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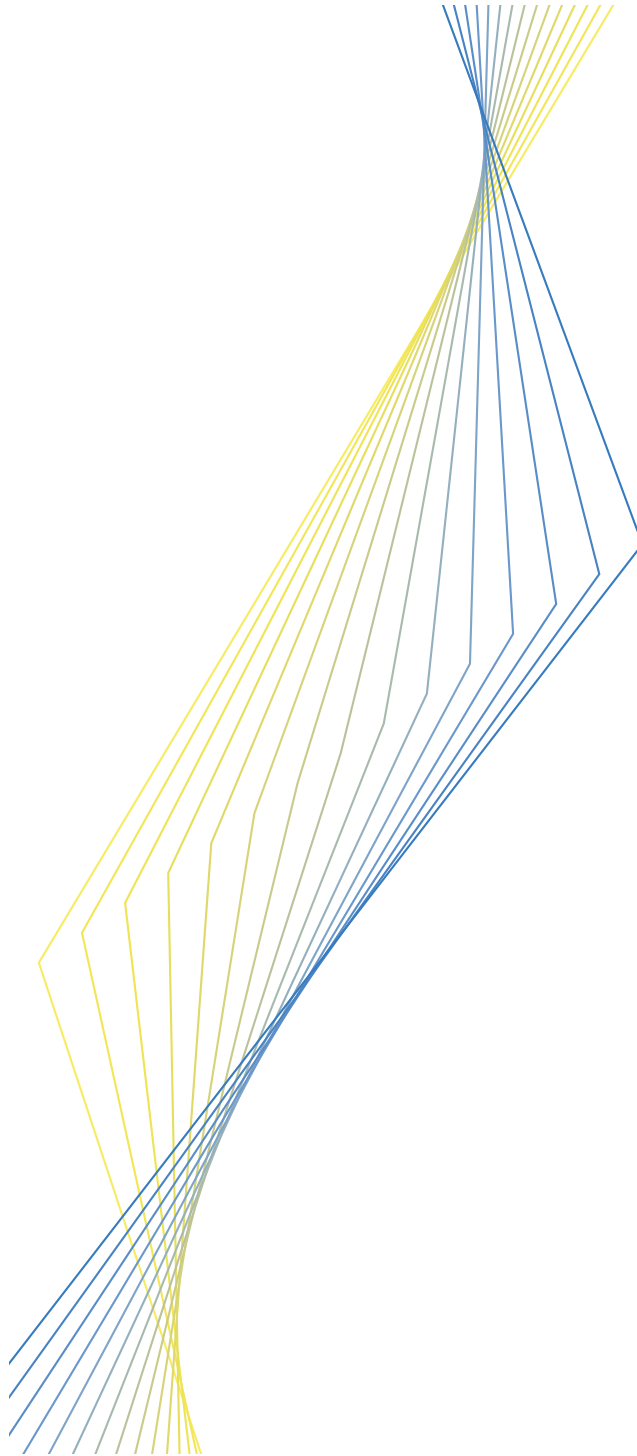
MONTHLY BULLETIN May 2002

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

May 2002



EUROPEAN CENTRAL BANK



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B U L L E T I N**

May 2002

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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
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
EER	effective exchange rate
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
MFIs	Monetary Financial Institutions
NACE Rev. 1	Statistical classification of economic activities in the European Community
NCBs	national central banks
PPI	Producer Price Index
repos	repurchase agreements
SITC Rev. 3	Standard International Trade Classification (revision 3)
ULCM	Unit Labour Costs in Manufacturing

**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.**

At its meeting on 2 May 2002, the Governing Council of the ECB decided to leave the minimum bid rate on the main refinancing operations of the Eurosystem unchanged at 3.25%. The interest rates on the marginal lending facility and the deposit facility were also left unchanged at 4.25% and 2.25% respectively.

At this meeting, the Governing Council comprehensively analysed the trends in monetary, financial and economic developments in the euro area and assessed how they have affected the outlook for price stability in the medium term. The Governing Council focused in particular on the accumulated changes in the economic outlook since its decision to lower the key ECB interest rates in November 2001. The Council concluded that the prospects for price stability appear to be somewhat less favourable than they were towards the end of last year. At the same time, the Governing Council considered that the economic outlook remains subject to uncertainties, and that consumer price inflation developments partly reflect the influence of specific temporary factors.

Starting with the analysis under the first pillar of the ECB's monetary policy strategy, the three-month average of the annual growth rates of M3 decreased to 7.5% in the period from January to March 2002, from 7.8% in the period from December 2001 to February 2002. The high annual growth rate of M3 continues to reflect the portfolio shifts to liquid positions which occurred last autumn. In the meantime there has been some normalisation in the development of M3, as indicated by the slowdown in its short-term dynamics in early 2002. The annual rate of growth of loans to the private sector continued to decline in March. However, M3 growth has only recently started to decline and, for the time being, the reversal of the earlier build-up in liquidity is proceeding only slowly. There are also early indications that the decline in the growth rate of loans to the private sector may have come to an end.

Overall, the information from the first pillar continues to deserve particular attention.

As regards the second pillar, the ECB's expectations for a rebound in real GDP growth in the euro area this year are shared by recently published forecasts of international organisations, which all paint a similar picture. While the recovery in 2002 is expected to initially proceed at a gradual pace, euro area real GDP growth rates should again be in line with potential growth later this year and solid growth rates should be attainable in 2003. Business confidence has considerably improved in the euro area over the past few months and the conditions for a sustained upswing in domestic demand, including favourable financing conditions, continue to be in place. The more positive international environment should stimulate euro area exports, thereby fuelling aggregate demand in the euro area. Finally, sound fundamentals and the absence of major imbalances support the positive outlook for the euro area economy. However, there are still a number of uncertainties surrounding the strength of the current upswing, in part related to the future development of oil prices and to the impact of existing imbalances elsewhere in the world economy.

Turning to prices, recent developments in consumer price inflation have been less satisfactory than was expected at the end of last year, partly as a result of higher oil prices. Annual HICP inflation surged to 2.7% in January 2002 from 2.0% in December 2001, before declining to a lower level (2.4% and 2.5%) in February and March. The Eurostat flash estimate for April points to a figure of 2.2%. On the basis of current information, annual consumer price inflation is still expected to fall over the coming months, owing mainly to strong base effects related to the increase in food prices in early 2001. However, this outlook is highly dependent on oil price developments.

As noted in the past, price developments in both 2000 and 2001, and again in recent

months, have been shaped by an exceptional clustering of specific shocks to prices. In principle, the effects of such shocks should unwind over time. However, for this to materialise, it is essential that past upward tendencies in prices do not become entrenched. Recently published inflation forecasts, developments in indicators of inflation expectations and recent trends in wages neither clearly confirm nor entirely contradict the risk of such entrenchment. At this juncture, it is therefore particularly important to remain vigilant with regard to the further evolution of the key factors determining the outlook for prices. The rather protracted upward trend in services prices is one factor to be taken into account. For next year, projections for price developments depend largely on the assumption of continued wage moderation. The outcome of the ongoing wage negotiations in some regions of the euro area could become a matter of concern. Excessive wage increases could create additional cost pressures with potential consequences not only for prices but also – to an even greater extent – for employment creation and real GDP growth.

Regarding fiscal policies in the euro area, it is vital that those Member States that have not already done so manage the transition to budgetary positions close to balance or in surplus so that the Stability and Growth Pact can operate smoothly and effectively in future. Commitments made to achieving balanced budgets by 2003-04 must therefore be honoured by the Member States concerned. In countries that have already

reached sound positions, a symmetrical operation of automatic stabilisers is appropriate and a re-emergence of structural imbalances should be avoided.

The Governing Council also calls upon the governments of the euro area countries to make faster progress in implementing comprehensive structural reforms – in public expenditure and revenues, as well as in product, labour and financial markets. The forthcoming finalisation of the Broad Economic Policy Guidelines for 2002 will be an opportunity both to take stock of the unfinished agenda following the European Council agreements at the Lisbon and Barcelona summits and, in particular, to accelerate the implementation of reforms. Such reforms are needed to increase the growth of real GDP and employment on a sustainable basis. Past experiences both inside and outside the European Union indicate that measures to promote the efficiency and integration of markets, the encouragement of entrepreneurship and the fostering of a knowledge-based economy are clearly working in this direction and are thus in the interest of all member countries.

This issue of the Monthly Bulletin contains three articles. The first describes the liquidity management of the ECB in the first three years of the euro. The second reviews the structure, role and main initiatives of the international and EU fora dealing with supervisory issues. Finally, the third article analyses the implications of the euro cash changeover on the development of banknotes and coins in circulation.

# Economic developments in the euro area

## I Monetary and financial developments

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

At its meeting on 2 May, the Governing Council of the ECB decided to leave the minimum bid rate in the main refinancing operations, conducted as variable rate tenders, at 3.25%. The interest rates on both the marginal lending facility and the deposit facility were also kept unchanged, at 4.25% and 2.25% respectively (see Chart 1).

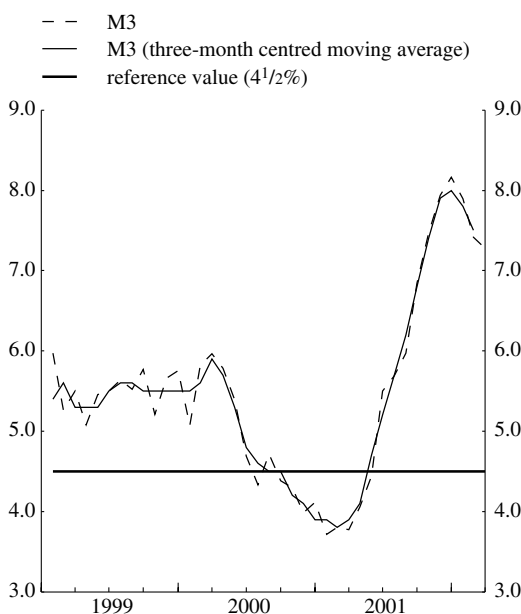
### Further moderation in M3 growth in March

The annual rate of growth of M3 decreased to 7.3% in March 2002, from 7.4% in the preceding month. The three-month average of the annual growth rates of M3 in the period from January to March 2002 declined to 7.5%, from 7.8% in the period from December 2001 to February 2002 (see Chart 2). The high level of annual growth of M3 continued to

**Chart 2**

### M3 growth and the reference value

(annual percentage changes; adjusted for seasonal and calendar effects)

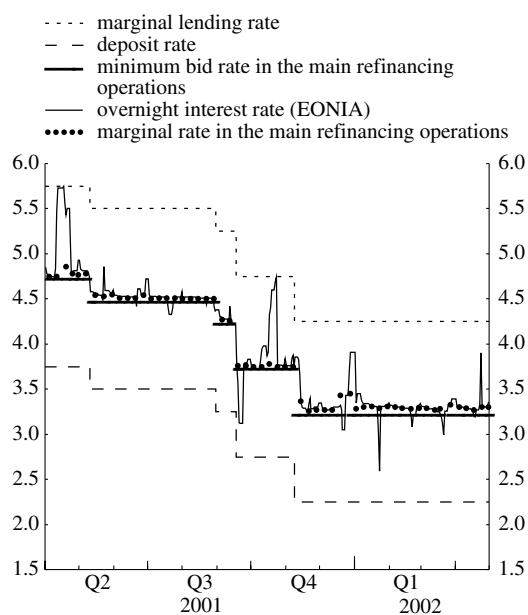


Source: ECB.

**Chart 1**

### ECB interest rates and money market rates

(percentages per annum; daily data)



Sources: ECB and Reuters.

reflect the build-up of liquidity in the autumn of 2001, when the economic and financial environment was characterised by great uncertainty.

Despite the high level of annual growth of M3, the shorter-term dynamics of M3 provide some indication of a gradual normalisation of monetary developments in the euro area in recent months. In March 2002, the annualised six-month rate of increase in M3 was 5.9%, which is well below the peak of 9.7% in November 2001. The normalisation of M3 growth is reflecting, inter alia, the gradual reduction of economic and financial market uncertainty from the high level it had reached in the autumn of 2001. The most visible expression of this decrease in uncertainty has been the decline of stock market volatility to levels in line with historical averages. At the same time, monetary developments over the past few months indicate that the reversal of past portfolio shifts is proceeding rather slowly. As a result, there remains a significant



amount of excess liquidity in the euro area. As regards credit, there was a slight moderation in the annual growth rate of loans to the private sector in March 2002.

Overall, information from the first pillar is thus far not indicating risks to price stability. Nevertheless, the excess liquidity in the euro area is of some concern. A continued excess liquidity situation could become a risk to price stability, in particular when the economic recovery gains momentum.

The slowdown in M3 growth recorded in March was determined by a slower expansion of M1 and marketable instruments. The annual growth rate of the narrow monetary aggregate M1 decreased to 5.8%, from 6.1% in February (see Table I). Within M1, the annual rate of change in currency in circulation was -24.8% in March, compared with -28.9% in the previous month. At the same time, the annual growth of overnight deposits declined to 11.9% in March, from 13.1% in February. The less pronounced annual decline in currency in circulation indicates a normalisation after the process of adaptation to the euro banknotes and coins. The strong monthly increase in currency in

circulation recorded in March 2002 was to a large extent due to a reduction in vault cash (i.e. currency held by MFIs).

Turning to the other components of M3, the annual rate of growth of short-term deposits other than overnight deposits rose to 6.6% in March, from 6.4% in February. This reflected an increase in the annual rate of growth of deposits redeemable at a period of notice of up to three months, to 9.9%, from 9.7% in the previous month, while the annual growth rate of deposits with an agreed maturity of up to two years remained unchanged at 2.3%.

Finally, the annual rate of growth of marketable instruments declined further, to 14.0% in March, from 14.9% in February. This compares with an annual growth of 20.9% in the fourth quarter of 2001, when demand for these instruments was fuelled by portfolio shifts towards liquid short-term assets. Given that marketable instruments are particularly suited for parking money in periods of financial market uncertainty, their slowdown in 2002 is thus far the clearest signal that economic agents have started to gradually reverse past portfolio shifts into M3.

**Table I**  
**Summary table of monetary variables for the euro area**

(annual percentage changes; quarterly averages)

	2001 Q3	2001 Q4	2002 Q1	2001 Dec.	2002 Jan.	2002 Feb.	2002 Mar.
<i>Adjusted for seasonal and calendar effects</i>							
<b>M1</b>	3.8	5.5	6.1	5.5	6.5	6.1	5.8
<i>of which: currency in circulation</i>	-7.5	-18.5	-28.3	-32.5	-27.4	-28.9	-24.8
<i>of which: overnight deposits</i>	6.1	10.4	13.0	13.2	13.3	13.1	11.9
M2 - M1 (= other short-term deposits)	4.9	5.8	6.7	7.1	6.8	6.4	6.6
<b>M2</b>	4.4	5.7	6.4	6.4	6.7	6.2	6.2
M3 - M2 (= marketable instruments)	16.4	20.9	15.9	19.9	15.8	14.9	14.0
<b>M3</b>	5.9	7.6	7.7	8.2	7.9	7.4	7.3
<i>Not adjusted for seasonal and calendar effects</i>							
<b>Longer-term financial liabilities (excluding capital and reserves)</b>	2.2	2.8	3.1	3.4	2.9	3.0	3.5
<b>Credit to euro area residents</b>	5.6	5.2	5.1	5.2	5.2	5.1	4.9
Credit to general government	-1.9	-0.5	1.8	0.1	1.7	2.1	3.0
<i>of which: loans to general government</i>	-1.4	-0.7	-0.8	-1.0	-1.7	-0.4	0.2
Credit to other euro area residents	7.8	6.9	6.1	6.7	6.2	6.0	5.4
<i>of which: loans to the private sector</i>	7.4	6.5	5.7	6.1	5.7	5.6	5.5

Source: ECB.

### Continued moderation in the annual growth rate of loans to the private sector

The annual rate of growth of credit to euro area residents was 4.9% in March, down from 5.1% in the previous month. This reflected divergent developments of the two main components of credit. On the one hand, credit to the private sector decelerated (to 5.4%, from 6.0% in February). On the other hand, the annual rate of growth of credit to general government increased further (to 3.0%, from 2.1% in February). The rise in credit to general government presumably reflects higher financing needs of this sector, related to less favourable budgetary developments in the euro area. This hypothesis is also supported by the increased issuance of debt securities by general government (see the following section).

Within credit to the private sector, the annual growth rate of loans was 5.5% in March, slightly lower than in February (5.6%). In recent months, there was an attenuation in the declining trend of loan growth, as is indicated by measures of short-term dynamics. In the four months up to March 2002, for example, the annualised and seasonally-adjusted six-month growth rate of loans to the private sector remained stable at around 5.1%. This development probably reflects both expectations of strengthening economic activity and the favourable financing conditions in the euro area.

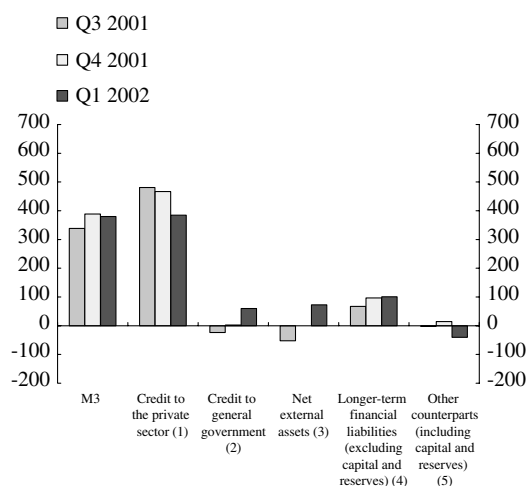
The annual rate of growth of MFIs' longer-term financial liabilities (excluding capital and reserves) rose to 3.5% in March, from 3.0% in the previous month. The gradual increase in the growth of MFIs' longer-term financial liabilities since the trough in August 2001 to some extent reflects the steepening of the yield curve seen over this period.

Finally, the net external asset position of the euro area MFI sector decreased in March, by €6 billion in non-seasonally adjusted terms. Over the 12 months up to March, the net external assets of the euro area MFI sector increased by €73 billion, compared with €43

**Chart 3**

### Movements in M3 and its counterparts

(annual flows, end of period; EUR billions; not adjusted for seasonal and calendar effects)



Source: ECB.

$$M3 = 1 + 2 + 3 - 4 + 5$$

billion in the 12 months up to February (see Chart 3). This strong increase in the 12-month flow was largely due to a base effect.

### Decline in debt securities issuance growth in February

The annual percentage growth rate of the amount outstanding of debt securities issued by euro area residents decreased to 7.4% in February 2002, from 8.1% in January. This reflects a decrease in February 2002 in the annual growth rates of the amount outstanding of long-term and short-term debt securities by 0.4 and 2.9 percentage points respectively, to 7.9% and 3.2%. The continued decline in short-term debt securities issuance is in line with the weakness of economic activity in late 2001, as well as with the low level of merger and acquisition activities in recent quarters.

The currency breakdown shows that the annual growth rate of the amount outstanding of euro-denominated debt securities issued by euro area residents decreased from 7.3% in January 2002 to 6.8% in February. At the same time, the share of euro-denominated

debt securities in total gross issuance by euro area residents remained unchanged at around 94.5% in February 2002.

As regards the sectoral breakdown of euro-denominated debt securities issuance, the annual growth rate of the amount outstanding of debt securities issued by MFIs declined further in February 2002, to 4.2%, from 5.0% in January. This may have reflected the continued decrease in MFIs' funding needs as a result of robust growth in short-term deposits, together with subdued loan demand. The annual growth in the amount outstanding of debt securities issued by non-monetary financial corporations remained high, albeit decreasing slightly from 43.5% in January 2002 to 42.3% in February. The buoyant issuance activity by this sector, including securitisation transactions, may partly explain the moderation in the annual growth in loans as reported by MFIs. The annual growth rate of the amount outstanding of debt securities issued by non-financial corporations decreased from 21.2% in January 2002 to 18.9% in February. The continued high

issuance activity of this sector contrasts with the relatively low demand for MFI credit and is indicative of the ongoing changes in financial structures in the euro area.

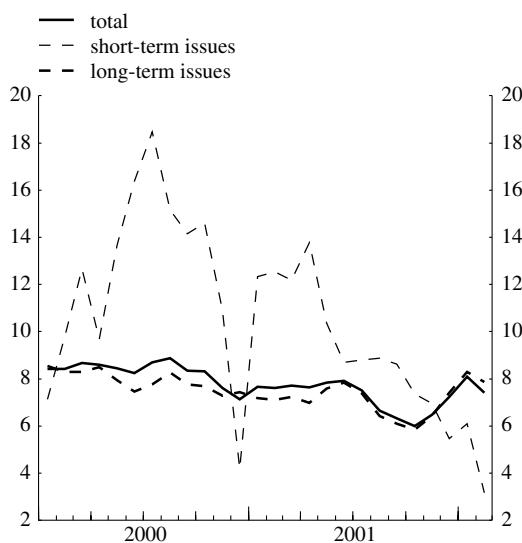
Turning to the general government sector, the annual growth of the amount outstanding of debt securities issued by central government remained unchanged at 4.7% in February 2002. At the same time, the annual growth rate of the amount outstanding of debt securities issued by other general government remained high, but decreased from 24.5% in January 2002 to 23.0% in February. Overall, debt securities issuance activity by the general government sector in February 2002 was stronger than in 2001, reflecting the less favourable budgetary developments for the euro area.

#### Short-term retail bank interest rates broadly unchanged in March, while long-term rates rose further

Short-term retail bank interest rates changed little in March 2002, as compared with February, reflecting the broad stability of short-term market interest rates in the previous months (see Chart 5). Over a somewhat longer horizon, short-term retail bank interest rates were significantly lower in March 2002 than at the start of 2001. Average interest rates on deposits with an agreed maturity of up to one year and on short-term loans to enterprises declined by around 110 basis points over that period, broadly in line with three-month money market interest rates, which declined by around 140 basis points over this period. The corresponding decline in average interest rates on overnight deposits and deposits redeemable at notice of up to three months was only around 30 basis points. This relatively small decline reflected the usual sluggish adjustment of these retail bank rates to market developments.

Long-term retail bank interest rates were between 10 and 15 basis points higher in March 2002 than in February, following the

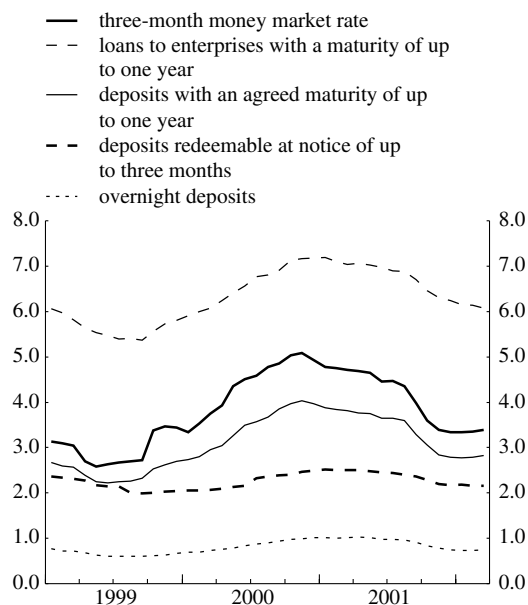
**Chart 4**  
**Amounts outstanding of debt securities issued by euro area residents**  
*(annual percentage changes)*



Source: ECB.  
 Note: From January 2001, euro area data include Greece. For reasons of comparability, annual growth rates before January 2001 use data for the euro area plus Greece.

**Chart 5**  
**Short-term retail bank interest rates**  
**and a comparable market rate**

(percentages per annum; monthly averages)

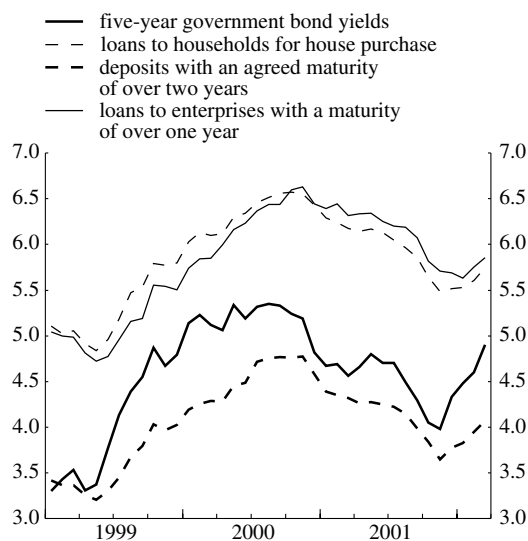


Sources: ECB aggregation of individual country data and Reuters.

Note: From 1 January 2001, data include Greece.

**Chart 6**  
**Long-term retail bank interest rates**  
**and a comparable market rate**

(percentages per annum; monthly averages)



Sources: ECB aggregation of individual country data and Reuters.

Note: From 1 January 2001, data include Greece.

rise in government bond yields since late 2001 (see Chart 6). Between the start of this year and March 2002 long-term retail bank interest rates increased by around 20 basis points. Over the same period, the average five-year government bond yield rose by around 40 basis points. This suggests a relatively swift pass-through of capital market rates to these retail bank interest rates, as is in line with past experience.

**Money market interest rates declined slightly in April**

After increasing in March 2002, money market interest rates with maturities of more than one month experienced a decline in April 2002. The decline was most pronounced at the longer maturities. Consequently, the (positive) slope of the money market yield curve became less steep.

The overnight interest rate, as measured by the EONIA, fluctuated around levels slightly above the minimum bid rate of 3.25% in the Eurosystem's main refinancing operations throughout most of April 2002. The main exception was at the end of the reserve maintenance period which started on 24 March, as the EONIA increased to 3.90% amid tight liquidity conditions on 23 April (see Box 1). Two-week money market rates also remained stable and marginally above the Eurosystem's minimum bid rate in April. The marginal and average rates of allotment in the Eurosystem's main refinancing operations settled in April 2002 were between 2 and 6 basis points above the minimum bid rate.

The one-month and the three-month EURIBOR decreased by 3 and 6 basis points respectively in April, to stand at 3.33% and 3.39% on 30 April (see Chart 7). The marginal and average interest rates in the Eurosystem's longer-term refinancing operation settled on 25 April, at 3.35% and 3.36% respectively, were close to the then prevailing three-month EURIBOR. This was 5 and 6 basis points lower than the corresponding rates in

**Box I****Monetary policy operations and liquidity conditions in the reserve maintenance period ending on 23 April 2002**

During the reserve maintenance period under review, the Eurosystem settled four main refinancing operations (MROs), and one longer-term refinancing operation (LTRO).

**Regular monetary policy operations**

(EUR billions; interest rates in percentages per annum)

Operation	Date of settlement	Date of maturity	Bids (amount)	Allotment (amount)	Bid-cover ratio	Number of participants	Minimum bid rate	Marginal rate	Weighted average rate
MRO	27/03/2002	10/04/2002	121.8	63.0	1.9	369	3.25	3.33	3.34
MRO	04/04/2002	17/04/2002	112.8	55.0	2.1	367	3.25	3.30	3.31
MRO	10/04/2002	24/04/2002	112.8	48.0	2.4	352	3.25	3.29	3.29
MRO	17/04/2002	30/04/2002	102.7	49.0	2.1	361	3.25	3.27	3.28
LTRO	28/03/2002	27/06/2002	40.0	20.0	2.0	216	-	3.40	3.42

Source: ECB.

In the course of the maintenance period, both the marginal and the weighted average rates in the MROs decreased. The spread between the weighted average rate and the marginal rate in the MROs was either zero or one basis point. The bid-cover ratio varied between 1.9 and 2.4.

At the start of the maintenance period, the EONIA stood at between 3.33% and 3.34%, while it increased to 3.39% on Thursday, 28 March, the last business day of the first quarter of 2002. Subsequently, the EONIA declined gradually throughout the maintenance period and fell below the minimum bid rate after the allotment of the last MRO, reaching 3.19% on 18 April, as liquidity conditions were perceived to be ample. Towards the end of the maintenance period, liquidity conditions tightened somewhat and the EONIA increased. On the last business day of the maintenance period, the EONIA came out at 3.90% as the maintenance period ended with net recourse of €5.1 billion to the marginal lending facility. Average daily excess reserves amounted to €0.65 billion (i.e. the difference between average current accounts of €131.2 billion and average minimum reserve requirements of €130.6 billion).

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

(EUR billions)

Daily average during the reserve maintenance period from 24 March to 23 April 2002

	Liquidity providing	Liquidity absorbing	Net contribution
<b>(a) Monetary policy operations of the Eurosystem</b>	<b>173.1</b>	<b>0.2</b>	<b>+ 172.9</b>
Main refinancing operations	112.7	-	+ 112.7
Longer-term refinancing operations	60.0	-	+ 60.0
Standing facilities	0.4	0.2	+ 0.2
Other operations	-	-	0.0
<b>(b) Other factors affecting the banking system's liquidity</b>	<b>395.4</b>	<b>437.1</b>	<b>- 41.7</b>
Banknotes in circulation	-	285.9	- 285.9
Government deposits with the Eurosystem	-	55.9	- 55.9
Net foreign assets (including gold)	395.4	-	+ 395.4
Other factors (net)	-	95.3	- 95.3
<b>(c) Credit institutions' holdings on current accounts with the Eurosystem (a) + (b)</b>			<b>131.2</b>
<b>(d) Required reserves</b>			<b>130.6</b>

Source: ECB.

Note: Totals may not add up due to rounding.

On average over the maintenance period, the net liquidity-absorbing impact of autonomous factors, i.e. factors not related to monetary policy operations (item (b) of the table above), was €41.7 billion. The estimates of average liquidity needs stemming from autonomous factors, published together with the tender announcements, ranged between €25.7 billion and €56.9 billion. The largest deviation of €1.6 billion between the published estimate and the actual figure occurred at the end of the maintenance period.

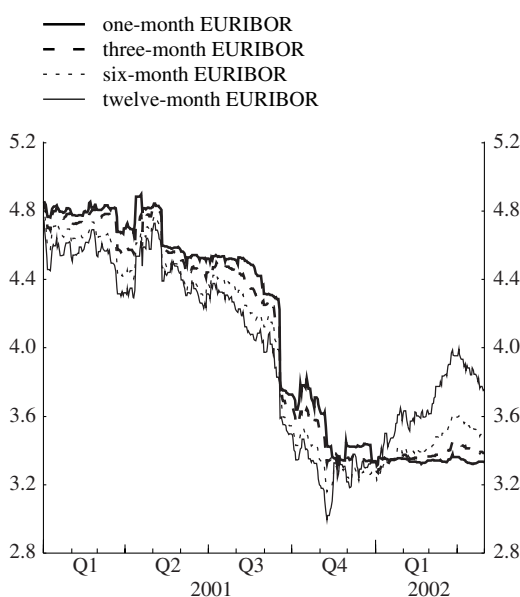
the longer-term refinancing operation settled on 28 March.

Interest rates at the longer end of the money market yield curve decreased somewhat more. The six-month and the twelve-month EURIBOR fell by 10 and 19 basis points respectively in April, to stand at 3.49% and 3.76% on 30 April. The slope of the money market yield curve, as measured by the difference between the twelve-month and the one-month EURIBOR, thus became less steep, falling from 59 to 43 basis points in the period under review.

The expected path of the three-month EURIBOR, as implied in the futures prices on contracts with delivery dates in 2002, also declined in the course of April. In this period, the rates implied in futures prices on contracts with delivery dates in June, September and December 2002 fell by 17,33 and 40 basis points respectively, to stand at 3.47%, 3.68% and 3.99% on 30 April.

### Chart 7 Short-term interest rates in the euro area

(percentages per annum; daily data)



Source: Reuters.

### Box 2

#### Measures of implied volatility derived from options on short-term interest rate futures

Measures of the expected volatility of short-term interest rates can provide valuable information on the uncertainty prevailing in the market with regard to future developments in short-term interest rates. In the euro area, a useful measure of the overall uncertainty associated with future movements in short-term interest rates is the implied volatility derived from options on futures contracts on the three-month EURIBOR.

Given appropriate assumptions, implied volatility is normally calculated on the basis of option pricing models to obtain an estimate of the expected dispersion of future percentage changes in short-term interest rates. A value of implied volatility equal to 20%, for instance, indicates that the best estimate of the market's expected dispersion of the implied percentage change in the interest rate over the remaining life of the futures contract is, on an annual basis, 20% of the current level of the interest rate.<sup>1</sup>

<sup>1</sup> See the article entitled "The information content of interest rates and their derivatives for monetary policy" in the May 2000 issue of the ECB's Monthly Bulletin (as well as Box 4 on page 23 in the December 1999 issue of the ECB's Monthly Bulletin) for a discussion on the derivation of implied volatility and the underlying assumptions.

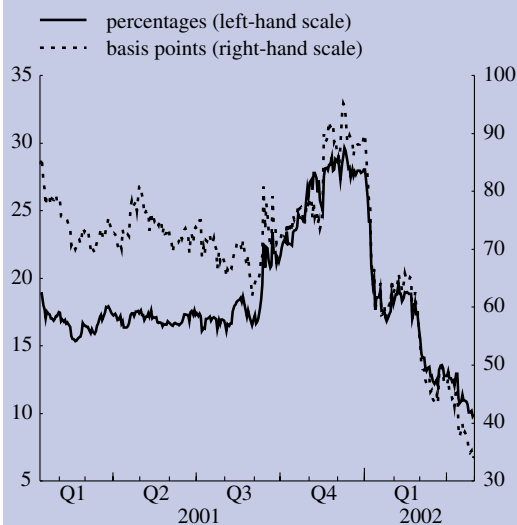
This box analyses issues related to the usual percentage measure of implied volatility and the “time-to-maturity” effect. By addressing these issues, it is possible to obtain a richer set of information on the uncertainty of the market with regard to the evolution of short-term interest rates.

The first issue stems from the fact that it is sometimes of interest to derive a measure of the uncertainty surrounding future movements in interest rates expressed in basis points (rather than in percentage terms). Implied volatility expressed as a percentage per annum measures the expected volatility of future percentage changes in interest rates. The same level of implied volatility may thus hide very different levels of volatility of the *percentage point* changes in futures interest rates, as these depend on the level of the (implied) interest rate itself.

In order to address this issue, it is possible to obtain an estimate of the expected dispersion of future changes in interest rates, measured in basis points, by multiplying the volatility measure as a percentage per annum by the level of the implied interest rate.<sup>1</sup> An implied volatility of 20%, for instance, is equal to an annualised expected standard deviation of 80 basis points in interest rate changes if the futures rate is 4%, while it indicates an expected standard deviation of only 60 basis points in a situation where the prevailing futures rate is 3%. The analysis of implied volatility expressed in percentage terms therefore only provides a partial picture of the evolution of the uncertainty regarding interest rate changes.

**Chart A: Implied volatility from options on June 2002 three-month EURIBOR futures**

(percentages per annum; basis points; daily data)



Sources: Bloomberg and ECB calculations.

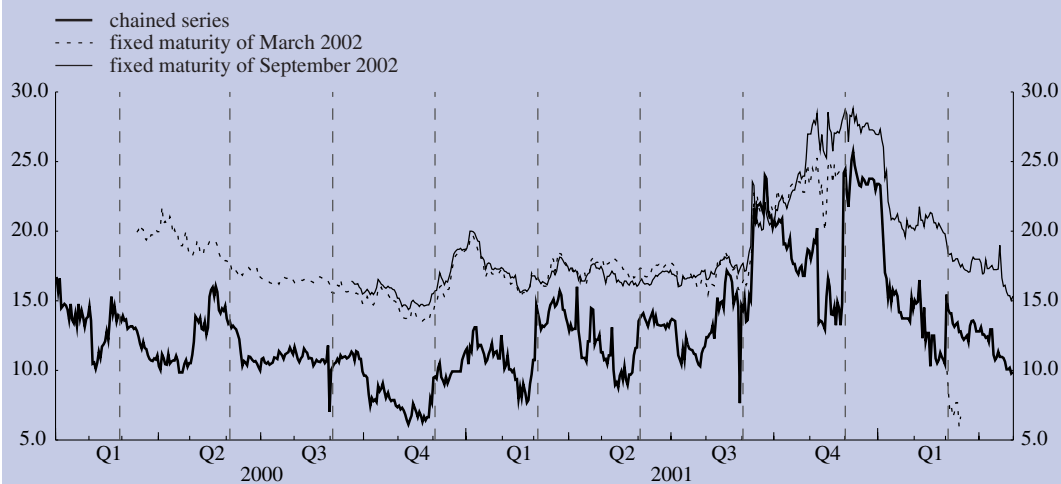
Chart A illustrates the difference between the two measures. Implied volatility in percentage terms remained broadly stable in 2001, until the terrorist attacks in September. However, according to the basis point measure, it tended to decline over the same period. The decreasing trend in this series reflected expectations of declining interest rates, as reflected in the futures rates. Following the terrorist attacks, implied volatility as a percentage per annum rose dramatically. This also held true in the case of the basis point measure, albeit to a lower extent, as the rates implied in futures prices also decreased significantly. The monitoring of implied volatility expressed as a percentage per annum can signal variations in the perceived “regime” of uncertainty, as measured over longer periods. The measure in basis points, by contrast, is useful when analysing the dispersion in expectations for future changes in money market rates expressed in those units in which markets usually operate.

A second issue is related to what is known as the time-to-maturity effect. It is a widely acknowledged empirical phenomenon that the implied volatility tends to decline as time passes and the expiration time of the option approaches, especially during the last few weeks of the life of the option contract. This phenomenon relates to the decline in uncertainty as the horizon of the option contract becomes shorter. This could make the analysis of developments in implied volatility through time misleading as monitoring volatility derived from contracts with a fixed maturity date will underestimate the “true” level of uncertainty as time goes by. In order to correct for this in longer-term time series analysis, chained series of the implied volatility on the nearest maturity futures contract are sometimes used. For example, in the chained series in Chart B, the implied

<sup>1</sup> For an analysis of the derivation of measures of uncertainty from option contracts, see, for example, J. Hull, *Options, Futures and Other Derivatives*. (Englewood Cliffs, New Jersey: Prentice-Hall, Fourth Edition, 2000), Chapters 11 and 20.

### Chart B: Implied volatility from options on three-month EURIBOR futures

(percentages per annum; daily data)



Sources: Bloomberg and ECB calculations.

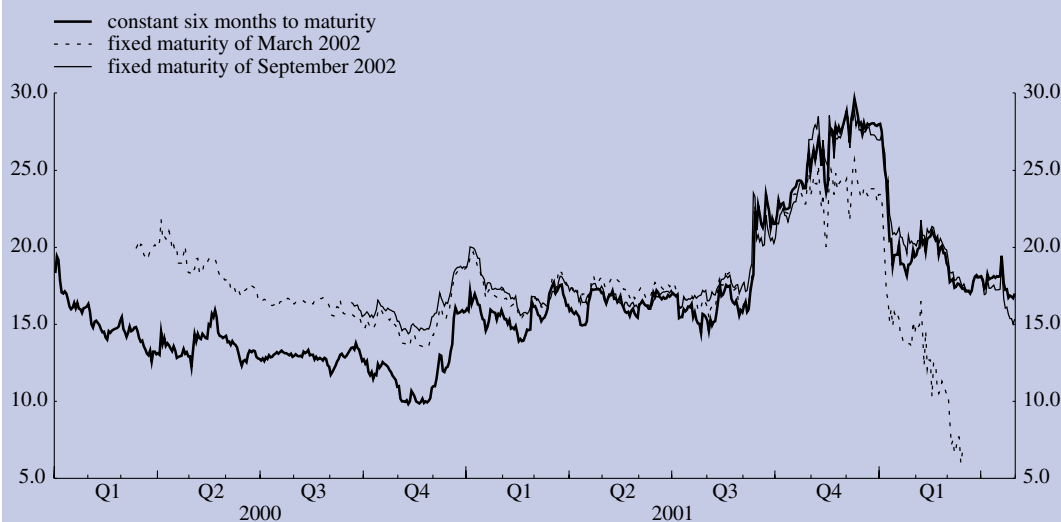
Note: The chained series represent the nearby implied volatility on the nearest contract, rolled over two weeks before maturity. The vertical lines indicate these shifts.

volatility computed on the nearest maturity contract is replaced two weeks prior to the maturity date (as the liquidity of the contract becomes relatively low this close to maturity) with that computed on the contract with the next shortest maturity.

One problem that is encountered when using chained series is that there are significant jumps at the times of the replacements, as indicated by the vertical lines in Chart B. In addition, the time-to-maturity effect is not entirely eliminated. An alternative formulation is the derivation of a constant maturity measure, obtained on the basis of an interpolation of an implied volatility term curve. This involves two steps. First, the implied volatility curve is interpolated across the observed implied volatility data for different maturities. Second, after interpolation, it is straightforward to compute a time series for implied volatility with a constant time to maturity of, for instance, six months ahead. This volatility series smoothly follows the pattern of other implied

### Chart C: Implied volatility with constant time to maturity

(percentages per annum; daily data)



Sources: Bloomberg and ECB calculations.



volatility series with comparable maturities and does not have any declining time-to-maturity trend. Chart C plots this measure of volatility against the volatility implied in the contracts maturing in March and September 2002. The volatility with constant time to maturity lies below the level of the implied volatility derived from the March and September 2002 contracts until early 2001. Further on, it remains at similar levels, when the maturity dates of the two contracts are still far away. From late 2001 onwards, the constant time-to-maturity volatility series is higher than that implied in the March 2002 contract, as the latter contract approaches expiration, but remains close to the level implied by the September contract. Close to maturity, the volatility of the March 2002 contract declines significantly.

Overall, Charts B and C illustrate that the time-to-maturity effect can be strong and may distort the analysis even if chained series are used. The implied volatility is little distorted only if the maturity of the contract is far away. In order to deal with the time-to-maturity effect, measures of implied volatility with a constant horizon may turn out to be useful, particularly when the analysis extends over periods longer than a few months.

### Long-term government bond yields declined slightly in April

Between end-March and 30 April, long-term government bond yields in the euro area declined by around 10 basis points to stand at 5.3% on 30 April (see Chart 8). In the United States, ten-year government bond yields declined by 30 basis points over the same period to stand at around 5.2% on

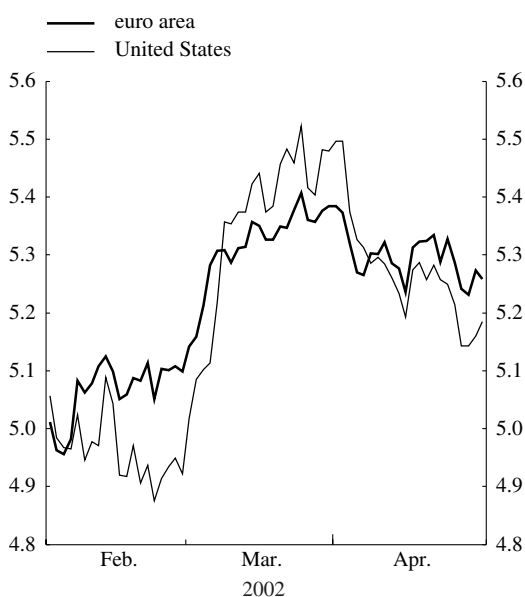
30 April. As a result, the spread between ten-year government bond yields in the United States and the euro area declined by 15 basis points over this period to stand at -5 basis points on 30 April.

In the United States, government bond yields seemed to be driven mainly by macroeconomic data releases, which tended to be less positive than expected, and the continuing tension in the Middle East which added to uncertainty about the strength of the recovery. These factors seemed to cause market participants to revise downwards their expectations for economic growth. This interpretation of bond yield developments in April was supported by a decline of 25 basis points in the (real) yield on index-linked bonds between end-March and 30 April. Market participants also seemed to adjust downwards their expectations of near-term increases in policy interest rates, partly as a result of their interpretation of the testimony of the Chairman of the Federal Reserve to the Joint Economic Committee of the US Congress in mid-April. Reflecting this, two-year government bond yields declined by 45 basis points between end-March and 30 April.

In Japan, government bond yields were stable between end-March and 30 April, with ten-year government bond yields showing little overall change in this period, standing at 1.4% on 30 April. The downgrading of Japan's domestic long-term debt and foreign debt

**Chart 8**  
Long-term government bond yields in the euro area and the United States

(percentages per annum; daily data)



Source: Reuters.

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

by a major rating agency was apparently anticipated by market participants and hence did not seem to have any impact on government bond prices.

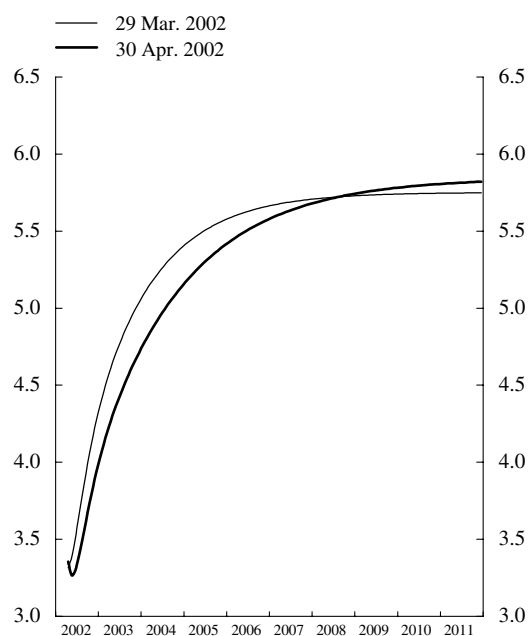
In the euro area, the decline in ten-year government bond yields reflected a decline of 20 basis points in the real yield on French ten-year index-linked government bonds between end-March and 30 April. This led to an increase in the ten-year break-even inflation rate of 10 basis points over the same period. These developments seemed to reflect both a perception of slightly less favourable prospects for economic growth and an upward revision to long-term inflation expectations among market participants. This appeared to be partly associated with concerns about the continuing tension in the Middle East and its effects on oil prices, but

may also reflect spillovers from bond yield developments in the United States. Moreover, recent releases of macroeconomic data for the euro area seemed to be interpreted by market participants as signalling that the strength of the economic recovery remained uncertain.

The shorter end of the yield curve flattened between end-March and 30 April as the difference between two-year government bond yields and three-month interest rates declined by 20 basis points over this period. The downward shift in expectations for short-term interest rates in 2002 was also reflected in a downward shift of the implied forward overnight interest rate curve for the euro area between end-March and 30 April (see Chart 9).

**Chart 9**  
**Implied forward euro area overnight interest rates**

(percentages per annum; daily data)



Source: ECB estimation.

Note: 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 ECB's Monthly Bulletin. The data used in the estimation are derived from swap contracts.

### Stock prices in the euro area and the United States weaker in April

Stock prices in the euro area and the United States, as measured by the Dow Jones EURO STOXX and the Standard & Poor's 500 indices respectively, declined between end-March and 30 April (see Chart 10). Over the same period, in Japan, the Nikkei 225 index rose. The degree of uncertainty among markets participants about future stock price movements, as measured by implied stock price volatility, increased in the euro area and US stock markets between end-March and 30 April, but remained below the average level of the last two years. In Japan, by contrast, uncertainty dropped further over the same period (see Chart 11). In general, equity markets in the euro area and in the United States seemed to suffer in April from a slightly less optimistic assessment by market participants of the strength and profile of the economic recovery.

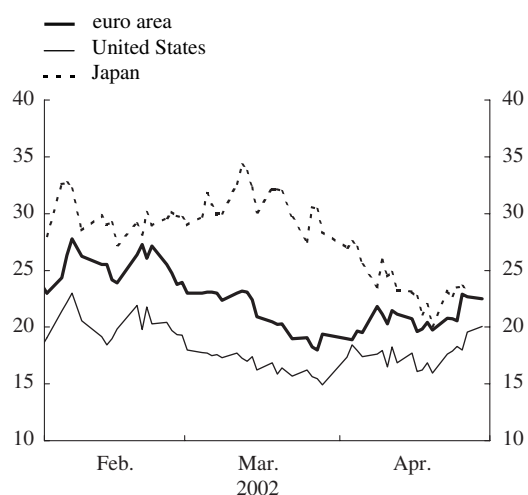
In the United States, the Standard & Poor's 500 index declined by 6% between end-March and 30 April. The implied volatility extracted from options on the Standard & Poor's 500 index increased by 4 percentage points over the same period. The decline in stock prices

and the increased volatility seemed to be caused partly by the release of less positive than expected economic data. The release of earnings reports for the first quarter of 2002 gave mixed signals, but were seen by market participants, on balance, to be somewhat below expectations. The technology sector was particularly affected by market sentiment, as this sector would be particularly influenced by the impact of a slower economic recovery. Furthermore, concerns about accounting practices and the reliability of profit earnings data still seemed to affect stock prices in this sector (see Box 3). The Nasdaq Composite index (which includes a large number of technology companies) declined by around 9% between end-March and 30 April. Stock prices in the telecommunications sector also fell considerably, possibly reflecting lower sales forecasts of several large companies and more general concerns about the outlook for this highly indebted sector.

In Japan, the Nikkei 225 index rose by 5% between end-March and 30 April, thereby

**Chart 11**  
**Implied stock market volatility in the euro area, the United States and Japan**

(percentages per annum; daily data)

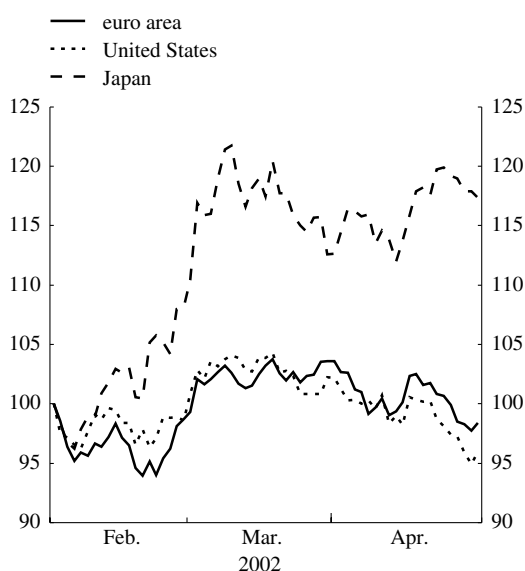


Source: Bloomberg.

Note: The implied volatility series reflect the expected standard deviation of percentage stock price changes over a period of up to three months, as implied in the prices of options on stock price indices. The equity indices to which the implied volatilities refer are the Dow Jones EURO STOXX 50 for the euro area, the Standard & Poor's 500 for the United States and the Nikkei 225 for Japan.

**Chart 10**  
**Stock price indices in the euro area, the United States and Japan**

(index: 1 February 2002 = 100; daily data)



Source: Reuters.

Notes: Dow Jones EURO STOXX broad (stock price) index for the euro area, Standard & Poor's 500 for the United States and Nikkei 225 for Japan.

continuing the rising trend that characterised stock prices from mid-February onwards. However, this overall increase in stock prices concealed some swings during the month. The positive changes in stock prices mainly seemed to reflect optimism about the outlook for Japanese exporters. In contrast to the United States and the euro area, implied volatility declined by 4 percentage points between end-March and 30 April.

In the euro area, the Dow Jones EURO STOXX index declined by 5% between end-March and 30 April. This overall decrease in stock prices seemed to reflect sector-specific factors as well as market participants' slightly less favourable expectations for the short-term economic outlook. In line with the latter, stock prices in the consumer cyclical sector declined relatively sharply. Stock prices in the energy sector declined as well, partly due to the fall in oil prices towards the end of April. However, the decreases were even more severe in the telecommunications and

technology sector. The two sectors had suffered from large corrections in the first months of the year but had recovered somewhat in March. In this environment,

implied volatility, derived from options on the Dow Jones EURO STOXX 50 index, increased by 3 percentage points between end-March and 30 April.

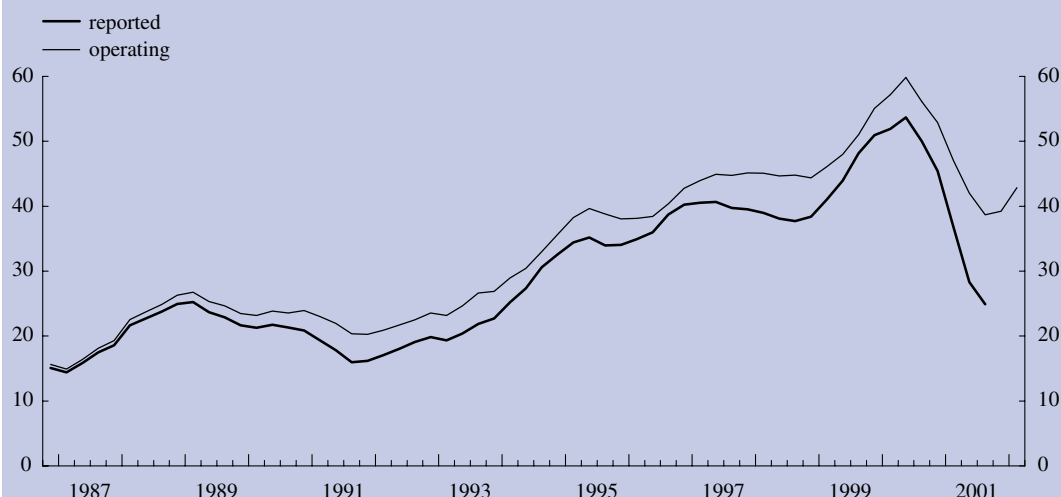
### Box 3

#### US stock markets and corporate profit measures

Over recent months, stock markets in the United States and the euro area have been adversely affected by uncertainties about the reliability of profit data disclosed by US corporations. In particular, attention focused on the emergence in 2001 of growing disparities between different measures of corporate profits following the collapse of a US energy corporation, Enron, which filed for bankruptcy in December 2001. While the actual profits of the 500 corporations in the Standard & Poor's 500 index "reported" to the US Securities and Exchange Commission (SEC) declined by 51% in 2001, on an "operating" basis (i.e. profits from a corporation's ongoing operations), according to Standard & Poor's estimates, they declined by only 31% (see Chart A).

**Chart A: Earnings per share of the 500 corporations in the Standard & Poor's 500 index**

(four-quarter moving averages in US dollars, quarterly data)



Source: Standard & Poor's.

Note: The series for "reported" earnings denotes the earnings per share of the corporations in the Standard & Poor's 500 index disclosed to the US Securities and Exchange Commission. The series for "operating" earnings denotes the earnings per share derived from ongoing operations. Data for the latter are estimates as from the fourth quarter of 2001.

The reason for the disparities between the two measures of Standard & Poor's 500 corporate profits shown in Chart A is due to differences in the accounting concepts which each figure is designed to measure. The corporate earnings which US corporations disclose to the SEC are generally known as "reported earnings". They represent the profits of a corporation before the deduction of expenses arising from discontinued operations and extraordinary items. The figures must be prepared according to the Generally Accepted Accounting Principles (GAAP)<sup>1</sup> and are subject to audits.

"Operating earnings" are typically calculated by adjusting reported earnings figures to exclude certain non-recurring expenses such as those associated with mergers and acquisitions or litigation settlements. They

<sup>1</sup> Dating from the 1930s, the US Generally Accepted Accounting Principles (GAAP) represent a largely rules-based approach to financial reporting that is generally accepted by the US accounting profession. In effect, GAAP specifies acceptable and unacceptable ways of accounting for business revenues and expenses. Since 1973, the US Financial Accounting Standards Board (FASB) has been responsible for developing GAAP.

typically also exclude gains or losses from asset sales. The guiding principle for using operating earnings figures for a corporation is to provide market analysts with information that helps them to determine the company's underlying profitability performance. By contrast with GAAP-based reported earnings, operating earnings figures are unaudited. They are not governed by the SEC, unless fraudulent, and they are not drawn up by accountants according to a set of generally agreed principles.

A further measure of profits is a "pro forma" statement of operating earnings. Originally, the purpose of a pro forma analysis of a corporation's profit and loss accounts was to adjust its profit figures in order to exclude any significant changes, e.g. a merger. In the past, these accounts were typically prepared by corporations for internal purposes only. However, following the wave of mergers in the US in the 1980s, many corporations began to publish these data. This was because, over time, corporate changes of this kind, which may have completely altered the underlying nature of the respective business, made it more difficult for market analysts to interpret accounts prepared under GAAP from one year to another. Subsequently, the practice of publishing pro forma accounts became more widespread. Similar to operating earnings figures, pro forma operating earnings figures are unaudited, are not governed by the SEC and there are no generally agreed principles among accountants to prepare them. A working definition of pro forma earnings set out by Standard & Poor's is "operating earnings should a particular event occur".<sup>2</sup>

As Chart A shows, after the third quarter of 2000, the profits of Standard & Poor's 500 corporations reported to the SEC came under pressure. This led to the most severe cumulative downturn in the profits of Standard & Poor's 500 corporations since the 1930s. Like earlier profit downturns, the gap between reported and operating earnings widened, with the latter showing a more robust performance. Moreover, pro forma statements of corporate profits, not shown in this chart, exhibited an even milder downturn than either of the two other measures. While it might be considered normal that the underlying capacity of corporations to generate profits in the longer term, as reflected by pro forma operating profit figures, would not deteriorate to the same extent as cash profits in a cyclical downturn, some market analysts queried the adjustments made for certain accounting items in the preparation of pro forma statements of profits in 2001. In principle, the adjustments should be for non-recurring items only. However, in drawing up their pro forma statements of profits, some corporations excluded irregular expenses, e.g. severance packages, compensation costs related to stock options and losses in the value of securities in corporate-sponsored, defined pension plans. This approach prompted questions from some market analysts who considered such items as part of the normal ongoing activities of corporations and it also gave rise to uncertainties in stock markets about the transparency and accuracy of the accounting information disclosed by corporations. Particularly affected by these uncertainties was the technology sector, where the gap between reported and pro forma earnings grew wider than in any other sector in 2001.

Key to the valuation of the stock of a corporation is its capacity to pay out dividends to shareholders over the longer term. This, in turn, depends on the capacity of corporations to generate earnings. Reflecting this, for more than a century, one of the metrics most commonly employed by stock market analysts to judge the value of the equity of a corporation has been the price-earnings (P/E) ratio. This is the ratio between the value of a corporation reflected in its stock price, and its annual profits. Often these ratios are calculated on the basis of the profits generated by a corporation over the previous calendar year (i.e. a four-quarter moving average of profits). For a market index such as the Standard & Poor's 500, the P/E ratio is the average of the P/E ratios of the individual corporations in that index.

Over long periods, the inverse of the P/E ratio, the earnings yield, should in principle equal the real return to a shareholder from an equity investment. Hence, the inverse of the P/E ratio is often seen as the real cost of equity capital to corporations. Based on the view that, over very long horizons, future profit growth rates will

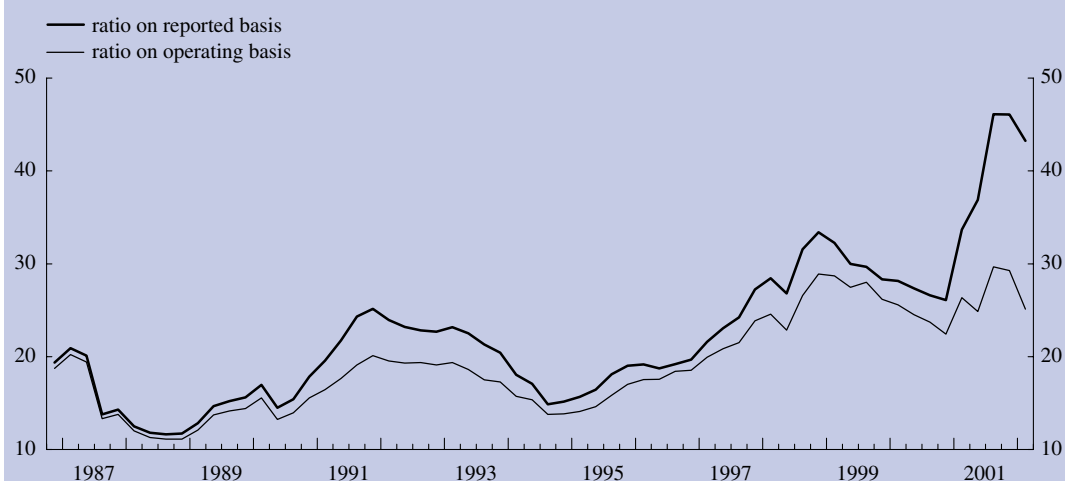
<sup>2</sup> See 'Standard & Poor's Position on Operating Earnings', Standard & Poor's, November 2001.

mirror historical averages of profit growth, the fair value of a stock is often judged by comparing prevailing P/E ratios with historical averages. However, it should be borne in mind that a high P/E ratio for an individual corporation or sector could reflect market expectations that future profits will be high and, on account of this, investors will demand a lower real return on equity in the short run.

Calculated on the basis of the previous four quarters of earnings, P/E ratios tend to be higher when the economy is in the midst of an economic slowdown since, at those times, profits tend to come under pressure. As Chart B shows, this cyclical behaviour of P/E ratios tends to be more pronounced for ratios computed with reported earnings than for ratios computed with operating earnings. The lower cyclical amplitude of the latter

**Chart B: Price-earnings ratios on an operating and a reported basis for the 500 corporations in the Standard & Poor's 500 index**

(quarterly data)



Source: Standard & Poor's.

Note: The figures are computed on the basis of the Standard & Poor's 500 index. The P/E ratios are computed using four-quarter moving averages of the earnings measures. The P/E ratio on a reported basis for the first two quarters of 2002 are computed using profit figures of the fourth quarter of 2001. The P/E ratios on an operating basis from the fourth quarter of 2001 onwards are computed using Standard & Poor's estimates from the fourth quarter of 2001 onwards. For both series, P/E ratios for the second quarter of 2002 are computed using the closing value of the Standard & Poor's 500 index of 30 April 2002.

is natural in view of the principle – to provide a picture of the underlying profitability performance of corporations – under which operating earnings figures are computed. This notwithstanding, the emergence of an unprecedented gap between pro forma operating and reported earnings also led to a large disparity between the P/E ratios computed using these measures. The doubts prevailing in markets about the true profitability performance of corporations resulting from questions on the accounting treatment of certain items in the preparation of pro forma profit statements, in turn, led to uncertainties about which P/E ratio best reflected the value of corporations. As noted above, these uncertainties also spilled over into the euro area, since the stocks of some large euro area corporations are also listed on US stock exchanges.

Transparent and accurate accounting information is crucial in order to ensure the efficient allocation of scarce capital to the most productive uses in the economy. Moreover, it plays an essential part in the integration of private capital markets within the euro area. In this respect, the European Commission has been promoting a strategy for financial reporting in the EU based on a principles-based approach to accounting that differs from the rules-based US GAAP system. In March 2002 the European Parliament endorsed the Commission's proposal that all EU companies listed on regulated markets should, at the latest from 2005 onwards, prepare and publish their consolidated accounts in accordance with a single set of accounting standards, to be selected in the near future by the Commission from among the models of International Accounting Standards (IAS)

issued by the International Accounting Standards Board (IASB).<sup>3</sup> Following an informal meeting of the ECOFIN Council in Oviedo, Spain, in April 2002, the Economic and Finance Ministers, the Commission, the President of the ECB and the Governors of the national central banks emphasised that an “early adoption of the EU Regulation on International Accounting Standards is of particular importance, along with strong enforcement, so that International Accounting Standards will enter into force throughout the EU.”

<sup>3</sup> *The International Accounting Standards Board is an independent, privately funded accounting standard setter based in London. Board Members come from nine countries and have a variety of functional backgrounds. The Board is committed to developing, in the public interest, a single set of high quality, understandable and enforceable global accounting standards that require transparent and comparable information in general purpose financial statements. In addition, the Board co-operates with national accounting standard setters to achieve convergence in accounting standards around the world.*

## 2 Price developments

### Increase in HICP inflation in March 2002 primarily as a result of higher oil prices

The annual rate of change in the euro area HICP increased to 2.5% in March 2002, up from 2.4% in the previous month (see Table 2). The recent rise in oil prices was the main reason for this increase in inflation as it put renewed, direct upward pressure on energy prices. The year-on-year rate of increase in the HICP excluding unprocessed food and energy prices was 2.6% in March 2002, unchanged for the third consecutive month, although the annual rate of change in services prices edged up further. According

to Eurostat's flash estimate, the annual rate of HICP inflation is expected to fall again in April 2002 to 2.2%. The decline would probably be mainly the result of base effects on food prices, but as yet no detailed information on the breakdown is available.

In March 2002, the annual rate of decline in energy prices slowed by 1.3 percentage points to 1.5% (see Chart 12). Month-on-month, energy prices rose 1.2%, with particularly strong increases in petrol and heating oil prices following the rise in oil prices to €27.9 in March, up almost 19% compared with February. Oil prices increased

**Table 2**  
**Price and cost developments in the euro area**

(annual percentage changes, unless otherwise indicated)

	1999	2000	2001	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2001 Nov.	2001 Dec.	2002 Jan.	2002 Feb.	2002 Mar.	2002 Apr.
<b>Harmonised Index of Consumer Prices (HICP) and its components</b>													
Overall index <sup>1)</sup>	1.1	2.3	2.5	3.1	2.5	2.2	2.5	2.1	2.0	2.7	2.4	2.5	2.2
<i>of which:</i>													
Goods	0.9	2.7	2.5	3.5	2.4	1.8	2.2	1.6	1.7	2.5	2.1	2.1	.
Food	0.6	1.4	4.6	5.0	5.2	4.8	4.9	4.6	4.7	5.6	4.9	4.2	.
Processed food	0.9	1.1	2.9	2.8	3.4	3.5	3.5	3.5	3.5	3.8	3.4	3.3	.
Unprocessed food	0.0	1.7	7.2	8.5	8.0	6.9	7.0	6.4	6.5	8.4	7.2	5.5	.
Industrial goods	1.0	3.4	1.5	2.7	1.0	0.3	0.9	0.1	0.2	0.9	0.8	1.0	.
Non-energy industrial goods	0.7	0.7	1.1	1.4	1.0	1.6	1.8	1.6	1.7	1.7	1.9	1.7	.
Energy	2.4	13.3	2.8	7.3	1.2	-4.1	-2.0	-5.0	-4.5	-1.7	-2.8	-1.5	.
Services	1.5	1.7	2.5	2.5	2.5	2.8	3.0	2.7	2.8	3.0	3.0	3.1	.
<b>Other price and cost indicators</b>													
Industrial producer prices <sup>2)</sup>	-0.4	5.5	2.1	3.6	1.4	-1.0	.	-1.3	-1.1	-0.8	-1.1	.	.
Unit labour costs <sup>3)</sup>	1.3	1.0	2.7	2.6	2.6	3.5	.	-	-	-	-	-	-
Labour productivity <sup>3)</sup>	0.9	1.5	0.0	0.2	0.1	-0.6	.	-	-	-	-	-	-
Compensation per employee <sup>3)</sup>	2.3	2.6	2.7	2.7	2.7	2.9	.	-	-	-	-	-	-
Total hourly labour costs <sup>4)</sup>	2.2	3.4	3.2	2.9	3.5	3.0	.	-	-	-	-	-	-
Oil prices (EUR per barrel) <sup>5)</sup>	17.1	31.0	27.8	31.7	29.0	22.4	24.6	21.7	21.5	22.6	23.5	27.9	29.3
Commodity prices <sup>6)</sup>	-5.9	16.7	-7.6	-3.0	-10.4	-15.6	-3.3	-15.1	-12.3	-6.2	-3.7	0.0	-0.8

Sources: Eurostat, national data, International Petroleum Exchange, HWWA (Hamburg Institute of International Economics) and ECB calculations.

Note: For periods prior to 2001, HICP data do not include Greece. The other price and cost indicators include Greece for periods prior to 2001.

1) HICP inflation in April 2002 refers to Eurostat's flash estimate.

2) Excluding construction.

3) Whole economy.

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

5) Brent Blend (for one-month forward delivery).

6) Excluding energy. In euro; in ECU up to December 1998. Weighted according to extra-euro area commodity imports.



further in early April to more than €31. Although prices declined to levels of about €29 in the latter half of the month, they are still considerably higher than the levels registered at the end of 2001.

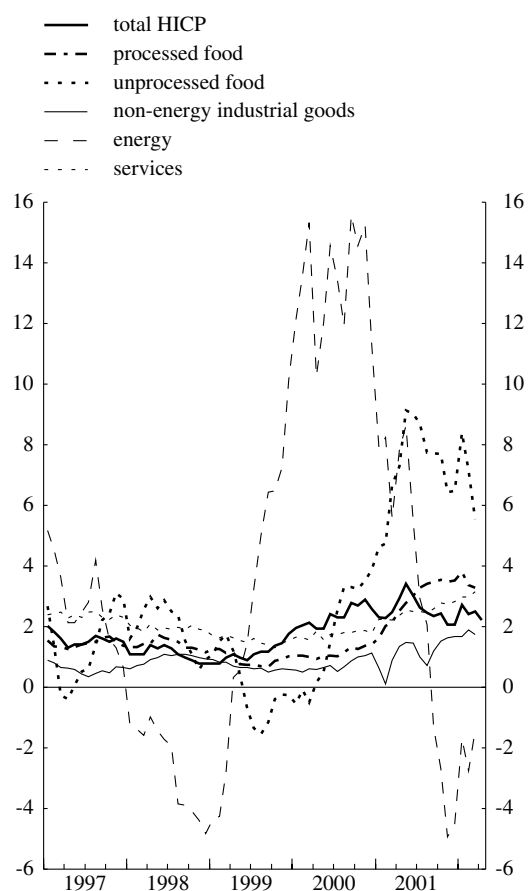
The year-on-year rate of change in unprocessed food prices fell to 5.5% in March 2002, down from 7.2% in the previous month, reflecting particularly a base effect. In addition, vegetable prices in March continued to decline, albeit to a limited extent, after the sharp increase caused by adverse weather conditions at the beginning of 2002. Meat prices also maintained their overall slightly downward path, which had begun in October

2001, probably reflecting the further unwinding of the effects of BSE and foot-and-mouth disease in 2001. The year-on-year rate of increase in processed food prices also declined slightly to 3.3% in March, down from a revised 3.4% in the previous month. Having reached a peak of 3.8% in January 2002, the latest development in the annual rate of change for this component suggests diminishing price pressures in line with expectations that the indirect effects of the above-mentioned food shocks should gradually weaken.

Services prices were 3.1% higher in March 2002 than in March 2001, representing an increase in the annual rate of change of 0.1 percentage point compared with February 2002. The latest rise continued the upward trend in the annual rate of change in services prices which has been observed since October 1999, when it stood at 1.3%. Factors contributing to this development include the indirect effects of previous import price increases, particularly oil, which led, for example, to a sharp rise in transportation services prices, administered price increases, and higher restaurant prices owing partly to previous increases in food prices. There are also indications that labour costs in the services sector may have risen somewhat over recent years. More recently, package holiday prices, which can be rather volatile, contributed to the increase on account of a change in their seasonal pattern. There may also have been some upward adjustments in specific services prices in the context of the introduction of euro banknotes and coins in January 2002, although these effects have remained limited at the aggregate level. Overall, services prices have significantly increased in recent times. However, owing to a number of different factors, partly of a special and temporary nature, these developments are currently difficult to assess conclusively. Hence, services price developments need to be monitored closely in the coming months with a view to distinguishing transitory developments from more protracted developments.

**Chart 12**  
**Breakdown of HICP inflation in the euro area by component**

(annual percentage changes; monthly data)



Source: Eurostat.  
 Note: For periods prior to 2001, HICP data do not include Greece.

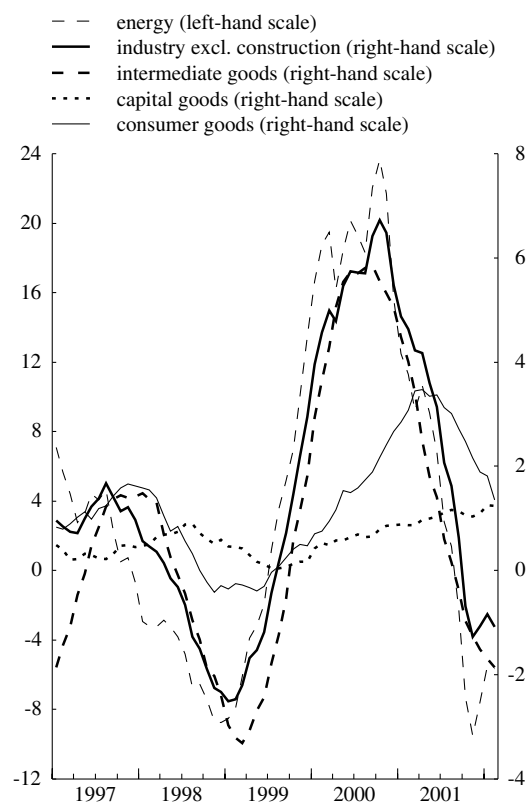
The annual rate of change in non-energy industrial goods prices has also risen since mid-2000 mainly due to the indirect effects of previous oil price increases and the depreciation of the euro. However, in March 2002, their year-on-year rate fell by 0.2 percentage point to its January 2002 level of 1.7%. This confirms the earlier assessment that the rise in this component observed in February 2002 was mainly related to statistical changes in the HICP data (inclusion of sales prices for Italy and Spain).

