

EN

EUROPEAN CENTRAL BANK



EUROPEAN CENTRAL BANK

ECB EZB EKT BCE EKP

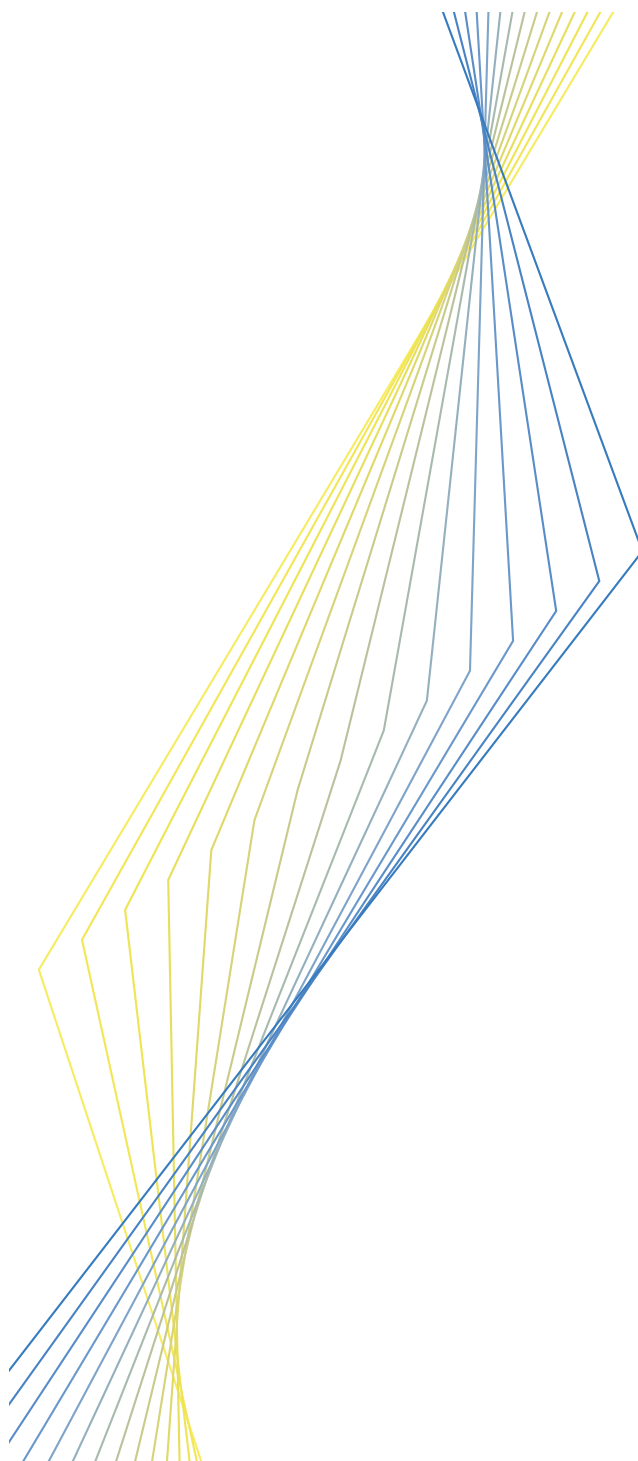
MONTHLY BULLETIN July 2003

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

July 2003



EUROPEAN CENTRAL BANK



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

July 2003

© **European Central Bank, 2003**

Address	Kaiserstrasse 29 D-60311 Frankfurt am Main Germany
Postal address	Postfach 16 03 19 D-60066 Frankfurt am Main Germany
Telephone	+49 69 1344 0
Internet	http://www.ecb.int
Fax	+49 69 1344 6000
Telex	411 144 ecb d

This Bulletin was produced under the responsibility of the Executive Board of the ECB. Translations are prepared and published by the national central banks.

All rights reserved. Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

The cut-off date for the statistics included in this issue was 9 July 2003.

ISSN 1561-0136 (print)

ISSN 1725-2822 (online)

Contents

Editorial	5
Economic and monetary developments in the euro area	7
Monetary and financial developments	7
Price developments	20
Output, demand and labour market developments	25
Exchange rate and balance of payments developments	35
Boxes:	
1 Monetary policy operations and liquidity conditions in the reserve maintenance period ending on 23 June 2003	13
2 Gauging contagion in euro area stock markets with implied volatility measures	18
3 New base year for euro area short-term indicators	23
4 Labour hoarding in the euro area	30
5 The Broad Economic Policy Guidelines 2003	32
Trends in euro area gross fixed capital formation	41
Early experience of the management of euro banknote printing and issuance	53
Euro area statistics	1*
Chronology of monetary policy measures of the Eurosystem	95*
Documents published by the European Central Bank	99*

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
EMU	Economic and Monetary Union
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.

Editorial

At its meeting on 10 July 2003, the Governing Council of the ECB decided to leave the minimum bid rate on the main refinancing operations of the Eurosystem unchanged at 2.0%. The interest rates on the marginal lending facility and the deposit facility were also left unchanged at 3.0% and 1.0% respectively.

These decisions reflect the Governing Council's assessment that the current monetary policy stance is appropriate in view of the favourable outlook for price stability over the medium term. The Governing Council also noted that interest rates in the euro area are low by historical standards, both in nominal and real terms, thus lending support to economic activity and helping to safeguard against downside risks to economic growth. The Governing Council will continue to monitor carefully all factors that might affect this assessment.

In the context of the economic analysis, the latest data and information continue to suggest that economic growth in the euro area remained subdued in the second quarter of the year, after standing at 0.1% quarter on quarter in the first quarter of 2003 according to Eurostat's second estimate. The indicators available broadly point to a stabilisation of activity but there are no signs as yet of an underlying strengthening in production and confidence. At the same time, financial market developments seem to reflect a somewhat more optimistic assessment of the economic outlook both inside and outside the euro area. On the whole, a gradual improvement in economic activity in the euro area is expected in the second half of 2003, and a further strengthening in 2004. This should be supported by lower inflation and thus higher real disposable income, the low level of interest rates, and a recovery in external demand for euro area goods and services. This assessment is in line with all available forecasts and projections.

Nevertheless, downside risks to this main scenario are still relevant. While concerns over the SARS virus have faded, risks remain

relating in particular to the accumulation of macroeconomic imbalances outside the euro area and to the extent of the adjustment still needed in the euro area corporate sector to enhance productivity and profitability.

Turning to price developments, the outlook over the medium term remains favourable. Annual HICP inflation rates are expected to fluctuate around the current level of 2% (the rate estimated by Eurostat for June) for the remainder of this year and to fall below 2% in early 2004 mainly due to a base effect related to energy prices. Subsequently, inflation rates should remain below 2%, as the pass-through of the past exchange rate appreciation and an environment of moderate economic recovery should contribute to containing price pressures. In this respect, wage developments in particular are expected to remain consistent with a favourable outlook for price stability. Other price indicators, such as developments in producer prices, tend to support this picture. Moreover, all available forecasts and projections as well as indicators of inflation expectations point in the same direction, namely that price stability in line with the ECB's aim of inflation below but close to 2% will be maintained over the medium term.

In the context of the monetary analysis, substantial excess liquidity has accumulated in the euro area as a consequence of the extended period of high M3 growth. This strong growth has continued in recent months, as economic uncertainty and the low level of interest rates across the whole maturity spectrum have increased the attractiveness of holding liquid assets. At the same time, the low level of interest rates has helped support recent growth in loans to the private sector. While the large amount of excess liquidity should be less of a concern in a period of moderate economic activity, monetary developments need to be closely monitored in terms of their implications for price stability over the medium to long term.

Overall, the economic analysis confirms the expectation that price dynamics will remain

moderate in the euro area in the context of a gradual economic recovery and the strengthened euro exchange rate. The monetary analysis indicates that the strong expansion of M3 should, for the time being, not be seen as adversely affecting this outlook. Hence, cross-checking the information from the two pillars leads to the conclusion that the outlook for price stability over the medium term remains favourable.

With medium-term inflation expectations firmly anchored at levels consistent with price stability, and with interest rates at historical lows, monetary policy has made a significant contribution to improving the conditions for a recovery in economic growth. Now, other policy-makers also have to make their contributions. Part of the weakness in economic growth in the euro area can be linked to a lack of ambition in the areas of fiscal and structural reform to further improve the conditions for investment and employment.

A strong commitment to the Stability and Growth Pact and adherence to well designed medium-term fiscal consolidation strategies

in those countries currently struggling with increasing fiscal imbalances would make a major contribution to improving confidence. In a similar way, progress in structural reforms in the labour and product markets would not only increase the euro area's growth potential and enhance its ability to better withstand external shocks, but it would also eliminate a great deal of the uncertainty currently clouding long-term planning and prospects.

In the current situation, characterised by subdued economic growth and low confidence, structural reform and a steady and reliable course of fiscal policy, in line with the European fiscal framework, are of the highest priority.

This issue of the Monthly Bulletin contains two articles. The first reviews the broad trends in gross fixed capital formation (i.e. investment) in the euro area over the past two decades. The second looks at the early experience in the areas of production and issuance of euro banknotes and provides an overview of anti-counterfeiting measures.

Economic and monetary developments in the euro area

I Monetary and financial developments

Monetary policy decisions of the Governing Council of the ECB

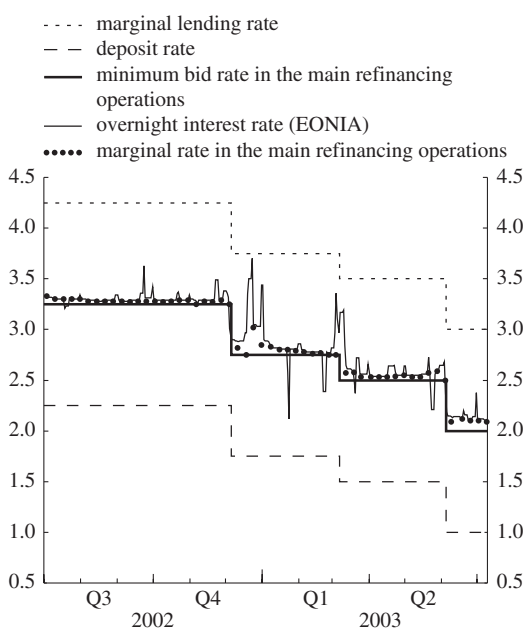
At its meeting on 10 July 2003, the Governing Council of the ECB decided to leave the minimum bid rate in the main refinancing operations, conducted as variable rate tenders, unchanged at 2.0%. The interest rates on both the marginal lending facility and the deposit facility were also kept unchanged, at 3.0% and 1.0% respectively (see Chart 1).

M3 growth remained strong in May

In May 2003 the annual growth rate of the broad monetary aggregate M3 decreased slightly to 8.5%, from 8.6% in the previous month (see Chart 2). The three-month average of the annual growth rates of the broad monetary aggregate M3 stood at 8.3% in the period from March to May 2003, compared with 8.2% in the period from February to April 2003.

Chart 1 ECB interest rates and money market rates

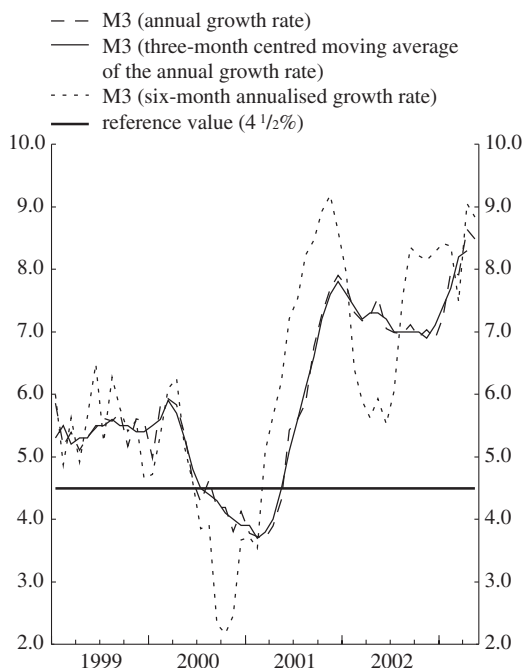
(percentages per annum; daily data)



Sources: ECB and Reuters.

Chart 2 M3 growth and the reference value

(adjusted for seasonal and calendar effects)



Source: ECB.

The continuation of strong monetary dynamics in April and May, even after the decline in geopolitical uncertainties and stock market volatility, is likely to be related to the low level of interest rates across the whole maturity spectrum and the relatively low opportunity costs of holding money. Moreover, the rise in bond market volatility in May, possibly linked to the decline in bond yields to historically low levels, may have supported the preference for short-term liquid assets. Finally, uncertainties about economic growth and labour market prospects may have led to an increase in precautionary savings.

As a consequence of the extended period of high M3 growth, substantial excess liquidity has accumulated in the euro area. This excess liquidity is not likely to imply inflationary risks as long as economic growth remains subdued. However, if it were still to persist in a period of strong economic recovery, it could lead inflationary pressures to build up over the

medium term. Therefore, monetary developments require close monitoring.

Turning to the main components of M3, the annual growth rate of the narrow monetary aggregate M1 increased to 11.4% in May, from 11.2% in April (see Table 1). Among the components of M1, the annual growth rate of currency in circulation declined to 34.3% in May (from 37.5% in the previous month), while the annual growth rate of overnight deposits rose to 8.3% (from 7.6% in the previous month). The short-run dynamics of currency in circulation have remained relatively strong, although the process of rebuilding currency holdings is gradually slowing down as they approach values close to the trend levels observed prior to the euro cash changeover. At the same time, the strong dynamics of overnight deposits are likely to be related to the low levels of their opportunity costs.

As for the other components of M3, the annual rate of growth of short-term deposits other than overnight deposits rose to 5.8% in May, from 5.1% in April. This was due to an increase in the annual growth rates of both

deposits redeemable at a period of notice of up to three months (to 9.7% in May, from 9.4% in the previous month) and deposits with an agreed maturity of up to two years (to 0.7%, up from -0.1% in April).

The annual rate of growth of marketable instruments declined to 8.9% in May, from 12.7% in April. This development was due, in particular, to the reversal of the exceptionally strong short-term dynamics in debt securities with a maturity of up to two years in the previous month. For these instruments the annual rate of change declined to -10.9% in May, from 11.1% in April. The annual growth rate of repurchase agreements declined as well (to 2.8%, from 5.6% in April), while the rate of change of money market fund shares and units increased to 17.6% in May, from 16.7% in the previous month. Given that the latter instruments are particularly suited for parking financial assets at times of financial market uncertainty, this supports the hypothesis of higher demand for monetary assets for precautionary reasons.

