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EUROPEAN CENTRAL BANK

MONTHLY BULLETIN November 1999



EUROPEAN CENTRAL BANK

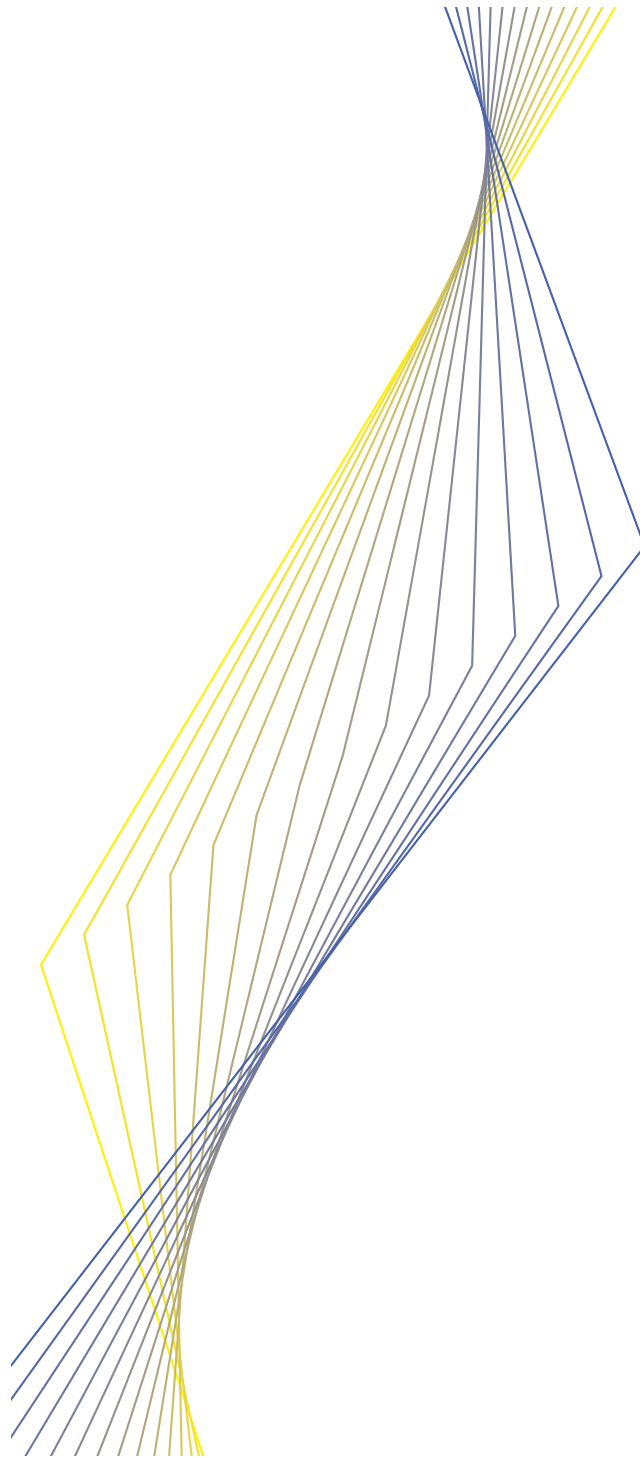
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**M O N T H L Y  
B U L L E T I N**

November 1999



**EUROPEAN CENTRAL BANK**



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B U L L E T I N**

**November 1999**

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## Abbreviations

### Countries

BE	Belgium
DK	Denmark
DE	Germany
GR	Greece
ES	Spain
FR	France
IE	Ireland
IT	Italy
LU	Luxembourg
NL	Netherlands
AT	Austria
PT	Portugal
FI	Finland
SE	Sweden
UK	United Kingdom
JP	Japan
US	United States

### Others

BIS	Bank for International Settlements
BPM4	IMF Balance of Payments Manual (4th edition)
BPM5	IMF Balance of Payments Manual (5th edition)
CDs	certificates of deposit
c.i.f.	cost, insurance and freight at the importer's border
CPI	Consumer Price Index
ECB	European Central Bank
ECU	European Currency Unit
EMI	European Monetary Institute
ESA 95	European System of Accounts 1995
ESCB	European System of Central Banks
EU	European Union
EUR	euro
f.o.b.	free on board at the exporter's border
GDP	gross domestic product
HICP	Harmonised Index of Consumer Prices
ILO	International Labour Organization
IMF	International Monetary Fund
MFI	Monetary Financial Institutions
NCBs	national central banks
repos	repurchase agreements
SITC Rev. 3	Standard International Trade Classification (revision 3)

**In accordance with Community practice, the EU countries are listed in this Bulletin using the alphabetical order of the country names in the national languages.**

# Editorial

At its meeting on 4 November 1999 the Governing Council of the ECB decided to raise the ECB's three main interest rates by 50 basis points each. The interest rate on the main refinancing operations of the Eurosystem, which will continue to be conducted as fixed rate tenders, was raised to 3.0% with effect from the operation to be settled on 10 November 1999. The interest rate on the marginal lending facility was raised to 4.0% and that on the deposit facility to 2.0%, both with effect from 5 November 1999. These decisions are expected to counter the upward trend of risks to price stability which has been observed since the beginning of the summer, thereby contributing to sustaining non-inflationary growth over the medium term.

The Governing Council's deliberations were based on a thorough analysis of the economic situation and the prospects in the euro area in relation to both the first pillar of the monetary policy strategy of the Eurosystem, namely a prominent role for money, and the second pillar, a broadly based assessment of the outlook for future price developments. Both pillars concurred in indicating that the balance of risks to future price stability had gradually been moving towards the upside and that the downward risks to price stability, which were present at the time of the cut in the ECB interest rates in April, no longer prevailed. The continued upward deviation of broad monetary growth from the reference value over recent months indicates that there is ample liquidity in the euro area. This is confirmed by a broad analysis of monetary developments in general. At the same time, the economic environment is generally continuing to improve. In the near term inflation rates are expected to increase, mainly as a result of the increase in oil prices earlier this year working its way through to consumer prices. The latest data on industrial producer prices confirm this pattern. In this environment it was important to prevent the generous liquidity situation from translating into upward pressures on prices over the medium term. The increase in interest rates at this point in time should help to prevent

stronger upward pressure on prices and contribute to keeping inflation expectations safely below 2%.

The interest rate decision was thus taken in a forward-looking manner. The Governing Council was convinced that the decision to raise interest rates will help to sustain non-inflationary growth over the medium term. Indeed, the timely rise in interest rates will avoid the need for stronger measures later.

It follows from the above that, against the background of a fundamentally changed situation, the level of ECB interest rates prevailing since the precautionary interest rate reduction of 50 basis points in the ECB's main refinancing rate in April 1999 was no longer justified. An interest rate rise of 50 basis points should avoid uncertainties regarding the future course of monetary policy. In fact, such a move is expected to contribute to reducing any uncertainty premia potentially prevalent in financial markets and also to help to contain a possible increase in volatility in money markets towards the end of the year.

Looking in greater detail at the information of relevance to the decision of the Governing Council, the monetary data up to September 1999 reinforce the view that M3 growth has been on a rising trend. The three-month average of the annual growth rates of M3, covering the period from July to September 1999, was 5.9%, i.e. almost 1½ percentage points above the reference value of 4½%. The deviation from the reference value, which has to be monitored and interpreted with caution, has been growing steadily in 1999. The strong growth of the most liquid components of M3 is particularly noteworthy, suggesting that the very low level of interest rates favoured the strong growth of monetary aggregates. Credit to the private sector also continued to expand rapidly in September 1999, at a rate in excess of 10%. The demand for loans remained very strong throughout the first three quarters of 1999, supported in particular by the low level of bank lending rates and the ongoing economic

recovery. Overall, the sustained and growing deviation of M3 growth from the reference value implied the existence of a very generous liquidity situation in the euro area which could generate upward risks for price stability in the medium term.

In euro area financial markets, developments over the past few months indicate expectations of increasing economic growth. This has been reflected in the rise in long-term bond yields and in the associated pronounced steepening of the yield curve seen over recent months. In this respect, the decision taken on 4 November should contribute to strengthening financial markets' expectations of a sustained recovery without inflationary pressures.

Information available on economic activity continues to support the view that the prospects for the euro area economy have continued to improve in recent months. The outlook for the external economic environment is part of this picture. There have been stronger signs of recovery in several countries in Asia and the prospects for output growth in the United Kingdom have also improved. In addition, figures released recently for the United States point to continued robust output growth without any significant inflationary tension.

With regard to the euro area, the latest data from Eurostat confirm that real GDP growth increased in the second quarter of 1999, while data on industrial production indicate that the recovery in economic activity progressed further in the third quarter of 1999. Various surveys available indicate that a further strengthening of economic activity can be expected in the near future. Against this background of positive economic data releases both for the main partner countries and for the euro area itself, the exchange rate of the euro was relatively volatile in October and early November.

The annual rate of change in consumer prices, as measured by the Harmonised Index of

Consumer Prices (HICP), remained unchanged at 1.2% in September 1999. The increase in energy prices, which continued in September, was counterbalanced by a lower annual increase in services prices and non-energy industrial goods prices. As a consequence, the annual rate of change in the HICP excluding energy and seasonal food declined from 0.9% in August to 0.7% in September. The process of market liberalisation and increased competition has had a dampening effect on consumer prices in recent months, but there are still expectations of some overall upward movement in the HICP rate in the short term, mainly in connection with energy prices.

To summarise, the downside risks to price stability which motivated the cut in ECB interest rates in April 1999 are no longer present. Moreover, the rising trend in M3 growth in excess of the reference value in conjunction with the broad assessment of the prospects for economic developments in the euro area confirmed the view that the balance of risks to future price stability had gradually been moving towards the upside. Therefore, there was a need to adjust the stance of monetary policy with a view to maintaining price stability over the medium term.

An article contained in this issue of the ECB Monthly Bulletin examines developments in long-term real interest rates in the 1990s. The article illustrates that, owing to the successful pursuit of stability-oriented policies over recent years, the countries now forming the euro area are currently in a far better position to achieve a long period of economic growth than they were in the early 1990s, before entering the final stage in the process of convergence for participation in Monetary Union.

This issue of the ECB Monthly Bulletin also includes articles entitled "TARGET and payments in euro" and "Legal instruments of the European Central Bank".

# Economic developments in the euro area

## I Monetary and financial developments

### Monetary policy decisions of the Governing Council of the ECB

At its meeting held on 4 November 1999 the Governing Council of the ECB decided to raise the three main interest rates of the ECB by 50 basis points. Starting with the operation to be settled on 10 November 1999, the main refinancing operations of the Eurosystem will be conducted as fixed rate tenders at an interest rate of 3.0%. In addition, the interest rate on the marginal lending facility was increased from 3.5% to 4.0% and that on the deposit lending facility from 1.5% to 2.0%, both with effect from 5 November 1999 (see Chart 1). These decisions were taken in view of the fact that the balance of risks to price stability in the euro area had gradually shifted upwards since the beginning of the summer.

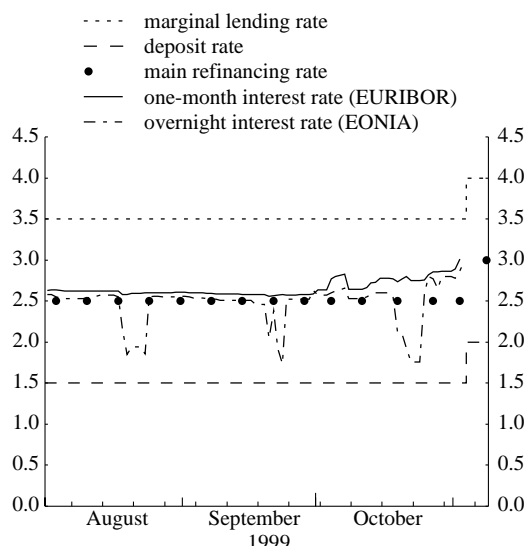
### Faster M3 growth in September

In September 1999 the annual rate of growth of the broad monetary aggregate M3 increased to 6.1%, from 5.7% in August. The

**Chart 1**

### ECB interest rates and money market rates

(percentages per annum; daily data)

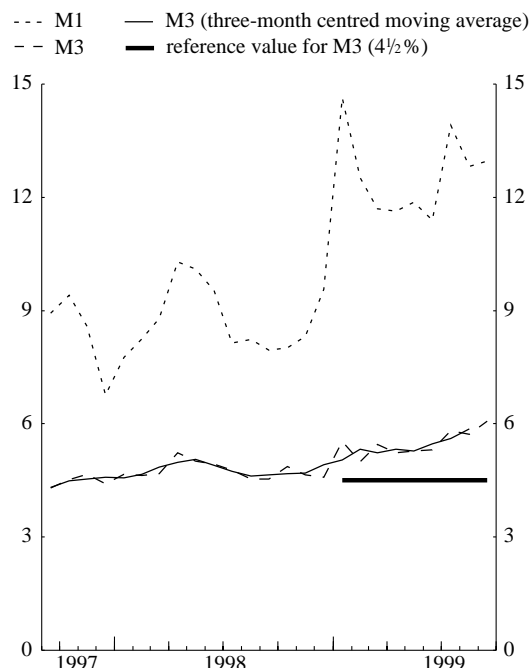


Source: ECB.

**Chart 2**

### Monetary aggregates in the euro area

(annual percentage changes)



Source: ECB.

three-month average of the annual growth rates of M3, covering the period from July to September 1999, increased to 5.9%, from 5.6% in the period from June to August 1999. This was almost 1½ percentage points above the reference value of 4½%. M3 growth thus continued to follow an upward trend, moving further away from the reference value (see Chart 2).

On the basis of non-seasonally adjusted monthly changes, M3 rose by €15 billion in September 1999. If the seasonal factors are taken into account, the expansion of M3 was almost twice as high, namely €28 billion (or around 0.6%) compared with August 1999 (see Table I). This significant increase reflected a relatively large rise in the components of M1 (currency in circulation and overnight deposits, amounting to €12 billion) and a strong expansion of the marketable instruments included in M3 (€12 billion), while the increase in other short-term deposits was rather subdued (€4 billion).



**Table I****M3 and its main components***(seasonally adjusted; end-of-month levels and month-on-month changes)*

	Sep. 1999 levels	July 1999 change		Aug. 1999 change		Sep. 1999 change		July to Sep. 1999 average change	
	EUR billions	EUR billions	%	EUR billions	%	EUR billions	%	EUR billions	%
<b>M3</b>	4,639.9	35.2	0.8	0.7	0.0	27.9	0.6	21.3	0.5
Currency in circulation and overnight deposits (= M1)	1,880.5	24.1	1.3	-0.4	0.0	11.5	0.6	11.8	0.6
Other short-term deposits (= M2 - M1)	2,133.6	13.6	0.6	-3.7	-0.2	3.9	0.2	4.6	0.2
Marketable instruments (= M3 - M2)	625.8	-2.5	-0.4	4.8	0.8	12.5	2.0	4.9	0.8

*Source: ECB.**Note: Due to rounding, the sum of the components of M3 in euro (billions) may not add up to the total reported for M3.*

Continuing the gradual upturn recorded since the start of the year, the annual rate of increase in currency in circulation rose to 5.2% in September 1999, from 3.9% in August. The steady recovery in the demand for currency in circulation in recent months may reflect the low level of opportunity costs of holding currency and the upturn in economic activity in the euro area. At the same time, it might also reflect a normalisation after a period of very subdued growth of currency in circulation. The annual rate of increase in overnight deposits remained high, although it fell slightly to 14.8% in September, from 15.0% in the previous month. The sustained rapid growth of overnight deposits reflects an ongoing strong preference for liquidity in the euro area, associated with the low level of opportunity costs of holding liquid instruments in the context of an improving economic situation. The annual growth rate of the monetary aggregate M1 (consisting of currency in circulation and overnight deposits) rose from 12.8% in August to 13.0% in September 1999.

The annual growth rate of short-term deposits other than overnight deposits fell to 2.2% in September, from 2.4% in the previous month. This was accounted for by a slowdown in the growth rate of deposits redeemable at a period of notice of less than three months (6.1%, compared with 6.4% in

August) as well as a more pronounced annual rate of contraction in deposits with an agreed maturity of less than two years (3.2%, compared with 2.9% in the previous month). The fall in the latter instruments in recent months has to be seen against the background of the associated retail bank deposit rate remaining at a low level by historical standards. The annual growth rate of M2 (which includes currency in circulation and all short-term deposits) remained constant at 7.0% in September 1999.

As noted above, on a month-on-month basis the marketable instruments included in M3 showed a relatively strong expansion in September 1999. As a result, the annual rate of change in these financial instruments rose to 0.5%, turning positive from -2.0% in the previous month. This was accounted for by money market fund shares/units and money market paper (the annual growth rate of which rose to 14.9%, from 11.7% in August) and by debt securities issued with a maturity of up to two years (the annual rate of change of which turned positive, to 6.0% from -10.8% in August). By contrast, the rate of decline in repurchase agreements in September became more pronounced (23.1% on an annual basis, compared with 19.8% in August 1999).

## Credit growth remained strong

With regard to the counterparts of M3, total credit granted by MFIs to euro area residents continued to expand at a strong pace in September 1999, with an annual rate of growth of 7.9%, unchanged from August. The stable growth of total credit reflected somewhat diverging developments in credit by sector. By contrast with previous months, the annual growth rate of credit to the general government showed an increase, reaching 1.3%, which compares with a rate of 0.2% in August. This upturn mainly reflected a stronger growth of MFI holdings of debt securities issued by general government, whereas the annual rate of change in MFI loans to general government remained broadly unchanged (and slightly negative). By contrast, the high annual growth rate of credit to the private sector declined slightly, from 10.8% in August to 10.5% in September 1999, reflecting more moderate growth in all of its components. The annual growth rate of loans granted to the private sector fell by 0.2 percentage point to 9.7% in September. The annual rate of increase in MFI holdings of securities other than shares issued by the private sector declined from 7.0% in August to 4.4% in September, while that of holdings of shares and other equity declined from 29.2% to 27.4% over the same period. (It should be noted that figures for changes in MFI holdings of securities are not corrected for the effect of changes in the market price of securities and may thus reflect both actual transactions and valuation effects.)

These data suggest that the growth of credit to the private sector, although moderating somewhat in September, is nonetheless maintaining a strong pace. The continued strength of the demand for credit from the private sector appears to be largely related to the low level of retail bank lending rates (see below). Moreover, there may have been some frontloading of lending operations, in particular for longer-term maturities, given borrowers' expectations of further rises in bank lending rates. The ongoing improvement in economic activity and the intense merger and acquisition activity in the euro area in 1999, along with the continued rise in real estate prices in some

euro area countries, constitute further factors contributing to the strength of growth of loans.

The annual rate of increase in longer-term financial liabilities of the MFI sector remained broadly stable at 5.6% in September. The annual growth rate of deposits with an agreed maturity of over two years was 3.0%, a rate broadly unchanged compared with the previous month. Debt securities with an original maturity of over two years continued to grow at a strong pace, of around 7.5%, in September, while the outstanding amount of deposits redeemable at a period of notice of over three months continued to decline, albeit at a slightly slower pace (7.6% in September, from 8.0% in August). These latter deposits have been on a declining trend for some time, reflecting their low return. Finally, the growth rate of capital and reserves declined to 7.9% in September (compared with 8.6% in August).

In September the net external assets of the MFI sector increased in absolute and non-seasonally adjusted terms by €16 billion on a month-on-month basis (after declining by €33 billion in August 1999). This reflected a rise in external assets of €10 billion and a decline in external liabilities of €6 billion.

The increase in M3 of €263 billion over the 12 months up to September 1999 was accompanied by the following flows in the counterparts on the consolidated balance sheet of the MFI sector (see Table 2). The 12-month increase in credit granted to the private sector amounted to €565 billion, while credit granted to general government rose by €26 billion. The significant difference between the annual flows in credit and broad money was mirrored by a reduction in net external assets (of €239 billion) and increases in longer-term financial liabilities (of €185 billion). The other counterparts (net assets) showed an annual increase amounting to €96 billion in September.

**Table 2****M3 and its main counterparts***(12-month flows; EUR billions)*

	1999 Mar.	1999 Apr.	1999 May	1999 June	1999 July	1999 Aug.	1999 Sep.
Credit to the private sector	523.7	523.6	549.3	579.6	568.5	577.8	564.9
Credit to general government	38.4	16.4	33.3	0.6	3.9	4.1	26.3
Net external assets	-133.9	-159.8	-213.9	-232.1	-208.8	-246.6	-239.2
Longer-term financial liabilities <sup>1)</sup>	-155.3	-185.1	-179.2	-183.6	-189.7	-187.1	-185.2
Other counterparts	-40.5	29.7	38.8	66.1	78.6	99.0	95.9
<b>M3</b>	<b>232.4</b>	<b>224.8</b>	<b>228.4</b>	<b>230.6</b>	<b>252.4</b>	<b>247.2</b>	<b>262.7</b>

*Source: ECB.**Note: Due to rounding, the sum of the counterparts of M3 in euro (billions) may not add up to the total reported for M3.**1) A minus sign indicates increasing MFI liabilities.*

### Short-term retail bank interest rates stabilised during the summer, while long-term retail bank interest rates rose

As indicated above, the recent monetary and credit developments are to be seen in the light of developments in retail bank interest rates. These rates are regularly published in

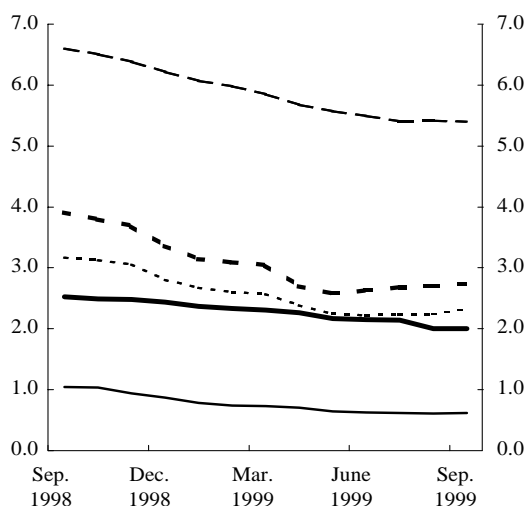
the “Euro area statistics” section of the ECB Monthly Bulletin, as well as on the ECB’s Web site.

Following the more or less continuous declines in euro area retail bank interest rates that have been observed for all maturities since 1995, retail interest rate levels for shorter maturities demonstrated a tendency to stabilise in the summer months of 1999, broadly reflecting developments in money market interest rates (see Chart 3). At the same time, longer-term retail bank interest rates began to increase from May 1999 onwards, mirroring the increases observed in long-term capital market interest rates over the same period (see Chart 4).

Short-term deposit rates in the euro area remained broadly flat in the months up to September 1999. The average rate on overnight deposits remained virtually unchanged between June and September 1999. Similarly, the average rate on deposits redeemable at a period of notice of up to three months remained relatively stable over this period, with the exception of a drop in August, which was due to a reduction in administered interest rates in France. The average rates on shorter-term time deposits with maturities of less than one year and two years respectively both stood at around 2.3% in September. Furthermore, short-term lending rates to enterprises remained broadly stable over the summer, standing at 5.4% in

**Chart 3****Short-term retail bank interest rates***(percentages per annum; monthly averages)*

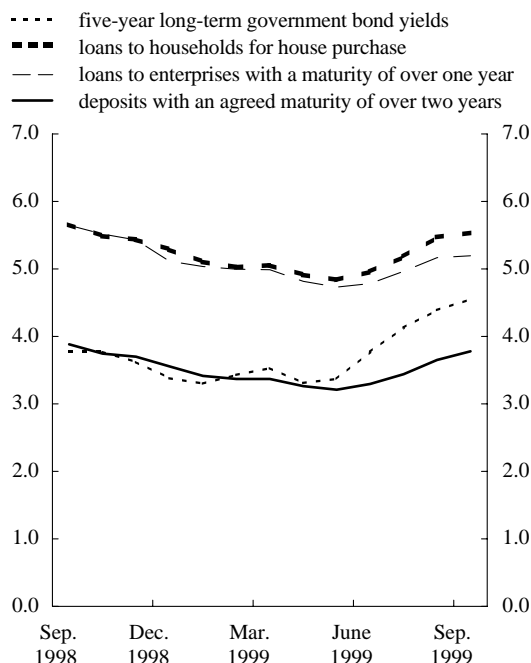
- three-month money market rate
- - - loans to enterprises with a maturity of up to one year
- ..... deposits with an agreed maturity of up to one year
- deposits redeemable at notice of up to three months
- overnight deposits

*Source: ECB aggregation of individual country data.*

### Chart 4

#### Long-term retail bank interest rates

(percentages per annum; monthly averages)



Source: ECB aggregation of individual country data.

September. The average rate on consumer loans stood at 9.3% in September.

By contrast with short-term rates, longer-term deposit and lending rates increased during the summer months. The average rate on time deposits with an agreed maturity of more than two years reached 3.8% in September (as compared with 3.3% in May). Average interest rates on loans to households for house purchase reached 5.5% in September, from 4.8% in May, while interest rates on long-term loans to enterprises stood, on average, at 5.2% in September (compared with 4.7% in May).

#### Money market interest rates shifted upwards in October

Money market interest rates shifted upwards during October. The pattern of the overnight interest rate, as measured by the EONIA, was relatively volatile, mainly reflecting uncertainty in the market regarding short-

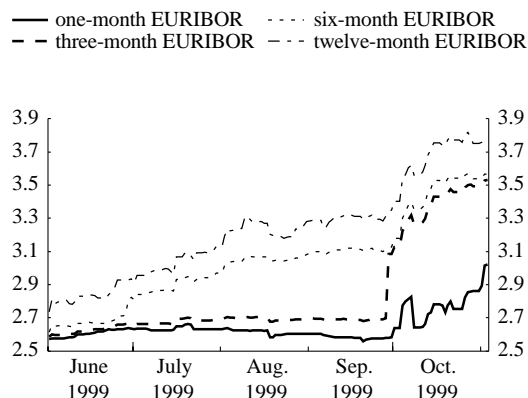
term interest rate developments. During most of October and in early November the EONIA rate fluctuated between 2.5% and 3.0% (see Chart 1). It was only during the last few days of the reserve maintenance period ending on 23 October 1999 that the EONIA rate fell to levels below 2.0%, as market participants expected the available liquidity to exceed the amount needed to meet the reserve requirements, leading to a net recourse to the deposit facility for the banking system as a whole (see Box 1).

The three-month EURIBOR interest rate also increased markedly during October and in early November, by approximately 45 basis points, as market expectations of higher short-term interest rates in the euro area strengthened (see Chart 5). On 3 November the three-month EURIBOR was equal to 3.53%, which was about 85 basis points above the level recorded in mid-September. As explained in the October 1999 issue of the ECB Monthly Bulletin, the level of the three-month interest rate is currently distorted by the fact that market participants require a premium on the availability of funds at the time of the century date change. This premium affects, to a varying extent, all interest rates on contracts which span the

### Chart 5

#### Short-term interest rates in the euro area

(percentages per annum; daily data)



Source: Reuters.

**Box I****Monetary policy operations and liquidity conditions in the ninth maintenance period****Allotments in monetary policy operations**

During the ninth reserve maintenance period, which lasted from 24 September to 23 October 1999, the Eurosystem conducted four main refinancing operations and one longer-term refinancing operation. All main refinancing operations were carried out at a fixed interest rate of 2.5%. The allotted volume varied between €50.1 billion and €90.1 billion. The average total amount of bids submitted to the main refinancing operations increased to €1,244.9 billion, from €1,193.7 billion in the previous reserve maintenance period.

The allotment ratios in the main refinancing operations varied between 3.9% and 6.8%, compared with a range of between 4.3% and 13.9% in the eighth reserve maintenance period. The increase in bids and the corresponding decrease in the allotment ratios were partly related to the high level of the EONIA rate during most of the reserve maintenance period. However, the EONIA rate declined considerably towards the end of the period owing to the ample liquidity available in the market.

On 29 September the Eurosystem conducted a longer-term refinancing operation through a variable rate tender with a pre-announced allotment volume of €15 billion, as on previous occasions. A total number of 198 bidders participated in this operation and the total amount of bids was €41.4 billion. The marginal interest rate was set at 2.66%.

**Contributions to the banking system's liquidity**

(EUR billions)

Daily average during the reserve maintenance period from 24 September to 23 October 1999

	<i>Liquidity providing</i>	<i>Liquidity absorbing</i>	<i>Net contribution</i>
<b>(a) Monetary policy operations of the Eurosystem</b>	<b>188.3</b>	<b>0.6</b>	<b>+187.7</b>
Main refinancing operations	143.0	-	+143.0
Longer-term refinancing operations	45.0	-	+45.0
Standing facilities	0.3	0.6	-0.3
Other operations	0.0	0.0	0.0
<b>(b) Other factors affecting the banking system's liquidity</b>	<b>349.6</b>	<b>433.8</b>	<b>-84.2</b>
Banknotes in circulation	-	342.5	-342.5
Government deposits with the Eurosystem	-	45.4	-45.4
Net foreign assets (including gold)	349.6	-	+349.6
Other factors (net)	-	45.9	-45.9
<b>(c) Credit institutions' holdings on current accounts with the Eurosystem (a) + (b)</b>			<b>103.5</b>
<b>(d) Required reserves</b>			<b>102.8</b>

Source: ECB.

Totals may not add up due to rounding.

**Use of standing facilities**

Compared with the previous reserve maintenance period, the average use of the marginal lending facility increased from €0.2 billion to €0.3 billion, while the average use of the deposit facility decreased from €0.7 billion to €0.6 billion. Around two-thirds of the use of the deposit facility is explained by the recourse to it on the last two days of the reserve maintenance period, amounting to a total of €11.3 billion.

### Liquidity factors not related to monetary policy

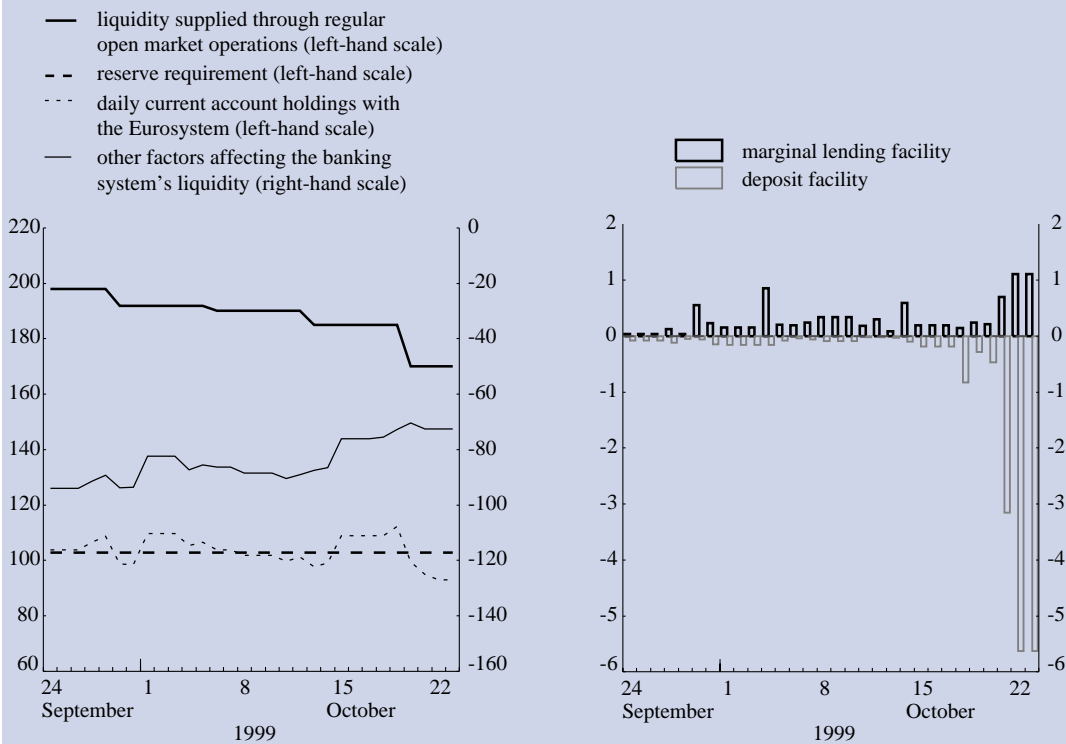
The net liquidity-absorbing impact of the autonomous factors (i.e. the factors not related to monetary policy) on the banking system's liquidity (item (b) in the table above) was €84.2 billion on average, i.e. €7.4 billion less than in the previous reserve maintenance period. This was mainly due to a decline in government deposits with the Eurosystem which were €6.0 billion lower than in the previous reserve maintenance period. The sum of autonomous factors fluctuated between €70.4 billion and €94.0 billion, showing higher volatility than in the previous period.

### Current account holdings of counterparties

In the ninth reserve maintenance period the average current account holdings amounted to €103.5 billion, and the reserve requirements to €102.8 billion. The difference between the average current account holdings and the reserve requirements remained at the same level as in the previous reserve maintenance period (i.e. €0.7 billion). Approximately €0.2 billion of this amount was due to current account holdings not contributing to the fulfilment of reserve requirements, and €0.5 billion was related to excess reserves. Likewise, these figures were the same as in the previous reserve maintenance period.

### Factors contributing to the banking system's liquidity during the ninth maintenance period

(EUR billions; daily data)



end of this year. In this respect, the premium is significantly higher on unsecured contracts than on secured contracts. The one-month EURIBOR interest rate, which has not (yet) been affected by the transition to the new millennium, also increased quite sharply in

October, by approximately 45 basis points, reaching 3.02% on 3 November.

The interest rates on the regular longer-term refinancing operation of the Eurosystem which was settled on 28 October 1999

(conducted, as usual, on the basis of the multiple rate allotment procedure and a three-month maturity) were significantly more dispersed than in the past, reflecting the fact that spreads between money market interest rates with comparable maturities have also widened in the run-up to the turn of the century. The marginal interest rate of allotment was equal to 3.19%, while the weighted average interest rate of allotment was equal to 3.42%. The weighted allotment interest rate was almost 10 basis points lower than the three-month EURIBOR interest rate prevailing on the day on which the operation was conducted and around 40 basis points above the then prevailing money market three-month repurchase rate. The overall amount allotted was increased from €15 billion (which was the amount allotted in all of the previous operations conducted in 1999) to €25 billion. The Eurosystem had announced this measure on 21 October as a means to contribute to a smooth transition to the year 2000.

Three-month EURIBOR interest rates implied in futures contracts maturing at the end of this year and in the year 2000 increased markedly in October. On 3 November 1999 the interest rates implied in contracts for delivery in December 1999 and in March and June 2000 stood at 3.56%, 3.61% and 3.88% respectively. The overall increase in these futures rates compared with the end of September was approximately 20-30 basis points. Reflecting these developments, the six-month and twelve-month EURIBOR interest rates both rose by around 40 basis points from end-September 1999, to stand at 3.57% and 3.77% respectively on 3 November.

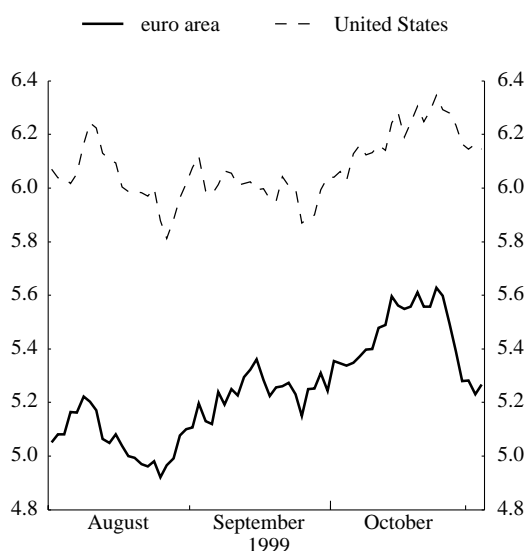
### Volatile long-term bond yields during October

Long-term interest rates exhibited high volatility during October. The rising trend in long-term government bond yields in the euro area that has been observed since early May 1999 continued during the first few weeks of

October, but was reversed towards the end of the month following the publication of money growth data for the euro area. Compared with end-September, the average level of ten-year bond yields in the euro area was little changed at around 5.3% by 3 November (see Chart 6). In addition to influences from yield movements in international bond markets, it appears that, as in earlier months, changing expectations regarding economic developments in the euro area played an important role in explaining developments in euro area bond yields during much of October.

With regard to the implications of developments in international bond markets for bond markets in the euro area, long-term bond yields in the United States came under renewed upward pressure during the first few weeks of October, before falling back again towards the end of the month. Several factors seemed to contribute to this development. Indications of continued strength in the economy, combined with signs of growing inflationary pressures, as well as the

**Chart 6**  
**Long-term government bond yields in the euro area and the United States**  
*(percentages per annum; daily data)*



Source: Reuters.  
 Note: Long-term government bond yields refer to ten-year bonds or to the closest available bond maturity.

decision by the Federal Open Market Committee of the US Federal Reserve on 5 October to adopt a bias towards a possible firming of monetary policy in the future, put upward pressure on US bond yields during the early part of the month. At the end of October, however, the release of data showing lower than expected increases in labour costs and in the GDP deflator during the third quarter of 1999 led to falling bond yields in the United States. In addition, the release of new information indicating that economic growth during the 1990s had been revised upwards, while the price deflator had been revised downwards, contributed to the falling bond yields. All in all, between end-September and 3 November US ten-year bond yields increased by approximately 10 basis points to somewhat above 6.1%.

In Japan ten-year bond yields were little changed compared with end-September, and stood at around 1.75% on 3 November. New data provided support for the view that a gradual recovery is taking place in Japan. Furthermore, there appears to have been a reversal of the large inflows of capital into Japan that were seen during September, which seemed to end the downward pressure on Japanese bond yields observed during that month.

The aforementioned developments in international bond yields may have influenced euro area long-term interest rates during October. However, as mentioned above, domestic factors also seem to have played an important role in explaining bond yield developments in the euro area. Further upward revisions to the expectations of financial market participants regarding the pace of economic activity in the euro area, supported by the release of favourable data, contributed to the upward pressure on bond yields, in particular during the first part of October. However, towards the end of October long-term bond yields declined relatively sharply, as the release of higher than expected euro area M3 growth data for September reduced market uncertainty regarding interest rate developments over the

near term. In addition, spillovers from the US bond market may have contributed to the downward pressure on euro area bond yields towards the end of the month. Taken together, the countervailing influences of the aforementioned factors resulted in little change in the average level of ten-year bond yields in the euro area between end-September and 3 November.

The spread of ten-year government bond yields in the United States over comparable yields in the euro area was relatively volatile during October. Compared with end-September the yield spread had narrowed by approximately 10 basis points in the period prior to the publication of euro area M3 growth data. Thereafter, by 3 November 1999 the spread had widened again by around 20 basis points. This left the yield spread at around 90 basis points on 3 November, which was almost 70 basis points lower than the peak observed in mid-June 1999.

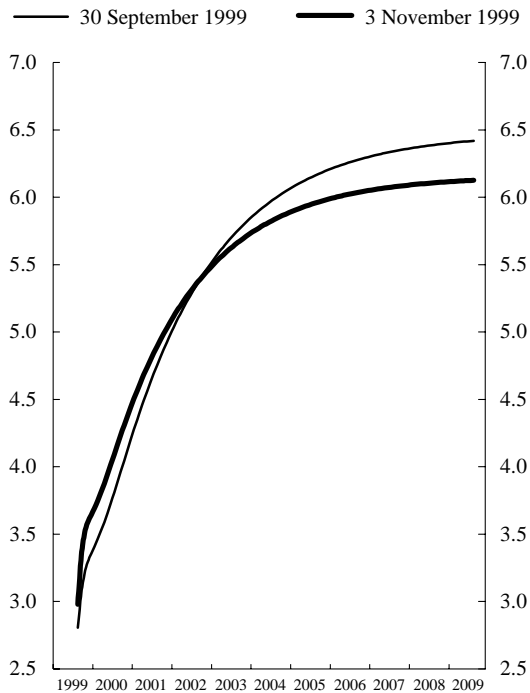
The euro area implied forward overnight interest rate curve displayed increases in forward rates for both short and medium maturities between end-September and 3 November 1999 (see Chart 7). While developments at the very short end of the forward curve were mainly affected by factors associated with the change of millennium, forward rate increases for medium-term maturities partly reflected market expectations of increasing short-term interest rates in the euro area. By contrast, implied forward rates for long maturities decreased somewhat compared with end-September.

In the French index-linked bond market the ten-year real yield available from index-linked bonds increased by 5 basis points between end-September and 3 November 1999 to around 3.5%. By contrast with the ongoing rise in real yields, the "break-even" inflation rate derived from the difference between nominal and real bond yields, although displaying some volatility from time to time, remained broadly unchanged during the past few months. The break-even rate can be seen as an indication of market participants' average inflation expectations over



**Chart 7**  
**Implied forward euro area overnight interest rates**

(percentages per annum; daily data)



Source: ECB estimation. The implied forward yield curve, which is derived from the term structure of interest rates observed in the market, reflects the market expectation of future levels for short-term interest rates. The method used to compute these implied forward yield curves was outlined on page 26 of the January 1999 issue of the Monthly Bulletin. The data used in the estimation are derived from swap contracts.

the lifetime of the index-linked bond. However, as discussed in previous issues of the ECB Monthly Bulletin, developments in index-linked bond yields should for various reasons be interpreted with caution.

In this issue of the Monthly Bulletin the ECB is publishing for the first time statistical information on the issuance of debt securities in the euro area. Box 2 provides an overview of these data.

**Stock prices increased further in October**

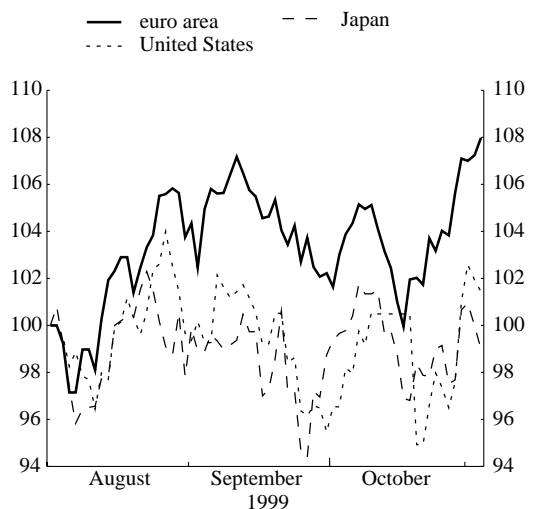
In a relatively volatile environment stock prices in the euro area increased during October 1999, with the broad Dow Jones

EURO STOXX index showing an increase of close to 6% between end-September and 3 November 1999 (see Chart 8). This left euro area stock prices at close to 13% above end-1998 levels and 52% above the trough observed in October 1998. These developments in euro area stock prices reflected both the influence of volatile international stock market developments and factors specific to the euro area.

With regard to the global stock market environment, US stock prices were subject to considerable volatility during October 1999, which seemed to be linked to market uncertainties regarding the future pace of corporate earnings growth, as well as uncertainty regarding the future course of short-term interest rates in the United States. Overall, the Standard and Poor's 500 index increased by close to 6% between end-September and 3 November 1999, bringing the cumulative increase in US stock prices since end-1998 to just above 9%. Towards the end of October, particularly following the publication of data on labour costs and

**Chart 8**  
**Stock price indices in the euro area, the United States and Japan**

(1 August 1999 = 100; daily data)



Sources: Reuters for the euro area and the United States; national data for Japan.  
 Note: Dow Jones EURO STOXX broad (stock price) index for the euro area, Standard and Poor's 500 for the United States and Nikkei 225 for Japan.

GDP for the third quarter of 1999, which continued to indicate that the US economy is growing at a relatively robust pace with limited inflationary pressures, US stock prices rose sharply.

In Japan stock prices, as measured by the Nikkei 225 index, increased by more than 25% over the period from end-1998 to end-September 1999 against a background of improving expectations for future economic activity. Over the period from end-September to 3 November 1999 Japanese stock prices increased by close to 4%. Over this period, Japanese stock price increases were smaller than in the United States and the euro area notwithstanding the publication of data supporting the view that a gradual recovery is taking place in Japan. A factor explaining

the relatively weak performance in Japanese stock prices in October may have been the above-mentioned reversal of capital inflows into Japan that were seen during September.

Apart from spillovers of volatile movements in US stock prices, an important factor in explaining euro area stock price developments in October seemed to be continued optimism on the part of euro area market participants concerning the prospects for future economic activity and, linked to this, corporate earnings growth in the euro area. In this regard, a notable feature of sectoral stock market developments during October was the relatively limited volatility seen in the cyclical goods sector, which seemed to reflect the resilience of market expectations of a cyclical improvement in the euro area economy.

## Box 2

### New securities issues statistics

In this issue of the Monthly Bulletin the ECB is publishing securities issues statistics for the first time (see Table 3.5 in the “Euro area statistics” section). Information about securities issues is an important element in monetary and financial analysis. For borrowers, securities issues are an alternative to bank finance. Holders of financial assets may view bank deposits, negotiable instruments issued by banks (included in M3 if issued for two years or less) and other securities as partial substitutes. Securities issues statistics therefore complement monetary statistics. Over time, any shifts between direct finance (through securities markets) and indirect finance (through the banking system) may affect the transmission mechanism of monetary policy, as these shifts will change the euro area financial structure. Data on the outstanding amount of securities indicate the depth of capital markets. Furthermore, information on securities issues in euro may be used to assess the role of the euro in international financial markets.

The main aggregates in Table 3.5 of the “Euro area statistics” section of this Bulletin are (i) securities issued by euro area residents in any currency and (ii) securities issued in euro and the national denominations of the Member States participating in the euro area, irrespective of the issuer (i.e. both residents and non-residents). The basic definitions used in the framework of the ECB’s securities issues statistics conform to the European standards as set out in the European System of Accounts 1995 (ESA 95) wherever possible and appropriate. The Eurosystem and the Bank for International Settlements (BIS) compile the data in accordance with these standards, drawing largely on existing sources. The Eurosystem provides the data on issues by euro area residents at a monthly frequency; the BIS, for the time being, supplies the statistics on non-residents at a quarterly frequency. In this respect, the concept of residency is interpreted as referring to the location of the unit issuing the security. Issues by foreign-owned entities located in the euro area are classified as issues by euro area residents. Issues by entities located outside the euro area but owned by residents of the euro area are treated as issues by non-residents of the euro area.

The series start with the amounts outstanding at end-December 1998 and cover securities other than shares (debt securities). The issuance is recorded when the issuer receives payment. The data therefore refer to completed and not to announced issues. Furthermore, the currency of issuance refers to the currency

denomination of the security. Prior to January 1999 issues in euro refer to items expressed in the national currencies of the 11 Member States participating in Monetary Union or in ECU; thereafter they refer to the euro and any remaining issues expressed in the national denominations of the euro. The instruments covered are usually negotiable and traded on secondary markets, and do not grant the holder any ownership rights in the issuing unit. Money market paper is also included. Private placements are, in principle, covered, although they are often difficult to trace. Financial derivatives, mutual fund shares, unquoted shares and other equity are not covered.

The following definitions apply. First, short-term securities generally have an original maturity of one year or less, even if they are issued under longer-term facilities. All other issues, including those with optional or indefinite maturity dates, are classified as being long-term. In addition, (gross) issues cover all issues against cash, redemptions comprise all repurchases by the issuer against cash, whether at maturity or earlier, and net issues are issues minus redemptions during the period. Furthermore, amounts outstanding indicate the stock of securities at the end of the period. Finally, the securities covered are valued, in principle, at nominal (face) value. In practice, certain national differences exist, especially in the valuation of deep-discounted securities; their effect on the euro area aggregates is, however, limited.

As regards the actual data, in July 1999 a total amount of €5,602.2 billion was outstanding in debt securities issued by euro area residents in various currencies, of which €545.8 billion (around 10% of the total) were short-term securities and €5,056.4 billion (around 90% of the total) were long-term securities. The share of euro-denominated debt securities in total outstanding debt securities issued by euro area residents in July was 97%. The total net amount of debt securities issued by euro area residents in euro and other currencies from January to July 1999 amounted to €423.2 billion (see the table below), of which 94% were long-term debt securities and 97% were denominated in euro. These data indicate that during the first seven months of 1999 there appeared to be a general tendency for euro area residents to issue, on a net basis, a greater proportion in the form of long-term securities than before 1999, while the proportion of instruments issued in euro remained broadly stable.

The total amount outstanding of euro-denominated debt securities issued worldwide was €5,901.1 billion at the end of June 1999, 91% of which was issued by residents of the euro area and 9% by non-residents. The vast majority (90%) of these outstanding debt securities had an original maturity of more than one year. Total net issuance of euro-denominated securities during the first six months of 1999 was €436.2 billion, 94% of which were securities with an original maturity of longer than one year, and euro area residents issued 94%. These data indicate that by mid-1999 the share of euro area residents in the total issuance of euro-denominated debt instruments was slightly larger than prior to 1999.

### Securities issued by euro area residents

(EUR billions)

	Net issues in 1999				Outstanding amounts as at end-July 1999
	Q1	Q2	July	Jan.-July	
Total	211.0	151.1	61.1	423.2	5,602.2
- of which denominated in euro	204.5	145.0	60.7	410.2	5,410.2
Long-term	188.3	149.3	59.0	396.6	5,056.4
- of which denominated in euro	185.9	146.5	58.9	391.3	4,881.9
Short-term	22.7	1.9	2.2	26.8	545.8
- of which denominated in euro	18.5	-1.6	1.9	18.8	528.3
Memorandum item:					
Issues by non-residents denominated in euro	47.1	39.7	.	86.8 <sup>1)</sup>	528.0 <sup>2)</sup>

Source: ECB.

1) January to June 1999.

2) As at end-June 1999.

## 2 Price developments

### Rate of increase in HICP unchanged despite further energy price increases

In September 1999 the rate of increase in the Harmonised Index of Consumer Prices (HICP) was unchanged at 1.2% compared with the rate recorded in August (see Table 3 and Chart 9). As in previous months, developments in the HICP in September reflected continued upward pressure resulting from rising energy prices. This was, however, counteracted by a slowdown in the rate of increase in both services and non-energy industrial goods prices.

The latest data show continued upward pressure on the overall HICP owing to rising

energy prices with their annual year-on-year rate of increase rising to 6.4% (compared with increases of 5.0% in August and 3.2% in July). Developments in energy prices continue to reflect the rise in the world market price of oil up to September 1999. However, as a result of a moderate appreciation of the euro vis-à-vis the US dollar and some downward movement in the US dollar price, average oil prices declined to €20.8 per barrel in October, compared with €21.8 per barrel in September. Nevertheless, it is expected that energy prices will continue to have an upward impact on the HICP in coming months.