### Annual rate of change in industrial producer prices fell in February 2002, but may have increased in March

Euro area industrial producer prices fell by 1.1% in the year to February 2002, compared

### Chart 13 Breakdown of industrial producer prices for the euro area

(annual percentage changes; monthly data)

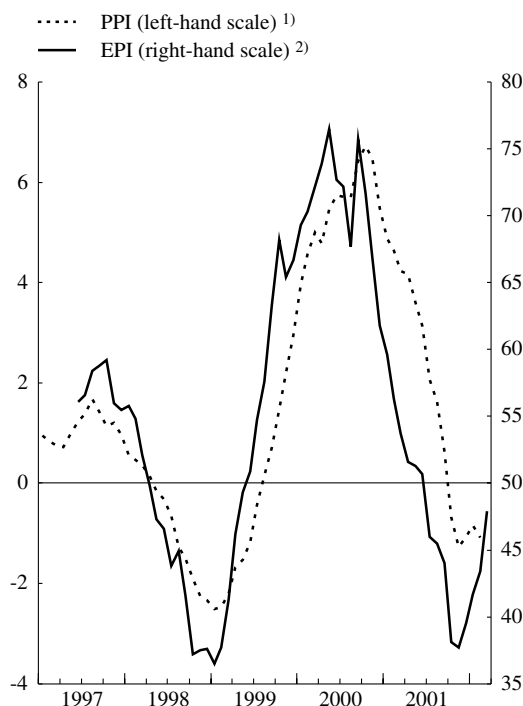


Source: Eurostat.

Note: Data refer to the Euro 12 (including periods prior to 2001).

### Chart 14 Overall producer prices and manufacturing input prices for the euro area

(monthly data)



Sources: Eurostat and Reuters.

Note: When available, data refer to the Euro 12 (including periods prior to 2001).

1) Producer Price Index; annual percentage changes; excluding construction.

2) Eurozone Price Index; manufacturing input prices from the Purchasing Managers' Survey. An index value above 50 indicates an increase in manufacturing input prices, whereas a value below 50 indicates a decrease.

with a year-on-year decline of 0.8% in January. The fall in the annual rate of change in overall producer prices was brought about by a decline in all of its sub-components, with the exception of capital goods prices (see Chart 13). As yet, no euro area data are available on industrial producer price developments for March 2002. However, owing to the recent rise in oil prices and non-oil commodity prices, it is likely that the annual rate of change in overall producer prices did not fall further, as suggested by the increase in the Eurozone Price Index from the Reuters Purchasing Managers' Survey (see Chart 14) and available information at the country level.

### **Mixed indications from latest wage developments**

Recently, Eurostat revised down, by 0.1 percentage point to 3.0%, its estimate of the annual growth rate in total hourly labour costs in the non-agricultural business sector for the fourth quarter of 2001, showing a decrease of 0.5 percentage point compared with the third quarter. By contrast, the annual rate of change in compensation per employee increased to 2.9% in the fourth quarter of 2001, up from a revised 2.7% in the third quarter. Combined with a strong decline in labour productivity reflecting weak GDP growth in the fourth quarter of 2001, this development led to a 0.9 percentage point rise in the annual rate of change in unit labour costs to 3.5% in the same period.

On average, unit labour cost growth was 2.7% in 2001, compared with 1.0% in 2000. This upward movement was driven mainly by cyclical labour productivity developments rather than by changes in compensation per employee, which averaged at 2.7% in 2001, only 0.1 percentage point above the average in the previous year. Historical labour cost data for the euro area stemming from the national accounts, such as compensation per employee and unit labour costs, have recently been revised somewhat upwards owing to revisions in two major euro area countries.

### **Short-term price dynamics remain subject to significant uncertainty**

Despite the significant rise in oil prices, inflation is expected to decline over the next few months owing mainly to strong base effects on food prices. Moreover, recent developments in the annual rate of change in the HICP excluding the more volatile items, unprocessed food and energy, suggest that the rise in this measure observed since end-1999, mainly reflecting delayed effects of earlier import and food price increases, may be coming to an end. An unwinding of these effects should lead to a gradual reduction in HICP inflation excluding volatile items in the course of 2002. However, in this context, services price developments in particular require close monitoring. Additionally, if oil prices remain at their current level, the decrease in overall inflation in the coming months is unlikely to be as pronounced as previously thought, and short-term price dynamics remain subject to significant uncertainty.

Beyond the short-term, i.e. for 2003 and 2004, moderate wage growth is crucial for the outlook for price stability. Recent information on private sector expectations for inflation in the coming years from the 2002 Q2 Survey of Professional Forecasters and other available indicators is presented in Box 4 below.

**Box 4****Private sector expectations for inflation and economic activity in the euro area: the results of the 2002 Q2 Survey of Professional Forecasters (SPF)<sup>1</sup> and other available indicators**

This box presents the available indicators of private sector expectations for euro area inflation and economic activity. A summary of the results of the 2002 Q2 SPF conducted by the ECB in the second half of April 2002 is given below. Whenever possible, the data have been presented in the context of other sources of private sector expectations for the same horizons.<sup>2</sup>

**Inflation expectations for 2002 and 2003**

SPF participants expect the annual inflation rate in the euro area to stand at 2.1% in 2002 and to decline to 1.9% in 2003 (see the table below). This implies an upward revision in inflation expectations of 0.4 percentage point for 2002 and of 0.1 percentage point for 2003 when compared with the expected inflation rates reported in the previous survey round conducted in early February. Survey participants mention higher than previously expected oil and food prices as the main factor influencing this upward revision. These results are slightly higher than the figures (1.9% and 1.8% respectively) reported by Consensus Economics in April 2002 for the same periods.<sup>3</sup> In the SPF the inflation rate expected in March 2003 and March 2004 is 1.9% in both cases.

**Results from the 2002 Q2 SPF, the 2002 Q1 SPF and Consensus Economics (April 2002)**

(annual percentage changes, unless otherwise indicated)

HICP inflation	Survey horizon				
	2002	Mar. 2003	2003	Mar. 2004	2006 <sup>2)</sup>
2002 Q2 SPF	2.1	1.9	1.9	1.9	1.9
Previous SPF (2002 Q1)	1.7	-	1.8	-	1.9
Consensus (April 2002)	1.9	-	1.8	-	1.8
Real GDP growth	2002	2002 Q4	2003	2003 Q4	2006 <sup>2)</sup>
2002 Q2 SPF	1.4	2.3	2.6	2.6	2.5
Previous SPF (2002 Q1)	1.3	-	2.5	-	2.5
Consensus (April 2002)	1.3	-	2.7	-	2.4
Unemployment rate <sup>1)</sup>	2002	Feb. 2003	2003	Feb. 2004	2006
2002 Q2 SPF	8.5	8.4	8.2	8.0	7.3
Previous SPF (2002 Q1)	8.6	-	8.4	-	7.3

1) As a percentage of the labour force.

2) Consensus forecast refers to the period from 2008 to 2012.

As explained in the March 2002 issue of the ECB's Monthly Bulletin, the SPF questionnaire also asks survey participants to assign some probability to actual outcomes falling within specific intervals. The probability distribution resulting from the aggregation of responses helps to assess how survey participants, on average, gauge the risk of the actual outcome being above or below the most likely range. Chart A shows the aggregate

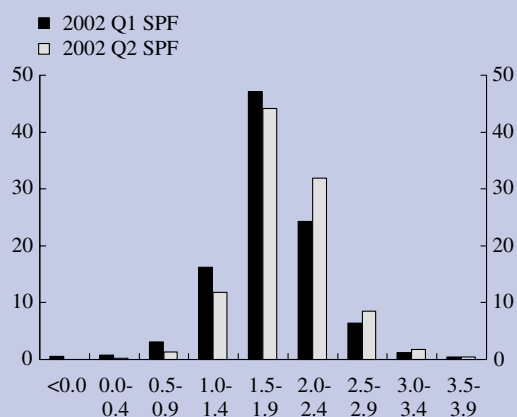
1 The survey is known as the Survey of Professional Forecasters (SPF) to reflect the fact that all of the participants are experts affiliated with financial or non-financial institutions based within the European Union. It is also important to bear in mind that, since the participants are not given a common set of assumptions on which to base their forecasts, the SPF aggregate results most likely reflect a relatively heterogeneous set of subjective views and assumptions.

2 These horizons are the calendar years 2002, 2003 and 2006. In addition, the expectations from the two additional "rolling horizons" requested in the SPF are also reported. These so-called rolling horizons are set one and two years ahead of the period for which the latest data for each particular variable are available at the time the survey is conducted. In the 2002 Q2 SPF, these rolling horizons were March 2003 and 2004 for the HICP inflation rate, the fourth quarter of 2002 and 2003 for the rate of growth in real GDP, and February 2003 and 2004 for the unemployment rate. These rolling horizons may be useful to identify dynamic patterns that are difficult to detect from averages over calendar years.

3 Consensus Economics figures refer to an aggregation of the expected annual rates of growth of the national Consumer Price Indexes (CPIs), while the SPF results refer to the HICP.

**Chart A: Probability distribution for average inflation in 2003 in the last two SPF rounds**

(percentages)

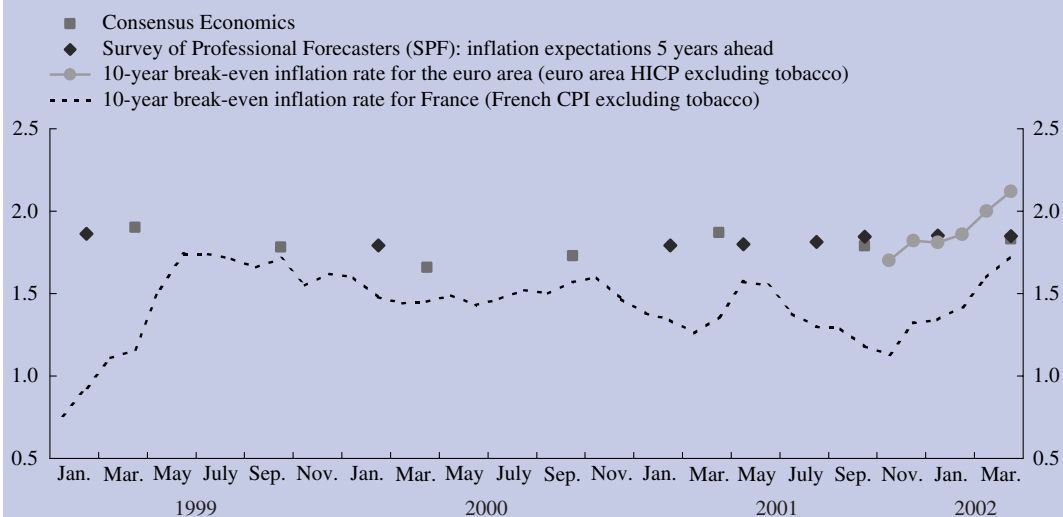


probability distributions for average HICP inflation in 2003 in the last two survey rounds. Both distributions are centred around the interval 1.5-1.9%, which accumulates more than 40% of the probability mass in both cases. The main difference is the change in the assessment of risks to inflation in 2003 between the survey rounds. In the 2002 Q1 SPF, inflation outcomes above the central range received a cumulative probability of 32%, while outcomes below 1.5% received 21%. In the 2002 Q2 SPF, however, the cumulative probability assigned to inflation outcomes above the central range of 1.5-1.9% increased to 43%. This indicates that in the latest round, survey participants feel that there is now a higher “risk” that the actual average inflation in 2003 will turn out to be above the most likely range of 1.5-1.9% than there was in February. This

change in the overall assessment of the balance of risks with regard to inflation in 2003 seems to be mostly associated with the increased uncertainty surrounding oil prices and the higher level of confidence in the strength of the recovery in economic activity in the euro area towards the end of the current year (see below) since the previous survey round.

**Chart B: Indicators of long-term inflation expectations**

(average annual percentage changes)



Sources: French Treasury, Reuters, Consensus Economics and the ECB.

Note: The 10-year break-even inflation rate for France is calculated as the difference between the yields of the French OAT maturing in April 2009 and the real yield of the French index-linked bond linked to the French CPI excluding tobacco maturing in 2009.

The 10-year break-even inflation rate for the euro area is the difference between the nominal yields of the French OAT maturing in 2012 and the real yield of the French index-linked bond linked to the euro area HICP excluding tobacco maturing in 2012.

The Consensus Economics figure refers to the estimate for the euro area average inflation based on the expectations reported for five large euro area countries for the period from 2008 to 2012 in April 2002 (see also footnote 4 in this box).

### Indicators of longer-term inflation expectations

According to the 2002 Q2 SPF, average inflation in 2006 is expected to be 1.9%, unchanged from the previous round. This level of longer-term inflation expectations is broadly consistent with other available survey measures of inflation expectations. The expectations published by Consensus Economics in April 2002 for

five euro area countries for the period from 2008 to 2012 suggest an estimate of 1.8% for long-term inflation expectations in the euro area as a whole.<sup>4</sup> Regarding indicators extracted from financial instruments, Chart B shows that the so-called ten-year break-even inflation rate extracted from French bonds linked to the euro area HICP has been edging up over recent months. However, when interpreting the levels of this measure it is important to bear in mind that break-even inflation rates are not a direct measure of market's inflation expectations. This is because a variety of risk premia, including an inflation uncertainty premium and a liquidity premium, are carried into the calculation.<sup>5</sup>

### **Expectations for euro area real GDP growth and unemployment**

SPF participants have revised upwards their expectations for the average annual growth rate of real GDP in 2002 to 1.4%, up by 0.1 percentage point compared with the previous survey round. A higher annual rate of 2.3% is expected in 2002 Q4. For 2003 Q4, a growth rate of 2.6% is expected, which is also the expected average over the year. As the main risks to growth prospects, participants mentioned uncertainty about both oil prices and the strength of the recovery in the United States. According to the April forecasts of Consensus Economics, euro area real GDP growth is expected to average 1.3% and 2.7% in 2002 and 2003 respectively. Long-term growth prospects, at 2.5% for 2006 according to the SPF and 2.4% on average for the period from 2008 to 2012 on the basis of the information published by Consensus Economics, remain in line with estimates for trend potential growth in the euro area.

According to the SPF, the euro area unemployment rate is expected to be 8.5% for 2002, reflecting the lagged effect of the slowdown in economic activity in the euro area. Thereafter, it is expected to fall, averaging 8.2% in 2003 and 7.3% in 2006. These results reflect a downward revision of the expected unemployment rate of 0.1 percentage point in 2002 and 0.2 percentage point in 2003 when compared to the previous survey round. Long-term expectations remained unchanged.

*4 The euro area figure was constructed using national figures for Germany, Spain, France, Italy and the Netherlands, which represent around 85% of the euro area aggregate.*

*5 It should be noted that the break-even inflation rate reflects the average value of inflation expectations over the maturity of the index-linked bond under consideration and is not a point estimate for a precise year (as is the case of the other two indicators of long-term inflation expectations mentioned in this box). For a thorough description of the conceptual nature of the break-even inflation rate, refer to the box entitled "Deriving long-term euro area inflation expectations from index-linked bonds issued by the French Treasury" on page 16 of the February 2002 issue of the ECB's Monthly Bulletin.*

## **3 Output, demand and labour market developments**

### **Growth estimates unchanged for the fourth quarter of last year**

Eurostat's second estimate confirmed that euro area economic activity declined in the fourth quarter of 2001. Real GDP in the euro area decreased by 0.2% quarter-on-quarter, unchanged from the previous estimate, after increasing by 0.2% quarter-on-quarter in the third quarter (see Table 3). The decline in growth in the fourth quarter of last year was due to negative contributions to real GDP growth of -0.2 percentage point from changes in inventories and fixed capital formation.

These figures were only partially offset by a positive contribution to growth from private consumption. The only significant revisions in the second estimate concerned growth in exports and imports, both of which were revised upwards. However, the contribution of net exports to growth remained unchanged at zero.

The weak growth of gross real value added in 2001 was mainly a result of slow growth in industry, against the background of relatively robust growth in the services sector. Growth in real gross value added in industry was

**Table 3**  
**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>				
	1999	2000	2001	2000	2001	2001	2001	2001	2000	2001	2001	2001	2001
				Q4	Q1	Q2	Q3	Q4	Q4	Q1	Q2	Q3	Q4
Real gross domestic product <i>of which:</i>	2.6	3.4	1.5	2.8	2.4	1.6	1.4	0.6	0.7	0.5	0.1	0.2	-0.2
Domestic demand	3.2	2.8	0.9	2.3	1.8	1.1	0.7	-0.1	0.7	-0.1	0.3	-0.2	-0.1
Private consumption	3.2	2.5	1.8	1.8	2.0	1.7	1.7	1.6	0.2	1.0	0.4	0.1	0.1
Government consumption	2.1	1.9	2.0	1.7	2.0	2.0	2.1	1.8	0.8	0.6	0.4	0.3	0.5
Gross fixed capital formation	5.5	4.4	-0.3	3.4	1.7	0.2	-1.2	-2.0	0.0	-0.3	-0.6	-0.3	-0.7
Changes in inventories <sup>3), 4)</sup>	-0.2	0.0	-0.5	0.1	-0.2	-0.3	-0.4	-1.0	0.4	-0.7	0.1	-0.2	-0.2
Net exports <sup>5)</sup>	-0.5	0.6	0.7	0.6	0.7	0.5	0.7	0.7	0.0	0.6	-0.2	0.4	0.0
Exports <sup>5)</sup>	5.3	12.2	3.4	12.1	8.4	5.4	1.7	-1.5	2.7	-0.1	-0.5	-0.4	-0.6
<i>of which goods</i>	4.9	12.5	3.2	12.3	9.1	4.7	1.7	-2.1	2.7	0.3	-1.2	-0.1	-1.1
Imports <sup>5)</sup>	7.2	10.9	1.7	11.0	6.8	4.2	-0.2	-3.5	2.9	-1.6	0.0	-1.4	-0.6
<i>of which goods</i>	6.9	11.5	1.3	12.9	7.3	4.1	-0.9	-4.6	3.1	-2.2	0.0	-1.7	-0.7
Real gross value added:													
Agriculture and fishing <sup>6)</sup>	2.2	-0.1	-0.8	-1.2	-0.8	-1.1	-0.8	-0.6	-0.6	-1.4	-0.2	1.3	-0.3
Industry	1.3	3.9	0.7	3.5	2.7	1.1	0.5	-1.3	0.5	1.0	-1.0	-0.1	-1.3
Services	3.1	3.6	2.5	3.4	3.0	2.7	2.4	1.9	0.8	0.6	0.5	0.4	0.4

Sources: Eurostat and ECB calculations.

Note: Data refer to the Euro 12 (including periods prior to 2001).

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.

6) Also includes hunting and forestry.

0.7% in 2001, less than one-fifth of the rate recorded in 2000, while growth in value added in services was 2.5%, compared with 3.6% in the previous year. Growth in real value added in the primary sector was again negative in 2001, as it had been in 2000.

### Further signs of an increase in production

The February 2002 figures for the industrial sector further support the view that production reached a trough at the turn of the year. Euro area industrial production (excluding construction) increased by 0.1% month-on-month in February 2002, after remaining unchanged in January 2002 and increasing by 0.3% in December 2001 (see Table 4). In year-on-year terms, production

in industry fell by 3.6% in February, slightly more than in the previous month. However, on a three-month moving average basis, compared with the preceding three-month period, the pattern of industrial production showed signs of recovery: in the period to February 2002, production fell by 0.6%, considerably less than in the periods to January 2002 and December 2001. In the first quarter of 2002, quarter-on-quarter growth is likely to turn positive, in line with the strong improvements in manufacturing confidence recorded over that quarter. In order to interpret these data correctly, it should be recalled that year-on-year growth rates and, to a lesser extent, three-month moving average measures tend to detect turning points with some delay. Thus, all these figures are consistent with the notion that the trough in production growth occurred

**Table 4****Industrial production in the euro area***(annual percentage changes, unless otherwise indicated)*

	2000	2001	2001	2002	2002	2001	2002	2002	2001	2001	2001	2001	2002
			Dec.	Jan.	Feb.	Dec.	Jan.	Feb.	Sep.	Oct.	Nov.	Dec.	Jan.
							month-on-month			three-month moving averages			
Total industry excluding construction by main industrial groupings:	5.5	0.2	-4.5	-3.2	-3.6	0.3	0.0	0.1	-0.3	-1.4	-1.7	-1.6	-0.6
Total indus. excl. construction and energy <sup>1)</sup>	5.7	-0.2	-6.8	-4.5	-4.2	-0.3	0.3	0.4	-0.1	-2.0	-2.6	-2.5	-1.0
Intermediate goods	5.8	-1.3	-9.4	-4.6	-3.5	-1.0	1.5	1.3	-0.4	-2.6	-3.3	-2.9	-0.7
Capital goods	8.8	1.2	-6.3	-6.1	-6.8	-0.6	-0.4	-0.7	-0.5	-1.8	-2.2	-2.6	-2.1
Consumer goods	2.4	0.1	-3.9	-1.6	-2.2	0.2	-0.5	0.7	-0.1	-1.6	-1.9	-1.8	-0.7
Durable consumer goods	5.9	-2.5	-7.6	-8.1	-7.4	1.1	-1.8	0.1	-0.8	-3.3	-2.9	-2.8	-1.1
Non-durable consumer goods	1.7	0.6	-3.1	-0.3	-1.1	0.0	-0.3	0.9	0.1	-1.3	-1.7	-1.7	-0.6
Energy	1.6	1.0	7.4	2.0	1.1	1.0	-0.5	-0.6	0.1	0.2	0.4	1.0	0.8
Manufacturing	5.9	0.1	-6.2	-4.2	-4.2	0.0	0.1	0.5	-0.3	-1.7	-2.2	-2.3	-1.0

Sources: Eurostat and ECB calculations.

Notes: Annual percentage changes are calculated 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 using seasonally and working day adjusted data. Data refer to the Euro 12 (including periods prior to 2001).

1) Manufacturing excluding the manufacture of coke and refined petroleum products, but including non-energy mining and quarrying activities.

towards the end of last year. As regards the main industrial groupings, the upturn in past months still does not appear to be broadly based. In particular, while production in the intermediate and consumer goods sectors

showed signs of an upturn, there was a further decline in the capital goods sector.

As reported in the April 2002 issue of the ECB's Monthly Bulletin, the survey indicators

**Table 5****Results from European Commission Business and Consumer Surveys for the euro area***(seasonally adjusted data)*

	1999	2000	2001	2001	2001	2001	2002	2001	2001	2001	2002	2002	2002
				Q2	Q3	Q4	Q1	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Economic sentiment index <sup>1)</sup>	-0.2	2.6	-2.8	-1.4	-1.3	-1.4	0.4	-1.0	-0.5	0.3	0.2	0.2	0.2
Consumer confidence indicator <sup>2)</sup>	7	12	6	9	3	0	1	1	-1	1	0	2	2
Industrial confidence indicator <sup>2)</sup>	0	12	-1	2	-3	-10	-6	-9	-11	-10	-7	-7	-4
Construction confidence indicator <sup>2)</sup>	14	21	15	17	13	11	9	12	10	11	8	10	9
Retail trade confidence indicator <sup>2)</sup>	0	5	-1	-1	-1	-4	-9	-4	-4	-5	-6	-10	-10
Services confidence indicator <sup>2)</sup>	3	7	-8	1	-9	-27	-19	-25	-29	-28	-22	-20	-15
Business climate indicator <sup>3)</sup>	-0.1	1.3	-0.1	0.2	-0.4	-1.2	-0.8	-1.1	-1.2	-1.2	-1.0	-0.9	-0.6
Capacity utilisation (%) <sup>4)</sup>	81.9	83.9	82.8	83.3	82.4	81.3	.	81.8	-	-	80.8	-	-

Sources: European Commission Business and Consumer Surveys and the European Commission (DG ECFIN).

Note: Data refer to the Euro 12 (including periods prior to 2001).

1) Percentage changes compared with the previous period.

2) Percentage balances; data shown are calculated as deviations from the average over the period since April 1995 for the services confidence indicator, since July 1986 for the retail trade confidence indicator, and since January 1985 for the other confidence indicators.

3) Units are defined as points of standard deviation.

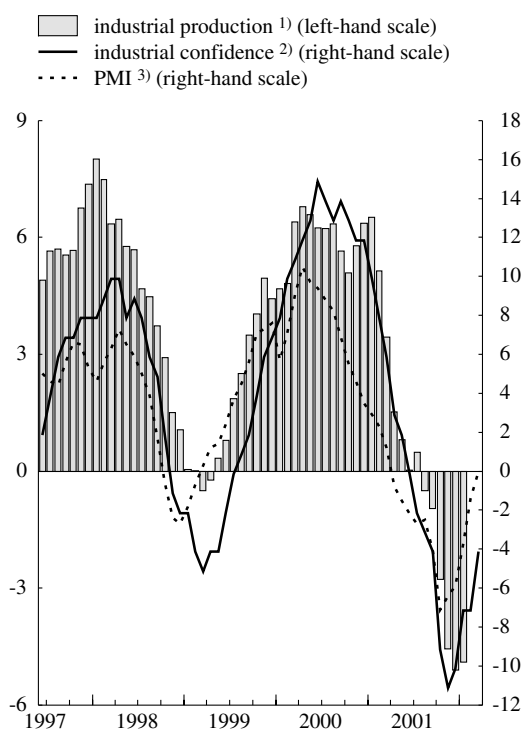
4) Data are collected in January, April, July and October of each year. The quarterly figures shown are the average of two successive surveys, i.e. the surveys conducted at the beginning of the quarter in question and at the beginning of the following quarter. Annual data are derived from quarterly averages.



available up to March suggest that a significant upturn in manufacturing confidence took place during the first quarter of 2002. According to the European Commission's Business Survey for the euro area, industrial confidence increased strongly in March after being unchanged in February 2002 and increasing in January 2002 and December 2001 (see Table 5). Overall, in the first quarter of 2002 the cumulative increase in industrial confidence was the highest since 1994, offsetting the cumulative decrease recorded in the last quarter of 2001 and bringing the index back to the level of September 2001. The Purchasing Managers'

Index (PMI) for the euro area manufacturing sector increased for the fifth consecutive month in March 2002, returning to the zero-growth level of 50 after remaining below zero for 11 consecutive months (see Chart 15). According to the European Commission services confidence indicator, confidence in the euro area services sector also improved significantly in March 2002, suggesting that a notable upturn may have taken place in the first quarter of 2002 in the output of the services sector. Available national survey data for the manufacturing sector indicate that confidence in manufacturing may have been broadly unchanged in April 2002, signalling some uncertainty for the most recent period.

**Chart 15**  
**Industrial production, industrial confidence and the PMI for the euro area**  
*(monthly data)*



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

Note: Where available, data refer to the Euro 12 (including periods prior to 2001).

- 1) Manufacturing; annual percentage changes in three-month moving averages; working day adjusted data.
- 2) Percentage balances; deviations from the average since January 1985.
- 3) Purchasing Managers' Index; deviations from the value of 50; positive deviations indicate an expansion of economic activity.

#### Evidence from private consumption indicators remains mixed

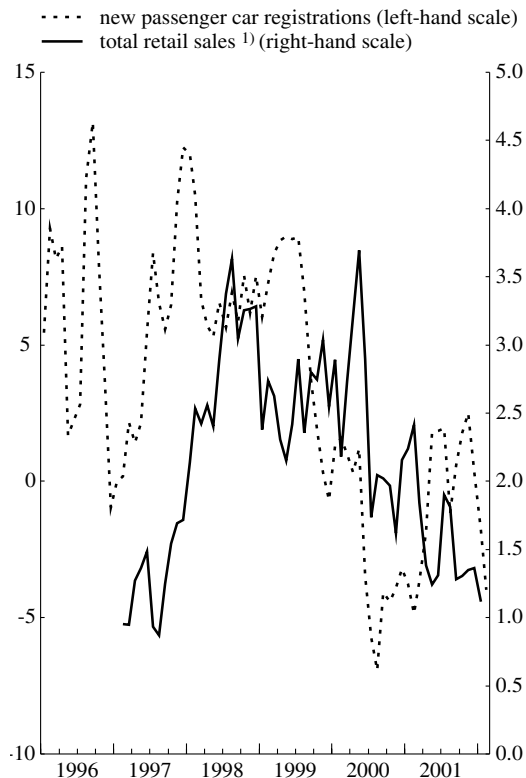
Indicators of household spending, which have a relatively higher volatility around turning points, do not yet show clear signs of a turnaround. Euro area retail sales volumes increased by 0.6% month-on-month in February 2002, after falling by 0.7% month-on-month in January (having been revised downwards significantly). New passenger car registrations decreased heavily month-on-month in March 2002, after a slight fall in February. Overall, in the first quarter of 2002, new registrations fell significantly quarter-on-quarter, by 5.3%, after increasing by 1.5% in the last quarter of 2001. The year-on-year rates of change in retail sales and passenger car registrations in early 2002 are downwards (see Chart 16).

As noted in the April 2002 issue of the ECB's Monthly Bulletin, consumer confidence was unchanged in March 2002, after falling slightly in January but increasing considerably in February. In March 2002 all components of consumer confidence remained broadly unchanged. Overall, consumer confidence increased slightly in the first quarter of 2002, offsetting the decline of the previous quarter. Available national survey data suggest that consumer confidence may have remained

## Chart 16

### New passenger car registrations and retail sales in the euro area

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



Sources: Eurostat and ACEA/A.A.A. (European Automobile Manufacturers' Association, Brussels).

Note: Data refer to the Euro 12 (including periods prior to 2001).  
 1) Calculated using seasonally adjusted data.

broadly unchanged in April 2002. Retail trade confidence, which was stable in March, fell significantly in the first quarter of 2002, following a similar decline in the last quarter of 2001.

To sum up, the latest euro area short-term macroeconomic indicators suggest that economic activity returned to a positive growth path around the turn of the year. Signs of an upturn can be detected in both manufacturing and services developments in the first quarter of 2002. However, the mixed evidence concerning indicators of private consumption as well as the future development of oil prices and remaining imbalances elsewhere in the world economy still represent sources of uncertainty as regards the strength of the ongoing recovery.

### Unemployment rate remained at 8.4% in March 2002

In March 2002, the standardised rate of unemployment for the euro area stood at 8.4% of the labour force. The rate of unemployment has thus remained unchanged since November 2001 (see Table 6). However, the number of unemployed declined in March (by around 5,000) for the first time since August 2001. In the previous three months, the number of unemployed had increased on average by 14,000 month-on-month, compared with 36,000 between September and November 2001.

In terms of breakdown by age, the unemployment rate for those under the age of 25 decreased to 16.8% in March 2002, falling for the first time since August 2001. The rate for those aged 25 and over stood at 7.3%, unchanged since December 2001. The

## Table 6

### Unemployment in the euro area

(as a percentage of the labour force; seasonally adjusted)

	1999	2000	2001	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2001 Oct.	2001 Nov.	2001 Dec.	2002 Jan.	2002 Feb.	2002 Mar.
Total	9.8	8.8	8.3	8.3	8.3	8.4	8.4	8.3	8.4	8.4	8.4	8.4	8.4
Under 25 years <sup>1)</sup>	19.2	17.3	16.6	16.5	16.5	16.7	16.8	16.7	16.7	16.8	16.8	16.9	16.8
25 years and over	8.5	7.7	7.2	7.2	7.2	7.2	7.3	7.2	7.2	7.3	7.3	7.3	7.3

Source: Eurostat.

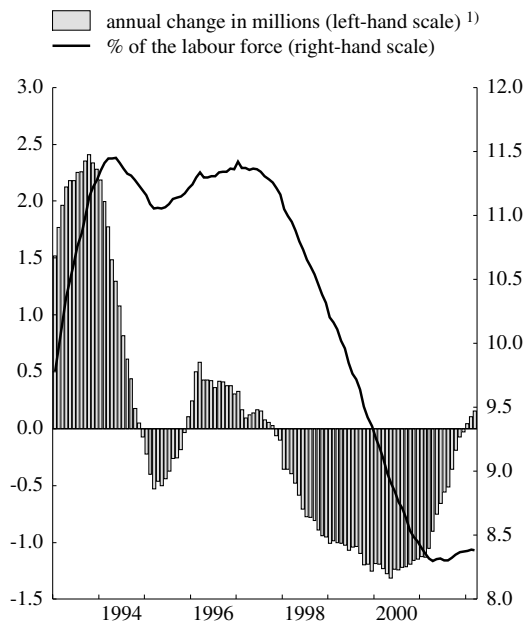
Notes: In accordance with ILO recommendations. Data refer to the Euro 12 (including periods prior to 2001).

1) In 2001 this category represented 23.6% of total unemployment.

## Chart 17

### Unemployment in the euro area

(monthly data; seasonally adjusted)



Source: Eurostat.

Note: Data refer to the Euro 12 (including periods prior to 2001).

1) Annual changes are not seasonally adjusted.

number of unemployed declined by 4,000 in the case of those under 25 and by 1,000 in the case of those aged 25 and over.

### Employment growth rose to 0.3% in the fourth quarter of 2001

Following a recent upward revision for the fourth quarter of 2001, employment growth was 0.3% quarter-on-quarter, i.e. 0.1 percentage point higher than in the second and third quarters (see Table 7). Although the annual growth rate fell further to 0.9% in the fourth quarter of 2001 compared with 2.1% in the fourth quarter of 2000, employment growth appears to have been relatively resilient compared with the decline in year-on-year GDP growth from 2.8% to 0.6% over the same period.

The stability in the quarter-on-quarter growth of total employment conceals diverging developments at the sectoral level. While quarter-on-quarter employment growth deteriorated in industry excluding construction in the fourth quarter of 2001 and was negative for the third consecutive quarter, quarterly employment growth increased markedly in both construction and finance and business sectors.

As reported in the previous issue of the ECB's Monthly Bulletin, employment developments,

## Table 7

### Employment growth in the euro area

(annual percentage changes, unless otherwise indicated; seasonally adjusted)

	1999	2000	2001	2000	2001	2001	2001	2001	2000	2001	2001	2001	2001
				Q4	Q1	Q2	Q3	Q4	Q4	Q1	Q2	Q3	Q4
	Quarterly rates <sup>1)</sup>												
Whole economy	1.7	2.1	1.3	2.1	1.9	1.4	1.1	0.9	0.5	0.3	0.2	0.2	0.3
of which:													
Agriculture and fishing <sup>2)</sup>	-3.0	-1.4	-0.9	-0.7	0.2	-0.4	-1.3	-2.0	0.1	0.3	-0.7	-1.0	-0.7
Industry	0.3	1.0	0.4	1.2	1.1	0.7	0.2	-0.2	0.4	0.1	-0.1	-0.2	-0.1
Excluding construction	-0.1	0.7	0.4	1.3	1.2	0.7	0.2	-0.4	0.4	0.1	-0.1	-0.1	-0.2
Construction	1.3	1.8	0.5	1.1	0.9	0.7	0.4	0.2	0.4	0.3	-0.1	-0.2	0.2
Services	2.6	2.8	1.8	2.8	2.3	1.8	1.7	1.5	0.6	0.2	0.4	0.4	0.5
Trade and transport <sup>3)</sup>	2.4	2.8	1.3	2.5	1.7	1.2	1.2	1.1	0.5	-0.2	0.3	0.6	0.4
Finance and business <sup>4)</sup>	5.6	6.1	3.8	5.6	5.1	4.0	3.3	3.0	1.1	0.9	0.6	0.6	0.8
Public administration <sup>5)</sup>	1.4	1.3	1.4	1.7	1.6	1.4	1.4	1.3	0.5	0.3	0.4	0.3	0.3

Sources: Eurostat and ECB calculations.

Note: Data refer to the Euro 12 (including periods prior to 2001).

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

2) Also includes hunting and forestry.

3) Also includes repairs, communication, hotels and restaurants.

4) Also includes real estate and renting services.

5) Also includes education, health and other services.

as derived from recent surveys, continued to improve slightly in manufacturing and services in March 2002. The Purchasing Managers' Survey in March indicates that employment developments in manufacturing may have improved in the first quarter of 2002. Both

the Purchasing Managers' Survey and the European Commission Business Surveys in March point to an improvement in employment in the services sector. This positive evidence from survey data is in line with recent unemployment developments.

## 4 Exchange rate and balance of payments developments

### Euro rose in April 2002

Foreign exchange markets saw a general weakening of the US dollar in April 2002 amid market concerns over the sustainability of the US economic recovery. Reflecting the relative calmness in the other major currencies, the euro remained broadly stable vis-à-vis the Japanese yen and the Swiss franc, while it appreciated against the pound sterling and the Swedish krona. In the light of these developments, on 30 April the euro was in nominal effective terms about 1.5% higher than at the end of March, and almost 1% higher than its 2001 average.

Against the US dollar, the euro appreciated throughout April and in particular in the last week of the month (see Chart 18). In April, the US currency seemed to be negatively affected by a number of high-frequency data releases casting doubt on the future strength of private consumption growth in the United States. Towards the end of the month renewed concerns over US corporate earnings, as well as downward adjustments by market participants of US interest rate expectations following the testimony of the Chairman of the Federal Reserve to the Joint Economic Committee of the US Congress, exerted further downward pressure on the US currency. On 30 April the euro was quoted at USD 0.90, more than 3% stronger than at the end of March and slightly higher than its 2001 average.

The Japanese yen appreciated slightly against the euro in the first week of April and rather more markedly vis-à-vis the US dollar, possibly reflecting some repatriation of assets

by Japanese investors (see Chart 18). From mid-April onwards, following a moderately positive assessment by the Japanese Government of the outlook for the Japanese economy, and a subsequent increase in equity valuations as measured by the Nikkei index, the Japanese yen appreciated further against the US dollar. Meanwhile, the Japanese currency fluctuated in a rather narrow range against the euro. On 30 April the euro stood at JPY 115.7, close to its level at the end of March and more than 6% above its 2001 average.

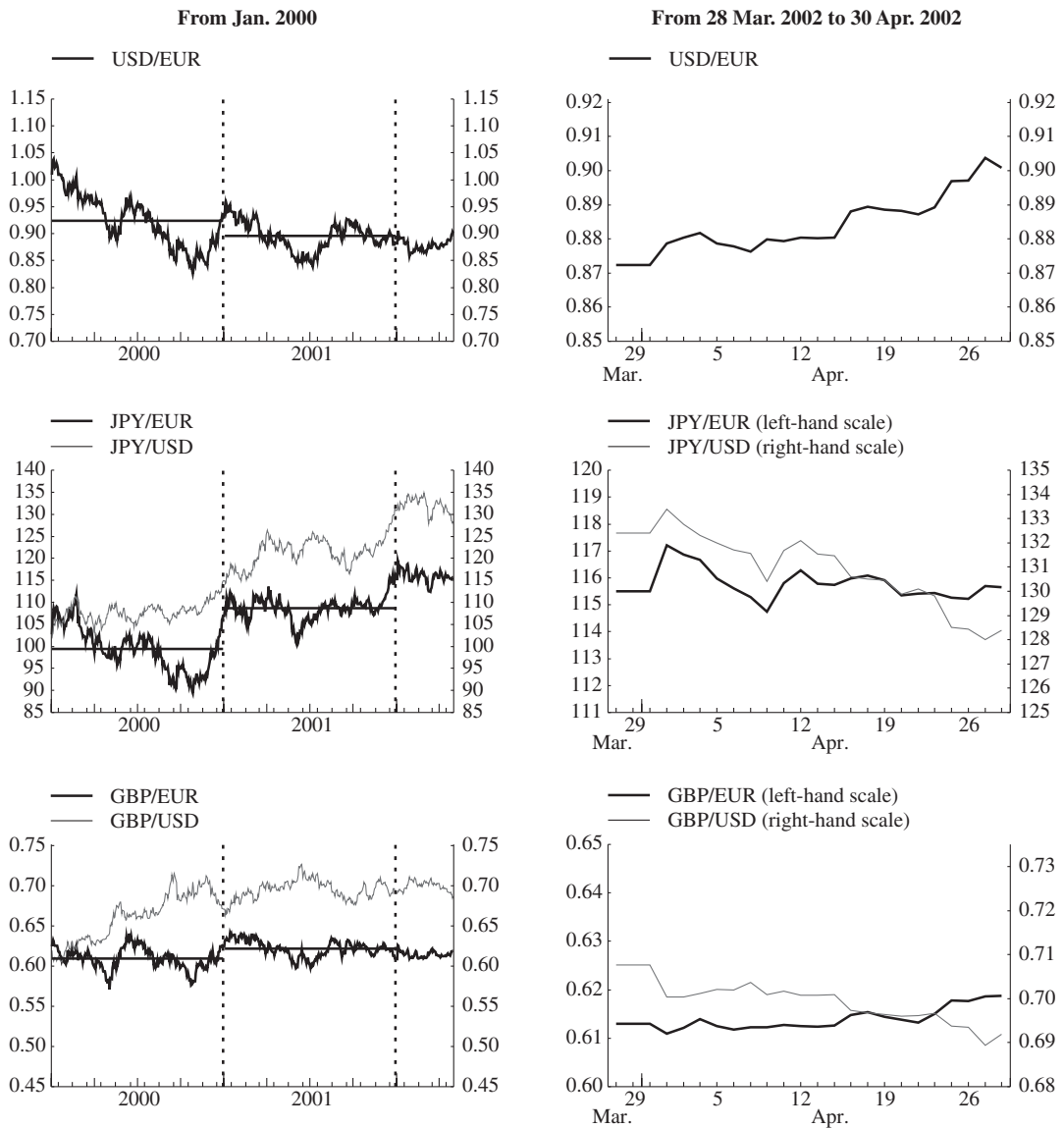
Throughout most of the period under review, the pound sterling fluctuated in a narrow range against the euro, while it also appreciated vis-à-vis the US dollar (see Chart 18). Towards the end of the month, however, the pound sterling depreciated modestly against the euro, possibly as a result of some technical trading. On 30 April the euro stood at GBP 0.62, almost 1% stronger than at the end of March and close to its 2001 average.

As far as other European currencies are concerned, the Danish krone moved close to its central parity within ERM II (see Chart 19). At the same time, the Swedish krona reversed some of its earlier gains against the euro. The Swedish currency was not markedly affected by Sveriges Riksbank's decision of 25 April to raise interest rates by 25 basis points, and on 30 April the euro traded at a level 2.5% higher than at the end of March vis-à-vis the krona. The euro remained broadly unchanged against the Swiss franc in April, while the Swiss currency also appreciated against the US dollar.

## Chart 18

### Patterns in exchange rates

(daily data)



Source: ECB.

Note: The scaling of the charts is comparable in each column. Horizontal lines show annual averages.

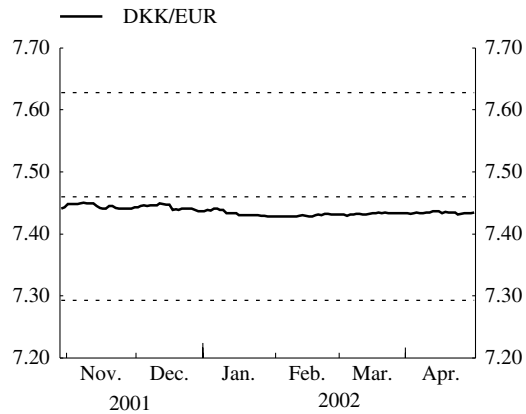
The nominal effective exchange rate of the euro, as measured against the currencies of the 12 most important trading partners of the euro area, having fluctuated in early April, increased to close the period at almost 1.5% higher than its starting level (see Chart 20). On 30 April the nominal effective exchange rate was almost 1% stronger compared with its average level in 2001 (see Chart 21). Chart 21 also illustrates the developments in

the nominal effective exchange rate indices of the US dollar and the Japanese yen as measured against 12 important trading partners of the respective economic areas. The US dollar's nominal effective index showed a further depreciation in April 2002 to a level close to its 2001 average. At the same time, the Japanese yen index appreciated slightly but remained at a clearly lower level than its average in 2001.

### Chart 19

#### Patterns of exchange rates within ERM II

(daily data)



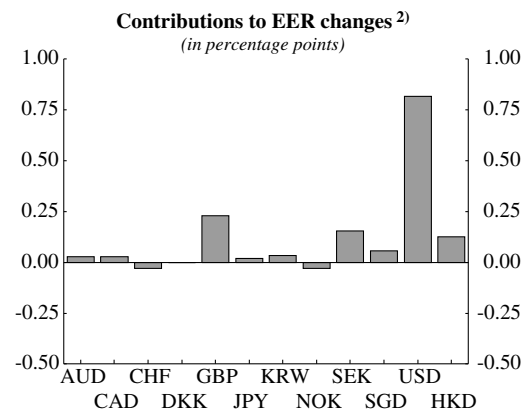
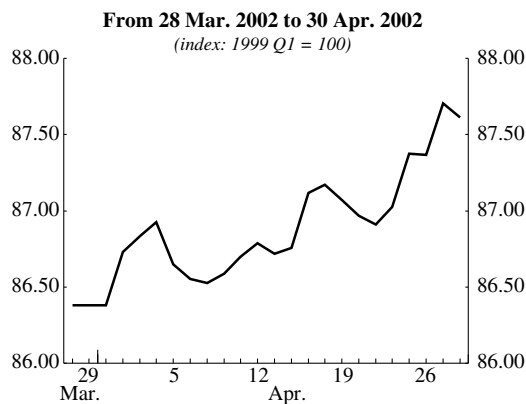
Source: ECB.

Note: The horizontal lines indicate the central parity (DKK 7.46) and the fluctuation bands ( $\pm 2.25\%$  for DKK).

### Chart 20

#### The effective euro exchange rate and its decomposition<sup>1)</sup>

(daily data)



Source: ECB.

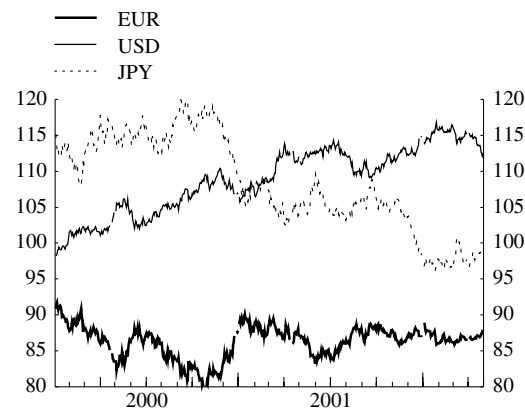
1) An upward movement of the index represents an appreciation of the effective exchange rate against 12 partner currencies.

2) Changes are calculated using trade weights against 12 major trading partners.

### Chart 21

#### Effective exchange rates of the euro, the US dollar and the Japanese yen<sup>1)</sup>

(monthly data)



Source: ECB.

1) An upward movement of the indices represents an appreciation of the effective exchange rate against 12 partner currencies.

#### Current account in surplus in February 2002

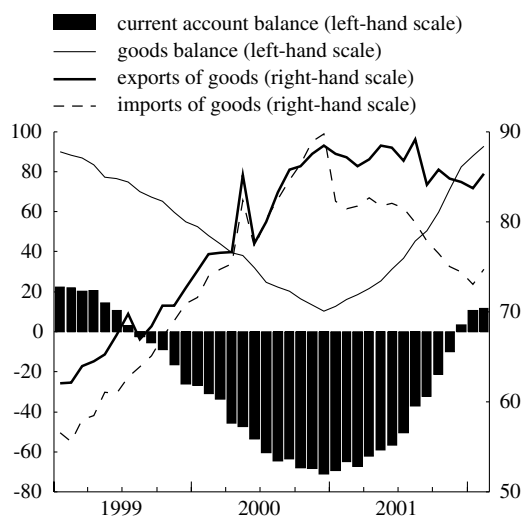
The euro area current account recorded a surplus of €2.1 billion in February 2002, compared with a surplus of €1.2 billion in February 2001. This largely resulted from an increase in the goods surplus (from €3.3 billion in February 2001 to €8.2 billion in February 2002) combined with a small decrease in the income deficit (€0.5 billion), which were only partially offset by higher deficits for both current transfers (from €0.5 billion to €3.6 billion) and services (from €1.1 billion to €2.4 billion).

The cumulative surplus for the current account in January and February 2002 stood at €0.6 billion, compared with a deficit of €9.9 billion for the corresponding period in 2001. This is explained by the goods balance turning from a deficit of €0.5 billion to a surplus of €10.3 billion, and the income deficit falling from €8.1 billion to €6.8 billion, which more than compensated for the increase in the services deficit from €3.5 billion to €5.1 billion. The current transfers surplus remained unchanged at €2.2 billion. The change in the goods balance

was due to a stronger decline in the value of imports compared with exports, partly reflecting the significant decline in the price of oil imports over this period. In the first two months of 2002, import and export values declined by 9.8% and 3.2% respectively compared with the same period of last year.

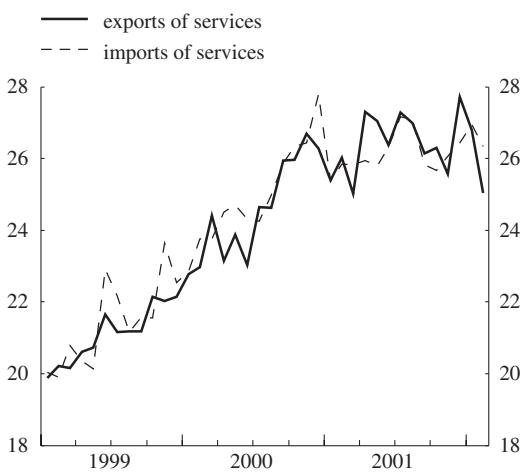
On a seasonally adjusted basis, monthly exports and imports of goods (in value terms) both rose in February 2002, for the first time since October 2001 and June 2001 respectively (see Chart 22). Although the increase in the value of imports might partly reflect the marginal rise in the oil price in February, the rising value of exports seems consistent with the early signs of a recovery, or at least a stabilisation, in foreign demand. However, one month's data should be treated cautiously and it is still too early to draw any firm conclusions. By contrast, the seasonally adjusted value of both exports and imports of services fell in February 2002 (see Chart 23).

**Chart 22**  
**The euro area current account balance, the goods balance and exports and imports of goods**  
*(EUR billions, seasonally adjusted)*



Source: ECB.  
 Note: Data refer to the Euro 12. Balances are cumulated over 12 months; exports and imports of goods are monthly values.

**Chart 23**  
**Euro area exports and imports of services**  
*(EUR billions, seasonally adjusted)*



Source: ECB.

Chart 24 shows that the decline in the value of exports and imports of goods over the course of last year also corresponds with the fall in extra-euro area import and export volumes (the latest volume data are only available up to the end of 2001). The drop in import-intensive categories of euro area expenditure – such as investment and stockbuilding – would appear to partly explain the significant falls in extra-euro area import volumes towards the end of last year, while developments in export volumes primarily reflected the continued slowdown in foreign demand. Meanwhile, despite the deceleration in euro area domestic demand last year, intra-euro area export volumes seem to have fared marginally better than extra-euro area export volumes during the second half of 2001.

**Net outflows in direct and portfolio investment in February 2002**

The euro area recorded a net outflow of €19.8 billion in combined direct and portfolio investment in February 2002, reflecting net outflows of €9.9 billion for both direct and portfolio investment (see Table 8).

**Table 8****Balance of payments of the euro area***(EUR billions; not seasonally adjusted)*

	2001 Jan. - Feb.	2001 Feb.	2002 Jan. - Feb.	2001 Dec.	2002 Jan.	2002 Feb.
<b>Current account balance</b>	-9.9	1.2	0.6	4.4	-1.5	2.1
Credits	275.5	135.1	266.0	145.6	137.7	128.3
Debits	285.4	133.9	265.4	141.3	139.2	126.2
Goods balance	-0.5	3.3	10.3	12.0	2.1	8.2
Exports	162.1	82.3	156.9	82.0	76.3	80.6
Imports	162.6	78.9	146.6	70.0	74.2	72.4
Services balance	-3.5	-1.1	-5.1	0.1	-2.7	-2.4
Exports	44.8	22.4	45.2	28.0	23.6	21.6
Imports	48.3	23.5	50.3	27.9	26.3	24.0
Income balance	-8.1	-0.6	-6.8	-1.5	-6.7	-0.1
Current transfers balance	2.2	-0.5	2.2	-6.2	5.8	-3.6
<b>Capital account balance</b>	2.8	1.5	2.8	0.6	2.5	0.2
<b>Financial account balance</b>	10.0	7.7	-31.8	4.0	-37.6	5.8
Direct investment	-7.4	2.4	-5.6	2.0	4.3	-9.9
Abroad	-32.3	-15.0	-24.8	-22.0	-4.8	-20.0
Equity capital and reinvested earnings	-13.4	-1.9	-11.2	-10.0	-6.3	-4.9
Other capital, mostly inter-company loans	-18.9	-13.1	-13.6	-12.1	1.5	-15.1
In the euro area	24.9	17.4	19.3	24.0	9.2	10.1
Equity capital and reinvested earnings	20.4	15.3	9.7	14.6	6.5	3.1
Other capital, mostly inter-company loans	4.5	2.1	9.6	9.4	2.6	6.9
Portfolio investment	-45.1	-2.3	-51.2	-15.4	-41.3	-9.9
Equities	-21.2	-0.1	-4.5	6.3	-5.2	0.7
Assets	-33.4	-12.6	-20.2	-6.3	-14.0	-6.1
Liabilities	12.1	12.5	15.7	12.5	8.9	6.8
Debt instruments	-23.9	-2.2	-46.7	-21.7	-36.1	-10.5
Assets	-32.8	-16.6	-20.1	-4.4	-15.0	-5.1
Liabilities	8.9	14.4	-26.6	-17.2	-21.2	-5.4
Memo item:						
Combined net direct and portfolio investment	-52.6	0.2	-56.7	-13.4	-36.9	-19.8
Financial derivatives	-5.3	-0.7	1.9	-1.6	0.6	1.3
Other investment	61.0	3.8	25.7	13.1	4.0	21.7
Reserve assets	6.8	4.5	-2.8	5.9	-5.3	2.5
<b>Errors and omissions</b>	-2.9	-10.4	28.4	-9.0	36.5	-8.1

Source: ECB.

Notes: Figures may not add up due to rounding. For the financial account, a positive sign indicates an inflow, a negative sign an outflow; for reserve assets, a negative sign indicates an increase, a positive sign a decrease. Revisions to data for third and fourth quarters of 2001 are reported in the February 2002 Balance of Payments press release. A detailed set of tables on Euro 12 balance of payments data can be found on the ECB's website.

One of the more salient features of the euro area financial accounts in February was a net outflow in direct investment for the first time in five months. However, these net outflows are primarily explained by “other capital, mostly inter-company loans” abroad, which posted a net outflow of €15.1 billion. The “other capital, mostly inter-company loans”

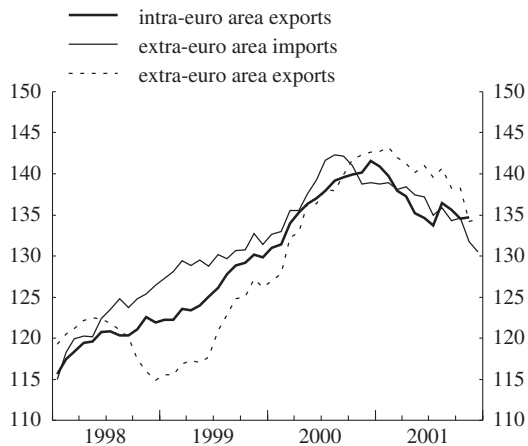
category usually reflects one-off transactions and has shown a significant degree of volatility in the past. By contrast, direct investment by non-euro area residents recorded a net inflow for both equity capital (€3.1 billion) and “other capital, mostly inter-company loans” (€6.9 billion).



## Chart 24

### Intra-euro area and extra-euro area trade volumes<sup>1)</sup>

(1995 = 100; seasonally adjusted; three-month moving average)



Sources: Eurostat and ECB calculations based on Eurostat data.

1) All data refer to the Euro 12 (estimated using Euro 11 unit value indices); latest extra-euro area observations are for December 2001; latest intra-euro area observations are for November 2001.

Where portfolio investment is concerned, most developments in February 2002 were in line with those of previous months. The net outflows in portfolio investment

stemmed from net outflows in debt instruments (€10.5 billion), whereas equity portfolio investment was nearly balanced. Net outflows in money market instruments of €9.6 billion accounted for most of the net outflows in debt instruments in February 2002. By contrast, net flows in bonds and notes were close to balance, with only a small net outflow of €1.0 billion being recorded. One noteworthy feature in portfolio investment in February 2002 was the small disinvestment in foreign bonds and notes by euro area residents. This category registered a net inflow for only the second time since the beginning of 2001.

Net outflows in combined direct and portfolio investment for the first two months of 2002 (€56.7 billion) were broadly on a par with the figures for the corresponding period in 2001 (€52.6 billion). Net outflows in portfolio investment (€51.2 billion) – partly relating to disinvestment in euro area debt instruments, since net outflows in equities remained limited – largely explain the financial account developments in January and February 2002.

# The liquidity management of the ECB

*The ECB's liquidity management, i.e. its allotment decisions in open market operations, plays the central role in the implementation of monetary policy in the euro area. Focusing on both the demand for and the supply of liquidity, this article describes the liquidity management of the ECB in the first three years of the euro. In the operational framework of the Eurosystem, the weekly main refinancing operations are the main instrument in liquidity management. The article explains how the ECB estimates credit institutions' liquidity needs and how they constitute a baseline in the ECB's allotment decisions in the main refinancing operations. The article suggests that, overall, the liquidity management of the ECB has facilitated a smooth supply of liquidity and generally managed to keep the short-term money market rates close to the rate of the main refinancing operations.*

## I Introduction

Central bank liquidity management comprises assessing the liquidity needs of the banking system and supplying or absorbing the appropriate amount of liquidity through open market operations. In the case of the euro area, credit institutions' liquidity needs mainly arise from two factors. First, the ECB imposes minimum reserve requirements on euro area credit institutions. Second, liquidity needs are created by what are known as autonomous factors, e.g. banknotes in circulation and government balances at central banks.

To place the liquidity management of the ECB in the broader context of monetary policy implementation, it is useful to distinguish the monetary policy strategy from the operational framework. The former describes how the relevant information on the economy is organised to provide a foundation for monetary policy decisions, the outcome of which is a certain level of short-term interest rates that is considered adequate in terms of the ECB's final objective of achieving price stability. The operational framework, by contrast, contains the set of instruments and procedures with which the Eurosystem implements these policy decisions in practice, i.e. with which it steers the short-term market interest rates. Specifically, the desired level of interest rates is signalled to the financial markets through the rates of the main refinancing operations (MROs) and the

standing facilities. So far, the former has been either the minimum bid rate of variable rate tenders or the rate applied to fixed rate tenders. However, setting those rates is not, by itself, sufficient to effectively bring the short-term market interest rates into line with the MRO rate. Indeed, this must also be ensured by the liquidity management of the ECB, through its allotments of MROs and other open market operations.

While previous articles and boxes of the Monthly Bulletin presented some general characteristics of liquidity management and its role in the operational framework of the Eurosystem,<sup>1</sup> the present article goes further in detail and comprehensiveness. In particular, it explains the factors that affect the liquidity needs of the banking system and how a benchmark allotment – an important element in the allotment decision – is derived from those liquidity needs.

<sup>1</sup> See the following articles which have appeared in the ECB's Monthly Bulletin: "The role of the operational framework of the Eurosystem: description and first assessment" (May 1999), "The switch to variable rate tenders in the main refinancing operations" (July 2000) and the box entitled "Autonomous liquidity factors in the euro area and the use of the forecasts of liquidity needs provided by the ECB" in the July 2001 issue. In addition, further information about the operational framework can be found in "The single monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures" (the "General Documentation"), April 2002, and in the book entitled "The monetary policy of the ECB", 2001.

## 2 Overview of the demand for and the supply of liquidity

The demand for and the supply of liquidity and, more generally, the interaction between the Eurosystem's monetary policy operations and the euro area credit institutions, can be illustrated by the consolidated balance sheet of the Eurosystem, which is published on a weekly basis. In the simplified version of the balance sheet presented in Table I, which constitutes the basis of the subsequent analysis, the ultimate liquidity available to credit institutions is displayed under "Current account holdings – covering the minimum reserve system (L2.1)". The other items can be classified in two broad categories, namely autonomous factors and monetary policy instruments. The "Net foreign assets (A1+A2+A3-L7-L8-L9)" on the asset side, and "Banknotes in circulation (L1)", "Government deposits (L5.1)" and "Other autonomous factors (net)" (a generic term for miscellaneous items) on the liability side, belong to the former category. They are called autonomous factors because they are normally outside the control of the ECB. This is because they are determined either by the behaviour of the public, as in the case of banknotes in circulation, or by institutional arrangements that are not under the control of the liquidity management of the ECB, as in the case of government balances in the accounts of some central banks. By contrast, the remaining

items in the balance sheet (A5.1, A5.2, A5.5, and L2.2) reflect monetary policy instruments.

Taking the current account holdings as a balancing item, an increase in any item on the asset side of the balance sheet is "liquidity providing", meaning that, ceteris paribus, it adds to the liquidity which is available to the banking system. An increase in any liability item other than L2.1, by contrast, leads to an absorption of liquidity from the banking system. The fact that the sum of the autonomous factors is larger on the liability side than on the asset side of the Eurosystem's balance sheet, implies that there is a liquidity deficit of the banking system vis-à-vis the Eurosystem. This means that there is a demand, or a need, for liquidity in the banking system which the ECB has to satisfy via its monetary policy instruments. In the first three years of the euro, the net autonomous factors have accounted for, on average, 45.0% of the overall liquidity needs of the banking system (see Chart 1).

The second major component of the liquidity needs are the minimum reserve requirements imposed on credit institutions by the Eurosystem. It is mainly because of this obligation that the credit institutions' current account holdings with the Eurosystem are

**Table I**

### Simplified balance sheet of the Eurosystem (1 March 2002)

(EUR billions; references to the corresponding items in the Eurosystem's weekly financial statement are provided in brackets)

Assets		Liabilities	
<b>Autonomous liquidity factors</b>		<b>Autonomous liquidity factors</b>	
Net foreign assets (A1+A2+A3-L7-L8-L9)	387.1	Banknotes in circulation (L1)	285.8
		Government deposits (L5.1)	57.2
		Other autonomous factors (net)	92.1
			435.1
		<b>Current account holdings</b> – covering the minimum reserve system (L2.1)	134.9
<b>Monetary policy instruments</b>		<b>Monetary policy instruments</b>	
Main refinancing operations (A5.1)	123.0		
Longer-term refinancing operations (A5.2)	60.0		
Marginal Lending facility (A5.5)	0.0	Deposit facility (L2.2)	0.1
	<b>570.1</b>		<b>570.1</b>

relatively high. The minimum reserves, which amount to 2% of certain short-term liability items of the balance sheets of the credit institutions, have accounted for, on average, 54.3% of their liquidity needs.

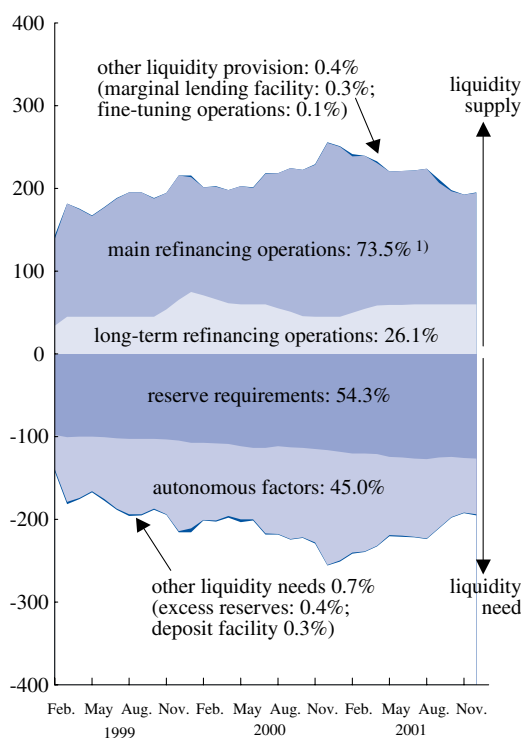
Finally, a very small, though at the margin still important, part of the current account holdings does not contribute to the fulfilment of the reserve requirements and is called excess reserves.<sup>2</sup> These are current account holdings of credit institutions which have already fulfilled their reserve requirements or which do not have to fulfil such requirements because they are so small that they fall under the lump-sum allowance of €100,000. Contrary to the required reserves, excess reserves are not remunerated. They accounted for around 0.4% of total liquidity needs in the first three years of the euro.

To satisfy the liquidity needs arising from the three sources described above, the Eurosystem provides liquidity to the banking system on a regular basis. The bulk of credit institutions' liquidity needs, on average 73.5%, has been met through the regular main refinancing operations (MROs), i.e. item A5.1 in the balance sheet. These operations play the main role in steering short-term interest rates, managing the liquidity situation in the market and signalling the stance of monetary policy. They are liquidity-providing, reverse operations with a maturity of two weeks, and they are executed once a week through a tender procedure. The monetary policy stance of the Eurosystem is currently signalled through the minimum bid rate set for these tenders. Before the introduction of the variable rate tender in June 2000, the signalling role was performed by the rate applied to the fixed rate tenders.

Another regular source of refinancing is to be found in the longer-term refinancing operations (LTROs), item A5.2, which are conducted once a month and have a maturity of three months. However, the intended size of LTROs is fixed in advance by the Governing Council of the ECB, and therefore these operations do not play an active role in

**Chart 1**  
**The main liquidity components of the Eurosystem balance sheet**

(averages per maintenance period in EUR billions)



Source: ECB.

1) Includes the tender split operations conducted in May 2001 and December 2001.

the ECB's liquidity management. Currently, the aim is that the LTROs would satisfy around a quarter of credit institutions' liquidity needs, which, indeed, is close to their actual share of 26.1% in the period from 1999 to 2001. In addition, around 0.1% of the liquidity needs have been met through fine-tuning operations. These have mainly been related to exceptional events such as the millennium changeover and the terrorist attacks on 11 September 2001.

Finally, the residual liquidity imbalances of the banking system can be absorbed through

2 In the case of some central banks outside the Eurosystem, "excess reserves" refers to all central bank deposits which banks may hold in excess of the required reserves. However, in the operational framework of the Eurosystem, a major part of such deposits is placed in the deposit facility which some other central banks do not have. Therefore, it is important to note that here "excess reserves" has a much narrower meaning than in the case of some other central banks.

recourse to either of the two standing facilities, the marginal lending facility and the deposit facility (A5.5 and L2.2, respectively). These can be accessed by counterparties as they deem necessary on each TARGET operating day in order to obtain funds against adequate collateral (through the marginal lending facility) or to deposit funds (on the deposit facility), both with an overnight maturity. The standing facilities also signal the stance of monetary policy by setting an

upper and a lower limit, or “corridor”, for the movements of the overnight rate. This corridor has been symmetric around the MRO rate since 9 April 1999. On average, only around 0.3% of the liquidity supplied by the ECB has been placed on the deposit facility and an equivalent amount of the total liquidity needs has been satisfied via the marginal lending facility. Consequently the net provision of liquidity through the standing facilities has, on average, been zero.

### 3 The liquidity needs of the euro area credit institutions

In order to adequately adjust the liquidity supply to the liquidity needs via the weekly MROs, the ECB needs accurate forecasts of the future development of the autonomous factors as well as of the average size of the reserve requirements and the excess reserves. This section presents some further features of these three categories of liquidity needs.

#### Autonomous factors

The short-term developments of the autonomous factors constitute by far the largest source of uncertainty about the liquidity needs of the euro area. In order to alleviate the impact this has on counterparties' bidding behaviour, the ECB publishes, each time an MRO is announced, a forecast of the average autonomous factors up to the day preceding the settlement of the subsequent MRO. Internally, the Eurosystem produces separate forecasts for all the main autonomous factors: the national central banks transmit forecasts of the development of their respective national autonomous factors to the ECB on a daily basis, which then integrates them into an aggregated euro area liquidity forecast. Chart 2 summarises, over three different time horizons – namely the same day, five and ten business days ahead – information on the quality of the Eurosystem's daily forecasts of autonomous factors. It shows the average absolute values of the actual changes and the forecast errors for both the total sum of autonomous factors and

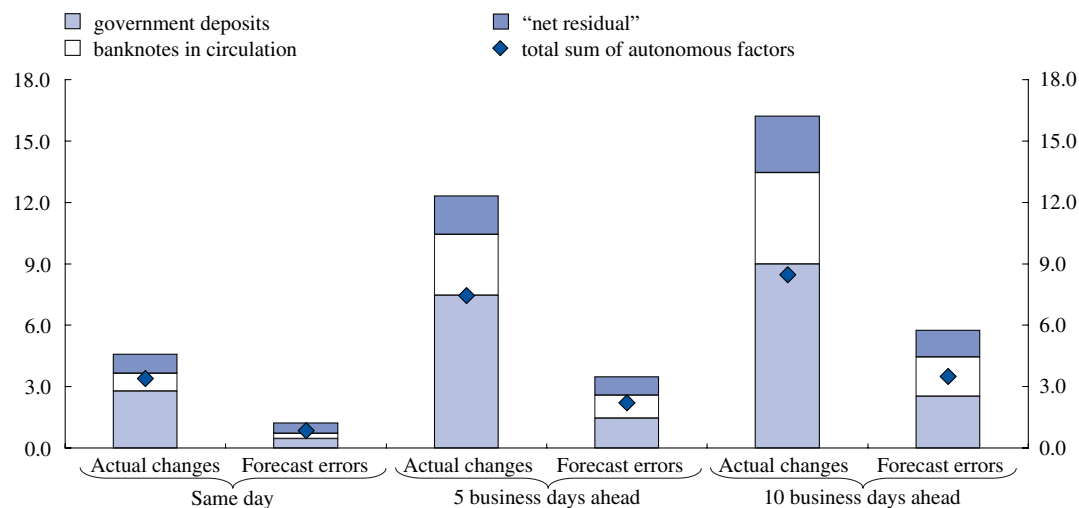
three individual factors, namely government deposits, banknotes in circulation and the “net residual”, which is defined as other autonomous factors minus net foreign assets (see Table I). The average change and the average forecast error of the sum of the autonomous factors are less than the sum of the averages for the individual factors because of netting, i.e. positive changes in one factor can be offset by negative changes in another.

As will be explained in further detail in the next section, the horizons of up to five business days ahead are normally the most relevant for the ECB's allotment decisions. For the period from January to November 2001, the average forecast error of the sum of all autonomous factors, over the horizons of same day and five business days, amounts to around €0.8 billion and €2.2 billion respectively. This means that the errors account for up to 25% and 30% respectively of the average actual changes of the autonomous factors, which are €3.4 billion and €7.5 billion respectively. The ability of the Eurosystem to forecast more than 70% of the variability of the total autonomous factors over shorter horizons mainly stems from its privileged information about its own financial transactions and, more importantly, about the financial transactions of the public sector. Especially in Italy, but also in France, Greece and Spain, these transactions affect the government deposits, which, also when aggregated at the Eurosystem level, are by far the most volatile autonomous factor (see Chart 2). Even

## Chart 2

### The average actual changes and the Eurosystem's average forecast errors of individual and total autonomous factors from January 2001 to November 2001

(averages in EUR billions)



Source: ECB.

though the national central banks can forecast correctly around 80% of the changes in government deposits over the short-term horizons, government deposits are still the most important source of forecast errors. In addition, the forecast errors of banknotes in circulation were unusually high in the second half of 2001 and, in particular, at the beginning of 2002 because of the cash changeover.

#### Reserve requirements

The size of the reserve requirements can be estimated with high precision at the start of each maintenance period. The reserve base used to calculate the reserve requirements is given by the ECB's money and banking statistics (which are also used to calculate M3). The first estimate of the reserve requirements is normally published a few days after the start of each maintenance period, immediately after the publication of M3.

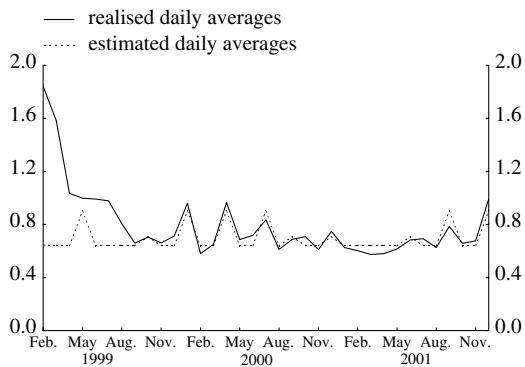
The minimum reserve system of the Eurosystem, which has a monthly averaging provision, primarily pursues the aims of

stabilising money market interest rates and enlarging the structural liquidity shortage of the banking system. In particular, the averaging mechanism means that counterparties' minimum reserve holdings are calculated as an average over the whole one-month maintenance period, instead of on each individual day. Due to the sufficiently high level of reserve requirements in the euro area, this has implied that temporary liquidity shocks arising from autonomous factors have not normally led to significant changes in the overnight rate. In other words, counterparties have, in the aggregate, been willing in most cases to compensate for higher (lower) current account holdings on a particular day with correspondingly lower (higher) holdings on subsequent days, without requiring noteworthy premiums which could have affected the overnight rate. Therefore, only on those days when market participants expected an accumulated liquidity imbalance, i.e. a mismatch between the liquidity supply and liquidity needs over the whole maintenance period, has there been a notable impact on the overnight rate. Especially after the last MRO of the maintenance period, but also after an

### Chart 3

#### The average daily excess reserves per maintenance period

(daily averages per maintenance period in EUR billions)



occurrence of underbidding earlier in the same maintenance period,<sup>3</sup> expectations, and ultimately realisations, of such accumulated liquidity imbalances seem to have generally caused significant movements in the overnight rate.