As regards M3 counterparts in the MFI balance sheets, the annual rate of growth of

Table 1
Summary table of monetary variables in the euro area

(annual percentage changes; quarterly averages)

	2002 Q3	2002 Q4	2003 Q1	2003 Feb.	2003 Mar.	2003 Apr.	2003 May
<i>Adjusted for seasonal and calendar effects</i>							
M1	7.6	8.8	10.1	10.3	11.7	11.2	11.4
<i>of which: currency in circulation</i>	-7.6	12.9	39.1	41.4	39.8	37.5	34.3
<i>of which: overnight deposits</i>	10.3	8.1	6.4	6.4	8.0	7.6	8.3
M2 - M1 (= other short-term deposits)	5.5	4.9	4.3	4.7	4.6	5.1	5.8
M2	6.5	6.7	7.0	7.3	7.9	7.9	8.4
M3 - M2 (= marketable instruments)	10.3	8.6	10.5	11.7	8.1	12.7	8.9
M3	7.0	7.0	7.5	8.0	7.9	8.6	8.5
<i>Not adjusted for seasonal and calendar effects</i>							
Longer-term financial liabilities (excluding capital and reserves)	5.1	5.2	5.0	5.1	4.8	5.0	5.0
Credit to euro area residents	4.2	4.1	4.2	4.3	4.1	4.7	4.9
Credit to general government	1.1	1.9	2.1	2.4	2.0	3.6	4.5
<i>of which: loans to general government</i>	-0.9	-1.2	-1.1	-1.2	-1.7	0.0	-0.1
Credit to other euro area residents	5.0	4.7	4.8	4.9	4.7	5.0	5.1
<i>of which: loans to the private sector</i>	5.3	4.8	4.9	5.1	4.7	4.6	4.6

Source: ECB.

MFI's longer-term financial liabilities (excluding capital and reserves) stood unchanged at 5.0% in May.

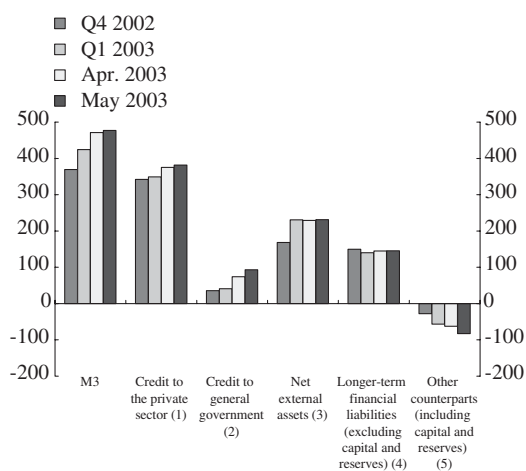
Stable growth of loans to the private sector in May

As regards the asset side of the consolidated balance sheet of the MFI sector, the annual growth rate of total credit granted to euro area residents increased to 4.9% in May, from 4.7% in April. This was due to an increase in the annual growth rate both of credit extended to general government (4.5% in May, from 3.6% in April) and of credit extended to the private sector (5.1%, from 5.0% in the previous month). The annual growth rate of loans to the private sector has stabilised: in May the rate of growth stood unchanged at 4.6%. Apparently, the downward trend in the growth of loans observed since late 2000 came to an end in late 2002, as is also indicated by recent strong short-term dynamics. In real terms, the current level of growth of MFI loans to the private sector is not low from a longer-term perspective in view of the economic environment.

Chart 3

Movements in M3 and its counterparts

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



Source: ECB.

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

In May 2003 the net external asset position of the euro area MFI sector increased by €41 billion, in absolute and non-seasonally adjusted terms. Over the 12 months up to May, the net external assets of the MFI sector went up by €231 billion, compared with a rise of €229 billion over the 12 months up to April (see Chart 3). Euro area balance of payments data up to April suggest that the strong increase in the net external asset position of the euro area MFI sector over the 12 months up to April was due to net inflows into the euro area of direct and portfolio investment and, to a lesser extent, to an improvement in the euro area current account balance.

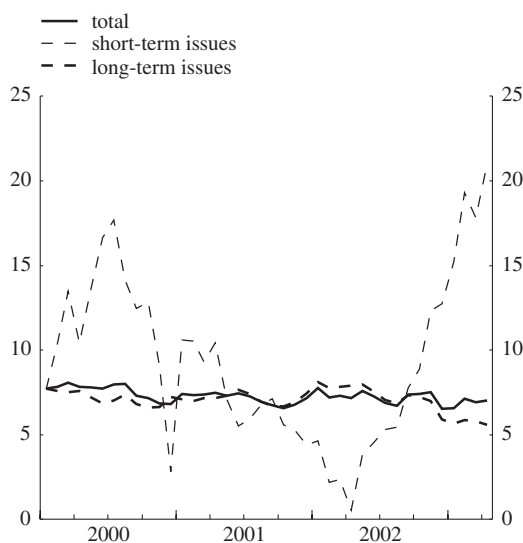
Broadly stable debt securities issuance in April

The annual growth in the amount outstanding of debt securities issued by euro area residents was 7.0% in April 2003, broadly unchanged from the previous month (see Chart 4). Underlying this overall figure was a

Chart 4

Annual growth in debt securities issued by euro area residents

(percentage changes)



Source: ECB.

Note: Annual growth rates are based on financial transactions and are corrected for reclassifications, revaluations, exchange rate variations and other changes that do not arise from transactions.

slight decline in the annual growth rate of the amount outstanding of long-term debt securities, from 5.8% in March to 5.6% in April. By contrast, the annual growth rate of the amount outstanding of short-term debt securities increased by 3.2 percentage points to 21.0% over the same period.

The breakdown by currency shows that the annual growth in the amount outstanding of euro-denominated debt securities issued by euro area residents rose slightly from 6.4% in March to 6.6% in April. By contrast, the annual growth of non-euro-denominated debt securities issued by euro area residents decreased by 1 percentage point over the same period to 11.8%, due in particular to lower issuance by euro area central governments and non-monetary financial corporations.

Regarding the sectoral breakdown of euro-denominated debt securities issuance, the annual growth in the amount outstanding of debt securities issued by MFIs increased from 3.9% in March to 4.2% in April. This mainly reflected strong issuance of short-term debt securities by MFIs.

As regards non-financial corporations, the annual growth in the amount outstanding of debt securities issued increased by 1.6 percentage points from the previous month to 10.5% in April. The substantial decline in corporate bond yields in earlier months prompted issuers to take advantage of lower funding costs across the entire maturity spectrum. At the same time, in an environment where government bond yields reached very low levels, corporations with financing needs may have faced little difficulty in satisfying demands from those investors in search of remaining investments with relatively high yields. The annual growth in the amount outstanding of long-term debt securities issued by corporations increased by 0.5 percentage point to 11.6% in April. At the same time, the annual rate of growth of the amount outstanding of corporate short-term debt securities increased to 6.4% in April from 0.9% in March, following the

period of negative annual growth rates seen after April 2002. Commercial paper is an important source of short-term funding for firms with very high credit ratings because it is one of the cheapest sources of external funding available. Since short-term funding is often used for inventory financing, these developments may have reflected some optimism among euro area corporations about their short-term business prospects. These buoyant corporate bond market developments contrasted with those in the euro area equity market, where the initial public offerings (IPO) and secondary public offerings (SPO) markets were subdued over the same period.

Concerning non-monetary financial corporations, the annual growth rate of the amount outstanding of debt securities remained broadly unchanged at 30.3% in April. The continued strong issuance in this sector has tended to be concentrated in a few countries where corporations have found it convenient to use special purpose vehicles (SPVs) and other financing agencies to raise capital via the corporate bond market, mainly because of tax considerations.

As regards the general government sector, the annual growth in the amount outstanding of debt securities issued by central government decreased slightly, from 4.3% in March to 4.2% in April. Despite this, the central government sector increased its issuance of short-term debt securities, for which the annual rate of growth rose markedly from 21.3% in March to 25.9% in April. At the same time, the annual growth rate of the amount outstanding of debt securities issued by other general government sub-sectors remained high, although it decreased slightly from 30.7% in March to 29.0% in April.

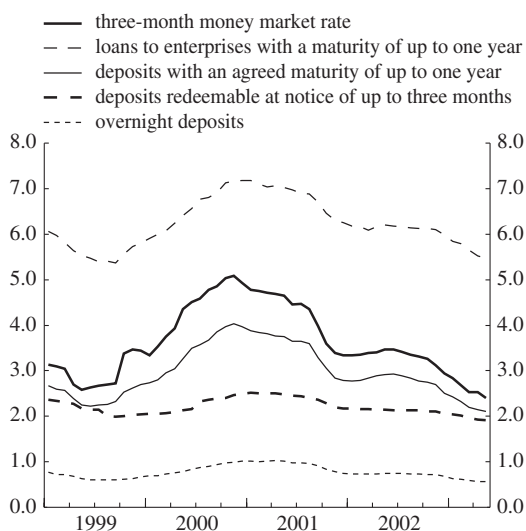
Retail bank interest rates fell further in May

Continuing the trend that started in May 2002, short-term retail bank interest rates

declined slightly further in May 2003, in most cases by around 5 basis points. Between May 2002 and May 2003 the average retail bank interest rate on deposits with an agreed maturity of up to one year declined by 80 basis points. Over the same period, the average retail bank interest rate on loans to enterprises with a maturity of up to one year fell by around 70 basis points, bringing it back to levels last seen in the second half of 1999 (see Chart 5). For other short-term interest rates, namely the rate on deposits redeemable at a period of notice of up to three months, the declines were around 20 basis points over the same period, which was in line with the typically more sluggish adjustment of these rates to market developments.

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

(percentages per annum; monthly averages)

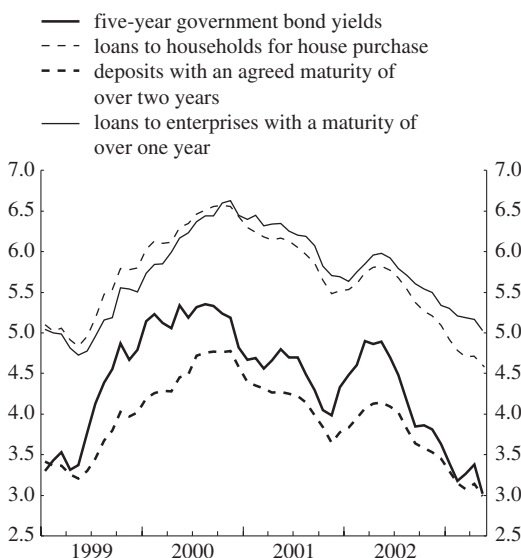


Sources: ECB aggregation of individual country data and Reuters.

Note: From 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 January 2001, data include Greece.

Reflecting the notable drops in long-term bond yields in the first few months of 2003, long-term retail bank interest rates declined by a further 15 basis points in May 2003, continuing the general trend that got underway after May 2002 (see Chart 6). By May 2003, mortgage rates for households and long-term lending rates for enterprises had dropped by around 120 and 100 basis points respectively compared with May 2002. These declines compare with a fall in the average five-year government bond yield of 190 basis points over the same period. From a long-term perspective, the pass-through from long-term market interest rates to most long-term retail bank interest rates over recent months seems to have been broadly in line with historical experience.

Money market interest rates declined somewhat in June

In June money market rates continued the downward trend seen since mid-May 2002. Reflecting the reduction in key ECB interest rates on 5 June 2003, money market interest rates at the very short end of the money market yield curve fell more than longer-term money market rates in June (see Chart 7). Consequently, the slope of the money market yield curve, as measured by the difference between the twelve-month and the one-month EURIBOR, which was negative at the end of May, was somewhat less steep at the beginning of July.

Between end-May and 9 July, the overnight interest rate, as measured by the EONIA, fluctuated between 2.10% and 2.68%. After the reduction by 50 basis points in key ECB interest rates on 5 June, it varied between 10 and 20 basis points above the new minimum bid rate of

2.0% on the ECB's main refinancing operations, with one short-lived spike on the last day of June due to the end-of-half-year effect. In the same period the two-week EONIA swap rate varied between 2.09% and 2.14%, standing at 2.09% on 9 July. While the marginal and average rates of allotment in the Eurosystem's main refinancing operations both took the value of the then prevailing minimum bid rate of 2.50% in the operation settled on 4 June, they were, on average, 10 and 12 basis points higher than the new minimum bid rate in the later operations (see Box 1).

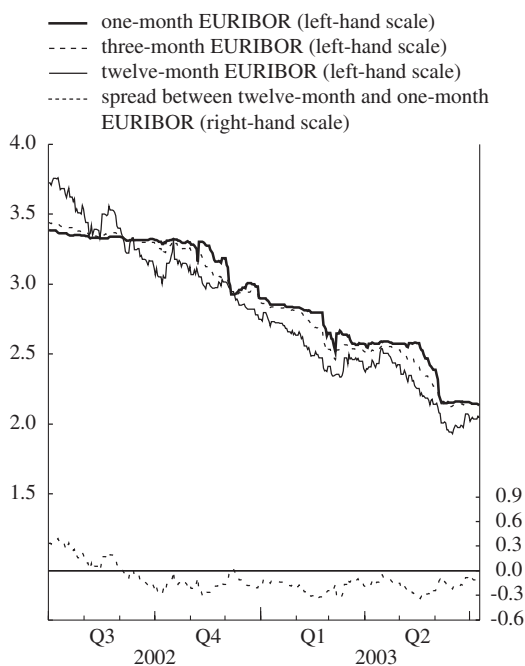
Between end-May and 9 July, the one-month and three-month EURIBOR decreased by 26 and 14 basis points respectively, to stand at 2.13% on the latter date. Developments in the three-month EURIBOR have been reflected, as usual, in the interest rates of allotment in the longer-term refinancing operations of the Eurosystem. In the operation settled on 25 June, the marginal and average rates of allotment were 2.11% and 2.12% respectively, around 15 basis points lower than the rates in the longer-term refinancing operation settled on 29 May.

In the period between end-May and 9 July, the six-month and twelve-month EURIBOR decreased by 13 and 10 basis points respectively, to stand at 2.08% and 2.04% on the latter date. On the same day, the slope of the money market yield curve, as measured by the difference between the twelve-month and the one-month EURIBOR (-9 basis points), was somewhat flatter than at the end of May.

The expected path of the three-month EURIBOR, as implied in the futures prices on contracts with delivery dates in the second half of 2003 and first half of 2004, has moved slightly downwards since end-May. Between end-May and 9 July, the implied futures rates on contracts with delivery dates in September and December 2003 and March and June 2004 decreased by between 3 and 4 basis points. On 9 July they stood at 2.03%, 1.96%, 1.98% and 2.11% respectively.

Chart 7
Short-term interest rates in the euro area and the slope of the money market yield curve

(percentages per annum; percentage points; daily data)



Source: Reuters.

Box I**Monetary policy operations and liquidity conditions in the reserve maintenance period ending on 23 June 2003**

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

Open market 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	Fixed rate
MRO	28/05/2003	09/06/2003	184.86	106.00	1.74	286	2.50	2.59	2.61	-
MRO	04/06/2003	18/06/2003	72.37	72.37	1.00	154	2.50	2.50	2.50	-
MRO	09/06/2003	25/06/2003	145.75	129.00	1.13	238	2.00	2.09	2.11	-
MRO	18/06/2003	02/07/2003	111.21	62.00	1.79	263	2.00	2.12	2.12	-
LTRO	29/05/2003	28/08/2003	30.2	15.0	2.01	120	-	2.25	2.27	-

Source: ECB.

In the MRO settled on 4 June, only 154 counterparties participated and total bids fell short of the amount that would have allowed a smooth fulfilment of the reserve requirements. Therefore, large reserve deficits accumulated in subsequent days. With a view to restoring neutral liquidity conditions, the allotment amount in the subsequent MRO was increased accordingly.