In recent months developments in unprocessed food prices have partly offset

**Table 3**  
**Price and cost developments in the euro area**

(annual percentage changes, unless otherwise indicated)

	1996	1997	1998	1998	1999	1999	1999	1999	1999	1999	1999	1999	1999
				Q4	Q1	Q2	Q3	May	June	July	Aug.	Sep.	Oct.
<b>Harmonised Index of Consumer Prices (HICP) and its components</b>													
Overall index	2.2	1.6	1.1	0.8	0.8	1.0	1.1	1.0	0.9	1.1	1.2	1.2	.
<i>of which:</i>													
Goods	1.8	1.1	0.6	0.2	0.3	0.6	0.9	0.6	0.5	0.7	0.9	1.1	.
Food	1.9	1.4	1.6	1.1	1.3	0.6	-0.1	0.6	0.1	-0.1	-0.2	-0.1	.
Processed food	2.0	1.4	1.4	1.2	1.2	0.9	0.7	0.8	0.7	0.7	0.7	0.7	.
Unprocessed food	1.7	1.4	2.0	0.8	1.5	0.3	-1.4	0.4	-0.7	-1.4	-1.6	-1.2	.
Industrial goods	1.8	1.0	0.1	-0.2	-0.2	0.6	1.5	0.6	0.8	1.1	1.5	1.7	.
Non-energy industrial goods	1.5	0.5	0.9	0.9	0.8	0.6	0.5	0.6	0.6	0.6	0.6	0.4	.
Energy	3.0	2.8	-2.6	-4.4	-3.8	0.8	4.9	0.5	1.4	3.2	5.0	6.4	.
Services	2.9	2.4	2.0	2.0	1.7	1.6	1.5	1.5	1.5	1.6	1.5	1.4	.
<b>Other price and cost indicators</b>													
Industrial producer prices <sup>1)</sup>	0.4	1.1	-0.8	-2.3	-2.6	-1.3	.	-1.4	-1.0	-0.1	0.6	.	.
Unit labour costs <sup>2)</sup>	2.0	0.7	.	.	.	.	.	-	-	-	-	-	-
Labour productivity <sup>2)</sup>	1.1	1.7	.	.	.	.	.	-	-	-	-	-	-
Compensation per employee <sup>2)</sup>	3.3	2.5	.	.	.	.	.	-	-	-	-	-	-
Total hourly labour costs <sup>3)</sup>	2.8	2.6	1.7	1.8	2.3	2.2	.	-	-	-	-	-	-
Oil prices (EUR per barrel) <sup>4)</sup>	15.9	17.1	12.0	10.1	10.3	15.0	19.7	14.9	15.6	18.1	19.2	21.8	20.8
Commodity prices <sup>5)</sup>	-6.9	12.9	-12.5	-20.5	-16.0	-8.2	1.1	-7.8	-4.2	-2.3	-0.5	6.6	10.7

Sources: Eurostat, national data, International Petroleum Exchange, HWWA – Institut für Wirtschaftsforschung (Hamburg) and ECB calculations.

1) Excluding construction.

2) Whole economy.

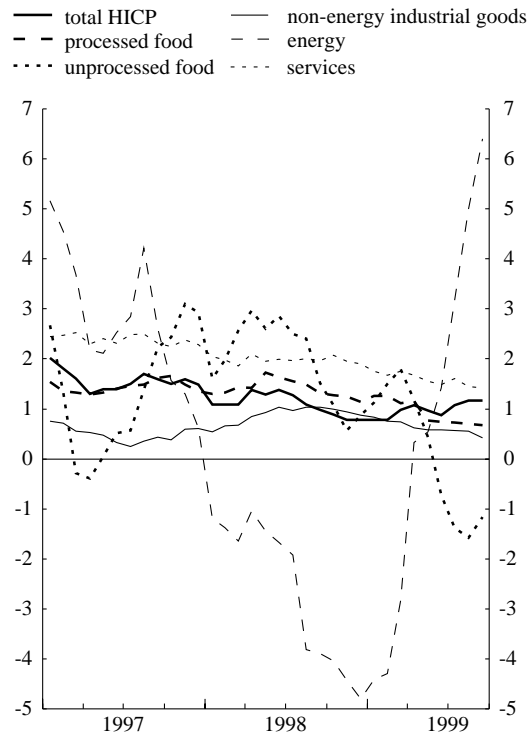
3) Whole economy (excluding agriculture, public administration, education, health and other services).

4) Brent Blend (for one-month forward delivery). In ECU up to December 1998.

5) Excluding energy. In euro; in ECU up to December 1998.

**Chart 9**  
**Breakdown of HICP inflation in the euro area by components**

(annual percentage changes; monthly data)



Source: Eurostat.

the above-mentioned rise in energy prices. However, in September this effect was somewhat weaker as the year-on-year decline in unprocessed food prices slowed to 1.2% compared with a fall of 1.6% in August, suggesting that some of the seasonal and other transitory effects which have been depressing this component are beginning to unwind. By contrast with the relatively volatile pattern in unprocessed food prices, the rate of increase in processed food prices has been more stable, i.e. 0.7% year-on-year in September, which is the same as the rate of increase recorded in the previous three months.

In the case of the HICP excluding both seasonal food and energy prices, the annual

increase declined to 0.7% in September, compared with 0.9% in August. This decline was primarily the result of a deceleration in the rate of increase in both services and non-energy industrial goods prices. In the case of non-energy industrial goods, the annual rate of change declined to 0.4% compared with 0.6% in the previous five months. There does not yet appear to have been a significant pass-through from recently observed increases in producer prices, which rose in the year to August by 0.6%, the first year-on-year increase since April 1998. However, the September decline was broadly based across several product categories and not the result of any special factors. With regard to services prices, the year-on-year increase also declined, to 1.4% in September compared with an increase of 1.5% in August. The deceleration in services price inflation suggests that market liberalisation and increased competition continue to curb the rate of increase in prices in some sectors (e.g. telecommunications and, more recently, electricity).

**Wage growth remained at around 2%**

Eurostat has recently released new data on labour costs in the euro area. According to these data, the annual rate of increase in total hourly labour costs was 2.2% in the second quarter of 1999, i.e. down 0.1 percentage point compared with the increase in the first quarter (see Table 3). Compared with an average increase of only 1.7% in 1998, developments in the first two quarters of 1999 represent an increase in the rate of wage growth, but this has largely been the result of a technical factor (i.e. a tax reform in Italy) which affected the rate of increase in 1998. Overall, abstracting from this special effect, underlying wage growth in the euro area was broadly unchanged at close to 2% in the first half of 1999.

### 3 Output, demand and labour market developments

National accounts data for the euro area as a whole currently cover the period up to and including the second quarter of 1999. Prior to the cut-off date for this issue of the ECB Monthly Bulletin, Eurostat released a further estimate of real GDP growth in the second quarter of 1999. Compared with the initial estimate of growth, there has been an upward revision of 0.2 percentage point. Quarter-on-quarter growth in the second quarter of 1999 is now estimated to have been 0.5%, following growth of 0.4% in the first quarter, thus pointing more clearly to an improvement during the first half of this year (see Table 4). The year-on-year rate of growth in the second quarter of 1999 is now estimated to have been 1.6%, unchanged from the previous quarter.

The slightly higher quarter-on-quarter rate of real GDP growth in the second quarter of 1999 reflects an increased contribution from net exports of 0.1 percentage point, following one of -0.2 percentage point in the first quarter. The improvement in net exports since the last quarter of 1998 is largely

attributable to a more favourable external environment. Growth in total exports and imports (including intra-euro area trade) in the second quarter rose by 1.5% and 1.3% respectively compared with the previous quarter. Export growth, in particular, has accelerated strongly since the end of last year, in line with both a strengthening of foreign demand growth and a higher level of activity growth within the euro area. Domestic demand grew at a slightly slower pace in the second quarter of the year, at 0.4% quarter-on-quarter, compared with 0.6% in the first quarter. This slowdown was noticeable in private and government consumption and, in particular, in gross fixed capital formation. This was partially offset by a higher contribution of changes in inventories to overall growth, which increased from -0.4 percentage point in the first quarter to 0.1 percentage point in the second quarter.

The slowdown in domestic demand growth is likely to have been only temporary, in view of a number of indicators which suggest a further pick-up in real GDP growth in the

**Table 4**  
**Composition of real GDP growth in the euro area**

(percentage changes, unless otherwise indicated; seasonally adjusted)

	Annual rates <sup>1)</sup>								Quarterly rates <sup>2)</sup>				
	1996	1997	1998	1998 Q2	1998 Q3	1998 Q4	1999 Q1	1999 Q2	1998 Q2	1998 Q3	1998 Q4	1999 Q1	1999 Q2
Real gross domestic product <i>of which:</i>	1.3	2.2	2.7	2.8	2.6	1.9	1.6	1.6	0.5	0.5	0.1	0.4	0.5
Domestic demand	0.9	1.7	3.3	3.0	3.5	3.0	2.6	2.5	0.5	0.8	0.7	0.6	0.4
Private consumption	1.4	1.4	2.9	2.7	3.4	3.1	2.7	2.2	0.8	0.8	0.6	0.5	0.2
Government consumption	1.8	0.5	1.3	1.5	1.1	1.0	1.0	1.2	0.0	0.0	-0.2	1.2	0.2
Gross fixed capital formation	0.9	2.1	4.3	3.2	4.7	3.5	3.9	5.4	-0.7	2.4	0.1	2.2	0.6
Changes in inventories <sup>3) 4)</sup>	-0.5	0.3	0.4	0.5	0.3	0.3	0.0	-0.1	0.2	-0.2	0.4	-0.4	0.1
Net exports <sup>3)</sup>	0.5	0.6	-0.5	-0.1	-0.8	-1.0	-0.9	-0.8	0.1	-0.2	-0.6	-0.2	0.1
Exports <sup>5)</sup>	4.5	10.0	6.3	8.6	4.7	1.6	0.3	0.6	1.2	0.3	-1.4	0.2	1.5
Imports <sup>5)</sup>	3.1	8.7	8.5	9.8	7.7	5.0	3.2	3.4	1.1	1.0	0.3	0.8	1.3

Sources: Eurostat and ECB calculations.

1) Annual rates: percentage change compared with the same period a year earlier.

2) Quarterly rates: percentage change compared with the previous quarter.

3) As a contribution to real GDP growth; in percentage points.

4) Including acquisitions less disposals of valuables.

5) Exports and imports cover goods and services and include internal cross-border trade in the euro area. Intra-euro area trade is not cancelled out in import and export figures used in national accounts. Consequently, these data are not fully comparable with balance of payments data.

third quarter. For the year as a whole, overall output growth is expected to be close to 2%. There are several factors which should be taken into account when considering the precise pattern of growth in the forthcoming quarters. In addition to the changeover to the European System of Accounts 1995 (ESA 95), which may lead to some additional uncertainty with regard to actual growth rates, there could also be some temporary effects as a result of the transition to the year 2000 (for example on inventories), although this is not currently expected to have a significant impact on overall activity.

### Further improvement in industrial activity and confidence

Eurostat data for area-wide industrial production are now available up to August 1999 and there has been a noticeable upward revision to the rates of growth in recent months. Measured on the basis of three-month moving averages, as shown in Table 5, production excluding construction in the period from June to August 1999 increased by 0.9% compared with the preceding three months (i.e. March to May 1999). The picture of a further improvement in industrial activity is reflected in developments in the manufacturing sector. Production is estimated

to have risen by 1.2% in the latest three-month period, compared with 1.0% in the three months up to July, and 0.4% in the three months up to June. Since the trough in manufacturing activity in the final quarter of 1998, the cumulative increase in production has been close to 2%, and the level of production is already exceeding the previous peak reached in mid-1998 (thus also pointing to the shallow nature of the slowdown compared with other periods of weak activity during the 1990s). The pace of recovery appears to be similar to that observed in other recovery periods.

The breakdown of manufacturing production into the main industrial groupings shows that the recovery in industrial activity is largely due to developments in the industries producing intermediate and consumer goods, for which a further upturn in growth was recorded. At the same time, there is a significant difference between the levels of growth in these sectors. While the three-month growth rates for output of intermediate goods and non-durable consumer goods are still below 1%, production growth has been considerably stronger for durable consumer goods, reaching close to 3.5% in the most recent three-month period compared with the previous three months. The high rate of growth of consumer durables may be related to a number of factors, including the

**Table 5**  
**Industrial production in the euro area**

(annual percentage changes, unless otherwise indicated)

	1997	1998	1999 June	1999 July	1999 Aug.	1999			1999				
						June	July	Aug.	Mar.	Apr.	May	June	July
						month-on-month			3-month moving averages				
Total industry excl. construct.	4.3	4.1	1.4	0.3	2.3	0.6	-0.1	0.4	0.2	0.7	0.4	0.9	0.9
Manufacturing	5.0	4.6	1.2	0.1	2.3	0.4	0.1	1.1	0.2	0.7	0.4	1.0	1.2
by main industrial groupings:													
Intermediate goods	5.4	3.7	1.3	0.6	2.2	0.7	-0.1	0.5	0.5	0.8	0.5	0.7	0.8
Capital goods	4.8	6.7	0.1	-1.6	0.5	0.1	-0.2	0.0	-0.4	-0.4	-0.3	-0.3	-0.2
Consumer goods	2.7	3.0	2.2	1.3	4.4	-0.1	0.5	1.4	0.5	1.2	0.8	1.7	1.6
Durable consumer goods	2.7	6.3	4.1	1.3	11.0	0.3	0.2	4.4	0.9	1.8	1.9	2.7	3.3
Non-durable consumer goods	2.6	1.4	0.8	1.4	2.9	0.2	0.5	0.5	0.4	0.5	0.4	0.5	0.8

Sources: Eurostat and ECB calculations.

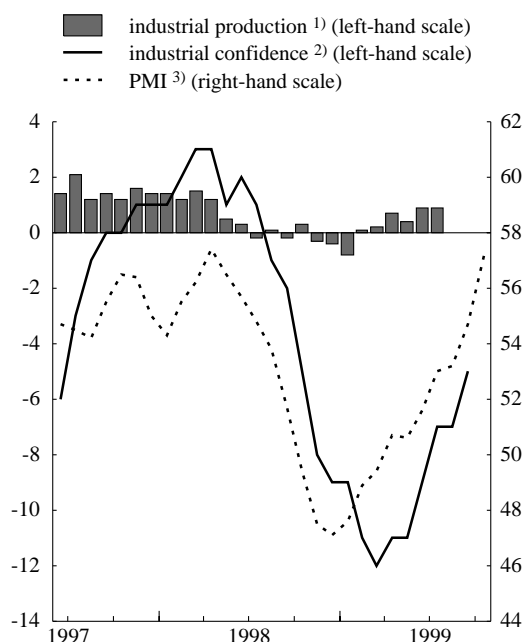
Note: Annual percentage changes are calculated by using data adjusted for variations in the number of working days; percentage changes on the previous month and three-month centred moving averages against the corresponding average three months earlier are calculated by using seasonally and working day adjusted data.

improved prospects for the economy and favourable credit terms, which, in some countries, are accompanied by a buoyant housing market. Developments in the capital goods industry have been more subdued than in the other industries and have yet to show evidence of an upturn. In the most recent three-month period production growth in this category remained slightly negative. A comparison of developments in this category with those in total manufacturing would suggest that it is not unusual for capital goods production to lag behind overall manufacturing.

The September 1999 results of the European Commission Business and Consumer Surveys show a further recovery in industrial confidence, pointing to a continued improvement in the economic situation in the industrial sector since the early part of the year (see Chart 10). Industrial confidence has been rising above its long-term average and in September returned to the level last reached in October 1998. Figures for October 1999 are due to be released by the European Commission just after the cut-off date for this issue of the ECB Monthly Bulletin, but national data available at present indicate a further increase in euro area industrial confidence in that month.

While there has been some improvement in all of the components of the industrial confidence

**Chart 10**  
**Industrial production, industrial confidence and PMI for the euro area**  
(monthly data)



Sources: Eurostat, European Commission Business and Consumer Surveys and Reuters.

1) Percentage changes compared with the previous three-month moving average; seasonally and working day adjusted data; total industry excluding construction.

2) Percentage balances.

3) Purchasing Managers' Index.

indicator for the euro area, the largest increase since March 1999, when industrial confidence reached a low point, has been seen in

**Table 6**  
**Results from EC Business and Consumer Surveys for the euro area**  
(seasonally adjusted data)

	1996	1997	1998	1998	1999	1999	1999	1999	1999	1999	1999	1999	
				Q4	Q1	Q2	Q3	Apr.	May	June	July	Aug.	Sep.
Economic sentiment index <sup>1)</sup>	-2.7	2.4	3.1	-0.7	0.5	-0.4	0.1	0.0	-0.3	0.0	0.5	-0.5	0.2
Consumer confidence indicator <sup>2)</sup>	-9	-4	6	9	11	7	7	8	7	6	8	7	7
Industrial confidence indicator <sup>2)</sup>	-8	4	7	1	-3	-2	2	-3	-3	-1	1	1	3
Construction confidence indicator <sup>2)</sup>	-14	-11	4	7	13	15	15	15	14	16	17	13	14
Retail confidence indicator <sup>2)</sup>	-5	-3	3	3	3	2	-1	5	3	-3	0	-1	-1
Capacity utilisation (%) <sup>3)</sup>	80.3	81.6	83.1	82.4	81.9	81.8	-	81.9	-	-	81.7	-	-

Source: European Commission Business and Consumer Surveys.

1) Percentage changes compared with the previous period; index 1985 = 100.

2) Percentage balances; data shown are calculated as deviations from the average over the period since January 1985.

3) Data are collected in January, April, July and October of each year. The quarterly figures shown are the average of two successive surveys, i.e. the surveys conducted at the beginning of the quarter in question and at the beginning of the following quarter. Annual data are quarterly averages.



**Table 7**  
**Breakdown of industrial confidence for the euro area**

(percentage balances; seasonally adjusted)

	Change Mar. - Sep. 1999	1999 Mar.	1999 Sep.
Overall industrial confidence	7	-4	3
<i>by components:</i>			
Production expectations	10	-5	5
Stocks of finished products <sup>1)</sup>	4	-3	1
Total order books	8	-6	2
<i>by main industrial groupings:</i>			
Intermediate goods	11	-9	2
Investment goods	6	-2	4
Consumer goods	4	-4	0

Source: European Commission Business and Consumer Surveys.  
 Note: Data shown are calculated as deviations from the average over the period since January 1985.

1) Inverted sign.

production expectations (see Table 7). There has also been a significant improvement in the assessment of total order books over this six-month period. Stocks of finished products are considered to have fallen slightly, which also suggests that there has been a pick-up in demand. All three components now stand above their long-term averages. A further breakdown of area-wide industrial confidence is possible in terms of the main industrial groupings, showing that the largest increase in confidence since March has been seen in the intermediate goods sector.

The improving business climate in the manufacturing sector is also supported by the latest results from the Purchasing Managers' Index (PMI). This composite index, which is based on the results of a monthly survey combining questions on the actual development of new orders, output, employment, suppliers' delivery times and stocks of items purchased, has shown a steady improvement in recent months, and rose further in October (see Chart 10). Thus, the various indicators of industrial activity all point to a further pick-up in growth in the second half of 1999.

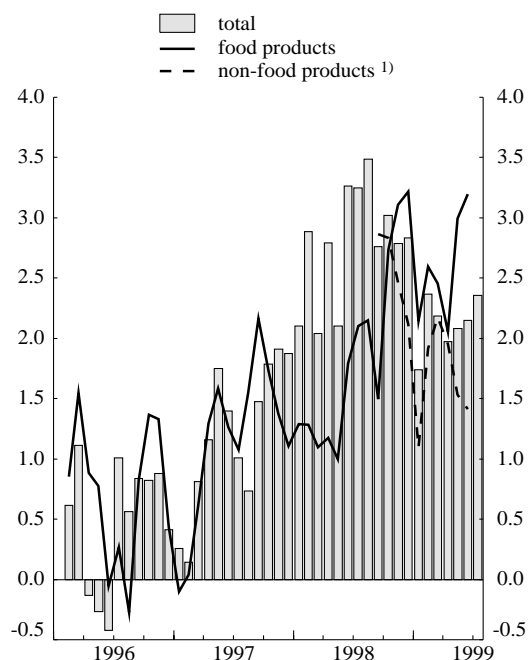
## Consumer confidence broadly unchanged at a high level

The results of the European Commission Consumer Survey have remained broadly unchanged since the spring, with the overall consumer confidence indicator at a level slightly below the record high reached in the first few months of this year. This pattern has also been observed in the components of consumer confidence. Developments in consumer confidence may have been affected by slower employment growth and are consistent with the slowdown observed in private consumption growth in the first half of the year.

Area-wide data on retail sales volumes and new passenger car registrations provide some

**Chart 11**  
**Retail sales in the euro area**

(annual percentage changes, three-month centred moving averages)



Source: Eurostat.

Note: Total retail trade turnover at constant prices; excluding motor vehicles, motorcycles and the repair of personal and household goods. Annual percentage changes are calculated by using data adjusted for variations in the number of working days.

1) Owing to the unavailability of some national components, the series only starts from January 1997.

evidence concerning recent developments in consumer demand. Retail sales data for the euro area are available from Eurostat up to August 1999 (see Table 5.2 in the "Euro area statistics" section of the ECB Monthly Bulletin). In order to take account of the volatility of the series, the moving averages of the year-on-year growth rates are shown in Chart 11. As can be seen, the data indicate a moderate slowdown in retail sales growth from a rate of around 3% in the second half of 1998 to a rate of slightly over 2% in the first half of 1999. As might have been expected, the slowdown was less pronounced in sales of food, beverages and tobacco, which are generally less sensitive to cyclical developments. Developments in the most recent data available may be interpreted as pointing to a return to higher overall retail sales growth. Retail sector confidence, as derived from the European Commission Business and Consumer Surveys, has also fallen slightly in the course of the past year, but appears to have stabilised more recently. New passenger car registrations in the third quarter of 1999 were just over 6% higher than in the same period a year earlier, compared with 8.3% in the second quarter and 7.1% in the first quarter of 1999.

### A slight slowdown in employment growth in the first half of 1999

An estimate of total employment developments in the euro area in the first half of this year has been made using the national data available, which now include preliminary estimates for Germany. Recently published figures are broadly in line with the expected slight deceleration in employment growth in the first half of 1999, owing to the lagged effects of the slowdown in economic activity at the end of 1998. Quarter-on-quarter employment growth in the euro area, which stood at 0.4% in the fourth quarter of 1998, slowed slightly in the first quarter of 1999 to 0.3% and remained at this level in the second quarter.

The sectoral pattern of employment growth shows that the slight slowdown in the first half of the year was mainly due to developments in industry. In particular, in the manufacturing sector employment has been declining since the last quarter of 1998, reaching a rate of -0.3% in the second quarter of 1999 (see Table 8). However, employment expectations indicate an increase in the later part of the year. It can be assumed that job creation in the services sector continued in the first half of 1999, although at slightly lower rates than those observed at the end of 1998.

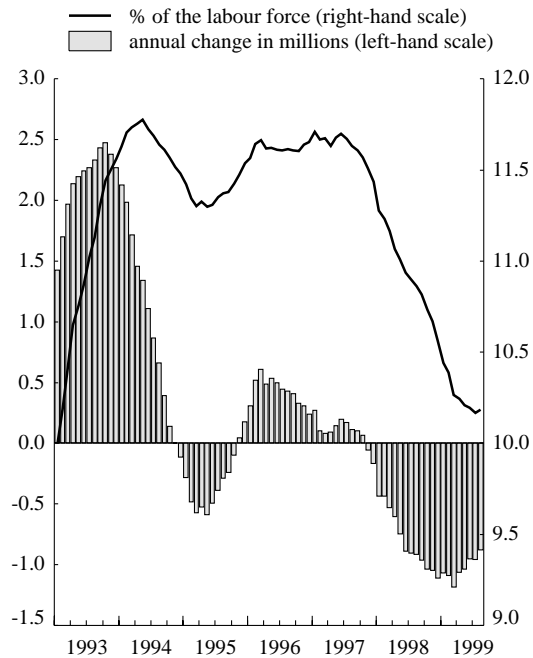
**Table 8**  
**Employment growth in the euro area**  
(annual percentage changes, unless otherwise indicated)

	1997	1998	1998 Q3	1998 Q4	1999 Q1	1999 Q2	1998	1998	1999	1999	1999 Apr.	1999 May	1999 June
							Q3	Q4	Q1	Q2			
							Quarterly rates <sup>1)</sup>						
Whole economy <sup>2)</sup>	0.6	1.4	1.5	1.6	1.6	1.5	0.5	0.4	0.3	0.3	-	-	-
Total industry	-1.4	0.2	0.3	0.4	0.1	-0.1	0.0	0.1	-0.1	-0.1	-0.1	-0.2	0.0
Construction	-0.4	0.1	-0.3	2.1	2.6	2.7	0.5	1.9	0.5	-0.2	2.5	2.8	2.7
Total industry excl. construct.	-1.4	0.4	0.7	0.2	-0.2	-0.8	0.0	-0.2	-0.2	-0.3	-0.7	-0.9	-0.8
Manufacturing	-1.0	0.8	1.0	0.5	0.1	-0.6	0.1	-0.2	-0.1	-0.3	-0.5	-0.7	-0.6

Sources: National data and Eurostat (Short-term Business Statistics).

1) Quarterly rates: percentage change compared with the previous quarter; seasonally adjusted.

2) Excluding Belgium and Ireland; seasonally adjusted.

**Chart 12****Unemployment in the euro area***(monthly data; seasonally adjusted)**Source: Eurostat.***Unemployment rate remained unchanged in August**

The standardised unemployment rate in the euro area was 10.2% in August 1999. Given that the area-wide figures for April, May and June 1999 have been revised downwards by 0.1 percentage point, the unemployment rate is now estimated to have been unchanged since April (see Table 9).

With regard to the composition by age, the rate of unemployment for those under 25 years of age increased slightly in August (to 19.7%) compared with July. This increase in youth unemployment, after almost a year of continuous decline, may partly be the result of lower participation in employment schemes in some countries. These schemes, which were implemented or enhanced last year, were mainly targeted at young people. The unemployment rate for those over 25 years of age remained unchanged at 8.8% in August compared with the previous month.

**Table 9****Unemployment in the euro area***(as a percentage of the labour force; seasonally adjusted)*

	1996	1997	1998	1998 Q3	1998 Q4	1999 Q1	1999 Q2	1999 Mar.	1999 Apr.	1999 May	1999 June	1999 July	1999 Aug.
Total	11.6	11.6	10.9	10.9	10.7	10.4	10.2	10.3	10.2	10.2	10.2	10.2	10.2
Under 25 years <sup>1)</sup>	23.9	23.3	21.4	21.3	20.9	20.2	19.6	19.9	19.7	19.6	19.6	19.6	19.7
25 years and over <sup>2)</sup>	9.8	10.0	9.4	9.4	9.2	9.0	8.9	8.9	8.9	8.9	8.9	8.8	8.8

*Source: Eurostat.**Note: According to ILO recommendations.**1) In 1998 this category represented 24.5% of total unemployment.**2) In 1998 this category represented 75.5% of total unemployment.*

## 4 Exchange rate and balance of payments developments

### Euro weakened in nominal effective terms amid significant movements in major exchange rates

Foreign exchange markets in October and early November 1999 witnessed a few unusually large movements in the exchange rates of major currencies, although not all of these movements were sustained. In emerging market economies exchange rate movements were mostly limited, in line with the general recovery that is under way in most of these economies.

The US dollar showed relatively high volatility and strengthened against the euro in the second half of October and early November, with movements being caused mainly by nervousness in the US stock market and subsequently by economic data releases. Following a reference to caution by the Chairman of the US Federal

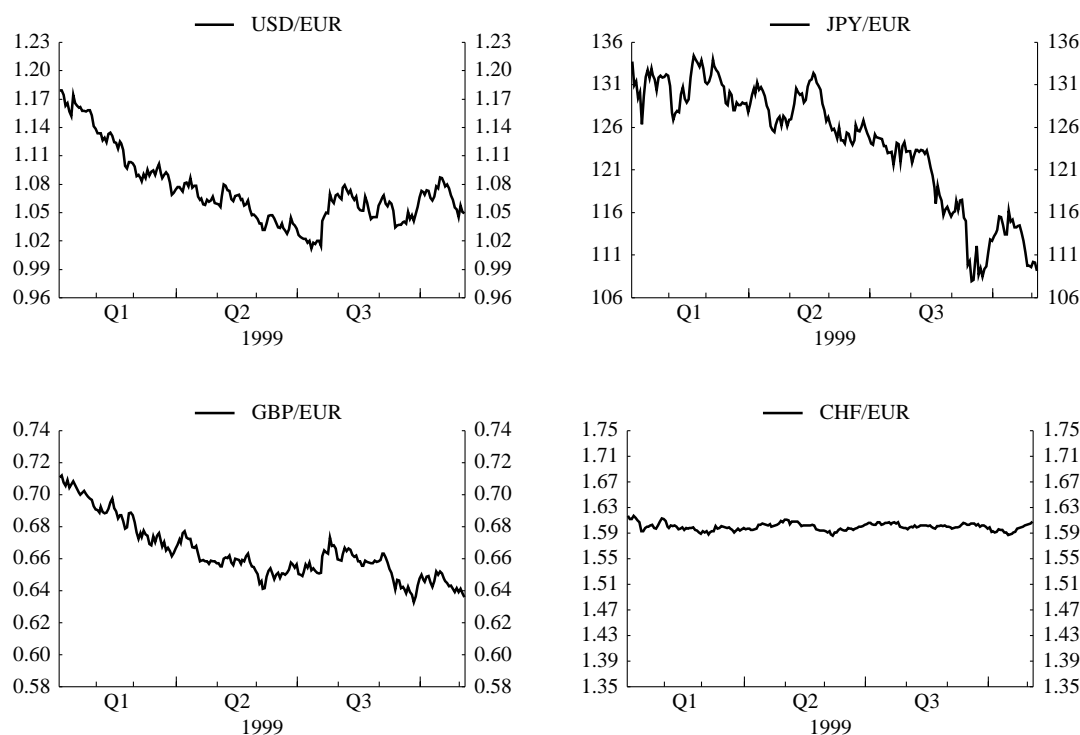
Reserve with regard to present stock market valuations, the euro reached a peak of USD 1.09 on 15 October 1999, the highest level recorded since late March. Later in the month the US dollar recovered following a rebound in US stock prices and data releases on the US economy, which were mostly interpreted as confirming robust US growth against a background of subdued inflationary pressures. Overall, these factors apparently had a greater influence on foreign exchange markets in October than further evidence suggesting an ongoing economic recovery in the euro area. On 3 November the euro stood at USD 1.05, around 2.2% lower than at the beginning of October.

The Japanese yen reinforced the strength it had achieved in previous months, including September, against major currencies. The earlier strengthening was mainly triggered by

**Chart 13**

### Patterns in exchange rates

(daily data)



Source: ECB.

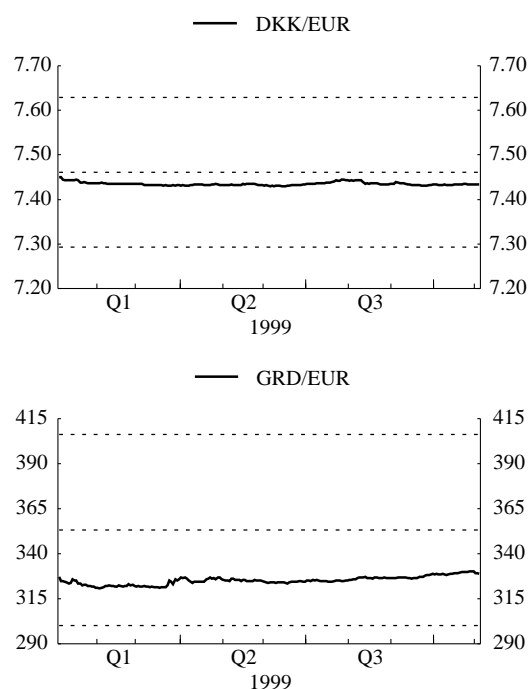
an improved outlook for the Japanese economy, which is now widely expected to record positive real growth in 1999. Data released in October generally confirmed this picture. The improved outlook and the announcement of a further fiscal stimulus package – which contributed to a rise in long-term bond yields in October – may also have supported the Japanese yen to some extent. On 3 November the euro was quoted at JPY 109, 3.6% lower than at the beginning of October.

The pound sterling strengthened by slightly more than 2% against the euro from the beginning of October to early November. On 7 October the Bank of England's Monetary Policy Committee decided to leave the policy interest rate unchanged in the context of an economic outlook that presented mixed – but on balance broadly positive – signals for economic growth. In particular, the preliminary figures for the United Kingdom's GDP growth in the third quarter of 1999 indicate that the economy could have been expanding above the trend growth rate for the first time in two years, in line with stronger than expected production and demand indicators and falling unemployment. On 3 November the euro was quoted at GBP 0.636. The Swiss franc remained broadly stable against the euro in the period under review; on average over the reporting period, the euro was quoted at a level of CHF 1.60.

Within ERM II the Danish krone remained very stable, while the Greek drachma weakened slightly. The drachma's average exchange rate against the euro in October of around GRD 329 was approximately 0.7% weaker than in September, but was still around 6.8% above the central parity. The weakening in October mainly reflected nervousness in financial markets – in particular the Athens stock market, which on 3 November 1999 stood 90% above its level at the beginning of this year – as well as the reduction of the intervention rates announced by the Bank of Greece on 20 October. The Swedish krona first depreciated slightly against the euro until mid-October, but

## Chart 14

### Patterns of exchange rates within ERM II (daily data)



Source: ECB.

Note: The horizontal lines indicate the central parity and the respective fluctuation bands ( $\pm 2.25\%$  for DKK and  $\pm 15\%$  for GRD).

subsequently appreciated by around 1.3%. This development, however, mainly reflected volatility in the US dollar-euro rate and appeared to be less closely correlated with the strengthening of the Swedish economy.

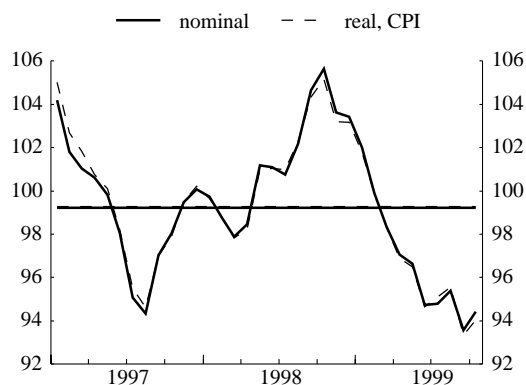
Foreign exchange markets were calm in most emerging market economies amid improving prospects of economic recovery and further overall containment of financial instability. One notable exception to this was Brazil, where the exchange rate came under renewed pressure owing to difficulties in the implementation of structural reforms.

In nominal effective terms, i.e. on a trade-weighted basis against the currencies of the 13 most important trading partners of the euro area, the euro weakened by around 2% between 1 October and 3 November. The average level of the index for October stood at 94.4, i.e. broadly unchanged from the average

## Chart 15

### Nominal and real effective exchange rates<sup>1)</sup>

(monthly averages; index 1999 Q1 = 100)



Source: ECB.

Note: With the introduction of the new source, the index base period was changed from 1990 = 100 to 1999 Q1 = 100 (see Box 5 on page 29 of the October 1999 issue of the Monthly Bulletin).

1) Data are ECB calculations. An upward movement of the index represents an appreciation of the euro. Horizontal lines are averages over the period shown (January 1997 to October 1999).

level in September and 5.6% lower than in the first quarter after the launch of the euro. As indicated in the October issue of the ECB Monthly Bulletin, this index is now calculated by the ECB.

### Exports improving in recent months

The current account surplus of the euro area declined to €1.5 billion in August 1999, compared with ECU 4.3 billion for the same month last year. As in previous months, this decline was mainly due to a smaller surplus on trade in goods and a shift in services from a surplus to a deficit. By contrast, the balances for both investment income and current transfers recorded slight improvements compared with August of last year.

After declining for most of the year, exports of goods rose by 2.9% in August compared with the same month a year ago. Revised data now show that exports also increased in June, providing initial evidence that exports may now be responding to rising foreign

demand and recent improvements in price competitiveness. Despite the improvement in export performance, the goods balance still declined in August as the value of imports rose by 7.7% compared with the same month last year, in line with a trend that started in May. This trend partly reflects the sharp increase in import prices resulting from the rise in the price of oil and the depreciation of the euro. Moreover, as it also represents strong growth in imports of machinery and vehicles, in terms of both volume and value, it appears to be consistent with the recent recovery in activity in the euro area.

Over the first eight months of 1999 the current account surplus of the euro area declined by approximately 20% compared with the same period last year. The major driving force behind this decline was a fall in the value of goods exports of €13.6 billion (or around 2.7%), while imports of goods remained almost unchanged. Although the balance for services also decreased over this period, lower deficits for the current transfers and income accounts for the year to August 1999 helped to limit the decline in the current account surplus.

### Net inflows in portfolio investment continue in August while outflows in direct investment persist

As in July, the combined net outflows for direct and portfolio investment (€4.1 billion) were substantially lower than the average for the first half of 1999 (€21.6 billion). However, on a cumulative basis over the first eight months of 1999, net outflows for portfolio and direct investment were still almost 90% higher than in the same period of last year.

In August net direct investment outflows amounted to €5.9 billion, which is close to the July level (€5.7 billion), but substantially lower than the €19 billion reached in both May and June. This deceleration was largely due to a considerable reduction in direct investment abroad by euro area residents in comparison with previous months (see Table 8.4 in the "Euro area statistics")

**Table 10****Balance of payments of the euro area <sup>1)</sup>***(EUR billions, compared with ECU billions for 1998 (not seasonally adjusted))*

	1998 Jan. - Aug.	1998 Aug.	1999 Jan. - Aug.	1999 June	1999 July	1999 Aug.
<b>Current account balance</b>	45.5	4.3	36.4	7.4	8.2	1.5
Credits	843.8	93.8	831.5	116.4	111.9	96.0
Debits	798.3	89.4	795.1	109.0	103.7	94.5
Goods balance	79.8	9.0	66.7	11.0	13.3	7.0
Exports	513.0	55.7	499.4	69.1	69.4	57.3
Imports	433.2	46.7	432.7	58.1	56.0	50.3
Services balance	1.1	0.1	-3.4	-0.1	0.8	-1.1
Exports	154.2	20.3	152.5	21.6	22.7	19.9
Imports	153.1	20.2	155.9	21.7	21.9	21.0
Income balance	-8.0	0.2	-2.9	-0.2	-1.5	0.4
Current transfers balance	-27.4	-4.9	-24.1	-3.2	-4.4	-4.8
<b>Capital account balance</b>	8.5	1.5	7.5	1.4	0.7	0.6
<b>Financial account balance</b>	4.3	4.3	-32.0	-12.2	-3.4	32.9
Direct investment	-39.6	-7.6	-79.7	-18.9	-5.7	-5.9
Abroad	-93.8	-4.1	-122.5	-25.3	0.1	-9.4
In the euro area	54.2	-3.5	42.8	6.4	-5.8	3.5
Portfolio investment	-32.9	8.0	-56.9	7.9	3.0	1.8
Assets	-221.2	-16.4	-190.7	-25.5	-19.0	-20.7
Liabilities	188.2	24.4	133.8	33.4	22.1	22.5
Financial derivatives	-3.2	2.2	1.3	-0.1	1.8	1.5
Other investment	82.7	3.7	91.5	-2.3	-1.8	34.9
Reserve assets	-2.7	-2.0	11.9	1.3	-0.7	0.5
<b>Errors and omissions</b>	-58.2	-10.1	-11.9	3.3	-5.5	-35.0

*Source: ECB.**Note: For the financial account, a positive sign indicates an inflow, a negative sign an outflow. A more detailed set of tables may be found in Section 8 of the "Euro area statistics" section of this Monthly Bulletin.**1) Figures may not add up due to rounding.*

section). Nonetheless, over the first eight months of 1999 net direct investment outflows doubled compared with the same period in 1998. Both higher direct investment abroad by euro area residents and lower foreign direct investment in the euro area contributed to this result.

For the third consecutive month, portfolio investment recorded a net inflow in August (€1.8 billion), following cumulative net outflows in the first five months of the year amounting to

€69.6 billion. This turnaround in portfolio flows may be associated with a strengthening of the euro, in particular against the US dollar between end-June and end-August. More particularly, in August net portfolio inflows resulted mainly from substantial net purchases of euro area debt instruments, such as bonds, notes and money market instruments, while equities registered net outflows. On a cumulative basis, in the first eight months of the year net outflows for portfolio investment were approximately 70% higher than in the same period of 1998.

# Stability-oriented policies and developments in long-term real interest rates in the 1990s

*The trend decline in long-term real interest rates since the mid-1990s appears, to a large extent, to have been a result of the pursuit of stability-oriented monetary and fiscal policies throughout the euro area within the context of the process of convergence towards Monetary Union. While acknowledging that there are many potential explanations for these developments, the credible establishment of price stability throughout the euro area has helped to reduce the uncertainty with regard to future price developments and has thereby reduced the risk premia in long-term real interest rates. Furthermore, fiscal consolidation has exerted downward pressure on real interest rates by lowering public sector demand for capital.*

*Looking ahead, the pursuit of a monetary policy consistent with the Eurosystem's monetary policy strategy is crucial for the lasting maintenance of price stability in the euro area and, therefore, for a continuation of a favourable environment for low risk premia embodied in long-term real interest rates. By reducing such risk premia in the real interest rate, monetary policy will contribute to improving the allocative efficiency of the capital market. This is one of many channels through which a monetary policy that credibly maintains price stability can improve overall economic welfare. This process will be complemented and supported by the pursuit of stability-oriented fiscal policies consistent with the Stability and Growth Pact.*

## I Introduction – the real interest rate

The level of real interest rates is determined by the interaction of many macroeconomic factors, notably the aggregate levels of saving and investment. In this respect, private saving and investment decisions depend, on the one hand, on households' preferences regarding consumption in different periods and, on the other hand, on the technology and productive opportunities available to firms. In addition, the public sector's net saving affects the determination of the real interest rate. All these factors may change over time and are interdependent. Given these complexities, one cannot judge the prospects for real economic growth solely by observing the level of the real interest rate. Rather it is necessary to analyse the factors which influence the level of real interest rates in order to assess their implications for growth.

While explanations and interpretations of the evolution of real interest rates and their implications for overall economic performance have to take many factors into account and are often very complicated, this article focuses on one very specific factor, namely the impact of the design of monetary and fiscal policies on long-term real interest rates.

A significant degree of uncertainty is introduced into the economy by monetary policies which do not focus on the maintenance of price stability. This uncertainty is normally associated with the incorporation of higher risk premia in real rates, as investors require compensation to bear the risk. Hence, an increase in uncertainty regarding future price developments resulting from the pursuit of a poorly designed monetary policy might lead, all other things being equal, to a less efficient allocation of resources and, therefore, to a decline in overall economic welfare.

Besides generating uncertainty about the future evolution of real interest rates and thereby contributing to the magnitude of risk premia embedded in long-term real rates, fiscal indiscipline can also have an impact on real interest rates through other channels. High fiscal deficits and debt levels drive up the real interest rate, as the public sector demands a larger share of the available funds for its expenses. In addition, fiscal indiscipline could bring the sustainability of the public finances into question, generate fears of a government default and thereby lead investors to require a default risk premium on account of this possibility. In turn, the implied higher interest burden of the public



debt might force governments to increase their level of taxation, resulting in the further misallocation of resources owing to the distortions introduced by higher taxes.

In contrast to the scenarios discussed above, well-designed monetary and fiscal policies allow the capital market to allocate resources more efficiently over time. This, in turn, should raise the productive potential of the economy and improve growth and employment prospects over the medium term.

During the 1990s, and especially in the years immediately preceding the introduction of the euro in 1999, considerable progress was made in introducing and implementing stability-oriented monetary and fiscal policies throughout the euro area. In the 11 countries which now form the euro area, the

convergence process driven by the fiscal and monetary criteria required for participation in Stage Three of Economic and Monetary Union (EMU) played an important role in disciplining monetary and fiscal policies during this period.

The remainder of this article describes the evolution of long-term real interest rates in the euro area over the last decade of convergence. A number of interrelationships between the trend decline in real rates and the improved monetary and fiscal policy environment during the 1990s are discussed. While the introduction and implementation of stability-oriented policies is only a partial explanation of the evolution of real interest rates over the past ten years, this episode helps to illustrate some of the benefits of a move to policies which maintain price stability and sustainable public finances.

## 2 Recent developments in long-term real interest rates

At the beginning of the 1990s, in a period of relatively robust economic growth, the average long-term real interest rate in the countries which now form the euro area, measured as the ten-year nominal government bond yield adjusted using current annual consumer price inflation (see Box 1 for a discussion of measurement issues), reached a level of 5-6%. While real interest rates fell significantly during the economic recession of 1993, they rebounded strongly in 1994 following a sharp upward revision of expectations for economic

growth at the global level. Thereafter, during the process of convergence in the economies of the euro area in the run-up to the start of Monetary Union – a process which accelerated in the mid and late 1990s – euro area long-term real interest rates fell persistently, reaching a level of around 3% at the time of the introduction of the euro in January 1999 (see Chart 1). More recently, in 1999, the improved outlook for world economic growth has led to somewhat higher real interest rates.

### Box 1

#### Measuring the real interest rate

The real interest rate is usually measured by correcting the nominal interest rate for anticipated changes in the price level. However, since inflation expectations cannot be observed directly, measuring the real interest rate is difficult. Moreover, measures of the real interest rate differ according to the maturity of the interest rate chosen.

As firms' capital requirements and investment horizons are typically longer-term, the real interest rate most relevant for firms' investment decisions is a long-term rate. Similarly, the bulk of household saving (e.g. for retirement) is also long-term and one would therefore expect a long-term real interest rate to be more relevant for household savings decisions than a short-term rate. Although there are some differences across the euro area in the maturities relevant for savings and investment decisions, it appears that, particularly in countries with a long track record of maintaining price stability, long-term real interest rates are indeed the rates most

relevant for savings and investment decisions. Consequently, in the remainder of this article, the focus is placed on long-term real interest rates.

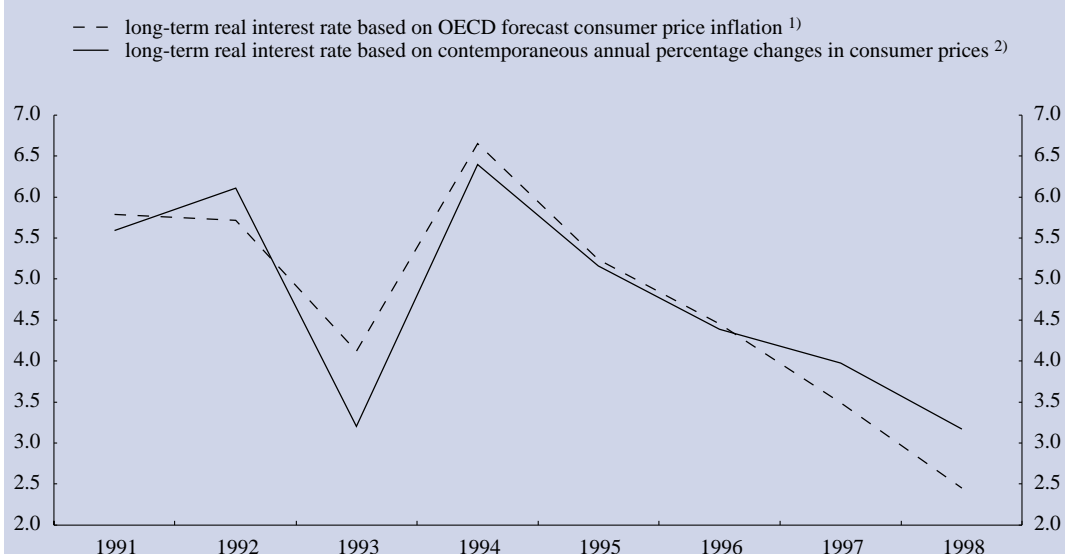
Since inflation expectations cannot be measured directly, it is necessary to choose a method for computing them. When conducting historical analyses of the evolution of real interest rates over a long period of time, an ex post approach can often be adopted. A measure of inflation expectations is thereby constructed using the outturn for inflation over the relevant period. This approach to measurement yields a correct measure of the real rate only if actual realisations of inflation turn out to be close to previous expectations. As over longer time periods errors may tend to cancel one another out, longer-term ex post real interest rates may often offer a sensible measure.

Such an approach is not feasible when examining current real interest rates. For example, in the chart shown below, the most recent ten-year ex post real interest rate would require data for the inflation rate ten years ahead, which is not known at present. In these circumstances, an ex ante approach needs to be used, in which inflation expectations are estimated. Several methods are possible for assessing inflation expectations. For example, an explicitly forward-looking approach may be based on simple statistical models which extrapolate the inflation series into the future or on large-scale econometric models which incorporate information regarding the whole economy when producing inflation projections. Alternatively, an attempt to measure inflation expectations directly can be made using survey data. However, most surveys provide only qualitative responses, which then have to be converted into quantitative form. It should also be recognised that the horizon for inflation expectations reported in most forecasts and surveys is too short for the construction of long-term interest real rates and that the production of surveys and forecasts is too infrequent for some purposes. In the chart shown below, a forecast-based approach is adopted using inflation projections produced by the OECD covering a period two years ahead.

As an alternative, the current inflation rate could be taken as a measure of inflation expectations. As is shown in the chart below, in the 1990s this simple measure follows broadly the same path as a more sophisticated estimate of the long-term real interest rate based on inflation forecasts from the OECD's macroeconomic model. For the purposes of simplicity, the remainder of this article focuses on this measure of the long-term real interest rate, namely the ten-year nominal government bond yield, adjusted using the current headline rate of consumer price inflation.

### Long-term real interest rates in the euro area

(percentage points; annual data)



Sources: OECD, ECB calculations.

Note: The euro area long-term real interest rate is calculated as the weighted average of national long-term real interest rates with fixed GDP weights at 1995 purchasing power parity (PPP) exchange rates.

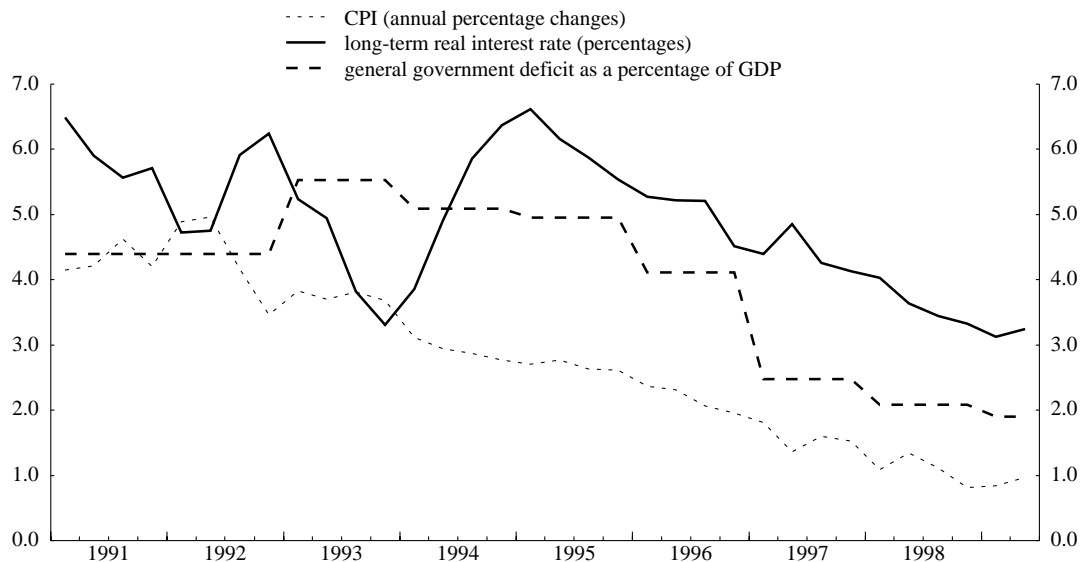
1) Computed as the end-of-year nominal ten-year government bond yield minus the then prevailing average forecast inflation for the following two years.