#### Excess reserves

Since excess reserves, i.e. reserves held in excess of reserve requirements, are not remunerated and since they could, in principle, be transferred to the remunerated deposit facility or preferably even lent out in the overnight interbank market, they represent a cost for credit institutions. This should, however, be seen as balancing some of the benefits for credit institutions, which mainly consist of avoiding various transaction

costs. These include both the direct costs incurred by credit institutions in accessing the overnight market or the deposit facility, as well in obtaining sufficiently precise information on their liquidity position at the end of the day. Uncertainty, for instance, regarding late payments implies a cost of “staying late in the office” to make sure that all funds held in current accounts with the Eurosystem in excess of the required reserves are actually transferred to the deposit facility. Furthermore, especially at the end of the maintenance period, excess reserves can also be seen as buffers against risks of unforeseen non-compliance with the minimum reserve obligations.

Excess reserves tend to be higher when the maintenance period ends on a weekend, probably in connection with the transaction costs mentioned above. The dotted line in Chart 3 shows estimates of average daily excess reserves per maintenance period obtained on the basis of the following assumption: average daily excess reserves amount to €640 million when the maintenance period ends on a weekday, €710 million when it ends on a Saturday and €900 million when it ends on a Sunday. Although excess reserves were somewhat higher at the beginning of 1999, as counterparties needed to build up experience with the minimum reserve system, Chart 3 shows that this very simple forecasting approach appears to have resulted in reasonable estimates.

## 4 The supply of liquidity

The assessment of the liquidity needs of the banking system described in the previous section is a key element for the liquidity allotments in the open market operations of the Eurosystem. Specifically, by making some further assumptions, described below, regarding the allocation of liquidity needs to each of the MROs within a maintenance period, a so-called benchmark allotment can be calculated on the basis of these liquidity needs. This benchmark constitutes a baseline

for the ECB when making its actual allotment decisions. However, the ECB may sometimes also have to consider other elements, such as counterparties’ bidding behaviour in the MROs and the divergence of the short-term money market interest rates from the MRO

<sup>3</sup> The term underbidding refers to MROs in which the Eurosystem did not receive sufficient bids in order to allot the benchmark allotment, which is defined in Section 4. Conversely overbidding refers to those MROs where disproportionately large bids were submitted.

rate, as well as some exceptional factors creating very high uncertainty about liquidity forecasts, such as the transition to the new millennium, the cash changeover, etc.

In the benchmark allotment, the liquidity needs arising from autonomous factors and minimum reserve requirements are taken into account, so that reserve requirements are fulfilled, on aggregate, smoothly (i.e. proportionally over time) over the maintenance period. Although other approaches could also be considered, a smooth fulfilment of reserve requirements is attractive since it normally enhances the buffer function of reserve holdings against unexpected liquidity shocks. Indeed, if some counterparties' reserve holdings were to be too low on some days, they might be insufficient to serve as a buffer against unforeseen payments, possibly occurring too late to be offset in the money markets. Furthermore, risk-averse credit institutions may themselves have a preference for spreading reserve holdings evenly across the whole reserve maintenance period, in order to minimise the liquidity and interest rate risks involved. Finally, in most cases, a smooth fulfilment fully exploits the ability of each MRO in a given maintenance period to supply liquidity.

On any given day during the maintenance period, liquidity needs also depend on whether or not the fulfilment of the reserve requirements during the preceding days of the period has been entirely smooth. For instance, some excess or deficient liquidity can accumulate on account of errors in forecasts of autonomous factors and, in particular, in the first few days of a maintenance period before the first MRO is settled, because the liquidity needs on these days are usually not taken into account in the previous allotment decision (see below). In general, when calculating the benchmark allotment, the ECB takes into account the liquidity imbalance that has accumulated since the beginning of the relevant maintenance period in order to return to a smooth fulfilment of reserve requirements.

Liquidity needs arising from excess reserves likewise cannot be easily attributed to one or the other day within the reserve maintenance period. To the extent to which excess reserves reflect liquidity buffers held by counterparties on top of their reserve obligations on each day of the reserve maintenance period, the implied liquidity needs would be constant throughout the maintenance period. However, insofar as excess reserves are caused by counterparties who have already fulfilled their reserve requirements, they only give rise to significant liquidity needs in the last few days of the maintenance period, when the likelihood of actually having fulfilled the reserve requirements increases. For the sake of simplicity, the ECB has thus far based its calculation of the benchmark allotment on the assumption that excess reserves are built up smoothly over the reserve maintenance period.

Finally, the time period over which liquidity needs are calculated when deciding on the allotment amount generally extends to the day before the settlement of the subsequent MRO, when the ECB has the next opportunity to change the liquidity supply via the regular open market operations. However, in the last MRO of a maintenance period, when this horizon usually ranges into the next maintenance period, only the days remaining until the end of the current maintenance period are counted.

The annex provides a detailed formula on how to calculate the benchmark allotments, shown in Chart 4, on the basis of the key liquidity figures, made available by the ECB via wire services. These include the forecast of the aggregated reserve requirements of the banking system and of the average of the autonomous factors. For the period before the introduction of the variable rate tender in June 2000, when the ECB did not publish an autonomous factors forecast, the benchmark allotments in Chart 4 have been calculated against the ECB's internal forecasts. The only piece of information which is not provided by the ECB but which is needed to



calculate the benchmark allotment is an estimate of the excess reserves and, in the first few days of the maintenance period, the reserve requirements. The former, however, can be estimated with a satisfactory degree of precision via the model presented in Section 3, while the level from the previous maintenance period normally constitutes a fairly good estimate for the reserve requirements (Chart 1 illustrates the rather stable evolution of the required reserves).

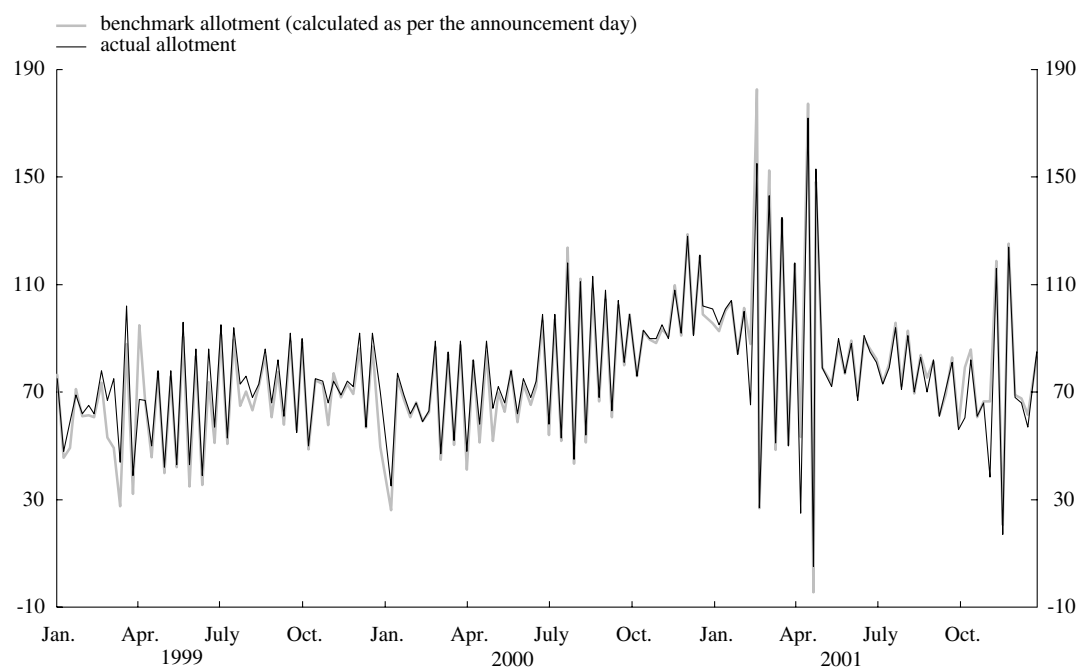
Chart 4 indicates that the actual allotment amounts have generally been rather close to the benchmark. However, Chart 5 shows that, on some occasions, important deviations have taken place. Disregarding the first two maintenance periods after the launch of the euro, the largest positive (i.e. liquidity-providing) deviation occurred as a consequence of the transition to the new millennium in the MRO allotted on 30 December 1999. The largest negative

difference occurred in the MRO allotted on 6 November 2001, when the ECB could not allot the benchmark amount due to underbidding. Chart 5 also shows that the ECB often engineered relatively loose liquidity conditions during the intensive phase of overbidding in the second half of 1999 and the first half of 2000, and that, in all but the very first underbidding event, the ECB only partially offset the resulting liquidity deficits.

Furthermore, it is important to note that the benchmark allotment calculated on the basis of the forecast of the autonomous factors published on the announcement day, as described in the annex, may be slightly different from the actual benchmark allotment calculated by the ECB on the allotment day. This reflects the fact that the ECB updates its liquidity forecasts on the allotment day, which is normally the day after the announcement day. Chart 5 shows that a small part (on average, around 10%) of the deviation from

**Chart 4**  
**The actual and the benchmark allotments<sup>1)</sup>**

(weekly data; EUR billions)



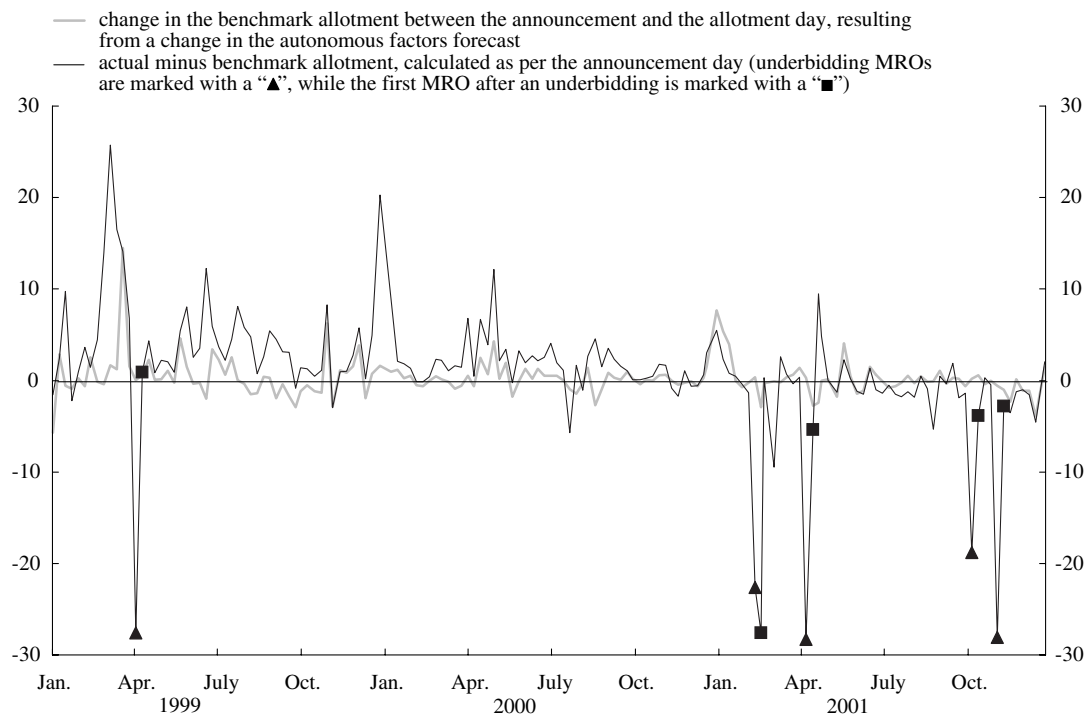
Source: ECB.

1) On the two days (27 April 2001 and 27 November 2001) on which what are known as "split operations" were carried out, the amounts refer to the sum of the one and the two-week tranches.

## Chart 5

### The difference between the actual and the benchmark allotments

(weekly data; EUR billions)



Source: ECB.

the benchmark allotment calculated on the basis of the published forecast of the autonomous factors on the announcement day can be explained by the ECB's update of this forecast on the allotment day. So far, the ECB has only once published an updated forecast on the allotment day of an MRO, namely on 18 December 2001, when the forecast deviated substantially from that published on the day before, due to banknotes in circulation in connection with the cash changeover.

In the article entitled "Bidding behaviour of counterparties in the Eurosystem's regular open market operations" in the October 2001 issue of the ECB's Monthly Bulletin, it was illustrated that counterparties tend to concentrate their bids around one single level of interest rates in each MRO. This concentration implies that the marginal rate of a specific MRO is normally very inelastic with respect to the allotment amount and, hence, that even large deviations from the

benchmark allotment would not normally imply any significant changes to the marginal rate. Indeed, in the 79 MROs conducted as variable rate tenders by December 2001, the demand schedule was such that it would have been necessary to decrease the allotment amount, on average, by €24 billion in order to increase the marginal rate by one basis point. Similarly, when omitting the 21 tenders in which the marginal rate was equal to the minimum bid rate, and could thus not, by definition, be decreased, the allotment amount should have been increased, on average, by €14 billion in order to reduce the marginal rate by one basis point. Normally, the only likely effect of a substantial deviation from the benchmark allotment would be an indirect one, as it would usually lead to expectations that the ECB may be favouring either tight or loose liquidity conditions for the end of the relevant maintenance period as well. This could have an impact on the day-to-day interest rates, as explained in Section 3.

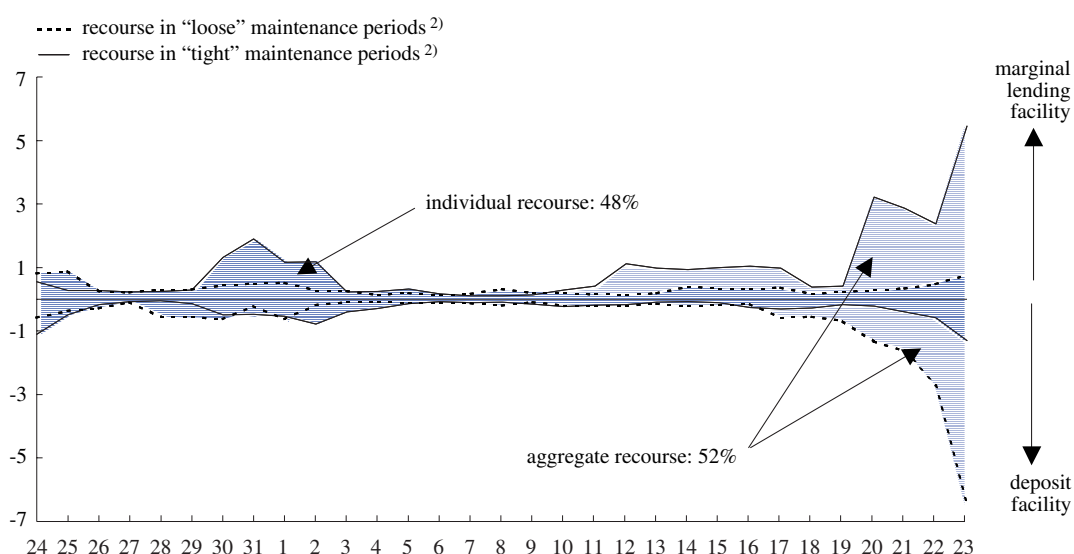
## 5 The use of the standing facilities

While the Eurosystem normally aims at satisfying the liquidity needs via its open market operations, liquidity shocks, especially after the last MRO of a maintenance period, may force the banking system as a whole to take recourse to the standing facilities. The recourse to the standing facilities caused by actual or expected liquidity imbalances at the level of the whole euro area, i.e. imbalances between the liquidity supplied by the ECB and the liquidity needs of the banking system over a given maintenance period, is labelled “aggregate recourse”. The aggregate recourse can be seen as a result of either a liquidity forecast error or of a deliberate deviation from the benchmark allotment by the ECB. Normally, the aggregate recourse takes place only towards the end of a maintenance period, when the banking system must ultimately compensate for any accumulated aggregate liquidity imbalance via the standing facilities. In “loose” maintenance periods, i.e. those with an accumulated liquidity surplus, credit institutions place any excess holdings in the deposit facility in order to obtain some remuneration. By

contrast, in “tight” maintenance periods, i.e. those with an accumulated deficit, they take recourse to the marginal lending facility in order to fulfil the reserve obligations and hence avoid the penalties associated with an underfulfilment. However, market participants may also expect the end of the maintenance period to be either “loose” or “tight”. Such expectations, if sufficiently strong, may imply that some of the aggregate recourse to standing facilities actually takes place even before the last trading day of the maintenance period, as was the case, for instance, during the maintenance period ending on 23 April 2001. It will be assumed below, however, that the aggregate recourse is always zero in the first half of a maintenance period, when the conditions expected for the end of the maintenance period are normally so uncertain that no use of the standing facilities can be expected.

A different type of recourse to standing facilities, referred to here as the “individual recourse”, is normally spread rather evenly

**Chart 6**  
**Average recourse to the standing facilities in the course of a maintenance period<sup>1)</sup>**  
*(averages per calendar day, calculated over the period from 24 February 1999 to 31 December 2001; EUR billions)*



Source: ECB.

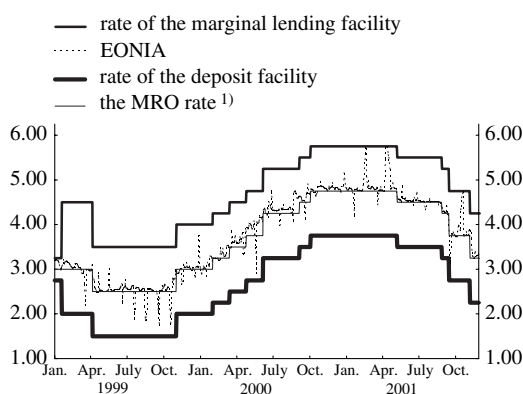
1) The lines show the average recourse in “tight” and “loose” maintenance periods, while the shaded areas illustrate how the aggregate and the individual recourse can be measured, as explained in the text.

2) “Tight” and “loose” maintenance periods are distinguished here via the accumulated net recourse after the settlement of the last MRO.

along the maintenance period. This is caused solely by an inadequate distribution of liquidity across credit institutions, typically at the end of the day, when money markets are no longer liquid.

It follows from the above that all the recourse to the standing facilities in the first half of each maintenance period, the average recourse to the marginal lending facility in the second half of “loose” maintenance periods and the average recourse to the deposit facility in the second half of “tight” maintenance periods must reflect an individual liquidity imbalance (the dark shaded area in Chart 6). By contrast, all the average recourse to standing facilities in excess of this individual recourse can be qualified as aggregate (the light shaded area in Chart 6). On the basis of this reasoning, the aggregate and individual recourse up to December 2001 each accounted, on average, for around half of the overall recourse to the standing facilities. Hence, only half of the 0.3% of the overall liquidity supply/demand stemming from the use of the standing facilities reflected aggregate recourse, and thus a euro area-wide liquidity need or surplus. This further confirms that allotments close to the benchmark have thus far been predominant and that forecast errors in autonomous factors have not had too strong an impact on liquidity conditions in the euro area. These aspects, together with the ability of the averaging mechanism to absorb temporary liquidity shocks (see Section 3), have meant that deviations of the overnight rate from the MRO rate were generally rather modest in the period from January 1999 to December 2001. In this period, the average absolute spread between the MRO rate and the EONIA – an effective overnight rate computed as the weighted average of 49 panel banks’ unsecured lending in the euro overnight interbank market – amounts to only

**Chart 7**  
**The EONIA and key ECB interest rates**  
*(daily data in percentages)*



1) *i.e. the rate applied to the fixed rate tenders and the minimum bid rate of the variable rate tenders.*

14 basis points (see Chart 7). This number decreases even further, to 10 basis points, if one excludes the rather volatile days after the last MRO of a maintenance period as well as the days following an occurrence of underbidding.

The average individual recourse of €300 million per day to either of the standing facilities (see Chart 6) is also rather modest. Compared, for instance, with the daily average volume of unsecured overnight lending of around €42 billion reported by the EONIA-panel banks, it shows clearly that only a marginal amount of liquidity imbalances is compensated via the standing facilities. This, in turn, suggests that the cost of using the standing facilities has been sufficiently high to ensure that they do not undermine an active interbank market for liquidity. Still, the corridor set by the standing facilities has also successfully limited the variability of the overnight rate. Even under exceptional circumstances, such as the millennium changeover or after extreme tightness following underbidding, the EONIA has never moved outside the corridor (see Chart 7).

## 6 Concluding remarks

Four conclusions can be drawn from the analysis presented in this article.

First, the ECB has aimed, all in all, at satisfying credit institutions' liquidity needs in a smooth and predictable way over the reserve maintenance period, given that the actual allotment amounts in the MRO's have been set on the basis of a benchmark which the counterparties can, in principle, calculate themselves.

Second, mainly because of the averaging provision of the minimum reserve system and the quality of the Eurosystem's liquidity

forecasts, there has been very little need to conduct fine-tuning operations.

Third, related to the above, only a very small fraction of credit institutions' liquidity needs have been met through recourse to standing facilities, implying that the money market has worked efficiently.

Finally, but perhaps most importantly, the small and fairly stable spread between the ECB's MRO rate and the short-term money market rates confirms the precision of the ECB's steering of short-term interest rates.

## Annex

### Benchmark allotment rule normally applied by the ECB in its main refinancing operations

This annex outlines how to calculate precisely the benchmark allotment amount of a main refinancing operation (MRO) on the basis of the information available on the announcement day, which is normally one business day prior to the allotment day.

In the following,  $MRO^{\text{bench}}$  denotes the MRO for which the benchmark allotment is to be calculated, while its settlement day and its announcement day are represented by  $S$  and  $A$  respectively. Furthermore,  $Z$  is the day before the settlement of the subsequent MRO, referred to as  $MRO^{\text{sub}}$ ,  $T$  the last day of the prevailing maintenance period and  $H$  the number of days covered by the forecast of the autonomous factors made available by the ECB on the announcement day. If, at the end of a maintenance period, the ECB makes two forecasts of the autonomous factors available, the relevant one here is the forecast covering the maintenance period in which  $MRO^{\text{bench}}$  is settled.<sup>1</sup> In the large majority of cases, where  $MRO^{\text{bench}}$  is announced on a Monday and  $MRO^{\text{sub}}$  is settled on the Wednesday of the following week, with the latter falling within the same maintenance period (MP),  $H$  is 9. More generally, however, taking account also of the last MRO of the period and irregular settlement days caused by bank holidays,  $H$  is calculated according to the following rules:

$$\text{If } S \leq T \text{ (i.e. settlement in prevailing MP) then } \begin{cases} \text{If } T > Z \text{ (i.e. not last MRO of MP) then } H = Z - A + 1 \\ \text{If } T \leq Z \text{ (i.e. last MRO of MP) then } H = T - A + 1 \end{cases}$$

$$\text{If } S > T \text{ (i.e. settlement in next MP) then } H = Z - T$$

In addition,  $X$  denotes the number of days covered by  $H$  on which  $MRO^{\text{bench}}$  has not yet been settled (normally  $X$  equals 2).  $RR$  and  $ER$  represent the estimated daily average reserve requirements and the excess reserves, respectively, of the maintenance period in which  $MRO^{\text{bench}}$  is settled.  $\overline{CA}$  is the average current account holdings that have been realised on day  $A-1$  (i.e. the day before the announcement) since the beginning of the maintenance period in which  $MRO^{\text{bench}}$  is settled. The number of days from the start of the maintenance period until day  $A-1$  is denoted by  $D$ .  $\overline{AF}$  is the estimated average amount of the autonomous factors made available by the ECB, while  $L$  is the expected daily average amount of liquidity supplied via the LTROs, both defined over the  $H$ -day period. Finally,  $M^{\text{mat}}$  denotes the size of the maturing MRO and  $M^{\text{out}}$  the size of the other outstanding MRO. The benchmark allotment,  $M^{\text{bench}}$ , which allows for a smooth fulfilment of the reserve requirements can then be calculated as:

$$M^{\text{bench}} = \frac{1}{H-X} \left[ \underbrace{D \cdot (RR + ER - \overline{CA})}_{\text{Accumulated liquidity imbalance}} + \underbrace{H \cdot (\overline{AF} + RR + ER)}_{\text{Future liquidity needs}} - \underbrace{H \cdot (L + M^{\text{out}})}_{\text{Liquidity already provided}} - X \cdot M^{\text{mat}} \right]$$

If we take the MRO announced on Monday, 4 March 2002, as an example, the benchmark allotment could have been calculated in the following way by inserting both the information available on wire services on that day and a forecast of excess reserves of €0.71 billion (see Section 3):

$$M^{\text{bench}} = \frac{1}{9-2} \left[ \underbrace{8 \cdot (131.2 + 0.71 - 128.7)}_{\text{Accumulated liquidity imbalance}} + \underbrace{9 \cdot (44.5 + 131.2 + 0.71)}_{\text{Future liquidity needs}} - \underbrace{9 \cdot (60 + 51) - 2 \cdot 72}_{\text{Liquidity already provided}} \right] = 67.2$$

In this MRO the ECB did, indeed, choose to allot the benchmark amount of €67 billion.

<sup>1</sup> If  $Z$  does not fall in the prevailing maintenance period, i.e. the maintenance period in which  $MRO^{\text{bench}}$  is announced, the ECB splits the forecast of the average autonomous factors for the period  $A$  to  $Z$  into two: one for the period ranging from  $A$  to the end of the prevailing maintenance period, and another for the following days up to  $Z$ . However, the estimate for the prevailing maintenance period is only relevant for counterparties' preparation of bids in  $MRO^{\text{bench}}$  if  $MRO^{\text{bench}}$  is also settled in this period. Hence, only in this case will both estimates be published.



# International supervisory co-operation

*The need for enhanced multilateral co-operation and exchange of information in the field of financial supervision emerged historically as a response to the increasing internationalisation and integration of financial activities. Numerous fora currently serve to reinforce supervisory co-operation. At the international level, the effective implementation of the forthcoming New Basel Accord will call for efforts aimed at ensuring a level playing-field in supervisory treatment. At the EU level, strengthening the practical functioning of co-operation arrangements, through, inter alia, more extensive exchanges of information and the convergence of supervisory practices, has been fully acknowledged by policy-makers as a necessary step to cope with increased financial market integration and the transposition of the New Basel Accord into the EU regulatory framework. This article reviews the structure, role and main initiatives of the fora dealing with supervisory issues at the international and EU level and looks at some of the challenges that lie ahead in this area. The ECB plays an active role in strengthening supervisory co-operation, supporting the activities of the ESCB's Banking Supervision Committee and participating in the work of the relevant committees at the international and EU level.*

## I International supervisory co-operation

The progressing globalisation of financial markets has increasingly pushed the importance of adequate supervision and surveillance to the fore. The gathering and sharing of comparable information, the establishment and refinement of harmonised prudential standards and the need for co-ordinated and efficient management of shocks and financial crises form key elements of international co-operation in the pursuance of effective financial supervision. Effective supervisory co-operation allows for a better understanding of existing and emerging vulnerabilities in the financial system and the timely adoption of pre-emptive measures.

### General features

Supervisory co-operation at the international level displays the following general features.

First, supervisory co-operation is based on a flexible framework that focuses on setting standards and identifying best practices, the implementation of which is *not* legally binding at the national level. Consensus is an important element of the success of the decision-making process. Decisions are implemented on a best effort basis by the competent national authorities. The geographical extension of implementation of rules largely depends upon prior involvement in the decision-making process. This is

reflected in the increasing use of technical and regional fora set up by the international committees.

Second, the international committees differ with regard to the organisational structure, reporting lines and modes of co-operation. A broad description of these is provided in Annex I.

Third, the focus of the work of international committees has been changing over time. An increased focus on specific, technically complex issues has been apparent in the recent past, as a response to market developments.

Fourth, the importance of international committees as standard setters has increased with the strengthening of the surveillance functions of the international financial institutions. This is linked, in particular, to the work of the International Monetary Fund (IMF) and the World Bank in the context of the Financial Sector Assessment Program (FSAP), which refers to the core principles developed by the international committees to assess the resilience of the financial sector in a country.

Finally, international co-operation on a cross-sector basis has gained significant momentum in recent times, especially after the creation in 1999 of the Financial Stability Forum, which



draws on the support of the finance ministers, central banks and supervisory authorities of the G7 major industrial nations.

### **Sectoral co-operation**

The Basel Committee on Banking Supervision, the International Organisation of Securities Commissions and the International Association of Insurance Supervisors are the main sectoral fora for international supervisory co-operation in the banking, securities and insurance sectors respectively.

#### ***Long established co-operation in banking***

The Basel Committee on Banking Supervision (BCBS) was established in 1974 by the Central Bank Governors of the G10 countries in the aftermath of the bankruptcy of Bankhaus Herstatt in Germany and Franklin National in the United States. It comprises representatives from central banks and banking supervisory authorities of 13 countries. Its main objective is to enhance the quality and effectiveness of banking supervision on a worldwide basis. The BCBS pursues this goal by exchanging information on national supervisory issues and major market developments, setting supervisory standards and guidelines and identifying best practices for banks and supervisors. The BCBS does not possess any formal regulatory or supervisory power of its own. Instead, it operates under the assumption that the participating national authorities will take the necessary measures to implement its decisions. The BCBS submits its deliberations to the G10 Governors and seeks the endorsement and commitment of all member organisations.

The BCBS encourages co-operation with non-G10 countries as a “transmission mechanism” of its rules and principles. One of the tools is the Core Principles Liaison Group, which promotes co-operation at the technical level between the BCBS, banking supervisors and central banks from emerging

market economies as well as the IMF and the World Bank. Contacts with supervisory authorities from other countries have also been strengthened through the International Conference of Banking Supervisors, which takes place every two years.

The BCBS has thus far devoted most of its resources to the review of banks’ capital adequacy rules. Although non-compulsory, the capital requirements set out in the 1988 Basel Accord have become international benchmarks and their scope of application extends to virtually all countries. The BCBS is currently working on the revision of the 1988 Accord. The new framework will be based on three pillars, namely minimum capital requirements, supervisory review and market discipline, and is intended to be more risk-sensitive. With a view to the effective implementation of the revised regime, the BCBS recently set up the Accord Implementation Group.

In close collaboration with non-G10 countries, the BCBS developed in 1997 the “core principles on banking supervision”, which provide a comprehensive blueprint for effective banking supervision. These principles cover: (i) preconditions for effective banking supervision; (ii) licensing approval and processing; (iii) ongoing banking supervision; (iv) the formal powers of supervisors; and (v) cross-border banking. To assist implementation and assessment, the BCBS released the “core principles methodology” in October 1999.

The ECB participates in an observer capacity in the meetings of the BCBS and in some of its sub-groups. In addition, the reports of the ESCB’s Banking Supervision Committee are normally transmitted to the BCBS.

#### ***More limited experience of co-operation in securities and insurance***

The International Organisation of Securities Commissions (IOSCO), established in 1983, is the major international forum for

co-operation among national securities regulators and supervisors. Its objectives are to promote high regulatory standards for securities markets and intermediaries and to ensure the effective surveillance of international securities transactions. It also provides a forum for mutual assistance in the application and enforcement of such standards. IOSCO has numerous sub-structures including a technical committee organised along the lines of the BCBS and several regional and specific committees. IOSCO has a wider membership than the BCBS, comprising more than 160 members from over 90 countries. Its general meetings take place once a year in the form of a general assembly. IOSCO has no direct reporting lines.

Like the BCBS, in 1998 IOSCO developed its “objectives and principles of securities regulation”. These principles pursue three goals: ensuring the protection of investors; furthering progress towards fair, efficient and transparent markets; and reducing systemic risk. They cover a wide range of issues, including the role of the regulator, self-regulation, the enforcement of securities regulation, as well as co-operation among regulators, issuers, collective investment schemes, market intermediaries and secondary markets. They are broadly accepted as minimum requirements for good practice and included in the international standards for sound financial systems.

The International Association of Insurance Supervisors (IAIS) is a relatively young organisation, founded in 1994. It comprises national insurance regulators and supervisors from over 100 jurisdictions. The IAIS sets international standards for insurance regulation and supervision, assists its members in complying with these standards and co-ordinates work with regulators responsible for other financial sectors and international financial institutions. It is headed by an Executive Committee and its structure includes three technical committees as well as various working groups. It has no reporting lines.

The IAIS also issued the “insurance core principles” in 1997 as well as supplementary principles, standards and guidance in 1998 as means of fostering insurance supervisory practices internationally. The principles are included in the set of international standards and codes, and cover a broad area of issues, such as the organisation of supervision, licensing, corporate governance, internal controls, prudential rules, market conduct, monitoring and sanctions.

### **Cross-sector co-operation**

#### ***High-level impetus to strengthen co-operation***

The emergence of financial conglomerates heightens the need for co-operative efforts to ensure the effective supervision of complex financial groups. At the same time, the blurring of distinctions between the activities of banks, securities firms and insurance companies calls for co-operation in order to prevent regulatory arbitrage and to further promote a level playing-field. Against this background, in 1999 a report entitled “International co-operation and co-ordination in the area of financial market supervision and surveillance” (known as the “Tietmeyer Report”) was prepared at the request of the G7 Finance Ministers and Central Bank Governors to assess ways of strengthening financial supervision. The report highlighted the need to develop consistent rules on the treatment of risks across sectors and to promote international financial stability through information sharing and international co-operation in financial supervision.

On the basis of the report findings, the Financial Stability Forum (FSF) was established in February 1999 by the G7 Finance Ministers and Central Bank Governors. The FSF is a high-level forum comprising authorities responsible for financial stability (treasuries, central banks, supervisory agencies) from the G7 countries and other important financial centres, international financial institutions,

and international committees of regulators, supervisors and central banks.

The main objectives of the FSF are to assess vulnerabilities in the international financial system and to identify action that could be taken to promote international financial stability. Increased international co-operation in financial supervision and surveillance and extensive exchanges of information are key components of such activity. In that context, the FSF makes a specific contribution to addressing cross-sector issues.

With regard to its ongoing work to foster the implementation of international standards and codes, the FSF identified 12 standards and codes which have been designated as key for the sound and smooth functioning of financial systems. These standards cover three broad categories, namely macroeconomic policy, the institutional framework and market infrastructure, and the regulation and supervision of all financial sectors.

#### ***Important work at the technical level***

The Joint Forum of Financial Conglomerates is the main technical forum for international cross-sector supervisory co-operation. It was established in 1996 under the aegis of the three international sectoral committees (BCBS, IOSCO and IAIS) and comprises senior bank, insurance and securities regulators and supervisors from 14 countries (the BCBS member countries plus Australia).

The Joint Forum examines supervisory issues relating to financial conglomerates and aims to enhance mutual understanding in this regard. It is not a standard-setting body and its task is limited to putting forward recommendations to the parent committees.

The Joint Forum provided an important technical contribution in the area of the supervision of financial conglomerates. Its 1999 report on the supervision of financial conglomerates sets out prudential recommendations in six areas, namely capital

adequacy, the fitness and propriety of the top management, the exchange of information and co-operation between supervisors, the need for a co-ordinating supervisor, intra-group transactions and risk concentrations. More recent work of the Joint Forum on risk management practices, regulatory capital and core principles for supervision in the three sectors might support further convergence in supervisory rules.

Notwithstanding the significant progress made so far, there is still much work to be done to achieve a harmonised regulatory framework for all sectors of financial activity. This is a result, inter alia, of the asymmetry in the degree of harmonisation achieved in the field of bank regulation, on the one hand, and in the regulation of securities firms and insurance companies, on the other. Current developments indicate that an increasing number of major financial conglomerates are moving towards a centralised and integrated risk management framework for addressing risks and setting aside capital, which is creating new challenges for supervision and cross-sector co-operation.

#### ***Other areas of cross-sector co-operation***

The scope of international supervisory co-operation has not been limited to the setting of standards and principles for the effective supervision of financial institutions and conglomerates. Money laundering activities and the financing of terrorism represent international threats to the integrity of financial systems, thus also implying a need for international co-operation. Co-ordinated efforts by the relevant authorities are crucial to devise and implement the appropriate counter-measures. In this context, the Financial Action Task Force on Money Laundering (FATF) has adopted 40 recommendations to combat money laundering. They are widely accepted as the benchmark for anti-money laundering systems. The implementation of these recommendations by national authorities is verified by means of peer review, and the

FATF compiles and releases a list of non-co-operative territories and jurisdictions, which is updated regularly. After the events of 11 September, the FATF also adopted eight

special recommendations against terrorist financing. The ECB participates in an observer capacity in the meetings of the FATF.

## 2 Supervisory co-operation at the EU level

Supervisory co-operation is a fundamental building block of the EU institutional framework. Co-operation among competent authorities is based on two major “instruments”. The first consists in the supervisory agreements set out in the form of bilateral or multilateral memoranda of understanding between the competent authorities, which aim at ensuring functionality and efficiency in the day-to-day supervision of individual institutions or complex financial organisations. The second is multilateral co-operation, via committees and similar structures, with a view to improving supervisory rules and practices and ensuring a level playing-field. Annex 2 provides a broad description of the main features of the EU regulatory and supervisory committees.

### Supervisory co-operation enshrined in the EU regulatory framework

The EU regulatory framework is generally consistent with the standards developed at the international level. It also contains several, more far-reaching elements which define and affect co-operation between the EU regulatory and supervisory authorities.

Co-operation among supervisory authorities draws on existing provisions in the EC Directives. By contrast with the underlying framework for international co-operation, Directives can, and often do, set out binding obligations for supervisory co-operation. In other cases, they directly remove legal obstacles to such co-operation. For instance, the sectoral Directives provide for the compulsory exchange of information by supervisors with their counterparts in the same sector within the EU. Furthermore,

consolidated supervision for banking groups and investment firm groups is based on legislative provisions governing the co-operation and exchange of information among competent authorities. The exchange of supervisory information with supervisors of other sectors or with other competent authorities, including central banks, is possible but not mandatory.

### Supervisory co-operation issue in the forefront

A number of long-lasting trends are deeply affecting the financial landscape in the EU. Consolidation in the banking sector, increasing concentration, intensified competition, internationalisation of financial activities within and outside the EU as well as new establishments of mixed financial groups and conglomerates are among the most common structural changes in EU countries. The introduction of the euro has further intensified such changes, contributing to the increasing integration of capital markets and closer links between financial institutions in the euro area. This means that supervisory co-operation in the EU is confronted with a rapidly evolving environment. Hence, public authorities are currently pushing for strengthened regulatory and supervisory co-operation in the EU.

First, a political agreement was achieved on the need to speed up the process of integration of the EU financial services industry, on the understanding that this might greatly contribute to enhancing the growth prospects for the area. The Financial Services Action Plan (FSAP) adopted by the European Commission in 1999 contains a detailed programme of legislative initiatives to

eliminate the existing barriers and achieve the regulatory infrastructure that could underpin a truly integrated market for financial services in the EU. This also covers the strengthening of the supervisory framework. The full implementation of the FSAP is foreseen by 2005.

Second, the Economic and Financial Committee (EFC) adopted two reports on financial stability (April 2000) and financial crisis management (April 2001), known as "Brouwer reports I and II", endorsed by ECOFIN, which brings together the economic and finance ministers of the EU. These reports concluded that the existing institutional arrangements for regulation and supervision in the EU provide a coherent and flexible basis for safeguarding financial stability. However, they recommended an enhancement to the operation of co-operation mechanisms in the EU. In particular, the report on financial stability put forward the following recommendations: (i) strengthening cross-sector co-operation at the international level, since supervisory arrangements are primarily designed to cope with cross-border co-operation; (ii) making the exchange of information among supervisory authorities and central banks on major financial institutions and market trends a key feature of co-operation; (iii) strengthening co-operation between supervisors and central banks, with a view to ensuring that the emergence of financial problems within a group that may have contagion effects in other EU countries is reported in a timely manner to all competent authorities concerned; (iv) pursuing the convergence of supervisory practices.

The report on crisis management also focused on co-operation arrangements, recommending that: (i) in a crisis situation all authorities likely to be involved should be informed in a timely manner and, to this end, any remaining legal obstacles to the exchange of information between supervisors, central banks, overseers of payment systems and bodies administering deposit-guarantee schemes should be removed; (ii) for the major

financial institutions, including conglomerates, agreement should be reached on the co-ordinating supervisor and its responsibilities, including information gathering and communication, particularly in crisis situations; (iii) the memoranda of understanding should be further developed to deal more concretely with crisis management. The EFC reviews on a regular basis the progress being made in the implementation of these recommendations.

Third, the report of the Committee of Wise Men on the regulation of European securities markets (known as the Lamfalussy report) proposed a reshaping of the regulatory process in the securities field. The report was prepared following a request by ECOFIN in July 2000. With a view to making EU securities legislation more flexible and effective, a four-level approach was proposed. For Level 1, the basic principles of the legislation, which are expected to remain fairly stable over time, are to be laid down via a framework of Directives and Regulations. For Level 2, the European Commission will adopt implementing measures in respect of the framework Directives and Regulations, including technical provisions that will need to keep in step with market and supervisory developments. These measures will be adopted through a more expeditious procedure, relying on the newly established European Securities Committee. Level 3 encompasses initiatives by national regulators to implement the common regulations. Another newly established committee (the Committee of European Securities Regulators) is entrusted with the task of ensuring effective co-operation between supervisory authorities, promoting best practices and carrying out peer reviews, so as to ensure more consistent and timely implementation of Community legislation in the Member States. Finally, Level 4 aims to strengthen the enforcement of Community law by the Commission, with the co-operation of the Member States. A full review of the proposed regulatory structure which is being put in place will be carried out in 2004.

## **Sectoral co-operation**

### ***Regulatory committees continue to play an important role***

The Banking Advisory Committee (BAC) is the regulatory committee for the banking sector, comprising high-level representatives from the ministries of finance, national central banks and supervisory authorities of the Member States. The BAC was established in 1977 under the First Banking Co-ordination Directive. Its competencies are mainly in the regulatory field as it assists the European Commission in the preparation of new regulatory proposals and technical adaptations to the banking Directives and other legal instruments. In practice, the BAC also performs a comitology task, namely revising certain technical parts of EC Directives. This is, for the time being, of limited scope and concerns predefined articles of the existing banking legislation. The BAC is currently heavily involved in the revision of the new regulatory framework concerning the capital adequacy of EU banks and investment firms. While looking for consistency with the international capital adequacy standards being developed by the BCBS, the BAC also addresses EU specificities and strives to achieve a level playing-field for banks and investment firms alike. In addition, the BAC is increasingly involved in accounting issues owing to their relevance to the regulatory and supervisory framework.

The European Securities Committee (ESC) is a newly established committee composed of high-level representatives of the EU finance ministries. For the time being, it functions as an advisory body to the Commission on securities issues relating to the adoption of proposed Directives or Regulations (Level 1). It is also expected to act in a regulatory capacity in the exercise of the implementing powers conferred on it by relevant Directives/Regulations (Level 2), once the basic legislative acts have been adopted. The ECB participates in an observer capacity in the ESC, as well as in the BAC.

The Insurance Committee (IC), set up in 1991, comprises high-level representatives of the EU insurance supervisory authorities and finance ministries. Its primary role is to assist the Commission in preparing prudential legislation for the insurance sector and to discuss issues relevant to insurance regulation and supervision. As the BAC, the IC has the competence to amend technical provisions in EU insurance Directives. Considerable work has been undertaken under the auspices of the IC to improve and update the prudential framework applicable to EU insurance undertakings. In that context, the proposals on solvency margin requirements (known as the "Solvency I package"), adopted in February 2002, are aimed at improving the existing solvency margin requirements for EU insurance companies. The IC is currently involved in a broader examination of the overall financial position of insurance undertakings (known as the "Solvency II review") and is considering the establishment of a prudential framework for reinsurance undertakings.

### **Supervisory committees are becoming increasingly relevant**

#### ***The Banking Supervision Committee***

The Banking Supervision Committee (BSC) is an ESCB committee composed of high-level representatives from national banking supervisory authorities and central banks. It assists the ESCB in the fulfilment of its statutory tasks relating to prudential supervision and financial stability. The European Commission and the Groupe de Contact (which is described below) also participate in the work of the BSC with an observer status, thus ensuring co-ordination with the other EU regulatory and supervisory committees.

The BSC has a specific role in contributing to smooth interaction between central banking and supervisory functions in the EU. This is particularly necessary because of the

## Table

### Published reports of the Banking Supervision Committee

Date	Title
February 1999	The possible effects of EMU on the EU banking systems in the medium to long term
July 1999	The effects of technology on the EU banking systems
April 2000	EU banks' income structure
April 2000	Asset prices and banking stability
December 2000	EU banks' margins and credit standards
December 2000	Mergers and acquisitions involving the EU banking industry – facts and implications

separation between the monetary policy and banking supervision jurisdictions in the euro area. But it also has a wider, EU scope, since the changes in money and capital markets and payment and securities settlement infrastructures are affecting the nature and scope of systemic risk in the whole area, raising issues that are at the core of both central banking and supervisory responsibilities.

The possible impact of conjunctural developments on the EU banking sector is regularly reviewed by the BSC, where a confidential exchange of information among members takes place. On 12 September 2001, the Committee held a teleconference to share information on the impact of the terrorist attacks in the United States and the likelihood of crisis situations arising. Since tensions emerged mainly in the banks' management of liquidity, the contacts within the BSC were particularly helpful in providing a comprehensive picture of the situation at all times. Crisis management is clearly a field where there is a strong need for very close co-operation between central banks and supervisory authorities, especially should financial stability be called into question because of a bankruptcy or possible contagion effects arising in this context.

Regular analytical work is carried out on the soundness and stability of the EU banking sector and on the medium-term structural developments impacting on the EU banks. First, in monitoring soundness and stability, the BSC's framework builds on semi-annual

monitoring of macro-prudential indicators, based on aggregate data for national banking systems. Second, in its structural monitoring, the BSC analyses the national banking structures (e.g. in terms of size, capacity, consolidation and concentration), disintermediation, internationalisation, new technologies and profitability and capital adequacy indicators. Both analyses rely on a wide range of information sources, including confidential supervisory information, and their findings are normally used by the members of the BSC, the decision-making bodies of the ECB and the other EU and international supervisory fora. Some reports of the BSC were made available to the general public (see table).

#### Other supervisory committees

The Groupe de Contact (GdC) is also active in the banking sector in promoting co-operation among supervisory authorities at the technical level. It was established in 1972 and comprises banking supervisors from the EU Member States. Its main function is to promote the exchange of information on the relevant developments in banking regulation and supervision as well as on individual banking cases. It is currently undertaking important work in the area of convergence of supervisory practices.

The Committee of European Securities Regulators (CESR), which took over in September 2001 the activities and secretariat of the informal Forum of European Securities

Commissions (FESCO), has two main tasks. First, it acts as an independent group assisting the Commission primarily but not exclusively in the preparation of technical implementing measures (Level 2). Second, it plays an important role in promoting co-operation between Member States so as to ensure more consistent day-to-day implementation of Community legislation in the securities field (Level 3).

The Conference of the Insurance Supervisory Authorities (CIS) is the longest-standing group and has been in existence since 1957. The CIS is composed of high-ranking insurance supervisors from the EU Member States and is a forum for co-operation and exchange of information. The CIS examines topics of mutual interest from an insurance supervisory perspective, including issues relating to individual insurance companies, should the need arise. It also prepares reports for the IC on its own initiative or upon request. It has adopted a number of multilateral "protocols" laying down agreed practical details for the implementation of EU insurance Directives.

### 3 Challenges ahead

While significant progress has been made so far in the field of multilateral supervisory co-operation, as highlighted in the sections above, significant challenges stem from regulatory and market developments and are relevant at both the international and the EU level.

A first challenge stems from the new capital adequacy regime for banks, which is being devised by the BCBS and will be transposed into the EU regulatory framework (and extended to investment firms as well). The effective implementation of the new regime, and in particular of its second pillar (supervisory review), calls for enhanced co-operation among banking supervisors on a worldwide basis to achieve further consistency in the area of supervisory tools

#### **Cross-sector co-operation**

In the EU, cross-sector co-operation is based on the initiatives of a new and informal structure, namely the Cross-sector Roundtable of Regulators, which has assumed a useful co-ordinating function for all sectoral regulatory and supervisory groups addressing cross-sector issues of common interest. The Roundtable brings together the chairpersons and secretariats of the BAC, the BSC, the GdC, the ESC, the CESR, the IC and the CIS, with the Commission acting as a facilitator.

At a technical level, the Mixed Technical Group on the Prudential Supervision of Financial Conglomerates (MTG) was set up by the three sectoral regulatory committees to analyse the issue of financial conglomerates with a view to providing input into the Commission's legislative initiative on the supervision of financial conglomerates. The draft EC Directive on the supervision of financial conglomerates is currently being discussed at the Council level. The MTG has continued to function as a cross-sector technical forum. The ECB participates in the MTG in an observer capacity.

and practices. This objective is a top priority for the EU where the process of banking integration represents an additional motive for pursuing the objective concerned. The EU banking committees play an important role in this field.

A second challenge relates to the market developments towards increased blurring of distinctions among the three segments of the financial system and further financial conglomeration. These developments call for strengthened regulatory and supervisory co-operation on cross-sector issues. In the EU, the recently proposed legislative framework for financial conglomerates provides a window of opportunity to pursue this goal. In particular, the proposed Directive introduces three key elements that are also important



from the point of view of enhancing cross-sector regulatory and supervisory co-operation: first, the identification of the role and responsibilities of the co-ordinator for the supervision of financial conglomerates, also in emergency situations; second, the setting-up of a new committee, the Financial Conglomerates Committee, which will have the task of assisting the Commission in regulatory matters pertaining to financial conglomerates and which is expected to be the competent committee for amending the technical provisions of the EU Financial Conglomerates Directive; and, third, specific provisions on the exchange of information between supervisors of different sectors and between them and other authorities, including central banks.

A third challenge relates to the increasing integration of banking and financial markets. Whereas this process is occurring on a global basis, it is particularly relevant in the EU, owing to the effects of the introduction of

the single currency. While deeper financial integration reinforces the defence against financial instability, since the financial system can more easily absorb potential shocks, new sources of vulnerabilities may emerge (e.g. exposure of the domestic banking sectors to common shocks and increased risk of cross-border contagion). This requires, inter alia, reinforced ex ante monitoring of relevant developments in the banking and financial sector from a financial stability perspective through the enhanced co-operation and exchange of information on the macro-prudential tasks, which are normally undertaken by central banks, and the micro-prudential tasks, which are carried out by supervisory authorities, including those central banks entrusted with supervisory responsibilities. It also requires strengthened co-operation between central banks and supervisory authorities for crisis management. At the EU level, the BSC can play a relevant role in both cases.

## Annex I

### International supervisory committees

	<b>Basel Committee on Banking Supervision (BCBS)</b> <a href="http://www.bis.org/bcbs/aboutbcbs.htm">www.bis.org/bcbs/aboutbcbs.htm</a>	<b>International Organisation of Securities Commissions (IOSCO)</b> <a href="http://www.iosco.org">www.iosco.org</a>	<b>International Association of Insurance Supervisors (IAIS)</b> <a href="http://www.iaisweb.org">www.iaisweb.org</a>	<b>Joint Forum</b> <a href="http://www.bis.org/bcbs/jointforum.htm#pgtop">www.bis.org/bcbs/jointforum.htm#pgtop</a>
<b>Membership</b>	Central banks and non-central bank authorities, with formal responsibility for the prudential supervision of banking business, from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the United States	More than 160 securities regulators from around 90 countries with three categories of membership: ordinary (voting right), associate and affiliate (non-voting)	Insurance supervisory authorities of some 100 jurisdictions	Bank, insurance and securities supervisors from Australia, Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, the United States, the European Commission and representatives from the parent committees (BCBS, IOSCO, IAIS)
<b>Focus</b>	Large, internationally active credit institutions	Securities firms and markets	Insurance companies	Financial conglomerates and cross-sector issues
<b>Objectives</b>	To encourage convergence towards common approaches and standards;  to formulate broad supervisory standards and best practices;  to close gaps in international supervisory coverage in pursuit of two basic principles: no foreign banking establishment should escape supervision and supervision should be adequate.	To promote high standards of regulation to maintain efficient and sound markets;  to exchange information on experiences in order to promote the development of domestic markets;  to unite efforts to establish standards and effective surveillance of international securities transactions;  to provide mutual assistance to promote market integrity by a rigorous application of the standards and by effective enforcement.	To promote co-operation among insurance regulators;  to set international standards for insurance supervision;  to provide members with training;  to co-ordinate work with regulators in the other financial sectors and international financial institutions.	To study issues of common interest to the three financial sectors and develop guidance and principles and/or best practices, as appropriate;  to examine ways to enhance supervisory co-ordination on a cross-sector basis.
<b>Date of establishment</b>	1974	1983	1994	1996 (its predecessor, the Tripartite Group, was set up in 1993)
<b>Frequency of meetings</b>	Three times a year	Annual general assembly	Annual conference	Three times a year

## Annex 2

### EU regulatory and supervisory committees

Type	Name	Membership	Main features
<b>Sectoral regulatory committees</b>	Banking Advisory Committee (BAC)	High-level representatives from Member States' ministries of finance, banking supervisory authorities and central banks and from the European Commission; the ECB, Norway, Liechtenstein and Iceland participate as observers.	The BAC acts first as a forum for discussion to advise the European Commission on new Community legislative proposals in the banking sector and the implementation of EC Directives in Member States. In this capacity, it is chaired by one of its members. Second, it performs a comitology function, under the chairmanship of the Commission, to make technical amendments to EC Directives. The BAC was established in 1977 and meets three times a year.
	European Securities Committee (ESC)	High-level representatives from Member States' ministries of finance and from the European Commission; the ECB and the chairman of the CESR participate as observers.	The ESC – chaired by the Commission – advises the Commission on policy issues relating to securities regulation. Once implementing powers have been devolved to it through the co-decision procedure, the ESC will also act as a regulatory committee assisting the Commission in exercising the implementing powers conferred on it by legislative acts. The ESC was established in 2001 and meets on a regular basis.
	Insurance Committee (IC)	High-level representatives from Member States' ministries of finance/economic affairs and insurance supervisory authorities and from the European Commission; representatives from Norway, Liechtenstein and Iceland participate as observers.	The IC – chaired by the Commission – provides first an advisory forum to examine questions related both to the application of Community provisions and to new proposals for Directives. Second, it performs a comitology function assisting the Commission in exercising its implementing powers. The IC was created in 1992 and meets at least three times a year.
<b>Sectoral supervisory committees</b>	Banking Supervision Committee (BSC)	High-level representatives from Member States' central banks, banking supervisory authorities and the ECB; the European Commission and the Chairman of the GdC participate as observers.	The BSC, as an ESCB committee, assists in the fulfilment of the ESCB's statutory tasks in the field of prudential supervision and financial stability. In addition, the BSC can act as a forum for consultation among EU banking supervisors. The BSC was established in 1998, is chaired by one of its members and meets four or five times a year.
	Groupe de Contact (GdC)	Middle management representatives from Member States' banking supervisory authorities; representatives from the European Commission, Norway, Liechtenstein and Iceland participate as observers.	The GdC promotes co-operation and the exchange of information on issues relating to banking regulation and supervisory practices. It also addresses individual cases relevant to supervision. The GdC was established in 1972, is chaired by one of its members and meets at least three times a year.
	Committee of European Securities Regulators (CESR)	High-level representatives from competent authorities in the securities field from the Member States, Norway and Iceland and from the European Commission; the ECB can be invited to participate on an ad hoc basis.	The CESR is an independent advisory body contributing to the preparation of technical implementing measures, to ensuring more effective co-operation between the Member States and to a consistent and timely implementation of Community law through reinforced supervisory co-operation. The CESR was established in 2001 and replaced the Forum of European Securities Regulators (FESCO) founded in 1997. It is chaired by one of its members and meets on a regular basis.
	Conference of Insurance Supervisory Authorities (CIS)	High-level representatives from the Member States' insurance supervisory authorities; representatives from the European Commission, Norway, Iceland and Liechtenstein participate as observers.	The CIS is a forum for supervisory co-operation and the exchange of information. A detailed set of rules and procedures has been agreed in the form of a "protocol" which constitutes a multilateral Memorandum of Understanding. The CIS was established in 1958, is chaired by one of its members and meets twice a year.
<b>Cross-sector committees</b>	Cross-sector Roundtable of Regulators (CRR)	Chairpersons and secretariats of the BAC, the BSC, the GdC, the ESC, the CESR, the IC and the CIS.	The CRR contributes to an informal exchange of information on cross-sector issues between the different sectoral fora. The CRR was established in 2001 and meets on a regular basis. The Commission acts as a facilitator.
	Mixed Technical Group (MTG)	Experts of Member States' regulatory and supervisory authorities for banking, securities and insurance and from the European Commission; the ECB participates as an observer.	The MTG is a cross-sector technical forum working on prudential issues. The MTG put forward proposals for improving the prudential framework applicable to conglomerates which were used as input by the Commission for its proposals for an EC Directive on financial conglomerates. The MTG was established in 1999, under the auspices of the sectoral regulatory committees, is chaired by the Commission and meets four times a year.

# Implications of the euro cash changeover on the development of banknotes and coins in circulation

*Following the introduction of the euro as a means of non-cash payment and unit of account in the participating Member States of European Monetary Union on 1 January 1999, the legacy national currencies were successfully replaced by euro banknotes and coins in January and February 2002. As of 1 March, the euro became the sole legal tender throughout the euro area for more than 300 million citizens.*

*In order to make the cash changeover to the single currency as smooth and swift as possible, the banking sector, security carriers, retailers and the cash-operated machine industry needed to be closely involved in the preparations at an early stage. The involvement of all leading players and the co-ordination of preparatory work was key to the successful launch of the euro banknotes and coins, and apart from some minor technical and logistical issues which arose, the changeover indeed went very smoothly. However, the success of the changeover depended not only on the co-operation of all professional parties directly involved, but also on a positive attitude and swift acceptance of the new means of payment by all citizens from the very beginning of 2002.*

*The introduction of the euro cash was already having an effect on the circulation of the legacy currencies more than one year before the official launch when the circulation of national banknotes started to decrease, in contrast to its long-term trend. In 2001, the last year of the transitional period, most participating national central banks experienced a significant flowback of national banknotes. In parallel, several euro area countries ran campaigns to withdraw hoarded national coins from circulation to alleviate the logistical burden arising from the simultaneous withdrawal of the legacy currencies and distribution of the euro banknotes and coins.*

*On 1 September 2001, following the unveiling of the visual appearance of the euro banknotes by the President of the ECB on 30 August 2001, the preparations for the launch entered their final stage. In accordance with national requirements, the 12 Eurosystem national central banks (NCBs) began frontloading euro banknotes and coins to the credit institutions, which subsequently sub-frontloaded to the retail sector and the cash-operated machine industry. The information campaigns both at the European and national levels complemented the operational preparations and enabled the more than 300 million citizens of the euro area to be properly informed about their new currency.*

## **I Strong decline in currency in circulation in the run-up to the euro cash changeover**

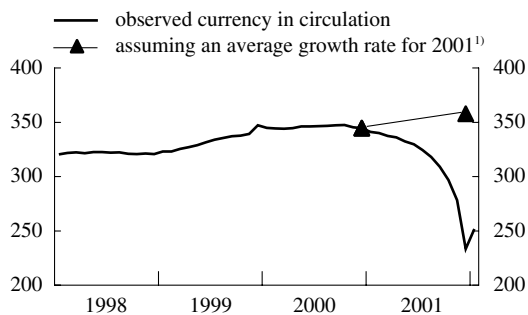
The run-up to the euro cash changeover was characterised by a significant decline in currency in circulation. From December 2000 to December 2001, euro area currency in circulation decreased by €116 billion or 32.3%. 11 of the 12 euro area countries reported a reduction in the amount of currency in circulation in 2001. However, the size of the reduction and the growth pattern differed considerably between them. This reflects differences in the demand for currency in individual euro area countries which, in turn, may be due to differences in the use of banknotes and cashless payment instruments, in banking secrecy laws or in

the heterogeneity of the denominations of the domestic currencies (see Table I). Moreover, the considerable demand for DEM-denominated banknotes and, to some extent, for FRF and ATS-denominated banknotes from outside the euro area is an additional reason for these differences.

To illustrate the impact of the euro cash changeover on the evolution of currency in circulation, Chart I compares the actual evolution of currency in circulation in 2001 with a notional development of currency in circulation, assuming that currency in 2001 grew at the same average annual rate as

**Chart 1**  
**Currency in circulation**

(EUR billions)



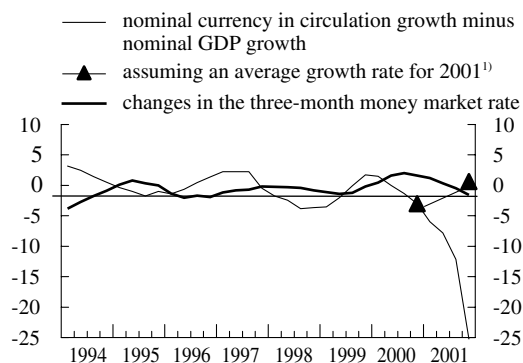
Source: ECB.

1) It is assumed that currency in circulation growth in 2001 corresponds to its average growth from 1994 to 2000.

between 1994 and 2000. This estimation of a notional level of currency in circulation, which excludes the euro cash changeover in 2002, would be roughly in line with the evolution of currency in circulation according to its traditional determinants, such as nominal GDP (reflecting the need for transaction balances) and short-term interest rates (an indicator of the opportunity costs of holding cash) (see Chart 2). Both approaches suggest that there might have been around €125 billion more currency in circulation at the end of 2001 if the cash changeover had not taken place.

**Chart 2**  
**Currency in circulation, GDP and opportunity costs**

(annual differences in percentage points or annual percentage changes)



Source: ECB.

1) It is assumed that currency in circulation growth in 2001 corresponds to its average growth from 1994 to 2000.

### Different phases in the decline in currency in circulation in 2001

The decline in currency in circulation in 2001 can be divided into different phases. In the first half of 2001, the decline was probably mainly driven by the reduction in currency hoards, mainly domestic currency hoards. This argument is confirmed by the observation that the driving force behind this decline was the reduction in the number of

**Table 1**  
**Legacy banknotes and their nearest equivalents in euro banknotes and coins**

euro denominations	500	200	100	50	20	10	5	2 (coin)	1 (coin)	0.5 (coin)	0.2 (coin)	0.1 (coin)
Belgium		247.89		49.58	24.79	12.39	4.96	2.48				
Germany	511.29	255.65	102.26	51.13	25.56	10.23	5.11	2.56				
Greece					29.35	14.67		2.93	1.47	0.59	0.29	0.15
Spain				60.10	30.05	12.02	6.01					
France			76.22		30.49	15.24	7.62	3.05				
Ireland			126.97	63.49	25.39	12.70	6.35					
Italy		258.23		51.65	25.82		5.16	2.58	1.03	0.52		
Luxembourg			123.95		24.79			2.48				
The Netherlands	453.78		113.45	45.38	22.69	11.34	4.54					
Austria	363.36		72.67	36.34		7.27	3.63		1.45			
Portugal				49.88	24.94	9.98	4.99	2.49				
Finland		168.19	84.09		16.82	8.41	3.36	1.68				

Source: ECB.

high denomination banknotes. This was particularly pronounced in Germany and the Netherlands, as the DEM 1000 banknote and the NLG 1000 banknote represented the highest denomination banknotes in the euro area and were therefore particularly suited for hoarding purposes.

In the second half of 2001, and especially in the last quarter, the circulation of small denomination banknotes decreased as well, as the currency held for transaction purposes had probably also been reduced. Finally, the

flowback of banknotes from outside the euro area also contributed to the decline in currency in circulation. Evidence of this is reported by several central banks of eastern European countries which observed strong increases in foreign deposit holdings, probably linked to a substitution of euro currencies' banknotes for these deposits. This evidence is further supported by the statistics on the shipment of DEM-denominated banknotes, which indicate a substantial flowback of banknotes from outside the euro area in the second half of 2001.

## 2 'Countdown' to the introduction of euro banknotes and coins

### Frontloading of euro banknotes and coins by the euro area NCBs

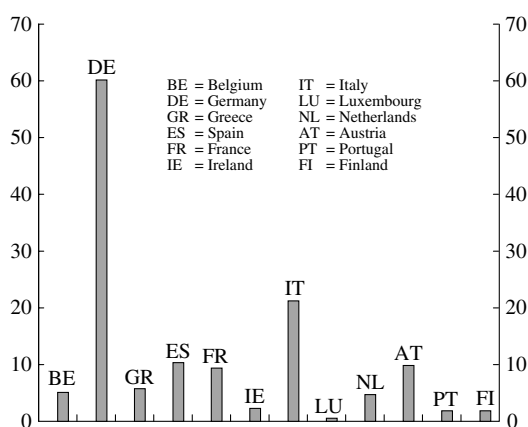
The timely and widespread frontloading of a large quantity of euro banknotes and coins was a key factor in meeting the objective – established by the commonly agreed scenario for the cash changeover – that the bulk of cash transactions in the participating Member States should be carried out in euro by mid-January 2002. Moreover, it ensured that the staff of banks and retailers became accustomed to the new banknotes and coins from the outset. The frontloading of banknotes started in Germany, Spain, Luxembourg, Austria and Finland at the beginning of September 2001. In Portugal and Greece the euro banknotes were provided to credit institutions as of October. Belgian, Irish and Italian banks received the euro banknotes as of November; French and Dutch banks during December 2001. All in all, around 6.4 billion euro banknotes worth some €133 billion were frontloaded by the euro area NCBs to credit institutions. The total volume of frontloaded banknotes, which varied considerably from country to country (see Chart 3), represented in terms of value 49% of the legacy currency banknotes in circulation at the end of December 2001. In terms of pieces, the total frontloaded volume amounted to 70% of the number of national banknotes in circulation at year-end 2001, as predominantly low value denominations were

put into circulation in the first weeks of January 2002 in order to reduce the retailers' need for change. Banks were therefore well prepared in terms of providing the new means of payment to the public. The success of the frontloading operation also shows that the conditions under which the new banknotes were provided to the banking sector prior to E-day were adequate.

The Eurosystem also supported the introduction of euro banknotes and coins on markets outside the euro area, especially where national banknotes of euro area countries were widely used. During the

**Chart 3**  
Frontloading of euro banknotes by participating NCBs

(EUR billions)



Source: ECB.

month of December 2001, more than 20 central banks and several wholesale credit institutions outside the euro area were supplied with around €4 billion by the euro area NCBs. The countries frontloaded were mainly located in eastern and south-eastern Europe, Africa and Asia.

In parallel with the frontloading of the euro banknotes, the NCBs and several mints provided 37.6 billion euro coins to the banking system and post offices during the four-month frontloading period, which corresponded to more than 70% of total euro coin production. This quantity, representing 97% of euro coins in circulation at their peak in January 2002, shows that nearly the entire coin needs of the economy were distributed to the banking system prior to the massive flowback of the national coins. From a logistical point of view, the pre-distribution of the euro coins was essential in order to overcome the capacity limitations at banks and cash-in-transit companies.

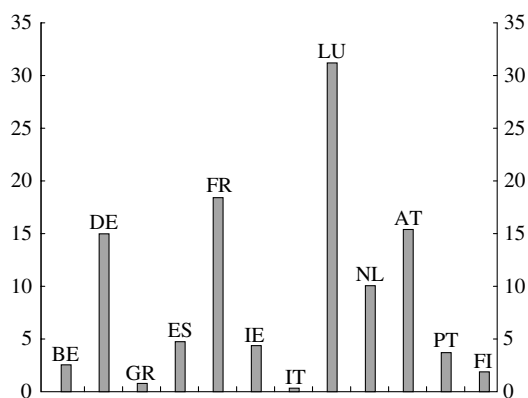
#### Sub-frontloading of euro banknotes and coins

Sub-frontloading to the retail sector and the cash-operated machine industry began in Spain, Germany, Luxembourg and Austria in September 2001, in Ireland in November and in the other euro area countries in December 2001. In terms of value, the banking sector distributed 10.5% of the frontloaded banknotes, worth more than €13.2 billion, to retailers and other eligible parties located within the euro area. Broadly speaking, sub-frontloading was in line with the initial forecasts; however, the level differed from country to country to a considerable extent (see Chart 4).

An important principle for the transition to the single currency was the recommendation that retailers and other businesses give change exclusively in euro as of 1 January 2002, as re-circulating national currencies would have prolonged dual currency circulation. Moreover, holding stocks in both the national currency and the euro for a longer period

**Chart 4**  
Sub-frontloading of euro banknotes by credit institutions

(in percentage of amounts frontloaded)



Source: ECB.

BE = Belgium; DE = Germany; GR = Greece; ES = Spain; FR = France; IE = Ireland; IT = Italy; LU = Luxembourg; NL = Netherlands; AT = Austria; PT = Portugal; FI = Finland.

would have resulted in increased costs. In order to supply the retail sector with sufficient quantities of euro coins and to prepare for the adaptation of the cash-operated machines, euro area credit institutions sub-frontloaded more than 8 billion coins to non-banks.

According to the ECOFIN Council statement of November 1999, euro coins could be provided to the general public from mid-December 2001. All participating countries offered so-called starter kits/mini-kits to the public. Moreover, in a number of euro area countries banks were authorised to make up their own kits and even to sell some of their bulk stock in order to meet the high demand for the new coins. The counter value of the starter kits ranged from €3.88 to €15.24 and corresponded in most cases to a national banknote denomination in order to facilitate the exchange. Distribution via a wide range of outlets started in three countries on 14 December 2001 and in the others on 15 or 17 December 2001. Overall, the general public purchased more than 150 million starter kits comprising over 4.2 billion coins worth €1.6 billion. Thus, approximately 10% of the overall needs in terms of coins as a means of payment was sub-frontloaded to consumers.

### 3 Substitution of the euro banknotes and coins for the legacy currencies in the first weeks of 2002

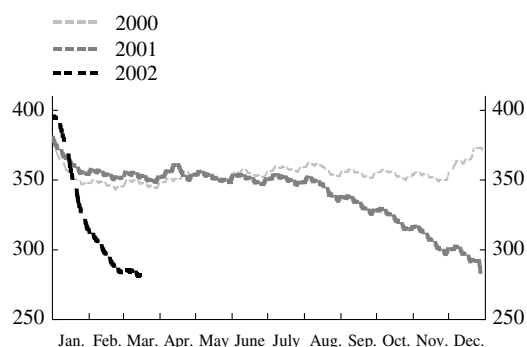
#### Development of total banknotes in circulation

The total value of banknotes in circulation<sup>1</sup> (i.e. euro banknotes and banknotes of the euro legacy currencies) went up to €403 billion as at 1 January 2002, compared with €270 billion as at 31 December 2001. This steep increase was due to the fact that all frontloaded banknotes were only accounted for as banknotes in circulation from 1 January 2002, when they became legal tender and were issued by the Eurosystem.

During the entire changeover period until the end of February 2002, the withdrawal of national banknotes by NCBs exceeded the issuance of euro banknotes on each day. As a result of this massive flowback of national banknotes, the total amount of banknotes in circulation decreased by more than €118 billion (–29%) to €285 billion between 1 January and 28 February, the end of the dual circulation period. In comparison with the total amount of banknotes in circulation at the same time in 2001, this figure was more than €66 billion – or 19% – lower. To some extent, this decline in circulation can be explained by the lower quantity of hoarded banknotes at the beginning of 2002. Chart 5

**Chart 5**  
Banknotes in circulation in 2000, 2001 and 2002

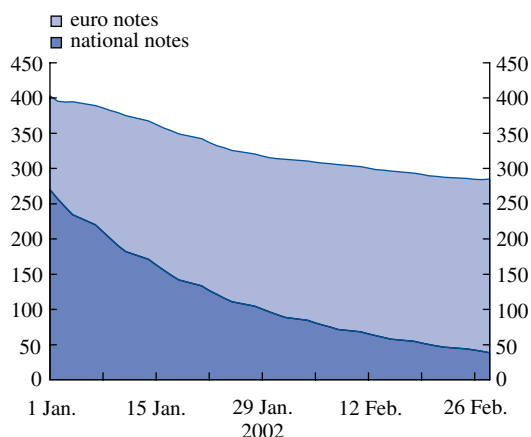
(EUR billions, daily figure)



Source: ECB.