At the beginning of the maintenance period, expectations of underbidding caused the EONIA to move somewhat upwards. It increased from 2.56% on 26 May, to 2.60% on 29 May. On 30 May it rose by a further 5 basis points to 2.65%, as a result of the end-of-month effect, and then remained at that level until 2 June. On 3 June, when the underbid tender was allotted, the EONIA increased by a further 3 basis points to 2.68%. The EONIA fell to 2.37% on the following day, possibly reflecting the fact that the extent of the underbidding was limited. The reduction in the minimum bid rate by the Governing Council from 2.50% to 2.00% on 5 June resulted in a further decline in the EONIA to 2.14% on 9 June, and it remained at around that

Contributions to the banking system's liquidity

(EUR billions)

Daily average during the reserve maintenance period from 24 May to 23 June 2003

	Liquidity providing	Liquidity absorbing	Net contribution
(a) Monetary policy operations of the Eurosystem	239.8	0.3	+ 239.5
Main refinancing operations	194.7	-	+ 194.7
Longer-term refinancing operations	45.0	-	+ 45.0
Standing facilities	0.4	0.3	+0.1
Other operations	-0.2	-	-0.2
(b) Other factors affecting the banking system's liquidity¹⁾	331.3	438.9	- 107.7
Banknotes in circulation	-	373.2	- 373.2
Government deposits with the Eurosystem	-	52.6	- 52.6
Net foreign assets (including gold)	331.3	-	+ 331.3
Other factors (net)	-	13.2	- 13.2
(c) Credit institutions' holdings on current accounts with the Eurosystem (a) + (b)			131.9
(d) Required reserves			131.2

Source: ECB.

Note: Totals may not add up due to rounding.

¹ The published estimates of the average liquidity needs stemming from autonomous factors ranged between €98.0 billion and €110.5 billion. The largest deviation between the published estimate and the actual figure occurred in the first week of the maintenance period and amounted to €3.3 billion.

level for almost two weeks. This relatively high and persistent spread of the EONIA over the new minimum bid rate had to some extent also been experienced on past occasions when the Governing Council decided to decrease the key ECB interest rates. On 23 June, the last day of the maintenance period, the EONIA decreased slightly to 2.11% and the reserve maintenance period ended smoothly with a net recourse of €1.6 billion to the deposit facility.

The average difference between current account holdings of credit institutions with the Eurosystem and minimum reserve requirements was €0.64 billion.

Long-term government bond yields rebounded in June and early July

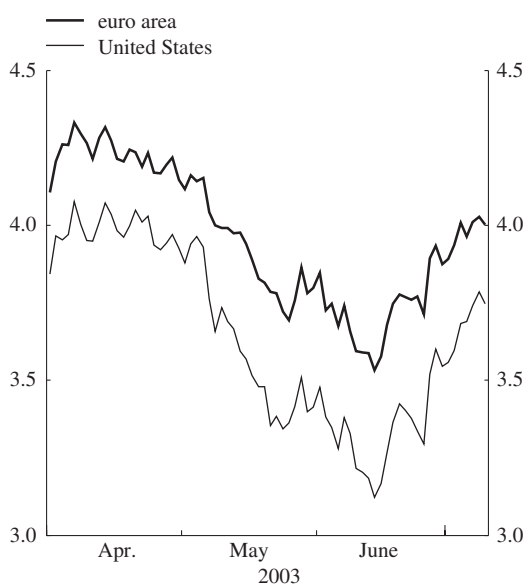
Although ten-year government bond yields in the euro area and the United States dropped to very low levels by historical standards in mid-June, a sharp upturn in the latter half of the month left them around 20 and 30 basis points higher by 9 July compared with end-May, bringing them to 4.0% and 3.7% respectively on the later date (see Chart 8). The turnaround in the direction of bond yields in the two economies came about partly as a result of changing views among market participants about the prospects for future economic activity. Over this period,

the larger increase in US bond yields narrowed the differential between ten-year government bond yields in the United States and those in the euro area by 10 basis points, bringing it to around -25 basis points on 9 July.

The large swings in long-term government bond yields in the United States in June primarily reflected changing views among market participants about the macroeconomic outlook. While concerns about labour market conditions and discussions about how low inflation could drop put further downward pressure on bond yields at first, these pressures were later alleviated following better than expected macroeconomic data releases, particularly on various confidence indicators. The upward trend in long-term bond yields continued after the Federal Open Market Committee decided at its meeting on 24-25 June to lower the target for the Federal funds rate by 25 basis points to 1%. Underlying the overall rise in nominal bond yields, US long-term real yields also rose, although by less than long-term nominal yields. Between the end of May and 9 July, the real yield on ten-year index-linked government bonds increased by 20 basis points and stood at 1.8% on the latter date. As the increase in nominal bond yields was larger than the increase in real yields, the break-even inflation rate, measured as the difference between the two, rose by 10 basis points between the end of May and 9 July and stood at a level of 2% on the latter date.

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

(percentages per annum; daily data)



Source: Reuters.

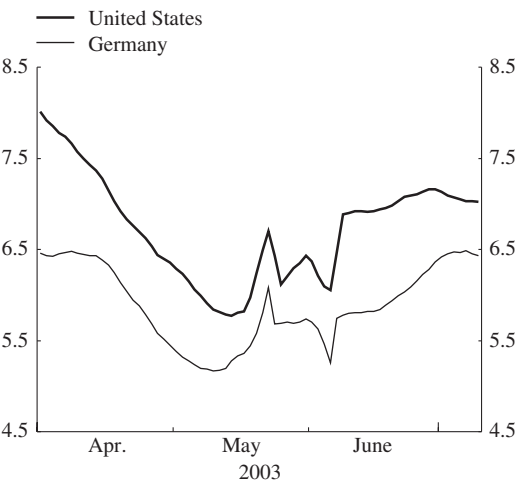
Notes: Long-term government bond yields refer to ten-year bonds or to the closest available bond maturity.

Mirroring the large swings in long-term bond yields, uncertainty about future bond yield movements in the US markets (as measured by the ten-day moving average of implied

Chart 9

Implied volatility for futures contracts on the ten-year German Bund and the ten-year US Treasury note

(percentages per annum; ten-day moving average of daily data)



Source: Bloomberg.
 Notes: The implied volatility series represent the nearby implied volatility on the near-contract generic future, rolled over 20 days prior to expiry, as defined by Bloomberg. This means that 20 days prior to expiry of the contracts, a change in the choice of contracts used to obtain implied volatility is made, from the contract closest to maturity to the next contract.

bond volatility on ten-year US Treasury futures contracts) increased by around 0.2 percentage point between end-May and 9 July to stand at 7.0% by the latter date. However, this was still around 0.6 percentage point lower than average implied volatility over the past two years (see Chart 9).

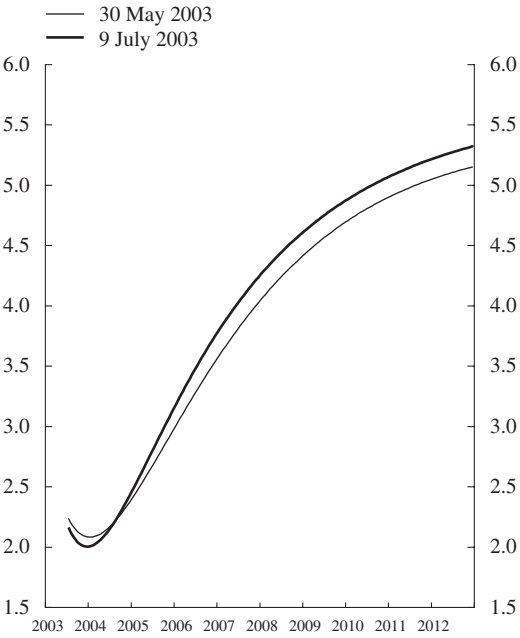
In the Japanese government bond market, after reaching all-time lows in May, ten-year yields rebounded sharply, rising by about 60 basis points overall between end-May and 9 July to reach 1.1% by the latter date. Several factors contributed to this upturn, such as a fading away of earlier concerns among market participants about the economic impact of the Severe Acute Respiratory Syndrome (SARS) epidemic and better than expected macroeconomic data releases. Moreover, in view of the improving conditions in stock markets, portfolio shifts among investors from the bond to the stock market also contributed to upward pressure on Japanese bond yields.

In euro area bond markets, as in the United States, long-term yields also increased overall in June. The main driving factors behind this turnaround seem to have been improvements in confidence data, investors' renewed interest for equities in a less volatile market environment, and spillover effects from the upturn in US bond yields. Developments in euro area bond markets appeared overall to reflect slightly more optimistic views among market participants about future economic growth prospects. This view was supported, in particular, by both the widening of the spread between euro area ten-year and two-year government bond yields by about 20 basis points and the increase in ten-year index-linked bond yields (indexed on the euro area HICP excluding tobacco) of around 15 basis points between the end of May and 9 July. Further evidence supporting this view

Chart 10

Implied forward euro area overnight interest rates

(percentages per annum; daily data)



Source: ECB estimate.
 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 calculate 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 estimate are derived from swap contracts.

came from the steepening of the slope of the implied forward overnight interest rate curve at medium and longer-term maturities (see Chart 10). As regards long-term average inflation expectations in the euro area, the ten-year break-even inflation rate – measured as the difference between ten-year nominal and ten-year real yields – remained broadly unchanged between the end of May and 9 July, standing at 1.7% on the latter date.

Mirroring the large swings in euro area bond yields, there was some increase in the degree of uncertainty in the euro area bond market, as measured by the ten-day moving average of implied volatility of options on futures contracts on German long-term government bonds. This metric of bond market volatility rose by 0.7 percentage point between end-May and 9 July to 6.4%, which is around 1 percentage point higher than the average level over the past two years.

Stock prices continued the upward trend in June

After the strong stock market recovery between mid-March and May 2003, there were further increases in stock prices in June in an environment of diminishing uncertainty in both the euro area and the US stock markets. Between the end of May and 9 July, stock prices in the euro area, as measured by the broad Dow Jones EURO STOXX index, increased by 6% (see Chart 11). Stock prices in the United States, as measured by the Standard & Poor's 500 index, rose by 4%. The Japanese Nikkei 225 index increased by as much as 16% over the same period.

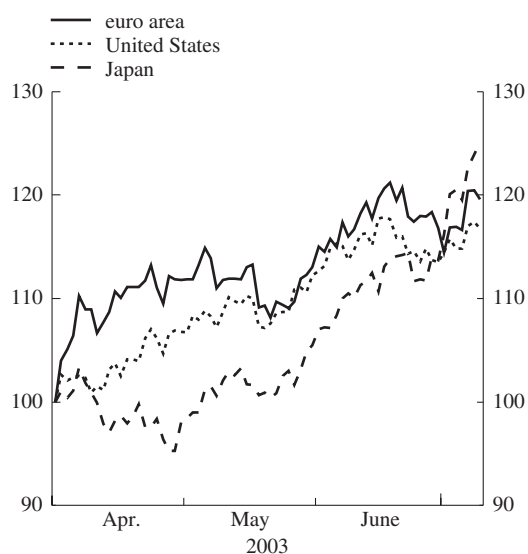
In the United States, the increase in stock prices was mainly attributable to a further decline in the uncertainties that had weighed on stock prices in the first few months of 2003. In this vein, between end-May and 9 July, the ten-day moving average of implied volatility, a measure of the degree of uncertainty prevailing in stock markets, derived from options on the Standard & Poor's 500 index, decreased by

almost 1 percentage point (see Chart 12) to reach a level which was 6 percentage points lower than its average for the past two years.

Although the end of war-related uncertainties, which prompted a significant drop in implied stock market volatility, together with a fall in long-term bond yields, had set the rebound in motion, increasing optimism about corporate earnings prospects seemed to play an important role in sustaining this recovery. The influence of these two general factors seemed to be the main explanation for the broad-based nature of the recovery in stock markets. In addition, a number of macroeconomic data releases may have been a supportive factor behind the rise in stock prices. It was notable, however, that the increase in US stock prices over recent months was more pronounced for technology-based corporations, which had suffered the most in the stock market turmoil over recent years. Reflecting this, the Nasdaq Composite index rose by 9% between end-May and 9 July. While expectations that the Federal Reserve would lower interest

Chart 11
Stock price indices in the euro area, the United States and Japan

(index: 1 April 2003 = 100; daily data)



Source: Reuters.

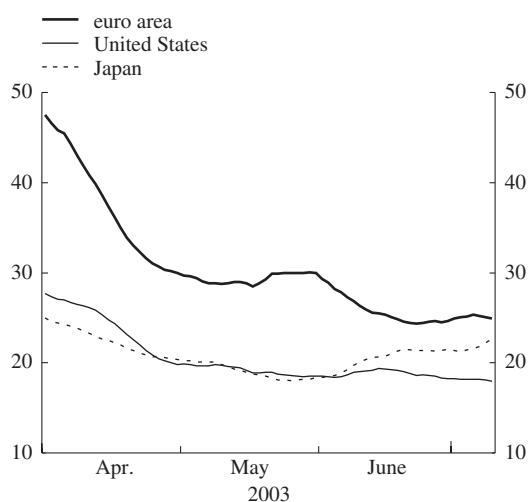
Notes: Dow Jones EURO STOXX broad (stock price) index for the euro area, Standard & Poor's 500 for the United States and Nikkei 225 for Japan.

rates following the meeting of the Federal Open Market Committee on 24-25 June seemed to support the stock market for much of the month, the subsequent cut of 25 basis points was smaller than market participants had expected and had a slight countervailing influence on the upward trend in stock prices.

Japanese stock prices were supported by macroeconomic data releases between end-May and 9 July, which were indicative of an improvement in the general economic outlook. Another factor behind this rise was the spillover from the general recovery in global stock markets. In addition, the significant rise in Japanese stock prices appeared to have been supported by foreign investors, who were net buyers of Japanese stocks after the end of April. Furthermore, commitments made by some corporations for share buy-backs also seemed to have a strong influence on stock market developments. The rise in stock prices was, however, accompanied by an increase in uncertainty, as measured by the ten-day moving average of implied volatility extracted from options on the Nikkei 225 index, which rose by around 4 percentage points.

In the euro area, developments in stock prices in June were very similar to those in the United States. Uncertainty in euro area stock markets, as measured by the ten-day moving average of the implied stock market volatility extracted from options on the Dow Jones EURO STOXX 50 index, continued to fade away and was 5 percentage points lower on 9 July than at end-May. The drop in uncertainty over recent months seems to

Chart 12
Implied stock market volatility in the euro area, the United States and Japan
(percentages per annum; ten-day moving average of daily data)



Source: Bloomberg.

Notes: 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.

have reflected perceptions among market participants of lower risks of contagion across euro area stocks in the period ahead (see Box 2). Nevertheless, in June, the rise in euro area stock prices was broadly based, as in the United States, with almost all major sub-sectors of the market showing increases. While the lower degree of uncertainty that prevailed in the market may have accounted for much of this, it cannot be excluded that market participants also saw potential for a general improvement in the business prospects of euro area firms.

Box 2

Gauging contagion in euro area stock markets with implied volatility measures

Stock market uncertainty in the euro area, as measured by the implied volatility extracted from options on the Dow Jones EURO STOXX 50 index, settled down after mid-March 2003. All in all, the ten-day moving average of implied volatility dropped by almost 18 percentage points between mid-March and 9 July. In tandem with this, stock prices, as measured by the broad Dow Jones EURO STOXX index, increased by 19% over the same period.