2) Computed as the end-of-year nominal ten-year government bond yield minus contemporaneous consumer price changes.

## Chart I

### Long-term real interest rates, CPI and general government deficit

(quarterly data)



Sources: Eurostat, Reuters and ECB calculations.

Note: The euro area long-term real interest rate is calculated as the weighted average of national long-term real interest rates with fixed GDP weights at 1995 purchasing power parity (PPP) exchange rates; national long-term real interest rates are calculated as nominal government bond yields (ten-year bonds or the closest available bond maturity) minus contemporaneous annual changes in national consumer prices.

Chart I indicates that falling real interest rates since the mid-1990s have been accompanied by a parallel fall in fiscal deficits in the euro area as well as by a continuous decline in inflation rates.

The magnitude of the decline in long-term real interest rates has varied across the different countries which now form the euro area. Chart 2 shows the evolution of the spread between the real interest rate in each euro area country and Germany, which is the country where the decline between the first half of the 1990s and the end of 1998 was smallest (see Table I). The chart demonstrates that the decline in the average level of the euro area real interest rate was associated with a convergence of real rates towards the level which prevailed in Germany, the euro area country which recorded the lowest average inflation rates in the three decades leading up to the 1990s.

It is also of interest to examine the behaviour of the euro area real interest rate in a global context. As can be seen from Chart 3, in the

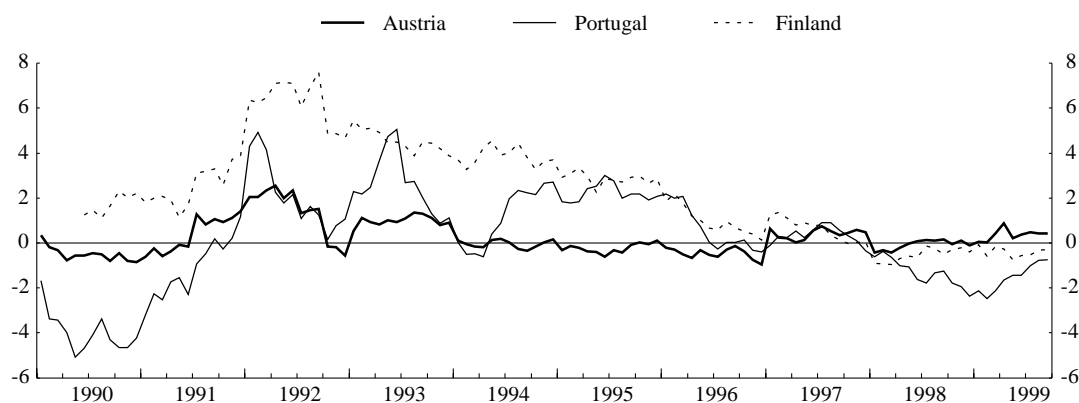
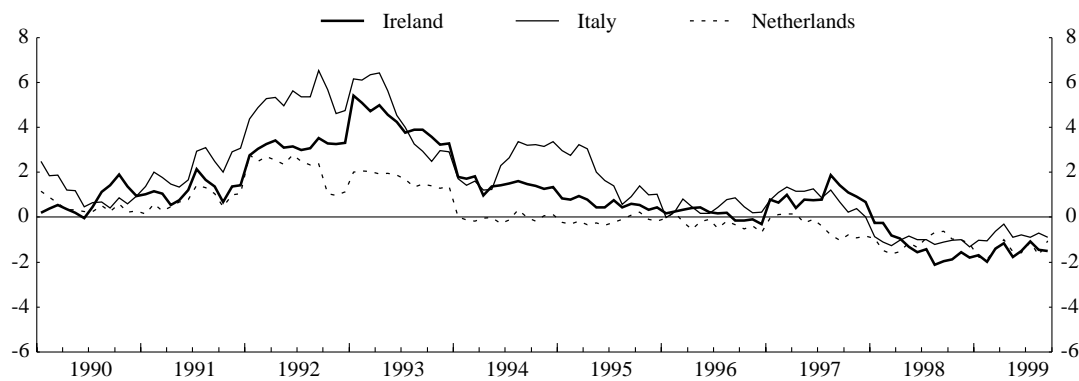
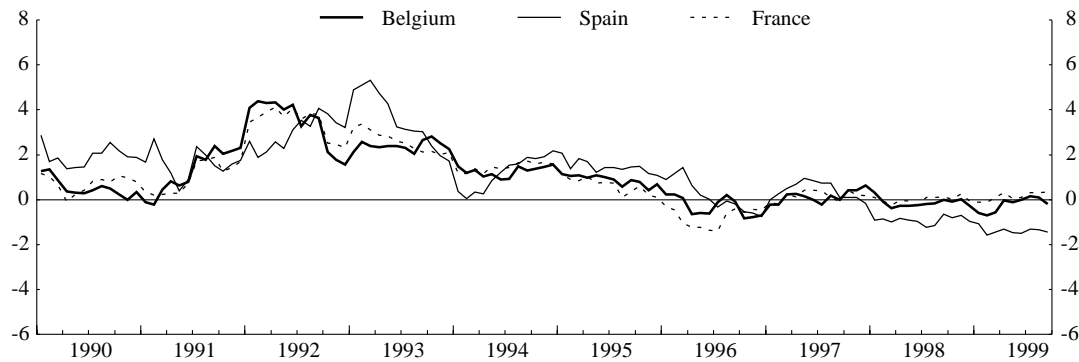
United States long-term real yields have been far more stable during the 1990s than in the euro area, mainly fluctuating between rates of 3% and 4% per annum. Relatively constant long-term real yields in the United States during the 1990s may reflect a balance between, on the one hand, the downward pressures resulting from considerable progress made towards fiscal consolidation in the second half of the 1990s and, on the other, the upward pressures emanating from the strong growth performance of – and favourable prospects for – the US economy. At the same time, in Japan long-term real interest rates fell dramatically between 1995 and 1997 in the wake of the deteriorating economic situation and have risen again only slightly since 1997, reflecting in particular the sharp deterioration in the fiscal position seen in recent years.

Chart 3 also illustrates that, even in an integrated global environment, long-term real interest rates can differ across major countries. Such differences are mainly the result of exchange rate expectations,

## Chart 2

### Long-term real interest rate differentials with Germany

(percentage points; monthly data)



Sources: Eurostat, BIS.

Note: National long-term real interest rates are calculated as nominal government bond yields (ten-year bonds or the closest available bond maturity) minus contemporaneous annual changes in national consumer prices.

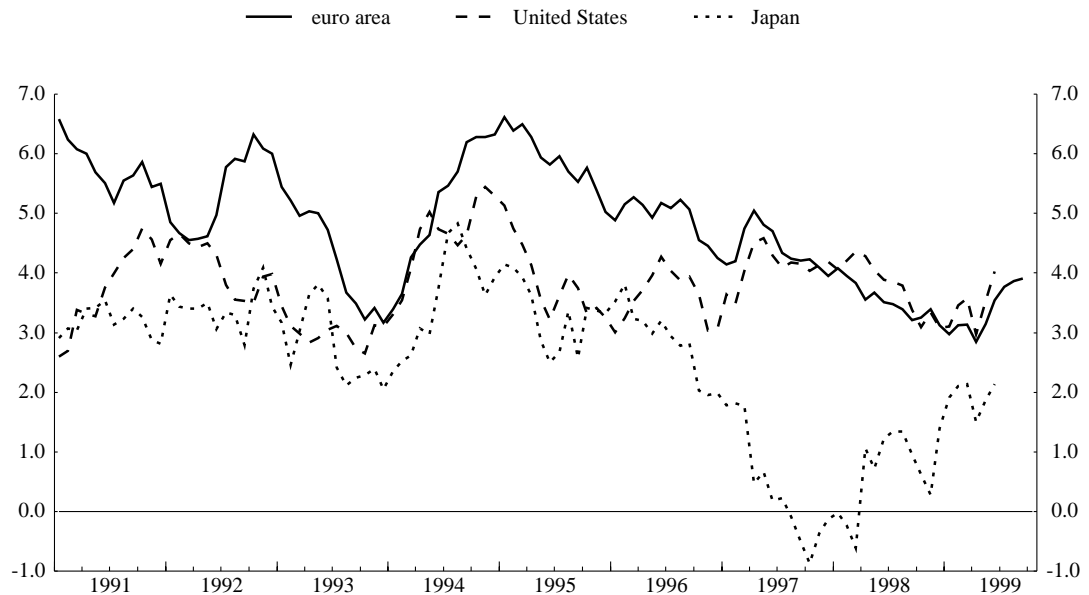
differences in expected longer-term price trends and currency risk premia. In this respect, different monetary and fiscal policies in recent years have often affected the size of

the deviation between euro area and foreign real interest rates by influencing the magnitude of expected (real) exchange rate depreciations and currency risk premia.

### Chart 3

## Developments in the long-term real interest rates in the euro area, United States and Japan

(percentages per annum)



Sources: National data and ECB calculations.

Note: The euro area long-term real interest rate is calculated as the weighted average of national long-term real interest rates with fixed GDP weights at 1995 purchasing power parity (PPP) exchange rates; national long-term real interest rates are calculated as nominal government bond yields (ten-year bonds or the closest available bond maturity) minus current annual changes in national consumer prices.

### 3 The contribution of stability-oriented policies

There are many reasons to assume that over recent years the pursuit of stability-oriented monetary and fiscal policies has played a substantial role in developments in the long-term real interest rate in the countries which now form the euro area. As noted above, the stricter orientation of monetary policy towards price stability led to a continuous decline in the level of inflation in the euro area. The progressively lower level of inflation in the euro area contributed to significantly lower inflation volatility. This, in turn, should have considerably reduced uncertainty about future price developments and the associated inflation risk premia in long-term real interest rates.

This argument is supported by the experience of individual countries now forming the euro area. Long-term real interest rates have fallen most substantially in those countries which entered the 1990s with relatively high

inflation rates (see Table I). With the sustained reduction of inflation in the period preceding the transition to Stage Three of EMU in January 1999, it was in these countries that the benefit of moving towards an environment of price stability was greatest and, therefore, where the reduction in inflation risk premia was most substantial. In this way, these countries have lowered the effective cost of investment, which over the medium term should improve growth and employment prospects.

Table I also indicates that, in the early 1990s, the volatility of effective exchange rates differed considerably across the countries which now form the euro area. There is reason to assume that real interest rates in many of these countries incorporated significant exchange risk premia in the early 1990s. These premia compensated asset holders for the uncertainty introduced by exchange rate fluctuations into

**Table I**  
**Selected macroeconomic indicators in euro area countries**

	General government gross debt (as a percentage of GDP)		General government fiscal balance (as a percentage of GDP)		Consumer price inflation (annual percentage change)		Effective nominal exchange rate volatility		Long-term real interest rate (percentage per annum)	
	1991-95	1998	1991-95	1998	1991-95	1998	1991-95	1998	1991-95	1998
Euro area	66.7	73.4	-4.9	-2.1	3.6	1.3	.	.	5.4	3.4
Belgium	132.6	117.3	-5.9	-1.3	2.4	1.0	0.6	0.3	5.6	3.8
Germany	48.4	61.1	-2.9	-2.0	3.5	0.9	0.8	0.5	3.8	3.6
Spain	55.2	65.6	-5.7	-1.8	5.2	1.8	1.0	0.4	5.9	3.0
France	44.5	58.5	-4.4	-2.9	2.2	0.8	0.7	0.4	5.6	3.9
Ireland	89.0	52.1	-2.1	2.3	2.5	2.4	0.8	1.1	5.9	2.4
Italy	115.9	118.7	-9.2	-2.7	5.1	2.0	1.4	0.4	7.0	2.9
Luxembourg	5.2	6.7	1.8	2.1	2.8	1.0	.	.	4.7	3.8
Netherlands	79.5	67.7	-3.6	-0.9	2.7	2.0	0.6	0.4	4.7	2.6
Austria	62.6	63.3	-3.9	-2.1	3.2	0.9	0.5	0.3	4.3	3.8
Portugal	61.9	57.0	-5.4	-2.3	7.1	2.8	0.7	0.2	5.2	2.1
Finland	47.1	49.1	-5.0	1.0	2.3	1.4	1.3	0.5	7.8	3.4

Sources: National data, BIS calculations and ECB calculations.

Note: Consumer price inflation is the annual percentage change in national CPI; the consumer price inflation in the euro area is a weighted average of national CPI inflation; weighted at 1995 purchasing power parity (PPP) exchange rates; the national effective nominal exchange rates are based on 1990 merchandise trade between 25 countries; volatility is measured as the average month-on-month percentage change in the effective nominal exchange rates. The long-term real interest rates are calculated as nominal government bond yields (ten-year bonds or the closest available maturity) minus contemporaneous annual changes in consumer prices; the euro area long-term real interest rate is the weighted average of national long-term real interest rates; weights fixed GDP weights at 1995 purchasing power parity (PPP) exchange rates.

the real return. Intra-euro area exchange rate stability in the run-up to Stage Three of EMU, which was supported by both more stability-oriented policies and convergence of inflation rates, should have reduced these risk premia. Again, this argument can be supported by evidence taken from a comparison of the individual countries which now form the euro area. Long-term real interest rates have fallen considerably in countries which, in the first half of the 1990s, exhibited the highest nominal effective exchange rate volatility (see Table I).

Progress towards fiscal consolidation has also contributed to the reduction of long-term real government bond yields during the 1990s (see Box 2). As can be seen in Table I, in the early 1990s there is a clear correlation between fiscal indiscipline – manifested, in part, in high ratios of the fiscal deficit and public debt to GDP – and extremely high levels of real interest rates in the countries which now form the euro area. The fiscal criteria for the transition to Monetary Union implied by the Treaty establishing the European Community were then helpful in

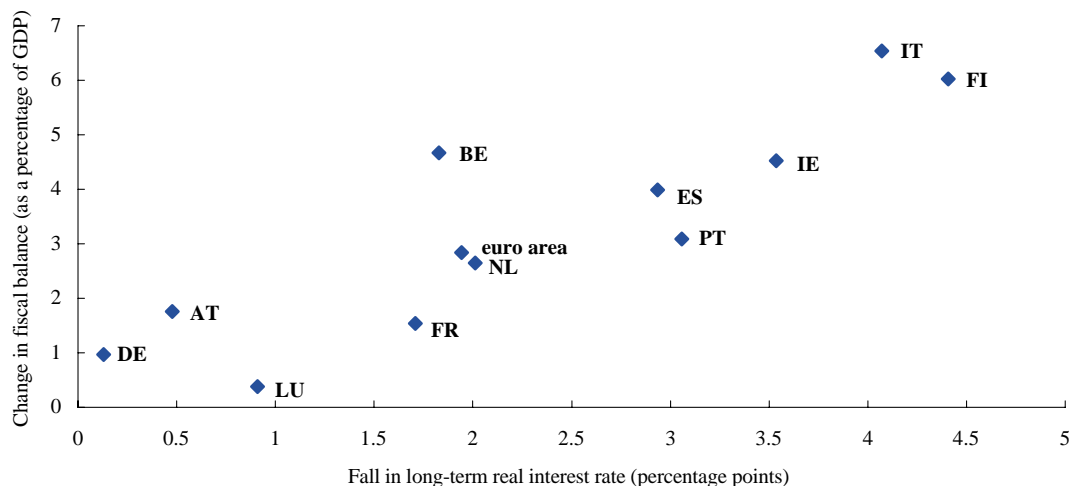
imposing greater discipline on fiscal policy in the euro area.

As illustrated in Table I, countries which had high fiscal deficits in the early 1990s and made the most progress in reducing them by the time the euro was introduced at the start of 1999 typically saw the largest declines in long-term real interest rates (see also Chart 4). This effect can be seen most obviously in Italy and Finland, where the changes in the fiscal balance over the 1990s were most pronounced. Ireland is also a striking example of the success of fiscal consolidation. Indeed, as shown in Table I, it appears that Irish long-term real interest rates have fallen dramatically mainly as a result of the substantial progress made with fiscal consolidation.

Although further progress needs to be made in several countries in order to meet the objective of government budgets close to balance or in surplus over the medium term, the convergence process has initiated significant fiscal consolidation. The Stability and Growth Pact – if properly enforced – will

#### Chart 4

### Differences between the 1991-95 average and the 1998 value of the long-term real interest rate and the fiscal balance



Sources: National data and ECB calculations.

Note: The long-term real interest rates are calculated as nominal government bond yields (ten-year bonds or the closest available maturity) minus contemporaneous annual changes in consumer prices; the euro area long-term real interest rate is the weighted average of national long-term real interest rates; weighted with fixed GDP weights at 1995 purchasing power parity (PPP) exchange rates.

help to sustain this process (as discussed in the article entitled “The implementation of the Stability and Growth Pact” in the May 1999 issue of the ECB Monthly Bulletin).

As the preceding discussion has illustrated, even when focusing narrowly on the relationship between the design of monetary and fiscal policies and the evolution of long-term real interest rates, one can see many interrelated factors at work. It is not possible to disentangle precisely the various channels through which the pursuit of stability-oriented policies can change the real interest rate from the levels which would have otherwise prevailed if well-designed stability-oriented policies had not been followed. Indeed, the data presented above suggest that the importance of various factors may have varied from one euro area country to another. However, taken as a whole, these data support the hypothesis that the stricter orientation of monetary policy towards the maintenance of price stability and of fiscal

policy towards improving the sustainability of public finances has reduced distortions in the real interest rate, thereby freeing capital for private investment and allowing the capital market to work more efficiently.

Obviously, as the euro area is well integrated into international financial markets, its real interest rate also depends on global factors, including expected world economic growth, the outlook for global price developments and the aggregate world-wide fiscal stance. However, given the size and economic importance of the euro area to the global economy, developments in the euro area can themselves have a significant impact on global trends. In these circumstances, the evolution of long-term real interest rates in the euro area cannot be characterised simply as a passive reaction to global developments – the causality runs in both directions. Seen in this light, the pursuit of stability-oriented policies in the euro area during the 1990s has made a significant contribution to improved growth prospects world-wide.

## Box 2

### Fiscal consolidation and real interest rates

There are two main channels whereby fiscal indiscipline is likely to increase real interest rates.

First, when running a fiscal deficit, a government draws real resources away from the private sector. To the extent that these resources are not freed by lower consumption (if households decide to save more in order to prepare for payment of the higher future taxes required to finance the servicing of the public debt being accumulated), a higher fiscal deficit will increase the real interest rate and “crowd out” private investment.

Second, fiscal indiscipline introduces specific risk premia into long-term real interest rates on government bonds. These take two forms. First, a credit or default risk premium may be introduced in the real yield on bonds issued by the respective national government. These risk premia may in turn affect the risk premia paid by private borrowers of the same country if markets believe that the government may ultimately be forced to resort to higher taxes to finance its debt. Fiscal reforms which restore and enhance the sustainability of the public finances will help to reduce these risk premia. Second, by introducing an additional source of uncertainty about the path of real interest rates over time, fiscal indiscipline can be associated with higher risk premia.

Fiscal consolidation is likely to be an important explanation of the trend decline in long-term real interest rates in the euro area in the second half of the 1990s. Therefore, the fall of real interest rates in recent years was a symptom of an underlying beneficial economic change, namely progress towards more sustainable public finances and the release of economic resources to be allocated to more productive uses by the private sector.

## 4 Concluding remarks

Disinflation, nominal exchange rate stability and, in particular, fiscal consolidation associated with the convergence process leading to Stage Three of EMU have made a significant contribution to reducing distortions in the long-term real interest rate and releasing resources for private investment. The convergence process required the countries which form the euro area to introduce and pursue well-designed monetary and fiscal policies. As a result of the pursuit of these stability-oriented policies during the 1990s, the euro area now enjoys an environment of stable prices and more sustainable public finances. Even though further fiscal consolidation is certainly needed, the convergence achieved so far has conferred on the euro area a favourable outlook for sustainable real economic growth, improved employment prospects and price stability.

It is the task of the Eurosystem to ensure that price stability is maintained in the euro area in the future. A credible stability-oriented monetary policy focusing on the maintenance of price stability over the

medium term reduces uncertainty with regard to future developments in the price level, thereby reducing the risk premia which can distort longer-term real interest rates. As this allows the capital market to operate more efficiently in allocating resources to their most productive uses, a monetary policy which maintains price stability makes an important contribution to growth and employment prospects over the medium term. This argument, together with the other channels through which price stability benefits economic welfare, underlies the design of the Eurosystem’s monetary policy strategy and its overriding concern with the maintenance of price stability in the euro area (see the article entitled “The stability-oriented monetary policy strategy of the Eurosystem” in the January 1999 issue of the ECB Monthly Bulletin).

These benefits of price stability could be forfeited if monetary policy were to deviate from its medium-term stability orientation and were, for example, to try to “fine tune”



economic developments in the short term. This policy would only lead to a high level of uncertainty about future price developments and may require larger and more abrupt interest rate changes than would be necessary if a stability-oriented policy had been pursued. As the evidence presented in this article suggests, a monetary policy of this type would merely raise risk premia and thereby worsen the outlook for economic growth. For this reason, a monetary policy which deviates from a stability orientation would be prejudicial to longer-term growth and employment prospects.

While stability-oriented policies have helped to improve the economic fundamentals of the euro area over recent years, there is still much to be done in other policy areas in order to enhance the growth potential of the euro area economy and reduce the high level of structural unemployment. The key to higher sustainable, non-inflationary growth and an improved outlook for employment in the euro area lies in the implementation of appropriate structural economic reforms which improve the flexibility and efficiency of labour and product markets. Such reforms would redress the structural economic problems which are the most burning issues facing Europe at the present juncture.

# TARGET and payments in euro

*With the introduction of the euro in 11 countries of the European Union (EU), it was necessary to design new payment arrangements in order to allow financial markets within the euro area as a whole to function as smoothly and efficiently as within national currency areas. Area-wide settlement in central bank money has been made possible by the creation of TARGET, the real-time gross settlement (RTGS) system for the euro. Several other settlement systems provide alternative channels for the processing of large-value payments in euro.*

*Experience has shown that the financial community appreciates the safety features of TARGET, as well as the flexibility which it offers in terms of liquidity management. The very wide range of participants in TARGET has also helped this system to become, in terms of both volume and value, the most extensively used system for large-value payments in euro. TARGET is mainly used for interbank payments, while the majority of commercial payments are processed via alternative channels.*

*In the future, TARGET will be confronted with several challenges. In the short run, it will have to strengthen its infrastructure in order to reduce the number of technical incidents; in the longer run, it should be able to reduce its costs and extend the range of services which it offers to its users. The future integration of other European countries within the euro area will also have implications for TARGET for which preparations will have to be made in advance.*

## **I The evolution of payment systems in the European Union in the 1990s**

European payment systems have undergone substantial change in recent years owing, in particular, to the preparation for the introduction of the euro on 1 January 1999. An early recognition, in both central banks and private institutions, of the need for new payment arrangements for the euro has ensured a timely and successful implementation of the new systems. For central banks, the driving force for change has been, and still is, the willingness to increase the soundness and efficiency of payment systems and to ensure the smooth implementation of monetary policy operations. In the European banking and financial community, change is driven by market integration and increased competition.

National payment infrastructures, now integrated into an environment which covers the euro area as a whole, have different historical, institutional, technical and legal backgrounds. They were designed to support national financial markets of varying sizes and levels of sophistication within the context of national monetary policies.

Although payment systems have maintained national characteristics, they have developed, as a result of European integration and co-operation, in accordance with certain commonly agreed principles.

Prior to the commencement of preparatory work for Economic and Monetary Union (EMU), two reports had a major impact on payment systems within the European Union (EU) and promoted the development of a common payment systems policy. First, as part of their risk management policies, in 1990 the G10 central banks published a document entitled "Report on Interbank Netting Schemes". This document, which is generally referred to as the "Lamfalussy report", sets out minimum standards which aim at ensuring that netting systems can complete the settlement phase even in the event of a failure on the part of the participant with the highest debit position. Second, in order to limit systemic risks, avoid regulatory arbitrage and ensure a level playing-field for credit institutions within the Community, in 1993 the EU central banks published a report on "Minimum Common Features for Domestic Payment Systems". One of the main recommendations of the report

was that as many of the large-value payments as possible should be channelled into real-time gross-settlement (RTGS) systems. This constituted a major milestone in the promotion of RTGS processing within the EU.

The most dramatic changes in EU payment systems have been linked to the introduction of the euro. Following the adoption of the Treaty on European Union, EU central banks initiated the preparatory work for Economic and Monetary Union (EMU) and, in particular, for its third and final stage, in which the single currency would be adopted. At that point in time payment relations between EU countries relied almost exclusively on correspondent banking – arrangements which

were considered unsatisfactory for fulfilling the needs of the new monetary area. Thus, it was concluded that a unified single currency area-wide payment arrangement would be needed to ensure a secure implementation of the single monetary policy, efficient arbitrage in the money markets and, more generally, the efficient and safe settlement of large-value payment flows between participating countries. Building on the principles of the 1993 report on domestic payment systems, the decision was taken by the Council of the European Monetary Institute (EMI) in March 1995 to set up a Trans-European Automated Real-time Gross settlement Express Transfer (TARGET) system establishing links between national RTGS systems.

## **2 TARGET, the core payment system for the euro**

TARGET was implemented in order to serve two main objectives: first, to facilitate the integration of the money market in euro in order to allow for the smooth implementation of the single monetary policy and, second, to improve the soundness and efficiency of cross-border payments in the euro area. To achieve this, TARGET offers the possibility of transferring central bank money on a cross-border basis as smoothly as domestically. TARGET can be used for all credit transfers in euro between EU countries. It processes both interbank and customer payments and there is no upper or lower value limit for payments.

It was agreed from the outset that TARGET would be a decentralised system, in which credit institutions would keep their settlement accounts with their home central bank. Therefore, domestic TARGET payments continue to be processed in the national RTGS systems. Cross-border TARGET payments are processed through the national RTGS systems and exchanged on a bilateral basis directly between national central banks (NCBs). Since all credit institutions participating in national RTGS systems automatically have access to the cross-border

TARGET service, a very broad participation in the system is ensured.

It was necessary to set up the TARGET system within a period of time which can be considered as very short for such a large-scale project. In order to minimise the time required and the costs to the central banks and credit institutions of establishing the system, it was agreed to harmonise national RTGS systems only to the extent necessary to ensure the uniformity of the monetary policy of the European Central Bank (ECB) and a level playing-field for credit institutions. Areas subject to harmonisation were operating time, pricing and the provision of intraday credit. In addition, common minimum performance features and security provisions were defined for RTGS systems linked to TARGET. Although several technical and organisational features continue to differ across NCBs, TARGET has been set up in such a way that the use of the system in the domestic and cross-border mode is very similar for participants.

Only payments related to operations with the Eurosystem and to the settlement of other large-value payment systems operating

in euro are required to be processed through TARGET. For any other payments, market participants can use alternative large-value payment systems operating in parallel with TARGET or correspondent banking arrangements. However, to accommodate the wish to ensure maximum safety in the processing of the very high-value payments, the Eurosystem clearly signalled to the market that it expected payments of very high value (stemming in particular from the money market) to be processed through TARGET.

In normal circumstances payments reach their destination a few minutes after being debited from the account of the sending participants. All payments are treated equally, irrespective of their value. Payments are irrevocable as soon as they are debited from the account which the sending institution holds with its NCB and are immediately final when credited to the central bank account of the receiving participant. All participants are identified by Bank Identifier Codes (BICs) and are listed in the TARGET Directory, which is available world-wide from S.W.I.F.T.

To meet the needs of the financial market in general and its customers in particular, TARGET provides long daily operating hours for its RTGS services, opening at 7 a.m. and closing at 6 p.m. ECB time (central European time). To allow participants to better manage their end-of-day liquidity, customer payments are subject to a cut-off time set at 5 p.m. Furthermore, common closing days apply to TARGET. In 1999 TARGET closed on New Year's Day and will also close on Christmas Day. Exceptionally, in order to smooth the transition to the new century, the system will also be closed on 31 December 1999. As payment traffic has been rather low on days which are traditionally public (or bank) holidays in most of the euro area,<sup>1</sup> TARGET will – following a request from the European banking industry – have six closing days in 2000, namely New Year's Day, Good Friday, Easter Monday, 1 May (Labour Day), Christmas Day and 26 December. TARGET closing days are, de facto, non-settlement days for the money

market and the financial markets in euro, as well as for foreign exchange transactions involving the euro.

The use of TARGET is supported by a transparent pricing structure. The fee charged for cross-border payments is based on the number of transactions made by the participant within a single RTGS system and is subject to a degressive scale. For each of the first 100 transactions per month the fee is EUR 1.75, for each of the next 900 transactions per month EUR 1.00, and for each subsequent transaction per month EUR 0.80. Consequently, for larger banks, the average fee per payment is in the region of EUR 0.85. The cross-border fee does not depend on the destination or value of the payment. No additional entry or periodical fees are charged to users of the TARGET cross-border service. Domestic transaction fees, still determined by NCBs, are typically lower.

One of the crucial issues with regard to the operation of RTGS systems relates to the availability and cost of liquidity. In TARGET, liquidity can be managed very flexibly and is available at low cost, since minimum reserves – which credit institutions are required to hold with their central bank – are available for settlement purposes during the day. Moreover, the averaging provisions applied to minimum reserves allow for flexibility in the banks' end-of-day liquidity management. The overnight lending and deposit facilities also allow for "last minute" reactions to unexpected liquidity situations. In addition, unlimited intraday credit is provided free of charge by the Eurosystem. Central bank credit is to be fully collateralised, but the range of eligible collateral is very wide. Assets eligible for monetary policy purposes are also eligible for intraday credit.

In order to facilitate the cross-border use of collateral, the Eurosystem has implemented

<sup>1</sup> On Good Friday and Easter Monday 1999 the number of payments processed in TARGET and in the main payment systems operating in euro was less than half the daily average.

the correspondent central banking model (CCBM), which allows participants to obtain credit from their home central bank against collateral held with another central bank. In addition, a large number of links established between securities settlement systems have also been approved to facilitate the cross-border use of collateral. The stock of eligible assets is worth more than EUR 5.5 trillion. As at end-September 1999 collateral worth around EUR 620 billion was held with the Eurosystem, of which EUR 85 billion was held on a cross-border basis.

A unique feature of TARGET is that its euro payment services are available throughout the whole of the EU, i.e. across a wider area than that in which the single currency has been adopted. The specific situation with regard to the four EU countries which have not yet adopted the euro (Denmark, Greece, Sweden and the United Kingdom) is linked to a historical problem: because it is necessary for all countries adopting the euro to participate in TARGET, and because of the limited time available for setting up the system, all EU NCBs had to start investing money in TARGET before knowing whether they would be part of the euro area. Thus the EMI Council agreed in 1995 that all current EU NCBs would prepare themselves

for connection to TARGET in 1999. It was indicated, however, that for those countries which would not adopt the euro from the outset, the connection would be subject to conditions to be decided by the Governing Council of the ECB.

These conditions were set out by the Governing Council of the ECB in July 1998. The decision was to allow the non-euro area NCBs to offer limited amounts of intraday liquidity in euro to their credit institutions on the basis of a deposit in euro held with the Eurosystem. Safeguards have been established in order to ensure that non-euro area credit institutions will always be in a position to reimburse intraday credit in due time, thus avoiding any need for overnight central bank credit in euro. This arrangement is a very special one, as it is the first time a central bank has allowed central banks belonging to other currency areas to provide settlement facilities in its own currency. A "policy statement" issued by the ECB in November 1998 made it clear that central bank money in euro can only be provided by the central banks belonging to the Eurosystem and indicated that the possibility offered to non-euro area central banks was a specific exception.

## **Box**

### **TARGET year 2000 compliance**

TARGET has successfully completed its test cycles, which started with an examination of the basic components and proceeded systematically through all layers of the system. In addition to the question of the transition from 1999 to 2000, the issue of the leap year in 2000 was also covered. From 1 October 1999 to 1 March 2000 TARGET is subject to a moratorium during which, in general, no change to the systems should be made.

On 25 September 1999 TARGET demonstrated its year 2000 compliance in general testing of a full business day in a simulated year 2000 environment. Systems opened with the business date 3 January 2000 and, without detecting any year 2000 problems, processed cross-border customer and interbank payments, which were sent and received by several hundred participating credit institutions. Other payment and settlement systems which settle through TARGET opened specifically for this TARGET demonstration and were all able to complete their end-of-day operations successfully.

### 3 The co-existence of parallel systems

The large-value payment systems infrastructure in the euro area is characterised by the co-existence of several systems. In 1998 the Eurosystem made an assessment of those payment systems which, in parallel with TARGET, would process large-value payments in euro. As an outcome of this evaluation, five systems were deemed to be eligible. Two of these, in Finland and Spain, are small local systems; the three others are Euro I, Euro Access Frankfurt (EAF) and the *Système Net Protégé* (SNP).

These systems have to settle in central bank money through TARGET. To allow participants enough time for settlement and subsequent liquidity management, these systems are all subject to an early cut-off time of 4 p.m. Although it is not a requirement that participants should be located in the euro area, they are nevertheless requested to demonstrate that they have easy access to central bank money in euro in order to facilitate the timely settlement of their end-of-day positions.

Euro I is a co-operative undertaking between EU-based commercial banks and EU branches of non-EU banks. The system is run by the EBA Clearing Company, which was set up by the Euro Banking Association (EBA) for the purpose of operating and managing the system as from 1 January 1999. It is the successor to the ECU Clearing and Settlement System. Although, from an operational viewpoint, Euro I is a net settlement system, it is legally based on the "single obligation structure", whereby, at any given time, each participant has only one single payment obligation or claim with respect to the community of other participants. The single obligation or claim amounts to the net balance of all payments sent and received. As soon as payments have been processed, the single obligation of each participant is updated. Euro I settles at the end of the operating day in central bank money over a settlement account maintained at the ECB. Euro I members are subject to a loss-sharing agreement and, for the purpose

of ensuring a timely settlement in the event of the failure of a participant, they have all contributed in equal shares to a liquidity pool maintained by the EBA with the ECB. There is strong international participation in Euro I: as of September 1999 it included 72 clearing banks from all of the EU Member States and five non-EU countries (Australia, Japan, Norway, Switzerland and the United States), all of which are incorporated in the EU or which have branches located in the EU.

EAF (Euro Access Frankfurt) is a large-value payment system developed and run by the Deutsche Bundesbank. As a "hybrid" system, it combines elements of both gross and net settlement systems. In EAF payments are placed in payment queues and are settled at very frequent intervals; these payments must be covered either by incoming funds or by balances on internal EAF accounts. The accounts are pre-funded in central bank money and cannot be overdrawn. To optimise the amount of funds available in the system, participants can move liquidity between their accounts in the national RTGS system and EAF. As in an RTGS system, early finality is provided by the intraday use of central bank money for settlement. No credit risk is created for receiving participants because no implicit intraday credit is granted within the system, as is the case in net settlement systems. Therefore, no loss-sharing arrangement is needed. As at September 1999 the EAF had 68 direct participants from 13 countries.

In France, the net settlement system, *Système Net Protégé* (SNP), which was launched in February 1997, was replaced on 19 April 1999 by the hybrid system, PNS (Paris Net Settlement). To a large extent, PNS follows the same operating principles as EAF. A liquidity bridge with the French RTGS system, TBF, allows participants to manage their positions centrally in central bank money. As at September 1999, 24 clearing banks were participating in PNS.

There are also two smaller local systems in operation. The Servicio Español de Pagos Interbancarios (SEPI), run by the Madrid Clearing House, was set up in October 1997. In September 1999 SEPI had 40 direct participants. In the Finnish POPS system, which has been in operation since 1996, payment messages are handled in the national currency denomination, although settlement takes place in euro. POPS had 9 participants in September 1999.

Finally, traditional correspondent banking continues to provide an alternative to organised payment systems. However, as a consequence of the introduction of the euro,

correspondent banking has been subject to considerable change. A strong consolidation process has been evident – with the number of correspondent relations being reduced substantially – as has a trend towards concentration of business among a few major European credit institutions acting as service providers. Although correspondent banking within the euro area may no longer be necessary, it seems that banks nevertheless wish, at least until the end of the changeover period in 2002, to maintain one or two correspondent accounts for each euro area country for the processing of payments denominated in the national currency.

#### 4 Experience gained in euro payments processing<sup>2</sup>

After the changeover to the euro on 1 January 1999, the date on which all funds held by credit institutions with the Eurosystem were converted – using the irrevocably fixed exchange rates – from the national currency to the euro, TARGET successfully

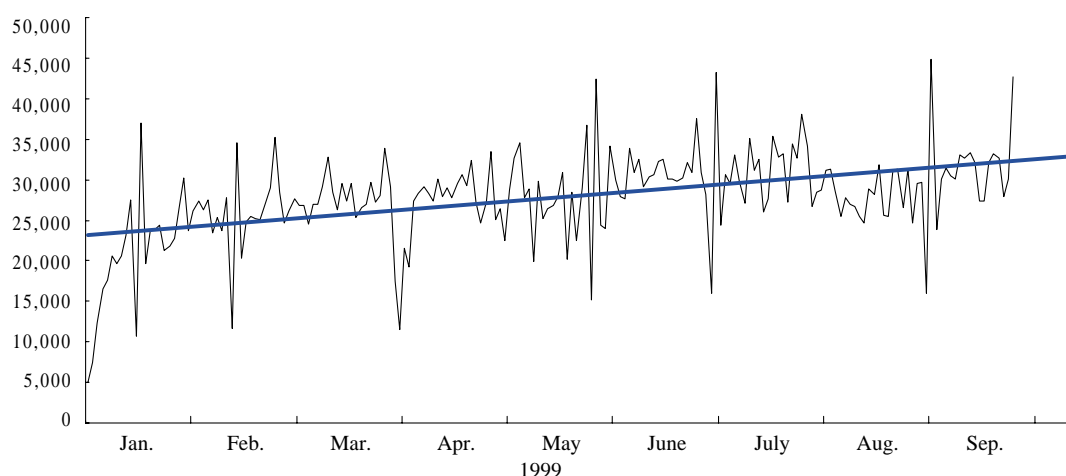
commenced live operation on Monday, 4 January 1999, with some 5,000 participants throughout the EU.

<sup>2</sup> Further information on TARGET, including statistics on payment systems operating in euro, is available on the ECB's Web site: <http://www.ecb.int>.

**Chart I**

#### Volume of TARGET cross-border payments

(daily figures)



On the very first day of its existence TARGET processed 156,000 payments with a total value of EUR 1.18 trillion, of which some 5,000 were cross-border payments with a total value of around EUR 245 billion. A gradual increase in cross-border activity was generally expected but, in fact, the volume of cross-border payments processed via TARGET increased rapidly to a level of between 20,000 and 30,000 transactions per day – representing a value of EUR 300 to 400 billion – after only one week of operation. The number of payments processed in TARGET as a whole, i.e. cross-border and domestic payments taken together, amounts to a daily average of more than 163,000 (of which 133,000 are domestic), representing a value of some EUR 880 billion (EUR 530 billion domestic).<sup>3</sup>

The rapid reduction of interest rate spreads in the overnight market in January 1999 – and the high share of the large-value payments being processed in real time through it (see Table I below) – show that TARGET has

clearly fulfilled its main objectives: to facilitate the integration of the money market in euro and to improve the soundness and efficiency of payment systems.

The other main large-value payment systems in euro also began operation smoothly and, taken together, settle a daily average of some EUR 400 billion. During the course of 1999 the Euro 1 system has become the most extensively used alternative to TARGET, both in terms of volume (71,600 payments per day) and value (nearly EUR 170 billion). The hybrid German EAF system was previously the system through which most of the foreign exchange transactions in Deutsche Mark were settled. With the introduction of the euro, it lost around 50% of its pre-EMU business. However, it nonetheless processes some 46,000 payments daily, valued at a total of more than EUR 140 billion. The French PNS has maintained a stable pattern, processing

<sup>3</sup> Where no reference period is indicated, figures relate to the third quarter of 1999.

**Table I**  
**Payment instructions processed by TARGET and other selected interbank funds transfer systems**

(daily average volume (number of payments) and value (in EUR billions) of transactions)

	1999								
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.
<b>TARGET</b>									
All TARGET payments									
Volume	150,777	154,071	159,126	151,937	155,239	167,575	169,952	154,442	164,674
Value	1,042	943	913	923	869	923	924	844	885
Cross-border TARGET payments									
Volume	20,113	26,010	27,816	26,745	26,938	31,061	30,865	28,471	30,676
Value	355	350	342	350	334	370	368	342	352
Domestic TARGET payments									
Volume	130,663	128,061	131,310	125,191	128,301	136,514	139,088	125,971	133,997
Value	687	593	571	573	536	554	556	502	532
<b>Other systems</b>									
<b>Euro 1 (EBA)</b>									
Volume	42,752	53,113	60,408	59,872	63,609	72,605	72,327	66,247	76,278
Value	172	173	178	172	156	169	163	164	175
<b>Euro Access Frankfurt (EAF)</b>									
Volume	47,941	46,726	47,965	43,895	43,671	48,453	47,552	44,252	46,263
Value	200	159	158	148	140	154	146	135	143
<b>Paris Net Settlement (PNS)</b>									
Volume	21,974	21,749	21,578	20,351	19,239	21,201	20,670	17,223	18,866
Value	107	87	82	96	87	100	94	84	89
<b>Servicio Español de Pagos Interbancarios (SEPI)</b>									
Volume	5,035	4,610	4,651	4,346	4,473	4,529	4,374	3,574	3,885
Value	8	4	4	3	4	4	3	3	3
<b>Pankkien väliset On-line Pikasiirrot ja Sekit (POPS)</b>									
Volume	2,192	2,993	3,174	3,453	3,465	6,854	3,492	3,431	3,113
Value	1	1	1	2	1	1	1	1	1



19,000 payments each day, with a daily average value of some EUR 90 billion. The figures for SEPI – with 3,900 payments (at a value of EUR 3 billion) – and for POPS – with 3,300 payments a day (at a value of EUR 1 billion) – are far below those of the above-mentioned systems.

As a result of the co-existence of alternative payment channels, some initial problems at the beginning of the year could not be avoided. Although the banking community developed recommendations on best business practices in 1998, payment operators and liquidity managers faced the challenge of dealing with uncertainties in payments routing. Payments were received through unexpected channels and this made it difficult to manage liquidity efficiently. However, the European Banking Federation and other organisations have set some valuable guidelines to help the banks to run their business more efficiently.

For risk management reasons, net settlement systems such as Euro 1 have to apply binding limits to the net debit positions which can arise between participants in the system. If inflows and outflows do not match during the course of the day, such limits may restrict the ability of the participants to exchange payments. To overcome the problem, participants in Euro 1 have made use of “inter-system swaps”. In an inter-system swap, for example, a participant in Euro 1 which has excess funds available sends a payment to another participant in Euro 1 which is experiencing a shortage of funds; at the same time, the latter sends a payment of the same amount to the former in TARGET. As there is at present no mechanism for linking the two legs of the swap transaction, such operations trigger some credit risk for the parties involved.

Statistical data as well as information received from the different EU banking associations, national TARGET User Groups and individual participants, indicate that TARGET is recognised as the standard for large-value cross-border payments in euro. The system

has proved capable of processing a significant number of large-value payments within short transmission times. In addition, the full collateralisation of intraday credit has proved to be far less problematic than many banks expected before the start of TARGET operations. The price difference between TARGET and alternative systems does not seem to have deterred banks from using TARGET extensively. Even the bigger banks, which have cheaper alternatives for processing their payments, use TARGET extensively for their very high-value payments, in respect of which TARGET offers advantages in terms of liquidity management. Moreover, many small and medium-sized banks which lack access to other systems take a positive view of the TARGET prices because they are lower than the correspondent banking fees which they would otherwise have to pay.

Nevertheless, the heterogeneous nature of TARGET still involves problems relating to both efficiency and cost. Efficiency problems are caused by the fact that any system with a large number of interfaces is likely to encounter more frequent difficulties than would a centralised system or a decentralised system with identical local components. Cost-related problems are primarily caused by the fact that every time a modification has to be made to the TARGET software, this has to be done 15 times. In this context, the present TARGET infrastructure offers room for improvement. Measures have already been taken to increase the availability of those national RTGS systems which have to date experienced technical problems too frequently. Moreover, in the longer run, the TARGET infrastructure should be able both to accommodate the strong demand on the part of TARGET users for greater harmonisation of the different RTGS systems participating in TARGET and, possibly, to offer them additional services, such as intraday cash management facilities.

In terms of value, more than half of the large-value payments in euro are processed in two countries, namely Germany and France. In

**Table 2****Distribution of payment flows in TARGET**

(daily average volume (number of payments) and value (in EUR billions) of domestic and cross-border payments sent by each RTGS system participating in or connected to TARGET, third quarter 1999)

	Domestic		Cross-border	
	Volume	Value	Volume	Value
ELLIPS (BE)	3,448	12.57	2,219	29.58
ELS (DE)	62,395	78.18	10,522	90.94
SLBE (ES)	7,801	99.68	697	13.24
TBF (FR)	5,738	187.82	3,737	56.60
IRIS (IE)	1,050	9.47	579	3.95
BI-REL (IT)	34,691	63.58	3,317	27.20
LIPS-Gross (LU)	227	2.71	647	7.95
TOP (NL)	10,482	39.04	1,457	28.01
ARTIS (AT)	2,304	7.48	1,618	7.59
SPGT (PT)	1,237	5.57	714	3.19
BOF-RTGS (FI)	801	4.41	313	5.37
EPM (ECB)	0	0.00	55	8.67
DEBES (DK)	21	0.07	243	4.65
HERMES euro (GR)	34	0.01	63	1.27
Euro RIX (SE)	10	0.27	156	4.95
CHAPS Euro (UK)	2,778	19.15	3,668	60.87

addition to the payments processed in EAF and PNS and the share of their banks in the traffic of the Euro I system, the two countries also account for a large proportion of the TARGET payments, although they have a very different activity profile within TARGET.

German participants account for the largest share of TARGET cross-border payments (more than a third of the number of payments sent, and more than a quarter in terms of value). On the domestic side, ELS, the German component of TARGET, processes almost half of the total number of TARGET payments, but only 15% of them in terms of value. TBF, the French component processes only 4% of the total number of domestic TARGET payments by volume, but handles more than one-third of the total value of domestic payments in TARGET. It appears that, in France, TARGET is used almost exclusively for payments stemming from the financial markets, while in Germany a large number of commercial payments, or even retail payments, are processed through the system. The main reason for the high value of domestic payments in TBF is the very high level of activity of the money market in Paris.

The United Kingdom component of TARGET, CHAPS Euro, processes a relatively high proportion of cross-border payments in TARGET (although a large share of these payments represents liquidity shifts between the head office of British banks in London and their branches in the euro area). Domestic payments in CHAPS Euro are relatively modest. Contrary to earlier expectations, domestic large-value payments in euro are almost negligible in the three other countries which have not yet adopted the euro.

National holidays in the United States have a significant effect on EU payment systems because no EUR/USD foreign exchange transactions are settled on these days. There is a reduction of some 50% (40% in terms of value) in the number of cross-border transactions processed through TARGET and some national components, such as the French and the British, recorded even more substantial decreases in their turnover on these days. Conversely, US holidays have had little effect on domestic TARGET activities in other countries. The impact of US holidays on Euro I and EAF was also rather marked, especially in terms of value (around 70% and

**Table 3****Average value of payments***(EUR millions)*

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.
TARGET (total)	6.9	6.1	5.7	6.1	5.6	5.5	5.4	5.5	5.4
Cross-border	17.7	13.5	12.3	13.1	12.4	11.9	11.9	12.0	11.5
Domestic	5.3	4.6	4.4	4.6	4.2	4.1	4.0	4.0	4.0
Euro 1	4.0	3.3	3.0	2.9	2.4	2.3	2.3	2.5	2.3
EAF	4.2	3.4	3.3	3.4	3.2	3.2	3.1	3.1	3.1
PNS	4.8	4.0	3.8	4.7	4.5	4.7	4.5	4.9	4.7
SEPI	1.7	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8
POPS	0.7	0.5	0.5	0.5	0.4	0.2	0.4	0.4	0.3

55% respectively). The activity of PNS was influenced to only a very minor degree. This shows that the systems which are mainly used in the settlement of EUR/USD foreign exchange transactions are Euro 1, EAF and, within TARGET, TBF and CHAPS Euro.

For public holidays in the United Kingdom which do not coincide with those of the rest of the EU, only the cross-border component of TARGET showed a small decrease in activity, especially in terms of value. The influence of Japanese public holidays has also been negligible. This indicates that the foreign exchange activity between the euro and these two currencies is far less extensive than in the EUR/USD market.

The average value of cross-border payments in TARGET (EUR 11.5 million in September 1999) is significantly higher than that of domestic TARGET payments (EUR 4.0 million). The high cross-border values can be explained by a large number of "liquidity transfers" made across the system. Banks which have centralised their liquidity management distribute liquidity to their foreign branches and subsidiaries in the morning and receive excess funds back in the evening.

The average value of transactions processed by large-value euro payment systems is decreasing. The main reason is the progressive shift of commercial payments from correspondent banking into organised payment systems. In September 1999, 25% of cross-border payments processed through TARGET were customer payments, while in January they accounted for only 15%. The increase in customer payments has also been very pronounced for Euro 1. In January 1999, customer payments represented some 39% of the total number of payments, while in September they already accounted for 52%.

Using TARGET and other large-value systems for customer payments instead of correspondent banking allows corporate customers to improve their cash management. However, retail customers have not yet benefited from these improvements because the organisation of such systems at interbank and intrabank level is not yet adequate to support efficient processing of retail cross-border credit transfers. This explains why the ECB published, in September 1999, a report on cross-border retail payment systems. In this field, the Eurosystem has come to the conclusion that, for the time being at least, it should work as a catalyst for change rather than increase its

**Table 4****Share of customer payments in total cross-border TARGET payments traffic***(as a percentage)*

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.
Volume	14.5	16.2	18.0	20.5	21.8	21.4	23.4	23.3	24.9
Value	1.5	1.9	2.1	2.1	2.2	2.5	2.5	2.1	2.7

operational involvement. The report includes a series of objectives which the banking community is invited to meet by January 2002,

at which point all day-to-day transactions effected by citizens of the euro area will be denominated in euro.

## 5 Concluding remarks and future prospects

At the very beginning of 1999, the activities of financial markets were still largely reliant on infrastructures and procedures which had been developed from national perspectives. It is therefore unsurprising that market forces have been reshaping these structures and related business practices in order to better serve the needs of the new monetary area.

In 2000 the commencement of operation of the Continuous Linked Settlement (CLS) system for foreign exchange transactions is expected to trigger a further reshuffling of payment systems flows in the euro area because the number of large-value payments is expected to decrease substantially. This is a trend which may, however, be partially offset by other evolutions such as the further shrinking of correspondent banking in the euro area and the increased use of delivery versus payment (DVP) arrangements in securities markets.