**Chart 6**  
Banknotes in circulation from 1 January until 28 February 2002

(EUR billions)



Source: ECB.

shows the development of the amounts of banknotes in circulation for each month in 2000, 2001 and 2002; Chart 6 gives an overview of the relationship between euro and national banknotes during the changeover period.

#### Swift increase of euro banknotes in circulation during the dual circulation period

During the first two months of 2002, euro banknotes in circulation increased continuously in terms of value from €133 billion to €247 billion – compared with €270 billion outstanding in euro legacy currencies at end-December 2001 – and amounted to a share of 86.5% of the total value of euro and national banknotes in circulation at the end of the dual circulation period. In March 2002, the share of euro banknotes in total banknotes (euro banknotes and banknotes of

<sup>1</sup> The definition of banknotes in circulation differs from that of currency in circulation in that the latter includes coins but excludes vault cash (i.e. cash held by MFIs). Typically, the amount of outstanding banknotes exceeds the amount of outstanding currency in circulation by far.



the euro legacy currencies) increased further to a value of 91.9%.

As regards the number of euro banknotes put into circulation by the Eurosystem, this figure rose by 23% to 8.1 billion pieces as at 15 January, when it reached its peak, from 6.4 billion pieces as at 1 January 2002. Subsequently, despite the continuous increase in value, the number of banknotes in circulation fell by 7.5% to 7.5 billion banknotes at the end of February. This might be explained by the fact that in the first two weeks of January 2002 there was a very high precautionary supply of small denomination banknotes by MFIs and a high demand – in particular for €5 and €10 banknotes – by the retail sector, in order to make it easier to give change in the first two weeks after the cash changeover. This explanation is further confirmed by the fact that the circulation of small denomination banknotes decreased between mid-January 2002 and end-February 2002, whereas the large denominations constantly increased during this period. In fact, the increase in high denominations is expected to continue throughout 2002, when currency hoarding will build up to some extent. Chart 7 shows

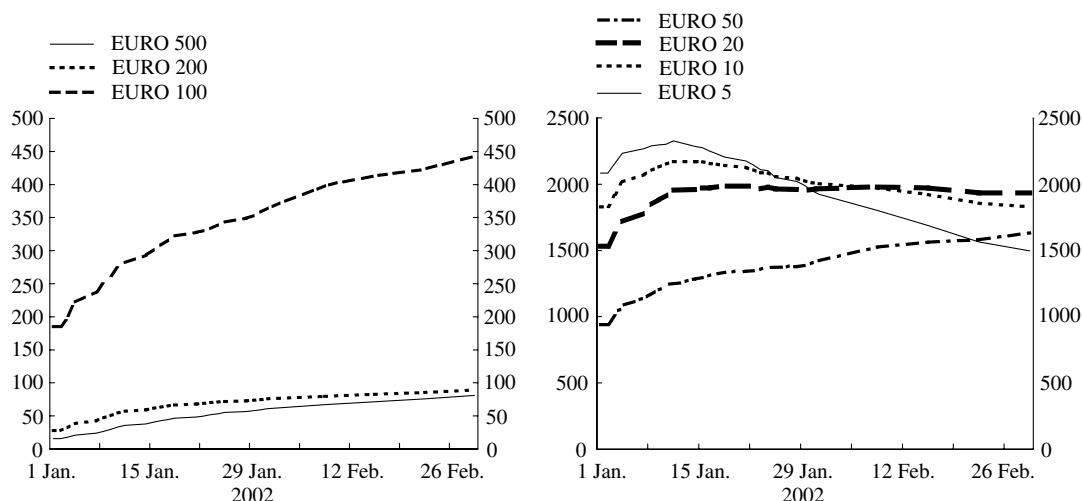
the development of the circulation of individual banknote denominations in January and February 2002.

In order for the introduction of the euro banknotes to go as smoothly as possible, it was essential that the almost 200,000 automated teller machines (ATMs) in the euro area were quickly adapted to dispense euro banknotes as soon as the New Year began. On 1 January, 81% of ATMs were already dispensing exclusively the euro banknotes and the adaptation of all ATMs was virtually completed on 4 January 2002.

#### Volume of euro coins in circulation reaches peak in mid-January

Given the high volume of euro coins distributed to banks and other professional target groups prior to 1 January 2002, the increase in circulation of the number of euro coins during the first two weeks of the changeover period only amounted to 2.6%. The circulation of euro coins reached its peak on 15 January 2002, when 38.6 billion coins worth €12.6 billion were in circulation. As of mid-January 2002, in line with the evolution

**Chart 7**  
**Denomination breakdown of euro banknotes in circulation during January and February 2002**  
(millions of pieces)



Source: ECB.

of euro banknotes, the number of euro coins in circulation started to decrease slightly and, on the last day of that month, returned to the level of 1 January 2002 (see Chart 8). At the end of the dual circulation period, there were 35.8 billion euro coins in circulation (i.e. 94.6% of the volume frontloaded).

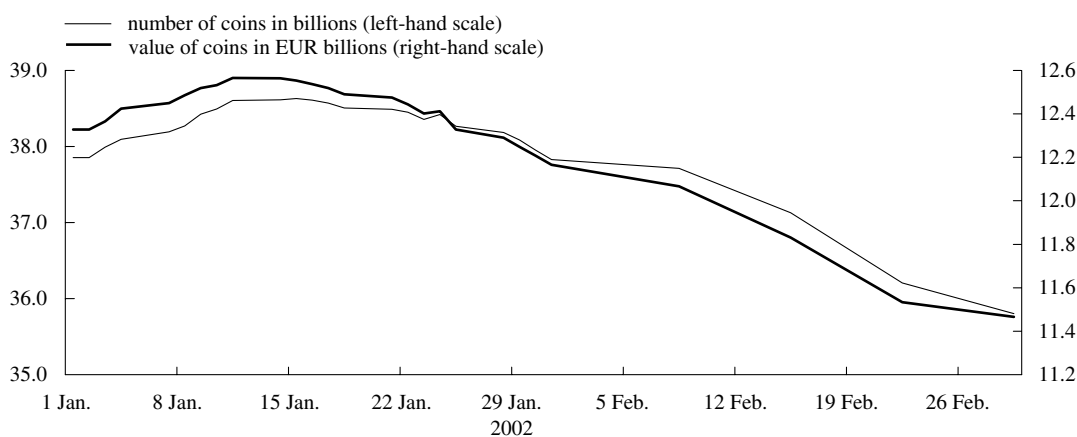
In terms of value, the circulation of euro coins increased gradually until 11 January 2002, from €12.3 billion to €12.6 billion (an increase of 1.9%). In contrast to the development of euro banknotes, which constantly increased in terms of value in the first weeks of 2002, the value of euro coins subsequently declined. Following the crucial period, during which the euro banknotes and coins were replacing the legacy currencies of the euro as the means of payment, banks and retailers started to reduce their stocks of euro coins as of mid-January 2002. Accordingly, from 11 January 2002 until end-February 2002, the value of coins in circulation decreased by 8.8% (see Chart 8). The evolution of the circulation of euro coins shows that economic agents had fairly well anticipated the demand for the new coins and held a sufficient level of coin stocks in preparation for higher needs in specific coin denominations at the beginning of 2002.

### Withdrawal of the legacy currencies

Following the considerable decrease in the number of national banknotes in circulation in the course of 2001 from a total of 11.5 billion banknotes worth around €380 billion at the beginning of that year, around 9 billion banknotes (i.e. -21.6%) of the euro legacy currencies were in circulation at the start of the euro cash changeover, amounting to a value of €270 billion. High quantities of national banknotes were withdrawn from circulation in the dual circulation period in January and February 2002; between 4% and 6% of the remaining value of national banknotes in circulation were lodged each day at the NCBs during that period. This resulted in a decline in the value of national banknotes in circulation by €178 billion in January and €58 billion in February 2002. All in all, 75% of the volume of national banknotes were withdrawn from circulation (i.e. 6.7 billion banknotes) before end-February 2002. In terms of value, the flowback amounted to more than 85%. Considering that whenever NCBs need to “call in” old series national banknotes in order to replace them with a new series, it takes years for virtually all of the old banknotes to be returned. It can therefore be assumed that the return of

**Chart 8**  
**Euro coins in circulation during the changeover period**

(number of coins in billions, value of coins in EUR billions)



Source: ECB

legacy currency banknotes will continue for some time to come.

In most euro area countries, national authorities, in conjunction with the central banks and commercial banks, had run campaigns to attract hoarded national coins from the general public prior to E-day in order to reduce the banks' workload during the dual circulation period. Besides, a range of charity schemes had been introduced in some countries to collect both national coins and coins issued by other Member States of the euro area. The total value of national coins in circulation declined in the course of 2001 by 9%, from €17.9 billion (i.e. the average circulation for 2000) to €16.3 billion (which corresponds to 116 billion coins). During the dual circulation period, the value of national coins in circulation decreased

further, by approximately €5.5 billion, corresponding to around 28.5 billion national coins which were returned to the NCBs. Hence, coin circulation decreased in terms of value by around 35% and in terms of pieces by around 27% between 1 January 2002 and 28 February 2002.

To conclude, it can be said that the technical part of the changeover process to the common currency within the euro area has been completed. However, economic agents will have to adapt their demand for currency for quite some time. It will likewise take time to assess whether the introduction of the euro banknotes and coins leads to changes in: (i) the hoarding behaviour of euro area residents; (ii) the relative performance of cash as a means of payment; and (iii) the demand for euro cash outside the euro area.



## **Euro area statistics**



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### Enlargement of the euro area on 1 January 2001 to include Greece

In the “Euro area statistics” section of the Monthly Bulletin, reference statistical series relating to the euro area cover the Member States comprising the euro area at the time to which the statistics relate. Thus euro area data up to end-2000 cover the Euro 11; from the beginning of 2001 they cover the Euro 12. Exceptions to this rule are indicated where appropriate.

In the tables, the break is shown by means of a line denoting the enlargement of the euro area. In the charts, the break is indicated by a dotted line. Absolute and percentage changes for 2001 calculated from a base in 2000 use, as far as possible, a series which takes into account the impact of the entry of Greece.

Data for the euro area plus Greece up to end-2000 are available in a downloadable format (csv files) on the ECB’s website ([www.ecb.int](http://www.ecb.int)).

#### Conventions used in the tables

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

# Euro area overview table

## Summary table of economic indicators for the euro area

(annual percentage changes, unless otherwise indicated)

### 1. Monetary developments and interest rates

	M1 <sup>1)</sup>	M2 <sup>1)</sup>	M3 <sup>1)2)</sup>		MFI loans to euro area residents excluding MFIs and general government <sup>1)</sup>	Securities issued by non-financial and non-monetary financial corporations <sup>1)</sup>	3-month interest rate (EURIBOR, % per annum, period averages) <sup>7)</sup>	10-year government bond yield (% per annum, period averages) <sup>8)</sup>
	1	2	3	3-month moving average (centred) <sup>4)</sup>				
2000	8.0	4.5	4.9	-	9.6	21.1	4.40	5.44
<i>Euro area enlargement</i>								
2001	3.6	4.1	5.5	-	7.8	26.1	4.26	5.03
2001 Q2	2.5	3.5	4.4	-	8.2	26.4	4.60	5.19
Q3	3.8	4.4	5.9	-	7.4	27.0	4.28	5.12
Q4	5.5	5.7	7.6	-	6.5	27.1	3.45	4.81
2002 Q1	6.1	6.4	7.7	-	5.7	.	3.36	5.13
2001 Dec.	5.5	6.4	8.2	8.0	6.1	28.6	3.34	4.96
2002 Jan.	6.5	6.7	7.9	7.8	5.7	30.3	3.34	5.02
Feb.	6.1	6.2	7.4	7.5	5.6	28.5	3.36	5.07
Mar.	5.8	6.2	7.3	.	5.5	.	3.39	5.32
Apr.	.	.	.	.	.	.	3.41	5.30

### 2. Price and real economy developments

	HICP <sup>9)</sup>	Industrial producer prices <sup>10)</sup>	Hourly labour costs (whole economy) <sup>11)</sup>	Real GDP <sup>12)</sup>	Industrial production (excluding construction) <sup>13)</sup>	Capacity utilisation in manufacturing (percentages) <sup>14)</sup>	Employment (whole economy) <sup>15)</sup>	Unemployment (% of labour force) <sup>16)</sup>
2000	2.3	5.5	3.4	3.3	5.5	83.8	2.1	8.7
<i>Euro area enlargement</i>								
2001	2.5	2.1	3.2	1.5	0.2	83.2	1.3	8.3
2001 Q2	3.1	3.6	2.9	1.6	0.8	83.6	1.4	8.3
Q3	2.5	1.4	3.5	1.4	-0.3	83.0	1.1	8.3
Q4	2.2	-1.0	3.0	0.6	-3.7	81.8	0.9	8.4
2002 Q1	2.5	.	.	.	.	80.8	.	8.4
2001 Dec.	2.0	-1.1	-	-	-4.5	-	-	8.4
2002 Jan.	2.7	-0.8	-	-	-3.2	-	-	8.4
Feb.	2.4	-1.1	-	-	-3.6	-	-	8.4
Mar.	2.5	.	-	-	.	-	-	8.4
Apr.	2.2	.	-	-	.	-	-	.

### 3. Balance of payments, reserve assets and exchange rates

(EUR billions, unless otherwise indicated)

	Balance of payments (net flows)				Reserve assets (end-of-period positions) <sup>21)</sup>	Effective exchange rate of the euro: broad group (1999 Q1 = 100)		USD/EUR exchange rate <sup>24)</sup>
	Current and capital accounts <sup>17)</sup>	Goods <sup>18)</sup>	Direct investment <sup>19)</sup>	Portfolio investment <sup>20)</sup>		Nominal <sup>22)</sup>	Real (CPI) <sup>23)</sup>	
2000	-50.2	35.6	17.6	-111.5	378.0	88.2	86.3	0.924
<i>Euro area enlargement</i>								
2001	10.4	81.8	-104.6	36.5	392.4	91.0	88.1	0.896
2001 Q2	-6.4	15.9	-51.7	25.7	410.0	89.5	86.8	0.873
Q3	8.4	24.8	-22.4	49.6	393.4	91.2	88.0	0.890
Q4	15.9	35.6	10.1	-0.3	392.4	92.0	88.6	0.896
2002 Q1	.	.	.	.	409.0	91.3	87.9	0.877
2001 Dec.	5.0	12.0	2.0	-15.4	392.4	91.9	88.5	0.892
2002 Jan.	1.1	2.1	4.3	-41.3	407.8	91.6	88.2	0.883
Feb.	2.3	8.2	-9.9	-9.9	411.4	91.1	87.6	0.870
Mar.	.	.	.	.	409.0	91.2	87.9	0.876
Apr.	.	.	.	.	.	91.7	88.0	0.886

Sources: ECB, European Commission (Eurostat and Economic and Financial Affairs DG) and Reuters.

For more information on the data, see the relevant tables in the "Euro area statistics" section.

1) Monthly growth rates refer to the end of the period, whereas quarterly and annual growth rates are calculated as period averages. Growth rates for M1, M2, M3 and loans are calculated on the basis of seasonally adjusted monthly stocks and flows.

2) M3 and its components exclude holdings by non-residents of the euro area of money market fund shares/units, money market paper and debt securities up to 2 years.



# I Monetary policy statistics

**Table 1.1**

**Consolidated financial statement of the Eurosystem**

(EUR millions)

**1. Assets**

	Gold and gold receivables	Claims on non-euro area residents in foreign currency	Claims on euro area residents in foreign currency	Claims on non-euro area residents in euro	Lending to euro area credit institutions in euro	Main refinancing operations	Longer-term refinancing operations	Fine-tuning reverse operations
	1	2	3	4	5	6	7	8
2001 30 Nov.	128,233	264,230	21,900	5,956	201,288	88,001	60,001	0
7 Dec.	128,228	266,093	21,572	6,040	199,026	139,001	60,001	0
14	128,228	264,143	23,388	5,823	194,462	134,001	60,001	0
21	128,227	263,756	22,269	5,699	186,228	123,000	60,000	0
28	126,801	264,607	25,200	5,736	203,597	142,000	60,000	0
2002 4 Jan.	126,801	265,809	23,862	6,280	201,109	116,000	60,000	25,000
11	126,801	266,160	23,154	6,413	174,073	114,000	60,000	0
18	126,801	270,820	20,624	6,224	165,037	105,000	60,000	0
25	126,801	269,475	22,236	6,312	185,053	125,000	60,000	0
1 Feb.	126,801	267,766	21,901	6,498	201,055	141,000	60,000	0
8	126,801	267,929	20,878	6,150	189,033	128,998	60,000	0
15	126,801	269,623	21,550	5,948	186,017	126,000	60,000	0
22	126,801	267,712	21,037	5,330	169,730	107,000	60,000	0
1 Mar.	126,801	266,023	21,985	5,448	183,030	123,001	60,001	0
8	126,766	267,945	21,210	5,133	178,014	117,999	60,001	0
15	126,869	269,552	22,201	5,229	168,094	108,085	60,001	0
22	126,814	269,425	22,411	5,050	170,646	110,087	60,001	0
29	139,808	267,653	21,845	5,198	192,716	132,000	60,000	0
5 Apr.	139,808	269,459	20,703	5,322	178,008	117,999	60,000	0
12	139,808	266,663	21,218	5,162	163,109	103,000	60,000	0
19	139,808	267,964	21,492	5,053	157,009	96,999	60,000	0
26	139,502	264,366	23,330	4,854	169,028	108,999	59,999	0

**2. Liabilities**

	Banknotes in circulation	Liabilities to euro area credit institutions in euro	Current accounts (covering the minimum reserve system)	Deposit facility	Fixed-term deposits	Fine-tuning reverse operations	Deposits related to margin calls	Other liabilities to euro area credit institutions in euro	Debt certificates issued
	1	2	3	4	5	6	7	8	9
2001 30 Nov.	300,093	131,734	131,577	152	0	0	5	21,096	2,939
7 Dec.	302,095	117,849	117,792	51	0	0	6	24,217	2,939
14	296,918	130,282	130,010	263	0	0	9	27,447	2,939
21	292,780	126,867	120,378	6,485	0	0	4	29,604	2,939
28	278,110	142,595	142,126	465	0	0	4	34,757	2,939
2002 4 Jan.	394,627	131,467	131,338	121	0	0	8	23,657	2,939
11	375,052	129,061	128,927	130	0	0	4	23,771	2,939
18	349,219	139,161	139,001	155	0	0	5	23,811	2,939
25	325,771	130,845	130,804	37	0	0	4	12,379	2,939
1 Feb.	312,923	134,033	133,974	59	0	0	0	2,116	2,939
8	305,434	128,443	128,397	46	0	0	0	2,172	2,939
15	296,361	138,276	138,204	72	0	0	0	2,269	2,939
22	287,727	132,339	131,839	500	0	0	0	2,119	2,939
1 Mar.	285,800	134,936	134,872	52	0	0	12	2,636	2,939
8	284,562	132,856	132,795	46	0	0	15	2,610	2,939
15	281,713	134,298	134,226	55	0	0	17	2,443	2,939
22	280,237	133,942	133,081	844	0	0	17	2,188	2,939
29	287,483	131,372	131,315	53	0	0	4	2,221	2,939
5 Apr.	287,729	132,421	132,396	24	0	0	1	2,264	2,939
12	285,822	134,011	133,008	1,002	0	0	1	2,306	2,939
19	284,884	134,321	134,307	13	0	0	1	2,166	2,939
26	286,516	132,223	132,104	119	0	0	0	2,250	2,939

Source: ECB.

Structural reverse operations	Marginal lending facility	Credits related to margin calls	Other claims on euro area credit institutions in euro	Securities of euro area residents in euro	General government debt in euro	Other assets	Total		
							16	16	
9	10	11	12	13	14	15	16		
53,000	276	10	499	28,273	70,088	90,221	810,690		2001 30 Nov.
0	12	12	421	28,113	70,102	90,264	809,860		7 Dec.
0	454	6	419	28,180	70,000	90,907	805,551		14
0	3,199	29	404	28,210	69,599	91,039	795,432		21
0	1,573	24	487	27,981	68,729	91,523	814,662		28
0	30	79	88,488	27,924	68,603	90,355	899,232		2002 4 Jan.
0	65	8	88,487	27,847	68,611	90,554	872,101		11
0	30	7	88,490	27,917	68,616	90,323	864,853		18
0	28	25	44,363	27,927	68,616	88,903	839,687		25
0	11	44	531	27,601	68,575	89,397	810,126		1 Feb.
0	15	20	526	27,922	68,577	89,107	796,924		8
0	16	1	346	28,163	68,576	89,769	796,794		15
0	2,727	3	233	29,048	68,572	88,938	777,402		22
0	23	5	391	29,172	68,577	88,743	790,171		1 Mar.
0	11	3	374	29,479	68,580	88,823	786,325		8
0	5	3	375	29,367	68,590	88,696	778,974		15
0	547	11	256	29,312	68,622	89,303	781,840		22
0	704	12	296	29,153	68,639	89,592	814,901		29
0	1	8	253	29,100	68,611	88,877	800,142		5 Apr.
0	105	4	230	30,051	67,733	88,941	782,916		12
0	6	4	238	30,288	67,702	89,249	778,804		19
0	21	9	237	30,463	67,706	89,348	788,835		26

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	Other liabilities	Revaluation accounts	Capital and reserves	Total		
								18	18	
10	11	12	13	14	15	16	17	18		
54,422	8,580	2,524	21,215	6,889	75,754	124,991	60,453	810,690		2001 30 Nov.
60,080	9,019	2,506	22,848	6,889	75,974	124,991	60,453	809,860		7 Dec.
44,885	9,172	2,410	22,900	6,889	76,264	124,991	60,454	805,551		14
40,300	9,481	2,412	21,389	6,889	77,326	124,991	60,454	795,432		21
50,902	9,446	2,525	20,458	6,967	78,073	125,309	62,581	814,662		28
39,193	10,860	2,670	20,807	6,967	77,594	125,288	63,164	899,232		2002 4 Jan.
36,511	8,471	2,716	20,675	6,967	77,448	125,318	63,173	872,101		11
42,861	8,451	2,605	22,998	6,967	77,375	125,318	63,149	864,853		18
61,347	8,538	2,584	23,432	6,967	76,451	125,318	63,117	839,687		25
54,483	8,738	2,713	21,300	6,967	75,480	125,316	63,119	810,126		1 Feb.
55,608	8,508	2,589	20,545	6,967	75,324	125,316	63,080	796,924		8
52,811	8,524	2,623	21,454	6,967	76,198	125,316	63,057	796,794		15
49,650	8,633	2,599	18,987	6,967	77,016	125,316	63,111	777,402		22
62,731	8,365	2,847	17,926	6,967	76,560	125,320	63,145	790,171		1 Mar.
61,818	8,294	2,616	19,587	6,967	75,625	125,320	63,132	786,325		8
52,802	8,691	2,684	22,407	6,967	75,588	125,320	63,123	778,974		15
57,084	8,489	2,558	22,938	6,967	75,886	125,320	63,293	781,840		22
74,560	8,675	1,833	22,061	6,990	76,515	136,887	63,365	814,901		29
59,263	8,500	1,477	22,153	6,990	75,797	136,887	63,722	800,142		5 Apr.
55,955	8,518	1,489	20,024	6,990	64,246	136,887	63,729	782,916		12
50,964	8,302	1,441	21,003	6,990	65,173	136,887	63,734	778,804		19
63,552	8,430	1,398	19,124	6,990	64,792	136,887	63,734	788,835		26

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

With effect from <sup>1)</sup>	Deposit facility		Main refinancing operations			Marginal lending facility	
			Fixed rate tenders	Variable rate tenders			
			Fixed rate	Minimum bid rate			
	Level 1	Change 2	Level 3	Level 4	Change 5	Level 6	Change 7
1999 1 Jan.	2.00	-	3.00	-	-	4.50	-
4 <sup>2)</sup>	2.75	0.75	3.00	-	...	3.25	-1.25
22	2.00	-0.75	3.00	-	...	4.50	1.25
9 Apr.	1.50	-0.50	2.50	-	-0.50	3.50	-1.00
5 Nov.	2.00	0.50	3.00	-	0.50	4.00	0.50
2000 4 Feb.	2.25	0.25	3.25	-	0.25	4.25	0.25
17 Mar.	2.50	0.25	3.50	-	0.25	4.50	0.25
28 Apr.	2.75	0.25	3.75	-	0.25	4.75	0.25
9 June	3.25	0.50	4.25	-	0.50	5.25	0.50
28 <sup>3)</sup>	3.25	...	-	4.25	...	5.25	...
1 Sep.	3.50	0.25	-	4.50	0.25	5.50	0.25
6 Oct.	3.75	0.25	-	4.75	0.25	5.75	0.25
<i>Euro area enlargement</i>							
2001 11 May	3.50	-0.25	-	4.50	-0.25	5.50	-0.25
31 Aug.	3.25	-0.25	-	4.25	-0.25	5.25	-0.25
18 Sep.	2.75	-0.50	-	3.75	-0.50	4.75	-0.50
9 Nov.	2.25	-0.50	-	3.25	-0.50	4.25	-0.50

Source: ECB.

- 1) The date refers to the deposit and marginal lending facilities. For main refinancing operations, unless otherwise indicated, changes in the rate are effective from the first operation following the date indicated. The change on 18 September 2001 was effective on that same day.
- 2) On 22 December 1998 the ECB announced that, as an exceptional measure between 4 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.
- 3) On 8 June 2000 the ECB announced that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders. The minimum bid rate refers to the minimum interest rate at which counterparties may place their bids.

**Table 1.3****Eurosystem monetary policy operations allotted through tenders <sup>1)</sup>***(EUR millions; interest rates in percentages per annum)***1. Main refinancing operations <sup>2)</sup>**

Date of settlement	Bids (amount)	Allotment (amount)	Fixed rate tenders		Variable rate tenders		Running for (...) days
			Fixed rate	Minimum bid rate	Marginal rate <sup>3)</sup>	Weighted average rate	
	1	2	3	4	5	6	7
2001 7 Nov.	38,368	38,368	-	3.75	3.75	3.75	14
14	174,732	116,000	-	3.25	3.37	3.40	14
21	63,173	17,000	-	3.25	3.26	3.27	14
28	95,578	71,000	-	3.25	3.27	3.29	14
5 Dec.	106,643	68,000	-	3.25	3.27	3.27	14
12	109,662	66,000	-	3.25	3.27	3.27	16
19	140,810	57,000	-	3.25	3.43	3.46	14
28	105,649	85,000	-	3.25	3.45	3.52	12
2002 2 Jan.	88,696	31,000	-	3.25	3.28	3.29	14
9	155,890	83,000	-	3.25	3.30	3.32	14
16	116,846	22,000	-	3.25	3.31	3.32	14
23	146,286	103,000	-	3.25	3.29	3.30	14
30	108,013	38,000	-	3.25	3.31	3.32	13
6 Feb.	156,977	91,000	-	3.25	3.30	3.31	14
12	90,332	35,000	-	3.25	3.29	3.30	15
20	135,530	72,000	-	3.25	3.28	3.29	14
27	127,024	51,000	-	3.25	3.29	3.30	14
6 Mar.	127,212	67,000	-	3.25	3.29	3.30	12
13	90,424	41,000	-	3.25	3.27	3.28	14
18	107,575	69,000	-	3.25	3.28	3.29	17
27	121,842	63,000	-	3.25	3.33	3.34	14
4 Apr.	112,796	55,000	-	3.25	3.30	3.31	13
10	112,847	48,000	-	3.25	3.29	3.29	14
17	102,694	49,000	-	3.25	3.27	3.28	13
24	115,604	60,000	-	3.25	3.30	3.31	14
30	106,166	49,000	-	3.25	3.30	3.31	15

## 2. Longer-term refinancing operations

Date of settlement	Bids (amount)	Allotment (amount)	Fixed rate tenders		Variable rate tenders		Running for (...) days
			Fixed rate	Marginal rate <sup>3)</sup>	Weighted average rate		
	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	98	
29 Apr.	66,911	15,000	-	2.53	2.54	91	
27 May	72,294	15,000	-	2.53	2.54	91	
1 July	76,284	15,000	-	2.63	2.64	91	
29	64,973	15,000	-	2.65	2.66	91	
26 Aug.	52,416	15,000	-	2.65	2.66	91	
30 Sep.	41,443	15,000	-	2.66	2.67	84	
28 Oct.	74,430	25,000	-	3.19	3.42	91	
25 Nov.	74,988	25,000	-	3.18	3.27	98	
23 Dec.	91,088	25,000	-	3.26	3.29	98	
2000 27 Jan.	87,052	20,000	-	3.28	3.30	91	
2 Mar.	72,960	20,000	-	3.60	3.61	91	
30	74,929	20,000	-	3.78	3.80	91	
27 Apr.	64,094	20,000	-	4.00	4.01	91	
1 June	64,317	20,000	-	4.40	4.42	91	
29	41,833	20,000	-	4.49	4.52	91	
27 July	40,799	15,000	-	4.59	4.60	91	
31 Aug.	35,417	15,000	-	4.84	4.87	91	
28 Sep.	34,043	15,000	-	4.84	4.86	92	
26 Oct.	43,085	15,000	-	5.06	5.07	91	
30 Nov.	31,999	15,000	-	5.03	5.05	91	
29 Dec.	15,869	15,000	-	4.75	4.81	90	
<i>Euro area enlargement</i>							
2001 25 Jan.	31,905	20,000	-	4.66	4.69	90	
1 Mar.	45,755	20,000	-	4.69	4.72	91	
29	38,169	19,101	-	4.47	4.50	91	
25 Apr.	43,416	20,000	-	4.67	4.70	92	
31 May	46,448	20,000	-	4.49	4.51	91	
28 June	44,243	20,000	-	4.36	4.39	91	
26 July	39,369	20,000	-	4.39	4.42	91	
30 Aug.	37,855	20,000	-	4.20	4.23	91	
27 Sep.	28,269	20,000	-	3.55	3.58	85	
25 Oct.	42,308	20,000	-	3.50	3.52	98	
29 Nov.	49,135	20,000	-	3.32	3.34	91	
21 Dec.	38,178	20,000	-	3.29	3.31	97	
2002 31 Jan.	44,547	20,000	-	3.31	3.33	84	
28 Feb.	47,001	20,000	-	3.32	3.33	91	
28 Mar.	39,976	20,000	-	3.40	3.42	91	
25 Apr.	40,580	20,000	-	3.35	3.36	91	

## 3. Other tender operations

Date of settlement	Type of operation	Bids (amount)	Allotment (amount)	Fixed rate tenders		Variable rate tenders		Running for (...) days
				Fixed rate	Minimum bid rate	Marginal rate <sup>3)</sup>	Weighted average rate	
	1	2	3	4	5	6	7	8
2000 5 Jan. <sup>4)</sup>	Collection of fixed-term deposits	14,420	14,420	-	-	3.00	3.00	7
21 June	Reverse transaction	18,845	7,000	-	-	4.26	4.28	1
<i>Euro area enlargement</i>								
2001 30 Apr.	Reverse transaction	105,377	73,000	-	4.75	4.77	4.79	7
12 Sep.	Reverse transaction	69,281	69,281	4.25	-	-	-	1
13	Reverse transaction	40,495	40,495	4.25	-	-	-	1
28 Nov.	Reverse transaction	73,096	53,000	-	3.25	3.28	3.29	7
2002 4 Jan.	Reverse transaction	57,644	25,000	-	3.25	3.30	3.32	3
10	Reverse transaction	59,377	40,000	-	3.25	3.28	3.30	1

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 settled.

2) On 8 June 2000 the ECB announced that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders. The minimum bid rate refers to the minimum interest rate at which counterparties may place their bids.

3) In liquidity providing (absorbing) operations, the marginal rate refers to the lowest (highest) rate at which bids were accepted.

4) This operation was conducted with a maximum rate of 3.00%.

**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
2001 Mar.	10,503.6	5,883.5	151.1	203.4	1,292.6	654.7	2,318.3
Apr.	10,554.6	5,924.3	154.5	202.8	1,292.1	657.7	2,323.2
May	10,687.3	5,984.7	166.6	198.9	1,307.5	693.2	2,336.4
June	10,705.3	6,015.6	175.7	198.7	1,314.2	656.6	2,344.5
July	10,590.4	5,912.2	183.4	199.1	1,312.5	636.2	2,346.9
Aug.	10,551.6	5,872.7	187.8	190.2	1,309.3	654.1	2,337.6
Sep.	10,627.3	5,956.0	188.2	191.3	1,315.7	631.6	2,344.6
Oct.	10,687.8	5,962.3	190.8	196.5	1,313.7	672.4	2,352.2
Nov.	10,798.1	6,073.4	199.0	191.3	1,300.9	656.5	2,376.9
Dec.	10,910.1	6,226.1	204.7	185.0	1,315.2	605.1	2,374.0
2002 Jan.	10,952.8	6,195.2	194.7	202.2	1,350.7	610.8	2,399.0
Feb.	10,964.1	6,164.7	196.8	196.0	1,337.1	653.2	2,416.3
Mar. <sup>(p)</sup>	11,030.1	6,175.4	202.7	199.7	1,349.3	662.9	2,440.1

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 two years and of money market paper held by the institutions mentioned above, it may deduct a certain percentage of these liabilities from its reserve base. This percentage was 10% for calculating the reserve base until November 1999, and 30% thereafter.
- 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
2001 May	124.2	124.8	0.7	0.0	4.71
June	125.0	125.6	0.6	0.0	4.52
July	126.4	127.0	0.6	0.0	4.51
Aug.	127.2	127.7	0.5	0.0	4.50
Sep.	125.3	126.0	0.7	0.0	4.27
Oct.	124.4	125.0	0.6	0.0	3.76
Nov.	126.1	126.6	0.5	0.0	3.62
Dec.	126.4	127.3	0.9	0.0	3.30
2002 Jan.	128.7	130.1	1.4	0.0	3.34
Feb.	131.7	132.4	0.7	0.0	3.30
Mar.	131.3	132.0	0.7	0.0	3.28
Apr.	130.6	131.1	0.5	0.0	3.30
May <sup>(p)</sup>	131.0	.	.	.	.

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>4)</sup>	Base money <sup>5)</sup>
	Monetary policy operations of the Eurosystem						Banknotes in circulation	Central government deposits with the Eurosystem	Other factors (net) <sup>3)</sup>			
	Eurosystem's net assets in gold and foreign currency <sup>1)</sup>	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations <sup>2)</sup>	Deposit facility						
1	2	3	4	5	6	7	8	9	10	11	12	
2001 Mar.	375.6	185.2	54.1	0.4	0.0	0.5	0.0	353.0	53.0	87.7	121.0	474.5
Apr.	382.1	172.4	58.4	2.2	0.0	0.5	0.0	354.6	49.5	89.1	121.4	476.4
May	384.4	144.0	59.1	0.4	17.0	0.6	0.0	352.7	39.4	87.5	124.8	478.1
June	385.0	161.7	59.1	0.2	0.0	0.4	0.0	351.1	41.3	87.5	125.7	477.3
July	397.6	161.9	59.9	0.2	0.0	0.4	0.0	350.8	42.5	98.8	127.1	478.3
Aug.	402.1	164.0	60.0	0.1	0.0	0.2	0.0	347.6	48.8	101.8	127.8	475.6
Sep.	401.3	147.1	60.0	0.5	3.5	0.4	0.0	335.4	45.2	105.4	126.1	461.9
Oct.	389.9	136.7	60.0	1.1	0.0	0.1	0.0	325.2	43.6	93.6	125.1	450.4
Nov.	385.0	132.3	60.0	0.2	0.0	0.3	0.0	311.3	46.1	93.1	126.7	438.3
Dec.	383.7	122.5	60.0	0.5	12.4	0.8	0.0	298.0	43.5	109.3	127.4	426.2
2002 Jan.	385.2	118.5	60.0	0.4	3.7	0.6	0.0	344.3	38.3	54.2	130.4	475.2
Feb.	386.0	127.3	60.0	0.2	0.0	0.1	0.0	306.2	49.6	85.2	132.6	438.8
Mar.	386.7	114.6	60.0	0.2	0.0	0.1	0.0	283.3	54.2	91.8	132.1	415.6
Apr. <sup>6)</sup>	395.4	112.7	60.0	0.4	0.0	0.2	0.0	285.9	55.9	95.3	131.2	417.3

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) Excludes the issuance of debt certificates initiated by national central banks in Stage Two.

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 10).

5) Calculated as the sum of the deposit facility (item 6), banknotes in circulation (item 8) and credit institutions' current account holdings (item 11).

## 2 Monetary developments in the euro area

**Table 2.1**

### Aggregated balance sheet of the Eurosystem

(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				Holdings of shares/other equity issued by euro area residents			External assets <sup>1)</sup>	Fixed assets	Re-maining assets	Total	
	1	MFIs <sup>1)</sup>	General government	Other euro area residents	5	MFIs	General government	Other euro area residents	9	MFIs	Other euro area residents					11
1999	444.6	424.3	19.7	0.5	89.1	1.9	86.1	1.1	14.1	4.3	9.8	400.6	9.9	56.2	1,014.5	
2000 Q1	443.4	424.5	18.4	0.5	96.2	2.4	92.7	1.1	14.4	4.3	10.1	439.1	9.8	48.9	1,051.9	
Q2	580.7	561.8	18.4	0.5	97.4	2.6	93.6	1.2	14.7	4.4	10.4	454.8	10.0	51.8	1,209.3	
Q3	493.1	474.4	18.2	0.5	98.5	2.9	94.6	1.0	14.6	4.4	10.2	459.1	10.2	54.4	1,129.8	
Q4	445.0	427.4	17.1	0.5	97.4	2.5	93.6	1.3	15.3	4.3	11.0	380.7	11.2	56.1	1,005.8	
<i>Euro area enlargement</i>																
2001 Mar.	401.7	373.9	27.2	0.6	105.0	2.7	101.2	1.1	14.7	4.6	10.1	396.8	11.3	54.4	983.9	
Apr.	376.1	348.3	27.2	0.6	106.5	2.6	102.7	1.3	14.7	4.6	10.1	390.3	11.7	53.6	953.0	
May	398.5	370.7	27.2	0.6	106.4	2.9	102.3	1.3	14.3	4.6	9.7	398.9	11.8	53.2	983.2	
June	426.0	398.2	27.2	0.6	105.8	3.1	101.5	1.2	14.2	4.6	9.6	414.7	11.9	54.5	1,027.2	
July	424.4	396.6	27.2	0.6	106.9	3.3	102.4	1.2	14.3	4.7	9.7	404.9	12.0	57.3	1,019.9	
Aug.	391.1	363.3	27.2	0.6	107.6	3.5	102.9	1.2	14.0	4.6	9.4	396.9	12.0	54.6	976.0	
Sep.	388.2	360.4	27.2	0.6	106.6	3.7	101.9	1.1	13.1	4.8	8.3	397.1	11.9	54.9	971.8	
Oct.	356.7	328.9	27.2	0.6	107.8	3.9	102.8	1.2	13.4	4.8	8.7	400.0	12.0	55.6	945.6	
Nov.	370.0	342.4	27.1	0.6	107.3	3.8	102.2	1.2	13.6	4.7	8.9	400.5	12.1	55.1	958.6	
Dec.	412.7	386.4	25.7	0.6	107.0	3.8	101.8	1.3	13.8	4.6	9.2	399.0	12.1	54.4	998.9	
2002 Jan.	416.9	390.6	25.7	0.6	104.1	3.8	99.0	1.3	13.8	4.7	9.1	409.0	12.2	81.9	1,037.9	
Feb.	390.5	364.2	25.7	0.6	105.9	4.1	100.6	1.2	13.7	4.7	9.0	413.4	12.0	82.6	1,018.2	
Mar. <sup>(p)</sup>	401.3	374.9	25.8	0.6	106.5	4.2	101.0	1.4	13.8	4.7	9.1	414.3	11.9	82.6	1,030.5	

#### 2. Liabilities

	Currency in circulation		Deposits of euro area residents			Money market paper and debt securities issued	Capital and reserves	External liabilities <sup>1)</sup>	Remaining liabilities	Total		
	1	2	MFIs <sup>1)</sup>	Central government	Other general government/other euro area residents						3	4
1999	393.4	341.5	279.3	53.4	8.8	7.9	174.3	49.8	47.6	1,014.5		
2000 Q1	366.2	372.1	319.8	43.1	9.1	6.3	186.5	75.1	45.7	1,051.9		
Q2	374.4	497.9	432.8	52.6	12.5	6.3	193.4	92.0	45.4	1,209.3		
Q3	373.5	404.2	346.1	45.6	12.5	4.6	221.2	75.0	51.4	1,129.8		
Q4	390.3	327.3	270.4	47.1	9.8	3.8	197.5	29.9	57.0	1,005.8		
<i>Euro area enlargement</i>												
2001 Mar.	370.6	312.6	253.4	46.8	12.4	5.5	204.6	26.8	63.8	983.9		
Apr.	372.6	289.9	234.8	41.2	13.8	5.5	205.6	25.3	54.1	953.0		
May	369.6	317.5	266.5	36.0	15.1	5.5	212.1	27.6	50.9	983.2		
June	368.9	342.2	274.1	51.8	16.3	5.6	223.7	32.6	54.2	1,027.2		
July	366.9	343.5	282.7	46.9	14.0	5.6	214.7	31.9	57.3	1,019.9		
Aug.	356.1	320.4	259.2	46.6	14.7	5.6	211.6	28.4	53.9	976.0		
Sep.	346.2	323.6	269.4	37.6	16.6	5.5	209.2	30.0	57.3	971.8		
Oct.	333.9	302.8	244.7	40.0	18.1	5.5	210.6	34.3	58.5	945.6		
Nov.	317.5	330.4	277.5	35.2	17.6	4.7	210.1	35.3	60.6	958.6		
Dec.	285.9	391.9	342.4	35.1	14.4	4.6	211.7	35.6	69.1	998.9		
2002 Jan.	337.9	345.0	284.9	44.9	15.2	4.6	216.2	37.4	96.9	1,037.9		
Feb.	306.7	348.7	281.9	52.1	14.7	4.6	219.8	33.9	104.5	1,018.2		
Mar. <sup>(p)</sup>	307.8	354.0	281.4	56.3	16.4	4.6	217.8	36.8	109.4	1,030.5		

Source: ECB.

1) Since the end of November 2000, balances arising from the TARGET system are netted by novation on a daily basis. This implies that the bilateral positions of each NCB vis-à-vis the ECB and other NCBs have been replaced by a single net bilateral position vis-à-vis the ECB. For the TARGET gross end-month positions in 1999 and in 2000 (January to October), see the corresponding footnote in the February 2000 and December 2000 issues of the ECB Monthly Bulletin.

Table 2.2

## Aggregated balance sheet of the euro area MFIs, excluding the Eurosystem

(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	MFIs			Money market paper	Holdings of shares/other equity issued by euro area residents	Other euro area residents		External assets	Fixed assets	Remaining assets	Total
	1	2	3	4		5	6	7			8	9				
1999	9,779.9	3,414.1	828.3	5,537.5	2,179.4	828.8	1,123.8	226.7	129.9	650.6	211.5	439.1	1,719.6	154.0	919.4	15,532.8
2000 Q1	10,021.5	3,511.4	821.4	5,688.7	2,225.2	869.3	1,128.1	227.8	131.9	729.6	230.2	499.4	1,822.7	152.0	977.6	16,060.4
Q2	10,126.0	3,462.2	817.3	5,846.5	2,211.2	894.9	1,073.3	243.0	151.4	704.0	210.0	494.0	1,892.4	154.2	1,023.3	16,262.6
Q3	10,235.9	3,456.4	799.9	5,979.7	2,231.7	940.5	1,033.9	257.2	142.0	707.6	204.1	503.5	2,003.7	155.9	1,034.6	16,511.4
Q4	10,419.8	3,510.4	818.8	6,090.6	2,192.5	932.7	995.9	263.9	142.8	750.9	240.2	510.8	2,025.8	158.7	1,015.4	16,705.8
<i>Euro area enlargement</i>																
2001 Mar.	10,805.5	3,707.3	825.4	6,272.8	2,319.0	968.4	1,064.0	286.5	158.1	812.2	255.3	556.9	2,240.2	160.8	1,097.2	17,592.9
Apr.	10,775.9	3,646.7	817.2	6,312.1	2,336.7	975.4	1,068.7	292.6	163.0	836.1	259.3	576.7	2,223.6	161.5	1,110.8	17,607.6
May	10,800.1	3,655.4	812.1	6,332.6	2,379.1	991.2	1,089.1	298.8	163.4	835.9	258.4	577.5	2,275.9	162.8	1,131.8	17,749.1
June	10,886.9	3,691.1	809.4	6,386.3	2,393.9	990.3	1,103.8	299.8	166.6	799.2	251.3	547.9	2,287.9	163.5	1,128.3	17,826.3
July	10,846.3	3,647.2	806.6	6,392.5	2,416.3	1,005.0	1,098.0	313.3	169.2	795.0	252.4	542.6	2,212.5	164.6	1,073.8	17,677.6
Aug.	10,821.3	3,651.1	802.5	6,367.7	2,414.8	1,003.7	1,089.0	322.1	163.4	783.2	247.5	535.7	2,224.6	164.9	1,064.9	17,637.2
Sep.	10,946.1	3,722.5	803.6	6,420.0	2,413.9	995.5	1,092.4	325.9	163.8	771.5	245.1	526.4	2,297.6	165.7	1,115.8	17,874.4
Oct.	10,969.9	3,719.2	801.0	6,449.7	2,415.5	1,004.2	1,083.1	328.2	167.1	778.9	244.0	534.9	2,339.5	166.3	1,147.2	17,984.3
Nov.	11,110.7	3,793.6	816.2	6,500.9	2,428.9	1,009.6	1,087.9	331.4	158.8	782.3	246.8	535.5	2,425.1	167.1	1,136.5	18,209.3
Dec.	11,128.1	3,787.7	822.0	6,518.4	2,420.0	1,008.0	1,076.6	335.4	153.8	809.5	251.1	558.4	2,404.6	168.1	1,131.8	18,216.0
2002 Jan.	11,059.1	3,706.7	819.1	6,533.3	2,465.5	1,018.6	1,106.7	340.2	169.4	810.8	252.3	558.5	2,418.1	165.4	1,159.1	18,247.4
Feb.	11,042.1	3,672.6	821.8	6,547.7	2,485.2	1,030.4	1,106.5	348.4	167.6	811.3	254.2	557.1	2,417.3	164.6	1,096.0	18,184.1
Mar. <sup>(p)</sup>	11,185.8	3,755.7	829.1	6,601.0	2,518.7	1,045.3	1,128.2	345.2	173.1	808.9	259.2	549.7	2,429.7	164.3	1,029.1	18,309.6

## 2. Liabilities

	Currency in circulation	Deposits of euro area residents	MFIs	Central government	Other general government/other euro area residents	Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements	Money market fund shares/units <sup>1)</sup>	Money market paper and debt securities issued <sup>1)</sup>	Capital and reserves	External liabilities	Remaining liabilities	Total
1999	0.7	8,735.7	3,590.9	88.6	5,056.2	1,537.6	2,043.2	1,331.5	143.9	293.4	2,531.1	849.1	1,870.4	1,252.4	15,532.8
2000 Q1	0.7	8,810.0	3,612.6	87.0	5,110.3	1,568.1	2,052.7	1,312.1	177.3	325.1	2,590.1	890.6	2,099.3	1,344.7	16,060.4
Q2	0.6	8,850.2	3,621.0	93.3	5,135.9	1,596.3	2,080.9	1,291.4	167.3	344.7	2,652.3	898.6	2,120.5	1,395.6	16,262.6
Q3	0.0	8,859.4	3,595.4	113.7	5,150.4	1,577.2	2,129.3	1,272.4	171.4	334.8	2,720.5	913.6	2,295.1	1,388.0	16,511.4
Q4	0.0	9,057.2	3,679.4	117.4	5,260.5	1,648.9	2,159.8	1,276.9	174.9	323.3	2,712.9	941.5	2,299.5	1,371.3	16,705.8
<i>Euro area enlargement</i>															
2001 Mar.	0.0	9,325.2	3,806.2	103.6	5,415.4	1,624.0	2,242.6	1,322.8	225.9	358.8	2,817.4	982.4	2,636.2	1,472.9	17,592.9
Apr.	0.0	9,302.7	3,747.9	111.3	5,443.5	1,653.5	2,241.3	1,323.9	224.9	367.0	2,829.9	986.4	2,651.0	1,470.4	17,607.6
May	0.0	9,337.3	3,746.5	110.9	5,479.9	1,677.1	2,243.0	1,322.5	237.4	378.2	2,845.6	991.0	2,727.4	1,469.6	17,749.1
June	0.0	9,424.1	3,798.4	113.7	5,511.9	1,715.9	2,240.7	1,330.8	224.5	382.2	2,861.3	998.2	2,710.6	1,449.9	17,826.3
July	0.0	9,365.3	3,755.5	108.7	5,501.1	1,699.1	2,242.0	1,333.6	226.4	393.6	2,872.7	997.7	2,610.9	1,437.4	17,677.6
Aug.	0.0	9,344.8	3,746.6	105.8	5,492.4	1,667.0	2,254.3	1,337.3	233.9	405.1	2,859.9	1,000.5	2,591.5	1,435.4	17,637.2
Sep.	0.0	9,484.5	3,832.2	110.2	5,542.1	1,733.7	2,237.6	1,342.6	228.2	410.4	2,874.4	1,011.3	2,609.8	1,483.9	17,874.4
Oct.	0.0	9,484.7	3,808.9	113.2	5,562.5	1,732.5	2,241.2	1,351.9	236.9	423.6	2,899.4	1,019.5	2,627.0	1,530.1	17,984.3
Nov.	0.0	9,601.3	3,868.7	115.1	5,617.4	1,780.8	2,242.1	1,365.0	229.5	434.6	2,887.3	1,024.2	2,690.4	1,571.6	18,209.3
Dec.	0.0	9,696.1	3,823.3	103.9	5,768.8	1,882.3	2,261.2	1,405.0	220.4	431.4	2,881.4	1,043.1	2,682.2	1,481.8	18,216.0
2002 Jan.	0.0	9,630.9	3,797.7	104.0	5,729.3	1,833.0	2,259.1	1,417.4	219.7	453.0	2,920.0	1,050.1	2,715.8	1,477.6	18,247.4
Feb.	0.0	9,571.2	3,738.4	103.7	5,729.2	1,829.1	2,256.2	1,419.3	224.5	465.3	2,931.6	1,050.6	2,728.2	1,437.2	18,184.1
Mar. <sup>(p)</sup>	0.0	9,671.4	3,815.9	101.1	5,754.5	1,827.8	2,275.4	1,420.8	230.5	473.1	2,968.9	1,053.9	2,745.0	1,397.2	18,309.6

Source: ECB.

1) Amounts held by residents of the euro area. Amounts held by non-residents of the euro area are included in external liabilities.



Table 2.3

## Consolidated balance sheet of the euro area MFIs, including the Eurosystem

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

## 1. Assets: levels

	Assets						Liabilities				Total
	Loans to euro area residents	General government	Other euro area residents	Holdings of securities other than shares issued by euro area residents	General government	Other euro area residents	Holdings of shares/ other equity issued by other euro area residents	External assets <sup>2)</sup>	Fixed assets	Remaining assets	
	1	2	3	4	5	6	7	8	9	10	11
2000 Sep.	6,798.3	818.1	5,980.1	1,386.7	1,128.5	258.2	513.7	2,462.8	166.0	1,054.5	12,382.0
Oct.	6,842.3	820.1	6,022.3	1,379.9	1,115.6	264.3	514.0	2,515.3	168.0	1,119.1	12,538.7
Nov.	6,884.1	827.1	6,057.0	1,376.0	1,112.2	263.7	515.8	2,488.0	167.7	1,068.1	12,499.7
Dec.	6,927.0	835.9	6,091.1	1,354.6	1,089.5	265.2	521.7	2,406.5	169.9	1,028.9	12,408.6
<i>Euro area enlargement</i>											
2001 1 Jan.	7,007.9	853.9	6,154.0	1,423.6	1,156.0	267.6	530.4	2,402.7	172.9	1,008.9	12,533.7
2001 Jan.	7,043.5	858.1	6,185.4	1,416.2	1,145.7	270.6	542.9	2,463.0	171.8	1,083.0	12,720.4
Feb.	7,056.4	849.9	6,206.5	1,435.7	1,156.2	279.6	549.8	2,483.6	172.3	1,072.0	12,769.7
Mar.	7,126.0	852.6	6,273.4	1,452.8	1,165.2	287.6	567.0	2,637.0	172.0	1,116.5	13,071.3
Apr.	7,157.1	844.4	6,312.7	1,465.2	1,171.4	293.8	586.8	2,613.9	173.3	1,127.3	13,123.6
May	7,172.5	839.3	6,333.2	1,491.5	1,191.4	300.1	587.2	2,674.8	174.6	1,147.5	13,248.2
June	7,223.5	836.6	6,386.9	1,506.3	1,205.3	301.0	557.5	2,702.7	175.4	1,146.2	13,311.6
July	7,226.9	833.8	6,393.1	1,514.9	1,200.4	314.5	552.2	2,617.4	176.5	1,091.5	13,179.4
Aug.	7,198.0	829.7	6,368.3	1,515.1	1,191.9	323.3	545.1	2,621.5	176.9	1,081.8	13,138.4
Sep.	7,251.4	830.8	6,420.6	1,521.3	1,194.3	327.0	534.7	2,694.7	177.6	1,133.4	13,313.1
Oct.	7,278.5	828.2	6,450.3	1,515.2	1,185.8	329.4	543.5	2,739.5	178.3	1,163.6	13,418.7
Nov.	7,344.8	843.3	6,501.5	1,522.8	1,190.1	332.7	544.5	2,825.6	179.1	1,153.1	13,569.8
Dec.	7,366.7	847.7	6,519.0	1,515.2	1,178.4	336.8	567.6	2,803.6	180.2	1,139.2	13,572.4
2002 Jan.	7,378.8	844.8	6,534.0	1,547.2	1,205.7	341.5	567.5	2,827.1	177.7	1,147.0	13,645.2
Feb.	7,395.9	847.5	6,548.3	1,556.6	1,207.1	349.6	566.1	2,830.7	176.6	1,109.9	13,635.7
Mar. <sup>(p)</sup>	7,456.5	854.9	6,601.6	1,575.8	1,229.2	346.6	558.8	2,844.1	176.2	1,056.3	13,667.6

## 2. Liabilities: levels

	Assets							Liabilities						Total
	Currency in circulation	Deposits of central government	Deposits of other general government/ other euro area residents	Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements	Money market fund shares/ units <sup>3)</sup>	Money market paper and debt securities issued <sup>3)</sup>	Capital and reserves	External liabilities <sup>2)</sup>	Re-maining liabilities	Excess of inter-MFI liabilities	
	1	2	3	4	5	6	7	8	9	10	11	12	13	
2000 Sep.	339.0	159.2	5,162.8	1,589.7	2,129.3	1,272.4	171.4	310.5	1,663.9	926.4	2,370.1	1,439.3	10.7	12,382.0
Oct.	336.8	172.4	5,166.5	1,590.9	2,141.4	1,263.7	170.6	313.5	1,684.6	932.9	2,437.6	1,481.8	12.5	12,538.7
Nov.	336.9	168.8	5,187.4	1,609.0	2,148.7	1,256.3	173.5	319.8	1,668.6	920.8	2,420.0	1,477.1	0.4	12,499.7
Dec.	347.6	164.5	5,270.3	1,658.7	2,159.8	1,276.9	174.9	300.1	1,662.0	894.6	2,329.4	1,428.2	11.9	12,408.6
<i>Euro area enlargement</i>														
2001 1 Jan.	355.3	166.2	5,395.1	1,673.3	2,198.4	1,328.2	195.2	300.1	1,663.7	912.1	2,219.4	1,455.2	12.1	12,533.7
2001 Jan.	335.3	147.1	5,379.6	1,623.8	2,212.2	1,329.8	213.8	313.2	1,695.7	909.0	2,445.7	1,473.7	21.1	12,720.4
Feb.	334.3	155.6	5,388.4	1,625.6	2,223.6	1,323.5	215.8	322.3	1,710.5	911.4	2,475.2	1,491.3	-19.2	12,769.7
Mar.	335.5	150.3	5,427.9	1,636.1	2,243.0	1,322.8	225.9	333.2	1,719.2	927.1	2,663.0	1,536.7	-21.6	13,071.3
Apr.	335.4	152.5	5,457.3	1,666.9	2,241.6	1,323.9	224.9	341.8	1,719.8	928.1	2,676.4	1,524.5	-12.2	13,123.6
May	332.1	146.9	5,495.0	1,691.8	2,243.3	1,322.5	237.4	351.3	1,720.6	940.1	2,754.9	1,520.5	-13.2	13,248.2
June	332.2	165.5	5,528.2	1,731.8	2,241.1	1,330.8	224.5	349.3	1,739.8	966.0	2,743.2	1,504.1	-16.8	13,311.6
July	327.3	155.5	5,515.1	1,712.7	2,242.4	1,333.6	226.4	358.4	1,736.0	955.3	2,642.7	1,494.6	-5.7	13,179.4
Aug.	318.5	152.4	5,507.1	1,681.2	2,254.7	1,337.3	233.9	369.9	1,730.1	960.0	2,619.9	1,489.2	-8.6	13,138.4
Sep.	308.9	147.8	5,558.8	1,749.9	2,238.0	1,342.6	228.2	374.4	1,752.9	970.7	2,639.8	1,541.2	18.7	13,313.1
Oct.	294.7	153.3	5,580.6	1,750.3	2,241.6	1,351.9	236.9	386.4	1,766.9	981.4	2,661.3	1,588.6	5.4	13,418.7
Nov.	279.0	150.2	5,635.1	1,798.1	2,242.5	1,365.0	229.5	395.2	1,759.1	982.9	2,725.7	1,632.2	10.3	13,569.8
Dec.	238.9	139.0	5,783.3	1,896.3	2,261.6	1,405.0	220.4	392.5	1,759.4	999.0	2,717.8	1,550.9	-8.4	13,572.4
2002 Jan.	243.8	148.9	5,744.5	1,847.9	2,259.4	1,417.4	219.7	411.3	1,774.6	1,009.2	2,753.2	1,574.5	-14.7	13,645.2
Feb.	238.0	155.7	5,743.9	1,843.5	2,256.5	1,419.3	224.5	422.6	1,776.9	1,011.4	2,762.1	1,541.7	-16.5	13,635.7
Mar. <sup>(p)</sup>	252.4	157.4	5,770.9	1,843.8	2,275.8	1,420.8	230.5	426.6	1,797.5	1,007.8	2,781.8	1,506.6	-33.3	13,667.6

Source: ECB.

1) Calculated from monthly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

2) See Table 2.1, footnote 1.

3) Amounts held by residents of the euro area. Amounts held by non-residents of the euro area are included in external liabilities.

### 3. Assets: flows <sup>1)</sup>

	Loans to euro area residents		Other euro area residents	Holdings of securities other than shares issued by euro area residents	General government		Holdings of shares/ other equity issued by other euro area residents	External assets <sup>2)</sup>	Fixed assets	Remaining assets	Total
	1	2			3	4					
2000 Oct.	38.9	1.9	37.0	-10.3	-17.0	6.8	1.7	6.4	3.2	64.7	104.6
Nov.	50.4	7.2	43.2	-6.2	-5.3	-0.9	0.5	15.3	-0.3	-51.0	8.6
Dec.	61.4	9.8	51.6	-15.5	-19.0	3.5	4.8	9.5	1.2	-29.4	32.0
<i>Euro area enlargement</i>											
2001 Jan.	35.1	2.9	32.1	-12.2	-15.6	3.5	12.5	63.3	-1.0	29.5	127.2
Feb.	14.0	-8.2	22.2	13.4	4.5	8.9	7.4	16.7	0.5	-11.9	40.2
Mar.	60.8	2.3	58.5	11.8	4.2	7.6	17.2	98.1	0.1	46.0	233.9
Apr.	33.2	-8.2	41.4	12.5	6.7	5.8	18.4	-18.4	1.2	9.9	56.9
May	4.1	-5.6	9.7	25.7	21.3	4.4	1.0	-1.3	1.4	18.7	49.6
June	57.3	-2.6	59.9	14.4	13.7	0.7	-32.4	28.0	0.9	-1.4	66.7
July	12.7	-2.5	15.1	10.2	-3.0	13.3	-8.4	-41.0	1.1	-50.5	-75.9
Aug.	-18.9	-3.7	-15.2	5.0	-4.2	9.3	-6.0	55.6	0.3	-10.6	25.4
Sep.	48.6	1.0	47.5	-1.2	-4.2	2.9	-5.0	49.4	0.7	51.9	144.3
Oct.	25.7	-2.7	28.4	-7.0	-9.5	2.5	5.6	43.7	0.7	30.2	98.9
Nov.	65.6	15.0	50.6	10.0	7.9	2.1	-3.2	67.0	1.1	5.7	146.4
Dec.	27.8	3.6	24.2	-8.1	-10.2	2.1	22.2	-28.2	1.1	-14.8	0.1
2002 Jan.	9.6	-3.0	12.6	26.9	21.9	5.0	-0.2	1.8	-2.5	7.2	42.8
Feb.	19.3	2.8	16.5	9.3	1.3	8.0	0.6	0.3	-1.1	-38.4	-10.0
Mar. <sup>6)</sup>	62.5	7.4	55.2	14.5	16.9	-2.4	-7.7	23.2	-0.3	-52.9	39.2

### 4. Liabilities: flows <sup>1)</sup>

	Currency in circulation	Deposits of central government	Deposits of other general government/ other euro area residents	Over-night	With agreed maturity	Redeemable at notice	Repurchase agreements	Money market fund shares/ units <sup>3)</sup>	Money market paper and debt securities issued <sup>3)</sup>	Capital and reserves	External liabilities <sup>2)</sup>	Re-maining liabilities	Excess of inter-MFI liabilities	Total
2000 Oct.	-2.2	13.2	-2.3	-1.0	8.4	-8.9	-0.9	2.5	12.2	5.0	19.5	47.2	9.5	104.6
Nov.	0.1	-3.6	26.8	20.3	10.8	-7.3	3.0	6.1	-7.2	-11.9	27.9	-16.3	-13.2	8.6
Dec.	10.7	-4.3	96.3	53.7	20.3	20.9	1.5	-9.4	-2.9	-21.9	-8.1	-33.9	5.4	32.0
<i>Euro area enlargement</i>														
2001 Jan.	-20.1	-19.0	-14.9	-49.2	14.1	1.5	18.6	14.6	28.1	-4.3	119.3	16.9	6.6	127.2
Feb.	-1.0	8.7	8.3	1.5	11.2	-6.3	1.9	9.3	14.2	2.8	26.5	11.1	-39.8	40.2
Mar.	1.3	-5.2	32.5	8.3	14.9	-0.8	10.1	12.4	3.5	16.6	133.7	47.4	-8.2	233.9
Apr.	-0.1	2.2	29.8	30.8	-1.0	1.1	-1.1	9.3	-2.6	1.3	18.5	-11.7	10.3	56.9
May	-3.3	-5.6	28.9	21.7	-3.5	-1.7	12.4	10.4	-12.5	8.4	11.8	12.9	-1.4	49.6
June	0.1	18.6	34.6	40.4	-1.4	8.3	-12.8	-0.9	21.0	19.1	-5.3	-18.3	-2.3	66.7
July	-5.0	-10.0	-8.2	-17.4	4.4	3.0	1.9	9.5	2.6	-6.5	-58.3	-11.7	11.5	-75.9
Aug.	-8.8	-3.1	-2.0	-29.6	16.3	3.9	7.5	10.8	1.5	7.3	30.2	-7.7	-2.9	25.4
Sep.	-9.6	-4.6	50.8	68.4	-17.3	5.3	-5.6	4.1	15.9	9.2	18.0	41.4	19.1	144.3
Oct.	-14.1	5.4	21.9	0.9	2.9	9.2	8.9	12.4	12.9	7.9	18.3	46.0	-11.8	98.9
Nov.	-15.7	-3.0	52.5	47.2	-0.3	13.1	-7.4	10.1	23.7	2.8	38.4	33.0	4.6	146.4
Dec.	-40.1	-11.2	148.1	98.5	18.8	40.0	-9.2	-0.9	-0.7	16.9	-18.2	-74.4	-19.5	0.1
2002 Jan.	4.9	10.4	-40.6	-49.4	-2.9	12.4	-0.6	19.8	10.4	12.5	13.5	17.4	-5.4	42.8
Feb.	-5.8	6.9	-0.1	-4.3	-2.6	1.9	4.8	11.3	4.9	-2.3	11.6	-34.8	-1.6	-10.0
Mar. <sup>6)</sup>	14.4	1.7	27.9	0.6	20.0	1.5	5.8	3.0	23.4	0.0	28.8	-43.1	-16.8	39.2

**Table 2.4**
**Monetary aggregates <sup>1)</sup> and counterparts**
*(EUR billions (not seasonally adjusted) and percentage growth rates, unless otherwise indicated)*
**1. Monetary aggregates: levels at the end of the period**

	M2							
	M1				Deposits with agreed maturity up to 2 years	Deposits redeemable at notice up to 3 months	Total	Index Dec. 98=100 <sup>3)</sup>
	Currency in circulation <sup>1)</sup>	Overnight deposits <sup>2)</sup>	Total	Index Dec. 98=100 <sup>3)</sup>				
					1	2	3	4
2000 Sep.	339.0	1,654.6	1,993.6	111.34	961.8	1,220.5	4,175.9	105.99
Oct.	336.8	1,657.0	1,993.8	111.23	973.2	1,211.2	4,178.2	105.93
Nov.	336.9	1,675.3	2,012.2	112.38	986.4	1,202.1	4,200.6	106.62
Dec.	347.6	1,728.8	2,076.4	116.19	991.8	1,221.1	4,289.3	109.12
<i>Euro area enlargement</i>								
2001 1 Jan.	355.3	1,743.4	2,098.7	-	1,028.6	1,271.1	4,398.5	-
2001 Jan.	335.3	1,692.8	2,028.0	112.29	1,042.2	1,275.1	4,345.3	107.81
Feb.	334.3	1,692.9	2,027.2	112.23	1,054.7	1,269.7	4,351.6	107.96
Mar.	335.5	1,703.2	2,038.7	112.74	1,070.7	1,269.8	4,379.2	108.52
Apr.	335.4	1,735.9	2,071.3	114.54	1,072.1	1,273.4	4,416.8	109.46
May	332.1	1,759.2	2,091.3	115.47	1,072.9	1,273.2	4,437.5	109.77
June	332.2	1,798.4	2,130.6	117.67	1,070.4	1,283.0	4,484.0	110.95
July	327.3	1,780.3	2,107.6	116.49	1,077.2	1,287.2	4,472.0	110.76
Aug.	318.5	1,747.5	2,066.0	114.29	1,092.8	1,292.9	4,451.6	110.37
Sep.	308.9	1,815.1	2,124.0	117.49	1,075.2	1,299.7	4,498.9	111.53
Oct.	294.7	1,816.1	2,110.9	116.79	1,078.9	1,311.6	4,501.3	111.59
Nov.	279.0	1,864.6	2,143.6	118.56	1,081.0	1,326.4	4,551.0	112.78
Dec.	238.9	1,967.1	2,206.0	122.03	1,092.7	1,367.9	4,666.6	115.65
2002 Jan.	243.8	1,921.2	2,165.0	119.70	1,086.2	1,389.0	4,640.2	114.96
Feb.	238.0	1,917.2	2,155.2	119.17	1,081.8	1,393.0	4,630.0	114.72
Mar. <sup>(a)</sup>	252.4	1,916.9	2,169.3	119.97	1,095.3	1,395.6	4,660.3	115.49

**2. Monetary aggregates: flows <sup>4)</sup>**

	M2							
	M1				Deposits with agreed maturity up to 2 years	Deposits redeemable at notice up to 3 months	Total	Annual growth rate <sup>3)</sup> (%)
	Currency in circulation <sup>1)</sup>	Overnight deposits <sup>2)</sup>	Total	Annual growth rate <sup>3)</sup> (%)				
					1	2	3	4
2000 Oct.	-2.2	0.2	-2.0	5.8	8.8	-9.4	-2.5	3.7
Nov.	0.1	20.5	20.6	5.0	15.6	-9.0	27.2	3.7
Dec.	10.7	57.5	68.2	5.7	11.2	19.3	98.7	3.7
<i>Euro area enlargement</i>								
2001 Jan.	-20.1	-50.4	-70.4	1.6	13.9	3.9	-52.6	2.6
Feb.	-1.0	-0.1	-1.1	2.1	12.3	-5.4	5.8	2.9
Mar.	1.3	8.1	9.3	2.0	13.4	-0.1	22.7	3.2
Apr.	-0.1	32.6	32.5	1.6	1.6	3.7	37.8	3.2
May	-3.3	20.1	16.8	3.2	-3.7	-0.5	12.7	3.6
June	0.1	39.6	39.7	4.3	-1.8	9.8	47.7	4.4
July	-5.0	-16.4	-21.4	3.3	9.0	4.4	-7.9	4.3
Aug.	-8.8	-30.9	-39.7	3.2	18.3	5.9	-15.5	4.2
Sep.	-9.6	67.4	57.8	5.5	-17.9	6.8	46.7	5.2
Oct.	-14.1	1.6	-12.6	5.0	3.2	11.8	2.4	5.3
Nov.	-15.7	47.8	32.1	5.5	1.2	14.8	48.1	5.8
Dec.	-40.1	102.7	62.6	5.0	11.6	41.5	115.6	6.0
2002 Jan.	4.9	-46.9	-42.0	6.6	-6.7	21.1	-27.6	6.6
Feb.	-5.8	-3.8	-9.7	6.2	-4.2	4.0	-9.8	6.3
Mar. <sup>(a)</sup>	14.4	0.0	14.5	6.4	14.1	2.7	31.2	6.4

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) M3 and its components exclude holdings by non-residents of the euro area of money market fund shares/units, money market paper and debt securities up to 2 years.

M3 <sup>2)</sup>						
Repurchase agreements	Money market fund shares/units	Money market paper and debt securities up to 2 years	Total	Index Dec. 98=100 <sup>3)</sup>		
9	10	11	12	13		
171.4	310.5	129.0	4,786.8	107.11		2000 Sep.
170.6	313.5	131.7	4,794.1	107.16		Oct.
173.5	319.8	126.6	4,820.7	107.86		Nov.
174.9	300.1	134.9	4,899.2	109.97		Dec.
<i>Euro area enlargement</i>						
195.2	300.1	135.0	5,028.8	-		2001 1 Jan.
213.8	313.2	137.9	5,010.3	109.61		2001 Jan.
215.8	322.3	144.3	5,034.0	110.12		Feb.
225.9	333.2	139.0	5,077.4	110.96		Mar.
224.9	341.8	139.5	5,122.9	111.93		Apr.
237.4	351.3	133.5	5,159.6	112.54		May
224.5	349.3	144.3	5,202.1	113.50		June
226.4	358.4	140.8	5,197.7	113.50		July
233.9	369.9	142.4	5,197.8	113.61		Aug.
228.2	374.4	147.5	5,249.0	114.58		Sep.
236.9	386.4	149.8	5,274.5	115.12		Oct.
229.5	395.2	152.1	5,327.9	116.32		Nov.
220.4	392.5	145.7	5,425.0	118.45		Dec.
219.7	411.3	141.5	5,412.7	118.25		2002 Jan.
224.5	422.6	138.4	5,415.5	118.31		Feb.
230.5	426.6	141.9	5,459.3	119.27		Mar. <sup>4)</sup>

M3 <sup>2)</sup>						
Repurchase agreements	Money market fund shares/units	Money market paper and debt securities up to 2 years	Total	Annual growth rate <sup>3)</sup> (%)		
9	10	11	12	13		
-0.9	2.5	3.1	2.2	4.2		2000 Oct.
3.0	6.1	-4.7	31.6	3.9		Nov.
1.5	-9.4	3.4	94.2	4.2		Dec.
<i>Euro area enlargement</i>						
18.6	14.6	2.8	-16.6	3.6		2001 Jan.
1.9	9.3	6.2	23.2	3.8		Feb.
10.1	12.4	-6.4	38.8	4.0		Mar.
-1.1	9.3	-1.8	44.3	4.0		Apr.
12.4	10.4	-7.5	28.0	4.5		May
-12.8	-0.9	9.7	43.7	5.6		June
1.9	9.5	-3.5	0.0	5.7		July
7.5	10.8	2.4	5.1	6.0		Aug.
-5.6	4.1	-0.9	44.2	7.0		Sep.
8.9	12.4	0.9	24.7	7.4		Oct.
-7.4	10.1	4.6	55.4	7.8		Nov.
-9.2	-0.9	-8.1	97.5	7.7		Dec.
-0.6	19.8	-0.6	-9.1	7.9		2002 Jan.
4.8	11.3	-4.0	2.3	7.4		Feb.
5.8	3.0	4.0	44.0	7.5		Mar. <sup>4)</sup>

3) For the calculations of the index and the growth rates, see the technical notes.