The implied stock market volatility extracted from options prices is an important measure for gauging the degree of uncertainty prevailing among market participants. However, it is not always clear whether changes in implied volatility are caused by the aggregation of uncertainties relating to specific firms or sectors or whether they are caused by general uncertainties in the market. By examining the implied volatility of individual stocks as a complement to the analysis of the implied volatility of market indices, it is possible to make inferences about these issues. This box discusses an indicator which is designed to distinguish between volatility episodes that are prompted by sector-specific, or even firm-specific, concerns and those that are prompted by more general or systemic concerns.

When monitoring the implied volatility of a given stock market index, it is important to recognise that it measures the expected volatility of a well-diversified portfolio of stocks. A basic tenet of finance theory is that, in a well-diversified portfolio, the ups and downs of individual stock prices will, to a large extent, counterbalance one another. Everything else being equal, the more risky the portfolio, the higher the return required by an investor to hold that portfolio. The riskiness of a portfolio of stocks is determined by several components. One is the variance of the price of each of the individual stocks in the portfolio. When a portfolio only contains a few stocks, the volatility of each individual stock price will play an important role in driving the volatility of the portfolio. A second component relates to the extent to which individual stock prices move together, usually measured by correlation. All other things being equal, the more stock prices move together, the higher the volatility of the portfolio will be. Hence, the implied volatility extracted from options prices on a stock market index should reflect both expectations about future volatility of the individual stocks within the index and expectations about the future correlation between these stocks. Simply examining patterns in the implied volatility of the index will not reveal which of these two sources is playing the most important role in driving overall stock market index volatility.

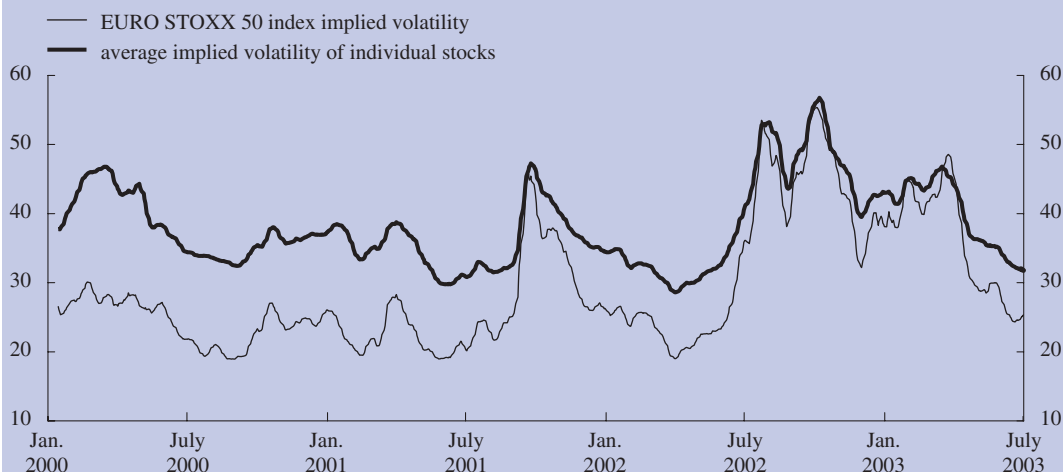
In order to determine the extent to which the implied volatility of a stock market index is driven by expectations of volatility in the individual stocks that make up the index, the implied volatility of each of the individual stocks can be examined. By taking an appropriately weighted average of the implied volatility of each of these stocks, it is possible to reveal the extent to which the implied volatility of the EURO STOXX 50 index is due to the expected volatility in the individual stocks. At the same time, by comparing this average with the implied volatility of the EURO STOXX 50 index, some inferences can be made about the extent to which volatility in the stock market reflects expectations about correlations between these stocks.

The chart plots developments in both the weighted average and the index implied volatility series for the EURO STOXX 50 index over the past three years. This average is based on 44¹ of the 50 stocks in the EURO STOXX 50 index. As such, it should provide a good, albeit imperfect, proxy for the average volatility of all stocks in this index. While the patterns in the implied volatility of the EURO STOXX 50 index and the average volatility of its constituents were broadly similar over this period, there were also some diverging tendencies. First, the average volatility among the constituent stocks in the EURO STOXX 50 index has generally exceeded the index implied volatility. Over the past three years, the average index implied volatility

1 Owing to data availability, the calculations are based on 44 companies which represent 85% of the stock market capitalisation of the EURO STOXX 50 index.

Average implied volatility for 44 stocks within the EURO STOXX 50 index and the EURO STOXX 50 index implied volatility

(percentage per annum; ten-day moving average of daily data)



Source: Bloomberg.

has been around 30%, while the mean of the average idiosyncratic implied volatilities of each of the stocks in the portfolio has been almost 40%. A positive spread of the average volatility of the individual stocks over the market index implied volatility is a typical feature of all stock markets. The reason for this is that when the correlation between individual stocks is less than perfect, a portfolio of these stocks will carry less risk than any individual stock. This is simply a reflection of the benefits of diversification.

On several occasions over the past three years, however, the benefits of portfolio diversification have been minimal, as revealed by episodes where the two measures of volatility have converged. Convergence of the two measures can occur when the correlation between stocks rises because of general market concerns, or contagion, rather than reflecting heightened uncertainties about individual firms or sectors. For instance, such convergence occurred in September 2001, and again for several months after June 2002. The first episode can be linked to the widespread uncertainties caused by the terrorist attacks in the United States in that month, which prompted sharp drops in stock prices. The convergence after June 2002 may be linked to the uncertainties prompted by the discovery of accounting irregularities at WorldCom, when market participants' confidence in the information disclosed by corporations was severely impaired. Again, in early 2003, general or systemic uncertainties took hold in stock markets against the background of concerns about the possibility of a war in Iraq.

An examination of the implied volatility of individual stocks can provide a useful complement to the analysis of the implied volatility of market indices in better understanding stock market developments. In particular, it can shed light on whether market participants' uncertainties are general or specific. Lately, it would appear that, as war-related uncertainties faded away, investors became more discerning about risks among individual firms, implying a greater decoupling of the two measures of implied volatility.

2 Price developments

HICP inflation is estimated to have slightly increased in June 2003

In June 2003, according to Eurostat's flash estimate, euro area HICP inflation increased to 2.0%, from 1.9% in May (see Table 2). Although the detailed breakdown is not yet available for this month, the increase in overall HICP inflation appears to be mainly related to energy prices, reflecting both the recent depreciation of the euro and higher oil prices in US dollars. Moreover, there have been some indications that the growth rate of unprocessed food prices has also risen recently, partly due to a base effect.

In May 2003 euro area HICP inflation decreased by 0.2 percentage point to 1.9%. This decline mainly reflected movements in volatile items such as energy prices and package holiday prices. The fall in oil prices

which was registered between mid-March and early May resulted in a 1.5 percentage point fall in the year-on-year rate of change in energy prices in May, to 0.7% (see Chart 13). However, the impact of the lower contribution of energy prices on overall HICP inflation was partly offset by a higher year-on-year rate of increase in unprocessed food prices, which rose to 1.2% from 1.0% in April.

In line with developments in the overall HICP, the annual rate of change in the HICP excluding unprocessed food and energy also declined by 0.2 percentage point in May, to 2.0%. This decline was largely due to falling services price inflation. Following a temporary increase in April to 2.9% owing to seasonal fluctuations in travel prices, services price inflation resumed its downward path, observed since August 2002, to stand at 2.5% in May. A significant fall in the annual rate of

Table 2
Price and cost developments in the euro area

(annual percentage changes, unless otherwise indicated)

	2000	2001	2002	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Jan.	2003 Feb.	2003 Mar.	2003 Apr.	2003 May	2003 June
Harmonised Index of Consumer Prices (HICP) and its components													
Overall index ¹⁾	2.1	2.3	2.3	2.1	2.3	2.3	.	2.1	2.4	2.4	2.1	1.9	2.0
<i>of which:</i>													
Goods	2.5	2.3	1.7	1.3	1.8	2.0	.	1.6	2.1	2.2	1.5	1.4	.
Food	1.4	4.5	3.1	2.3	2.3	2.0	.	1.5	2.1	2.3	2.4	2.5	.
Processed food	1.2	2.9	3.1	2.9	2.7	3.2	.	2.9	3.3	3.3	3.4	3.4	.
Unprocessed food	1.8	7.0	3.1	1.4	1.7	0.2	.	-0.6	0.3	0.8	1.0	1.2	.
Industrial goods	3.0	1.2	1.0	0.8	1.6	2.0	.	1.7	2.2	2.2	1.1	0.9	.
Non-energy industrial goods	0.5	0.9	1.5	1.3	1.2	0.7	.	0.6	0.7	0.8	0.8	1.0	.
Energy	13.0	2.2	-0.6	-0.7	2.9	7.0	.	6.0	7.7	7.5	2.2	0.7	.
Services	1.5	2.5	3.1	3.3	3.1	2.7	.	2.8	2.7	2.6	2.9	2.5	.
Other price and cost indicators													
Industrial producer prices	5.3	2.2	0.0	0.0	1.3	2.4	.	2.3	2.6	2.4	1.7	1.3	.
Unit labour costs	1.3	2.7	2.1	1.8	1.3	.	.	-	-	-	-	-	-
Labour productivity	1.3	0.1	0.4	0.6	1.0	0.7	.	-	-	-	-	-	-
Compensation per employee	2.6	2.8	2.5	2.4	2.3	.	.	-	-	-	-	-	-
Total hourly labour costs	2.8	3.3	3.7	3.5	3.7	2.8	.	-	-	-	-	-	-
Oil prices (EUR per barrel)	31.0	27.8	26.5	27.2	26.5	28.4	22.7	28.3	29.8	27.2	22.9	21.9	23.3
Commodity prices (EUR)	16.7	-7.6	-1.7	-1.6	4.4	-4.2	-8.0	-1.5	-3.7	-7.2	-6.7	-8.7	-8.6

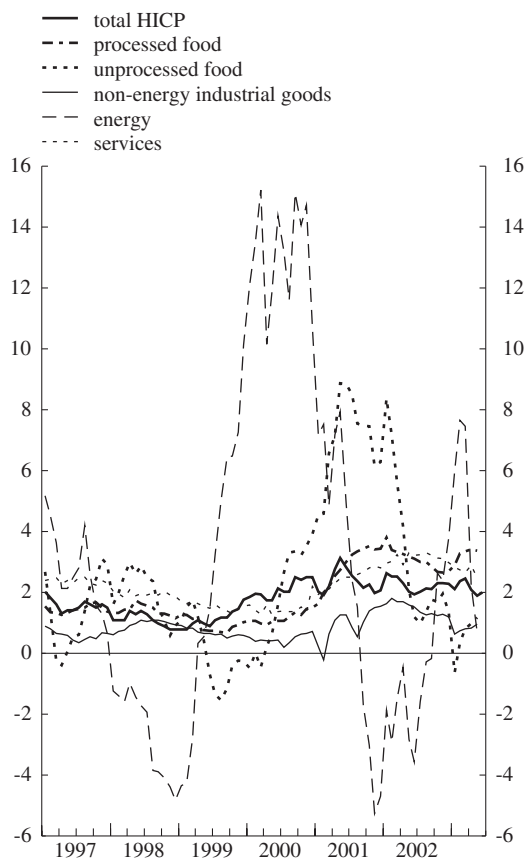
Sources: Eurostat, national data, Thomson Financial Datastream, HWWA (Hamburg Institute of International Economics) and ECB calculations.

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. For further details on the data, see the "Euro area statistics" section.

1) HICP inflation in June 2003 refers to Eurostat's flash estimate.

Chart 13
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.

change in package holiday prices contributed strongly to the May decline. While the year-on-year rate of change in processed food prices remained unchanged at 3.4% in May, the annual rate of change in non-energy industrial goods prices increased by 0.2 percentage point to 1.0%. This increase was, to a large extent, due to one-off, country-specific movements in prices of pharmaceutical products. The year-on-year rate of change in non-energy industrial goods prices is now 0.4 percentage point above that recorded in January 2003. This partly reflects a correction of unusual seasonal declines and the year-on-year rate of change is still significantly below the average rate recorded for 2002 as a whole (1.5%). As a result, the recent rise in the annual growth rate of

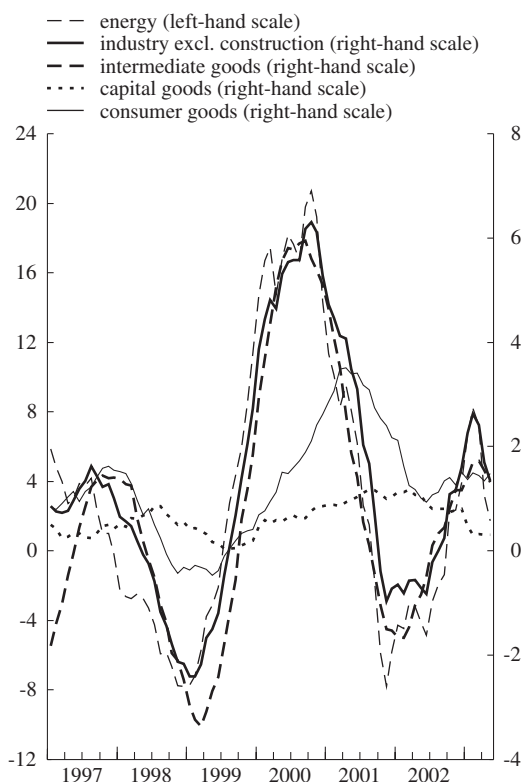
non-energy industrial goods prices should not be interpreted as a sign of a renewed upward path in this HICP component.

Annual rate of change in industrial producer prices declined further in June 2003

The annual rate of increase in euro area industrial producer prices declined to 1.3% in May 2003, from 1.7% in April (see Chart 14). The decline resulted mainly from a lower rate of increase in energy prices, owing to the fall in oil prices observed from mid-March to early May. The year-on-year rate of change in producer prices excluding energy declined only marginally (by 0.1 percentage point) to stand at 1.0% in May 2003. Producer prices

Chart 14
Breakdown of industrial producer prices for the euro area

(annual percentage changes; monthly data)



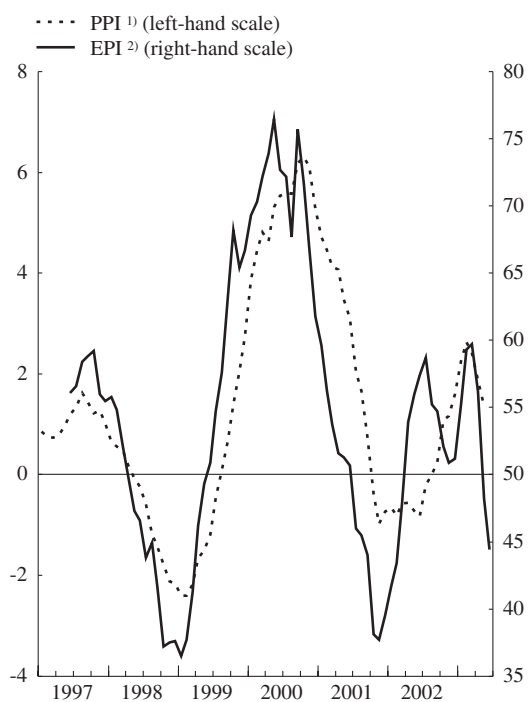
Source: Eurostat.

