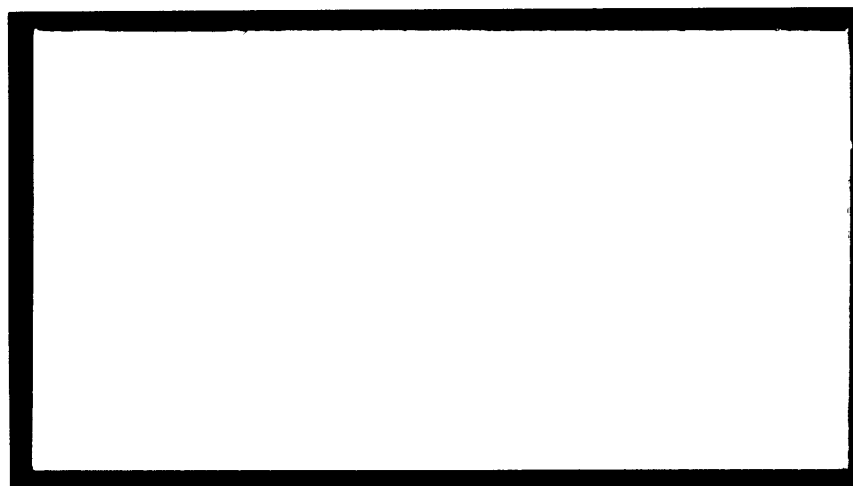


# PRICE AND COST COMPETITIVENESS

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**

ECFIN/C-1

First quarter 2000

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

# PRICE AND COST COMPETITIVENESS

QUARTERLY REPORT – FIRST QUARTER 2000

This series of quarterly reports provide a periodic assessment of the **price and cost competitiveness of the euro area and the individual Member States of the European Union**. *Part 1* offers an overview of international and intra-EU price and cost competitiveness positions. *Part 2* is a data section which provides data for the euro area, for each Member State, as well as for five other industrial countries (United States, Japan, Norway, Australia, and Canada).

The **nominal effective exchange rate (NEER)** of a country (or currency area) aims to track changes in the value of that country'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.

Changes in cost and price competitiveness depend not only on exchange rate movements but also on cost and price trends. The **real effective exchange rate (REER)** aims to assess a country (or currency area's) price or cost competitiveness relative to its principal competitors in international markets. It corresponds to the NEER deflated by selected relative price or cost deflators.

Countries in the euro area share a single currency and there is no longer any exchange rate between them. For these countries, the terms "nominal effective exchange rate" and "real effective exchange rate" have been replaced by the terms "**trade-weighted currency index**" and "**relative price and cost indicators**" but the underlying concepts and their calculation remains the same. The trade-weighted currency indices for individual countries using the euro may diverge because they have different trading patterns. In addition, the relative price and cost indicators may evolve differently due to diverging price and cost trends.

A comprehensive assessment of developments in cost and price competitiveness should ideally draw on various measures of the real effective exchange rate. Most international trade is in manufactured goods and some widely used measures focus on **unit labour costs in the manufacturing industry (ULCM)**. However, in-house 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 financial services, marketing, accounting etc. In addition, an increasing amount of services are traded internationally. Therefore, some prefer to consider developments based on **unit labour costs in the whole economy (ULCE)**. Moreover, capital costs account for a sizeable fraction of total costs. Price measures such as the **GDP-deflator (PGDP)** include the return on capital. On the other hand, the measures based on ULCE and PGDP cover many sectors whose output is neither directly nor indirectly traded. The discussion in Part 1 focuses on real effective exchange rates as measured by unit labour costs in the whole economy, but Part 2 of the report also shows real exchange rates based on the deflator of private consumption, and the deflator of exports of goods and services (PX).

**1994 is taken as the base period** for the indicators of price and cost competitiveness. This does not imply that 1994 exchange rates should be treated as equilibrium rates.

The quarterly report is also available on the Internet. Our Web site, "[http://www.europa.eu.int/comm/economy\\_finance/document/pccr/pccr\\_en.htm](http://www.europa.eu.int/comm/economy_finance/document/pccr/pccr_en.htm)", 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.

# PRICE AND COST COMPETITIVENESS

QUARTERLY REPORT – FIRST QUARTER 2000

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**PART 1**

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

## RECENT DATA REVISIONS

Due to major revisions in the basic data sets used for the calculations of real effective exchange rates, the figures presented in this Quarterly report deviate sometimes quite substantially from previous Quarterly reports. Time series of deflators were revised in accordance with the introduction of the new European System of Accounts (ESA95)<sup>1</sup> definitions, as well as a different treatment of the impact of German unification on unit labour cost data for Germany (see separate box).

The following table illustrates the impact of these changes on the relative cost and price indicators (relative to the euro area) for selected countries. The table compares the current data for 1999Q4 relative to the figures published in the fourth quarter 1999 issue of the Quarterly Report. The differences are, in some cases, substantial.

Relative cost and price indicators of selected individual countries relative to the euro area (EUR11) :									
Comparison of 99 Q4 results based on revised data to those published previously									
% Change	Over the last year (99 Q4 / 98 Q4)			Over the last two years (99 Q4 / 97 Q4)			Relative to 1987-98 average (99 Q4 / Average 87-98)		
	ULCE	ULCM	PGDP	ULCE	ULCM	PGDP	ULCE	ULCM	PGDP
BLEU(1)	-0.5	-1.1	-0.3	0.6	2.4	0.1	4.3	4.7	1.5
BLEU(2)	-0.4	0.2	-0.1	0.2	1.9	0.2	3.3	0.8	1.5
Germany (1)	0.4	1.8	-0.7	0.2	-1.0	-1.1	-0.3	2.4	0.0
Germany (2)	-0.9	0.0	-0.5	-0.7	-0.9	-0.6	-1.8	4.8	-0.8
Spain (1)	-0.3	-0.2	0.7	0.8	2.9	0.9	-3.2	5.5	-3.5
Spain (2)	0.7	2.8	2.1	2.5	5.5	2.8	-0.7	6.1	-1.2
France(1)	-0.7	-1.0	-0.5	0.0	1.4	-1.2	2.3	-1.5	-1.6
France(2)	-0.7	-2.5	-0.9	-0.3	-1.9	-1.7	1.6	-7.1	-1.1
Ireland(1)	1.2	-4.0	2.0	-0.6	-9.5	1.7	-6.7	-21.6	2.7
Ireland(2)	1.9	-0.9	1.8	-0.8	-9.5	1.7	-1.0	-25.7	7.6
Italy (1)	-0.4	-0.5	0.6	-4.2	-2.3	1.2	-6.5	-2.4	-0.1
Italy (2)	0.2	0.6	0.1	-3.6	-1.3	0.4	-5.5	1.1	-0.6
Netherlands(1)	1.4	1.4	0.7	4.2	2.9	1.5	4.0	-2.1	0.5
Netherlands(2)	2.1	1.9	0.9	3.9	4.4	1.2	4.3	-1.3	0.3
Austria(1)	-0.4	-1.4	0.5	0.5	-0.1	0.6	0.5	-1.0	2.0
Austria(2)	0.0	-0.8	-0.1	1.4	0.8	-0.6	2.8	0.7	0.9
Portugal(1)	1.0	0.6	2.1	3.4	2.0	3.5	18.8	11.9	16.8
Portugal(2)	2.3	-0.2	0.8	5.4	1.9	3.4	17.9	13.4	14.5
Finland (1)	-1.5	-3.0	-0.6	0.3	-3.1	-1.1	-12.2	-17.2	-9.6
Finland (2)	1.0	1.9	-0.5	2.4	2.2	-0.5	-10.4	-12.2	-8.0
Denmark(1)	1.8	1.4	1.1	6.0	6.3	2.2	8.4	11.9	2.9
Denmark(2)	2.1	4.2	1.6	5.4	8.4	3.0	8.3	18.2	5.3
Greece(1)	0.9	-0.1	2.2	-4.1	-5.5	-2.4	15.1	9.1	13.9
Greece(2)	1.8	-0.9	2.1	-1.7	-6.1	-2.5	17.0	9.0	13.5
Sweden(1)	7.4	8.6	8.0	1.7	2.4	-2.1	2.6	-4.3	-4.9
Sweden(2)	7.0	5.7	8.0	-1.5	-1.7	-2.2	-1.2	-10.3	-4.4
UK(1)	11.4	11.5	10.7	11.4	11.2	7.2	29.1	37.5	21.0
UK(2)	12.6	14.8	12.1	12.5	20.4	9.3	30.9	45.8	24.2
USA(1)	12.9	13.0	12.6	9.5	10.1	6.5	21.8	17.4	14.2
USA(2)	14.2	12.7	14.0	10.5	8.6	7.9	20.7	14.0	14.9
Japan(1)	26.4	22.1	24.0	22.4	23.7	21.7	20.7	28.0	14.9
Japan(2)	25.1	22.1	27.4	24.8	24.5	24.3	24.3	28.0	18.0

(1) : figures published in the 4th quarter 1999 issue of the Quarterly Report  
(2) : corresponding figures based on the present revised basic data sets

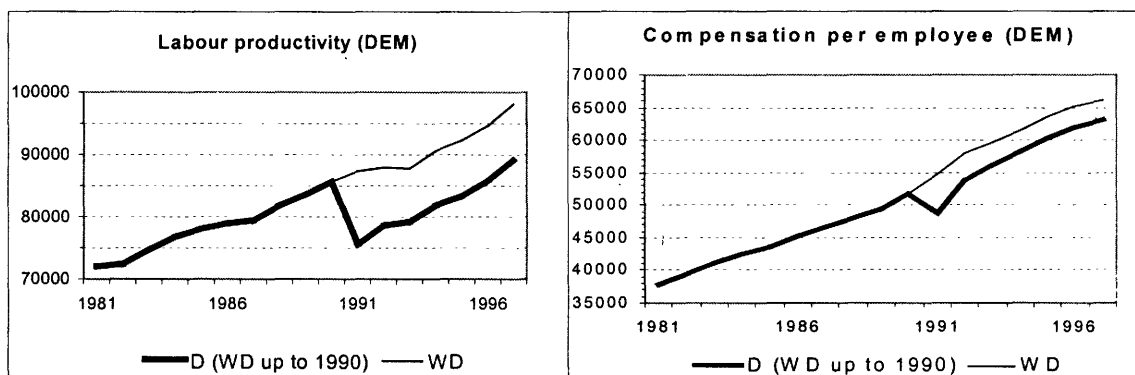
<sup>1</sup> Data on ESA95 basis are generally available from the early 1990s onwards. These have been linked to ESA79 data for the preceding years.

## German unification and cost competitiveness indicators

German unification brought together a highly advanced economy and an economy of low-productivity, state-protected companies which had not been exposed to international competition, and whose capital stock was almost obsolete. The competitive shock to East German producers was enhanced by the 1:1 conversion rate between the East German mark and the DM implied by German Monetary Union. Before unification, the exchange rate applicable for DDR exports had been 4.3 East German mark per DM. In addition, wage agreements reached in the wake of unification entailed a convergence in wage rates between East and West Germany, independent of productivity developments.

Previously, the Commission services' measures of real effective exchange rates (or, equivalently, relative price and cost indicators) were based on German price and cost data which 'linked' West German data up until 1991 with subsequent all-German data, assuming that the level was the same in 1991.

However, this method ignores the 'level shift' in average German unit labour costs in 1991. According to national accounts estimates, East German labour productivity was, on average, about one third of the West German level in 1991. In the same year, the compensation of East German employees was at 42% of West German levels<sup>2</sup>. Thus, unit labour costs were higher in East than in West Germany, with the result that average unit labour costs in Germany in 1991 were about 2.7% higher than in West Germany.



The data used in the quarterly reports on price and cost competitiveness have now been adjusted to reflect this shift in the average level of unit labour costs, thereby better capturing the deterioration in average German cost competitiveness associated with unification<sup>3</sup>. An estimate had to be made for the level shift in unit labour costs in the manufacturing sector. On the basis of data for value-added and employment in the manufacturing sector in subsequent years the productivity gap was found to be smaller in this sector. Average unit labour costs in manufacturing have been adjusted by 1.3 per cent from 1991 onwards<sup>4</sup>.

<sup>2</sup> Commission Services' calculations on the basis of German Council of Economic Advisors Annual Report 1998/99 (Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung-Jahresgutachten 1998/99, tables 24 and 26). The numbers mentioned as well as the data underlying the charts are based on ESA79 definitions.

<sup>3</sup> Since no back revisions are expected to the ESA79 data, this adjustment factor is permanent. Any subsequent convergence in East German unit labour costs is captured in the all-German data.

<sup>4</sup> The price deflators of GDP, consumption and exports are indices; as such it is not possible to define a level-shift even though it seems likely that the average price level was lower in East Germany than in West Germany in 1991. The ensuing convergence in prices, not least in housing rents, led to higher average inflation in Germany than in West Germany. So as not to capture the latter effect in the competitiveness measures, West German data have been used until 1997, the latest year for which such data are available.



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

### **MAIN FEATURES**

#### **The euro against major international currencies:**

- During the first quarter of 2000, the US dollar appreciated by almost 5% against the euro. The Japanese yen strengthened by 4% and the pound sterling by 3.7% against the euro. The Swiss franc was broadly stable against the euro. In all, the nominal effective exchange of the euro depreciated by some 3% against the currencies of 13 industrialised countries.
- The nominal effective exchange rate of the euro has depreciated by about 13.5% since the changeover. This depreciation has brought the nominal effective exchange rate of the euro area to its lowest level since March 1994.

#### **Relative cost and price indicators: international developments**

- Together with subdued price and cost increases, exchange rate developments led to an additional gain in the cost competitiveness of euro area producers by about 3.5% in the first quarter of 2000, after a gain of 11% last year. The cost competitiveness of the EUR11 is at its most favourable since 1985.
- Unit labour costs in the USA relative to EUR11 are now 26% above their 1987-99 average. In Japan, unit labour costs relative to EUR11 are also 26% above their 1987-99 average.

#### **Relative cost and price indicators: intra-EMU developments**

- Over the *last two years*, the Netherlands, Finland, Spain and Portugal saw a deterioration in cost competitiveness relative to EMU partners (by some 1½ to 3½% when calculated on an average of three relative price and cost indicators). In these countries, cost and price pressures are related to the strong cyclical position and, in some of them, to a catching-up process. In contrast, moderate wage increases lead to an improvement in intra-EMU cost competitiveness in France and Germany.
- In a *longer time perspective*, intra-EUR11 cost competitiveness is considerably better than its 1987-99 average in Finland (about 9%), while it is considerably worse than this average in Portugal (about 17%).

#### **Relative cost and price indicators: Member States outside the euro area**

- Denmark has seen a substantial deterioration in its unit labour cost competitiveness against the EUR11 over the last two years (about 5%) and relative to its 1987-99 average (about 10%). In Greece, cost competitiveness improved in the last two years by about 3%, but relative unit labour costs are still higher (about 15%) than their 1987-99 average.
- In the UK, unit labour costs relative to EUR11 are now some 34% higher than their 1987-99 average due to a marked strengthening of the pound sterling since 1996. In Sweden, cost competitiveness worsened by about 5% relative to the euro area over the last year but it remains close to its 1987-99 average level.

# PRICE AND COST COMPETITIVENESS

QUARTERLY REPORT - FIRST QUARTER 2000

## I. INTERNATIONAL DEVELOPMENTS

### 1. BILATERAL EXCHANGE RATES OF THE EURO

After having breached parity with the *US dollar* in December 1999, the euro appreciated to above 1.04 USD per EUR in January 2000. Since then, the euro started weakening again and recovered only temporarily (by about 1%) when the ECB raised interest rates in February. At the end of March 2000, the euro traded at 0.95 USD/EUR, a fall of 18% since the changeover.

Numerous explanations have been given for the depreciation in the euro against the US dollar. Cyclical factors remain the most important ones, in particular the continued positive surprises in US economic growth. The euro area economy has also improved but the pace of activity has not overshoot earlier expectations to the same extent as in the United States. An outflow of foreign direct investment from the euro area has also been taken as a sign that high expected returns on investment in the US – related to a dynamic business environment and flexible labour markets – has attracted capital and thus lead to an appreciation in the USD. Short-term market dynamics have also played a role as the euro depreciation inflicted losses on investors and made them wary of euro exposure.

The *Japanese yen* has been on an upward trend against the euro, notwithstanding doubts about the strength of the Japanese economy. Despite foreign exchange intervention by the Japanese authorities to contain the rise in the yen against other international currencies, the euro traded below 100 JPY/EUR on 31 March. The euro is down 26% relative to the yen since the changeover.

Chart 1 The euro against USD and JPY since changeover

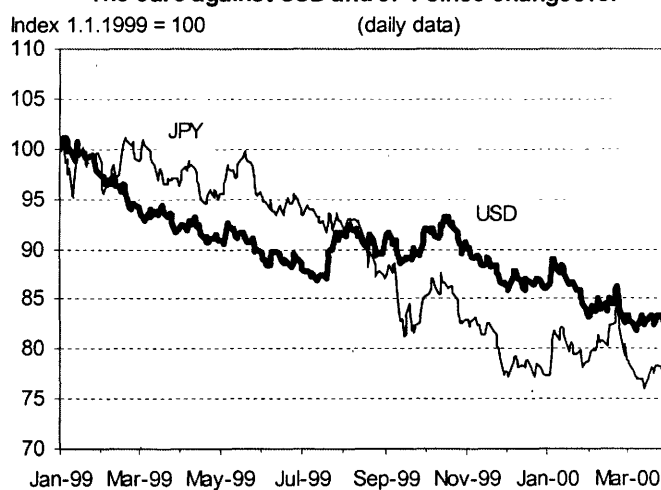
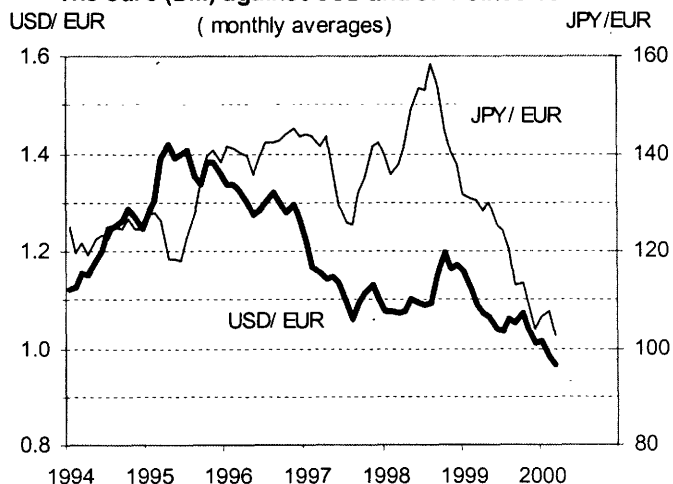


Chart 2 The euro (DM) against USD and JPY since 1994



Note: EUR rates before 1999 calculated on the basis of DEM rates.

Source: European Commission

The UK economy recovered more strongly than expected during the course of 1999. Facing a tight labour market (unemployment reached a twenty year low of 5.8% in March) and potential inflation pressures, the Bank of England raised its repo rate in January and again in February 2000. Given an already high degree of resource utilisation, these factors helped sending the pound higher against the euro. By the end of the first quarter of 2000, the euro was down by 15% against sterling since the changeover. It is currently trading at around 0.60 against sterling which compares with 0.71 GBP/EUR at the changeover.

In the first quarter of 2000, the Swiss franc remained steady against the euro at close to 1.60 CHF/EUR in continuation of the pattern already observed in 1999.

Chart 3 The euro against GBP and CHF since changeover

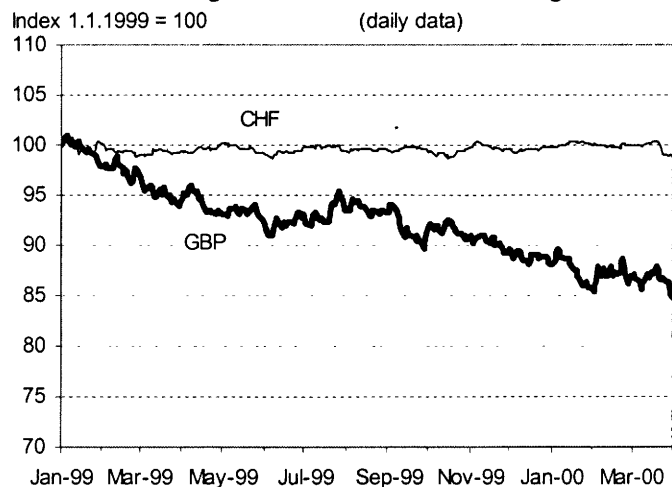
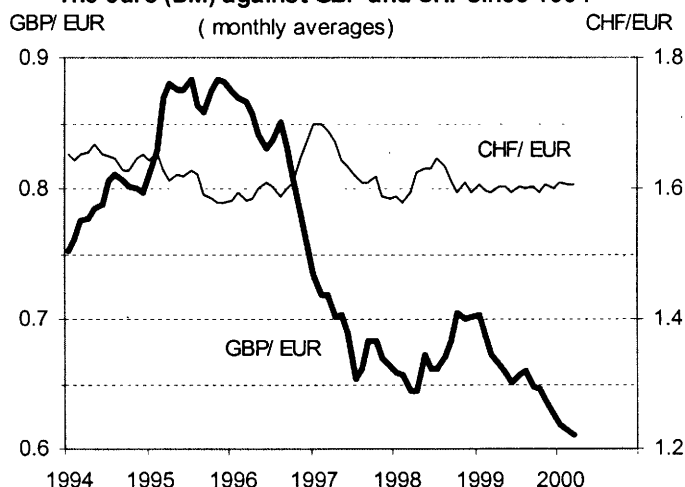


Chart 4 The euro (DM) against GBP and CHF since 1994



Note: EUR rates before 1999 calculated on the basis of DEM rates.  
Source: European Commission

TABLE 1: EVOLUTION OF THE MAIN BILATERAL EXCHANGE RATES

	During the first quarter of 2000 (daily data)			Relative to the previous quarter (monthly averages)		
	31/12/99	31/03/00	% change	Average Q4 99	Average Q1 00	% change
USD/EUR	1.005	0.955	-4.9%	1.011	0.965	-4.6%
JPY/EUR	102.7	98.5	-4.1%	103.8	102.7	-1.1%
GBP/EUR	0.6217	0.5985	-3.7%	0.6266	0.6109	-2.5%
CHF/EUR	1.605	1.591	-0.9%	1.601	1.605	0.3%

Source: European Commission

## 2. NOMINAL EFFECTIVE EXCHANGE RATES (IC24)

After having depreciated by 10.7% in the course of 1999, the nominal effective exchange rate of the *euro* fell by an additional 3.1% during the first quarter of 2000, as measured against the currencies of 13 industrialised countries (IC24 other than EUR11). The nominal effective exchange rate of the EUR11 was, in March 2000, at its lowest level for 6 years (chart 6).

The nominal effective exchange rate of the *US dollar* appreciated by 2% during the first quarter. The effective exchange rate of the dollar is at its highest level since the summer of 1998.

In December 1999 the nominal effective exchange rate of the *Japanese yen* had attained its highest level since 1995. At the end of December 1999, following foreign exchange market interventions by the Japanese authorities, the NEER of the yen decreased by 5%. As of February 2000, the yen started to rise again, despite renewed market intervention in March 2000. It now stands just 1.5% below its high for the year 1999.

Chart 5 **Nominal effective exchange rates of the euro**

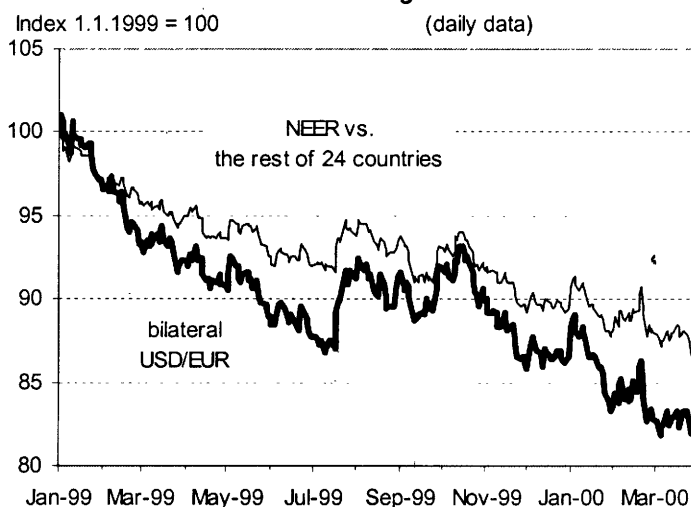
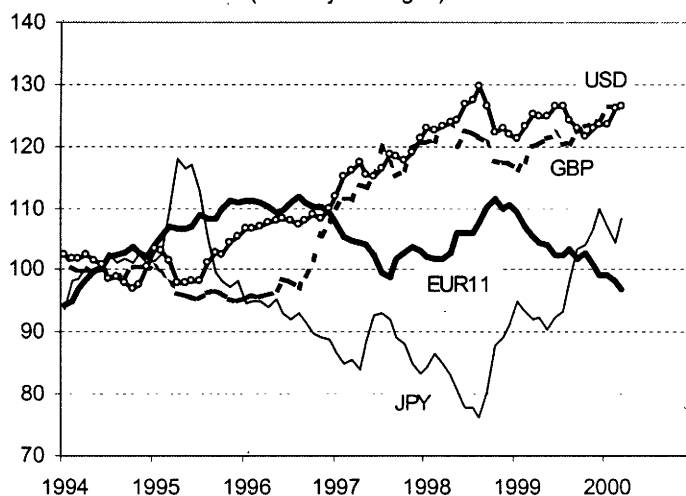


Chart 6 **Nominal effective exchange rates since 1994**  
1994=100 (monthly averages)



Source: European Commission

TABLE 2: NOMINAL EFFECTIVE EXCHANGE RATES  
(vs. 24 industrialised countries, index 1994 = 100)

	During the first quarter of 2000 (daily data)			Relative to the previous quarter (monthly averages)		
	31/12/99	31/03/00	% change	Average Q4 99	Average Q1 00	% change
EUR11	98.6	95.5	-3.1%	99.1	97.0	-2.2%
USD	123.3	125.7	2.0%	123.5	126.5	2.4%
JPY	110.4	111.9	1.3%	109.9	108.2	-1.5%
GBP	125.0	128.0	2.4%	124.4	126.2	1.4%

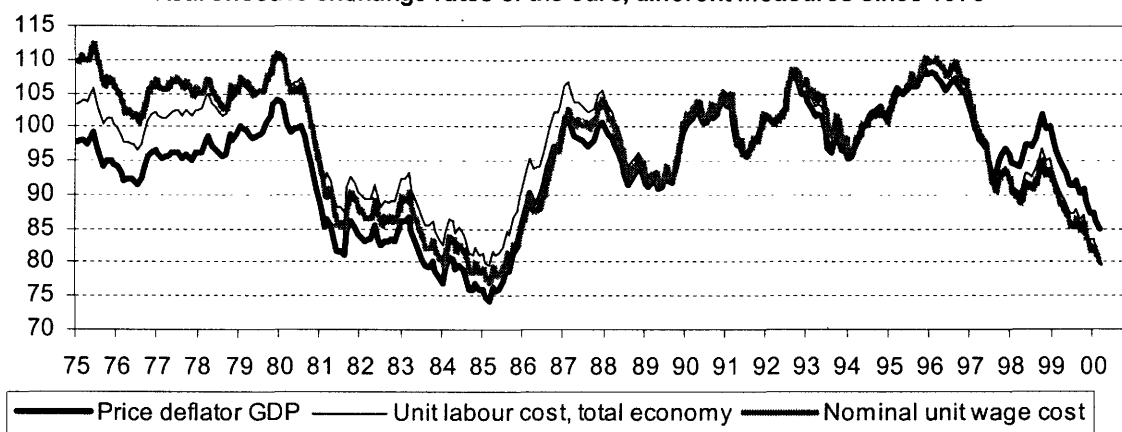
Source: European Commission

### 3. REAL EFFECTIVE EXCHANGE RATES (IC24)

In the first quarter of 2000 the cost competitiveness of the *euro* area improved by an additional 3.5% on top of the nearly 11% improvement registered during last year (measured by relative unit labour costs in the economy as a whole). EUR11 cost competitiveness is at its most favourable since the early months of 1985 (cf. Chart 7), which also shows the real effective exchange rate based on unit labour costs in manufacturing and GDP-deflators).

The strength of the *US dollar*, notably against the Japanese yen and the pound sterling, in the first quarter of 2000 led to a deterioration in the cost competitiveness of the US economy. Nevertheless, the real effective exchange rate of the USD is very high in the perspective of the period since January 1987 (Chart 7), as it stands around 10% above its 1987-99 average.

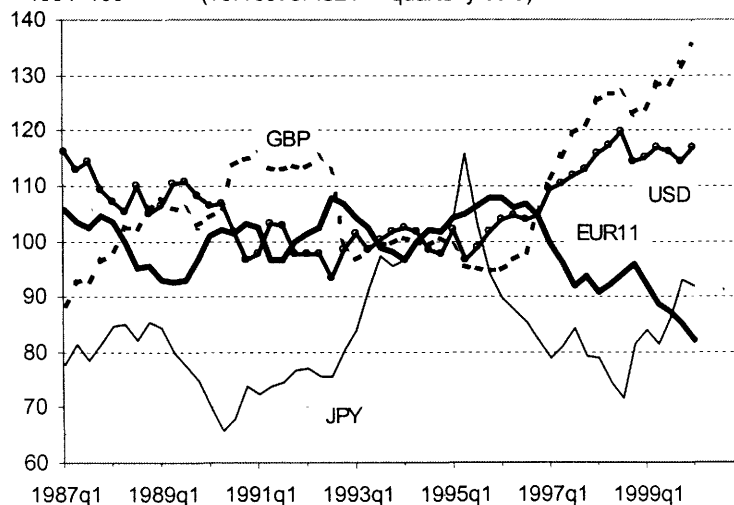
Chart 7 Real effective exchange rates of the euro, different measures since 1975



Due to the appreciation in the *Japanese yen*, the labour cost competitiveness of Japan deteriorated by some 9% over the last year, as measured by unit labour cost in the economy as a whole. However, relative costs are still below the peak reached in 1995.

The UK saw its cost competitiveness deteriorating by 9% over the last year, as a result of the large appreciation of the *pound sterling*. The real effective exchange rate based on unit labour costs is at an all-time high at some 26% above its 1987-99 average.

Chart 8 Real effective exchange rates (ULCE) since 1987  
1994=100 (vs. rest of IC24 - quarterly data)

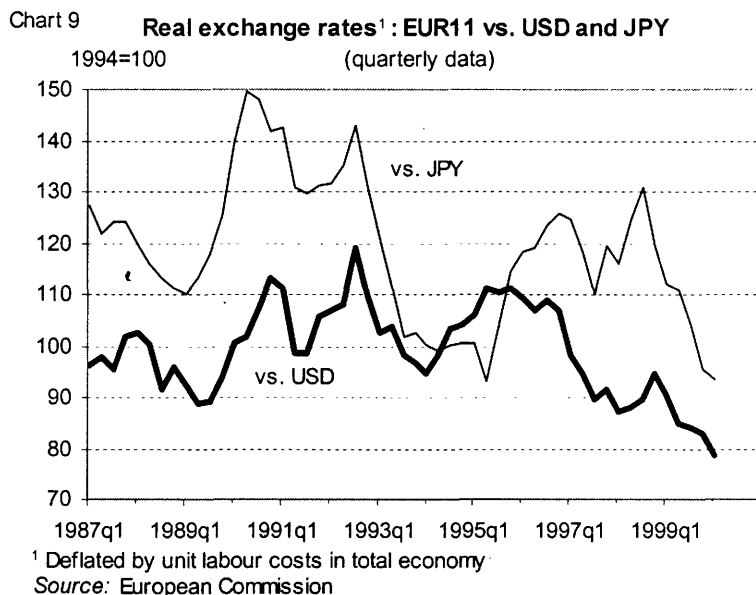


Source: European Commission

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

Over the last year, the strengthening of the US dollar against the euro has contributed to a gain in cost competitiveness for EUR11 producers against their US competitors of around 13%, some 5 percentage points of which occurred during the first quarter of 2000.

The appreciation in the Japanese yen since the first quarter of 1999 has contributed to a gain in cost competitiveness for EUR11 producers of around 16.5% against Japanese competitors, and by 2% compared to the previous quarter.



In a historical perspective, the unit labour cost position of euro area producers is currently very favourable relative to US producers (chart 9), better than at any time since 1985. Unit labour costs in the United States relative to EUR11 are some 26% above their 1987-99 average.

Due to the strengthening of the Japanese yen since Autumn 1998, unit labour costs in Japan relative to EUR11 are almost 26% above their 1987-99 average. At this level, the cost competitiveness for EUR11 producers is close to the level reached during the second quarter of 1995.

## II. DEVELOPMENTS WITHIN THE EUROPEAN UNION

### 5. COST COMPETITIVENESS MOVEMENTS AMONG EURO AREA MEMBER STATES

Within the euro area, diverging movements in costs and prices may change the relative cost competitiveness positions of euro area Member States. Table 3 and Chart 10 show three measures of the real effective exchange rate of individual Member States against the EUR11 average. The different measures do not always give a uniform picture of the movement over time in the real effective exchange rate of a given country against its partners and, as such, the indicators of cost and price competitiveness need to be interpreted carefully.