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.

**Table 2.4 (cont'd)**
**Monetary aggregates <sup>1)</sup> and counterparts**
*(EUR billions and percentage growth rates, unless otherwise indicated)*
**3. Seasonally adjusted levels at the end of the period**

	M2								
	M1				Other short-term deposits <sup>5)</sup>			Total	Index Dec. 98=100 <sup>4)</sup>
	Currency in circulation 1	Overnight deposits 2	Total	Index	Total	Index			
			3	Dec. 98=100 <sup>4)</sup>			Dec. 98=100 <sup>4)</sup>	6	
7	8								
2000 Sep.	339.5	1,671.4	2,011.0	112.31	2,195.4	102.14	4,206.4	106.76	
Oct.	339.8	1,678.9	2,018.7	112.62	2,200.5	102.25	4,219.2	106.97	
Nov.	337.8	1,678.4	2,016.2	112.60	2,210.1	102.82	4,226.3	107.27	
Dec.	337.1	1,684.1	2,021.2	113.10	2,199.0	102.58	4,220.2	107.36	
<i>Euro area enlargement</i>									
2001 1 Jan.	342.3	1,692.5	2,034.8	-	2,285.6	-	4,320.3	-	
2001 Jan.	341.0	1,700.5	2,041.5	113.03	2,295.9	103.07	4,337.4	107.62	
Feb.	340.0	1,706.0	2,046.0	113.27	2,310.7	103.72	4,356.7	108.09	
Mar.	337.5	1,710.6	2,048.1	113.26	2,329.8	104.46	4,378.0	108.49	
Apr.	336.2	1,723.4	2,059.5	113.89	2,340.1	104.93	4,399.6	109.03	
May	332.4	1,749.3	2,081.7	114.94	2,345.8	104.97	4,427.5	109.53	
June	329.7	1,763.5	2,093.2	115.60	2,361.6	105.71	4,454.7	110.23	
July	324.4	1,767.8	2,092.3	115.64	2,374.3	106.38	4,466.6	110.62	
Aug.	318.0	1,789.8	2,107.8	116.61	2,378.7	106.72	4,486.6	111.24	
Sep.	309.1	1,822.1	2,131.1	117.88	2,392.3	107.31	4,523.5	112.14	
Oct.	296.9	1,845.0	2,141.9	118.50	2,406.3	107.91	4,548.2	112.75	
Nov.	278.3	1,878.0	2,156.3	119.27	2,425.8	108.74	4,582.0	113.55	
Dec.	232.7	1,924.9	2,157.6	119.35	2,450.6	109.85	4,608.2	114.20	
2002 Jan.	247.6	1,930.1	2,177.7	120.41	2,456.0	110.08	4,633.7	114.80	
Feb.	241.6	1,931.4	2,173.1	120.16	2,461.8	110.35	4,634.8	114.84	
Mar. <sup>6)</sup>	253.7	1,914.1	2,167.8	119.89	2,482.5	111.31	4,650.3	115.25	

**4. Seasonally adjusted flows <sup>7)</sup>**

	M2										
	M1					Other short-term deposits <sup>5)</sup>			Total	Monthly growth rate <sup>4)</sup> (%)	Annual growth rate <sup>4)</sup> (%)
	Currency in circulation 1	Overnight deposits 2	Total	Monthly growth rate <sup>4)</sup> (%)	Annual growth rate <sup>4)</sup> (%)	Total	Monthly growth rate <sup>4)</sup> (%)	Annual growth rate <sup>4)</sup> (%)			
			3	4	5		6	7	8	9	10
2000 Oct.	0.3	5.2	5.5	0.3	6.0	2.5	0.1	2.0	8.0	0.2	3.9
Nov.	-2.0	1.7	-0.3	0.0	5.3	12.1	0.6	2.5	11.8	0.3	3.8
Dec.	-0.7	9.6	9.0	0.4	5.3	-5.1	-0.2	2.1	3.8	0.1	3.6
<i>Euro area enlargement</i>											
2001 Jan.	-4.0	2.0	-2.0	-0.1	1.9	11.1	0.5	3.5	9.1	0.2	2.8
Feb.	-1.0	5.2	4.3	0.2	2.3	14.6	0.6	3.5	18.9	0.4	2.9
Mar.	-2.5	2.4	-0.1	0.0	1.7	16.4	0.7	4.3	16.3	0.4	3.0
Apr.	-1.4	12.7	11.3	0.6	1.7	10.5	0.4	4.8	21.8	0.5	3.3
May	-3.8	22.8	19.1	0.9	3.0	0.9	0.0	4.0	20.0	0.5	3.5
June	-2.7	14.6	11.9	0.6	4.0	16.6	0.7	4.5	28.4	0.6	4.3
July	-5.3	6.0	0.8	0.0	3.3	15.1	0.6	5.1	15.8	0.4	4.3
Aug.	-6.4	23.9	17.5	0.8	3.6	7.5	0.3	4.8	24.9	0.6	4.3
Sep.	-9.0	32.0	23.0	1.1	5.0	13.2	0.6	5.1	36.3	0.8	5.0
Oct.	-12.2	23.4	11.3	0.5	5.2	13.5	0.6	5.5	24.7	0.5	5.4
Nov.	-18.6	32.4	13.8	0.6	5.9	18.5	0.8	5.8	32.3	0.7	5.9
Dec.	-45.6	47.1	1.5	0.1	5.5	24.8	1.0	7.1	26.3	0.6	6.4
2002 Jan.	14.9	4.2	19.1	0.9	6.5	5.1	0.2	6.8	24.2	0.5	6.7
Feb.	-6.0	1.5	-4.4	-0.2	6.1	6.0	0.2	6.4	1.5	0.0	6.2
Mar. <sup>6)</sup>	12.1	-17.0	-5.0	-0.2	5.8	21.4	0.9	6.6	16.5	0.4	6.2

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) M3 and its components exclude holdings by non-residents of the euro area of money market fund shares/units, money market paper and debt securities up to 2 years.
- 3) Loans, with other components of credit, are shown without seasonal adjustment on page 20\*.
- 4) For the calculations of the index and the growth rates, see the technical notes.

M3 <sup>2)</sup>					Loans to other euro area residents (excluding government) <sup>3)</sup>		
Marketable instruments <sup>6)</sup>			Total	Index Dec. 98=100 <sup>4)</sup>	Total	Index Dec. 98=100 <sup>4)</sup>	
Total	Index Dec. 98=100 <sup>4)</sup>						
9	10		11	12	13	14	
618.7	117.16		4,825.0	107.96	5,992.8	117.55	2000 Sep.
624.2	118.14		4,843.4	108.26	6,036.5	118.31	Oct.
626.8	118.69		4,853.1	108.59	6,067.9	119.09	Nov.
636.4	121.63		4,856.6	109.02	6,075.6	119.59	Dec.
<i>Euro area enlargement</i>							
657.8	-		4,978.1	-	6,130.0	-	2001 1 Jan.
672.1	124.56		5,009.5	109.59	6,180.0	120.41	2001 Jan.
675.2	125.12		5,031.8	110.07	6,212.9	121.07	Feb.
684.5	126.91		5,062.4	110.64	6,263.8	121.90	Mar.
689.8	127.63		5,089.3	111.20	6,304.1	122.73	Apr.
702.1	129.78		5,129.6	111.89	6,341.2	123.24	May
713.6	131.92		5,168.4	112.76	6,361.6	123.76	June
727.7	134.59		5,194.3	113.42	6,377.5	124.24	July
744.3	137.69		5,230.9	114.33	6,396.1	124.79	Aug.
761.1	139.59		5,284.6	115.35	6,432.5	125.41	Sep.
782.4	143.35		5,330.5	116.34	6,465.4	126.02	Oct.
786.2	144.72		5,368.2	117.21	6,512.4	126.93	Nov.
792.2	145.87		5,400.4	117.92	6,504.0	126.89	Dec.
778.6	144.21		5,412.3	118.25	6,528.9	127.33	2002 Jan.
777.2	143.80		5,412.0	118.23	6,556.1	127.90	Feb.
782.5	144.64		5,432.8	118.69	6,591.1	128.62	Mar. <sup>6)</sup>

M3 <sup>2)</sup>								Loans to other euro area residents (excluding government) <sup>3)</sup>			
Marketable instruments <sup>6)</sup>			Total	Monthly growth rate <sup>4)</sup> (%)	Annual growth rate <sup>4)</sup> (%)	3-month moving average (centred) (%)	Total	Monthly growth rate <sup>4)</sup> (%)	Annual growth rate <sup>4)</sup> (%)		
Total	Monthly growth rate <sup>4)</sup> (%)	Annual growth rate <sup>4)</sup> (%)									
12	13	14	15	16	17	18	19	20	21		
5.2	0.8	7.2	13.2	0.3	4.3	4.2	43.6	0.6	9.7	2000 Oct.	
2.9	0.5	5.2	14.7	0.3	4.0	4.1	31.4	0.7	9.3	Nov.	
15.5	2.5	7.6	19.3	0.4	4.1	3.9	7.9	0.4	9.6	Dec.	
<i>Euro area enlargement</i>											
16.5	2.4	10.3	25.7	0.5	3.7	3.9	104.5	0.7	9.3	2001 Jan.	
3.0	0.4	9.9	21.9	0.4	3.8	3.8	32.9	0.6	9.0	Feb.	
9.7	1.4	8.7	26.0	0.5	3.8	3.9	50.7	0.7	8.7	Mar.	
3.9	0.6	9.1	25.7	0.5	4.1	4.1	40.4	0.7	8.4	Apr.	
11.6	1.7	10.6	31.7	0.6	4.4	4.7	36.8	0.4	8.0	May	
11.6	1.6	13.9	40.0	0.8	5.5	5.2	20.5	0.4	7.9	June	
14.4	2.0	15.1	30.3	0.6	5.7	5.7	16.0	0.4	7.8	July	
16.8	2.3	17.6	41.7	0.8	6.0	6.2	18.6	0.4	7.2	Aug.	
10.3	1.4	19.1	46.5	0.9	6.8	6.8	36.4	0.5	6.7	Sep.	
20.5	2.7	21.3	45.2	0.9	7.5	7.4	32.9	0.5	6.5	Oct.	
7.5	1.0	21.9	39.7	0.7	7.9	7.9	47.0	0.7	6.6	Nov.	
6.2	0.8	19.9	32.5	0.6	8.2	8.0	-8.4	0.0	6.1	Dec.	
-9.0	-1.1	15.8	15.2	0.3	7.9	7.8	24.9	0.3	5.7	2002 Jan.	
-2.2	-0.3	14.9	-0.7	0.0	7.4	7.5	27.2	0.4	5.6	Feb.	
4.5	0.6	14.0	21.0	0.4	7.3	.	35.1	0.6	5.5	Mar. <sup>6)</sup>	

5) 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.

6) Marketable instruments comprise repurchase agreements, money market fund shares/units, money market paper and debt securities up to two years.

7) 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 2.4 (cont'd)**
**Monetary aggregates <sup>1)</sup> and counterpart**
*(EUR billions (not seasonally adjusted) and percentage growth rates, unless otherwise indicated)*
**5. Main counterparts of M3: levels at the end of the period**

	Longer-term MFI liabilities				Credit <sup>2)</sup>				Net external assets	Fixed assets
	Deposits with agreed maturity over 2 years	Deposits redeemable at notice over 3 months	Debt securities over 2 years	Capital and reserves	Credit to government	Credit to other euro area residents	Of which loans	Index Dec. 98 =100 <sup>3)</sup>		
	1	2	3	4	5	6	7	8	9	10
2000 Sep.	1,167.8	120.5	1,530.0	926.4	1,946.6	6,752.1	5,980.1	117.31	92.7	166.0
Oct.	1,168.5	121.3	1,548.8	932.9	1,935.7	6,800.6	6,022.3	118.03	77.7	168.0
Nov.	1,162.6	122.9	1,537.2	920.8	1,939.3	6,836.6	6,057.0	118.88	68.0	167.7
Dec.	1,168.3	125.4	1,525.3	894.6	1,925.4	6,878.0	6,091.1	119.89	77.1	169.9
<i>Euro area enlargement</i>										
2001 1 Jan.	1,170.0	126.7	1,526.9	912.1	2,009.9	6,952.0	6,154.0	-	183.3	172.9
2001 Jan.	1,170.2	126.8	1,555.4	909.0	2,003.8	6,998.8	6,185.4	120.52	17.3	171.8
Feb.	1,169.2	126.9	1,564.2	911.4	2,006.1	7,035.8	6,206.5	120.95	8.3	172.3
Mar.	1,172.5	126.4	1,576.9	927.1	2,017.8	7,128.0	6,273.4	122.09	-26.0	172.0
Apr.	1,169.7	124.6	1,577.8	928.1	2,015.8	7,193.3	6,312.7	122.89	-62.5	173.3
May	1,170.6	123.2	1,584.6	940.1	2,030.7	7,220.5	6,333.2	123.08	-80.1	174.6
June	1,170.8	122.0	1,593.3	966.0	2,041.9	7,245.4	6,386.9	124.25	-40.6	175.4
July	1,165.2	120.7	1,592.7	955.3	2,034.2	7,259.8	6,393.1	124.54	-25.3	176.5
Aug.	1,161.9	119.5	1,585.2	960.0	2,021.6	7,236.7	6,368.3	124.25	1.6	176.9
Sep.	1,162.8	118.6	1,603.8	970.7	2,025.1	7,282.3	6,420.6	125.17	55.0	177.6
Oct.	1,162.7	116.9	1,615.7	981.4	2,014.0	7,323.2	6,450.3	125.73	78.2	178.3
Nov.	1,161.5	115.8	1,605.5	982.9	2,033.5	7,378.6	6,501.5	126.71	99.8	179.1
Dec.	1,168.9	115.8	1,612.5	999.0	2,026.0	7,423.4	6,519.0	127.18	85.8	180.2
2002 Jan.	1,173.2	112.3	1,631.9	1,009.2	2,050.5	7,443.0	6,534.0	127.43	73.9	177.7
Feb.	1,174.7	111.2	1,637.9	1,011.4	2,054.6	7,464.0	6,548.3	127.75	68.6	176.6
Mar. <sup>(p)</sup>	1,180.5	109.9	1,655.6	1,007.8	2,084.0	7,507.0	6,601.6	128.83	62.2	176.2

**6. Main counterparts of M3: flows <sup>4)</sup>**

	Longer-term MFI liabilities				Credit <sup>2)</sup>				Net external assets	Fixed assets
	Deposits with agreed maturity over 2 years	Deposits redeemable at notice over 3 months	Debt securities over 2 years	Capital and reserves	Credit to government	Credit to other euro area residents	Of which loans	Annual growth rate <sup>3)</sup> (%)		
	1	2	3	4	5	6	7	8	9	10
2000 Oct.	-0.5	0.8	10.1	5.0	-15.1	45.4	37.0	9.7	-13.2	3.2
Nov.	-4.8	1.6	-3.2	-11.9	1.9	42.8	43.2	9.3	-12.6	-0.3
Dec.	9.1	2.5	-3.4	-21.9	-9.1	59.9	51.6	9.5	17.6	1.2
<i>Euro area enlargement</i>										
2001 Jan.	0.2	0.2	24.7	-4.3	-12.7	48.1	32.1	9.3	-55.9	-1.0
Feb.	-1.1	0.1	8.6	2.8	-3.7	38.5	22.2	9.0	-9.7	0.5
Mar.	1.4	-0.5	8.5	16.6	6.5	83.4	58.5	8.7	-35.7	0.1
Apr.	-2.6	-1.9	-0.1	1.3	-1.4	65.6	41.4	8.4	-36.9	1.2
May	0.1	-1.4	-5.1	8.4	15.7	15.1	9.7	8.0	-13.1	1.4
June	0.4	-1.1	11.6	19.1	11.1	28.2	59.9	7.9	33.2	0.9
July	-4.7	-1.4	5.8	-6.5	-5.5	19.9	15.1	7.7	17.3	1.1
Aug.	-2.1	-1.2	-0.7	7.3	-7.9	-11.9	-15.2	7.2	25.3	0.3
Sep.	0.6	-0.9	17.6	9.2	-3.2	45.5	47.5	6.7	31.4	0.7
Oct.	-0.3	-1.7	12.2	7.9	-12.2	36.5	28.4	6.5	25.3	0.7
Nov.	-1.5	-1.1	18.9	2.8	22.9	49.6	50.6	6.6	28.6	1.1
Dec.	7.3	0.1	7.7	16.9	-6.6	48.5	24.2	6.1	-9.9	1.1
2002 Jan.	3.8	-3.6	11.1	12.5	18.9	17.4	12.6	5.7	-11.6	-2.5
Feb.	1.6	-1.0	9.4	-2.3	4.1	25.1	16.5	5.6	-11.2	-1.1
Mar. <sup>(p)</sup>	5.9	-1.3	20.0	0.0	24.2	45.0	55.2	5.5	-5.6	-0.3

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) Credit comprises loans granted to non-MFIs resident in the euro area and holdings of securities issued by non-MFIs resident in the euro area.

3) For the calculations of the index and the growth rates, see the technical notes.

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.

**Table 2.5**
**MFI loans by counterpart, type and original maturity <sup>1)</sup>**
*(EUR billions (not seasonally adjusted) and percentage growth rates, unless otherwise indicated)*
**1. Loans to non-monetary financial corporations and to government: levels at the end of the period**

	Non-monetary financial intermediaries except insurance corporations and pension funds			Insurance corporations and pension funds			General government							
	Total		Index Dec.98 =100 <sup>2)</sup>	Total		Index Dec.98 =100 <sup>2)</sup>	Central government <sup>3)</sup>	Other general government					Total	Index Dec.98 =100 <sup>2)</sup>
	1	Up to 1 year		4	Up to 1 year			8	State government	Local government		Social security funds		
			Over 5 years			Over 5 years	10			11	12			
2000 Q2	381.5	246.1	135.7	38.8	29.1	141.3	186.8	290.0	252.1	339.0	306.0	19.7	835.6	99.0
Q3	385.4	247.2	138.8	33.0	25.3	120.4	173.3	288.4	252.4	337.8	305.3	18.5	818.1	97.3
Q4	394.8	252.9	142.8	31.5	21.8	114.8	173.1	297.3	255.4	350.9	315.8	14.6	835.9	99.5
<i>Euro area enlargement</i>														
2001 1 Jan.	395.4	253.4	-	31.6	21.8	-	185.6	297.3	255.4	351.5	316.4	15.2	849.6	-
2001 Q1	418.0	273.0	152.9	35.9	26.8	130.5	189.3	295.3	255.3	352.4	314.0	15.6	852.6	99.1
Q2	425.2	280.6	155.7	35.8	26.7	130.1	175.1	294.0	254.9	350.4	312.4	17.2	836.6	97.2
Q3	408.4	256.3	149.4	36.6	26.9	133.9	168.2	293.9	254.1	349.7	311.9	18.9	830.8	96.6
Q4 <sup>4)</sup>	434.3	276.5	159.6	33.3	24.2	122.0	167.8	298.3	252.0	361.9	319.6	18.5	846.4	98.4

**2. Loans to non-monetary financial corporations and to government: flows <sup>4)</sup>**

	Non-monetary financial intermediaries except insurance corporations and pension funds			Insurance corporations and pension funds			General government							
	Total		Annual growth rate <sup>2)</sup> (%)	Total		Annual growth rate <sup>2)</sup> (%)	Central government <sup>3)</sup>	Other general government					Total	Annual growth rate <sup>2)</sup> (%)
	1	Up to 1 year		4	Up to 1 year			8	State government	Local government		Social security funds		
			Over 5 years			Over 5 years	10			11	12			
2000 Q3	8.6	1.1	24.5	-5.7	-3.8	-21.2	-9.9	-2.3	-0.3	-0.5	0.0	-1.2	-13.9	-1.1
Q4	11.2	6.8	18.2	-1.5	-3.5	6.6	0.2	8.8	3.0	12.8	10.3	-3.9	18.0	-0.9
<i>Euro area enlargement</i>														
2001 Q1	28.1	22.7	19.6	4.3	5.0	-3.4	-0.6	-2.0	-0.1	-0.7	-3.7	0.4	-2.9	-0.4
Q2	7.5	7.6	14.7	-0.1	-0.1	-7.9	-14.7	-1.3	-0.4	-2.0	-1.7	1.6	-16.4	-1.8
Q3	-17.2	-24.4	7.7	1.0	0.2	11.2	-6.2	0.0	-0.7	-0.7	-0.4	1.7	-5.2	-0.7
Q4 <sup>4)</sup>	28.0	21.9	11.8	-3.3	-2.7	6.3	-0.7	4.3	-2.1	12.2	7.7	-0.4	15.4	-1.1

Source: ECB.

1) Corresponding ESA 95 sector codes: non-financial corporations, S.11; households, S.14; non-profit institutions serving households, S.15; non-monetary financial intermediaries except insurance corporations and pension funds (corresponding to other financial intermediaries in the ESA 95), S.123 (including financial auxiliaries, S.124); insurance corporations and pension funds, S.125; general government, S.13.

2) For the calculation of the index and the growth rates, see the technical notes.

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

4) Calculated from quarterly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.



**Table 2.5 (cont'd)**

**MFI loans by counterpart, type and original maturity <sup>1)</sup>**

(EUR billions (not seasonally adjusted) and percentage growth rates, unless otherwise indicated)

**3. Loans to non-financial sectors other than government: levels at the end of the period**

	Non-financial corporations					Consumer credit <sup>3)</sup>				
	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.98 =100 <sup>2)</sup>	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.98 =100 <sup>2)</sup>
	1	2	3	4	5	6	7	8	9	10
2000 Q2	918.2	407.1	1,236.9	2,562.1	113.0	93.5	161.4	201.9	456.8	111.7
Q3	953.5	423.6	1,256.9	2,634.0	115.8	96.4	164.9	208.3	469.6	114.4
Q4	967.9	429.3	1,287.8	2,685.0	118.7	97.5	165.2	212.9	475.7	115.9
<i>Euro area enlargement</i>										
2001 1 Jan.	996.6	436.6	1,293.6	2,726.9	-	102.1	166.1	213.0	481.2	-
2001 Q1	1,034.2	445.4	1,313.5	2,793.1	120.9	98.7	168.4	212.7	479.8	115.0
Q2	1,051.7	455.8	1,343.3	2,850.8	123.2	100.0	171.1	217.6	488.7	117.5
Q3	1,027.8	466.8	1,371.7	2,866.3	124.4	100.6	170.7	221.7	493.1	118.6
Q4 <sup>(p)</sup>	1,031.6	489.3	1,384.2	2,905.1	126.1	101.8	172.0	226.7	500.5	120.2

**4. Loans to non-financial sectors other than government: flows <sup>4)</sup>**

	Non-financial corporations					Consumer credit <sup>3)</sup>				
	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Annual growth rate <sup>2)</sup> (%)	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Annual growth rate <sup>2)</sup> (%)
	1	2	3	4	5	6	7	8	9	10
2000 Q3	28.8	16.4	18.1	63.2	11.1	2.1	3.2	5.8	11.2	8.0
Q4	20.0	9.6	36.3	65.8	10.9	1.1	0.4	4.6	6.2	7.8
<i>Euro area enlargement</i>										
2001 Q1	32.8	5.4	13.3	51.5	10.0	-4.4	0.1	0.4	-3.9	4.5
Q2	13.9	12.2	26.0	52.1	9.0	1.3	3.9	5.2	10.4	5.2
Q3	-18.8	14.2	31.9	27.2	7.4	0.9	-0.5	4.1	4.5	3.6
Q4 <sup>(p)</sup>	3.1	24.0	12.3	39.3	6.3	1.1	0.8	4.9	6.8	3.7

Source: ECB.

1) Corresponding ESA 95 sector codes: non-financial corporations, S.11; households, S.14; non-profit institutions serving households, S.15; non-monetary financial intermediaries except insurance corporations and pension funds (corresponding to other financial intermediaries in the ESA 95), S.123 (including financial auxiliaries, S.124); insurance corporations and pension funds, S.125; general government, S.13.

2) For the calculation of the index and the growth rates, see the technical notes.

Households											Non-profit institutions serving households			
Lending for house purchase <sup>3)</sup>					Other lending					Total	Index Dec.98 =100 <sup>2)</sup>	Total	Index Dec.98 =100 <sup>2)</sup>	
Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.98 =100 <sup>2)</sup>	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.98 =100 <sup>2)</sup>					
11	12	13	14	15	16	17	18	19	20	21	22	23	24	
20.3	60.5	1,699.2	1,780.1	116.8	145.7	102.4	341.3	589.4	111.7	2,826.2	114.8	37.6	107.8	2000 Q2
21.8	62.8	1,747.8	1,832.4	119.0	143.3	101.0	342.1	586.4	111.6	2,888.4	116.6	37.6	107.7	Q3
22.2	62.4	1,792.5	1,877.2	121.8	147.4	101.0	340.0	588.3	112.7	2,941.2	118.9	38.2	109.3	Q4
<i>Euro area enlargement</i>														
22.2	62.9	1,803.4	1,888.5	-	147.6	101.0	340.0	588.5	-	2,958.2	-	38.2	-	2001 1 Jan.
21.8	61.9	1,832.1	1,915.8	123.7	146.9	104.2	342.1	593.2	113.7	2,988.9	120.1	37.3	106.5	2001 Q1
22.3	62.4	1,868.3	1,953.1	125.8	148.8	100.6	342.7	592.1	114.8	3,033.9	122.1	40.7	116.5	Q2
22.3	61.0	1,906.7	1,990.0	128.2	144.3	100.5	342.1	586.9	113.9	3,070.0	123.6	39.0	111.6	Q3
22.7	60.9	1,932.2	2,015.8	129.9	144.9	102.1	345.4	592.3	115.5	3,108.6	125.2	39.2	112.2	Q4 <sup>4)</sup>

Households											Non-profit institutions serving households			
Lending for house purchase <sup>3)</sup>					Other lending					Total	Annual growth rate <sup>2)</sup> (%)	Total	Annual growth rate <sup>2)</sup> (%)	
Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Annual growth rate <sup>2)</sup> (%)	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Annual growth rate <sup>2)</sup> (%)					
11	12	13	14	15	16	17	18	19	20	21	22	23	24	
-0.1	0.7	32.9	33.5	9.0	-1.7	-0.9	2.0	-0.7	4.9	44.0	8.0	0.0	3.9	2000 Q3
0.4	-0.4	43.5	43.4	8.6	4.4	1.1	0.3	5.8	3.5	55.4	7.4	0.6	2.0	Q4
<i>Euro area enlargement</i>														
-0.5	-0.9	30.2	28.7	8.3	0.4	3.1	2.0	5.5	3.1	30.3	6.6	-1.0	-4.8	2001 Q1
0.5	0.5	32.1	33.1	7.7	2.0	-1.8	5.1	5.3	2.7	48.9	6.3	3.5	8.1	Q2
-0.1	-1.4	39.0	37.5	7.8	-4.5	0.1	0.1	-4.4	2.1	37.6	6.0	-1.7	3.7	Q3
0.5	-0.1	25.1	25.4	6.6	0.6	4.0	3.9	8.4	2.5	40.6	5.3	0.2	2.6	Q4 <sup>4)</sup>

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

4) Calculated from quarterly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

**Table 2.6**
**Deposits held with MFIs, by counterpart and instrument <sup>1)</sup>**
*(EUR billions (not seasonally adjusted) and percentage growth rates, unless otherwise indicated)*
**1. Deposits held by non-monetary financial corporations and by government: levels at the end of the period**

	Non-monetary financial intermediaries except insurance corporations and pension funds					Insurance corporations and pension funds					General government					
	Total <sup>2)</sup>				Index Dec.98 =100 <sup>3)</sup>	Total <sup>2)</sup>				Index Dec.98 =100 <sup>3)</sup>	Central government	Other general government			Total	Index Dec.98 =100 <sup>3)</sup>
	Over-night	With agreed maturity	Repos			Over-night	With agreed maturity	Repos				State government	Local government	Social security funds		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2000 Q2	430.7	164.5	184.1	76.8	130.6	460.7	34.6	411.0	11.6	111.4	146.0	31.7	62.7	59.3	299.6	114.0
Q3	431.4	158.6	191.1	76.6	131.1	464.5	34.1	413.8	12.9	111.7	159.2	30.3	63.2	57.8	310.6	117.8
Q4	431.1	153.6	198.9	74.0	131.0	477.6	40.6	418.5	15.3	114.8	164.5	30.6	68.2	53.2	316.5	120.1
<i>Euro area enlargement</i>																
2001 1 Jan.	434.1	154.1	200.2	75.2	-	479.9	40.7	418.5	17.5	-	166.2	30.6	69.1	55.1	321.0	-
2001 Q1	441.9	151.8	194.2	91.2	133.4	483.5	38.2	423.0	18.8	115.7	150.3	30.9	65.0	57.2	303.5	113.4
Q2	455.4	164.3	195.9	89.3	136.3	486.1	41.4	424.0	16.9	116.3	165.5	31.4	66.8	60.8	324.6	121.3
Q3	455.2	162.7	201.7	85.6	133.8	487.6	39.3	426.7	17.9	116.7	147.8	33.3	67.4	60.4	308.9	115.5
Q4 <sup>4)</sup>	467.3	158.3	217.9	85.9	136.1	493.9	46.8	427.3	16.4	118.2	139.3	30.0	70.0	60.2	299.4	111.9

**2. Deposits held by non-monetary financial corporations and by government: flows <sup>4)</sup>**

	Non-monetary financial intermediaries except insurance corporations and pension funds					Insurance corporations and pension funds					General government					
	Total <sup>2)</sup>				Annual growth rate <sup>3)</sup> (%)	Total <sup>2)</sup>				Annual growth rate <sup>3)</sup> (%)	Central government	Other general government			Total	Annual growth rate <sup>3)</sup> (%)
	Over-night	With agreed maturity	Repos			Over-night	With agreed maturity	Repos				State government	Local government	Social security funds		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2000 Q3	1.5	-5.8	7.7	-0.2	11.2	1.2	-0.7	0.4	1.3	5.7	13.3	-1.4	-0.4	-1.4	10.1	18.3
Q4	-0.2	-4.9	7.7	-2.6	8.9	13.1	6.5	4.7	2.4	6.1	5.3	0.3	5.0	-4.7	6.0	12.5
<i>Euro area enlargement</i>																
2001 Q1	7.7	-2.5	-5.9	16.0	1.8	3.7	-2.5	4.5	1.3	4.3	-15.6	0.1	-4.1	2.1	-17.5	10.6
Q2	9.6	12.4	-2.1	-1.8	4.3	2.8	3.4	1.0	-1.9	4.5	15.1	0.5	1.9	3.6	21.1	6.5
Q3	-8.2	-1.6	-2.2	-3.7	2.1	1.5	-2.1	2.7	1.0	4.5	-17.7	1.9	0.5	-0.5	-15.7	-2.0
Q4 <sup>4)</sup>	7.7	-4.3	11.4	0.4	3.9	6.3	7.6	0.5	-1.5	3.0	-8.6	-3.4	2.6	-0.2	-9.5	-6.8

Source: ECB.

1) Corresponding ESA 95 sector codes: non-financial corporations, S.11; households, S.14; non-profit institutions serving households, S.15; non-monetary financial intermediaries except insurance corporations and pension funds (corresponding to other financial intermediaries in the ESA 95), S.123 (including financial auxiliaries, S.124); insurance corporations and pension funds, S.125; general government, S.13.

2) Including deposits redeemable at notice.

3) For the calculation of the index and the growth rates, see the technical notes.

4) Calculated from quarterly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

**Table 2.6 (cont'd)**
**Deposits held with MFIs, by counterpart and instrument <sup>1)</sup>**
*(EUR billions (not seasonally adjusted) and percentage growth rates, unless otherwise indicated)*
**3. Deposits held by non-financial sectors other than government: levels at the end of the period**

	Non-financial corporations						Households <sup>2)</sup>					
	Overnight	With agreed maturity	Redeemable at notice	Repos	Total	Index Dec.98 =100 <sup>3)</sup>	Overnight	With agreed maturity	Redeemable at notice	Repos	Total	Index Dec.98 =100 <sup>3)</sup>
	1	2	3	4	5	6	7	8	9	10	11	12
2000 Q2	459.7	307.7	24.1	26.9	818.4	104.6	888.2	1,095.1	1,254.6	46.6	3,284.5	101.8
Q3	464.2	331.8	24.7	25.0	845.7	106.7	874.4	1,107.6	1,235.3	51.6	3,268.9	101.4
Q4	497.4	324.6	24.1	26.3	872.4	111.5	906.9	1,131.5	1,241.4	57.1	3,336.9	103.5
<i>Euro area enlargement</i>												
2001 1 Jan.	504.5	337.9	24.2	30.5	897.2	-	910.4	1,154.0	1,292.3	69.6	3,426.4	-
2001 Q1	478.9	349.2	24.1	32.4	884.6	108.9	906.1	1,192.3	1,287.0	78.9	3,464.4	104.6
Q2	514.5	335.7	24.4	32.1	906.7	111.3	947.2	1,198.7	1,293.5	81.3	3,520.7	106.3
Q3	514.8	322.7	25.4	34.5	897.5	112.3	963.5	1,203.8	1,305.2	84.6	3,557.1	107.5
Q4 <sup>4)</sup>	576.5	338.4	27.5	36.8	979.1	122.2	1,041.6	1,195.8	1,365.6	77.0	3,680.0	111.3

**4. Deposits held by non-financial sectors other than government: flows <sup>4)</sup>**

	Non-financial corporations						Households <sup>2)</sup>					
	Overnight	With agreed maturity	Redeemable at notice	Repos	Total	Annual growth rate <sup>3)</sup> (%)	Overnight	With agreed maturity	Redeemable at notice	Repos	Total	Annual growth rate <sup>3)</sup> (%)
	1	2	3	4	5	6	7	8	9	10	11	12
2000 Q3	0.3	16.4	1.3	-2.0	16.0	9.2	-13.8	12.6	-19.6	5.0	-15.8	1.0
Q4	36.8	0.5	-0.6	1.3	38.0	11.1	32.6	24.5	6.4	5.5	69.0	1.1
<i>Euro area enlargement</i>												
2001 Q1	-28.4	6.9	-0.1	1.8	-19.9	7.4	-4.6	37.8	-5.8	9.3	36.7	2.4
Q2	32.9	-13.4	0.3	-0.4	19.4	6.4	41.1	6.4	6.2	2.3	56.1	4.4
Q3	3.7	1.1	0.4	2.5	7.7	5.2	16.2	5.2	12.7	3.4	37.4	6.0
Q4 <sup>4)</sup>	61.6	13.2	2.0	2.3	79.2	9.6	78.3	-3.0	60.3	-7.6	128.0	7.6

Source: ECB.

1) Corresponding ESA 95 sector codes: non-financial corporations, S.11; households, S.14; non-profit institutions serving households, S.15; non-monetary financial intermediaries except insurance corporations and pension funds (corresponding to other financial intermediaries in the ESA 95), S.123 (including financial auxiliaries, S.124); insurance corporations and pension funds, S.125; general government, S.13.

2) Comprises households (S.14) and non-profit institutions serving households (S.15).

3) For the calculation of the index and the growth rates, see the technical notes.

4) Calculated from quarterly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

**Table 2.7****Main MFI claims on and liabilities to non-residents of the euro area***(EUR billions (not seasonally adjusted) and percentage growth rates, unless otherwise indicated)***1. Levels at the end of the period**

	Loans to non-residents								Holdings of securities other than shares issued by non-residents							
	Banks <sup>1)2)</sup>		Non-banks				Total	Index Dec.98 =100 <sup>3)</sup>	Banks <sup>1)</sup>		Non-banks				Total	Index Dec.98 =100 <sup>3)</sup>
	Total	Index Dec.98 =100 <sup>3)</sup>	General govern- ment	Other	Total	Index Dec.98 =100 <sup>3)</sup>			Total	Index Dec.98 =100 <sup>3)</sup>	General govern- ment	Other	Total	Index Dec.98 =100 <sup>3)</sup>		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2000 Q2	977.7	97.1	81.0	399.0	480.0	118.7	1,457.7	103.2	153.0	152.8	302.8	161.3	464.1	107.8	617.1	116.0
Q3	979.4	94.4	79.3	441.4	520.7	123.3	1,500.0	102.6	168.2	160.9	321.5	175.4	496.9	110.1	665.1	119.5
Q4	945.4	93.4	78.9	445.6	524.5	127.9	1,469.8	103.3	171.1	172.5	290.6	183.7	474.3	109.1	645.4	120.9
<i>Euro area enlargement</i>																
2001 1 Jan.	964.1	-	78.9	449.3	528.2	-	1,492.2	-	171.3	-	296.2	184.0	480.2	-	651.5	-
2001 Q1	1,051.5	100.4	76.3	517.9	594.2	143.1	1,645.7	112.6	188.8	188.0	285.9	204.5	490.4	113.1	679.3	126.9
Q2	1,071.3	100.7	78.9	519.3	598.2	141.0	1,669.5	112.3	205.1	200.4	294.6	207.8	502.3	113.9	707.4	129.9
Q3	1,081.3	103.6	74.9	527.7	602.6	146.9	1,683.9	116.0	200.6	202.0	273.8	212.1	485.8	113.8	686.4	130.1
Q4 <sup>4)</sup>	1,110.3	106.0	74.4	548.5	622.9	149.7	1,733.2	118.6	234.9	233.1	289.0	220.0	509.0	117.7	743.9	139.1

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

	Loans to non-residents								Holdings of securities other than shares issued by non-residents							
	Banks <sup>1)2)</sup>		Non-banks				Total	Annual growth rate <sup>3)</sup> (%)	Banks <sup>1)</sup>		Non-banks				Total	Annual growth rate <sup>3)</sup> (%)
	Total	Annual growth rate <sup>3)</sup> (%)	General govern- ment	Other	Total	Annual growth rate <sup>3)</sup> (%)			Total	Annual growth rate <sup>3)</sup> (%)	General govern- ment	Other	Total	Annual growth rate <sup>3)</sup> (%)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2000 Q3	-27.3	-2.4	-1.7	20.5	18.8	7.8	-8.6	0.9	8.1	23.2	17.1	-6.9	10.2	13.0	18.3	15.3
Q4	-10.3	3.6	-0.7	19.9	19.2	10.4	9.0	6.0	12.2	26.7	-31.8	27.3	-4.5	7.1	7.7	11.6
<i>Euro area enlargement</i>																
2001 Q1	70.9	6.8	3.7	58.9	62.6	20.1	133.5	11.3	15.4	27.5	5.3	11.7	17.0	6.3	32.4	11.4
Q2	3.0	3.7	2.6	-11.2	-8.6	18.9	-5.6	8.7	12.4	31.1	9.2	-5.6	3.6	5.7	16.0	12.0
Q3	31.2	9.8	-4.0	28.9	24.9	19.1	56.1	13.0	1.6	25.5	-21.8	21.2	-0.6	3.3	1.0	8.9
Q4 <sup>4)</sup>	25.4	13.5	-0.4	12.1	11.6	17.1	37.0	14.8	30.9	35.1	15.2	1.5	16.7	7.8	47.6	15.1

Source: ECB.

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

2) Deposits placed by MFIs with banks located outside the euro area are included.

**Table 2.7 (cont'd)**

Holdings of shares and other equity issued by non-residents						Deposits held by non-residents								
Banks <sup>1)</sup>		Other		Total	Index Dec.98 =100 <sup>3)</sup>	Banks <sup>1)</sup>		Non-banks				Total	Index Dec.98 =100 <sup>3)</sup>	
Total	Index Dec.98 =100 <sup>3)</sup>	Total	Index Dec.98 =100 <sup>3)</sup>			Total	Index Dec.98 =100 <sup>3)</sup>	General government	Other	Total	Index Dec.98 =100 <sup>3)</sup>			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	
50.8	205.0	67.5	160.7	118.3	176.5	1,505.6	122.4	77.2	470.1	547.3	130.7	2,052.9	124.5	2000 Q2
58.0	226.4	81.4	190.0	139.4	202.8	1,578.2	123.5	81.6	526.4	608.0	140.2	2,186.2	127.8	Q3
61.6	241.8	80.0	192.7	141.6	210.2	1,550.8	125.1	84.6	504.0	588.6	139.1	2,139.4	128.7	Q4
<i>Euro area enlargement</i>														
62.3	-	80.2	-	142.5	-	1,560.8	-	85.6	507.9	593.4	-	2,154.2	-	2001 1 Jan.
65.1	252.2	94.3	227.2	159.4	235.4	1,781.6	140.8	89.3	577.1	666.4	154.1	2,448.0	144.2	2001 Q1
61.1	236.5	97.2	233.7	158.3	233.3	1,817.3	140.8	94.8	587.0	681.9	155.0	2,499.2	144.5	Q2
63.6	245.8	89.9	215.6	153.5	225.8	1,710.0	137.0	93.7	588.5	682.1	159.6	2,392.1	142.7	Q3
73.1	269.4	91.2	220.3	164.3	237.7	1,712.8	135.9	95.0	621.8	716.8	165.8	2,429.5	143.5	Q4 <sup>(p)</sup>

Holdings of shares and other equity issued by non-residents						Deposits held by non-residents								
Banks <sup>1)</sup>		Other		Total	Annual growth rate <sup>3)</sup> (%)	Banks <sup>1)</sup>		Non-banks				Total	Annual growth rate <sup>3)</sup> (%)	
Total	Annual growth rate <sup>3)</sup> (%)	Total	Annual growth rate <sup>3)</sup> (%)			Total	Annual growth rate <sup>3)</sup> (%)	General government	Other	Total	Annual growth rate <sup>3)</sup> (%)			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	
5.3	31.1	12.3	63.4	17.6	48.6	14.5	9.7	4.4	35.6	40.0	22.2	54.4	12.9	2000 Q3
4.0	47.8	1.1	46.2	5.1	46.8	20.1	12.4	3.0	-7.9	-4.9	17.7	15.2	13.8	Q4
<i>Euro area enlargement</i>														
2.7	27.1	14.3	46.7	17.0	38.1	194.8	12.9	3.5	60.0	63.5	20.8	258.3	14.9	2001 Q1
-4.1	15.3	2.7	45.4	-1.4	32.2	0.2	15.1	5.6	-1.5	4.1	18.6	4.2	16.0	Q2
2.4	8.6	-7.5	13.4	-5.1	11.4	-49.9	10.9	-1.2	21.0	19.9	13.8	-30.1	11.7	Q3
6.1	11.4	2.0	14.3	8.1	13.1	-13.1	8.6	1.3	25.4	26.7	19.2	13.6	11.5	Q4 <sup>(p)</sup>

3) For the calculation of the index and the growth rates, see the technical notes.

4) Calculated from quarterly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

**Table 2.8**
**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 1	Euro <sup>2)</sup> 2	Other EU currencies 3	Other currencies 4	Other currencies				All currencies 9	Euro <sup>3)</sup> 10	Other EU currencies 11	Other currencies 12	Other currencies			
					USD 5	JPY 6	CHF 7	Other 8					USD 13	JPY 14	CHF 15	Other 16
2000 Q2	4,053.5	3,618.5	52.8	382.2	265.1	34.7	62.2	20.1	5,293.9	5,113.7	27.9	152.3	113.0	17.1	13.2	9.0
Q3	3,941.1	3,481.1	57.9	402.1	279.2	38.1	64.9	19.9	5,321.0	5,132.0	29.1	160.0	121.0	16.5	12.5	10.1
Q4	3,949.6	3,526.2	47.5	376.0	265.0	34.4	61.0	15.6	5,434.5	5,256.3	27.3	150.9	115.1	14.6	11.3	9.9
<i>Euro area enlargement</i>																
2001 Q1	4,059.5	3,558.8	55.4	445.3	316.6	40.2	67.8	20.7	5,578.0	5,367.6	31.2	179.2	130.8	23.8	12.3	12.2
Q2	4,072.3	3,585.9	52.8	433.6	309.0	40.3	65.4	19.0	5,693.4	5,480.4	30.7	182.2	133.5	24.0	11.6	13.2
Q3	4,101.4	3,624.1	48.9	428.4	300.5	38.9	71.0	17.9	5,706.4	5,507.3	28.2	170.9	125.7	22.1	10.8	12.2
Q4 <sup>(p)</sup>	4,182.2	3,710.2	47.1	424.9	306.8	33.8	67.0	17.3	5,919.8	5,718.4	26.7	174.7	126.8	24.5	10.5	12.9

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

	Banks <sup>3)</sup>								Non-banks							
	All currencies 1	Euro <sup>2)</sup> 2	Other EU currencies 3	Other currencies 4	Other currencies				All currencies 9	Euro <sup>3)</sup> 10	Other EU currencies 11	Other currencies 12	Other currencies			
					USD 5	JPY 6	CHF 7	Other 8					USD 13	JPY 14	CHF 15	Other 16
2000 Q2	1,505.6	598.2	134.1	773.2	614.1	61.0	63.2	34.9	547.3	243.5	52.1	251.7	203.8	22.0	15.1	10.7
Q3	1,578.2	611.6	145.6	821.0	661.9	63.3	63.4	32.4	608.0	252.8	61.0	294.2	245.5	23.1	13.8	11.8
Q4	1,550.8	590.9	126.8	833.2	684.3	53.1	65.7	30.1	588.6	254.1	64.0	270.5	225.5	20.5	12.3	12.2
<i>Euro area enlargement</i>																
2001 Q1	1,781.6	698.5	142.6	940.5	776.8	66.4	65.8	31.5	666.4	295.7	70.6	300.1	255.9	17.6	14.2	12.4
Q2	1,817.3	690.0	133.8	993.5	815.3	72.9	73.1	32.2	681.9	286.7	73.2	322.0	274.1	19.3	13.6	14.9
Q3	1,710.0	664.2	140.3	905.4	744.5	53.5	76.2	31.2	682.1	297.7	69.2	315.2	263.7	18.4	17.1	16.0
Q4 <sup>(p)</sup>	1,712.8	630.4	140.0	942.3	775.4	58.3	76.5	32.1	716.8	307.3	61.8	347.7	298.6	16.9	17.9	14.4

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

	Debt securities								Money market paper							
	All currencies 1	Euro <sup>2)</sup> 2	Other EU currencies 3	Other currencies 4	Other currencies				All currencies 9	Euro <sup>3)</sup> 10	Other EU currencies 11	Other currencies 12	Other currencies			
					USD 5	JPY 6	CHF 7	Other 8					USD 13	JPY 14	CHF 15	Other 16
2000 Q2	2,482.6	2,185.5	40.6	256.6	145.5	58.9	33.6	18.6	262.8	234.9	1.4	26.4	17.2	5.4	2.5	1.4
Q3	2,554.8	2,226.6	47.7	280.5	158.2	65.3	37.4	19.7	272.2	233.6	2.2	36.4	26.6	5.7	2.8	1.3
Q4	2,566.9	2,246.0	46.5	274.4	157.3	62.1	35.4	19.7	262.2	215.8	2.4	44.1	34.0	5.6	2.9	1.5
<i>Euro area enlargement</i>																
2001 Q1	2,667.6	2,327.9	48.3	291.4	172.0	61.5	37.5	20.5	278.5	227.8	2.1	48.6	41.6	3.0	2.6	1.5
Q2	2,731.2	2,358.2	53.9	319.1	189.2	69.4	39.6	20.8	275.5	227.0	4.3	44.2	35.8	4.7	2.5	1.1
Q3	2,749.8	2,383.6	52.8	313.4	186.9	68.5	38.4	19.5	265.0	217.9	4.0	43.2	36.0	3.1	2.8	1.2
Q4 <sup>(p)</sup>	2,777.9	2,377.4	67.5	333.0	205.0	67.1	40.4	20.6	254.0	204.1	4.8	45.1	38.9	2.6	2.5	1.2

Source: ECB.

- 1) Outstanding amounts are not adjusted for reclassifications, other revaluations or exchange rate variations. Data are partially estimated. For further details, see the technical notes.
- 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.

**Table 2.8 (cont'd)**
**Currency analysis of certain liabilities and assets of the euro area MFIs <sup>1)</sup>**
*(EUR billions (not seasonally adjusted; end of period))*
**Assets outstanding**
**4. Loans to euro area residents**

	MFIs								Non-MFIs							
	All currencies 1	Euro <sup>2)</sup> 2	Other EU currencies 3	Other currencies 4	Other currencies				All currencies 9	Euro <sup>2)</sup> 10	Other EU currencies 11	Other currencies 12	Other currencies			
					USD 5	JPY 6	CHF 7	Other 8					USD 13	JPY 14	CHF 15	Other 16
2000 Q2	4,023.7	-	-	-	-	-	-	-	6,681.9	6,388.6	35.4	257.9	144.7	38.4	70.5	4.3
Q3	3,930.5	-	-	-	-	-	-	-	6,796.5	6,485.5	34.8	276.3	155.8	44.4	72.1	4.0
Q4	3,937.6	-	-	-	-	-	-	-	6,926.6	6,622.4	32.4	271.8	151.6	41.2	74.3	4.7
<i>Euro area enlargement</i>																
2001 Q1	4,081.1	-	-	-	-	-	-	-	7,125.6	6,782.4	35.1	308.1	182.3	45.4	74.9	5.6
Q2	4,089.2	-	-	-	-	-	-	-	7,223.1	6,856.9	29.4	336.9	204.6	51.7	74.0	6.5
Q3	4,082.7	-	-	-	-	-	-	-	7,251.0	6,907.0	30.9	313.1	177.9	52.1	77.3	5.8
Q4 <sup>(p)</sup>	4,185.5	-	-	-	-	-	-	-	7,363.1	7,021.8	31.3	310.0	179.3	48.3	77.1	5.4

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

	Issued by MFIs								Issued by non-MFIs							
	All currencies 1	Euro <sup>2)</sup> 2	Other EU currencies 3	Other currencies 4	Other currencies				All currencies 9	Euro <sup>2)</sup> 10	Other EU currencies 11	Other currencies 12	Other currencies			
					USD 5	JPY 6	CHF 7	Other 8					USD 13	JPY 14	CHF 15	Other 16
2000 Q2	897.5	858.2	12.5	26.9	17.8	4.9	2.6	1.7	1,411.0	1,377.3	6.0	27.6	14.7	10.5	1.6	0.9
Q3	943.4	898.8	10.6	34.1	24.5	5.3	2.5	1.9	1,386.6	1,353.3	3.6	29.7	16.6	11.0	1.2	0.9
Q4	935.3	895.0	10.8	29.5	19.7	5.9	2.1	1.7	1,354.6	1,320.7	5.6	28.2	16.7	9.7	1.0	0.9
<i>Euro area enlargement</i>																
2001 Q1	971.2	931.2	9.5	30.4	20.6	6.3	1.7	1.8	1,452.7	1,413.1	3.6	36.0	21.2	13.1	1.1	0.6
Q2	993.4	950.7	10.7	32.0	22.1	6.5	1.6	1.8	1,506.3	1,464.7	4.7	36.9	21.7	13.3	1.1	0.8
Q3	999.7	960.2	9.7	29.9	21.0	5.9	1.5	1.5	1,520.9	1,482.1	4.0	34.8	20.4	12.6	1.2	0.6
Q4 <sup>(p)</sup>	1,012.1	967.9	12.3	32.3	22.7	6.4	1.5	1.7	1,516.2	1,478.3	3.6	34.5	20.9	11.9	1.1	0.6

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

	Banks <sup>3)</sup>								Non-banks							
	All currencies 1	Euro <sup>2)</sup> 2	Other EU currencies 3	Other currencies 4	Other currencies				All currencies 9	Euro <sup>2)</sup> 10	Other EU currencies 11	Other currencies 12	Other currencies			
					USD 5	JPY 6	CHF 7	Other 8					USD 13	JPY 14	CHF 15	Other 16
2000 Q2	977.7	462.7	92.2	422.8	308.2	44.9	33.2	36.4	480.0	149.6	41.6	288.8	246.6	14.1	21.4	6.8
Q3	979.4	445.9	90.9	442.6	331.9	42.1	33.8	34.8	520.7	156.0	46.1	318.5	273.9	14.5	23.3	6.9
Q4	945.4	410.0	89.2	446.2	337.8	44.1	32.6	31.7	524.5	163.3	45.3	315.8	271.2	11.5	25.9	7.2
<i>Euro area enlargement</i>																
2001 Q1	1,051.5	468.3	98.6	484.5	365.8	46.3	34.5	37.0	594.2	198.2	48.6	347.4	301.2	11.9	26.2	8.0
Q2	1,071.3	473.2	103.0	495.2	376.1	47.3	36.7	35.0	598.2	184.4	47.7	366.0	318.4	12.1	26.9	8.6
Q3	1,081.3	486.1	101.5	493.7	378.3	41.2	40.3	33.9	602.6	201.3	46.8	354.5	307.9	12.7	24.9	9.0
Q4 <sup>(p)</sup>	1,110.3	453.6	116.5	540.2	417.9	48.4	38.8	35.0	622.9	196.7	47.9	378.3	331.4	12.3	26.0	8.7

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

	Issued by banks <sup>3)</sup>								Issued by non-banks							
	All currencies 1	Euro <sup>2)</sup> 2	Other EU currencies 3	Other currencies 4	Other currencies				All currencies 9	Euro <sup>2)</sup> 10	Other EU currencies 11	Other currencies 12	Other currencies			
					USD 5	JPY 6	CHF 7	Other 8					USD 13	JPY 14	CHF 15	Other 16
2000 Q2	153.0	64.8	8.3	79.8	63.7	7.9	2.7	5.5	464.1	95.7	28.3	340.1	299.4	26.9	4.5	9.3
Q3	168.2	62.4	15.3	90.4	75.1	8.2	2.7	4.4	496.9	109.1	32.2	355.6	312.0	30.3	4.2	9.0
Q4	171.1	61.1	19.7	90.3	75.6	7.7	2.4	4.6	474.3	111.5	31.7	331.0	290.6	27.1	3.6	9.7
<i>Euro area enlargement</i>																
2001 Q1	188.8	64.8	22.7	101.3	87.1	7.3	2.3	4.6	490.4	120.8	24.4	345.3	306.8	25.7	2.7	10.1
Q2	205.1	71.9	25.1	108.1	94.1	6.8	2.5	4.8	502.3	121.0	25.7	355.7	315.8	26.9	3.0	9.9
Q3	200.6	75.5	24.7	100.5	90.3	4.7	2.1	3.4	485.8	128.6	26.7	330.6	292.5	27.1	3.9	7.1
Q4 <sup>(p)</sup>	234.9	78.8	27.2	128.9	118.1	4.6	2.4	3.8	509.0	133.3	27.4	348.4	305.9	29.6	4.3	8.6



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

**Table 3.1**

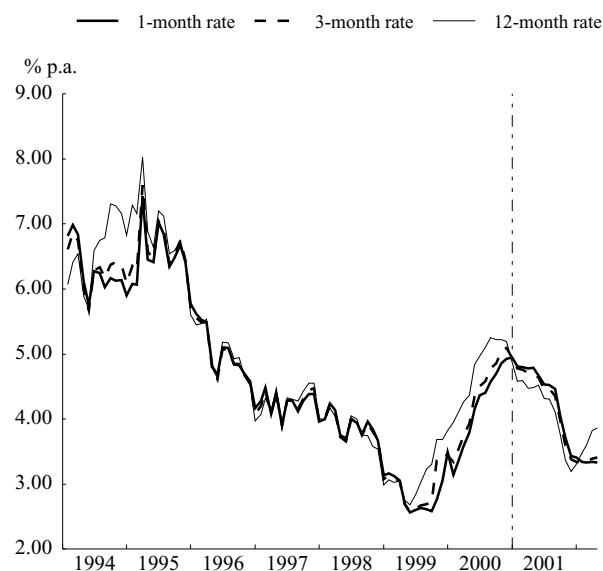
### Money market interest rates <sup>1)</sup>

(percentages per annum)

	Euro area <sup>4)</sup>					United States <sup>6)</sup>	Japan <sup>6)</sup>
	Overnight deposits <sup>2)3)</sup> 1	1-month deposits <sup>5)</sup> 2	3-month deposits <sup>5)</sup> 3	6-month deposits <sup>5)</sup> 4	12-month deposits <sup>5)</sup> 5	3-month deposits <sup>6)</sup> 6	3-month deposits <sup>7)</sup> 7
1997	3.98	4.23	4.24	4.25	4.28	5.76	0.62
1998	3.09	3.84	3.83	3.78	3.77	5.57	0.66
1999	2.74	2.86	2.96	3.06	3.19	5.42	0.22
2000	4.12	4.24	4.40	4.55	4.78	6.53	0.28
<i>Euro area enlargement</i>							
2001	4.39	4.33	4.26	4.16	4.09	3.78	0.15
2001 Apr.	5.06	4.79	4.69	4.57	4.49	4.63	0.10
May	4.65	4.67	4.64	4.57	4.53	4.11	0.07
June	4.54	4.53	4.45	4.35	4.31	3.83	0.07
July	4.51	4.52	4.47	4.39	4.31	3.75	0.08
Aug.	4.49	4.46	4.35	4.22	4.11	3.56	0.08
Sep.	3.99	4.05	3.98	3.88	3.77	3.03	0.06
Oct.	3.97	3.72	3.60	3.46	3.37	2.40	0.08
Nov.	3.51	3.43	3.39	3.26	3.20	2.10	0.08
Dec.	3.34	3.42	3.34	3.26	3.30	1.92	0.08
2002 Jan.	3.29	3.35	3.34	3.34	3.48	1.82	0.09
Feb.	3.28	3.34	3.36	3.40	3.59	1.90	0.10
Mar.	3.26	3.35	3.39	3.50	3.82	1.99	0.10
Apr.	3.32	3.34	3.41	3.54	3.86	1.97	0.08
2002 5 Apr.	3.30	3.35	3.43	3.58	3.94	2.01	0.08
12	3.28	3.33	3.41	3.55	3.88	1.98	0.08
19	3.27	3.33	3.39	3.52	3.85	1.94	0.08
26	3.30	3.34	3.39	3.49	3.77	1.92	0.08

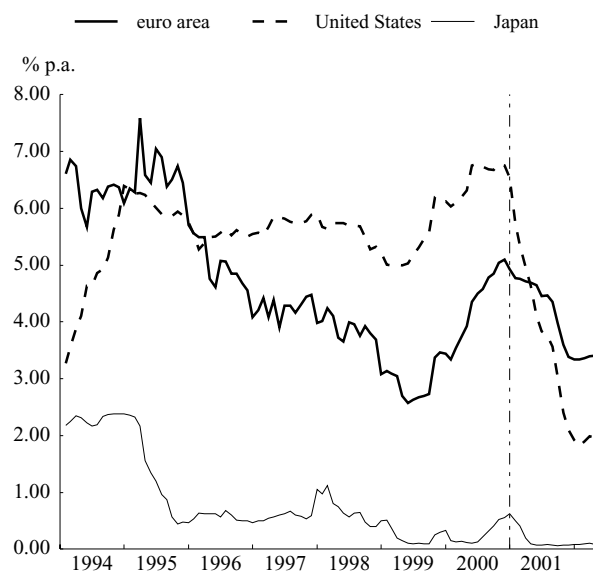
### Euro area money market rates

(monthly)



### 3-month money market rates

(monthly)



Sources: Reuters and ECB.

1) With the exception of the overnight rate to December 1998, monthly and yearly values are period averages.

2) Interbank deposit bid rates to December 1998. From January 1999 column 1 shows the euro overnight index average (EONIA).

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

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

5) From January 1999, euro interbank offered rates (EURIBOR). Up to December 1998, London interbank offered rates (LIBOR) where available.

6) London interbank offered rates (LIBOR).

**Table 3.2**

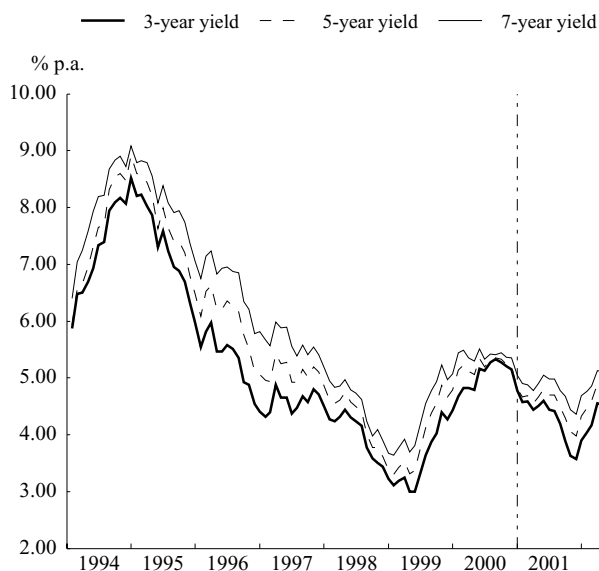
**Government bond yields <sup>1)</sup>**

(percentages per annum)

	Euro area <sup>2)</sup>					United States	Japan
	2 years <sup>1</sup>	3 years <sup>2</sup>	5 years <sup>3</sup>	7 years <sup>4</sup>	10 years <sup>5</sup>	10 years <sup>6</sup>	10 years <sup>7</sup>
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
1999	3.38	3.63	4.01	4.38	4.66	5.64	1.75
2000	4.90	5.03	5.19	5.37	5.44	6.03	1.76
<i>Euro area enlargement</i>							
2001	4.11	4.23	4.49	4.79	5.03	5.01	1.34
2001 Apr.	4.49	4.51	4.66	4.90	5.10	5.13	1.36
May	4.56	4.60	4.80	5.05	5.26	5.37	1.28
June	4.39	4.44	4.70	4.99	5.21	5.26	1.19
July	4.33	4.42	4.70	4.99	5.25	5.23	1.33
Aug.	4.11	4.19	4.49	4.78	5.06	4.97	1.36
Sep.	3.77	3.89	4.29	4.67	5.04	4.76	1.40
Oct.	3.44	3.63	4.05	4.44	4.82	4.55	1.36
Nov.	3.36	3.58	3.98	4.37	4.67	4.61	1.33
Dec.	3.66	3.90	4.33	4.68	4.96	5.07	1.35
2002 Jan.	3.84	4.04	4.48	4.76	5.02	5.00	1.42
Feb.	3.96	4.17	4.60	4.85	5.07	4.90	1.52
Mar.	4.25	4.55	4.90	5.13	5.32	5.28	1.45
Apr.	4.21	4.53	4.86	5.12	5.30	5.21	1.39
2002 5 Apr.	4.23	4.54	4.84	5.10	5.27	5.24	1.38
12	4.20	4.52	4.85	5.10	5.28	5.17	1.38
19	4.22	4.55	4.89	5.15	5.33	5.21	1.39
26	4.08	4.41	4.76	5.04	5.23	5.08	1.42

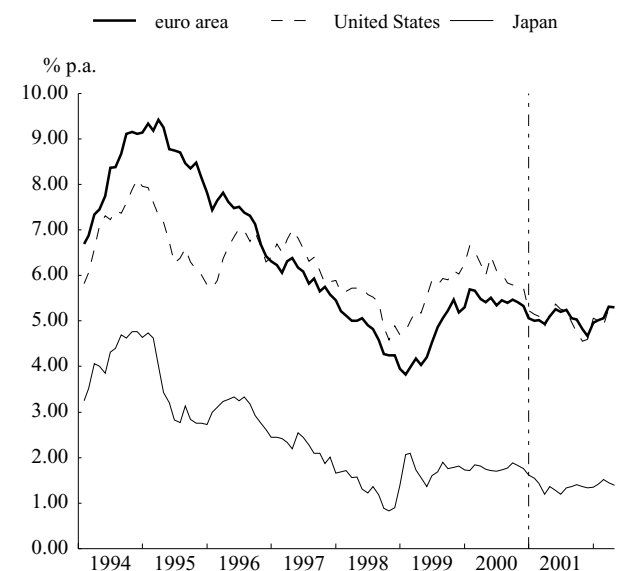
**Euro area government bond yields**

(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**

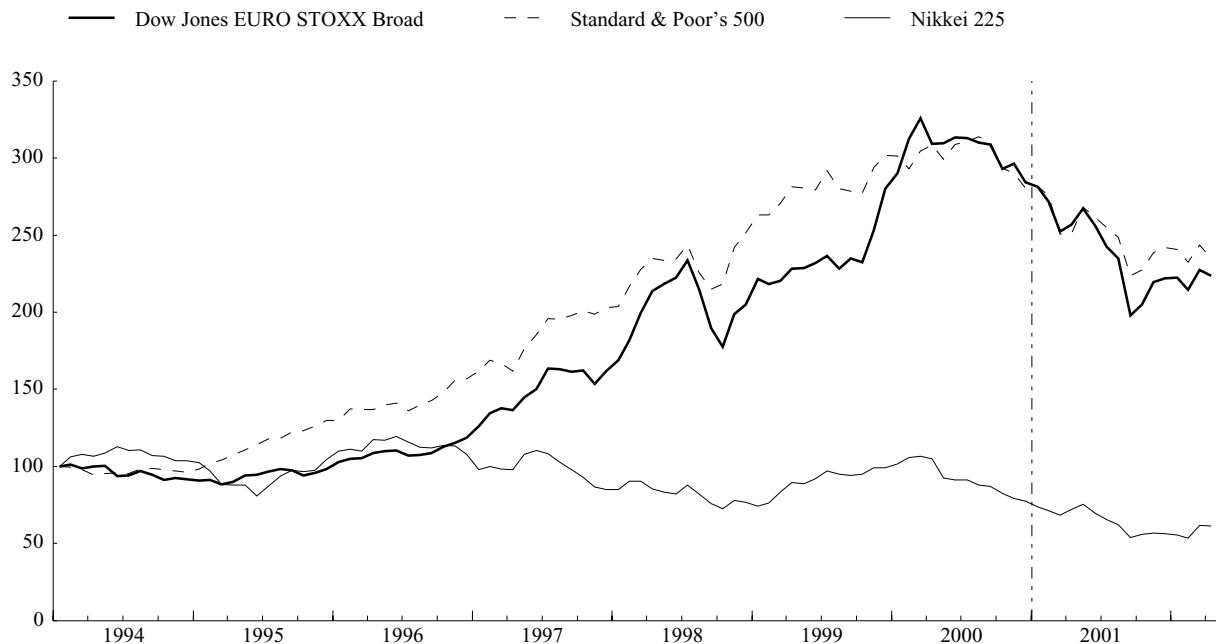
**Stock market indices**

(index levels, in points)<sup>1)</sup>

	Dow Jones EURO STOXX indices												United States	Japan
	Benchmark		Main economic sector indices											
	Broad	50	Basic materials	Consumer cyclical	Consumer non-cyclical	Energy	Financial	Industrial	Technology	Utilities	Telecommunications	Health-care		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1997	207.6	2,319.6	233.4	191.9	231.9	227.3	184.4	168.0	227.7	205.5	324.1	301.7	873.9	18,373.4
1998	280.5	3,076.3	257.9	245.0	295.5	249.3	281.3	218.4	333.6	282.4	488.1	348.9	1,085.3	15,338.4
1999	325.8	3,787.3	279.2	262.9	327.7	286.0	295.7	285.1	470.4	306.2	717.7	392.6	1,327.8	16,829.9
2000	423.9	5,075.5	299.1	292.9	324.3	342.3	350.7	378.0	963.1	341.7	1,072.5	476.0	1,426.7	17,162.7
<i>Euro area enlargement</i>														
2001	336.3	4,049.4	296.0	228.2	303.3	341.4	321.6	310.0	530.5	309.6	541.2	540.1	1,193.8	12,114.8
2001 Apr.	356.3	4,305.2	308.4	242.6	304.8	352.5	339.4	329.9	587.4	311.5	635.0	534.6	1,189.2	13,436.7
2001 May	370.8	4,481.8	316.5	258.9	312.0	371.8	345.9	345.9	662.4	311.0	623.9	553.2	1,270.7	14,014.3
2001 June	355.1	4,289.7	306.4	241.8	316.9	379.2	341.0	328.6	553.5	320.9	538.3	580.1	1,238.7	12,974.9
2001 July	336.2	4,037.8	302.7	233.8	316.6	349.9	328.2	306.5	449.5	324.2	512.0	565.7	1,205.9	12,140.1
2001 Aug.	325.8	3,884.7	287.9	226.3	309.0	346.6	322.4	303.6	426.5	324.2	453.6	549.3	1,178.3	11,576.2
2001 Sep.	274.3	3,277.0	253.2	176.7	284.2	315.8	265.9	253.2	325.4	298.7	366.5	509.2	1,058.7	9,974.7
2001 Oct.	284.4	3,440.9	260.5	180.4	281.1	322.5	269.9	253.7	373.4	302.7	418.9	539.7	1,076.6	10,428.8
2001 Nov.	304.2	3,674.4	281.3	202.1	286.7	313.7	287.5	270.6	464.5	297.0	473.2	528.8	1,130.3	10,519.7
2001 Dec.	308.0	3,708.4	286.2	209.9	288.8	313.0	285.6	282.2	496.4	286.4	480.9	520.9	1,144.9	10,490.8
2002 Jan.	308.5	3,690.1	293.2	210.8	287.8	320.2	286.3	281.8	494.5	291.1	459.7	524.8	1,140.5	10,338.5
2002 Feb.	297.9	3,537.6	294.9	198.6	288.5	334.0	275.1	279.3	463.7	291.1	406.3	490.1	1,101.5	9,966.9
2002 Mar.	315.4	3,739.6	312.9	215.5	296.5	355.0	294.8	299.0	494.4	291.2	429.3	486.3	1,153.3	11,452.5
2002 Apr.	310.2	3,657.0	308.6	210.2	302.8	351.5	299.5	299.0	438.6	296.9	409.7	472.1	1,112.0	11,391.6
2002 5 Apr.	311.7	3,677.7	312.8	210.1	296.0	352.9	297.6	298.4	462.4	296.0	418.7	473.0	1,122.7	11,335.5
2002 12	306.9	3,611.8	308.1	206.6	302.9	343.3	297.8	296.8	432.5	298.5	399.9	465.6	1,111.0	10,963.0
2002 19	314.2	3,709.0	312.0	213.4	306.4	355.0	307.1	302.4	430.0	299.4	421.3	469.9	1,125.2	11,512.0
2002 26	303.3	3,561.1	299.8	205.4	306.3	342.7	297.1	295.6	403.4	295.0	388.9	473.9	1,076.1	11,541.4

**Dow Jones EURO STOXX Broad, Standard & Poor's 500 and Nikkei 225**

(base month: January 1994 = 100; monthly)



Source: Reuters.

1) Monthly and yearly values are period averages.