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

have been newly calculated using updated weights based on the year 2000 (see Box 3 on the new base year for euro area short-term indicators). However, this has not led to significant revisions of producer price data at the euro area level.

As regards indications of developments since May, survey indicators suggest a further easing in producer price pressures in June. The Eurozone Price Index (EPI) for manufacturing from the Purchasing Managers' Survey declined to 44.4 in June from 48.2 in May, signalling the second consecutive month of declining prices (see Chart 15). Falling raw material prices owing to the effect of lower oil prices compared with the peak in March and lower import prices due to the past appreciation of the euro seem to be the main factors behind this development in

Chart 15
Overall producer prices and manufacturing input prices for the euro area
(monthly data)



Sources: Eurostat and Reuters.
 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. For periods prior to 2001, EPI data do not include Greece.

manufacturing input prices. However, the more recent depreciation of the euro and the rise in oil prices since mid-May have had a countervailing impact.

Annual growth in compensation per employee may have slightly increased in the first quarter of 2003

Although indications from labour cost data were rather mixed in the first quarter of 2003, the picture of labour cost growth having levelled off since mid-2002 seems to remain valid. Available country data indicate that the annual growth in compensation per employee increased slightly in the first quarter of 2003 compared with the fourth quarter of 2002 (2.3%). This increase is likely related to higher social security contributions and also to a rise in negotiated wages.

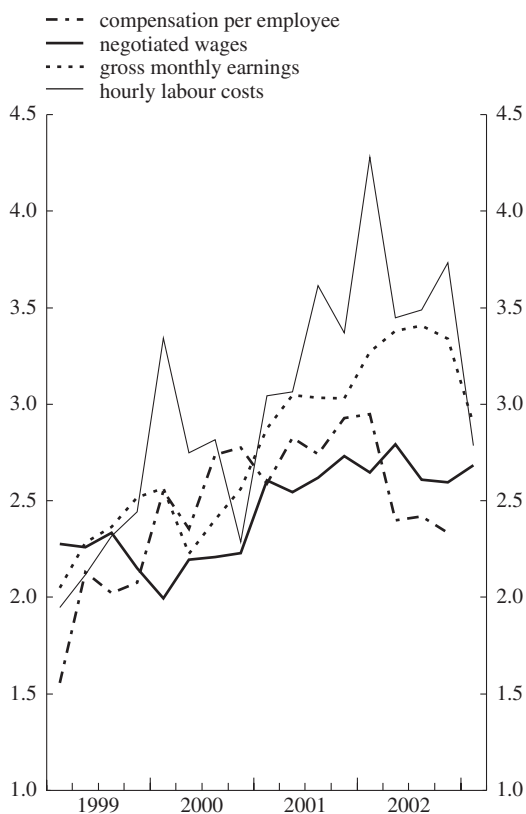
The year-on-year growth rate of negotiated wages rose by 0.1 percentage point in the first quarter of 2003 compared with the previous quarter (see Chart 16). This may be partly attributable to temporary factors in some countries, such as one-off payments in the first quarter of 2003. However, the annual growth rate of compensation per employee in the first quarter of 2003 is likely to have been broadly similar to the average growth rate recorded in 2002 (2.5%). Although both indicators point to a rise in labour cost growth in the first quarter of 2003, this must be assessed taking into account the normal volatility associated with these indicators. Consequently, at the current juncture, the latest increase should not be interpreted as pointing to a renewed upward trend in wage growth.

Other labour cost indicators show a different picture. The annual growth rate of total hourly labour costs declined significantly (by 0.9 percentage point) in the first quarter of 2003 compared with the fourth quarter of 2002, mainly as a result of special factors (working day effects and base effects). In addition, growth in gross monthly earnings fell in the first quarter owing to similar special factors.

Chart 16

Selected labour cost indicators for the euro area

(annual percentage changes)



Sources: Eurostat, national data and ECB calculations.

Following a strong decline in 2002, unit labour cost growth is likely to have increased in the first quarter of 2003. This results from both a slowdown in labour productivity growth and the likely increase in the growth rate of compensation per employee. Nonetheless, the increase is expected to have remained moderate compared with the peak observed in the first quarter of 2002.

Euro area inflation is expected to stabilise and then ease further ahead

Following the estimate for inflation of 2.0% in June 2003, inflation rates are likely to hover around that level in the short term. In early 2004, inflation rates should fall below 2%, mainly owing to a base effect related to energy prices. Subsequently, inflation rates should remain below 2%, as the pass-through of the past exchange rate appreciation should contribute to containing price pressures. Moreover, although slight increases in labour cost growth cannot be ruled out in 2003, domestic cost pressure should remain restrained in an environment of moderate economic recovery. This outlook presupposes that oil prices and exchange rates remain at current levels and that wage moderation prevails in 2004.

Box 3

New base year for euro area short-term indicators

Eurostat recently released short-term indicators for the euro area using 2000 as the base year. The previous base year was 1995. This box explains these changes and reviews the effects for three major euro area indicators (industrial production, producer prices and retail trade turnover) that are regularly reported in the “Economic and monetary developments in the euro area” section and in Tables 4.2 and 5.2 of the “Euro area statistics” section of the Monthly Bulletin. Overall, the changes have not led to major revisions in the development of the euro area indices.

The EU Council Regulation concerning short-term statistics covers monthly and quarterly indicators in industry, construction and market services. Most of these are compiled as weighted averages of data for branches or products, using weights of a certain base year, and are presented as indices. According to the Regulation, all national weighting systems have to be updated, at minimum, at five-year intervals. Several, but not all, national indices have already been rebased to the year 2000, and the remaining national indices will be rebased in the near future. In addition, Eurostat establishes, at the same periodicity, a set of new country weights for each variable that are used for compiling euro area aggregates from national results. The regular updating of the weights is necessary to obtain an accurate reflection of the structure of the economy in aggregate index results for each country and the euro area.

The new country weights referring to the year 2000 are shown in Table A. According to these, the four largest countries accounted for about 80% of the aggregate euro area indices in 2000. Compared with the previous base year 1995, the most notable changes in weights are observed in the construction industry. These mainly reflect the divergent development of construction activity in the euro area. As an example, the strong decrease in the country weight for Germany (28.2% in 2000 compared with 38.2% in 1995) reflects the decrease in the German construction production index by 15% over the five years, while the increase in the weight for Spain (15.0% compared with 11.3%) mirrors the increase in its index by 28% over the same period. Most other weight revisions are, however, much less significant.

Table A: Country composition of euro area indicators

(percentage of euro area aggregate in base year 2000)

	BE	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI
Industrial production												
Industry, excl. construction	4.0	34.1	1.0	8.9	18.3	2.7	18.0	0.2	5.4	3.2	1.7	2.6
Construction	3.6	28.2	1.7	15.0	18.5	1.5	15.0	0.4	8.2	4.0	2.1	1.9
Producer prices												
Industry, excl. construction	3.1	31.3	0.9	9.9	20.9	1.1	21.1	0.1	6.0	1.9	1.8	1.9
Retail trade turnover	4.0	27.8	1.0	11.6	24.5	1.4	16.6	0.2	5.6	3.0	2.3	1.9

Source: Eurostat.

As regards the composition of euro area indices by main euro area-wide industrial groupings (see Table B), there are differences between the weights used for production and producer price indices mainly due to the different definitions used. While for industrial production, data on value added at factor costs are used, the weights for producer prices, as well as for retail trade turnover, refer to domestic turnover (including duties and specific taxes on products). This explains, for example, why the weight for energy products in the producer price index is higher than that in the production index.

Table B: Branch composition of euro area indicators

(percentage of industry excluding construction in base year 2000)

	Producer price index	Production index
Intermediate goods	31.6	36.2
Capital goods	21.2	26.9
Durable consumer goods	4.0	4.3
Non-durable consumer goods	25.6	21.7
Energy	17.6	10.9
Memo item: manufacturing	89.5	90.3

Source: Eurostat.

As the most important reason for the changes in the weights is the divergent growth of national indices over the five-year interval, the revision of the weights has not led to major changes in the development of the euro area indices. The revisions of the annual growth rates are generally below 0.5 percentage point for production and retail turnover aggregates, and below 0.1 percentage point for producer prices. Other changes and improvements introduced in parallel, for example the harmonisation of statistical definitions used across countries, have not led to significant revisions at the euro area level. However, some national weighting systems have not yet been updated to the new base year by the national statistical institutes, and further revisions to the euro area results may occur when these revisions are implemented. In the case of industrial production, national indices with the base year 2000 have been published by five euro area countries (BE, ES, IT, PT and FI), while all other national indices are due to be rebased in the near future. For producer prices, the new base year has already been implemented by eight countries (BE, ES, FR, IE, IT, AT, PT and FI).

3 Output, demand and labour market developments

Subdued economic activity in the first quarter of 2003

According to Eurostat's first estimate, euro area quarter-on-quarter real GDP growth was zero in the first quarter of 2003 (see Table 3). Compared with a quarter-on-quarter growth rate of 0.1% in the fourth quarter of 2002, the data thus point to continued subdued economic activity in the euro area at the beginning of this year. Both private consumption growth and fixed capital formation were estimated to be lower in the first quarter of 2003 than in the fourth quarter of last year. Fixed capital formation, in particular, declined strongly after a period of positive growth in the second half of 2002. At the same time, the contribution of net exports to GDP growth was somewhat more negative in the first quarter of 2003 than in

the fourth quarter of 2002 owing to a stronger decline in exports. These negative effects on real GDP growth were counterbalanced by an unusually strong increase in the contribution from changes in inventories. However, as described in the last issue of the ECB's Monthly Bulletin, this apparent increase in inventories should be interpreted with some caution on account of possible data revisions in subsequent releases of national accounts data.

Industrial production increased in the first quarter, but survey data point to weakness in the second quarter

Mainly reflecting a strong increase in January, euro area industrial production (excluding construction) increased in the first quarter

Table 3

Composition of real GDP growth in the euro area

(percentage changes, unless otherwise indicated; seasonally adjusted)

	Annual rates ¹⁾								Quarterly rates ²⁾				
	2000	2001	2002	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Q1	2002 Q1	2002 Q2	2002 Q3	2002 Q4	2003 Q1
Real gross domestic product	3.5	1.5	0.8	0.4	0.8	1.0	1.2	0.8	0.4	0.4	0.3	0.1	0.0
<i>of which:</i>													
Domestic demand	2.9	1.0	0.2	-0.1	-0.3	0.4	0.9	1.4	0.0	0.2	0.3	0.4	0.5
Private consumption	2.5	1.8	0.5	0.5	0.2	0.6	0.9	1.5	-0.2	0.3	0.5	0.4	0.3
Government consumption	2.1	2.2	2.7	2.6	3.0	2.9	2.4	1.6	1.0	0.8	0.4	0.2	0.2
Gross fixed capital formation	4.9	-0.6	-2.6	-2.8	-3.3	-2.6	-1.7	-2.4	-0.7	-1.3	0.2	0.1	-1.4
Changes in inventories ³⁾	0.0	-0.4	-0.1	-0.3	-0.3	0.1	0.2	0.7	0.1	0.1	-0.1	0.1	0.5
Net exports ³⁾	0.6	0.5	0.6	0.5	1.0	0.6	0.4	-0.5	0.4	0.2	0.1	-0.4	-0.5
Exports ⁴⁾	12.6	3.0	1.2	-2.7	1.0	3.0	3.7	3.3	-0.2	2.1	2.0	-0.2	-0.6
<i>of which: goods</i>	12.6	3.0	1.5	-2.5	0.7	3.5	4.4	.	0.1	1.7	2.8	-0.2	.
Imports ⁴⁾	11.3	1.7	-0.4	-4.3	-1.8	1.7	3.0	5.1	-1.4	1.6	2.0	0.8	0.6
<i>of which: goods</i>	11.4	1.0	-0.4	-4.5	-2.5	1.8	3.7	.	-1.3	1.4	2.4	1.3	.
Real gross value added:													
Agriculture and fishing	-0.6	-1.3	-0.7	-0.2	-0.1	-1.1	-1.4	0.1	-0.6	-0.2	0.1	-0.7	0.8
Industry	3.7	0.8	0.5	-1.0	0.7	0.9	1.4	0.4	0.9	0.7	0.2	-0.4	-0.1
Services	4.0	2.3	1.6	1.6	1.6	1.6	1.7	1.3	0.5	0.5	0.3	0.4	0.1

Sources: Eurostat and ECB calculations.

Note: Data refer to the Euro 12 (including periods prior to 2001). For further details on the data, see the "Euro area statistics" section.

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) 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.

Table 4
Industrial production in the euro area

(annual percentage changes, unless otherwise indicated)

	2001	2002	2003			2003			2002			2003		
			Feb.	Mar.	Apr.	Feb.	Mar.	Apr.	Nov.	Dec.	Jan.	Feb.	Mar.	
			month-on-month			three-month moving averages								
Total industry excluding construction	0.4	-0.6	2.0	0.1	0.8	0.4	-0.7	0.5	0.1	0.1	-0.2	0.2	0.2	
<i>by main industrial groupings:</i>														
Total indus. excl. construction and energy	0.2	-0.8	1.0	0.0	0.3	0.1	-0.4	0.4	-0.1	0.0	-0.5	0.0	0.0	
Intermediate goods	-0.6	0.3	1.4	1.4	1.6	-0.1	0.4	0.3	-0.3	0.0	-0.3	0.9	0.8	
Capital goods	1.4	-2.0	2.4	-0.5	-1.3	0.6	-1.5	0.8	0.3	0.2	-0.4	-0.6	-0.6	
Consumer goods	0.5	-0.6	-0.5	-1.3	0.4	0.2	-0.5	0.9	0.2	0.0	-0.6	-0.4	-0.1	
Durable consumer goods	-1.8	-5.5	-5.0	-6.9	-5.1	-1.4	-1.6	0.7	-1.8	-1.4	-2.7	-1.7	-2.1	
Non-durable consumer goods	1.0	0.3	0.3	-0.2	1.4	0.5	-0.3	0.8	0.5	0.2	-0.3	-0.2	0.2	
Energy	1.5	0.9	8.8	2.4	3.5	3.5	-4.2	1.7	-0.8	-0.5	2.3	2.5	2.6	
Manufacturing	0.3	-0.8	1.0	0.6	-0.3	0.0	-0.2	0.0	0.1	0.0	-0.5	-0.1	-0.1	

Sources: Eurostat and ECB calculations.

