88.5	88.6	98Q4	94.8	95.6	99.5	86.8	86.4

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	99.6	99.3	100.7	100.0	103.8	95Q4	83.5	82.4	90.5	78.5	76.1
87	100.0	100.0	100.0	100.0	100.0	96Q1	87.5	86.8	94.5	83.1	80.5
88	101.1	101.6	98.6	102.1	100.0	96Q2	91.7	91.3	98.3	88.0	85.4
89	105.4	105.8	102.3	107.7	106.5	96Q3	92.6	92.5	98.6	89.9	87.5
90	106.4	108.0	103.7	111.7	107.8	96Q4	94.4	94.6	99.9	92.5	90.4
91	108.9	111.3	105.5	115.5	110.9	97Q1	95.0	95.3	100.0	93.7	92.1
92	105.5	108.7	102.5	109.6	104.4	97Q2	95.4	95.6	99.8	94.4	93.3
93	91.4	91.5	95.3	91.9	88.5	97Q3	96.5	96.7	100.5	95.6	94.9
94	89.2	88.7	92.0	87.6	85.1	97Q4	96.2	96.4	99.8	95.0	94.6
95	81.7	80.4	87.6	76.9	74.6	98Q1	96.0	96.2	99.4	94.2	93.9
96	91.5	91.2	97.8	88.3	85.9	98Q2	96.3	96.6	99.5	93.3	92.9
97	95.8	96.0	100.0	94.7	93.7	98Q3	96.5	97.0	99.6	93.0	91.2
98	96.4	96.8	99.6	92.4	91.6	98Q4	96.7	97.5	99.8	90.2	88.5

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

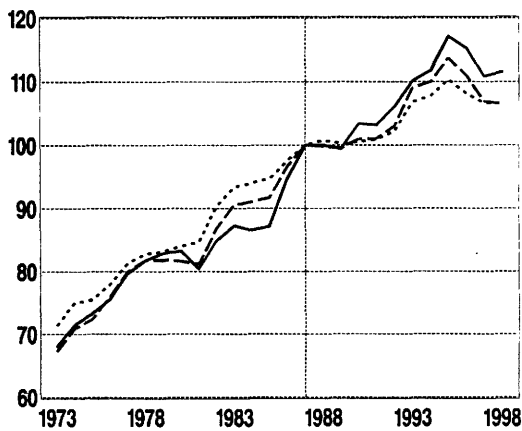
# Netherlands – guilder

## Nominal Effective Exchange Rate

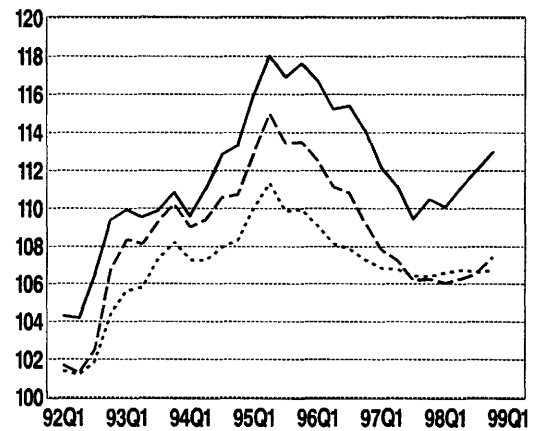
	Annual figures index (1987=100)				Quarterly figures index (1987=100)				Monthly figures monthly % change		
	IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM
86	94.8	96.7	97.6	95Q4	117.6	113.5	109.9	DEC97	-0.2	-0.1	0.0
87	100.0	100.0	100.0	96Q1	116.7	112.5	109.1	JAN98	-0.2	0.0	0.1
88	100.0	99.8	100.0	96Q2	115.2	111.1	108.1	FEB98	-0.1	0.0	0.1
89	99.4	99.5	100.0	96Q3	115.4	110.8	107.9	MAR98	-0.1	-0.3	0.0
90	103.4	101.0	100.5	96Q4	114.1	109.2	107.3	APR98	0.4	0.1	0.2
91	103.2	101.0	100.9	97Q1	112.1	107.8	106.8	MAY98	0.9	0.5	-0.1
92	106.1	103.0	102.2	97Q2	111.2	107.2	106.8	JUN98	-0.0	-0.2	-0.1
93	110.1	109.0	106.7	97Q3	109.5	106.2	106.4	JUL98	-0.0	-0.0	-0.0
94	111.7	109.9	107.7	97Q4	110.5	106.2	106.4	AUG98	0.5	0.2	-0.0
95	117.1	113.7	110.3	98Q1	110.1	106.0	106.6	SEP98	0.7	0.4	0.0
96	115.4	110.9	108.1	98Q2	111.1	106.3	106.7	OCT98	0.5	0.5	0.1
97	110.8	106.9	106.6	98Q3	112.0	106.5	106.6	NOV98	-0.5	-0.1	0.0
98	111.5	106.6	106.7	98Q4	113.0	107.4	106.7	DEC98	0.2	0.1	0.1

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

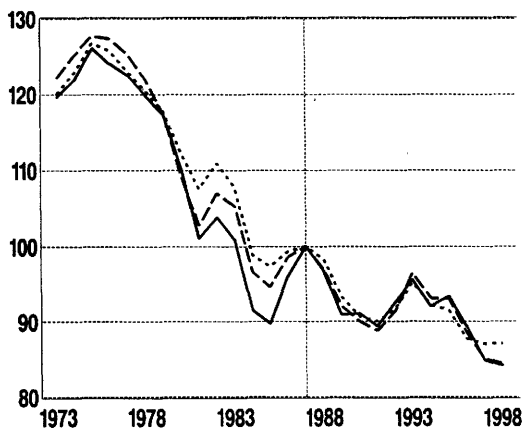


Quarterly figures (index 1987=100)

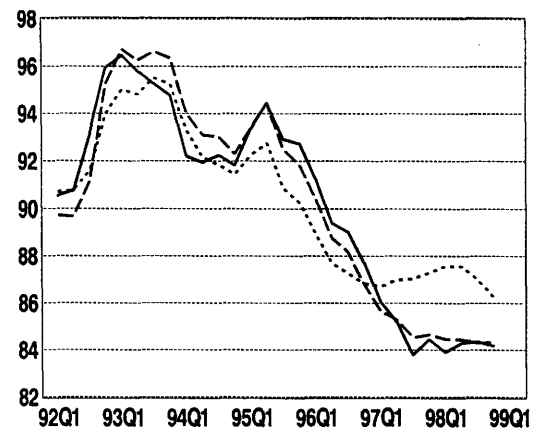


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Netherlands – guilder

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	97.7	99.0	100.3	96.5	96.0	95Q4	99.6	99.4	99.3	97.3	92.7
87	100.0	100.0	100.0	100.0	100.0	96Q1	98.6	98.4	98.4	96.2	91.2
88	97.1	97.4	97.7	97.2	96.8	96Q2	97.1	97.0	97.3	94.7	89.4
89	93.2	93.5	96.5	91.2	90.9	96Q3	97.1	97.1	97.7	94.7	89.0
90	94.5	94.8	98.5	91.2	91.1	96Q4	95.9	96.0	97.2	93.6	87.7
91	92.6	92.6	96.9	89.4	89.4	97Q1	94.2	94.4	96.1	92.0	86.0
92	94.0	93.3	96.7	91.2	92.6	97Q2	93.3	93.7	95.9	91.3	85.2
93	95.8	95.3	96.3	94.1	95.6	97Q3	91.8	92.3	94.9	90.0	83.8
94	96.6	95.9	96.4	93.9	92.1	97Q4	92.7	93.3	96.0	91.0	84.4
95	99.8	97.5	99.4	97.3	93.4	98Q1	92.4	93.0	95.6	90.0	83.9
96	97.2	97.1	97.6	94.8	89.9	98Q2	93.4	93.7	95.9	91.8	84.3
97	93.0	93.4	95.7	91.1	84.9	98Q3	94.4	94.3	95.6	92.6	84.4
98	93.9	94.0	95.4	92.1	84.2	98Q4	95.5	94.8	94.7	93.3	84.2

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	99.2	100.8	101.8	98.1	98.6	95Q4	98.3	97.7	97.0	96.2	91.8
87	100.0	100.0	100.0	100.0	100.0	96Q1	97.2	96.7	96.3	95.1	90.4
88	97.3	97.5	98.0	97.4	97.0	96Q2	95.9	95.5	95.4	93.8	88.8
89	94.0	94.2	97.1	92.0	92.0	96Q3	95.6	95.2	95.6	93.5	88.2
90	93.3	93.3	96.9	89.9	90.0	96Q4	94.2	94.0	94.8	92.3	86.8
91	91.6	91.3	95.7	88.5	88.7	97Q1	93.0	93.0	94.3	91.3	85.7
92	92.4	91.3	94.8	89.5	91.4	97Q2	92.6	92.7	94.4	91.1	85.3
93	96.1	95.0	95.8	94.3	96.5	97Q3	91.8	92.0	94.0	90.6	84.5
94	96.7	95.7	95.8	94.2	93.1	97Q4	92.0	92.3	94.3	91.0	84.6
95	98.9	98.2	97.6	96.7	93.0	98Q1	92.0	92.2	94.2	91.2	84.5
96	95.7	95.4	95.5	93.7	88.5	98Q2	92.4	92.5	94.0	91.6	84.4
97	92.3	92.5	94.3	91.0	85.0	98Q3	93.0	92.6	93.3	92.1	84.3
98	92.9	92.6	93.5	92.0	84.4	98Q4	94.0	93.1	92.7	92.9	84.3

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	99.8	101.3	102.2	98.7	99.3	95Q4	97.4	96.5	96.4	96.0	90.3
87	100.0	100.0	100.0	100.0	100.0	96Q1	98.5	95.6	95.7	95.1	88.9
88	98.7	99.0	98.7	99.3	98.3	96Q2	95.6	94.8	95.1	94.2	87.7
89	95.5	96.0	98.1	94.8	93.3	96Q3	95.3	94.6	95.2	94.0	87.3
90	94.3	94.5	97.4	92.4	90.6	96Q4	94.8	94.3	95.1	93.7	86.8
91	93.6	93.3	96.6	91.7	90.0	97Q1	94.4	94.2	95.2	93.7	86.7
92	93.8	92.5	95.1	91.8	91.8	97Q2	94.5	94.4	95.6	94.1	87.0
93	96.3	94.9	95.9	95.1	95.1	97Q3	94.3	94.3	95.6	94.2	87.0
94	96.9	95.5	96.0	95.1	92.2	97Q4	94.5	94.5	95.6	94.7	87.3
95	98.2	97.1	97.1	96.6	91.5	98Q1	94.9	94.9	95.6	95.4	87.6
96	95.5	94.8	95.3	94.3	87.7	98Q2	95.3	95.1	95.2	95.9	87.6
97	94.4	94.4	95.5	94.2	87.0	98Q3	95.5	94.9	94.1	96.2	87.0
98	95.4	94.9	94.4	96.0	87.1	98Q4	95.8	94.7	92.8	96.5	86.3

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

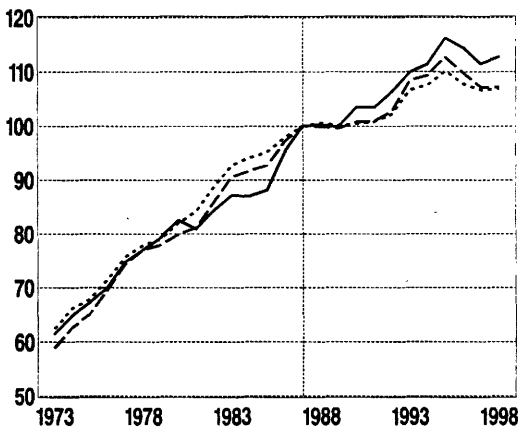
# Austria – schilling

## Nominal Effective Exchange Rate

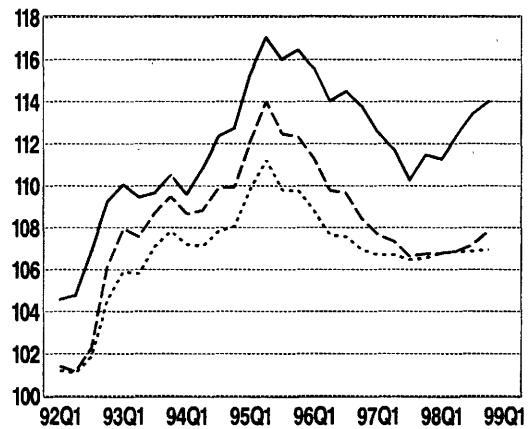
	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	IC23	Relative to EUR15	to ERM	IC23	Relative to EUR15	to ERM	IC23	Relative to EUR15	to ERM		
86	95.3	97.2	97.9	95Q4	116.4	112.3	109.8	DEC97	-0.2	-0.0	0.0
87	100.0	100.0	100.0	96Q1	115.6	111.3	108.8	JAN98	-0.1	0.1	0.2
88	100.2	99.9	100.6	96Q2	114.0	109.8	107.6	FEB98	-0.1	0.1	0.1
89	99.9	99.6	100.1	96Q3	114.5	109.7	107.6	MAR98	0.0	-0.2	0.0
90	103.5	100.8	100.4	96Q4	113.8	108.4	107.0	APR98	0.5	0.0	-0.1
91	103.4	100.9	100.8	97Q1	112.6	107.6	106.7	MAY98	0.8	0.3	-0.0
92	106.3	102.7	102.1	97Q2	111.7	107.3	106.7	JUN98	0.1	-0.1	-0.0
93	109.9	108.4	106.6	97Q3	110.3	106.6	106.5	JUL98	0.1	0.0	0.0
94	111.4	109.3	107.5	97Q4	111.5	106.8	106.9	AUG98	0.5	0.2	0.0
95	116.2	112.7	110.2	98Q1	111.3	106.8	106.8	SEP98	0.6	0.3	0.1
96	114.5	109.8	107.7	98Q2	112.4	106.9	106.9	OCT98	-0.2	-0.4	0.0
97	111.5	107.1	106.6	98Q3	113.4	107.2	106.9	NOV98	-0.5	-0.1	-0.0
98	112.8	107.2	106.9	98Q4	114.0	107.8	107.0	DEC98	0.1	0.1	0.0

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

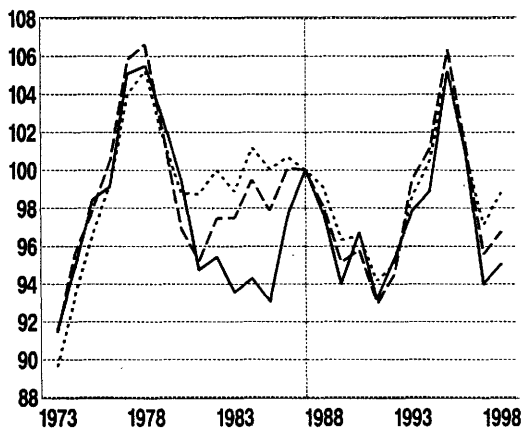


Quarterly figures (index 1987=100)

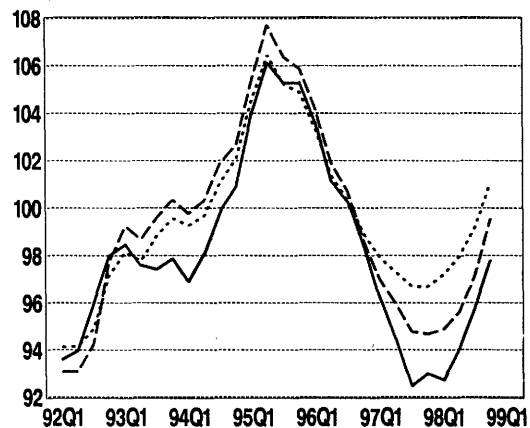


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Austria – schilling

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	97.6	96.6	97.3	96.8	97.6	95Q4	104.6	106.1	104.8	106.7	105.3
87	100.0	100.0	100.0	100.0	100.0	96Q1	104.0	105.1	103.9	105.1	103.6
88	98.5	98.0	99.9	97.8	97.7	96Q2	102.8	103.5	102.5	102.9	101.1
89	96.2	96.0	96.6	95.7	94.0	96Q3	103.3	103.8	102.7	102.5	100.3
90	98.5	98.1	99.7	96.8	96.7	96Q4	102.6	103.0	101.7	101.1	98.4
91	96.4	96.8	98.4	95.8	93.2	97Q1	101.3	101.8	100.2	99.4	96.2
92	98.2	99.2	100.6	98.6	95.4	97Q2	100.3	100.9	99.0	98.1	94.5
93	100.7	101.4	102.6	102.2	97.8	97Q3	98.7	99.5	97.3	96.3	92.5
94	101.7	102.5	103.0	103.7	98.9	97Q4	99.5	100.4	98.1	97.0	93.0
95	104.6	106.2	105.1	107.3	105.2	98Q1	99.1	100.0	97.9	96.6	92.7
96	103.2	103.8	102.7	102.9	100.8	98Q2	99.9	100.8	99.1	97.4	94.0
97	100.0	100.6	98.7	97.7	94.0	98Q3	100.7	101.3	100.5	98.2	95.7
98	100.3	100.9	99.8	97.7	95.0	98Q4	101.3	101.4	102.0	98.8	97.8

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	99.0	98.3	98.8	98.2	100.1	95Q4	104.0	105.0	103.1	106.7	105.9
87	100.0	100.0	100.0	100.0	100.0	96Q1	103.2	103.9	102.3	105.0	104.2
88	98.6	98.1	100.1	98.1	98.1	96Q2	102.1	102.5	101.1	102.9	101.8
89	96.8	98.5	97.0	96.5	95.1	96Q3	102.2	102.4	101.1	102.2	100.7
90	97.1	98.5	98.1	95.7	95.8	96Q4	101.1	101.3	99.7	100.5	98.6
91	95.4	95.5	97.2	95.3	93.0	97Q1	100.4	100.6	98.7	99.4	96.9
92	96.5	97.1	98.7	97.1	94.5	97Q2	100.1	100.3	98.1	98.9	95.9
93	101.3	101.6	102.4	103.0	99.5	97Q3	99.3	99.7	97.1	98.0	94.8
94	102.3	102.8	102.9	104.9	101.2	97Q4	99.3	99.8	97.1	98.0	94.7
95	104.4	105.6	103.9	107.8	106.3	98Q1	99.2	99.7	97.1	98.0	94.9
96	102.2	102.5	101.1	102.7	101.3	98Q2	99.2	99.7	97.6	98.1	95.6
97	99.8	100.1	97.7	98.6	95.6	98Q3	99.5	99.7	98.6	98.6	97.1
98	99.5	99.8	98.4	98.5	96.8	98Q4	100.2	100.0	100.5	99.4	99.6

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	99.5	98.7	99.0	98.8	100.7	95Q4	103.6	104.3	102.8	106.8	104.9
87	100.0	100.0	100.0	100.0	100.0	96Q1	102.9	103.9	102.0	105.2	103.3
88	99.6	99.2	100.6	98.4	99.1	96Q2	102.1	102.2	101.1	103.5	101.3
89	97.9	97.7	97.7	96.6	96.9	96Q3	102.2	102.1	100.9	102.9	100.3
90	98.0	97.5	98.5	97.6	96.9	96Q4	101.7	101.6	100.0	101.8	98.9
91	97.0	97.1	97.9	97.8	94.2	97Q1	101.5	101.4	99.3	101.3	97.9
92	97.7	97.1	99.9	98.8	95.1	97Q2	101.1	101.4	98.8	101.0	97.3
93	101.5	101.5	102.4	103.7	98.6	97Q3	101.2	101.5	98.1	100.7	96.7
94	102.5	102.6	103.0	105.7	100.0	97Q4	101.1	101.4	97.9	100.7	96.7
95	104.0	104.8	103.5	107.8	105.3	98Q1	101.3	101.6	98.1	101.0	97.2
96	102.2	102.3	101.0	103.3	101.0	98Q2	101.3	101.6	98.4	101.2	98.0
97	101.3	101.4	98.5	100.9	97.1	98Q3	101.3	101.3	99.1	101.4	99.2
98	101.3	101.3	99.0	101.3	98.8	98Q4	101.4	101.0	100.5	101.8	101.0