**Table 3.4**

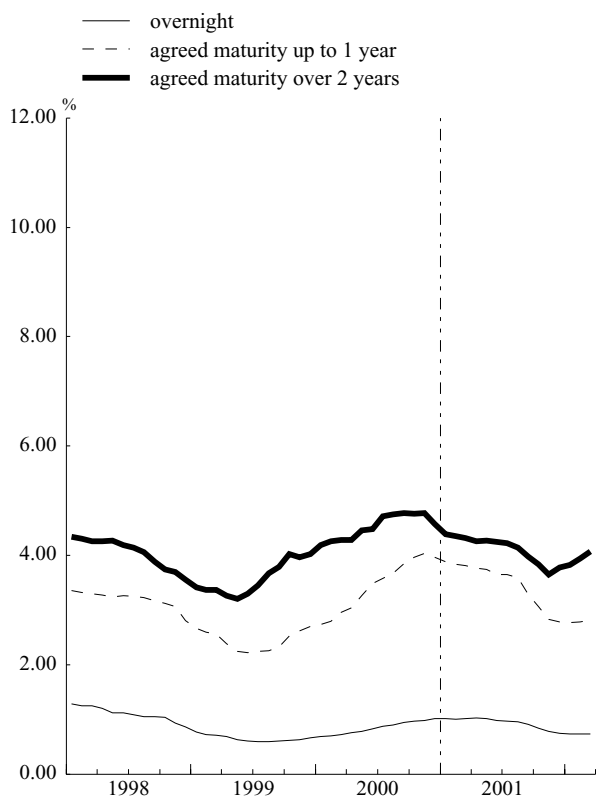
**Retail bank interest rates**

(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
1999	0.65	2.44	2.45	3.57	2.15	2.76	5.65	5.10	9.40	5.29
2000	0.85	3.45	3.45	4.52	2.25	3.79	6.60	6.23	9.87	6.34
<i>Euro area enlargement</i>										
2001	0.94	3.49	3.49	4.12	2.40	3.59	6.83	6.15	10.12	5.97
2001 Mar.	1.02	3.82	3.82	4.32	2.50	3.99	7.04	6.32	10.22	6.18
Apr.	1.03	3.76	3.76	4.26	2.50	3.91	7.07	6.34	10.25	6.14
May	1.01	3.75	3.74	4.27	2.48	3.91	7.03	6.34	10.22	6.17
June	0.98	3.65	3.65	4.25	2.45	3.85	6.97	6.25	10.17	6.13
July	0.97	3.65	3.65	4.22	2.44	3.80	6.90	6.20	10.11	6.05
Aug.	0.96	3.59	3.59	4.14	2.40	3.68	6.89	6.19	10.16	5.96
Sep.	0.91	3.28	3.28	3.98	2.36	3.33	6.71	6.07	10.08	5.86
Oct.	0.84	3.06	3.06	3.84	2.29	3.01	6.46	5.82	9.99	5.65
Nov.	0.78	2.84	2.83	3.65	2.19	2.75	6.31	5.71	9.87	5.48
Dec.	0.74	2.79	2.78	3.77	2.17	2.79	6.24	5.69	9.81	5.52
2002 Jan.	0.73	2.77	2.77	3.83	2.18	2.80	6.16	5.63	9.78	5.53
Feb.	0.74	2.78	2.79	3.95	2.16	2.91	6.14	5.76	9.81	5.61
Mar.	0.74	2.82	2.83	4.07	2.16	3.00	6.07	5.85	9.79	5.74

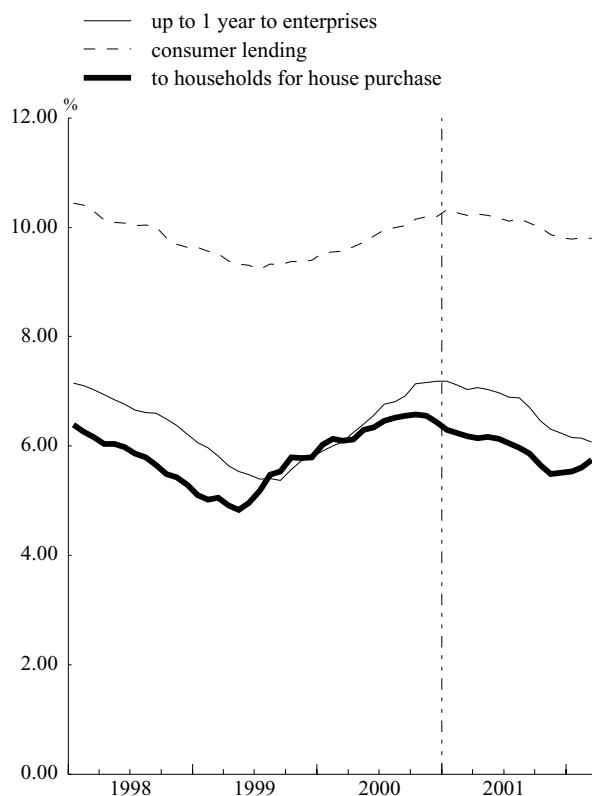
**Deposit interest rates**

(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***(EUR billions; transactions during the month and end-of-period stocks; nominal values)***1. Short-term**

	By euro area residents									
					In euro <sup>1)</sup>				In other	
	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	404.4	390.6	13.8	702.1	383.7	373.4	10.3	625.4	20.7	17.2
Mar.	452.7	436.4	16.3	722.3	432.6	417.7	14.9	642.7	20.1	18.7
Apr.	441.8	431.7	10.1	733.2	424.1	412.7	11.4	653.9	17.7	19.0
May	478.0	480.6	-2.7	735.1	456.8	460.1	-3.3	651.8	21.2	20.5
June	410.6	418.6	-8.1	726.3	387.9	395.5	-7.6	642.7	22.7	23.2
July	393.3	385.6	7.7	734.3	370.1	365.2	4.9	649.0	23.2	20.4
Aug.	422.6	417.9	4.7	737.7	404.5	399.8	4.7	654.6	18.1	18.1
Sep.	396.2	399.7	-3.5	734.4	373.9	376.1	-2.2	652.9	22.3	23.6
Oct.	498.0	493.9	4.1	741.5	479.9	470.7	9.2	662.3	18.1	23.2
Nov.	485.8	489.5	-3.7	739.4	459.3	466.3	-7.0	655.2	26.5	23.2
Dec.	330.1	375.4	-45.3	693.8	307.3	353.1	-45.8	610.3	22.8	22.3
2002 Jan.	484.3	452.8	31.6	728.8	463.9	432.4	31.4	643.1	20.4	20.3
Feb.	404.9	407.3	-2.4	724.3	385.8	386.9	-1.1	643.3	19.1	20.4

**2. Long-term**

	By euro area residents									
					In euro <sup>1)</sup>				In other	
	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	140.3	85.8	54.4	6,592.3	117.5	70.6	46.9	6,040.7	22.8	15.2
Mar.	153.4	102.0	51.4	6,657.0	128.0	86.8	41.1	6,083.9	25.4	15.1
Apr.	114.3	74.1	40.3	6,696.1	97.6	64.5	33.1	6,116.6	16.7	9.6
May	131.9	81.9	50.0	6,768.2	117.7	67.9	49.8	6,166.7	14.1	14.0
June	138.8	79.0	59.8	6,822.8	116.9	59.2	57.7	6,222.8	21.9	19.8
July	143.8	98.5	45.3	6,855.8	124.7	85.5	39.2	6,262.3	19.1	13.0
Aug.	92.2	73.8	18.4	6,859.1	76.8	63.4	13.4	6,274.4	15.4	10.4
Sep.	124.2	106.4	17.8	6,879.5	108.8	88.2	20.6	6,295.4	15.4	18.2
Oct.	144.4	108.3	36.1	6,918.3	123.4	91.6	31.8	6,327.5	21.0	16.7
Nov.	141.7	91.8	50.0	6,972.6	115.5	86.6	28.9	6,356.1	26.3	5.2
Dec.	122.3	83.8	38.5	7,010.1	112.2	73.5	38.6	6,393.9	10.1	10.3
2002 Jan.	173.9	109.9	64.0	7,079.0	157.5	104.8	52.8	6,444.9	16.4	5.1
Feb.	139.1	108.1	31.0	7,111.2	128.6	96.6	32.0	6,478.1	10.6	11.5

**3. Total**

	By euro area residents									
					In euro <sup>1)</sup>				In other	
	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	544.7	476.4	68.3	7,294.4	501.2	444.1	57.2	6,666.1	43.5	32.4
Mar.	606.1	538.4	67.7	7,379.3	560.5	504.5	56.0	6,726.6	45.5	33.9
Apr.	556.1	505.8	50.3	7,429.3	521.7	477.2	44.5	6,770.5	34.4	28.6
May	609.8	562.5	47.3	7,503.3	574.5	528.0	46.5	6,818.5	35.3	34.5
June	549.4	497.7	51.7	7,549.1	504.8	454.7	50.1	6,865.5	44.6	42.9
July	537.1	484.1	53.0	7,590.2	494.8	450.7	44.1	6,911.3	42.3	33.4
Aug.	514.8	491.7	23.1	7,596.8	481.3	463.2	18.1	6,929.0	33.5	28.4
Sep.	520.4	506.1	14.3	7,613.9	482.7	464.3	18.4	6,948.2	37.7	41.8
Oct.	642.4	602.2	40.1	7,659.8	603.3	562.3	41.0	6,989.8	39.1	40.0
Nov.	627.5	581.3	46.2	7,712.0	574.8	552.9	21.9	7,011.3	52.7	28.4
Dec.	452.4	459.2	-6.8	7,703.9	419.5	426.6	-7.2	7,004.2	32.9	32.6
2002 Jan.	658.2	562.7	95.6	7,807.7	621.4	537.2	84.2	7,088.0	36.8	25.4
Feb.	544.1	515.4	28.6	7,835.5	514.4	483.5	30.9	7,121.4	29.6	31.9

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

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

currencies		By non-residents of the euro area in euro <sup>1)</sup>				Total in euro <sup>1)</sup>				
		Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	
Net issues	Amounts outstanding									
11	12	13	14	15	16	17	18	19	20	
3.5	76.7	12.5	13.1	-0.5	57.9	396.3	386.5	9.8	683.4	2001 Feb.
1.4	79.6	26.3	6.3	20.0	78.0	458.9	424.0	34.9	720.7	Mar.
-1.4	79.3	7.2	29.2	-22.0	55.9	431.3	441.9	-10.6	709.8	Apr.
0.7	83.3	11.8	13.5	-1.7	54.2	468.6	473.6	-5.0	706.1	May
-0.5	83.6	25.1	9.8	15.2	69.5	413.0	405.3	7.7	712.1	June
2.8	85.3	6.2	25.5	-19.3	50.2	376.3	390.7	-14.3	699.2	July
0.0	83.1	9.9	14.7	-4.8	45.4	414.4	414.5	-0.1	700.0	Aug.
-1.3	81.5	22.0	12.0	10.0	55.4	396.0	388.1	7.8	708.3	Sep.
-5.1	79.2	8.8	20.0	-11.1	44.3	488.7	490.7	-2.0	706.6	Oct.
3.3	84.2	16.2	12.9	3.3	47.6	475.5	479.2	-3.7	702.8	Nov.
0.5	83.5	17.1	10.2	6.9	54.5	324.4	363.3	-38.9	664.8	Dec.
0.1	85.7	.	.	.	.	.	.	.	.	2002 Jan.
-1.3	81.1	.	.	.	.	.	.	.	.	Feb.

currencies		By non-residents of the euro area in euro <sup>1)</sup>				Total in euro <sup>1)</sup>				
		Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	
Net issues	Amounts outstanding									
11	12	13	14	15	16	17	18	19	20	
7.6	551.6	36.3	13.1	23.2	736.7	153.8	83.7	70.0	6,777.4	2001 Feb.
10.3	573.1	37.0	8.1	29.0	765.7	165.0	94.9	70.1	6,849.6	Mar.
7.2	579.5	20.0	6.7	13.3	778.8	117.6	71.2	46.4	6,895.4	Apr.
0.1	601.5	27.0	10.4	16.6	795.3	144.7	78.3	66.4	6,961.9	May
2.1	600.0	33.6	8.7	24.8	820.3	150.5	68.0	82.5	7,043.1	June
6.1	593.6	14.8	5.8	9.0	829.6	139.5	91.3	48.2	7,091.8	July
5.1	584.7	12.9	6.0	6.9	836.7	89.7	69.4	20.3	7,111.0	Aug.
-2.8	584.1	8.4	9.0	-0.6	836.0	117.2	97.2	20.0	7,131.4	Sep.
4.3	590.8	19.4	4.5	14.9	850.8	142.7	96.1	46.6	7,178.3	Oct.
21.1	616.6	30.0	7.4	22.7	873.5	145.5	94.0	51.5	7,229.6	Nov.
-0.2	616.2	13.6	13.4	0.1	873.6	125.7	87.0	38.8	7,267.5	Dec.
11.3	634.1	.	.	.	.	.	.	.	.	2002 Jan.
-1.0	633.1	.	.	.	.	.	.	.	.	Feb.

currencies		By non-residents of the euro area in euro <sup>1)</sup>				Total in euro <sup>1)</sup>				
		Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	
Net issues	Amounts outstanding									
11	12	13	14	15	16	17	18	19	20	
11.1	628.3	48.8	26.2	22.6	794.6	550.0	470.2	79.8	7,460.8	2001 Feb.
11.7	652.7	63.4	14.4	49.0	843.6	623.9	518.9	105.0	7,570.3	Mar.
5.8	658.7	27.2	35.9	-8.7	834.7	548.9	513.1	35.8	7,605.3	Apr.
0.8	684.8	38.8	23.9	14.9	849.5	613.3	551.9	61.4	7,668.0	May
1.6	683.6	58.6	18.5	40.1	889.8	563.4	473.3	90.2	7,755.3	June
8.9	678.9	21.0	31.3	-10.2	879.8	515.9	482.0	33.9	7,791.0	July
5.1	667.8	22.8	20.7	2.1	882.0	504.1	483.9	20.1	7,811.0	Aug.
-4.1	665.6	30.4	21.0	9.4	891.5	513.1	485.3	27.8	7,839.7	Sep.
-0.8	670.1	28.2	24.5	3.7	895.1	631.5	586.8	44.7	7,884.9	Oct.
24.4	700.8	46.2	20.2	25.9	921.1	621.0	573.2	47.8	7,932.3	Nov.
0.4	699.7	30.7	23.7	7.0	928.1	450.1	450.3	-0.1	7,932.3	Dec.
11.4	719.7	.	.	.	.	.	.	.	.	2002 Jan.
-2.3	714.1	.	.	.	.	.	.	.	.	Feb.

**Table 3.6****Euro-denominated securities other than shares by original maturity, residency and sector of the issuer <sup>1)</sup>***(EUR billions; end of period; nominal values)***Amounts outstanding****1. Short-term**

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	625.4	259.7	4.9	93.2	265.4	2.2	57.9	30.6	16.0	10.0
Mar.	642.7	264.5	5.1	94.5	276.5	2.2	78.0	37.9	25.8	12.6
Apr.	653.9	268.6	5.5	92.4	285.3	2.2	55.9	26.8	18.5	9.7
May	651.8	260.3	5.5	99.4	284.1	2.4	54.2	26.5	18.0	8.8
June	642.7	261.0	5.3	97.5	276.9	2.0	69.5	32.1	24.7	11.5
July	649.0	258.7	5.1	100.8	280.8	3.6	50.2	25.3	17.3	6.7
Aug.	654.6	254.3	4.4	106.4	285.9	3.6	45.4	23.1	15.7	5.8
Sep.	652.9	251.6	4.1	105.9	287.5	3.7	55.4	27.1	22.2	5.5
Oct.	662.3	261.3	3.8	109.8	284.0	3.4	44.3	23.3	16.4	4.0
Nov.	655.2	250.7	3.9	105.8	291.2	3.6	47.6	23.6	19.4	3.4
Dec.	610.3	240.3	3.4	95.1	267.3	4.1	54.5	23.8	24.4	4.4
2002 Jan.	643.1	257.4	3.7	99.8	278.8	3.5	.	.	.	.
Feb.	643.3	251.8	3.7	97.7	286.6	3.5	.	.	.	.

**2. Long-term**

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	6,040.7	2,229.8	258.7	287.1	3,156.4	108.6	736.7	187.4	232.2	75.3
Mar.	6,083.9	2,240.7	266.4	298.2	3,168.1	110.4	765.7	199.8	237.5	80.4
Apr.	6,116.6	2,247.9	272.3	301.4	3,182.6	112.5	778.8	202.5	245.1	82.8
May	6,166.7	2,255.4	282.1	311.4	3,204.5	113.3	795.3	208.1	251.2	88.1
June	6,222.8	2,270.4	289.7	318.8	3,230.7	113.3	820.3	216.5	256.9	91.3
July	6,262.3	2,290.0	306.9	321.3	3,228.7	115.3	829.6	219.0	262.4	93.3
Aug.	6,274.4	2,290.0	308.7	327.9	3,229.6	118.2	836.7	220.2	269.3	94.0
Sep.	6,295.4	2,296.5	313.0	326.4	3,237.2	122.3	836.0	220.9	270.1	93.4
Oct.	6,327.5	2,312.0	323.3	324.0	3,240.8	127.4	850.8	222.7	276.6	95.4
Nov.	6,356.1	2,314.3	331.3	340.3	3,240.9	129.1	873.5	226.7	288.2	99.8
Dec.	6,393.9	2,316.8	361.9	346.5	3,238.3	130.3	873.6	229.0	287.7	100.4
2002 Jan.	6,444.9	2,321.6	366.0	351.8	3,272.2	133.3	.	.	.	.
Feb.	6,478.1	2,341.8	371.5	354.4	3,277.6	132.8	.	.	.	.

**3. Total**

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	6,666.1	2,489.5	263.7	380.3	3,421.8	110.9	794.6	218.0	248.1	85.3
Mar.	6,726.6	2,505.2	271.5	392.7	3,444.6	112.6	843.6	237.7	263.3	93.0
Apr.	6,770.5	2,516.4	277.8	393.8	3,467.9	114.7	834.7	229.3	263.5	92.5
May	6,818.5	2,515.8	287.6	410.8	3,488.6	115.6	849.5	234.6	269.2	96.9
June	6,865.5	2,531.5	294.9	416.3	3,507.6	115.3	889.8	248.5	281.5	102.9
July	6,911.3	2,548.6	312.0	422.2	3,509.6	118.9	879.8	244.3	279.7	100.0
Aug.	6,929.0	2,544.4	313.1	434.3	3,515.5	121.7	882.0	243.3	285.0	99.8
Sep.	6,948.2	2,548.0	317.1	432.3	3,524.7	126.0	891.5	248.0	292.3	98.9
Oct.	6,989.8	2,573.3	327.1	433.8	3,524.8	130.8	895.1	246.0	293.0	99.4
Nov.	7,011.3	2,565.0	335.3	446.1	3,532.1	132.7	921.1	250.3	307.6	103.2
Dec.	7,004.2	2,557.1	365.4	441.6	3,505.6	134.5	928.1	252.8	312.0	104.8
2002 Jan.	7,088.0	2,579.0	369.6	451.6	3,551.0	136.8	.	.	.	.
Feb.	7,121.4	2,593.6	375.2	452.1	3,564.2	136.3	.	.	.	.

*Sources: ECB and BIS (for issues by non-residents of the euro area).**1) Including items expressed in the national denominations of the euro.*

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
0.1	1.1	0.1	683.4	290.3	20.9	103.2	265.5	3.3	0.1	2001 Feb.
0.2	1.0	0.4	720.7	302.4	30.9	107.1	276.7	3.2	0.4	Mar.
0.1	0.8	0.1	709.8	295.4	23.9	102.1	285.3	2.9	0.1	Apr.
0.1	0.8	0.1	706.1	286.8	23.5	108.2	284.2	3.2	0.1	May
0.2	0.8	0.2	712.1	293.1	29.9	109.0	277.1	2.8	0.2	June
0.2	0.7	0.0	699.2	284.0	22.3	107.5	281.0	4.3	0.0	July
0.1	0.6	0.0	700.0	277.4	20.1	112.3	286.0	4.2	0.0	Aug.
0.1	0.5	0.1	708.3	278.6	26.3	111.4	287.7	4.2	0.1	Sep.
0.1	0.3	0.2	706.6	284.6	20.2	113.8	284.2	3.7	0.2	Oct.
0.1	0.4	0.6	702.8	274.3	23.3	109.2	291.3	4.0	0.6	Nov.
0.1	0.5	1.3	664.8	264.1	27.8	99.5	267.4	4.7	1.3	Dec.
.	.	.	.	.	.	.	.	.	.	2002 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
88.2	34.7	118.9	6,777.4	2,417.2	490.9	362.4	3,244.6	143.4	118.9	2001 Feb.
90.7	39.9	117.5	6,849.6	2,440.5	503.9	378.6	3,258.8	150.3	117.5	Mar.
91.5	40.0	116.9	6,895.4	2,450.4	517.4	384.2	3,274.1	152.5	116.9	Apr.
92.5	39.6	115.7	6,961.9	2,463.6	533.3	399.5	3,296.9	152.8	115.7	May
94.4	46.1	115.1	7,043.1	2,486.9	546.6	410.1	3,325.1	159.4	115.1	June
94.0	46.1	114.7	7,091.8	2,509.0	569.3	414.6	3,322.7	161.4	114.7	July
93.8	46.0	113.4	7,111.0	2,510.2	578.0	421.9	3,323.4	164.2	113.4	Aug.
92.0	46.0	113.6	7,131.4	2,517.4	583.1	419.8	3,329.1	168.3	113.6	Sep.
91.8	51.3	113.0	7,178.3	2,534.7	599.9	419.4	3,332.6	178.6	113.0	Oct.
91.5	51.7	115.7	7,229.6	2,541.0	619.6	440.1	3,332.4	180.8	115.7	Nov.
92.1	51.7	112.9	7,267.5	2,545.8	649.6	446.9	3,330.4	182.0	112.9	Dec.
.	.	.	.	.	.	.	.	.	.	2002 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
88.3	35.8	119.1	7,460.8	2,707.5	511.8	465.6	3,510.1	146.7	119.1	2001 Feb.
90.9	41.0	117.9	7,570.3	2,742.9	534.8	485.7	3,535.5	153.5	117.9	Mar.
91.6	40.8	117.0	7,605.3	2,745.8	541.3	486.2	3,559.5	155.5	117.0	Apr.
92.6	40.4	115.8	7,668.0	2,750.4	556.9	507.8	3,581.2	156.0	115.8	May
94.6	46.9	115.3	7,755.3	2,780.0	576.5	519.1	3,602.2	162.2	115.3	June
94.2	46.9	114.8	7,791.0	2,793.0	591.7	522.1	3,603.8	165.8	114.8	July
93.9	46.6	113.5	7,811.0	2,787.6	598.1	534.1	3,609.4	168.4	113.5	Aug.
92.1	46.5	113.7	7,839.7	2,796.0	609.4	531.2	3,616.8	172.5	113.7	Sep.
92.0	51.6	113.2	7,884.9	2,819.3	620.1	533.2	3,616.8	182.3	113.2	Oct.
91.6	52.1	116.3	7,932.3	2,815.3	642.9	549.3	3,623.7	184.9	116.3	Nov.
92.2	52.2	114.1	7,932.3	2,809.9	677.4	546.4	3,597.9	186.7	114.1	Dec.
.	.	.	.	.	.	.	.	.	.	2002 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.



**Table 3.6 (cont'd)**
**Euro-denominated securities other than shares by original maturity, residency and sector of the issuer <sup>1)</sup>**
*(EUR billions; transactions during the month; nominal values)*
**Gross issues**
**1. Short-term**

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	383.7	275.8	2.2	62.9	41.4	1.5	12.5	6.1	4.5	1.7
Mar.	432.6	312.7	3.1	67.0	48.1	1.6	26.3	10.1	12.3	3.5
Apr.	424.1	301.6	3.2	69.4	48.5	1.4	7.2	2.7	3.3	1.1
May	456.8	341.5	2.8	71.3	39.2	1.9	11.8	5.7	5.0	0.8
June	387.9	282.0	2.7	64.7	37.4	1.1	25.1	9.8	11.5	3.3
July	370.1	245.1	2.3	75.3	44.9	2.6	6.2	2.8	2.8	0.6
Aug.	404.5	287.4	1.6	68.7	45.3	1.5	9.9	4.8	4.1	0.9
Sep.	373.9	269.5	2.2	66.2	34.3	1.8	22.0	8.0	11.4	2.2
Oct.	479.9	345.9	2.0	85.7	45.1	1.1	8.8	3.0	4.7	0.9
Nov.	459.3	347.2	2.3	66.3	42.2	1.3	16.2	6.4	7.9	1.1
Dec.	307.3	228.5	1.3	52.2	23.4	1.9	17.1	6.6	8.4	1.3
2002 Jan.	463.9	327.5	2.1	71.0	61.3	2.0	.	.	.	.
Feb.	385.8	268.0	2.4	65.7	47.9	1.9	.	.	.	.

**2. Long-term**

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	117.5	58.0	10.0	5.0	42.1	2.4	36.3	12.7	8.8	10.0
Mar.	128.0	45.3	12.0	14.4	53.3	2.8	37.0	14.3	7.3	5.6
Apr.	97.6	41.0	8.7	6.2	39.1	2.6	20.0	5.3	9.1	2.7
May	117.7	38.9	13.1	11.9	52.9	0.9	27.0	8.9	9.7	6.5
June	116.9	44.9	11.0	10.9	49.6	0.5	33.6	11.7	7.7	4.7
July	124.7	52.7	20.7	6.1	42.6	2.6	14.8	4.8	7.1	2.2
Aug.	76.8	29.9	6.5	7.7	29.6	3.1	12.9	3.4	8.5	0.9
Sep.	108.8	35.9	7.2	2.3	58.8	4.6	8.4	4.8	3.0	0.2
Oct.	123.4	58.7	13.6	4.5	40.8	5.8	19.4	3.2	7.8	2.3
Nov.	115.5	48.0	11.5	17.5	35.8	2.7	30.0	5.8	13.0	4.6
Dec.	112.2	43.0	34.9	9.1	23.0	2.2	13.6	6.4	3.9	1.7
2002 Jan.	157.5	47.5	9.3	6.4	91.1	3.2	.	.	.	.
Feb.	128.6	53.3	8.9	7.8	57.5	1.0	.	.	.	.

**3. Total**

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	501.2	333.8	12.2	67.9	83.5	3.9	48.8	18.9	13.4	11.7
Mar.	560.5	358.1	15.1	81.4	101.5	4.4	63.4	24.4	19.6	9.1
Apr.	521.7	342.6	11.9	75.6	87.6	4.0	27.2	7.9	12.4	3.8
May	574.5	380.4	15.9	83.2	92.1	2.9	38.8	14.7	14.8	7.3
June	504.8	326.9	13.7	75.6	87.0	1.6	58.6	21.6	19.2	8.0
July	494.8	297.7	23.0	81.4	87.5	5.1	21.0	7.6	9.9	2.9
Aug.	481.3	317.3	8.1	76.3	74.9	4.6	22.8	8.2	12.6	1.7
Sep.	482.7	305.4	9.4	68.5	93.1	6.4	30.4	12.7	14.3	2.4
Oct.	603.3	404.6	15.6	90.2	86.0	6.9	28.2	6.3	12.6	3.2
Nov.	574.8	395.3	13.8	83.8	78.0	4.0	46.2	12.2	20.8	5.7
Dec.	419.5	271.5	36.1	61.3	46.4	4.1	30.7	13.0	12.3	3.1
2002 Jan.	621.4	375.0	11.4	77.5	152.5	5.1	.	.	.	.
Feb.	514.4	321.3	11.2	73.5	105.4	2.9	.	.	.	.

*Sources: ECB and BIS (for issues by non-residents of the euro area).*
*1) Including items expressed in the national denominations of the euro.*

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
0.0	0.1	0.0	396.3	281.9	6.7	64.6	41.4	1.6	0.0	2001 Feb.
0.1	0.1	0.3	458.9	322.8	15.4	70.5	48.2	1.7	0.3	Mar.
0.0	0.1	0.0	431.3	304.2	6.5	70.5	48.5	1.5	0.0	Apr.
0.0	0.2	0.0	468.6	347.2	7.9	72.1	39.3	2.1	0.0	May
0.1	0.1	0.2	413.0	291.8	14.3	67.9	37.5	1.2	0.2	June
0.0	0.0	0.0	376.3	247.8	5.1	75.9	44.9	2.6	0.0	July
0.1	0.0	0.0	414.4	292.2	5.7	69.6	45.4	1.5	0.0	Aug.
0.1	0.4	0.0	396.0	277.5	13.5	68.4	34.3	2.1	0.0	Sep.
0.0	0.0	0.2	488.7	349.0	6.7	86.6	45.1	1.2	0.2	Oct.
0.1	0.2	0.4	475.5	353.7	10.2	67.4	42.3	1.5	0.4	Nov.
0.0	0.1	0.7	324.4	235.0	9.7	53.5	23.4	2.0	0.7	Dec.
.	.	.	.	.	.	.	.	.	.	2002 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
2.8	1.7	0.2	153.8	70.8	18.8	15.0	44.8	4.1	0.2	2001 Feb.
3.2	5.5	1.1	165.0	59.6	19.3	20.0	56.6	8.3	1.1	Mar.
1.3	0.4	1.2	117.6	46.3	17.8	8.9	40.4	3.0	1.2	Apr.
1.7	0.0	0.1	144.7	47.8	22.8	18.4	54.6	1.0	0.1	May
2.0	6.7	0.8	150.5	56.7	18.7	15.6	51.6	7.2	0.8	June
0.5	0.1	0.0	139.5	57.5	27.8	8.3	43.2	2.6	0.0	July
0.1	0.0	0.0	89.7	33.3	14.9	8.5	29.7	3.2	0.0	Aug.
0.1	0.0	0.4	117.2	40.7	10.2	2.5	58.9	4.6	0.4	Sep.
0.2	5.4	0.4	142.7	61.9	21.4	6.8	41.1	11.2	0.4	Oct.
1.0	0.5	5.1	145.5	53.8	24.4	22.1	36.8	3.2	5.1	Nov.
1.3	0.1	0.1	125.7	49.4	38.7	10.8	24.3	2.3	0.1	Dec.
.	.	.	.	.	.	.	.	.	.	2002 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
2.8	1.9	0.2	550.0	352.6	25.6	79.6	86.3	5.7	0.2	2001 Feb.
3.3	5.6	1.5	623.9	382.4	34.7	90.5	104.8	10.0	1.5	Mar.
1.3	0.5	1.2	548.9	350.6	24.3	79.5	88.9	4.5	1.2	Apr.
1.7	0.2	0.1	613.3	395.1	30.7	90.6	93.9	3.1	0.1	May
2.1	6.8	1.0	563.4	348.4	32.9	83.6	89.1	8.4	1.0	June
0.6	0.1	0.1	515.9	305.4	32.9	84.2	88.1	5.2	0.1	July
0.2	0.0	0.1	504.1	325.5	20.7	78.1	75.1	4.7	0.1	Aug.
0.2	0.4	0.4	513.1	318.1	23.7	70.9	93.2	6.7	0.4	Sep.
0.2	5.4	0.5	631.5	410.9	28.1	93.4	86.2	12.3	0.5	Oct.
1.1	0.8	5.6	621.0	407.5	34.6	89.5	79.1	4.7	5.6	Nov.
1.3	0.3	0.8	450.1	284.5	48.4	64.4	47.8	4.3	0.8	Dec.
.	.	.	.	.	.	.	.	.	.	2002 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

**Table 3.6 (cont'd)**
**Euro-denominated securities other than shares by original maturity, residency and sector of the issuer <sup>1)</sup>**
*(EUR billions; transactions during the month; nominal values)*
**Net issues**
**1. Short-term**

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	10.3	3.5	-0.1	3.6	3.9	-0.7	-0.5	0.6	-1.1	-0.1
Mar.	14.9	2.7	0.2	1.0	11.1	-0.1	20.0	7.3	9.8	2.6
Apr.	11.4	4.3	0.4	-2.0	8.8	0.0	-22.0	-11.1	-7.3	-3.0
May	-3.3	-9.5	0.1	7.0	-1.1	0.2	-1.7	-0.4	-0.5	-0.9
June	-7.6	2.2	-0.3	-1.8	-7.3	-0.4	15.2	5.6	6.7	2.7
July	4.9	-3.7	-0.2	3.2	4.0	1.6	-19.3	-6.7	-7.4	-4.8
Aug.	4.7	-5.2	-0.7	5.6	5.0	0.0	-4.8	-2.2	-1.6	-0.9
Sep.	-2.2	-3.2	-0.3	-0.5	1.7	0.1	10.0	4.0	6.5	-0.3
Oct.	9.2	9.6	-0.4	3.7	-3.5	-0.3	-11.1	-3.8	-5.8	-1.5
Nov.	-7.0	-10.7	0.1	-3.8	7.1	0.2	3.3	0.3	3.0	-0.6
Dec.	-45.8	-11.4	-0.5	-10.6	-23.8	0.6	6.9	0.2	5.0	1.0
2002 Jan.	31.4	15.7	0.2	4.7	11.4	-0.6	.	.	.	.
Feb.	-1.1	-6.6	0.0	-2.3	7.8	0.0	.	.	.	.

**2. Long-term**

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	46.9	28.4	6.2	3.9	6.8	1.7	23.2	11.2	5.5	9.8
Mar.	41.1	9.4	7.2	11.1	11.7	1.8	29.0	12.4	5.3	5.1
Apr.	33.1	7.8	5.6	3.1	14.5	2.1	13.3	2.8	7.7	2.5
May	49.8	7.4	9.8	10.1	21.9	0.7	16.6	5.6	6.2	5.4
June	57.7	16.5	7.6	7.4	26.2	0.0	24.8	8.3	5.6	3.2
July	39.2	19.6	17.2	2.6	-2.2	2.0	9.0	2.5	5.4	1.9
Aug.	13.4	1.3	1.7	6.6	0.9	2.9	6.9	1.1	6.8	0.7
Sep.	20.6	6.0	4.3	-1.5	7.5	4.1	-0.6	0.8	0.8	-0.6
Oct.	31.8	15.2	10.3	-2.4	3.7	5.1	14.9	1.8	6.5	2.0
Nov.	28.9	2.1	8.1	16.9	0.1	1.8	22.7	3.9	11.6	4.4
Dec.	38.6	3.3	30.6	6.1	-2.6	1.2	0.1	2.3	-0.6	0.6
2002 Jan.	52.8	6.5	4.0	5.4	33.8	3.0	.	.	.	.
Feb.	32.0	18.9	5.6	2.6	5.4	-0.5	.	.	.	.

**3. Total**

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	57.2	32.0	6.1	7.4	10.7	1.0	22.6	11.8	4.4	9.7
Mar.	56.0	12.1	7.3	12.1	22.8	1.7	49.0	19.6	15.1	7.7
Apr.	44.5	12.1	5.9	1.1	23.2	2.1	-8.7	-8.3	0.4	-0.5
May	46.5	-2.1	9.9	17.0	20.7	1.0	14.9	5.3	5.7	4.5
June	50.1	18.6	7.3	5.6	19.0	-0.4	40.1	13.9	12.2	5.9
July	44.1	15.9	17.0	5.8	1.7	3.6	-10.2	-4.2	-2.0	-2.9
Aug.	18.1	-3.9	1.1	12.2	5.9	2.8	2.1	-1.1	5.2	-0.2
Sep.	18.4	2.8	4.1	-2.0	9.2	4.3	9.4	4.7	7.3	-0.9
Oct.	41.0	24.8	10.0	1.3	0.2	4.7	3.7	-2.0	0.8	0.5
Nov.	21.9	-8.6	8.2	13.1	7.2	2.0	25.9	4.2	14.7	3.7
Dec.	-7.2	-8.1	30.1	-4.5	-26.4	1.7	7.0	2.5	4.4	1.6
2002 Jan.	84.2	22.2	4.3	10.1	45.3	2.3	.	.	.	.
Feb.	30.9	12.3	5.6	0.3	13.2	-0.5	.	.	.	.

*Sources: ECB and BIS (for issues by non-residents of the euro area).*
*1) Including items expressed in the national denominations of the euro.*

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
0.0	0.1	-0.1	9.8	4.2	-1.2	3.5	3.9	-0.5	-0.1	2001 Feb.
0.1	-0.1	0.3	34.9	10.0	10.0	3.6	11.2	-0.1	0.3	Mar.
-0.1	-0.2	-0.3	-10.6	-6.8	-7.0	-5.0	8.6	-0.2	-0.3	Apr.
0.0	0.0	0.0	-5.0	-9.8	-0.4	6.1	-1.1	0.2	0.0	May
0.1	0.0	0.1	7.7	7.8	6.4	0.9	-7.2	-0.3	0.1	June
0.0	-0.1	-0.2	-14.3	-10.4	-7.6	-1.6	3.9	1.5	-0.2	July
0.0	-0.1	0.0	-0.1	-7.4	-2.2	4.7	5.0	-0.2	0.0	Aug.
0.0	-0.1	0.0	7.8	0.8	6.2	-0.8	1.7	0.0	0.0	Sep.
0.0	-0.2	0.1	-2.0	5.8	-6.1	2.2	-3.5	-0.5	0.1	Oct.
0.0	0.1	0.4	-3.7	-10.4	3.2	-4.4	7.1	0.4	0.4	Nov.
0.0	0.1	0.7	-38.9	-11.2	4.5	-9.6	-23.9	0.6	0.7	Dec.
.	.	.	.	.	.	.	.	.	.	2002 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
-2.0	0.9	-2.2	70.0	39.6	11.7	13.6	4.8	2.6	-2.2	2001 Feb.
2.5	5.2	-1.5	70.1	21.8	12.4	16.2	14.2	7.0	-1.5	Mar.
0.9	0.1	-0.6	46.4	10.6	13.3	5.6	15.3	2.2	-0.6	Apr.
1.0	-0.4	-1.1	66.4	13.0	16.0	15.5	22.8	0.3	-1.1	May
1.9	6.5	-0.6	82.5	24.8	13.2	10.5	28.2	6.5	-0.6	June
-0.5	0.0	-0.4	48.2	22.1	22.6	4.5	-2.7	2.0	-0.4	July
-0.2	-0.1	-1.3	20.3	2.4	8.5	7.2	0.6	2.8	-1.3	Aug.
-1.8	0.0	0.2	20.0	6.8	5.2	-2.0	5.7	4.1	0.2	Sep.
-0.1	5.3	-0.6	46.6	17.0	16.9	-0.4	3.5	10.3	-0.6	Oct.
-0.4	0.4	2.7	51.5	6.0	19.7	21.2	-0.3	2.2	2.7	Nov.
0.6	0.0	-2.8	38.8	5.6	30.0	6.8	-2.0	1.2	-2.8	Dec.
.	.	.	.	.	.	.	.	.	.	2002 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
-2.0	1.0	-2.2	79.8	43.8	10.5	17.1	8.7	2.0	-2.2	2001 Feb.
2.6	5.2	-1.1	105.0	31.8	22.4	19.7	25.4	6.9	-1.1	Mar.
0.7	-0.1	-0.9	35.8	3.8	6.3	0.6	24.0	2.0	-0.9	Apr.
1.0	-0.5	-1.1	61.4	3.2	15.6	21.6	21.7	0.5	-1.1	May
2.0	6.5	-0.5	90.2	32.5	19.5	11.5	21.0	6.1	-0.5	June
-0.5	0.0	-0.6	33.9	11.7	15.0	2.9	1.3	3.6	-0.6	July
-0.3	-0.2	-1.3	20.1	-5.0	6.3	12.0	5.6	2.6	-1.3	Aug.
-1.8	-0.1	0.2	27.8	7.6	11.4	-2.9	7.4	4.2	0.2	Sep.
-0.2	5.1	-0.5	44.7	22.8	10.7	1.8	0.0	9.8	-0.5	Oct.
-0.3	0.5	3.1	47.8	-4.4	22.9	16.8	6.9	2.6	3.1	Nov.
0.6	0.0	-2.2	-0.1	-5.6	34.5	-2.8	-25.9	1.8	-2.2	Dec.
.	.	.	.	.	.	.	.	.	.	2002 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

## 4 HICP and other prices in the euro area

**Table 4.1**

### Harmonised Index of Consumer Prices

(not seasonally adjusted, annual percentage changes, unless otherwise indicated)

#### 1. Total index and goods and services

	Total		Goods		Services		Total (s.a.)		Goods (s.a.)	Services (s.a.)
	Index 1996 = 100		Index 1996 = 100		Index 1996 = 100		Index 1996 = 100	% change on previous period	Index 1996 = 100	Index 1996 = 100
Weight in the total (%) <sup>1)</sup>	100.0	100.0	61.1	61.1	38.9	38.9	100.0	100.0	61.1	38.9
	1	2	3	4	5	6	7	8	9	10
1998	102.7	1.1	101.8	0.7	104.4	1.9	-	-	-	-
1999	103.8	1.1	102.7	0.9	106.0	1.5	-	-	-	-
2000	106.3	2.3	105.5	2.7	107.8	1.7	-	-	-	-
<i>Euro area enlargement</i>										
2001	108.9	2.5	108.2	2.5	110.5	2.5	-	-	-	-
2001 Q2	109.2	3.1	108.8	3.5	110.1	2.5	108.9	1.1	108.4	110.1
Q3	109.3	2.5	108.3	2.4	111.2	2.5	109.3	0.3	108.6	110.8
Q4	109.6	2.2	108.7	1.8	111.3	2.8	109.7	0.3	108.6	111.6
2002 Q1	110.4	2.5	109.2	2.2	112.6	3.0	110.5	0.8	109.4	112.6
2001 May	109.4	3.4	109.1	3.8	110.0	2.5	109.1	0.5	108.6	110.1
June	109.5	3.0	109.1	3.4	110.4	2.5	109.2	0.2	108.8	110.3
July	109.2	2.6	108.2	2.8	111.2	2.5	109.2	-0.1	108.5	110.6
Aug.	109.1	2.4	108.0	2.4	111.3	2.5	109.2	0.0	108.4	110.8
Sep.	109.5	2.3	108.7	2.1	111.0	2.6	109.6	0.4	108.8	111.1
Oct.	109.6	2.4	108.7	2.1	111.1	2.8	109.6	0.1	108.7	111.4
Nov.	109.5	2.1	108.6	1.6	111.2	2.7	109.6	0.0	108.6	111.6
Dec.	109.6	2.0	108.7	1.7	111.5	2.8	109.8	0.1	108.6	111.9
2002 Jan.	110.1	2.7	108.9	2.5	112.2	3.0	110.3	0.5	109.3	112.4
Feb.	110.2	2.4	108.9	2.1	112.7	3.0	110.4	0.1	109.3	112.6
Mar.	110.9	2.5	109.7	2.1	113.0	3.1	110.8	0.3	109.6	113.0
Apr. <sup>2)</sup>	.	2.2	.	.	.	.	.	.	.	.

#### 2. Breakdown of goods and services

	Goods						Services				
	Food <sup>3)</sup>			Industrial goods			Housing	Transport	Communi- cation	Recreation and personal	Miscellan- eous
	Total	Processed food <sup>3)</sup>	Unprocessed food	Total	Non-energy industrial goods	Energy					
Weight in the total (%) <sup>1)</sup>	20.4	12.3	8.1	40.7	32.0	8.7	9.7	6.3	2.5	14.3	6.1
	11	12	13	14	15	16	17	18	19	20	21
1998	1.6	1.4	2.0	0.2	0.9	-2.6	2.3	1.7	-1.0	2.2	1.8
1999	0.6	0.9	0.0	1.0	0.7	2.4	1.8	2.1	-4.4	2.0	1.8
2000	1.4	1.1	1.7	3.4	0.7	13.3	1.6	2.6	-4.2	2.3	2.4
<i>Euro area enlargement</i>											
2001	4.6	2.9	7.2	1.5	1.1	2.8	1.9	3.6	-2.9	3.3	2.7
2001 Q2	5.0	2.8	8.5	2.7	1.4	7.3	1.8	3.5	-2.8	3.3	2.6
Q3	5.2	3.4	8.0	1.0	1.0	1.2	1.9	3.7	-2.5	3.2	2.8
Q4	4.8	3.5	6.9	0.3	1.6	-4.1	1.9	3.8	-1.8	3.7	3.0
2002 Q1	4.9	3.5	7.0	0.9	1.8	-2.0	2.2	3.6	-1.1	4.0	3.2
2001 May	5.3	2.8	9.1	3.1	1.5	8.6	1.8	3.5	-2.8	3.5	2.5
June	5.4	3.0	9.0	2.4	1.4	5.5	1.8	3.4	-2.7	3.4	2.6
July	5.4	3.3	8.7	1.4	1.0	2.9	1.9	3.8	-2.5	3.2	2.7
Aug.	5.1	3.4	7.7	1.0	0.7	2.1	1.8	3.7	-2.7	3.1	2.7
Sep.	5.1	3.5	7.7	0.6	1.2	-1.3	1.9	3.6	-2.3	3.4	2.9
Oct.	5.2	3.5	7.7	0.5	1.5	-2.7	1.9	3.8	-1.8	3.7	3.0
Nov.	4.6	3.5	6.4	0.1	1.6	-5.0	1.9	3.7	-1.9	3.6	3.0
Dec.	4.7	3.5	6.5	0.2	1.7	-4.5	1.9	4.0	-1.7	3.7	3.0
2002 Jan.	5.6	3.8	8.4	0.9	1.7	-1.7	2.1	3.6	-1.2	3.9	3.1
Feb.	4.9	3.4	7.2	0.8	1.9	-2.8	2.1	3.5	-1.1	3.9	3.1
Mar.	4.2	3.3	5.5	1.0	1.7	-1.5	2.2	3.7	-0.9	4.2	3.2
Apr.	.	.	.	.	.	.	.	.	.	.	.

Sources: Eurostat and ECB calculations.

1) Referring to the index period 2002.

2) Estimate based on first releases by Germany and Italy (and, when available, by other Member States), as well as on early information on energy prices.

3) Including alcoholic beverages and tobacco.

Table 4.2

## Selected other price indicators

## 1. Industry and commodity prices

(annual percentage changes, unless otherwise indicated)

	Industrial producer prices											World market prices of raw materials <sup>1)</sup>	Oil prices <sup>2)</sup> (EUR per barrel)	
	Industry excluding construction <sup>3)</sup>									Construction <sup>4)</sup>	Manufacturing			Total excluding energy
	Total		Industry excluding construction and energy						Energy					
	Index 1995 = 100		Total	Intermediate goods	Capital goods	Consumer goods								
						Total	Durable consumer goods	Non-durable consumer goods						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1996	100.3	0.3	0.3	-1.8	1.4	1.7	2.0	1.6	0.9	1.4	0.9	6.0	-7.5	16.0
1997	101.4	1.1	0.6	0.2	0.3	1.2	0.6	1.2	3.2	1.3	0.8	10.7	14.6	17.0
1998	100.6	-0.8	0.2	-0.4	0.6	0.5	0.7	0.5	-5.2	0.3	-0.6	-21.0	-12.5	12.0
1999	100.2	-0.4	-0.5	-1.5	0.2	-0.1	0.7	-0.2	0.5	1.2	0.2	15.8	-5.9	17.1
2000	105.7	5.5	2.7	5.0	0.6	1.6	1.4	1.6	19.0	2.4	5.2	50.8	16.7	31.0
<i>Euro area enlargement</i>														
2001	107.9	2.1	1.8	1.2	1.0	2.9	2.1	3.0	2.7	2.2	1.2	-8.8	-7.6	27.8
2001 Q1	108.3	4.6	2.9	4.0	0.9	3.1	2.0	3.3	11.0	2.5	3.2	4.1	-0.8	28.4
Q2	108.8	3.6	2.3	1.9	1.0	3.4	2.2	3.6	8.8	2.7	2.5	4.6	-3.0	31.7
Q3	108.3	1.4	1.5	0.1	1.1	3.0	2.1	3.1	0.6	2.4	0.6	-11.3	-10.4	29.0
Q4	107.2	-1.0	0.6	-1.2	1.1	2.2	1.8	2.2	-8.1	1.3	-1.5	-28.8	-15.6	22.4
2002 Q1	.	.	.	.	.	.	.	.	.	.	.	-10.4	-3.3	24.6
2001 Apr.	108.7	4.2	2.6	2.5	1.0	3.5	2.2	3.6	10.6	-	3.0	10.1	-3.7	29.8
May	108.9	3.6	2.2	1.8	1.0	3.3	2.2	3.5	9.1	-	2.6	1.4	-5.9	32.7
June	108.9	3.1	2.1	1.4	1.0	3.4	2.3	3.5	6.8	-	2.0	3.0	0.9	32.5
July	108.3	2.1	1.7	0.6	1.1	3.1	2.2	3.2	2.8	-	1.2	-1.3	-1.8	29.4
Aug.	108.2	1.6	1.5	0.2	1.2	3.0	2.2	3.1	1.4	-	0.8	-10.4	-10.7	28.7
Sep.	108.3	0.6	1.2	-0.4	1.1	2.7	2.0	2.8	-2.3	-	-0.2	-20.7	-18.1	28.8
Oct.	107.6	-0.7	0.8	-1.0	1.1	2.5	1.8	2.6	-7.3	-	-1.2	-30.2	-19.3	23.8
Nov.	107.1	-1.3	0.6	-1.3	1.0	2.2	1.8	2.2	-9.5	-	-1.8	-34.1	-15.1	21.7
Dec.	106.8	-1.1	0.4	-1.5	1.1	1.9	1.8	1.9	-7.6	-	-1.4	-20.6	-12.3	21.5
2002 Jan.	107.1	-0.8	0.3	-1.7	1.2	1.8	1.8	1.8	-5.5	-	-0.7	-14.3	-6.2	22.6
Feb.	107.2	-1.1	0.1	-1.9	1.2	1.4	1.7	1.3	-5.7	-	-1.0	-15.1	-3.7	23.5
Mar.	.	.	.	.	.	.	.	.	.	-	.	-1.5	0.0	27.9
Apr.	.	.	.	.	.	.	.	.	.	-	.	-1.2	-0.8	29.3

2. Deflators of gross domestic product<sup>5)</sup>

(annual percentage changes, unless otherwise indicated; seasonally adjusted)

	Total		Domestic demand	Private consumption	Government consumption	Gross fixed capital formation	Exports <sup>6)</sup>	Imports <sup>6)</sup>
	Index 1995 = 100							
	15	16	17	18	19	20	21	22
1996	102.0	2.0	2.1	2.4	2.2	0.9	0.8	0.8
1997	103.6	1.5	1.7	2.0	1.3	1.0	1.8	2.6
1998	105.3	1.7	1.3	1.4	1.4	0.9	-0.1	-1.5
1999	106.4	1.1	1.2	1.1	2.3	1.0	-0.5	-0.1
2000	107.8	1.3	2.5	2.1	1.0	2.6	4.6	8.2
2000 Q1	107.3	1.1	2.4	1.9	1.4	2.2	3.7	7.7
Q2	107.6	1.1	2.3	1.8	0.6	2.6	4.5	8.2
Q3	108.1	1.4	2.6	2.3	0.8	2.5	4.9	8.3
Q4	108.4	1.5	2.7	2.5	1.2	3.0	5.3	8.7
<i>Euro area enlargement</i>								
2001	110.7	2.3	2.2	2.3	2.2	2.2	1.6	1.3
2001 Q1	109.9	2.1	2.5	2.4	1.8	2.4	3.3	4.3
Q2	110.6	2.5	2.7	2.8	2.4	2.2	2.9	3.3
Q3	110.9	2.2	2.1	2.4	2.3	2.2	0.9	0.6
Q4	111.6	2.5	1.7	2.1	2.4	1.8	-0.4	-2.7

Sources: Eurostat, except columns 12 and 13 (HWWA - Hamburg Institute of International Economics), column 14 (Thomson Financial Datastream) and columns 15 to 22 (ECB calculations based on Eurostat data).

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

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

3) Breakdown in accordance with the harmonised definition of Main Industrial Groupings.

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

5) Data to end-1998 are based on national data expressed in domestic currency.

6) Deflators for exports and imports refer to goods and services and include cross-border trade within the euro area.

## 5 Real economy indicators in the euro area

**Table 5.1**

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

#### GDP and expenditure components

##### 1. Current prices

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

	GDP								
	Total	Domestic demand					External balance <sup>3)</sup>		
		Total	Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories <sup>2)</sup>	Total	Exports <sup>3)</sup>	Imports <sup>3)</sup>
1	2	3	4	5	6	7	8	9	
1997	5,649.3	5,500.8	3,201.4	1,150.7	1,138.4	10.3	148.6	1,827.2	1,678.7
1998	5,883.0	5,743.7	3,331.8	1,176.6	1,201.9	33.4	139.3	1,948.4	1,809.2
1999	6,140.5	6,036.4	3,496.8	1,237.3	1,288.3	14.0	104.0	2,053.1	1,949.0
2000	6,428.6	6,358.9	3,661.1	1,273.2	1,378.7	45.8	69.7	2,408.2	2,338.5
2000 Q3	1,614.6	1,597.1	919.8	318.7	348.1	10.6	17.5	614.3	596.8
Q4	1,629.9	1,617.7	927.1	322.8	350.3	17.5	12.2	638.2	626.0
<i>Euro area enlargement</i>									
2001	6,805.3	6,692.9	3,903.7	1,346.9	1,431.8	10.5	112.4	2,561.8	2,449.3
2001 Q1	1,687.2	1,661.5	963.5	332.0	358.5	7.5	25.7	644.2	618.5
Q2	1,699.0	1,677.4	975.8	335.2	358.1	8.3	21.7	645.1	623.4
Q3	1,705.6	1,676.7	980.1	337.9	358.5	0.2	28.9	638.3	609.5
Q4	1,713.5	1,677.3	984.3	341.8	356.7	-5.5	36.2	634.1	598.0

##### 2. Constant prices

(ECU billions at 1995 prices, seasonally adjusted)

	GDP								
	Total	Domestic demand					External balance <sup>3)</sup>		
		Total	Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories <sup>2)</sup>	Total	Exports <sup>3)</sup>	Imports <sup>3)</sup>
10	11	12	13	14	15	16	17	18	
1997	5,509.4	5,354.3	3,093.5	1,126.1	1,132.0	2.7	155.0	1,806.3	1,651.2
1998	5,667.1	5,544.1	3,187.3	1,139.7	1,189.8	27.3	123.0	1,938.2	1,815.3
1999	5,816.2	5,723.4	3,289.5	1,164.1	1,255.6	14.1	92.8	2,039.8	1,947.0
2000	6,011.0	5,881.9	3,372.3	1,185.9	1,310.0	13.7	129.1	2,287.1	2,158.1
2000 Q3	1,506.5	1,472.9	844.5	296.4	330.0	2.0	33.6	580.0	546.5
Q4	1,516.1	1,482.5	845.9	298.8	329.9	8.0	33.5	595.8	562.2
<i>Euro area enlargement</i>									
2001	6,210.2	6,048.9	3,509.0	1,224.4	1,330.1	-14.5	161.2	2,392.4	2,231.2
2001 Q1	1,550.9	1,511.2	873.7	304.4	335.3	-2.2	39.8	602.3	562.6
Q2	1,552.1	1,515.3	877.7	305.6	333.2	-1.1	36.8	599.4	562.6
Q3	1,554.8	1,512.4	878.3	306.4	332.0	-4.4	42.5	597.1	554.6
Q4	1,552.3	1,510.1	879.3	308.0	329.6	-6.8	42.1	593.5	551.4
<i>(annual percentage changes)</i>									
1997	2.3	1.7	1.6	1.3	2.3	-	-	10.4	9.0
1998	2.9	3.5	3.0	1.2	5.1	-	-	7.3	9.9
1999	2.6	3.2	3.2	2.1	5.5	-	-	5.2	7.3
2000	3.3	2.8	2.5	1.9	4.3	-	-	12.1	10.8
2000 Q3	3.2	2.7	2.4	1.6	3.9	-	-	12.1	11.2
Q4	2.8	2.2	1.8	1.7	3.3	-	-	12.0	11.0
<i>Euro area enlargement</i>									
2001	1.5	0.9	1.8	2.0	-0.3	-	-	3.4	1.7
2001 Q1	2.4	1.8	2.0	2.0	1.7	-	-	8.4	6.8
Q2	1.6	1.1	1.7	2.0	0.2	-	-	5.4	4.2
Q3	1.4	0.7	1.7	2.1	-1.2	-	-	1.7	-0.2
Q4	0.6	-0.1	1.6	1.8	-2.0	-	-	-1.5	-3.5

Source: Eurostat.

1) 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. They are not fully consistent with Tables 8 and 9.

## Value added by activity

### 3. Current prices

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

	Gross value added							Intermediate consumption of FISIM <sup>1)</sup>	Taxes less subsidies on products
	Total	Agriculture, hunting, forestry and fishing activities	Manufacturing, energy and mining	Construction	Trade, repairs, hotels and restaurants, transport and communication	Financial, real estate, renting and business activities	Public administration, education, health and other services		
	1	2	3	4	5	6	7	8	9
1997	5,269.9	138.6	1,227.6	291.7	1,086.5	1,381.1	1,144.4	202.8	582.2
1998	5,469.5	138.8	1,276.2	294.9	1,140.6	1,439.9	1,179.1	201.5	615.0
1999	5,678.1	135.4	1,300.7	311.6	1,182.6	1,522.9	1,224.9	200.3	662.7
2000	5,950.9	137.0	1,376.2	324.5	1,237.7	1,607.2	1,268.3	210.9	688.7
2000 Q3	1,496.4	34.5	346.7	80.9	310.8	404.7	318.7	52.9	171.2
Q4	1,508.9	34.9	349.8	81.6	314.8	407.9	319.9	53.1	174.0
<i>Euro area enlargement</i>									
2001	6,309.9	151.7	1,433.2	344.0	1,330.6	1,712.6	1,337.8	223.8	719.3
2001 Q1	1,563.5	37.0	361.3	85.3	328.1	421.2	330.5	55.4	179.1
Q2	1,574.6	37.6	359.8	85.5	332.0	426.8	332.9	55.9	180.3
Q3	1,583.5	38.5	359.4	86.3	334.6	428.7	336.1	56.3	178.4
Q4	1,588.2	38.5	352.7	87.0	335.8	435.9	338.3	56.3	181.5

### 4. Constant prices

(ECU billions at 1995 prices, seasonally adjusted)

	Gross value added							Intermediate consumption of FISIM <sup>1)</sup>	Taxes less subsidies on products
	Total	Agriculture, hunting, forestry and fishing activities	Manufacturing, energy and mining	Construction	Trade, repairs, hotels and restaurants, transport and communication	Financial, real estate, renting and business activities	Public administration, education, health and other services		
	10	11	12	13	14	15	16	17	18
1997	5,167.3	140.2	1,217.4	290.2	1,071.8	1,337.8	1,110.0	213.9	556.0
1998	5,317.6	142.3	1,255.0	292.1	1,114.6	1,387.5	1,126.1	221.2	570.8
1999	5,452.4	145.3	1,267.8	299.3	1,160.9	1,438.7	1,140.6	229.7	593.4
2000	5,647.1	145.1	1,323.9	303.7	1,211.5	1,503.3	1,159.7	243.1	607.0
2000 Q3	1,416.3	36.5	332.3	75.7	303.9	377.8	290.1	61.2	151.4
Q4	1,426.1	36.3	334.5	75.7	307.9	380.5	291.1	62.0	151.9
<i>Euro area enlargement</i>									
2001	5,854.6	152.3	1,352.3	309.0	1,278.3	1,573.0	1,189.8	259.4	615.0
2001 Q1	1,461.2	37.9	342.2	77.7	318.1	389.1	296.2	63.9	153.7
Q2	1,462.2	37.8	338.7	77.1	319.5	392.1	297.0	64.5	154.4
Q3	1,466.5	38.3	338.4	77.1	320.1	394.7	298.0	65.2	153.6
Q4	1,464.8	38.2	333.0	77.2	320.7	397.1	298.6	65.8	153.2
<i>(annual percentage changes)</i>									
1997	2.4	0.4	3.3	-1.8	3.1	3.3	1.0	3.7	2.4
1998	2.9	1.4	3.1	0.7	4.0	3.7	1.5	3.4	2.7
1999	2.5	2.1	1.0	2.5	4.1	3.7	1.3	3.8	4.0
2000	3.6	-0.1	4.4	1.5	4.4	4.5	1.7	5.9	2.3
2000 Q3	3.4	0.6	4.2	0.6	4.0	4.5	1.6	5.5	1.7
Q4	3.3	-1.1	4.2	0.3	4.5	4.0	1.4	5.9	-0.5
<i>Euro area enlargement</i>									
2001	1.9	-0.8	1.0	-0.5	3.0	3.2	1.1	5.1	-0.6
2001 Q1	2.8	-0.8	3.5	-0.8	4.1	3.4	1.2	5.8	0.5
Q2	2.1	-1.1	1.4	-0.3	3.4	3.4	1.0	5.2	-1.3
Q3	1.8	-0.8	0.7	-0.4	2.8	3.0	1.2	4.9	-0.5
Q4	0.9	-0.6	-1.6	-0.3	1.6	2.9	1.1	4.5	-1.1

Source: Eurostat.

1) The use of financial intermediation services indirectly measured (FISIM) is treated as intermediate consumption which is not allocated among branches.



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

	Total	Industry excluding construction <sup>2)</sup>									Construction	Manufacturing
		Total		Industry excluding construction and energy						Energy		
		Index (s.a.) 1995 = 100		Total	Inter- mediate goods	Capital goods	Consumer goods					
							Total	Durable consumer goods	Non-durable consumer goods			
1	2	3	4	5	6	7	8	9	10	11	12	
1998	3.7	109.3	4.3	4.4	3.5	7.6	2.8	4.7	2.4	1.2	1.3	4.8
1999	2.1	111.4	2.0	1.8	1.5	2.4	1.7	1.3	1.8	1.4	4.2	2.0
2000	5.0	117.5	5.5	5.7	5.8	8.8	2.3	5.9	1.6	1.8	2.0	5.9
<i>Euro area enlargement</i>												
2001	0.0	117.8	0.2	-0.2	-1.3	1.2	0.1	-2.5	0.6	1.0	-0.7	0.1
2001 Q1	3.3	119.7	4.4	4.5	2.8	8.1	3.2	3.1	3.2	-0.6	-1.7	5.1
Q2	0.4	118.3	0.8	0.5	-0.2	1.6	0.4	-1.7	0.8	1.0	-0.9	0.8
Q3	-0.4	117.7	-0.3	-0.7	-1.6	0.3	0.0	-3.7	0.8	0.7	-0.4	-0.5
Q4	-3.1	115.7	-3.7	-4.8	-6.2	-4.3	-2.9	-7.3	-2.0	2.8	0.3	-4.6
2002 Q1	.	.	.	.	.	.	.	.	.	.	.	.
2001 May	-0.2	117.8	0.0	-0.4	-1.1	0.6	-0.3	-3.4	0.3	1.9	-1.3	-0.4
June	1.4	118.8	1.8	1.6	0.7	3.1	1.4	0.2	1.7	0.4	0.8	2.0
July	-1.0	116.9	-1.4	-1.5	-1.7	-1.6	-1.0	-6.6	0.2	0.2	0.4	-1.6
Aug.	0.7	118.5	1.2	0.9	-1.0	3.1	1.5	0.8	1.6	0.9	-0.7	1.1
Sep.	-0.8	117.8	-0.5	-0.9	-2.0	0.0	-0.1	-3.9	0.7	1.0	-1.0	-0.7
Oct.	-2.0	116.0	-2.5	-2.8	-3.7	-2.0	-1.9	-7.1	-0.8	-0.9	0.8	-2.8
Nov.	-3.6	115.3	-4.0	-4.8	-6.1	-4.5	-3.0	-7.3	-2.1	1.7	-1.3	-4.8
Dec.	-3.8	115.7	-4.5	-6.8	-9.4	-6.3	-3.9	-7.6	-3.1	7.4	1.6	-6.2
2002 Jan.	.	115.7	-3.2	-4.5	-4.6	-6.1	-1.6	-8.1	-0.3	2.0	.	-4.2
Feb.	.	115.7	-3.6	-4.2	-3.5	-6.8	-2.2	-7.4	-1.1	1.1	.	-4.2
Mar.	.	.	.	.	.	.	.	.	.	.	.	.

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

	Retail sales (s.a.)									New passenger car registrations	
	Current prices			Constant prices						Thousands <sup>3)</sup> (s.a.)	
	Total		Index 1995 = 100	Total		Food, beverages, tobacco	Non-food				
	Index 1995 = 100			Index 1995 = 100				Textiles, clothing, footwear	Household equipment		
13	14	15	16	17	18	19	20	21	22		
1998	107.9	3.7	104.5	3.0	2.0	3.6	2.1	4.5	923	7.2	
1999	111.5	3.3	107.2	2.6	3.1	2.5	1.4	3.0	972	5.4	
2000	116.1	4.1	109.7	2.3	1.9	2.3	1.7	4.9	952	-2.1	
<i>Euro area enlargement</i>											
2001	121.4	4.2	111.6	1.7	1.3	1.8	1.8	0.1	970	-0.6	
2001 Q1	119.7	4.6	111.2	2.4	1.6	2.9	2.8	1.2	956	-4.9	
Q2	121.1	4.1	111.5	1.2	1.2	1.4	1.3	-0.3	1,006	1.8	
Q3	122.0	4.4	111.8	1.8	1.4	1.7	2.8	-0.6	952	-1.2	
Q4	122.5	3.5	112.1	1.4	1.2	1.4	0.5	0.0	966	2.5	
2002 Q1	.	.	.	.	.	.	.	.	915	-4.0	
2001 May	121.0	3.2	111.2	0.2	0.9	0.3	0.3	-1.6	993	0.0	
June	121.7	5.1	111.6	2.0	1.4	2.3	2.2	0.7	1,055	7.3	
July	121.7	4.6	111.6	1.7	1.4	1.6	1.3	-1.9	938	-1.6	
Aug.	122.1	4.7	111.9	2.0	1.5	1.7	1.0	1.2	960	-0.5	
Sep.	122.3	4.0	112.0	1.7	1.4	1.7	6.0	-1.0	958	-1.2	
Oct.	121.4	2.6	111.0	0.2	1.1	0.4	-3.1	0.3	962	3.2	
Nov.	123.2	4.1	112.7	2.1	1.2	2.3	3.6	0.1	970	3.3	
Dec.	123.0	3.8	112.5	1.8	1.3	1.4	1.2	-0.4	967	0.8	
2002 Jan.	122.4	2.0	112.0	0.2	1.0	-0.3	-1.0	-2.6	926	-2.4	
Feb.	123.1	3.0	112.6	1.3	1.4	0.3	-0.2	-1.2	922	-3.2	
Mar.	.	.	.	.	.	.	.	.	896	-6.0	

*Sources: Eurostat, except columns 21 and 22 (ECB calculation based on data from the ACEA/A.A.A., European Automobile Manufacturers' Association).*
*1) Adjusted for variations in the number of working days.*
*2) Breakdown in accordance with the harmonised definition of Main Industrial Groupings.*
*3) Monthly averages.*

Table 5.3

## European Commission Business and Consumer Surveys

## 1. Economic sentiment indicator, manufacturing industry and consumer surveys

(percentage balances, seasonally adjusted, unless otherwise indicated)

	Economic sentiment indicator <sup>1)2)</sup> (index 1995 = 100) 1	Manufacturing industry					Consumer confidence indicator <sup>1)</sup>				
		Industrial confidence indicator				Capacity utilisation <sup>3)</sup> (percentages) 6	Total 7	Financial situation over next 12 months 8	Economic situation over next 12 months 9	Unemployment situation over next 12 months 10	Savings over next 12 months 11
		Total 2	Order books 3	Stocks of finished products 4	Production expectations 5						
1998	101.4	-1	-5	9	11	83.0	-5	2	-4	16	-2
1999	101.2	-7	-17	11	7	81.8	-4	3	-4	12	-1
2000	103.8	5	3	5	17	83.8	1	4	1	1	0
<i>Euro area enlargement</i>											
2001	101.0	-8	-13	13	3	83.2	-5	2	-9	13	0
2001 Q1	103.0	1	-1	8	12	84.4	1	4	-2	-1	1
Q2	101.6	-5	-8	13	5	83.6	-2	3	-5	6	1
Q3	100.3	-10	-17	15	2	83.0	-8	1	-12	18	-2
Q4	98.9	-17	-27	17	-8	81.8	-11	1	-16	29	0
2002 Q1	99.3	-13	-26	14	0	80.8	-10	0	-11	26	-1
2001 Mar.	102.6	-1	-3	10	9	-	1	4	-3	0	2
Apr.	102.1	-4	-6	12	6	-	0	4	-3	3	2
May	101.6	-5	-9	13	6	-	-2	3	-4	8	1
June	101.1	-7	-10	14	3	-	-3	2	-7	8	1
July	100.7	-9	-16	15	5	-	-6	2	-10	14	-1
Aug.	100.1	-10	-16	15	2	-	-8	1	-12	19	-3
Sep.	100.1	-11	-18	15	-1	-	-9	1	-13	21	-1
Oct.	99.1	-16	-25	16	-8	-	-10	2	-17	27	1
Nov.	98.6	-18	-28	18	-9	-	-12	1	-17	31	-1
Dec.	98.9	-17	-28	16	-7	-	-10	1	-14	28	0
2002 Jan.	99.1	-14	-28	14	-1	-	-11	0	-13	28	-1
Feb.	99.3	-14	-25	14	-2	-	-9	1	-10	26	-1
Mar.	99.5	-11	-24	13	4	-	-9	0	-9	25	-1

## 2. Construction industry, retail trade and services surveys

(percentage balances, seasonally adjusted)

	Construction confidence indicator			Retail trade confidence indicator				Services confidence indicator <sup>1)</sup>			
	Total 12	Order books 13	Employment expectations 14	Total 15	Present business situation 16	Volume of stocks 17	Expected business situation 18	Total 19	Business climate 20	Demand in recent months 21	Demand in the months ahead 22
1998	-19	-25	-12	-3	-3	13	8	32	33	30	32
1999	-7	-14	1	-5	-5	15	4	26	25	24	31
2000	1	-6	8	-1	4	16	9	30	37	22	32
<i>Euro area enlargement</i>											
2001	-5	-10	1	-6	-4	16	3	15	16	8	21
2001 Q1	-1	-7	5	-2	4	18	9	27	30	16	34
Q2	-3	-9	4	-6	-5	16	3	24	24	16	31
Q3	-7	-10	-3	-6	-5	16	3	14	18	6	19
Q4	-9	-14	-4	-9	-11	15	-2	-4	-5	-8	0
2002 Q1	-11	-17	-4	-14	-20	18	-4	4	4	-13	21
2001 Mar.	-2	-7	3	-5	-3	15	2	25	28	11	36
Apr.	-2	-8	4	-4	-1	16	4	25	23	17	34
May	-2	-9	5	-7	-9	15	3	23	24	15	30
June	-5	-11	2	-7	-6	17	3	23	24	16	29
July	-7	-10	-3	-4	0	16	3	17	21	10	21
Aug.	-8	-10	-6	-8	-6	17	0	14	16	4	21
Sep.	-5	-9	0	-6	-8	15	6	12	16	5	15
Oct.	-8	-12	-4	-9	-11	14	-1	-2	-4	-6	3
Nov.	-10	-14	-5	-9	-10	14	-3	-6	-7	-7	-4
Dec.	-9	-16	-2	-10	-12	17	-1	-5	-5	-11	1
2002 Jan.	-12	-19	-4	-11	-15	15	-4	1	1	-15	18
Feb.	-10	-16	-3	-15	-24	17	-3	3	2	-13	21
Mar.	-11	-16	-6	-15	-20	21	-4	8	9	-11	25

Source: European Commission Business and Consumer Surveys.

1) Data for all periods refer to the Euro 12.

2) The economic sentiment indicator is composed of the industrial, consumer, construction and retail trade confidence indicators; the industrial confidence indicator has a weight of 40% and the three other indicators have a weight of 20% each.