In the longer term, the integration of possible new EU Member States into euro area payment systems will constitute a new challenge, in particular for TARGET. At present, 12 central and eastern European countries are official candidates for membership of the EU and should provide a TARGET connection to the banks in their

countries as soon as they join the euro area. Close co-operation will be required between the Eurosystem and central banks of countries joining the euro area in order to ensure a smooth connection to TARGET of the RTGS function of the countries concerned.

Experience gained during the first three quarters of 1999 show that TARGET has clearly met its objectives. However, TARGET is not a static system. To continue to remain attractive in the long term, the TARGET service will be enhanced in order to meet future technical, business and efficiency requirements. The Eurosystem will pay special attention to service orientation – easy usage, DVP support, liquidity saving features, timely and transparent processing, etc. – and to availability and cost efficiency. In order to ensure that TARGET meets future market needs, the Eurosystem will continue to seek input and feedback from national TARGET user groups and, more generally, from the banking and financial community. The Eurosystem is firmly committed to contributing to the development of such efficient infrastructures as are required to ensure the euro's position as a unit of account, a store of value and a means of payment which is highly respected world-wide.



# Legal instruments of the European Central Bank

*The Treaty establishing the European Community (the “Treaty”) and the Statute of the European System of Central Banks and of the European Central Bank (the “Statute”) not only attribute to the European Central Bank (ECB) the authority to conclude agreements with third parties, but also confer upon it regulatory powers. Within the legislative field these relate, on the one hand, to the ECB’s involvement as the proposer or adviser in amending certain provisions of the Statute and in drafting Community and national legal acts and, on the other hand, to the ECB’s own competence to adopt legal acts and other legal instruments which may either be addressed to third parties or are intended to establish rules for the European System of Central Banks/Eurosystem. This article focuses on those regulatory powers of the ECB which are needed in order to make the system operational and effective and which reinforce the independence of the European System of Central Banks/Eurosystem. The ECB is aware that the assignment to it of regulatory powers implies not only increased influence, but also increased responsibility and accountability. As repeatedly indicated, the aim of the ECB is not only to be open, transparent and clear about the reasons for its actions, but also to be accountable for its performance.*

## I ECB involvement in the legislative process

The Treaty establishing the European Community (the “Treaty”) and the Statute of the European System of Central Banks and of the European Central Bank (the “Statute”) confer upon the European Central Bank (ECB) the competence to participate in the legislative process. The latter can be divided into three specific areas of authority: first, the ECB’s right to initiate amendments to the

Statute and the adoption of complementary Community legislation; second, the ECB’s advisory role in drafting Community and national legal acts; and third, the ECB’s competence to adopt ECB legal acts and other ECB legal instruments (see the box below). This third area of authority will be the focus of this article.

### Box

#### The competence of the European Central Bank to participate in the legislative process

The regulatory powers of the European Central Bank (ECB) are laid down in the Treaty establishing the European Community (the “Treaty”) and in the Statute of the European System of Central Banks and of the European Central Bank (the “Statute”). They can be divided into three areas of authority:

##### 1. Right of initiative

- amending the Statute (ECB Recommendations, ECB Opinions)
- adopting complementary Community legislation (ECB Recommendations, ECB Opinions)

The ECB has the right to initiate – or to be consulted on – the amendment of specific Articles of the Statute and the adoption of legislation complementary to the Treaty and required by the Treaty in specific areas related to the tasks of the European System of Central Banks/Eurosystem. (For further information on the European System of Central Banks/Eurosystem, see the article entitled “The institutional framework of the European System of Central Banks” in the July 1999 issue of the ECB Monthly Bulletin.) These areas encompass, for instance, statistics, accounting, open market and credit operations, minimum reserves, clearing and payment systems, and external operations. The right of initiative is shared with the Commission of the European Communities.

##### 2. Advisory role

- drafting Community legal acts and national legal acts (ECB Opinions)

The legislative bodies of the European Community (the Council of the European Union, the European Parliament, the Commission of the European Communities) and the Member States of the European Union (EU) are required to consult the ECB in respect of any proposed Community act and any draft legislative provision drawn up by national authorities which fall within the ECB's field of competence. This includes draft legislative provisions relating to the prudential supervision of credit institutions and to the stability of the financial system. Furthermore, the ECB may, on its own initiative, submit Opinions to the appropriate Community institutions and bodies or to national authorities on matters falling within its field of competence. Finally, Article 48 of the Treaty on European Union states that the ECB is also to be consulted should institutional changes be made in the monetary area.

The ECB's advisory role ensures that no Community legal act within its field of competence is adopted without its being involved; it underlines the special status of the ECB as an independent body within the Community framework vested with its own, exclusive competences.

### 3. Competence to adopt ECB legal acts and other ECB legal instruments

- ECB legal acts
  - Regulations
  - Decisions
  - Recommendations
  - Opinions
- Other ECB legal instruments
  - Guidelines
  - Instructions
  - Internal Decisions

The ECB has the competence to adopt Community legal acts and other ECB legal instruments. In line with the principle of limited powers – by application of which the European System of Central Banks (ESCB) and the ECB act within the limits of the powers conferred upon them by the Treaty and the Statute – the regulatory power of the ECB is restricted to the objective of fulfilling the tasks assigned to the ESCB/Eurosystem.

As ECB legal acts and other ECB legal instruments do not confer any rights or impose any obligations on the national central banks of the Member States which have not yet adopted the euro, the ECB has entered, where this has been considered appropriate and necessary, into agreements with the central banks of those Member States, as in the case of the Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET).

## 2 ECB legal acts

In order to carry out the tasks entrusted to the European System of Central Banks (ESCB)/Eurosystem, the ECB, in accordance with the provisions of the Treaty and under the conditions laid down in the Statute,

- makes Regulations to the extent that this is necessary to implement its designated tasks and, in specific cases, as determined by the Council of the European Union (EU Council);
- takes Decisions necessary to enable the tasks of the ESCB/Eurosystem to be carried out;

- makes Recommendations; and
- delivers Opinions.

According to the Treaty and the Statute, all measures taken by the ECB and intended to have legal effect are open to review or interpretation by the Court of Justice of the European Communities, whatever their nature or form.

It goes without saying that the Eurosystem – as a system which is governed by the rule of law – is also bound by all legal instruments which it has itself adopted.

## **ECB Regulations**

ECB Regulations are general in the scope of their application, binding in their entirety and directly applicable in all euro area Member States without the need for implementation in national law. For instance, in the field of statistics, the ECB Regulation concerning the consolidated balance sheet of the Monetary Financial Institutions sector imposes direct reporting obligations on specified reporting agents.

As with the Regulations adopted by the legislative bodies of the European Community, ECB Regulations must state the reasons on which they are based. In order to be binding on third parties, they must be published in the Official Journal of the European Communities (referred to in this article as the "Official Journal") in all official Community languages. Unless otherwise specified, ECB Regulations enter into force on the twentieth day following the date on which they are published.

ECB Regulations are adopted by the Governing Council of the ECB and are signed on its behalf by the President. The Governing Council may decide to delegate its authority to adopt ECB Regulations to the Executive Board of the ECB, but in so doing it must specify the limits and scope of the powers thus delegated. In matters having legal effect on third parties, notification of such delegation must be given to the parties concerned, or details of the delegation published if it is appropriate to do so.

The Governing Council has hitherto adopted the following three ECB Regulations:

- Regulation (EC) No. 2818/98 of the European Central Bank of 1 December 1998 on the application of minimum reserves (ECB/1998/15);
- Regulation (EC) No. 2819/98 of the European Central Bank of 1 December 1998 concerning the consolidated balance sheet of the Monetary Financial Institutions sector (ECB/1998/16);

- European Central Bank Regulation (EC) No. 2157/1999 of 23 September 1999 on the powers of the European Central Bank to impose sanctions (ECB/1999/4).

## **ECB Decisions**

ECB Decisions are binding in their entirety upon those to whom they are addressed and take effect upon notification. The ECB may decide to publish its Decisions in the Official Journal, in which case they are published in all official Community languages. ECB Decisions may be addressed to any legal or natural person, including the euro area Member States.

ECB Decisions must state the reasons on which they are based. They may be adopted by the Governing Council or by the Executive Board in their respective spheres of competence.

The ECB has to date adopted one Decision addressed to the euro area Member States:

- Decision of the European Central Bank of 22 April 1999 on the approval of the volume of coin issuance in 1999 (ECB/1999/NP10).

## **ECB Recommendations and ECB Opinions**

ECB Recommendations and ECB Opinions are non-binding legal acts. They may be adopted by the Governing Council or by the Executive Board in their respective spheres of competence. ECB Recommendations and ECB Opinions may be published in the Official Journal, in which case they are published in all official Community languages.

There are two types of ECB Recommendation. As mentioned above, ECB Recommendations can be the instrument by which the ECB initiates legislative procedures at the Community level, leading to the enactment of complementary



legislation. Three Recommendations of the European Central Bank for a Council Regulation may be cited by way of example:

- Recommendation of the European Central Bank for a Council Regulation (EC) concerning the application of minimum reserves by the European Central Bank (ECB/1998/8);
- Recommendation of the European Central Bank for a Council Regulation (EC) concerning the powers of the European Central Bank to impose sanctions (ECB/1998/9);
- Recommendation of the European Central Bank for a Council Regulation (EC) concerning the collection of statistical information by the European Central Bank (ECB/1998/10).

The ECB has adopted two further Recommendations which are currently under discussion at the EU Council with a view to legislative action being taken:

- ECB Recommendation for a Council Regulation (EC) concerning the limits and conditions for capital increases of the European Central Bank (ECB/1998/11);
- ECB Recommendation for a Council Regulation (EC) concerning further calls of

foreign reserve assets by the European Central Bank (ECB/1999/1).

All of the aforementioned ECB Recommendations have been published in the Official Journal.

ECB Recommendations can also, in the traditional sense of the term, be instruments by which the ECB provides the impetus for action to be taken (not only of a legal nature); they may be addressed to any legal or natural persons, to Community institutions or to Member States. An example of this is the Recommendation of the European Central Bank of 1 December 1998 on the statistical reporting requirements of the European Central Bank in the field of balance of payments and international investment position statistics (ECB/1998/NP21), which was addressed to the Belgian-Luxembourg Exchange Institute, the Central Statistics Office in Ireland and the Ufficio Italiano dei Cambi.

ECB Opinions are delivered whenever the ECB is consulted by the Community institutions or by the Member States in accordance with the Treaty or the Statute, or on the ECB's own initiative whenever deemed appropriate by the ECB with regard to matters falling within its field of competence.

### 3 Other legal instruments

The ECB's regulatory powers are not limited to the adoption of the aforementioned legal acts. The ECB may also adopt legal instruments which are of internal relevance to the Eurosystem and intended to govern the Eurosystem without having a direct legal effect upon third parties. Each of the Eurosystem's constituent bodies, i.e. the national central banks of the Member States participating in the euro area and the ECB, retains an individual legal personality. Taking this unique structure into account, the ECB

must have at its disposal the internal legal instruments necessary to allow the Eurosystem to operate efficiently as a single entity with a view to achieving the objectives of the Treaty. Consequently, the Statute stipulates that the national central banks of the Eurosystem are an integral part of the ESCB and must act in accordance with the Guidelines and Instructions of the ECB.

ECB Guidelines and ECB Instructions are special types of legally binding instrument,

the introduction of which has been necessary on account of the special structure of the Eurosystem outlined above. They are formal legal instruments, and have the objective of ensuring that the tasks entrusted to the Eurosystem are carried out within its internal organisation and are in line with the internal division of competences. As part of Community law, ECB Guidelines and Instructions, as well as ECB Regulations and Decisions, will, in accordance with the rule of supremacy, prevail over pre-existing and subsequent national legislation falling within the scope of their applicability. It is the task of the Governing Council to ensure compliance with ECB Guidelines and ECB Instructions. In this undertaking, the Governing Council will be supported by the Executive Board, which will make provision for the drafting of regular compliance reports.

The formal requirements for the adoption of ECB Guidelines and ECB Instructions are not specified by the Treaty or by the Statute, but rather are laid down in the Rules of Procedure of the European Central Bank and follow general principles of Community law. Given their nature as legal instruments, the legal effects of which are internal only, there are no obligations under Community law to publish ECB Guidelines and ECB Instructions. However, the ECB has published parts of the ECB Guidelines which are of interest to operators in the market and to the general public at large. This, in turn, enhances the transparency of the Eurosystem's activities.

### **ECB Guidelines**

Following the structure established by the Statute, in accordance with which operations forming part of the tasks of the Eurosystem are to be carried out by the national central banks whenever appropriate and possible, ECB Guidelines are designed to be legal instruments by which the policy of the Eurosystem is defined and implemented. They contain the general framework and the main rules which require implementation by the national central banks. Taking into account

the differences in the financial market structures and in the legal systems of the euro area Member States, ECB Guidelines have been conceptually designed in such a manner as to allow, as far as possible, an appropriate decentralised execution of monetary policy operations, while at the same time fully respecting the requirements of a single monetary policy in the euro area. As a consequence, monetary policy is implemented either by means of contracts to be concluded between the national central banks and their counterparties or by means of regulatory acts addressed to the counterparties, depending on the legal regime of each of the national central banks.

As ECB Guidelines are legal instruments which are internal to the system and addressed to the national central banks only, they are not intended to directly or individually affect the legal rights of counterparties. In accordance with the Rules of Procedure of the European Central Bank, ECB Guidelines are adopted by the Governing Council and thereafter notification is sent to the national central banks of the Eurosystem. If it is expressly decided to publish ECB Guidelines, publication will be in the Official Journal in all official Community languages.

The Governing Council may decide to delegate to the Executive Board its regulatory power to adopt ECB Guidelines. In so doing, the Governing Council must specify the limits and scope of the delegated competences.

The ECB has to date adopted several ECB Guidelines. Two of these have been published in the Official Journal:

- Guideline of the European Central Bank of 1 December 1998 on the statistical reporting requirements of the European Central Bank in the field of balance of payments and international investment position statistics (ECB/1998/17);
- Guideline of the European Central Bank of 7 July 1998 on certain provisions regarding euro banknotes as amended on 26 August 1999 (ECB/1999/3).

Parts of the remaining ECB Guidelines, in particular those provisions which specify the operational framework of the ESCB/Eurosystem, have been published by the ECB itself on account of the interest of issues which they address for operators in the market and for the general public.

- “The single monetary policy in Stage Three: Specification of the operational framework”
- “The single monetary policy in Stage Three: General documentation on ESCB monetary policy instruments and procedures”

#### 4 Internal Decisions

In addition to ECB Guidelines and Instructions, the ECB has the competence to adopt internal Decisions which have a normative value within the system and which address matters of an internal organisational or administrative nature. There are no explicit addressees, but these Decisions are legally binding on the Eurosystem. Until now the ECB has adopted several such Decisions; some of them have been published in the Official Journal, for instance:

- Decision of the European Central Bank of 3 November 1998 concerning public access to documentation and the archives of the European Central Bank (ECB/1998/12);

#### 5 Concluding remarks

The regulatory powers of the ECB reflect the particular status of the ESCB/Eurosystem within the overall Community framework. By equipping the ECB with the competence to adopt Regulations, Decisions, Opinions and Recommendations and thus making the ECB a “Community legislator”, the Treaty and the Statute emphasise that conferring tasks upon the ESCB/Eurosystem is not sufficient; in order to make the system operational and effective,

#### ECB Instructions

ECB Instructions are adopted by the Executive Board. They do not of themselves have a policy objective, but rather are designed to ensure implementation of monetary policy Decisions and Guidelines by giving specific and detailed instructions to the national central banks of the Eurosystem.

Even though they may be considered to have a lower hierarchical status than other Community legal acts, ECB Instructions constitute an important part of the legal framework which is legally binding on the national central banks of the Eurosystem and judicially enforceable.

- Decision of the European Central Bank of 1 December 1998 on the national central banks’ percentage shares in the key for the capital of the European Central Bank (ECB/1998/13);
- Decision of the European Central Bank of 1 December 1998 laying down the measures necessary for the paying-up of the capital of the European Central Bank by the non-participating national central banks (ECB/1998/14).

these tasks need to be complemented by the legal instruments necessary for them to be implemented both at the Community level and at the level of the Member States. At the same time, these regulatory powers reinforce the independence of the ESCB/Eurosystem.

By virtue of its competence to adopt ECB Guidelines and ECB Instructions, the ECB has the necessary legal instruments at its disposal

to make the system functional. By contrast with Community Regulations, Decisions, Opinions and Recommendations, the concepts of which have been developed over time, ECB Guidelines and ECB Instructions are new legal instruments which have been designed to cope with the special features of the Eurosystem.

The ECB is aware that the assignment of regulatory powers means not only increased influence, but also increased responsibility and accountability. As repeatedly indicated, the ECB aims not only at being open, transparent and clear about the reasons for its actions, but also at ensuring that it is accountable for its performance.





## **Euro area statistics**



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# I Monetary policy statistics

**Table I.1**
**Consolidated financial statement of the Eurosystem**
*(EUR millions)*
**1. Assets**

		Gold and gold	Claims on non-	Claims on euro	Claims on non-	Lending to	Main	Longer-term	Fine-tuning
		receivables	euro area	area residents in	euro area	financial sector			
		1	residents in	foreign currency	residents	counterparties in	operations	operations	operations
			foreign currency		in euro	the euro area			
			2	3	4	5	6	7	8
1999	4 June	105,307	236,031	12,428	4,345	184,680	139,032	44,997	0
	11	105,307	238,154	12,499	4,216	174,876	129,020	44,997	0
	18	105,307	237,871	12,156	4,031	170,664	125,012	44,997	0
	25	105,307	238,361	11,927	3,941	170,641	125,020	44,997	0
	2 July	101,753	244,594	12,827	3,832	188,687	142,963	44,991	0
	9	101,753	244,546	12,415	4,002	198,094	152,001	44,991	0
	16	101,753	245,833	12,344	4,140	193,768	148,065	45,001	0
	23	101,754	247,105	11,717	4,364	194,138	146,956	45,001	0
	30	101,754	245,380	12,802	4,162	214,012	166,954	45,001	0
	6 Aug.	101,754	245,853	13,027	4,162	194,731	149,018	45,001	0
	13	101,754	245,650	12,724	4,107	189,871	143,990	45,001	0
	20	101,754	246,057	12,640	4,261	186,895	141,042	45,001	0
	27	101,754	245,415	12,580	4,116	205,150	159,071	44,996	0
	3 Sep.	101,754	245,588	11,915	4,281	197,748	152,043	44,996	0
	10	101,754	245,034	12,887	4,686	193,931	147,991	44,996	0
	17	101,754	245,923	12,472	5,028	188,657	142,932	44,994	0
	24	101,754	246,058	13,054	4,919	198,458	152,955	44,994	0
	1 Oct.	114,988	240,223	13,357	5,066	192,534	146,988	44,994	0
	8	114,988	240,037	13,649	5,026	191,099	145,071	44,994	0
	15	114,988	239,967	13,748	5,084	185,829	140,104	44,994	0
	22	114,988	240,735	13,741	5,084	171,707	125,054	44,994	0
	29	114,988	240,177	13,684	5,670	205,293	149,004	54,995	0

**2. Liabilities**

		Banknotes in	Liabilities to	Current accounts	Deposit facility	Fixed-term	Fine-tuning	Deposits	Debt certificates
		circulation	financial sector						
		1	counterparties	minimum			operations	margin calls	
			in the euro area	reserves system)					
			in euro						
			2	3	4	5	6	7	8
1999	4 June	338,980	106,950	106,826	101	0	0	23	10,158
	11	338,947	96,441	96,278	155	0	0	8	10,158
	18	337,865	103,238	103,141	91	0	0	6	10,158
	25	337,877	97,499	97,383	101	0	0	15	10,158
	2 July	342,556	112,235	112,120	95	0	0	20	10,158
	9	344,694	102,529	102,185	316	0	0	28	10,158
	16	344,405	104,586	104,499	68	0	0	19	10,158
	23	342,580	94,151	92,351	1,788	0	0	12	10,158
	30	345,768	109,826	109,789	27	0	0	10	10,158
	6 Aug.	348,034	106,144	105,807	292	0	0	45	10,158
	13	346,223	103,115	103,001	96	0	0	18	10,158
	20	342,257	100,588	95,691	4,883	0	0	14	10,158
	27	340,626	110,453	110,439	13	0	0	1	10,158
	3 Sep.	344,193	106,110	106,037	49	0	0	24	10,158
	10	344,254	100,011	99,984	20	0	0	7	10,158
	17	342,188	98,993	98,237	750	0	0	6	10,158
	24	340,327	103,953	103,863	76	0	0	14	10,158
	1 Oct.	343,179	109,898	109,679	154	0	0	65	8,606
	8	345,322	102,086	101,938	85	0	0	63	8,606
	15	343,752	109,329	109,011	184	0	0	134	8,606
	22	340,852	98,656	92,529	6,027	0	0	100	8,606
	29	343,584	109,886	109,399	395	0	0	92	8,606

*Source: ECB.*

							Total	
Structural reverse operations	Marginal lending facility	Credits related to margin calls	Other lending	Securities of euro area residents in euro	General government debt in euro	Other assets		
9	10	11	12	13	14	15	16	
0	229	32	390	25,957	60,156	77,522	706,426	4 June
0	397	30	432	26,137	60,156	75,708	697,053	11
0	193	29	433	25,929	60,156	75,657	691,771	18
0	165	29	430	26,088	60,156	79,223	695,644	25
0	177	29	527	25,806	60,156	78,537	716,192	2 July
0	440	79	583	25,882	60,156	75,867	722,715	9
0	108	133	461	25,700	60,156	77,875	721,569	16
0	1,562	156	463	26,009	60,156	76,639	721,882	23
0	1,465	103	489	25,775	60,156	75,684	739,725	30
0	240	47	425	25,939	60,156	77,342	722,964	6 Aug.
0	149	70	661	26,033	60,156	75,965	716,260	13
0	186	99	567	26,087	60,156	75,529	713,379	20
0	304	115	664	25,966	60,156	78,829	733,966	27
0	3	52	654	25,838	60,156	79,848	727,128	3 Sep.
0	236	43	665	25,551	60,156	77,271	721,270	10
0	46	125	560	25,163	60,156	78,761	717,914	17
0	36	102	371	25,414	60,156	78,787	728,600	24
0	151	90	311	24,700	60,156	79,592	730,616	1 Oct.
0	334	94	606	24,631	60,156	79,827	729,413	8
0	195	76	460	24,309	60,156	80,277	724,358	15
0	1,111	46	502	24,102	60,156	79,433	709,946	22
0	650	69	575	23,428	60,156	79,228	742,624	29

								Total	
Liabilities to other euro area residents in euro	Liabilities to non-euro area residents in euro	Liabilities to euro area residents in foreign currency	Liabilities to non-euro area residents in foreign currency	Counterpart of special drawing rights allocated by the IMF	Revaluation accounts	Capital and reserves	Other liabilities		
9	10	11	12	13	14	15	16	17	
44,070	7,457	902	7,269	6,042	78,479	54,858	51,261	706,426	4 June
45,428	7,275	776	9,603	6,042	78,479	53,227	50,677	697,053	11
36,035	6,918	733	9,028	6,042	78,479	53,226	50,049	691,771	18
40,939	7,075	734	9,265	6,042	78,479	53,227	54,349	695,644	25
40,446	7,158	782	8,994	6,192	82,510	53,231	51,930	716,192	2 July
56,382	6,962	757	8,559	6,192	82,510	53,217	50,755	722,715	9
52,128	6,924	741	9,611	6,192	82,510	53,217	51,097	721,569	16
61,172	7,265	716	9,924	6,192	82,510	53,217	53,997	721,882	23
62,055	6,727	871	10,606	6,192	82,510	53,218	51,794	739,725	30
45,219	6,988	1,037	10,032	6,192	82,510	53,218	53,432	722,964	6 Aug.
44,255	8,186	924	9,604	6,192	82,510	53,219	51,874	716,260	13
47,592	7,618	952	9,701	6,192	82,510	53,220	52,591	713,379	20
57,773	7,545	1,000	9,264	6,192	82,510	53,220	55,225	733,966	27
53,401	7,509	905	8,372	6,192	82,510	53,221	54,557	727,128	3 Sep.
54,393	7,398	904	8,958	6,192	82,510	53,221	53,271	721,270	10
52,897	7,180	855	9,696	6,192	82,510	53,221	54,024	717,914	17
58,991	7,260	872	10,460	6,192	82,510	53,222	54,655	728,600	24
45,950	7,433	1,078	9,840	6,229	89,826	53,220	55,357	730,616	1 Oct.
51,323	7,214	1,040	9,687	6,229	89,826	53,221	54,859	729,413	8
41,971	7,127	1,039	9,909	6,229	89,827	53,223	53,346	724,358	15
40,259	7,648	1,071	10,610	6,229	89,835	53,225	52,955	709,946	22
59,464	7,132	1,282	9,842	6,229	89,835	53,225	53,539	742,624	29

**Table 1.2****ECB interest rates on standing facilities***(levels in percentages per annum; changes in percentage points)*

		Deposit facility		Marginal lending facility	
		Level	Change	Level	Change
		1	2	3	4
1999	1 Jan.	2.00	-	4.50	-
	4 <sup>1)</sup>	2.75	0.75	3.25	-1.25
	22	2.00	-0.75	4.50	1.25
	9 Apr.	1.50	-0.50	3.50	-1.00
	5 Nov.	2.00	0.50	4.00	0.50

Source: ECB.

1) On 22 December 1998 the ECB announced that, as an exceptional measure between 4 January and 21 January 1999, a narrow corridor of 50 basis points would be applied between the interest rates for the marginal lending facility and the deposit facility, aimed at facilitating the transition to the new regime by market participants.

**Table 1.3****Eurosystem monetary policy operations allotted through tenders <sup>1)</sup>***(EUR millions; interest rates in percentages per annum)*

Main refinancing operations							
Date of settlement	Bids (amount)	Allotment (amount)	Fixed rate tenders		Variable rate tenders		
			Fixed rate	Marginal rate	Weighted average rate	Running for [...] days	
	1	2	3	4	5	6	
1999	7 July	1,282,746	95,000	2.50		14	
	14	1,247,454	53,000	2.50		14	
	21	1,479,409	94,000	2.50		14	
	28	1,342,169	73,000	2.50		14	
	4 Aug.	1,412,815	76,000	2.50		14	
	11	1,346,203	68,000	2.50		14	
	18	1,538,142	73,000	2.50		14	
	25	1,431,145	86,000	2.50		14	
	1 Sep.	1,490,635	66,000	2.50		14	
	8	1,334,847	82,000	2.50		14	
	15	1,051,251	61,000	2.50		14	
	22	660,532	92,000	2.50		14	
	29	926,416	55,000	2.50		14	
	6 Oct.	1,655,341	90,000	2.50		14	
	13	1,289,972	50,000	2.50		15	
	20	1,107,860	75,000	2.50		14	
	28	1,937,221	74,000	2.50		13	
	3 Nov.	2,344,082	66,000	2.50		14	
Longer-term refinancing operations							
Date of settlement	Bids (amount)	Allotment (amount)	Fixed rate tenders		Variable rate tenders		
			Fixed rate	Marginal rate	Weighted average rate	Running for [...] days	
	1	2	3	4	5	6	
1999	14 Jan.	79,846	15,000		3.13	42	
	14	39,343	15,000		3.10	70	
	14	46,152	15,000		3.08	105	
	25 Feb.	77,300	15,000		3.04	91	
	25 Mar.	53,659	15,000		2.96	2.97	
	29 Apr.	66,911	15,000		2.53	2.54	
	27 May	72,294	15,000		2.53	2.54	
	1 July	76,284	15,000		2.63	2.64	
	29	64,973	15,000		2.65	2.66	
	26 Aug.	52,416	15,000		2.65	2.66	
	30 Sep.	41,443	15,000		2.66	2.67	
	28 Oct.	74,430	25,000		3.19	3.42	
Other tender operations							
Date of settlement	Type of operation	Bids (amount)	Allotment (amount)	Fixed rate tenders		Variable rate tenders	
				Fixed rate	Marginal rate	Weighted average rate	Running for [...] days
	1	2	3	4	5	6	7
1999							

Source: ECB.

1) The amounts shown may differ slightly from those in Table 1.1, columns 6 to 8, due to operations allotted but not executed.

**Table 1.4****Minimum reserve statistics****1. Reserve base of credit institutions subject to reserve requirements**<sup>1) 2)</sup>*(EUR billions; end of period)*

Reserve base as at:	Total	Liabilities to which a 2% reserve coefficient is applied			Liabilities to which a 0% reserve coefficient is applied		
		Deposits (overnight, up to 2 years agreed maturity and notice period)	Debt securities up to 2 years agreed maturity	Money market paper	Deposits (over 2 years agreed maturity and notice period)	Repos	Debt securities over 2 years agreed maturity
	1	2	3	4	5	6	7
1999 Jan.	8,607.9	4,838.9	83.1	146.0	1,105.4	510.6	1,923.9
Feb.	8,638.7	4,801.1	86.9	148.9	1,111.6	543.9	1,946.5
Mar.	8,685.3	4,803.5	88.8	151.2	1,125.6	549.8	1,966.4
Apr.	8,741.2	4,827.7	93.3	160.3	1,129.3	542.0	1,988.6
May	8,797.6	4,867.2	101.1	158.7	1,130.8	541.0	1,999.0
June	8,857.3	4,916.6	106.3	152.0	1,145.5	517.6	2,019.3
July	8,848.9	4,895.7	109.2	155.5	1,153.5	513.8	2,021.2
Aug.	8,856.3	4,893.0	113.2	165.4	1,164.9	484.8	2,035.0
Sep. <sup>(p)</sup>	8,967.1	4,910.1	123.0	169.5	1,168.1	537.4	2,059.2

Source: ECB.

- 1) Liabilities vis-à-vis other credit institutions subject to the ESCB's minimum reserve system, the ECB and participating national central banks are excluded from the reserve base. If a credit institution cannot provide evidence of the amount of its issues of debt securities with a maturity of up to 2 years and of money market paper held by the institutions mentioned above, it may deduct 10% of these liabilities from its reserve base.
- 2) Maintenance periods start on the 24th of the month and run to the 23rd of the following month; the required reserve is calculated from the reserve base as at the end of the preceding month.

**2. Reserve maintenance**<sup>1)</sup>*(EUR billions; interest rates as annual percentages)*

Maintenance period ending in:	Required reserves <sup>2)</sup>	Actual reserves <sup>3)</sup>	Excess reserves <sup>4)</sup>	Deficiencies <sup>5)</sup>	Interest rate on minimum reserves <sup>6)</sup>
	1	2	3	4	5
1999 Feb.	98.3	99.3	1.1	0.1	3.00
Mar.	100.6	101.5	0.9	0.1	3.00
Apr.	100.1	100.7	0.6	0.0	2.84
May	100.2	101.0	0.8	0.0	2.50
June	100.9	101.5	0.6	0.0	2.50
July	102.0	102.7	0.8	0.0	2.50
Aug.	102.8	103.5	0.6	0.0	2.50
Sep.	102.6	103.0	0.5	0.0	2.50
Oct.	102.8	103.3	0.6	0.0	2.50
Nov. <sup>(p)</sup>	103.4				

Source: ECB.

- 1) This table contains full data for completed maintenance periods and required reserves for the current maintenance period.
- 2) The amount of reserve requirement of each individual credit institution is first calculated by applying the reserve ratio for the corresponding categories of liabilities to the eligible liabilities, using the balance sheet data as at the end of each calendar month; subsequently, each credit institution deducts from this figure a lump-sum allowance of EUR 100,000. The resulting reserve requirements are then aggregated at the euro area level.
- 3) Aggregate average daily holdings of credit institutions required to hold a positive amount of reserves on their reserve accounts over the maintenance period.
- 4) Average actual reserve holdings over the maintenance period in excess of the required reserves, computed on the basis of those credit institutions that have fulfilled the reserve requirement.
- 5) Average shortfalls of actual reserve holdings from required reserves over the maintenance period, computed on the basis of those credit institutions that have not fulfilled the reserve requirement.
- 6) This rate equals the average, over the maintenance period, of the ECB's rate (weighted according to the number of calendar days) on the Eurosystem's main refinancing operations (see Table 1.3).

**Table 1.5****Banking system's liquidity position<sup>1)</sup>***(EUR billions; period averages of daily positions)*

Maintenance period ending in:	Liquidity-providing factors					Liquidity-absorbing factors				Credit institutions current accounts <sup>9)</sup>	Base money <sup>5)</sup>
	Eurosystem's net assets in gold and foreign currency	Monetary policy operations of the Eurosystem				Deposit facility	Banknotes in circulation	Central government deposits with the Eurosystem	Other factors (net) <sup>3)</sup>		
		Main refinancing operations	Longer-term refinancing operations	Other operations <sup>2)</sup>	Marginal lending facility						
1	2	3	4	5	6	7	8	9	10	11	
1999 Feb.	328.2	104.6	34.2	30.6	3.8	1.3	329.3	41.1	29.5	100.2	430.8
Mar.	323.6	136.4	45.0	0.0	0.4	1.4	326.9	49.9	25.0	102.2	430.5
Apr.	338.4	130.1	45.0	0.0	0.7	0.3	331.0	42.9	38.9	101.1	432.4
May	342.5	121.6	45.0	0.0	0.8	0.4	333.8	36.3	38.1	101.3	435.5
June	339.8	132.0	45.0	0.0	0.3	0.6	337.0	40.4	37.2	101.9	439.5
July	342.4	143.1	45.0	0.0	0.4	0.6	342.1	45.7	39.5	103.0	445.6
Aug.	343.2	150.1	45.0	0.0	0.5	1.0	344.8	47.3	42.1	103.6	449.4
Sep.	343.5	150.4	45.0	0.0	0.2	0.7	342.1	51.4	41.6	103.3	446.1
Oct.	349.6	143.0	45.0	0.0	0.3	0.6	342.5	45.4	45.9	103.5	446.6

Source: ECB.

- 1) The banking system's liquidity position is defined as the current account holdings in euro of credit institutions in the euro area with the Eurosystem. Amounts are derived from the consolidated financial statement of the Eurosystem.
- 2) Includes monetary policy operations initiated by national central banks in Stage Two and outstanding at the start of Stage Three (excluding outright operations and the issuance of debt certificates).
- 3) Remaining items in the consolidated financial statement of the Eurosystem.
- 4) Equal to the difference between the sum of liquidity-providing factors (items 1 to 5) and the sum of liquidity-absorbing factors (items 6 to 9).
- 5) Calculated as the sum of the deposit facility (item 6), banknotes in circulation (item 7) and credit institutions' current account holdings (item 10) or, alternatively, as the difference between the sum of liquidity-providing factors (items 1 to 5) and the sum of government deposits (item 8) and other factors (net) (item 9).



## 2 Monetary developments in the euro area

**Table 2.1**

### Aggregated balance sheet of the Eurosystem <sup>1) 2)</sup>

(EUR billions (not seasonally adjusted; end of period))

#### 1. Assets

		Loans to euro area residents				Holdings of securities of other than shares issued by euro area residents				Holdings of shares/ other equity issued by euro area residents			External assets <sup>3)</sup>	Fixed assets	Remaining assets	Total
		MFIs	General government	Other euro area residents	MFIs	General government	Other euro area residents	MFIs	Other euro area residents	MFIs	Other euro area residents					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1998	Jan.	222.3	200.7	21.2	0.4	111.7	1.0	109.3	1.5	2.9	0.3	2.6	323.9	7.2	41.2	709.2
	Feb.	245.2	223.4	21.2	0.7	108.2	1.0	105.8	1.5	2.9	0.4	2.5	324.2	7.3	42.4	730.2
	Mar.	230.2	208.8	21.2	0.2	106.6	1.2	104.2	1.3	3.0	0.4	2.6	323.5	7.5	39.5	710.3
	Apr.	224.9	203.3	21.2	0.4	102.5	1.4	100.2	0.9	3.0	0.4	2.6	327.8	7.6	43.7	709.5
	May	227.0	205.6	21.2	0.3	101.9	1.6	99.4	0.9	3.0	0.4	2.6	331.0	7.7	46.8	717.4
	June	293.4	272.1	21.1	0.2	105.4	4.8	99.7	0.8	3.2	0.6	2.6	337.2	7.8	47.9	794.9
	July	314.2	292.9	21.1	0.2	87.8	1.1	85.9	0.8	4.8	2.1	2.8	333.2	8.0	49.8	798.0
	Aug.	313.9	292.6	21.1	0.2	88.1	0.9	86.3	0.9	4.8	2.0	2.8	333.1	8.0	54.8	802.7
	Sep.	302.8	281.5	21.1	0.2	82.7	1.0	81.0	0.7	4.8	2.0	2.8	329.4	8.0	50.0	777.6
	Oct.	305.1	283.8	21.1	0.2	73.3	0.9	71.7	0.7	4.8	1.9	2.9	334.7	8.1	49.7	775.7
	Nov.	300.6	279.1	21.1	0.4	78.0	1.0	76.3	0.6	4.8	1.9	2.9	341.9	8.1	51.5	785.0
	Dec.	225.2	204.6	20.4	0.1	87.8	1.1	86.2	0.5	5.5	1.8	3.7	317.2	7.9	49.3	692.9
1999	Jan.	490.9	470.3	20.4	0.2	89.2	1.3	87.3	0.6	8.2	4.1	4.1	416.8	9.3	57.1	1,071.4
	Feb.	587.2	566.6	20.4	0.2	90.7	1.5	88.6	0.5	8.3	4.2	4.1	365.3	9.3	56.8	1,117.6
	Mar.	582.8	562.2	20.4	0.2	94.0	1.5	91.9	0.6	8.1	4.0	4.1	426.0	9.3	52.2	1,172.5
	Apr.	532.6	512.1	20.4	0.2	93.2	1.2	91.3	0.7	8.1	4.0	4.1	435.7	9.6	52.8	1,132.1
	May	465.9	445.3	20.4	0.2	93.1	1.6	90.8	0.7	8.2	4.0	4.2	387.3	9.6	51.1	1,015.3
	June	751.5	730.9	20.4	0.2	92.4	1.5	90.0	0.9	8.8	4.4	4.3	499.2	9.7	48.1	1,409.5
	July	744.3	723.7	20.4	0.2	92.3	1.5	89.9	0.9	8.7	4.4	4.4	451.8	9.8	52.6	1,359.6
	Aug.	512.7	492.2	20.4	0.1	91.9	1.1	90.0	0.7	8.8	4.4	4.4	423.0	9.9	53.8	1,100.0
	Sep. <sup>4)</sup>	457.8	437.2	20.4	0.2	92.5	1.4	90.0	1.1	8.7	4.3	4.4	424.6	9.8	47.7	1,041.2

#### 2. Liabilities

		Currency in circulation	Deposits of euro area residents	MFIs	Central government	Other general government/ other euro area residents	Money market paper	Debt securities issued	Capital and reserves	External liabilities <sup>3)</sup>	Remaining liabilities	Total
		1	2	3	4	5	6	7	8	9	10	11
1998	Jan.	339.9	136.3	83.4	50.7	2.2	15.5	14.8	110.0	32.4	60.3	709.2
	Feb.	339.9	159.2	93.7	61.5	4.0	15.2	14.6	108.2	31.4	61.7	730.2
	Mar.	340.5	137.9	88.4	46.8	2.7	14.0	14.5	107.4	31.7	64.3	710.3
	Apr.	343.8	131.3	84.8	44.3	2.2	14.6	14.4	106.5	32.6	66.3	709.5
	May	346.1	141.8	90.9	47.0	4.0	14.7	13.7	106.2	32.1	62.8	717.4
	June	345.4	217.8	159.1	54.2	4.5	14.4	13.3	114.3	27.2	62.5	794.9
	July	350.4	215.9	148.8	64.0	3.0	15.1	13.0	112.9	24.0	66.7	798.0
	Aug.	344.6	222.8	149.5	69.7	3.5	13.4	12.5	112.7	23.6	73.0	802.7
	Sep.	341.5	211.8	140.2	67.1	4.5	11.9	12.0	109.6	23.2	67.6	777.6
	Oct.	342.3	213.3	144.3	64.7	4.3	11.8	11.7	108.6	22.6	65.3	775.7
	Nov.	344.1	225.7	162.5	56.8	6.4	13.0	11.0	105.3	20.0	65.8	785.0
	Dec.	359.1	146.9	89.0	55.0	2.9	8.5	5.3	97.1	18.6	57.4	692.9
1999	Jan.	343.8	434.2	377.7	50.3	6.2	6.3	5.3	125.7	99.3	56.8	1,071.4
	Feb.	342.4	534.1	472.4	55.0	6.7	6.3	5.3	122.9	50.5	56.0	1,117.6
	Mar.	348.3	523.8	460.8	55.1	7.9	4.9	5.3	138.0	97.9	54.5	1,172.5
	Apr.	349.6	477.9	432.8	38.8	6.4	4.9	5.3	138.9	105.0	50.5	1,132.1
	May	353.0	404.4	354.2	42.7	7.5	4.9	5.3	137.4	61.2	49.2	1,015.3
	June	355.8	686.9	635.0	44.1	7.8	4.9	5.3	140.8	171.1	44.7	1,409.5
	July	363.6	671.7	609.5	56.4	5.8	4.9	5.3	139.9	124.1	50.2	1,359.6
	Aug.	358.6	445.7	385.1	54.5	6.1	4.9	5.3	139.9	93.7	52.0	1,100.0
	Sep. <sup>4)</sup>	359.4	391.4	333.7	50.7	6.9	3.3	5.3	146.5	88.8	46.5	1,041.2

Source: ECB.

1) The ECB was established on 1 June 1998. The data shown for the Eurosystem relate to the ECB (as from June 1998) and the national central banks of the Member States in the euro area.

2) Data have been revised in the light of new information.

3) From January 1999 including temporary gross positions of the Eurosystem with the national central banks of Member States not participating in the euro area related to the operation of the TARGET system. These positions amounted to approximately EUR 75 billion at end-January, EUR 27 billion at end-February, EUR 77 billion at end-March, EUR 84 billion at end-April, EUR 40 billion at end-May, EUR 149 billion at end-June, EUR 101 billion at end-July, EUR 72 billion at end-August and EUR 66 billion at end-September.

**Table 2.2****Aggregated balance sheet of the euro area MFIs, excluding the Eurosystem <sup>1)</sup>***(EUR billions (not seasonally adjusted; end of period))***1. Assets**

		Loans to euro area residents				Holdings of securities other than shares issued by euro area residents				Money market paper	Holdings of shares/other equity issued by euro area residents			External assets	Fixed assets	Re-remaining assets	Total
		1	2	3	4	5	6	7	8		10	11	12				
1998	Jan.	8,501.3	2,974.4	806.4	4,720.6	1,909.4	646.6	1,074.0	188.9	106.4	351.2	102.2	249.0	1,597.3	236.4	826.4	13,528.4
	Feb.	8,538.7	2,986.8	807.9	4,744.0	1,930.2	649.9	1,086.2	194.1	108.2	363.7	106.6	257.1	1,623.6	236.7	831.4	13,632.5
	Mar.	8,561.6	2,979.8	806.0	4,775.8	1,954.5	652.3	1,103.7	198.6	107.8	384.4	110.9	273.5	1,676.7	238.0	811.3	13,734.4
	Apr.	8,617.1	2,999.7	810.9	4,806.5	1,975.6	661.8	1,114.8	199.1	108.2	396.1	114.0	282.1	1,634.0	238.2	830.8	13,800.1
	May	8,618.2	2,994.0	799.7	4,824.4	1,998.3	669.1	1,126.5	202.7	107.4	404.0	116.4	287.7	1,632.9	247.0	845.6	13,853.4
	June	8,752.6	3,070.5	805.8	4,876.4	2,013.7	680.5	1,137.6	195.5	104.9	401.0	118.2	282.8	1,674.8	240.2	736.3	13,923.5
	July	8,732.2	3,013.8	801.4	4,917.0	2,034.4	696.2	1,137.2	201.0	105.3	392.2	117.2	275.1	1,632.7	235.3	779.7	13,911.9
	Aug.	8,756.1	3,035.8	803.9	4,916.4	2,040.5	702.9	1,136.1	201.6	104.7	386.4	118.2	268.3	1,641.1	236.3	768.9	13,933.9
	Sep.	8,836.2	3,071.9	807.8	4,956.5	2,047.7	707.5	1,136.4	203.9	106.9	380.3	108.9	271.4	1,654.4	236.9	783.4	14,045.8
	Oct.	8,972.3	3,167.7	813.7	4,990.9	2,074.5	715.9	1,151.2	207.4	106.0	387.3	115.0	272.3	1,636.3	239.0	781.5	14,196.9
	Nov.	9,100.8	3,245.0	817.8	5,038.0	2,071.5	721.9	1,147.2	202.4	113.5	401.9	116.0	285.8	1,681.3	241.2	798.4	14,408.5
	Dec.	9,082.9	3,171.3	820.4	5,091.2	2,016.9	728.0	1,095.4	193.6	107.1	422.1	120.9	301.2	1,590.2	243.8	783.6	14,246.8
1999	Jan.	9,302.2	3,380.9	820.4	5,100.9	2,047.0	736.8	1,103.2	206.9	108.0	430.4	112.9	317.5	1,633.9	244.6	936.0	14,701.9
	Feb.	9,199.0	3,268.3	820.9	5,109.8	2,063.4	744.9	1,115.5	202.9	112.2	441.5	117.5	324.0	1,589.3	243.4	954.6	14,603.2
	Mar.	9,254.9	3,282.9	818.7	5,153.3	2,086.4	759.3	1,129.4	197.6	99.1	468.1	125.7	342.4	1,644.1	244.6	883.7	14,680.9
	Apr.	9,299.7	3,308.5	811.4	5,179.8	2,103.8	773.3	1,128.5	201.9	104.8	481.1	126.0	355.0	1,632.5	246.3	846.6	14,714.6
	May	9,314.4	3,289.1	810.3	5,214.9	2,141.3	786.0	1,147.1	208.3	102.8	496.7	127.8	368.9	1,620.9	247.5	829.9	14,753.4
	June	9,454.1	3,338.5	816.0	5,299.5	2,137.2	799.3	1,127.2	210.7	101.6	482.9	124.6	358.3	1,640.5	249.3	840.7	14,906.3
	July	9,463.9	3,327.0	807.6	5,329.3	2,129.9	799.3	1,117.2	213.4	107.8	481.5	126.3	355.2	1,628.7	253.9	826.7	14,892.4
	Aug.	9,485.6	3,356.3	803.7	5,325.6	2,153.6	807.9	1,123.3	222.4	110.2	481.1	127.1	354.0	1,630.2	254.7	806.3	14,921.6
	Sep. <sup>(p)</sup>	9,560.0	3,382.0	809.1	5,368.9	2,185.0	825.3	1,140.1	219.7	112.1	482.0	129.2	352.8	1,655.3	256.8	793.5	15,044.7

**2. Liabilities**

		Currency in circulation	Deposits of euro area residents				Money market fund shares/units	Debt securities issued	Money market paper	Capital and reserves	External liabilities	Re-remaining liabilities	Total				
			1	2	3	4								5	6	7	8
1998	Jan.	0.4	7,791.3	3,038.7	95.9	4,656.6	1,179.9	1,917.8	1,341.8	217.1	253.7	1,946.6	145.2	690.8	1,426.8	1,273.7	13,528.4
	Feb.	0.4	7,838.6	3,075.0	98.4	4,665.2	1,181.7	1,922.1	1,345.1	216.3	255.7	1,969.9	147.2	696.0	1,460.8	1,263.9	13,632.5
	Mar.	0.4	7,845.7	3,086.2	92.8	4,666.7	1,210.8	1,897.2	1,346.4	212.2	255.5	1,987.2	149.5	710.3	1,512.0	1,273.7	13,734.4
	Apr.	0.4	7,876.4	3,088.8	97.2	4,690.3	1,225.3	1,912.4	1,346.0	206.6	258.3	2,001.5	156.3	702.6	1,483.3	1,321.3	13,800.1
	May	0.4	7,898.9	3,101.7	88.2	4,709.0	1,242.3	1,910.6	1,347.9	208.2	261.2	2,013.3	150.9	712.2	1,476.3	1,340.2	13,853.4
	June	0.4	7,999.4	3,174.8	94.0	4,730.5	1,289.8	1,890.8	1,346.5	203.4	259.8	2,042.4	145.9	718.7	1,496.1	1,260.8	13,923.5
	July	0.4	7,961.8	3,163.3	92.4	4,706.1	1,250.8	1,893.9	1,345.9	215.5	259.8	2,063.1	152.8	720.1	1,472.9	1,281.2	13,911.9
	Aug.	0.4	7,982.1	3,183.7	95.4	4,702.9	1,241.8	1,905.4	1,347.6	208.2	264.7	2,074.7	152.9	720.1	1,475.8	1,263.3	13,933.9
	Sep.	0.4	8,038.0	3,234.8	90.0	4,713.2	1,263.5	1,890.8	1,347.6	211.3	260.3	2,093.9	154.1	721.7	1,489.4	1,288.0	14,045.8
	Oct.	0.4	8,136.8	3,315.0	90.8	4,731.0	1,268.8	1,889.2	1,350.8	222.3	258.4	2,096.9	161.1	725.9	1,530.3	1,287.2	14,196.9
	Nov.	0.4	8,245.3	3,399.8	91.9	4,753.6	1,308.8	1,888.9	1,353.5	202.4	259.6	2,112.8	169.5	727.6	1,598.0	1,295.3	14,408.5
	Dec.	0.4	8,262.1	3,312.8	95.7	4,853.6	1,382.2	1,908.3	1,385.9	177.2	241.1	2,113.9	160.8	737.7	1,506.3	1,224.3	14,246.8
1999	Jan.	0.4	8,396.8	3,456.5	81.8	4,858.5	1,402.8	1,974.2	1,310.3	171.2	272.0	2,148.5	169.6	748.5	1,591.4	1,374.8	14,701.9
	Feb.	0.4	8,297.2	3,367.9	85.3	4,844.0	1,375.9	1,971.5	1,312.6	183.9	286.5	2,173.7	174.7	753.2	1,590.5	1,326.9	14,603.2
	Mar.	0.5	8,345.6	3,407.8	79.1	4,858.7	1,382.0	1,987.0	1,310.8	178.9	279.8	2,193.6	180.5	759.3	1,612.9	1,308.8	14,680.9
	Apr.	0.5	8,347.3	3,397.1	77.8	4,872.4	1,402.1	1,983.8	1,314.2	172.3	297.4	2,223.8	190.1	769.5	1,631.6	1,254.5	14,714.6
	May	0.5	8,374.2	3,406.5	78.8	4,889.0	1,428.3	1,974.1	1,314.1	172.5	296.7	2,247.9	190.2	777.5	1,656.1	1,210.3	14,753.4
	June	0.5	8,443.1	3,442.2	82.0	4,919.0	1,473.8	1,959.9	1,318.5	166.8	305.3	2,269.4	182.8	786.0	1,667.2	1,251.9	14,906.3
	July	0.5	8,448.3	3,443.4	78.8	4,926.1	1,464.3	1,976.9	1,320.8	164.0	302.2	2,276.0	183.7	792.2	1,648.5	1,240.9	14,892.4
	Aug.	0.6	8,448.9	3,457.8	83.1	4,908.0	1,437.5	1,987.5	1,320.0	162.9	307.2	2,291.6	194.4	792.0	1,681.7	1,205.3	14,921.6
	Sep. <sup>(p)</sup>	0.6	8,491.7	3,489.2	82.2	4,920.3	1,466.4	1,977.2	1,318.0	158.8	309.3	2,330.7	200.0	797.2	1,691.1	1,224.2	15,044.7

Source: ECB.