In some cases, deviating price and cost trends among euro area Member States could lead to a build-up of competitive imbalances which might ultimately hamper economic growth and cause unemployment in parts of the euro area. In other cases, however, longer-term changes in relative prices and costs may be justified by changes in economic fundamentals related e.g. to a catching-up in the level of economic development, changes in non-price competitiveness factors, or changes in underlying savings and investment patterns. Moreover, differences in cyclical positions may cause movements in relative costs and prices in the short term. An in-depth assessment of movements in real exchange rates therefore requires a comprehensive analysis of the economic situation in each country seen in a longer time perspective. This report merely provides a descriptive overview of movements in intra-euro area cost and price competitiveness indicators.

#### **Recent developments:**

Over *the two years* from the first quarter of 1998 to the first quarter of 2000 the intra-EUR11 real effective exchange rate depreciated in *France* and *Germany* (cf. table 3). This reflects low cost pressures due to moderate wage pressures and, in Germany, weaker cyclical conditions than for the average of the euro area.

Over the same two-year period there was an upward movement in the real effective exchange rates of *Spain*, *Portugal*, *Finland* and the *Netherlands*. There was also a tendency for the real effective exchange rate of *Ireland* to appreciate, although the different measures of the real effective exchange rate did not all move in the same direction. In all five countries, above-average cost and price increases are related to a strong cyclical position. In addition, in the Netherlands the upward movement in the real effective exchange rate should be viewed in the perspective of a sizeable real depreciation since the early 1980s and a large current account surplus despite strong domestic demand. In Spain and Portugal, an appreciation of the real exchange rate may be warranted as the economy catches up with other euro countries and as they benefit from large inward capital flows following their participation in the euro. In Ireland, wage and price pressures are rising due to continued strong growth and an increasingly tight labour market. However, cost and price competitiveness remains quite favourable (in a historical perspective) and the current account is close to balance despite very strong domestic demand.

TABLE 3: RELATIVE COST AND PRICE INDICATORS OF INDIVIDUAL COUNTRIES RELATIVE TO THE EURO AREA (EUR11)

	Over the last year (00 Q1 / 99 Q1)			Over the last two years (00 Q1 / 98 Q1)			Relative to 1987-99 average (00 Q1 / Average 87-99)		
<b>Euro area Member States</b>									
% Change	ULCE	ULCM	PGDP	ULCE	ULCM	PGDP	ULCE	ULCM	PGDP
BLEU	-0.5	0.4	-0.2	-0.6	1.1	-0.1	2.9	1.0	1.3
Germany	-1.1	-0.1	-0.8	-1.8	-1.1	-1.0	-2.0	4.3	-1.1
Spain	1.0	2.6	1.8	1.8	5.1	3.2	-0.3	6.3	-0.7
France	-0.6	-2.1	-0.7	-1.3	-3.1	-1.9	1.4	-6.9	-1.2
Ireland	2.2	-0.3	2.2	2.7	-4.9	4.7	-0.4	-24.2	7.8
Italy	0.3	0.0	0.4	0.3	0.9	0.6	-4.9	0.8	-0.4
Netherlands	2.2	1.8	1.1	3.6	3.9	1.4	4.6	-0.7	0.7
Austria	-0.4	-0.7	-0.3	0.2	-0.5	-0.7	2.3	0.5	0.6
Portugal	2.3	0.3	0.9	5.0	1.2	2.9	16.9	12.5	13.4
Finland	1.0	1.6	-0.3	2.1	2.7	-0.4	-9.4	-11.1	-7.4
<b>Non-euro area Member States</b>									
% Change	ULCE	ULCM	PGDP	ULCE	ULCM	PGDP	ULCE	ULCM	PGDP
Denmark	1.7	2.4	1.4	4.4	7.4	2.9	7.9	16.4	5.1
Greece	-1.7	-3.8	-1.7	-1.9	-6.3	-1.8	14.7	7.1	11.5
Sweden	5.2	3.7	5.6	0.5	-0.3	0.7	1.0	-8.0	-2.2
UK	14.1	15.1	13.5	11.9	18.2	9.8	33.6	47.1	27.1
<b>Other countries</b>									
% Change	ULCE	ULCM	PGDP	ULCE	ULCM	PGDP	ULCE	ULCM	PGDP
USA	15.0	13.9	14.6	11.2	9.1	9.7	25.8	19.3	20.0
Japan	19.9	17.0	21.9	24.1	22.0	25.8	25.8	28.4	20.3

Note: relative ULCE and ULCM for Italy relative to any period before 1998 are distorted by the 1998 tax reform which shifted taxation from labour costs to value added but did not significantly change competitiveness.

- (1) ULCE = Based on unit labour costs in the economy as a whole.  
(2) ULCM = Based on unit labour costs in manufacturing industry.  
(3) PGDP = Based on GDP-deflator.

A minus means an improvement in cost competitiveness.

Source : European Commission

### Relative to the 1987-99 period:

Compared to euro area partners, price and cost competitiveness is worse than its 1987-99 average in *Portugal* (about 17% for ULCE) while it is significantly better than this average in *Finland* (about 9%). For the remaining countries, the measures of the real effective exchange rate either show modest differences with the 1987-99 average (i.e. in *Belgium* and *Austria*) or the various indicators convey contrasting messages with some measures above and some below their 1987-99 average.

The large deviation from the 1987-99 average in the case of *Portugal* could be related to the catching-up process which the country is undergoing. According to the so-called Balassa-Samuelson hypothesis, catching-up countries tend to experience real exchange rate appreciation for broad price and cost measures covering both tradeable and non-tradeable sectors. Relative unit labour costs in the manufacturing sector – which produces tradeables – have been broadly constant since 1992. The real appreciation prior to 1992 may reflect an equilibrium response to the opening of the economy upon the accession to the European Community in 1986. Nevertheless, the Portuguese economy is also confronted with a large current account deficit.



The large deviation from the 1987-99 average in the case of *Finland* is related to the economic shocks that occurred in the late 1980s/early 1990s, including the collapse of trade with the former Soviet Union. As the process of raising the utilisation of the economy's productive resources and reducing external debt makes progress, the real exchange rate relative to EMU partners may gradually increase in the medium term. Moreover, the Finnish economy is likely to be more exposed to the global and domestic growth of sectors associated with the "new economy", and this may have consequences for the real exchange rate in the shorter and/or longer run.

*Ireland* is unusual in that it has witnessed a trend depreciation in its ULC-based real exchange rate during the last decade of its catching-up process (cf. chart 10). To a large extent, this is because large productivity gains in the manufacturing sector have been achieved by, and in any case accompanied by, a large increase in the capital-intensity of production related to the inflow of capital-intensive multinational enterprises during the 1980s and 1990s. The substantial decline in the ULC-based indicators reflected a shift in the relative factor content of output rather than declining costs at the firm level or an exchange rate depreciation. Even so, the near-equilibrium on the current account balance at a time of very strong domestic demand and more and more binding supply constraints is indicative of a favourable cost competitiveness position. Together, these factors suggest that some appreciation in the real effective exchange rate relative to EMU partners may be warranted and should not be cause for concern.

## 6. COST COMPETITIVENESS BETWEEN THE EURO AREA AND OTHER MEMBER STATES

*Denmark* has seen a pronounced deterioration in its unit labour cost competitiveness over the last two years (by about 5%), and the real effective exchange rate based on ULC in the manufacturing sector is some 16% higher than its 1987-99 average. This reflects both faster wage increases and lower productivity growth in Denmark than in the euro area in recent years.

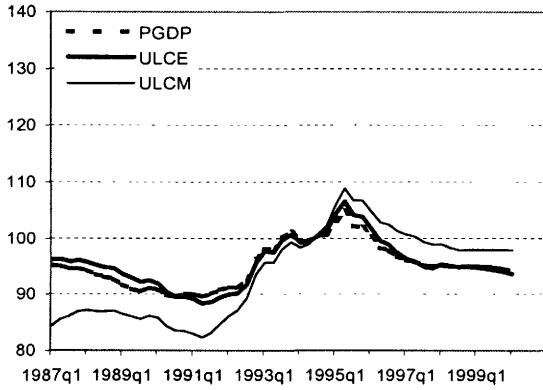
After several years of real exchange rate appreciation, the devaluation of the *Greek* drachma upon its entry into the ERM in March 1998 resulted in a significant depreciation in real effective terms. However, due to the strength of the Greek drachma in the new ERM and higher price and cost increases, the real effective exchange rate of the Greek drachma against EUR11 has since moved up again. This has reduced the gain in cost competitiveness over the last two years to about 2% (6% in manufacturing).

Exchange rate developments have led to a further deterioration in the price and cost competitiveness of the *United Kingdom* relative to the euro area of about 14% over the last year. Relative ULC are thus 34% higher than their 1987-99 average for the economy as a whole and nearly 47% higher in the manufacturing industry.

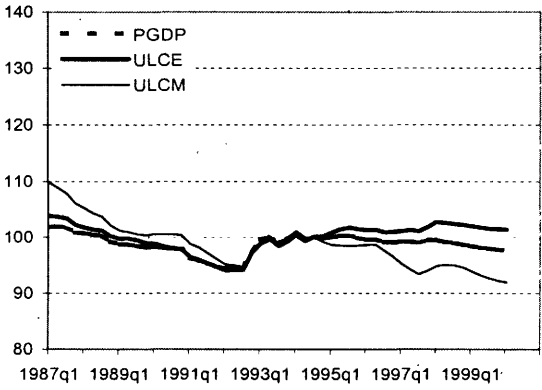
In *Sweden*, cost and price competitiveness worsened some 5% relative to the euro area over the last year, mainly because the Swedish krona recovered on the back of a strong pick-up in the Swedish economy. In real effective terms, the krona is close to its average over the 1987-99 period relative to the EUR11, although unit labour cost in manufacturing are some 8% below their 1987-99 average.

**Chart 10 : price and cost indicators for individual countries relative to EUR11**

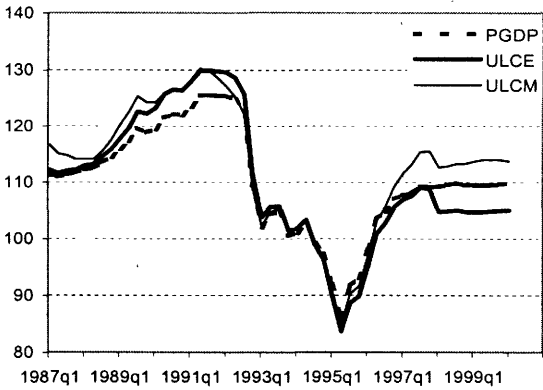
1994=100 **Germany vs. rest of EUR11**



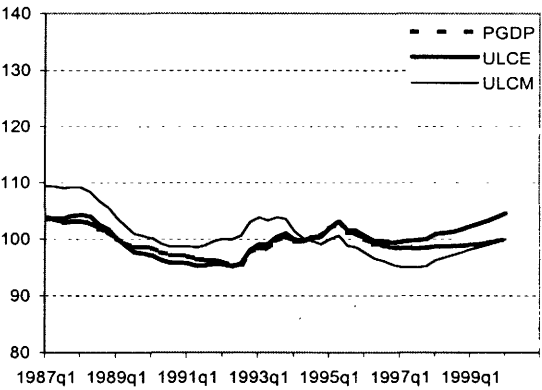
1994=100 **France vs. rest of EUR11**



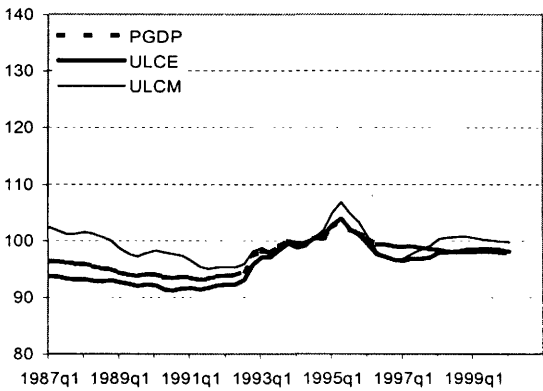
1994=100 **Italy vs. rest of EUR11**



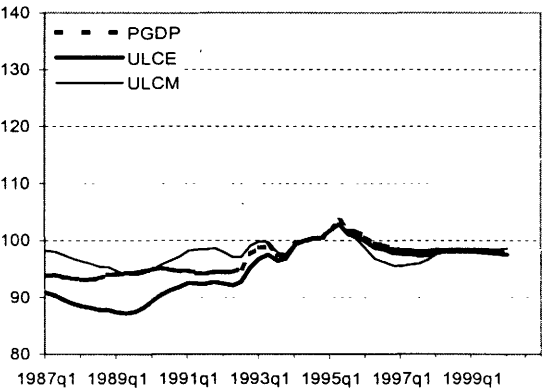
1994=100 **Netherlands vs. rest of EUR11**



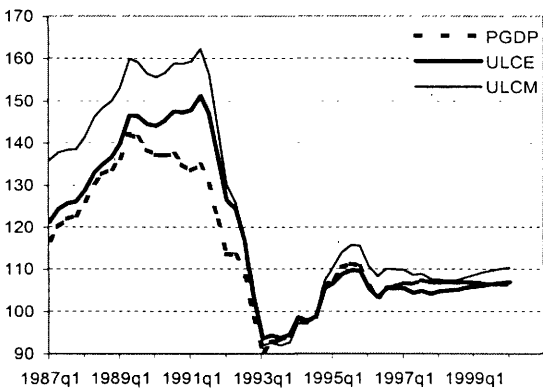
1994=100 **Austria vs. rest of EUR11**



1994=100 **BLEU vs. rest of EUR11**



1994=100 **Finland vs. rest of EUR11**



1994=100 **Ireland vs. rest of EUR11**

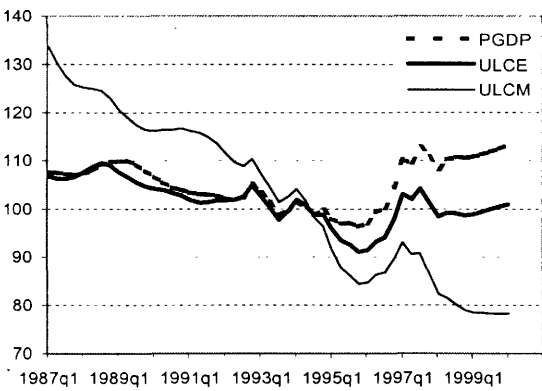
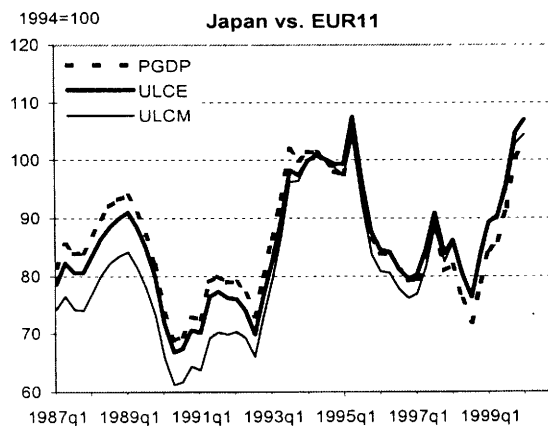
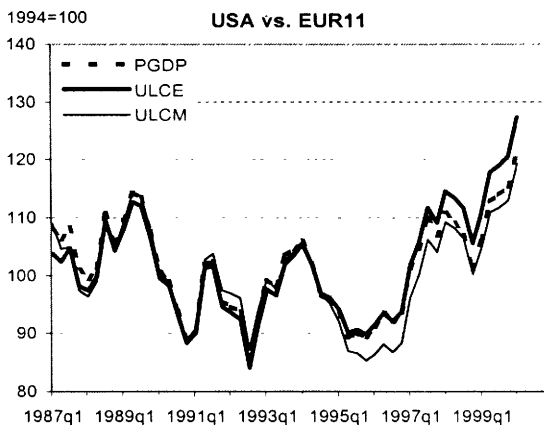
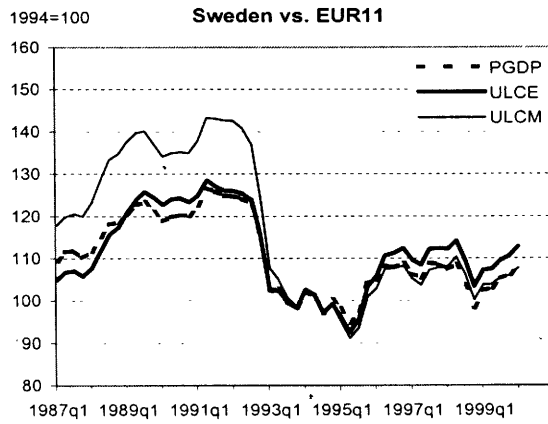
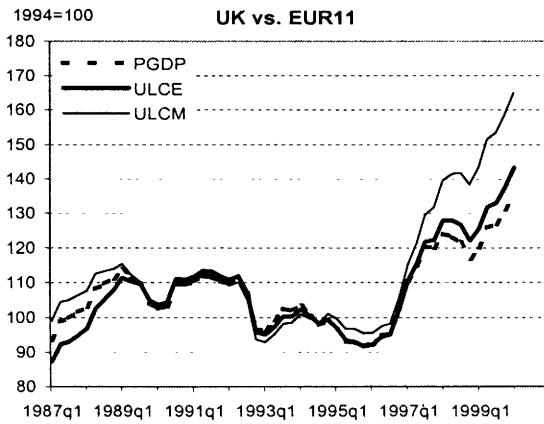
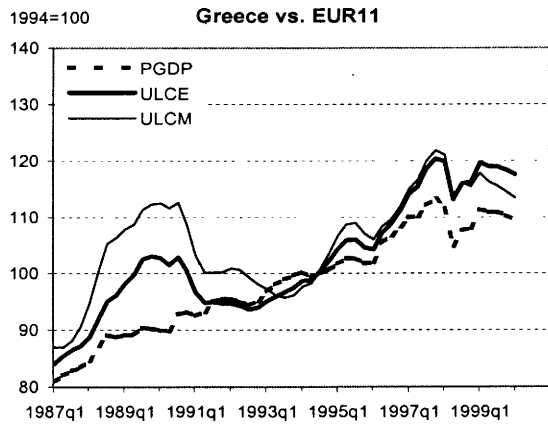
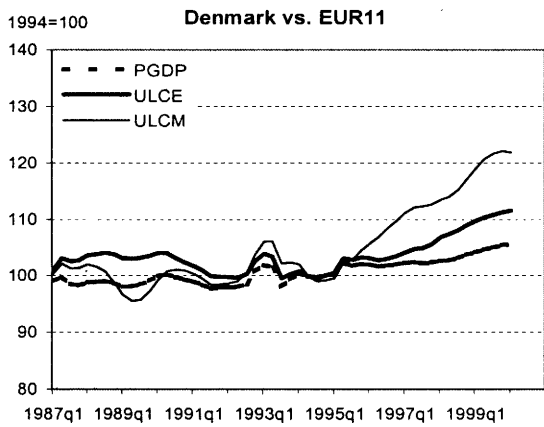
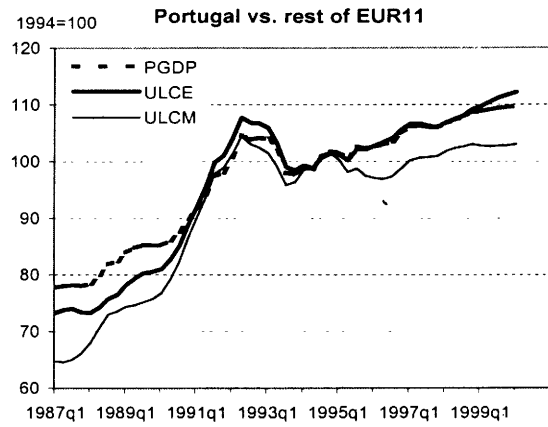
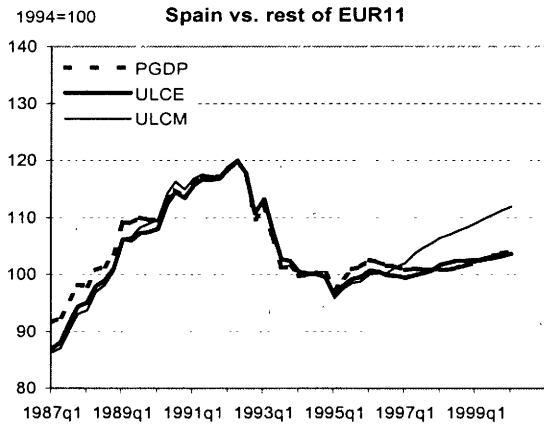


Chart 10 contd.: price and cost indicators for individual countries relative to EUR11



**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 Economic and Monetary Union (EUR11) are presented as well. Each country (or country group) is compared with 24 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 51** present bilateral exchange rates of the US dollar against the currencies of the 24 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 EUR11). 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.

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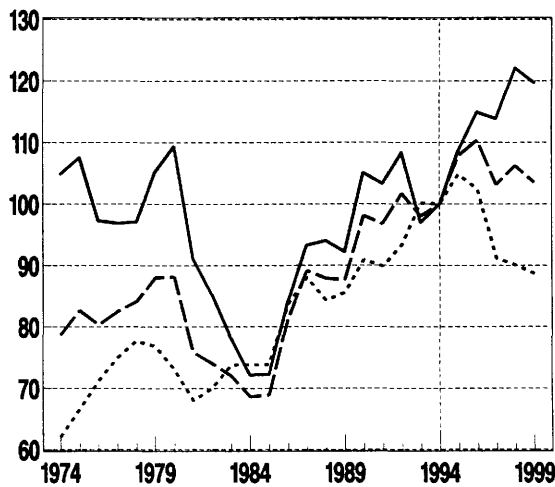
# EUR15 and EUR11

## Trade – weighted currency indices

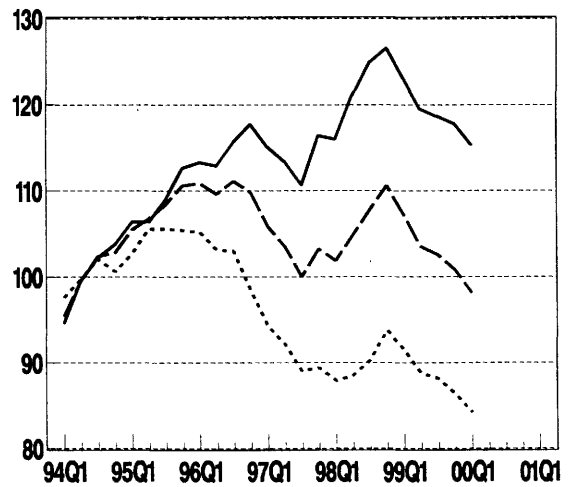
	Annual data index (1994=100)			Quarterly data index (1994=100)			Monthly data monthly % change				
	EUR15 vs. IC24	EUR11 (the rest of IC24)	EUR11 vs. (the rest of) EUR15	EUR15 vs. IC24	EUR11 (the rest of IC24)	EUR11 vs. (the rest of) EUR15	EUR15 vs. IC24	EUR11 (the rest of IC24)	EUR11 vs. (the rest of) EUR15		
87	93.3	89.2	88.1	97Q1	115.1	105.8	94.2	MAR99	-1.1	-1.5	-1.5
88	94.0	87.9	84.3	97Q2	113.4	103.5	92.2	APR99	-1.0	-1.0	-0.7
89	92.2	87.7	85.6	97Q3	110.7	100.0	89.0	MAY99	-0.1	-0.4	-0.5
90	105.0	98.1	90.9	97Q4	116.4	103.3	89.4	JUN99	-1.5	-1.5	-1.1
91	103.4	96.8	89.9	98Q1	116.0	101.9	87.9	JUL99	-0.2	0.2	0.6
92	108.4	101.7	93.3	98Q2	121.0	104.8	88.5	AUG99	1.3	0.8	0.2
93	97.0	98.0	100.2	98Q3	124.9	107.7	90.2	SEP99	-1.1	-1.6	-1.6
94	100.0	100.0	100.0	98Q4	126.6	110.6	93.8	OCT99	1.7	1.0	0.1
95	108.6	107.8	104.8	99Q1	123.0	107.2	91.6	NOV99	-2.2	-2.0	-1.1
96	114.9	110.4	102.4	99Q2	119.5	103.5	88.8	DEC99	-1.6	-1.7	-1.2
97	113.9	103.1	91.2	99Q3	118.7	102.6	88.2	JAN00	1.0	0.2	-0.8
98	122.1	106.2	90.1	99Q4	117.8	100.9	86.4	FEB00	-1.1	-1.0	-0.6
99	119.7	103.5	88.7	00Q1	115.4	98.2	84.2	MAR00	-1.6	-1.3	-0.7

## Trade – weighted currency indices

Annual data (index 1994=100)

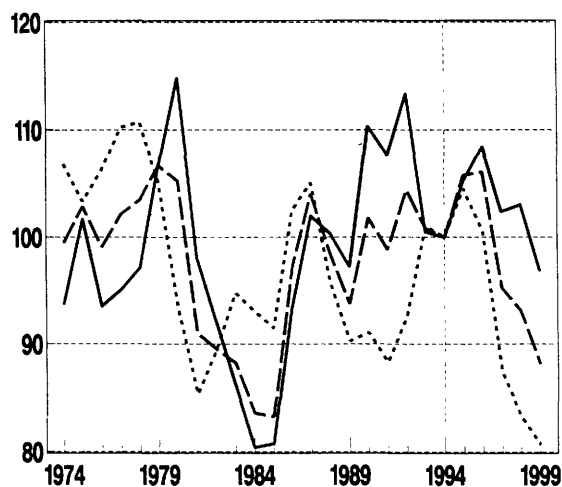


Quarterly data (index 1994=100)

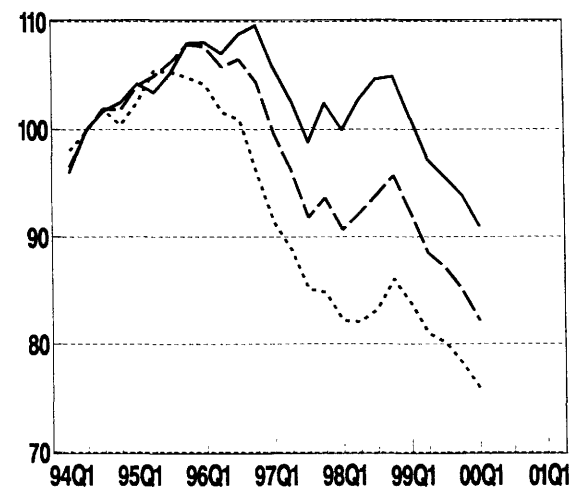


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# EUR15 and EUR11

## Relative price and cost indicators of EUR15 vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	99.1	98.3	96.4	102.0	106.1	97Q1	106.6	106.2	107.0	105.7	110.1
88	98.3	97.7	95.8	100.3	104.3	97Q2	103.9	103.5	104.5	102.7	106.3
89	95.3	95.1	94.6	97.3	99.3	97Q3	100.3	100.2	101.1	98.8	101.7
90	107.7	108.4	106.5	110.3	113.1	97Q4	104.3	104.5	105.4	102.4	105.1
91	106.2	106.9	104.8	107.6	109.7	98Q1	102.6	103.2	104.1	100.0	102.7
92	111.1	112.1	109.2	113.3	113.7	98Q2	105.7	106.6	107.6	102.7	105.7
93	99.1	99.5	100.2	100.5	101.3	98Q3	107.8	108.9	110.1	104.7	108.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	108.1	109.1	110.7	104.9	108.9
95	105.2	105.2	106.5	105.2	108.3	99Q1	104.0	104.8	106.7	101.0	105.4
96	108.7	108.4	109.2	108.4	113.9	99Q2	100.0	100.5	102.7	97.2	102.0
97	103.7	103.6	104.5	102.4	105.8	99Q3	98.3	98.6	100.9	95.6	100.6
98	106.0	106.9	108.1	103.1	106.3	99Q4	96.6	96.8	99.0	93.9	99.1
99	99.7	100.1	102.3	96.9	101.8	00Q1	93.7	93.8	95.9	91.0	96.2

## Relative price and cost indicators of EUR11 vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	99.9	99.0	98.4	104.0	101.2	97Q1	100.9	100.4	102.6	99.5	100.7
88	96.2	95.2	96.9	98.4	96.7	97Q2	98.0	97.5	100.5	96.2	96.7
89	94.0	92.7	95.5	93.7	93.7	97Q3	94.0	93.6	97.3	91.8	91.6
90	102.4	101.8	103.7	101.8	102.7	97Q4	96.4	96.2	100.5	93.6	92.8
91	99.1	99.1	101.6	98.8	99.3	98Q1	94.5	94.4	99.1	90.7	89.5
92	103.7	103.9	105.6	104.4	104.3	98Q2	96.5	96.5	101.7	92.2	90.6
93	99.3	99.5	100.3	100.8	101.8	98Q3	98.5	98.6	104.3	93.9	92.0
94	100.0	100.0	100.0	100.0	100.0	98Q4	100.5	100.5	106.7	95.7	93.6
95	105.8	105.9	106.1	105.8	106.5	99Q1	96.8	96.7	103.0	92.2	90.2
96	106.7	106.3	106.9	106.1	108.1	99Q2	93.0	92.7	99.1	88.5	86.7
97	97.3	96.9	100.2	95.3	95.4	99Q3	91.7	91.2	97.8	87.1	85.5
98	97.5	97.5	102.9	93.1	91.4	99Q4	89.7	89.0	95.8	85.1	83.6
99	92.8	92.4	98.9	88.2	86.4	00Q1	86.8	86.0	93.0	82.1	80.8

## Relative price and cost indicators of EUR11 vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	101.1	100.0	101.4	105.1	94.4	97Q1	93.0	92.3	95.9	91.3	89.1
88	94.4	92.9	98.7	95.7	87.9	97Q2	90.8	90.1	95.0	88.8	86.2
89	93.4	90.9	96.8	90.3	87.7	97Q3	87.5	86.8	92.8	85.1	82.0
90	95.1	93.0	98.9	91.1	89.7	97Q4	87.7	87.0	94.1	84.8	81.0
91	90.5	89.6	96.7	88.3	86.8	98Q1	86.0	85.3	93.3	82.2	77.8
92	93.6	93.0	99.4	92.5	91.5	98Q2	86.4	85.6	94.4	82.0	76.9
93	100.0	99.9	100.6	101.0	101.7	98Q3	87.9	87.1	96.5	83.1	77.3
94	100.0	100.0	100.0	100.0	100.0	98Q4	91.2	90.2	100.3	86.0	79.3
95	104.4	104.5	103.7	104.5	102.4	99Q1	88.8	87.8	97.8	83.7	76.8
96	101.4	101.0	101.8	100.6	98.5	99Q2	86.0	84.9	94.8	81.0	73.9
97	89.7	89.0	94.5	87.5	84.5	99Q3	85.3	84.1	94.3	80.1	73.1
98	87.9	87.0	96.1	83.3	77.8	99Q4	83.6	82.1	92.7	78.2	71.3
99	85.9	84.7	94.9	80.7	73.8	00Q1	81.4	79.8	90.7	75.8	69.3

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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



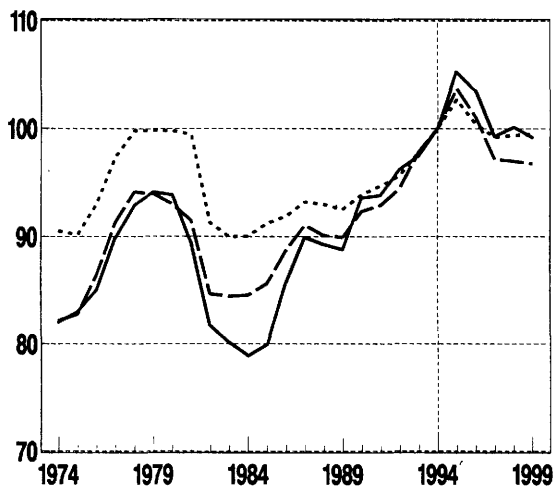
# BLEU – euro (before 1999: BEF/LUF)