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

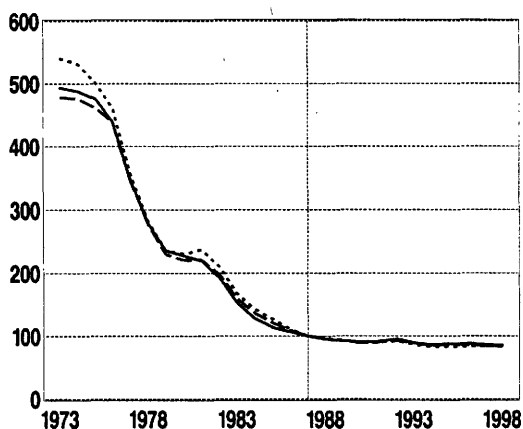
# Portugal – escudo

## Nominal Effective Exchange Rate

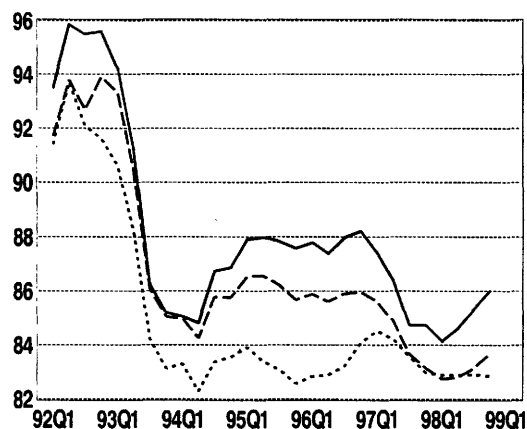
	Annual figures index (1987=100)				Quarterly figures index (1987=100)				Monthly figures monthly % change		
	IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM
86	106.9	109.3	110.9	95Q4	87.6	85.7	82.6	DEC97	-0.3	-0.2	-0.1
87	100.0	100.0	100.0	96Q1	87.8	85.9	82.8	JAN98	-0.3	-0.1	-0.0
88	95.1	94.9	96.0	96Q2	87.4	85.6	82.9	FEB98	-0.1	-0.0	-0.0
89	92.1	92.4	93.2	96Q3	88.0	85.9	83.2	MAR98	-0.2	-0.3	-0.1
90	90.7	89.0	88.5	96Q4	88.2	86.0	84.1	APR98	0.1	-0.1	-0.1
91	91.7	90.2	90.0	97Q1	87.4	85.6	84.5	MAY98	-0.9	0.6	0.0
92	95.1	93.0	92.2	97Q2	86.4	84.9	84.2	JUN98	-0.0	-0.2	0.0
93	89.1	88.7	86.5	97Q3	84.7	83.7	83.6	JUL98	0.1	0.1	0.1
94	85.9	85.2	83.1	97Q4	84.7	83.1	83.0	AUG98	0.4	0.2	-0.0
95	87.8	86.2	83.2	98Q1	84.1	82.7	82.9	SEP98	0.6	0.2	-0.1
96	87.8	85.8	83.2	98Q2	84.6	82.8	82.9	OCT98	0.5	0.5	-0.0
97	85.8	84.3	83.8	98Q3	85.3	83.1	82.9	NOV98	-0.4	-0.1	0.0
98	85.0	83.1	82.9	98Q4	86.0	83.7	82.8	DEC98	0.1	0.1	0.0

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

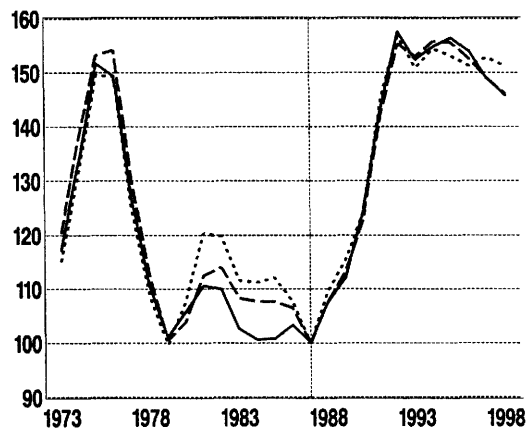


Quarterly figures (index 1987=100)

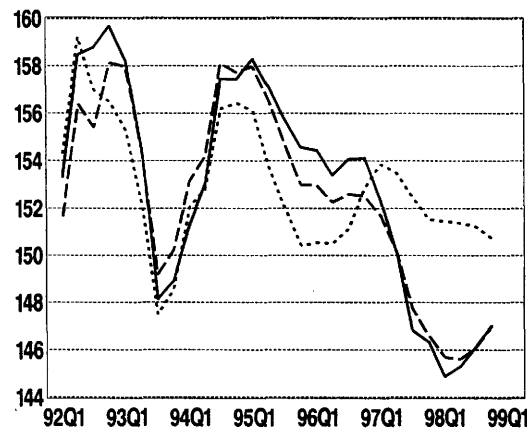


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Portugal – escudo

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	100.6	100.6	97.0	100.8	103.2	95Q4	131.6	133.6	113.0	138.1	154.6
87	100.0	100.0	100.0	100.0	100.0	96Q1	132.2	134.1	111.5	139.1	154.4
88	102.4	101.7	103.5	99.2	107.6	96Q2	131.9	133.6	109.3	139.2	153.4
89	107.2	105.6	105.8	103.3	112.1	96Q3	133.0	134.6	108.9	141.0	154.1
90	113.1	111.8	109.2	111.8	124.6	96Q4	133.4	135.2	108.7	142.4	154.1
91	121.9	120.7	111.2	127.2	143.5	97Q1	132.3	134.4	107.9	142.2	152.3
92	133.1	132.4	113.6	141.3	157.5	97Q2	130.9	133.2	107.1	141.6	150.1
93	128.2	128.1	109.5	135.3	152.4	97Q3	128.4	131.1	105.7	139.9	146.8
94	126.3	127.8	109.6	132.6	154.8	97Q4	128.5	131.6	106.5	140.7	146.3
95	131.3	133.6	114.6	137.7	156.4	98Q1	127.9	131.3	106.5	140.3	144.9
96	132.6	134.4	109.6	140.4	154.0	98Q2	129.0	132.7	107.7	141.6	145.3
97	130.0	132.5	106.8	141.1	148.9	98Q3	130.6	134.5	108.7	142.8	146.1
98	129.9	133.7	108.0	142.1	145.8	98Q4	132.4	136.4	109.2	143.7	147.0

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	102.4	102.7	98.7	102.7	106.5	95Q4	129.8	131.3	110.6	136.4	153.0
87	100.0	100.0	100.0	100.0	100.0	96Q1	130.4	131.8	109.2	137.4	153.0
88	102.5	101.6	103.6	99.4	107.7	96Q2	130.3	131.6	107.3	137.7	152.2
89	108.0	106.3	106.4	104.0	113.2	96Q3	131.0	132.2	106.7	139.2	152.6
90	111.6	109.9	107.6	110.2	123.1	96Q4	131.3	132.7	106.4	140.4	152.5
91	120.6	119.0	109.8	125.7	142.3	97Q1	130.9	132.5	106.0	141.1	151.7
92	130.9	129.6	111.4	138.6	155.4	97Q2	130.0	131.9	105.6	141.1	150.2
93	128.1	127.5	108.7	134.9	152.9	97Q3	128.3	130.5	104.8	140.3	147.7
94	126.1	127.1	108.8	132.4	155.8	97Q4	127.7	130.3	104.9	140.5	146.6
95	130.0	131.7	112.5	136.5	155.5	98Q1	127.4	130.3	105.2	140.6	145.7
96	130.8	132.1	107.4	138.7	152.6	98Q2	127.9	131.1	105.8	141.3	145.6
97	129.2	131.3	105.3	140.7	149.0	98Q3	129.0	132.4	106.5	142.1	146.1
98	128.7	132.0	106.1	141.7	146.1	98Q4	130.6	134.1	107.0	142.9	147.0

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	103.4	103.6	99.3	103.8	107.7	95Q4	128.9	129.9	110.0	136.7	150.4
87	100.0	100.0	100.0	100.0	100.0	96Q1	129.7	130.0	108.7	137.9	150.0
88	104.3	103.5	104.7	101.7	109.6	96Q2	130.1	130.0	107.1	138.9	150.0
89	110.2	106.9	107.9	108.0	115.4	96Q3	130.9	130.0	106.4	140.0	151.1
90	113.4	111.9	108.9	114.1	124.4	96Q4	132.4	130.5	106.3	143.3	153.2
91	124.0	122.3	111.2	131.3	142.4	97Q1	132.4	130.5	107.2	145.5	153.2
92	133.6	132.0	112.0	143.2	152.4	97Q2	133.1	130.4	107.1	146.4	153.2
93	128.7	127.6	109.0	136.6	150.9	97Q3	132.3	130.4	106.7	146.7	153.2
94	126.6	127.1	109.1	134.4	150.4	97Q4	131.6	130.6	106.5	146.9	151.1
95	129.8	130.3	111.9	136.9	151.3	98Q1	131.8	130.5	106.9	147.9	151.1
96	130.8	131.6	107.2	140.1	151.1	98Q2	132.3	130.5	107.4	148.7	151.4
97	132.6	134.3	106.9	146.4	152.8	98Q3	132.9	130.1	107.6	149.2	151.2
98	132.6	135.7	107.3	148.7	151.2	98Q4	133.5	130.9	107.3	149.2	150.7

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry



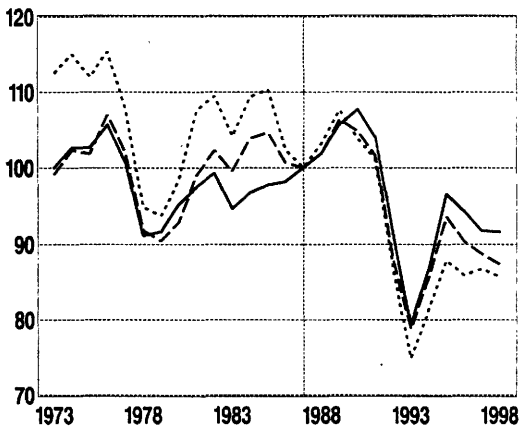
# Finland – markka

## Nominal Effective Exchange Rate

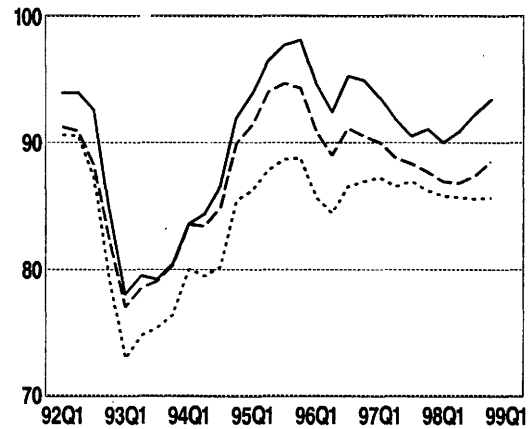
	Annual figures index (1987=100)				Quarterly figures index (1987=100)				Monthly figures monthly % change		
	IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM
86	98.2	100.7	102.3	95Q4	98.1	94.3	88.8	DEC 97	-0.5	-0.3	-0.2
87	100.0	100.0	100.0	96Q1	94.6	90.9	85.7	JAN 98	-0.6	-0.2	-0.1
88	101.9	101.9	103.2	96Q2	92.4	89.0	84.4	FEB 98	-0.3	-0.1	-0.1
89	105.7	106.3	107.6	96Q3	95.2	91.1	86.5	MAR 98	-0.3	-0.6	-0.0
90	107.7	104.9	103.9	96Q4	94.9	90.5	86.9	APR 98	0.4	-0.1	-0.0
91	104.0	101.6	101.1	97Q1	93.6	90.0	87.2	MAY 98	1.3	-0.6	-0.1
92	91.2	88.1	86.8	97Q2	91.8	88.8	86.5	JUN 98	0.2	-0.1	-0.0
93	79.3	78.7	74.9	97Q3	90.5	88.9	87.0	JUL 98	0.0	0.1	-0.0
94	86.6	85.4	81.2	97Q4	91.1	87.7	87.2	AUG 98	0.9	0.4	-0.0
95	96.6	93.6	87.9	98Q1	90.0	86.9	83.8	SEP 98	1.1	0.5	-0.0
96	94.3	90.4	85.9	98Q2	90.9	86.8	83.7	OCT 98	-0.7	0.9	0.1
97	91.7	88.7	86.7	98Q3	92.2	87.3	85.6	NOV 98	-0.8	-0.1	0.0
98	91.6	87.4	85.7	98Q4	93.4	88.5	85.6	DEC 98	0.3	0.2	0.0

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

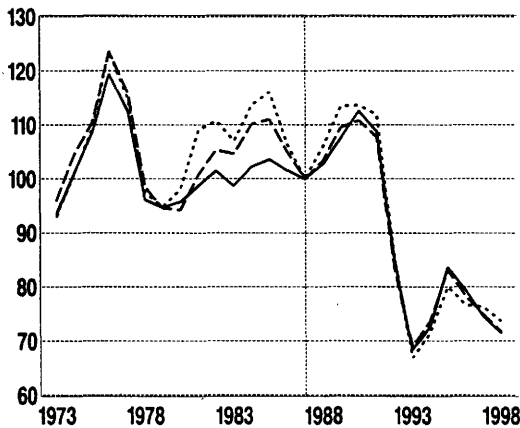


Quarterly figures (index 1987=100)

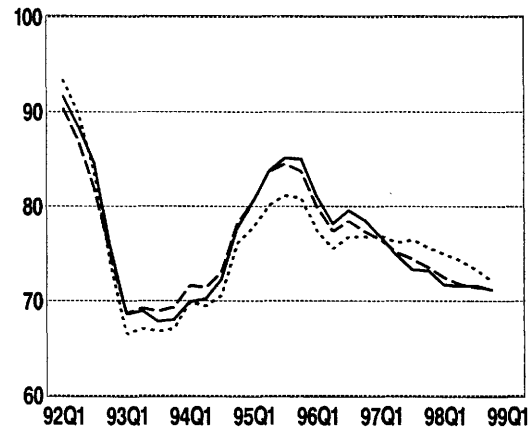


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Finland – markka

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	98.3	97.4	97.1	98.4	101.5	95Q4	94.5	93.2	108.0	88.1	85.0
87	100.0	100.0	100.0	100.0	100.0	96Q1	91.0	89.4	103.4	84.6	81.1
88	102.5	104.6	103.8	103.0	102.8	96Q2	88.8	86.9	100.4	82.2	78.1
89	106.3	109.5	108.3	107.5	107.6	96Q3	91.4	89.3	102.9	84.2	79.6
90	108.9	112.1	109.3	112.5	112.5	96Q4	90.9	89.0	102.3	83.3	78.5
91	105.0	105.5	102.6	111.1	108.8	97Q1	89.3	87.8	100.7	81.4	76.8
92	92.1	89.7	95.8	92.1	84.8	97Q2	87.4	86.3	98.9	79.2	74.9
93	80.4	77.3	86.5	74.7	68.4	97Q3	85.9	85.3	97.7	77.5	73.3
94	86.1	83.2	93.6	79.1	72.5	97Q4	86.2	85.9	98.5	77.5	73.2
95	93.5	92.2	106.2	87.0	83.6	98Q1	85.1	84.9	97.5	76.4	71.7
96	90.5	88.6	102.2	83.6	79.3	98Q2	85.9	85.5	98.6	77.1	71.6
97	87.2	86.3	99.0	78.9	74.5	98Q3	87.3	86.3	100.0	78.6	71.6
98	86.8	85.8	99.2	78.1	71.5	98Q4	88.7	86.5	101.0	80.4	71.2

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	100.1	99.6	99.0	100.3	104.9	95Q4	92.4	90.7	104.1	86.3	83.7
87	100.0	100.0	100.0	100.0	100.0	96Q1	89.0	87.0	99.9	82.9	79.9
88	102.9	104.9	104.2	103.5	103.4	96Q2	87.1	84.9	97.5	80.8	77.4
89	107.7	110.8	109.4	108.9	109.5	96Q3	89.1	86.8	99.5	82.3	78.4
90	107.0	109.8	107.1	110.2	110.8	96Q4	88.4	86.3	98.7	81.3	77.3
91	103.6	103.6	100.8	109.4	107.7	97Q1	87.8	86.0	98.1	80.4	76.5
92	89.9	87.1	93.1	89.6	83.2	97Q2	86.5	85.1	96.9	78.9	75.1
93	80.6	77.1	85.7	74.7	69.0	97Q3	85.9	85.0	96.5	78.1	74.4
94	86.1	82.7	92.5	79.1	73.5	97Q4	85.2	84.5	96.0	77.3	73.5
95	92.2	90.4	103.1	86.0	83.1	98Q1	84.5	83.9	95.4	76.6	72.4
96	88.4	86.2	98.9	81.8	78.3	98Q2	84.4	83.6	95.5	76.7	71.8
97	86.4	85.2	96.9	78.6	74.9	98Q3	85.1	83.6	96.2	77.6	71.4
98	85.1	83.8	96.1	77.6	71.7	98Q4	86.4	83.9	97.5	79.4	71.3

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	101.0	100.5	99.5	101.5	106.3	95Q4	91.3	88.7	102.9	85.8	80.9
87	100.0	100.0	100.0	100.0	100.0	96Q1	88.0	85.2	98.8	82.6	77.4
88	105.2	107.4	105.7	106.5	106.1	96Q2	86.7	83.7	96.7	81.3	75.5
89	110.9	114.7	111.8	114.9	113.5	96Q3	88.8	85.6	98.4	83.0	76.8
90	109.6	112.7	108.2	115.9	113.6	96Q4	89.1	86.1	98.5	83.0	76.8
91	108.1	107.7	102.5	116.5	111.9	97Q1	89.4	86.7	98.5	82.9	76.9
92	92.7	89.2	93.5	93.7	84.7	97Q2	88.6	86.3	97.5	81.9	76.1
93	80.4	76.1	84.8	74.8	66.8	97Q3	88.9	87.1	97.9	82.0	76.4
94	85.8	81.6	91.8	79.5	71.4	97Q4	88.1	86.6	97.1	81.2	75.6
95	90.8	88.1	101.7	85.2	80.0	98Q1	87.7	86.3	96.6	80.9	74.9
96	88.1	85.2	98.1	82.5	76.6	98Q2	87.7	86.0	96.5	81.1	74.3
97	88.7	86.7	97.8	82.0	76.3	98Q3	87.7	85.5	96.4	81.8	73.3
98	87.7	85.6	96.5	81.7	73.7	98Q4	87.9	84.7	96.4	82.9	72.1

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

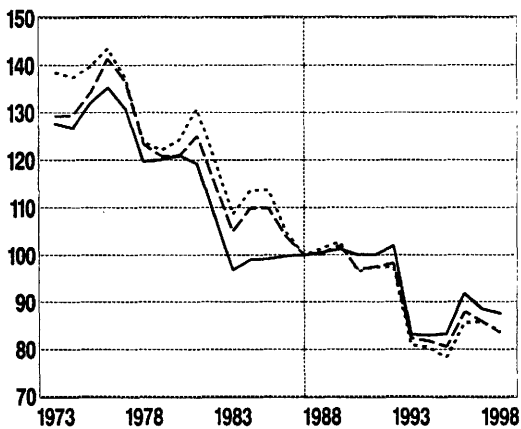
# Sweden – krona

## Nominal Effective Exchange Rate

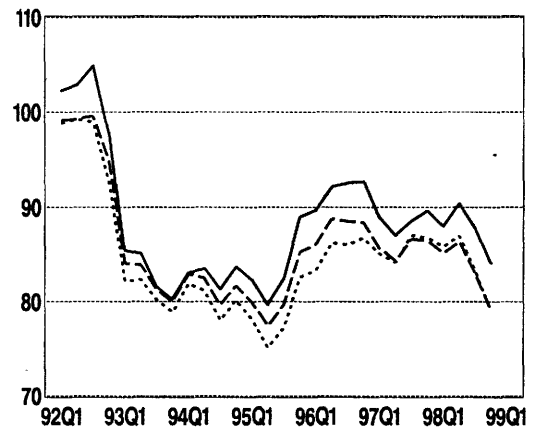
	Annual figures index (1987=100)				Quarterly figures index (1987=100)				Monthly figures monthly % change		
	IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM
86	99.8	103.9	104.9	95Q4	89.0	85.3	82.6	DEC97	-0.5	-0.3	-0.2
87	100.0	100.0	100.0	96Q1	89.7	86.1	83.3	JAN98	-1.2	-0.8	-0.6
88	100.6	100.4	101.4	96Q2	92.2	88.8	86.3	FEB98	-1.1	-0.9	-0.8
89	101.3	102.0	102.8	96Q3	92.6	88.5	86.1	MAR98	2.0	1.8	2.1
90	100.1	96.9	96.5	96Q4	92.7	88.4	86.8	APR98	1.7	1.2	1.2
91	100.1	97.5	97.5	97Q1	88.9	85.7	85.0	MAY98	0.9	0.1	-0.5
92	101.9	98.2	97.4	97Q2	87.0	84.3	84.1	JUN98	-1.6	-2.0	-1.8
93	83.1	82.3	80.9	97Q3	88.5	86.7	87.0	JUL98	-0.7	-0.7	-0.7
94	82.9	81.7	80.3	97Q4	89.6	86.5	86.8	AUG98	-1.5	-2.1	-2.3
95	83.3	80.5	78.2	98Q1	88.0	85.2	85.9	SEP98	-0.9	-1.7	-2.0
96	91.8	87.9	85.6	98Q2	90.4	86.4	87.0	OCT98	-2.6	-2.6	-3.0
97	88.5	85.8	85.7	98Q3	87.9	83.0	83.4	NOV98	-0.2	0.6	0.7
98	87.6	83.4	83.8	98Q4	84.1	79.3	79.2	DEC98	-1.3	-1.5	-1.5

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

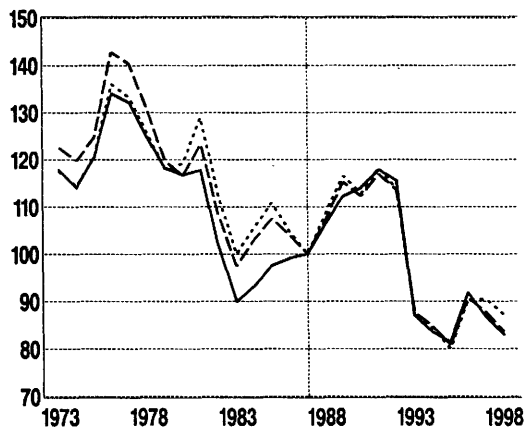


Quarterly figures (index 1987=100)