<sup>1)</sup> Data have been revised in the light of new information.



**Table 2.3****Consolidated balance sheet of the euro area MFIs, including the Eurosystem<sup>1) 2)</sup>***(EUR billions (not seasonally adjusted; end of period))***1. Assets: levels outstanding**

		Loans to euro area residents		Holdings of securities other than shares issued by euro area residents			Holdings of shares/other equity issued by euro area residents	External assets <sup>4)</sup>	Fixed assets	Remaining assets	Total	
		General government	Other euro area residents	General government	Other euro area residents							
		1	2	3	4	5	6	7	8	9	10	11
1998	Jan.	5,548.5	827.5	4,721.0	1,373.6	1,183.2	190.4	251.6	1,921.2	243.6	838.7	10,177.1
	Feb.	5,573.8	829.1	4,744.7	1,387.6	1,192.0	195.6	259.6	1,947.8	244.0	845.2	10,257.9
	Mar.	5,603.2	827.2	4,776.0	1,407.7	1,207.9	199.8	276.1	2,000.2	245.5	821.7	10,354.3
	Apr.	5,639.0	832.1	4,806.9	1,414.9	1,215.0	199.9	284.7	1,961.8	245.8	845.0	10,391.2
	May	5,645.6	820.9	4,824.7	1,429.4	1,225.9	203.5	290.3	1,963.9	254.7	863.1	10,447.0
	June	5,703.4	826.9	4,876.6	1,433.7	1,237.3	196.4	285.4	2,012.1	248.0	753.8	10,436.4
	July	5,739.7	822.5	4,917.2	1,424.9	1,223.1	201.8	277.9	1,965.9	243.3	799.4	10,451.2
	Aug.	5,741.6	825.0	4,916.6	1,424.8	1,222.4	202.4	271.1	1,974.1	244.3	793.5	10,449.5
	Sep.	5,785.6	828.9	4,956.7	1,421.9	1,217.3	204.5	274.2	1,983.7	244.9	803.2	10,513.6
	Oct.	5,825.9	834.8	4,991.1	1,431.0	1,222.9	208.1	275.2	1,971.0	247.1	801.8	10,551.9
	Nov.	5,877.2	838.8	5,038.4	1,426.5	1,223.5	203.0	288.7	2,023.2	249.3	819.5	10,684.5
	Dec.	5,932.1	840.8	5,091.3	1,375.7	1,181.6	194.1	304.9	1,907.4	251.8	797.0	10,568.9
1999	Jan.	5,941.9	840.8	5,101.0	1,398.0	1,190.5	207.6	321.6	2,050.6	253.9	962.0	10,928.0
	Feb.	5,951.3	841.3	5,110.0	1,407.6	1,204.1	203.5	328.1	1,954.5	252.7	981.2	10,875.4
	Mar.	5,992.7	839.1	5,153.5	1,419.5	1,221.3	198.2	346.6	2,070.1	253.9	904.6	10,987.4
	Apr.	6,011.8	831.8	5,180.0	1,422.4	1,219.8	202.6	359.2	2,068.1	255.9	868.9	10,986.3
	May	6,045.8	830.8	5,215.0	1,446.8	1,237.9	209.0	373.1	2,008.2	257.1	848.8	10,979.8
	June	6,136.1	836.4	5,299.7	1,428.8	1,217.2	211.6	362.6	2,139.7	259.0	856.1	11,182.2
	July	6,157.4	828.0	5,329.5	1,421.4	1,207.1	214.4	359.5	2,080.5	263.7	847.0	11,129.6
	Aug.	6,149.9	824.1	5,325.8	1,436.5	1,213.3	223.2	358.3	2,053.2	264.6	827.1	11,089.5
	Sep. <sup>4)</sup>	6,198.6	829.5	5,369.1	1,450.8	1,230.1	220.7	357.2	2,079.9	266.7	808.3	11,161.5

**2. Liabilities: levels outstanding**

		Currency in circulation	Deposits of central government	Deposits of other government/other euro area residents	Over-night	With agreed maturity	Redeemable at notice	Repurchase agreements	Money market fund shares/units and money market paper	Debt securities issued	Capital and reserves	External liabilities <sup>4)</sup>	Remaining liabilities	Excess of inter-MFI liabilities	Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1998	Jan.	311.4	146.6	4,658.8	1,182.1	1,917.8	1,341.8	217.1	308.0	1,313.8	698.3	1,459.2	1,334.0	-52.9	10,177.1
	Feb.	311.7	160.0	4,669.2	1,185.6	1,922.1	1,345.1	216.3	309.8	1,333.6	697.3	1,492.3	1,325.6	-41.4	10,257.9
	Mar.	311.8	139.6	4,669.4	1,213.6	1,897.2	1,346.4	212.2	311.2	1,348.3	706.4	1,543.7	1,338.0	-14.0	10,354.3
	Apr.	314.8	141.6	4,692.5	1,227.5	1,912.4	1,346.0	206.6	321.0	1,352.6	694.7	1,515.9	1,387.6	-29.4	10,391.2
	May	317.2	135.1	4,713.0	1,246.3	1,910.6	1,347.9	208.2	319.4	1,356.2	701.7	1,508.4	1,403.0	-7.0	10,447.0
	June	315.5	148.2	4,735.0	1,294.3	1,890.8	1,346.5	203.4	315.1	1,370.3	714.3	1,523.3	1,323.3	-8.7	10,436.4
	July	320.6	156.4	4,709.1	1,253.8	1,893.9	1,345.9	215.5	322.3	1,378.7	713.8	1,496.9	1,347.9	5.4	10,451.2
	Aug.	314.9	165.2	4,706.4	1,245.3	1,905.4	1,347.6	208.2	326.3	1,383.4	712.7	1,499.4	1,336.4	4.8	10,449.5
	Sep.	311.7	157.1	4,717.7	1,268.0	1,890.8	1,347.6	211.3	319.5	1,397.5	720.4	1,512.5	1,355.6	21.6	10,513.6
	Oct.	313.3	155.5	4,735.3	1,273.1	1,889.2	1,350.8	222.3	325.3	1,391.8	717.6	1,552.9	1,352.5	7.8	10,551.9
	Nov.	314.2	148.8	4,759.9	1,315.1	1,888.9	1,353.5	202.4	328.7	1,400.9	714.9	1,618.0	1,361.1	38.1	10,684.5
	Dec.	323.6	150.7	4,856.5	1,385.1	1,908.3	1,385.9	177.2	303.4	1,390.2	712.1	1,524.9	1,281.7	25.9	10,568.9
1999	Jan.	313.2	132.1	4,864.7	1,409.0	1,974.2	1,310.3	171.2	339.9	1,415.6	757.3	1,690.7	1,431.6	-17.1	10,928.0
	Feb.	312.7	140.4	4,850.7	1,382.6	1,971.5	1,312.6	183.9	355.3	1,432.5	754.4	1,641.1	1,382.9	5.4	10,875.4
	Mar.	317.5	134.2	4,866.6	1,389.9	1,987.0	1,310.8	178.9	366.0	1,438.0	767.5	1,710.8	1,363.3	23.4	10,987.4
	Apr.	319.5	116.6	4,878.8	1,408.4	1,983.8	1,314.2	172.4	387.5	1,454.5	778.4	1,736.6	1,305.0	9.3	10,986.3
	May	321.3	121.5	4,896.4	1,435.7	1,974.1	1,314.1	172.6	388.9	1,465.6	783.1	1,717.3	1,259.5	26.2	10,979.8
	June	323.7	126.1	4,926.8	1,481.6	1,959.9	1,318.5	166.8	391.3	1,474.0	797.7	1,838.3	1,296.7	7.7	11,182.2
	July	331.7	135.2	4,931.9	1,469.9	1,976.9	1,320.8	164.2	382.9	1,480.5	801.4	1,772.6	1,291.1	2.1	11,129.6
	Aug.	326.2	137.6	4,914.1	1,443.4	1,987.5	1,320.0	163.1	396.3	1,487.9	800.3	1,775.4	1,257.3	-5.6	11,089.5
	Sep. <sup>4)</sup>	327.0	132.9	4,927.2	1,473.2	1,977.2	1,318.0	158.8	400.5	1,509.2	810.2	1,779.9	1,270.8	3.7	11,161.5

Source: ECB.

- 1) The ECB was established on 1 June 1998. The data shown for the Eurosystem relate to the ECB (as from June 1998) and the national central banks of the Member States in the euro area.
- 2) Data have been revised in the light of new information.
- 3) Calculated from monthly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.
- 4) From January 1999 including temporary gross positions of the Eurosystem with the national central banks of Member States not participating in the euro area related to the operation of the TARGET system. These positions amounted to approximately EUR 75 billion at end-January, EUR 27 billion at end-February, EUR 77 billion at end-March, EUR 84 billion at end-April, EUR 40 billion at end-May, EUR 149 billion at end-June, EUR 101 billion at end-July, EUR 72 billion at end-August and EUR 66 billion at end-September.

(EUR billions (not seasonally adjusted))

### 3. Assets: flows <sup>3)</sup>

		Loans to euro area residents			Holdings of securities other than shares issued by euro area residents			Holdings of shares/other equity issued by other euro area residents	External assets <sup>4)</sup>	Fixed assets	Remaining assets	Total
		1	2	3	4	5	6	7	8	9	10	11
1998	Feb.	28.6	2.4	26.3	14.1	8.8	5.3	8.0	33.4	0.4	6.2	90.7
	Mar.	30.9	-1.9	32.8	19.2	15.1	4.2	16.4	40.4	1.5	-23.5	85.0
	Apr.	39.8	5.0	34.8	7.8	7.5	0.3	8.6	-4.7	0.3	23.1	74.9
	May	8.3	-11.1	19.4	14.8	11.1	3.7	5.6	16.1	9.0	17.9	71.6
	June	66.7	5.9	60.8	2.9	10.7	-7.8	-6.0	32.0	-6.7	-104.5	-15.7
	July	40.0	-4.2	44.2	-11.7	-17.3	5.6	-6.8	-23.6	-4.7	45.9	39.2
	Aug.	1.5	2.4	-0.9	-0.4	-0.9	0.5	-6.7	-1.9	1.0	-6.0	-12.5
	Sep.	50.8	4.2	46.6	-2.5	-5.0	2.6	3.1	79.9	0.6	-4.3	127.7
	Oct.	40.2	5.8	34.4	7.7	4.5	3.2	0.9	-21.9	2.3	-1.4	27.8
	Nov.	53.4	3.9	49.5	-4.7	0.5	-5.2	13.5	25.1	2.4	17.5	107.2
	Dec.	64.9	2.1	62.8	-49.9	-41.0	-8.9	16.2	-108.7	2.6	-22.1	-97.0
1999	Jan.	70.9	0.9	70.0	17.6	17.1	0.4	10.5	112.8	-0.2	151.9	363.5
	Feb.	7.1	0.3	6.8	9.1	13.5	-4.3	6.5	-132.2	-1.2	19.1	-91.6
	Mar.	36.2	-2.9	39.1	28.0	25.5	2.5	18.2	65.9	1.3	-87.1	62.5
	Apr.	17.7	-8.9	26.6	3.7	-0.6	4.3	12.6	-17.0	2.0	-35.8	-16.8
	May	33.1	-1.1	34.2	24.2	18.0	6.2	14.0	-72.1	1.2	-20.0	-19.7
	June	91.5	5.6	85.9	-19.3	-21.7	2.5	-11.1	116.9	1.7	6.9	186.5
	July	23.8	-8.3	32.1	-7.0	-10.0	3.0	-3.1	-22.4	4.7	-9.2	-13.1
	Aug.	-9.0	-4.0	-5.0	14.3	5.8	8.5	-1.3	-48.6	0.9	-19.9	-63.7
	Sep. <sup>(p)</sup>	48.5	5.4	43.1	13.4	16.0	-2.6	-1.1	10.1	2.1	-12.0	60.9

### 4. Liabilities: flows <sup>3)</sup>

		Currency in circulation	Deposits of central government	Deposits of other general government/other euro area residents				Money market fund shares/units and money market paper	Debt securities issued	Capital and reserves	External liabilities <sup>4)</sup>	Re-maining liabilities	Excess of inter-MFI liabilities	Total	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1998	Feb.	0.4	13.3	11.0	3.8	4.8	3.2	-0.8	1.9	20.5	0.5	38.8	-7.9	12.2	90.7
	Mar.	0.0	-20.4	-0.8	27.6	-25.6	1.3	-4.1	1.3	14.7	12.5	40.7	9.4	27.4	85.0
	Apr.	3.0	2.0	26.1	15.0	17.0	-0.4	-5.6	10.1	8.2	-11.1	-0.6	52.6	-15.4	74.9
	May	2.4	-6.5	21.8	19.3	-1.1	1.9	1.6	-1.4	6.2	7.4	2.7	16.7	22.3	71.6
	June	-1.7	13.1	20.8	47.4	-20.5	-1.4	-4.8	-4.4	14.5	15.5	3.2	-77.2	0.6	-15.7
	July	5.2	8.2	-23.6	-39.7	4.4	-0.6	12.2	7.4	11.6	-1.1	-8.9	24.8	15.6	39.2
	Aug.	-5.7	8.8	-3.8	-8.9	10.8	1.7	-7.3	3.8	3.1	-0.1	-6.4	-11.6	-0.5	-12.5
	Sep.	-3.2	-8.1	17.8	24.8	-10.5	0.2	3.2	-6.2	6.9	8.7	71.6	23.6	16.5	127.7
	Oct.	1.5	-1.6	16.9	4.7	-2.0	3.2	11.0	5.9	-9.0	-2.4	36.6	-6.1	-14.0	27.8
	Nov.	0.9	-6.7	22.2	41.2	-1.7	2.6	-19.9	3.1	7.6	-1.8	40.4	11.2	30.4	107.2
	Dec.	9.4	1.9	99.0	70.5	21.3	32.4	-25.2	-24.8	-10.9	-3.1	-82.7	-74.3	-11.6	-97.0
1999	Jan.	-9.4	-6.6	34.1	23.7	-2.2	14.6	-1.9	13.6	26.8	14.7	157.8	159.7	-27.2	363.5
	Feb.	-0.6	8.3	-24.1	-27.6	-11.5	2.2	12.7	15.1	13.0	-1.9	-83.6	-47.0	29.3	-91.6
	Mar.	4.8	-6.0	12.7	5.9	13.7	-1.9	-5.1	6.5	7.5	12.4	42.8	-29.9	11.7	62.5
	Apr.	2.0	-17.6	11.0	18.1	-3.9	3.4	-6.6	20.9	15.3	11.3	12.9	-58.9	-13.8	-16.8
	May	1.8	4.9	16.4	26.8	-10.4	-0.2	0.2	1.3	9.6	5.5	-31.4	-44.7	16.9	-19.7
	June	2.4	4.6	28.8	45.4	-15.1	4.4	-5.8	1.2	6.8	16.4	106.2	39.5	-19.4	186.5
	July	8.1	9.1	8.2	-10.6	18.9	2.4	-2.5	-7.9	9.5	4.0	-31.0	-6.9	-6.1	-13.1
	Aug.	-5.6	2.5	-21.4	-28.8	9.4	-0.9	-1.1	13.1	4.6	-0.8	-15.3	-35.2	-5.6	-63.7
	Sep. <sup>(p)</sup>	0.9	-4.7	12.4	29.8	-11.0	-2.0	-4.3	3.7	19.8	4.9	-5.6	20.4	9.3	60.9

**Table 2.4****Monetary aggregates<sup>1) 2)</sup>***(EUR billions (not seasonally adjusted) and annual percentage changes, unless otherwise indicated)***1. Levels outstanding at the end of the period**

		M1				Deposits		M2		Repurchase	Money	Debt
		Total	Index,	with agreed	redeemable	Total	Index,	agreements	market	securities		
			Dec. 98=100 <sup>3)</sup>	maturity up	at notice up		Dec. 98=100 <sup>3)</sup>		fund shares/ and money	up to		
		Currency in	Overnight	to 2 years	to 3 months				market	2 years		
		circulation	deposits						paper			
		1	2	3	4	5	6	7	8	9	10	11
1998	Jan.	311.4	1,253.6	1,565.0	87.97	908.4	1,177.5	3,650.9	93.59	217.1	308.0	74.8
	Feb.	311.7	1,254.1	1,565.8	88.03	905.1	1,181.6	3,652.5	93.65	216.3	309.8	79.6
	Mar.	311.8	1,283.8	1,595.5	89.68	878.8	1,183.4	3,657.7	93.76	212.2	311.2	85.8
	Apr.	314.8	1,295.9	1,610.7	90.59	892.6	1,185.1	3,688.4	94.60	206.6	321.0	86.4
	May	317.2	1,313.0	1,630.2	91.71	888.8	1,189.2	3,708.3	95.14	208.2	319.4	88.7
	June	315.5	1,361.7	1,677.2	94.32	871.2	1,189.0	3,737.4	95.86	203.4	315.1	87.8
	July	320.6	1,321.7	1,642.3	92.41	872.5	1,189.7	3,704.6	95.07	215.5	322.3	93.5
	Aug.	314.9	1,312.6	1,627.5	91.56	879.3	1,192.9	3,699.7	94.92	208.2	326.3	88.8
	Sep.	311.7	1,333.9	1,645.6	92.70	864.8	1,193.8	3,704.2	95.18	211.3	319.5	80.5
	Oct.	313.3	1,337.8	1,651.1	92.98	867.2	1,197.3	3,715.6	95.46	222.3	325.3	81.5
	Nov.	314.2	1,379.6	1,693.8	95.34	871.1	1,199.9	3,764.8	96.66	202.4	328.7	80.0
	Dec.	323.6	1,452.5	1,776.1	100.00	885.1	1,231.6	3,892.8	100.00	177.2	303.4	67.9
1999	Jan.	313.2	1,476.8	1,790.0	100.83	881.7	1,247.6	3,919.3	100.61	171.2	339.9	55.0
	Feb.	312.7	1,446.8	1,759.4	99.04	868.0	1,251.6	3,879.0	99.50	183.9	355.3	56.8
	Mar.	317.5	1,463.4	1,780.9	100.17	878.3	1,250.4	3,909.5	100.21	178.9	366.0	48.5
	Apr.	319.5	1,478.7	1,798.2	101.12	871.9	1,255.3	3,925.4	100.59	172.4	387.5	53.2
	May	321.3	1,503.5	1,824.8	102.59	862.5	1,259.3	3,946.6	101.11	172.6	388.9	59.0
	June	323.7	1,545.6	1,869.3	105.07	842.2	1,265.1	3,976.6	101.85	166.8	391.3	55.1
	July	331.7	1,539.9	1,871.6	105.26	854.0	1,269.9	3,995.5	102.40	164.2	382.9	60.2
	Aug.	326.2	1,512.8	1,839.0	103.29	857.4	1,270.1	3,966.4	101.57	163.1	396.3	61.4
	Sep. <sup>4)</sup>	327.0	1,537.2	1,864.2	104.71	844.9	1,268.3	3,977.4	101.83	158.8	400.5	67.2

**2. Flows<sup>4)</sup>**

		M1				Deposits		M2		Repurchase	Money	Debt
		Total	Annual	with agreed	redeemable	Total	Annual	agreements	market	securities		
			percentage	maturity up	at notice up		percentage		fund shares/ and money	up to		
			change <sup>4)</sup>	to 2 years	to 3 months		change <sup>4)</sup>		market	2 years		
		Currency in	Overnight						paper			
		circulation	deposits									
		1	2	3	4	5	6	7	8	9	10	11
1998	Feb.	0.4	0.7	1.1	8.3	-3.1	4.1	2.1	4.2	-0.8	1.9	4.9
	Mar.	0.0	29.3	29.4	8.8	-26.8	1.8	4.3	4.4	-4.1	1.3	6.2
	Apr.	3.0	13.2	16.2	10.3	15.1	1.8	33.1	5.1	-5.6	10.1	0.9
	May	2.4	17.6	20.0	10.1	-3.1	4.1	21.0	5.3	1.6	-1.4	2.6
	June	-1.7	48.1	46.4	9.5	-18.2	-0.2	28.0	5.3	-4.8	-4.4	-1.0
	July	5.2	-39.2	-34.1	8.1	2.4	0.7	-31.0	4.4	12.2	7.4	6.0
	Aug.	-5.7	-9.4	-15.2	8.2	6.3	3.2	-5.7	4.3	-7.3	3.8	-4.8
	Sep.	-3.2	23.5	20.3	7.9	-11.3	1.1	10.1	4.7	3.2	-6.2	-7.5
	Oct.	1.5	3.5	5.1	8.0	2.2	3.5	10.7	4.5	11.0	5.9	0.7
	Nov.	0.9	41.0	41.8	8.3	2.7	2.5	47.0	5.0	-19.9	3.1	-1.8
	Dec.	9.4	73.4	82.8	9.6	15.6	31.4	129.9	6.0	-25.2	-24.8	-12.2
1999	Jan.	-9.4	24.2	14.8	14.6	-6.7	15.6	23.6	7.5	-1.9	13.6	-1.2
	Feb.	-0.6	-31.2	-31.8	12.5	-15.2	3.9	-43.1	6.3	12.7	15.1	1.3
	Mar.	4.8	15.2	20.1	11.7	9.0	-1.4	27.7	6.9	-5.1	6.5	-1.7
	Apr.	2.0	14.9	16.9	11.6	-7.0	5.0	14.9	6.3	-6.6	20.9	1.8
	May	1.8	24.4	26.1	11.9	-9.8	3.9	20.2	6.3	0.2	1.3	5.6
	June	2.4	41.6	44.0	11.4	-21.0	5.8	28.8	6.2	-5.8	1.2	-4.0
	July	8.1	-4.6	3.4	13.9	13.2	4.9	21.5	7.7	-2.5	-7.9	5.4
	Aug.	-5.6	-29.4	-35.0	12.8	2.4	0.2	-32.3	7.0	-1.1	13.1	1.0
	Sep. <sup>4)</sup>	0.9	24.3	25.2	13.0	-13.0	-1.9	10.4	7.0	-4.3	3.7	5.4

Source: ECB.

- 1) Monetary aggregates comprise monetary liabilities of MFIs and central government (Post Office, Treasury) vis-à-vis non-MFI euro area residents excluding central government.
- 2) Data have been revised in the light of new information.
- 3) Taking the December 1998 outstanding level (not seasonally adjusted) as 100, the index shows the cumulative product of changes from that date calculated from flows as described in footnote 4. The percentage change in the index between any two dates corresponds to the change in the aggregate excluding such reclassifications, etc.
- 4) Calculated from monthly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions. For the calculation of growth rates, see the technical notes on page 48\*.

M3			Memo: Non-monetary liabilities of MFIs									
Total	Index, Dec. 98 = 100 <sup>3)</sup>		Deposits					Debt securities over 2 years	Capital and reserves	Total		
12	13	14	15	With agreed maturity over 2 years	Redeemable at notice over 3 months	17	18	19	20			
4,250.9	95.49		1,227.7	1,010.0	217.7	217.7	1,239.0	698.3	3,165.0	1998	Jan.	
4,258.3	95.67		1,235.2	1,017.7	217.5	217.5	1,254.0	697.3	3,186.5		Feb.	
4,267.0	95.84		1,235.8	1,019.1	216.8	216.8	1,262.5	706.4	3,204.7		Mar.	
4,302.4	96.71		1,235.2	1,020.5	214.7	214.7	1,266.2	694.7	3,196.2		Apr.	
4,324.6	97.24		1,235.3	1,022.3	213.0	213.0	1,267.5	701.7	3,204.6		May	
4,343.8	97.65		1,232.2	1,020.2	212.0	212.0	1,282.5	714.3	3,228.9		June	
4,335.9	97.52		1,232.6	1,021.8	210.8	210.8	1,285.2	713.8	3,231.7		July	
4,323.0	97.21		1,236.5	1,026.6	209.9	209.9	1,294.6	712.7	3,243.8		Aug.	
4,315.5	97.20		1,235.8	1,026.5	209.3	209.3	1,317.0	720.4	3,273.2		Sep.	
4,344.8	97.84		1,231.5	1,022.4	209.1	209.1	1,310.2	717.6	3,259.3		Oct.	
4,375.9	98.48		1,227.8	1,018.3	209.5	209.5	1,320.9	714.9	3,263.6		Nov.	
4,441.3	100.00		1,238.4	1,023.7	214.6	214.6	1,322.3	712.1	3,272.8		Dec.	
4,485.4	100.77		1,216.4	1,093.2	123.1	123.1	1,360.7	757.3	3,334.3	1999	Jan.	
4,475.1	100.45		1,226.2	1,104.3	121.8	121.8	1,375.7	754.4	3,356.2		Feb.	
4,502.9	101.07		1,230.4	1,109.5	120.9	120.9	1,389.5	767.5	3,387.4		Mar.	
4,538.4	101.76		1,231.6	1,112.9	118.7	118.7	1,401.4	778.4	3,411.4		Apr.	
4,567.0	102.38		1,227.7	1,112.5	115.2	115.2	1,406.6	783.1	3,417.4		May	
4,589.7	102.83		1,232.9	1,118.7	114.2	114.2	1,418.9	797.7	3,449.4		June	
4,602.8	103.20		1,235.6	1,123.6	112.0	112.0	1,420.3	801.4	3,457.3		July	
4,587.2	102.76		1,241.9	1,130.9	111.0	111.0	1,426.4	800.3	3,468.6		Aug.	
4,603.8	103.10		1,244.2	1,133.0	111.2	111.2	1,442.1	810.2	3,496.5		Sep. <sup>(p)</sup>	

M3			Memo: Non-monetary liabilities of MFIs									
Total	Annual percentage change <sup>4)</sup>	3-month moving average (centred)	Deposits					Debt securities over 2 years	Capital and reserves	Total		
12	13	14	15	With agreed maturity over 2 years	Redeemable at notice over 3 months	17	18	19	20			
8.0	4.6	4.7	7.6	7.8	-0.2	-0.2	15.6	0.5	23.7	1998	Feb.	
7.7	4.7	4.8	0.5	1.2	-0.8	-0.8	8.5	12.5	21.6		Mar.	
38.6	5.2	5.0	-0.1	1.9	-2.0	-2.0	7.2	-11.1	-3.9		Apr.	
23.8	5.0	5.1	0.2	1.9	-1.7	-1.7	3.6	7.4	11.2		May	
17.9	4.9	4.9	-3.3	-2.3	-1.0	-1.0	15.5	15.5	27.7		June	
-5.4	4.8	4.7	0.7	1.9	-1.2	-1.2	5.6	-1.1	5.2		July	
-14.1	4.5	4.6	3.6	4.5	-0.9	-0.9	7.9	-0.1	11.4		Aug.	
-0.3	4.5	4.6	0.3	0.8	-0.6	-0.6	14.4	8.7	23.4		Sep.	
28.4	4.9	4.7	-4.4	-4.1	-0.2	-0.2	-9.7	-2.4	-16.6		Oct.	
28.4	4.6	4.7	-4.0	-4.4	0.4	0.4	9.4	-1.8	3.6		Nov.	
67.7	4.6	4.9	11.2	5.7	5.5	5.5	1.3	-3.1	9.4		Dec.	
34.1	5.5	5.0	3.7	4.7	-1.0	-1.0	28.0	14.7	46.4	1999	Jan.	
-13.9	5.0	5.3	2.4	3.7	-1.3	-1.3	11.6	-1.9	12.1		Feb.	
27.4	5.5	5.2	3.9	4.7	-0.8	-0.8	9.1	12.4	25.4		Mar.	
31.0	5.2	5.3	1.0	3.3	-2.2	-2.2	13.5	11.3	25.8		Apr.	
27.3	5.3	5.3	-4.2	-0.7	-3.5	-3.5	3.9	5.5	5.3		May	
20.2	5.3	5.5	4.9	5.9	-1.0	-1.0	10.8	16.4	32.1		June	
16.4	5.8	5.6	3.3	5.4	-2.2	-2.2	4.1	4.0	11.3		July	
-19.3	5.7	5.9	6.0	7.0	-1.0	-1.0	3.7	-0.8	8.8		Aug.	
15.2	6.1	-	2.2	1.9	0.2	0.2	14.4	4.9	21.4		Sep. <sup>(p)</sup>	

**Table 2.4 (cont.)****Monetary aggregates<sup>1) 2)</sup>***(EUR billions and percentage changes, unless otherwise indicated)***3. Seasonally adjusted levels**

										M3	
		M1				M2		Marketable instruments <sup>5)</sup>		Total	Index <sup>3)</sup>
		M1		Other short-term deposits <sup>4)</sup>		Total	Index <sup>3)</sup>	Total			
		Total	Index <sup>3)</sup>	Total							
	1	2	3	4	5	6	7	8	9	10	
1998	Jan.	1,566.8	88.07	2,058.0		3,624.8	92.96	606.2		4,231.0	95.13
	Feb.	1,589.5	89.36	2,063.3		3,652.8	93.69	601.4		4,254.2	95.67
	Mar.	1,606.6	90.30	2,063.9		3,670.5	94.12	605.3		4,275.8	96.13
	Apr.	1,626.3	91.46	2,063.8		3,690.1	94.69	604.2		4,294.3	96.62
	May	1,634.7	91.97	2,071.4		3,706.1	95.13	602.2		4,308.3	96.97
	June	1,650.0	92.80	2,074.0		3,724.0	95.56	604.0		4,328.0	97.39
	July	1,643.3	92.47	2,068.9		3,712.3	95.31	630.3		4,342.6	97.77
	Aug.	1,651.6	92.91	2,074.0		3,725.7	95.63	613.8		4,339.5	97.67
	Sep.	1,660.4	93.53	2,077.5		3,737.9	96.09	612.0		4,349.9	98.07
	Oct.	1,673.5	94.25	2,078.4		3,751.9	96.43	633.2		4,385.2	98.85
	Nov.	1,681.0	94.62	2,094.6		3,775.6	96.98	614.3		4,389.9	98.89
	Dec.	1,696.7	95.53	2,106.7		3,803.4	97.74	577.2		4,380.7	98.73
1999	Jan.	1,786.9	100.66	2,100.7		3,887.6	99.84	572.9		4,460.5	100.31
	Feb.	1,781.5	100.28	2,096.8		3,878.3	99.52	592.3		4,470.5	100.45
	Mar.	1,798.8	101.18	2,129.6		3,928.4	100.74	590.0		4,518.4	101.51
	Apr.	1,814.9	102.06	2,113.1		3,928.0	100.70	602.4		4,530.3	101.68
	May	1,828.7	102.82	2,119.0		3,947.7	101.18	605.9		4,553.7	102.18
	June	1,843.9	103.64	2,119.9		3,963.8	101.56	610.5		4,574.3	102.58
	July	1,866.9	104.99	2,132.0		3,998.9	102.53	607.2		4,606.1	103.37
	Aug.	1,868.9	104.97	2,129.2		3,998.1	102.42	612.5		4,610.6	103.39
	Sep. <sup>(p)</sup>	1,880.5	105.62	2,133.6		4,014.1	102.82	625.8		4,639.9	104.01

**4. Seasonally adjusted flows<sup>6)</sup>**

										M3	
		M1				M2		Marketable instruments <sup>5)</sup>		Total	Change on previous month (%)
		M1		Other short-term deposits <sup>4)</sup>		Total	Change on previous month (%)	Total	Change on previous month (%)		
		Total	Change on previous month (%)	Total	Change on previous month (%)						
	1	2	3	4	5	6	7	8	9	10	
1998	Jan.	19.0	1.2	7.2	0.4	26.2	0.7	0.8	0.1	27.0	0.6
	Feb.	22.9	1.5	5.6	0.3	28.5	0.8	-4.7	-0.8	23.9	0.6
	Mar.	16.7	1.1	0.1	0.0	16.8	0.5	3.8	0.6	20.6	0.5
	Apr.	20.7	1.3	1.3	0.1	22.0	0.6	-0.3	-0.1	21.7	0.5
	May	8.9	0.5	8.3	0.4	17.2	0.5	-1.6	-0.3	15.6	0.4
	June	14.7	0.9	2.0	0.1	16.7	0.5	1.6	0.3	18.4	0.4
	July	-5.9	-0.4	-4.0	-0.2	-9.8	-0.3	26.9	4.5	17.1	0.4
	Aug.	8.0	0.5	4.6	0.2	12.5	0.3	-16.8	-2.7	-4.3	-0.1
	Sep.	11.0	0.7	6.9	0.3	17.9	0.5	-0.2	0.0	17.7	0.4
	Oct.	12.7	0.8	0.6	0.0	13.3	0.4	21.0	3.4	34.4	0.8
	Nov.	6.6	0.4	15.0	0.7	21.5	0.6	-19.5	-3.1	2.0	0.0
	Dec.	16.2	1.0	13.4	0.6	29.6	0.8	-36.7	-6.0	-7.0	-0.2
1999	Jan.	91.1	5.4	-9.7	-0.5	81.4	2.1	-11.6	-2.0	69.8	1.6
	Feb.	-6.6	-0.4	-5.5	-0.3	-12.2	-0.3	18.5	3.2	6.4	0.1
	Mar.	15.9	0.9	31.3	1.5	47.3	1.2	0.1	0.0	47.3	1.1
	Apr.	15.7	0.9	-17.1	-0.8	-1.5	0.0	9.0	1.5	7.5	0.2
	May	13.4	0.7	5.4	0.3	18.8	0.5	3.2	0.5	22.1	0.5
	June	14.6	0.8	0.2	0.0	14.8	0.4	3.3	0.5	18.0	0.4
	July	24.1	1.3	13.6	0.6	37.7	1.0	-2.5	-0.4	35.2	0.8
	Aug.	-0.4	0.0	-3.7	-0.2	-4.1	-0.1	4.8	0.8	0.7	0.0
	Sep. <sup>(p)</sup>	11.5	0.6	3.9	0.2	15.5	0.4	12.5	2.0	27.9	0.6

Source: ECB.

- 1) Monetary aggregates comprise monetary liabilities of MFIs and central government (Post Office, Treasury) vis-à-vis non-MFI euro area residents excluding central government.
- 2) Data have been revised in the light of new information.
- 3) Taking the December 1998 outstanding level (not seasonally adjusted) as 100, the index shows the cumulative product of changes from that date calculated from flows, as described in footnote 6. The percentage change in the index between any two dates corresponds to the change in the aggregate excluding such reclassifications, etc. For the calculation of growth rates, see the technical notes on page 48\*.
- 4) Other short-term deposits comprise deposits with an agreed maturity of up to two years and deposits redeemable at notice of up to three months.
- 5) Marketable instruments comprise repurchase agreements, money market fund shares/units and money market paper together with debt securities issued with an original maturity of up to two years.
- 6) Calculated from monthly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

**Table 2.5****Outstanding MFI loans by counterpart, type and original maturity <sup>1)</sup>***(EUR billions (not seasonally adjusted); end of period)***1. Loans to non-financial sectors other than government**

	Non-financial corporations <sup>2)</sup>	Households <sup>2)</sup>			Non-profit institutions serving households <sup>2)</sup>											
		Up to 1 year	Over 1 and up to 5 years	Over 5 years		Consumer credit <sup>3)</sup>			Lending for house purchase <sup>3)</sup>			Other lending				
						Up to 1 year	Over 1 and up to 5 years	Over 5 years	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Up to 1 year	Over 1 and up to 5 years	Over 5 years		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
1998	June	2,192.9	786.0	317.3	1,089.6	2,374.5	78.0	122.3	190.2	28.5	51.0	1,344.2	113.1	77.4	369.9	37.6
	Sep.	2,214.5	774.8	323.5	1,116.2	2,419.2	80.3	126.1	195.1	28.9	50.4	1,376.9	111.2	86.4	363.7	36.7
	Dec.	2,284.2	810.5	319.9	1,153.8	2,478.7	84.9	128.4	199.8	28.2	46.2	1,415.6	114.0	84.6	376.9	37.0
1999	Mar.	2,278.4	816.0	346.8	1,115.5	2,526.2	86.2	147.5	187.2	15.4	70.5	1,460.4	131.4	100.3	327.2	35.8
	June <sup>(p)</sup>	2,334.2	841.3	351.5	1,141.3	2,591.5	85.0	152.1	192.8	18.6	68.0	1,506.8	138.2	99.1	330.8	35.9

**2. Loans to non-monetary financial corporations**

	Other financial intermediaries <sup>2)</sup>			Insurance corporations and pension funds <sup>2)</sup>					
	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Over 5 years		
								16	17
1998	June	252.0	146.9	52.3	52.8	23.3	16.3	2.1	4.9
	Sep.	254.3	143.3	55.4	55.6	34.9	27.0	2.3	5.7
	Dec.	262.7	157.6	53.0	52.1	28.0	19.2	2.5	6.3
1999	Mar.	276.4	174.9	53.0	48.5	36.6	27.5	3.1	6.0
	June <sup>(p)</sup>	299.2	195.7	49.5	54.1	39.0	27.5	2.6	8.8

**3. Loans to government**

	General government <sup>2)</sup>											
	Central government <sup>4)</sup>	Other general government									Social security funds	
		State government					Local government					
		Up to 1 year	Over 1 and up to 5 years	Over 5 years	Up to 1 year	Over 1 and up to 5 years	Over 5 years					
24	25	26	27	28	29	30	31	32	33	34		
1998	June	827.5	217.5	271.3	8.5	14.5	248.3	333.0	19.7	54.0	259.3	5.7
	Sep.	829.5	216.7	272.9	7.8	14.0	251.1	324.7	17.6	50.8	256.3	15.3
	Dec.	841.0	202.6	290.5	11.3	13.7	265.6	333.8	19.1	51.2	263.6	14.0
1999	Mar.	839.1	221.7	277.8	11.0	21.1	245.6	326.0	19.0	47.7	259.3	13.6
	June <sup>(p)</sup>	836.4	215.6	279.3	11.5	20.6	247.1	326.5	20.3	46.5	259.8	15.0

Source: ECB.

1) Data have been revised in the light of new information. Outstanding amounts are not adjusted for reclassifications, other revaluations or exchange rate variations. Data are partially estimated for periods before December 1998.

2) Corresponding ESA 95 sector codes: non-financial corporations, S11; households, S14; non-profit institutions serving households, S15; other financial intermediaries, S123 (including financial auxiliaries, S124); insurance corporations and pension funds, S125; general government, S13.

3) The definitions of consumer credit and lending for house purchase are not fully consistent across the euro area.

4) A maturity breakdown is not available for loans to central government.

**Table 2.6****Currency analysis of certain liabilities and assets of the euro area MFIs<sup>1)</sup>***(EUR billions (not seasonally adjusted; end of period))***Liabilities outstanding****1. Deposits placed by euro area residents**

	MFIs								Non-MFIs								
	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies					All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies					
					USD	JPY	CHF	Other					USD	JPY	CHF	Other	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
1998	June	3,270.1	2,919.7	41.8	308.6	223.0	21.8	43.6	20.1	4,887.4	4,734.8	18.6	134.0	99.1	15.6	10.1	9.3
	Sep.	3,302.5	2,913.7	42.4	346.4	241.3	27.9	45.2	32.0	4,876.1	4,725.5	19.5	131.2	94.0	12.6	13.6	11.0
	Dec.	3,401.4	3,005.6	43.3	352.6	247.0	27.5	51.3	26.8	5,007.2	4,862.9	19.4	124.8	89.6	13.0	13.2	9.0
1999	Mar.	3,867.9	3,403.3	47.9	416.7	296.1	31.2	54.8	34.6	4,999.5	4,849.0	23.2	127.3	87.9	14.3	14.5	10.7
	June <sup>3)</sup>	4,074.9	3,636.2	42.8	396.0	284.7	30.7	51.6	28.9	5,048.4	4,891.3	24.6	132.5	94.4	15.3	12.5	10.4

**2. Deposits placed by non-residents of the euro area**

	Banks <sup>3)</sup>								Non-banks								
	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies					All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies					
					USD	JPY	CHF	Other					USD	JPY	CHF	Other	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
1998	June	1,150.4	470.0	122.6	557.7	435.9	42.7	51.3	27.8	366.1	140.5	34.6	191.1	142.8	18.4	11.5	18.3
	Sep.	1,173.8	468.1	129.0	576.7	443.3	47.4	54.1	31.9	332.5	143.1	30.6	158.8	122.3	13.8	11.2	11.6
	Dec.	1,158.4	457.4	125.7	575.3	441.3	55.8	52.5	25.7	365.7	153.5	33.4	178.8	130.9	23.2	12.1	12.6
1999	Mar.	1,286.7	554.5	130.9	601.3	463.9	53.3	53.4	30.8	417.4	179.2	39.2	199.0	147.3	25.1	12.5	13.9
	June <sup>3)</sup>	1,382.3	613.9	137.3	631.1	500.0	41.3	52.5	37.2	444.0	188.2	40.3	215.6	164.4	24.4	11.7	14.8

**3. Debt securities and money market paper issued by euro area MFIs**

	Debt securities								Money market paper								
	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies					All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies					
					USD	JPY	CHF	Other					USD	JPY	CHF	Other	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
1998	June	2,055.0	1,835.8	22.5	196.7	112.5	37.4	30.5	16.3	160.2	144.2	0.7	15.3	11.0	1.8	1.3	1.3
	Sep.	2,105.1	1,892.6	26.0	186.5	104.7	33.3	32.7	15.8	166.1	147.9	0.6	17.6	15.5	1.0	0.7	0.3
	Dec.	2,119.3	1,904.2	26.4	188.6	106.3	34.4	33.0	14.9	169.4	155.4	0.6	13.4	11.3	0.9	1.1	0.1
1999	Mar.	2,175.0	1,967.8	26.3	180.9	99.3	24.2	26.6	30.8	185.4	169.8	0.8	14.9	12.6	0.8	1.3	0.2
	June <sup>3)</sup>	2,248.7	2,031.7	31.3	185.8	102.5	23.4	27.7	32.2	187.6	170.7	1.3	15.6	12.8	1.1	1.5	0.2

Source: ECB.

1) Outstanding amounts are not adjusted for reclassifications, other revaluations or exchange rate variations. Data are partially estimated for periods before December 1998.

2) Including items expressed in the national denominations of the euro.

3) The term "banks" is used in this table to indicate institutions of a similar type to MFIs resident outside the euro area.

## Assets outstanding

### 4. Loans to euro area residents

	MFIs								Non-MFIs							
	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1998 June	3,374.2	.	.	.	.	.	.	.	5,704.2	5,541.9	25.6	136.8	81.6	13.9	38.2	3.0
Sep.	3,377.4	.	.	.	.	.	.	.	5,786.7	5,624.1	26.4	136.3	77.8	12.7	42.8	3.0
Dec.	3,375.8	.	.	.	.	.	.	.	5,932.1	5,758.9	26.3	147.0	79.2	15.1	48.9	3.7
1999 Mar.	3,845.1	.	.	.	.	.	.	.	5,991.9	5,797.2	19.9	174.9	98.2	18.7	53.7	4.3
June <sup>(p)</sup>	4,069.1	.	.	.	.	.	.	.	6,134.8	5,925.5	21.4	187.9	107.8	19.6	57.8	2.8

### 5. Holdings of securities other than shares issued by euro area residents

	MFIs								Non-MFIs							
	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1998 June	685.4	657.0	6.2	23.2	14.7	2.6	1.2	4.7	1,433.7	1,390.2	10.7	34.7	17.2	7.2	2.7	7.5
Sep.	708.5	680.3	7.4	21.1	13.7	3.0	1.4	3.0	1,421.9	1,384.4	10.8	27.3	15.0	7.6	2.4	2.3
Dec.	729.0	686.0	18.0	25.0	16.9	3.7	1.8	2.6	1,375.7	1,338.8	10.6	26.4	14.4	8.6	2.3	1.1
1999 Mar.	760.9	725.5	8.0	27.8	18.2	5.8	1.3	2.5	1,419.5	1,387.0	4.0	28.9	15.4	10.7	2.0	0.9
June <sup>(p)</sup>	801.1	767.6	6.6	26.9	17.6	5.4	1.1	2.9	1,428.8	1,398.6	3.3	27.1	13.7	10.5	2.1	0.9

### 6. Loans to non-residents of the euro area

	Banks <sup>3)</sup>								Non-banks							
	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1998 June	1,053.1	429.6	88.5	535.0	404.9	66.8	29.6	33.8	377.1	171.7	23.0	182.4	162.8	4.5	11.2	3.9
Sep.	1,026.9	423.6	100.6	502.6	365.2	67.5	26.7	43.2	380.2	174.6	26.0	179.6	156.5	5.3	11.9	5.9
Dec.	971.9	377.3	81.4	513.3	373.5	73.9	27.1	38.8	378.9	152.3	27.0	199.6	173.4	8.3	13.4	4.6
1999 Mar.	1,008.0	437.2	109.6	461.2	328.5	62.9	26.9	43.3	384.9	140.4	27.3	217.2	189.9	7.8	14.3	5.4
June <sup>(p)</sup>	990.3	418.4	107.5	464.4	343.0	53.3	26.2	42.2	414.7	142.4	33.3	239.0	209.0	8.0	16.0	6.1

### 7. Holdings of securities other than shares issued by non-residents of the euro area

	Banks <sup>3)</sup>								Non-banks							
	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro <sup>2)</sup>	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1998 June	88.2	17.1	4.7	66.4	38.1	4.4	0.7	23.2	285.2	49.5	28.2	207.5	146.9	20.2	3.8	36.6
Sep.	73.2	19.5	4.7	49.0	35.0	5.2	1.0	7.8	295.8	41.4	33.7	220.7	165.6	29.9	4.3	20.8
Dec.	65.1	18.7	5.1	41.3	27.9	5.0	0.8	7.6	315.0	47.2	33.3	234.5	176.8	34.3	4.2	19.3
1999 Mar.	76.2	21.5	5.1	49.6	35.0	5.2	0.9	8.4	409.4	56.7	32.5	320.2	250.6	37.3	4.4	27.9
June <sup>(p)</sup>	82.4	23.4	5.6	53.4	38.4	5.5	1.2	8.4	415.0	71.0	35.2	308.8	245.9	36.7	4.7	21.5



### 3 Financial markets and interest rates in the euro area

**Table 3.1**

**Money market interest rates<sup>1)</sup>**

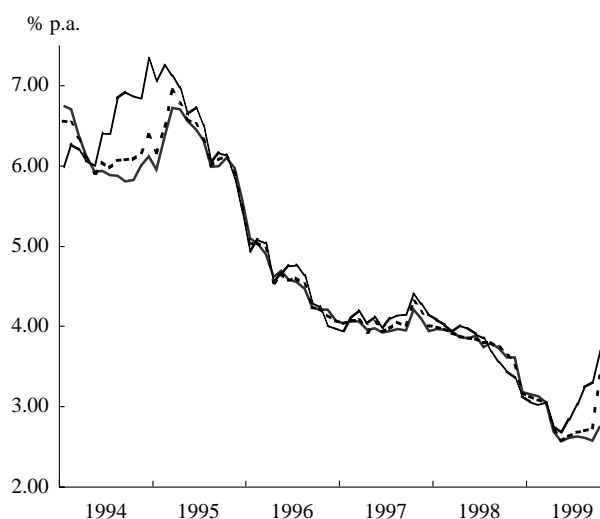
(percentages per annum)<sup>2)</sup>

	Euro area <sup>3) 4)</sup>					United States <sup>5)</sup>	Japan <sup>5)</sup>
	Overnight deposits 1	1-month deposits 2	3-month deposits 3	6-month deposits 4	12-month deposits 5	3-month deposits 6	3-month deposits 7
1994	5.24	6.12	6.38	6.83	7.34	6.37	2.34
1995	5.62	5.57	5.49	5.62	5.42	5.44	0.50
1996	4.04	4.08	4.08	4.06	3.98	5.43	0.31
1997	3.98	3.94	4.01	4.05	4.15	5.62	0.36
1998	3.09	3.18	3.17	3.14	3.13	5.00	0.18
1998 Oct.	3.66	3.61	3.63	3.53	3.44	5.12	0.68
1998 Nov.	3.40	3.62	3.51	3.43	3.36	5.12	0.68
1998 Dec.	3.09	3.18	3.17	3.14	3.13	5.00	0.18
1999 Jan.	3.14	3.16	3.13	3.10	3.06	4.99	0.35
1999 Feb.	3.12	3.13	3.09	3.04	3.03	5.00	0.38
1999 Mar.	2.93	3.05	3.05	3.02	3.05	4.99	0.20
1999 Apr.	2.71	2.69	2.70	2.70	2.76	4.97	0.18
1999 May	2.55	2.57	2.58	2.60	2.68	4.98	0.12
1999 June	2.56	2.61	2.63	2.68	2.84	5.17	0.10
1999 July	2.52	2.63	2.68	2.90	3.03	5.30	0.12
1999 Aug.	2.44	2.61	2.70	3.05	3.24	5.46	0.13
1999 Sep.	2.43	2.58	2.73	3.11	3.30	5.56	0.14
1999 Oct.	2.50	2.76	3.38	3.46	3.68	6.20	0.24
1999 1 Oct.	2.57	2.64	3.13	3.18	3.40	6.07	0.22
1999 8	2.53	2.64	3.26	3.35	3.56	6.16	0.20
1999 15	2.60	2.78	3.43	3.53	3.76	6.26	0.22
1999 22	1.76	2.75	3.46	3.54	3.77	6.29	0.28
1999 29	2.80	2.86	3.49	3.54	3.75	6.16	0.20

**Euro area money market rates**

(monthly)

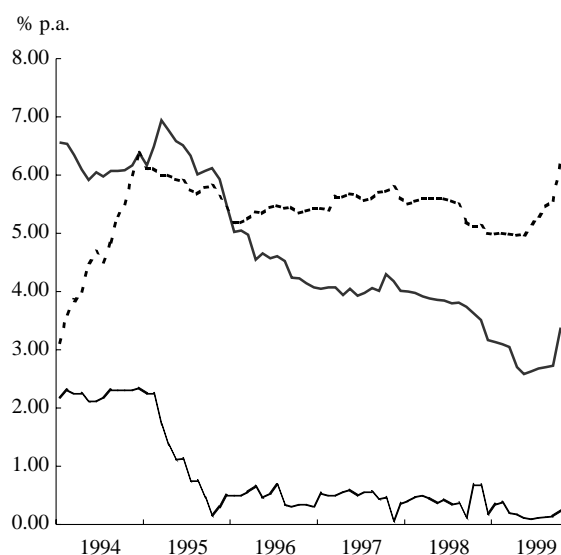
— 1-month rate      - - - - - 3-month rate  
— 12-month rate



**3-month money market rates**

(monthly)

— euro area      - - - - - United States      — Japan



Sources: Reuters and ECB.

1) Interbank deposit bid rates to December 1998; offered rates thereafter.