## Trade – weighted currency indices

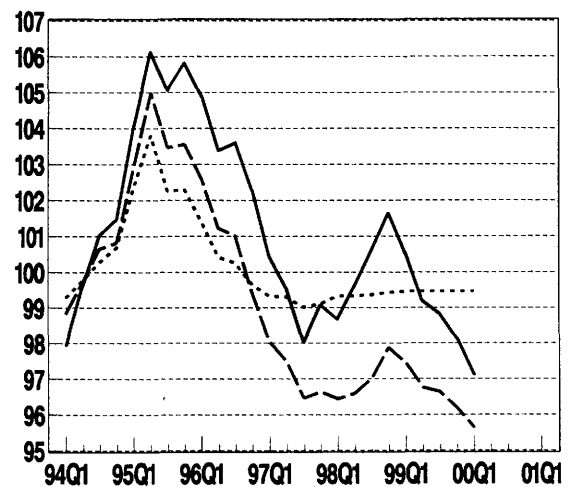
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	vs. (the rest of) IC24	EUR15	EUR11		vs. (the rest of) IC24	EUR15	EUR11		vs. (the rest of) IC24	EUR15	EUR11
87	89.9	91.1	93.2	97Q1	100.4	98.0	99.3	MAR99	-0.6	-0.4	0.0
88	89.3	90.1	93.0	97Q2	99.5	97.5	99.3	APR99	-0.4	-0.2	0.0
89	88.8	89.9	92.5	97Q3	98.0	96.5	99.0	MAY99	-0.2	-0.1	0.0
90	93.6	92.3	93.9	97Q4	99.1	96.6	99.1	JUN99	-0.6	-0.2	-0.0
91	93.8	92.9	94.7	98Q1	98.7	96.4	99.3	JUL99	0.1	0.2	0.0
92	96.2	94.5	95.6	98Q2	99.6	96.6	99.3	AUG99	-0.3	0.1	0.0
93	97.5	97.8	97.8	98Q3	100.6	97.0	99.4	SEP99	-0.6	-0.3	0.0
94	100.0	100.0	100.0	98Q4	101.6	97.9	99.4	OCT99	0.3	0.0	-0.0
95	105.3	103.7	102.7	99Q1	100.5	97.4	99.5	NOV99	-0.7	-0.2	-0.0
96	103.5	101.1	100.4	99Q2	99.2	96.8	99.5	DEC99	-0.6	-0.3	-0.0
97	99.3	97.2	99.2	99Q3	98.8	96.6	99.5	JAN00	-0.0	-0.2	-0.0
98	100.1	97.0	99.4	99Q4	98.1	96.2	99.5	FEB00	-0.4	-0.1	-0.0
99	99.2	96.8	99.5	00Q1	97.1	95.6	99.5	MAR00	-0.5	-0.1	0.0

## Trade – weighted currency indices

Annual data (index 1994=100)

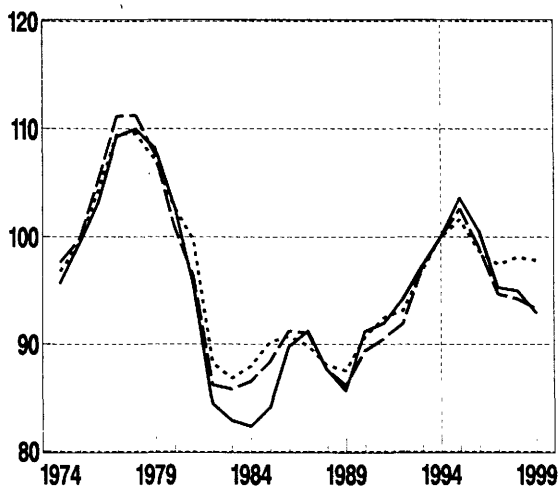


Quarterly data (index 1994=100)

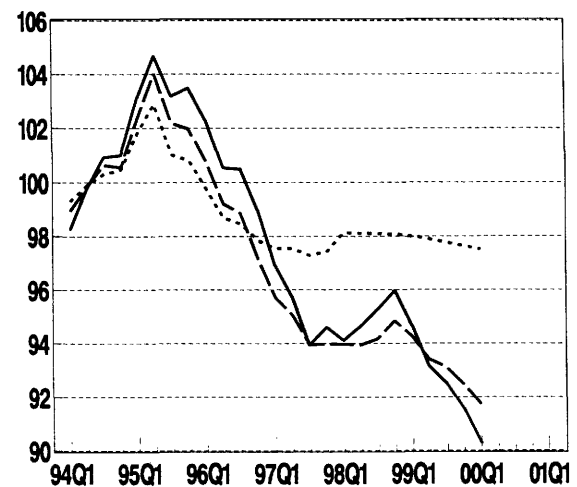


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# BLEU – euro (before 1999: BEF/LUF)

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	95.8	93.4	81.9	91.2	97.8	97Q1	98.1	97.8	102.5	96.9	95.0
88	96.3	91.8	94.2	87.7	94.5	97Q2	96.9	96.8	102.4	95.7	93.9
89	95.3	91.8	95.9	85.7	92.1	97Q3	95.2	95.2	101.2	93.9	92.3
90	98.9	95.3	98.7	91.2	96.7	97Q4	95.9	96.1	102.3	94.6	93.1
91	97.1	93.9	97.2	92.0	98.0	98Q1	95.2	95.6	101.6	94.1	92.7
92	97.5	96.3	98.6	94.2	98.9	98Q2	95.8	96.3	102.3	94.6	93.4
93	98.1	98.0	97.4	97.3	99.5	98Q3	96.5	97.1	103.2	95.3	94.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	97.3	97.9	104.4	96.0	94.8
95	104.1	104.2	104.0	103.6	103.6	99Q1	96.0	96.5	103.6	94.7	93.5
96	101.6	101.3	103.3	100.6	99.0	99Q2	94.5	95.0	102.5	93.1	92.1
97	96.5	96.5	102.1	95.3	93.6	99Q3	94.0	94.5	102.3	92.5	91.7
98	96.2	96.7	102.9	95.0	93.8	99Q4	93.2	93.5	101.6	91.6	91.0
99	94.4	94.9	102.5	93.0	92.1	00Q1	92.0	92.4	100.5	90.3	90.2

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	96.1	93.8	82.5	91.0	96.8	97Q1	96.8	96.5	101.1	95.7	93.1
88	96.7	92.2	95.1	87.6	93.7	97Q2	96.1	96.0	101.4	95.1	92.6
89	96.3	92.8	97.1	86.1	92.3	97Q3	95.0	95.0	100.9	94.0	91.8
90	97.5	93.8	97.5	89.4	94.4	97Q4	95.0	95.1	101.2	94.0	92.0
91	95.9	92.6	96.3	90.5	96.1	98Q1	94.6	94.9	100.8	94.0	92.1
92	95.6	94.2	97.0	91.9	96.4	98Q2	94.6	94.9	100.8	93.9	92.2
93	98.2	98.1	97.4	97.1	99.1	98Q3	94.9	95.3	101.3	94.2	92.4
94	100.0	100.0	100.0	100.0	100.0	98Q4	95.6	96.0	102.4	94.8	93.0
95	103.1	103.2	102.7	102.6	102.0	99Q1	95.1	95.5	102.2	94.3	92.4
96	100.0	99.7	101.5	99.0	96.5	99Q2	94.3	94.7	101.9	93.4	91.5
97	95.7	95.6	101.1	94.7	92.4	99Q3	94.1	94.5	102.0	93.1	91.3
98	94.9	95.3	101.3	94.2	92.4	99Q4	93.6	94.0	101.8	92.5	91.0
99	94.3	94.7	102.0	93.3	91.5	00Q1	93.0	93.3	101.3	91.7	90.6

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	95.8	93.6	82.1	89.9	97.6	97Q1	98.4	98.2	102.1	97.5	95.4
88	97.7	93.4	95.2	88.0	95.7	97Q2	98.2	98.3	102.7	97.5	95.8
89	97.4	94.3	97.5	87.5	94.2	97Q3	97.8	98.0	102.7	97.3	96.0
90	98.3	94.9	97.6	90.7	96.0	97Q4	97.8	98.1	102.6	97.4	96.6
91	97.6	94.4	96.9	92.5	98.4	98Q1	97.9	98.3	102.5	98.1	97.5
92	96.7	95.4	97.0	93.1	97.8	98Q2	97.8	98.3	102.2	98.1	97.9
93	98.2	98.1	97.3	96.9	98.7	98Q3	97.7	98.3	102.2	98.1	98.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	97.7	98.4	102.5	98.1	98.2
95	102.1	102.2	101.9	101.6	101.5	99Q1	97.7	98.4	102.8	98.0	98.2
96	99.6	99.4	101.1	98.7	96.7	99Q2	97.6	98.3	103.2	97.9	98.1
97	98.1	98.2	102.5	97.4	95.9	99Q3	97.6	98.3	103.5	97.8	98.2
98	97.8	98.3	102.4	98.1	97.9	99Q4	97.5	98.3	103.6	97.6	98.3
99	97.6	98.3	103.3	97.8	98.2	00Q1	97.5	98.2	103.6	97.5	98.6

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

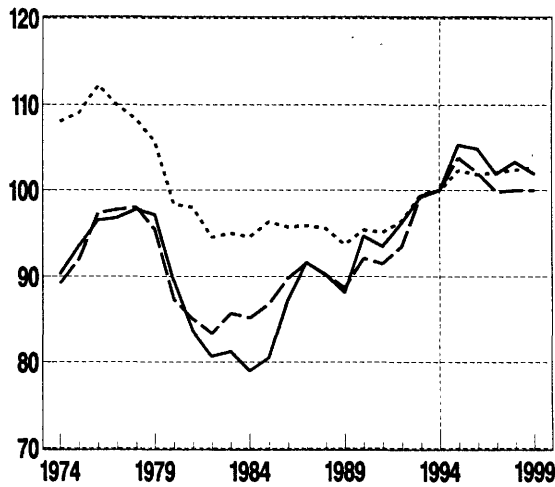
# Denmark – DKK

## Trade – weighted currency indices

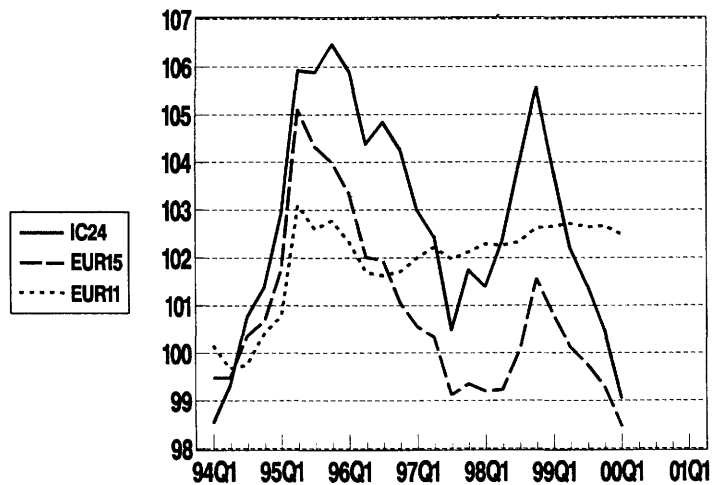
	Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change		
	vs. (the rest of) IC24	EUR15	EUR11		vs. (the rest of) IC24	EUR15	EUR11		vs. (the rest of) IC24	EUR15	EUR11
87	91.6	91.6	95.9	97Q1	103.0	100.5	102.0	MAR99	-0.5	-0.2	0.1
88	90.2	90.2	95.6	97Q2	102.4	100.3	102.2	APR99	-0.6	-0.2	-0.0
89	88.2	88.7	93.7	97Q3	100.5	99.1	102.0	MAY99	-0.1	-0.1	-0.0
90	94.7	92.1	95.4	97Q4	101.7	99.4	102.1	JUN99	-0.7	-0.3	0.0
91	93.5	91.5	95.1	98Q1	101.4	99.2	102.3	JUL99	-0.1	-0.1	-0.1
92	96.2	93.5	96.5	98Q2	102.3	99.2	102.3	AUG99	0.3	0.1	0.0
93	99.2	99.4	99.5	98Q3	104.0	100.0	102.3	SEP99	-0.8	-0.4	0.1
94	100.0	100.0	100.0	98Q4	105.6	101.6	102.6	OCT99	0.5	0.1	0.1
95	105.3	103.8	102.3	99Q1	103.8	100.8	102.7	NOV99	-1.0	-0.4	-0.1
96	104.9	102.1	101.8	99Q2	102.2	100.1	102.7	DEC99	-0.8	-0.3	-0.0
97	101.9	99.8	102.1	99Q3	101.4	99.8	102.6	JAN00	-0.0	-0.3	-0.1
98	103.3	100.0	102.4	99Q4	100.5	99.3	102.7	FEB00	-0.4	-0.2	-0.0
99	102.0	100.0	102.7	00Q1	99.1	98.5	102.5	MAR00	-0.7	-0.3	-0.0

## Trade – weighted currency indices

Annual data (index 1994=100)

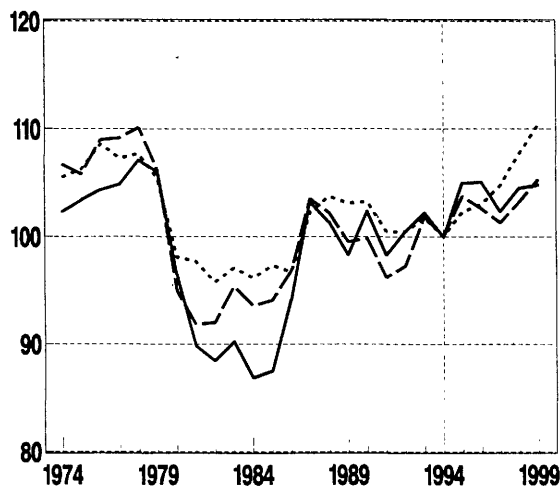


Quarterly data (index 1994=100)

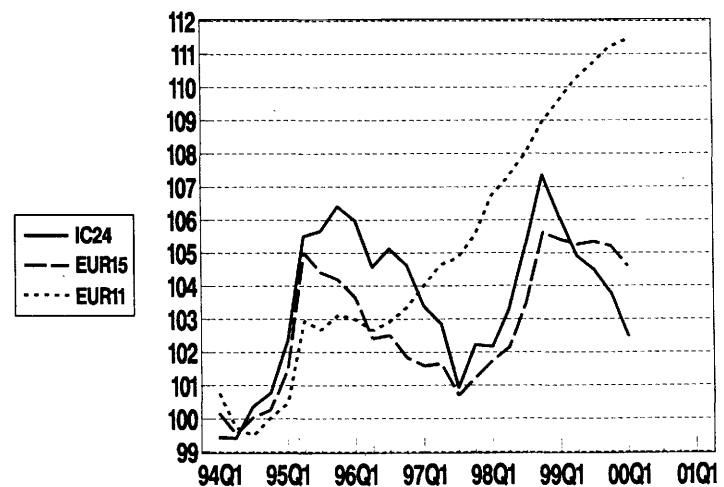


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Denmark – DKK

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	99.5	97.7	93.2	103.2	100.6	97Q1	101.5	101.9	103.3	103.4	110.9
88	98.0	95.5	89.7	101.4	97.2	97Q2	100.9	101.2	103.2	102.9	110.3
89	95.8	93.6	89.1	98.3	91.4	97Q3	98.8	99.2	101.3	100.9	107.8
90	100.6	99.1	95.1	102.3	99.8	97Q4	100.0	100.4	102.4	102.2	108.6
91	96.9	96.0	94.5	98.3	96.6	98Q1	99.6	100.2	101.8	102.2	107.8
92	97.8	98.4	99.9	100.5	100.0	98Q2	100.6	101.2	102.6	103.3	108.7
93	99.1	99.9	100.1	102.2	105.1	98Q3	102.4	103.0	104.3	105.3	111.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	104.2	104.8	106.3	107.3	114.2
95	104.4	104.1	103.4	105.0	105.1	99Q1	102.7	103.2	105.0	106.1	113.9
96	103.6	104.0	103.7	105.1	110.5	99Q2	101.3	101.8	103.9	104.9	113.7
97	100.3	100.7	102.5	102.3	109.4	99Q3	100.8	101.2	103.5	104.5	113.8
98	101.7	102.3	103.7	104.5	110.4	99Q4	100.0	100.5	102.6	103.8	113.0
99	101.2	101.7	103.8	104.8	113.6	00Q1	98.6	99.2	101.1	102.5	111.2

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	99.8	98.4	94.7	103.5	99.0	97Q1	99.6	100.2	101.9	101.6	108.3
88	98.6	96.4	91.2	102.2	96.2	97Q2	99.3	99.9	102.1	101.7	108.6
89	97.0	95.1	91.1	99.5	91.4	97Q3	98.1	98.6	100.9	100.7	107.3
90	98.6	97.1	94.2	99.8	96.2	97Q4	98.4	98.9	100.9	101.2	107.3
91	95.2	94.2	93.9	96.1	93.7	98Q1	98.3	98.8	100.4	101.7	107.1
92	95.2	95.7	98.1	97.3	96.2	98Q2	98.5	98.9	100.3	102.2	107.2
93	99.2	100.0	100.4	101.9	104.3	98Q3	99.5	99.9	101.2	103.5	108.8
94	100.0	100.0	100.0	100.0	100.0	98Q4	101.3	101.8	103.2	105.6	111.8
95	103.1	102.8	101.8	103.8	103.3	99Q1	100.8	101.3	103.0	105.4	112.5
96	101.1	101.6	101.6	102.6	107.0	99Q2	100.5	101.0	103.0	105.3	113.2
97	98.9	99.4	101.5	101.3	107.9	99Q3	100.4	101.0	103.2	105.3	113.7
98	99.4	99.8	101.3	103.2	108.7	99Q4	100.1	100.9	103.0	105.2	113.5
99	100.5	101.1	103.1	105.3	113.2	00Q1	99.4	100.3	102.4	104.6	112.4

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	99.5	98.8	95.1	102.3	101.1	97Q1	101.4	102.2	102.9	104.0	111.1
88	100.3	98.8	92.4	103.7	100.6	97Q2	101.7	102.4	103.2	104.6	112.1
89	99.2	98.3	92.8	103.1	96.1	97Q3	101.5	102.1	102.8	104.8	112.2
90	100.4	99.7	95.2	103.2	100.3	97Q4	101.7	102.3	102.5	105.5	112.6
91	98.6	98.2	95.6	100.4	99.0	98Q1	101.9	102.5	102.2	106.7	113.4
92	97.9	98.7	99.0	100.5	100.3	98Q2	102.1	102.7	101.8	107.3	114.0
93	99.4	100.2	100.2	101.7	104.1	98Q3	102.4	103.0	102.0	108.0	115.2
94	100.0	100.0	100.0	100.0	100.0	98Q4	103.0	103.6	102.7	108.9	117.1
95	101.8	101.5	100.9	102.3	102.2	99Q1	103.4	104.1	103.4	109.6	119.0
96	101.2	101.8	101.5	103.0	107.6	99Q2	103.8	104.6	104.1	110.3	120.7
97	101.5	102.2	102.9	104.8	112.0	99Q3	104.0	104.9	104.6	110.7	121.7
98	102.3	103.0	102.2	107.7	114.9	99Q4	104.2	105.3	104.9	111.2	122.1
99	103.8	104.7	104.2	110.4	120.9	00Q1	104.2	105.5	104.8	111.4	121.8

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

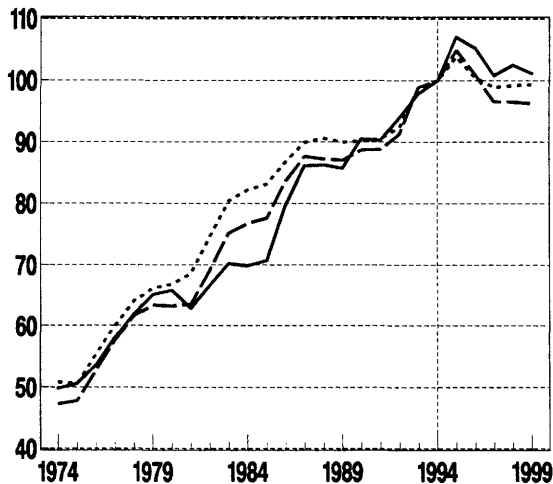
# Germany – euro (before 1999: DEM)

## Trade – weighted currency indices

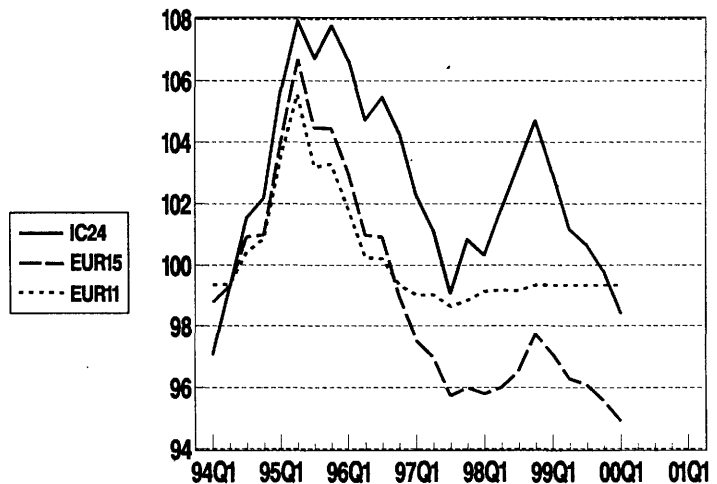
	Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change		
	vs. (the rest of) IC24	EUR15	EUR11		vs. (the rest of) IC24	EUR15	EUR11		vs. (the rest of) IC24	EUR15	EUR11
87	86.1	87.6	89.9	97Q1	102.2	97.5	99.0	MAR99	-0.8	-0.4	0.0
88	86.3	87.2	90.6	97Q2	101.1	97.0	99.0	APR99	-0.5	-0.2	0.0
89	85.7	87.0	90.0	97Q3	99.1	95.7	98.6	MAY99	-0.2	-0.1	0.0
90	90.5	88.7	90.2	97Q4	100.8	96.0	98.8	JUN99	-0.8	-0.3	0.0
91	90.3	88.8	90.5	98Q1	100.3	95.8	99.1	JUL99	0.1	0.2	0.0
92	93.9	91.3	92.3	98Q2	101.8	96.0	99.2	AUG99	0.4	0.1	0.0
93	97.8	98.9	98.8	98Q3	103.2	96.5	99.2	SEP99	-0.8	-0.4	0.0
94	100.0	100.0	100.0	98Q4	104.7	97.7	99.3	OCT99	0.5	0.0	0.0
95	107.0	104.9	103.9	99Q1	103.0	97.1	99.3	NOV99	-1.0	-0.3	-0.0
96	105.3	100.9	100.4	99Q2	101.2	96.3	99.3	DEC99	-0.9	-0.3	0.0
97	100.8	96.6	98.9	99Q3	100.7	96.1	99.3	JAN00	0.1	-0.2	0.0
98	102.5	96.5	99.2	99Q4	99.8	95.6	99.3	FEB00	-0.5	-0.2	-0.0
99	101.2	96.3	99.3	00Q1	98.4	94.9	99.3	MAR00	-0.7	-0.2	0.0

## Trade – weighted currency indices

Annual data (index 1994=100)

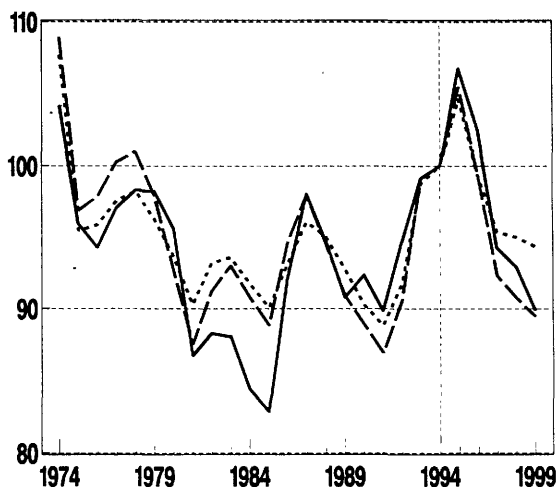


Quarterly data (index 1994=100)

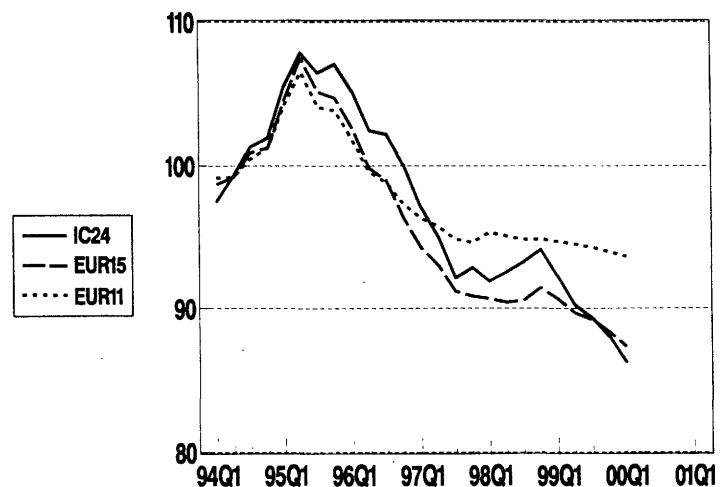


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Germany – euro (before 1999: DEM)

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	95.2	94.6	93.8	98.0	88.4	97Q1	98.6	97.3	98.5	97.1	101.1
88	92.6	91.9	92.1	94.7	87.6	97Q2	97.2	95.7	97.4	95.0	98.8
89	90.1	89.0	89.3	90.8	85.5	97Q3	94.8	93.3	95.3	92.1	95.5
90	92.8	92.2	93.1	92.3	87.7	97Q4	96.1	94.5	97.0	92.8	95.7
91	91.2	91.0	92.9	89.9	85.5	98Q1	95.2	93.6	96.4	91.9	94.0
92	95.1	95.3	97.2	94.7	92.3	98Q2	96.2	94.7	97.8	92.5	94.2
93	99.0	98.9	99.5	99.1	98.3	98Q3	97.1	95.6	99.1	93.2	94.6
94	100.0	100.0	100.0	100.0	100.0	98Q4	98.0	96.6	100.4	94.1	95.5
95	105.2	105.5	105.2	106.7	109.1	99Q1	96.0	94.8	98.7	92.2	93.7
96	102.2	101.6	101.9	102.5	106.3	99Q2	93.9	92.7	96.7	90.2	91.9
97	96.7	95.2	97.1	94.2	97.7	99Q3	93.1	91.8	96.0	89.3	91.3
98	96.6	95.1	98.4	92.9	94.6	99Q4	92.0	90.5	94.9	88.1	90.2
99	93.7	92.4	96.6	89.9	91.8	00Q1	90.4	88.8	93.3	86.3	88.7

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	95.9	95.5	94.9	98.0	86.0	97Q1	95.5	94.3	95.7	94.2	97.2
88	92.8	92.3	92.9	94.5	85.4	97Q2	95.0	93.4	95.3	93.0	96.0
89	90.8	89.6	89.9	90.9	84.4	97Q3	93.6	91.9	94.2	91.2	93.9
90	90.3	89.3	90.8	88.9	83.3	97Q4	93.7	91.9	94.6	90.8	93.1
91	88.8	88.4	91.0	86.9	81.7	98Q1	93.3	91.5	94.6	90.7	92.1
92	91.6	91.6	94.3	90.6	87.9	98Q2	93.3	91.4	94.9	90.4	91.3
93	99.4	99.2	99.5	99.1	97.8	98Q3	93.6	91.8	95.5	90.6	91.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	94.5	92.8	96.8	91.4	91.8
95	103.8	104.0	103.4	105.5	107.0	99Q1	93.7	92.1	96.2	90.6	90.9
96	99.1	98.5	98.8	99.4	101.8	99Q2	92.7	91.2	95.3	89.7	90.1
97	94.5	92.9	94.9	92.3	95.0	99Q3	92.4	90.8	95.1	89.2	89.8
98	93.7	91.9	95.4	90.8	91.6	99Q4	91.7	90.1	94.5	88.4	89.2
99	92.6	91.1	95.3	89.5	90.0	00Q1	91.0	89.1	93.8	87.4	88.4

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	95.0	94.8	94.1	96.1	85.7	97Q1	97.2	96.0	96.5	96.3	100.6
88	93.6	93.4	92.5	95.0	87.0	97Q2	97.2	95.8	96.3	95.7	100.2
89	91.6	91.0	89.7	92.8	86.0	97Q3	96.8	95.1	95.7	94.8	99.3
90	90.6	90.1	90.1	90.3	84.2	97Q4	96.9	95.0	95.8	94.6	98.7
91	90.3	90.1	91.0	88.8	83.2	98Q1	97.0	95.1	96.1	95.3	98.8
92	92.6	92.7	94.1	91.8	88.9	98Q2	96.9	94.9	96.1	95.0	98.2
93	99.4	99.2	99.4	98.8	97.1	98Q3	96.6	94.8	96.2	94.8	97.8
94	100.0	100.0	100.0	100.0	100.0	98Q4	96.6	95.0	96.4	94.8	97.8
95	102.8	103.0	102.6	104.7	107.0	99Q1	96.4	94.9	96.4	94.7	97.8
96	98.7	98.2	98.3	99.4	102.8	99Q2	96.2	94.9	96.4	94.5	97.9
97	97.0	95.5	96.1	95.4	99.7	99Q3	96.0	94.7	96.3	94.3	97.9
98	96.8	94.9	96.2	95.0	98.2	99Q4	95.9	94.5	96.2	94.0	97.9
99	96.1	94.7	96.3	94.3	97.9	00Q1	95.8	94.2	95.9	93.6	97.8

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

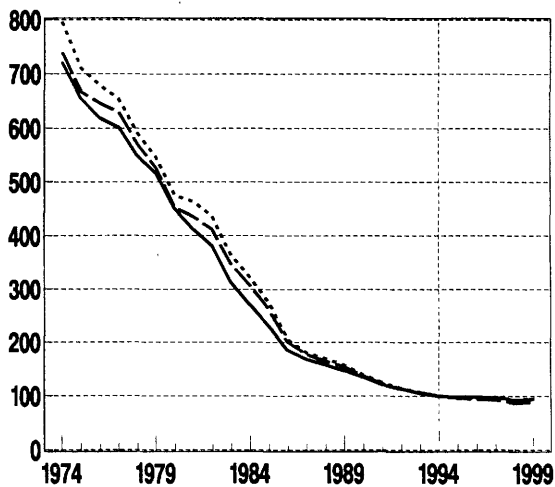
# Greece – GRD

## Trade – weighted currency indices

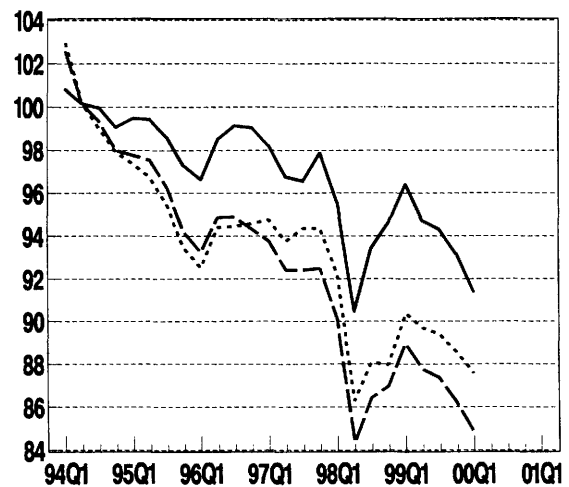
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	168.4	177.4	180.5	97Q1	98.2	93.8	94.8	MAR99	-0.7	-0.6	-0.3
88	158.2	165.3	169.7	97Q2	96.8	92.4	93.8	APR99	-1.3	-1.2	-1.1
89	147.3	154.1	157.8	97Q3	96.6	92.4	94.4	MAY99	0.2	0.2	0.3
90	135.2	137.4	139.3	97Q4	97.9	92.5	94.4	JUN99	-0.2	0.0	0.2
91	121.2	123.0	125.0	98Q1	95.6	90.1	92.2	JUL99	-0.1	-0.1	-0.3
92	113.0	113.1	114.3	98Q2	90.5	84.3	86.3	AUG99	-0.0	-0.4	-0.4
93	104.9	106.8	106.7	98Q3	93.4	86.4	88.1	SEP99	-0.6	-0.5	-0.2
94	100.0	100.0	100.0	98Q4	94.6	87.0	88.0	OCT99	-0.2	-0.6	-0.6
95	98.7	96.4	95.7	99Q1	96.4	89.0	90.4	NOV99	-0.5	-0.1	0.1
96	98.3	94.3	94.0	99Q2	94.7	87.8	89.7	DEC99	-0.7	-0.5	-0.3
97	97.3	92.8	94.3	99Q3	94.3	87.4	89.4	JAN00	-0.4	-0.6	-0.5
98	93.5	86.9	88.6	99Q4	93.2	86.2	88.6	FEB00	-1.0	-0.7	-0.6
99	94.6	87.6	89.5	00Q1	91.4	84.8	87.6	MAR00	-0.6	-0.3	-0.2

## Trade – weighted currency indices

Annual data (index 1994=100)

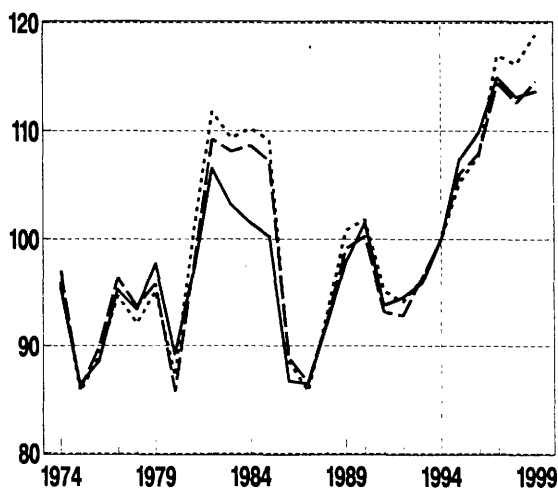


Quarterly data (Index 1994=100)