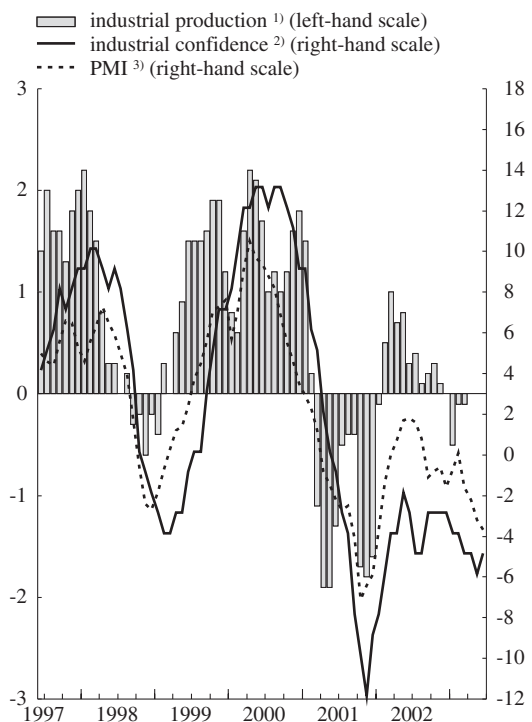
Note: Data refer to the Euro 12 (including periods prior to 2001). For further details on the data, see the "Euro area statistics" section.

of 2003 (see Table 4). More recently, industrial production increased by 0.5% month on month in April, following a decline in March. In terms of three-month averages, growth in industrial production, at 0.2%, remained stable in the period from February to April as compared with the first quarter. The increase in industrial production (excluding construction) was mostly due to positive contributions from industries producing intermediate goods and energy, while capital goods industries made a negative contribution to growth. Industrial production data for the euro area are now calculated using updated weights based on the year 2000 as the new base year (see Box 3 in Section 2).

Despite positive growth in industrial production in the first quarter and in April, survey data point to weak industrial activity in the second quarter. The Purchasing Managers' Index (PMI) continued to indicate a contraction in the manufacturing sector, declining to 46.4 in June, from 46.8 in May (see Chart 17). The decline in the index follows some improvement at the beginning of the year. Most components of the PMI declined moderately in June. In particular, the index for new orders has fallen significantly since the beginning of this year, from a reading of above 50 in February to 45.6 in

Chart 17
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.

1) Manufacturing; three-month on three-month percentage changes; working day and seasonally adjusted data.

2) Percentage balances; deviations from the average since January 1985.

3) Purchasing Managers' Index; deviations from an index value of 50; positive deviations indicate an expansion in economic activity.

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

	2000	2001	2002	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Jan.	2003 Feb.	2003 Mar.	2003 Apr.	2003 May	2003 June
Economic sentiment index ¹⁾	2.4	-2.9	-1.7	-0.5	-0.3	-0.6	0.0	-0.2	0.1	-0.6	0.3	0.0	0.1
Consumer confidence indicator ²⁾	12	6	0	1	-3	-8	-8	-7	-8	-10	-8	-9	-8
Industrial confidence indicator ²⁾	12	-2	-4	-4	-3	-4	-5	-4	-4	-5	-5	-6	-5
Construction confidence indicator ²⁾	16	10	1	-2	-3	0	-1	-1	0	0	0	-2	-2
Retail trade confidence indicator ²⁾	5	0	-9	-10	-8	-10	-8	-12	-6	-11	-10	-6	-7
Services confidence indicator ²⁾	11	-4	-18	-20	-23	-24	-21	-23	-23	-26	-23	-21	-20
Business climate indicator ³⁾	1.4	-0.2	-0.5	-0.5	-0.3	-0.4	-0.6	-0.3	-0.3	-0.7	-0.5	-0.7	-0.6
Capacity utilisation (%)	84.4	82.9	81.4	81.5	81.5	81.1	.	81.3	-	-	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). For further details on the data, see the "Euro area statistics" section.

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.

May; it declined by a further 0.5 point in June. The index for manufacturing output also declined further. This index has remained below the threshold signalling no change in production for the three-month period up to June, pointing to subdued growth in industrial production in the second quarter. Firms' assessment of stocks of purchased goods also decreased slightly in May, falling to the levels observed late last year.

Following a decline in May, euro area industrial confidence – according to the European Commission Business and Consumer Surveys – improved slightly in June (see Table 5). For the second quarter as a whole, however, industrial confidence declined somewhat compared to the first quarter. The outcome in June was due to minor improvements in production expectations. As in May, the assessments of order books and inventories were both unchanged, while the assessment of export order books deteriorated further. In terms of the main industrial groupings, confidence improved in the intermediate goods sector and remained unchanged in the consumer and capital goods sectors. Construction confidence remained unchanged in June, reflecting unchanged conditions observed over recent months.

Consumption indicators provide mixed signals in the second quarter

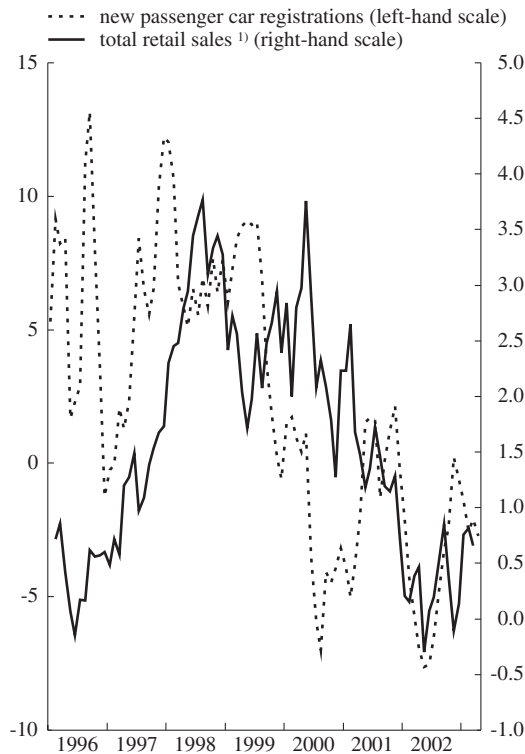
Short-term indicators of private consumption growth continue to provide somewhat mixed signals for consumption in the second quarter of 2003. Retail sales volumes increased by 1.5% month on month in April 2003, following positive growth in the first quarter of 2003 (see Chart 18). However, retail sales data have shown significant volatility, with strong increases in January and April and decreases in February and March. The increase in retail sales in the course of the first quarter of 2003 and in April was common to the main product categories. However, other indicators of private consumption growth do not clearly support the indications from retail sales of an underlying strengthening in household spending. In particular, the quarter-on-quarter growth rate of new passenger car registrations turned negative in the first quarter of 2003, and new car registrations declined further in April and May. The pattern of car registrations partly reflects the declining impact of positive incentives stemming from tax measures introduced in one country towards the end of last year.

Consumer confidence increased slightly in June, following a temporary decline in May

Chart 18

New passenger car registrations and retail sales in the euro area

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



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

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

1) Calculated using seasonally adjusted data.

(see Table 5). This increase reflects, in particular, an improvement in households' expectations with regard to the economic situation. Unemployment expectations also improved in June having worsened in May. This improvement is atypical at this stage of the cycle and June data may therefore

reflect a correction in expectations from too negative an assessment of economic fundamentals in May after the end of the Iraq war. Having remained broadly stable since October last year, the survey result on consumer willingness to make major purchases in the future improved in June. This improvement follows a period of an increasingly positive assessment by households of their own financial situation since the beginning of this year. By contrast, confidence in the retail trade sector declined somewhat in June, reflecting, in particular, more negative assessments of orders placed with suppliers and expected business conditions. Despite some past improvements in retail trade confidence, the weakness of, in particular, the forward-looking components of the overall indicator do not provide positive signals for retail sales and consumption in the second quarter.

Labour markets remain weak, reflecting subdued economic activity

The euro area unemployment rate was 8.8% in May, unchanged as compared with April 2003, and 0.5 percentage point higher than in May 2002 (see Chart 19). The increase in the number of unemployed in May, at approximately 25,000, was considerably lower than in previous months. While the increases in the number of unemployed have gradually diminished in the course of 2003, from 110,000 in January 2003 to 65,000 in April, the low increase in May mainly reflects country-specific factors. The unemployment rate of those 25 years and older increased by 0.1 percentage point, to 7.8% (see Table 6).

Table 6

Unemployment in the euro area

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

	2000	2001	2002	2002	2002	2002	2003	2002	2003	2003	2003	2003	2003
				Q2	Q3	Q4	Q1	Dec.	Jan.	Feb.	Mar.	Apr.	May
Total	8.5	8.0	8.4	8.3	8.4	8.5	8.7	8.6	8.7	8.7	8.8	8.8	8.8
Under 25 years ¹⁾	16.6	15.7	16.3	16.2	16.3	16.6	16.9	16.7	16.9	17.0	17.0	17.0	17.0
25 years and over	7.4	7.0	7.4	7.3	7.4	7.5	7.6	7.5	7.6	7.6	7.7	7.7	7.8

Source: Eurostat.

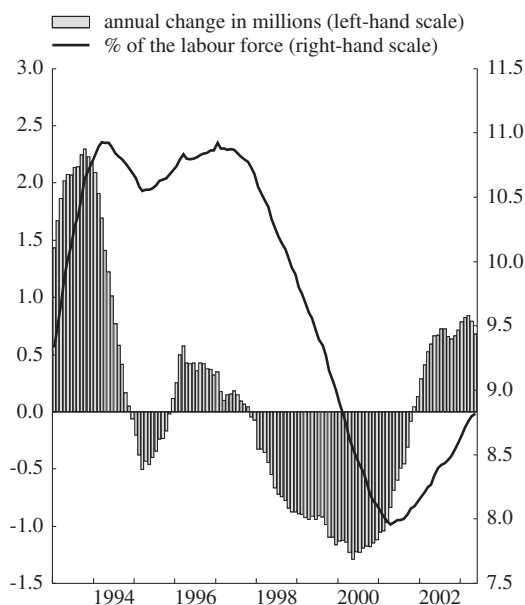
Notes: In accordance with ILO recommendations. Data refer to the Euro 12 (including periods prior to 2001).

1) In 2002 this category represented 22.4% of total unemployment.

Chart 19

Unemployment in the euro area

(monthly data; seasonally adjusted)



Source: Eurostat.

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

According to data released for the first quarter of 2003, quarter-on-quarter employment growth has remained unchanged at zero

for three consecutive quarters, despite subdued activity and significant increases in unemployment (see Table 7). Total employment in the first quarter continues to reflect positive employment growth in the services sector, while employment growth became even more negative in industry. In annual terms, whole economy employment growth remained positive at 0.1%. The resilience of employment has raised concerns that there has been labour hoarding in the euro area. This could result in larger labour shedding, as the recovery has been delayed, and a perhaps more subdued increase in employment growth in the initial stages of the expected economic upturn. Current analysis suggests that euro area companies may have hoarded labour during the downturn, although the present pattern seems to be broadly in line with previous episodes of slowdown in activity (see Box 4 on labour hoarding in the euro area).

Employment expectations remain at low levels and continue to point to weak underlying trends in the labour market, despite improvements in some indicators. In particular, the employment index of the PMI improved slightly after reaching its lowest

Table 7

Employment growth in the euro area

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

	2000	2001	2002	2002	2002	2002	2002	2003	2002	2002	2002	2002	2003
				Q1	Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4	Q1
	Quarterly rates ¹⁾												
Whole economy	2.2	1.4	0.4	0.7	0.5	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0
<i>of which:</i>													
Agriculture and fishing ²⁾	-1.6	-0.6	-2.0	-2.2	-2.0	-1.9	-2.0	-2.1	-0.4	-0.5	-0.6	-0.5	-0.5
Industry	0.9	0.4	-1.2	-1.0	-1.1	-1.3	-1.4	-1.6	-0.4	-0.3	-0.4	-0.4	-0.5
Excluding construction	0.6	0.3	-1.2	-1.0	-1.2	-1.2	-1.5	-1.6	-0.4	-0.3	-0.4	-0.4	-0.5
Construction	1.8	0.4	-1.1	-0.9	-0.9	-1.4	-1.4	-1.3	-0.4	-0.1	-0.6	-0.3	-0.4
Services	2.9	1.9	1.2	1.6	1.3	1.1	1.0	0.8	0.4	0.2	0.2	0.2	0.2
Trade and transport ³⁾	3.1	1.6	0.7	1.3	0.8	0.4	0.4	0.2	0.3	0.0	0.0	0.0	0.2
Finance and business ⁴⁾	5.7	3.8	1.9	2.3	2.1	1.7	1.6	1.4	0.2	0.6	0.2	0.5	0.0
Public administration ⁵⁾	1.6	1.3	1.4	1.4	1.4	1.4	1.3	1.1	0.5	0.3	0.3	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.

level since January 2002 in May 2003. However, the index remained well below the threshold signalling no change in employment, indicating a continued downward adjustment of employment in industry. Employment

expectations from the European Commission Business Surveys in June 2003 show a continued decline in employment expectations in industry and retail trade, and unchanged expectations in construction.

Box 4

Labour hoarding in the euro area

The adjustment of euro area employment in the current period of subdued economic activity has sometimes been perceived as slow and somewhat limited, raising the question of whether labour hoarding, i.e. companies holding on to more workers than necessary in the downturn, has occurred in the euro area. The purpose of this box is to discuss the definition of labour hoarding and its determinants, and to assess the evidence of labour hoarding in the euro area. This analysis suggests that there is some evidence of labour hoarding in the euro area in the current period of subdued activity, although it is regarded to be broadly in line with developments observed in previous slowdowns in activity.

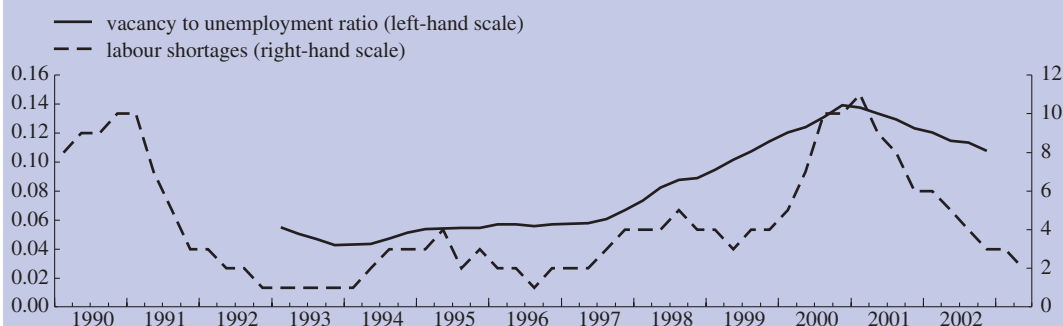
Defining labour hoarding

Labour hoarding can be defined as that part of labour input which is not fully utilised by a company during its production process at any given point in time. Under-utilisation of labour can manifest itself in various forms, such as reduced effort or hours worked, and the shift of labour to other uses, such as training. From the company's point of view, some labour hoarding may be optimal given the fixed costs associated with adjusting staff numbers. These costs include costs of recruitment, screening and training of new workers, as well as costs related to the termination of contracts such as severance pay. Therefore, in the face of a downturn in activity, companies may prefer to reduce labour input, at least to some extent, by shortening the hours worked, which is less costly than reducing staff numbers. This behaviour is reflected in the fact that labour productivity, measured by output divided by total employment, tends to decline in economic downturns. Conversely, during economic upturns, companies which have hoarded labour in the past are more likely to delay hiring new staff until labour productivity has increased sufficiently and the upturn has gained strength.

Fixed costs associated with adjusting staff numbers are, to a large extent, determined by labour market institutions, such as the level of employment protection legislation (EPL), e.g. procedures determining dismissals, severance pay and limits to the type of contracts that can be offered. Euro area countries have a high degree of EPL, which therefore gives rise to an institutional set-up which favours labour hoarding. In addition to the institutional factors, labour hoarding is also influenced by the economic environment. In

Chart A: Vacancy to unemployment ratio and labour shortages

(ratio of vacancies to unemployment, as a percentage)



Sources: European Commission Business and Consumer Surveys and ECB calculations.