2) End-of-period rates to December 1998; period averages thereafter.

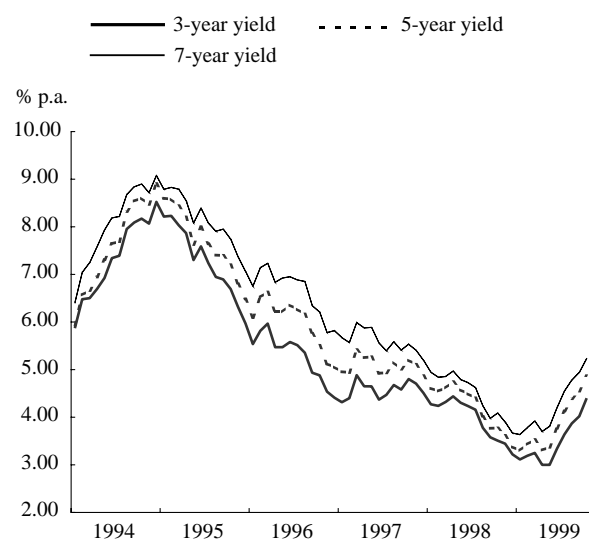
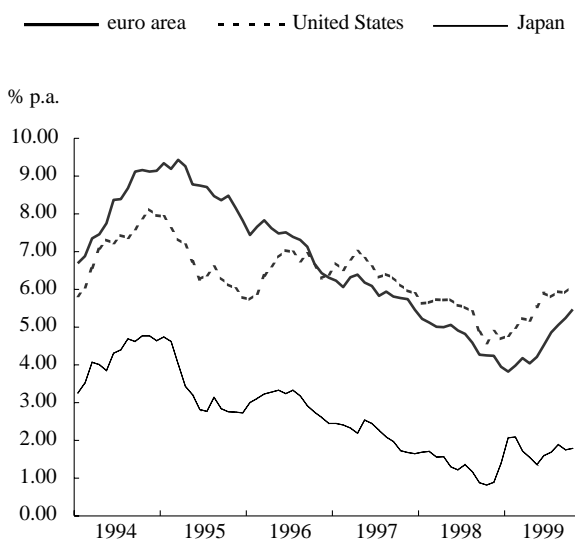
3) Before January 1999 synthetic euro area rates were calculated on the basis of national rates weighted by GDP.

4) From January 1999 column 1 shows the euro overnight interest average (EONIA); other euro area money market rates from January 1999 are euro interbank offered rates (EURIBOR).

5) From February 1999, London interbank offered rate (LIBOR).

**Table 3.2****Government bond yields<sup>1)</sup>***(percentages per annum)*

	Euro area <sup>2)</sup>					United States	Japan
	2 years 1	3 years 2	5 years 3	7 years 4	10 years 5	10 years 6	10 years 7
1994	8.08	8.52	8.91	9.08	8.18	7.21	4.24
1995	5.69	5.97	6.48	7.06	8.73	6.69	3.32
1996	4.17	4.41	5.06	5.82	7.23	6.54	3.03
1997	4.33	4.51	4.87	5.20	5.99	6.45	2.15
1998	3.16	3.22	3.38	3.67	4.71	5.33	1.30
1998 Oct.	3.39	3.51	3.77	4.09	4.25	4.58	0.82
1998 Nov.	3.33	3.44	3.62	3.90	4.24	4.89	0.89
1998 Dec.	3.16	3.22	3.38	3.67	3.95	4.69	1.39
1999 Jan.	2.98	3.11	3.30	3.64	3.82	4.78	2.07
1999 Feb.	3.05	3.19	3.43	3.78	3.98	4.99	2.09
1999 Mar.	3.08	3.25	3.53	3.92	4.18	5.23	1.72
1999 Apr.	2.83	3.00	3.31	3.70	4.04	5.18	1.55
1999 May	2.82	3.00	3.37	3.81	4.21	5.54	1.36
1999 June	3.09	3.34	3.77	4.20	4.53	5.90	1.60
1999 July	3.30	3.64	4.13	4.55	4.86	5.80	1.69
1999 Aug.	3.56	3.87	4.39	4.78	5.06	5.94	1.89
1999 Sep.	3.68	4.02	4.55	4.94	5.24	5.91	1.75
1999 Oct.	4.07	4.40	4.87	5.23	5.47	6.10	1.79
1999 1 Oct.	3.89	4.22	4.71	5.08	5.35	5.99	1.68
1999 8	3.96	4.29	4.78	5.15	5.40	6.02	1.77
1999 15	4.16	4.49	4.96	5.32	5.56	6.13	1.82
1999 22	4.14	4.48	4.95	5.31	5.56	6.20	1.91
1999 29	4.02	4.32	4.76	5.06	5.28	6.05	1.80

**Euro area government bond yields***(monthly)***10-year government bond yields***(monthly)*

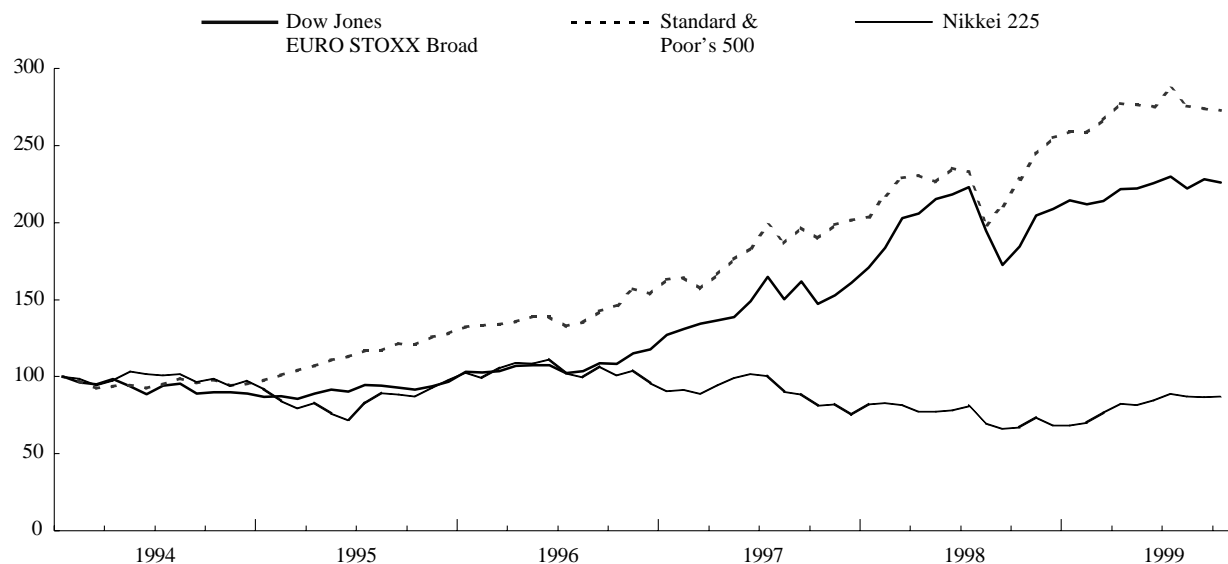
Sources: Reuters, ECB, Federal Reserve and Bank of Japan.

1) To December 1998, 2, 3, 5 and 7-year euro area yields are end-of-period values and 10-year yields are period averages. Thereafter, all yields are period averages.

2) To December 1998, euro area yields are calculated on the basis of harmonised national government bond yields weighted by GDP. Thereafter, the weights are the nominal outstanding amounts of government bonds in each maturity band.

**Table 3.3****Stock market indices***(index levels, in points)<sup>1)</sup>*

	Dow Jones EURO STOXX indices											United States	Japan
	Benchmark		Main economic sector indices									Standard & Poor's 500	Nikkei 225
	Broad	50	Basic materials	Consumer cyclical	Consumer non-cyclical	Energy	Financial	Conglomerates	Industrial	Technology	Utilities		
1	2	3	4	5	6	7	8	9	10	11	12	13	
1994	127.33	1,320.59	145.88	107.82	143.90	125.92	109.29	125.91	132.31	128.66	122.60	455.19	19,299.47
1995	138.37	1,506.82	137.78	111.06	181.13	145.46	117.66	133.05	136.18	145.57	152.09	614.57	19,417.95
1996	167.75	1,850.32	145.11	120.25	274.94	180.64	137.84	156.11	171.05	153.17	192.40	743.25	20,147.27
1997	229.86	2,531.99	166.33	159.82	324.06	249.22	188.87	210.33	204.75	248.37	225.11	962.37	15,917.07
1998	298.37	3,342.32	147.10	156.74	485.39	232.87	250.29	218.78	283.76	353.38	329.50	1,229.23	13,842.17
1998 Oct.	263.49	2,887.11	138.21	147.48	419.19	223.71	206.17	197.45	250.98	300.39	295.80	1,098.67	13,564.51
1998 Nov.	291.73	3,232.44	147.95	153.01	442.91	237.51	236.66	208.39	270.40	339.22	306.30	1,176.46	14,883.70
1998 Dec.	298.37	3,342.32	147.10	156.74	485.39	232.87	250.29	218.78	283.76	353.38	329.50	1,229.23	13,842.17
1999 Jan.	306.01	3,486.40	146.59	152.92	498.08	226.40	254.13	229.20	301.23	367.41	339.23	1,246.89	13,859.26
1999 Feb.	302.69	3,450.87	149.74	152.16	496.17	225.01	246.99	229.33	312.25	366.43	330.00	1,244.93	14,168.83
1999 Mar.	305.52	3,524.19	153.81	155.94	480.73	254.11	249.73	229.77	311.75	374.45	318.57	1,284.56	15,459.81
1999 Apr.	316.39	3,671.80	172.06	162.67	493.62	276.64	257.18	238.42	334.72	403.94	306.87	1,335.79	16,689.65
1999 May	317.05	3,669.07	176.93	167.47	482.10	291.29	253.77	257.12	344.94	413.34	300.15	1,330.72	16,533.26
1999 June	321.66	3,749.45	177.95	168.33	487.77	299.00	251.77	268.06	365.11	440.22	300.26	1,325.93	17,135.96
1999 July	328.07	3,846.24	190.82	168.19	487.34	316.01	246.24	277.97	379.94	481.62	302.28	1,380.99	18,008.62
1999 Aug.	316.78	3,691.33	204.66	162.31	468.57	314.74	235.93	278.08	365.94	455.23	289.80	1,327.49	17,670.31
1999 Sep.	325.88	3,772.79	199.93	161.67	500.44	312.33	242.61	273.47	380.45	480.77	296.06	1,318.21	17,532.77
1999 Oct.	322.44	3,742.62	193.96	159.46	482.52	295.41	238.87	262.05	381.39	488.96	281.85	1,312.60	17,697.85
1999 1 Oct.	316.90	3,642.34	189.43	156.43	477.26	297.42	235.98	257.88	379.05	469.86	283.12	1,282.81	17,712.56
1999 8	327.22	3,784.32	193.63	162.47	492.72	289.65	241.42	269.66	393.61	497.58	289.07	1,336.02	18,062.18
1999 15	314.86	3,638.82	194.69	157.46	476.59	287.85	236.20	256.13	384.31	467.79	274.22	1,335.21	17,601.57
1999 22	323.32	3,778.61	193.04	159.00	476.78	303.37	236.62	263.77	365.03	492.15	282.47	1,301.65	17,438.80
1999 29	333.87	3,922.91	193.97	161.72	494.38	299.15	247.01	264.92	378.91	531.62	290.10	1,362.93	17,942.08

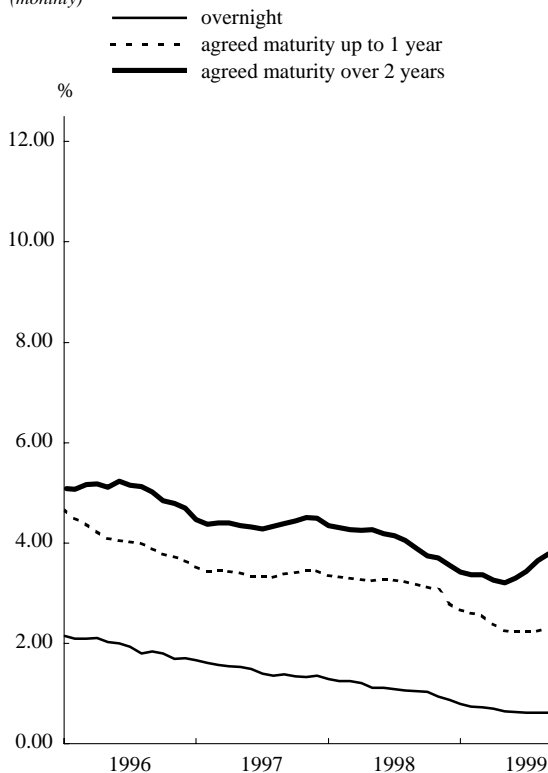
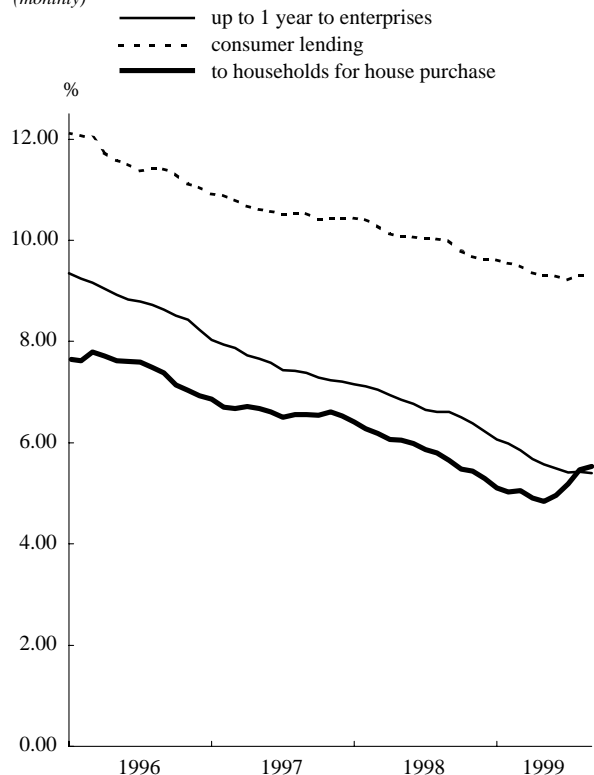
**Dow Jones EURO STOXX Broad, Standard & Poor's 500 and Nikkei 225 re-based***(base month: January 1994 = 100; monthly)*

Source: Reuters.

1) End-of-period values to December 1998; period averages thereafter.

**Table 3.4****Retail bank interest rates***(percentages per annum; period averages)*

	Deposit interest rates						Lending interest rates			
	Overnight 1	With agreed maturity			Redeemable at notice		To enterprises		To households	
		Up to 1 year 2	Up to 2 years 3	Over 2 years 4	Up to 3 months 5	Over 3 months 6	Up to 1 year 7	Over 1 year 8	Consumer lending 9	For house purchase 10
1996	1.94	4.08	4.68	5.04	3.05	3.16	8.82	.	11.56	7.46
1997	1.46	3.41	3.63	4.40	2.80	3.09	7.56	6.64	10.61	6.63
1998	1.10	3.20	3.22	4.06	2.61	3.25	6.74	5.80	10.05	5.87
1998 Sep.	1.05	3.17	3.18	3.88	2.53	3.21	6.60	5.65	10.00	5.66
Oct.	1.04	3.12	3.13	3.74	2.49	3.14	6.50	5.52	9.79	5.49
Nov.	0.94	3.06	3.05	3.70	2.48	3.12	6.38	5.43	9.68	5.43
Dec.	0.87	2.81	2.81	3.56	2.44	3.03	6.22	5.11	9.61	5.29
1999 Jan.	0.79	2.67	2.67	3.41	2.37	2.86	6.07	5.04	9.61	5.10
Feb.	0.74	2.60	2.59	3.37	2.34	2.78	5.98	5.00	9.54	5.02
Mar.	0.73	2.57	2.56	3.37	2.31	2.79	5.85	4.99	9.50	5.05
Apr.	0.70	2.39	2.39	3.26	2.27	2.61	5.68	4.82	9.37	4.91
May	0.65	2.25	2.25	3.21	2.16	2.48	5.57	4.73	9.31	4.84
June	0.62	2.22	2.22	3.30	2.15	2.45	5.49	4.78	9.29	4.96
July	0.62	2.24	2.24	3.44	2.15	2.63	5.41	4.96	9.21	5.18
Aug.	0.61	2.24	2.25	3.65	2.01	2.73	5.42	5.17	9.31	5.47
Sep.	0.62	2.31	2.32	3.78	2.01	2.80	5.40	5.20	9.31	5.53

**Deposit interest rates***(monthly)***Lending interest rates***(monthly)*

Source: ECB.

These euro area retail bank interest rates should be used with caution and for statistical purposes only, primarily to analyse their development over time rather than their level. They are calculated as the weighted average of national interest rates provided by the national central banks. The national rates represent those rates that are currently available from national sources and which are judged to fit the standard categories. These national rates have been aggregated to derive information for the euro area, in some cases relying on proxies and working assumptions due to the heterogeneity observed in the national financial instruments across MU Member States. Furthermore, the national interest rates are not harmonised in terms of their coverage (new business and/or outstanding amounts), the nature of the data (nominal or effective) or the compilation method. The country weights for the euro area retail bank interest rates are derived from MFI balance sheet statistics or close proxies. The weights reflect the country-specific proportions of the relevant instruments within the euro area, measured as outstanding amounts. The weights are adjusted monthly, so that interest rates and weights always refer to the same month.

**Table 3.5**

**Securities issues other than shares by original maturity, residency of the issuer and currency denomination** <sup>1)2)</sup>  
*(EUR billions; transactions during the period and end-of-period stocks; nominal values)*

**1. Short-term** <sup>3)</sup>

		By euro area residents									
						In euro <sup>4)</sup>				In other	
						Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions
1	2	3	4	5	6	7	8	9	10		
1998	Dec.	.	.	.	526.1	.	.	.	517.1	.	.
1999	Jan.	199.6	182.2	17.4	545.4	192.9	176.8	16.1	533.0	6.7	5.5
	Feb.	166.9	162.6	4.3	539.9	162.4	159.8	2.6	528.0	4.5	2.8
	Mar.	175.8	174.8	1.0	543.7	171.1	171.3	-0.2	530.5	4.7	3.5
	Apr.	206.4	194.5	11.9	561.8	201.5	190.3	11.1	547.7	4.9	4.2
	May	163.2	164.5	-1.3	561.1	156.8	159.7	-2.9	545.5	6.4	4.8
	June	168.1	176.8	-8.7	549.1	162.4	172.2	-9.8	532.1	5.7	4.6
	July	198.4	196.2	2.2	545.8	192.0	190.1	1.9	528.3	6.4	6.1

**2. Long-term** <sup>3)</sup>

		By euro area residents									
						In euro <sup>4)</sup>				In other	
						Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions
1	2	3	4	5	6	7	8	9	10		
1998	Dec.	.	.	.	4,794.3	.	.	.	4,627.6	.	.
1999	Jan.	130.3	57.0	73.4	4,843.9	128.4	52.6	75.8	4,682.4	1.9	4.4
	Feb.	107.6	46.8	60.8	4,890.2	102.2	45.4	56.8	4,723.2	5.5	1.4
	Mar.	104.5	50.4	54.1	4,927.7	101.0	47.7	53.3	4,758.1	3.5	2.7
	Apr.	103.9	48.0	55.9	4,947.8	101.2	46.6	54.5	4,775.7	2.8	1.4
	May	92.0	40.5	51.5	4,987.2	87.5	36.5	51.0	4,813.7	4.5	4.0
	June	79.3	37.4	41.9	5,016.2	76.9	35.9	41.0	4,841.0	2.4	1.5
	July	99.5	40.5	59.0	5,056.4	96.6	37.8	58.9	4,881.9	2.9	2.8

**3. Total**

		By euro area residents									
						In euro <sup>4)</sup>				In other	
						Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions
1	2	3	4	5	6	7	8	9	10		
1998	Dec.	.	.	.	5,320.3	.	.	.	5,144.7	.	.
1999	Jan.	329.9	239.2	90.7	5,389.3	321.3	229.4	92.0	5,215.4	8.6	9.8
	Feb.	274.5	209.4	65.1	5,430.2	264.6	205.2	59.4	5,251.1	10.0	4.2
	Mar.	280.3	225.2	55.1	5,471.4	272.1	219.0	53.1	5,288.6	8.2	6.2
	Apr.	310.3	242.6	67.8	5,509.6	302.6	237.0	65.7	5,323.5	7.7	5.6
	May	255.3	205.0	50.2	5,548.4	244.3	196.2	48.1	5,359.2	10.9	8.8
	June	247.4	214.2	33.1	5,565.3	239.3	208.1	31.2	5,373.1	8.1	6.2
	July	297.9	236.8	61.1	5,602.2	288.6	227.9	60.7	5,410.2	9.3	8.9

Sources: ECB and BIS (for issues by non-residents of the euro area).

- 1) Data coverage for euro area residents is estimated at 90% of total issues. This is expected to increase over the coming months, although full coverage will not be feasible in the short term.
- 2) Net issues differ from the change in amounts outstanding because of valuation changes, reclassifications and other adjustments.
- 3) "Short-term" means securities with an original maturity of one year or less (in accordance with the ESA 95, in exceptional cases two years or less). Securities with longer original maturity, or with optional maturity dates, the latest of which is more than one year away, or with indefinite maturity dates, are classified as long-term.
- 4) Including items expressed in the national denominations of the euro.

currencies		By non-residents of the euro area in euro <sup>4)</sup>				Total in euro <sup>4)</sup>				
Net issues	Amounts outstanding	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	
11	12	13	14	15	16	17	18	19	20	
.	8.9	.	.	.	12.4	.	.	.	529.5	1998 Dec.
1.2	12.4									1999 Jan.
1.7	12.0									Feb.
1.2	13.2	23.3	11.1	12.2	25.4	549.7	519.0	30.8	555.9	Mar.
0.7	14.1									Apr.
1.6	15.6									May
1.1	17.1	19.3	22.7	-3.4	22.9	539.9	544.9	-5.0	555.0	June
0.3	17.5									July

currencies		By non-residents of the euro area in euro <sup>4)</sup>				Total in euro <sup>4)</sup>				
Net issues	Amounts outstanding	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	
11	12	13	14	15	16	17	18	19	20	
.	166.6	.	.	.	428.0	.	.	.	5,055.6	1998 Dec.
-2.5	161.5									1999 Jan.
4.1	167.1									Feb.
0.8	169.6	52.9	18.0	34.9	462.3	384.5	163.8	220.7	5,220.4	Mar.
1.4	172.0									Apr.
0.5	173.6									May
0.8	175.2	56.2	13.1	43.1	505.1	321.8	132.2	189.7	5,346.2	June
0.1	174.4									July

currencies		By non-residents of the euro area in euro <sup>4)</sup>				Total in euro <sup>4)</sup>				
Net issues	Amounts outstanding	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	
11	12	13	14	15	16	17	18	19	20	
.	175.6	.	.	.	440.4	.	.	.	5,585.1	1998 Dec.
-1.2	173.9									1999 Jan.
5.7	179.0									Feb.
2.0	182.8	76.2	29.2	47.1	487.7	934.2	682.7	251.5	5,776.3	Mar.
2.1	186.1									Apr.
2.1	189.2									May
1.9	192.2	75.5	35.8	39.7	528.0	861.7	677.0	184.7	5,901.1	June
0.4	192.0									July

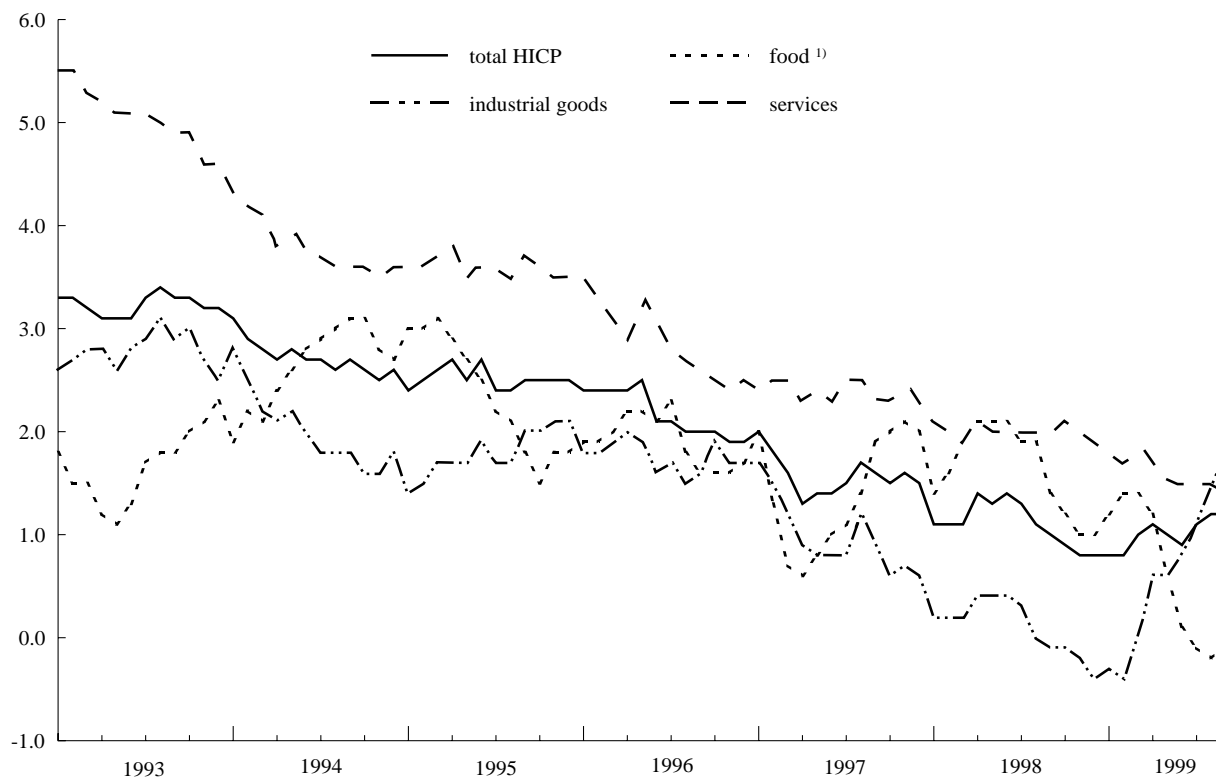
## 4 HICP and other prices in the euro area

**Table 4.1**

### Harmonised Index of Consumer Prices

(annual percentage changes, unless otherwise indicated)

	Total (index, 1996 = 100)	Total									Services
		100.0	Goods								
			63.6	Food <sup>1)</sup>				Industrial goods			
				22.4	13.4	9.0	41.2	32.5	8.7		
Weight in the total (%) <sup>2)</sup>	100.0	100.0	63.6	22.4	13.4	9.0	41.2	32.5	8.7	36.4	
	1	2	3	4	5	6	7	8	9	10	
1995	97.9	2.5	2.1	2.4	2.4	2.2	1.8	1.9	1.4	3.6	
1996	100.0	2.2	1.8	1.9	2.0	1.7	1.8	1.5	3.0	2.9	
1997	101.6	1.6	1.1	1.4	1.4	1.4	1.0	0.5	2.8	2.4	
1998	102.7	1.1	0.6	1.6	1.4	2.0	0.1	0.9	-2.6	2.0	
1998 Q3	102.9	1.1	0.7	1.7	1.4	2.1	0.1	1.0	-3.2	2.0	
1998 Q4	102.8	0.8	0.2	1.1	1.2	0.8	-0.2	0.9	-4.4	2.0	
1999 Q1	103.1	0.8	0.3	1.3	1.2	1.5	-0.2	0.8	-3.8	1.7	
1999 Q2	103.8	1.0	0.6	0.6	0.9	0.3	0.6	0.6	0.8	1.6	
1999 Q3	104.1	1.1	0.9	-0.1	0.7	-1.4	1.5	0.5	4.9	1.5	
1998 Sep.	102.9	1.0	0.4	1.4	1.3	1.5	-0.1	1.0	-3.9	2.0	
1998 Oct.	102.8	0.9	0.3	1.2	1.3	1.1	-0.1	1.0	-4.0	2.1	
1998 Nov.	102.8	0.8	0.2	1.0	1.2	0.6	-0.2	0.9	-4.4	2.0	
1998 Dec.	102.9	0.8	0.1	1.0	1.1	0.9	-0.4	0.9	-4.8	1.9	
1999 Jan.	102.8	0.8	0.2	1.2	1.3	1.1	-0.3	0.8	-4.4	1.8	
1999 Feb.	103.1	0.8	0.2	1.4	1.3	1.5	-0.4	0.7	-4.3	1.7	
1999 Mar.	103.4	1.0	0.5	1.4	1.1	1.8	0.0	0.7	-2.8	1.8	
1999 Apr.	103.7	1.1	0.8	1.2	1.2	1.2	0.6	0.6	0.3	1.7	
1999 May	103.8	1.0	0.6	0.6	0.8	0.4	0.6	0.6	0.5	1.5	
1999 June	103.8	0.9	0.5	0.1	0.7	-0.7	0.8	0.6	1.4	1.5	
1999 July	104.0	1.1	0.7	-0.1	0.7	-1.4	1.1	0.6	3.2	1.6	
1999 Aug.	104.1	1.2	0.9	-0.2	0.7	-1.6	1.5	0.6	5.0	1.5	
1999 Sep.	104.1	1.2	1.1	-0.1	0.7	-1.2	1.7	0.4	6.4	1.4	



Source: Eurostat. Data before 1995 are estimates based on national definitions and are not fully comparable with HICPs starting in 1995.

1) Including alcoholic beverages and tobacco.

2) Referring to index period 1999.

**Table 4.2****Selected other price indicators***(annual percentage changes, unless otherwise indicated)***1. Industry and commodity prices**

	Industrial producer prices								World market prices of raw materials <sup>2)</sup>		Oil prices <sup>3)</sup> (EUR per barrel)		
	Total excluding construction		Manufacturing					Construction <sup>1)</sup>	Total	Total excluding energy			
	Index, 1995 = 100			Inter- mediate goods	Capital goods	Consumer goods							
						Durable consumer goods	Non- durable consumer goods						
1	2	3	4	5	6	7	8	9	10	11	12		
1995	100.0	3.6	3.9	5.0	1.8	.	.	2.4	.	0.2	2.1	13.0	
1996	100.4	0.4	1.0	-1.1	1.2	1.7	1.7	1.7	1.3	6.5	-6.9	15.9	
1997	101.4	1.1	0.6	1.2	0.2	0.8	0.1	1.2	1.3	10.0	12.9	17.1	
1998	100.6	-0.8	-0.7	-2.2	0.5	0.4	0.1	0.6	0.2	-21.2	-12.5	12.0	
1998	Q3	100.4	-1.3	-1.1	-2.9	0.6	0.3	0.3	0.3	0.0	-24.2	-18.2	11.7
	Q4	99.4	-2.3	-2.2	-4.5	0.3	-0.2	0.1	-0.3	0.1	-30.0	-20.5	10.1
1999	Q1	98.8	-2.6	-2.1	-4.8	0.1	0.0	0.2	-0.2	0.8	-17.6	-16.0	10.3
	Q2	99.7	-1.3	-1.0	-2.8	0.1	-0.2	0.1	-0.3	.	5.9	-8.2	15.0
	Q3	.	.	.	.	.	.	.	.	.	31.0	1.1	19.7
1998	Oct.	99.8	-2.0	-1.9	-4.1	0.4	-0.1	0.1	-0.2	-	-30.5	-23.5	11.2
	Nov.	99.4	-2.4	-2.2	-4.6	0.3	-0.2	0.1	-0.4	-	-28.6	-18.4	10.2
	Dec.	99.1	-2.6	-2.3	-4.9	0.3	-0.1	0.2	-0.3	-	-30.8	-19.5	8.8
1999	Jan.	98.8	-2.7	-2.4	-5.1	0.2	-0.1	0.3	-0.3	-	-23.4	-17.3	9.6
	Feb.	98.7	-2.7	-2.3	-5.1	0.2	-0.1	0.2	-0.2	-	-20.6	-16.0	9.4
	Mar.	99.0	-2.3	-1.8	-4.4	0.1	-0.1	0.2	-0.2	-	-8.4	-14.6	11.8
	Apr.	99.6	-1.6	-1.2	-3.3	0.2	-0.1	0.2	-0.3	-	0.3	-12.5	14.4
	May	99.7	-1.4	-1.0	-2.8	0.0	-0.2	0.1	-0.3	-	5.1	-7.8	14.9
	June	99.8	-1.0	-0.7	-2.1	0.0	-0.1	0.0	-0.2	-	12.8	-4.2	15.6
	July	100.5	-0.1	0.1	-0.6	0.0	-0.1	0.0	-0.1	-	22.7	-2.3	18.1
	Aug.	100.9	0.6	0.8	0.6	-0.1	0.0	0.0	0.0	-	29.2	-0.5	19.2
	Sep.	.	.	.	.	.	.	.	.	-	41.4	6.6	21.8
	Oct.	.	.	.	.	.	.	.	.	-	44.3	10.7	20.8

**2. Deflators of gross domestic product**

	Deflators of GDP <sup>4)</sup> (s.a.)								
	GDP		Domestic demand	Private consumption	Government consumption	Gross fixed capital formation	Exports	Imports	
	Index, 1995 = 100								
13	14	15	16	17	18	19	20		
1995	100.0		2.6	2.5	2.6	2.9	1.5	2.6	2.3
1996	102.1		2.1	2.1	2.5	2.2	0.8	0.9	0.8
1997	103.7		1.6	1.7	1.9	1.8	1.0	2.2	2.7
1998	105.3		1.6	1.1	1.3	1.5	0.5	-0.1	-1.6
1997	Q2	103.5	1.6	1.6	1.8	2.0	0.9	2.0	2.2
	Q3	103.9	1.6	1.9	2.1	1.7	1.2	3.0	3.9
	Q4	104.2	1.5	1.7	1.8	1.8	1.3	2.5	3.0
1998	Q1	104.8	1.6	1.3	1.6	1.2	0.8	1.4	0.8
	Q2	105.2	1.6	1.4	1.6	1.4	0.8	0.4	-0.4
	Q3	105.5	1.5	0.8	1.1	1.8	0.3	-0.6	-2.6
	Q4	105.8	1.5	0.7	1.0	1.6	0.1	-1.7	-4.1
1999	Q1	106.3	1.4	0.9	1.0	1.8	0.1	-2.0	-4.0
	Q2	106.3	1.1	0.9	1.2	1.9	0.2	-0.8	-1.5

Sources: Eurostat, except columns 10 and 11 (HWWA – Institut für Wirtschaftsforschung, Hamburg), column 12 (International Petroleum Exchange), and columns 13 to 20 (ECB calculations based on Eurostat data).

1) Residential buildings, based on non-harmonised data.

2) To December 1998, in ECU; from January 1999, in euro.

3) Brent Blend (for one-month forward delivery). To December 1998, in ECU; from January 1999, in euro.

4) Based mainly on the ESA 95; data to end-1998 are based on national deflators in domestic currency.



## 5 Real economy indicators in the euro area

**Table 5.1**

### National accounts<sup>1)</sup>

#### 1. Current prices

(EUR billions (ECU billions to end-1998), seasonally adjusted)

	GDP	Domestic demand	Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories <sup>2)</sup>	Exports <sup>3)</sup>	Imports <sup>3)</sup>
	1	2	3	4	5	6	7	8
1995	5,307.4	5,219.5	2,995.9	1,097.0	1,093.9	32.7	1,548.8	1,461.0
1996	5,528.7	5,412.6	3,138.6	1,147.4	1,119.6	7.0	1,636.6	1,520.5
1997	5,641.4	5,502.8	3,190.1	1,152.8	1,134.7	25.2	1,804.0	1,665.3
1998	5,863.9	5,729.5	3,313.7	1,180.4	1,188.5	46.8	1,909.7	1,775.3
1998 Q2	1,458.0	1,422.4	823.5	294.2	292.2	12.5	480.5	444.9
Q3	1,474.0	1,438.2	833.6	296.0	299.9	8.7	481.2	445.4
Q4	1,487.9	1,457.7	843.5	298.1	302.6	13.5	472.3	442.0
1999 Q1	1,501.6	1,472.6	850.8	303.9	309.2	8.6	471.1	442.1
Q2	1,510.3	1,484.7	857.6	306.3	312.5	8.4	482.1	456.5

#### 2. Constant prices

(EUR billions (ECU billions to end-1998), seasonally adjusted, at 1995 prices)

	GDP	Domestic demand	Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories <sup>2)</sup>	Exports <sup>3)</sup>	Imports <sup>3)</sup>
	9	10	11	12	13	14	15	16
1995	5,307.4	5,219.5	2,995.9	1,097.0	1,093.9	32.7	1,548.8	1,461.0
1996	5,378.4	5,265.8	3,039.1	1,117.0	1,103.8	5.9	1,618.6	1,506.1
1997	5,496.5	5,353.7	3,081.2	1,122.6	1,126.9	23.0	1,779.9	1,637.2
1998	5,646.2	5,530.2	3,170.9	1,137.2	1,175.1	47.0	1,892.3	1,776.3
1998 Q2	1,409.0	1,376.4	789.9	284.4	289.7	12.4	475.4	442.8
Q3	1,416.7	1,386.8	796.2	284.5	296.6	9.6	477.0	447.2
Q4	1,418.6	1,396.8	800.8	283.9	296.9	15.2	470.1	448.3
1999 Q1	1,424.8	1,405.6	805.2	287.3	303.3	9.8	471.2	452.1
Q2	1,432.2	1,411.5	807.0	287.8	305.3	11.5	478.5	457.8

(annual percentage changes)

1995	2.2	2.2	1.8	0.8	2.5	-	6.5	6.8
1996	1.3	0.9	1.4	1.8	0.9	-	4.5	3.1
1997	2.2	1.7	1.4	0.5	2.1	-	10.0	8.7
1998	2.7	3.3	2.9	1.3	4.3	-	6.3	8.5
1998 Q2	2.8	3.0	2.7	1.5	3.2	-	8.6	9.8
Q3	2.6	3.5	3.4	1.1	4.7	-	4.7	7.7
Q4	1.9	3.0	3.1	1.0	3.5	-	1.6	5.0
1999 Q1	1.6	2.6	2.7	1.0	3.9	-	0.3	3.2
Q2	1.6	2.5	2.2	1.2	5.4	-	0.6	3.4

Source: Eurostat.

1) Based mainly on the ESA 95. See the first section of the general notes for a brief explanation of features of current price data expressed in ECU up to end-1998.

2) Including acquisitions less disposals of valuables.

3) Exports and imports cover goods and services and include cross-border trade within the euro area.

**Table 5.2****Selected other real economy indicators<sup>1)</sup>****1. Industrial production***(annual percentage changes, unless otherwise indicated)*

	Total including construction		Total excluding construction		Manufacturing						Construction
	Index (s.a.), 1995 = 100		Index (s.a.), 1995 = 100		Intermediate goods	Capital goods	Consumer goods	Consumer goods			
								Durable consumer goods	Non-durable consumer goods		
	1	2	3	4	5	6	7	8	9	10	11
1995	100.0	2.7	100.1	3.4	3.5	2.6	7.3	0.8	-1.1	1.8	-0.4
1996	99.9	-0.1	100.5	0.4	0.1	-0.1	1.6	0.0	0.1	-0.2	-2.4
1997	103.6	3.6	104.9	4.3	5.0	5.4	4.8	2.7	2.7	2.6	-1.2
1998	107.2	3.5	109.2	4.1	4.6	3.7	6.7	3.0	6.3	1.4	-0.7
1998 Q2	107.2	3.9	109.3	4.6	5.3	4.4	7.1	3.8	6.8	2.5	-0.2
1998 Q3	107.7	3.1	109.5	3.9	4.3	2.8	6.6	3.3	6.5	1.8	-1.5
1998 Q4	106.8	1.0	109.2	1.5	1.4	0.3	4.2	1.2	4.5	-0.4	-4.1
1999 Q1	107.1	0.5	109.3	0.5	0.2	-0.2	1.0	1.2	1.9	1.0	-1.1
1999 Q2	.	.	109.7	0.3	0.2	0.1	-0.5	1.3	2.8	0.1	-1.5
1998 Aug.	107.7	3.6	108.8	4.3	4.8	3.3	6.8	3.9	7.7	2.2	-1.0
1998 Sep.	107.2	2.4	109.5	3.3	3.6	2.1	5.8	2.7	5.8	0.8	-3.0
1998 Oct.	107.3	1.9	109.8	2.5	2.8	1.2	5.7	2.8	8.0	0.2	-3.4
1998 Nov.	107.0	1.7	109.5	2.2	2.0	1.3	4.7	1.5	4.3	-0.1	-4.2
1998 Dec.	106.0	-0.9	108.2	-0.2	-0.7	-1.9	2.3	-0.7	0.5	-1.3	-4.9
1999 Jan.	107.7	1.2	109.2	1.4	1.4	0.1	3.4	2.5	4.6	1.3	1.4
1999 Feb.	106.5	-0.3	108.9	-0.3	-0.9	-0.8	0.3	0.0	0.9	-0.3	-3.9
1999 Mar.	107.2	0.6	109.8	0.3	0.1	0.2	-0.3	1.2	0.6	1.8	-0.9
1999 Apr.	106.7	-0.1	109.0	-0.4	-0.4	-0.7	-0.3	0.1	1.1	-0.2	-1.0
1999 May	.	.	109.7	-0.1	-0.2	-0.4	-1.3	1.4	3.2	-0.1	-2.1
1999 June	.	.	110.4	1.4	1.2	1.3	0.1	2.2	4.1	0.8	-1.3
1999 July	.	.	110.3	0.3	0.1	0.6	-1.6	1.3	1.3	1.4	-1.8
1999 Aug.	.	.	110.8	2.3	2.3	2.2	0.5	4.4	11.0	2.9	.

**2. Retail sales and car registrations***(annual percentage changes, unless otherwise indicated)*

	Retail sales								New passenger car registrations	
	Current prices				Constant prices				Thousands <sup>2)</sup> (s.a.)	
	Total		Total		Food, beverages, tobacco	Non-food	Textiles, clothing, footwear	Household equipment		
	Index (s.a.), 1995 = 100		Index (s.a.), 1995 = 100						17	18
	12	13	14	15	16	17	18	19	20	21
1995	.	.	100.0	.	.	.	.	.	777	0.8
1996	.	.	100.4	0.5	0.7	.	-1.0	0.1	826	6.2
1997	.	.	101.6	1.2	1.2	.	0.6	0.9	861	4.2
1998	.	.	104.5	2.8	1.9	.	1.8	4.0	922	7.1
1998 Q3	.	.	105.0	3.5	2.2	.	4.7	3.6	939	6.7
1998 Q4	.	.	105.6	2.8	3.1	2.5	0.3	3.2	941	6.1
1999 Q1	.	.	105.9	2.4	2.6	1.9	2.0	1.3	977	7.1
1999 Q2	.	.	106.2	2.1	3.0	1.5	1.9	2.6	981	8.3
1999 Q3	.	.	.	.	.	.	.	.	994	6.3
1998 Sep.	.	.	104.0	2.0	0.9	2.3	4.5	3.3	952	8.9
1998 Oct.	.	.	105.3	1.9	1.4	2.0	-1.2	3.1	943	4.4
1998 Nov.	.	.	107.0	5.1	5.9	4.2	4.6	4.7	962	9.9
1998 Dec.	.	.	104.5	1.6	2.3	1.5	-1.9	2.1	919	3.9
1999 Jan.	.	.	105.3	2.0	1.6	0.7	1.8	2.6	984	8.9
1999 Feb.	.	.	105.3	1.7	2.5	0.9	-2.3	0.5	964	5.5
1999 Mar.	.	.	107.0	3.4	3.6	4.0	5.8	1.0	983	6.7
1999 Apr.	.	.	105.1	1.5	1.3	1.5	2.3	3.6	992	11.2
1999 May	.	.	106.2	1.1	1.3	0.4	-0.3	1.4	971	5.9
1999 June	.	.	107.2	3.7	6.4	2.7	3.9	2.9	981	7.8
1999 July	.	.	107.0	1.7	1.9	1.1	-0.3	3.7	1,049	10.4
1999 Aug.	.	.	107.4	1.6	.	.	.	.	965	5.3
1999 Sep.	.	.	.	.	.	.	.	.	968	1.8

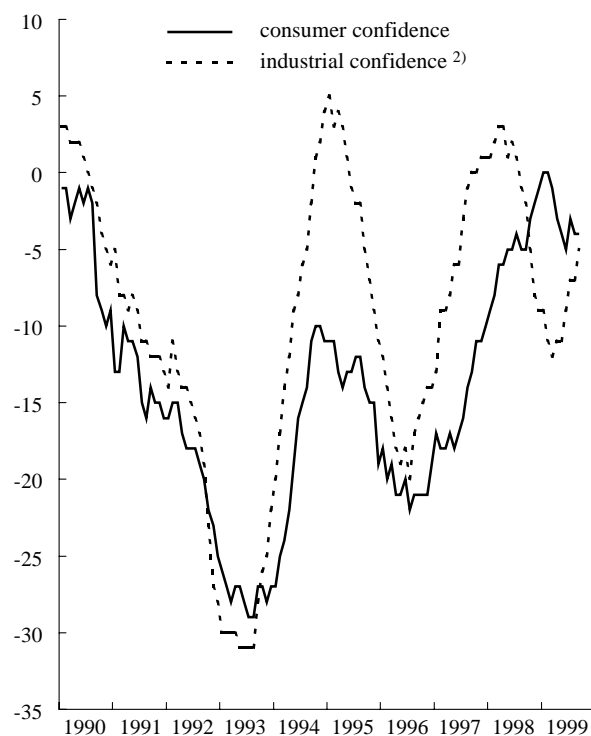
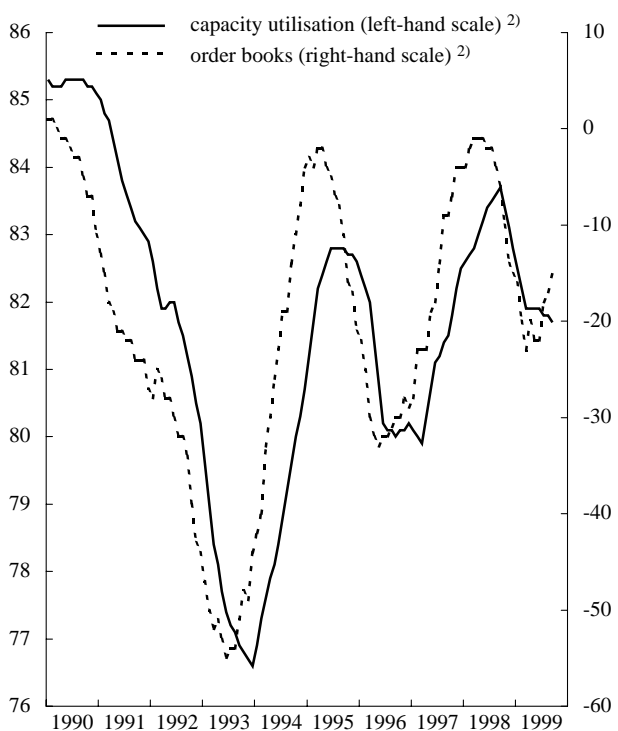
Sources: Eurostat except columns 20 and 21 (ECB calculations based on data from the ACEA/A.A.A. – European Automobile Manufacturers' Association).

1) Adjusted for variations in the number of working days.

2) Monthly averages.

**Table 5.3****Business and consumer surveys***(percentage balances, seasonally adjusted, unless otherwise indicated)*

	Manufacturing industry				Construction confidence indicator	Retail trade confidence indicator	Consumer confidence indicator
	Confidence indicator	Production expectations	Assessment of order books	Capacity utilisation <sup>1)</sup> (percentages)			
	1	2	3	4	5	6	7
1995	-2	10	-8	82.6	-27	-12	-14
1996	-16	-1	-30	80.6	-36	-11	-20
1997	-4	11	-15	81.3	-33	-9	-15
1998	-1	11	-5	83.2	-19	-3	-5
1998 Q3	-1	11	-4	83.7	-13	-1	-5
Q4	-7	3	-13	82.8	-15	-3	-2
1999 Q1	-11	1	-20	81.9	-9	-3	0
Q2	-10	3	-21	81.9	-7	-4	-4
Q3	-6	8	-17	81.7	-7	-7	-4
1998 Sep.	-2	11	-6	-	-12	-1	-5
Oct.	-5	5	-10	-	-17	-1	-3
Nov.	-8	2	-14	-	-14	-4	-2
Dec.	-9	2	-15	-	-14	-4	-1
1999 Jan.	-9	2	-16	-	-9	0	0
Feb.	-11	1	-20	-	-9	-4	0
Mar.	-12	0	-23	-	-9	-6	-1
Apr.	-11	2	-20	-	-7	-1	-3
May	-11	3	-22	-	-8	-3	-4
June	-9	5	-22	-	-6	-9	-5
July	-7	7	-18	-	-5	-6	-3
Aug.	-7	7	-17	-	-9	-7	-4
Sep.	-5	10	-15	-	-8	-7	-4

**Consumer and industrial confidence indicators***(percentage balances; monthly, seasonally adjusted)***Capacity utilisation and order books***(capacity utilisation, percentages, quarterly; order books, percentage balances, monthly; seasonally adjusted)*

Source: European Commission Business and Consumer Surveys.

1) Data on capacity utilisation are collected in January, April, July and October. Annual data are averages of the four quarterly surveys.

2) Manufacturing.