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

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

	Employment						Unemployment			
	Total		By employment status		By selected sector		Total		Adult <sup>2)</sup>	Youth <sup>2)</sup>
	Index 1995 = 100		Employees	Self- employed	Industry excluding construction	Services	Millions	% of labour force	% of labour force	% of labour force
1	2	3	4	5	6	7	8	9	10	
1997	101.3	0.8	0.9	0.2	-0.3	1.4	14.548	11.4	9.8	22.9
1998	103.0	1.7	1.9	0.5	1.1	2.2	13.816	10.7	9.3	20.9
1999	104.8	1.7	2.2	-0.5	-0.1	2.6	12.721	9.7	8.5	18.8
2000	106.9	2.1	2.4	0.4	0.7	2.8	11.514	8.7	7.6	17.0
<i>Euro area enlargement</i>										
2001	108.4	1.3	1.6	0.1	0.4	1.8	11.404	8.3	7.2	16.6
2001 Q1	108.0	1.9	2.1	0.7	1.2	2.3	11.422	8.4	7.3	16.5
Q2	108.2	1.4	1.6	0.3	0.7	1.8	11.354	8.3	7.2	16.5
Q3	108.4	1.1	1.4	-0.2	0.2	1.7	11.375	8.3	7.2	16.5
Q4	108.7	0.9	1.1	-0.3	-0.4	1.5	11.465	8.4	7.2	16.7
2002 Q1	.	.	.	.	.	.	11.506	8.4	7.3	16.8
2001 Mar.	-	-	-	-	-	-	11.363	8.3	7.2	16.4
Apr.	-	-	-	-	-	-	11.338	8.3	7.2	16.5
May	-	-	-	-	-	-	11.356	8.3	7.2	16.5
June	-	-	-	-	-	-	11.369	8.3	7.2	16.6
July	-	-	-	-	-	-	11.367	8.3	7.2	16.5
Aug.	-	-	-	-	-	-	11.362	8.3	7.2	16.5
Sep.	-	-	-	-	-	-	11.394	8.3	7.2	16.5
Oct.	-	-	-	-	-	-	11.445	8.3	7.2	16.7
Nov.	-	-	-	-	-	-	11.470	8.4	7.2	16.7
Dec.	-	-	-	-	-	-	11.480	8.4	7.3	16.8
2002 Jan.	-	-	-	-	-	-	11.498	8.4	7.3	16.8
Feb.	-	-	-	-	-	-	11.512	8.4	7.3	16.9
Mar.	-	-	-	-	-	-	11.507	8.4	7.3	16.8

**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>						Earnings per employee in manufacturing
	Unit labour cost	Compensation per employee	Labour productivity	Total	By component		By selected sector			
					Wages and salaries	Employers' social contributions and other costs	Industry excluding construction	Services		
11	12	13	14	15	16	17	18	19		
1997	0.7	2.2	1.6	2.5	2.6	2.5	2.2	2.7	2.1	
1998	0.0	1.3	1.3	1.7	2.1	0.8	1.5	1.5	2.4	
1999	1.3	2.3	0.9	2.2	2.4	1.4	2.5	1.9	2.4	
2000	1.0	2.6	1.5	3.4	3.7	2.4	3.3	3.0	2.7	
1999 Q4	0.3	2.3	1.9	2.5	2.7	1.6	2.8	1.8	2.1	
2000 Q1	0.3	2.5	2.2	3.6	3.9	2.8	3.8	3.4	2.8	
Q2	0.3	2.1	1.8	3.5	3.8	2.6	3.4	2.9	2.8	
Q3	1.3	2.5	1.1	3.4	3.8	2.4	3.2	2.6	2.5	
Q4	1.7	2.3	0.6	3.1	3.5	1.9	2.8	3.0	2.5	
<i>Euro area enlargement</i>										
2001	2.7	2.7	0.0	3.2	3.5	2.1	3.0	3.1	3.1	
2001 Q1	2.1	2.5	0.5	3.2	3.6	1.8	3.0	3.1	3.4	
Q2	2.6	2.7	0.2	2.9	3.3	1.8	3.2	2.2	3.1	
Q3	2.6	2.7	0.1	3.5	3.7	2.6	3.3	3.6	3.2	
Q4	3.5	2.9	-0.6	3.0	3.3	2.2	2.6	3.4	2.6	

Sources: ECB calculations based on Eurostat data (columns 1 to 6 and 18), Eurostat (columns 7 to 10 and 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. Due to differences in coverage, quarterly data are not fully consistent with annual data. 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, public administration, 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 6.1

### Financial investment and financing of non-financial sectors <sup>1)</sup>

(EUR billions (ECU billions to end-1998); not seasonally adjusted; end of period)

#### Amounts outstanding

#### 1. Main financial assets <sup>2)</sup>

	Currency and deposits									Memo: deposits of non-banks with banks outside the euro area <sup>3)</sup>
	Total	Currency	Deposits of non-financial sectors other than central government with euro area MFIs					Deposits of central government with euro area MFIs	Deposits with non-MFIs <sup>4)</sup>	
			Total	Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements			
	1	2	3	4	5	6	7	8	9	10
1997 Q4	4,685.3	320.6	4,072.2	1,158.1	1,466.3	1,322.5	125.3	153.9	138.7	215.8
1998 Q1	4,642.4	311.8	4,050.9	1,133.2	1,457.0	1,342.7	118.0	139.4	140.2	247.2
Q2	4,699.1	315.5	4,100.3	1,204.9	1,452.7	1,341.9	100.8	147.4	135.8	239.7
Q3	4,677.5	311.8	4,074.2	1,184.2	1,451.1	1,341.4	97.4	156.4	135.1	237.6
Q4	4,826.0	323.4	4,211.1	1,282.9	1,463.3	1,386.3	78.6	149.8	141.6	215.3
1999 Q1	4,675.4	317.8	4,075.8	1,239.1	1,464.6	1,306.2	66.0	133.4	148.4	243.9
Q2	4,701.5	324.0	4,114.1	1,321.8	1,418.3	1,315.6	58.4	125.0	138.4	242.7
Q3	4,712.8	327.5	4,112.6	1,324.5	1,416.4	1,313.0	58.7	133.3	139.4	238.6
Q4	4,858.9	350.0	4,214.8	1,370.8	1,457.6	1,323.4	63.0	142.0	152.1	229.7
2000 Q1	4,836.8	334.7	4,222.0	1,379.5	1,462.5	1,303.2	76.8	130.2	150.0	260.6
Q2	4,893.8	341.2	4,256.5	1,409.6	1,485.6	1,282.5	78.9	146.0	150.1	247.2
Q3	4,913.8	339.0	4,265.9	1,396.7	1,523.7	1,263.5	81.9	159.2	149.7	254.1
Q4	5,029.4	347.6	4,361.4	1,464.3	1,542.4	1,269.1	85.6	164.5	156.0	230.3
<i>Euro area enlargement</i>										
2001 Q1	5,145.2	335.5	4,502.2	1,446.0	1,625.7	1,314.5	115.9	150.3	157.2	259.8
Q2	5,242.1	332.2	4,586.4	1,526.0	1,621.1	1,321.0	118.3	165.5	158.0	268.9
Q3	5,232.4	308.9	4,615.7	1,547.9	1,609.5	1,333.6	124.7	147.8	160.0	264.4
Q4	.	238.9	4,819.0	1,687.8	1,617.3	1,396.2	117.7	139.3	.	.

	Securities other than shares			Shares <sup>5)</sup>				Insurance technical reserves		
	Total	Short-term	Long-term	Total	Quoted shares	Mutual fund shares	Money market fund shares	Total	Net equity of households in life insurance reserves and pension fund reserves	Prepayments of insurance premiums and reserves for outstanding claims
1997 Q4	1,580.0	202.9	1,377.1	2,741.2	1,578.7	1,162.4	184.9	2,385.0	2,129.4	255.5
1998 Q1	1,599.5	194.5	1,405.0	3,271.4	1,948.1	1,323.3	186.5	2,464.7	2,199.6	265.1
Q2	1,556.7	169.2	1,387.4	3,495.7	2,066.8	1,428.9	186.7	2,523.2	2,255.9	267.3
Q3	1,547.1	158.1	1,389.0	3,193.5	1,750.3	1,443.2	187.9	2,568.8	2,298.7	270.1
Q4	1,544.9	157.5	1,387.4	3,527.4	2,006.3	1,521.1	172.7	2,632.5	2,362.4	270.0
1999 Q1	1,585.6	136.5	1,449.1	3,750.1	2,118.7	1,631.4	194.8	2,708.7	2,429.1	279.6
Q2	1,506.5	127.2	1,379.2	4,010.6	2,275.8	1,734.8	211.6	2,776.4	2,494.8	281.6
Q3	1,514.8	116.0	1,398.8	4,068.8	2,322.1	1,746.7	210.8	2,842.4	2,558.1	284.3
Q4	1,560.3	146.4	1,414.0	4,597.3	2,761.0	1,836.3	203.9	2,957.1	2,669.5	287.7
2000 Q1	1,548.1	146.8	1,401.3	4,854.5	2,919.6	1,934.9	218.3	3,084.0	2,782.8	301.2
Q2	1,585.0	146.9	1,438.1	4,763.8	2,854.5	1,909.3	208.9	3,128.4	2,824.5	303.9
Q3	1,635.8	162.6	1,473.2	4,906.7	2,983.7	1,923.1	207.3	3,179.8	2,872.7	307.2
Q4	1,700.2	177.9	1,522.3	4,942.3	3,066.3	1,876.1	203.4	3,207.2	2,897.5	309.7
<i>Euro area enlargement</i>										
2001 Q1	1,786.7	224.3	1,562.4	4,685.1	2,836.3	1,848.8	229.3	3,255.5	2,932.5	323.0
Q2	1,792.0	201.7	1,590.3	4,727.5	2,862.0	1,865.5	237.8	3,308.1	2,982.8	325.3
Q3	1,825.5	207.5	1,618.0	4,108.8	2,359.3	1,749.5	254.9	3,281.0	2,952.5	328.5
Q4	.	.	.	.	.	.	.	.	.	.

Source: ECB.

1) Non-financial sectors comprise general government (S.13), non-financial corporations (S.11), and households (S.14) including non-profit institutions serving households (S.15).

2) Most of the financial asset and liability categories defined in the ESA 95 are covered. These are currency and deposits, securities other than shares, loans (except those granted by general government and non-financial corporations), quoted shares, mutual fund shares and insurance technical reserves. Other financial instruments (financial derivatives, unquoted shares, other (than share) equity and other receivables and payables) are not included.

3) BIS international banking statistics. The BIS definition of banks is close to that of MFIs.

4) Covering deposits with euro area central government (S.1311), other financial intermediaries (S.123) and insurance corporations and pension funds (S.125).

5) Excluding unquoted shares.

**Table 6.1 (cont'd)**
**Financial investment and financing of non-financial sectors <sup>1)</sup>**
*(EUR billions (ECU billions to end-1998); not seasonally adjusted; end of period)*
**Amounts outstanding**
**2. Main liabilities <sup>2)</sup>**

	Loans taken from euro area MFIs and other financial corporations by											Memo: loans taken from banks outside the euro area by non-banks <sup>3)</sup>		
	Total	Taken from euro area MFIs	General government			Non-financial corporations			Households <sup>4)</sup>					
			Total	Short-term	Long-term <sup>5)</sup>	Total	Short-term	Long-term	Total	Short-term	Long-term			
	1	2	3	4	5	6	7	8	9	10	11	12		
1997 Q4	5,835.2	5,315.1	923.5	54.2	869.3	2,404.3	837.1	1,567.2	2,507.4	223.7	2,283.8	141.6		
1998 Q1	5,894.1	5,357.3	907.2	35.5	871.7	2,449.6	853.7	1,595.9	2,537.2	223.4	2,313.8	146.9		
Q2	6,005.8	5,453.0	902.0	31.8	870.2	2,504.1	877.8	1,626.2	2,599.7	232.5	2,367.1	151.3		
Q3	6,080.9	5,524.1	903.1	33.3	869.9	2,528.3	864.9	1,663.3	2,649.6	233.7	2,415.8	147.4		
Q4	6,227.4	5,663.4	911.3	36.0	875.2	2,600.6	902.9	1,697.7	2,715.5	240.8	2,474.8	151.3		
1999 Q1	6,263.1	5,682.7	903.4	36.1	867.3	2,594.0	919.4	1,674.6	2,765.7	251.7	2,514.0	156.8		
Q2	6,426.1	5,817.3	900.9	38.7	862.1	2,686.3	962.3	1,724.0	2,839.0	255.3	2,583.7	183.3		
Q3	6,492.3	5,886.3	886.3	37.7	848.5	2,700.8	941.5	1,759.3	2,905.2	255.2	2,650.0	191.4		
Q4	6,668.5	6,039.1	900.7	42.1	858.7	2,795.5	979.7	1,815.8	2,972.2	264.0	2,708.2	201.4		
2000 Q1	6,813.5	6,155.8	891.3	41.1	850.3	2,894.5	1,037.6	1,856.8	3,027.7	265.6	2,762.1	221.1		
Q2	6,962.9	6,261.6	885.6	42.0	843.6	2,997.9	1,090.7	1,907.2	3,079.4	274.4	2,805.0	219.7		
Q3	7,098.9	6,378.1	865.7	39.9	825.9	3,100.5	1,145.7	1,954.9	3,132.6	275.8	2,856.8	252.3		
Q4	7,270.3	6,500.3	883.0	42.0	841.0	3,198.7	1,160.5	2,038.2	3,188.6	280.9	2,907.7	245.2		
	<i>Euro area enlargement</i>													
2001 Q1	7,450.1	6,671.8	896.2	41.7	854.5	3,319.0	1,239.3	2,079.7	3,234.9	279.2	2,955.7	257.3		
Q2	7,547.9	6,762.1	878.5	42.1	836.5	3,388.2	1,263.9	2,124.3	3,281.2	285.1	2,996.0	279.0		
Q3	7,616.4	6,806.1	871.1	45.0	826.1	3,427.9	1,244.9	2,183.0	3,317.4	280.4	3,037.0	249.1		
Q4		6,899.3												
	Securities other than shares issued by											Quoted shares issued by non-financial corporations	Deposit liabilities of central government	Pension fund reserves of non- financial corporations
	Total	General government			Non-financial corporations									
		Total	Short-term	Long-term	Total	Short-term	Long-term							
	13	14	15	16	17	18	19	20	21	22				
1997 Q4	3,640.6	3,337.7	504.3	2,833.4	302.9	45.8	257.1	2,003.2	135.2	236.2				
1998 Q1	3,758.2	3,438.6	491.3	2,947.3	319.7	55.7	263.9	2,479.9	136.3	239.1				
Q2	3,821.9	3,499.8	489.7	3,010.0	322.1	53.9	268.2	2,715.9	134.2	242.1				
Q3	3,914.6	3,581.7	491.4	3,090.3	332.9	55.5	277.4	2,321.9	133.8	245.1				
Q4	3,921.4	3,587.9	462.8	3,125.1	333.5	55.0	278.5	2,659.1	140.3	248.2				
1999 Q1	3,965.9	3,630.4	463.5	3,167.0	335.4	66.2	269.3	2,770.5	146.9	251.2				
Q2	3,948.0	3,606.7	452.9	3,153.9	341.3	67.1	274.1	3,013.1	136.6	254.3				
Q3	3,932.6	3,578.8	446.1	3,132.7	353.8	75.4	278.4	3,089.2	137.6	257.4				
Q4	3,896.5	3,532.8	421.5	3,111.4	363.6	78.6	285.0	3,959.1	149.8	260.8				
2000 Q1	3,966.7	3,598.1	426.4	3,171.7	368.6	80.7	287.9	4,422.6	147.6	263.3				
Q2	4,000.0	3,619.2	426.9	3,192.4	380.8	90.5	290.3	4,173.7	147.6	265.9				
Q3	4,037.3	3,635.4	422.9	3,212.5	401.9	97.3	304.6	4,052.1	147.2	268.0				
Q4	4,081.3	3,662.4	401.8	3,260.6	418.9	102.4	316.5	3,833.9	153.7	270.1				
	<i>Euro area enlargement</i>													
2001 Q1	4,249.2	3,795.2	429.5	3,365.6	454.0	113.0	341.0	3,454.8	154.7	272.6				
Q2	4,307.4	3,828.8	440.9	3,387.9	478.6	124.2	354.4	3,476.8	155.2	275.0				
Q3	4,388.8	3,896.8	450.1	3,446.7	492.0	137.6	354.4	2,768.1	155.4	277.5				
Q4														

Source: ECB.

- 1) Non-financial sectors comprise general government (S.13), non-financial corporations (S.11), and households (S.14) including non-profit institutions serving households (S.15).
- 2) Most of the financial asset and liability categories defined in the ESA 95 are covered. These are currency and deposits, securities other than shares, loans (except those granted by general government and non-financial corporations), quoted shares, mutual fund shares and insurance technical reserves. Other financial instruments (financial derivatives, unquoted shares, other (than share) equity and other receivables and payables) are not included.
- 3) BIS international banking statistics. The BIS definition of banks is close to that of MFIs.
- 4) Including non-profit institutions serving households.
- 5) Including all loans taken by central government from MFIs in the euro area.

## Transactions

### 1. Main financial assets <sup>1)</sup>

	Currency and deposits									Memo: deposits of non-banks with banks outside the euro area <sup>2)</sup>
	Total	Currency	Deposits of non-financial sectors <sup>3)</sup> other than central government with euro area MFIs					Deposits of central government with euro area MFIs	Deposits with non-MFIs <sup>4)</sup>	
			Total	Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements			
	1	2	3	4	5	6	7	8	9	10
1997 Q4	130.5	9.4	111.5	73.9	5.1	37.6	-5.1	3.2	6.4	-13.6
1998 Q1	-45.7	-8.8	-24.1	-25.7	-11.1	20.1	-7.3	-14.5	1.6	29.5
Q2	52.1	3.6	44.8	68.0	-5.9	-0.5	-16.7	8.0	-4.4	-4.9
Q3	-14.7	-3.7	-19.2	-18.0	2.3	-0.3	-3.3	9.0	-0.7	2.8
Q4	148.1	11.6	136.6	98.0	12.7	44.8	-18.9	-6.6	6.5	-24.4
1999 Q1	-39.3	-5.2	-36.7	-19.2	-15.0	10.2	-12.7	-4.2	6.8	22.0
Q2	22.2	6.3	34.3	81.3	-48.7	9.3	-7.6	-8.4	-9.9	-4.4
Q3	13.2	3.4	0.5	3.6	-0.9	-2.6	0.3	8.3	1.0	-2.7
Q4	139.4	22.2	95.8	44.4	36.9	10.3	4.2	8.7	12.7	-14.5
2000 Q1	-28.2	-15.3	1.1	6.4	1.4	-20.4	13.7	-11.9	-2.1	26.0
Q2	51.2	6.7	28.6	31.5	16.9	-21.8	2.1	15.8	0.1	-12.8
Q3	7.6	-2.2	-3.0	-17.0	29.5	-18.5	2.9	13.3	-0.4	-2.1
Q4	127.9	8.6	107.7	71.2	26.9	5.8	3.8	5.3	6.3	-16.5
<i>Euro area enlargement</i>										
2001 Q1	-19.2	-19.8	15.0	-34.3	41.9	-6.1	13.4	-15.6	1.2	13.3
Q2	94.1	-3.3	81.5	77.3	-4.4	6.3	2.3	15.1	0.8	4.5
Q3	8.2	-23.4	47.1	25.2	2.6	13.0	6.5	-17.7	2.1	2.6
Q4	.	-70.0	206.0	140.1	10.5	62.5	-6.9	-8.6	.	.
	Securities other than shares			Shares <sup>5)</sup>				Insurance technical reserves		
	Total	Short-term	Long-term	Total	Quoted shares	Mutual fund shares	Money market fund shares	Total	Net equity of households in life insurance reserves and pension fund reserves	Prepayments of insurance premiums and reserves for outstanding claims
	11	12	13	14	15	16	17	18	19	20
1997 Q4	4.3	-7.7	12.0	68.7	51.7	17.0	-12.4	53.6	51.9	1.8
1998 Q1	-23.8	-8.4	-15.4	92.7	-6.2	98.9	7.3	67.0	54.6	12.4
Q2	-66.4	-25.1	-41.3	117.4	24.2	93.2	0.0	47.0	44.9	2.0
Q3	-12.6	-11.0	-1.5	97.9	12.0	85.8	1.0	43.2	40.6	2.6
Q4	-13.1	-1.7	-11.4	88.0	69.0	18.9	-16.1	50.2	48.2	2.0
1999 Q1	15.9	-13.5	29.4	101.7	-0.6	102.3	3.2	68.5	56.1	12.5
Q2	-45.2	-11.7	-33.6	145.0	60.3	84.7	16.9	52.3	49.7	2.6
Q3	-6.0	-10.5	4.5	94.7	53.6	41.1	-0.4	54.6	51.5	3.1
Q4	52.6	26.6	26.1	-0.8	30.8	-31.5	-6.8	72.1	69.8	2.3
2000 Q1	-26.4	4.8	-31.3	-8.6	-54.8	46.2	11.9	84.4	71.5	12.9
Q2	47.4	-0.9	48.3	81.0	61.7	19.2	-9.6	54.6	51.9	2.7
Q3	60.9	16.4	44.5	166.5	159.7	6.8	-1.8	53.8	50.5	3.3
Q4	4.7	6.5	-1.9	226.9	187.8	39.1	-3.9	62.7	60.2	2.5
<i>Euro area enlargement</i>										
2001 Q1	96.5	51.5	45.0	73.0	13.8	59.2	25.2	57.7	44.3	13.4
Q2	5.0	-22.3	27.3	33.3	28.4	4.9	7.7	45.8	43.4	2.3
Q3	43.8	5.0	38.8	36.4	10.3	26.1	16.0	41.7	38.6	3.2
Q4	.	.	.	.	.	.	.	.	.	.

Source: ECB.

- Most of the financial asset and liability categories defined in the ESA 95 are covered. These are currency and deposits, securities other than shares, loans (except those granted by general government and non-financial corporations), quoted shares, mutual fund shares and insurance technical reserves. Other financial instruments (financial derivatives, unquoted shares, other (than share) equity and other receivables and payables) are not included.
- BIS international banking statistics. The BIS definition of banks is close to that of MFIs.
- Non-financial sectors comprise general government (S.13), non-financial corporations (S.11), and households (S.14) including non-profit institutions serving households (S.15).
- Covering deposits with euro area central government (S.1311), other financial intermediaries (S.123) and insurance corporations and pension funds (S.125).
- Excluding unquoted shares.

**Table 6.1 (cont'd)**
**Financial investment and financing of non-financial sectors <sup>1)</sup>**
*(EUR billions (ECU billions to end-1998); not seasonally adjusted)*
**Transactions**
**2. Main liabilities <sup>2)</sup>**

	Loans taken from euro area MFIs and other financial corporations by											Memo: loans taken from banks outside the euro area by non-banks <sup>3)</sup>
	Total	Taken from euro area MFIs	General government			Non-financial corporations			Households <sup>4)</sup>			
			Total	Short-term	Long-term <sup>5)</sup>	Total	Short-term	Long-term	Total	Short-term	Long-term	
	1	2	3	4	5	6	7	8	9	10	11	12
1997 Q4	155.8	146.2	21.1	4.4	16.7	68.4	27.6	40.8	66.3	6.7	59.6	-16.8
1998 Q1	67.3	43.9	-15.7	-18.5	2.8	55.0	27.1	27.9	28.0	-0.3	28.3	3.9
Q2	116.8	110.6	-5.5	-3.7	-1.9	54.4	22.1	32.3	68.0	9.0	58.9	6.4
Q3	77.7	81.0	2.6	1.4	1.2	25.0	-15.9	40.9	50.1	1.2	48.9	-0.7
Q4	161.5	150.8	8.8	2.8	6.1	76.3	37.5	38.9	76.4	7.1	69.3	3.5
1999 Q1	85.8	77.0	-6.7	0.1	-6.7	19.7	21.9	-2.2	72.8	9.1	63.7	0.8
Q2	159.8	133.2	-4.3	2.6	-7.0	89.2	40.9	48.3	74.9	3.6	71.3	23.9
Q3	70.0	71.7	-14.7	-1.0	-13.7	17.5	-17.0	34.5	67.2	-0.1	67.3	8.5
Q4	168.4	147.3	14.7	4.3	10.4	87.5	35.8	51.8	66.2	8.9	57.3	-7.1
2000 Q1	140.2	109.6	-8.0	-0.9	-7.1	90.9	55.2	35.7	57.4	1.6	55.7	15.0
Q2	158.2	116.6	-6.3	0.8	-7.1	110.4	58.1	52.3	54.1	8.7	45.4	-0.8
Q3	122.4	93.3	-16.2	-2.1	-14.1	90.8	47.6	43.2	47.8	-0.2	48.1	23.0
Q4	187.2	139.8	17.8	2.1	15.6	110.8	19.1	91.7	58.6	5.3	53.3	2.1
	<i>Euro area enlargement</i>											
2001 Q1	96.6	78.0	-4.8	-0.5	-4.3	69.5	46.5	23.0	31.8	-5.1	37.0	9.1
Q2	98.3	88.1	-18.1	0.4	-18.4	63.0	20.4	42.6	53.3	5.9	47.4	16.5
Q3	82.4	58.0	-6.8	2.9	-9.8	51.4	-13.9	65.3	37.8	-4.4	42.2	-21.7
Q4	.	95.6	.	.	.	.	.	.	.	.	.	.
	Securities other than shares issued by								Quoted shares issued by non-financial corporations	Deposit liabilities of central government	Pension fund reserves of non- financial corporations	
	Total	General government			Non-financial corporations							
		Total	Short-term	Long-term	Total	Short-term	Long-term					
	13	14	15	16	17	18	19	20	21	22		
1997 Q4	-6.6	-2.4	-31.9	29.5	-4.2	-7.5	3.3	44.1	6.9	2.3		
1998 Q1	63.8	53.4	-11.4	64.8	10.4	9.6	0.9	11.0	1.1	2.4		
Q2	53.6	50.6	-1.3	52.0	2.9	-1.8	4.7	37.3	-2.1	2.4		
Q3	61.2	54.0	2.0	51.9	7.3	1.4	5.8	10.7	-0.4	2.4		
Q4	-9.9	-15.3	-30.9	15.6	5.4	0.8	4.6	40.6	6.4	2.2		
1999 Q1	79.2	65.7	6.0	59.7	13.5	10.9	2.6	10.8	6.6	2.5		
Q2	38.1	30.2	-7.8	38.0	7.9	0.8	7.2	34.0	-10.3	2.5		
Q3	57.0	39.7	-9.8	49.6	17.3	8.2	9.1	34.4	1.0	2.5		
Q4	-11.6	-18.8	-27.6	8.8	7.2	3.1	4.0	42.0	12.1	2.6		
2000 Q1	63.1	59.7	10.7	49.0	3.4	1.8	1.6	19.6	-2.2	2.1		
Q2	38.2	24.3	-0.9	25.3	13.9	10.1	3.8	29.8	0.0	2.1		
Q3	50.1	26.2	-2.7	28.9	23.9	7.2	16.7	72.3	-0.4	2.1		
Q4	-0.7	-17.7	-27.2	9.5	17.0	5.4	11.6	51.8	6.4	2.1		
	<i>Euro area enlargement</i>											
2001 Q1	74.2	38.3	31.3	7.0	35.8	9.4	26.5	52.2	1.1	2.5		
Q2	87.9	62.1	10.7	51.4	25.8	11.1	14.7	44.3	0.4	2.4		
Q3	52.8	35.6	8.8	26.9	17.2	13.4	3.8	6.8	0.2	2.5		
Q4	.	.	.	.	.	.	.	.	.	.		

Source: ECB.

1) Non-financial sectors comprise general government (S.13), non-financial corporations (S.11), and households (S.14) including non-profit institutions serving households (S.15).

2) Most of the financial asset and liability categories defined in the ESA 95 are covered. These are currency and deposits, securities other than shares, loans (except those granted by general government and non-financial corporations), quoted shares, mutual fund shares and insurance technical reserves. Other financial instruments (financial derivatives, unquoted shares, other (than share) equity and other receivables and payables) are not included.

3) BIS international banking statistics. The BIS definition of banks is close to that of MFIs.

4) Including non-profit institutions serving households.

5) Including all loans taken by central government from MFIs in the euro area.

**Table 6.2**

**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
1993	20.2	20.3	0.5	16.8	10.6	13.0	5.5	0.4	0.9	0.5	3.0	
1994	20.6	20.1	0.2	16.9	10.3	13.8	3.3	2.4	2.6	1.6	3.2	
1995	21.1	20.1	0.5	16.9	10.3	13.9	4.2	1.8	1.5	1.2	3.6	
1996	20.9	20.0	1.0	16.9	10.3	12.9	3.7	0.2	1.3	1.9	3.7	
1997	21.8	20.2	1.3	17.1	10.5	13.3	1.7	-0.5	0.1	3.4	4.0	
1998	21.8	20.4	0.7	17.3	10.8	15.6	2.4	-2.0	-1.2	6.0	3.7	
1999	21.8	20.6	0.0	17.5	10.9	20.3	2.4	0.9	0.7	5.8	4.2	
2000	22.0	21.1	-0.3	18.3	11.7	21.1	2.0	1.7	1.0	6.2	4.2	

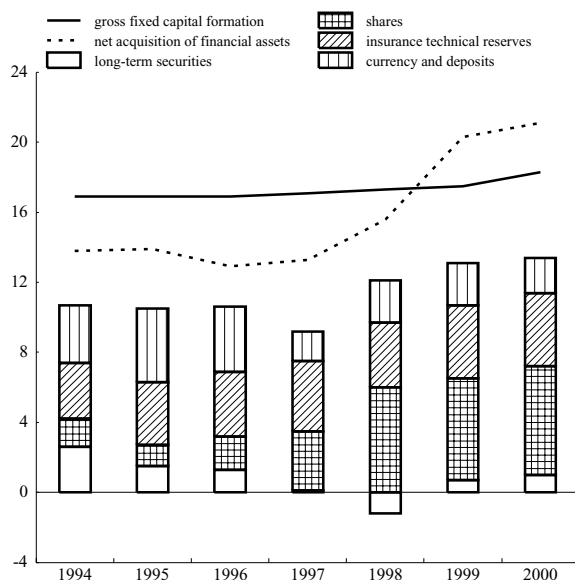
  

	Financing of private non-financial sectors <sup>1)2)</sup>									Net financial investment <sup>3)</sup>	Financial investment as a % of gross investment <sup>4)</sup>	Net incurrence of liabilities as a % of financing <sup>5)</sup>
	Gross saving	Households	Net incurrence of liabilities	Securities other than shares	Long-term securities	Shares	Loans	Long-term loans				
									12			
1993	20.8	12.8	7.7	1.2	1.4	1.4	3.7	4.5	5.3	43.6	27.0	
1994	20.7	11.8	9.6	1.0	1.1	1.6	3.7	3.8	4.2	45.0	31.7	
1995	21.4	11.8	7.4	-1.8	-1.7	1.5	4.8	3.6	6.5	45.1	25.7	
1996	21.1	11.6	8.8	0.2	0.0	1.7	5.7	4.8	4.1	43.3	29.4	
1997	20.6	11.3	9.5	0.1	0.1	1.4	5.9	4.7	3.8	43.8	31.6	
1998	20.3	10.5	12.4	0.4	0.3	2.5	7.6	5.8	3.2	47.4	37.9	
1999	19.3	9.9	17.6	0.9	0.4	3.3	9.9	7.6	2.7	53.7	47.7	
2000	18.9	9.5	21.2	1.3	0.8	4.0	10.8	7.0	-0.1	53.6	52.9	

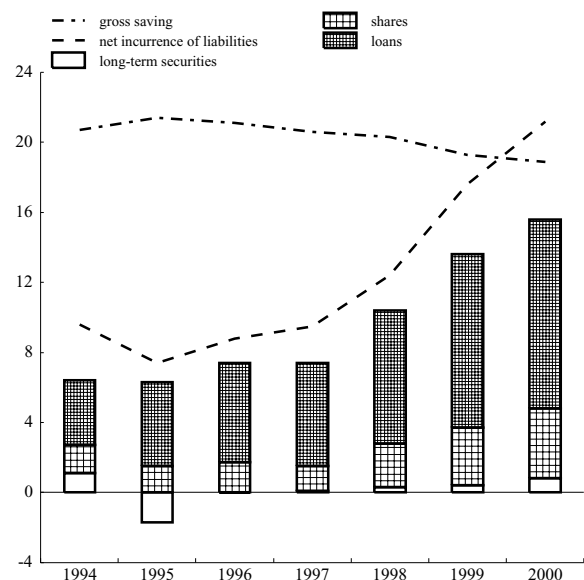
**Investment and financing of private non-financial sectors <sup>1)2)</sup>**

(as a percentage of GDP)

**Investment**



**Financing**



Source: ECB.

1) Selected items of investment and financing.

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

3) Column 6 - column 14.

4) Column 6 ÷ (column 4 + column 6).

5) Column 14 ÷ (column 12 + column 14).



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

**Table 7.1**

## Revenue, expenditure and deficit / surplus <sup>1)</sup>

(as a percentage of GDP)

### 1. Euro area – revenue

	Total	Current revenue	Direct taxes			Indirect taxes	Received by EU institutions	Social contributions	Employers		Sales	Capital revenue	Capital taxes	Memo: fiscal burden <sup>5)</sup>
			Households	Corporations	Employers				Employees					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1992	47.4	46.7	11.9	9.8	2.0	13.0	0.9	17.1	8.6	5.2	2.4	0.7	0.6	42.5
1993	48.0	47.5	12.1	10.0	2.1	13.2	0.8	17.4	8.6	5.3	2.5	0.5	0.3	43.0
1994	47.6	47.1	11.6	9.5	2.0	13.5	0.8	17.5	8.5	5.4	2.5	0.5	0.2	42.7
1995	47.2	46.6	11.6	9.5	2.0	13.3	0.9	17.3	8.4	5.6	2.5	0.5	0.3	42.6
1996	48.0	47.5	12.0	9.6	2.3	13.4	0.8	17.6	8.7	5.6	2.5	0.5	0.3	43.3
1997	48.3	47.6	12.2	9.6	2.6	13.6	0.7	17.6	8.8	5.5	2.5	0.7	0.4	43.7
1998	47.7	47.2	12.4	9.9	2.5	14.1	0.7	16.5	8.5	4.9	2.5	0.5	0.3	43.3
1999	48.3	47.7	12.8	10.1	2.6	14.4	0.6	16.4	8.5	5.0	2.4	0.6	0.3	43.9
2000	47.9	47.4	13.0	10.1	2.7	14.2	0.6	16.2	8.5	4.9	2.4	0.5	0.3	43.8

### Euro area enlargement

2001	47.3	46.7	12.7	9.9	2.5	14.0	0.6	16.0	8.4	4.8	2.3	0.6	0.3	42.9
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### 2. Euro area – expenditure

	Total	Current expenditure								Capital expenditure	Investment	Capital transfers	Paid by EU institutions	Memo: primary expenditure <sup>4)</sup>	
		Total	Compensation of employees	Intermediate consumption	Interest	Current transfers	Social payments <sup>3)</sup>		Subsidies						Paid by EU institutions
							Social payments	Subsidies							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1992	52.3	47.6	11.4	5.0	5.7	25.6	21.9	2.3	0.5	4.7	3.2	1.5	0.0	46.6	
1993	53.7	49.2	11.6	5.2	5.9	26.6	22.8	2.4	0.6	4.6	3.1	1.5	0.0	47.9	
1994	52.7	48.3	11.3	5.0	5.5	26.5	22.9	2.3	0.6	4.3	2.9	1.4	0.0	47.1	
1995	52.2	47.7	11.2	4.8	5.7	26.1	22.8	2.2	0.6	4.5	2.7	1.8	0.1	46.5	
1996	52.2	48.3	11.2	4.8	5.7	26.6	23.2	2.2	0.6	4.0	2.6	1.4	0.0	46.6	
1997	50.9	47.1	11.0	4.8	5.1	26.2	23.1	2.1	0.6	3.7	2.4	1.3	0.1	45.8	
1998	49.9	46.0	10.7	4.7	4.7	25.9	22.6	2.0	0.5	3.9	2.4	1.5	0.1	45.2	
1999	49.6	45.5	10.7	4.7	4.2	25.9	22.6	2.0	0.5	4.1	2.5	1.6	0.1	45.4	
2000	48.8	44.8	10.5	4.7	4.0	25.5	22.3	1.9	0.5	4.0	2.5	1.5	0.0	44.7	

### Euro area enlargement

2001	48.6	44.5	10.5	4.7	3.9	25.4	22.2	1.9	0.5	4.1	2.5	1.6	0.0	44.7
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### 3. Euro area – deficit / surplus, primary deficit / surplus and government consumption

	Deficit (-) / surplus (+)					Primary deficit (-) / surplus (+)	Government consumption <sup>5)</sup>							
	Total	Central government	State government	Local government	Social security funds		Total	Compensation of employees	Intermediate consumption	Transfers in kind via market producers	Consumption of fixed capital	Sales (minus)	Government collective consumption	Government individual consumption
1992	-4.9	-4.3	-0.3	-0.2	0.0	0.8	20.8	11.4	5.0	4.9	1.8	-2.4	8.7	12.0
1993	-5.7	-5.0	-0.4	-0.2	-0.1	0.1	21.2	11.6	5.2	5.0	1.9	-2.5	8.9	12.2
1994	-5.1	-4.4	-0.5	-0.2	0.0	0.4	20.8	11.3	5.0	5.0	1.8	-2.5	8.6	12.1
1995	-5.0	-4.2	-0.5	-0.1	-0.3	0.7	20.5	11.2	4.8	5.1	1.8	-2.5	8.4	12.1
1996	-4.3	-3.6	-0.4	-0.1	-0.2	1.4	20.6	11.2	4.8	5.1	1.8	-2.5	8.5	12.1
1997	-2.6	-2.3	-0.4	0.1	0.0	2.5	20.4	11.0	4.8	5.1	1.8	-2.5	8.4	12.0
1998	-2.2	-2.1	-0.2	0.1	0.1	2.5	20.0	10.7	4.7	5.1	1.7	-2.5	8.1	11.9
1999	-1.3	-1.6	-0.1	0.0	0.4	2.9	20.0	10.7	4.7	5.1	1.7	-2.4	8.2	11.9
2000	-0.8	-1.3	-0.1	0.1	0.4	3.2	19.9	10.5	4.7	5.1	1.7	-2.4	8.1	11.8

### Euro area enlargement

2001	-1.3	-1.4	-0.4	0.1	0.4	2.6	19.9	10.5	4.7	5.1	1.7	-2.3	8.1	11.8
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### 4. Euro area countries – deficit (-) / surplus (+)

	BE	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI
	1	2	3	4	5	6	7	8	9	10	11	12
1998	-0.8	-2.2	-2.4	-2.6	-2.7	2.3	-2.8	3.2	-0.8	-2.4	-2.3	1.3
1999	-0.6	-1.6	-1.7	-1.1	-1.6	2.3	-1.8	3.8	0.4	-2.2	-2.2	1.9
2000	0.1	1.2	-0.8	-0.3	-1.3	4.5	-0.5	5.8	2.2	-1.5	-1.5	7.0
2001	0.2	-2.7	0.1	0.0	-1.4	1.7	-1.4	5.0	0.2	0.1	-2.2	4.9

Sources: ECB for euro area aggregated data; European Commission for data relating to countries' deficit / surplus (including proceeds from sales of UMTS licences).

1) Revenue, expenditure and deficit / surplus based on the ESA 95, but the figures exclude proceeds from sales of UMTS licences in 2000 (the euro area deficit / surplus including those proceeds is equal to 0.3). Data before 1995 are partially estimated. Transactions between countries and EU institutions are included and consolidated. Transactions among governments are not consolidated.

2) The fiscal burden comprises taxes and social contributions.

3) Comprises social benefits, social transfers in kind via market producers and transfers to non-profit institutions serving households.

4) Comprises total expenditure minus interest expenditure.

5) Corresponds to final consumption expenditure (P.3) of the general government in the ESA 95.

**Table 7.2****Debt <sup>1)</sup>***(as a percentage of GDP)***1. Euro area – government debt by financial instrument and sector of the holder**

	Total	Financial instrument				Holder				
		Coins and deposits	Loans	Short-term securities	Long-term securities	Domestic creditors <sup>2)</sup>				Other creditors <sup>3)</sup>
						Total	MFI's	Other financial corporations	Other sectors	
1	2	3	4	5	6	7	8	9	10	
1992	61.0	2.6	16.2	10.1	32.0	50.3	26.4	7.6	16.3	10.7
1993	67.3	2.7	17.0	10.0	37.6	52.6	27.6	8.7	16.3	14.8
1994	70.0	2.9	16.1	10.3	40.6	55.8	29.8	9.9	16.1	14.2
1995	74.2	2.9	17.7	9.9	43.8	58.3	30.5	11.0	16.9	15.9
1996	75.5	2.9	17.2	9.9	45.5	58.9	30.3	13.2	15.5	16.5
1997	74.9	2.8	16.3	8.9	46.8	56.9	29.0	14.4	13.5	17.9
1998	73.2	2.8	15.2	7.9	47.3	53.3	27.0	16.2	10.2	19.8
1999	72.0	2.9	14.2	6.9	48.1	49.7	25.3	14.9	9.6	22.3
2000	69.6	2.7	13.0	6.2	47.6	46.0	22.9	13.4	9.7	23.6
<i>Euro area enlargement</i>										
2001	69.1	2.6	12.5	6.3	47.7	45.0	22.3	12.2	10.5	24.1

**2. Euro area – government debt by issuer, maturity and currency denomination**

	Total	Issued by <sup>4)</sup>				Original maturity			Residual maturity			Currency		
		Central government	State government	Local government	Social security funds	Up to 1 year	Over 1 year	Variable interest rate	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Euro or participating currency <sup>5)</sup>	Non-domestic currency	Other currencies
1992	61.0	49.8	4.7	6.1	0.4	12.3	48.7	6.4	17.8	21.1	22.1	59.7	2.2	1.3
1993	67.3	55.3	5.2	6.3	0.6	12.0	55.3	6.7	18.5	24.4	24.4	65.6	2.9	1.7
1994	70.0	57.9	5.4	6.1	0.5	11.2	58.8	7.4	16.6	26.7	26.7	68.1	3.0	1.9
1995	74.2	61.7	5.7	6.0	0.8	10.6	63.6	6.9	17.6	26.4	30.2	72.4	2.9	1.9
1996	75.5	63.0	6.1	5.9	0.5	10.2	65.2	6.3	19.3	25.5	30.8	73.5	2.7	1.9
1997	74.9	62.4	6.3	5.6	0.6	8.8	66.0	6.0	18.6	25.4	30.8	72.9	2.8	2.0
1998	73.2	61.1	6.3	5.4	0.4	7.7	65.5	5.5	16.4	26.1	30.7	71.5	3.2	1.7
1999	72.0	60.2	6.2	5.3	0.3	6.3	65.7	5.1	14.5	26.9	30.6	70.2	-	1.8
2000	69.6	58.0	6.1	5.1	0.3	5.5	64.0	4.5	14.5	27.5	27.6	67.8	-	1.8
<i>Euro area enlargement</i>														
2001	69.1	57.6	6.2	5.0	0.3	5.7	63.4	3.3	.	.	.	67.4	-	1.7

**3. Euro area countries – government debt**

	BE	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI
	1	2	3	4	5	6	7	8	9	10	11	12
1998	119.3	60.9	105.0	64.6	59.5	55.1	116.4	6.3	66.8	63.9	54.8	48.8
1999	115.0	61.3	103.8	63.1	58.5	49.6	114.5	6.0	63.1	64.9	54.2	46.8
2000	109.3	60.3	102.8	60.4	57.4	39.0	110.6	5.6	56.0	63.6	53.4	44.0
2001	107.5	59.8	99.7	57.2	57.2	36.6	109.4	5.5	53.2	61.7	55.6	43.6

Sources: ECB for euro area aggregated data; European Commission for data relating to countries' debt.

1) Data are partially estimated. General government gross consolidated debt at nominal value at the end of the year. Holdings by other governments are not consolidated.

2) Holders resident in the country whose government has issued the debt.

3) Includes residents of euro area countries other than the country whose government has issued the debt.

4) Excludes debt held by general government in the country whose government has issued it.

5) Before 1999, comprises debt in ECU, in domestic currency and in the currencies of other Member States which have adopted the euro.

**Table 7.3**
**Change in debt <sup>1)</sup>**
*(as a percentage of GDP)*
**1. Euro area – change in government debt by source, financial instrument and sector of the holder**

	Total	Source of change				Financial instrument				Holder			
		Borrowing requirement <sup>2)</sup>	Valuation effects <sup>3)</sup>	Other changes in volume <sup>4)</sup>	Aggregation effect <sup>5)</sup>	Coins and deposits	Loans	Short-term securities	Long-term securities	Domestic creditors <sup>6)</sup>	MFI's	Other financial corporations	Other creditors <sup>7)</sup>
	1	2	3	4	5	6	7	8	9	10	11	12	13
1992	6.7	5.6	0.4	0.7	0.1	0.1	1.1	1.0	4.5	4.8	3.1	0.7	1.9
1993	8.0	7.5	0.3	0.1	0.1	0.2	1.2	0.1	6.5	3.6	2.0	1.3	4.4
1994	6.0	5.2	0.2	0.7	0.0	0.4	-0.1	0.9	4.9	5.9	3.6	1.7	0.2
1995	7.8	5.5	0.2	2.2	-0.2	0.2	2.3	0.0	5.2	5.3	2.2	1.5	2.4
1996	3.8	4.2	-0.2	0.1	-0.3	0.1	0.1	0.4	3.2	2.6	0.8	2.6	1.2
1997	2.3	2.4	0.2	-0.2	0.0	0.0	-0.2	-0.6	3.1	0.2	-0.1	1.8	2.0
1998	1.6	1.9	-0.2	0.0	0.0	0.1	-0.4	-0.6	2.6	-1.0	-0.8	2.4	2.7
1999	1.6	1.3	0.3	0.0	0.0	0.2	-0.4	-0.7	2.5	-1.7	-0.7	-0.7	3.2
2000	0.8	0.8	0.1	-0.1	0.0	0.0	-0.5	-0.3	1.7	-1.5	-1.2	-0.8	2.3
<i>Euro area enlargement</i>													
2001	1.5	1.5	0.0	0.0	0.0	0.0	-0.2	0.4	1.3	0.5	0.0	-0.4	1.0

**2. Euro area – deficit-debt adjustment**

	Change in debt	Deficit (-)/surplus (+) <sup>8)</sup>	Deficit-debt adjustment <sup>9)</sup>											Other <sup>11)</sup>
			Total	Transactions in main financial assets held by general government							Valuation effects	Exchange rate effects	Other changes in volume	
				Total	Currency and deposits	Securities <sup>10)</sup>	Loans	Shares and other equity	Privatisations	Equity injections				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1992	6.7	-4.9	1.8	0.7	0.1	0.1	0.3	0.2	-0.1	0.2	0.4	0.3	0.7	0.0
1993	8.0	-5.7	2.3	1.5	1.3	0.2	0.3	-0.2	-0.3	0.1	0.3	0.3	0.1	0.3
1994	6.0	-5.1	0.9	0.0	-0.2	0.1	0.3	-0.1	-0.4	0.2	0.2	0.0	0.7	0.1
1995	7.8	-5.0	2.7	0.6	0.1	-0.1	0.5	0.1	-0.4	0.2	0.2	0.0	2.2	-0.3
1996	3.8	-4.3	-0.5	-0.1	-0.1	0.0	0.0	-0.1	-0.3	0.2	-0.2	-0.2	0.1	-0.2
1997	2.3	-2.6	-0.3	-0.5	0.2	-0.1	-0.1	-0.5	-0.8	0.3	0.2	0.2	-0.2	0.3
1998	1.6	-2.2	-0.6	-0.5	0.2	0.0	0.0	-0.7	-0.8	0.3	-0.2	0.0	0.0	0.2
1999	1.6	-1.3	0.3	-0.2	0.3	0.1	0.1	-0.7	-0.9	0.2	0.3	0.2	0.0	0.1
2000	0.8	0.3	1.1	1.0	0.7	0.2	0.1	-0.1	-0.4	0.1	0.1	0.0	-0.1	0.1
<i>Euro area enlargement</i>														
2001	1.5	-1.3	0.2	-0.3	-0.6	0.1	0.1	0.0	-0.3	0.2	0.0	0.0	0.0	0.6

Source: ECB.

- 1) Data are partially estimated. Annual change in gross nominal consolidated debt expressed as a percentage of GDP [ $debt(t) - debt(t-1) \div GDP(t)$ ].
- 2) The borrowing requirement is by definition equal to transactions in government debt.
- 3) Includes, in addition to the impact of foreign exchange movements, effects arising from measurement at nominal value (e.g. premia or discounts on securities issued).
- 4) Comprises, in particular, the impact of the reclassification of units and certain types of debt assumption.
- 5) The difference between the changes in the aggregated debt, resulting from the aggregation of countries' debt, and the aggregation of countries' change in debt, due to variations in the exchange rates used for aggregation before 1999.
- 6) Holders resident in the country whose government has issued the debt.
- 7) Includes residents of euro area countries other than the country whose government has issued the debt.
- 8) Including proceeds from sales of UMTS licences.
- 9) The difference between the annual change in gross nominal consolidated debt and the deficit as a percentage of GDP.
- 10) Excluding financial derivatives.
- 11) Comprises mainly transactions in other assets and liabilities (trade credit, other receivables/payables and financial derivatives).

# 8 Balance of payments and international investment position of the euro area (including reserves)

**Table 8.1**

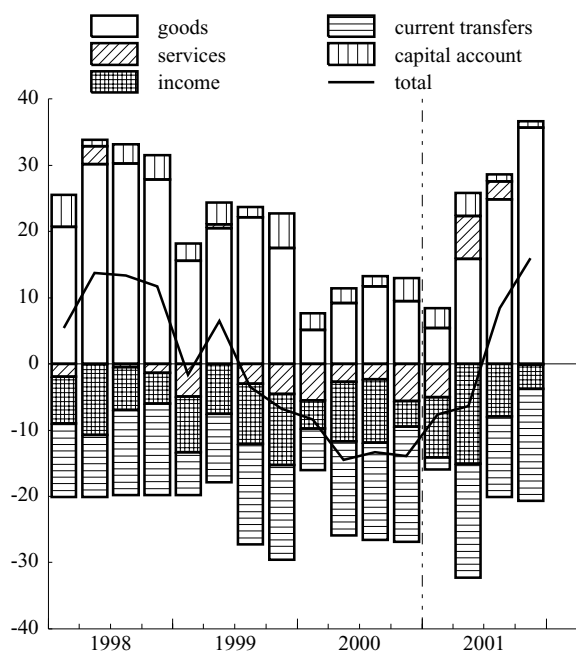
**Summary balance of payments <sup>1) 2)</sup>**

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

	Current account					Capital account	Financial account						Errors and omissions
	Total	Goods	Services	Income	Current transfers		Total	Direct investment	Portfolio investment	Financial derivatives	Other investment	Reserve assets	
	1	2	3	4	5	6	7	8	9	10	11	12	13
1997	62.1	116.4	3.1	-15.2	-42.2	13.0	.	-44.5	-24.3	.	.	.	.
1998	31.9	109.0	-1.1	-28.8	-47.2	12.4	-68.4	-81.3	-110.0	-8.2	123.0	8.2	24.1
1999	-18.3	75.6	-11.9	-35.7	-46.3	12.9	10.9	-118.1	-45.7	4.5	160.1	10.1	-5.5
2000	-59.9	35.6	-16.1	-26.7	-52.6	9.7	93.4	17.6	-111.5	-1.7	171.5	17.6	-43.2
2000 Q4	-17.4	9.5	-5.6	-3.9	-17.4	3.5	25.7	-13.5	12.7	-8.5	24.4	10.7	-11.8
2000 Dec.	-7.0	3.3	-3.2	-1.1	-5.9	1.8	21.2	3.4	9.9	-4.0	9.6	2.3	-16.0
<i>Euro area enlargement</i>													
2001	2.0	81.8	4.1	-35.8	-48.2	8.5	-69.9	-104.6	36.5	-20.7	1.1	17.8	59.5
2001 Q1	-10.5	5.5	-5.0	-9.1	-1.9	2.9	30.6	-40.6	-38.5	-2.0	102.2	9.5	-23.0
Q2	-9.9	15.9	6.5	-15.1	-17.2	3.5	-12.0	-51.7	25.7	0.7	10.8	2.5	18.4
Q3	7.4	24.8	2.7	-7.9	-12.2	1.0	-55.2	-22.4	49.6	-12.0	-72.8	2.5	46.7
Q4	15.0	35.6	-0.1	-3.7	-16.9	1.0	-33.3	10.1	-0.3	-7.3	-39.1	3.3	17.4
2001 Jan.	-11.1	-3.9	-2.4	-7.5	2.7	1.3	2.3	-9.9	-42.8	-4.6	57.2	2.4	7.5
Feb.	1.2	3.3	-1.1	-0.6	-0.5	1.5	7.7	2.4	-2.3	-0.7	3.8	4.5	-10.4
Mar.	-0.6	6.0	-1.5	-1.0	-4.0	0.1	20.6	-33.2	6.6	3.3	41.2	2.7	-20.1
Apr.	-6.7	3.1	1.6	-7.0	-4.5	2.2	11.7	0.8	-19.2	1.7	21.4	7.0	-7.1
May	-2.2	4.4	2.8	-3.9	-5.4	0.5	-9.6	-41.5	15.1	3.6	16.8	-3.6	11.3
June	-1.0	8.4	2.1	-4.2	-7.3	0.8	-14.0	-11.0	29.8	-4.6	-27.4	-0.8	14.2
July	-0.2	10.9	1.5	-7.1	-5.4	0.4	-20.3	-1.5	3.2	-7.4	-14.5	0.0	20.0
Aug.	6.0	7.8	0.9	0.3	-3.0	0.6	-11.3	-7.0	2.4	-3.6	-7.2	4.1	4.7
Sep.	1.6	6.1	0.4	-1.1	-3.8	0.1	-23.6	-13.9	44.0	-1.0	-51.1	-1.6	22.0
Oct.	5.4	12.5	0.6	-2.4	-5.4	0.3	-24.8	1.9	-2.0	-2.7	-19.3	-2.6	19.2
Nov.	5.2	11.1	-0.8	0.2	-5.3	0.1	-12.5	6.3	17.1	-3.0	-32.9	0.0	7.2
Dec.	4.4	12.0	0.1	-1.5	-6.2	0.6	4.0	2.0	-15.4	-1.6	13.1	5.9	-9.0
2002 Jan.	-1.5	2.1	-2.7	-6.7	5.8	2.5	-37.6	4.3	-41.3	0.6	4.0	-5.3	36.5
Feb.	2.1	8.2	-2.4	-0.1	-3.6	0.2	5.8	-9.9	-9.9	1.3	21.7	2.5	-8.1

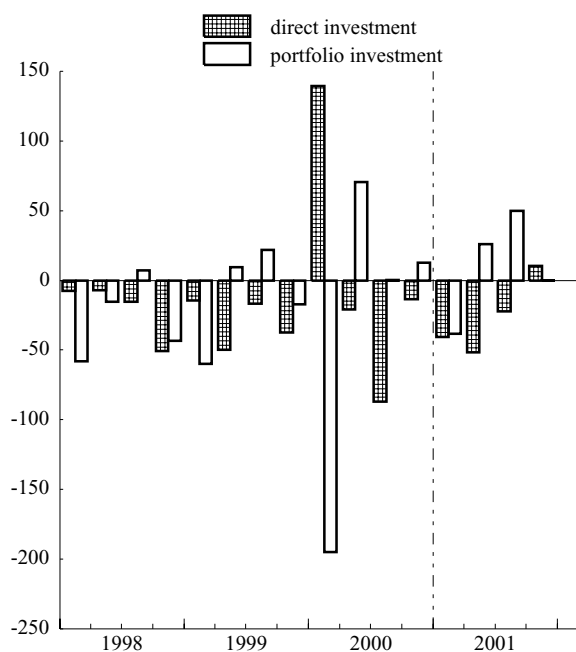
**Current and capital accounts**

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

2) For the comparability of recent and some earlier data, see the general notes.

**Table 8.2****Balance of payments: current and capital accounts <sup>1)</sup>***(EUR billions (ECU billions to end-1998))***1. Main items**

	Current account											Capital account	
	Total			Goods		Services		Income		Current transfers		Credit 12	Debit 13
	Credit 1	Debit 2	Net 3	Credit 4	Debit 5	Credit 6	Debit 7	Credit 8	Debit 9	Credit 10	Debit 11		
1997	1,218.5	1,156.3	62.1	754.6	638.3	214.2	211.0	189.5	204.7	60.1	102.3	18.9	5.9
1998	1,277.7	1,245.8	31.9	784.4	675.4	231.9	233.0	198.5	227.3	63.0	110.1	17.7	5.3
1999	1,334.5	1,352.7	-18.3	818.1	742.5	244.5	256.4	207.0	242.7	64.8	111.1	19.1	6.3
2000	1,597.6	1,657.5	-59.9	986.8	951.3	279.5	295.7	264.0	290.7	67.2	119.9	18.3	8.7
2000 Q4	437.4	454.8	-17.4	274.6	265.1	75.1	80.8	72.7	76.6	14.9	32.3	5.9	2.5
2000 Dec.	146.2	153.1	-7.0	86.6	83.3	25.5	28.7	27.9	29.0	6.2	12.2	2.9	1.1
<i>Euro area enlargement</i>													
2001	1,718.1	1,716.2	2.0	1,039.8	957.9	317.8	313.7	286.0	321.8	74.6	122.7	16.4	7.9
2001 Q1	423.3	433.9	-10.5	254.5	249.0	68.7	73.7	70.6	79.6	29.6	31.5	4.4	1.5
Q2	435.1	444.9	-9.9	262.7	246.8	83.0	76.5	74.4	89.5	15.0	32.2	5.3	1.8
Q3	424.7	417.3	7.4	255.1	230.3	86.0	83.2	69.0	76.9	14.7	26.9	2.7	1.7
Q4	435.0	420.1	15.0	267.5	231.9	80.2	80.3	72.0	75.7	15.3	32.2	4.0	3.0
2001 Jan.	140.4	151.5	-11.1	79.8	83.7	22.4	24.8	22.6	30.1	15.6	12.9	1.8	0.5
Feb.	135.1	133.9	1.2	82.3	78.9	22.4	23.5	22.5	23.1	7.9	8.4	1.9	0.4
Mar.	147.8	148.5	-0.6	92.4	86.4	23.9	25.4	25.4	26.4	6.1	10.2	0.7	0.5
Apr.	138.7	145.4	-6.7	83.6	80.5	26.3	24.6	23.0	30.0	5.8	10.3	2.6	0.4
May	148.3	150.5	-2.2	89.0	84.7	28.3	25.6	26.0	29.9	4.9	10.3	1.4	1.0
June	148.1	149.1	-1.0	90.0	81.6	28.4	26.3	25.4	29.6	4.3	11.6	1.3	0.4
July	153.2	153.4	-0.2	91.7	80.8	30.8	29.3	25.7	32.8	5.1	10.5	1.0	0.6
Aug.	136.8	130.8	6.0	82.1	74.3	29.1	28.2	21.3	21.0	4.4	7.4	1.1	0.5
Sep.	134.7	133.1	1.6	81.3	75.2	26.1	25.8	22.0	23.1	5.2	9.0	0.6	0.5
Oct.	149.9	144.5	5.4	95.6	83.1	27.7	27.1	22.0	24.4	4.6	10.0	0.9	0.7
Nov.	139.5	134.3	5.2	89.9	78.8	24.5	25.3	20.3	20.1	4.8	10.1	0.8	0.6
Dec.	145.6	141.3	4.4	82.0	70.0	28.0	27.9	29.7	31.3	5.9	12.1	2.2	1.6
2002 Jan.	137.7	139.2	-1.5	76.3	74.2	23.6	26.3	20.5	27.2	17.3	11.5	3.0	0.5
Feb.	128.3	126.2	2.1	80.6	72.4	21.6	24.0	19.2	19.3	6.9	10.5	0.8	0.5

**2. Main current account items (seasonally adjusted) <sup>2)</sup>**

	Current account										
	Total			Goods		Services		Income		Current transfers	
	Credit 1	Debit 2	Net 3	Credit 4	Debit 5	Credit 6	Debit 7	Credit 8	Debit 9	Credit 10	Debit 11
1999 Q4	353.1	365.0	-11.9	217.5	203.7	64.0	68.3	53.9	64.1	17.8	28.9
2000 Q1	371.1	378.7	-7.6	229.3	217.2	65.6	68.7	59.8	65.4	16.4	27.4
Q2	387.3	407.2	-19.8	241.5	231.8	67.3	72.6	60.9	70.0	17.7	32.7
Q3	410.5	426.4	-16.0	252.9	245.0	71.6	74.2	70.2	79.0	15.8	28.2
Q4	431.7	449.5	-17.8	264.8	259.8	75.5	80.9	73.8	76.8	17.5	32.1
2000 Dec.	145.3	153.1	-7.8	89.4	88.2	25.4	28.3	24.5	25.6	6.1	11.0
<i>Euro area enlargement</i>											
2001 Q1	429.5	434.6	-5.1	260.8	245.4	76.4	77.0	73.0	82.4	19.2	29.7
Q2	431.0	439.5	-8.4	263.5	246.4	80.7	80.7	69.0	81.9	17.9	33.1
Q3	432.2	427.2	5.0	260.0	239.2	80.4	80.1	73.1	79.6	18.8	28.3
Q4	423.8	411.9	11.9	254.9	225.9	79.6	78.2	71.1	76.4	18.2	31.4
2001 Jan.	144.1	146.3	-2.2	87.5	82.3	25.4	25.4	24.7	28.9	6.5	9.8
Feb.	144.3	142.4	1.9	87.2	81.5	26.0	25.8	24.7	26.4	6.5	8.7
Mar.	141.0	145.9	-4.8	86.1	81.7	25.0	25.8	23.6	27.2	6.3	11.2
Apr.	143.8	147.8	-4.0	86.9	82.6	27.3	25.9	22.9	28.4	6.7	10.9
May	145.6	145.6	0.0	88.4	81.7	27.1	25.8	24.5	27.2	5.6	10.8
June	141.7	146.1	-4.4	88.2	82.0	26.4	26.3	21.5	26.3	5.6	11.5
July	146.3	148.8	-2.6	86.7	81.5	27.3	27.2	26.1	29.5	6.1	10.7
Aug.	146.5	140.7	5.8	89.1	79.9	27.0	27.1	24.3	25.9	6.1	7.8
Sep.	139.4	137.6	1.8	84.1	77.8	26.1	25.8	22.6	24.2	6.6	9.8
Oct.	141.8	137.9	3.9	85.7	76.5	26.3	25.7	23.4	25.4	6.4	10.4
Nov.	138.7	134.8	3.8	84.8	75.0	25.6	26.1	22.4	23.4	6.0	10.4
Dec.	143.3	139.2	4.1	84.4	74.4	27.7	26.4	25.3	27.7	5.8	10.6
2002 Jan.	139.9	134.8	5.2	83.7	73.0	26.8	26.9	22.3	25.7	7.1	9.0
Feb.	137.2	134.5	2.7	85.3	74.7	25.1	26.4	21.2	22.4	5.7	11.0

Source: ECB.

1) For the comparability of recent and some earlier data, see the general notes.

2) In the light of new information, some seasonal patterns have changed and the corresponding time-series for goods (debits only), income and current transfers (credits and debits) have been revised.

**Table 8.3**
**Balance of payments: 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	207.0	242.7	12.6	5.0	194.4	237.7	42.7	50.3	64.1	101.5	87.7	85.9
2000	264.0	290.7	13.2	5.4	250.8	285.2	57.4	59.3	74.6	106.9	118.7	119.0
2000 Q4	72.7	76.6	3.4	1.3	69.3	75.3	16.7	17.0	18.9	24.2	33.7	34.1
<i>Euro area enlargement</i>												
2001	286.0	321.8	13.7	5.8	272.3	316.0	68.8	66.3	83.8	118.0	119.8	131.7
2001 Q1	70.6	79.6	3.3	1.1	67.2	78.5	15.6	15.4	17.8	26.3	33.8	36.8
Q2	74.4	89.5	3.4	1.5	71.0	88.0	18.8	15.4	21.5	39.4	30.7	33.3
Q3	69.0	76.9	3.3	1.7	65.6	75.2	15.1	15.1	22.4	29.1	28.1	31.0
Q4	72.0	75.7	3.6	1.5	68.4	74.2	19.3	20.3	22.0	23.2	27.2	30.6

	Income on direct investment				Income on portfolio investment			
	Equity		Debt		Equity		Debt	
	Credit 13	Debit 14	Credit 15	Debit 16	Credit 17	Debit 18	Credit 19	Debit 20
1999	36.2	46.1	6.4	4.2	9.5	34.0	54.6	67.5
2000	47.4	52.2	10.0	7.1	14.2	30.6	60.5	76.3
2000 Q4	13.3	14.8	3.3	2.3	3.0	5.5	16.0	18.7
<i>Euro area enlargement</i>								
2001	58.6	58.0	10.2	8.2	16.3	38.6	67.5	79.5
2001 Q1	13.1	13.0	2.5	2.4	2.4	7.0	15.4	19.4
Q2	16.2	13.0	2.6	2.4	5.3	17.1	16.2	22.3
Q3	12.9	13.5	2.2	1.7	3.9	8.6	18.5	20.5
Q4	16.3	18.5	3.0	1.8	4.7	5.9	17.3	17.3

*Source: ECB.*

**Table 8.4****Balance of payments: direct investment account <sup>1)</sup>***(EUR billions (ECU billions to end-1998); net flows)*

	Abroad			In the euro area		
	Total 1	Equity capital and reinvested earnings 2	Other capital, mostly inter-company loans 3	Total 4	Equity capital and reinvested earnings 5	Other capital, mostly inter-company loans 6
1997	-93.1	.	.	48.6	.	.
1998	-172.8	.	.	91.5	.	.
1999	-315.6	-234.7	-81.0	197.5	144.2	53.3
2000	-382.4	-283.6	-98.7	400.0	296.4	103.6
2000 Q4	-93.3	-67.9	-25.4	79.7	32.7	47.1
2000 Dec.	-21.8	-10.5	-11.3	25.2	-2.8	28.0
<i>Euro area enlargement</i>						
2001	-227.8	-142.3	-85.5	123.1	77.4	45.7
2001 Q1	-65.4	-26.5	-38.9	24.7	28.7	-4.0
Q2	-80.6	-59.2	-21.4	28.9	16.4	12.4
Q3	-46.6	-28.0	-18.5	24.1	15.7	8.5
Q4	-35.2	-28.6	-6.7	45.4	16.5	28.9
2001 Jan.	-17.4	-11.6	-5.8	7.5	5.1	2.4
Feb.	-15.0	-1.9	-13.1	17.4	15.3	2.1
Mar.	-33.0	-13.0	-20.0	-0.2	8.4	-8.5
Apr.	-6.8	-9.4	2.6	7.6	2.8	4.9
May	-51.8	-41.3	-10.5	10.3	10.2	0.1
June	-21.9	-8.5	-13.4	10.9	3.4	7.5
July	-15.8	-16.3	0.5	14.2	10.7	3.6
Aug.	-10.7	-5.9	-4.8	3.7	-1.9	5.6
Sep.	-20.1	-5.8	-14.2	6.2	6.9	-0.8
Oct.	4.4	-11.8	16.2	-2.5	-8.7	6.1
Nov.	-17.6	-6.8	-10.8	23.9	10.6	13.3
Dec.	-22.0	-10.0	-12.1	24.0	14.6	9.4
2002 Jan.	-4.8	-6.3	1.5	9.2	6.5	2.6
Feb.	-20.0	-4.9	-15.1	10.1	3.1	6.9

Source: ECB.

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

Table 8.5

**Balance of payments: portfolio investment account <sup>1)</sup>**

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

**1. By instrument <sup>2)</sup>**

	Total		Equity		Debt instruments					
	Assets	Liabilities	Assets	Liabilities	Assets			Liabilities		
					Total	Bonds and notes	Money market instruments	Total	Bonds and notes	Money market instruments
1	2	3	4	5	6	7	8	9	10	
1998	-363.3	253.3	-116.2	104.0	-247.1	-238.9	-8.2	149.3	121.6	27.7
1999	-311.4	265.7	-156.3	92.4	-155.1	-154.4	-0.7	173.4	117.4	55.9
2000	-412.8	301.2	-288.5	44.9	-124.3	-102.7	-21.6	256.3	229.6	26.7
2000 Q4	-78.4	91.1	-59.9	38.4	-18.5	-15.6	-2.9	52.7	59.4	-6.7
2000 Dec.	-33.0	42.9	-34.4	28.2	1.4	2.3	-0.9	14.7	10.6	4.1
<i>Euro area enlargement</i>										
2001	-266.7	303.3	-95.4	238.3	-171.3	-152.8	-18.5	65.0	78.0	-13.0
2001 Q1	-82.9	44.4	-29.1	18.7	-53.8	-37.2	-16.6	25.7	24.5	1.2
Q2	-75.5	101.3	-42.5	108.7	-33.0	-46.6	13.6	-7.5	-1.6	-5.9
Q3	-24.0	73.7	-1.0	53.4	-23.0	-18.2	-4.8	20.2	29.8	-9.5
Q4	-84.3	84.0	-22.8	57.4	-61.5	-50.8	-10.7	26.5	25.3	1.2
2001 Jan.	-36.9	-5.9	-20.7	-0.4	-16.2	-6.9	-9.3	-5.5	-9.1	3.6
Feb.	-29.2	26.9	-12.6	12.5	-16.6	-16.4	-0.2	14.4	16.2	-1.8
Mar.	-16.7	23.3	4.3	6.5	-21.0	-13.9	-7.1	16.8	17.4	-0.6
Apr.	-20.7	1.5	-16.4	11.0	-4.3	-11.8	7.5	-9.5	-3.1	-6.4
May	-28.1	43.2	-14.5	58.8	-13.6	-17.0	3.5	-15.7	-12.8	-2.8
June	-26.8	56.6	-11.6	38.9	-15.2	-17.8	2.6	17.7	14.3	3.3
July	-14.9	18.2	-10.2	15.4	-4.7	-9.1	4.4	2.8	2.4	0.4
Aug.	-23.0	25.4	-4.7	13.6	-18.3	-16.9	-1.5	11.8	18.7	-6.9
Sep.	13.9	30.1	13.9	24.4	0.1	7.7	-7.6	5.6	8.6	-2.9
Oct.	-35.2	33.2	-7.9	22.5	-27.2	-19.3	-7.9	10.7	8.1	2.6
Nov.	-38.4	55.5	-8.6	22.4	-29.8	-17.1	-12.7	33.1	36.6	-3.6
Dec.	-10.7	-4.7	-6.3	12.5	-4.4	-14.3	9.9	-17.2	-19.4	2.2
2002 Jan.	-29.0	-12.3	-14.0	8.9	-15.0	-5.7	-9.2	-21.2	-7.8	-13.4
Feb.	-11.3	1.4	-6.1	6.8	-5.1	0.3	-5.5	-5.4	-1.3	-4.1

**2. Assets by instrument and sector of holder**

	Equity				Debt instruments							
	Euro-system	General government	MFIs (excl. the Euro-system)	Other sectors	Bonds and notes				Money market instruments			
					Euro-system	General government	MFIs (excl. the Euro-system)	Other sectors	Euro-system	General government	MFIs (excl. the Euro-system)	Other sectors
1	2	3	4	5	6	7	8	9	10	11	12	
1999	0.1	-2.1	-1.5	-152.8	0.1	-1.7	-15.4	-137.4	0.9	-0.1	-8.1	6.7
2000	0.0	-2.5	-4.4	-281.6	-1.7	-1.2	-72.7	-27.2	2.2	-0.7	-11.5	-11.5
2000 Q4	0.0	-0.6	-5.0	-54.3	0.9	0.0	2.7	-19.2	0.6	0.9	0.8	-5.1
<i>Euro area enlargement</i>												
2001	-0.4	-2.1	3.3	-96.3	1.9	-0.9	-68.6	-85.2	-2.3	0.1	-33.0	16.8
2001 Q1	-0.1	-0.4	-11.0	-17.6	1.0	-0.6	-16.3	-21.4	-1.3	-1.2	-18.0	4.0
Q2	0.0	-0.7	6.3	-48.0	0.7	0.0	-22.3	-25.0	-0.7	-0.1	2.1	12.3
Q3	-0.1	-0.4	3.3	-3.9	1.0	-0.1	4.2	-23.3	0.1	-0.5	-13.4	9.1
Q4	-0.2	-0.5	4.7	-26.8	-0.7	-0.3	-34.3	-15.6	-0.3	1.9	-3.7	-8.7

Source: ECB.

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

2) For the comparability of recent and some earlier data, see the general notes.



**Table 8.6****Balance of payments: other investment account and reserve assets***(EUR billions (ECU billions to end-1998); net flows)***1. Other investment by sector <sup>1) 2)</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	-81.9	204.9	-0.7	3.5	-1.0	-6.1	-22.6	192.4	-37.6	40.4	15.0	152.0	-57.6	15.2
1999	-32.5	192.6	-2.0	6.6	3.3	-13.0	18.1	161.1	-47.2	53.8	65.3	107.3	-51.8	37.8
2000	-178.9	350.5	-1.1	0.9	-2.5	1.0	-131.3	289.6	-49.3	53.0	-82.0	236.6	-44.0	58.9
2000 Q4	-49.5	74.0	-0.9	2.9	5.7	3.4	-63.9	59.5	-22.7	11.8	-41.1	47.6	9.6	8.3
2000 Dec.	10.0	-0.4	-0.2	1.2	0.4	1.2	5.1	-13.5	-13.2	-2.5	18.3	-11.0	4.6	10.8
<i>Euro area enlargement</i>														
2001	-239.1	240.2	0.6	4.4	3.8	-1.2	-219.4	229.2	-41.2	20.3	-178.2	208.9	-24.1	7.8
2001 Q1	-136.1	238.3	0.8	-2.6	2.4	-8.2	-135.0	261.7	-7.4	1.8	-127.6	259.9	-4.3	-12.6
Q2	8.1	2.6	-0.8	4.3	-0.3	2.8	12.0	-9.1	-10.2	17.0	22.2	-26.1	-2.7	4.7
Q3	-55.1	-17.7	1.0	-0.9	-0.1	0.0	-53.0	-30.1	-7.8	11.2	-45.2	-41.3	-3.0	13.3
Q4	-56.0	16.9	-0.4	3.7	1.8	4.2	-43.4	6.6	-15.7	-9.8	-27.7	16.4	-14.1	2.4
2001 Jan.	-45.2	102.4	0.5	1.3	3.6	-6.4	-51.4	108.2	-3.9	-1.9	-47.5	110.1	2.1	-0.7
Feb.	-6.6	10.4	0.3	-2.1	0.1	-3.8	-4.8	16.8	-2.8	4.7	-2.0	12.1	-2.2	-0.5
Mar.	-84.3	125.5	0.0	-1.8	-1.3	2.0	-78.7	136.7	-0.7	-1.0	-78.0	137.7	-4.3	-11.3
Apr.	7.1	14.3	-0.3	-1.6	-0.2	-0.8	14.4	16.2	-0.4	5.4	14.8	10.8	-6.9	0.5
May	2.3	14.5	-0.3	1.6	1.2	2.4	4.7	4.9	-7.3	4.2	12.0	0.7	-3.4	5.6
June	-1.2	-26.2	-0.3	4.2	-1.3	1.2	-7.2	-30.2	-2.6	7.4	-4.6	-37.6	7.5	-1.4
July	46.3	-60.9	0.7	-0.4	-1.6	0.8	46.0	-67.3	-2.0	1.9	48.0	-69.2	1.2	6.0
Aug.	-30.7	23.5	0.1	-2.4	1.7	-2.6	-31.6	24.9	-5.9	3.7	-25.7	21.2	-0.9	3.6
Sep.	-70.8	19.7	0.1	1.9	-0.1	1.7	-67.4	12.4	0.1	5.6	-67.5	6.7	-3.4	3.8
Oct.	-33.3	14.0	-0.5	4.5	-0.4	2.1	-22.1	5.6	-3.4	1.6	-18.7	4.1	-10.3	1.7
Nov.	-59.4	26.4	0.0	2.0	2.0	2.5	-52.3	22.6	-9.2	-13.9	-43.1	36.5	-9.1	-0.6
Dec.	36.6	-23.5	0.1	-2.8	0.3	-0.4	31.0	-21.6	-3.2	2.6	34.1	-24.2	5.3	1.3
2002 Jan.	9.6	-5.5	-0.7	2.6	-1.2	-8.4	15.9	0.4	-0.5	5.7	16.4	-5.3	-4.4	-0.1
Feb.	25.4	-3.7	-0.1	-3.8	1.2	-1.4	5.3	12.1	-6.0	1.4	11.3	10.7	19.0	-10.6

**2. Other investment by sector and instrument <sup>1)</sup>****2.1. Eurosystem**

	Loans/currency and deposits			Other assets/liabilities		
	Assets 1	Liabilities 2	Balance 3	Assets 4	Liabilities 5	Balance 6
1999	-1.2	6.7	5.5	-0.8	-0.1	-0.9
2000	-1.1	0.9	-0.2	0.0	0.0	0.0
2000 Q4	-0.9	2.9	2.0	0.0	0.0	0.0
<i>Euro area enlargement</i>						
2001	0.6	4.8	5.4	0.0	-0.3	-0.3
2001 Q1	0.8	-2.7	-1.9	0.0	0.0	0.0
Q2	-0.8	4.3	3.5	0.0	0.0	0.0
Q3	1.0	-0.9	0.0	0.0	0.0	0.0
Q4	-0.4	4.1	3.7	0.0	-0.4	-0.4

Source: ECB.