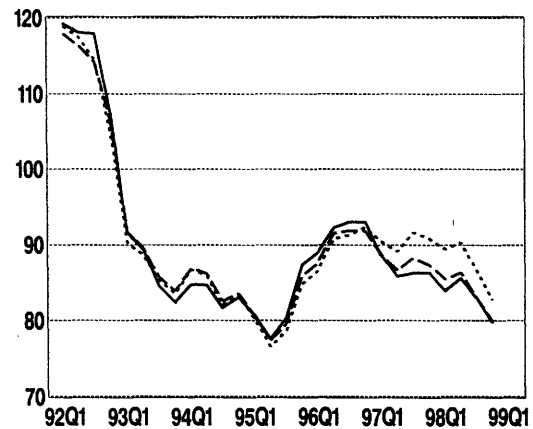


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Sweden – krona

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	98.5	99.4	98.4	100.0	99.1	95Q4	101.8	97.4	101.5	98.9	87.3
87	100.0	100.0	100.0	100.0	100.0	96Q1	102.1	97.7	99.5	100.8	89.0
88	102.5	102.6	103.3	103.5	106.4	96Q2	104.4	99.9	99.3	104.6	92.2
89	105.3	106.4	104.8	111.0	112.3	96Q3	104.5	99.8	97.8	105.7	93.0
90	109.1	109.2	103.7	115.4	114.0	96Q4	104.6	99.7	97.2	106.0	93.0
91	114.7	112.5	104.6	116.9	117.8	97Q1	100.3	95.3	93.3	101.3	88.5
92	114.7	111.7	102.8	115.7	115.5	97Q2	98.3	93.2	92.0	98.7	85.8
93	95.5	90.6	90.2	93.5	86.9	97Q3	100.0	94.8	94.4	99.8	86.3
94	95.2	90.2	91.8	93.0	83.5	97Q4	101.3	95.9	96.4	100.5	86.3
95	95.6	91.4	96.3	92.0	81.4	98Q1	99.4	94.1	95.1	98.4	83.9
96	103.9	99.3	98.4	104.3	91.8	98Q2	101.8	96.5	97.4	101.2	85.5
97	100.0	94.8	94.0	100.0	86.7	98Q3	98.4	93.6	93.4	99.0	83.0
98	98.2	93.4	93.1	98.7	83.0	98Q4	93.4	89.4	87.0	96.1	79.8

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	101.2	102.6	101.2	103.0	103.9	95Q4	99.5	94.4	97.3	96.4	85.9
87	100.0	100.0	100.0	100.0	100.0	96Q1	99.9	94.8	95.6	98.4	87.6
88	103.2	103.0	103.7	104.4	107.4	96Q2	102.6	97.4	96.1	102.6	91.5
89	107.5	108.3	106.5	113.1	115.2	96Q3	102.1	96.8	94.2	103.1	91.9
90	107.4	106.8	101.6	113.0	112.3	96Q4	101.9	96.5	93.4	103.2	91.8
91	113.7	110.6	102.9	115.1	116.9	97Q1	98.9	93.5	90.7	100.0	88.6
92	112.2	108.2	99.5	112.2	113.5	97Q2	97.6	92.0	89.9	98.2	86.6
93	96.0	90.0	89.0	93.1	87.6	97Q3	100.5	94.6	93.2	100.7	88.2
94	95.3	89.5	90.3	92.7	84.8	97Q4	100.5	94.4	93.8	100.3	87.3
95	94.2	89.2	92.9	90.3	80.8	98Q1	99.0	93.0	92.8	98.8	85.4
96	101.6	96.4	94.8	101.8	90.7	98Q2	100.3	94.3	93.9	100.6	86.3
97	99.4	93.6	91.9	99.8	87.7	98Q3	95.9	90.4	89.0	97.5	83.0
98	96.4	90.9	89.5	97.9	83.6	98Q4	90.8	86.0	82.9	94.6	80.0

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	101.9	103.2	101.5	103.7	104.7	95Q4	98.6	93.3	96.8	96.3	84.8
87	100.0	100.0	100.0	100.0	100.0	96Q1	99.0	93.8	95.2	98.4	86.6
88	104.6	104.6	104.4	106.3	108.7	96Q2	102.1	96.7	96.1	103.0	90.8
89	109.1	110.2	107.4	116.3	116.5	96Q3	101.6	96.2	94.1	103.7	91.3
90	108.4	108.1	102.1	115.9	112.8	96Q4	102.5	96.9	94.0	104.9	92.3
91	115.9	112.8	103.9	119.0	118.2	97Q1	100.6	94.9	92.0	102.9	90.4
92	113.7	109.6	99.9	115.0	113.7	97Q2	99.8	94.0	91.5	101.7	89.1
93	96.5	90.4	89.7	94.3	86.9	97Q3	103.5	97.3	95.2	105.0	91.6
94	95.7	89.7	90.9	94.1	84.4	97Q4	103.5	97.1	95.4	104.7	90.8
95	93.5	88.3	92.6	90.6	80.0	98Q1	102.4	96.1	94.6	103.7	89.4
96	101.3	95.9	94.8	102.5	90.2	98Q2	103.6	97.3	95.5	105.6	90.3
97	101.8	95.8	93.5	103.6	90.5	98Q3	98.8	93.1	90.3	102.3	86.6
98	99.3	93.6	90.9	102.5	87.2	98Q4	92.9	88.1	83.7	98.7	82.7

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

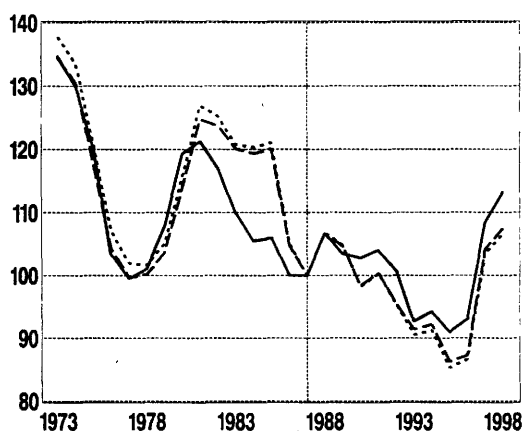
# United Kingdom – pound sterling

## Nominal Effective Exchange Rate

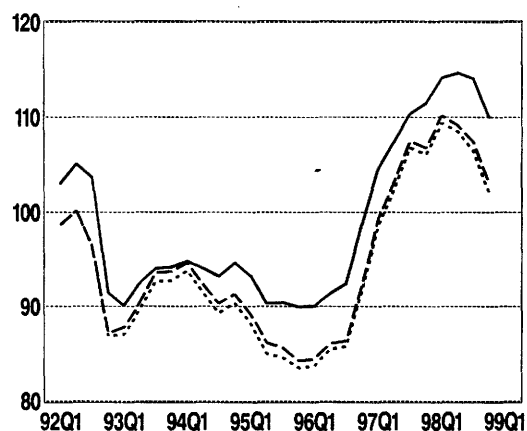
	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM		
86	100.0	104.9	105.2	95Q4	90.0	84.3	83.5	DEC97	0.4	0.8	0.7
87	100.0	100.0	100.0	96Q1	90.1	84.4	83.7	JAN98	0.5	1.1	1.1
88	106.7	106.7	106.8	96Q2	91.3	86.1	85.5	FEB98	0.0	0.3	0.3
89	103.4	104.6	104.6	96Q3	92.4	86.4	85.8	MAR98	2.0	1.9	2.0
90	102.7	98.3	98.1	96Q4	98.8	92.3	91.7	APR98	0.6	-0.0	0.1
91	104.0	100.4	100.2	97Q1	104.5	99.3	98.6	MAY98	-3.1	-4.1	-4.1
92	100.7	95.5	95.4	97Q2	107.4	103.1	102.3	JUN98	1.9	1.7	1.6
93	92.7	91.3	90.5	97Q3	110.3	107.5	106.8	JUL98	-0.1	-0.0	-0.0
94	94.2	92.1	91.2	97Q4	111.5	106.8	106.1	AUG98	-0.5	-1.1	-1.2
95	91.0	86.3	85.3	98Q1	114.2	110.2	109.4	SEP98	-0.9	-1.9	-2.0
96	93.1	87.2	86.6	98Q2	114.7	109.2	108.5	OCT98	-2.6	-2.8	-2.9
97	108.4	104.1	103.4	98Q3	114.1	107.4	106.5	NOV98	-0.3	0.6	0.6
98	113.2	107.4	106.6	98Q4	110.0	103.1	102.0	DEC98	-0.0	-0.1	-0.1

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

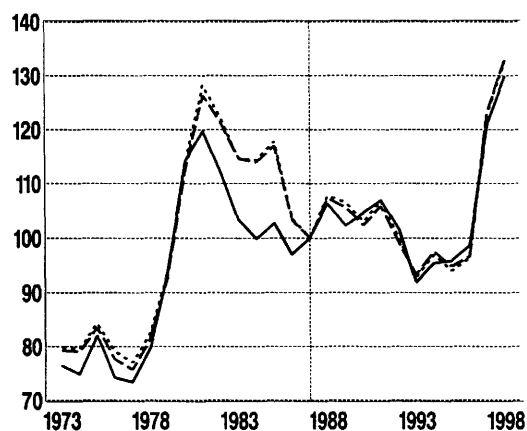


Quarterly figures (index 1987=100)

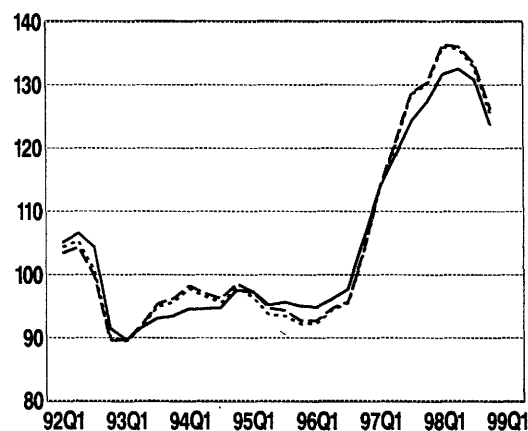


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# United Kingdom – pound sterling

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	99.5	98.5	98.0	99.2	97.1	95Q4	97.1	96.6	102.4	100.8	95.1
87	100.0	100.0	100.0	100.0	100.0	96Q1	97.3	96.9	102.7	101.0	94.9
88	107.8	108.6	103.2	110.2	106.3	96Q2	98.9	98.6	103.9	102.7	96.2
89	105.9	108.1	103.4	113.7	102.3	96Q3	100.1	100.0	104.4	104.1	97.8
90	108.3	110.6	106.6	117.8	104.6	96Q4	107.0	107.0	110.1	111.6	105.7
91	112.8	114.2	108.3	121.6	106.9	97Q1	113.3	113.4	114.7	118.6	113.6
92	109.9	110.7	106.3	117.0	101.7	97Q2	116.4	116.6	115.7	122.3	118.9
93	101.0	101.2	105.3	104.9	92.0	97Q3	119.5	119.9	116.7	126.2	124.2
94	101.4	101.3	105.9	106.5	95.4	97Q4	120.8	121.2	115.8	128.1	127.3
95	97.9	97.4	102.7	102.1	95.8	98Q1	123.7	124.3	116.9	132.0	131.7
96	100.8	100.6	105.2	104.8	98.6	98Q2	124.2	125.1	116.3	133.3	132.5
97	117.5	117.7	115.7	123.8	120.9	98Q3	123.6	124.8	115.3	133.5	130.9
98	122.7	123.8	115.0	132.1	129.7	98Q4	119.4	120.9	111.6	129.7	123.8

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	103.3	102.7	101.4	103.1	103.3	95Q4	94.0	92.8	97.3	98.7	92.7
87	100.0	100.0	100.0	100.0	100.0	96Q1	94.4	93.4	97.9	99.0	92.7
88	108.9	109.5	104.1	111.6	107.3	96Q2	96.4	95.5	99.8	101.2	94.7
89	108.9	110.9	105.4	117.5	105.7	96Q3	96.9	96.2	99.5	102.0	95.7
90	105.9	107.5	103.4	115.6	102.3	96Q4	103.8	103.2	105.1	109.7	103.8
91	111.6	112.1	106.0	120.9	105.8	97Q1	111.9	111.4	111.1	118.8	113.9
92	106.8	106.7	102.3	113.9	99.1	97Q2	116.4	115.9	113.2	124.4	120.9
93	102.0	101.3	104.6	106.1	93.3	97Q3	121.5	121.1	115.6	130.8	128.7
94	102.0	101.2	104.9	108.1	97.5	97Q4	120.9	120.6	112.8	131.1	130.3
95	95.9	94.7	98.7	101.2	94.8	98Q1	124.9	124.8	114.7	136.5	136.4
96	97.8	97.0	100.5	102.9	96.6	98Q2	123.9	124.1	112.7	136.6	136.1
97	117.6	117.2	113.2	126.2	123.3	98Q3	122.0	122.5	110.7	135.5	133.4
98	122.0	122.3	111.3	134.9	132.9	98Q4	117.2	118.1	107.3	131.3	126.1

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	103.5	102.9	101.5	103.4	103.5	95Q4	94.0	92.6	97.2	98.7	92.2
87	100.0	100.0	100.0	100.0	100.0	96Q1	94.4	93.6	97.7	99.1	92.3
88	109.1	109.8	104.4	112.0	107.7	96Q2	96.6	95.5	99.7	101.5	94.4
89	109.4	111.5	105.8	118.5	106.6	96Q3	97.1	96.5	99.3	102.4	95.5
90	106.4	108.0	103.5	116.5	105.0	96Q4	104.0	103.2	104.8	110.2	103.1
91	112.4	112.9	106.2	122.1	106.8	97Q1	112.1	111.2	110.8	119.9	113.6
92	107.6	107.2	102.4	114.8	99.8	97Q2	116.5	115.7	112.8	124.7	120.5
93	101.9	101.0	104.1	108.0	93.9	97Q3	121.9	121.1	115.4	130.3	128.5
94	101.9	100.8	104.5	108.0	97.0	97Q4	121.3	120.6	112.6	130.0	130.1
95	95.7	94.2	98.4	100.8	94.0	98Q1	125.3	124.9	112.5	136.0	136.0
96	98.0	97.0	100.4	103.2	96.4	98Q2	124.3	124.7	112.5	135.7	135.7
97	117.9	117.1	112.9	126.6	123.0	98Q3	122.1	122.2	110.3	135.9	132.8
98	122.1	122.1	110.9	135.4	132.4	98Q4	117.0	117.6	106.5	131.4	125.3

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

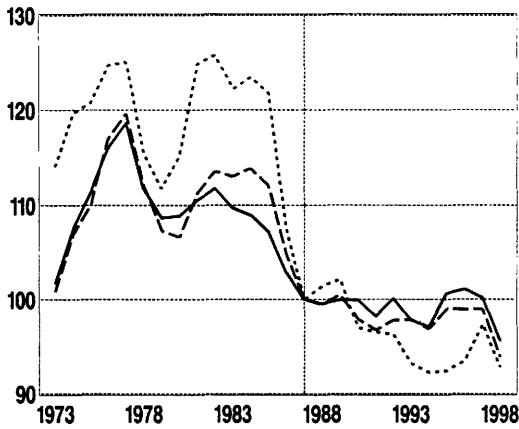
# Norway – krone

## Nominal Effective Exchange Rate

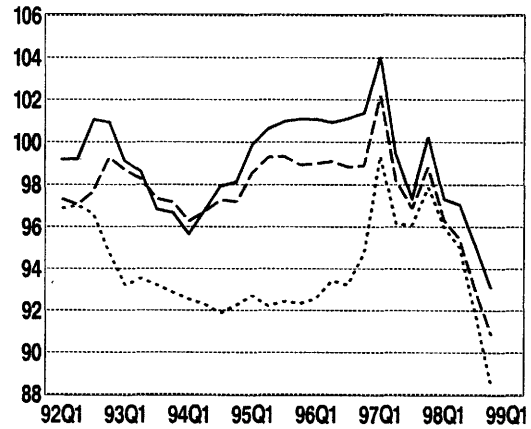
	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	IC23	Relative to EUR15 ERM		IC23	Relative to EUR15 ERM		IC23	Relative to EUR15 ERM			
86	102.9	104.8	107.5	95Q4	101.1	98.9	92.3	DEC97	-0.3	-0.0	0.1
87	100.0	100.0	100.0	96Q1	101.1	99.0	92.6	JAN98	-1.7	-1.4	-1.2
88	99.5	99.4	101.4	96Q2	100.9	99.1	93.4	FEB98	-1.0	-0.8	-0.9
89	99.9	100.5	102.1	96Q3	101.1	98.8	93.2	MAR98	-0.2	-0.3	0.4
90	99.9	97.9	97.0	96Q4	101.4	98.9	94.8	APR98	0.2	-0.1	0.0
91	98.2	96.7	96.5	97Q1	104.0	102.2	99.3	MAY98	0.3	-0.1	-1.1
92	100.1	97.8	96.3	97Q2	99.4	98.2	96.1	JUN98	-0.8	-0.9	-0.8
93	97.8	97.8	93.2	97Q3	97.3	96.9	96.1	JUL98	-0.2	-0.2	-0.3
94	97.1	96.9	92.2	97Q4	100.2	98.8	97.0	AUG98	-1.1	-1.4	-1.8
95	100.6	99.0	92.4	98Q1	97.3	96.3	96.0	SEP98	-1.8	-2.3	-2.9
96	101.1	98.9	93.5	98Q2	97.0	95.4	95.0	OCT98	-0.9	-1.0	-1.9
97	100.2	99.0	97.3	98Q3	95.1	93.0	91.9	NOV98	1.7	2.2	2.4
98	95.6	93.9	92.8	98Q4	93.1	90.8	88.4	DEC98	-2.5	-2.5	-2.7

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

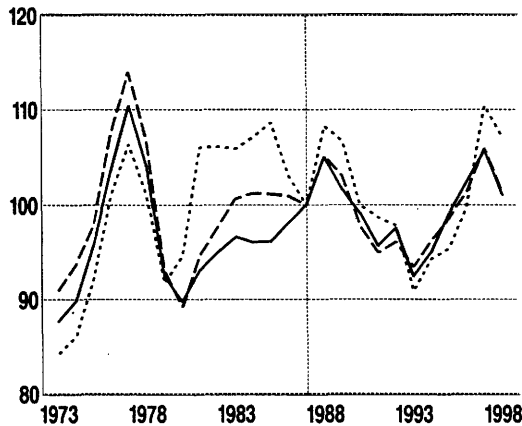


Quarterly figures (index 1987=100)

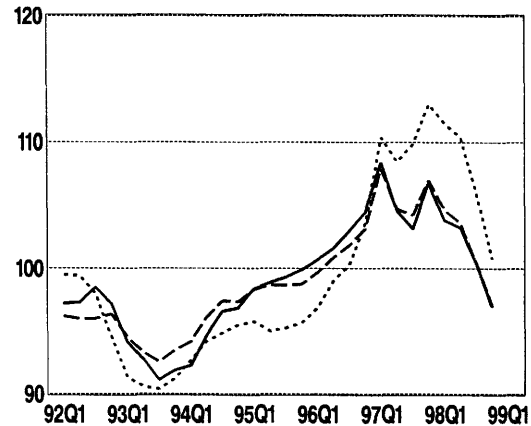


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Norway – krone

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	98.7	99.8	101.8	97.5	98.2	95Q4	95.4	92.3	90.2	83.6	99.9
87	100.0	100.0	100.0	100.0	100.0	96Q1	95.0	92.6	91.7	83.5	100.7
88	101.7	100.1	97.7	102.0	105.0	96Q2	94.5	92.9	93.3	83.3	101.6
89	102.0	101.1	102.9	97.9	101.6	96Q3	94.4	93.5	94.9	83.5	103.0
90	101.1	99.6	104.4	93.4	99.1	96Q4	94.6	94.1	96.2	83.7	104.5
91	97.6	95.4	100.3	87.8	95.7	97Q1	97.2	96.8	99.3	86.0	108.4
92	98.2	93.5	94.2	86.7	97.5	97Q2	93.1	92.6	94.9	82.3	104.5
93	94.5	90.5	91.1	82.3	92.5	97Q3	91.4	90.6	92.3	80.7	103.2
94	92.3	87.6	86.3	80.6	95.1	97Q4	94.4	93.0	93.8	83.3	106.7
95	95.3	91.3	88.3	83.4	99.1	98Q1	92.0	89.7	89.1	81.1	103.8
96	94.6	93.3	94.0	83.5	102.4	98Q2	92.0	88.5	86.3	81.0	103.3
97	94.0	93.2	95.0	83.1	105.7	98Q3	90.4	85.4	81.4	79.6	100.5
98	90.7	86.3	83.0	79.9	101.1	98Q4	88.5	81.9	75.9	78.0	97.0

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	100.3	101.6	103.3	99.2	100.9	95Q4	93.9	90.6	88.0	82.7	98.7
87	100.0	100.0	100.0	100.0	100.0	96Q1	93.6	91.1	89.7	82.6	99.6
88	101.9	100.0	98.8	102.0	105.0	96Q2	93.3	91.1	91.5	82.6	100.9
89	103.0	101.9	103.7	98.8	103.9	96Q3	92.9	91.1	92.7	82.4	101.6
90	99.3	97.7	102.9	91.8	97.9	96Q4	92.9	92.7	93.8	82.6	103.0
91	96.6	94.0	98.8	86.9	94.1	97Q1	96.2	95.6	97.5	83.2	107.9
92	94.4	92.4	92.2	85.0	92.4	97Q2	92.6	91.1	93.6	82.5	104.5
93	92.3	89.0	88.5	82.0	92.4	97Q3	91.7	90.0	91.8	81.3	104.4
94	94.3	90.0	88.6	82.9	95.6	97Q4	93.0	92.2	92.4	83.6	107.0
95	93.3	89.9	88.2	82.6	98.4	98Q1	91.9	89.9	88.2	81.8	104.4
96	93.6	89.3	88.2	82.3	100.4	98Q2	91.3	89.2	86.3	81.3	103.3
97	93.3	89.3	88.2	82.3	100.4	98Q3	89.2	87.1	84.9	79.4	100.5
98	89.9	85.2	81.6	80.0	101.4	98Q4	87.1	80.4	74.3	77.7	97.1