**Table 5.4****Labour market indicators****1. Employment and unemployment <sup>1)</sup>***(annual percentage changes, unless otherwise indicated)*

	Employment						Unemployment (s.a.)			
	Whole economy				Industry (excluding construction)	Services	Total		Adult <sup>2)</sup>	Youth <sup>2)</sup>
	Index, 1995 = 100		Employees	Self- employed			Millions	% of labour force	% of labour force	% of labour force
1	2	3	4	5	6	7	8	9	10	
1995	100.0	.	.	.	.	.	14.381	11.4	9.6	23.3
1996	100.2	0.2	0.2	0.3	-1.2	1.3	14.808	11.6	9.8	23.9
1997	100.7	0.5	0.6	-0.1	-0.6	1.1	14.901	11.6	10.0	23.3
1998	101.9	1.2	1.3	0.5	0.9	1.6	14.100	10.9	9.4	21.4
1998 Q2	.	.	1.0	.	.	.	14.190	11.0	9.5	21.5
Q3	.	.	1.2	.	.	.	14.005	10.9	9.4	21.3
Q4	.	.	1.5	.	.	.	13.732	10.7	9.2	20.9
1999 Q1	.	.	.	.	.	.	13.359	10.4	9.0	20.2
Q2	.	.	.	.	.	.	13.172	10.2	8.9	19.6
1998 Aug.	-	-	-	-	-	-	14.008	10.9	9.4	21.2
Sep.	-	-	-	-	-	-	13.946	10.8	9.3	21.3
Oct.	-	-	-	-	-	-	13.837	10.7	9.2	21.2
Nov.	-	-	-	-	-	-	13.754	10.7	9.2	21.0
Dec.	-	-	-	-	-	-	13.607	10.6	9.1	20.7
1999 Jan.	-	-	-	-	-	-	13.466	10.4	9.0	20.5
Feb.	-	-	-	-	-	-	13.393	10.4	9.0	20.2
Mar.	-	-	-	-	-	-	13.217	10.3	8.9	19.9
Apr.	-	-	-	-	-	-	13.212	10.2	8.9	19.7
May	-	-	-	-	-	-	13.162	10.2	8.9	19.6
June	-	-	-	-	-	-	13.143	10.2	8.9	19.6
July	-	-	-	-	-	-	13.104	10.2	8.8	19.6
Aug.	-	-	-	-	-	-	13.128	10.2	8.8	19.7

**2. Labour costs and productivity***(annual percentage changes)*

	Unit labour cost in the whole economy, and components (s.a.)			Labour cost indices <sup>3)</sup> and components					Earnings per employee in manufacturing
	Unit labour cost	Compensation per employee	Labour productivity	Total	Wages and salaries	Other	Industry	Services	
							Total	Total	
11	12	13	14	15	16	17	18	19	
1995	1.5	3.6	1.9	.	.	.	.	.	3.7
1996	2.0	3.3	1.1	2.8	2.4	3.8	3.4	1.1	3.7
1997	0.7	2.5	1.7	2.6	2.5	3.3	2.5	2.6	2.6
1998	.	.	.	1.7	2.2	1.1	1.8	1.3	2.4
1997 Q2	0.6	2.8	2.2	3.0	2.7	3.9	2.5	3.6	3.0
Q3	0.3	2.3	1.9	2.4	2.4	2.9	2.5	2.2	2.3
Q4	0.2	2.1	2.1	2.5	2.4	3.1	2.5	2.0	2.4
1998 Q1	-1.6	1.1	2.8	1.8	2.4	1.1	1.5	1.6	2.0
Q2	-0.1	1.2	1.3	1.7	2.3	0.8	1.9	1.2	2.6
Q3	0.2	1.4	1.2	1.6	2.0	1.1	1.9	1.1	2.4
Q4	.	.	.	1.8	2.2	1.1	2.1	1.3	2.7
1999 Q1	.	.	.	2.3	2.2	2.7	2.3	2.1	2.4
Q2	.	.	.	2.2	2.3	2.0	2.2	.	2.2

Sources: ECB calculations based on Eurostat data (columns 1 to 6 and 18), Eurostat (columns 7 to 10, 14 to 17), and ECB calculations based on national data (columns 11 to 13 and 19).

1) Data for employment are based on the ESA 95. Data for unemployment follow ILO recommendations.

2) Adult, 25 years and over; youth, below 25 years; expressed as a percentage of the labour force for the relevant age group.

3) Hourly labour costs for the whole economy, excluding the agriculture, education and health sectors. Owing to differences in coverage, components are not consistent with the total.

## 6 Saving, investment and financing in the euro area

**Table 6**

### Saving, investment and financing

(as a percentage of GDP, unless otherwise indicated)

	Euro area saving and investment <sup>1)</sup>			Investment of private non-financial sectors <sup>1) 2)</sup>							
	Gross saving	Gross fixed capital formation	Net lending to the rest of the world	Gross fixed capital formation	Non-financial corporations	Net acquisition of financial assets	Currency and deposits	Securities other than shares	Long-term securities	Shares	Insurance technical reserves
	1	2	3	4	5	6	7	8	9	10	11
1991	21.9	23.0	-1.3	19.1	14.3	16.7	3.9	3.0	2.5	1.7	2.5
1992	20.9	22.2	-1.0	18.4	13.7	14.2	4.4	1.7	0.5	1.4	2.6
1993	20.0	20.2	0.5	16.6	12.3	13.0	5.3	0.6	1.0	0.8	2.9
1994	20.4	19.8	0.3	16.5	12.3	13.7	3.3	2.2	2.4	1.8	2.9
1995	21.4	20.2	0.8	16.9	12.6	13.1	4.7	1.9	1.7	1.6	3.3
1996	21.0	19.9	1.2	16.7	12.3	12.7	4.1	0.2	1.2	1.2	3.6
1997	21.7	19.3	1.9	16.2	12.1	12.4	2.3	-0.5	0.0	1.6	3.8
1998	22.1	19.5	1.4	16.4	12.3	.	.	.	.	.	.

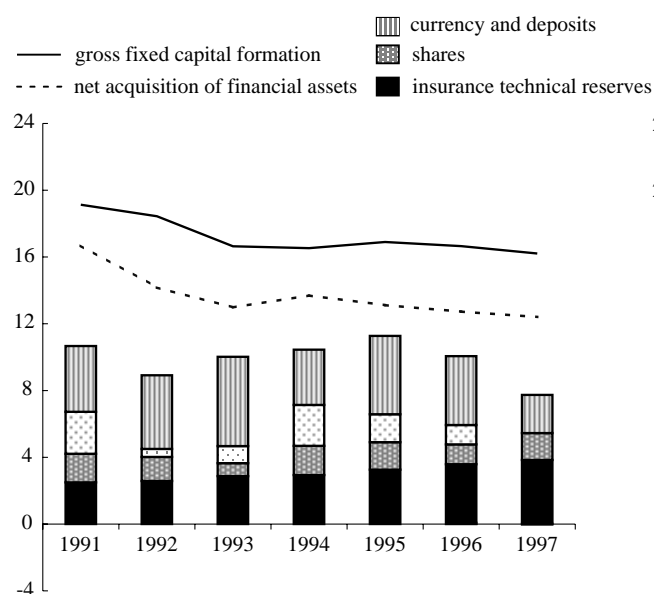
  

	Financing of private non-financial sectors <sup>1) 2)</sup>									Net financial investment (col. 6 - 14)	Financial investment as a % of gross investment (col. 6 (4+6))	Net incurrence of liabilities as a % of financing (col. 14 (12+14))
	Gross saving	Households	Net incurrence of liabilities	Securities other than shares	Long-term securities	Shares	Loans	Long-term loans				
	12	13	14	15	16	17	18	19				
1991	21.0	12.1	13.3	0.4	0.4	1.6	9.1	5.0	3.4	46.6	38.8	
1992	20.7	12.1	10.6	0.7	0.6	1.4	6.8	4.7	3.6	43.5	33.9	
1993	20.4	11.5	7.4	1.3	1.4	1.6	3.6	4.4	5.6	43.8	26.7	
1994	20.3	10.6	9.6	1.0	1.1	1.8	3.6	3.5	4.1	45.3	32.0	
1995	21.1	10.9	5.6	-1.7	-1.8	1.6	4.7	2.9	7.6	43.7	20.8	
1996	20.3	10.7	8.4	0.2	0.1	1.8	4.6	3.5	4.3	43.3	29.3	
1997	19.8	9.4	8.5	0.0	0.0	1.4	5.7	4.0	3.9	43.4	30.0	
1998	19.0	8.8	.	.	.	.	.	.	.	.	.	

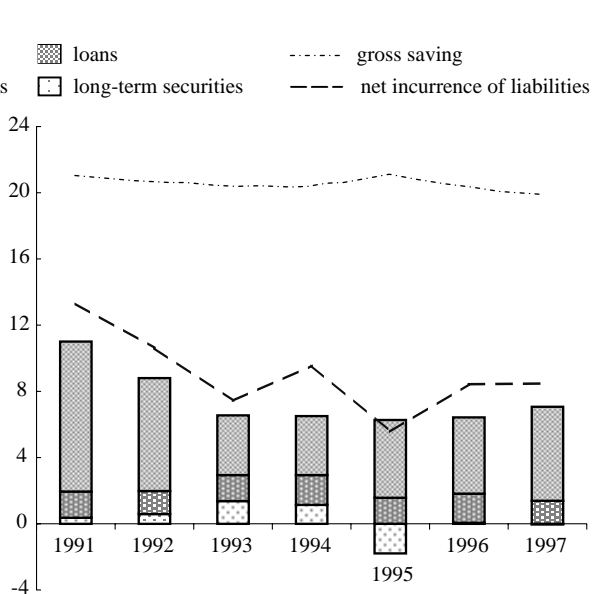
### Investment and financing of private non-financial sectors <sup>1) 2)</sup>

(as a percentage of GDP)

#### Investment



#### Financing



Source: ECB.

1) Selected items of financing and investment.

2) Private non-financial sectors comprise non-financial corporations, households and non-profit institutions serving households.

# 7 General government fiscal position in the euro area and in the euro area countries

**Table 7**

## General government fiscal position

(as a percentage of GDP)

### 1. Euro area <sup>1)2)</sup> – receipts and expenditure

	Receipts							Expenditure							
	Total	Current receipts	Direct taxes	Indirect taxes	Social contributions	Sales	Capital receipts	Total	Current expenditure	Compensation of employees	Inter-mediate consumption	Interest	Transfers to households	Capital expenditure	Investment
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1991	48.0	47.5	12.3	12.9	17.3	2.5	0.4	52.4	47.7	11.8	5.5	4.9	21.3	4.6	3.0
1992	49.2	48.4	12.3	13.0	17.7	2.7	0.8	53.8	49.3	12.1	5.5	5.5	22.2	4.5	3.0
1993	49.9	49.4	12.5	13.2	18.2	2.8	0.5	55.5	51.0	12.3	5.7	5.7	23.1	4.5	2.9
1994	49.2	48.6	12.0	13.4	18.1	2.7	0.5	54.3	50.1	12.0	5.5	5.4	23.1	4.2	2.7
1995	49.1	48.5	12.1	13.3	18.1	2.8	0.6	54.0	49.7	11.8	5.3	5.7	23.1	4.3	2.6
1996	49.3	48.8	12.1	13.4	18.3	2.8	0.5	53.4	49.7	11.9	5.4	5.5	23.2	3.7	2.4
1997	49.7	49.0	12.2	13.5	18.3	2.7	0.7	52.2	48.6	11.6	5.2	5.0	23.1	3.6	2.3
1998	49.1	48.5	12.5	14.1	17.2	2.7	0.5	51.2	47.4	11.3	5.1	4.5	22.6	3.7	2.3

### 2. Euro area <sup>1)2)</sup> – saving, deficit and debt

	Gross saving	Deficit (-) / surplus (+)				Primary deficit/surplus	Deficit/debt adjustment <sup>3)</sup>	Change in debt <sup>4)</sup>				Gross nominal consolidated debt			
		Total	Central government	Local government	Social security			Total	Currency, deposits and loans	Short-term securities	Medium/long-term securities	Total	Currency, deposits and loans	Short-term securities	Medium/long-term securities
		16	17	18	19			20	21	22	23	24	25	26	27
1991	-0.2	-4.4	-4.5	-0.2	0.3	0.5	0.7	5.1	1.3	0.0	3.9	58.3	18.5	8.5	31.2
1992	-0.9	-4.6	-4.3	-0.2	-0.1	0.9	2.2	6.8	1.7	0.9	4.2	61.9	19.2	8.9	33.8
1993	-1.6	-5.5	-5.3	-0.2	0.0	0.2	2.5	8.1	1.5	-0.3	6.9	68.4	20.2	8.4	39.8
1994	-1.5	-5.1	-4.9	-0.2	0.0	0.3	0.8	5.9	0.2	0.6	5.1	70.8	19.4	8.5	42.9
1995	-1.3	-5.0	-4.6	-0.1	-0.3	0.7	2.3	7.3	2.0	-0.2	5.5	74.8	20.6	7.9	46.4
1996	-0.9	-4.1	-3.9	0.0	-0.2	1.3	-0.2	3.9	0.3	0.2	3.4	76.1	20.2	7.8	48.1
1997	0.4	-2.5	-2.6	0.0	0.0	2.5	-0.3	2.2	-0.1	-1.0	3.2	75.4	19.3	6.6	49.5
1998	1.1	-2.1	-2.3	0.2	0.1	2.4	-0.6	1.5	-0.4	-0.7	2.6	73.6	18.1	5.6	49.9

### 3. Euro area countries – deficit (-) / surplus (+)

	BE	DE	ES	FR	IE	IT	LU	NL	AT	PT	FI
	1	2	3	4	5	6	7	8	9	10	11
1991	-6.3	-3.3	-4.4	-2.1	-2.3	-10.1	1.9	-2.9	-3.0	-6.0	-1.1
1992	-7.1	-2.8	-4.0	-3.9	-2.4	-9.6	0.7	-3.9	-2.0	-3.0	-5.7
1993	-7.3	-3.5	-6.8	-5.8	-2.3	-9.6	1.6	-3.2	-4.3	-6.1	-7.3
1994	-4.9	-2.6	-6.2	-5.8	-1.5	-9.2	2.7	-3.8	-5.0	-6.0	-6.0
1995	-4.0	-3.3	-7.1	-4.9	-2.1	-7.7	1.8	-4.0	-5.1	-5.7	-4.6
1996	-3.1	-3.4	-4.5	-4.1	-0.3	-6.6	2.8	-2.0	-3.7	-3.3	-3.1
1997	-1.9	-2.7	-2.6	-3.0	1.1	-2.7	2.9	-0.9	-1.9	-2.5	-1.2
1998	-1.3	-2.1	-1.8	-2.9	2.3	-2.7	2.1	-0.9	-2.1	-2.3	1.0

### 4. Euro area countries – gross nominal consolidated debt

	BE	DE	ES	FR	IE	IT	LU	NL	AT	PT	FI
	12	13	14	15	16	17	18	19	20	21	22
1991	128.4	40.9	44.6	35.8	92.6	102.0	4.0	79.0	58.2	67.3	23.1
1992	130.6	43.6	47.0	39.9	89.5	109.4	4.9	79.9	58.1	59.9	41.5
1993	137.6	47.5	58.8	45.4	93.1	120.0	5.9	81.1	62.8	63.2	58.0
1994	135.1	49.9	61.3	48.6	86.5	125.7	5.5	77.8	65.6	63.8	59.6
1995	132.2	58.3	64.2	52.8	78.9	125.3	5.8	79.0	69.4	65.9	58.1
1996	128.0	60.8	68.6	55.7	69.4	124.6	6.3	77.0	69.8	64.9	57.8
1997	123.4	61.5	67.5	58.1	61.3	122.4	6.4	71.2	64.3	61.7	54.9
1998	117.3	61.0	65.6	58.5	52.1	118.7	6.7	67.7	63.1	57.8	49.6

Sources: ECB for euro area aggregated data; European Commission (Economic and Financial Affairs DG and Eurostat, spring 1999) for data relating to euro area countries' deficit/surplus and debt.

1) Transactions among the euro area countries are not consolidated.

2) Euro area excluding Luxembourg.

3) Difference between the annual change in nominal gross consolidated debt and the deficit as a percentage of GDP.

4) Annual change in nominal gross consolidated debt expressed as a percentage of GDP:  $[debt(t) - debt(t-1)] \div GDP(t)$ .

## 8 Balance of payments of the euro area and the Eurosystem's reserve position

**Table 8.1**

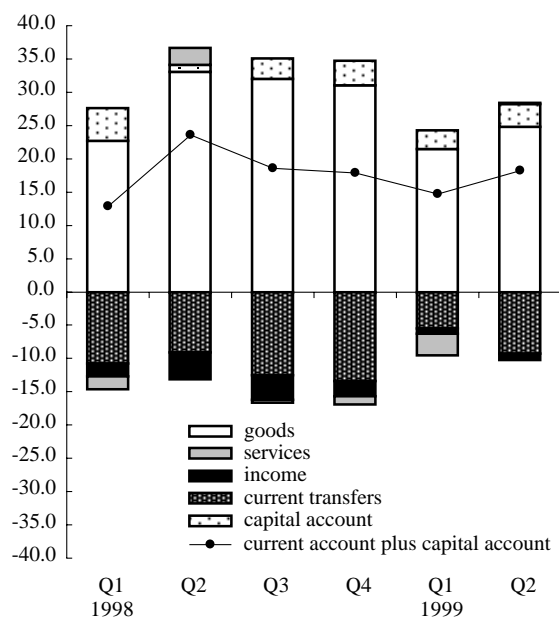
**Summary balance of payments<sup>1)</sup>**

(EUR billions (ECU billions to end-1998); net flows)

	Current account					Capital account	Financial account <sup>2)</sup>						Errors and omissions <sup>3)</sup>
	Total	Goods	Services	Income	Current transfers		Total <sup>3)</sup>	Direct investment	Portfolio investment <sup>3)</sup>	Financial derivatives <sup>3)</sup>	Other investment <sup>3)4)</sup>	Reserve assets <sup>3)</sup>	
	1	2	3	4	5	6	7	8	9	10	11	12	13
1998	60.3	118.8	-0.9	-11.9	-45.8	12.7	-69.1	-102.6	-85.3	-8.2	118.5	8.5	-3.8
1998 Q1	8.0	22.7	-1.9	-1.9	-10.8	4.9	-14.1	-12.1	-53.4	0.1	52.5	-1.2	1.2
Q2	22.6	33.1	2.6	-4.0	-9.1	1.0	-3.3	-14.0	-1.0	-4.1	15.5	0.4	-20.3
Q3	15.5	32.0	-0.4	-3.7	-12.5	3.1	-15.6	-20.0	8.8	1.1	-8.2	2.6	-3.0
Q4	14.2	31.0	-1.2	-2.3	-13.4	3.7	-36.2	-56.5	-39.7	-5.3	58.7	6.7	18.3
1999 Q1	11.9	21.5	-3.2	-0.8	-5.5	2.8	-33.1	-15.6	-54.7	-1.4	33.0	5.5	18.4
Q2	14.8	24.8	0.2	-0.9	-9.3	3.4	-28.3	-52.6	-7.0	-0.6	25.3	6.6	10.1
1998 Apr.	5.9	10.6	0.1	-1.0	-3.8	0.5	-30.7	-7.4	-21.3	-0.9	-0.8	-0.3	24.3
May	7.0	11.3	0.4	-2.0	-2.8	0.4	17.2	-1.1	10.2	-1.5	8.3	1.2	-24.6
June	9.8	11.2	2.1	-1.1	-2.5	0.1	10.2	-5.5	10.0	-1.8	8.0	-0.6	-20.0
July	10.5	15.1	0.3	-2.3	-2.6	1.1	17.3	-5.9	13.4	-1.4	11.0	0.1	-28.9
Aug.	4.3	9.0	0.1	0.2	-4.9	1.5	4.3	-7.6	8.0	2.2	3.7	-2.0	-10.1
Sep.	0.7	7.9	-0.8	-1.6	-4.9	0.5	-37.2	-6.5	-12.6	0.3	-22.9	4.5	36.0
Oct.	3.7	10.6	-1.0	-1.0	-4.9	0.8	-9.7	-18.0	-30.7	-2.9	44.8	-2.9	5.3
Nov.	4.4	10.2	-0.3	-1.0	-4.6	0.9	7.4	-35.3	3.1	-2.3	47.8	-5.8	-12.6
Dec.	6.1	10.3	0.1	-0.3	-3.9	2.0	-33.8	-3.2	-12.0	-0.1	-33.9	15.4	25.7
1999 Jan.	-0.5	4.8	-2.9	-0.4	-2.0	2.7	0.4	-4.7	8.8	-1.9	0.3	-2.1	-2.6
Feb.	4.1	6.9	0.0	-0.6	-2.2	-0.1	6.8	-6.2	-26.4	-0.4	34.8	5.0	-10.8
Mar.	8.3	9.8	-0.4	0.2	-1.4	0.2	-40.3	-4.6	-37.1	0.9	-2.1	2.7	31.8
Apr.	6.8	8.0	-0.4	2.1	-2.9	0.5	-5.1	-14.6	13.6	3.5	-9.3	1.8	-2.3
May	0.5	5.9	0.7	-2.9	-3.2	1.4	-11.0	-19.1	-28.5	-3.9	37.0	3.5	9.1
June	7.4	11.0	-0.1	-0.2	-3.2	1.4	-12.2	-18.9	7.9	-0.1	-2.3	1.3	3.3
July	8.2	13.3	0.8	-1.5	-4.4	0.7	-3.4	-5.7	3.0	1.8	-1.8	-0.7	-5.5
Aug.	1.5	7.0	-1.1	0.4	-4.8	0.6	32.9	-5.9	1.8	1.5	34.9	0.5	-35.0

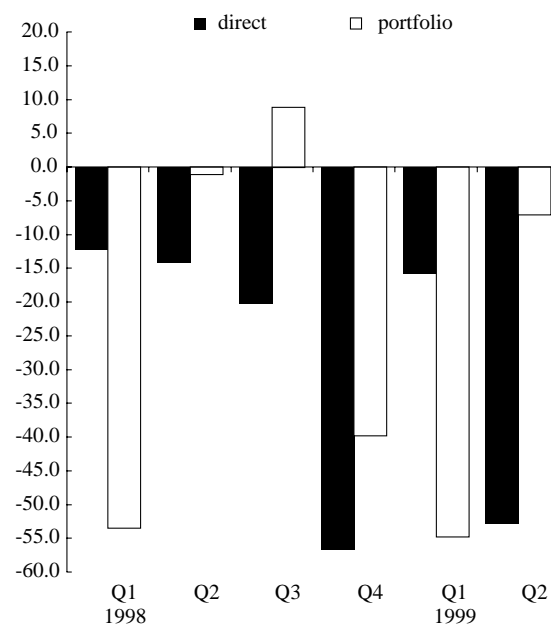
**Current and capital accounts**

(EUR billions (ECU billions to end-1998); net flows)



**Direct and portfolio investment**

(EUR billions (ECU billions to end-1998); net flows)



Source: ECB.

1) Data have been revised in the light of new information, as described in the general notes.

2) Inflows (+); outflows (-). Reserve assets: increase (-); decrease (+).

3) Data before end-1998 are not closely comparable with later observations.

4) Flows before January 1999 include estimates.

**Table 8.2****Current and capital accounts<sup>1)</sup>***(EUR billions (ECU billions to end-1998); gross flows)*

	Current account										Capital account	
	Total		Goods		Services		Income		Current transfers		Credit 11	Debit 12
	Credit 1	Debit 2	Credit 3	Debit 4	Credit 5	Debit 6	Credit 7	Debit 8	Credit 9	Debit 10		
1998	1,264.0	1,203.7	772.4	653.6	232.0	232.8	198.5	210.4	61.1	106.9	17.8	5.1
1998 Q1	314.9	306.9	189.5	166.9	52.8	54.7	48.6	50.6	24.0	34.7	6.1	1.2
Q2	321.7	299.1	197.7	164.6	59.4	56.8	52.0	56.0	12.5	21.7	2.2	1.2
Q3	310.8	295.2	189.4	157.4	61.6	62.0	47.5	51.2	12.2	24.6	4.3	1.2
Q4	316.6	302.4	195.7	164.7	58.1	59.3	50.3	52.6	12.4	25.9	5.2	1.6
1999 Q1	299.7	287.7	179.7	158.2	50.7	53.9	45.5	46.3	23.8	29.3	4.4	1.7
Q2	324.0	309.2	193.1	168.2	59.3	59.1	56.8	57.8	14.8	24.2	4.6	1.2
1998 Apr.	105.4	99.5	66.3	55.7	18.7	18.6	16.8	17.8	3.6	7.4	0.9	0.4
May	103.1	96.1	64.0	52.7	19.1	18.7	15.7	17.7	4.2	7.0	0.8	0.4
June	113.2	103.5	67.5	56.2	21.5	19.5	19.5	20.6	4.7	7.2	0.5	0.4
July	113.4	102.9	70.0	55.0	21.8	21.4	16.9	19.1	4.8	7.4	1.5	0.5
Aug.	93.8	89.4	55.7	46.7	20.3	20.2	14.0	13.9	3.7	8.7	1.8	0.3
Sep.	103.6	102.9	63.6	55.7	19.6	20.4	16.6	18.2	3.7	8.6	0.9	0.4
Oct.	105.7	101.9	67.1	56.5	19.4	20.4	15.7	16.7	3.4	8.4	1.2	0.4
Nov.	101.5	97.1	64.4	54.2	17.9	18.1	15.3	16.3	4.0	8.5	1.3	0.5
Dec.	109.4	103.3	64.3	54.0	20.8	20.8	19.3	19.6	5.0	9.0	2.7	0.6
1999 Jan.	95.0	95.5	53.5	48.7	14.9	17.8	14.4	14.8	12.3	14.3	3.1	0.4
Feb.	94.7	90.5	57.4	50.5	17.2	17.2	13.8	14.5	6.2	8.4	0.7	0.8
Mar.	110.0	101.7	68.8	59.0	18.7	19.0	17.3	17.1	5.3	6.6	0.6	0.5
Apr.	105.4	98.5	63.3	55.3	18.5	18.9	18.7	16.6	4.9	7.8	1.0	0.4
May	102.2	101.7	60.7	54.9	19.2	18.5	16.9	19.7	5.4	8.6	1.8	0.3
June	116.4	109.0	69.1	58.1	21.6	21.7	21.2	21.4	4.6	7.8	1.9	0.5
July	111.9	103.7	69.4	56.0	22.7	21.9	15.4	16.9	4.4	8.8	1.3	0.6
Aug.	96.0	94.5	57.3	50.3	19.9	21.0	14.8	14.4	4.0	8.8	1.0	0.4

*Source: ECB.**1) Data have been revised in the light of new information, as described in the general notes.*



**Table 8.3****Income account***(EUR billions; gross flows)*

	Total		Compensation of employees		Investment income							
	Credit 1	Debit 2	Credit 3	Debit 4	Total		Direct investment		Portfolio investment		Other investment	
					Credit 5	Debit 6	Credit 7	Debit 8	Credit 9	Debit 10	Credit 11	Debit 12
1999 Q1	45.5	46.3	2.3	0.9	43.2	45.4	7.8	8.8	12.5	15.0	23.0	21.6
Q2	56.8	57.8	2.3	1.3	54.5	56.5	12.7	8.1	16.2	24.1	25.5	24.3

	Income on direct investment				Income on portfolio investment							
	Equity		Debt		Equity		Debt instruments					
	Credit 13	Debit 14	Credit 15	Debit 16	Credit 17	Debit 18	Total		Bonds and notes		Money market instruments	
							Credit 19	Debit 20	Credit 21	Debit 22	Credit 23	Debit 24
1999 Q1	6.9	8.0	0.9	0.9	1.6	3.6	10.9	11.3	10.5	10.9	0.5	0.5
Q2	11.5	7.0	1.2	1.1	3.4	10.9	12.9	13.1	12.3	12.5	0.6	0.7

*Source: ECB.*

**Table 8.4****Direct and portfolio investment accounts <sup>1)</sup>***(EUR billions (ECU billions to end-1998); net flows)***1. Direct investment; portfolio investment by instrument <sup>2)</sup>**

	Direct investment		Portfolio investment									
	Abroad	In the euro area	Total		Equity		Debt instruments					
			Assets	Liabilities <sup>3)</sup>	Assets	Liabilities <sup>3)</sup>	Assets			Liabilities <sup>3)</sup>		
							Total	Bonds and notes	Money market instruments	Total	Bonds and notes	Money market instruments
1	2	3	4	5	6	7	8	9	10	11	12	
1998	-183.0	80.4	-302.1	216.8	-98.7	98.3	-203.3	-187.1	-16.3	118.5	102.7	15.8
1998 Q1	-48.4	36.3	-103.2	49.8	-36.1	21.0	-67.1	-64.5	-2.6	28.8	31.9	-3.1
Q2	-39.3	25.3	-77.3	76.2	-29.3	30.2	-48.0	-51.2	3.2	46.1	41.8	4.2
Q3	-25.3	5.3	-60.2	69.1	-13.2	5.5	-47.1	-42.2	-4.8	63.5	47.0	16.6
Q4	-70.0	13.5	-61.4	21.7	-20.1	41.6	-41.2	-29.2	-12.0	-19.9	-18.0	-1.9
1999 Q1	-36.3	20.8	-65.3	10.7	-21.7	-5.4	-43.6	-43.8	0.1	16.1	2.9	13.2
Q2	-76.9	24.3	-85.6	78.6	-40.9	31.3	-44.7	-52.5	7.8	47.3	33.7	13.7
1998 Apr.	-20.6	13.3	-31.2	9.9	-9.3	3.0	-22.0	-28.0	6.0	7.0	8.6	-1.7
May	-12.3	11.2	-16.7	26.9	-7.9	7.3	-8.9	-7.7	-1.2	19.6	14.7	4.9
June	-6.4	0.8	-29.3	39.4	-12.1	19.9	-17.2	-15.5	-1.7	19.5	18.5	1.0
July	-2.0	-3.9	-24.3	37.7	-4.5	10.9	-19.8	-20.2	0.4	26.8	15.5	11.3
Aug.	-4.1	-3.5	-16.4	24.4	-0.6	-3.4	-15.8	-14.2	-1.6	27.8	22.1	5.8
Sep.	-19.2	12.7	-19.5	6.9	-8.1	-2.0	-11.4	-7.8	-3.6	8.9	9.4	-0.6
Oct.	-13.0	-5.0	-9.6	-21.1	-2.0	-2.0	-7.6	-6.7	-0.9	-19.1	-24.7	5.6
Nov.	-42.7	7.4	-32.0	35.0	-10.0	36.4	-21.9	-13.8	-8.2	-1.4	-0.8	-0.6
Dec.	-14.2	11.0	-19.8	7.7	-8.1	7.1	-11.7	-8.8	-2.9	0.6	7.5	-6.9
1999 Jan.	-11.8	7.1	-19.1	27.9	-6.4	9.5	-12.7	-9.3	-3.4	18.4	15.7	2.7
Feb.	-12.0	5.8	-16.2	-10.2	-4.3	1.9	-11.9	-13.2	1.3	-12.1	-18.0	6.0
Mar.	-12.5	7.9	-30.0	-7.1	-11.0	-16.9	-19.0	-21.2	2.3	9.7	5.2	4.5
Apr.	-23.3	8.7	-22.2	35.8	-11.7	8.2	-10.5	-14.8	4.3	27.6	27.7	-0.1
May	-28.3	9.1	-37.9	9.4	-15.7	10.8	-22.2	-23.3	1.1	-1.4	-9.2	7.8
June	-25.3	6.4	-25.5	33.4	-13.5	12.3	-12.0	-14.4	2.4	21.1	15.2	5.9
July	0.1	-5.8	-19.0	22.1	-5.2	9.5	-13.9	-13.3	-0.5	12.6	0.7	11.9
Aug.	-9.4	3.5	-20.7	22.5	-10.3	3.1	-10.3	-5.7	-4.6	19.4	7.7	11.7

**2. Portfolio investment assets by instrument and sector of holder**

	Equity				Debt instruments							
					Bonds and notes				Money market instruments			
	Eurosystem	General government	MFIs (excl. the Eurosystem)	Other sectors	Eurosystem	General government	MFIs (excl. the Eurosystem)	Other sectors	Eurosystem	General government	MFIs (excl. the Eurosystem)	Other sectors
1	2	3	4	5	6	7	8	9	10	11	12	
1999 Q1	0.1	-0.4	1.1	-22.5	0.1	-0.4	5.1	-48.6	1.4	-0.2	-1.1	0.0
Q2	0.0	-0.3	-3.0	-37.7	0.8	-0.3	-10.5	-42.5	0.5	-0.5	1.1	6.6

Source: ECB.

1) Inflows (+); outflows (-).

2) Data have been revised in the light of new information, as described in the general notes.

3) Data before end-1998 are not closely comparable with later observations.

**Table 8.5****Other investment account <sup>1)</sup>***(EUR billions (ECU billions to end-1998); net flows)***1. By sector <sup>2) 3)</sup>**

	Total		Eurosystem		General government		MFIs (excluding the Eurosystem)						Other sectors	
	Assets 1	Liabilities 2	Assets 3	Liabilities 4	Assets 5	Liabilities 6	Total		Long-term		Short-term		Assets 13	Liabilities 14
							Assets 7	Liabilities 8	Assets 9	Liabilities 10	Assets 11	Liabilities 12		
1998	-67.5	186.0	-0.7	3.5	-1.4	-7.7	-22.6	178.1	-34.2	34.8	11.6	143.3	-42.8	12.1
1998 Q1	-34.1	86.6	0.4	0.0	-2.5	-2.4	-3.7	82.3	-3.8	10.4	0.1	71.9	-28.3	6.8
Q2	-8.2	23.7	-1.0	1.1	-2.4	-0.8	-1.3	22.1	-13.5	8.6	12.2	13.5	-3.4	1.3
Q3	-84.3	76.1	0.4	-0.6	0.6	-1.9	-71.2	77.8	-13.2	1.7	-58.0	76.2	-14.0	0.8
Q4	59.1	-0.4	-0.5	2.9	3.0	-2.5	53.7	-4.1	-3.7	14.2	57.4	-18.3	2.9	3.2
1999 Q1	-34.6	67.7	2.9	0.0	-3.3	-4.2	-13.4	58.6	-13.9	7.1	0.6	51.5	-20.9	13.3
Q2	1.0	24.4	4.4	0.0	3.9	-2.9	8.2	19.4	-15.7	13.2	23.8	6.2	-15.6	7.8
1998 Apr.	4.5	-5.3	0.0	0.4	0.7	0.3	13.0	-6.8	-4.1	4.3	17.1	-11.1	-9.1	0.8
May	-3.9	12.2	0.0	-0.2	-1.0	-0.5	-5.7	14.0	-3.9	1.2	-1.8	12.9	2.9	-1.2
June	-8.9	16.9	-0.9	0.9	-2.1	-0.5	-8.7	14.9	-5.6	3.1	-3.1	11.8	2.8	1.6
July	-6.7	17.7	0.2	-0.1	0.2	-3.4	7.2	21.6	-2.8	0.9	10.0	20.7	-14.3	-0.4
Aug.	-12.5	16.2	0.1	-0.2	0.5	0.5	-22.0	17.1	-5.6	-1.5	-16.4	18.6	8.9	-1.2
Sep.	-65.1	42.2	0.1	-0.4	-0.2	0.9	-56.4	39.2	-4.8	2.3	-51.6	36.9	-8.5	2.4
Oct.	3.5	41.3	0.0	0.4	0.0	0.2	13.5	38.5	-1.3	2.8	14.8	35.7	-10.1	2.2
Nov.	6.7	41.1	-0.1	-2.6	1.2	2.2	1.6	39.8	-0.8	1.8	2.4	38.0	4.1	1.7
Dec.	49.0	-82.8	-0.4	5.2	1.9	-4.9	38.6	-82.4	-1.6	9.6	40.3	-92.0	8.9	-0.7
1999 Jan.	-64.7	65.1	8.4	0.0	0.0	-4.8	-65.0	65.2	-6.2	3.4	-58.8	61.7	-8.2	4.6
Feb.	30.9	3.9	-4.5	0.0	-2.2	-0.6	48.5	1.5	-0.6	-3.2	49.1	4.6	-10.9	3.1
Mar.	-0.8	-1.3	-1.0	0.0	-1.1	1.2	3.2	-8.1	-7.1	6.8	10.3	-14.9	-1.8	5.6
Apr.	10.5	-19.8	0.4	0.0	-0.2	0.3	15.0	-20.8	-4.7	2.7	19.7	-23.5	-4.8	0.7
May	-10.7	47.6	3.1	0.0	1.0	-0.9	-13.4	50.4	-3.9	6.1	-9.5	44.3	-1.4	-1.9
June	1.1	-3.5	0.9	0.0	3.0	-2.3	6.6	-10.1	-7.1	4.5	13.6	-14.6	-9.4	9.0
July	-16.6	14.8	0.6	0.0	-1.4	-1.7	-8.3	16.7	-2.3	2.3	-6.0	14.4	-7.5	-0.2
Aug.	-3.3	38.3	-1.2	0.0	0.3	-0.1	0.2	38.1	-6.1	3.4	6.3	34.7	-2.7	0.3

**2. By sector and instrument****2.1. Eurosystem**

	Loans/currency and deposits			Other assets/liabilities		
	Assets 1	Liabilities 2	Balance 3	Assets 4	Liabilities 5	Balance 6
1999 Q1	3.6	0.0	3.6	-0.7	0.0	-0.7
Q2	4.3	0.0	4.3	0.1	0.0	0.1

Source: ECB.

1) Inflows (+); outflows (-).

2) Data before end-1998 are not closely comparable with later observations and include estimates.

3) Data have been revised in the light of new information, as described in the general notes.

## 2.2. General government

		Trade credits			Loans/currency and deposits			Other assets/liabilities		
		Assets 7	Liabilities 8	Balance 9	Assets 10	Liabilities 11	Balance 12	Assets 13	Liabilities 14	Balance 15
1999	Q1	-0.2	0.0	-0.2	-2.9	-4.1	-7.0	-0.3	-0.1	-0.4
	Q2	-0.1	0.0	-0.1	5.7	-2.7	3.0	-1.8	-0.2	-2.0

## 2.3. MFIs (excluding the Eurosystem)

		Loans/currency and deposits			Other assets/liabilities		
		Assets 16	Liabilities 17	Balance 18	Assets 19	Liabilities 20	Balance 21
1999	Q1	-17.1	61.3	44.2	3.7	-2.7	1.0
	Q2	9.1	18.4	27.4	-0.8	1.1	0.2

## 2.4. Other sectors

		Trade credits			Loans/currency and deposits			Other assets/liabilities		
		Assets 22	Liabilities 23	Balance 24	Assets 25	Liabilities 26	Balance 27	Assets 28	Liabilities 29	Balance 30
1999	Q1	-3.5	4.1	0.6	-11.8	3.4	-8.4	-5.5	5.8	0.2
	Q2	-6.2	-2.9	-9.1	1.4	9.6	11.1	-10.8	1.0	-9.7

**Table 8.6****Reserves and related assets of the Eurosystem****1. Outstanding amounts <sup>1)</sup>***(EUR billions; end-of-period positions, unless otherwise indicated)*

		Reserve assets							Memo: Related assets
		Total	Monetary gold	In fine troy ounces (millions)	Special drawing rights	Reserve position in the IMF	Foreign exchange	Other claims	Claims on euro area residents denominated in foreign currency
		1	2						
1999	1 Jan.	329.4	99.7	404.131	6.0	22.5	200.6	0.7	7.6
	Jan.	338.7	101.3	404.084	6.0	22.7	207.0	1.6	7.7
	Feb.	340.5	105.3	404.084	3.0	22.7	208.9	0.7	9.7
	Mar.	349.3	105.1	404.084	3.9	23.5	215.1	1.8	10.4
	Apr.	352.6	109.3	404.084	5.5	23.9	212.3	1.7	11.7
	May	344.7	103.8	404.084	5.0	24.1	210.1	1.7	12.7
	June	347.2	102.0	403.730	3.9	25.2	214.5	1.6	12.6
	July	340.1	96.5	403.730	3.6	24.5	213.7	1.7	12.8
	Aug.	341.5	96.9	403.730	3.8	24.3	214.9	1.7	12.4
	Sep.	354.2	113.2	403.730	3.7	23.7	212.1	1.4	12.9

**2. Balance of payments flows <sup>2)</sup>***(EUR billions; net flows)*

		Reserve assets											Other claims	
		Total	Monetary gold	Special drawing rights	Reserve position in the IMF	Foreign exchange						Financial derivatives		
						Total	Currency and deposits		Securities					Financial derivatives
							With monetary authorities and the BIS	With banks	Equity	Bonds and notes	Money market instruments			
		1	2	3	4	5	6	7	8	9	10	11	12	
1999	Q1	5.5	0.0	2.5	0.0	3.3	1.5	3.0	0.0	1.3	-2.5	0.0	-0.3	
	Q2	6.6	0.0	-1.1	0.8	6.8	-4.6	-2.4	0.0	11.0	2.8	0.0	0.1	

Source: ECB.

1) The figures are not fully comparable with those of Table 1.1 owing to differences in coverage and valuation.

2) Increase (-); decrease (+).

## 9 External trade in goods of the euro area

**Table 9**

### 1. Exports <sup>1)</sup>

(EUR billions (ECU billions to end-1998); f.o.b. value)

	Total	Food, drink, tobacco	Raw materials	Energy	Chemicals	Other manu- factured articles	Machinery, transport equipment	Other	Export trade indices 1995 = 100		
									Value <sup>2)</sup>	Volume <sup>2)</sup>	Unit value
	1	2	3	4	5	6	7	8	9	10	11
1996	669.7	49.2	14.2	13.1	85.5	195.5	295.9	16.3	107.6	104.7	102.8
1997	762.8	52.8	16.3	14.4	99.0	216.6	342.8	20.9	122.5	115.9	105.7
1998	793.2	53.4	15.6	12.5	103.8	220.3	368.5	19.0	127.4	119.5	106.6
1997											
Q1	170.7	12.0	3.8	3.7	22.6	48.9	74.7	5.0	109.7	104.2	105.3
Q2	191.8	13.4	4.1	3.6	25.1	53.9	86.4	5.3	123.3	117.3	105.1
Q3	193.5	13.0	4.2	3.4	25.6	55.6	86.5	5.1	124.3	116.6	106.6
Q4	206.8	14.4	4.2	3.7	25.6	58.2	95.1	5.5	132.9	125.7	105.7
1998											
Q1	194.2	13.2	4.1	3.4	26.5	54.5	87.4	5.1	124.8	115.8	107.8
Q2	203.7	13.9	3.9	3.3	26.8	56.2	94.7	4.9	130.9	122.6	106.8
Q3	195.0	12.8	3.8	3.0	25.7	54.8	90.3	4.6	125.3	117.7	106.5
Q4	200.2	13.5	3.8	2.8	24.8	54.7	96.0	4.5	128.6	122.3	105.2
1999											
Q1	187.2	12.1	3.8	2.6	25.8	50.8	86.2	5.9	120.3	112.2	107.2
Q2	201.6	13.1	3.9	3.0	28.0	54.7	93.1	5.7	129.5	.	.
1998											
Jan.	58.5	4.0	1.2	1.2	8.4	16.2	25.8	1.6	112.8	104.8	107.6
Feb.	63.7	4.3	1.4	1.0	8.6	18.0	28.8	1.6	122.8	114.0	107.8
Mar.	72.0	4.8	1.5	1.2	9.6	20.2	32.9	1.8	138.8	128.5	108.0
Apr.	68.0	4.7	1.3	1.1	9.1	18.9	31.0	1.8	131.0	122.6	106.9
May	65.7	4.5	1.3	1.1	8.6	18.2	30.5	1.6	126.7	118.5	106.9
June	70.1	4.7	1.3	1.1	9.0	19.2	33.2	1.5	135.0	126.6	106.7
July	72.9	4.5	1.3	1.1	9.2	21.0	34.0	1.6	140.5	131.4	106.9
Aug.	56.2	4.0	1.2	0.9	7.7	15.5	25.5	1.4	108.4	102.4	105.9
Sep.	65.9	4.3	1.3	0.9	8.8	18.4	30.7	1.5	127.1	119.2	106.6
Oct.	68.9	4.6	1.3	1.0	8.6	19.5	32.3	1.6	132.7	125.7	105.6
Nov.	66.7	4.5	1.3	0.9	8.0	18.0	32.3	1.6	128.6	122.8	104.7
Dec.	64.6	4.4	1.2	0.9	8.2	17.2	31.4	1.3	124.6	118.3	105.3
1999											
Jan.	54.4	3.6	1.2	0.8	7.8	14.6	24.9	1.6	104.9	98.4	106.6
Feb.	60.1	3.9	1.2	0.8	8.3	16.5	27.3	2.1	115.9	108.5	106.8
Mar.	72.7	4.6	1.4	1.0	9.7	19.8	34.0	2.2	140.2	129.8	108.0
Apr.	65.8	4.2	1.3	1.0	9.2	17.7	30.6	1.7	126.9	117.7	107.8
May	63.4	4.4	1.3	1.0	9.0	17.3	28.7	1.8	122.3	113.5	107.8
June	72.3	4.5	1.3	1.1	9.8	19.7	33.7	2.2	139.4	.	.
July	74.9	.	.	.	.	.	.	.	144.4	.	.
Aug.	58.0	.	.	.	.	.	.	.	111.8	.	.

Source: Eurostat; the commodity breakdown is in accordance with the SITC Rev. 3.

1) Owing to differences in definitions, coverage and time of recording, trade data (as compiled by Eurostat) are not fully comparable with the goods item in the balance of payments statistics compiled by the ECB (Table 8.2).

2) ECB calculations based on Eurostat data.

**Table 9****2. Imports <sup>1)</sup>***(EUR billions (ECU billions to end-1998); c.i.f. value)*

	Total	Food, drink, tobacco	Raw materials	Energy	Chemicals	Other manu- factured articles	Machinery, transport equipment	Other	Import trade indices 1995 = 100		
									Value <sup>2)</sup>	Volume <sup>2)</sup>	Unit value
	1	2	3	4	5	6	7	8	9	10	11
1996	593.9	46.6	36.5	71.6	54.1	167.0	193.6	24.6	105.5	102.9	102.6
1997	674.2	49.7	41.3	81.2	62.0	188.1	228.8	23.1	119.8	110.3	108.6
1998	711.9	50.5	41.1	62.0	67.3	200.2	267.3	23.4	126.5	123.3	102.6
1997 Q1	159.1	11.4	9.7	21.2	14.7	44.6	51.8	5.8	113.1	106.0	106.7
Q2	168.0	12.6	11.0	18.6	16.0	46.5	57.5	5.7	119.4	111.4	107.2
Q3	166.6	12.2	10.0	20.0	15.2	48.9	55.6	4.7	118.5	106.9	110.8
Q4	180.4	13.5	10.6	21.4	16.1	48.2	63.8	6.8	128.2	117.0	109.6
1998 Q1	180.8	12.6	10.8	17.5	17.6	51.2	64.9	6.2	128.5	119.8	107.3
Q2	179.6	12.6	11.1	15.9	17.2	50.0	66.7	6.1	127.6	122.0	104.6
Q3	171.1	12.3	9.6	14.7	16.3	50.2	62.8	5.2	121.6	119.6	101.7
Q4	180.4	13.0	9.5	13.9	16.3	48.8	73.0	5.8	128.2	132.0	97.1
1999 Q1	177.0	11.7	9.1	13.4	16.9	49.8	70.3	5.7	125.8	127.3	98.8
Q2	186.2	12.3	10.0	16.3	17.6	50.1	74.0	6.0	132.3	.	.
1998 Jan.	58.0	4.1	3.5	6.2	5.6	16.4	20.2	2.0	123.7	114.9	107.6
Feb.	58.2	4.0	3.5	5.7	5.5	16.6	20.8	2.2	124.2	115.2	107.8
Mar.	64.6	4.6	3.8	5.6	6.5	18.2	24.0	2.0	137.8	129.5	106.4
Apr.	60.2	4.4	3.7	5.4	5.7	16.6	22.4	2.0	128.3	121.6	105.5
May	57.2	4.0	3.5	5.5	5.6	15.7	21.0	1.8	121.9	116.2	104.9
June	62.2	4.2	3.9	4.9	5.9	17.7	23.2	2.4	132.7	128.4	103.4
July	59.3	4.3	3.6	4.9	5.9	17.7	21.0	1.8	126.5	123.9	102.1
Aug.	50.1	3.7	2.8	4.7	4.7	14.8	17.9	1.5	106.9	105.7	101.1
Sep.	61.7	4.2	3.3	5.0	5.7	17.8	23.9	1.9	131.6	129.3	101.8
Oct.	62.5	4.3	3.3	5.0	5.7	17.2	24.8	2.1	133.2	134.1	99.3
Nov.	59.4	4.2	3.1	4.4	5.3	16.0	24.5	1.8	126.8	131.6	96.3
Dec.	58.5	4.5	3.1	4.5	5.2	15.6	23.7	1.9	124.6	130.4	95.6
1999 Jan.	54.4	3.6	2.9	4.5	5.1	15.4	21.1	1.8	116.1	118.3	98.1
Feb.	55.8	3.7	2.9	4.1	5.4	16.0	21.8	2.0	118.9	120.9	98.4
Mar.	66.8	4.4	3.3	4.9	6.4	18.4	27.4	2.0	142.4	142.8	99.7
Apr.	60.6	4.0	3.3	5.4	5.8	15.9	24.2	2.0	129.1	126.2	102.3
May	61.4	4.0	3.3	5.6	5.7	16.3	24.5	1.9	131.0	125.9	104.0
June	64.2	4.2	3.4	5.3	6.1	17.9	25.2	2.1	136.9	.	.
July	62.9	.	.	.	.	.	.	.	134.1	.	.
Aug.	54.2	.	.	.	.	.	.	.	115.6	.	.

Source: Eurostat; the commodity breakdown is in accordance with the SITC Rev. 3.

1) Owing to differences in definitions, coverage and time of recording, trade data (as compiled by Eurostat) are not fully comparable with the goods item in the balance of payments statistics compiled by the ECB (Table 8.2). Part of the difference arises from the inclusion of insurance and freight services in the recording of goods imported, which accounted for about 3.8% of the value of imports (c.i.f.) in 1998.

2) ECB calculations based on Eurostat data.

**Table 9****3. Trade balance <sup>1)</sup>***(EUR billions (ECU billions to end-1998); exports (f.o.b.) - imports (c.i.f.))*

	Total	Food, drink, tobacco	Raw materials	Energy	Chemicals	Other manufactured articles	Machinery, transport equipment	Other
	1	2	3	4	5	6	7	8
1996	75.8	2.7	-22.3	-58.5	31.4	28.5	102.3	-8.3
1997	88.6	3.2	-25.0	-66.8	37.0	28.5	114.0	-2.2
1998	81.3	2.9	-25.5	-49.4	36.5	20.1	101.1	-4.4
1997 Q1	11.6	0.6	-5.8	-17.5	7.9	4.3	22.8	-0.8
Q2	23.8	0.7	-6.9	-15.0	9.1	7.4	28.9	-0.4
Q3	26.8	0.9	-5.9	-16.6	10.4	6.8	30.9	0.3
Q4	26.3	1.0	-6.4	-17.7	9.5	10.0	31.3	-1.3
1998 Q1	13.4	0.5	-6.7	-14.1	9.0	3.3	22.5	-1.1
Q2	24.2	1.4	-7.2	-12.6	9.6	6.2	28.0	-1.3
Q3	23.9	0.6	-5.8	-11.7	9.4	4.6	27.5	-0.7
Q4	19.8	0.4	-5.7	-11.0	8.5	5.9	23.0	-1.3
1999 Q1	10.2	0.4	-5.3	-10.8	8.9	1.0	15.9	0.2
Q2	15.4	0.8	-6.0	-13.3	10.4	4.6	19.1	-0.2
1998 Jan.	0.5	-0.1	-2.3	-5.0	2.8	-0.2	5.6	-0.4
Feb.	5.5	0.4	-2.2	-4.7	3.1	1.5	8.0	-0.5
Mar.	7.4	0.2	-2.3	-4.4	3.1	2.0	8.9	-0.2
Apr.	7.8	0.3	-2.4	-4.3	3.4	2.3	8.6	-0.2
May	8.6	0.5	-2.3	-4.4	3.1	2.4	9.5	-0.2
June	7.8	0.5	-2.6	-3.8	3.1	1.5	9.9	-0.9
July	13.6	0.2	-2.2	-3.9	3.3	3.3	13.0	-0.2
Aug.	6.1	0.3	-1.6	-3.8	3.0	0.7	7.6	-0.1
Sep.	4.2	0.1	-2.0	-4.1	3.0	0.6	6.9	-0.3
Oct.	6.4	0.3	-2.0	-4.0	2.9	2.3	7.5	-0.5
Nov.	7.3	0.3	-1.9	-3.5	2.7	2.0	7.8	-0.2
Dec.	6.2	-0.1	-1.9	-3.6	2.9	1.7	7.7	-0.6
1999 Jan.	-0.1	0.0	-1.8	-3.7	2.6	-0.8	3.8	-0.2
Feb.	4.3	0.2	-1.7	-3.2	2.8	0.5	5.5	0.2
Mar.	5.9	0.1	-1.9	-3.9	3.4	1.3	6.6	0.2
Apr.	5.3	0.3	-1.9	-4.5	3.4	1.8	6.4	-0.3
May	2.0	0.3	-2.0	-4.6	3.3	1.0	4.2	-0.1
June	8.1	0.2	-2.1	-4.2	3.7	1.8	8.5	0.2
July	12.0	.	.	.	.	.	.	.
Aug.	3.8	.	.	.	.	.	.	.