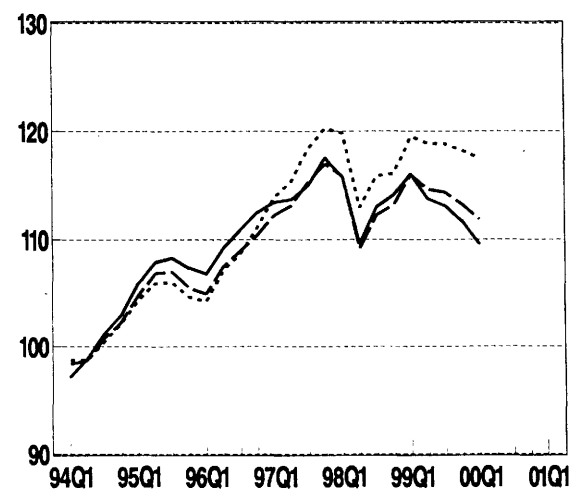


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Greece – GRD

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	84.6	81.5	93.9	86.5	87.8	97Q1	108.5	109.7	106.5	113.5	114.9
88	87.9	85.5	95.5	92.0	99.9	97Q2	107.1	108.9	105.0	113.7	115.1
89	88.3	86.8	94.4	97.9	106.7	97Q3	107.2	109.4	105.1	115.0	116.3
90	92.6	91.2	99.4	101.5	111.2	97Q4	109.1	111.4	107.2	117.5	118.7
91	94.2	93.0	99.9	93.8	99.5	98Q1	106.8	109.0	105.3	115.8	116.5
92	97.1	95.5	101.3	94.5	100.0	98Q2	101.3	103.3	100.3	109.7	109.8
93	98.5	97.8	99.2	95.9	96.2	98Q3	104.6	106.6	104.0	113.0	112.5
94	100.0	100.0	100.0	100.0	100.0	98Q4	105.7	107.8	105.6	114.1	112.7
95	103.2	104.2	102.6	107.4	110.4	99Q1	107.4	109.7	107.9	116.0	113.7
96	107.2	107.6	105.9	109.8	111.9	99Q2	105.2	107.6	106.2	113.8	110.6
97	108.0	109.9	106.0	114.9	116.3	99Q3	104.5	107.0	106.0	113.1	109.3
98	104.6	106.6	103.8	113.1	112.8	99Q4	103.0	105.6	105.0	111.7	107.5
99	105.0	107.5	106.3	113.7	110.3	00Q1	100.8	103.5	103.3	109.6	105.2

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	85.3	82.3	94.9	86.6	87.2	97Q1	107.1	108.5	105.0	112.3	112.6
88	88.5	86.2	96.5	92.3	99.4	97Q2	106.3	108.3	104.1	113.2	113.7
89	89.7	88.2	95.8	99.1	107.6	97Q3	107.2	109.4	104.9	115.3	115.9
90	91.8	90.3	98.3	100.3	109.3	97Q4	108.2	110.5	106.0	117.0	117.5
91	93.6	92.2	99.2	93.2	98.5	98Q1	106.4	108.4	104.4	115.9	115.8
92	95.5	93.8	99.7	92.8	98.2	98Q2	100.4	102.1	98.8	109.1	108.6
93	99.1	98.3	99.4	96.4	96.5	98Q3	103.4	105.1	102.1	112.3	110.9
94	100.0	100.0	100.0	100.0	100.0	98Q4	104.4	106.1	103.5	113.2	110.8
95	102.0	103.0	101.2	106.0	108.3	99Q1	106.9	108.9	106.6	116.0	112.5
96	105.3	105.8	103.8	107.9	108.7	99Q2	105.6	107.8	105.8	114.6	110.2
97	107.2	109.2	105.0	114.4	114.9	99Q3	105.2	107.6	105.9	114.4	109.2
98	103.6	105.4	102.2	112.6	111.5	99Q4	103.9	106.5	105.2	113.3	107.6
99	105.4	107.7	105.9	114.6	109.9	00Q1	102.4	105.1	104.2	111.9	106.0

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	85.1	82.3	94.7	85.7	88.1	97Q1	108.3	109.9	105.7	113.9	114.6
88	89.4	87.4	96.8	92.9	101.6	97Q2	108.0	110.1	105.0	115.4	116.4
89	90.8	89.7	96.3	100.8	109.9	97Q3	109.6	112.0	106.2	118.4	119.7
90	92.6	91.4	98.5	101.8	111.2	97Q4	110.6	113.0	107.1	120.3	121.6
91	95.2	94.0	99.8	95.2	100.9	98Q1	109.1	111.3	105.6	119.8	120.8
92	96.6	95.0	99.8	94.1	99.6	98Q2	102.9	104.8	99.8	113.0	113.5
93	99.2	98.3	99.3	96.3	96.3	98Q3	105.7	107.5	102.7	115.9	115.8
94	100.0	100.0	100.0	100.0	100.0	98Q4	105.9	107.9	103.3	116.1	115.2
95	101.3	102.2	100.5	105.2	107.8	99Q1	109.0	111.3	106.8	119.5	117.6
96	105.0	105.5	103.4	107.8	108.8	99Q2	108.3	110.8	106.7	118.9	116.0
97	109.1	111.2	106.0	117.0	118.0	99Q3	108.1	110.8	107.0	118.8	115.2
98	105.9	107.9	102.8	116.2	116.3	99Q4	107.2	110.2	106.6	118.2	114.1
99	108.1	110.8	106.8	118.9	115.7	00Q1	106.2	109.3	106.0	117.5	113.1

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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



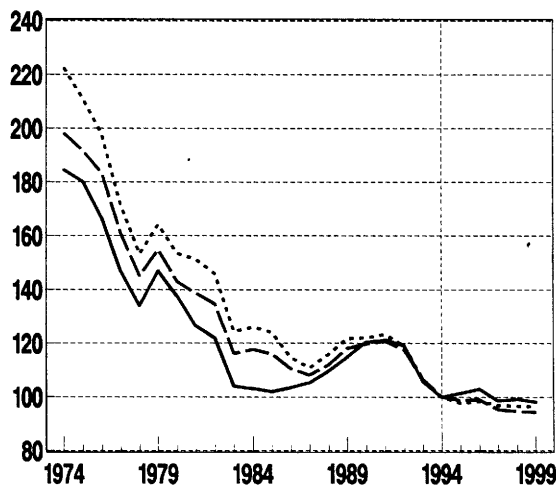
# Spain – euro (before 1999: ESP)

## Trade – weighted currency indices

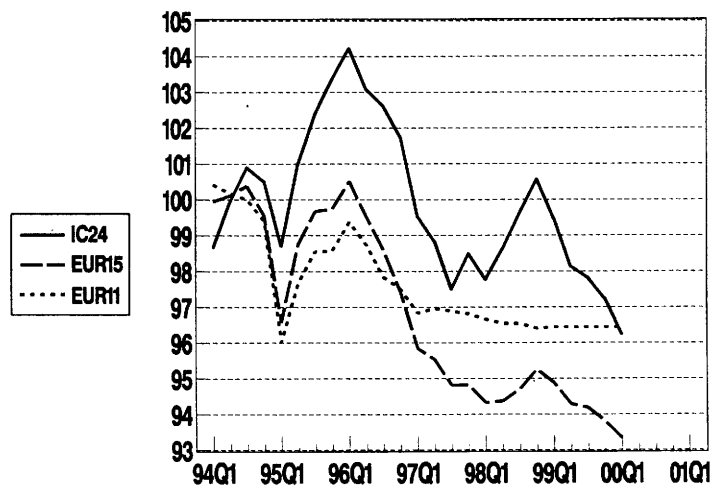
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	105.3	108.2	110.8	97Q1	99.5	95.8	96.8	MAR99	-0.6	-0.3	-0.0
88	109.7	111.9	115.8	97Q2	98.8	95.5	97.0	APR99	-0.4	-0.1	0.0
89	114.9	118.1	121.8	97Q3	97.5	94.8	96.9	MAY99	-0.2	-0.1	0.0
90	120.5	119.8	122.0	97Q4	98.5	94.8	96.8	JUN99	-0.5	-0.2	-0.0
91	121.3	120.8	123.3	98Q1	97.8	94.3	96.7	JUL99	0.1	0.1	0.0
92	119.2	117.5	119.1	98Q2	98.6	94.4	96.5	AUG99	0.3	0.0	0.0
93	105.6	106.5	106.5	98Q3	99.6	94.7	96.5	SEP99	-0.6	-0.3	0.0
94	100.0	100.0	100.0	98Q4	100.6	95.3	96.4	OCT99	-0.4	0.0	0.0
95	101.3	98.7	97.7	99Q1	99.5	94.9	96.4	NOV99	-0.7	-0.2	0.0
96	102.9	99.0	98.4	99Q2	98.1	94.3	96.4	DEC99	-0.6	-0.2	0.0
97	98.6	95.3	96.9	99Q3	97.8	94.2	96.4	JAN00	0.0	-0.2	0.0
98	99.1	94.7	96.5	99Q4	97.2	93.8	96.4	FEB00	-0.4	-0.1	-0.0
99	98.2	94.3	96.4	00Q1	96.2	93.3	96.4	MAR00	-0.5	-0.1	0.0

## Trade – weighted currency indices

Annual data (Index 1994=100)

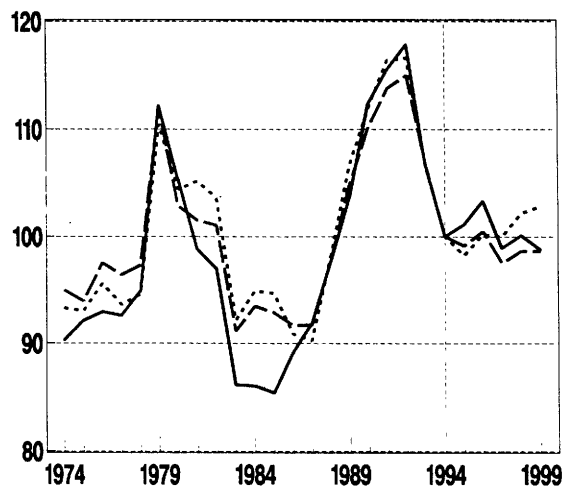


Quarterly data (index 1994=100)

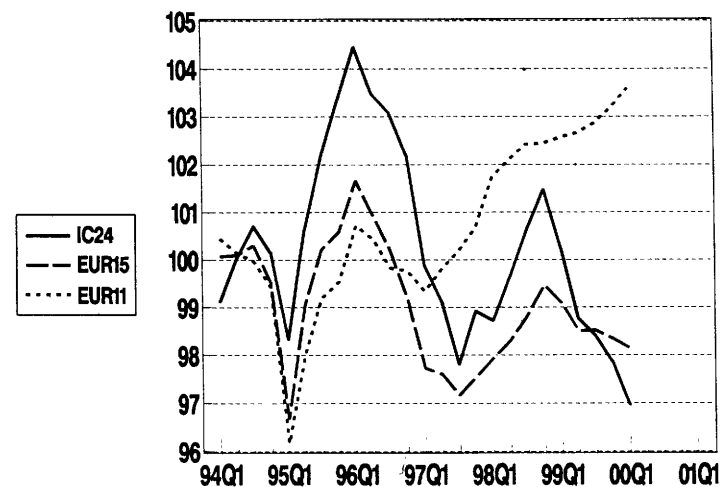


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Spain – euro (before 1999: ESP)

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	96.3	94.1	97.9	91.9	89.4	97Q1	100.9	101.2	101.7	99.9	102.9
88	100.8	98.9	101.2	97.7	95.9	97Q2	100.2	100.4	101.5	99.1	102.9
89	107.1	105.7	105.3	103.7	104.2	97Q3	98.7	98.9	100.5	97.8	101.9
90	113.7	112.9	110.9	112.4	114.3	97Q4	99.6	99.8	101.6	98.9	103.2
91	115.5	115.8	112.4	115.6	116.5	98Q1	98.8	98.9	100.9	98.7	102.7
92	115.8	117.0	113.7	117.9	118.1	98Q2	99.6	99.8	101.7	99.6	103.6
93	104.2	104.6	103.2	106.5	106.9	98Q3	100.6	100.9	102.8	100.6	104.9
94	100.0	100.0	100.0	100.0	100.0	98Q4	101.7	102.1	103.9	101.5	106.2
95	102.4	102.5	102.5	101.1	100.7	99Q1	100.8	101.3	102.9	100.2	105.6
96	104.3	104.8	104.2	103.3	104.2	99Q2	99.7	100.2	101.8	98.8	104.7
97	99.8	100.1	101.4	98.9	102.7	99Q3	99.5	100.1	101.6	98.4	104.8
98	100.2	100.4	102.3	100.1	104.4	99Q4	99.0	99.6	101.2	97.9	104.6
99	99.8	100.3	101.9	98.8	104.9	00Q1	98.0	98.7	100.3	97.0	103.9

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	96.8	94.8	99.3	91.7	88.5	97Q1	98.8	99.3	100.1	97.7	99.8
88	101.4	99.7	102.6	97.7	95.2	97Q2	98.6	99.0	100.4	97.6	100.5
89	108.9	107.6	107.4	104.8	105.1	97Q3	98.0	98.2	100.1	97.2	100.5
90	112.2	111.3	109.8	110.3	111.7	97Q4	98.1	98.2	100.3	97.5	101.0
91	114.3	114.4	111.5	113.8	114.5	98Q1	97.6	97.7	100.0	97.9	101.2
92	113.6	114.6	111.9	115.0	115.3	98Q2	97.8	97.9	100.1	98.3	101.5
93	104.7	105.0	103.4	106.6	106.8	98Q3	98.4	98.5	100.6	98.8	102.2
94	100.0	100.0	100.0	100.0	100.0	98Q4	99.3	99.5	101.5	99.5	103.2
95	100.5	100.7	100.8	99.1	98.0	99Q1	99.3	99.6	101.3	99.1	103.3
96	101.7	102.2	102.0	100.5	100.3	99Q2	99.1	99.5	101.1	98.5	103.2
97	98.4	98.7	100.2	97.5	100.5	99Q3	99.3	99.8	101.3	98.5	103.7
98	98.3	98.4	100.5	98.6	102.0	99Q4	99.1	99.7	101.3	98.3	103.8
99	99.2	99.6	101.2	98.6	103.5	00Q1	98.8	99.5	101.1	98.1	103.8

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	96.3	94.4	98.8	90.2	89.1	97Q1	100.2	100.8	100.9	99.3	102.0
88	102.5	100.9	102.8	98.2	97.3	97Q2	100.5	101.0	101.4	99.8	103.5
89	110.3	109.4	108.0	106.7	107.4	97Q3	100.5	100.9	101.5	100.2	104.6
90	113.2	112.7	110.0	112.0	113.7	97Q4	100.6	100.9	101.5	100.7	105.4
91	116.4	116.8	112.2	116.4	117.3	98Q1	100.6	100.8	101.4	101.7	106.4
92	114.9	116.1	112.1	116.6	117.0	98Q2	100.6	100.8	101.2	102.1	106.9
93	104.7	105.1	103.4	106.4	106.5	98Q3	100.9	101.2	101.4	102.4	107.6
94	100.0	100.0	100.0	100.0	100.0	98Q4	101.2	101.5	101.4	102.4	108.2
95	99.6	99.7	100.1	98.2	97.6	99Q1	101.7	102.1	101.8	102.6	109.0
96	101.3	101.9	101.6	100.2	100.4	99Q2	102.1	102.7	102.2	102.7	109.8
97	100.4	100.9	101.3	100.0	103.9	99Q3	102.4	103.3	102.5	102.9	110.5
98	100.8	101.1	101.3	102.2	107.3	99Q4	102.7	103.7	102.8	103.2	111.2
99	102.2	103.0	102.3	102.8	110.1	00Q1	102.9	104.0	103.1	103.6	111.8

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

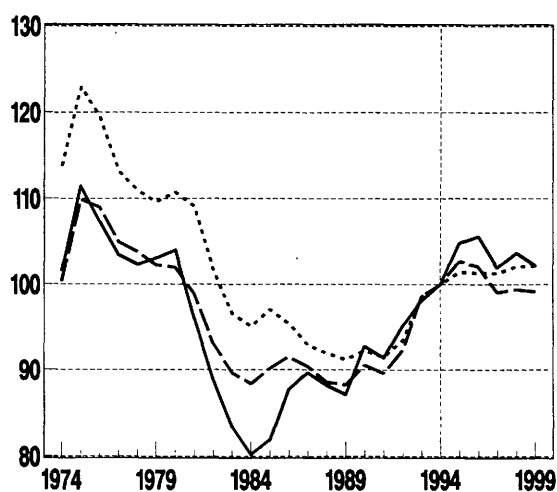
# France – euro (before 1999: FRF)

## Trade – weighted currency indices

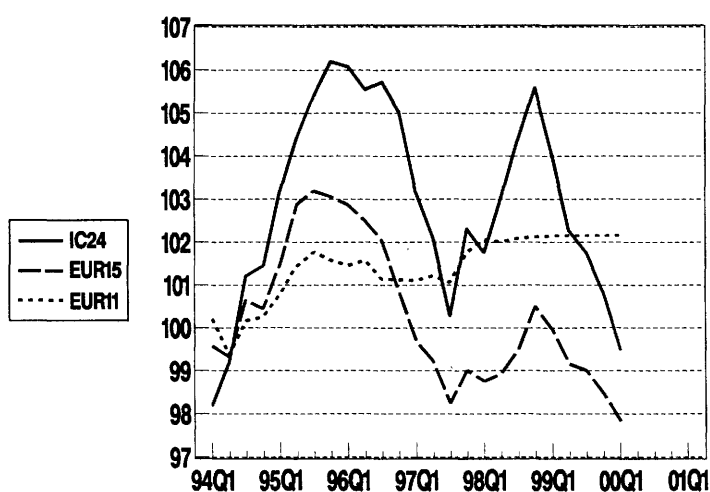
	Annual data index (1994=100)			Quarterly data index (1994=100)			Monthly data monthly % change				
	vs. (the rest of) IC24	EUR15	EUR11	vs. (the rest of) IC24	EUR15	EUR11	vs. (the rest of) IC24	EUR15	EUR11		
87	89.7	90.4	92.9	97Q1	103.2	99.7	101.1	MAR99	-0.8	-0.4	0.0
88	88.2	88.6	92.0	97Q2	102.1	99.2	101.2	APR99	-0.5	-0.2	0.0
89	87.2	88.3	91.2	97Q3	100.3	98.2	101.1	MAY99	-0.2	-0.2	0.0
90	92.7	90.5	92.2	97Q4	102.3	99.0	101.8	JUN99	-0.7	-0.3	0.0
91	91.4	89.6	91.5	98Q1	101.8	98.8	102.1	JUL99	0.1	0.2	0.0
92	95.1	92.3	93.4	98Q2	103.0	98.9	102.0	AUG99	0.3	0.1	0.0
93	98.1	98.6	98.6	98Q3	104.4	99.5	102.1	SEP99	-0.8	-0.4	0.0
94	100.0	100.0	100.0	98Q4	105.6	100.5	102.1	OCT99	0.4	0.0	0.0
95	104.8	102.7	101.4	99Q1	104.0	100.0	102.2	NOV99	-1.0	-0.3	0.0
96	105.6	102.1	101.3	99Q2	102.3	99.2	102.2	DEC99	-0.8	-0.3	0.0
97	102.0	99.0	101.3	99Q3	101.8	99.0	102.2	JAN00	0.1	-0.2	-0.0
98	103.7	99.4	102.1	99Q4	100.8	98.5	102.2	FEB00	-0.5	-0.1	-0.0
99	102.2	99.2	102.2	00Q1	99.5	97.8	102.2	MAR00	-0.6	-0.2	-0.0

## Trade – weighted currency indices

Annual data (Index 1994=100)

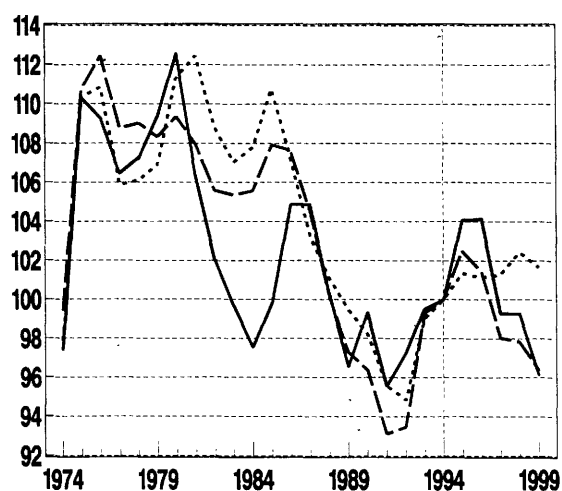


Quarterly data (Index 1994=100)

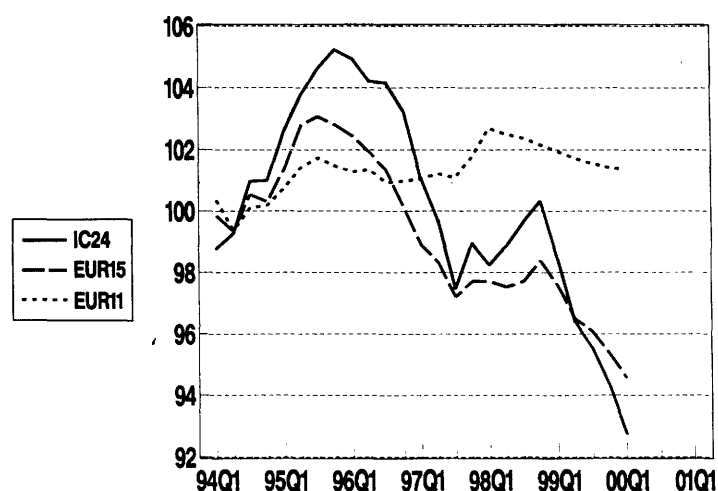


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# France – euro (before 1999: FRF)

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	99.9	101.0	107.5	104.9	108.1	97Q1	99.9	99.6	101.6	101.1	96.1
88	97.1	97.9	104.3	100.3	102.1	97Q2	98.5	98.4	101.0	99.7	93.4
89	94.9	95.1	102.2	96.6	97.8	97Q3	96.4	96.4	99.4	97.5	90.5
90	98.9	99.0	104.8	99.3	101.9	97Q4	98.1	98.0	101.5	99.0	91.5
91	95.8	95.5	101.2	95.6	97.8	98Q1	97.2	97.1	100.9	98.3	90.7
92	97.9	97.4	102.7	97.2	98.0	98Q2	98.0	97.9	102.1	98.9	91.4
93	99.4	99.4	100.5	99.5	100.4	98Q3	99.0	98.6	103.3	99.6	92.0
94	100.0	100.0	100.0	100.0	100.0	98Q4	99.7	99.3	104.3	100.3	92.3
95	103.3	103.0	101.5	104.1	101.7	99Q1	97.9	97.3	102.6	98.4	90.2
96	102.9	102.5	102.6	104.1	101.8	99Q2	95.9	95.2	100.7	96.4	87.9
97	98.2	98.1	100.9	99.3	92.9	99Q3	95.1	94.3	99.9	95.6	86.8
98	98.5	98.2	102.7	99.3	91.6	99Q4	93.9	93.0	98.7	94.3	85.5
99	95.7	94.9	100.5	96.2	87.6	00Q1	92.4	91.5	97.1	92.8	84.0

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	100.2	101.6	109.4	104.5	106.6	97Q1	97.5	97.3	99.2	98.9	92.7
88	97.5	98.5	106.0	100.2	100.9	97Q2	96.9	96.8	99.3	98.3	90.9
89	96.2	96.5	104.2	97.3	98.0	97Q3	95.8	95.7	98.7	97.2	89.1
90	96.7	96.6	103.2	96.4	98.3	97Q4	96.3	96.2	99.7	97.7	89.3
91	93.9	93.4	99.8	93.1	94.8	98Q1	95.9	95.7	99.6	97.7	89.2
92	94.8	94.0	100.3	93.5	94.1	98Q2	95.9	95.5	99.8	97.5	89.0
93	99.7	99.5	100.6	99.3	100.0	98Q3	96.2	95.6	100.3	97.7	89.0
94	100.0	100.0	100.0	100.0	100.0	98Q4	97.0	96.3	101.3	98.4	89.2
95	101.6	101.3	99.6	102.5	99.2	99Q1	96.2	95.4	100.6	97.6	87.9
96	100.2	99.8	99.9	101.4	97.7	99Q2	95.2	94.3	99.6	96.5	86.4
97	96.6	96.5	99.2	98.0	90.5	99Q3	94.9	93.9	99.3	96.1	85.7
98	96.2	95.8	100.3	97.8	89.1	99Q4	94.2	93.2	98.7	95.4	84.8
99	95.2	94.2	99.6	96.4	86.2	00Q1	93.4	92.4	97.9	94.6	83.9

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	99.9	101.6	109.4	103.3	108.1	97Q1	99.2	99.1	100.2	101.0	95.2
88	98.7	100.2	106.5	101.1	103.8	97Q2	99.2	99.2	100.5	101.2	94.2
89	97.5	98.5	105.1	99.5	100.7	97Q3	98.9	99.0	100.5	101.1	93.4
90	97.7	98.0	103.5	98.2	100.5	97Q4	99.5	99.5	101.2	101.8	94.0
91	95.8	95.5	100.6	95.6	97.5	98Q1	99.6	99.5	101.4	102.7	94.9
92	96.0	95.4	100.4	94.8	95.5	98Q2	99.4	99.2	101.2	102.5	95.0
93	99.7	99.5	100.6	99.0	99.4	98Q3	99.3	98.9	101.2	102.4	95.0
94	100.0	100.0	100.0	100.0	100.0	98Q4	99.2	98.7	101.1	102.2	94.5
95	100.5	100.1	98.5	101.3	98.5	99Q1	99.0	98.4	101.0	101.9	93.9
96	99.7	99.4	99.3	101.1	97.9	99Q2	98.8	98.1	100.9	101.7	93.2
97	99.2	99.2	100.6	101.3	94.2	99Q3	98.6	97.9	100.7	101.5	92.6
98	99.4	99.1	101.3	102.4	94.9	99Q4	98.5	97.8	100.5	101.4	92.2
99	98.7	98.0	100.8	101.7	93.0	00Q1	98.3	97.7	100.2	101.3	91.9

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

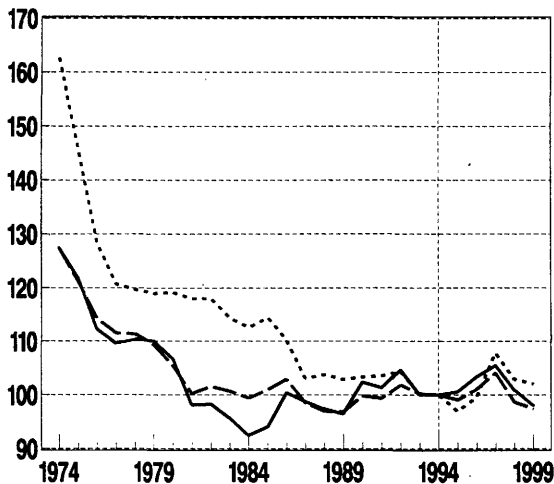
# Ireland – euro (before 1999: IEP)

## Trade – weighted currency indices

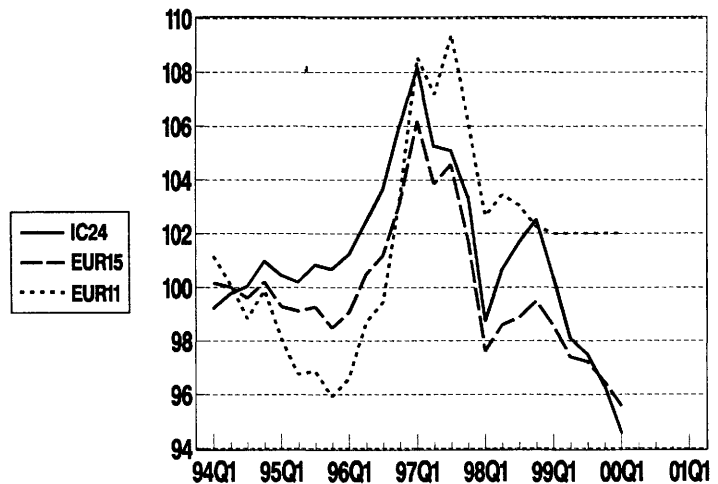
	Annual data index (1994=100)			Quarterly data index (1994=100)			Monthly data monthly % change				
	vs. IC24	(the rest of) EUR15	EUR11	vs. IC24	(the rest of) EUR15	EUR11	vs. IC24	(the rest of) EUR15	EUR11		
87	98.7	98.5	103.1	97Q1	108.2	106.2	108.6	MAR99	-1.1	-0.6	0.0
88	97.4	96.9	103.7	97Q2	105.2	103.8	107.2	APR99	-0.7	-0.3	0.0
89	96.5	96.8	102.8	97Q3	105.1	104.6	109.4	MAY99	-0.3	-0.2	0.0
90	102.3	99.8	103.3	97Q4	103.4	101.7	106.2	JUN99	-0.9	-0.4	0.0
91	101.3	99.3	103.5	98Q1	98.7	97.6	102.7	JUL99	0.1	0.3	0.0
92	104.6	101.8	104.3	98Q2	100.7	98.6	103.4	AUG99	0.4	0.1	0.0
93	100.1	100.2	100.0	98Q3	101.7	98.9	103.1	SEP99	-1.0	-0.6	0.0
94	100.0	100.0	100.0	98Q4	102.5	99.5	102.3	OCT99	0.4	-0.0	0.0
95	100.5	99.0	96.9	99Q1	100.4	98.5	102.0	NOV99	-1.2	-0.4	-0.0
96	103.3	101.0	99.5	99Q2	98.1	97.4	102.0	DEC99	-1.0	-0.5	0.0
97	105.4	104.1	107.8	99Q3	97.5	97.2	102.0	JAN00	-0.1	-0.3	0.0
98	100.9	98.6	102.9	99Q4	96.3	96.5	102.0	FEB00	-0.6	-0.2	-0.0
99	98.1	97.4	102.0	00Q1	94.6	95.6	102.0	MAR00	-0.7	-0.2	-0.0

## Trade – weighted currency indices

Annual data (Index 1994=100)

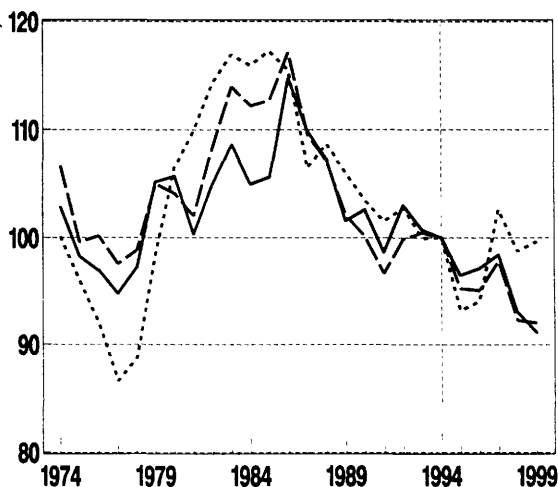


Quarterly data (Index 1994=100)

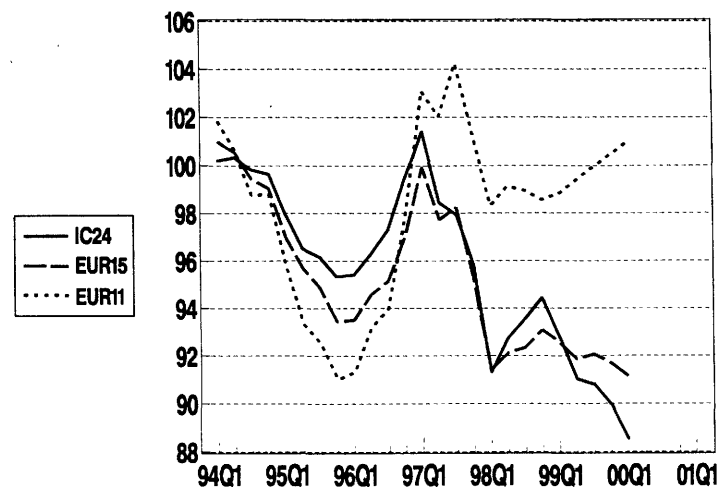


## Relative cost indicators (based on ULCE)

Annual data (Index 1994=100)



Quarterly data (index 1994=100)



# Ireland – euro (before 1999: IEP)

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	107.9	107.4	105.5	109.9	127.8	97Q1	107.9	108.5	105.3	101.4	91.5
88	106.4	105.0	107.1	107.3	119.5	97Q2	105.0	106.1	102.9	98.4	87.1
89	104.6	104.0	108.0	101.6	112.6	97Q3	105.2	106.8	103.5	97.9	84.8
90	107.5	104.4	103.5	102.6	115.5	97Q4	103.9	106.1	102.8	95.9	81.0
91	103.6	100.3	101.1	98.6	111.8	98Q1	99.9	102.4	99.3	91.3	75.4
92	106.0	102.8	101.9	103.0	110.4	98Q2	102.4	105.4	102.3	92.7	75.0
93	100.1	100.5	101.2	100.7	105.3	98Q3	103.9	107.2	104.2	93.5	74.4
94	100.0	100.0	100.0	100.0	100.0	98Q4	105.0	108.5	105.7	94.4	74.1
95	100.5	100.6	99.5	96.5	90.4	99Q1	103.1	106.6	104.0	92.8	72.1
96	103.2	103.3	100.8	97.1	90.0	99Q2	101.1	104.3	102.0	91.0	70.3
97	105.5	106.9	103.6	98.4	86.0	99Q3	100.8	104.0	101.7	90.8	69.7
98	102.8	105.9	102.9	93.0	74.7	99Q4	100.1	103.1	100.9	90.0	68.7
99	101.3	104.5	102.1	91.1	70.2	00Q1	98.7	101.7	99.5	88.6	67.4