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	102.0	103.3	104.5	101.1	103.0	95Q4	92.7	88.5	87.1	82.7	95.7
87	100.0	100.0	100.0	100.0	100.0	96Q1	92.6	89.2	88.8	82.9	96.8
88	104.9	103.4	99.6	106.2	108.3	96Q2	93.1	90.5	91.1	83.8	99.0
89	106.7	106.2	106.1	105.3	106.7	96Q3	92.7	90.8	92.1	83.8	100.3
90	102.3	100.0	103.8	97.5	100.0	96Q4	94.3	92.7	94.3	85.5	103.6
91	101.5	98.8	101.1	93.8	98.7	97Q1	99.1	97.6	99.0	80.0	110.4
92	100.1	94.4	92.9	90.0	97.8	97Q2	96.2	94.7	95.4	87.5	108.4
93	95.6	90.3	90.8	84.0	90.9	97Q3	96.6	94.7	94.3	87.9	109.8
94	93.0	87.2	86.1	82.6	94.3	97Q4	98.8	96.2	94.4	90.0	113.0
95	93.1	88.7	85.6	82.8	95.4	98Q1	97.3	93.8	90.4	88.8	111.4
96	93.2	89.0	91.5	84.0	99.9	98Q2	96.6	91.9	86.8	88.4	110.4
97	97.7	95.8	95.8	88.8	110.4	98Q3	93.5	87.5	80.7	85.9	106.1
98	94.3	88.8	82.8	86.5	107.1	98Q4	90.0	82.6	74.2	83.1	100.8

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry



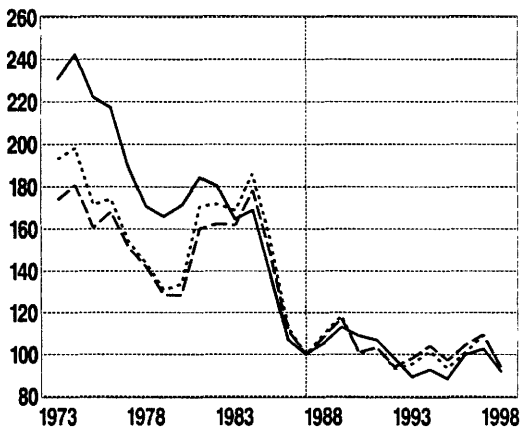
# Australia – dollar

## Nominal Effective Exchange Rate

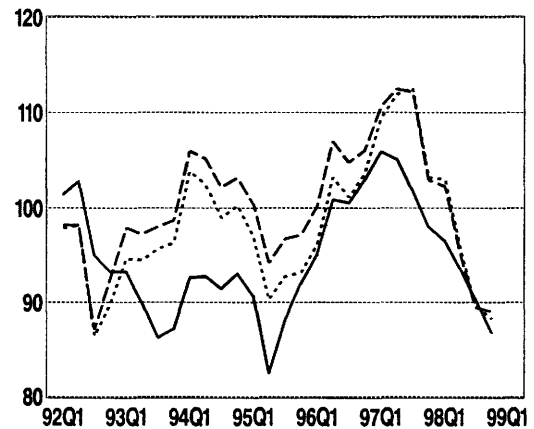
	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM		
86	106.9	111.2	112.6	95Q4	92.0	97.2	93.2	DEC97	-1.6	-1.6	-1.5
87	100.0	100.0	100.0	96Q1	95.1	100.2	96.1	JAN98	-0.6	0.6	0.8
88	105.4	108.3	109.8	96Q2	100.9	107.0	103.2	FEB98	1.4	2.7	2.7
89	112.9	117.2	118.4	96Q3	100.6	104.8	101.1	MAR98	0.6	-0.5	0.0
90	108.8	101.0	100.5	96Q4	102.9	106.0	103.6	APR98	-1.5	-3.2	-3.1
91	106.7	103.3	103.2	97Q1	105.9	110.6	109.4	MAY98	-2.8	-4.8	-5.5
92	98.0	93.9	92.9	97Q2	105.1	112.5	111.9	JUN98	-2.0	-3.5	-3.3
93	89.1	98.0	95.3	97Q3	101.7	112.1	112.6	JUL98	-2.5	-2.6	-2.6
94	82.5	104.1	101.4	98Q1	98.0	102.9	103.2	AUG98	-3.2	-4.8	-5.1
95	88.3	97.1	93.3	98Q2	96.6	102.2	103.0	SEP98	-4.5	-4.6	-5.0
96	99.8	104.5	101.0	98Q3	93.6	95.2	95.9	OCT98	-0.7	1.9	1.2
97	102.6	109.4	109.2	98Q4	90.3	89.5	89.6	NOV98	-3.2	5.3	5.4
98	91.8	93.8	94.0	99Q1	86.8	89.0	88.2	DEC98	-3.6	-3.1	-3.2

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

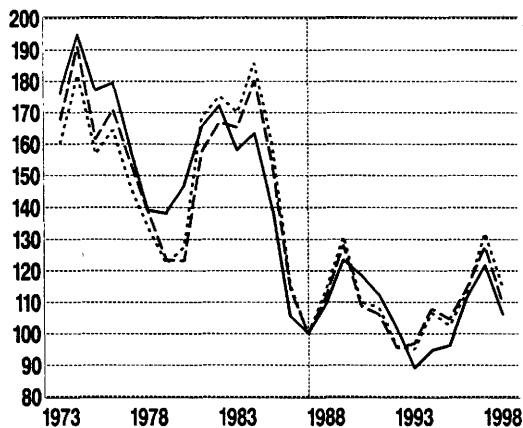


Quarterly figures (index 1987=100)

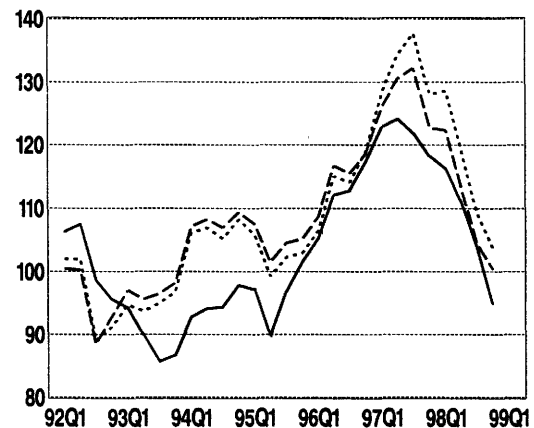


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Australia – dollar

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	102.0	101.8	98.3	105.1	105.5	95Q4	95.7	95.2	94.9	98.1	101.6
87	100.0	100.0	100.0	100.0	100.0	96Q1	98.9	98.5	96.0	102.0	105.3
88	109.8	111.2	109.4	110.2	109.1	96Q2	104.7	104.5	99.8	108.8	112.1
89	120.2	121.4	117.0	122.7	123.5	96Q3	104.2	104.2	98.4	108.9	112.8
90	116.9	116.3	108.8	120.1	118.7	96Q4	106.4	106.7	100.8	111.7	117.2
91	113.0	111.9	103.9	115.6	112.4	97Q1	109.2	109.9	104.4	115.0	122.8
92	102.7	101.3	99.3	104.1	101.9	97Q2	108.2	109.3	104.9	114.2	124.1
93	92.5	91.0	90.7	93.1	89.1	97Q3	104.5	105.9	102.8	110.5	121.8
94	95.0	94.2	95.7	96.3	94.7	97Q4	100.6	102.2	100.0	106.5	118.2
95	91.6	91.0	92.8	93.2	96.3	98Q1	99.2	100.8	99.0	105.2	116.3
96	103.5	103.4	98.7	107.8	111.8	98Q2	96.3	97.8	95.6	102.4	111.0
97	105.5	106.8	103.0	111.5	121.7	98Q3	93.3	94.5	90.8	99.5	103.9
98	94.7	95.9	92.3	100.8	106.2	98Q4	90.2	90.8	84.5	96.5	94.9

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	106.0	106.5	102.9	109.9	114.1	95Q4	95.0	93.6	87.5	98.7	105.2
87	100.0	100.0	100.0	100.0	100.0	96Q1	97.6	96.3	89.0	101.9	108.7
88	112.6	113.8	112.0	112.8	111.7	96Q2	103.9	102.7	94.0	109.1	116.7
89	124.1	124.8	120.0	126.0	128.3	96Q3	101.5	100.6	91.6	107.2	115.4
90	107.4	105.8	99.9	108.8	108.8	96Q4	102.5	101.8	92.8	108.9	118.6
91	107.1	105.0	97.8	108.3	106.2	97Q1	106.7	106.3	97.5	114.1	126.0
92	95.3	93.0	91.4	95.1	95.3	97Q2	108.4	108.3	100.1	116.6	130.5
93	97.4	94.9	90.8	97.0	96.8	97Q3	108.0	108.1	100.8	116.8	132.2
94	101.8	100.0	96.5	103.9	107.9	97Q4	99.2	99.4	93.4	107.9	122.7
95	95.0	93.6	89.0	98.2	104.7	98Q1	98.6	98.9	93.4	107.8	122.9
96	101.4	100.3	91.8	106.7	114.8	98Q2	92.0	92.1	87.1	101.0	113.2
97	105.5	105.5	97.9	113.8	127.8	98Q3	86.6	86.5	81.3	95.4	104.4
98	90.8	90.7	85.2	99.8	109.7	98Q4	86.4	85.9	79.7	95.4	100.4

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

Annual figures (index 1987=100)						Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	106.9	107.3	103.4	110.9	115.2	95Q4	94.0	92.1	86.9	98.5	103.0
87	100.0	100.0	100.0	100.0	100.0	96Q1	96.7	94.9	88.4	101.9	106.5
88	114.8	116.2	113.2	115.6	113.7	96Q2	103.5	101.8	93.7	109.8	115.0
89	126.9	128.1	121.8	131.2	130.7	96Q3	101.1	99.6	91.2	108.0	114.0
90	109.2	107.9	100.7	113.0	110.0	96Q4	103.4	102.3	93.3	111.9	118.9
91	110.4	108.2	99.1	113.6	108.8	97Q1	109.0	108.2	98.9	119.2	128.3
92	97.3	94.7	91.8	98.4	95.5	97Q2	111.5	110.9	101.8	121.7	134.2
93	97.8	94.8	91.1	98.1	95.5	97Q3	112.2	111.6	103.2	123.2	137.7
94	102.1	99.9	96.9	105.4	106.6	97Q4	102.9	102.7	95.2	113.6	128.0
95	94.1	92.2	88.5	98.2	102.6	98Q1	102.8	102.7	95.4	114.4	128.6
96	101.1	99.7	91.6	107.7	113.5	98Q2	95.8	95.7	88.7	107.4	119.0
97	108.8	108.4	99.7	119.1	132.0	98Q3	89.8	89.5	82.4	101.2	109.2
98	94.1	93.8	86.4	105.7	114.7	98Q4	88.6	88.0	79.9	100.4	103.6

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

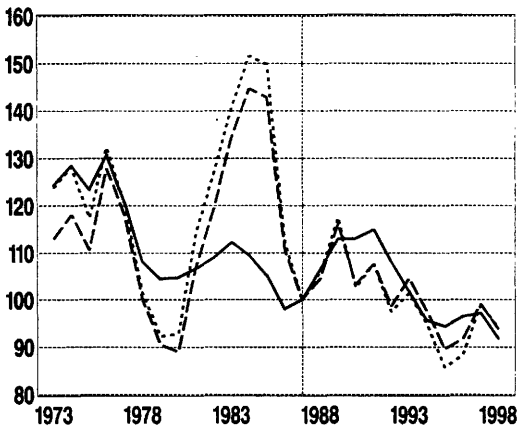
# Canada – dollar

## Nominal Effective Exchange Rate

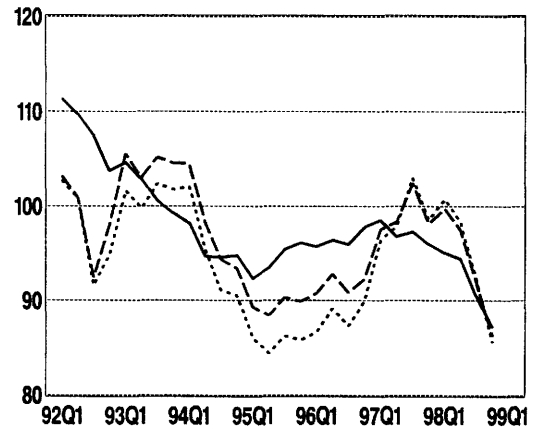
	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	IC23	Relative to EUR15	to ERM	IC23	Relative to EUR15	to ERM	IC23	Relative to EUR15	to ERM		
86	98.0	110.8	112.4	95Q4	96.2	89.9	85.8	DEC97	-0.1	1.7	1.8
87	100.0	100.0	100.0	96Q1	95.8	90.8	86.7	JAN98	-0.9	1.0	1.2
88	106.5	104.4	105.9	96Q2	96.5	92.8	89.1	FEB98	0.1	0.4	0.4
89	113.0	116.2	117.4	96Q3	96.0	90.9	87.3	MAR98	1.5	1.4	1.9
90	113.1	103.2	102.5	96Q4	97.8	92.3	89.9	APR98	-0.7	-1.5	-1.5
91	114.9	107.7	107.6	97Q1	98.5	97.6	96.4	MAY98	-1.0	-2.4	-3.2
92	108.0	98.6	97.4	97Q2	96.8	98.9	97.9	JUN98	-0.9	-0.8	-0.5
93	101.8	104.6	101.4	97Q3	97.3	102.4	103.0	JUL98	-1.3	-1.0	-1.0
94	95.6	97.5	94.7	97Q4	96.0	98.7	98.5	AUG98	-2.8	-3.3	-3.6
95	94.4	89.5	85.6	98Q1	95.1	99.7	100.7	SEP98	-0.3	-3.6	-4.1
96	96.5	91.7	88.2	98Q2	94.5	97.5	98.3	OCT98	-2.6	-4.3	-5.0
97	97.2	99.1	98.9	98Q3	90.5	92.0	92.3	NOV98	-0.4	-2.7	-2.9
98	91.8	93.7	94.0	98Q4	87.3	86.3	85.6	DEC98	-0.4	-0.7	-0.8

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

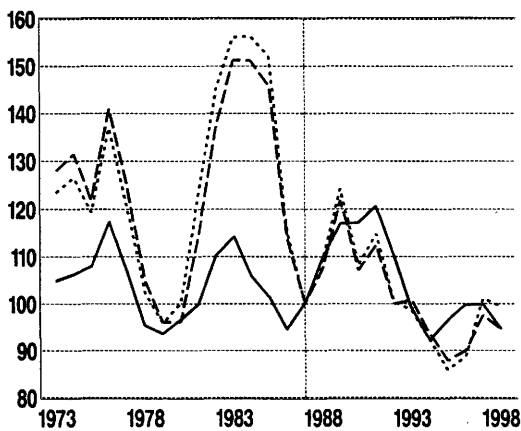


Quarterly figures (index 1987=100)

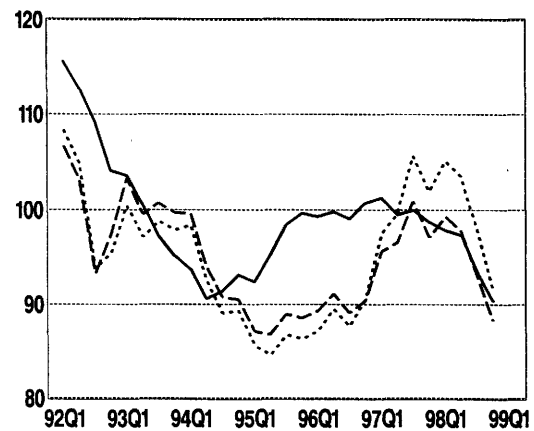


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Canada – dollar

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	98.1	96.9	98.8	98.1	94.6	95Q4	89.8	90.6	97.6	92.7	99.6
87	100.0	100.0	100.0	100.0	100.0	96Q1	89.3	90.0	97.4	92.8	99.3
88	106.0	107.0	101.2	106.9	109.7	96Q2	89.7	90.4	98.3	93.8	99.8
89	112.1	113.9	106.2	115.6	116.9	96Q3	89.1	89.7	98.0	93.4	99.1
90	111.3	112.6	104.2	116.1	117.2	96Q4	90.6	91.0	100.0	94.8	100.7
91	113.4	112.6	100.3	118.6	120.6	97Q1	91.2	91.4	100.9	94.9	101.3
92	104.5	104.2	96.6	110.4	110.3	97Q2	89.6	89.5	99.4	92.5	99.5
93	98.0	96.8	94.5	101.3	99.1	97Q3	90.0	89.5	99.9	92.2	100.0
94	90.4	89.9	93.5	93.0	92.2	97Q4	88.7	88.0	98.5	90.2	98.7
95	88.3	88.9	95.3	90.7	96.4	98Q1	87.8	86.7	97.2	88.6	97.9
96	89.7	90.3	98.4	93.7	99.7	98Q2	87.2	85.7	96.1	87.5	97.4
97	89.9	89.6	99.7	92.4	99.9	98Q3	83.5	81.7	91.4	83.6	93.5
98	84.7	83.0	92.9	85.0	94.7	98Q4	80.4	78.3	87.2	80.5	90.4

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	109.7	109.5	109.1	110.0	113.8	95Q4	82.3	81.7	86.3	86.1	88.5
87	100.0	100.0	100.0	100.0	100.0	96Q1	82.8	82.3	87.0	87.1	89.3
88	104.8	105.1	101.9	105.8	107.5	96Q2	84.5	83.9	88.9	89.2	91.1
89	116.6	117.0	109.6	118.8	121.9	96Q3	82.5	81.9	86.9	87.4	89.1
90	102.8	101.9	95.5	105.2	107.1	96Q4	83.7	83.0	88.1	88.7	90.4
91	106.6	103.9	94.2	109.6	112.4	97Q1	88.5	87.5	92.9	93.6	95.6
92	94.9	92.5	87.6	97.9	100.0	97Q2	89.2	87.9	93.3	94.1	96.6
93	99.3	96.1	93.2	101.2	100.8	97Q3	92.9	91.3	96.9	97.8	100.9
94	90.6	88.7	91.2	93.5	93.6	97Q4	89.0	87.2	92.5	93.4	97.1
95	82.2	81.5	85.8	85.5	87.8	98Q1	90.4	88.2	93.6	94.8	99.3
96	83.4	82.8	87.7	88.1	90.0	98Q2	88.1	85.7	91.0	92.5	97.8
97	89.9	88.5	93.9	94.7	97.5	98Q3	83.0	80.4	85.5	87.3	93.2
98	84.6	82.1	87.3	89.0	94.5	98Q4	77.4	74.7	79.7	81.9	88.3

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)						Quarterly figures (index 1987=100)				
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	110.8	110.5	109.8	111.1	115.2	95Q4	81.1	80.1	85.5	85.6	86.3
87	100.0	100.0	100.0	100.0	100.0	96Q1	81.7	80.8	86.3	86.8	87.1
88	106.9	107.3	103.0	108.6	109.5	96Q2	83.9	82.9	88.5	89.5	89.5
89	119.2	120.2	111.3	123.8	124.2	96Q3	82.0	81.0	86.4	87.8	87.7
90	104.5	103.9	96.3	109.3	108.2	96Q4	84.4	83.3	88.5	90.5	90.5
91	110.0	107.0	95.6	115.1	114.8	97Q1	90.5	89.1	94.4	97.1	97.5
92	96.9	94.2	88.0	101.3	100.4	97Q2	91.9	90.3	95.1	98.5	99.6
93	99.5	95.8	93.4	102.2	98.5	97Q3	96.8	94.7	99.4	103.5	105.6
94	90.7	88.4	91.6	94.7	92.2	97Q4	92.6	90.3	94.4	99.0	101.9
95	81.2	80.0	85.1	85.3	85.8	98Q1	94.6	92.0	95.8	101.2	105.1
96	83.0	82.0	87.4	88.6	88.7	98Q2	92.2	89.3	92.9	98.9	103.5
97	92.9	91.1	95.8	99.5	101.1	98Q3	86.3	83.4	86.7	93.0	98.0
98	88.0	85.1	88.6	94.7	99.4	98Q4	79.6	76.7	79.9	86.6	91.6