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

2) For the comparability of recent and some earlier data, see 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	0.0	0.0	0.0	4.4	-13.1	-8.7	-1.2	0.2	-1.0
2000	0.1	0.0	0.1	-1.8	1.0	-0.8	-0.8	0.0	-0.8
2000 Q4	0.1	0.0	0.1	5.3	3.2	8.6	0.3	0.2	0.4
<i>Euro area enlargement</i>									
2001	-0.1	0.0	-0.1	5.2	-1.2	4.0	-1.3	0.0	-1.3
2001 Q1	0.0	0.0	0.0	2.9	-8.0	-5.1	-0.5	-0.2	-0.7
Q2	0.0	0.0	0.0	0.1	2.7	2.8	-0.4	0.1	-0.3
Q3	0.0	0.0	0.0	0.2	0.0	0.2	-0.3	0.0	-0.3
Q4	0.0	0.0	0.0	2.0	4.1	6.1	-0.2	0.1	-0.1

## 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	17.3	160.4	177.7	0.8	0.7	1.5
2000	-127.3	284.3	157.0	-4.1	5.3	1.3
2000 Q4	-62.4	55.1	-7.4	-1.4	4.4	2.9
<i>Euro area enlargement</i>						
2001	-205.6	219.4	13.7	-13.8	9.8	-4.0
2001 Q1	-130.5	257.8	127.3	-4.5	3.9	-0.6
Q2	15.4	-11.9	3.5	-3.4	2.8	-0.6
Q3	-51.9	-31.9	-83.8	-1.1	1.8	0.7
Q4	-38.7	5.3	-33.3	-4.7	1.3	-3.5

## 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	-7.5	4.8	-2.7	-21.3	20.4	-1.0	-23.0	12.7	-10.3
2000	-14.9	10.4	-4.5	-23.8	53.6	29.8	-5.4	-5.0	-10.4
2000 Q4	-4.3	1.3	-2.9	17.7	4.5	22.3	-3.9	2.4	-1.5
<i>Euro area enlargement</i>									
2001	-8.3	6.3	-2.0	-9.7	1.2	-8.5	-6.2	0.3	-5.8
2001 Q1	-4.8	4.2	-0.6	3.0	-16.3	-13.3	-2.5	-0.4	-3.0
Q2	-3.7	1.8	-1.9	2.1	3.9	6.0	-1.2	-1.0	-2.1
Q3	-1.7	-1.5	-3.2	0.3	13.6	13.9	-1.7	1.3	-0.4
Q4	1.8	1.8	3.6	-15.1	0.1	-15.0	-0.8	0.4	-0.4

## 3. Reserve assets <sup>1)</sup>

	Total 1	Monetary gold 2	Special drawing rights 3	Reserve position in the IMF 4	Foreign exchange							Other claims 12
					Total 5	Currency and deposits		Securities			Financial derivatives 11	
						With monetary authorities and the BIS 6	With banks 7	Equity 8	Bonds and notes 9	Money market instruments 10		
1999	10.1	0.3	1.0	2.0	6.7	12.5	-11.4	0.2	3.5	2.0	-0.1	0.2
2000	17.6	1.0	0.3	2.9	11.6	4.3	2.9	0.0	-5.6	10.1	-0.1	1.7
2000 Q4	10.7	0.0	0.3	-0.6	10.5	1.1	3.8	0.0	0.8	4.7	0.0	0.5
<i>Euro area enlargement</i>												
2001	17.8	0.6	-1.1	-4.2	24.4	10.0	-3.3	-1.1	20.4	-1.6	0.0	-1.9
2001 Q1	9.5	0.3	-0.4	0.2	10.8	7.8	-6.9	-1.1	5.2	5.7	0.0	-1.3
Q2	2.5	-0.1	-0.6	-0.7	5.0	0.2	-0.8	0.0	5.5	0.0	0.0	-1.1
Q3	2.5	0.2	0.0	-4.5	5.0	-0.9	1.4	0.0	4.9	-0.4	0.0	1.7
Q4	3.3	0.1	-0.1	0.9	3.7	2.7	3.0	0.0	4.8	-6.9	0.0	-1.3

Source: ECB.

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

**Table 8.7****International investment position and reserve assets outstanding****1. Net international investment position <sup>1)</sup>***(EUR billions (ECU billions in 1997); assets minus liabilities; end-of-period positions)*

	Total	Direct investment			Portfolio investment					Financial derivatives	Other investment				Reserve assets
		Total	Equity (including reinvested earnings)	Other capital	Total	Equity securities	Debt instruments				Total	Trade credits	Loans/currency and deposits	Other assets/liabilities	
							Total	Bonds and notes	Money market instruments						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1997	32.7	177.6	148.6	29.1	-724.7	-358.7	-366.0	-339.8	-26.2	-5.9	222.4	79.8	51.3	91.4	363.3
1998	-147.9	152.2	124.2	28.0	-713.5	-462.0	-251.5	-229.0	-22.5	2.3	81.7	100.0	-107.1	88.8	329.4
1999	-75.0	402.4	318.9	83.5	-752.8	-591.3	-161.4	-108.4	-53.0	10.1	-107.3	111.9	-338.2	119.0	372.6
2000	-101.4	466.6	395.0	71.6	-666.8	-366.9	-299.9	-263.1	-36.7	7.0	-286.2	115.7	-530.4	128.5	378.0
<i>Euro area enlargement</i>															
2001 1 Jan.	-152.1	459.3	388.5	70.8	-721.5	-375.8	-345.7	-308.6	-37.1	7.0	-288.2	114.9	-531.6	128.5	391.2

Source: ECB.

1) For the comparability of recent and some earlier data, see the general notes.

## 2. Reserves and related assets of the Eurosystem and of the European Central Bank <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 denomi- nated in foreign currency	
						Total	Currency and deposits		Securities			Financial derivatives			
							With monetary authorities and the BIS	With banks	Total	Equities	Bonds and notes				Money market instru- ments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
<b>Eurosystem <sup>2)</sup></b>															
1998 Dec. <sup>3)</sup>	329.4	99.6	404.131	5.2	23.4	199.9	12.6	18.3	169.0	0.0	116.6	52.4	0.0	1.3	7.6
1999 Dec.	372.6	116.4	402.762	4.5	24.3	225.1	12.8	21.4	191.1	0.0	134.3	56.7	-0.2	2.4	14.6
2000 Dec.	378.0	117.8	399.537	4.3	20.8	234.2	9.2	20.2	204.2	0.0	153.9	50.3	0.7	0.7	15.8
<i>Euro area enlargement</i>															
2001 1 Jan.	391.2	119.2	404.119	4.3	21.2	245.7	9.2	27.6	208.2	0.0	157.9	50.3	0.7	0.7	16.3
2001 Jan.	385.8	115.0	404.119	4.5	22.3	243.2	11.8	19.9	210.7	-	-	-	0.8	0.8	20.9
Feb.	383.8	116.5	404.119	4.8	21.3	240.5	10.4	21.7	207.8	-	-	-	0.6	0.6	21.2
Mar. <sup>4)</sup>	393.0	117.6	403.153	4.9	21.4	246.9	9.7	27.3	209.5	-	-	-	0.5	2.1	20.2
Apr.	386.3	119.5	403.153	4.9	21.1	240.2	11.5	23.7	204.6	-	-	-	0.4	0.6	23.4
May	408.4	127.2	403.153	5.6	22.3	251.5	10.6	25.7	215.0	-	-	-	0.2	1.8	22.9
June <sup>4)</sup>	410.0	128.6	403.089	5.7	22.9	249.6	9.8	28.4	211.2	-	-	-	0.2	3.2	22.7
July <sup>4)</sup>	397.1	122.3	402.639	5.5	22.7	242.7	8.5	32.7	201.2	-	-	-	0.4	3.9	23.8
Aug. <sup>4)</sup>	381.8	120.0	402.430	5.5	21.9	232.4	8.3	26.3	197.3	-	-	-	0.5	2.0	23.7
Sep. <sup>4)</sup>	393.4	129.0	401.904	5.4	25.8	232.0	10.2	24.7	196.7	-	-	-	0.4	1.2	21.9
Oct. <sup>4)</sup>	393.6	123.9	401.902	5.4	24.9	237.4	8.6	31.2	197.1	-	-	-	0.5	2.1	22.0
Nov. <sup>4)</sup>	396.5	124.4	401.903	5.4	24.7	240.1	7.9	31.8	199.9	-	-	-	0.4	1.9	22.2
Dec. <sup>4)</sup>	392.4	126.1	401.874	5.5	25.3	233.0	7.9	23.4	201.2	-	-	-	0.4	2.6	24.9
2002 Jan. <sup>4)</sup>	407.8	131.4	401.877	5.5	25.7	243.1	8.3	36.1	198.4	-	-	-	0.3	2.1	22.3
Feb. <sup>4)</sup>	411.4	137.9	401.798	5.6	26.0	238.8	9.0	32.4	197.2	-	-	-	0.2	3.2	22.6
Mar. <sup>4)</sup>	409.0	138.7	401.527	5.5	25.8	237.4	9.6	37.5	190.1	-	-	-	0.2	1.5	21.8
<b>European Central Bank <sup>5)</sup></b>															
1999 Dec.	49.3	7.0	24.030	0.0	0.0	40.6	0.3	6.0	34.3	0.0	27.7	6.5	0.0	1.7	2.6
2000 Dec.	44.7	7.0	24.030	0.0	0.0	36.9	0.6	6.1	30.0	0.0	19.8	10.2	0.3	0.7	3.8
<i>Euro area enlargement</i>															
2001 Jan.	45.7	7.0	24.656	0.0	0.0	37.9	0.7	2.6	34.3	-	-	-	0.3	0.7	3.5
Feb.	46.2	7.1	24.656	0.0	0.0	38.4	0.6	3.9	33.9	-	-	-	0.1	0.6	3.0
Mar.	46.3	7.2	24.656	0.0	0.0	37.0	0.6	5.2	31.1	-	-	-	0.0	2.1	3.9
Apr.	44.8	7.3	24.656	0.0	0.0	37.0	0.8	5.2	31.0	-	-	-	0.0	0.5	3.6
May	49.6	7.8	24.656	0.0	0.0	40.0	0.8	5.2	34.0	-	-	-	0.0	1.8	2.7
June	50.7	7.9	24.656	0.1	0.0	40.0	0.9	6.8	32.3	-	-	-	0.0	2.8	3.1
July	49.8	7.5	24.656	0.1	0.0	38.4	1.0	7.8	29.6	-	-	-	0.0	3.9	2.9
Aug.	45.5	7.3	24.656	0.1	0.0	36.1	1.1	4.2	30.8	-	-	-	0.0	2.0	3.5
Sep.	44.5	7.9	24.656	0.1	0.0	35.4	1.4	3.4	30.6	-	-	-	0.0	1.1	3.9
Oct.	47.9	7.6	24.656	0.1	0.0	38.5	0.9	5.5	32.1	-	-	-	0.0	1.8	2.8
Nov.	48.3	7.6	24.656	0.1	0.0	38.7	0.9	4.2	33.6	-	-	-	0.0	1.9	3.2
Dec.	49.0	7.7	24.656	0.1	0.0	38.6	0.8	4.5	33.3	-	-	-	0.0	2.6	3.6
2002 Jan.	51.8	8.1	24.656	0.1	0.0	41.6	1.1	6.9	33.5	-	-	-	0.0	2.1	3.5
Feb.	51.1	8.5	24.656	0.1	0.0	39.5	1.1	6.4	32.0	-	-	-	0.0	3.1	3.7
Mar.	50.9	8.5	24.656	0.1	0.0	42.3	1.2	7.5	32.1	-	-	-	0.0	1.5	3.6

Source: ECB.

1) More comprehensive data in accordance with the template on international reserves and foreign currency liquidity can be found on the ECB's website.

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

3) Position as at 1 January 1999.

4) Changes in the gold holdings of the Eurosystem are due to transactions in gold within the terms of the Central Bank Gold Agreement of 26 September 1999.

5) Part of the Eurosystem's reserves.

## 9 External trade in goods of the euro area

Table 9

### 1. Values, volumes and unit values by commodity <sup>1) 2)</sup>

(not seasonally adjusted, unless otherwise indicated)

	Exports of goods (f.o.b.)					Imports of goods (c.i.f.)						Total (s.a.) (1995=100)	
	Total				Memo: Manufac- tures 5	Total				Memo:		Exports 12	Imports 13
	1	Inter- mediate 2	Capital 3	Consump- tion 4		6	Inter- mediate 7	Capital 8	Consump- tion 9	Manufac- tures 10	Oil 11		
Values (EUR billions (ECU billions to end-1998); 1995=100 for columns 12 and 13)													
1998	797.1	369.9	179.9	214.0	697.8	711.4	393.5	123.0	175.9	540.3	41.6	128.1	126.4
1999	832.8	386.5	183.2	224.2	725.0	781.2	423.2	143.6	192.1	590.6	61.5	133.8	138.8
2000	1,013.7	482.6	221.7	265.4	883.2	1,008.4	579.8	179.4	218.1	730.2	118.9	162.9	179.2
2000 Q4	281.6	132.0	64.0	73.6	245.3	280.9	160.9	52.4	58.4	201.0	34.6	173.8	195.5
<i>Euro area enlargement</i>													
2001	1,048.0	478.1	231.5	278.9	915.9	1,000.1	559.4	173.0	219.3	724.9	105.3	170.5	176.6
2001 Q1	258.9	121.6	56.2	68.0	226.7	260.9	148.8	47.3	54.4	190.4	27.3	173.4	182.8
Q2	266.0	121.8	58.6	68.4	232.6	258.2	145.4	44.3	54.1	186.7	28.0	172.6	182.6
Q3	254.9	116.7	55.0	70.3	222.7	237.2	133.1	38.4	55.7	170.2	27.8	171.4	176.7
Q4	268.2	118.0	61.6	72.2	233.9	243.8	132.0	43.0	55.2	177.6	22.3	167.8	168.0
2001 Sep.	82.0	37.3	16.9	23.4	71.2	77.8	43.8	13.0	17.9	56.1	8.9	168.9	171.4
Oct.	97.0	43.1	21.6	26.7	84.7	87.4	47.8	14.9	19.9	63.8	8.3	170.3	170.9
Nov.	89.9	39.7	20.0	24.4	78.2	83.0	44.9	15.0	18.7	60.9	7.0	166.9	167.4
Dec.	81.3	35.1	20.1	21.1	71.0	73.4	39.3	13.1	16.6	52.9	6.9	166.2	165.7
2002 Jan.	79.6	31.5	16.0	21.4	69.7	78.6	39.6	12.4	17.9	57.1	7.3	170.8	166.3
Feb.	80.7	35.5	16.1	22.2	70.8	76.6	41.5	12.1	17.2	55.6	4.1	167.4	169.3
Volumes (annual percentage changes; 1995=100 for columns 12 and 13) <sup>3)</sup>													
1998	3.6	4.2	6.0	3.8	4.0	11.4	8.2	21.8	7.7	13.4	-4.5	120.1	123.1
1999	2.2	2.8	-0.8	3.3	1.4	6.1	3.5	12.9	7.7	7.1	6.0	122.7	130.6
2000	12.4	12.5	12.7	12.7	13.6	5.9	6.8	11.7	4.5	8.9	4.7	138.1	138.3
2000 Q4	10.4	12.0	14.1	8.5	11.9	3.9	4.6	11.2	1.8	5.2	7.0	142.3	139.7
<i>Euro area enlargement</i>													
2001	0.8	-3.2	3.0	1.6	1.1	-2.4	-4.3	-7.9	-5.0	-4.4	-3.0	139.3	135.6
2001 Q1	6.0	4.0	11.3	5.6	6.9	1.2	0.5	4.7	-4.7	0.4	-1.8	143.0	138.7
Q2	2.5	-1.7	4.0	2.1	3.1	-2.0	-4.4	-6.0	-5.5	-3.0	-3.2	140.3	136.7
Q3	-0.7	-3.9	1.4	1.8	-0.2	-5.1	-6.4	-12.5	-4.1	-7.5	-3.2	139.5	135.7
Q4	-4.0	-10.3	-3.1	-2.4	-4.6	-3.8	-6.8	-16.4	-5.9	-7.6	-3.8	137.1	134.2
2001 Sep.	-7.8	-10.8	-8.8	-2.2	-8.3	-8.0	-9.9	-14.8	-9.2	-11.0	-4.3	137.1	136.6
Oct.	0.2	-5.2	1.7	1.7	-0.1	1.2	-2.1	-11.1	-2.7	-2.9	2.9	139.9	137.6
Nov.	-6.7	-12.8	-6.6	-6.1	-7.7	-4.6	-8.2	-15.1	-5.8	-7.8	-10.0	135.7	133.4
Dec.	-6.0	-13.1	-4.7	-2.8	-6.5	-8.2	-10.4	-23.3	-9.7	-12.5	-3.8	135.7	131.8
2002 Jan.	.	.	.	.	.	.	.	.	.	.	.	.	.
Feb.	.	.	.	.	.	.	.	.	.	.	.	.	.
Unit values (annual percentage changes; 1995=100 for columns 12 and 13) <sup>3)</sup>													
1998	0.9	-0.7	0.8	2.0	1.5	-5.4	-6.5	-3.6	1.2	-1.1	-30.4	106.6	102.8
1999	2.3	1.7	2.7	1.4	2.4	3.5	3.9	3.4	1.4	2.0	39.4	108.9	106.2
2000	8.3	11.0	7.4	5.1	7.2	21.9	28.3	11.8	8.7	13.5	84.8	117.8	129.4
2000 Q4	10.0	11.4	7.7	7.4	8.8	23.9	28.3	15.1	12.6	18.1	53.1	122.1	140.0
<i>Euro area enlargement</i>													
2001	3.7	3.0	3.0	5.2	3.9	0.5	-0.3	3.1	5.0	2.8	-11.5	122.4	130.2
2001 Q1	6.6	6.4	5.6	5.5	6.5	8.8	9.2	8.6	8.0	9.3	3.2	121.3	131.8
Q2	5.8	5.1	4.2	7.0	5.7	6.0	6.3	5.3	7.5	6.1	4.3	123.0	133.6
Q3	3.1	0.8	2.3	6.6	3.0	-0.4	-2.3	2.4	5.3	2.2	-12.7	122.9	130.3
Q4	0.2	0.2	0.5	2.0	1.1	-10.5	-12.6	-2.9	-0.2	-5.2	-34.0	122.4	125.2
2001 Sep.	2.2	0.5	-1.1	4.5	2.5	-5.8	-7.4	-1.5	2.0	-2.5	-21.5	123.2	125.5
Oct.	0.2	-0.8	0.1	2.9	1.0	-10.5	-12.7	-3.3	0.5	-5.6	-33.0	121.8	124.2
Nov.	0.5	0.8	1.8	1.3	1.5	-11.2	-13.2	-2.4	-1.2	-5.6	-36.8	123.0	125.5
Dec.	0.2	0.5	0.0	1.9	1.0	-9.9	-12.1	-2.7	0.3	-4.2	-32.6	122.5	125.7
2002 Jan.	.	.	.	.	.	.	.	.	.	.	.	.	.
Feb.	.	.	.	.	.	.	.	.	.	.	.	.	.

Sources: Eurostat and ECB calculations based on Eurostat data (volume calculations and seasonal adjustment of unit values).

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) The commodity breakdown in columns 2 to 4 and 7 to 9 is in accordance with the Classification by Broad Economic Categories. Manufactured goods (columns 5 and 10) and oil (column 11) are in accordance with the SITC Rev.3.

3) For 2001, unit value indices, which are also used for the estimation of volumes, refer to the euro area excluding Greece.



# 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>			
	Narrow group				Broad group		US dollar	Japanese yen	Swiss franc	Pound sterling
	Nominal	Real CPI	Real PPI	Real ULCM	Nominal	Real CPI				
1	2	3	4	5	6	7	8	9	10	
1997	99.1	99.4	99.3	100.1	90.4	96.6	1.134	137.1	1.644	0.692
1998	101.5	101.3	101.6	99.7	96.6	99.1	1.121	146.4	1.622	0.676
1999	95.7	95.7	95.7	96.2	96.6	95.8	1.066	121.3	1.600	0.659
2000	85.7	86.5	87.0	86.6	88.2	86.3	0.924	99.5	1.558	0.609
2000 Q1	89.0	89.6	89.7	89.7	91.1	89.5	0.986	105.5	1.607	0.614
Q2	86.0	86.6	87.0	87.2	88.4	86.6	0.933	99.6	1.563	0.610
Q3	84.7	85.7	86.2	85.9	87.3	85.3	0.905	97.4	1.544	0.612
Q4	83.0	84.0	84.8	83.7	85.9	83.6	0.868	95.3	1.516	0.600
2000 Jan.	90.2	90.8	90.9	-	92.4	90.7	1.014	106.5	1.610	0.618
Feb.	89.2	89.8	89.9	-	91.2	89.6	0.983	107.6	1.607	0.615
Mar.	87.7	88.3	88.4	-	89.7	88.1	0.964	102.6	1.604	0.611
Apr.	86.1	86.6	87.0	-	88.4	86.7	0.947	99.9	1.574	0.598
May	84.5	85.0	85.7	-	86.9	85.1	0.906	98.1	1.556	0.602
June	87.4	88.1	88.4	-	89.9	88.1	0.949	100.7	1.561	0.629
July	86.9	87.9	88.1	-	89.4	87.5	0.940	101.4	1.551	0.623
Aug.	84.6	85.5	86.0	-	87.0	85.1	0.904	97.8	1.551	0.607
Sep.	82.8	83.6	84.6	-	85.3	83.3	0.872	93.1	1.531	0.608
Oct.	81.6	82.4	83.4	-	84.4	82.2	0.855	92.7	1.513	0.589
Nov.	82.3	83.3	84.1	-	85.1	82.9	0.856	93.3	1.522	0.600
Dec.	85.4	86.4	87.1	-	88.1	85.8	0.897	100.6	1.514	0.613
<i>Euro area enlargement</i>										
2001	87.3	88.9	89.2	86.9	91.0	88.1	0.896	108.7	1.511	0.622
2001 Q1	88.6	89.9	90.4	88.3	91.4	88.8	0.923	109.1	1.533	0.633
Q2	86.0	87.7	87.8	86.2	89.5	86.8	0.873	106.9	1.528	0.614
Q3	87.0	88.7	88.8	86.4	91.2	88.0	0.890	108.3	1.507	0.619
Q4	87.5	89.5	89.7	86.7	92.0	88.6	0.896	110.5	1.473	0.621
2002 Q1	87.1	89.6	89.5	-	91.3	87.9	0.877	116.1	1.473	0.615
2001 Jan.	89.2	90.3	90.8	-	91.7	89.0	0.938	109.6	1.529	0.635
Feb.	88.3	89.5	90.2	-	91.0	88.4	0.922	107.1	1.536	0.634
Mar.	88.4	89.8	90.4	-	91.4	88.9	0.910	110.3	1.535	0.629
Apr.	87.6	89.1	89.4	-	91.0	88.4	0.892	110.4	1.529	0.622
May	85.9	87.6	87.6	-	89.3	86.7	0.874	106.5	1.533	0.613
June	84.7	86.3	86.3	-	88.1	85.3	0.853	104.3	1.522	0.609
July	85.4	87.1	87.1	-	89.1	86.2	0.861	107.2	1.514	0.609
Aug.	87.7	89.4	89.4	-	91.8	88.6	0.900	109.3	1.514	0.627
Sep.	88.0	89.7	89.8	-	92.6	89.3	0.911	108.2	1.491	0.623
Oct.	88.0	90.0	89.9	-	92.8	89.4	0.906	109.9	1.479	0.624
Nov.	86.8	88.8	89.0	-	91.3	87.9	0.888	108.7	1.466	0.618
Dec.	87.7	89.9	90.0	-	91.9	88.5	0.892	113.4	1.475	0.620
2002 Jan.	87.6	90.2	90.2	-	91.6	88.2	0.883	117.1	1.475	0.617
Feb.	86.8	89.3	89.2	-	91.1	87.6	0.870	116.2	1.477	0.612
Mar.	86.8	89.5	89.0	-	91.2	87.9	0.876	114.7	1.468	0.616
Apr.	87.2	89.9	89.4	-	91.7	88.0	0.886	115.8	1.466	0.614
% ch. vs. <sup>4)</sup> prev. month										
2002 Apr.	0.5	0.5	0.4	-	0.5	0.2	1.1	0.9	-0.1	-0.3
% ch. vs. <sup>4)</sup> prev. year										
2002 Apr.	-0.4	0.9	0.0	-	0.7	-0.4	-0.7	4.9	-4.1	-1.2

Source: ECB.

1) More details of the calculation are given in the general notes.

2) To December 1998, rates for the ECU (source BIS); from January 1999, rates for the euro.

3) Indicative rates for these currencies are shown up to September 2000, as the ECB did not provide official reference rates for these currencies before that.

Bilateral ECU or euro exchange rates <sup>2)</sup>								
Swedish krona	Danish krone	Norwegian krone	Canadian dollar	Australian dollar	Hong Kong dollar <sup>3)</sup>	Korean won <sup>3)</sup>	Singapore dollar <sup>3)</sup>	
11	12	13	14	15	16	17	18	
8.65	7.48	8.02	1.569	1.528	8.75	1,069.8	1.678	1997
8.92	7.50	8.47	1.665	1.787	8.69	1,568.9	1.876	1998
8.81	7.44	8.31	1.584	1.652	8.27	1,267.3	1.806	1999
8.45	7.45	8.11	1.371	1.589	7.20	1,043.5	1.592	2000
8.50	7.45	8.11	1.434	1.564	7.68	1,109.8	1.674	2000 Q1
8.28	7.46	8.20	1.381	1.585	7.27	1,042.0	1.608	Q2
8.40	7.46	8.10	1.341	1.576	7.06	1,009.5	1.569	Q3
8.60	7.45	8.04	1.325	1.632	6.77	1,011.6	1.516	Q4
8.60	7.44	8.12	1.469	1.542	7.89	1,145.9	1.697	2000 Jan.
8.51	7.45	8.10	1.427	1.564	7.65	1,110.8	1.674	Feb.
8.39	7.45	8.11	1.408	1.583	7.51	1,076.1	1.654	Mar.
8.27	7.45	8.15	1.389	1.588	7.38	1,051.4	1.620	Apr.
8.24	7.46	8.20	1.355	1.570	7.06	1,015.3	1.566	May
8.32	7.46	8.25	1.402	1.597	7.40	1,061.1	1.641	June
8.41	7.46	8.18	1.389	1.598	7.33	1,047.9	1.636	July
8.39	7.46	8.10	1.341	1.557	7.05	1,007.6	1.556	Aug.
8.41	7.46	8.03	1.295	1.575	6.80	973.2	1.517	Sep.
8.52	7.45	8.00	1.292	1.618	6.67	965.1	1.498	Oct.
8.63	7.46	8.00	1.320	1.639	6.68	990.6	1.497	Nov.
8.66	7.46	8.13	1.368	1.642	7.00	1,089.6	1.558	Dec.
<i>Euro area enlargement</i>								
9.26	7.45	8.05	1.386	1.732	6.99	1,154.8	1.604	2001
9.00	7.46	8.20	1.410	1.741	7.20	1,174.7	1.616	2001 Q1
9.13	7.46	8.01	1.345	1.701	6.81	1,138.9	1.583	Q2
9.41	7.44	8.01	1.374	1.734	6.94	1,150.1	1.582	Q3
9.48	7.44	7.97	1.416	1.751	6.99	1,155.2	1.634	Q4
9.16	7.43	7.81	1.398	1.692	6.84	1,155.3	1.607	2002 Q1
8.91	7.46	8.24	1.410	1.689	7.32	1,194.9	1.630	2001 Jan.
8.98	7.46	8.21	1.403	1.724	7.19	1,153.8	1.607	Feb.
9.13	7.46	8.16	1.417	1.807	7.09	1,173.4	1.611	Mar.
9.11	7.46	8.11	1.390	1.785	6.96	1,183.5	1.617	Apr.
9.06	7.46	7.99	1.347	1.681	6.82	1,133.7	1.586	May
9.21	7.45	7.94	1.302	1.647	6.65	1,104.1	1.550	June
9.26	7.44	7.97	1.315	1.689	6.71	1,120.3	1.569	July
9.31	7.45	8.06	1.386	1.717	7.02	1,154.0	1.586	Aug.
9.67	7.44	8.00	1.426	1.804	7.11	1,178.3	1.593	Sep.
9.58	7.44	8.00	1.422	1.796	7.07	1,178.6	1.640	Oct.
9.42	7.45	7.92	1.415	1.717	6.93	1,137.5	1.625	Nov.
9.44	7.44	7.99	1.408	1.735	6.96	1,147.0	1.639	Dec.
9.23	7.43	7.92	1.413	1.709	6.89	1,160.8	1.625	2002 Jan.
9.18	7.43	7.79	1.388	1.696	6.79	1,147.2	1.594	Feb.
9.06	7.43	7.72	1.390	1.669	6.83	1,157.3	1.602	Mar.
9.14	7.43	7.62	1.401	1.654	6.91	1,163.2	1.619	Apr.
0.8	0.0	-1.2	0.8	-0.9	1.1	0.5	1.1	% ch. vs. <sup>4)</sup> prev. month 2002 Apr.
0.3	-0.4	-6.1	0.8	-7.3	-0.7	-1.7	0.2	% ch. vs. <sup>4)</sup> prev. year 2002 Apr.

4) 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. A positive change denotes an appreciation of the euro. Due to the change in the weighting scheme, effective exchange rate data as from January 2001 are not fully comparable with earlier observations.



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

**Table 11**

### 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 as a % of GDP	Unit labour costs <sup>3)</sup>	Real GDP	Industrial production index <sup>4)</sup>	Standardised unemployment rate as a % of labour force (s.a.)	Broad money <sup>5)</sup>	3-month interest rate <sup>1)</sup> as a % per annum
	1	2	3	4	5	6	7	8	9	10	11	12
Denmark												
1998	1.3	1.1	56.2	4.94	7.50	-0.9	3.0	2.5	2.2	4.9	5.4	4.27
1999	2.1	3.1	52.7	4.91	7.44	1.7	2.2	2.3	1.8	4.8	-0.2	3.44
2000	2.7	2.5	46.8	5.64	7.45	1.6	1.5	3.0	6.2	4.4	1.2	5.00
2001	2.3	2.5	44.5	5.08	7.45	2.7	3.7	0.9	1.7	4.3	5.6	4.70
2000 Q4	2.6	-	-	5.42	7.45	1.4	1.6	2.7	6.1	4.5	-1.3	5.48
2001 Q1	2.3	-	-	5.03	7.46	4.8	2.8	1.9	5.5	4.4	1.9	5.26
Q2	2.5	-	-	5.27	7.46	2.0	4.0	0.7	0.8	4.4	3.3	5.06
Q3	2.3	-	-	5.18	7.44	4.0	4.4	0.9	1.9	4.3	7.9	4.73
Q4	2.0	-	-	4.83	7.44	0.2	3.7	0.4	-1.2	4.2	9.5	3.77
2002 Q1	2.5	-	-	5.21	7.43	.	.	.	.	4.2	2.4	3.63
2001 Nov.	1.7	-	-	4.67	7.45	-	-	-	1.6	4.2	11.4	3.70
Dec.	2.1	-	-	4.97	7.44	-	-	-	-6.2	4.2	7.9	3.63
2002 Jan.	2.5	-	-	5.08	7.43	-	-	-	-1.2	4.2	4.0	3.63
Feb.	2.4	-	-	5.14	7.43	-	-	-	-4.0	4.2	2.2	3.60
Mar.	2.5	-	-	5.40	7.43	-	-	-	.	4.1	1.1	3.64
Apr.	.	-	-	5.40	7.43	-	-	-	.	.	.	3.67
Sweden												
1998	1.0	1.9	70.5	4.99	8.92	3.7	0.9	3.6	3.8	8.3	3.5	4.36
1999	0.6	1.5	65.0	4.98	8.81	2.7	-1.0	4.5	1.9	7.2	6.8	3.32
2000	1.3	3.7	55.3	5.37	8.45	3.5	5.8	3.6	7.9	5.9	6.2	4.07
2001	2.7	4.7	56.0	5.11	9.26	3.4	4.4	1.2	-0.8	5.1	.	4.11
2000 Q4	1.5	-	-	5.09	8.60	4.5	6.8	2.4	8.1	5.3	2.2	4.06
2001 Q1	1.6	-	-	4.83	9.00	3.4	2.9	2.7	5.6	5.2	0.2	4.10
Q2	3.0	-	-	5.20	9.13	2.2	5.5	1.0	-2.5	5.0	1.1	4.15
Q3	3.1	-	-	5.28	9.41	4.3	4.9	0.4	-2.5	4.9	2.6	4.34
Q4	3.0	-	-	5.12	9.48	4.0	4.5	0.7	-3.3	5.1	.	3.85
2002 Q1	2.9	-	-	5.42	9.16	.	.	.	.	5.2	.	4.00
2001 Nov.	2.9	-	-	4.96	9.42	-	-	-	-5.4	5.0	6.2	3.81
Dec.	3.2	-	-	5.24	9.44	-	-	-	0.9	5.1	.	3.88
2002 Jan.	2.9	-	-	5.27	9.23	-	-	-	-5.3	5.2	.	3.87
Feb.	2.7	-	-	5.37	9.18	-	-	-	-2.4	5.2	.	3.94
Mar.	3.0	-	-	5.63	9.06	-	-	-	.	5.2	.	4.20
Apr.	.	-	-	5.69	9.14	-	-	-	.	.	.	4.38
United Kingdom												
1998	1.6	0.4	47.6	5.60	0.676	-0.5	2.8	3.0	0.9	6.1	9.7	7.42
1999	1.3	1.1	45.2	5.01	0.659	-2.0	3.8	2.1	0.8	5.8	5.4	5.54
2000	0.8	4.1	42.4	5.33	0.609	-1.6	1.9	3.0	1.6	5.3	6.6	6.19
2001	1.2	0.9	39.0	5.01	0.622	-1.6	3.4	2.2	-2.1	5.0	7.9	5.04
2000 Q4	0.9	0.0	42.1	5.09	0.600	-2.1	2.2	2.6	1.1	5.1	8.4	6.07
2001 Q1	0.9	6.3	39.8	4.90	0.633	-1.3	3.0	2.9	1.3	5.0	9.0	5.72
Q2	1.5	-1.9	39.8	5.18	0.614	-1.3	3.9	2.4	-1.5	4.9	7.5	5.30
Q3	1.5	1.6	38.8	5.13	0.619	-1.1	3.6	2.0	-2.6	5.0	7.7	5.00
Q4	1.0	-1.9	38.8	4.82	0.621	-2.8	3.3	1.6	-5.4	5.1	7.6	4.16
2002 Q1	1.5	1.5	37.8	5.13	0.615	.	.	1.0	.	.	.	4.08
2001 Nov.	0.8	-5.5	38.3	4.67	0.618	-	-	-	-4.3	5.1	8.2	4.00
Dec.	1.0	-5.7	38.8	4.94	0.620	-	-	-	-6.9	5.1	6.5	4.05
2002 Jan.	1.6	9.9	38.3	5.02	0.617	-	-	-	-6.4	5.0	5.9	4.05
Feb.	1.5	-0.2	37.8	5.04	0.612	-	-	-	-5.2	.	6.3	4.05
Mar.	1.5	-5.2	37.8	5.34	0.616	-	-	-	.	.	.	4.13
Apr.	.	.	.	5.33	0.614	-	-	-	.	.	.	4.17

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

1) Average-of-period values.

2) For more information, see Table 10.

3) Whole economy; data for the United Kingdom exclude employers' contributions to social security.

4) Total excluding construction; adjusted for working days.

5) Average of end-month values; M3; M4 for the United Kingdom.

## 12 Economic and financial developments outside the EU

**Table 12.1**

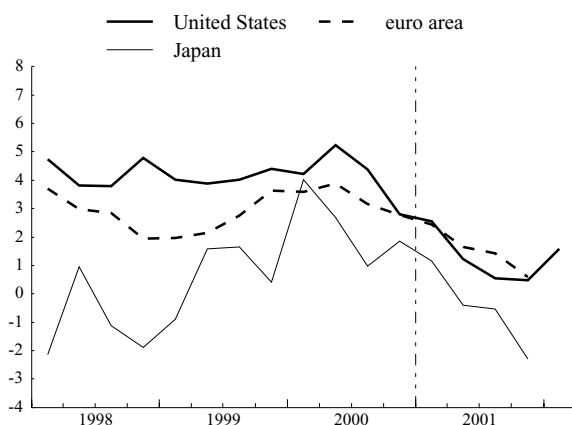
### Economic and financial developments

(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 (+) <sup>5)</sup> as a % of GDP	Gross public debt <sup>6)</sup> as a % of GDP
	1	2	3	4	5	6	7	8	9	10	11
United States											
1998	1.6	0.1	4.3	5.9	4.5	7.3	5.57	5.33	1.121	0.3	53.4
1999	2.2	-0.5	4.1	4.2	4.2	7.6	5.42	5.64	1.066	0.8	50.5
2000	3.4	0.8	4.1	4.7	4.0	6.1	6.53	6.03	0.924	1.7	45.0
2001	2.8	6.2	1.2	-4.2	4.8	8.8	3.78	5.01	0.896	0.5	44.8
2000 Q4	3.4	4.1	2.8	2.3	4.0	6.1	6.69	5.56	0.868	1.7	45.0
2001 Q1	3.4	6.7	2.5	-1.0	4.2	7.1	5.35	5.04	0.923	1.5	45.0
Q2	3.4	8.0	1.2	-4.2	4.5	8.1	4.19	5.25	0.873	1.1	43.4
Q3	2.7	6.4	0.5	-5.6	4.8	9.5	3.46	4.98	0.890	-0.9	44.0
Q4	1.9	3.7	0.5	-6.1	5.6	10.4	2.15	4.74	0.896	0.1	44.8
2002 Q1	1.3	.	1.6	-3.6	5.6	9.2	1.90	5.06	0.877	.	.
2001 Nov.	1.9	-	-	-6.1	5.6	10.6	2.10	4.61	0.888	-	-
Dec.	1.6	-	-	-5.7	5.8	10.5	1.92	5.07	0.892	-	-
2002 Jan.	1.1	-	-	-4.3	5.6	9.7	1.82	5.00	0.883	-	-
Feb.	1.1	-	-	-3.8	5.5	9.4	1.90	4.90	0.870	-	-
Mar.	1.5	-	-	-2.7	5.7	8.5	1.99	5.28	0.876	-	-
Apr.	.	-	-	.	.	.	1.97	5.21	0.886	-	-
Japan											
1998	0.7	6.3	-1.1	-7.1	4.1	4.4	0.66	1.30	146.4	-10.3	.
1999	-0.3	-2.5	0.7	0.8	4.7	3.7	0.22	1.75	121.3	-10.4	.
2000	-0.7	-6.5	2.4	5.9	4.7	2.1	0.28	1.76	99.5	.	.
2001	-0.7	5.9	-0.5	-7.8	5.0	2.8	0.15	1.34	108.7	.	.
2000 Q4	-0.8	-5.3	1.9	4.8	4.8	2.0	0.56	1.73	95.3	.	.
2001 Q1	-0.4	-0.2	1.2	-1.0	4.7	2.4	0.37	1.38	109.1	.	.
Q2	-0.7	3.7	-0.4	-5.6	4.9	2.7	0.08	1.28	106.9	.	.
Q3	-0.8	9.4	-0.5	-10.8	5.1	3.1	0.07	1.36	108.3	.	.
Q4	-1.0	11.0	-2.3	-13.5	5.4	3.2	0.08	1.35	110.5	.	.
2002 Q1	-1.4	.	.	.	.	3.6	0.10	1.46	116.1	.	.
2001 Nov.	-1.0	10.8	-	-13.4	5.4	3.2	0.08	1.33	108.7	-	-
Dec.	-1.2	12.7	-	-15.5	5.5	3.4	0.08	1.35	113.4	-	-
2002 Jan.	-1.4	.	-	-11.4	5.3	3.5	0.09	1.42	117.1	-	-
Feb.	-1.6	.	-	-11.5	5.3	3.6	0.10	1.52	116.2	-	-
Mar.	-1.2	.	-	.	.	3.8	0.10	1.45	114.7	-	-
Apr.	.	.	-	.	.	.	0.08	1.39	115.8	-	-

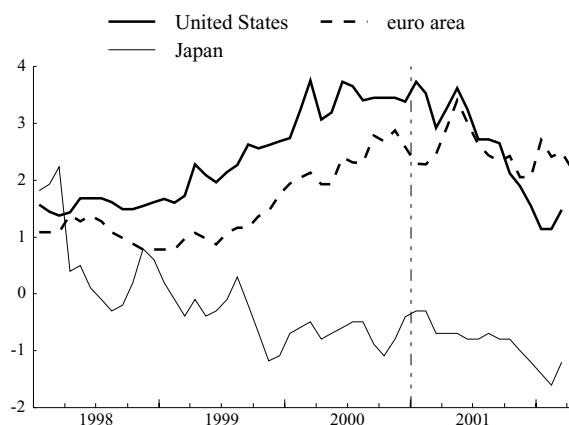
#### Real gross domestic product

(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 10); OECD (column 2 (Japan)); Eurostat (euro area chart data); Reuters (column 7 and 8 (from January 1999)); ECB calculation (column 11).

1) Manufacturing.

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

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

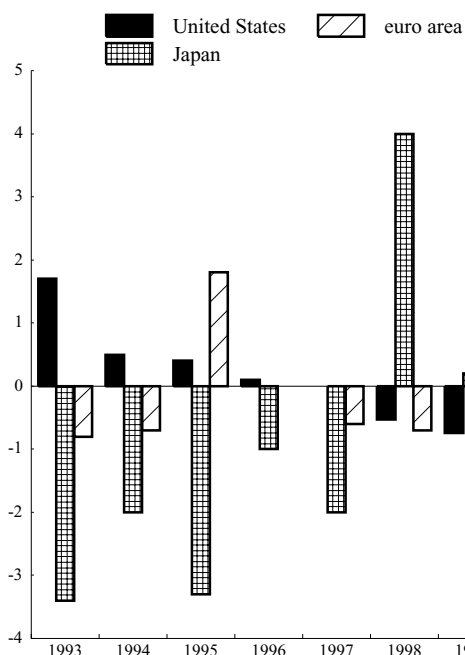
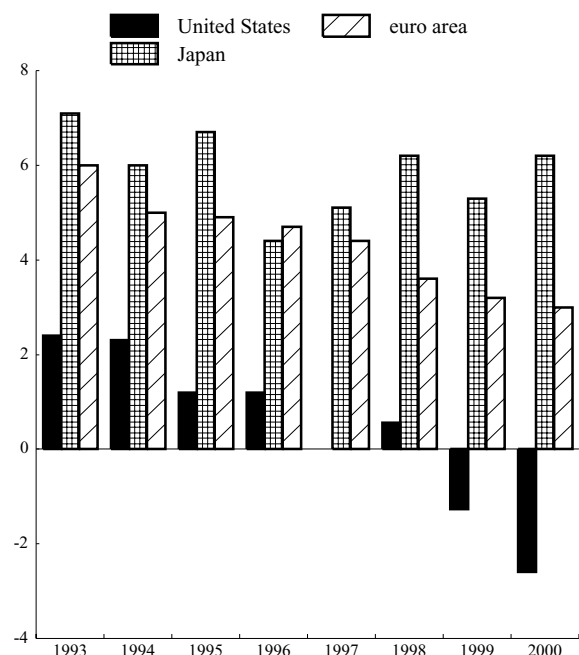
4) For more information, see Table 10.

5) Japan: the 1998 deficit includes a large debt assumption; financial accounts sources for 1999.

6) 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
United States													
1998	18.8	20.7	-2.3	9.4	8.6	6.5	8.2	7.0	1.6	12.3	6.2	12.8	5.6
1999	18.4	20.9	-3.3	9.6	9.0	7.2	8.1	7.9	3.2	12.5	5.2	11.1	6.5
2000	18.1	21.1	-4.4	9.7	9.2	6.1	8.1	7.2	2.7	12.6	3.2	10.3	5.8
2001	16.9	19.4	-3.8	8.2	8.7	2.6	7.5	2.8	2.1	12.7	4.7	11.0	5.6
2000 Q1	17.8	21.0	-4.1	9.6	9.2	7.7	7.9	8.8	5.6	12.9	5.0	10.3	7.7
Q2	18.3	21.4	-4.2	9.8	9.1	6.6	8.2	7.6	3.1	12.6	4.2	10.4	5.8
Q3	18.2	21.2	-4.5	9.9	9.4	6.8	8.2	8.0	2.2	12.5	2.4	10.1	6.0
Q4	18.0	21.0	-4.5	9.6	9.2	3.3	8.0	4.3	0.2	12.4	1.2	10.2	3.6
2001 Q1	17.3	20.2	-4.1	8.9	9.1	1.9	7.5	3.0	2.0	12.6	4.1	10.3	3.7
Q2	17.2	19.7	-4.0	8.4	8.8	1.8	7.5	2.0	2.5	12.6	4.5	10.5	6.6
Q3	17.1	19.1	-3.5	8.1	8.6	4.1	7.7	3.9	1.3	12.6	9.0	12.5	8.7
Q4	15.9	18.3	-3.7	7.3	8.3	2.6	7.2	2.3	2.5	13.2	1.2	10.5	3.5
Japan													
1998	29.1	26.9	2.6	15.6	15.6	-6.0	13.3	-8.3	-0.3	5.3	6.1	11.7	-1.0
1999	27.6	25.8	2.2	14.4	14.8	3.3	13.5	-2.0	1.8	5.2	5.9	11.1	-0.3
2000	27.7	25.9	2.3	15.2	15.5	2.6	13.8	1.0	1.0	5.2	4.3	10.9	-0.4
2001	.	25.5	.	.	.	-3.7	.	-7.6	1.5	.	3.9	.	0.2
2000 Q1	.	26.3	.	.	.	15.5	.	4.4	-1.2	.	-0.7	.	5.3
Q2	.	24.8	.	.	.	-25.0	.	-17.2	2.5	.	8.8	.	-7.5
Q3	.	27.1	.	.	.	12.7	.	1.8	-0.2	.	0.6	.	1.4
Q4	.	27.1	.	.	.	6.8	.	13.7	2.7	.	7.9	.	-0.5
2001 Q1	.	27.5	.	.	.	8.9	.	-3.3	0.2	.	-4.8	.	2.7
Q2	.	23.5	.	.	.	-30.8	.	-18.5	4.4	.	14.0	.	-5.3
Q3	.	26.1	.	.	.	5.1	.	-8.6	-1.1	.	-3.2	.	3.5
Q4	.	25.1	.	.	.	1.0	.	-1.2	2.6	.	9.7	.	-0.2

**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 and Social Research Institute.

1) Households including non-profit institutions serving households.

# Technical notes

## Relating to Table 2.4<sup>1</sup>

### Seasonal adjustment of the euro area monetary aggregates

The approach used relies on multiplicative decomposition through X-12-ARIMA (version 0.2.2).<sup>2</sup> 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. 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. Seasonal factors are revised at annual intervals or as required.

### Calculation of growth rates

Growth rates may be calculated from flows or the index of adjusted stocks.

If  $F_t^M$  represents the flow in month  $t$ ,  $L_t$  the level outstanding at the end of the month  $t$ ,  $X_t^M$  the rate of change in month  $t$  (augmented by one) defined as

$$(a) \quad X_t^M = \left( \frac{F_t^M}{L_{t-1}} + 1 \right)$$

and  $I_t$  the index of adjusted stocks in month  $t$ , defined as

$$I_t = I_{t-1} \times \left( 1 + \frac{F_t}{L_{t-1}} \right)$$

where the base  $I_{\text{DEC}1998} = 100$  is used, the annual percentage change  $a_t$  for month  $t$  – i.e. the change in the 12 months ending in month  $t$  – may be calculated as follows:

$$(b) \quad a_t = \left( \prod_{i=0}^{11} X_{t-i}^M - 1 \right) \times 100$$

$$(c) \quad a_t = \left( \frac{I_t}{I_{t-12}} - 1 \right) \times 100$$

Similarly, the monthly change, as shown in Table 2.4.4, may be calculated as  $(I_t/I_{t-1} - 1) \times 100$ . Finally, the three-month moving average for M3 is obtained as  $(a_t + a_{t-1} + a_{t-2})/3$ .

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 website ([www.ecb.int](http://www.ecb.int)) on the "Euro area statistics – download" page (in csv file format), from which the exact percentage changes in Table 2.4 may be calculated.

## Relating to Tables 2.5 to 2.8

As far as possible, the data have been harmonised and are comparable. Nevertheless, as a result of the implementation of a new reporting scheme in January 1999, outstanding levels for Tables 2.5 to 2.8 prior to the first quarter of 1999 are not directly comparable with those referring to later periods, although they are sufficiently comparable for structural analysis. A detailed analysis of the growth rates can be performed for Tables 2.5 to 2.7 where quarterly flows are shown.

Finally, since the values reported for Tables 2.5 to 2.8 are revised on a quarterly basis (in the March, June, September and December issues), minor discrepancies may occur between these tables and those reporting monthly data.

### Calculation of growth rates

Growth rates may be calculated from flows or the index of adjusted stocks.

<sup>1</sup> For details see "Seasonal adjustment of monetary aggregates and HICP for the euro area", ECB (August 2000).

<sup>2</sup> 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.

For internal purposes, multiplicative models of TRAMO-SEATS also are used. For details on TRAMO-SEATS, see Gomez, V. and Maravall, A. (1996), "Programs TRAMO and SEATS: Instructions for the User", Bank of Spain, Working Paper No. 9628, Madrid.

If  $F_t^Q$  represents the flow in the quarter ending in month  $t$ ,  $X_t^Q$  the rate of change (augmented by one) in the quarter ending in month  $t$  defined as

$$(d) \quad X_t^Q = \left( \frac{F_t^Q}{L_{t-3}} + 1 \right)$$

and  $I_t$  and  $L_t$  are defined as above, the annual percentage change  $a_t$  referring to the quarter ending in month  $t$  may be calculated as follows:

$$(e) \quad a_t = \left( \prod_{i=0}^3 X_{t-3i}^Q - 1 \right) \times 100$$

$$(f) \quad a_t = \left( \frac{I_t}{I_{t-12}} - 1 \right) \times 100.$$

Similarly, the quarterly change may be calculated as  $(I_t/I_{t-3} - 1) \times 100$ .

Roundings may give rise to differences from the annual percentage changes shown in Tables 2.5 to 2.7. The index of adjusted stocks is available with a higher level of precision on the ECB's website ([www.ecb.int](http://www.ecb.int)) on the "Euro area statistics – download" page (in csv file format), from which the exact percentage changes in Tables 2.5 to 2.7 may be calculated.

## Relating to Table 4.1

### Seasonal adjustment of the HICP<sup>1</sup>

The approach used relies on multiplicative decomposition through X-12-ARIMA (version 0.2.2) (see footnote 2 on the previous page). The seasonal adjustment of the total HICP for the euro area is carried out indirectly by aggregating the seasonally adjusted euro area series for processed food, unprocessed food, industrial goods excluding energy and services. Energy is added without adjustment since there is no statistical evidence of seasonality. Seasonal factors are revised at annual intervals or as required.

## Relating to Table 8.2

### Seasonal adjustment of the balance of payments current account

The approach relies on multiplicative decomposition through X-12-ARIMA (version 0.2.2) (see footnote 2 on the previous page). The seasonal adjustment for goods includes a working day and an Easter adjustment, whereas that for services includes only a working day adjustment. The seasonal adjustment of the total current account is carried out by aggregating the seasonally adjusted euro area series for goods, services, income and current transfers. Seasonal factors are revised at annual intervals or as required.

<sup>1</sup> See footnote 1 on the previous page.

# General notes

The basis for the statistics compiled by the European Central Bank (ECB) is presented in the document entitled "Statistical information collected and compiled by the ESCB", dated May 2000. This document is an update of the report entitled "Statistical requirements for Stage Three of Monetary Union (Implementation Package)" of July 1996, and describes the provision of statistics as it stands today. The document covers money and banking and related statistics, balance of payments statistics, international investment position statistics and financial accounts statistics. The requirements of the ECB for statistics on prices and costs, national accounts, the labour market, government receipts and expenditure, short-term indicators of output and demand, and the European Commission Business and Consumer Surveys are set out in the document entitled "Requirements in the field of general economic statistics" of August 2000.<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 in a downloadable format (csv files) on the ECB's website ([www.ecb.int](http://www.ecb.int)) and new or expanded data will appear in the ECB Monthly Bulletin as they become available.

Owing to the fact that the composition of the ECU does not coincide with the currencies of the Member States which have adopted 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 2.8 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 30 April 2002.

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

## Overview

Key developments in the euro area are summarised in an overview table.

## 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. Tables 1.2 and 1.3 reflect the switch to variable rate tenders in June 2000. 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. The M3 data shown in Table 2.4 exclude holdings by non-residents of the euro area of i) shares/units issued by money market funds located in the euro area, and ii) money market paper and debt securities issued with a maturity up to two years by MFIs located in the euro area. Accordingly, these holdings are included in the item external liabilities shown in Table 2.3, and as a result have an

<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).

impact on the item net external assets shown in Table 2.4. Table 2.5 shows a quarterly sectoral and maturity analysis of loans by MFIs to euro area residents. Table 2.6 shows a quarterly analysis of deposits held by euro area residents with MFIs. Table 2.7 provides a quarterly analysis of MFI claims on and liabilities to non-residents of the euro area. Table 2.8 shows a quarterly currency analysis of certain MFI balance sheet items. Tables 2.5 to 2.7 show flows adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions, and annual percentage changes. A complete list of MFIs is published on the ECB's website. Details of the sector definitions are set out in the "Money and Banking Statistics Sector Manual: Guidance for the statistical classification of customers" (ECB, November 1999). 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, as replaced from January 2002 by ECB/2001/13).

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 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 are presented in Tables 3.5 and 3.6. They are broken down into short-term and long-term securities. "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 a longer 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. The statistics on securities issues are estimated to cover

approximately 95% of total issues by euro area residents. Table 3.5 shows securities issued, redemptions and amounts outstanding, broken down into short-term securities and long-term securities. Net issues differ from the change in amounts outstanding owing to valuation changes, reclassifications and other adjustments. Table 3.6 contains a sectoral breakdown of issuers of euro-denominated securities, whether resident in the euro area or elsewhere. For euro area residents, the sectoral breakdown is in line with the European System of Accounts 1995 (ESA 95).<sup>2</sup> For non-euro area residents, the term "banks (including central banks)" is used to indicate institutions of a similar type to MFIs (including the Eurosystem) resident outside the euro area. The term "international organisations" includes the European Investment Bank. (The ECB is included in the Eurosystem.)

The totals (columns 1, 7 and 14) in Table 3.6 are identical to the data on amounts outstanding (columns 8, 16 and 20), gross issues (columns 5, 13 and 17) and net issues (columns 7, 15 and 19) of euro-denominated securities in Table 3.5. The amounts outstanding of securities issued by MFIs (column 2) in Table 3.6 are broadly comparable with money market paper and debt securities issued as shown on the liabilities side of the aggregated MFI balance sheet in Table 2.8.3 (columns 2 and 10), although the coverage of securities issues statistics is at present somewhat narrower.

### Prices and real economy indicators

The data presented in the ECB Monthly Bulletin are, with a few exceptions, produced

<sup>2</sup> The code numbers in the ESA 95 for the sectors shown in tables in the Monthly Bulletin are: MFIs (including Eurosystem) comprises the ECB and the national central banks of Member States in the euro area (S.121) and other monetary financial institutions (S.122); non-monetary financial corporations comprises other financial intermediaries (S.123), financial auxiliaries (S.124) and insurance corporations and pension funds (S.125); non-financial corporations (S.11); central government (S.1311); other general government comprises state government (S.1312), local government (S.1313) and social security funds (S.1314).

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. The index is based on national HICPs that follow the same methodology in all euro area countries. The breakdown by goods and services components is derived from the Classification of individual consumption by purpose (Coicop) used for the HICP. The HICP covers monetary expenditure on final consumption by households on the economic territory of the euro area. The table includes seasonally adjusted HICP data which are compiled by the ECB.

With regard to statistics on national accounts (Tables 4.2 and 5.1), the implementation of the 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 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. The breakdown by end-use of the products applied in Tables 4.2.1 and 5.2.1 represents the harmonised sub-division of industry excluding construction (NACE sections C to E) into Main Industrial Groupings as defined in the Commission Regulation (EC) No. 586/2001 of 26 March 2001.

Opinion survey data (Table 5.3) draw on the Business and Consumer Surveys of the European Commission.

Employment data (Table 5.4) are based on the ESA 95. Whenever coverage of the euro area is incomplete, some data are estimated by the ECB on the basis of the information available. Unemployment rates conform to International Labour Organization (ILO) guidelines.

### **Financial accounts statistics**

Table 6.1 shows quarterly data on financial accounts for non-financial sectors in the euro area, comprising general government (S.13), non-financial corporations (S.11), and households (S.14) including non-profit institutions serving households (S.15). The data (not seasonally adjusted) cover levels outstanding and financial transactions classified according to the ESA 95 and show the main financial investment and financing activities of the non-financial sectors. On the financing side (liabilities) the data are presented by ESA 95 sector and original maturity. Whenever possible the financing taken from MFIs is separately presented. The information on financial investment (assets) is currently less detailed than that on financing, especially since a breakdown by sector is not possible. While both levels and transactions may throw light on economic developments, the latter are more likely to be the focus of attention.

The quarterly data are based on euro area MFI and securities issues statistics, government finance statistics, quarterly national financial accounts, and BIS international banking statistics. While all euro area countries contribute to the euro area statistics, Ireland and Luxembourg, as yet, do not provide quarterly national financial accounts data.

Table 6.2 shows annual data on saving, (financial and non-financial) investment and financing in the euro area. These data cannot yet be reconciled with the quarterly data presented in Table 6.1.



## General government fiscal position

Tables 7.1 to 7.3 show the general government fiscal position in the euro area. The data are mainly consolidated and are based on the ESA 95 methodology. The euro area aggregates are compiled by the ECB from harmonised data provided by the NCBs, which are regularly updated. Data on deficit and debt for the euro area countries may therefore differ from those used by the European Commission in the context of the excessive deficit procedure.

Table 7.1 shows general government revenue and expenditure on the basis of definitions laid down in Commission Regulation No. 1500/2000 of 10 July 2000 amending the ESA 95. Table 7.2 shows details of general government gross consolidated debt at nominal value in accordance with the Treaty provisions on the excessive deficit procedure. Tables 7.1 and 7.2 include summary data for individual euro area countries owing to their importance in the framework of the Stability and Growth Pact. Table 7.3 analyses changes in general government debt. The difference between the change in government debt and government deficit, the deficit-debt adjustment, is mainly explained by government transactions in financial assets and by foreign exchange valuation effects.

## Balance of payments and international investment position of the euro area (including reserves), trade in goods and exchange rates

The concepts and definitions used in balance of payments statistics (Tables 8.1 to 8.6) and international investment position (i.i.p.) statistics generally conform to the 5th edition of the IMF Balance of Payments Manual (October 1993), to the ECB Guideline of May 2000 (ECB/2000/04) on the statistical reporting requirements of the ECB, and to Eurostat's documentation.

The euro area balance of payments is compiled by the ECB. Data up to December

1998 are expressed in ECU. The recent monthly figures for balance of payments statistics should be regarded as provisional. Data are revised with the publication of the detailed quarterly balance of payments data. Earlier data are revised periodically.

Some earlier data have been partially estimated and may not be fully comparable with more recent observations. That is the case for the b.o.p. financial account before end-1998, the services account before end-1997, the monthly pattern of income for the years 1997 to 1999 and the i.i.p. at end-1997. Table 8.5.2 provides a sectoral breakdown of euro area purchasers of securities issued by non-residents of the euro area. It is not possible to show a sectoral breakdown of euro area issuers of securities acquired by non-residents.

The euro area i.i.p. (Table 8.7.1) is compiled on a net basis by aggregating national data. The i.i.p. is valued at current market prices with the exception of direct investment stocks, where book values are used to a large extent.

The outstanding amounts of the Eurosystem's international reserves and related assets are shown in Table 8.7.2 with the corresponding reserves and related assets held by the ECB. The data in Table 8.7.2 are in line with the recommendations for the IMF/BIS template on international reserves and foreign currency liquidity. Earlier data are revised on an ongoing basis. Reserve assets data before end-1999 are not fully comparable with later observations. A publication on the statistical treatment of the Eurosystem's international reserves is available on the ECB's website.

Table 9 shows data on euro area external trade in goods. The main source for the data is Eurostat. The ECB derives volume indices from Eurostat value and unit value indices, and performs seasonal adjustment of unit value indices, while value data are seasonally and working day adjusted by Eurostat.

The commodity breakdown is in accordance with the classification by Broad Economic Categories (based on the SITC Rev. 3 definition) for intermediate, capital and consumption goods, and with the SITC Rev. 3 for manufactured goods and oil. The geographical breakdown shows main trading partners, individually or in regional groups. The 13 EU candidate countries are Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia and Turkey.

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). 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 (ECB estimates).

Table 10 shows ECB calculations of nominal and real effective exchange rate indices for the euro based on weighted averages of bilateral euro exchange rates. Weights are based on 1995-97 manufactured goods trade with the trading partners and capture third-market effects. Up to December 2000, the narrow group is composed of the countries whose currencies are shown in the table plus the Greek drachma. On adopting the euro in January 2001, Greece ceased to be a partner

country in the effective exchange rate of the euro and the weighting scheme has been adjusted accordingly. In addition, the broad group includes the following countries: Algeria, Argentina, Brazil, China, Croatia, Cyprus, the Czech Republic, Estonia, Hungary, India, Indonesia, Israel, Malaysia, Mexico, Morocco, New Zealand, the Philippines, Poland, Romania, Russia, Slovakia, Slovenia, South Africa, Taiwan, Thailand and Turkey. Real rates are calculated using consumer prices (CPI), producer prices in manufacturing (PPI) and unit labour costs in manufacturing (ULCM). Where deflators are not yet available, estimates are used. The bilateral rates shown are those against the 12 currencies used in the ECB's calculation of the "narrow" effective exchange rate of the euro. The ECB publishes daily reference rates for these and some other currencies.

#### **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.



# Chronology of monetary policy measures of the Eurosystem<sup>1</sup>

## 4 January 2000

The ECB announces that on 5 January 2000 the Eurosystem will conduct a liquidity-absorbing fine-tuning operation with same-day settlement. This measure aims at restoring normal liquidity conditions in the money market after the successful transition to the year 2000.

## 5 January 2000

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 3.0%, 4.0% and 2.0% respectively.

## 15 January 2000

At the request of the Greek authorities, the ministers of the euro area Member States, the ECB and the ministers and central bank governors of Denmark and Greece decide, following a common procedure, to revalue the central rate of the Greek drachma in the exchange rate mechanism (ERM II) by 3½%, with effect from 17 January 2000.

## 20 January 2000

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 3.0%, 4.0% and 2.0% respectively.

It also announces that the Eurosystem intends to allot an amount of €20 billion for each of the longer-term refinancing operations to be conducted in the first half of 2000. This amount takes into consideration the expected liquidity needs of the banking system of the euro area in the first half of 2000 and the desire of the Eurosystem to continue to provide the bulk of its refinancing of the financial sector through its main refinancing operations.

## 3 February 2000

The Governing Council of the ECB decides to raise the interest rate on the main refinancing operations of the Eurosystem by 0.25 percentage point to 3.25%, starting from the operation to be settled on 9 February 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 4.25% and 2.25% respectively, both with effect from 4 February 2000.

## 17 February, 2 March 2000

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 3.25%, 4.25% and 2.25% respectively.

## 16 March 2000

The Governing Council of the ECB decides to raise the interest rate on the main refinancing operations of the Eurosystem by 0.25 percentage point to 3.5%, starting from the operation to be settled on 22 March 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 4.5% and 2.5% respectively, with effect from 17 March 2000.

## 30 March, 13 April 2000

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 3.5%, 4.5% and 2.5% respectively.

<sup>1</sup> The chronology of monetary policy measures of the Eurosystem taken in 1999 can be found on pages 176 to 179 of the ECB Annual Report 1999.

### **27 April 2000**

The Governing Council of the ECB decides to raise the interest rate on the main refinancing operations of the Eurosystem by 0.25 percentage point to 3.75%, starting from the operation to be settled on 4 May 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 4.75% and 2.75% respectively, both with effect from 28 April 2000.

### **11 May 2000**

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 3.75%, 4.75% and 2.75% respectively.

### **25 May 2000**

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 3.75%, 4.75% and 2.75% respectively.

### **8 June 2000**

The Governing Council of the ECB decides to raise the interest rate on the main refinancing operations of the Eurosystem by 0.50 percentage point to 4.25% and to apply this in the two operations (which will be conducted as fixed rate tenders) to be settled on 15 and 21 June 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 5.25% and 3.25% respectively, both with effect from 9 June 2000.

It also announces that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem

will be conducted as variable rate tenders, applying the multiple rate auction procedure. The Governing Council decides to set a minimum bid rate for these operations equal to 4.25%. The switch to variable rate tenders in the main refinancing operations is not intended as a further change in the monetary policy stance of the Eurosystem, but as a response to the severe overbidding which has developed in the context of the current fixed rate tender procedure.

### **19 June 2000**

In accordance with Article 122 (2) of the Treaty establishing the European Community, the ECOFIN Council decides that Greece fulfils the necessary conditions on the basis of the criteria set out in Article 121 (1) and abrogates the derogation of Greece with effect from 1 January 2001. The ECOFIN Council took its decision, taking account of the reports of the European Commission and the ECB on the progress made in the fulfilment by Sweden and Greece of their obligations regarding the achievement of Economic and Monetary Union, after consulting the European Parliament, and after a discussion in the EU Council meeting in the composition of Heads of State or Government.

The ECOFIN Council, acting with the unanimity of the Member States of the European Community without a derogation and the Member State concerned, upon a proposal from the European Commission and after consultation of the ECB, also adopts the irrevocable conversion rate between the Greek drachma and the euro, with effect from 1 January 2001. Following the determination of the euro conversion rate of the Greek drachma (which is equal to its prevailing central rate against the euro in the exchange rate mechanism, ERM II), the ECB and the Bank of Greece announce that they will monitor the convergence of the market exchange rate of the Greek drachma against the euro towards its euro conversion rate, which should be completed at the latest by 29 December 2000.

## **21 June 2000**

The Governing Council of the ECB decides that the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 5.25% and 3.25% respectively. It reiterates that, as announced on 8 June 2000, the forthcoming main refinancing operations of the Eurosystem will be conducted as variable rate tenders, applying the multiple rate auction procedure, with a minimum bid rate of 4.25%.

The Governing Council also announces that, for the longer-term refinancing operations to be conducted in the second half of 2000, the Eurosystem intends to allot an amount of €15 billion per operation. This amount takes into consideration the expected liquidity needs of the banking system of the euro area in the second half of 2000 and the desire of the Eurosystem to continue to provide the bulk of its refinancing of the financial sector through its main refinancing operations.

## **6 July, 20 July, 3 August 2000**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.25%, 5.25% and 3.25% respectively.

## **31 August 2000**

The Governing Council of the ECB decides to raise the minimum bid rate on the main refinancing operations of the Eurosystem by 0.25 percentage point to 4.50%, with effect from the operation to be settled on 6 September 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.50% and 3.50% respectively, both with effect from 1 September.

## **14 September 2000**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.50%, 5.50% and 3.50% respectively.

## **5 October 2000**

The Governing Council of the ECB decides to raise the minimum bid rate on the main refinancing operations of the Eurosystem by 0.25 percentage point to 4.75%, with effect from the operation to be settled on 11 October 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.75% and 3.75% respectively, both with effect from 6 October.

## **19 October, 2 November, 16 November, 30 November 2000**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively.

## **14 December 2000**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively.

In addition, it decides to reconfirm the existing reference value for monetary growth, namely an annual growth rate of 4½% for the broad aggregate M3. This decision is taken on the grounds that the available evidence continues to support the assumptions underlying the initial derivation of the reference value in December

1998 (and its confirmation in December 1999), namely that, over the medium term, M3 income velocity declines at a trend rate in the range from ½% to 1% per annum and potential output grows at a trend rate between 2% and 2½% per annum. The Governing Council will undertake the next review of the reference value in December 2001.

## **2 January 2001**

On 1 January 2001 the euro was introduced in Greece. Greece thus became the twelfth EU Member State to adopt the single currency and the first to do so since the start of Stage Three of Economic and Monetary Union (EMU) on 1 January 1999. As a result, the Bank of Greece is now a full member of the Eurosystem, with the same rights and obligations as the 11 national central banks of the EU Member States which previously adopted the euro. In accordance with Article 49 of the Statute of the European System of Central Banks and of the European Central Bank, the Bank of Greece pays up the remainder of its contribution to the capital of the ECB, as well as its share of the ECB's reserves, and also transfers to the ECB its contribution to the foreign reserve assets of the ECB.

Further to the announcement on 29 December 2000, the first main refinancing operation of 2001, in which the Greek counterparties of the Eurosystem participate for the first time, is successfully conducted. The allotment volume of €101 billion takes into account the additional liquidity needs of the euro area banking system resulting from the integration of the Greek Monetary Financial Institutions.

## **4 January 2001**

The Governing Council of the ECB decides that the minimum bid rate for the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively.

In addition, it decides on an allotment amount of €20 billion per operation for the longer-term refinancing operations to be conducted in 2001. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2001 and the desire of the Eurosystem to continue to provide the bulk of refinancing of the financial sector through its main refinancing operations. The Governing Council may adjust the allotment amount in the course of the year in the event of unexpected developments in liquidity needs.

## **18 January, 1 February, 15 February, 1 March, 15 March, 29 March, 11 April, 26 April 2001**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively.

## **10 May 2001**

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.25 percentage point to 4.50%, with effect from the operation to be settled on 15 May 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.50% and 3.50% respectively, both with effect from 11 May 2001.

## **23 May, 7 June, 21 June, 5 July, 19 July, 2 August 2001**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.50%, 5.50% and 3.50% respectively.

### **30 August 2001**

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.25 percentage point to 4.25%, with effect from the operation to be settled on 5 September 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.25% and 3.25% respectively, both with effect from 31 August 2001.

### **13 September 2001**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.25%, 5.25% and 3.25% respectively.

### **17 September 2001**

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 3.75%, with effect from the operation to be settled on 19 September 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 4.75% and 2.75% respectively, both with effect from 18 September 2001.

### **27 September, 11 October, 25 October 2001**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.75%, 4.75% and 2.75% respectively.

### **8 November 2001**

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 3.25%, starting from the operation to be settled on 14 November 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 4.25% and 2.25% respectively, both with effect from 9 November 2001.

### **6 December 2001**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

In addition, it decides that the reference value for the annual growth rate of the broad monetary aggregate M3 will remain at 4½%.

### **3 January 2002**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

The Governing Council also decides on an allotment amount of €20 billion per operation for the longer-term refinancing operations to be conducted in 2002. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2002 and the desire of the Eurosystem to continue to provide the bulk of refinancing of the financial sector through its main refinancing operations. The Governing Council may adjust the allotment amount in the course of the year in the event of unexpected developments in liquidity needs.



**7 February, 7 March, 4 April,  
2 May 2002**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing

operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

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