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	108.0	107.8	106.6	109.6	126.2	97Q1	106.2	106.9	103.6	99.9	89.3
88	106.5	105.2	108.1	107.1	118.1	97Q2	104.0	105.2	101.8	97.7	85.7
89	105.6	105.1	109.6	102.1	112.7	97Q3	105.1	106.8	103.3	98.2	84.3
90	105.6	102.4	102.2	100.1	112.1	97Q4	102.8	104.9	101.6	95.3	79.9
91	102.1	98.6	100.2	96.6	109.2	98Q1	99.3	101.7	98.6	91.4	74.8
92	103.4	100.1	100.1	99.9	107.1	98Q2	100.9	103.7	100.7	92.1	73.8
93	100.3	100.6	101.3	100.4	104.9	98Q3	101.7	104.7	101.8	92.3	72.7
94	100.0	100.0	100.0	100.0	100.0	98Q4	102.7	105.9	103.0	93.1	72.2
95	99.1	99.1	97.9	95.2	88.5	99Q1	102.0	105.3	102.5	92.5	71.0
96	101.0	101.1	98.6	95.1	87.0	99Q2	101.2	104.4	101.6	91.9	69.9
97	104.5	105.9	102.6	97.8	84.7	99Q3	101.5	104.6	101.9	92.1	69.6
98	101.1	104.0	101.0	92.2	73.4	99Q4	101.2	104.3	101.6	91.7	68.9
99	101.5	104.6	101.9	92.0	69.8	00Q1	100.8	103.9	101.2	91.1	68.2

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	107.4	107.4	105.6	106.5	129.2	97Q1	109.1	110.1	105.2	103.1	93.0
88	109.4	108.5	108.5	108.7	124.4	97Q2	108.0	109.5	103.8	102.0	90.5
89	108.7	109.3	110.8	106.0	118.3	97Q3	110.7	112.8	106.3	104.2	90.7
90	107.7	105.1	102.3	103.5	116.4	97Q4	108.1	110.7	103.9	101.2	86.4
91	106.3	103.0	101.3	101.5	115.1	98Q1	105.3	108.2	101.3	98.3	82.2
92	106.1	102.8	99.9	102.8	110.1	98Q2	106.8	110.2	102.9	99.1	81.4
93	100.3	100.7	101.2	99.9	103.9	98Q3	107.1	110.8	103.3	99.0	80.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	106.7	110.6	103.1	98.6	78.9
95	97.1	97.0	96.1	93.2	87.4	99Q1	106.9	110.8	103.3	98.8	78.4
96	100.0	100.1	97.5	94.1	86.8	99Q2	107.4	111.3	103.7	99.4	78.3
97	109.0	110.8	104.8	102.6	90.1	99Q3	107.9	111.9	104.1	99.9	78.2
98	106.5	110.0	102.6	98.7	80.7	99Q4	108.5	112.5	104.5	100.4	78.2
99	107.7	111.6	103.9	99.6	78.3	00Q1	109.1	113.3	104.9	101.0	78.2

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

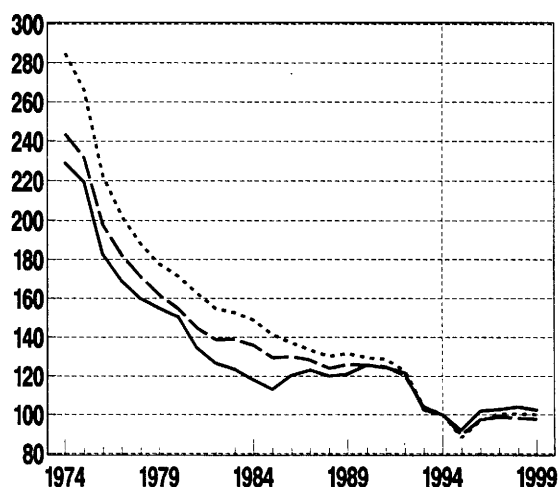
# Italy – euro (before 1999: ITL)

## Trade – weighted currency indices

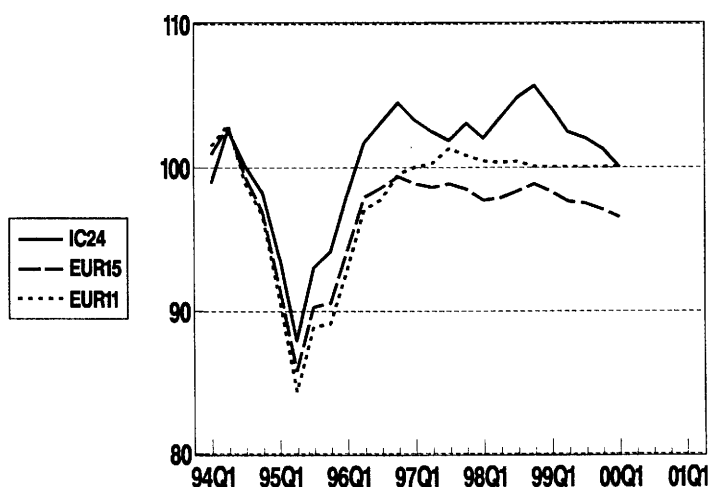
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	123.1	128.2	133.4	97Q1	103.3	98.9	100.0	MAR99	-0.7	-0.3	0.0
88	120.0	124.0	130.1	97Q2	102.5	98.6	100.3	APR99	-0.5	-0.1	0.0
89	121.1	125.9	131.6	97Q3	101.9	98.9	101.3	MAY99	-0.2	-0.1	0.0
90	125.6	125.7	129.4	97Q4	103.1	98.5	100.8	JUN99	-0.7	-0.2	0.0
91	124.4	124.7	128.6	98Q1	102.0	97.8	100.5	JUL99	0.1	0.1	0.0
92	121.7	120.3	122.8	98Q2	103.5	97.9	100.4	AUG99	0.4	0.1	0.0
93	102.4	103.9	104.1	98Q3	104.9	98.4	100.4	SEP99	-0.7	-0.3	0.0
94	100.0	100.0	100.0	98Q4	105.7	98.9	100.1	OCT99	0.5	0.0	0.0
95	92.2	89.5	88.2	99Q1	104.1	98.3	100.1	NOV99	-0.9	-0.2	0.0
96	101.8	97.5	96.8	99Q2	102.5	97.7	100.1	DEC99	-0.8	-0.3	0.0
97	102.7	98.7	100.6	99Q3	102.1	97.5	100.1	JAN00	0.1	-0.2	-0.0
98	104.0	98.2	100.3	99Q4	101.3	97.1	100.1	FEB00	-0.5	-0.1	-0.0
99	102.5	97.7	100.1	00Q1	100.1	96.6	100.1	MAR00	-0.6	-0.1	-0.0

## Trade – weighted currency indices

Annual data (index 1994=100)

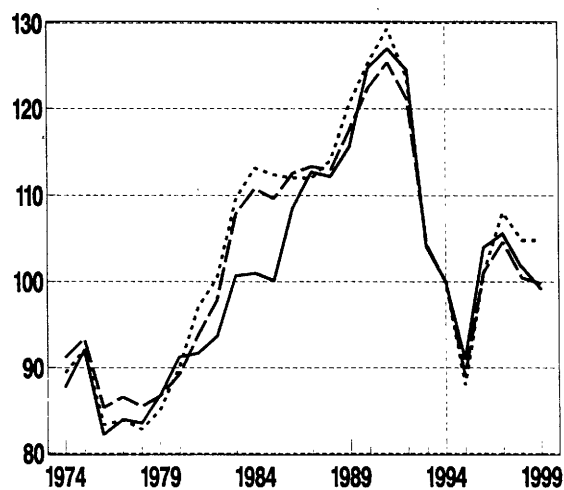


Quarterly data (index 1994=100)

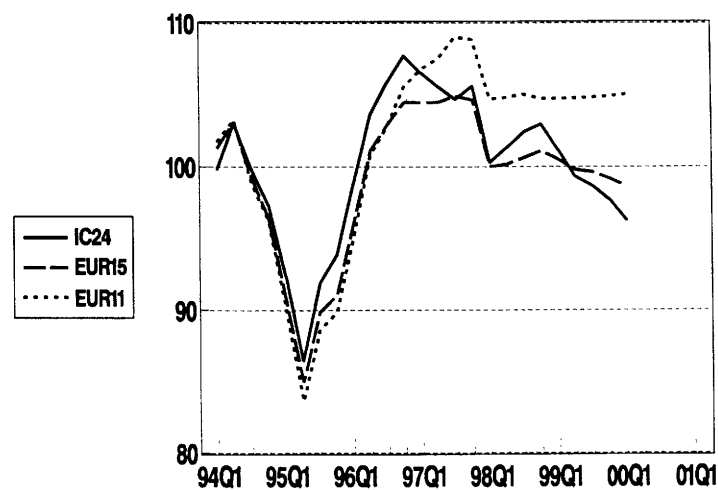


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Italy – euro (before 1999: ITL)

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	110.2	109.8	105.2	112.7	114.5	97Q1	107.0	107.7	106.5	106.5	111.6
88	109.6	109.8	102.3	112.2	112.7	97Q2	105.8	106.6	105.4	105.6	111.1
89	112.8	112.9	105.3	115.7	117.9	97Q3	105.0	105.9	104.8	104.7	110.4
90	118.8	121.0	111.4	124.8	125.6	97Q4	106.0	107.2	106.2	105.6	111.3
91	119.8	123.1	113.3	127.0	127.3	98Q1	104.8	106.2	105.5	100.3	106.9
92	118.6	121.1	111.0	124.6	121.7	98Q2	106.2	107.8	107.2	101.3	107.9
93	101.3	102.3	101.7	104.0	103.6	98Q3	107.6	109.2	108.7	102.4	109.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	108.4	109.8	109.5	102.9	110.0
95	94.6	93.7	97.3	91.1	92.8	99Q1	106.7	107.8	107.6	101.2	108.5
96	105.9	106.2	106.8	103.9	107.6	99Q2	104.9	105.7	105.7	99.3	106.8
97	105.9	106.8	105.7	105.6	111.1	99Q3	104.4	104.9	105.1	98.7	106.2
98	106.7	108.2	107.7	101.7	108.5	99Q4	103.6	103.9	104.3	97.7	105.1
99	104.9	105.6	105.7	99.2	106.6	00Q1	102.2	102.5	103.1	96.3	103.3

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	111.7	111.5	107.1	113.3	113.8	97Q1	104.7	105.5	104.2	104.4	108.2
88	111.0	111.4	104.0	113.0	112.1	97Q2	104.4	105.3	103.9	104.5	108.9
89	115.3	115.5	107.5	117.6	119.3	97Q3	104.7	105.7	104.4	104.9	109.7
90	117.2	119.2	109.9	122.5	122.4	97Q4	104.5	105.6	104.5	104.6	109.5
91	118.6	121.7	112.2	125.4	125.0	98Q1	103.8	105.1	104.3	100.0	105.9
92	115.8	118.0	108.7	121.2	118.2	98Q2	104.2	105.6	105.0	100.2	105.9
93	101.8	102.8	101.9	104.3	103.7	98Q3	104.9	106.2	105.7	100.6	106.3
94	100.0	100.0	100.0	100.0	100.0	98Q4	105.7	106.8	106.3	101.1	107.0
95	92.7	91.7	95.2	89.1	90.0	99Q1	105.3	106.1	105.7	100.5	106.5
96	103.0	103.4	103.9	101.1	103.1	99Q2	104.7	105.3	104.9	99.8	105.9
97	104.6	105.5	104.3	104.6	109.1	99Q3	104.8	105.1	104.8	99.6	105.7
98	104.7	105.9	105.3	100.5	106.3	99Q4	104.5	104.7	104.6	99.2	105.1
99	104.8	105.3	105.0	99.8	105.8	00Q1	104.1	104.3	104.4	98.6	104.2

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	111.4	111.3	106.9	112.0	115.1	97Q1	106.6	107.6	105.3	106.8	111.5
88	112.4	113.1	104.3	114.1	115.3	97Q2	106.9	108.0	105.3	107.5	113.2
89	117.2	118.0	108.3	120.5	123.0	97Q3	108.1	109.3	106.4	109.0	115.4
90	118.7	121.3	110.3	125.4	125.7	97Q4	107.8	109.2	106.1	108.9	115.5
91	121.5	125.0	113.3	129.3	129.2	98Q1	107.7	109.2	106.2	104.7	112.6
92	117.8	120.2	109.0	123.6	120.6	98Q2	107.9	109.5	106.5	104.8	112.9
93	101.9	102.9	101.9	104.1	103.3	98Q3	108.2	109.8	106.8	105.0	113.3
94	100.0	100.0	100.0	100.0	100.0	98Q4	108.1	109.5	106.5	104.7	113.3
95	91.6	90.6	94.2	88.0	89.4	99Q1	108.3	109.5	106.4	104.7	113.7
96	102.8	103.3	103.6	101.0	103.6	99Q2	108.5	109.4	106.3	104.8	114.0
97	107.3	108.5	105.8	108.0	113.9	99Q3	108.8	109.5	106.4	104.8	114.1
98	108.0	109.5	106.5	104.8	113.0	99Q4	108.9	109.6	106.5	104.9	113.9
99	108.6	109.5	106.4	104.8	113.9	00Q1	109.1	109.9	106.8	105.0	113.7

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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



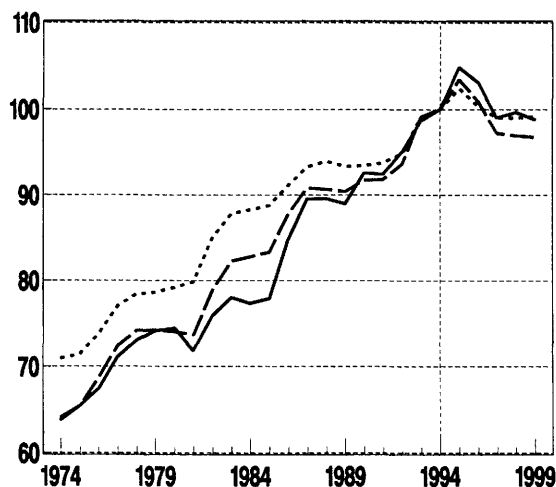
# Netherlands – euro (before 1999: NLG)

## Trade – weighted currency indices

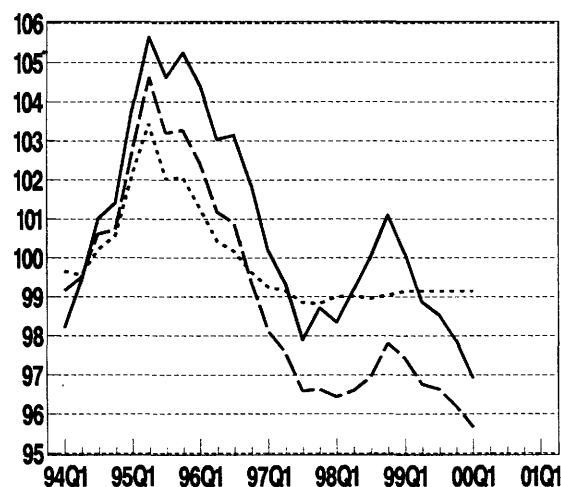
	Annual data index (1994=100)			Quarterly data index (1994=100)			Monthly data monthly % change				
	vs. IC24	vs. (the rest of) EUR15	vs. EUR11	vs. IC24	vs. (the rest of) EUR15	vs. EUR11	vs. IC24	vs. (the rest of) EUR15	vs. EUR11		
87	89.5	90.8	93.3	97Q1	100.2	98.1	99.2	MAR99	-0.6	-0.3	0.0
88	89.6	90.7	94.0	97Q2	99.3	97.6	99.2	APR99	-0.4	-0.2	0.0
89	89.0	90.4	93.3	97Q3	97.9	96.6	98.9	MAY99	-0.2	-0.1	0.0
90	92.6	91.8	93.5	97Q4	98.7	96.6	98.8	JUN99	-0.5	-0.2	0.0
91	92.4	91.8	93.7	98Q1	98.4	96.4	99.0	JUL99	0.1	0.1	-0.0
92	95.0	93.6	94.9	98Q2	99.2	96.6	99.0	AUG99	0.2	0.1	0.0
93	98.7	99.2	99.2	98Q3	100.0	96.9	99.0	SEP99	-0.6	-0.3	0.0
94	100.0	100.0	100.0	98Q4	101.1	97.8	99.0	OCT99	*0.3	0.0	0.0
95	104.8	103.5	102.4	99Q1	100.1	97.4	99.1	NOV99	-0.7	-0.2	0.0
96	103.1	101.0	100.4	99Q2	98.9	96.8	99.1	DEC99	-0.6	-0.3	0.0
97	99.0	97.2	99.0	99Q3	98.5	96.6	99.1	JAN00	-0.0	-0.2	-0.0
98	99.7	96.9	99.0	99Q4	97.9	96.2	99.1	FEB00	-0.3	-0.1	0.0
99	98.8	96.8	99.1	00Q1	96.9	95.7	99.1	MAR00	-0.4	-0.1	-0.0

## Trade – weighted currency indices

Annual data (index 1994=100)

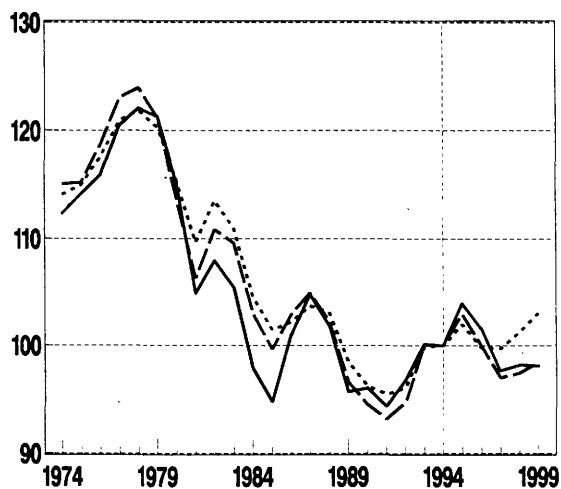


Quarterly data (index 1994=100)

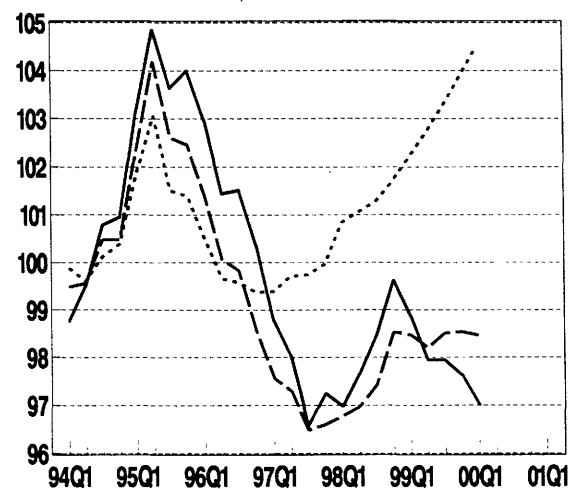


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Netherlands – euro (before 1999: NLG)

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	102.7	102.7	104.0	104.7	108.7	97Q1	97.7	98.0	98.6	98.8	94.7
88	99.5	100.0	100.7	101.9	105.1	97Q2	96.9	97.2	98.2	98.0	93.5
89	95.6	96.1	99.6	95.7	98.8	97Q3	95.4	95.8	96.8	96.6	91.8
90	97.1	97.6	101.8	96.0	99.1	97Q4	96.1	96.6	97.4	97.2	92.3
91	95.3	95.5	100.5	94.4	97.8	98Q1	95.7	96.2	96.6	97.0	92.0
92	97.0	96.6	100.5	96.8	101.4	98Q2	96.5	96.9	97.0	97.7	92.7
93	99.1	99.0	100.0	100.1	104.1	98Q3	97.3	97.6	97.4	98.5	93.5
94	100.0	100.0	100.0	100.0	100.0	98Q4	98.3	98.5	98.2	99.6	94.6
95	103.2	103.7	103.0	103.9	101.5	99Q1	97.4	97.4	97.1	98.9	93.9
96	100.8	101.0	100.6	101.6	98.6	99Q2	96.2	96.1	96.0	97.9	93.0
97	96.5	96.9	97.8	97.6	93.1	99Q3	95.9	95.7	95.8	97.9	92.9
98	96.9	97.3	97.3	98.2	93.2	99Q4	95.3	95.2	95.5	97.6	92.5
99	96.2	96.1	96.1	98.1	93.1	00Q1	94.4	94.5	95.0	97.0	91.9

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	103.3	103.5	105.3	104.9	108.0	97Q1	96.4	96.7	97.3	97.6	92.9
88	100.1	100.8	101.8	102.3	104.7	97Q2	95.9	96.3	97.2	97.3	92.2
89	96.7	97.3	101.0	96.6	99.3	97Q3	95.0	95.5	96.4	96.5	91.2
90	96.0	96.3	100.9	94.5	97.2	97Q4	95.2	95.6	96.3	96.6	91.2
91	94.3	94.5	99.8	93.2	96.3	98Q1	95.0	95.4	95.8	96.8	91.3
92	95.3	94.8	99.0	94.7	99.2	98Q2	95.3	95.6	95.6	97.0	91.5
93	99.3	99.1	100.0	100.1	103.9	98Q3	95.7	95.9	95.6	97.4	92.0
94	100.0	100.0	100.0	100.0	100.0	98Q4	96.7	96.7	96.3	98.5	92.9
95	102.2	102.7	101.8	102.9	100.0	99Q1	96.5	96.3	95.9	98.5	92.8
96	99.1	99.4	99.0	100.0	96.2	99Q2	96.0	95.7	95.3	98.2	92.4
97	95.6	96.0	96.8	97.0	91.8	99Q3	96.0	95.7	95.5	98.5	92.5
98	95.7	95.9	95.8	97.4	91.9	99Q4	95.7	95.6	95.5	98.5	92.5
99	96.0	95.8	95.6	98.4	92.5	00Q1	95.3	95.3	95.6	98.5	92.3

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	103.0	103.3	105.1	103.7	109.2	97Q1	97.8	98.3	98.2	99.4	95.1
88	101.3	102.2	102.0	103.1	107.5	97Q2	97.9	98.4	98.3	99.7	95.0
89	97.9	99.1	101.6	98.5	101.8	97Q3	97.7	98.3	97.9	99.7	94.9
90	96.8	97.6	101.1	96.2	99.1	97Q4	97.7	98.4	97.5	100.0	95.3
91	96.1	96.5	100.5	95.4	98.9	98Q1	98.0	98.7	97.2	100.8	96.2
92	96.5	96.1	99.1	96.1	100.8	98Q2	98.2	98.7	96.7	101.1	96.7
93	99.3	99.2	99.9	99.9	103.6	98Q3	98.3	98.7	96.3	101.3	97.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	98.6	98.8	96.2	101.7	97.6
95	101.2	101.7	101.0	102.0	99.4	99Q1	98.9	98.9	96.3	102.2	98.1
96	98.8	99.1	98.6	99.8	96.4	99Q2	99.1	99.1	96.4	102.7	98.5
97	97.8	98.4	98.0	99.7	95.1	99Q3	99.2	99.3	96.7	103.3	99.0
98	98.3	98.7	96.6	101.2	96.9	99Q4	99.4	99.6	97.1	103.9	99.5
99	99.1	99.2	96.6	103.0	98.8	00Q1	99.6	100.0	97.6	104.5	99.9

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

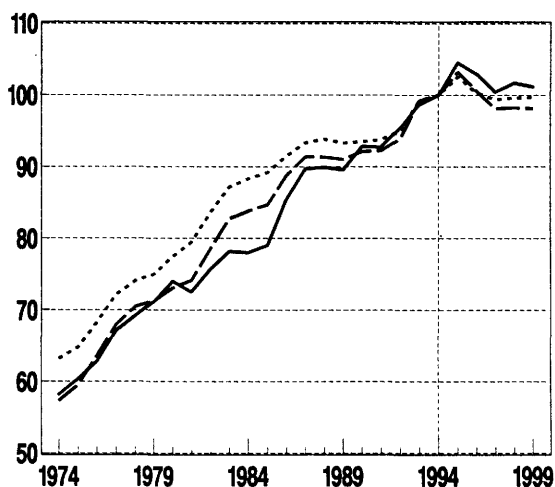
# Austria – euro (before 1999: ATS)

## Trade-weighted currency indices

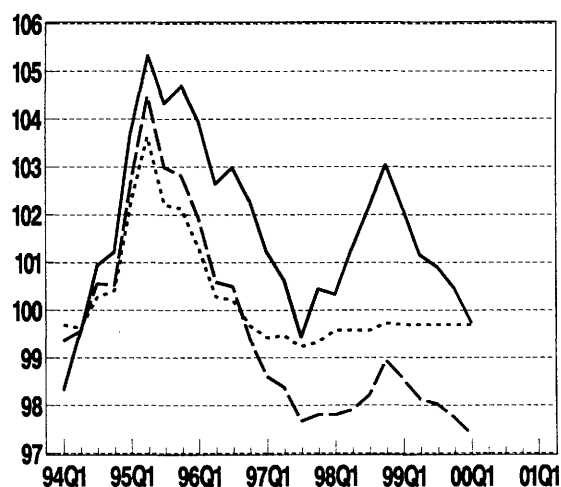
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	89.7	91.4	93.3	97Q1	101.2	98.6	99.4	MAR99	-0.4	-0.2	0.0
88	89.9	91.3	93.8	97Q2	100.6	98.4	99.5	APR99	-0.3	-0.1	-0.0
89	89.6	91.0	93.3	97Q3	99.4	97.7	99.2	MAY99	-0.1	-0.1	0.0
90	92.8	92.1	93.5	97Q4	100.4	97.8	99.3	JUN99	-0.4	-0.2	-0.0
91	92.8	92.2	93.8	98Q1	100.3	97.8	99.6	JUL99	0.1	0.1	0.0
92	95.4	93.9	95.0	98Q2	101.3	97.9	99.6	AUG99	0.2	0.0	0.0
93	98.7	99.2	99.3	98Q3	102.1	98.2	99.6	SEP99	-0.4	-0.2	0.0
94	100.0	100.0	100.0	98Q4	103.0	99.0	99.7	OCT99	0.3	0.0	0.0
95	104.5	103.2	102.6	99Q1	102.1	98.6	99.7	NOV99	-0.5	-0.2	0.0
96	103.0	100.6	100.4	99Q2	101.2	98.1	99.7	DEC99	-0.5	-0.2	0.0
97	100.4	98.1	99.4	99Q3	100.9	98.0	99.7	JAN00	0.1	-0.1	0.0
98	101.7	98.2	99.6	99Q4	100.5	97.7	99.7	FEB00	-0.3	-0.1	0.0
99	101.2	98.1	99.7	00Q1	99.8	97.4	99.7	MAR00	-0.4	-0.1	-0.0

## Trade-weighted currency indices

Annual data (index 1994=100)

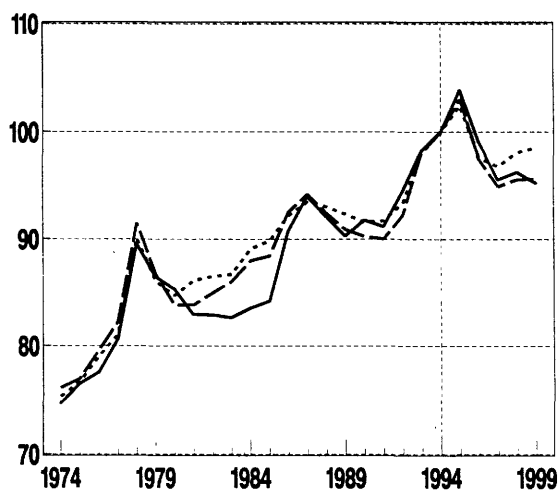


Quarterly data (index 1994=100)

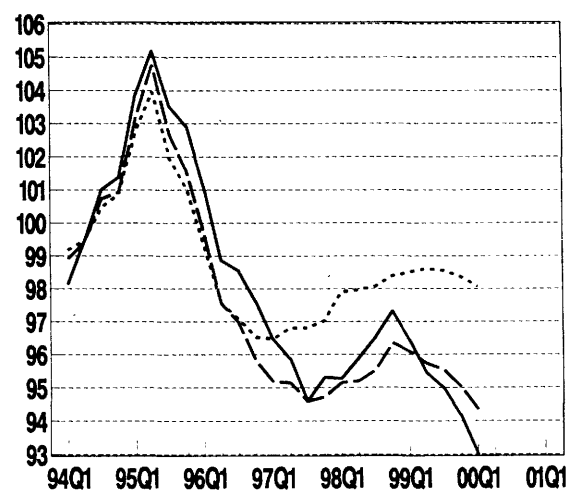


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Austria – euro (before 1999: ATS)

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	96.4	95.1	96.5	94.0	101.6	97Q1	99.0	99.3	98.3	96.5	97.0
88	95.0	93.4	96.2	92.1	99.5	97Q2	98.1	98.6	97.4	95.9	96.7
89	93.0	91.7	93.4	90.3	95.8	97Q3	96.7	97.2	96.0	94.6	95.8
90	95.6	93.9	96.6	91.8	98.4	97Q4	97.3	97.8	96.9	95.3	96.9
91	93.9	93.0	95.5	91.2	95.3	98Q1	96.8	97.1	96.9	95.3	97.0
92	96.2	96.0	98.0	94.5	97.4	98Q2	97.3	97.5	98.0	95.9	97.7
93	98.9	98.7	99.8	98.3	99.4	98Q3	97.8	98.0	99.0	96.5	98.3
94	100.0	100.0	100.0	100.0	100.0	98Q4	98.2	98.6	100.0	97.3	98.8
95	103.0	103.8	102.0	103.9	106.5	99Q1	97.0	97.5	99.1	96.4	97.5
96	101.0	101.2	100.6	99.0	100.0	99Q2	95.7	96.4	98.1	95.4	96.2
97	97.8	98.2	97.1	95.6	96.6	99Q3	95.2	96.0	97.7	95.0	95.6
98	97.5	97.8	98.5	96.3	97.9	99Q4	94.5	95.2	97.0	94.2	94.9
99	95.6	96.3	98.0	95.3	96.1	00Q1	93.6	94.2	96.1	93.0	94.0

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	97.5	96.2	97.7	94.2	100.9	97Q1	97.4	97.8	96.8	95.2	95.1
88	96.0	94.4	97.2	92.4	99.0	97Q2	97.1	97.6	96.4	95.2	95.5
89	94.2	92.8	94.3	90.9	95.9	97Q3	96.2	96.8	95.6	94.6	95.4
90	94.6	92.7	95.5	90.2	96.2	97Q4	96.2	96.7	95.8	94.7	96.0
91	92.9	91.9	94.6	90.0	93.6	98Q1	96.0	96.3	96.1	95.2	96.6
92	94.2	93.8	96.3	92.2	94.9	98Q2	95.9	96.0	96.5	95.2	96.7
93	99.0	98.8	99.7	98.1	98.9	98Q3	96.0	96.1	97.1	95.5	96.9
94	100.0	100.0	100.0	100.0	100.0	98Q4	96.5	96.7	98.1	96.4	97.3
95	102.1	102.9	100.9	103.0	105.2	99Q1	95.9	96.4	97.8	96.1	96.6
96	99.3	99.5	99.0	97.5	97.6	99Q2	95.3	95.9	97.5	95.7	95.9
97	96.7	97.2	96.1	94.9	95.5	99Q3	95.0	95.8	97.4	95.5	95.5
98	96.1	96.3	96.9	95.6	96.9	99Q4	94.6	95.4	97.0	95.0	95.0
99	95.2	95.9	97.4	95.6	95.7	00Q1	94.2	94.8	96.6	94.3	94.6

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	97.2	96.2	97.5	93.4	101.6	97Q1	98.4	98.9	97.4	96.5	96.9
88	96.7	95.4	97.4	93.0	100.8	97Q2	98.4	99.1	97.1	96.8	97.8
89	95.1	94.1	94.7	92.3	97.8	97Q3	98.1	98.7	96.6	96.8	98.4
90	95.2	93.7	95.6	91.6	97.8	97Q4	98.0	98.6	96.7	97.0	99.1
91	94.3	93.4	95.1	91.7	95.5	98Q1	98.1	98.5	97.1	97.9	100.3
92	95.2	94.9	96.4	93.4	96.2	98Q2	97.9	98.1	97.3	98.0	100.6
93	99.0	98.8	99.6	98.0	98.7	98Q3	97.7	97.9	97.6	98.1	100.7
94	100.0	100.0	100.0	100.0	100.0	98Q4	97.7	98.0	98.0	98.4	100.7
95	101.5	102.3	100.5	102.4	104.9	99Q1	97.5	98.0	98.1	98.5	100.5
96	99.3	99.6	98.9	97.6	98.1	99Q2	97.3	98.1	98.2	98.6	100.3
97	98.2	98.8	96.9	96.8	98.0	99Q3	97.1	98.1	98.2	98.6	100.0
98	97.9	98.1	97.5	98.1	100.6	99Q4	97.0	98.0	98.1	98.4	99.9
99	97.2	98.1	98.1	98.5	100.2	00Q1	96.9	97.8	97.9	98.1	99.8