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

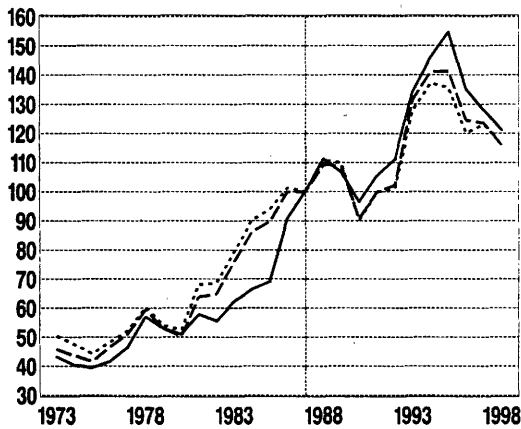
# Japan - yen

## Nominal Effective Exchange Rate

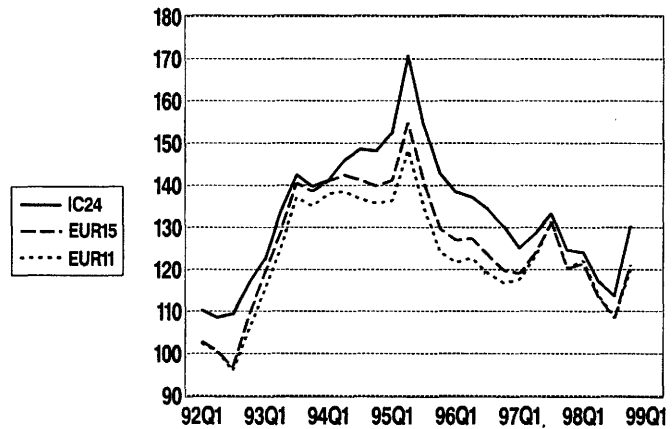
	Annual figures index (1987=100)			Quarterly figures index (1987=100)			Monthly figures monthly % change				
	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM	IC23	Relative to EUR15	ERM		
86	90.8	99.9	101.3	95Q4	142.7	129.5	124.1	DEC97	-2.0	-0.9	-0.8
87	100.0	100.0	100.0	96Q1	138.4	126.9	121.7	JAN98	1.0	2.1	2.3
88	111.3	109.2	110.7	96Q2	137.2	127.4	122.7	FEB98	3.0	3.1	3.1
89	106.6	108.6	109.8	96Q3	134.4	123.5	119.0	MAR98	-2.4	-2.4	-2.0
90	96.5	90.6	90.1	96Q4	130.2	119.7	116.8	APR98	-2.5	-3.0	-3.1
91	105.4	99.9	99.8	97Q1	125.2	119.0	117.5	MAY98	-2.3	-3.4	-4.1
92	111.1	102.2	101.1	97Q2	128.6	124.0	123.2	JUN98	-3.1	-3.1	-2.9
93	134.3	131.4	127.7	97Q3	133.3	131.1	131.4	JUL98	-0.3	0.0	0.0
94	145.9	141.1	137.2	97Q4	124.6	120.2	120.3	AUG98	-2.5	-3.0	-3.3
95	154.7	141.3	135.6	98Q1	124.1	121.4	122.1	SEP98	5.5	2.8	2.4
96	135.0	124.4	120.0	98Q2	117.1	113.2	113.7	OCT98	9.6	8.0	7.3
97	127.9	123.5	123.0	98Q3	113.6	108.4	108.4	NOV98	1.3	2.8	3.0
98	121.1	115.9	115.9	98Q4	130.2	121.1	119.9	DEC98	2.6	2.1	2.1

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

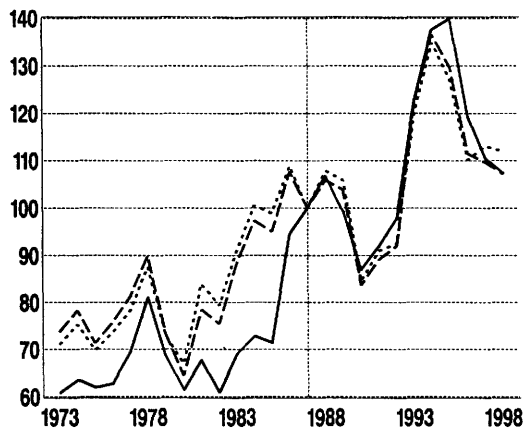


Quarterly figures (index 1987=100)

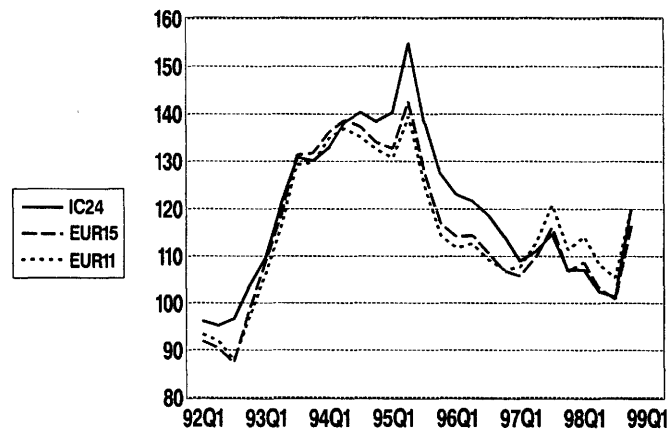


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# Japan - yen

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	94.6	94.8	97.6	95.6	94.5	95Q4	112.6	113.1	97.9	114.7	127.3
87	100.0	100.0	100.0	100.0	100.0	96Q1	108.5	108.9	97.1	109.7	123.0
88	106.7	106.9	103.8	105.5	106.7	96Q2	107.1	107.3	98.6	107.6	121.7
89	99.2	99.6	99.1	99.7	99.1	96Q3	104.5	104.6	98.4	104.7	118.7
90	87.5	88.0	90.1	88.6	86.9	96Q4	101.1	100.9	96.3	101.2	114.2
91	93.3	94.4	93.8	95.0	91.9	97Q1	97.0	96.6	93.0	97.5	108.9
92	96.3	97.7	94.8	95.5	97.8	97Q2	99.6	98.9	95.6	100.5	111.1
93	113.9	115.2	104.0	112.2	122.7	97Q3	103.3	102.2	99.0	104.4	114.6
94	121.0	121.9	106.3	122.2	137.5	97Q4	99.6	95.3	92.6	98.5	107.1
95	123.7	124.9	105.5	105.6	139.8	98Q1	99.5	94.6	92.6	97.5	107.2
96	105.3	105.4	97.6	105.5	119.3	98Q2	90.0	89.0	88.3	91.7	102.3
97	99.0	98.2	95.0	100.0	110.4	98Q3	87.1	86.1	87.3	88.1	101.3
98	92.9	91.9	92.6	94.1	107.4	98Q4	99.1	98.3	103.1	99.3	119.7

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	102.4	103.3	104.6	103.8	107.6	95Q4	104.9	104.1	89.6	107.7	116.8
87	100.0	100.0	100.0	100.0	100.0	96Q1	102.1	101.3	89.6	104.1	114.1
88	106.3	106.0	104.4	105.5	105.8	96Q2	102.0	101.1	91.9	103.4	114.4
89	103.2	102.8	102.1	102.2	103.8	96Q3	98.6	97.6	90.5	99.8	110.7
90	84.3	83.6	85.5	82.4	83.6	96Q4	95.5	94.3	88.4	96.8	106.9
91	90.4	90.1	89.9	88.8	89.1	97Q1	94.9	93.6	88.1	96.7	105.8
92	90.4	90.1	88.3	88.1	92.0	97Q2	98.9	97.3	91.6	101.4	109.9
93	113.4	112.8	101.6	111.5	122.3	97Q3	104.6	102.7	96.6	108.1	116.1
94	119.2	118.5	103.4	121.1	136.5	97Q4	95.9	94.0	88.5	99.8	106.8
95	115.7	114.9	97.3	119.4	129.6	98Q1	96.8	94.7	89.8	101.2	108.7
96	99.5	98.6	90.1	101.0	111.5	98Q2	90.0	88.1	84.6	94.3	102.9
97	98.5	96.8	91.1	101.4	109.6	98Q3	85.7	84.0	82.6	89.7	100.9
98	91.7	89.9	87.9	95.9	107.1	98Q4	95.0	93.4	95.2	98.8	116.4

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	103.3	104.2	105.1	104.8	108.8	95Q4	103.7	102.4	89.0	107.5	114.3
87	100.0	100.0	100.0	100.0	100.0	96Q1	101.1	99.8	89.0	104.1	111.7
88	108.4	108.2	105.5	107.9	107.8	96Q2	101.6	100.2	91.6	104.1	112.7
89	105.5	105.6	103.7	106.5	105.8	96Q3	98.2	96.8	90.1	100.5	109.2
90	85.7	85.2	86.2	85.5	84.5	96Q4	96.3	94.8	88.9	98.8	107.1
91	93.2	92.8	91.2	92.9	90.9	97Q1	96.9	95.2	89.3	100.0	107.7
92	92.3	91.7	88.8	91.2	92.5	97Q2	101.7	99.6	93.2	105.8	112.9
93	113.8	112.6	101.9	112.8	119.9	97Q3	108.6	106.1	98.9	113.9	120.8
94	119.5	118.3	103.8	122.9	134.8	97Q4	99.4	97.0	90.2	105.2	111.3
95	114.6	113.2	96.7	119.5	127.0	98Q1	100.8	98.3	91.7	107.4	114.2
96	99.3	97.9	89.9	101.9	110.2	98Q2	93.7	91.4	86.1	100.2	108.1
97	101.6	99.4	92.8	106.1	113.1	98Q3	88.8	86.8	83.6	95.1	105.4
98	95.1	93.0	89.1	101.6	111.8	98Q4	97.5	95.7	95.5	103.9	120.2

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry

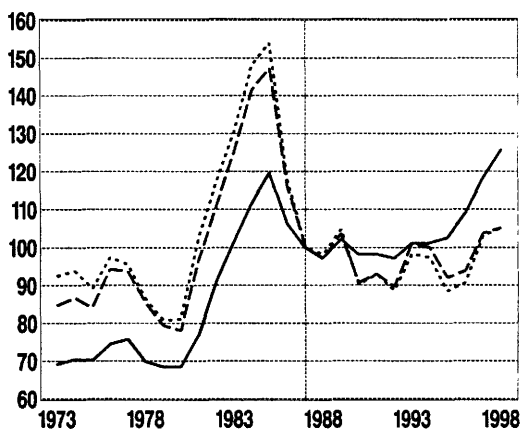
# United States – dollar

## Nominal Effective Exchange Rate

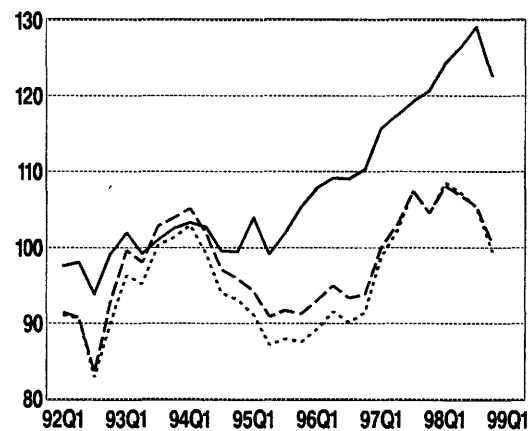
	Annual figures index (1987=100)				Quarterly figures index (1987=100)				Monthly figures monthly % change		
	IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM		IC23	Relative to EUR15	ERM
86	106.1	116.1	117.6	95Q4	105.4	91.2	87.5	DEC97	2.0	2.4	2.5
87	100.0	100.0	100.0	96Q1	107.9	93.0	89.3	JAN98	1.4	2.3	2.4
88	97.3	96.9	98.2	96Q2	109.1	94.9	91.6	FEB98	-0.6	0.0	0.1
89	102.1	103.6	104.7	96Q3	109.0	93.4	90.1	MAR98	0.6	0.2	0.6
90	98.2	90.6	90.1	96Q4	110.2	93.7	91.5	APR98	0.6	-0.6	-0.6
91	98.2	92.9	88.8	97Q1	115.7	100.1	98.8	MAY98	0.3	-1.5	-2.2
92	97.1	89.5	88.6	97Q2	117.4	103.0	102.2	JUN98	2.0	0.7	0.8
93	101.1	101.1	98.3	97Q3	119.2	107.4	107.5	JUL98	0.5	0.4	0.4
94	101.2	99.9	97.2	97Q4	120.7	104.5	104.4	AUG98	1.9	-0.2	-0.5
95	102.6	92.0	88.4	98Q1	124.2	108.0	108.5	SEP98	-3.1	-4.4	-4.8
96	109.1	93.8	90.6	98Q2	126.4	106.7	107.1	OCT98	-3.8	-3.1	-3.7
97	118.2	103.7	103.2	98Q3	129.1	105.4	105.2	NOV98	0.7	2.5	2.6
98	125.6	105.1	105.0	98Q4	122.7	100.5	99.4	DEC98	-0.8	-0.6	-0.7

## Nominal Effective Exchange Rate

Annual figures (index 1987=100)

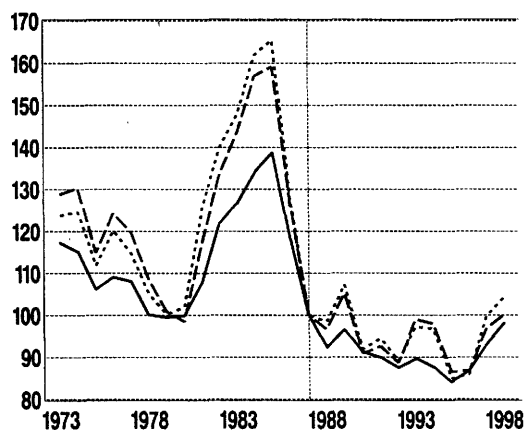


Quarterly figures (index 1987=100)

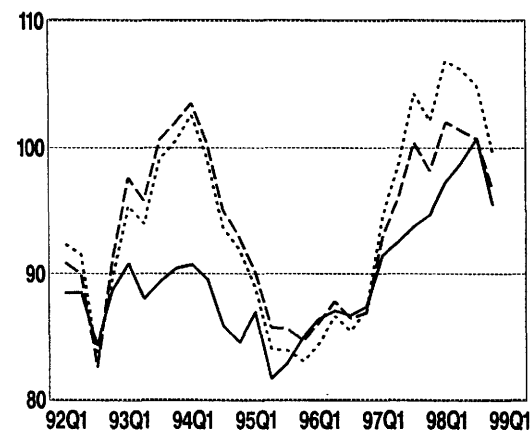


## Real Effective Exchange Rate (based on ULCM)

Annual figures (index 1987=100)



Quarterly figures (index 1987=100)



# United States – dollar

## Real Effective Exchange Rate relative to 23 Industrial Countries (IC23)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	111.1	112.2	109.3	110.3	118.0	95Q4	92.9	91.4	93.2	92.1	84.9
87	100.0	100.0	100.0	100.0	100.0	96Q1	94.7	93.2	94.0	93.9	86.4
88	94.1	93.5	99.0	94.7	92.3	96Q2	95.5	93.9	93.9	94.5	87.0
89	98.0	96.6	100.6	96.4	96.5	96Q3	95.0	93.6	92.7	94.1	86.7
90	93.4	91.7	95.3	91.4	91.2	96Q4	95.7	94.4	92.8	94.9	87.4
91	91.8	90.5	97.2	89.5	89.9	97Q1	100.0	98.8	96.5	99.4	91.4
92	90.0	88.5	95.1	86.8	87.5	97Q2	101.0	100.1	97.2	100.8	92.6
93	92.9	91.8	98.5	90.1	89.6	97Q3	102.2	101.4	98.1	102.4	93.8
94	92.5	91.5	97.4	89.9	87.6	97Q4	103.0	102.5	98.7	103.8	94.7
95	91.4	90.0	93.1	90.3	84.1	98Q1	105.6	105.3	101.2	107.1	97.3
96	95.2	93.8	93.3	94.3	86.9	98Q2	107.1	107.0	102.5	109.3	98.8
97	101.5	100.7	97.6	101.6	93.1	98Q3	109.0	109.2	104.4	112.0	100.7
98	106.2	106.3	101.7	108.7	98.1	98Q4	103.3	103.6	98.8	106.8	95.5

## Real Effective Exchange Rate relative to the European Union as a whole (EUR15)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	Deflator PX	ULCE	ULCM		CPI	GDP	Deflator PX	ULCE	ULCM
86	115.2	116.6	113.1	115.3	125.6	95Q4	88.9	87.1	86.5	89.9	84.7
87	100.0	100.0	100.0	100.0	100.0	96Q1	90.6	88.8	87.7	91.4	86.1
88	97.7	96.7	100.4	97.9	96.6	96Q2	92.4	90.6	88.9	93.1	87.8
89	104.9	103.1	104.0	103.3	105.2	96Q3	90.8	89.1	86.8	91.5	86.4
90	92.0	89.6	90.8	89.9	90.8	96Q4	91.1	89.5	86.6	92.1	86.9
91	93.3	91.0	93.4	91.4	92.5	97Q1	97.3	95.6	91.7	98.7	93.0
92	89.1	86.6	89.3	86.4	88.6	97Q2	100.1	98.5	93.8	102.2	96.0
93	99.6	97.0	97.9	97.6	99.0	97Q3	104.4	102.7	97.2	107.2	100.4
94	97.9	96.0	96.5	97.8	97.9	97Q4	101.5	100.0	94.1	105.0	98.1
95	89.9	88.0	88.0	90.8	86.5	98Q1	104.9	103.4	97.0	109.3	102.0
96	91.2	89.5	87.5	92.0	86.8	98Q2	103.4	102.1	95.7	108.5	101.3
97	100.8	99.2	94.2	103.2	96.8	98Q3	101.8	100.6	94.6	107.5	100.7
98	101.6	100.4	94.4	107.0	100.1	98Q4	96.6	95.7	90.5	102.8	96.6

## Real Effective Exchange Rate relative to the countries in the Exchange Rate Mechanism (ERM)

	Annual figures (index 1987=100)					Quarterly figures (index 1987=100)					
	CPI	GDP	deflator PX	ULCE	ULCM		CPI	GDP	deflator PX	ULCE	ULCM
86	116.2	117.5	113.6	116.3	126.9	95Q4	88.1	85.9	85.9	89.9	83.0
87	100.0	100.0	100.0	100.0	100.0	96Q1	89.8	87.6	87.1	91.6	84.5
88	99.6	98.8	101.4	100.5	98.4	96Q2	92.0	89.8	88.6	93.8	86.6
89	107.2	105.9	105.6	107.6	107.3	96Q3	90.5	88.4	86.4	92.4	85.4
90	93.4	91.3	91.5	93.3	91.8	96Q4	91.9	89.9	86.9	94.1	87.1
91	96.2	93.7	94.7	95.9	94.4	97Q1	99.3	97.2	92.9	102.2	94.6
92	91.0	88.2	89.7	89.5	89.1	97Q2	102.8	100.7	95.2	106.5	98.5
93	100.0	97.0	98.2	98.8	97.2	97Q3	108.1	106.0	99.2	112.8	104.3
94	98.3	95.8	96.9	99.3	96.7	97Q4	105.1	103.1	95.7	110.5	102.1
95	89.1	86.9	87.4	91.0	84.9	98Q1	109.1	107.2	98.8	115.8	106.9
96	91.1	88.9	87.3	93.0	85.9	98Q2	107.4	105.8	97.3	115.1	106.2
97	103.8	101.7	95.7	107.9	99.8	98Q3	105.2	103.8	95.6	113.8	104.9
98	105.1	103.6	95.5	113.1	104.3	98Q4	99.0	97.9	90.7	107.9	99.5

Abbreviations: IC23 = 23 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 ERM = Countries in the Exchange Rate Mechanism  
 CPI = Consumer Price Index  
 GDP = Gross Domestic Product Deflator  
 PX = Price Deflator Exports of Goods and Services  
 ULCE = Nominal Unit Labour Cost in total Economy  
 ULCM = Nominal Unit Labour Cost in Manufacturing industry



**Table A1: Bilateral exchange rate of the US dollar against the EU currencies**  
 (Price of one US dollar in terms of the currencies of each of the countries indicated)

**Annual figures (period average)**

Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ECU
1986	44.58	8.08	2.166	139.8	139.9	6.919	0.746	1488	2.444	15.23	149.6	5.066	7.117	0.682	1.018
1987	37.31	6.83	1.796	135.4	123.3	6.007	0.672	1296	2.024	12.63	140.9	4.391	6.336	0.611	0.867
1988	36.72	6.72	1.754	141.6	116.3	5.949	0.656	1300	1.974	12.33	143.8	4.180	6.124	0.562	0.845
1989	39.37	7.31	1.879	162.3	118.4	6.375	0.705	1371	2.120	13.22	157.4	4.287	6.445	0.611	0.908
1990	33.37	6.18	1.614	158.4	101.8	5.439	0.604	1197	1.819	11.32	142.5	3.819	5.915	0.562	0.787
1991	34.11	6.39	1.656	181.9	103.8	5.633	0.620	1238	1.867	11.66	144.3	4.039	6.041	0.566	0.808
1992	32.12	6.03	1.560	190.5	102.2	5.288	0.587	1229	1.757	10.98	134.8	4.473	5.809	0.566	0.772
1993	34.53	6.48	1.653	229.0	126.9	5.660	0.682	1570	1.857	11.63	160.4	5.714	7.776	0.666	0.853
1994	33.40	6.35	1.621	242.5	133.8	5.545	0.668	1612	1.818	11.40	165.8	5.212	7.121	0.653	0.842
1995	29.48	5.60	1.433	231.7	124.6	4.989	0.624	1629	1.605	10.08	150.0	4.365	7.131	0.634	0.765
1996	30.95	5.80	1.504	240.7	126.6	5.115	0.625	1543	1.685	10.58	154.2	4.582	6.707	0.641	0.788
1997	35.74	6.60	1.732	272.8	146.3	5.832	0.659	1702	1.950	12.19	175.1	5.186	7.632	0.682	0.882
1998	36.28	6.70	1.759	295.3	149.3	5.896	0.702	1736	1.982	12.37	180.1	5.383	7.951	0.604	0.893

**Quarterly figures (period average)**

Qtr	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ECU
95Q4	29.29	5.52	1.454	234.8	123.3	4.931	0.623	1598	1.595	10.02	149.6	4.280	6.685	0.641	0.759
96Q1	30.17	5.85	1.458	241.4	127.4	5.057	0.637	1575	1.702	10.31	152.9	4.531	6.770	0.656	0.777
96Q2	31.28	5.95	1.527	242.7	126.6	5.095	0.622	1521	1.680	10.54	153.6	4.534	6.634	0.633	0.785
96Q3	31.37	5.95	1.527	241.3	128.9	5.075	0.606	1522	1.717	10.77	154.6	4.586	6.664	0.641	0.783
97Q1	34.37	6.32	1.574	260.1	140.0	5.591	0.627	1637	1.862	11.66	166.2	4.934	7.373	0.663	0.849
97Q2	35.30	6.33	1.674	272.0	144.7	5.780	0.656	1691	1.928	12.00	172.0	5.149	7.703	0.661	0.875
97Q3	37.30	6.88	1.807	283.9	152.5	6.079	0.678	1719	2.035	12.72	183.0	5.389	7.833	0.616	0.916
97Q4	35.20	6.85	1.756	275.9	146.2	5.800	0.677	1719	1.977	13.35	179.1	5.282	7.636	0.603	0.890
98Q1	37.52	6.85	1.926	293.1	154.2	6.005	0.722	1770	2.050	13.80	186.1	5.544	8.018	0.608	0.920
98Q2	37.01	6.94	1.922	299.1	152.3	6.015	0.712	1770	2.021	13.62	183.8	5.454	7.813	0.603	0.909
98Q3	36.34	6.94	1.782	297.8	146.6	5.908	0.702	1739	1.987	13.40	180.9	5.360	7.808	0.605	0.895
98Q4	34.32	6.33	1.684	281.7	141.5	5.378	0.666	1646	1.875	11.70	170.6	5.059	7.966	0.557	0.850