*Source: Eurostat; the commodity breakdown is in accordance with the SITC Rev. 3.**1) Owing to differences in definitions, coverage and time of recording, trade data (as compiled by Eurostat) are not fully comparable with the goods item in the balance of payments statistics compiled by the ECB (Table 8.1). Part of the difference arises from the inclusion of insurance and freight services in the recording of goods imported, which accounted for about 3.8% of the value of imports (c.i.f.) in 1998.*



# 10 Exchange rates

**Table 10**

## Exchange rates

(period averages; units of national currency per ECU or euro (bilateral); index 1999 Q1 = 100 (effective))

	Effective exchange rate of the euro <sup>1)</sup>		Bilateral ECU or euro exchange rates <sup>2)</sup>					
	Nominal 1	Real 2	US dollar 3	Japanese yen 4	Swiss franc 5	Pound sterling 6	Swedish krona 7	Danish krone 8
1995	107.8	108.7	1.308	123.0	1.546	0.829	9.33	7.33
1996	107.9	108.8	1.270	138.1	1.568	0.814	8.51	7.36
1997	99.1	99.4	1.134	137.1	1.644	0.692	8.65	7.48
1998	101.5	101.3	1.121	146.4	1.622	0.676	8.92	7.50
1998 Q3	102.5	102.5	1.118	156.3	1.642	0.676	8.95	7.50
1998 Q4	104.2	103.8	1.177	140.6	1.600	0.702	9.38	7.44
1999 Q1	100.0	100.0	1.122	130.7	1.599	0.687	8.98	7.44
1999 Q2	96.1	96.0	1.057	127.7	1.600	0.658	8.90	7.43
1999 Q3	94.6	94.7	1.049	118.7	1.602	0.655	8.71	7.44
1998 Oct.	105.6	105.2	1.194	144.2	1.596	0.705	9.37	7.44
1998 Nov.	103.6	103.2	1.164	140.1	1.612	0.701	9.31	7.44
1998 Dec.	103.4	103.2	1.172	137.4	1.594	0.702	9.45	7.45
1999 Jan.	102.0	101.8	1.161	131.3	1.605	0.703	9.08	7.44
1999 Feb.	99.9	99.9	1.121	130.8	1.598	0.689	8.91	7.44
1999 Mar.	98.3	98.3	1.088	130.2	1.595	0.671	8.94	7.43
1999 Apr.	97.1	96.9	1.070	128.2	1.602	0.665	8.91	7.43
1999 May	96.6	96.5	1.063	129.7	1.603	0.658	8.97	7.43
1999 June	94.7	94.7	1.038	125.3	1.595	0.650	8.83	7.43
1999 July	94.8	95.1	1.035	123.7	1.604	0.658	8.74	7.44
1999 Aug.	95.4	95.5	1.060	120.1	1.600	0.660	8.75	7.44
1999 Sep.	93.6	93.4	1.050	112.4	1.602	0.647	8.63	7.43
1999 Oct.	94.4	94.1	1.071	113.5	1.594	0.646	8.73	7.43
% ch. vs. <sup>3)</sup> prev. month	0.9	0.8	2.0	1.0	-0.5	-0.1	1.1	0.0
prev. year	-10.6	-10.5						

	Bilateral ECU or euro exchange rates <sup>2)</sup>						
	Greek drachma 9	Norwegian krone 10	Canadian dollar 11	Australian dollar 12	Hong Kong dollar <sup>4)</sup> 13	Korean won <sup>4)</sup> 14	Singapore dollar <sup>4)</sup> 15
1995	303.0	8.29	1.795	1.765	10.01	999.7	1.833
1996	305.5	8.20	1.731	1.623	9.68	1,007.9	1.765
1997	309.3	8.02	1.569	1.528	8.75	1,069.8	1.678
1998	330.7	8.47	1.665	1.787	8.69	1,568.9	1.876
1998 Q3	332.7	8.54	1.690	1.867	8.67	1,486.8	1.935
1998 Q4	331.5	8.82	1.814	1.887	9.16	1,516.6	1.942
1999 Q1	322.7	8.60	1.696	1.770	8.69	1,342.6	1.911
1999 Q2	325.0	8.24	1.557	1.618	8.19	1,258.8	1.810
1999 Q3	326.1	8.22	1.558	1.613	8.14	1,252.8	1.772
1998 Oct.	336.5	8.88	1.842	1.932	9.31	1,615.7	1.969
1998 Nov.	329.1	8.68	1.793	1.834	9.05	1,511.9	1.913
1998 Dec.	328.8	8.91	1.807	1.893	9.11	1,426.3	1.941
1999 Jan.	323.6	8.65	1.765	1.839	8.99	1,362.4	1.950
1999 Feb.	322.0	8.65	1.679	1.751	8.68	1,330.2	1.905
1999 Mar.	322.5	8.51	1.651	1.726	8.43	1,336.2	1.881
1999 Apr.	325.5	8.32	1.594	1.668	8.30	1,292.2	1.834
1999 May	325.2	8.23	1.553	1.605	8.24	1,272.1	1.820
1999 June	324.2	8.17	1.524	1.580	8.05	1,212.6	1.775
1999 July	325.0	8.18	1.540	1.576	8.03	1,229.4	1.756
1999 Aug.	326.4	8.26	1.583	1.645	8.23	1,269.1	1.779
1999 Sep.	327.0	8.23	1.552	1.619	8.15	1,260.1	1.781
1999 Oct.	329.2	8.29	1.581	1.641	8.32	1,289.9	1.793
% ch. vs. <sup>3)</sup> prev. month	0.7	0.7	1.9	1.4	2.0	2.4	0.7

Source: ECB.

- 1) ECB calculations; based on weighted averages of bilateral euro exchange rates. Weights are based on 1995-97 manufactured goods trade with the trading partners whose currencies are shown in the table, and capture third-market effects. Real rates are calculated using national CPIs (HICP for the euro area and the other EU Member States). Where CPI data are not yet available, estimates are used.
- 2) To December 1998, rates for the ECU (source BIS); from January 1999, rates for the euro.
- 3) The table shows the percentage change in the latest monthly observation vis-à-vis the previous month, and vis-à-vis the same month of the previous year (for the effective exchange rate only). A positive change denotes an appreciation of the euro.
- 4) As the ECB does not provide official reference rates, indicative rates are shown.

## II Economic and financial developments in the other EU Member States

**Table II**  
**Economic and financial developments**

(annual percentage changes, unless otherwise indicated)

	HICP	General government deficit (-) / surplus (+) as a % of GDP	General government gross debt as a % of GDP	Long-term government bond yield <sup>1)</sup> as a % per annum	Exchange rate <sup>2)</sup> as national currency per ECU or euro	Current and new capital account <sup>3)</sup> as a % of GDP	Unit labour costs <sup>4)</sup>	Real GDP	Industrial production index <sup>5)</sup>	Standardised unemployment rate as a % of labour force (s.a.)	Broad money <sup>6)</sup>	3-month interest rate <sup>1)</sup> as a % per annum
	1	2	3	4	5	6	7	8	9	10	11	12
<b>Denmark</b>												
1995	-	-2.4	72.1	8.27	7.33	.	0.5	3.7	4.4	7.2	-2.0	6.20
1996	2.1	-0.9	67.4	7.19	7.36	.	1.4	2.8	2.0	6.8	7.2	3.98
1997	1.9	0.4	63.6	6.26	7.48	0.6	2.8	3.1	5.6	5.6	4.7	3.73
1998	1.3	0.8	58.1	4.94	7.50	-1.2	2.4	2.7	2.5	5.1	4.6	4.28
1998	Q3	1.2	-	4.82	7.50	1.9	2.1	3.6	3.7	5.0	6.6	4.47
	Q4	1.1	-	4.51	7.44	-3.8	3.5	2.5	0.3	4.7	3.7	4.51
1999	Q1	1.4	-	4.22	7.44	1.8	5.9	0.8	-0.9	4.8	4.5	3.64
	Q2	1.8	-	4.50	7.43	1.5	4.6	1.5	5.3	4.5	4.9	3.12
	Q3	2.3	-	5.35	7.44	.	.	.	.	.	3.4	3.19
1999	Apr.	1.7	-	4.22	7.43	-	-	-	7.8	4.6	3.9	3.12
	May	1.6	-	4.46	7.43	-	-	-	11.8	4.5	5.2	3.11
	June	1.9	-	4.81	7.43	-	-	-	-2.7	4.4	5.5	3.13
	July	2.0	-	5.11	7.44	-	-	-	-2.6	4.4	3.1	3.17
	Aug.	2.4	-	5.38	7.44	-	-	-	-3.5	.	4.9	3.21
	Sep.	2.4	-	5.55	7.43	-	-	-	.	.	2.2	3.18
	Oct.	.	-	5.76	7.43	-	-	-	.	.	.	3.69
<b>Greece</b>												
1995	-	-10.3	110.1	-	303.0	-2.8	11.6	.	2.1	7.1	6.4	16.09
1996	7.9	-7.5	112.2	-	305.5	-3.7	10.6	2.4	0.6	7.5	9.8	13.54
1997	5.4	-3.9	109.4	9.92	309.3	-4.0	7.2	3.4	1.0	7.9	14.5	12.48
1998	4.5	-2.4	106.5	8.48	330.7	-3.1	.	3.7	3.4	10.0	4.0	13.53
1998	Q3	4.8	-	7.83	332.7	.	.	.	3.7	11.7	2.3	13.18
	Q4	4.0	-	7.76	331.5	.	.	.	0.8	9.8	5.7	11.94
1999	Q1	3.4	-	6.08	322.7	.	.	.	-0.8	.	.	10.56
	Q2	2.2	-	5.87	325.0	.	.	.	0.5	.	.	9.80
	Q3	1.7	-	6.56	326.1	.	.	.	.	.	.	9.86
1999	Apr.	2.6	-	5.85	325.5	-	-	-	0.0	.	.	9.85
	May	2.2	-	5.75	325.2	-	-	-	1.6	.	.	9.72
	June	1.8	-	6.02	324.2	-	-	-	0.0	.	.	9.84
	July	1.8	-	6.37	325.0	-	-	-	0.3	.	.	9.83
	Aug.	1.6	-	6.66	326.4	-	-	-	.	.	.	9.90
	Sep.	1.5	-	6.64	327.0	-	-	-	.	.	.	9.85
	Oct.	.	-	7.03	329.2	-	-	-	.	.	.	10.11
<b>Sweden</b>												
1995	-	-6.9	77.6	10.24	9.33	.	0.7	3.7	10.6	8.8	-1.3	8.83
1996	0.8	-3.5	76.7	8.02	8.51	.	4.7	1.3	1.8	9.6	10.0	6.03
1997	1.8	-0.7	76.7	6.62	8.65	.	0.7	1.8	7.2	9.9	4.2	4.43
1998	1.0	2.0	75.1	4.99	8.92	2.8	2.0	2.6	4.2	8.3	3.5	4.36
1998	Q3	0.6	-	4.82	8.95	3.1	2.6	2.5	5.2	8.1	4.7	4.29
	Q4	0.1	-	4.50	9.38	3.1	2.2	3.2	1.3	7.6	4.5	3.94
1999	Q1	0.2	-	4.21	8.98	1.9	0.2	3.7	1.2	7.5	5.4	3.31
	Q2	0.3	-	4.54	8.90	0.7	-0.1	3.6	.	7.0	6.4	3.07
	Q3	0.7	-	5.48	8.71	.	.	.	.	.	6.1	3.23
1999	Apr.	0.3	-	4.24	8.91	-	-	-	0.3	7.3	6.7	2.99
	May	0.3	-	4.50	8.97	-	-	-	4.0	6.8	6.6	3.10
	June	0.4	-	4.87	8.83	-	-	-	.	7.0	5.9	3.12
	July	0.2	-	5.26	8.74	-	-	-	.	6.8	4.5	3.23
	Aug.	0.8	-	5.49	8.75	-	-	-	.	7.0	6.5	3.25
	Sep.	1.1	-	5.69	8.63	-	-	-	.	.	7.3	3.22
	Oct.	.	-	.	8.73	-	-	-	.	.	.	3.74
<b>United Kingdom</b>												
1995	-	-5.7	53.0	8.32	0.829	-0.4	1.5	2.8	1.5	8.7	7.2	6.75
1996	2.5	-4.4	53.6	7.94	0.814	0.0	1.7	2.6	0.4	8.2	9.9	6.11
1997	1.8	-1.9	52.1	7.13	0.692	0.9	2.9	3.5	1.3	7.0	11.2	6.92
1998	1.5	0.6	49.4	5.60	0.676	0.1	3.5	2.2	0.4	6.3	9.6	7.43
1998	Q3	1.4	-	5.57	0.676	0.4	3.5	2.0	0.6	6.3	9.5	7.67
	Q4	1.4	-	4.82	0.702	0.2	4.1	1.6	-0.5	6.3	8.6	6.89
1999	Q1	1.6	-	4.39	0.687	-2.1	4.4	1.3	-1.3	6.3	7.3	5.60
	Q2	1.4	-	4.82	0.658	-1.4	4.5	1.4	-1.3	6.1	6.7	5.30
	Q3	1.2	-	5.39	0.655	.	.	.	.	.	.	5.28
1999	Apr.	1.5	-	4.54	0.665	-	-	-	-1.4	6.2	7.5	5.32
	May	1.3	-	4.83	0.658	-	-	-	-0.9	6.1	7.1	5.35
	June	1.4	-	5.09	0.650	-	-	-	-1.7	6.0	5.4	5.22
	July	1.3	-	5.27	0.658	-	-	-	-1.4	.	3.4	5.17
	Aug.	1.3	-	5.31	0.660	-	-	-	-0.4	.	4.3	5.25
	Sep.	1.2	-	5.60	0.647	-	-	-	.	.	.	5.41
	Oct.	.	-	.	0.646	-	-	-	.	.	.	6.02

Sources: Eurostat (columns 1, 8 and 10 (except Greece)); European Commission (Economic and Financial Affairs DG and Eurostat) (columns 2 and 3); Reuters (column 12); national data (columns 4, 5, 6, 7 (except Sweden), 9, 10 (Greece) and 11); ECB calculation (column 7 (Sweden)).

1) Average-of-period values.

4) Whole economy; data for the United Kingdom

6) Average of end-month values;

2) For more information, see Table 10.

exclude employers' contribution to social security.

M3; M4 for the United Kingdom.

3) BPM5; BPM4 for Greece.

5) Manufacturing; adjusted for working days.

# 12 Economic and financial developments outside the EU

**Table 12.1**

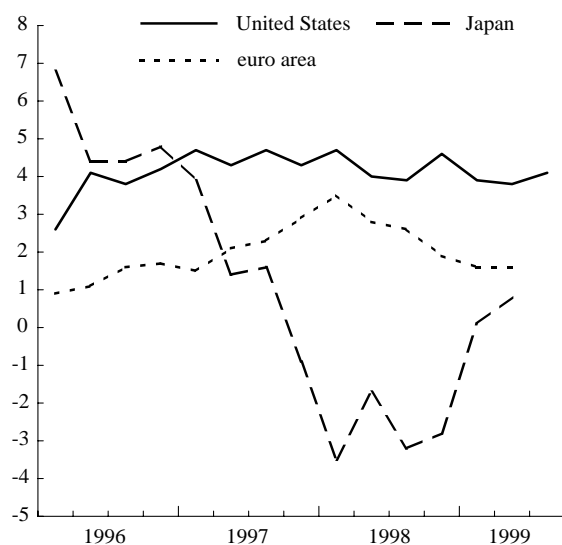
## Economic and financial developments

(annual percentage changes, unless otherwise indicated)

	Consumer price index	Unit labour costs <sup>1)</sup>	Real GDP	Industrial production index <sup>1)</sup>	Unemployment rate as a % of labour force (s.a.)	M2 <sup>2)</sup>	3-month interbank deposit rate <sup>3)</sup> as a % per annum	10-year government bond yield <sup>3)</sup> as a % per annum	Exchange rate <sup>4)</sup> as national currency per ECU or euro	Fiscal deficit (-) / surplus (+) as a % of GDP	Gross public debt <sup>5)</sup> as a % of GDP
	1	2	3	4	5	6	7	8	9	10	11
<b>United States</b>											
1995	2.8	-1.6	2.7	5.4	5.6	2.1	5.44	6.69	1.308	-2.2	60.8
1996	2.9	-2.3	3.7	4.8	5.4	4.8	5.43	6.54	1.270	-1.2	59.9
1997	2.3	0.0	4.5	6.7	4.9	5.0	5.62	6.45	1.134	0.1	57.8
1998	1.6	0.7	4.3	4.2	4.5	7.4	5.00	5.33	1.121	1.4	55.1
1998 Q3	1.6	1.4	3.9	3.2	4.5	7.3	5.20	5.27	1.118	-	55.3
1998 Q4	1.5	-0.8	4.6	2.5	4.4	8.4	5.00	4.72	1.177	-	55.1
1999 Q1	1.7	-1.6	3.9	2.2	4.3	8.4	4.99	5.00	1.122	-	54.8
1999 Q2	2.1	-1.4	3.8	2.7	4.3	7.9	5.04	5.54	1.057	-	.
1999 Q3	2.3	.	4.1	3.4	4.2	7.3	5.44	5.88	1.049	-	.
1999 Apr.	2.3	-	-	2.3	4.3	8.1	4.97	5.18	1.070	-	-
1999 May	2.1	-	-	2.2	4.2	7.9	4.98	5.54	1.063	-	-
1999 June	2.0	-	-	3.5	4.3	7.6	5.17	5.90	1.038	-	-
1999 July	2.1	-	-	4.1	4.3	7.7	5.30	5.80	1.035	-	-
1999 Aug.	2.3	-	-	2.9	4.2	7.5	5.46	5.94	1.060	-	-
1999 Sep.	2.6	-	-	3.2	4.2	6.9	5.56	5.91	1.050	-	-
1999 Oct.	.	-	-	.	.	.	6.20	6.10	1.071	-	-
<b>Japan</b>											
1995	-0.1	-2.2	1.5	3.4	3.2	3.0	0.50	3.32	123.0	-3.6	.
1996	0.1	-1.9	5.1	2.3	3.4	3.3	0.31	3.03	138.1	-4.3	.
1997	1.7	-2.2	1.4	3.6	3.4	3.1	0.36	2.15	137.1	-3.3	.
1998	0.6	6.3	-2.8	-7.1	4.1	4.4	0.18	1.30	146.4	-5.9	.
1998 Q3	-0.2	7.6	-3.2	-8.5	4.3	4.2	0.12	1.14	156.3	-	-
1998 Q4	0.5	5.1	-2.8	-6.8	4.4	4.5	0.18	1.03	140.6	-	-
1999 Q1	-0.1	3.6	0.1	-4.2	4.6	4.1	0.31	1.96	130.7	-	-
1999 Q2	-0.3	-1.3	0.8	-1.0	4.8	4.1	0.13	1.50	127.7	-	-
1999 Q3	0.0	.	.	2.5	4.7	3.6	0.13	1.78	118.7	-	-
1999 Apr.	-0.1	0.4	-	-2.4	4.8	4.0	0.18	1.55	128.2	-	-
1999 May	-0.4	-2.1	-	-0.5	4.6	4.1	0.12	1.36	129.7	-	-
1999 June	-0.3	-2.1	-	0.0	4.9	4.3	0.10	1.60	125.3	-	-
1999 July	-0.1	-2.6	-	0.2	4.9	3.9	0.12	1.69	123.7	-	-
1999 Aug.	0.3	.	-	5.2	4.7	3.5	0.13	1.89	120.1	-	-
1999 Sep.	-0.2	.	-	2.5	4.6	3.3	0.14	1.75	112.4	-	-
1999 Oct.	.	.	-	.	.	.	0.24	1.79	113.5	-	-

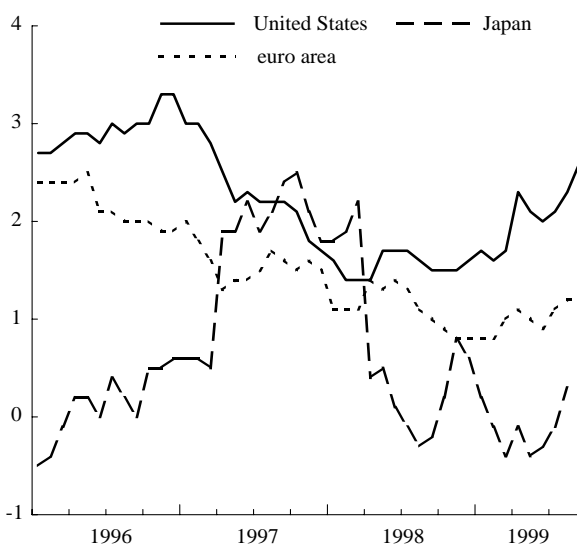
### Real gross domestic product

(annual percentage changes; quarterly)



### Consumer price indices

(annual percentage changes; monthly)



Sources: National data (columns 1, 2 (United States), 3, 4, 5, 6, 8 (to December 1998), 9 and 11); OECD (column 2 (Japan)); Eurostat (euro area chart data); Reuters (columns 7 and 8 (from January 1999)); European Commission (Economic and Financial Affairs DG) (column 10).

1) Manufacturing.

2) Average-of-period values, M2 and CDs for Japan.

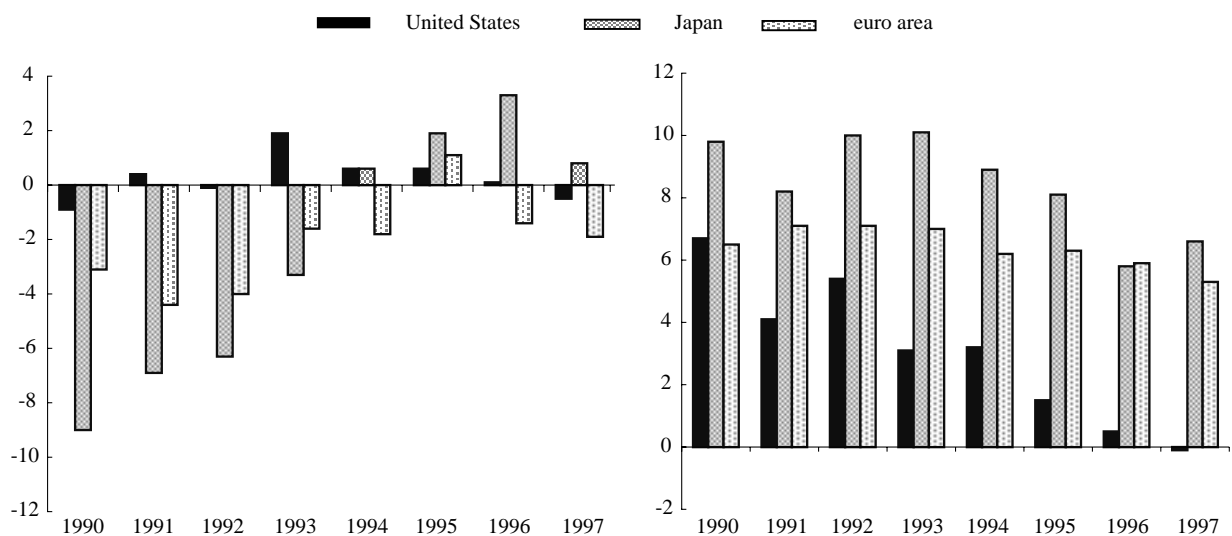
3) For more information, see Tables 3.1 and 3.2.

4) For more information, see Table 10.

5) Gross consolidated debt for the general government (end of period).

**Table 12.2****Saving, investment and financing***(as a percentage of GDP)*

	National saving and investment			Investment and financing of non-financial corporations						Investment and financing of households <sup>1)</sup>			
	Gross saving	Gross capital formation	Net lending to the rest of the world	Gross capital formation	Gross fixed capital formation	Net acquisition of financial assets	Gross saving	Net incurrence of liabilities	Securities and shares	Capital expenditure	Net acquisition of financial assets	Gross saving	Net incurrence of liabilities
	1	2	3	4	5	6	7	8	9	10	11	12	13
<b>United States</b>													
1995	16.3	17.4	-1.4	7.8	7.2	6.0	8.3	5.4	2.6	12.2	6.5	13.6	5.0
1996	16.6	17.8	-1.6	7.9	7.5	5.3	8.2	5.2	1.2	12.4	5.4	13.5	4.9
1997	17.3	18.4	-1.7	8.3	7.4	3.7	8.2	4.3	2.3	12.3	4.5	12.8	4.6
1998	17.2	18.8	-2.5	8.3	7.7	4.2	8.1	4.6	1.8	12.8	5.7	11.6	5.9
1997 Q3	17.5	18.4	-1.7	8.2	7.7	5.1	8.4	6.1	2.0	12.3	5.1	12.8	5.4
1997 Q4	17.3	18.5	-2.0	8.1	7.3	3.2	8.1	3.4	3.4	12.2	4.5	12.3	4.2
1998 Q1	17.7	19.1	-2.1	8.7	7.7	4.0	8.2	4.9	3.4	12.5	3.8	12.0	5.9
1998 Q2	17.2	18.7	-2.5	8.1	7.8	4.7	8.1	5.1	4.0	12.8	9.3	11.6	5.7
1998 Q3	17.3	18.8	-2.7	8.2	7.6	4.4	8.1	4.4	0.7	12.7	5.5	11.3	5.5
1998 Q4	16.9	18.8	-2.6	8.3	7.9	3.5	8.0	4.0	-0.9	13.1	4.0	11.4	6.2
1999 Q1	17.2	19.0	-2.9	8.3	7.9	7.2	8.2	7.9	5.8	13.3	3.3	10.8	6.6
1999 Q2	16.7	18.8	-3.4	8.6	8.5	4.6	8.0	4.6	-0.4	13.6	4.3	10.6	6.7
<b>Japan</b>													
1995	30.8	28.6	2.1	14.9	14.9	3.0	13.5	2.3	0.5	5.3	10.2	13.1	1.9
1996	31.5	30.0	1.4	14.6	15.3	1.7	15.2	0.3	1.0	6.7	6.4	12.7	1.1
1997	30.9	28.7	2.2	15.5	16.1	3.3	15.2	1.2	0.1	5.6	7.1	12.3	0.7
1998	.	.	.	.	.	-5.5	.	-8.6	-1.2	.	5.7	.	-0.3
1997 Q3	30.2	30.0	2.2	.	.	3.0	.	3.1	0.4	.	-0.3	.	1.5
1997 Q4	29.0	29.3	2.6	.	.	6.6	.	10.7	-0.3	.	19.8	.	1.5
1998 Q1	33.2	27.9	2.4	.	.	-6.3	.	-19.6	-1.1	.	-5.2	.	2.9
1998 Q2	.	24.1	.	.	.	-28.7	.	-9.0	1.7	.	12.3	.	-5.8
1998 Q3	.	26.7	.	.	.	3.0	.	-1.7	1.5	.	2.4	.	0.7
1998 Q4	.	.	.	.	.	8.3	.	-4.3	-6.4	.	12.7	.	0.9
1999 Q1	.	.	.	.	.	4.5	.	-17.8	-2.9	.	-6.1	.	9.7
1999 Q2	.	.	.	.	.	-17.2	.	-14.7	1.9	.	7.2	.	-5.5

**Net lending of non-financial corporations***(as a percentage of GDP)***Net lending of households <sup>1)</sup>***(as a percentage of GDP)*

Sources: ECB, Federal Reserve Board, Bank of Japan and Economic Planning Agency.

<sup>1)</sup> Households including non-profit institutions serving households. For Japan, saving of non-profit institutions serving households is included under saving of non-financial corporations.

# Technical notes

## Relating to Table 2.4

### Seasonal adjustment of the euro area monetary aggregates

Multiplicative versions of X-12-ARIMA (version 0.2.2<sup>1</sup>) and TRAMO/SEATS<sup>2</sup> (beta version, July 1998) are used. For technical reasons, the results of X-12-ARIMA are published as the official figures. Seasonal adjustment for monetary aggregates includes a day-of-the-week adjustment for some components of M2. The seasonal adjustment of M3 is carried out indirectly by aggregating the seasonally adjusted series of M1, M2 less M1, and M3 less M2 to fulfil the additivity constraint.

Seasonal factors are estimated for the index of adjusted stocks (Table 2.4.1). They are then applied to the levels expressed in EUR billions and to the adjustments due to reclassifications, other revaluations, etc., yielding seasonally adjusted values for the levels, the adjustments, and thus for the flows.

### Calculation of growth rates

Growth rates may be calculated (a) from flows, or (b) from the index of adjusted stocks.

If  $F_t$  represents the flow in month  $t$ ,  $L_t$  the level outstanding at the end of month  $t$ ,  $X_t$  the rate of change in month  $t$  defined as  $X_t = (F_t \div L_{t-1} + 1)$ , and  $I_t$  the index of adjusted stocks in month  $t$ , the annual percentage change  $a_t$  – i.e. the change in the latest 12 months – may be calculated as follows:

$$(a) \quad a_t = ((X_t * X_{t-1} * X_{t-2} * X_{t-3} * X_{t-4} * X_{t-5} * X_{t-6} * X_{t-7} * X_{t-8} * X_{t-9} * X_{t-10} * X_{t-11}) - 1) * 100$$

$$(b) \quad a_t = (I_t \div I_{t-12} - 1) * 100$$

Roundings may give rise to differences from the annual percentage changes shown in Table 2.4. The index of adjusted stocks is available with a higher level of precision on the ECB's Web site (<http://www.ecb.int>) on the "Euro area statistics – download" page (in CSV file format), from which the exact percentage changes shown in Table 2.4 may be calculated.

1 For details see Findley, D., Monsell, B., Bell, W., Otto, M., and Chen, B.C. (1998), "New Capabilities and Methods of the X-12-ARIMA Seasonal Adjustment Program", *Journal of Business and Economic Statistics*, 16, 2, 127-152, or "X-12-ARIMA Reference Manual Version 0.2.2", (December 1998), *Time Series Staff, Bureau of the Census, Washington, D.C.*

2 For details see Gomez, V. and Maravall, A. (1996), "Programs TRAMO and SEATS: Instructions for the User", *Bank of Spain, Working Paper No. 9628, Madrid.*

## General notes

The basis for the statistics compiled and published by the European Central Bank (ECB) was laid down in the document entitled the "Statistical requirements for Stage Three of Monetary Union (Implementation package)" which was made available to banking associations and others involved in statistical preparations for Stage Three by the European Monetary Institute (EMI) and the national central banks (NCBs) in July 1996. The "Implementation package" covers money and banking statistics, balance of payments statistics, international investment position statistics, financial accounts statistics, price and cost and other economic statistics.<sup>1</sup>

The focus of these statistics is the euro area as a whole. More detailed and longer runs of data, with further explanatory notes, are available on the ECB's Web site (<http://www.ecb.int>), and new or expanded data will appear in the ECB Monthly Bulletin as they become available.

Because the composition of the ECU does not coincide with the currencies of the Member States adopting the single currency, pre-1999 amounts converted from the participating currencies into ECU at current ECU exchange rates are affected by movements in the currencies of Member States which have not adopted the euro. To avoid this effect in the monetary statistics, the pre-1999 data in Tables 2.1 to 2.6 are expressed in units converted from national currencies at the irrevocable euro exchange rates established on 31 December 1998. Unless indicated otherwise, price and cost statistics before 1999 are based on the data expressed in national currency terms.

Methods of aggregation and/or consolidation (including cross-country consolidation) have been used as appropriate.

As a general rule, the cut-off date for the statistics included in the ECB Monthly Bulletin is the day preceding the first meeting in the month of the Governing Council of the ECB. For this issue, it was 3 November 1999.

Recent data are often provisional and may be revised. Discrepancies between totals and their components may arise from rounding.

### Monetary policy and financial statistics

Tables 1.1 to 1.5 show the consolidated financial statement of the Eurosystem, data on Eurosystem operations, statistics relating to minimum reserves, and the banking system's liquidity position. Monetary data relating to Monetary Financial Institutions (MFIs), including the Eurosystem, are shown in Tables 2.1 to 2.3. Table 2.3 is consolidated; inter-MFI positions within the euro area are not shown, but any difference between the sum total of such claims and liabilities as recorded is shown in column 13. Table 2.4 sets out monetary aggregates drawn from the consolidated MFI balance sheet; they also include some (monetary) liabilities of central government. Table 2.5 shows a quarterly sectoral and maturity analysis of loans by MFIs to euro area residents. Table 2.6 shows a quarterly currency analysis of certain MFI balance sheet items. More quarterly detail will be available shortly. A complete list of MFIs is published on the ECB's Web site. Details of the sector definitions are set out in the "Money and Banking Statistics Sector Manual: Guidance for the statistical classification of customers" (EMI, April 1998). The "Money and Banking Statistics Compilation Guide" (EMI, April 1998) explains recommended practices to be followed by the NCBs. From 1 January 1999 the statistical information is collected and compiled on the basis of the ECB Regulation concerning the consolidated balance sheet of the Monetary Financial Institutions sector (ECB/1998/16).

Statistics on money market interest rates, long-term government bond yields and stock market indices (Tables 3.1 to 3.3) are produced by the ECB using data from wire services. For details

<sup>1</sup> Money and banking statistics are the responsibility of the ECB at the European level; responsibility for balance of payments, international investment position and financial accounts statistics is shared with the European Commission (Eurostat); price and cost and other economic statistics are the responsibility of the European Commission (Eurostat).

concerning the statistics on retail bank interest rates (Table 3.4), see the footnote at the bottom of the relevant page.

Statistics on securities issues, redemptions and amounts outstanding are shown in Table 3.5 in this issue of the Monthly Bulletin. Box 2 on pages 17-18 gives more information on the new series. More detailed data will become available shortly.

### **Prices and real economy indicators**

The data presented in the ECB Monthly Bulletin are, with a few exceptions, produced by the European Commission (mainly Eurostat) and national statistical authorities. Euro area results are obtained by aggregating data for individual countries. As far as possible, the data are harmonised and comparable. However, the availability of comparable data is, as a general rule, better for the more recent periods than for earlier periods.

The Harmonised Index of Consumer Prices (HICP) for the euro area (Table 4.1) is available from 1995 onwards. It is based on national HICPs that follow the same methodology in all euro area countries. Estimates for periods before 1995 based on national consumer price indices are not fully comparable.

With regard to statistics on national accounts (Tables 4.2 and 5.1), the implementation of the European System of Accounts 1995 (ESA 95) during 1999 and thereafter has begun to pave the way for fully comparable data, including quarterly summary accounts, across the euro area. Before 1999 the deflators of GDP in Table 4.2.2 are derived from national data in domestic currency. National accounts in this issue are based mainly on the ESA 95.

Table 5.2 shows selected other real economy indicators. The implementation of Council Regulation (EC) No. 1165/98 of 19 May 1998 concerning short-term statistics will enlarge the range of available euro area data.

Opinion survey data (Table/Chart 5.3) draw on the business and consumer surveys of the European Commission.

Employment data (Table 5.4) are based on the ESA 95. Since coverage of the euro area was not complete in time for this issue, some data are ECB estimates based on the information available. Unemployment rates conform to International Labour Organization (ILO) guidelines.

### **Financial accounts statistics**

The "Implementation package" foresaw a need for detailed information covering the financial transactions and balance sheets for the euro area in order to complement monetary analysis and policy research. The aim is to provide a fairly full, though not complete, set of financial accounts for the euro area based on money and banking, balance of payments, capital market, non-MFI financial corporation and government finance statistics, and drawing also on the ESA 95 national accounts. Table 6 shows euro area aggregates based on national capital and financial accounts.

A more detailed and further harmonised set of statistics presenting financial accounts for the euro area is expected to appear in the ECB Monthly Bulletin next year.

### **General government fiscal position**

The general government fiscal position in the euro area is presented in Table 7 by reference to general government receipts, expenditure, saving, deficit and debt as a percentage of GDP. These data are aggregated by the ECB from harmonised data provided by the NCBs.

In addition, general government deficit and debt data are shown for individual euro area countries owing to their importance in the framework of the Stability and Growth Pact. These data are provided by the European Commission.

## **Balance of payments of the euro area, the Eurosystem's reserve position, trade in goods and exchange rates**

The concepts and definitions used in balance of payments statistics (Tables 8.1 to 8.5) and international investment position statistics (to be published before the end of 1999, for end-1998 stocks) generally conform to the 5th edition of the IMF Balance of Payments Manual (October 1993), to the ECB Guideline of 1 December 1998 (ECB/1998/17) on the statistical reporting requirements of the European Central Bank, and to Eurostat's documentation. The common methodology agreed between the ECB and the European Commission (Eurostat) and the aggregation method were explained on page 26 of the May issue of the Monthly Bulletin (see also the ECB's Web site).

The euro area balance of payments is compiled by the ECB. Data up to December 1998 are expressed in ECU. Data for 1998 and the second quarter of 1999 have been revised in the light of new information.

The outstanding amounts of the Eurosystem's reserves and related assets from 1999 onwards are shown in Table 8.6, together with quarterly detail of flows. Corresponding summary net flows are shown in Table 8.1. The data in Table 8.1 for net flows up to December 1998 are not fully comparable with later data, since they were compiled by aggregating figures following national definitions and include instruments issued by other residents of the euro area.

Table 9 gives data on euro area external trade in goods, and indices – value, volume and unit value – for total exports and imports. The value index is calculated by the ECB. The volume index is derived from the unit value index provided by Eurostat and the value index. Owing to differences in definitions, classification, coverage and time of recording, external trade data, in particular imports, are not fully comparable with the goods item in the balance of payments statistics (Tables 8.1 and 8.2).

Table 10 shows nominal and real effective exchange rate indices for the euro compiled by the ECB. The bilateral rates shown are those against the 13 currencies used in the calculation. For all except the Hong Kong and Singapore dollars and the Korean won the bilateral rates are daily reference rates published by the ECB. Box 5 on pages 29-31 of the October issue of the Monthly Bulletin gives more information about the new effective exchange rate index.

Detailed methodological notes on euro area balance of payments statistics, external trade in goods of the euro area, and exchange rates are available on the ECB's Web site.

## **Other statistics**

Statistics on other EU Member States (Table 11) follow the same principles as those for data relating to the euro area. Data for the United States and Japan contained in Tables/Charts 12.1 and 12.2 are obtained from national sources. Saving, investment and financing data for the United States and Japan (Table/Chart 12.2) are structured in the same way as the capital and financial flows data shown for the euro area in Table/Chart 6.

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### **Conventions used in the tables**

“..”	Data do not exist.
“.”	Data are not yet available.
“...”	nil or negligible
“billion”	10 <sup>9</sup>
(p)	provisional
s.a.	seasonally adjusted





# Chronology of monetary policy measures of the Eurosystem

## 22 December 1998

The Governing Council of the ECB decides that the first main refinancing operation of the Eurosystem will be a fixed rate tender offered at an interest rate of 3.0%, a level which it intends to maintain for the foreseeable future. This operation will be initiated on 4 January 1999, while the allotment decision will be taken on 5 January 1999 and settlement will take place on 7 January 1999. In addition, the first longer-term refinancing operation will be announced on 12 January 1999 (with a settlement date of 14 January 1999) and will be conducted through a variable rate tender using the single rate allotment procedure.

The Governing Council furthermore decides that the interest rate for the marginal lending facility will be set at a level of 4.5% and the interest rate for the deposit facility at a level of 2.0% for the start of Stage Three, i.e. 1 January 1999. As a transitional measure, between 4 and 21 January 1999, the interest rate for the marginal lending facility will be set at a level of 3.25% and the interest rate for the deposit facility at a level of 2.75%. The Governing Council intends to terminate this transitional measure following its meeting on 21 January 1999.

## 31 December 1998

In accordance with Article 109I (4) of the Treaty establishing the European Community, the EU Council, acting with the unanimity of the Member States of the European Community without a derogation, upon a proposal from the European Commission and after consultation of the ECB, adopts the irrevocable conversion rates for the euro, with effect from 1 January 1999, 0.00 a.m. (local time).

The ministers of the euro area Member States, the ECB and the ministers and central bank governors of Denmark and Greece decide, in a common procedure involving the European Commission and after consultation

of the Monetary Committee, to fix the central rates against the euro for the currencies participating in the exchange rate mechanism which comes into operation on 1 January 1999. Further to this decision on the euro central rates, the ECB, Denmark's Nationalbank and the Bank of Greece establish by common accord the compulsory intervention rates for the Danish krone and the Greek drachma. A fluctuation band of  $\pm 2.25\%$  will be observed around the euro central rate for the Danish krone. The standard fluctuation band of  $\pm 15\%$  will be observed around the euro central rate for the Greek drachma.

## 7 January 1999

The Governing Council of the ECB decides that for the two main refinancing operations to be announced on 11 and 18 January 1999 respectively the same conditions will apply as for the first such operation, which was settled on 7 January 1999, i.e. they will be fixed rate tenders conducted at an interest rate of 3.0%.

## 12 January 1999

Following the decision of the Governing Council of the ECB on 22 December 1998, the ECB announces that the first longer-term refinancing operations of the Eurosystem will be conducted as variable rate tenders using the single rate method of allotment. With a view to phasing in the longer-term refinancing operations, the first such operation is conducted through three parallel tenders with three different maturities, namely 25 February, 25 March and 29 April 1999. The ECB also announces that the intention is to allot an amount of €15 billion in each of these parallel tenders. For the subsequent longer-term refinancing operations in the first three months of 1999, the intention is to allot an unchanged amount of €15 billion per operation.

### **21 January 1999**

The Governing Council of the ECB decides to revert to the interest rates on the Eurosystem's two standing facilities which it had set for the start of Stage Three, i.e. to set the interest rate for the marginal lending facility at a level of 4.5% and that for the deposit facility at a level of 2.0% with effect from 22 January 1999. Furthermore, it decides that for the two main refinancing operations to be settled on 27 January and 3 February 1999 respectively the same conditions will apply as for the first three such operations settled earlier in January, i.e. they will be fixed rate tenders conducted at an interest rate of 3.0%.

### **4 February 1999**

The Governing Council of the ECB decides that for the main refinancing operations to be settled on 10 and 17 February 1999 the same conditions will apply as for the first such operations settled earlier in the year, i.e. they will be fixed rate tenders conducted at an interest rate of 3.0%. In addition, the interest rate on the marginal lending facility continues to be 4.5% and the interest rate on the deposit facility remains 2.0%.

### **18 February 1999**

The Governing Council of the ECB decides that for the main refinancing operations to be settled on 24 February and 3 March 1999 the same conditions will apply as for the previous such operations settled earlier in the year, i.e. they will be fixed rate tenders conducted at an interest rate of 3.0%. In addition, the interest rate on the marginal lending facility continues to be 4.5% and the interest rate on the deposit facility remains 2.0%.

### **4 March 1999**

The Governing Council of the ECB decides that for the main refinancing operations to be settled

on 10 and 17 March 1999 the same conditions will apply as for the previous such operations settled earlier in the year, i.e. they will be fixed rate tenders conducted at an interest rate of 3.0%. In addition, the interest rate on the marginal lending facility continues to be 4.5% and the interest rate on the deposit facility remains 2.0%. The Governing Council also decides that for forthcoming longer-term refinancing operations of the Eurosystem the multiple rate method of allotment will be applied (starting from the operation with a settlement date of 25 March 1999) until otherwise indicated.

### **18 March 1999**

The Governing Council of the ECB decides that for the main refinancing operations to be settled on 24 and 31 March and 7 April 1999 the same conditions will apply as for the previous such operations settled earlier in the year, i.e. they will be fixed rate tenders conducted at an interest rate of 3.0%. In addition, the interest rate on the marginal lending facility continues to be 4.5% and the interest rate on the deposit facility remains 2.0%.

### **8 April 1999**

The Governing Council of the ECB decides to reduce the interest rate on the main refinancing operations by 0.5 percentage point to 2.5%, starting with the operation to be settled on 14 April 1999. In addition, it decides to lower the interest rate on the marginal lending facility by 1 percentage point to 3.5% and the interest rate on the deposit facility by 0.5 percentage point to 1.5%, both with effect from 9 April 1999.

### **22 April 1999**

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 2.5%, 3.5% and 1.5% respectively. In addition, the

Governing Council announces that for the longer-term refinancing operations to be settled during the next six months, the intention is to continue to allot an amount of €15 billion per operation.

### **6 May 1999**

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 2.5%, 3.5% and 1.5% respectively.

### **20 May 1999**

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 2.5%, 3.5% and 1.5% respectively. The Governing Council also decides to change the maturity of the longer-term refinancing operation scheduled to be settled on 30 September 1999. The redemption date of this operation will be brought forward from 30 December to 23 December 1999. Correspondingly, the longer-term refinancing operation which was originally scheduled to be announced on 27 December 1999 and to be allotted and settled on 30 December 1999 will be announced on 21 December, allotted on 22 December and settled on 23 December 1999. The rescheduling of operations is intended to alleviate the working procedures for financial market participants at the turn of the year.

### **2 June, 17 June, 1 July, 15 July, 29 July, 26 August, 9 September 1999**

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 2.5%, 3.5% and 1.5% respectively.

### **23 September 1999**

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 2.5%, 3.5% and 1.5% respectively.

The ECB releases to the public the indicative calendar for the Eurosystem's tender operations in 2000. It also announces that no new main refinancing operation will be initiated in the first week of the year 2000, and that no such operation will mature during that week. For this reason the maturity of the main refinancing operation of 21 December 1999 will be lengthened exceptionally to three weeks. To avoid two main refinancing operations maturing on 12 January 2000, the maturity of the operation of 30 December 1999 will also be lengthened to three weeks. These steps are taken to minimise any potential problem for counterparties and for the financial market which could result from the conduct and settlement of a large operation directly after the transition to the new century.

### **7 October 1999**

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 2.5%, 3.5% and 1.5% respectively.

### **21 October 1999**

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 2.5%, 3.5% and 1.5% respectively.

It also decides that for the longer-term refinancing operations to be settled on 28 October 1999, 25 November 1999 and 23 December 1999, the intention is to allot an amount of €25 billion per operation. This amount is higher than the amount of €15 billion

allotted for all previous longer-term refinancing operations conducted in 1999. This decision takes into account the intention of the ECB to contribute to a smooth transition to the year 2000.

#### **4 November 1999**

The Governing Council of the ECB decides to raise the interest rate on the main refinancing

operations of the Eurosystem by 0.5 percentage point to 3.0%, with effect from the operation to be settled on 10 November 1999. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.5 percentage point to 4.0% and 2.0% respectively, both with effect from 5 November 1999.

# Documents published by the European Central Bank (ECB)

This list is designed to inform readers about selected documents published by the European Central Bank. The publications are available to interested parties free of charge from the Press Division. Please submit orders in writing to the postal address given on the back of the title page.

For a complete list of documents published by the European Monetary Institute, please visit the ECB's Web site (<http://www.ecb.int>).

## Annual Report

"Annual Report 1998", April 1999.

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## Monthly Bulletin

Articles published from January 1999 onwards:

"The euro area at the start of Stage Three", January 1999.

"The stability-oriented monetary policy strategy of the Eurosystem", January 1999.

"Euro area monetary aggregates and their role in the Eurosystem's monetary policy strategy", February 1999.

"The role of short-term economic indicators in the analysis of price developments in the euro area", April 1999.

"Banking in the euro area: structural features and trends", April 1999.

"The operational framework of the Eurosystem: description and first assessment", May 1999.

"The implementation of the Stability and Growth Pact", May 1999.

"Longer-term developments and cyclical variations in key economic indicators across euro area countries", July 1999.

"The institutional framework of the European System of Central Banks", July 1999.

"The international role of the euro", August 1999.

"The balance sheets of the Monetary Financial Institutions of the euro area in early 1999", August 1999.

"Inflation differentials in a monetary union", October 1999.

"ESCB preparations for the year 2000", October 1999.

"Stability-oriented policies and developments in long-term real interest rates in the 1990s", November 1999.

"TARGET and payments in euro", November 1999.

"Legal instruments of the European Central Bank", November 1999.

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### **Working Paper Series**

- 1 “A global hazard index for the world foreign exchange markets” by V. Brousseau and F. Scacciavillani, May 1999.
  - 2 “What does the single monetary policy do? A SVAR benchmark for the European Central Bank” by C. Monticelli and O. Tristani, May 1999.
  - 3 “Fiscal policy effectiveness and neutrality results in a non-Ricardian world” by C. Detken, May 1999.
  - 4 “From the ERM to the euro: new evidence on economic and policy convergence among EU countries” by I. Angeloni and L. Dedola, May 1999.
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  - 6 “The demand for M3 in the euro area” by G. Coenen and J.-L. Vega, September 1999.
  - 7 “A cross-country comparison of market structures in European banking” by O. de Bandt and E. P. Davis, September 1999.
  - 8 “Inflation zone targeting” by A. Orphanides and V. Wieland, October 1999.
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### **Other publications**

- “The TARGET service level”, July 1998.
- “Report on electronic money”, August 1998.
- “Assessment of EU securities settlement systems against the standards for their use in ESCB credit operations”, September 1998.
- “Money and banking statistics compilation guide”, September 1998.
- “The single monetary policy in Stage Three: General documentation on ESCB monetary policy instruments and procedures”, September 1998.
- “Third progress report on the TARGET project”, November 1998.
- “Correspondent central banking model (CCBM)”, December 1998.
- “Payment systems in the European Union: Addendum incorporating 1997 figures”, January 1999.
- “Possible effects of EMU on the EU banking systems in the medium to long term”, February 1999.
- “Euro area monetary aggregates: conceptual reconciliation exercise”, July 1999.
- “The effects of technology on the EU banking systems”, July 1999.
- “Payment systems in countries that have applied for membership of the European Union”, August 1999.
- “Improving cross-border retail payment services: the Eurosystem’s view”, September 1999.

“Compendium: collection of legal instruments, June 1998 – May 1999”, October 1999.

“European Union balance of payments/international investment position statistical methods”, November 1999.

“Money and Banking Statistics Compilation Guide, Addendum I: Money market paper”, November 1999.

“Money and Banking Statistics Sector Manual”, second edition, November 1999.

“Report on the legal protection of banknotes in the European Union Member States”, November 1999.

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### **Information brochures**

“TARGET”, July 1998.

“The euro banknotes and coins”, July 1999.

“TARGET: facts, figures, future”, September 1999.