Note: Labour shortages refer to manufacturing companies reporting shortage of labour as the main factor limiting production as a percentage of all responses (other possible responses are insufficient demand, shortage of material, financial constraints and others).

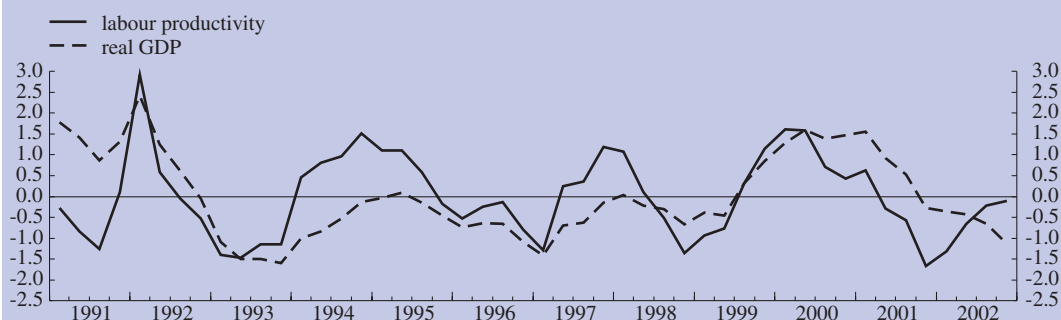
particular from the early 1990s until the end of 2000, euro area labour markets were characterised by an increasing tightness, as measured by the ratio of vacancies to unemployment (see Chart A). Together with strong product demand, this resulted in difficulties in hiring workers reflected in the increasing number of companies reporting that a shortage of labour was the main factor limiting production. These recruitment difficulties, together with the initial expectation of a short-lived downturn in activity, may have encouraged companies to hoard labour more than they would have done otherwise.

Evidence of labour hoarding in the euro area

Labour hoarding is difficult to quantify since the concept refers to an “appropriate” level of employment, which is not observable. Some evidence stems from available data on hours worked¹, which suggest that euro area companies have reduced their labour input through lower average working hours, although not to a large enough extent to avoid a decline in the levels of output per hour. As explained above, further evidence is provided by developments in the cyclical component of labour productivity. However, for the most recent period, it is difficult to distinguish cyclical changes in labour productivity from long-term trend patterns in any reliable manner. With regard to the euro area, several factors, such as a rise in part-time employment or the impact of labour market reforms, suggest that trend growth in productivity diminished at the end of the 1990s compared with earlier in the decade. Chart B shows an estimate of the cyclical component of labour productivity, when the trend component is allowed to vary over time.² This reveals a clear pro-cyclical pattern of labour productivity, consistent with typical labour hoarding behaviour. However, assuming that the estimated trend has correctly captured long-term developments since the late 1990s, there is no evidence that labour hoarding has been more prevalent in the current period of subdued activity than in other previous slowdowns. In particular, the cyclical pattern of labour productivity has been very similar to slowdowns in activity in the 1990s. In the course of 2002, businesses may have increasingly resorted to shedding labour to restore productivity.

Chart B: Cyclical developments in average labour productivity

(normalised data)



Sources: Eurostat and ECB calculations.

Note: The data refer to the cyclical components extracted from the labour productivity and real GDP series using the Hodrick-Prescott filter. The data are normalised by dividing the difference from the mean with the standard deviation.

Overall, current analyses suggest that euro area companies may have hoarded labour during the current period of subdued activity, although this pattern seems to be broadly in line with developments observed in previous periods of slowdown in activity. Looking ahead, this is likely to result in the typical slow recovery in employment as, for a large number of companies, the current staff levels may initially be sufficient to allow increases in production without recruiting new staff until the forthcoming recovery has gained strength. The likelihood of weak employment growth in the short term is consistent with the normal cyclical pattern of labour productivity and is supported by data on employment expectations, which remain rather low.

1 See also Box 8 entitled “The information content of data on total hours worked in industry” in the March 2003 issue of the ECB’s Monthly Bulletin.

2 The cyclical component of labour productivity has been extracted using the Hodrick-Prescott filter.

The starting point for a recovery in activity in the second half of the year is likely to be low

Available evidence suggests continued subdued activity in the second quarter of 2003. This is indicated, in particular, by continued weakness in the survey data for the industrial sector, while data on overall production and demand are not yet available for most of the second quarter.

Despite this low starting point, the main scenario remains that of a gradual, moderate recovery from the second half of 2003 onwards. The recovery should benefit from the expected upturn in foreign demand, compensating for the dampening effect of the

past appreciation of the euro exchange rate. In addition private consumption should rise in line with growth in real disposable income, supported by positive terms-of-trade effects. The low level of interest rates should also support fixed capital formation. Risks to this assessment, stemming from global imbalances and the possible need for further adjustments to restore profitability in the euro area corporate sector, remain on the downside.

As reported in the 2003 Broad Economic Policy Guidelines endorsed by the European Council, more intense structural reforms are required to improve the functioning of the euro area economy, while also contributing to enhancing confidence (see Box 5 on the Broad Economic Policy Guidelines 2003).

Box 5

The Broad Economic Policy Guidelines 2003

On 19/20 June 2003, the European Council endorsed the 2003 Broad Economic Policy Guidelines (BEPGs). They are likely to have been formally adopted at the 15 July 2003 Ecofin Council meeting. The 2003 BEPGs lay down recommendations for the economic policies of the Member States and the Community over the period 2003-05.¹ While the 2004 BEPGs will take a closer look at the economic situation in and requirements to be fulfilled by the acceding countries, the main general recommendations of the 2003 BEPGs, as set out below, are to a large extent also relevant to the new Member States at this stage already.

Growth-oriented and stability-oriented macroeconomic policies

The BEPGs state that fiscal policies should continue to be pursued as part of a medium term-oriented, comprehensive and growth-friendly strategy. They call on Member States to reach or maintain budgetary positions close to balance or in surplus throughout the economic cycle. Countries with excessive deficits need to correct them in line with the Stability and Growth Pact. Subject to this, Member States should avoid procyclical fiscal policies and allow automatic stabilisers to operate over the cycle. Moreover, Member States are urged to promote the right framework conditions for wage negotiations by social partners, as it is important that nominal wage increases are consistent with price stability and productivity gains.

Economic reforms

Labour markets

Creating the conditions for full employment, better quality of and productivity at work, greater cohesion and inclusive labour markets is a top priority in the Lisbon strategy. Member States should vigorously implement all of the Employment Guidelines for 2003 and the associated recommendations. The Employment Guidelines are required by the Treaty to be consistent with the BEPGs, but deal with employment issues in greater detail.

¹ The Treaty contains a separate framework for economic policies and monetary policy. The BEPGs only deal with the economic policies, whereas the ECB is independently responsible for monetary policy.

The BEPGs emphasise the need for policy measures to increase labour supply and enhance the adaptability of labour markets to changing economic conditions. Member States should implement reforms of tax and benefit systems in order to make work pay and provide incentives for taking up work. In addition, the level and duration of and/or eligibility criteria for benefits should be assessed, while preserving an adequate level of social protection. Member States are requested to ensure that wage bargaining systems allow wages to better reflect productivity, in line with differences in skills and local labour market conditions, and to review labour market regulations by relaxing overly restrictive employment protection legislation. Member States should also facilitate geographical and occupational mobility by promoting life-long learning, the recognition of qualifications and the transfer of social security and pension rights, as well as by eliminating obstacles to mobility related to the housing market.

Product and financial markets and corporate governance

Member States are urged to foster competition in goods and services markets and, in particular, to further open up public procurement, ensure the independence and effectiveness of competition and regulatory authorities, encourage market entry and effective competition in network industries and continue efforts to reduce state aid and target it to identified market failures. Member States should increase the “transposition” rate of Internal Market Directives, i.e. they should adapt their national legislation as quickly as possible to give effect to these Directives.

They should accelerate the integration of EU capital markets implementing the Risk Capital Action Plan by 2003 and the Financial Services Action Plan by 2005. The BEPGs also urge Member States to agree and implement measures to strengthen corporate governance at the national and Community level and improve arrangements for delivering efficient cross-sector and cross-border co-operation in financial supervision and financial crisis management.

Entrepreneurship, investment in knowledge and innovation, the public sector

The BEPGs ask Member States to take active steps to promote investment in knowledge, new technologies and innovation and make progress towards the objective of allocating 3% of GDP to total R&D investment. These objectives can be pursued by developing the appropriate framework conditions, developing the institutional framework and intellectual property protection, promoting science-industry links, researcher mobility, access and use of information and communication technologies (ICT), facilitating the development of the Union’s satellite navigation system, Galileo, and improving the quality and efficiency of education and training systems.

In the public sector, Member States should redirect public expenditure towards growth, while respecting overall budgetary constraints, and ensure that tax structures strengthen the growth potential by promoting employment and investment. The efficiency of the public sector should be improved through better controls on spending, and an appropriate framework should be established for joint public-private initiatives, outsourcing and competition in public procurement.

Strengthening sustainability

Public finances

Member States with a government debt ratio above the reference value of 60% of GDP are urged to ensure a satisfactory pace of debt reduction towards that value. Other Member States should ensure a sufficient further decline in government debt ratios in view of the costs of ageing, including higher age-related spending.

Reforms of pension systems should be forcefully pursued. Member States should encourage a longer working life and modify incentives embedded in pension and tax and benefit systems that encourage early withdrawal from the labour market. Access to early retirement schemes should also be restricted. A better link between benefits and contributions is needed in order to cope with demographic developments and increases in life

expectancy. Member States are also requested to improve, where necessary, access to supplementary pension schemes – including funded schemes – and to adapt pension systems to more flexible employment and career patterns as well as to individual needs, including the portability of pension benefits.

Social sustainability

Member States are urged to take steps to modernise social protection systems and to fight poverty and exclusion. Reforms are needed to improve the functioning of markets in order to encourage private investment in the regions lagging behind – particularly in terms of allowing wages to better reflect disparities in skills and local labour market conditions. Public support, including EU resources, should be focused on investment in human capital accumulation and knowledge as well as on ensuring the availability of adequate infrastructure. Co-operation between the European Commission and the European Investment Bank should be strengthened.

Environment

The BEPGs call upon countries to reduce sectoral subsidies, tax exemptions and other incentives that have a negative environmental impact. Through the use of, inter alia, taxes and charges, Member States should ensure that the pricing of natural resources adequately reflects their scarcity and all environmental damage. They should promote market instruments and ensure an appropriate level of taxation on energy with a view to promoting efficient energy consumption, the use of renewable energy and heightened competition and interconnections in energy markets. In the field of transport, the system of taxes, charges and subsidies should be adjusted to reduce distortions and increase competition.

Member States should renew efforts to meet their commitments under the Kyoto protocol. To this end, they should implement the EC greenhouse gas emissions trading scheme and prepare and implement policies for those sectors not covered by the scheme. Measures should be taken to meet targets set by subsequent European Councils, particularly on energy efficiency, renewable energy and bio-fuels.

Euro area specific challenges

This year's BEPGs for the first time include a separate section relating to challenges for the euro area. Structural and fiscal policies in the euro area are implemented at the national level against the background of the single monetary policy of the ECB, the primary objective of which is to maintain price stability in the euro area as a whole.

The BEPGs note that certain inflation differentials between Member States may be due to a malfunctioning of product and labour markets or inappropriate policies. These inflation differentials should therefore be monitored by Member States and, where undesirable, be addressed using the available levers.

The BEPGs recommend that policy actors at the national level implement policies which are compatible with price stability and in line with the need to enhance confidence among business and consumers in the short run and promote economic growth close to potential in the medium term. Budgetary positions close to balance or in surplus should be maintained throughout the economic cycle in cyclically adjusted terms. If this has not yet been achieved, measures should be taken to ensure an annual improvement in the cyclically adjusted budget position of at least 0.5% of GDP. Countries with excessive deficits need to correct them in line with the Treaty.

Structural reforms are seen as essential in order to meet the challenges faced and, in particular, reinforce confidence and increase growth potential. The BEPGs note that by introducing flexibility in the economy, they will contribute to macroeconomic stability. The efficiency of the existing co-ordination procedures in the area of structural reforms needs to be improved. Intensified structural reform will also help to raise potential growth.

4 Exchange rate and balance of payments developments

Euro partly reversed earlier gains in June and early July

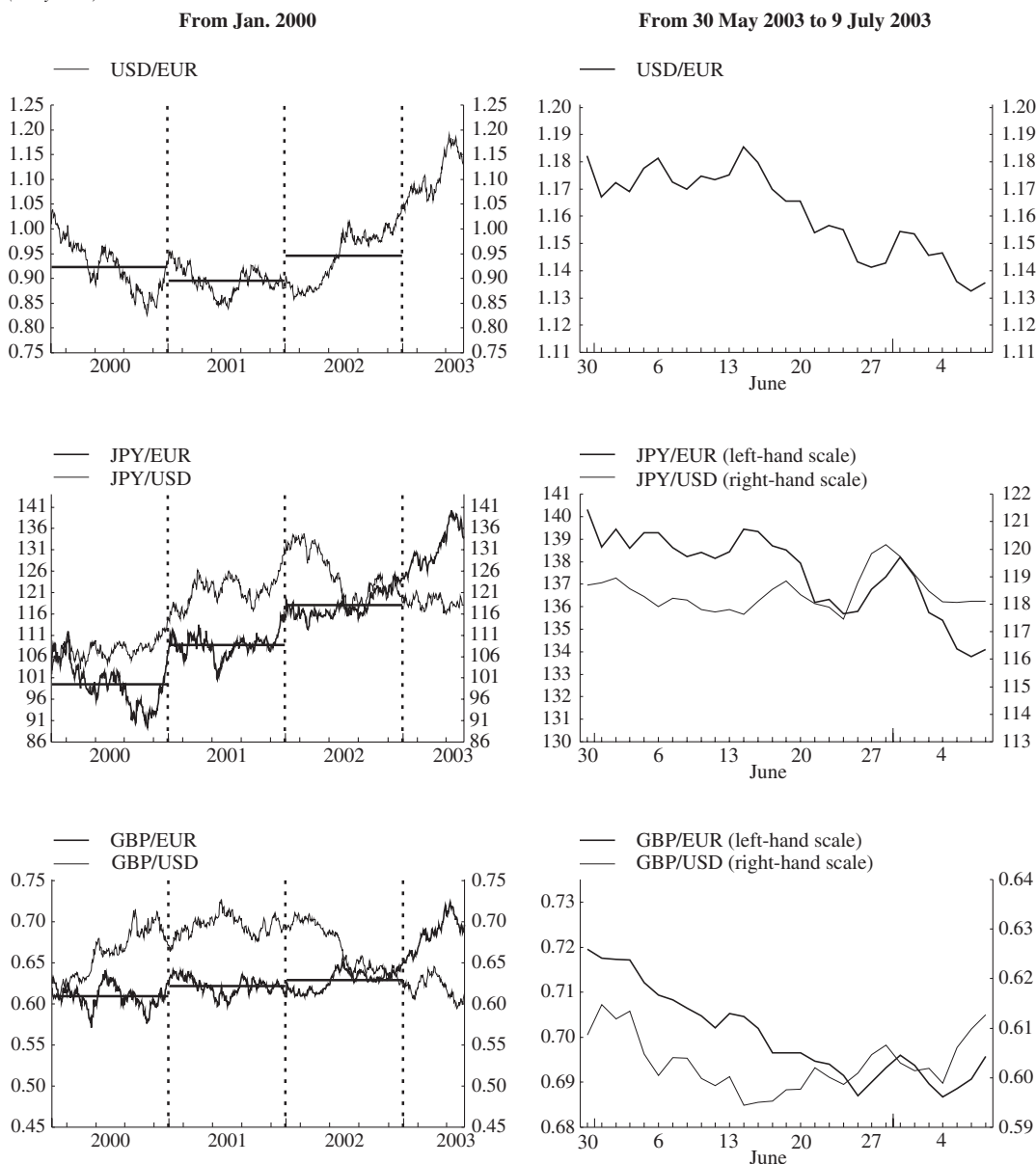
Following its strong appreciation against all major currencies in recent months, the euro broadly stabilised in the first three weeks of June 2003, before partly reversing its earlier gains towards the end of the month and in early July. On 9 July the euro was weaker

than at the end of May against most major currencies. Notable exceptions to this pattern were the Swiss franc and the Norwegian krone, which depreciated against the euro in the period under review. Against this background, the effective exchange rate of the euro declined somewhat, approaching the average level seen in the first quarter of 1999.