**Monthly figures (period average)**

Month	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ECU
DEC97	36.64	6.76	1.776	279.1	150.1	5.945	0.684	1740	2.001	12.50	181.4	5.362	7.773	0.603	0.899
JAN98	37.45	6.91	1.815	286.9	153.9	6.079	0.722	1787	2.046	12.77	185.7	5.495	8.010	0.611	0.919
FEB98	37.67	6.92	1.826	287.0	153.8	6.083	0.727	1791	2.045	12.77	185.8	5.504	8.081	0.610	0.919
MAR98	37.46	6.96	1.815	305.9	154.9	6.122	0.731	1798	2.058	12.85	186.9	5.542	7.967	0.602	0.922
APR98	36.64	6.77	1.776	316.3	154.1	6.085	0.720	1793	2.044	12.77	186.0	5.511	7.831	0.598	0.917
MAY98	36.95	6.82	1.791	307.3	150.9	5.955	0.706	1751	2.001	12.50	181.9	5.397	7.701	0.610	0.902
JUN98	37.08	6.85	1.798	304.0	152.1	6.007	0.711	1765	2.019	12.61	183.4	5.445	7.908	0.606	0.908
JUL98	36.85	6.81	1.798	299.5	152.6	6.028	0.715	1773	2.027	12.65	184.0	5.465	7.989	0.608	0.911
AUG98	36.88	6.81	1.798	301.1	151.8	5.995	0.712	1764	2.017	12.58	183.1	5.458	7.914	0.612	0.908
SEP98	35.11	6.48	1.702	292.8	144.5	5.707	0.680	1682	1.920	11.98	174.4	5.180	7.904	0.555	0.867
OCT98	33.81	6.23	1.639	281.9	139.3	5.495	0.657	1621	1.848	11.53	168.1	4.987	7.846	0.506	0.838
NOV98	34.69	6.39	1.682	282.7	139.0	5.639	0.676	1664	1.896	11.83	172.4	4.987	7.846	0.506	0.838
DEC98	34.45	6.36	1.670	280.6	142.1	5.602	0.673	1654	1.882	11.75	171.3	5.078	7.966	0.559	0.853

**Table A2: Bilateral exchange rate of the US dollar against the non – EU currencies**  
 (Price of one US dollar in terms of the currencies of each of the countries indicated)

**Annual figures (period average)**

Year	AUS	CND	J	MX	NZ	N	CH	TR
1986	1.493	1.390	167.9	0.552	1.907	7.391	1.793	673
1987	1.427	1.326	144.4	1.350	1.689	6.731	1.489	854
1988	1.277	1.231	128.1	2.273	1.525	6.510	1.461	1405
1989	1.264	1.184	137.8	2.459	1.672	6.502	1.634	2117
1990	1.281	1.167	144.5	2.811	1.676	6.252	1.386	2603
1991	1.284	1.146	134.4	3.018	1.729	6.476	1.431	4118
1992	1.361	1.208	126.6	3.095	1.859	6.208	1.404	6812
1993	1.472	1.290	111.0	3.172	1.849	7.090	1.477	10853
1994	1.367	1.365	102.1	3.372	1.685	7.053	1.366	28733
1995	1.349	1.372	93.8	6.399	1.524	6.337	1.182	45567
1996	1.278	1.364	108.7	7.599	1.454	6.456	1.235	80305
1997	1.345	1.384	120.9	7.919	1.510	7.068	1.450	189262
1998	1.590	1.482	130.5	9.122	1.864	7.551	1.449	259273

**Quarterly figures (period average)**

Qtr	AUS	CND	J	MX	NZ	N	CH	TR
85Q4	1.397	1.356	101.5	7.384	1.529	6.282	1.151	52970
86Q1	1.323	1.329	105.7	7.570	1.487	6.414	1.190	64292
86Q2	1.263	1.370	107.5	7.455	1.467	6.533	1.243	76402
86Q3	1.269	1.370	109.0	7.560	1.446	6.440	1.222	85523
86Q4	1.257	1.331	112.8	7.896	1.418	6.437	1.287	98998
87Q1	1.286	1.359	121.1	7.864	1.435	6.435	1.435	118546
87Q2	1.306	1.386	119.6	7.979	1.448	7.089	1.446	137443
87Q3	1.339	1.384	117.9	7.970	1.448	7.061	1.489	152399
87Q4	1.500	1.470	125.1	8.056	1.466	7.921	1.432	187588
88Q1	1.500	1.456	135.7	8.492	1.728	7.544	1.475	235509
88Q2	1.570	1.458	139.9	8.474	1.671	7.521	1.493	252845
88Q3	1.603	1.532	139.4	10.02	1.568	7.642	1.469	272574
88Q4	1.603	1.532	119.4	10.02	1.899	7.498	1.360	293357

**Monthly figures (period average)**

Month	AUS	CND	J	MX	NZ	N	CH	TR
DEC97	1.499	1.422	129.3	8.136	1.675	7.229	1.437	197477
JAN98	1.523	1.439	125.5	8.421	1.724	7.491	1.474	211871
FEB98	1.483	1.434	125.7	8.491	1.715	7.560	1.464	223404
MAR98	1.493	1.416	129.0	8.568	1.745	7.582	1.488	235899
APR98	1.533	1.429	132.2	8.458	1.808	7.535	1.507	245443
MAY98	1.587	1.445	134.9	8.579	1.858	7.454	1.479	252349
JUN98	1.654	1.464	140.1	8.917	1.950	7.574	1.493	260980
JUL98	1.618	1.485	140.6	8.899	1.928	7.624	1.514	268457
AUG98	1.696	1.532	144.7	9.371	1.994	7.726	1.495	274116
SEP98	1.700	1.532	134.6	10.16	1.983	7.576	1.402	275196
OCT98	1.618	1.543	120.8	10.11	1.913	7.437	1.337	279060
NOV98	1.575	1.540	120.3	9.906	1.872	7.452	1.384	284445
DEC98	1.616	1.542	117.1	9.906	1.912	7.607	1.361	307246

**Table A3: Bilateral exchange rate of the US dollar against the EU currencies**  
(index 1987 = 100)

Annual figures															
Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ECU
1986	119.5	118.2	120.6	103.3	113.5	115.2	110.9	114.8	120.8	120.6	106.1	115.4	112.3	111.7	117.4
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	98.4	97.7	97.7	100.7	94.4	96.0	97.9	100.3	104.7	97.6	101.7	95.2	96.6	97.0	97.5
1989	105.5	106.9	106.6	119.9	96.0	100.5	104.6	105.8	104.7	104.7	101.1	87.6	101.7	100.0	104.7
1990	89.4	90.4	89.5	134.0	92.2	90.5	89.3	92.4	89.9	89.9	101.1	87.0	93.4	91.9	90.7
1991	91.4	93.5	92.2	134.7	93.5	93.0	92.3	95.6	92.2	92.3	102.4	92.0	95.3	92.7	93.2
1992	86.1	88.2	86.9	140.2	93.0	94.0	87.3	94.9	85.8	85.8	95.7	101.9	93.7	93.0	88.1
1993	32.6	32.0	32.0	158.2	106.6	92.3	90.5	121.2	91.8	92.1	113.8	130.1	122.7	109.0	98.4
1994	99.5	98.0	98.0	159.2	101.9	92.3	92.8	124.4	89.8	90.3	113.7	118.7	121.7	108.9	97.2
1995	79.0	82.0	80.3	171.2	101.9	92.3	92.8	125.7	79.3	79.8	106.4	112.7	112.5	103.7	88.2
1996	83.0	84.8	83.8	177.6	102.7	97.1	92.6	119.1	83.3	83.8	109.4	104.6	105.9	104.9	90.9
1997	95.6	95.6	95.6	201.6	106.7	97.1	96.0	131.3	96.3	96.5	124.3	104.6	120.5	100.0	103.7
1998	97.2	98.0	97.9	216.2	121.1	98.2	104.4	134.0	98.0	98.0	127.8	121.7	125.5	98.8	103.0

Quarterly figures															
Qtr	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ECU
95Q4	78.5	80.8	79.3	173.5	99.2	82.1	92.7	123.3	78.8	79.3	106.1	97.5	105.5	104.9	87.6
96Q1	83.1	81.7	81.7	178.3	100.3	83.8	94.2	121.4	81.2	81.7	108.1	103.2	107.0	106.9	89.6
96Q2	83.8	85.9	84.7	179.0	103.3	85.9	94.7	120.0	84.2	84.8	111.0	107.4	106.2	107.4	91.9
96Q3	82.7	84.5	83.4	175.8	102.7	84.8	92.5	117.4	83.0	83.4	109.0	103.2	104.7	105.3	90.5
96Q4	84.5	85.9	85.2	178.2	104.5	86.2	90.5	117.5	84.9	85.3	109.7	104.4	105.5	100.0	91.4
97Q1	91.6	92.5	92.3	192.1	113.6	93.1	93.3	126.3	92.0	92.3	117.9	112.4	116.2	100.3	98.0
97Q2	94.8	95.5	95.5	201.0	117.4	96.2	97.6	130.5	95.3	95.5	122.5	117.2	121.6	100.1	100.9
97Q3	100.0	100.7	100.6	209.7	123.7	101.3	100.6	136.0	100.6	100.7	129.9	122.7	123.6	100.8	105.6
97Q4	97.0	97.8	97.7	203.8	120.2	97.9	100.6	132.7	97.7	97.8	127.1	120.3	120.5	98.7	102.6
98Q1	100.6	101.4	101.3	216.6	125.1	101.5	108.1	138.3	101.3	101.3	132.1	125.6	126.6	99.5	104.9
98Q2	99.2	100.1	99.9	228.4	123.6	100.1	105.9	136.6	99.9	99.9	130.4	124.1	123.3	99.0	104.9
98Q3	97.4	98.2	98.1	220.0	121.3	98.4	104.5	134.2	98.2	98.2	128.1	122.1	122.1	99.1	103.2
98Q4	92.0	92.6	92.6	203.1	114.7	92.9	99.5	127.1	92.7	92.7	121.1	115.2	125.7	97.7	98.0

Monthly figures															
Month	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ECU
DEC97	98.2	99.0	98.9	206.2	121.8	99.0	101.7	134.3	98.9	98.9	128.8	122.1	122.7	98.7	103.7
JAN98	100.4	101.2	101.1	212.0	124.8	101.2	107.4	137.9	101.1	101.1	131.8	125.3	126.4	100.0	106.0
FEB98	101.0	101.9	101.7	226.0	125.6	101.9	108.7	138.8	101.7	101.7	132.6	125.7	127.5	99.9	106.4
MAR98	100.4	101.3	101.1	233.7	125.0	101.3	107.1	138.4	101.1	101.1	132.0	125.5	126.2	98.5	105.8
APR98	98.2	99.0	98.9	227.0	122.4	99.1	105.0	135.2	98.9	98.9	129.1	122.9	121.5	99.9	104.1
MAY98	99.0	99.9	99.8	224.6	123.4	100.0	105.8	136.2	99.8	99.8	130.2	124.0	124.8	99.2	104.7
JUN98	99.4	100.3	100.1	221.3	123.8	100.4	106.3	136.8	100.2	100.2	130.6	124.5	124.8	99.6	105.1
JUL98	98.8	99.7	99.6	222.5	123.1	99.8	106.0	136.2	99.7	99.6	129.9	123.8	124.3	100.2	104.7
AUG98	94.1	94.9	94.8	216.3	117.2	95.0	101.1	129.8	94.9	94.8	123.8	118.0	124.7	97.4	100.0
SEP98	90.6	91.2	91.3	208.3	113.0	91.5	97.7	125.1	91.3	91.3	119.3	113.6	123.8	96.6	96.6
OCT98	93.0	93.6	93.6	208.8	116.0	93.9	100.6	128.4	93.7	93.7	122.4	116.4	126.1	98.5	99.1
NOV98	93.0	93.0	93.0	207.3	115.3	93.3	100.0	127.7	93.0	93.0	121.5	115.6	127.2	98.0	98.4
DEC98	92.3	93.0	93.0	207.3	115.3	93.3	100.0	127.7	93.0	93.0	121.5	115.6	127.2	98.0	98.4

**Table A4: Bilateral exchange rate of the US dollar against the non - EU currencies**  
 index 1987 = 100

**Annual figures (period average)**

Year	AUS	CND	J	MX	NZ	N	CH	TR
1986	104.6	104.8	116.3	43.9	112.9	109.8	120.4	78.8
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	89.5	92.8	88.7	168.4	90.3	96.7	98.1	164.5
1989	88.5	89.3	95.5	182.2	99.0	102.5	109.8	247.9
1990	89.8	88.0	100.1	208.3	99.2	92.9	93.1	304.9
1991	90.0	86.4	93.1	223.6	102.4	96.2	96.1	482.4
1992	95.4	91.1	87.7	229.3	110.1	92.2	94.3	797.9
1993	103.1	97.3	76.9	230.8	109.5	105.3	99.2	1271
1994	95.8	103.0	70.7	249.8	98.8	104.8	91.7	3365
1995	94.6	103.5	65.0	474.1	90.2	94.1	79.4	5337
1996	89.5	102.8	75.3	562.9	86.1	95.9	82.9	9406
1997	94.3	104.4	83.7	586.7	89.4	105.0	97.4	17489
1998	111.4	111.8	90.4	675.8	110.4	112.2	97.3	30368

**Quarterly figures (period average)**

Qtr	AUS	CND	J	MX	NZ	N	CH	TR
95Q4	93.7	102.2	70.3	545.5	90.5	92.3	77.3	6204
96Q1	92.5	103.3	73.2	557.5	88.0	92.3	79.9	7530
96Q2	88.5	102.8	74.5	527.5	89.9	95.7	83.5	6949
96Q3	88.9	103.9	75.2	524.5	89.9	95.7	82.1	6017
96Q4	88.1	102.5	82.6	580.5	89.0	95.6	86.4	11595
97Q1	90.1	102.5	82.6	580.5	89.0	95.6	86.4	13885
97Q2	91.1	104.3	82.8	582.6	89.8	105.3	97.1	16099
97Q3	95.3	104.3	86.7	578.6	93.6	110.8	100.0	19022
97Q4	101.0	109.8	86.7	599.0	95.7	109.8	96.1	28176
98Q1	105.1	107.8	88.7	623.7	102.3	112.1	98.1	26115
98Q2	117.4	109.0	94.0	701.0	110.8	114.7	100.3	39226
98Q3	117.1	114.1	96.7	701.0	110.5	113.3	98.7	39226
98Q4	112.3	116.3	82.7	742.0	112.4	111.4	91.4	34360

**Monthly figures (period average)**

Month	AUS	CND	J	MX	NZ	N	CH	TR
DEC97	105.0	107.2	89.6	602.7	99.2	107.4	96.5	23130
JAN98	106.7	108.5	89.7	608.2	102.1	111.3	99.0	24816
FEB98	103.9	108.2	87.1	629.0	101.5	112.3	98.3	26167
MAR98	104.6	106.8	89.3	634.7	103.3	112.6	99.9	27631
APR98	107.4	107.8	91.6	629.5	107.0	111.9	101.2	28748
MAY98	111.2	108.9	93.4	635.5	110.0	110.7	99.3	29557
JUN98	115.9	110.4	97.0	660.6	115.5	112.3	100.3	30568
JUL98	113.4	112.0	97.4	659.2	114.2	113.3	101.7	31444
AUG98	118.9	115.5	100.2	694.2	118.1	114.8	100.4	32107
SEP98	119.2	114.8	93.2	755.5	117.4	112.5	94.1	32333
OCT98	113.4	116.4	83.7	752.4	113.3	110.5	89.8	32686
NOV98	110.4	116.1	83.4	740.1	110.8	110.7	93.0	34488
DEC98	113.3	116.3	81.1	733.8	113.2	113.0	91.4	35987

**Table B: Nominal Effective Exchange Rate  
Relative to 23 Industrial Countries (IC23)**

Annual figures (index 1987=100)

Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1986	95.4	95.2	92.6	110.0	98.3	98.1	101.3	97.8	94.8	95.3	106.9	98.2	99.8	100.0	91.2	90.4	106.1	90.8
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	99.3	98.5	100.2	94.0	104.2	98.6	98.6	97.5	100.0	100.2	95.1	101.9	100.6	106.7	98.3	100.9	107.3	111.3
1989	98.8	96.2	99.5	87.5	109.1	97.4	97.8	98.5	99.4	99.9	92.1	105.7	101.3	103.4	97.9	99.2	102.1	106.6
1990	104.1	103.3	105.1	80.4	114.4	103.5	103.6	102.1	103.4	103.5	90.7	107.7	100.1	102.7	109.9	112.9	98.2	105.4
1991	104.3	102.0	104.8	72.0	115.2	101.9	102.6	101.1	103.2	103.4	91.7	104.0	101.9	100.7	107.8	111.1	98.2	105.4
1992	106.9	105.0	109.0	67.1	113.2	106.1	105.9	98.9	106.1	106.3	95.1	91.2	101.9	100.7	113.4	116.4	97.1	111.1
1993	108.4	108.2	113.5	62.3	100.2	109.2	109.5	83.3	110.1	109.9	89.1	79.3	83.1	92.7	109.0	104.1	101.1	134.3
1994	111.2	109.0	116.0	59.4	94.9	111.5	101.2	81.2	111.7	111.4	85.9	86.6	82.9	94.2	111.4	107.4	101.2	134.9
1995	117.1	114.7	124.1	58.5	96.1	116.7	104.6	74.8	117.1	114.5	87.8	96.6	83.3	91.0	120.5	115.9	102.6	154.7
1996	115.4	114.1	122.1	58.2	97.7	117.6	104.6	82.7	115.4	114.5	87.8	94.3	81.8	93.1	123.6	122.7	109.1	135.0
1997	111.1	110.9	116.9	57.6	93.6	113.6	106.9	83.4	110.8	111.5	85.8	91.7	88.5	108.4	118.4	121.1	118.2	127.9
1998	112.0	112.6	118.6	54.8	94.0	115.2	102.1	84.3	111.5	112.8	85.0	91.6	87.6	113.2	118.6	127.8	125.6	121.1

Quarterly figures (index 1987=100)

Qtr	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
95Q4	117.8	116.0	124.8	57.6	98.1	118.2	102.0	76.5	117.6	116.4	87.6	98.1	89.7	90.1	123.7	119.9	105.4	132.7
96Q1	116.8	115.8	123.6	57.3	95.9	115.5	102.7	79.6	116.2	114.6	87.4	94.6	92.4	91.3	124.6	120.6	107.1	138.4
96Q2	115.2	114.5	121.3	58.7	97.4	117.7	103.0	83.0	114.3	114.3	88.0	92.4	92.6	92.4	124.6	123.6	109.1	134.4
96Q3	114.2	113.5	120.6	58.6	96.6	117.0	103.6	83.9	112.4	112.9	86.2	92.6	92.7	96.8	123.3	123.8	110.2	130.2
97Q1	112.4	112.2	119.6	59.2	94.6	115.7	103.7	83.2	112.9	112.9	86.4	91.8	86.6	107.4	118.7	123.0	115.7	128.2
97Q2	111.4	111.5	117.2	57.2	93.9	113.7	106.5	83.2	112.0	110.3	86.4	91.1	87.5	107.0	119.8	120.8	117.4	128.6
97Q3	109.7	109.3	114.8	57.1	92.9	113.6	106.5	82.7	109.5	110.3	84.7	91.1	88.5	110.3	117.4	117.4	119.2	129.3
97Q4	111.0	110.8	116.6	56.8	93.5	113.9	100.2	85.0	110.5	111.3	84.7	90.0	88.0	114.2	115.5	123.2	120.2	127.1
98Q1	110.5	110.7	119.3	56.3	92.8	113.3	100.2	85.0	111.1	112.3	84.6	90.0	88.0	114.7	117.0	123.2	126.4	127.1
98Q2	111.6	111.5	117.3	53.7	93.9	114.6	103.8	85.9	111.1	113.4	85.8	92.2	87.9	114.1	120.7	127.1	126.4	127.1
98Q3	112.7	113.5	119.6	54.7	94.5	116.0	103.8	85.9	112.0	113.4	85.8	92.2	87.9	114.1	120.7	130.9	129.1	133.6
98Q4	113.4	114.9	120.8	55.2	95.1	116.9	103.4	85.4	113.0	114.0	86.0	93.4	84.1	110.0	123.2	131.3	123.7	130.2

Monthly figures (monthly % change)