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

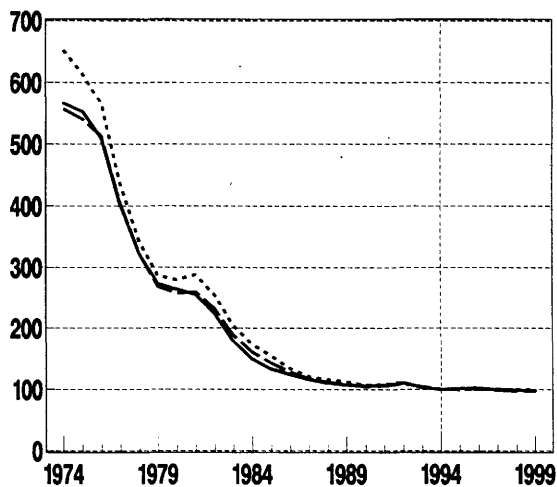
# Portugal – euro (before 1999: PTE)

## Trade – weighted currency indices

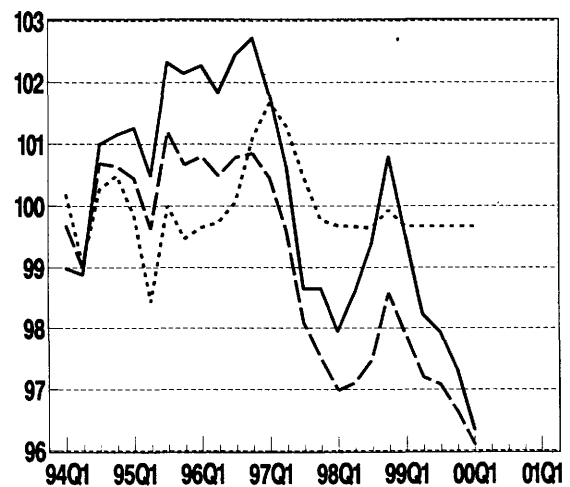
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	116.5	117.5	120.7	97Q1	101.8	100.4	101.7	MAR99	-0.6	-0.4	0.0
88	110.7	111.4	115.7	97Q2	100.6	99.6	101.3	APR99	-0.4	-0.2	0.0
89	107.2	108.4	112.3	97Q3	98.7	98.1	100.5	MAY99	-0.2	-0.1	0.0
90	105.6	104.5	106.6	97Q4	98.7	97.5	99.8	JUN99	-0.5	-0.2	0.0
91	106.7	105.8	108.3	98Q1	97.9	97.0	99.7	JUL99	0.1	0.2	0.0
92	110.7	109.1	110.9	98Q2	98.6	97.1	99.7	AUG99	0.3	0.1	0.0
93	103.8	104.0	104.0	98Q3	99.4	97.5	99.6	SEP99	-0.5	-0.3	0.0
94	100.0	100.0	100.0	98Q4	100.8	98.6	99.9	OCT99	-0.2	-0.0	0.0
95	101.6	100.5	99.4	99Q1	99.5	97.9	99.7	NOV99	-0.6	-0.2	0.0
96	102.3	100.7	100.1	99Q2	98.2	97.2	99.7	DEC99	-0.6	-0.3	0.0
97	99.9	98.9	100.8	99Q3	97.9	97.1	99.7	JAN00	-0.1	-0.2	0.0
98	99.2	97.5	99.7	99Q4	97.3	96.6	99.7	FEB00	-0.3	-0.1	-0.0
99	98.2	97.2	99.7	00Q1	96.3	96.1	99.7	MAR00	-0.4	-0.1	-0.0

## Trade – weighted currency indices

Annual data (index 1994=100)

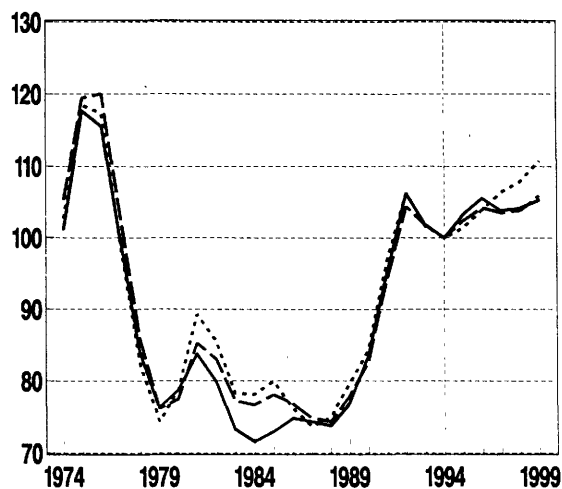


Quarterly data (index 1994=100)

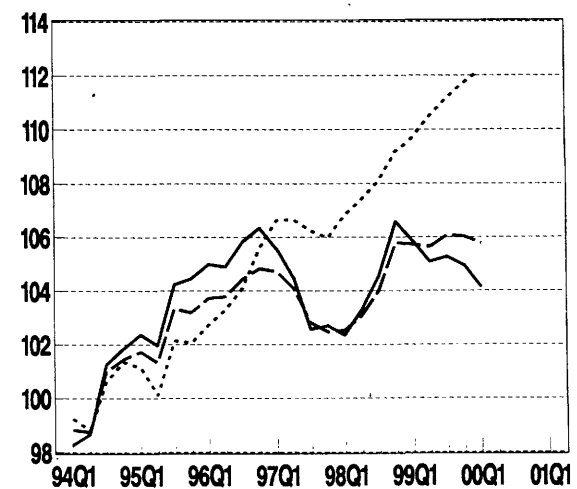


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Portugal – euro (before 1999: PTE)

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	78.7	77.3	90.6	74.3	64.5	97Q1	104.3	105.3	99.7	105.6	99.1
88	80.4	78.6	93.4	73.8	69.4	97Q2	103.2	104.5	98.9	104.5	98.4
89	84.2	81.7	95.8	76.8	72.2	97Q3	101.3	103.0	97.5	102.6	96.8
90	89.1	86.6	99.1	83.5	80.5	97Q4	101.2	103.6	98.3	102.7	97.1
91	96.2	93.7	101.2	95.2	93.2	98Q1	100.4	103.4	98.2	102.3	96.7
92	105.2	103.1	103.4	106.1	102.5	98Q2	101.0	104.6	99.4	103.3	97.4
93	101.4	100.1	99.7	101.8	98.7	98Q3	101.9	106.0	100.4	104.5	98.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	103.4	107.8	101.7	106.6	99.2
95	103.4	103.7	103.7	103.3	100.4	99Q1	102.2	106.7	100.1	105.8	97.8
96	104.4	105.1	101.1	105.5	99.2	99Q2	101.1	105.4	98.5	105.1	96.3
97	102.5	104.1	98.6	103.8	97.8	99Q3	100.9	105.2	98.1	105.3	95.9
98	101.7	105.4	99.9	104.2	97.8	99Q4	100.3	104.6	97.5	105.0	95.3
99	101.1	105.5	98.6	105.3	96.3	00Q1	99.3	103.5	96.7	104.2	94.5

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	79.4	78.2	91.8	74.9	64.5	97Q1	103.3	104.4	98.8	104.7	97.7
88	81.2	79.4	94.6	74.4	69.3	97Q2	102.6	104.0	98.3	104.1	97.5
89	85.5	83.0	97.3	77.8	72.9	97Q3	101.2	103.0	97.4	102.8	96.6
90	88.4	85.9	98.5	82.6	79.3	97Q4	100.6	103.0	97.5	102.5	96.5
91	95.5	93.0	100.7	94.3	92.1	98Q1	100.1	103.1	97.7	102.5	96.5
92	103.8	101.6	102.3	104.4	100.7	98Q2	100.3	103.8	98.4	103.1	96.7
93	101.5	100.2	99.8	101.8	98.5	98Q3	100.7	104.7	99.0	104.0	97.0
94	100.0	100.0	100.0	100.0	100.0	98Q4	102.1	106.3	100.1	105.8	97.9
95	102.2	102.8	102.6	102.4	99.2	99Q1	101.5	105.9	99.1	105.7	97.0
96	103.1	103.8	99.8	104.2	97.3	99Q2	101.0	105.4	98.2	105.6	96.1
97	101.9	103.6	98.0	103.5	97.1	99Q3	101.1	105.4	98.0	106.1	95.9
98	100.8	104.4	98.8	103.8	97.0	99Q4	100.7	105.1	97.7	106.0	95.5
99	101.1	105.4	98.3	105.9	96.1	00Q1	100.2	104.6	97.5	105.8	95.1

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	79.0	78.0	91.5	73.7	65.1	97Q1	104.9	106.1	99.6	106.6	100.1
88	82.2	80.7	94.9	74.9	71.3	97Q2	104.7	106.2	99.4	106.7	100.6
89	86.8	84.8	98.1	79.6	75.0	97Q3	104.0	106.0	98.9	106.2	100.7
90	89.4	87.2	98.8	84.3	81.1	97Q4	103.4	106.0	98.8	106.0	100.9
91	97.7	95.3	101.5	97.0	95.1	98Q1	103.3	106.6	99.2	106.8	101.8
92	105.3	103.3	102.4	106.2	102.8	98Q2	103.4	107.2	99.7	107.4	102.3
93	101.6	100.3	99.7	101.6	98.1	98Q3	103.5	107.8	99.8	108.1	102.6
94	100.0	100.0	100.0	100.0	100.0	98Q4	104.1	108.6	100.0	109.2	103.0
95	101.2	101.8	101.8	101.4	98.6	99Q1	104.1	108.8	99.5	109.7	102.7
96	102.7	103.5	99.4	103.9	97.5	99Q2	104.3	109.1	99.3	110.5	102.6
97	104.2	106.1	99.2	106.4	100.6	99Q3	104.5	109.4	99.2	111.1	102.7
98	103.6	107.6	99.7	107.9	102.4	99Q4	104.6	109.6	99.3	111.7	102.8
99	104.4	109.2	99.4	110.7	102.7	00Q1	104.7	109.7	99.5	112.2	103.0

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

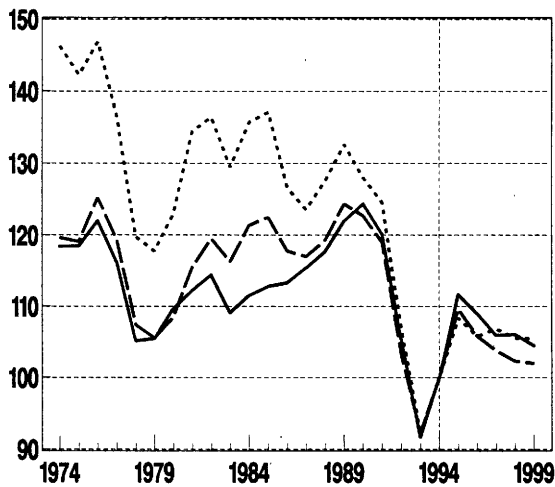
# Finland – euro (before 1999: FIM)

## Trade-weighted currency indices

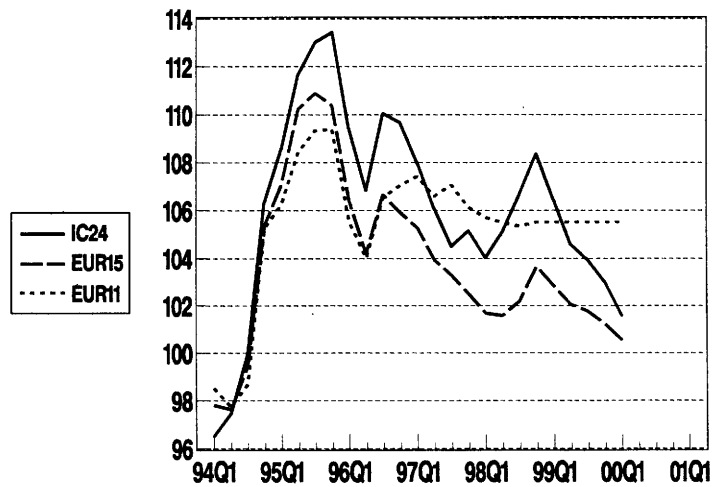
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	115.4	117.0	123.5	97Q1	108.0	105.3	107.4	MAR99	-0.7	-0.3	0.0
88	117.7	119.3	127.5	97Q2	106.1	103.9	106.6	APR99	-0.6	-0.2	-0.0
89	121.9	124.3	132.6	97Q3	104.5	103.3	107.1	MAY99	-0.2	-0.1	0.0
90	124.3	122.7	128.0	97Q4	105.1	102.5	106.1	JUN99	-0.8	-0.3	-0.0
91	120.2	119.0	124.5	98Q1	104.0	101.7	105.7	JUL99	0.0	0.1	0.0
92	105.4	103.2	106.9	98Q2	105.1	101.6	105.5	AUG99	0.4	0.1	0.0
93	91.7	92.2	92.2	98Q3	106.7	102.2	105.3	SEP99	-0.8	-0.4	0.0
94	100.0	100.0	100.0	98Q4	108.4	103.7	105.5	OCT99	0.5	0.1	-0.0
95	111.7	109.6	108.4	99Q1	106.4	102.8	105.5	NOV99	-1.0	-0.3	0.0
96	109.0	105.8	105.8	99Q2	104.6	102.0	105.5	DEC99	-0.8	-0.3	0.0
97	105.9	103.7	106.8	99Q3	103.9	101.8	105.5	JAN00	0.1	-0.2	-0.0
98	106.0	102.3	105.5	99Q4	103.0	101.2	105.5	FEB00	-0.5	-0.2	0.0
99	104.5	102.0	105.5	00Q1	101.6	100.5	105.5	MAR00	-0.7	-0.2	0.0

## Trade-weighted currency indices

Annual data (index 1994=100)

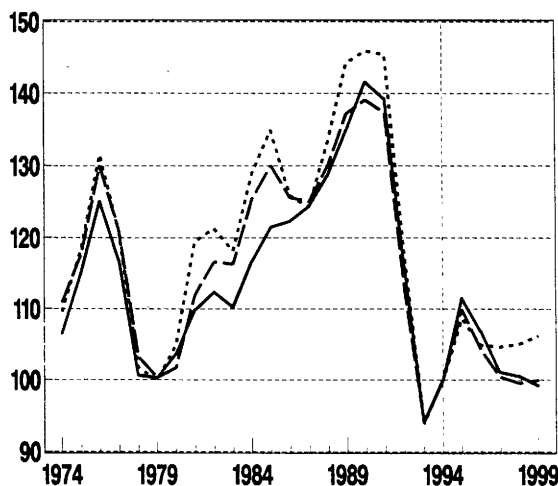


Quarterly data (index 1994=100)

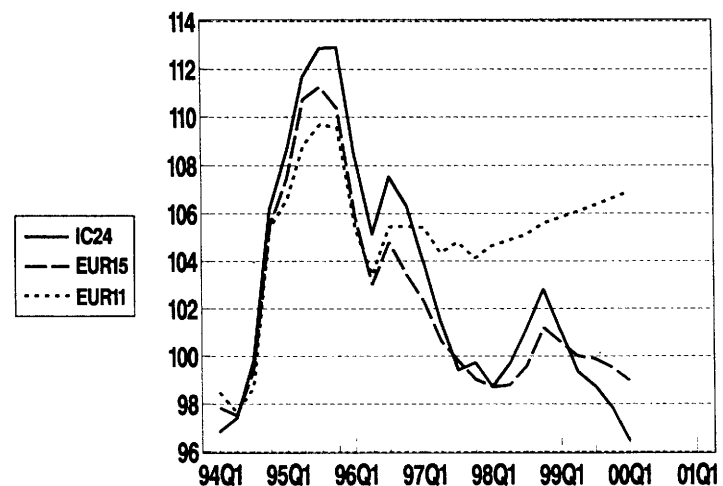


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Finland – euro (before 1999: FIM)

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	115.7	117.7	105.5	124.4	134.4	97Q1	103.0	105.7	106.0	103.9	108.6
88	118.9	124.5	109.4	128.6	138.5	97Q2	100.9	104.1	103.7	101.4	105.5
89	123.6	130.4	114.3	134.9	145.8	97Q3	99.2	102.9	102.0	99.4	102.8
90	126.3	133.2	115.5	141.6	152.3	97Q4	99.9	103.9	102.9	99.7	102.4
91	122.4	124.8	109.9	139.3	147.2	98Q1	98.9	103.0	101.9	98.7	100.5
92	107.6	106.8	102.4	115.8	115.7	98Q2	100.0	104.2	102.7	99.7	100.8
93	93.7	92.3	92.3	94.2	92.7	98Q3	101.4	105.6	103.2	101.1	102.0
94	100.0	100.0	100.0	100.0	100.0	98Q4	103.0	107.0	103.2	102.8	103.8
95	108.8	112.8	113.4	111.5	117.0	99Q1	101.0	104.6	99.4	101.0	102.3
96	104.9	107.3	109.0	106.8	112.4	99Q2	99.1	102.4	95.9	99.3	100.9
97	100.7	104.1	103.6	101.1	104.8	99Q3	98.4	101.3	94.1	98.8	100.6
98	100.8	104.9	102.8	100.6	101.8	99Q4	97.5	100.1	92.7	97.9	99.9
99	99.0	102.1	95.5	99.2	100.9	00Q1	96.1	98.4	91.4	96.5	98.6

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	116.7	119.1	107.4	125.0	133.3	97Q1	101.2	104.0	104.3	102.3	105.9
88	120.3	126.3	111.5	129.9	138.1	97Q2	99.8	103.1	102.7	100.6	104.0
89	126.0	133.1	117.0	137.1	147.0	97Q3	99.2	102.9	102.0	99.8	102.6
90	124.7	131.4	114.7	139.1	148.4	97Q4	98.6	102.5	101.5	99.0	101.1
91	121.1	123.4	109.3	137.3	144.2	98Q1	98.0	102.0	100.9	98.7	99.9
92	105.3	104.2	100.6	112.7	112.2	98Q2	98.1	102.1	100.6	98.8	99.3
93	94.1	92.5	92.5	94.1	92.3	98Q3	98.9	102.7	100.3	99.6	99.7
94	100.0	100.0	100.0	100.0	100.0	98Q4	100.4	104.0	100.1	101.2	101.3
95	107.2	111.2	111.4	109.9	114.6	99Q1	99.6	103.0	97.5	100.8	100.8
96	102.3	104.8	106.5	104.3	108.4	99Q2	98.8	102.0	95.1	100.0	100.4
97	99.7	103.1	102.6	100.4	103.4	99Q3	98.6	101.5	93.9	99.9	100.5
98	98.8	102.7	100.5	99.6	100.1	99Q4	98.2	100.8	93.1	99.5	100.2
99	98.8	101.8	94.9	100.0	100.5	00Q1	97.7	100.1	92.6	99.0	99.8

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	117.0	120.4	108.1	124.3	137.5	97Q1	103.6	106.7	105.8	105.4	109.8
88	123.3	130.7	113.3	133.2	146.4	97Q2	102.7	105.3	104.3	104.4	108.6
89	130.1	139.4	119.9	144.2	157.1	97Q3	103.2	107.3	104.5	104.8	108.8
90	128.1	136.5	116.4	145.9	157.4	97Q4	102.5	106.9	103.6	104.1	107.6
91	126.6	129.8	111.7	145.5	154.9	98Q1	102.3	106.8	103.1	104.7	107.4
92	108.8	108.1	101.8	117.3	118.1	98Q2	102.4	106.8	102.6	104.9	107.3
93	94.1	92.6	92.2	93.9	92.2	98Q3	102.5	106.8	101.4	105.1	107.3
94	100.0	100.0	100.0	100.0	100.0	98Q4	102.8	106.9	99.9	105.6	108.0
95	106.0	110.0	110.7	108.7	113.8	99Q1	102.8	106.7	98.1	105.8	108.5
96	102.5	105.1	106.6	104.9	109.7	99Q2	102.9	106.5	96.5	106.1	109.1
97	103.0	106.8	104.5	104.7	108.7	99Q3	103.0	106.4	95.4	106.3	109.6
98	102.5	106.8	101.7	105.1	107.5	99Q4	103.1	106.4	95.0	106.6	110.0
99	102.9	106.5	96.2	106.2	109.3	00Q1	103.2	106.3	95.0	106.9	110.3

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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



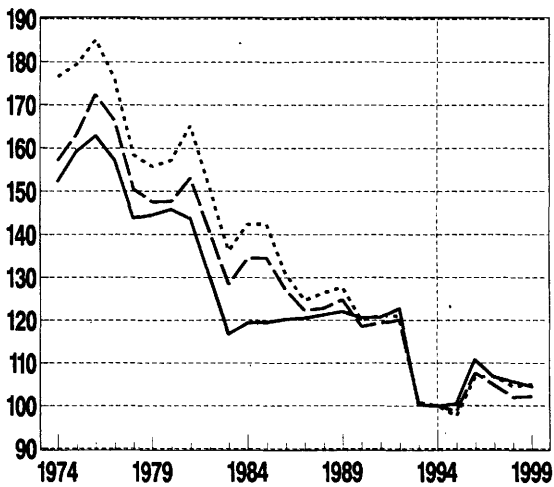
# Sweden – SEK

## Trade – weighted currency indices

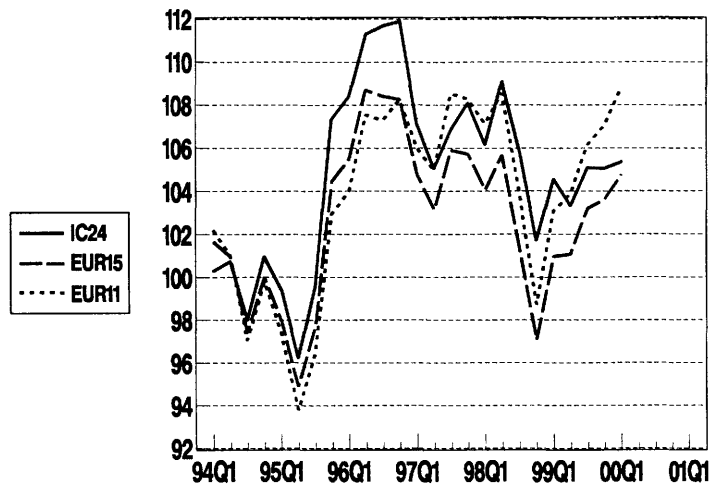
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	120.6	122.4	124.7	97Q1	107.1	104.8	106.0	MAR99	-1.2	-0.7	-0.4
88	121.3	122.8	126.4	97Q2	105.1	103.2	105.0	APR99	-0.3	0.2	0.3
89	122.1	124.8	127.8	97Q3	106.8	105.9	108.5	MAY99	-1.0	-0.9	-0.7
90	120.6	118.6	120.0	97Q4	108.1	105.7	108.3	JUN99	0.9	1.4	1.6
91	120.7	119.4	121.1	98Q1	106.2	104.1	107.1	JUL99	0.9	1.0	0.9
92	122.8	120.1	121.0	98Q2	109.1	105.7	108.5	AUG99	0.4	0.0	-0.0
93	100.2	100.8	100.8	98Q3	105.9	101.5	103.9	SEP99	0.7	1.1	1.4
94	100.0	100.0	100.0	98Q4	101.7	97.0	98.7	OCT99	-0.6	-1.1	-1.0
95	100.6	98.7	97.6	99Q1	104.6	101.0	103.1	NOV99	0.1	0.9	1.1
96	110.8	107.7	106.8	99Q2	103.3	101.1	103.9	DEC99	-0.3	0.3	0.6
97	106.8	104.9	106.9	99Q3	105.1	103.2	106.1	JAN00	-0.1	-0.4	-0.2
98	105.7	102.0	104.5	99Q4	105.1	103.6	107.0	FEB00	0.5	0.9	1.0
99	104.5	102.2	105.0	00Q1	105.4	104.8	108.8	MAR00	0.8	1.3	1.4

## Trade – weighted currency indices

Annual data (index 1994=100)

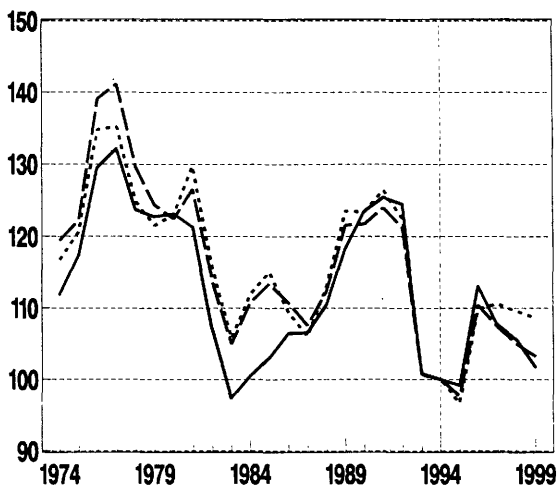


Quarterly data (index 1994=100)

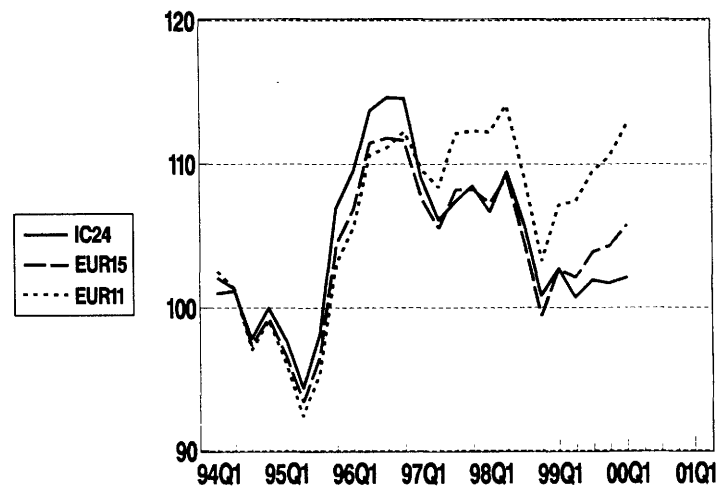


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Sweden – SEK

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	104.3	109.5	108.6	106.6	120.0	97Q1	105.8	105.8	102.5	108.9	104.0
88	106.9	112.5	111.9	110.4	127.6	97Q2	103.8	103.6	100.9	106.1	100.6
89	110.0	116.7	113.7	118.4	134.5	97Q3	105.5	105.2	103.0	107.4	101.6
90	114.2	119.9	112.6	123.5	136.6	97Q4	106.4	106.3	104.5	108.5	102.7
91	120.3	123.9	113.7	125.4	141.7	98Q1	104.2	104.3	102.8	106.7	101.2
92	120.4	123.3	111.8	124.5	139.1	98Q2	106.6	106.9	105.6	109.4	104.1
93	100.4	100.3	98.1	100.8	103.8	98Q3	103.0	103.4	102.5	105.8	100.8
94	100.0	100.0	100.0	100.0	100.0	98Q4	98.6	98.8	98.4	100.8	96.1
95	100.7	101.1	104.5	99.2	97.5	99Q1	100.9	100.9	100.8	102.7	97.7
96	109.7	110.4	108.2	113.1	109.8	99Q2	99.4	99.2	99.2	100.8	95.6
97	105.4	105.3	102.7	107.7	102.2	99Q3	100.8	100.4	100.4	101.9	96.4
98	103.0	103.3	102.3	105.6	100.5	99Q4	100.4	100.1	99.8	101.7	95.9
99	100.4	100.2	100.1	101.8	96.4	00Q1	100.5	100.3	99.5	102.1	95.9

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	105.2	111.2	111.2	107.6	118.7	97Q1	104.1	104.5	101.4	107.6	102.0
88	108.3	114.5	114.6	112.3	127.4	97Q2	102.7	102.9	100.3	105.5	99.6
89	112.8	120.2	117.8	121.6	136.5	97Q3	105.5	105.5	103.3	108.2	101.9
90	112.8	118.5	112.5	121.7	133.1	97Q4	105.2	105.2	103.3	108.2	102.1
91	119.3	122.9	113.8	124.0	139.1	98Q1	103.4	103.4	101.8	107.3	101.4
92	117.8	120.4	110.1	121.2	135.0	98Q2	104.7	104.8	103.3	109.1	103.3
93	100.9	100.7	98.4	100.8	103.2	98Q3	100.2	100.3	99.2	104.5	99.0
94	100.0	100.0	100.0	100.0	100.0	98Q4	95.6	95.6	94.9	99.4	94.0
95	99.0	99.5	102.5	97.7	95.4	99Q1	99.3	99.2	98.7	102.7	96.7
96	107.0	107.9	105.9	110.4	106.1	99Q2	99.2	99.0	98.7	102.1	95.8
97	104.4	104.5	102.1	107.4	101.4	99Q3	101.1	101.0	100.7	103.9	97.0
98	100.9	101.0	99.7	105.0	99.4	99Q4	101.3	101.4	100.9	104.3	97.1
99	100.2	100.1	99.8	103.3	96.7	00Q1	102.3	102.6	101.8	105.8	98.1

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	104.7	110.7	110.3	106.0	119.3	97Q1	105.7	106.3	102.5	109.6	105.2
88	109.4	115.7	113.9	113.0	129.6	97Q2	105.0	105.3	101.6	108.4	103.7
89	113.9	121.7	117.3	123.5	138.3	97Q3	108.6	108.8	105.1	112.1	107.3
90	113.4	119.6	111.9	123.4	134.5	97Q4	108.3	108.5	104.8	112.3	107.9
91	121.1	124.8	113.8	126.4	141.4	98Q1	107.0	107.2	103.5	112.2	108.1
92	118.8	121.6	109.9	122.5	135.9	98Q2	108.2	108.5	104.7	114.1	110.5
93	100.9	100.8	98.5	100.6	102.9	98Q3	103.4	103.7	100.2	109.2	106.0
94	100.0	100.0	100.0	100.0	100.0	98Q4	98.0	98.2	95.2	103.3	100.3
95	98.0	98.4	101.5	96.7	95.0	99Q1	102.2	102.3	99.5	107.2	103.9
96	106.3	107.3	105.3	109.9	106.5	99Q2	102.8	102.9	100.2	107.4	103.8
97	106.9	107.2	103.5	110.6	106.0	99Q3	104.9	105.1	102.3	109.5	105.4
98	104.1	104.3	100.9	109.6	106.2	99Q4	105.6	106.1	102.9	110.5	106.0
99	103.9	104.1	101.2	108.6	104.8	00Q1	107.3	108.0	104.2	112.7	107.8

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

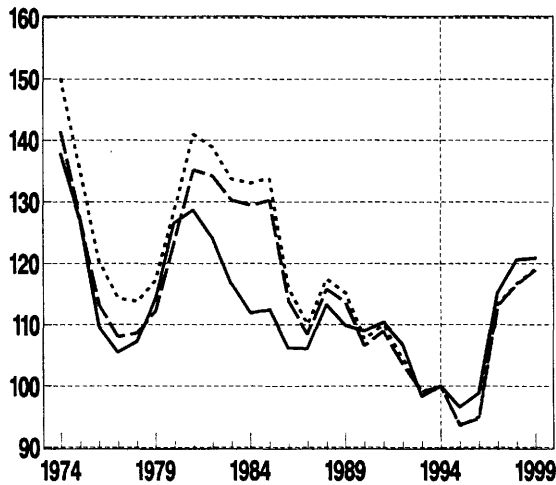
# United Kingdom – GBP

## Trade – weighted currency indices

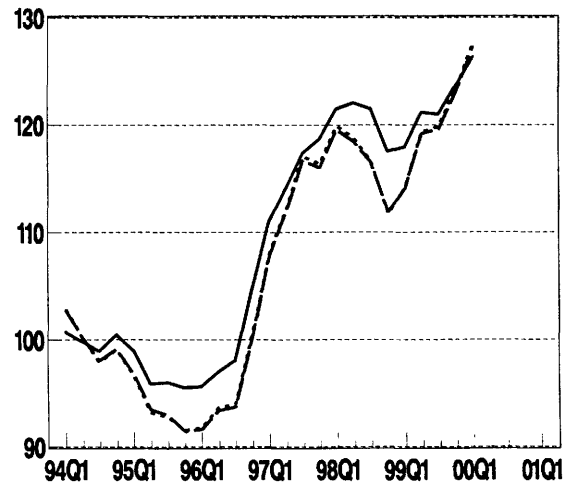
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	106.1	108.5	110.0	97Q1	111.0	107.8	108.0	MAR99	1.8	2.5	2.5
88	113.2	115.8	117.5	97Q2	114.1	111.9	112.1	APR99	0.4	1.0	1.0
89	109.8	113.6	115.2	97Q3	117.4	116.7	117.1	MAY99	0.9	1.1	1.0
90	109.0	106.6	107.7	97Q4	118.7	116.0	116.4	JUN99	0.4	1.1	1.2
91	110.4	108.9	110.0	98Q1	121.5	119.6	119.9	JUL99	-1.2	-1.1	-1.1
92	106.9	103.6	104.5	98Q2	122.1	118.4	118.8	AUG99	0.2	-0.3	-0.3
93	98.3	99.0	99.1	98Q3	121.5	116.5	116.6	SEP99	1.3	1.9	2.0
94	100.0	100.0	100.0	98Q4	117.5	111.9	111.8	OCT99	0.9	0.3	0.2
95	96.6	93.6	93.5	99Q1	118.0	114.1	114.2	NOV99	0.2	1.3	1.3
96	98.8	94.7	94.9	99Q2	121.2	119.2	119.3	DEC99	0.8	1.7	1.7
97	115.3	113.0	113.3	99Q3	121.0	119.6	119.8	JAN00	1.6	1.4	1.4
98	120.6	116.6	116.7	99Q4	123.7	123.0	123.3	FEB00	-0.0	0.5	0.6
99	120.9	118.9	119.1	00Q1	126.3	127.3	127.7	MAR00	-0.1	0.5	0.6