Month	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
DEC97	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.7	-0.3	-0.2	-0.1	-0.3	-0.6	-0.5	0.4	-0.7	-0.7	2.0	0
JAN98	-0.1	-0.1	-0.1	0.0	-0.5	-0.2	-0.3	-0.4	-0.1	0.0	-0.1	-0.3	-0.1	0.0	-0.4	-0.6	-0.6	-1.0
FEB98	-0.1	-0.2	-0.1	-0.7	-0.1	-0.1	-0.3	0.3	-0.1	0.5	-0.2	-0.3	2.0	0.0	-0.2	-0.9	0.6	3.0
MAR98	-0.3	0.3	0.6	-3.5	-0.2	0.2	1.2	0.3	0.4	0.8	0.9	1.3	0.6	-3.1	1.1	1.8	0.6	-2.4
APR98	0.3	1.3	1.3	-1.6	0.9	1.2	1.5	1.3	0.9	0.8	0.9	1.3	0.9	-3.1	3.0	2.2	0.3	-2.3
MAY98	0.0	0.0	0.1	2.0	0.0	0.0	-0.1	-0.2	-0.0	0.1	-0.1	0.2	0.1	-0.1	0.3	0.0	2.0	-3.1
JUN98	0.0	0.0	0.0	1.9	0.0	0.0	-0.2	-0.1	-0.0	0.1	0.1	0.0	-0.7	-0.1	0.1	0.0	0.5	-0.3
JUL98	0.5	1.0	0.7	-1.4	0.8	0.7	0.9	0.6	0.7	0.6	0.6	0.9	1.5	-0.5	1.6	1.4	1.9	-5.5
AUG98	0.7	1.0	1.1	-0.6	0.5	0.9	0.9	0.9	0.7	0.5	0.6	1.7	0.9	-0.9	2.2	2.0	-3.1	-5.5
SEP98	-0.3	-0.7	-0.5	1.9	-0.4	-0.7	1.0	-0.8	0.5	-0.2	0.5	1.7	-2.6	-2.6	1.6	2.0	-3.8	9.6
OCT98	-0.3	-0.8	-0.1	1.5	-0.6	-0.7	-1.0	-0.8	0.5	-0.5	0.4	-0.8	-2.6	-2.6	-1.6	-0.9	-0.7	1.3
NOV98	-0.1	-0.2	-0.1	0.2	-0.0	-0.0	-0.0	-0.0	-0.2	0.1	-0.1	-0.3	-1.3	-0.3	0.3	0.1	-0.8	2.6
DEC98	-0.1	-0.2	-0.1	0.2	-0.0	-0.0	-0.0	-0.0	0.2	0.1	-0.1	-0.3	-1.3	-0.3	0.3	0.1	-0.8	2.6

### Table C1: Consumer Price Index (CPI)

Annual figures (Index 1987=100): in national currency relative to 23 industrial countries (IC23)

Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1985	101.0	99.2	103.6	89.5	98.7	100.6	101.3	98.4	103.0	102.4	94.1	100.1	98.7	99.5	102.6	102.4	104.6	104.2
1986	99.7	100.0	107.1	109.8	100.6	97.1	100.0	100.0	97.1	98.3	100.7	100.6	100.0	100.0	97.4	97.8	98.7	99.9
1987	99.9	100.2	95.0	118.3	102.0	97.1	99.8	103.7	99.8	96.3	116.3	100.5	104.0	101.1	95.2	96.1	98.0	99.0
1988	99.4	97.7	92.5	120.3	103.8	94.8	99.5	105.6	99.7	93.2	124.6	101.1	109.0	105.4	92.3	94.6	93.5	98.6
1989	96.2	97.6	90.3	122.9	103.8	92.5	99.1	107.6	98.7	92.4	133.0	101.0	114.6	109.5	90.4	93.8	92.7	98.5
1990	93.1	94.2	91.3	125.4	107.3	89.8	97.0	109.3	96.0	92.4	140.0	101.0	112.5	108.2	88.4	93.0	93.5	98.7
1991	92.5	92.2	91.3	125.4	107.3	89.8	97.0	109.3	96.0	92.4	140.0	101.0	112.5	108.2	88.4	93.0	93.5	98.7
1992	92.5	92.2	91.3	125.4	107.3	89.8	97.0	109.3	96.0	92.4	140.0	101.0	112.5	108.2	88.4	93.0	93.5	98.7
1993	92.5	92.2	91.3	125.4	107.3	89.8	97.0	109.3	96.0	92.4	140.0	101.0	112.5	108.2	88.4	93.0	93.5	98.7
1994	92.5	92.2	91.3	125.4	107.3	89.8	97.0	109.3	96.0	92.4	140.0	101.0	112.5	108.2	88.4	93.0	93.5	98.7
1995	92.5	92.2	91.3	125.4	107.3	89.8	97.0	109.3	96.0	92.4	140.0	101.0	112.5	108.2	88.4	93.0	93.5	98.7
1996	92.5	92.2	91.3	125.4	107.3	89.8	97.0	109.3	96.0	92.4	140.0	101.0	112.5	108.2	88.4	93.0	93.5	98.7
1997	92.5	92.2	91.3	125.4	107.3	89.8	97.0	109.3	96.0	92.4	140.0	101.0	112.5	108.2	88.4	93.0	93.5	98.7
1998	89.6	88.2	85.3	223.1	110.7	82.5	86.7	113.3	84.2	88.9	152.8	94.7	112.1	108.4	80.4	80.5	85.9	76.8

### Table C2: Real Effective Exchange Rate based on CPI

Annual figures (Index 1987=100): relative to 23 industrial countries (IC23)

Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1985	96.4	94.4	96.0	98.4	97.0	98.6	102.6	96.3	97.7	97.6	100.6	98.3	98.0	99.0	93.6	92.6	111.1	94.6
1986	100.0	100.0	107.3	100.0	100.9	100.0	100.6	100.5	100.0	100.0	100.2	100.5	102.5	100.8	100.0	100.0	100.0	100.0
1987	97.2	96.4	97.3	103.6	104.2	97.6	98.9	103.2	99.2	98.2	107.2	106.3	105.3	105.3	95.8	95.7	94.1	100.7
1988	96.2	96.4	97.2	108.4	117.3	96.1	98.5	107.7	92.0	96.5	113.0	108.8	109.1	108.8	93.4	93.3	88.0	97.5
1989	90.0	90.9	92.2	108.4	117.3	96.1	98.5	107.7	92.0	96.5	113.0	108.8	109.1	108.8	93.4	93.3	88.0	97.5
1990	90.0	90.9	92.2	108.4	117.3	96.1	98.5	107.7	92.0	96.5	113.0	108.8	109.1	108.8	93.4	93.3	88.0	97.5
1991	90.0	90.9	92.2	108.4	117.3	96.1	98.5	107.7	92.0	96.5	113.0	108.8	109.1	108.8	93.4	93.3	88.0	97.5
1992	90.0	90.9	92.2	108.4	117.3	96.1	98.5	107.7	92.0	96.5	113.0	108.8	109.1	108.8	93.4	93.3	88.0	97.5
1993	90.0	90.9	92.2	108.4	117.3	96.1	98.5	107.7	92.0	96.5	113.0	108.8	109.1	108.8	93.4	93.3	88.0	97.5
1994	90.0	90.9	92.2	108.4	117.3	96.1	98.5	107.7	92.0	96.5	113.0	108.8	109.1	108.8	93.4	93.3	88.0	97.5
1995	90.0	90.9	92.2	108.4	117.3	96.1	98.5	107.7	92.0	96.5	113.0	108.8	109.1	108.8	93.4	93.3	88.0	97.5
1996	90.0	90.9	92.2	108.4	117.3	96.1	98.5	107.7	92.0	96.5	113.0	108.8	109.1	108.8	93.4	93.3	88.0	97.5
1997	90.0	90.9	92.2	108.4	117.3	96.1	98.5	107.7	92.0	96.5	113.0	108.8	109.1	108.8	93.4	93.3	88.0	97.5
1998	100.3	99.4	101.2	122.4	104.0	95.0	90.6	95.5	93.9	100.9	129.9	86.6	98.2	122.7	95.4	102.9	106.2	92.9

Quarterly figures (Index 1987=100): relative to 23 industrial countries (IC23)

Qtr	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
95Q4	107.3	102.3	110.2	120.0	108.0	101.0	91.6	86.7	99.6	104.6	131.6	94.5	101.8	97.1	105.3	104.5	92.9	112.6
96Q1	106.4	101.9	108.7	120.8	109.0	100.7	91.8	80.6	98.6	104.0	132.2	91.0	102.1	97.3	105.3	104.7	94.7	108.6
96Q2	104.8	100.4	106.4	124.5	107.9	99.9	92.6	84.0	97.1	102.8	131.9	88.8	104.4	98.9	103.7	104.0	95.5	107.1
96Q3	105.0	101.0	106.8	126.5	107.4	99.9	93.4	85.4	97.1	103.3	133.0	91.4	104.5	100.1	103.7	105.9	95.0	104.5
96Q4	103.7	100.4	105.3	127.2	106.5	99.0	95.1	86.6	95.9	102.6	132.4	90.9	104.6	107.0	103.1	106.9	95.7	101.1
97Q1	101.8	99.1	103.0	126.7	104.3	96.9	96.7	85.4	94.2	101.3	132.3	89.3	100.3	113.3	98.6	103.6	100.0	97.0
97Q2	98.6	98.4	101.5	125.0	103.5	95.4	93.8	84.7	93.3	100.3	130.9	87.4	98.3	116.4	95.5	100.7	101.0	99.6
97Q3	98.6	98.4	101.5	125.0	103.5	95.4	93.8	84.7	93.3	100.3	130.9	87.4	98.3	116.4	95.5	100.7	101.0	99.6
97Q4	99.7	97.6	100.5	126.9	103.1	94.8	93.4	83.7	91.8	98.5	128.4	85.9	100.0	119.5	91.3	96.9	102.2	103.2
98Q1	99.1	97.2	100.5	124.2	102.5	94.8	93.9	84.7	92.4	99.1	127.9	86.2	101.3	120.8	93.9	100.8	103.0	96.4
98Q2	99.9	98.4	100.8	118.0	103.4	94.6	93.9	84.9	93.4	99.9	129.0	85.9	101.8	123.7	91.9	99.1	105.6	95.8
98Q3	99.8	100.2	101.8	122.5	104.6	94.5	91.5	86.2	93.4	100.7	130.6	85.9	101.8	124.2	94.2	102.4	107.1	90.2
98Q4	101.6	101.7	102.4	124.9	105.6	96.2	93.1	87.1	95.5	101.3	132.4	88.7	93.4	119.4	98.8	105.2	103.3	99.1

### Table D1: GDP deflator

Annual figures (index 1987=100): in national currency relative to 23 industrial countries (IC23)

Year	BLEU	DK	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1986	101.3	99.2	102.3	98.7	101.0	101.8	97.8	104.4	101.4	94.1	99.2	99.6	98.6	101.9	101.3	105.7	104.4
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	98.3	99.1	96.6	100.9	98.5	99.0	102.5	97.9	97.8	106.9	102.6	102.0	101.8	97.3	98.1	96.0	98.1
1989	98.5	99.3	94.2	102.7	96.5	98.6	106.7	94.8	96.8	114.7	103.6	105.1	104.5	94.8	96.7	94.6	93.4
1990	97.0	97.6	120.4	104.3	94.4	95.6	109.4	91.8	93.8	123.2	101.4	109.1	107.6	92.8	96.1	93.4	91.1
1991	95.5	95.2	156.4	106.3	92.4	90.4	109.5	97.9	93.5	139.2	101.4	112.3	109.8	91.2	95.4	92.2	89.5
1992	95.1	93.9	171.5	108.3	90.3	88.2	109.5	96.9	92.3	143.6	97.4	105.6	109.9	91.2	94.3	90.7	87.9
1993	95.6	91.6	188.5	109.6	89.7	89.3	110.1	95.4	92.3	148.6	97.5	109.0	109.2	90.6	91.7	90.4	88.5
1994	95.3	91.5	202.1	110.5	87.1	89.3	110.9	95.4	91.1	152.6	95.5	108.9	107.1	89.7	89.5	87.7	85.5
1995	94.1	90.4	212.0	111.3	86.7	88.7	111.3	94.2	90.7	153.0	94.1	108.2	107.1	87.7	89.5	87.4	85.0
1996	93.9	90.4	222.4	112.2	84.8	86.7	114.3	94.2	90.7	153.0	94.1	107.1	108.6	85.9	87.2	86.0	83.0
1997	92.9	90.3	230.9	111.9	83.8	85.6	114.4	94.2	90.3	157.3	93.6	106.6	109.3	83.7	84.2	85.2	82.2
1998	92.5	90.6	236.9	112.1	82.8	86.1	114.4	94.2	89.4	157.3	93.6	106.6	109.3	81.7	81.7	84.6	81.9

### Table D2: Real Effective Exchange Rate based on GDP deflator

Annual figures (index 1987=100): relative to 23 industrial countries (IC23)

Year	BLEU	DK	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1986	96.7	94.5	94.8	97.0	98.1	103.1	95.6	99.0	96.6	100.6	97.4	99.4	98.0	92.5	91.6	112.2	94.8
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	97.6	97.0	103.9	105.1	96.9	97.6	103.9	94.4	98.0	105.9	104.8	102.6	108.6	95.7	95.0	92.9	100.9
1989	97.3	95.6	93.7	112.2	94.7	96.8	106.3	93.5	98.0	105.6	104.5	106.2	108.6	92.8	95.8	93.6	93.6
1990	101.0	100.8	107.4	119.8	97.2	97.8	108.9	94.8	98.1	121.9	102.5	109.2	110.6	96.3	108.5	91.7	88.0
1991	99.6	97.1	125.4	122.4	94.2	92.8	108.9	92.6	96.8	120.9	102.5	112.5	114.2	96.3	108.5	80.5	80.7
1992	101.7	98.5	151.1	123.3	95.7	94.7	108.3	92.6	96.8	124.4	97.6	111.6	117.2	103.4	110.7	86.5	97.7
1993	103.7	99.1	174.4	124.4	95.7	90.7	109.7	92.1	99.2	129.1	97.3	90.6	101.2	93.4	101.9	91.8	115.2
1994	106.0	99.8	200.0	124.4	97.3	90.4	109.7	92.1	101.4	129.1	97.3	90.6	101.2	93.4	98.5	91.5	121.9
1995	110.3	104.0	223.9	123.9	107.3	89.7	109.7	92.1	106.2	133.6	92.2	91.4	97.4	103.7	103.7	90.0	124.3
1996	107.8	103.2	229.5	109.6	99.7	88.9	107.3	92.1	103.8	134.4	88.6	94.8	100.9	106.2	106.9	93.9	105.4
1997	103.2	100.2	232.9	104.8	99.7	92.8	105.5	93.4	100.6	134.4	88.6	94.8	100.9	106.2	101.9	96.5	108.2
1998	103.6	102.1	239.9	105.4	95.4	89.9	96.4	94.0	100.9	133.7	85.8	93.4	123.8	96.9	104.5	106.7	91.9

Quarterly figures (index 1987=100): relative to 23 industrial countries (IC23)

Qtr	BLEU	DK	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
95Q4	110.4	104.9	112.2	124.4	109.9	101.1	88.6	86.4	106.1	133.6	93.2	97.4	96.6	107.8	106.5	91.4	113.1
96Q1	109.3	104.3	110.5	125.1	111.0	100.7	88.9	80.5	105.1	134.1	89.4	97.7	96.9	107.5	107.5	93.2	108.9
96Q2	107.6	102.7	107.9	129.0	109.8	99.8	90.0	84.3	103.5	133.6	86.9	99.9	98.6	105.7	105.6	93.9	107.3
96Q3	106.5	103.2	108.1	131.4	109.3	99.6	91.0	86.0	103.8	134.6	89.3	99.8	100.0	106.8	107.4	93.6	104.6
97Q1	104.6	102.6	106.3	132.6	108.3	98.7	93.1	87.4	103.0	135.2	89.0	99.7	107.0	104.9	108.3	94.4	100.9
97Q2	103.5	101.3	103.7	132.7	106.0	96.7	92.6	86.3	101.8	134.4	87.8	98.3	113.4	100.3	105.0	98.8	99.6
97Q3	103.5	100.7	101.9	131.7	105.1	95.4	92.6	85.3	100.9	133.2	86.3	93.2	116.6	97.2	102.1	100.1	99.9
97Q4	102.9	98.7	99.4	132.5	103.5	93.1	94.6	82.3	99.5	131.1	85.3	94.8	119.9	93.0	98.4	101.4	102.2
98Q1	102.4	99.8	100.5	134.9	104.6	93.4	95.5	82.3	100.0	131.6	85.9	95.9	121.2	95.7	102.4	102.5	99.3
98Q2	102.4	101.0	109.6	132.3	103.8	94.5	94.5	84.3	100.0	132.7	84.9	96.1	125.1	93.6	100.7	107.0	94.6
98Q3	104.2	101.0	125.7	104.7	105.9	92.1	95.8	81.8	100.8	132.7	85.5	96.5	125.1	95.8	104.1	105.0	88.0
98Q4	104.8	104.5	102.3	131.7	106.9	96.3	92.0	88.3	101.3	136.4	86.5	89.4	120.8	98.3	106.7	103.2	88.1

### Table E1: Price Deflator Exports of Goods and Services

Annual figures (Index 1987=100): in national currency relative to 23 industrial countries (IC23)

Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1986	103.7	102.9	102.0	93.6	99.0	101.3	100.7	99.8	105.8	102.2	90.8	98.9	98.6	98.0	103.5	102.6	102.9	107.5
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	100.8	97.9	98.5	104.0	99.5	99.5	103.3	100.1	97.7	99.6	108.8	101.9	102.7	96.7	98.8	97.5	101.7	93.2
1989	102.6	99.3	95.8	110.4	98.6	99.2	104.9	101.8	95.3	96.3	114.9	102.5	103.6	100.0	97.3	96.1	98.5	92.9
1990	100.1	98.5	94.3	126.3	98.8	96.3	104.7	103.4	95.3	96.3	120.3	101.5	103.5	103.8	94.6	96.1	97.1	93.3
1991	98.2	98.2	94.0	141.6	99.1	95.4	93.2	105.1	94.0	95.1	121.3	98.6	104.4	104.2	93.9	95.4	98.9	89.0
1992	96.9	100.3	94.3	153.2	101.8	93.0	90.8	106.3	91.2	94.6	119.4	105.1	100.9	105.6	94.7	97.9	85.3	85.3
1993	94.7	95.8	90.4	162.6	104.3	89.1	93.9	114.9	86.3	93.3	122.8	108.1	108.6	113.6	91.7	97.0	97.4	77.4
1994	93.7	94.1	90.4	172.9	106.6	88.8	93.1	114.0	86.3	92.5	127.6	108.1	110.8	112.4	89.6	93.9	96.2	72.9
1995	91.7	90.5	88.8	177.9	107.8	86.5	92.3	121.5	84.9	90.5	130.5	110.0	115.7	112.9	88.3	92.9	90.7	68.2
1996	94.3	92.3	87.5	186.1	108.7	85.2	91.0	122.5	84.7	89.7	124.8	108.4	107.3	113.1	86.5	89.6	85.6	72.3
1997	94.3	92.3	87.2	190.4	110.6	86.1	92.0	120.9	86.4	88.5	124.5	107.9	106.2	106.8	87.1	87.6	82.6	74.3
1998	93.6	91.9	87.2	195.7	111.2	86.5	95.5	120.2	85.6	88.5	127.1	108.3	106.4	101.6	86.7	84.9	81.0	76.5

### Table E2: Real Effective Exchange Rate based on Export Price Deflator

Annual figures (Index 1987=100): relative to 23 industrial countries (IC23)

Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1986	98.9	98.0	94.5	102.9	97.3	99.4	102.0	97.6	100.3	97.3	97.0	97.1	98.4	98.0	94.3	92.8	109.3	97.6
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	100.1	96.4	98.7	97.7	103.7	98.0	101.8	97.6	97.7	99.9	103.5	103.8	103.3	103.2	97.1	98.4	99.0	103.8
1989	101.4	95.6	95.3	96.6	113.0	96.7	102.5	105.6	96.5	96.7	104.8	109.3	103.7	103.4	95.2	96.6	100.6	99.1
1990	102.7	101.8	99.1	101.9	113.0	99.7	95.7	106.2	98.5	98.4	109.2	109.3	104.6	106.6	104.0	108.5	95.3	99.1
1991	102.4	100.2	98.6	102.8	115.2	98.6	96.2	105.1	96.9	98.4	111.2	102.6	102.8	108.3	101.2	106.0	97.2	93.8
1992	103.6	105.3	102.8	102.8	115.2	98.6	96.2	105.1	96.9	98.4	111.2	102.6	102.8	108.3	101.2	106.0	97.2	93.8
1993	102.7	103.6	104.8	101.2	104.6	97.3	94.3	92.6	96.3	102.6	109.5	86.5	90.2	105.3	100.0	100.9	88.5	104.0
1994	104.2	102.6	104.8	102.6	101.1	99.3	94.3	92.6	96.4	103.0	109.6	93.6	91.8	105.9	99.8	100.9	87.4	106.3
1995	107.0	104.0	110.1	104.0	103.6	101.0	94.0	90.9	99.4	105.1	114.6	106.2	96.3	102.7	106.4	107.0	93.1	105.5
1996	105.9	103.2	106.8	108.3	106.2	100.2	95.2	101.3	97.6	102.7	109.6	102.2	98.4	105.2	107.0	110.0	93.3	107.6
1997	104.7	102.4	102.0	109.6	103.5	97.8	98.4	100.8	95.7	98.7	106.8	99.0	94.0	115.7	100.4	106.0	97.6	95.0
1998	104.9	103.5	103.4	107.3	104.5	99.7	97.5	101.3	95.4	99.8	108.0	99.2	93.1	115.0	102.9	108.5	101.7	92.6

Quarterly figures (Index 1987=100): relative to 23 industrial countries (IC23)