## Trade – weighted currency indices

Annual data (index 1994=100)

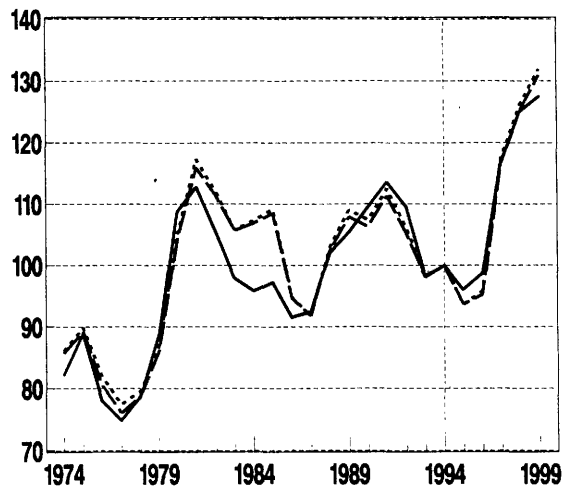


Quarterly data (index 1994=100)

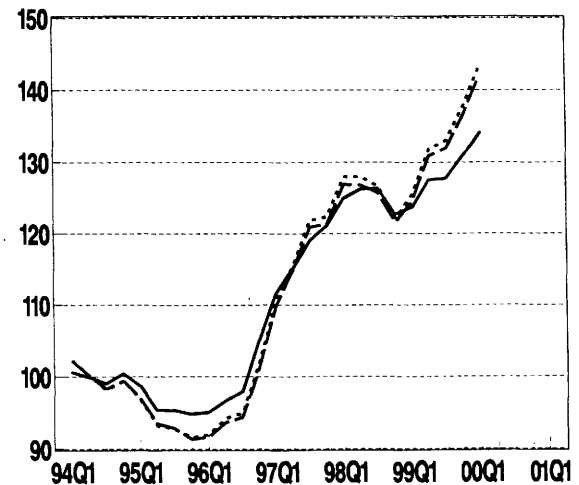


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# United Kingdom – GBP

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	97.6	97.3	93.9	92.4	104.5	97Q1	111.3	111.8	107.7	111.6	117.8
88	105.2	105.7	96.6	102.0	111.1	97Q2	114.3	115.1	108.5	115.2	122.3
89	103.5	105.4	97.1	105.4	107.0	97Q3	117.6	118.5	109.6	119.1	127.6
90	106.0	107.9	100.2	109.5	109.5	97Q4	119.0	120.2	109.3	121.1	131.2
91	110.8	111.8	102.2	113.5	112.6	98Q1	121.9	123.3	110.5	124.9	137.0
92	108.2	108.8	100.4	109.6	107.3	98Q2	122.7	124.2	110.2	126.2	140.2
93	99.4	99.6	99.3	98.3	96.5	98Q3	122.3	123.9	109.3	126.3	142.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	118.4	120.1	105.6	122.7	139.7
95	96.4	96.0	96.9	96.1	100.5	99Q1	118.9	120.8	105.9	123.7	142.3
96	99.1	99.1	99.2	98.6	103.7	99Q2	122.2	124.3	108.6	127.5	147.8
97	115.5	116.4	108.8	116.7	124.6	99Q3	122.0	124.2	108.0	127.7	148.7
98	121.3	122.8	108.9	125.0	139.8	99Q4	124.5	127.1	109.6	130.9	152.6
99	121.9	124.1	108.0	127.4	147.8	00Q1	127.1	129.9	111.1	134.1	156.2

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	98.1	98.1	95.6	91.8	103.1	97Q1	109.2	109.9	105.3	109.9	114.5
88	106.5	107.5	98.7	102.5	110.6	97Q2	113.5	114.4	107.1	114.9	120.8
89	106.6	108.8	100.1	107.9	108.9	97Q3	118.6	119.7	109.7	120.9	128.5
90	103.6	105.3	98.2	106.3	105.3	97Q4	118.2	119.3	107.5	121.3	130.7
91	109.2	110.0	100.9	111.3	109.7	98Q1	122.2	123.4	109.6	126.9	138.3
92	104.7	105.0	97.6	105.2	102.8	98Q2	121.5	122.7	107.8	126.8	140.2
93	99.8	99.9	99.5	98.1	95.9	98Q3	119.9	121.2	105.7	125.7	140.7
94	100.0	100.0	100.0	100.0	100.0	98Q4	115.5	116.9	101.4	121.6	137.5
95	93.9	93.5	94.1	93.7	97.1	99Q1	118.0	119.6	103.3	124.6	142.2
96	95.6	95.7	95.6	95.2	98.5	99Q2	123.6	125.5	107.9	130.9	150.3
97	114.8	115.8	107.4	116.7	123.5	99Q3	124.1	126.4	108.0	132.0	152.0
98	119.7	121.0	106.1	125.2	139.2	99Q4	127.8	130.5	110.5	136.4	157.3
99	123.3	125.4	107.4	130.9	150.3	00Q1	132.3	135.4	113.6	141.8	163.4

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	98.0	98.3	95.8	91.8	103.7	97Q1	109.6	110.4	105.5	110.6	115.2
88	106.8	108.0	99.1	103.0	111.8	97Q2	113.9	114.8	107.3	115.6	121.5
89	107.1	109.6	100.7	109.0	110.4	97Q3	119.2	120.3	110.1	121.9	129.5
90	104.1	106.1	98.6	107.4	106.8	97Q4	118.8	120.0	107.9	122.3	131.8
91	110.1	111.0	101.4	112.5	111.4	98Q1	122.8	124.0	109.9	127.9	139.5
92	105.4	105.8	98.0	106.1	104.2	98Q2	122.0	123.3	108.1	128.0	141.5
93	99.8	100.0	99.4	98.1	96.1	98Q3	120.2	121.5	105.7	126.7	141.9
94	100.0	100.0	100.0	100.0	100.0	98Q4	115.5	116.9	101.2	122.2	138.3
95	93.8	93.4	94.1	93.6	97.0	99Q1	118.3	120.0	103.4	125.5	143.3
96	96.0	96.1	95.9	95.8	99.1	99Q2	123.9	125.9	108.1	131.8	151.5
97	115.3	116.3	107.7	117.5	124.3	99Q3	124.6	126.9	108.2	133.0	153.4
98	120.1	121.4	106.2	126.2	140.3	99Q4	128.3	131.1	110.8	137.6	158.7
99	123.7	125.9	107.6	131.9	151.6	00Q1	132.9	136.1	114.0	143.2	165.0

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

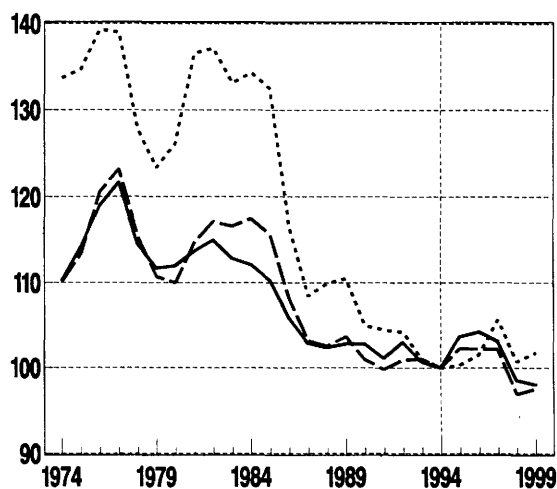
# Norway – NOK

## Trade – weighted currency indices

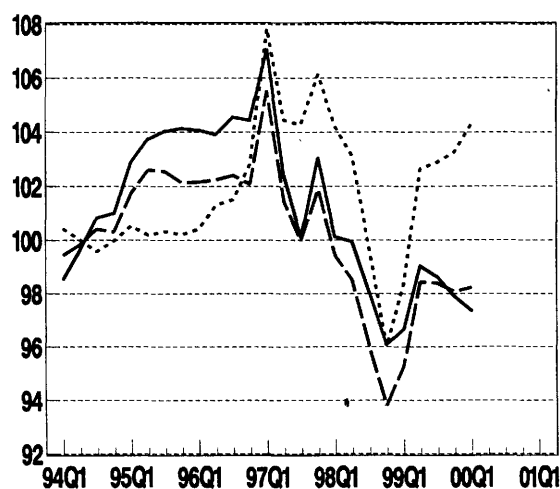
	Annual data index (1994=100)			Quarterly data index (1994=100)			Monthly data monthly % change				
	vs. (the rest of) IC24	EUR15	EUR11	vs. (the rest of) IC24	EUR15	EUR11	vs. (the rest of) IC24	EUR15	EUR11		
87	102.9	103.2	108.4	97Q1	107.0	105.5	107.8	MAR99	0.9	1.2	1.7
88	102.4	102.6	109.9	97Q2	102.4	101.4	104.4	APR99	1.6	2.0	2.2
89	102.8	103.7	110.5	97Q3	100.1	100.0	104.3	MAY99	0.8	0.9	1.0
90	102.8	101.0	105.0	97Q4	103.0	101.9	106.1	JUN99	0.0	0.5	0.8
91	101.1	99.9	104.5	98Q1	100.1	99.4	104.2	JUL99	-0.1	0.0	-0.2
92	103.0	100.9	104.2	98Q2	100.0	98.5	103.1	AUG99	-0.7	-0.9	-1.0
93	100.7	101.0	101.0	98Q3	98.1	96.0	99.7	SEP99	-0.5	-0.1	-0.4
94	100.0	100.0	100.0	98Q4	96.1	93.8	96.0	OCT99	-0.4	-0.7	-0.8
95	103.7	102.3	100.3	99Q1	96.7	95.2	98.3	NOV99	0.1	0.8	1.1
96	104.2	102.2	101.5	99Q2	99.0	98.4	102.6	DEC99	0.3	0.8	1.2
97	103.1	102.2	105.7	99Q3	98.6	98.4	102.9	JAN00	-0.3	-0.5	-0.3
98	98.5	96.9	100.7	99Q4	97.9	98.1	103.2	FEB00	-0.3	-0.1	-0.3
99	98.1	97.5	101.8	00Q1	97.4	98.2	104.3	MAR00	-0.9	-0.4	-0.2

## Trade – weighted currency indices

Annual data (index 1994=100)

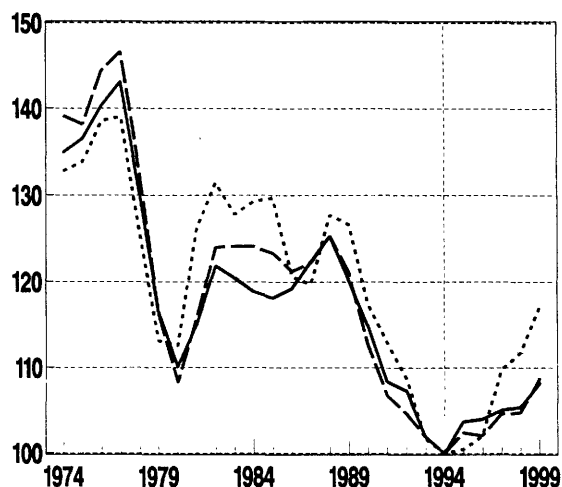


Quarterly data (index 1994=100)

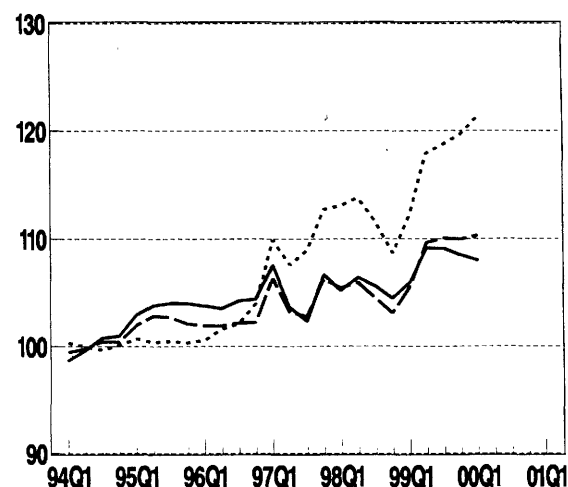


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Norway – NOK

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	107.7	113.1	115.6	122.3	98.2	97Q1	105.8	111.3	117.1	107.5	118.5
88	109.5	113.3	112.7	125.2	103.8	97Q2	101.4	106.5	111.8	103.6	115.4
89	109.9	114.4	118.9	120.2	103.1	97Q3	99.3	103.5	107.3	102.4	114.3
90	109.1	112.7	120.8	114.9	101.7	97Q4	102.5	105.4	107.1	106.7	118.5
91	105.4	108.2	116.2	108.4	100.2	98Q1	99.8	101.3	100.8	105.2	115.6
92	106.2	106.3	109.2	107.3	99.0	98Q2	99.8	100.4	98.4	106.4	115.6
93	102.3	103.2	105.5	101.9	96.4	98Q3	98.1	98.6	96.4	105.6	113.6
94	100.0	100.0	100.0	100.0	100.0	98Q4	96.1	97.5	96.5	104.5	111.5
95	103.5	104.1	102.3	103.7	108.1	99Q1	96.7	99.5	100.7	105.9	112.6
96	103.1	107.0	109.7	104.0	111.1	99Q2	99.1	103.8	107.9	109.1	115.8
97	102.2	106.6	110.8	105.0	116.7	99Q3	98.8	105.1	112.3	109.1	115.9
98	98.4	99.5	98.0	105.4	114.1	99Q4	98.1	105.8	115.9	108.5	115.7
99	98.2	103.5	109.1	108.2	115.0	00Q1	97.6	106.5	119.1	108.0	115.7

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	108.1	113.6	116.6	122.2	97.5	97Q1	104.5	109.9	115.6	106.3	116.1
88	109.9	113.8	113.8	125.3	103.1	97Q2	100.6	105.7	110.8	103.1	113.8
89	111.1	115.7	120.5	121.0	103.6	97Q3	99.5	103.6	107.3	102.8	113.9
90	107.5	110.9	119.2	112.8	99.3	97Q4	101.7	104.5	106.1	106.2	117.1
91	104.2	106.8	115.2	106.7	98.4	98Q1	99.5	100.8	100.3	105.4	115.0
92	104.1	104.0	107.4	104.6	96.6	98Q2	98.8	99.2	97.3	105.9	114.2
93	102.5	103.3	105.5	101.9	96.3	98Q3	96.4	96.8	94.7	104.5	111.4
94	100.0	100.0	100.0	100.0	100.0	98Q4	94.3	95.4	94.5	103.1	109.0
95	102.1	102.7	100.8	102.4	106.1	99Q1	95.8	98.4	99.5	105.5	110.9
96	101.2	105.0	107.7	102.1	107.9	99Q2	99.1	103.5	107.4	109.7	115.0
97	101.5	105.9	109.9	104.6	115.2	99Q3	99.1	105.3	112.2	110.0	115.4
98	97.2	98.0	96.7	104.7	112.4	99Q4	98.9	106.6	116.4	110.0	115.7
99	98.2	103.4	108.7	108.8	114.3	00Q1	99.2	108.1	120.5	110.3	116.6

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	107.5	113.7	116.2	119.7	99.7	97Q1	107.2	113.0	117.3	109.9	121.3
88	112.6	117.5	114.6	127.7	108.7	97Q2	104.1	109.6	112.8	107.6	120.3
89	114.4	120.6	122.4	126.6	109.5	97Q3	104.3	108.8	110.2	108.9	122.5
90	109.9	114.6	120.0	117.4	104.0	97Q4	106.5	109.7	108.5	112.7	126.7
91	109.0	112.4	117.1	112.9	104.7	98Q1	104.9	106.6	102.9	113.1	126.1
92	107.5	107.8	108.0	108.7	100.7	98Q2	104.1	104.8	99.4	113.8	125.8
93	102.7	103.6	105.4	101.7	95.8	98Q3	100.9	101.5	96.0	111.6	122.5
94	100.0	100.0	100.0	100.0	100.0	98Q4	97.3	98.8	94.4	108.7	118.7
95	100.3	100.8	99.4	100.5	104.9	99Q1	99.8	102.8	100.3	112.2	122.2
96	100.8	104.7	107.1	102.1	108.9	99Q2	104.3	109.4	109.4	117.9	128.2
97	105.5	110.3	112.1	109.8	122.7	99Q3	104.6	111.7	114.5	118.8	129.3
98	101.8	102.9	98.1	111.8	123.2	99Q4	105.1	113.9	119.4	119.6	130.6
99	103.4	109.3	110.7	117.1	127.5	00Q1	106.3	116.6	124.5	121.2	132.8

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

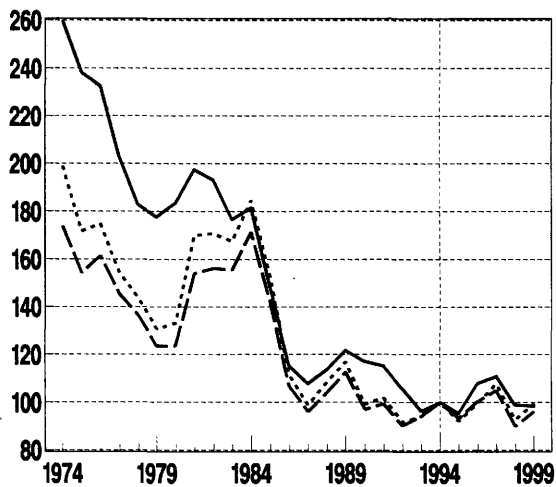
# Australia – AUD

## Trade – weighted currency indices

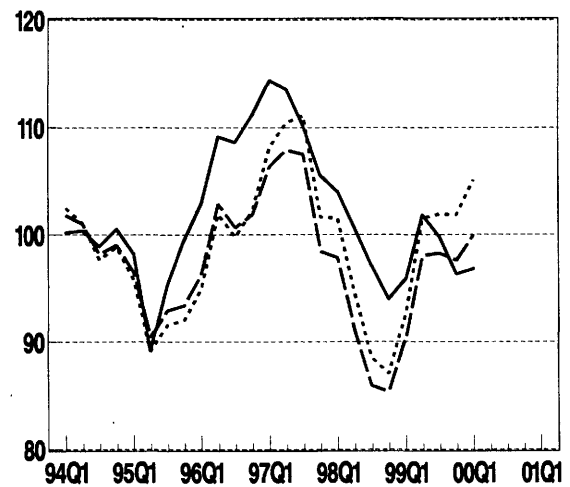
	Annual data index (1994=100)			Quarterly data index (1994=100)			Monthly data monthly % change				
	vs. (the rest of) IC24	EUR15	EUR11		vs. (the rest of) IC24	EUR15	EUR11		vs. (the rest of) IC24	EUR15	EUR11
87	107.8	96.1	98.8	97Q1	114.4	106.3	108.1	MAR99	0.3	0.9	1.4
88	113.6	104.1	108.4	97Q2	113.6	107.9	110.4	APR99	2.2	3.3	3.6
89	121.7	112.6	116.9	97Q3	110.1	107.5	111.1	MAY99	3.9	3.7	3.9
90	117.2	97.1	99.2	97Q4	105.5	98.4	101.6	JUN99	-0.3	1.1	1.4
91	115.2	99.3	101.9	98Q1	104.0	97.9	101.5	JUL99	0.3	0.8	0.6
92	105.7	90.3	91.7	98Q2	100.7	91.2	94.5	AUG99	-4.5	-4.2	-4.2
93	96.4	94.2	94.1	98Q3	97.1	85.9	88.5	SEP99	-1.0	1.1	1.5
94	100.0	100.0	100.0	98Q4	94.0	85.4	87.0	OCT99	-0.6	-1.5	-1.5
95	95.5	93.3	92.1	99Q1	95.9	90.4	92.7	NOV99	-1.0	1.3	1.6
96	107.9	100.4	99.7	99Q2	101.8	98.1	101.5	DEC99	0.1	2.1	2.5
97	110.9	105.0	107.7	99Q3	99.8	98.3	101.9	JAN00	3.2	2.1	2.4
98	98.9	90.0	92.7	99Q4	96.4	97.6	101.8	FEB00	-1.8	-1.6	-1.4
99	98.4	96.0	99.4	00Q1	96.9	100.0	105.1	MAR00	-3.4	-1.4	-1.2

## Trade – weighted currency indices

Annual data (index 1994=100)

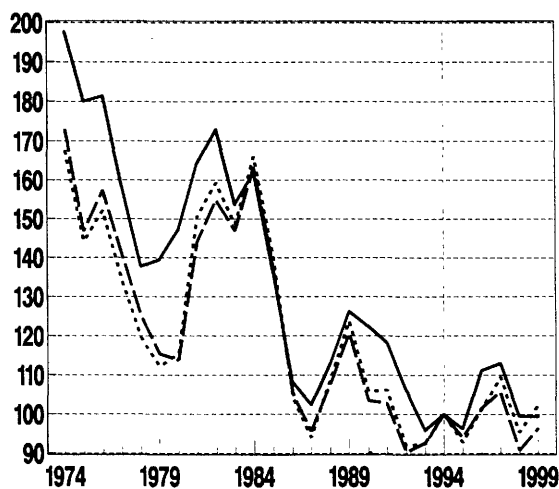


Quarterly data (index 1994=100)

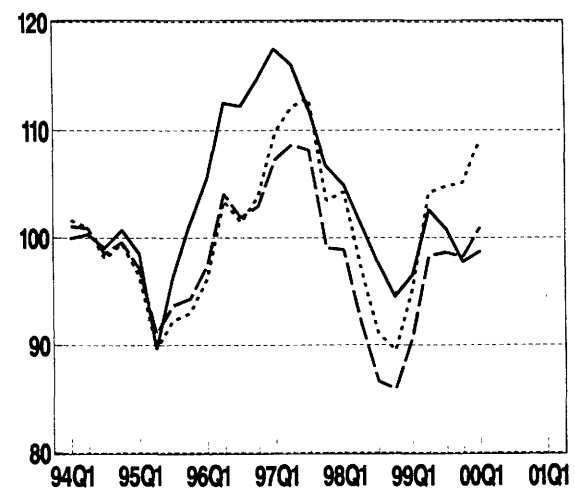


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Australia – AUD

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	104.4	105.9	104.6	102.5	114.5	97Q1	113.9	115.5	112.5	117.5	120.6
88	113.5	117.5	113.9	113.0	125.3	97Q2	112.9	114.6	113.6	116.1	121.1
89	123.3	127.7	122.8	126.2	138.8	97Q3	109.4	110.9	110.8	111.9	117.5
90	121.1	122.6	113.9	122.5	129.7	97Q4	104.8	105.8	105.6	106.7	111.5
91	118.0	118.6	109.3	118.2	122.1	98Q1	103.4	103.9	102.7	105.0	108.4
92	107.7	107.6	104.1	106.1	109.0	98Q2	100.0	100.1	97.5	101.3	103.1
93	97.6	97.2	95.4	95.9	95.0	98Q3	96.4	96.4	92.3	97.6	98.3
94	100.0	100.0	100.0	100.0	100.0	98Q4	93.2	93.3	87.7	94.5	94.4
95	95.9	96.2	97.2	96.3	101.3	99Q1	95.0	95.2	88.0	96.5	96.0
96	108.1	108.9	104.0	111.2	111.9	99Q2	100.9	101.2	92.3	102.6	101.8
97	110.2	111.6	110.6	113.0	117.6	99Q3	99.1	99.4	90.0	100.9	99.8
98	98.2	98.4	94.9	99.5	100.9	99Q4	96.2	96.2	87.0	97.7	96.4
99	97.8	98.0	89.3	99.4	98.5	00Q1	97.4	96.9	87.9	98.7	97.1

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	98.6	100.3	104.8	95.5	101.7	97Q1	104.2	104.9	102.8	107.3	107.0
88	109.7	113.9	116.2	107.8	113.8	97Q2	105.7	106.4	106.0	108.7	110.4
89	119.8	124.2	125.4	120.7	127.9	97Q3	105.2	105.7	106.6	108.2	110.9
90	104.7	105.4	104.3	103.5	105.5	97Q4	96.3	96.3	97.6	99.0	101.4
91	104.8	104.8	102.3	102.8	102.4	98Q1	95.7	95.3	96.2	98.9	100.2
92	93.7	93.2	95.2	90.2	90.7	98Q2	89.1	88.4	88.3	92.1	92.3
93	96.0	95.4	94.8	92.7	90.9	98Q3	83.8	82.9	81.3	86.6	85.8
94	100.0	100.0	100.0	100.0	100.0	98Q4	83.1	82.2	78.8	85.9	84.2
95	92.9	93.1	92.7	94.0	96.5	99Q1	87.8	87.0	81.3	90.7	88.2
96	98.9	99.2	95.1	101.6	99.0	99Q2	95.3	94.5	86.5	98.3	95.0
97	102.8	103.2	103.2	105.7	107.4	99Q3	95.7	94.9	85.9	98.6	94.7
98	87.7	87.0	85.9	90.7	90.4	99Q4	95.5	94.5	85.2	98.2	93.8
99	93.5	92.7	84.7	96.4	92.9	00Q1	98.5	97.0	87.9	101.0	96.1

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	98.2	100.2	104.3	94.0	103.1	97Q1	106.3	107.1	104.0	109.8	110.3
88	111.4	116.1	116.5	108.8	117.5	97Q2	108.5	109.4	107.5	112.2	114.9
89	122.0	127.3	126.3	123.8	132.0	97Q3	109.1	109.9	108.8	112.9	117.0
90	106.0	107.3	104.5	105.8	108.2	97Q4	99.8	100.1	99.2	103.5	107.4
91	107.6	107.8	103.1	106.1	106.0	98Q1	99.8	99.5	98.0	104.3	107.4
92	95.2	94.9	95.3	92.0	92.5	98Q2	92.8	92.3	89.7	97.2	99.2
93	96.1	95.5	94.7	92.4	90.4	98Q3	86.8	86.2	82.1	91.1	92.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	85.2	84.6	78.7	89.5	89.8
95	91.7	91.9	91.7	92.8	95.9	99Q1	90.7	90.2	81.8	95.2	94.9
96	98.4	98.8	94.6	101.2	99.2	99Q2	99.4	99.0	87.8	104.2	103.4
97	105.9	106.5	104.8	109.5	112.3	99Q3	100.1	99.6	87.2	104.8	103.4
98	91.0	90.5	86.8	95.3	96.9	99Q4	100.5	99.9	87.1	105.1	103.2
99	97.6	97.1	85.9	102.3	101.2	00Q1	104.4	103.4	90.3	109.1	106.6

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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



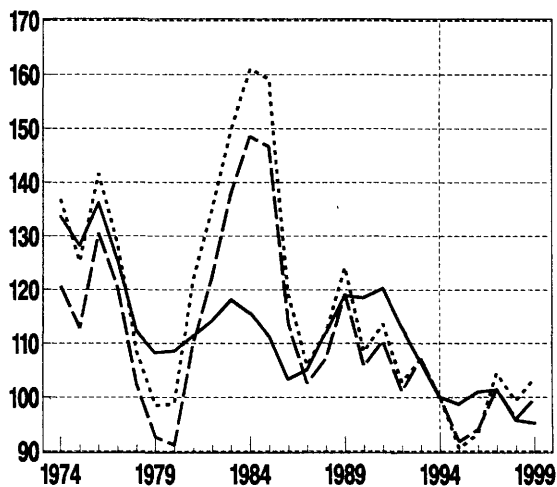
# Canada – CAD

## Trade – weighted currency indices

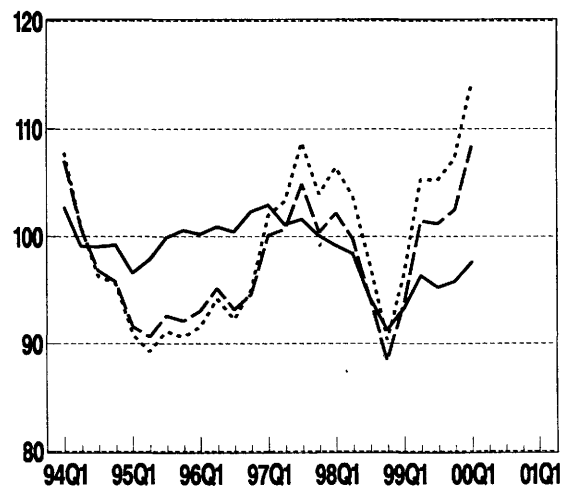
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	105.1	102.6	105.9	97Q1	103.0	100.1	102.0	MAR99	-1.0	1.1	1.6
88	112.0	107.2	112.1	97Q2	101.1	100.7	103.3	APR99	2.1	3.5	3.7
89	118.9	119.2	124.2	97Q3	101.6	104.9	108.7	MAY99	1.8	2.3	2.5
90	118.5	105.8	108.4	97Q4	100.1	100.4	104.0	JUN99	-0.3	1.6	1.9
91	120.2	110.4	113.6	98Q1	99.2	102.2	106.4	JUL99	-1.3	-0.9	-1.1
92	113.0	101.1	102.8	98Q2	98.4	99.8	103.8	AUG99	-0.7	-2.6	-2.6
93	106.5	107.2	107.1	98Q3	94.2	94.2	97.4	SEP99	0.8	1.6	2.0
94	100.0	100.0	100.0	98Q4	91.3	88.4	90.4	OCT99	-0.2	-1.9	-1.9
95	98.7	91.7	90.5	99Q1	93.4	93.9	96.6	NOV99	0.9	3.9	4.2
96	101.0	94.0	93.3	99Q2	96.3	101.5	105.3	DEC99	-0.3	1.6	1.9
97	101.4	101.5	104.5	99Q3	95.3	101.2	105.2	JAN00	1.8	1.2	1.4
98	95.7	96.0	99.8	99Q4	95.8	102.5	107.2	FEB00	-0.3	2.7	2.9
99	95.2	99.7	103.5	00Q1	97.6	108.4	114.3	MAR00	-0.6	1.1	1.3

## Trade – weighted currency indices

Annual data (index 1994=100)

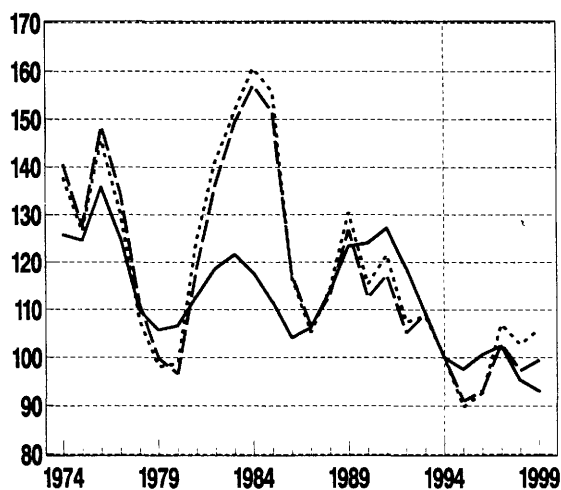


Quarterly data (index 1994=100)

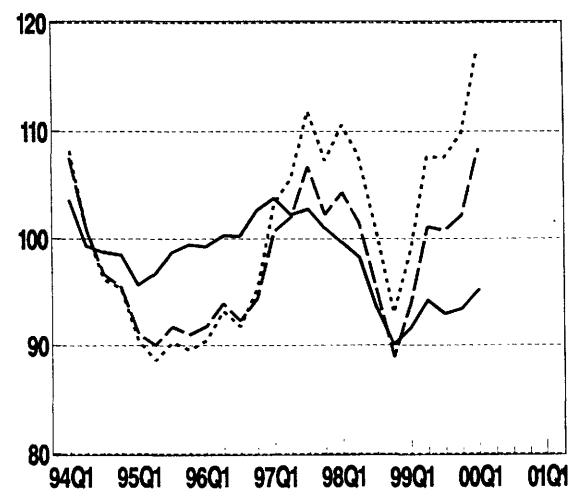


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Canada – CAD

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	108.3	109.4	106.3	106.2	107.2	97Q1	100.9	102.2	107.1	103.8	108.4
88	115.0	117.3	107.9	113.9	117.7	97Q2	99.1	100.0	105.3	102.3	106.3
89	122.2	125.4	113.5	123.5	125.7	97Q3	99.6	100.0	105.8	102.8	106.6
90	121.3	123.7	111.2	124.1	125.5	97Q4	98.0	97.8	104.3	101.0	104.6
91	124.1	124.2	107.3	127.2	129.1	98Q1	97.0	96.2	103.5	99.6	103.2
92	114.8	115.4	103.6	119.0	117.8	98Q2	96.2	95.0	103.0	98.3	101.9
93	107.7	107.5	101.9	109.4	105.8	98Q3	92.0	90.7	99.1	93.5	97.2
94	100.0	100.0	100.0	100.0	100.0	98Q4	89.0	88.0	96.6	90.1	94.0
95	97.6	98.8	101.8	97.6	102.6	99Q1	90.9	90.2	99.3	91.6	96.0
96	99.2	100.6	105.0	100.6	106.2	99Q2	93.7	93.4	102.9	94.2	99.1
97	99.4	100.0	105.6	102.5	106.5	99Q3	92.5	92.6	102.0	92.9	98.2
98	93.5	92.4	100.5	95.3	99.0	99Q4	93.0	93.4	102.5	93.4	99.0
99	92.5	92.4	101.7	93.0	98.1	00Q1	94.6	95.3	104.1	95.2	101.2

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	109.9	111.8	110.0	106.6	105.9	97Q1	97.6	99.0	101.5	100.7	99.5
88	115.0	117.5	111.4	113.0	113.9	97Q2	98.2	99.2	101.8	102.0	100.5
89	127.9	130.7	119.9	126.9	129.1	97Q3	102.1	102.7	105.7	106.7	105.0
90	112.8	113.8	104.6	112.5	113.4	97Q4	97.6	97.5	100.9	102.2	100.6
91	117.0	116.1	103.3	117.3	119.6	98Q1	99.1	98.3	102.6	104.3	102.4
92	104.3	103.7	96.2	105.1	106.4	98Q2	96.6	95.3	100.2	101.4	99.6
93	109.2	108.4	102.9	109.0	106.3	98Q3	91.1	89.7	94.9	95.3	93.5
94	100.0	100.0	100.0	100.0	100.0	98Q4	85.3	84.2	89.5	88.9	87.1
95	90.4	91.5	94.1	91.0	91.8	99Q1	90.6	89.7	95.7	94.0	92.0
96	91.8	93.1	96.1	93.1	92.7	99Q2	97.8	97.4	103.9	101.1	98.9
97	98.9	99.6	102.4	102.9	101.4	99Q3	97.6	97.5	103.9	100.8	98.7
98	92.9	91.7	96.7	97.3	95.5	99Q4	98.8	99.1	105.3	102.2	100.2
99	96.2	95.9	102.1	99.5	97.4	00Q1	104.6	105.2	111.2	108.4	106.6

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	109.7	112.0	109.6	105.2	107.8	97Q1	99.7	101.3	102.8	103.3	102.7
88	117.1	120.1	111.8	114.5	118.1	97Q2	101.0	102.3	103.4	105.6	104.9
89	130.4	134.4	121.1	130.5	133.8	97Q3	106.3	107.2	108.0	111.9	111.3
90	114.4	116.2	104.9	115.4	116.7	97Q4	101.5	101.7	102.7	107.3	107.0
91	120.4	119.8	104.3	121.5	124.4	98Q1	103.8	103.2	104.8	110.6	110.4
92	106.2	105.8	96.3	107.4	108.9	98Q2	101.0	100.0	102.0	107.6	107.8
93	109.2	108.4	102.8	108.7	105.6	98Q3	94.8	93.6	96.0	100.7	101.1
94	100.0	100.0	100.0	100.0	100.0	98Q4	87.8	86.9	89.5	93.0	93.4
95	89.2	90.2	93.0	89.7	91.1	99Q1	93.9	93.3	96.3	99.0	99.6
96	91.2	92.7	95.5	92.7	92.9	99Q2	102.4	102.2	105.5	107.6	108.3
97	102.1	103.1	104.2	107.0	106.4	99Q3	102.3	102.7	105.7	107.6	108.4
98	96.7	95.7	97.9	102.7	103.0	99Q4	104.3	105.1	107.6	109.9	110.9
99	100.6	100.7	103.7	105.9	106.7	00Q1	111.2	112.5	114.3	117.6	118.9

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

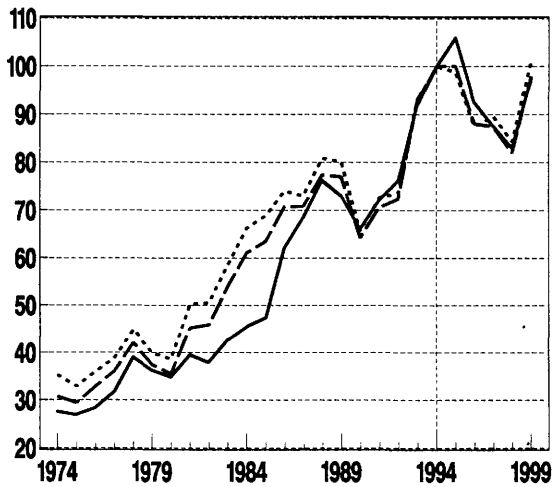
# Japan – JPY

## Trade – weighted currency indices

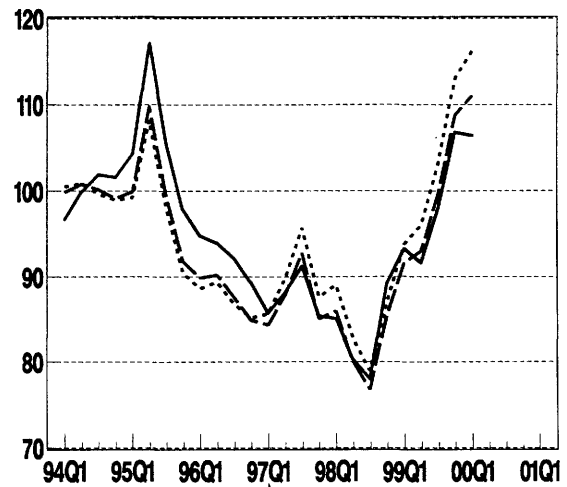
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	68.5	70.8	73.0	97Q1	85.7	84.3	85.6	MAR99	-1.5	-0.1	0.3
88	76.2	77.4	80.9	97Q2	88.1	87.8	89.7	APR99	-0.4	1.4	-1.6
89	73.1	77.0	80.1	97Q3	91.3	92.8	95.7	MAY99	-1.9	-1.3	-1.2
90	66.1	64.2	65.7	97Q4	85.4	85.0	87.6	JUN99	2.0	3.1	3.4
91	72.1	70.7	72.6	98Q1	85.1	86.0	89.0	JUL99	1.1	1.3	1.1
92	76.2	72.4	73.7	98Q2	80.3	80.1	82.8	AUG99	4.8	3.2	3.2
93	92.1	93.2	93.1	98Q3	78.0	76.7	78.9	SEP99	5.6	6.0	6.5
94	100.0	100.0	100.0	98Q4	89.2	85.5	87.1	OCT99	0.7	-0.4	-0.5
95	106.0	100.1	98.8	99Q1	93.3	91.6	93.8	NOV99	2.4	4.2	4.5
96	92.5	88.1	87.5	99Q2	91.7	93.0	96.0	DEC99	3.1	4.2	4.6
97	87.6	87.4	89.6	99Q3	98.0	99.7	103.1	JAN00	-2.6	-2.8	-2.5
98	83.1	82.0	84.4	99Q4	106.8	108.8	113.1	FEB00	-2.6	-1.2	-1.0
99	97.3	98.0	101.2	00Q1	106.4	111.0	116.3	MAR00	3.8	4.7	4.8

## Trade – weighted currency indices

Annual data (index 1994=100)

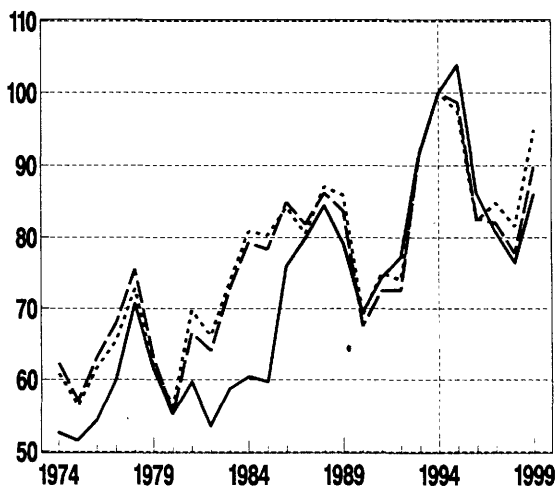


Quarterly data (index 1994=100)

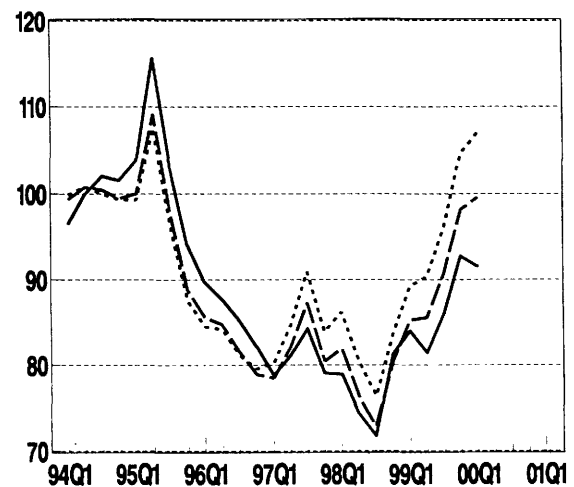


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# Japan – JPY

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	81.1	80.4	93.2	79.8	72.3	97Q1	80.3	78.3	83.1	78.8	77.5
88	86.7	86.2	96.8	84.4	77.2	97Q2	82.5	80.3	85.5	81.1	79.8
89	80.9	80.5	92.6	79.1	71.8	97Q3	85.4	82.9	89.2	84.2	83.3
90	71.5	71.3	84.3	69.5	63.1	97Q4	79.6	77.4	84.6	79.0	78.9
91	76.5	76.7	88.0	74.3	66.9	98Q1	79.0	76.9	85.4	78.9	79.5
92	79.4	79.9	89.3	77.3	71.4	98Q2	74.2	72.3	81.0	74.3	75.5
93	94.0	94.3	97.8	91.8	89.4	98Q3	71.6	69.7	77.9	71.7	73.2
94	100.0	100.0	100.0	100.0	100.0	98Q4	81.4	79.2	87.0	81.3	83.0
95	102.2	102.1	99.0	103.8	101.9	99Q1	84.6	82.1	88.1	84.0	85.4
96	87.0	85.7	89.1	86.2	84.8	99Q2	82.5	80.0	83.9	81.4	82.5
97	81.9	79.7	85.6	80.8	79.9	99Q3	87.6	84.9	87.7	86.0	86.6
98	76.4	74.4	82.7	76.5	77.7	99Q4	94.8	91.9	94.6	92.7	92.9
99	87.2	84.6	88.5	85.9	86.8	00Q1	93.8	91.1	94.1	91.6	91.4

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	83.9	83.8	97.1	81.8	73.7	97Q1	79.6	77.9	81.4	78.5	74.9
88	89.0	88.8	100.7	86.2	78.0	97Q2	82.9	80.9	84.7	82.1	78.5
89	86.4	86.1	98.6	83.7	76.5	97Q3	87.5	85.3	90.1	87.3	84.0
90	70.6	69.9	82.6	67.5	61.6	97Q4	80.0	78.0	83.6	80.4	78.1
91	75.6	75.4	86.8	72.6	65.9	98Q1	80.6	78.5	85.4	81.9	80.2
92	75.8	75.7	85.6	72.6	68.2	98Q2	74.7	72.8	79.9	76.3	75.2
93	95.2	95.1	98.3	92.0	89.9	98Q3	71.2	69.3	75.7	72.8	71.9
94	100.0	100.0	100.0	100.0	100.0	98Q4	79.0	76.8	82.4	80.4	79.1
95	96.9	96.8	94.1	98.6	94.8	99Q1	84.2	81.7	85.6	85.2	83.3
96	83.3	82.3	84.7	82.6	78.7	99Q2	85.0	82.4	84.4	85.5	82.9
97	82.5	80.5	84.9	82.0	78.8	99Q3	90.6	87.8	88.6	90.7	87.3
98	76.3	74.3	80.8	77.8	76.5	99Q4	98.3	95.5	95.9	98.2	93.9
99	89.4	86.7	88.5	89.8	86.8	00Q1	99.9	97.1	97.8	99.6	94.8

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	83.5	83.7	96.7	80.5	74.8	97Q1	81.1	79.5	82.2	80.2	77.0
88	90.4	90.6	101.1	87.1	80.6	97Q2	85.0	83.1	85.9	84.6	81.6
89	88.0	88.3	99.4	85.9	79.1	97Q3	90.6	88.5	91.9	90.9	88.4
90	71.4	71.2	82.8	69.1	63.2	97Q4	82.8	80.9	84.9	83.9	82.5
91	77.6	77.6	87.6	75.0	68.3	98Q1	83.8	81.9	87.0	86.2	85.6
92	77.1	77.2	85.6	74.1	69.6	98Q2	77.7	75.9	81.1	80.4	80.6
93	95.2	95.2	98.2	91.7	89.4	98Q3	73.7	71.9	76.4	76.4	76.9
94	100.0	100.0	100.0	100.0	100.0	98Q4	80.9	78.9	82.3	83.6	84.1
95	95.7	95.6	93.1	97.4	94.2	99Q1	86.8	84.5	86.0	89.2	89.3
96	82.9	81.9	84.2	82.3	78.8	99Q2	88.4	86.0	85.5	90.3	89.8
97	84.8	82.9	86.1	84.8	82.3	99Q3	94.4	91.9	89.9	96.0	94.8
98	78.9	77.1	81.6	81.6	81.7	99Q4	103.1	100.5	97.7	104.6	102.7
99	93.0	90.5	89.7	94.9	94.0	00Q1	105.4	103.0	100.3	107.0	104.5

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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

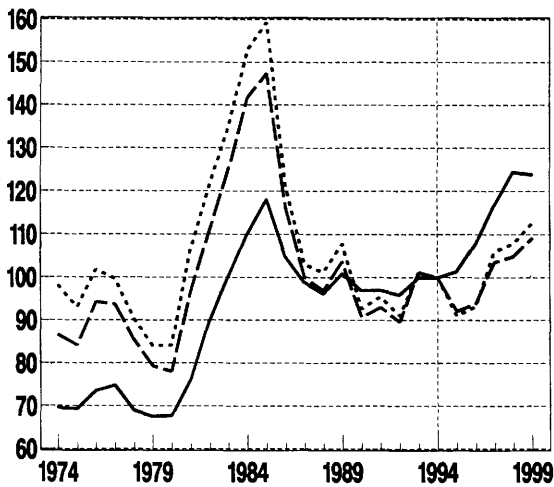
# United States – USD

## Trade – weighted currency indices

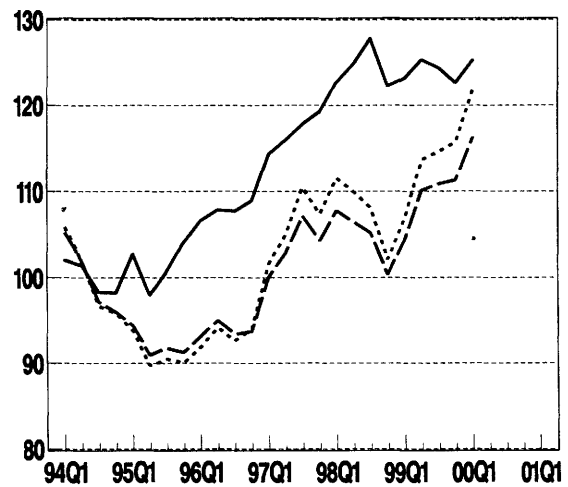
Annual data index (1994=100)				Quarterly data index (1994=100)				Monthly data monthly % change			
	vs. (the rest of)				vs. (the rest of)				vs. (the rest of)		
	IC24	EUR15	EUR11		IC24	EUR15	EUR11		IC24	EUR15	EUR11
87	98.8	100.1	103.1	97Q1	114.3	100.1	101.6	MAR99	1.7	2.5	3.0
88	96.2	96.9	101.2	97Q2	115.9	102.8	105.0	APR99	-0.2	1.5	1.7
89	100.9	103.7	107.8	97Q3	117.8	107.2	110.5	MAY99	0.0	0.6	0.7
90	97.0	90.7	92.7	97Q4	119.2	104.3	107.4	JUN99	1.1	2.1	2.4
91	97.0	93.0	95.5	98Q1	122.7	107.8	111.6	JUL99	0.1	0.4	0.3
92	95.9	89.6	91.1	98Q2	124.8	106.5	110.0	AUG99	-1.9	-2.3	-2.4
93	99.9	101.2	101.1	98Q3	127.8	105.2	108.1	SEP99	-1.1	0.6	1.0
94	100.0	100.0	100.0	98Q4	122.2	100.4	102.1	OCT99	-0.9	-1.9	-1.9
95	101.4	92.1	91.0	99Q1	123.2	104.6	107.0	NOV99	1.0	3.2	3.5
96	107.8	93.8	93.2	99Q2	125.3	110.1	113.7	DEC99	0.5	2.0	2.3
97	116.8	103.6	106.1	99Q3	124.4	110.8	114.6	JAN00	-0.1	-0.5	-0.2
98	124.4	104.9	107.9	99Q4	122.6	111.3	115.7	FEB00	2.2	2.9	3.1
99	123.8	109.2	112.7	00Q1	125.2	116.3	121.7	MAR00	0.3	1.8	1.9

## Trade – weighted currency indices

Annual data (index 1994=100)

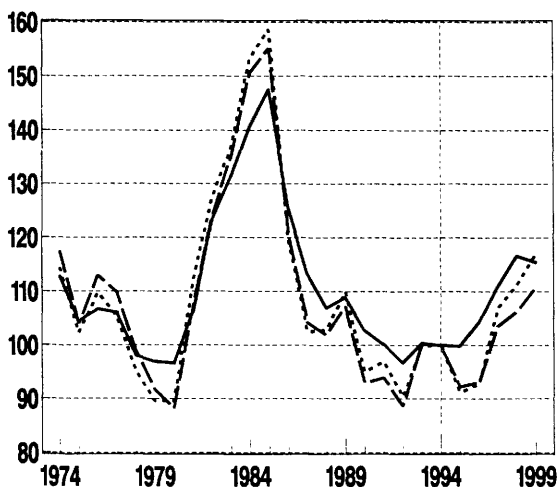


Quarterly data (index 1994=100)

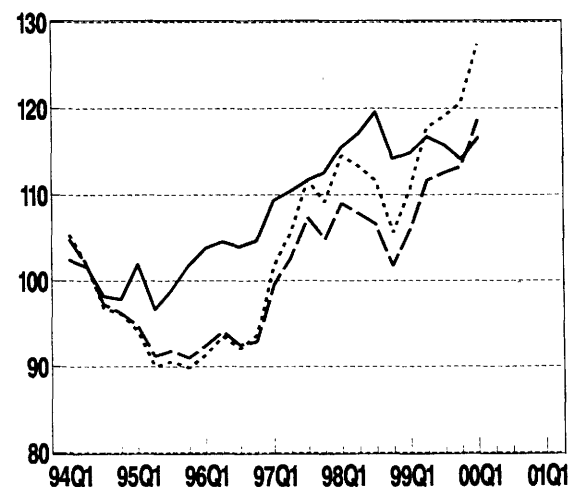


## Relative cost indicators (based on ULCE)

Annual data (index 1994=100)



Quarterly data (index 1994=100)



# United States – USD

## Relative price and cost indicators vs. (the rest of) 24 industrial countries

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	110.7	111.2	104.0	113.2	113.8	97Q1	107.9	107.9	100.8	109.4	104.6
88	103.8	103.7	102.0	106.9	105.0	97Q2	108.9	109.0	101.4	110.4	105.6
89	107.7	106.8	103.7	108.8	109.8	97Q3	110.1	110.5	101.9	111.7	106.8
90	102.3	101.0	98.1	102.8	104.1	97Q4	110.8	111.5	102.1	112.6	107.6
91	100.0	99.3	99.7	100.2	102.8	98Q1	113.3	114.4	104.0	115.6	110.2
92	97.6	96.7	97.4	96.7	100.5	98Q2	114.6	116.0	104.9	117.1	111.5
93	100.8	100.5	100.9	100.4	102.7	98Q3	116.7	118.3	107.1	119.6	113.6
94	100.0	100.0	100.0	100.0	100.0	98Q4	111.2	112.7	102.6	114.2	108.2
95	98.8	98.3	95.7	99.8	96.2	99Q1	111.6	113.0	103.7	114.9	108.5
96	102.8	102.5	97.0	104.2	99.6	99Q2	113.3	114.5	105.8	116.7	110.0
97	109.4	109.7	101.6	111.0	106.2	99Q3	112.2	113.2	105.2	115.8	109.0
98	113.9	115.3	104.6	116.6	110.9	99Q4	110.5	111.4	103.8	114.2	107.4
99	111.9	113.0	104.6	115.4	108.7	00Q1	112.7	113.5	105.8	116.6	109.7

## Relative price and cost indicators vs. (the rest of) EUR15

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	104.9	106.1	105.4	104.3	102.7	97Q1	98.9	99.2	95.7	99.5	93.5
88	102.0	102.3	104.4	101.8	99.1	97Q2	101.5	101.9	97.7	102.6	96.6
89	109.0	108.6	108.2	107.2	107.9	97Q3	105.7	106.1	101.2	107.3	101.1
90	95.2	93.9	94.4	92.9	93.2	97Q4	102.7	103.0	97.9	104.8	98.8
91	95.9	94.9	96.7	93.9	95.4	98Q1	105.9	106.2	100.7	109.0	102.5
92	91.2	90.1	92.3	88.6	91.6	98Q2	104.4	104.7	99.2	107.8	101.2
93	102.0	101.4	101.3	100.2	101.5	98Q3	103.1	103.3	97.8	106.6	99.7
94	100.0	100.0	100.0	100.0	100.0	98Q4	98.3	98.5	93.3	101.7	94.6
95	91.6	91.5	91.3	92.2	88.1	99Q1	102.4	102.6	97.4	106.0	98.0
96	92.8	92.9	91.1	93.0	87.2	99Q2	108.0	108.1	102.8	111.7	102.7
97	102.2	102.5	98.1	103.5	97.4	99Q3	108.8	109.0	103.6	112.5	103.2
98	102.9	103.1	97.7	106.2	99.5	99Q4	109.4	109.6	104.2	113.3	103.7
99	107.1	107.3	102.0	110.8	101.9	00Q1	114.4	114.6	108.9	118.7	108.6

## Relative price and cost indicators vs. (the rest of) the countries in the euro area (EUR11)

Annual data (index 1994=100)						Quarterly data (index 1994=100)					
	PCP	PGDP	Deflator PX	ULCE	ULCM		PCP	PGDP	Deflator PX	ULCE	ULCM
87	104.5	105.9	104.9	102.5	104.1	97Q1	100.7	101.1	96.7	101.7	96.2
88	103.5	104.3	104.8	102.8	102.4	97Q2	104.0	104.5	98.9	105.6	100.2
89	110.9	111.3	109.1	109.9	111.4	97Q3	109.3	109.9	103.1	111.7	106.3
90	96.3	95.6	94.6	95.0	95.5	97Q4	106.1	106.7	99.4	109.1	104.2
91	98.4	97.7	97.5	96.9	98.7	98Q1	110.1	110.6	102.5	114.5	109.4
92	92.7	91.7	92.4	90.4	93.5	98Q2	108.5	108.9	100.6	113.3	108.3
93	102.0	101.4	101.2	99.9	100.9	98Q3	106.5	107.0	98.7	111.7	106.6
94	100.0	100.0	100.0	100.0	100.0	98Q4	100.6	101.0	93.2	105.6	100.4
95	90.6	90.5	90.4	91.1	87.6	99Q1	105.5	106.0	97.8	110.8	104.9
96	92.4	92.5	90.5	92.7	87.4	99Q2	112.2	112.7	104.1	117.8	111.2
97	105.0	105.5	99.5	107.0	101.6	99Q3	113.3	113.9	105.1	119.0	112.0
98	106.4	106.8	98.7	111.2	106.1	99Q4	114.6	115.2	106.1	120.6	113.3
99	111.3	111.9	103.2	117.0	110.3	00Q1	120.7	121.5	111.6	127.4	119.5

Abbreviations: IC24 = 24 Industrial Countries  
 EUR15 = 15 Member States of the European Union  
 EUR11 = Countries in the euro area  
 PCP = Deflator of private consumption  
 PGDP = 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 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 data (period average)

Year	AUS	CND	J	MX	NZ	N	CH	TR
1987	1.428	1.326	144.6	1.378	1.695	6.737	1.491	857
1988	1.280	1.231	128.2	2.273	1.526	6.517	1.463	1422
1989	1.265	1.184	138.0	2.461	1.672	6.905	1.638	2122
1990	1.281	1.167	144.8	2.813	1.676	6.260	1.389	2609
1991	1.284	1.156	147.8	3.018	1.734	6.483	1.334	4172
1992	1.362	1.209	156.7	3.095	1.662	6.215	1.306	6872
1993	1.471	1.290	111.2	3.116	1.851	7.094	1.478	10985
1994	1.368	1.366	102.2	3.375	1.687	7.058	1.368	29609
1995	1.349	1.372	94.1	6.419	1.524	6.335	1.182	45845
1996	1.278	1.363	108.8	7.599	1.455	6.450	1.236	81405
1997	1.347	1.385	121.0	7.918	1.512	7.073	1.451	151865
1998	1.592	1.483	130.9	9.136	1.868	7.545	1.450	280724
1999	1.550	1.488	113.9	9.560	1.890	7.799	1.502	418783

Quarterly data (period average)

Qtr	AUS	CND	J	MX	NZ	N	CH	TR
97Q1	1.285	1.359	121.2	7.862	1.435	6.630	1.437	118697
97Q2	1.300	1.368	119.6	7.919	1.448	7.077	1.445	137685
97Q3	1.359	1.395	117.9	7.818	1.546	7.460	1.400	182510
97Q4	1.445	1.408	125.2	8.077	1.621	7.127	1.433	186559
98Q1	1.502	1.430	126.0	8.414	1.750	7.540	1.476	223764
98Q2	1.591	1.447	135.7	8.653	1.675	7.514	1.493	252872
98Q3	1.670	1.515	140.0	9.460	1.968	7.637	1.470	272519
98Q4	1.604	1.522	119.8	10.02	1.900	7.489	1.360	293742
99Q1	1.578	1.511	116.5	9.985	1.857	7.663	1.425	342132
99Q2	1.531	1.473	120.9	9.450	1.843	7.798	1.514	396440
99Q3	1.537	1.486	113.6	9.369	1.903	7.843	1.528	438780
99Q4	1.553	1.473	104.5	9.458	1.955	7.892	1.541	497779
00Q1	1.584	1.453	107.0	9.403	2.008	8.218	1.629	562467

Monthly data (period average)

Month	AUS	CND	J	MX	NZ	N	CH	TR
MAR99	1.587	1.518	119.8	9.769	1.879	7.817	1.466	361922
APR99	1.556	1.487	119.8	9.446	1.843	7.774	1.497	380997
MAY99	1.510	1.462	120.1	9.362	1.809	7.750	1.507	395375
JUN99	1.525	1.489	120.9	9.542	1.877	7.870	1.537	412949
JUL99	1.520	1.489	119.9	9.367	1.898	7.904	1.550	426796
AUG99	1.550	1.492	113.4	9.398	1.897	7.791	1.509	435876
SEP99	1.541	1.477	107.6	9.340	1.914	7.835	1.525	453668
OCT99	1.535	1.477	106.0	9.540	1.942	7.742	1.489	467932
NOV99	1.564	1.468	105.0	9.421	1.951	7.923	1.552	497763
DEC99	1.561	1.473	102.7	9.414	1.972	8.011	1.583	527613
JAN00	1.521	1.449	105.1	9.494	1.945	8.013	1.589	544944
FEB00	1.591	1.451	109.4	9.423	2.040	8.236	1.634	563306
MAR00	1.641	1.460	106.4	9.294	2.042	8.410	1.664	579689





**Table A4: Bilateral exchange rate of the US dollar against the non – EU currencies**  
**index 1994 = 100**

**Annual data (period average)**

Year	AUS	CND	J	MX	NZ	N	CH	TR
1987	104.4	97.1	141.5	40.8	100.5	95.5	109.0	2.9
1988	92.6	80.7	125.4	67.3	98.5	92.3	107.0	4.8
1989	92.5	86.7	135.0	72.9	98.1	97.9	119.6	7.2
1990	93.9	85.4	141.7	83.3	99.4	86.7	101.6	6.8
1991	99.6	88.5	131.8	89.4	102.8	91.9	104.8	14.1
1992	99.6	88.5	123.9	91.7	110.4	88.1	102.8	23.2
1993	107.5	94.5	108.8	92.3	109.7	100.5	108.0	37.1
1994	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1995	98.6	100.5	92.0	190.2	90.4	89.8	86.5	154.8
1996	93.4	99.8	106.4	225.2	86.3	91.4	90.4	274.9
1997	98.5	101.4	118.4	234.6	89.7	100.2	106.1	512.9
1998	116.4	108.6	128.1	270.7	110.8	106.9	106.0	880.6
1999	113.3	108.8	111.4	283.3	112.0	110.5	109.8	1414

**Quarterly data (period average)**

Qtr	AUS	CND	J	MX	NZ	N	CH	TR
97Q1	94.0	99.5	118.6	232.9	85.1	93.9	105.1	400.9
97Q2	95.1	101.5	117.0	234.6	85.9	100.7	105.7	465.0
97Q3	99.4	101.4	115.4	231.6	86.7	105.7	106.8	548.9
97Q4	105.6	103.2	122.5	239.3	96.1	101.0	104.8	536.9
98Q1	109.8	104.7	125.3	249.3	102.6	106.8	107.9	755.7
98Q2	116.3	105.9	132.8	256.4	111.2	106.5	109.2	854.0
98Q3	122.1	110.9	137.0	280.3	116.7	108.2	107.5	920.4
98Q4	117.3	112.9	117.2	296.8	112.7	106.1	99.4	992.1
99Q1	115.4	110.7	114.0	295.2	110.1	108.6	104.2	1156
99Q2	111.9	107.8	118.3	280.0	109.3	110.5	110.7	1339
99Q3	112.4	108.8	111.2	277.6	112.8	111.1	111.7	1482
99Q4	113.6	107.8	102.3	280.2	115.9	111.8	112.7	1681
00Q1	115.8	106.4	104.7	278.6	119.1	116.4	119.1	1900

**Monthly data (period average)**

Month	AUS	CND	J	MX	NZ	N	CH	TR
MAR99	116.0	111.1	117.2	289.5	111.4	110.8	107.2	1232
APR99	113.9	108.9	117.2	279.9	109.3	110.2	108.5	1267
MAY99	110.4	107.1	119.5	277.4	107.3	109.8	110.2	1335
JUN99	111.5	107.6	118.3	282.7	111.3	111.5	112.4	1395
JUL99	111.2	109.0	117.3	277.5	112.6	110.4	113.3	1441
AUG99	113.3	109.3	111.0	278.5	112.6	110.4	110.3	1472
SEP99	112.7	108.1	105.2	276.7	113.5	111.0	111.5	1532
OCT99	112.2	108.2	103.7	282.7	115.2	109.7	108.9	1580
NOV99	114.3	107.5	102.7	279.1	115.7	112.3	113.5	1681
DEC99	114.2	107.9	100.5	278.9	116.9	113.5	115.8	1782
JAN00	111.2	106.1	102.8	281.3	115.3	113.5	116.2	1840
FEB00	116.3	106.3	107.1	279.2	120.9	116.7	119.5	1903
MAR00	120.0	106.9	104.1	275.4	121.1	119.2	121.6	1958

















## TECHNICAL ANNEX

### INTRODUCTION

The quarterly report on price and cost competitiveness presents recent changes in the nominal and real effective exchange rates of the euro area (EUR11), of the 15 individual EU Member States, as well as of the United States, Japan, Norway, Australia, and Canada. Aggregate measures for the European Union (EUR15) are presented as well.

The nominal effective exchange rate (NEER) (or, equivalently, the "Trade-weighted currency index") 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 24 industrial countries (IC24), the 15 Member states of the European Union (EUR15) and the countries in the euro area (EUR11).

The real effective exchange rate (REER) (or, equivalently, the "Relative price and cost indicators") 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.

DG II's system for the calculation of effective exchange rates permits the user to make individual choices 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 standard measures used in this series of Quarterly Reports. 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-C-1), fax n° 32-2-299.35.05.

### 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.

The reference year is 1994.

## **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 refer to 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.

## DATA SOURCES

### 1. Nominal bilateral exchange rates and deflators

Exchange rate data are taken from DGII's internal TXI data base which contains the official daily rates recorded at 14.15 hours. Monthly data 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.

## COUNTRY COVERAGE

### 1. Competitors

The report presents nominal and real effective exchange rates relative to a group of 24 industrial countries (IC24), relative to the European Union as a whole (EUR15) and relative to the countries in the euro area (EUR11). IC24 consists of the 15 EU Member States plus United States, Canada, Japan, Switzerland, Norway, Australia, New Zealand, Mexico, and Turkey.

### 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.