Qtr	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
95Q4	107.0	104.2	110.2	104.0	106.0	101.1	93.7	94.6	98.3	104.8	113.0	108.0	101.5	102.4	108.4	110.6	93.2	97.9
96Q1	106.5	105.7	108.0	104.9	106.2	100.6	93.4	91.4	97.3	103.5	109.9	103.4	99.5	102.7	109.0	109.5	94.9	97.1
96Q2	106.2	103.4	106.6	108.1	106.2	100.0	93.4	91.4	97.3	103.5	109.9	103.4	99.5	102.7	109.0	109.5	94.9	97.1
96Q3	106.1	103.4	106.5	109.0	106.5	100.3	93.6	93.2	97.2	102.7	108.7	102.9	97.8	104.4	106.4	107.5	92.7	98.6
96Q4	104.8	102.8	105.3	109.2	105.5	99.5	93.6	93.2	97.2	102.7	108.7	102.9	97.8	104.4	106.4	107.5	92.7	98.6
97Q1	104.9	102.8	105.3	109.2	105.5	99.5	93.6	93.2	97.2	102.7	108.7	102.9	97.8	104.4	106.4	107.5	92.7	98.6
97Q2	104.8	102.8	105.3	108.9	105.6	99.6	93.6	93.2	97.2	102.7	108.7	102.9	97.8	104.4	106.4	107.5	92.7	98.6
97Q3	103.9	102.8	100.2	108.3	102.0	98.3	93.6	90.9	96.0	98.9	106.5	98.5	96.4	115.8	101.1	102.7	98.7	93.0
97Q4	103.4	102.8	101.5	109.4	103.3	98.2	93.6	91.0	96.0	98.9	106.5	98.5	96.4	115.8	101.1	102.7	98.7	93.0
98Q1	104.9	103.2	102.5	109.4	103.3	98.2	93.6	91.0	96.0	98.9	106.5	98.5	96.4	115.8	101.1	102.7	102.2	92.6
98Q2	105.3	103.2	102.3	109.2	105.0	100.4	93.6	91.0	96.0	98.9	106.5	98.5	96.4	115.8	101.1	102.7	102.2	92.6
98Q3	105.3	104.1	102.3	109.2	105.0	100.4	93.6	91.0	96.0	98.9	106.5	98.5	96.4	115.8	101.1	102.7	102.2	92.6
98Q4	104.0	104.1	105.1	110.2	105.2	100.8	100.5	102.3	94.7	102.0	108.7	100.0	93.4	115.3	104.5	106.6	102.4	92.3



### Table F1: Unit Labour Costs in Economy as a whole (ULCE)

Annual figures (index 1987=100): in national currency relative to 23 industrial countries (IC23)

Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1986	103.0	95.9	101.8	92.8	98.8	102.6	102.8	98.6	101.8	101.6	94.3	100.2	100.3	99.1	102.2	102.0	103.9	105.3
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	96.6	99.6	96.3	111.5	101.9	97.1	98.9	102.4	97.1	97.5	104.3	101.0	102.9	103.3	95.9	97.2	97.2	94.8
1989	94.9	92.7	98.7	128.0	103.3	94.4	94.4	104.3	91.8	95.8	112.1	101.7	109.6	109.9	91.5	95.7	94.4	92.6
1990	95.2	95.2	88.8	154.3	106.3	92.1	89.7	108.1	88.3	93.6	123.2	104.4	115.4	114.7	88.6	94.6	93.1	89.4
1991	95.8	92.1	86.3	158.2	108.2	89.8	86.3	110.9	86.6	92.6	138.8	106.7	116.7	117.0	86.4	92.9	91.2	87.3
1992	95.6	90.5	88.2	166.3	111.9	87.8	85.8	110.3	86.0	92.7	148.6	101.0	113.5	116.2	87.0	93.0	89.3	85.5
1993	96.7	87.8	88.9	181.6	113.8	87.7	87.0	108.6	85.5	92.9	151.8	94.2	112.6	113.2	87.2	91.9	89.0	84.0
1994	97.2	87.1	87.8	201.1	112.8	86.1	84.4	106.3	84.1	93.1	154.4	91.3	112.2	113.1	84.5	88.4	88.9	84.0
1995	96.4	86.3	85.4	234.5	112.1	85.4	79.2	104.8	83.1	92.3	156.8	90.1	110.4	112.2	83.0	86.1	88.1	81.8
1996	94.6	86.3	85.4	234.5	112.8	85.0	77.2	108.3	82.2	89.9	159.9	88.6	113.6	112.6	81.1	83.8	86.5	78.3
1997	93.7	87.6	81.9	246.0	112.6	83.6	75.4	109.6	82.2	87.6	164.4	86.0	113.0	114.2	77.6	79.7	85.9	78.3
1998	93.2	89.6	79.3	249.8	112.6	82.9	74.1	105.3	82.6	86.7	167.2	85.3	112.7	116.7	74.1	75.8	86.6	77.7

### Table F2: Real Effective Exchange Rate based on ULCE

Annual figures (index 1987=100): relative to 23 industrial countries (IC23)

Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1986	98.3	91.3	94.3	102.0	97.1	100.6	104.1	96.4	96.5	96.8	100.8	98.4	100.0	99.2	93.2	92.3	110.3	95.6
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	95.9	98.1	96.5	104.7	106.2	95.6	97.5	99.8	97.2	97.8	99.2	103.0	103.5	110.2	94.3	98.1	94.7	105.5
1989	93.8	95.0	92.3	120.9	112.0	92.0	92.3	102.7	91.2	95.7	103.3	107.5	111.0	113.7	89.6	94.9	96.4	98.7
1990	99.0	98.3	93.4	120.9	121.7	95.3	92.9	110.3	91.2	95.8	111.8	112.5	115.4	117.8	97.3	106.8	91.4	86.3
1991	99.9	93.9	90.4	111.1	124.6	91.6	88.6	112.1	89.4	95.8	127.2	111.1	116.9	121.6	93.2	103.2	89.5	92.0
1992	102.2	95.0	96.1	111.6	126.6	93.1	90.9	109.1	91.2	98.6	141.3	92.1	115.7	117.0	98.7	108.3	86.8	95.0
1993	104.8	94.9	100.9	113.1	114.1	95.8	87.4	90.5	94.1	102.2	135.3	74.7	93.5	104.9	95.0	95.7	90.1	112.7
1994	108.1	95.0	101.9	119.4	107.1	96.0	85.5	86.3	93.9	103.7	132.6	79.1	93.0	106.5	94.1	95.0	89.9	122.5
1995	113.0	99.9	108.8	129.0	107.8	99.7	80.6	78.4	97.3	107.3	137.6	87.0	104.3	102.1	100.0	99.8	90.3	126.6
1996	109.2	98.5	104.2	136.5	110.2	99.9	80.7	89.5	94.8	102.9	140.4	83.6	104.3	104.8	100.2	102.8	94.3	105.8
1997	104.1	97.2	95.7	141.7	105.4	95.0	80.6	91.4	91.1	97.7	141.1	78.9	104.3	104.8	89.5	96.5	101.6	100.1
1998	104.5	100.9	94.1	137.0	105.8	95.5	75.7	88.7	92.1	97.7	142.1	78.1	98.7	132.1	87.8	96.9	108.7	94.1

### Quarterly figures (index 1987=100): relative to 23 industrial countries (IC23)

Qtr	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
95Q4	112.9	100.7	109.1	130.7	110.1	100.9	79.5	80.7	97.3	106.7	138.1	88.1	98.9	100.8	102.1	102.5	92.1	114.7
96Q1	111.3	99.7	107.1	131.7	111.3	100.7	79.5	85.0	96.2	105.1	139.2	84.6	100.8	101.0	101.8	102.6	93.9	109.7
96Q2	109.2	97.9	104.2	135.9	110.4	100.1	80.2	89.1	94.7	102.9	139.2	82.2	104.6	102.7	99.9	101.6	94.5	107.6
96Q3	107.5	98.4	103.6	138.6	109.0	99.9	80.9	91.2	94.7	102.5	141.0	84.2	105.7	104.1	100.6	103.1	94.1	104.7
97Q1	105.5	97.1	103.6	140.3	109.0	98.0	82.3	93.0	93.6	101.1	142.4	83.3	106.0	111.6	98.5	103.8	94.9	101.2
97Q2	105.4	97.4	98.6	140.9	106.7	96.8	83.5	92.3	92.0	99.4	142.2	81.4	101.3	118.6	93.9	100.2	99.4	97.5
97Q3	102.7	96.0	95.5	140.3	105.7	95.3	80.7	91.5	91.3	98.1	141.6	79.2	99.8	122.3	90.4	97.0	100.8	100.5
97Q4	102.8	96.0	93.3	141.4	105.1	93.1	80.0	90.7	90.0	96.3	139.9	77.5	99.8	126.2	86.0	93.0	102.4	98.0
98Q1	103.3	98.0	93.1	141.2	104.3	93.9	74.5	89.3	90.8	96.6	140.3	76.4	100.5	128.1	85.0	96.2	107.1	97.5
98Q2	103.2	100.0	93.8	133.4	105.2	93.9	75.5	89.3	91.8	97.4	141.6	77.1	101.2	133.3	87.1	96.8	109.3	91.7
98Q3	105.0	103.0	95.5	136.8	106.4	96.1	76.1	88.8	92.6	96.2	142.8	78.6	99.0	135.5	86.8	98.7	112.0	88.1
98Q4	105.4	103.3	95.1	136.7	107.5	97.2	76.6	87.5	93.3	98.8	143.7	80.4	96.1	129.7	89.8	98.2	106.8	89.3

### Table G1: Unit Labour Costs in Manufacturing (ULCM)

Annual figures (Index 1987=100): in national currency relative to 23 industrial countries (IC23)

Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1986	101.4	93.9	96.4	93.2	99.6	101.5	109.7	100.2	101.3	102.4	96.6	103.4	99.3	97.0	98.4	96.8	111.2	104.1
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	97.4	98.1	98.9	118.3	103.0	95.8	94.8	101.0	96.7	97.5	113.1	100.8	105.7	99.6	97.1	97.3	94.8	95.9
1989	95.4	95.1	97.0	135.0	106.8	92.5	90.1	106.3	91.5	94.1	121.7	101.8	110.9	98.9	94.0	94.0	94.4	90.0
1990	94.9	96.0	94.0	154.2	111.6	91.1	87.1	106.2	88.1	93.4	137.3	104.5	113.9	101.8	92.1	93.4	92.9	87.2
1991	95.1	93.6	91.1	160.0	112.1	90.6	85.0	106.7	86.6	90.7	156.6	104.6	117.7	102.9	90.1	91.8	91.5	87.2
1992	93.5	94.1	93.0	168.8	115.2	88.9	81.2	106.7	86.8	89.0	171.0	86.2	104.6	90.0	88.7	88.6	90.1	88.0
1993	93.3	90.4	94.1	178.3	118.3	88.4	81.4	106.1	86.4	88.8	180.2	83.7	100.7	86.2	84.5	86.6	91.3	89.2
1994	91.7	90.7	93.8	196.6	118.7	84.7	76.7	104.0	82.4	88.8	180.2	83.7	100.7	86.2	84.5	86.6	91.3	89.2
1995	90.3	93.9	95.4	217.5	115.5	83.1	66.7	106.5	79.7	80.5	175.3	86.5	100.0	85.3	85.2	84.5	89.4	90.4
1996	89.8	96.9	89.6	234.8	123.3	77.4	64.4	109.1	76.6	84.3	173.5	81.2	98.0	82.2	82.2	84.5	89.4	90.4
1997	90.4	100.7	86.8	235.9	126.1	75.7	62.8	104.7	75.5	84.3	171.6	78.1	94.8	74.6	74.6	78.7	88.4	88.7
1998	90.4	100.7	86.8	235.9	126.1	75.7	62.8	104.7	75.5	84.3	171.6	78.1	94.8	74.6	74.6	78.7	88.4	88.7

### Table G2: Real Effective Exchange Rate based on ULCM

Annual figures (Index 1987=100): relative to 23 industrial countries (IC23)

Year	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
1986	96.7	89.5	89.3	102.5	97.9	99.6	111.1	98.0	96.0	97.6	103.2	101.5	99.1	97.1	89.7	87.6	118.0	94.5
1987	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1988	96.7	96.6	99.1	119.2	107.4	94.2	93.5	98.5	96.8	97.7	107.6	102.8	106.4	106.3	92.0	98.2	92.3	106.7
1989	94.2	91.5	96.6	118.1	116.5	90.1	88.1	102.7	90.9	94.0	112.1	107.6	112.0	102.3	92.0	93.2	96.5	99.1
1990	98.8	99.2	98.7	123.9	127.7	94.2	90.3	108.3	91.1	96.7	124.6	112.5	114.0	104.6	92.0	105.5	91.2	86.9
1991	99.2	95.4	95.5	115.2	129.1	92.3	86.0	109.6	89.4	93.2	143.5	108.8	117.8	106.9	97.2	102.0	89.9	91.9
1992	100.0	95.4	101.4	113.3	130.4	94.3	86.0	105.5	82.6	95.4	157.5	84.8	115.5	101.7	102.0	105.2	87.5	97.8
1993	101.1	97.8	106.8	113.0	118.6	96.5	87.6	84.5	85.8	97.8	152.4	68.4	86.9	95.4	95.9	90.8	87.6	127.5
1994	102.0	103.2	106.8	116.7	110.8	94.4	77.6	84.5	82.4	98.9	154.8	72.5	83.5	95.4	90.8	90.8	86.9	139.8
1995	105.8	110.6	118.3	127.2	111.0	97.0	69.9	77.0	83.4	100.2	154.0	83.6	81.4	95.8	102.8	98.0	84.9	119.3
1996	104.2	107.2	114.6	131.5	117.2	95.0	69.9	88.1	89.3	105.8	148.9	79.3	91.8	98.6	100.8	100.8	86.9	139.3
1997	99.6	107.4	104.7	135.2	115.4	87.9	68.8	91.0	84.9	94.0	148.9	74.5	86.7	90.7	90.7	94.7	93.1	110.4
1998	101.3	113.4	103.0	123.4	118.5	87.2	64.1	88.2	84.2	95.0	145.8	71.5	83.0	120.7	88.4	94.2	96.1	107.4

Quarterly figures (Index 1987=100): relative to 23 industrial countries (IC23)

Qtr	BLEU	DK	D	GR	E	F	IRL	I	NL	A	P	SF	S	UK	ERM	EUR15	USA	J
9:04	106.3	110.7	119.4	128.1	114.3	97.7	68.2	79.3	82.7	105.3	154.6	85.0	87.3	95.1	105.3	101.2	84.9	127.0
9:01	105.5	108.9	117.6	128.0	116.7	96.6	68.5	83.5	81.2	103.6	153.4	85.1	86.0	94.9	104.9	100.7	84.4	123.0
9:02	104.1	106.4	114.7	131.0	119.9	95.5	69.4	87.9	89.0	103.3	153.4	85.1	86.2	94.2	104.9	100.7	84.4	123.0
9:03	104.3	106.7	114.3	132.8	117.6	94.6	70.1	89.1	89.0	103.3	154.1	85.1	86.0	94.2	104.9	100.7	84.4	123.0
9:04	103.1	106.6	111.7	134.0	117.5	93.0	71.2	91.6	87.7	100.3	154.1	85.1	86.0	94.2	104.9	100.7	84.4	123.0
9:01	101.2	106.6	108.2	134.4	115.8	90.3	71.9	91.5	86.0	98.2	152.3	85.1	86.0	94.2	104.9	100.7	84.4	123.0
9:02	100.0	107.2	105.6	133.8	115.5	88.4	69.1	90.5	85.2	98.2	149.8	85.1	86.0	94.2	104.9	100.7	84.4	123.0
9:03	98.4	106.6	102.8	137.5	114.3	85.9	68.1	90.5	83.6	98.2	148.8	85.1	86.0	94.2	104.9	100.7	84.4	123.0
9:04	99.4	109.6	102.8	137.5	115.0	86.9	66.3	91.1	84.9	92.7	145.3	85.1	86.0	94.2	104.9	100.7	84.4	123.0
9:01	99.1	110.5	101.4	134.5	115.7	85.9	62.9	88.4	83.9	92.0	145.3	85.1	86.0	94.2	104.9	100.7	84.4	123.0
9:02	100.4	112.7	102.3	128.6	119.3	89.9	63.7	88.2	84.3	95.7	146.1	85.1	86.0	94.2	104.9	100.7	84.4	123.0
9:03	102.0	114.8	103.5	129.4	119.4	89.9	64.4	88.2	84.3	95.7	146.1	85.1	86.0	94.2	104.9	100.7	84.4	123.0
9:04	103.6	115.5	104.7	127.6	121.5	88.7	65.5	88.2	84.2	97.6	147.0	85.1	86.0	94.2	104.9	100.7	84.4	123.0



## TECHNICAL ANNEX

### INTRODUCTION

The quarterly report on price and cost competitiveness presents recent changes in the nominal and real effective exchange rates of the 14 EU currencies<sup>1</sup>, Norway, Australia, Canada, Japan and the United States. Aggregate measures for the European Union (EUR15) and the group of countries participating in the Exchange Rate Mechanism (ERM) are presented as well.

The nominal effective exchange rate (NEER) describes changes in the average value of a currency with reference to a given base period and a given group of reference countries. It is calculated as a weighted geometric average of the bilateral exchange rates against the currencies of competing countries. In this report, three alternative groups of competitor countries are considered: a group of 23 industrial countries (IC23), the 15 Member states of the European Union (EUR15) and the group of countries participating in the Exchange Rate Mechanism (ERM).

The real effective exchange rate (REER) is the main indicator of price and cost competitiveness. It is calculated as the sum of the nominal rate and a trade-weighted price or cost deflator. The REER attempts to show the movement in the prices or costs of production of domestically produced goods relative to the prices or costs of goods produced by competitor countries, when expressed in a common currency.

Double export weights are used to calculate NEERs and REERs, reflecting not only competition in the home markets of the various competitors, but also competition in export markets elsewhere.

Our computer programme permits each user to make his own choice of competitor countries, reference period, method to calculate trade weights and, in the case of real effective exchange rates, price or cost deflators. This technical annex describes the choices made in this report. Differently defined nominal and real exchange rates can be provided to interested persons or organisations upon request. Please fax your request to the European Commission, Directorate-General for Economic and Financial Affairs (DG II-D-4), fax n° 32-2-299.35.05, or consult our web site "<http://europa.eu.int/comm/off/rep/pccr/>".

### METHOD

#### 1. Choice of reference period

The choice of the reference period in assessing developments in nominal and real effective exchange rates is necessarily arbitrary and should not be seen as implying that exchange rates prevailing in this reference period were in equilibrium.

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<sup>1</sup> The Belgium Luxembourg Economic Union (BLEU) uses a single currency.

## **2. Calculation and application of trade weights (that transform the bilateral exchange rates into effective exchange rates)**

The trade weights used are double export weights. This implies that the bilateral exchange rates between the currency of a given country and the currencies of its competitor countries are weighted according to both:

- (1) the competitors' share in the total supply of competing goods (including the supply by domestic producers) in each market separately; and
- (2) the relative share of each market in the total exports of the given country.

The weight matrices of year t-1 are used to calculate the change in the effective exchange rate between the year t and t-1. If no weights are available for the year t-1, the weights of the latest year available are used.

## **3. Price and cost deflators (to transform the nominal effective exchange rates into real effective rates)**

Five real effective exchange rates (each based on a different deflator) have been calculated in order to provide a comprehensive assessment of a country's price and cost competitiveness. The following deflators have been used:

- (1) the deflator of private consumption;
- (2) the GDP deflator;
- (3) the price deflator of exports of goods and services (PX);
- (4) Unit Labour Costs in Economy as a whole (ULCE); and
- (5) Unit Labour Costs in Manufacturing (ULCM).

## **4. German unification**

The competitiveness indicators presented here reflect developments in unified Germany wherever possible. In practice, this means that pan-German data are used to calculate the weight matrices. The deflators, however, are unified only from 1995 on. Earlier data concern western Germany only. Consequently, the transitional high rates of inflation observed in the new German Länder after unification (between 1991 and 1994) are not reflected in the real effective exchange rate of the German mark as presented in this report. The introduction of pan-German data causes a break not only in the German series, but also in all other series of **effective** exchange rates because of Germany's role as a competitor. However, a break in the series is technically unavoidable and a reflection of reality.

## **DATA SOURCES**

### **1. Nominal bilateral exchange rates and deflators**

Exchange rate data are taken from DGII's TXI data base. TXI contains the official daily rates recorded at 14.15 hours. Monthly figures are calculated as the arithmetic mean of the daily rates. Quarterly and yearly data are geometric means of these monthly figures.

Annual data for the deflators (including Commission forecasts for the current year) come from DGII's AMECO data base. As the calculation of real effective exchange rates requires a full data set, missing data have been estimated. The annual data have been transformed into quarterly data by applying a straight-forward spline method.

### **2. Weight matrices:**

The double export weight matrices are derived from trade matrices with domestic production for the home market on the diagonal. The source of data on bilateral exports is the DoT (IMF) data base. The source of data on domestic production (defined as GDP - exports) is national accounts' data from AMECO. Table H in Part 2 of the report reproduces the most recent weight matrices used in calculating effective exchange rates. In this report the latest weight matrices available are those of 1995.

## **COUNTRY COVERAGE**

### **1. Competitors**

The report presents nominal and real effective exchange rates relative to a group of 23 industrial countries (IC23), relative to the European Union as a whole (EUR15) and relative to the group of countries participating in the Exchange Rate Mechanism. IC23 consists of the 19 economies for which competitiveness indicators are calculated (see Introduction) plus Mexico, New Zealand, Turkey and Switzerland.

### **2. Markets**

Besides the countries considered as competitors, the following markets are distinguished: other Europe (including the Central and Eastern European Countries and the countries that used to be part of the USSR), other Asia/Oceania, other Western hemisphere, Africa, the Middle East and the rest of the World (including North Korea and Cuba). The conventions used in DoT/IFS (IMF) are followed strictly with two exceptions: (1) the industrial countries are not treated as a separate category; (2) the former East and West Germany are considered as a single entity: Germany.