Chart 20

Patterns in exchange rates

(daily data)



Source: ECB.

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

In the first half of June, the euro traded in a narrow range of USD 1.17-1.19 vis-à-vis the US dollar, before depreciating towards the end of the month and reversing part of the marked appreciation it had experienced in previous months (see Chart 20). The euro-dollar exchange rate initially stabilised against a background of mixed US data releases indicating continued labour market weakness but more positive signs in business and consumer confidence. The decision by the Federal Open Market Committee (FOMC) at its 24-25 June meeting to reduce its target for the federal funds rate by 25 basis points and the accompanying statement contributed to an upward revision of market expectations for US economic activity in the second half of the year. This appears to have supported the subsequent strengthening of the US currency. On 9 July the euro stood at USD 1.14, i.e. 4% down on its level at end-May 2003, but 20.1% higher than its average in 2002.

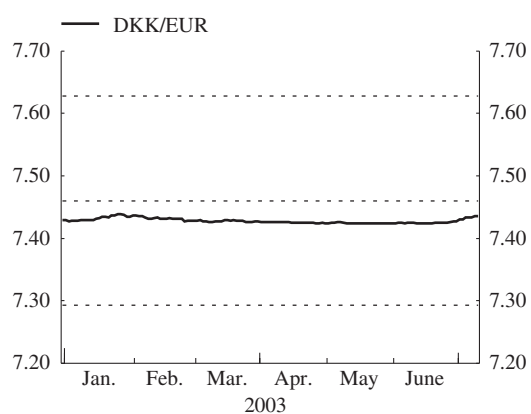
The Japanese yen was fairly stable vis-à-vis the euro in the first half of June, before appreciating towards the end of June and early July, while it fluctuated within narrow margins against the US dollar without showing a clear trend (see Chart 20). The strengthening of the yen against the euro was accompanied by a significant rise in Japanese stock prices, fuelled, in all likelihood, by strong demand from foreign investors for Japanese equities. Moreover, in the course of June and in early July, Japanese long-term bond yields increased notably, thereby narrowing the differential between the euro area and Japan. On 9 July the euro was quoted at JPY 134.1, 4.4% weaker than at the end of May, but 13.6% higher than on average in 2002.

Against the pound sterling, the euro declined throughout June to subsequently stabilise in early July (see Chart 20). This development may be partly related to the decision of the Bank of England on 5 June to maintain the repo rate at 3.75%, which was followed by a modest widening of the interest rate differential vis-à-vis the euro area in favour of the United Kingdom. The assessment of

the five economic tests set by the Treasury to gauge the appropriateness of adopting the euro, published on 9 June, was widely expected and did not seem to have a significant influence on the exchange rate of the pound sterling. On 9 July the euro traded at GBP 0.70, i.e. 3.3% lower than at the end of May, but still 10.6% higher than on average in 2002.

Regarding other EU currencies, the Danish krone continued to fluctuate in a narrow range, remaining slightly stronger than its central parity in ERM II (see Chart 21). The euro was also broadly unchanged vis-à-vis the Swedish krona in the period under review. Concerning other European currencies, the euro gained 4.9% against the Norwegian krone and 1% against the Swiss franc. The continuation of the euro's appreciation vis-à-vis the Swiss currency seems to have been linked to a downward revision of growth expectations for the Swiss economy as well as the relatively low level of interest rates in Switzerland. The appreciation of the euro against the Norwegian currency took place amid market anticipation of additional interest rate reductions in Norway, which eventually materialised on 25 June when Norges Bank lowered its key rate by 1 percentage point to 4% amid expectations of subdued inflation in Norway over the next two years.

Chart 2 I
Patterns in exchange rates within ERM II
(daily data)

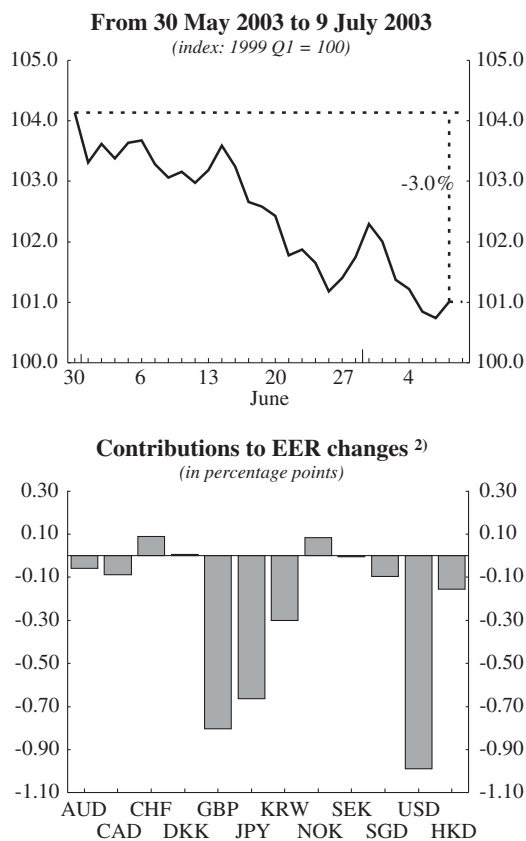


Source: ECB.
 Note: The horizontal lines indicate the central parity (DKK 7.46) and the fluctuation band ($\pm 2.25\%$ for DKK).

Chart 22

The effective euro exchange rate and its decomposition¹⁾

(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.

By 9 July the nominal effective exchange rate of the euro – as measured against the currencies of 12 major trading partners of the euro area – had declined by 3% relative to its end-May level, but was still 12.3% above its average level in 2002 (see Chart 22). The recent decline of the euro mainly reflects its depreciation against the pound sterling, the US dollar and the Japanese yen, which was only partly counterbalanced by its appreciation vis-à-vis the Swiss franc and the Norwegian krone.

Current account in deficit in April 2003

The euro area current account recorded a deficit of €8.1 billion in April 2003, compared

with a deficit of €5.8 billion in the same month last year (see Table 8). The higher deficit largely resulted from an increase of €2.4 billion in the income deficit, while the balances for the other components registered only minor changes.

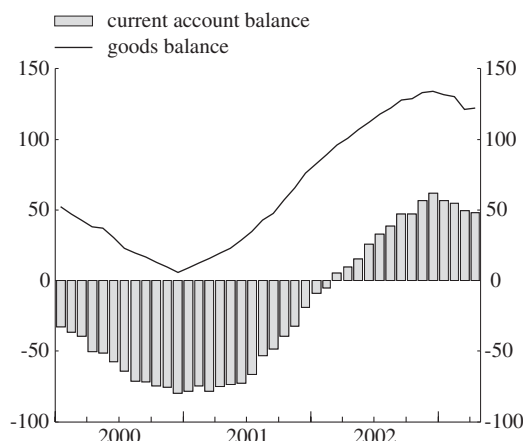
On the basis of seasonally adjusted data, the current account deficit declined slightly to €1 billion in April, compared with €1.5 billion in the month before (see Table 8.2.2 of the “Euro area statistics”). This development was accounted for mainly by an increase in the goods surplus (from €2.9 billion to €11 billion) that just exceeded the decline in the services surplus and the increase in the deficits on income and current transfers in the same period. The larger goods surplus in April was primarily due to the rebound in export values from the low level recorded in March, combined with a small fall in the value of imports. The increase in the income deficit largely resulted from a rise in euro area residents’ payments abroad, mostly in the form of dividends and interest.

On the basis of seasonally adjusted 12-month cumulated data, the current account surplus, after peaking in December 2002, declined moderately in the course of the first four

Chart 23

The euro area current account and goods balances

(EUR billions; monthly data; seasonally adjusted; 12-month cumulated figures)



Source: ECB.

Table 8
Balance of payments of the euro area

(EUR billions; not seasonally adjusted)

	2002 Jan. - Apr.	2002 Apr.	2003 Jan. - Apr.	2003 Feb.	2003 Mar.	2003 Apr.
Current account balance	6.2	-5.8	-10.1	3.2	1.4	-8.1
Credits	557.9	141.4	549.3	130.8	136.6	138.6
Debits	551.7	147.2	559.3	127.6	135.2	146.7
Goods balance	34.0	7.3	21.8	8.9	4.4	7.7
Exports	343.3	88.4	338.0	83.1	87.0	86.1
Imports	309.3	81.1	316.2	74.2	82.7	78.4
Services balance	-4.1	0.6	1.3	-0.1	1.2	0.6
Exports	100.0	27.5	100.6	22.9	26.2	26.3
Imports	104.1	26.8	99.3	23.0	24.9	25.7
Income balance	-15.1	-7.7	-23.9	-2.6	-1.2	-10.1
Current transfers balance	-8.6	-6.0	-9.2	-3.0	-3.0	-6.3
Capital account balance	4.5	1.3	2.0	-0.9	0.7	0.1
Financial account balance	6.6	14.8	-24.1	-13.8	1.0	4.3
Direct investment	-7.9	8.1	-26.4	2.8	-8.5	-19.8
Abroad	-63.1	-7.7	-54.4	-5.4	-16.1	-21.9
Equity capital and reinvested earnings	-43.9	-2.3	-22.8	-5.0	-5.0	-6.1
Other capital, mostly inter-company loans	-19.3	-5.4	-31.6	-0.4	-11.1	-15.8
In the euro area	55.2	15.8	28.0	8.2	7.6	2.1
Equity capital and reinvested earnings	35.7	9.4	17.9	5.5	2.7	1.3
Other capital, mostly inter-company loans	19.5	6.4	10.2	2.7	5.0	0.8
Portfolio investment	-19.7	16.0	18.5	-0.8	19.5	5.4
Equities	6.9	4.6	19.1	2.7	-2.0	2.2
Assets	-34.0	-1.9	5.7	-0.1	6.8	-3.1
Liabilities	40.9	6.5	13.4	2.8	-8.8	5.3
Debt instruments	-26.6	11.5	-0.6	-3.5	21.5	3.1
Assets	-54.2	-11.3	-69.6	-20.4	-14.0	-10.5
Liabilities	27.6	22.8	69.0	16.9	35.4	13.7
Memo item:						
Combined net direct and portfolio investment	-27.6	24.1	-7.8	2.0	11.0	-14.4
Financial derivatives	3.8	1.4	-4.4	1.0	0.3	-4.7
Other investment	25.1	-19.1	-24.0	-22.3	-15.0	22.9
Reserve assets	5.3	8.4	12.2	5.4	4.7	0.5
Errors and omissions	-17.2	-10.3	32.2	11.6	-3.1	3.7

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. A detailed set of tables on Euro 12 balance of payments data can be found on the ECB's website.

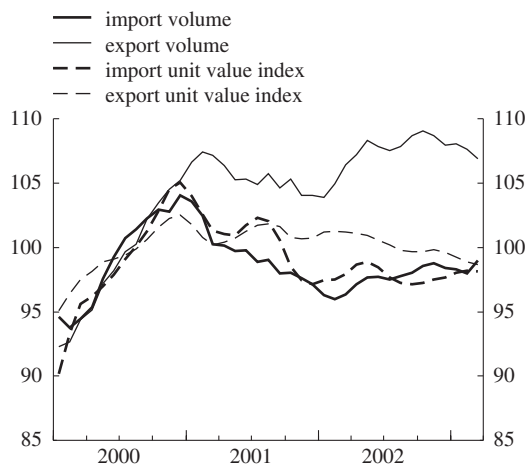
months of 2003 (see Chart 23). This mainly mirrors the evolution in the goods surplus over the same period. Chart 24 shows in more detail that extra-euro area export volumes had been virtually flat since the second half of last year, coinciding with weak foreign demand and the losses in price

competitiveness arising from the appreciation of the euro. As the appreciation continued, however, export volumes declined moderately from comparatively high levels in recent months (data available until March 2003), with the decline spread across many of the larger euro area export markets. At

Chart 24

Extra-euro area trade volumes and unit value indices¹⁾

(index: 2000 = 100; seasonally adjusted; three-month moving average)



Sources: Eurostat and ECB calculations.

1) Latest observations are for March 2003, and are partly based on estimates.

the same time, the fall in export prices (as proxied by export unit value indices) suggests that euro area exporters are cutting profit margins in an effort to partially offset the loss in price competitiveness resulting from the appreciation of the euro.

Import prices of goods (as proxied by import unit value indices) were fairly stable in spite of the appreciation of the euro. The expected downward pressure on import prices resulting from the strengthening of the euro was, thus far, largely counterbalanced by the rise in oil prices during the build-up to the military operations in Iraq (data available until March 2003). By contrast, other import categories not directly affected by oil prices – such as manufactured products – have already registered significant declines in import prices. Meanwhile, it seems that weak euro area demand, especially for the import-intensive categories of expenditure – such as capital expenditure, exports and inventories – may have partially offset the upward impact on import volumes that, *ceteris paribus*, should have resulted from the appreciation of the euro.

Sizeable net outflows in direct investment in April 2003

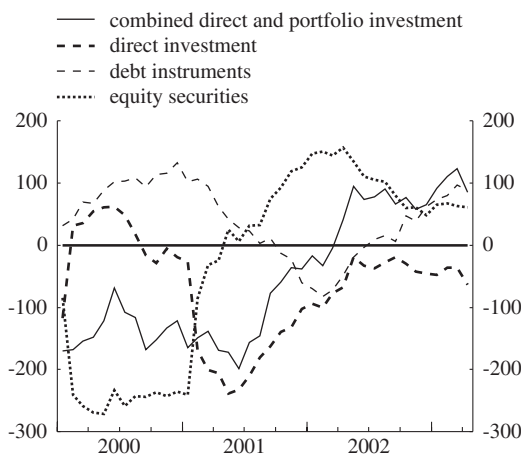
Combined direct and portfolio investment registered net outflows of €14.4 billion in April 2003 (see Table 8), mainly as a result of sizeable net outflows in direct investment (€19.8 billion). Portfolio investment, by contrast, recorded moderate net inflows (€5.4 billion). The direct investment outflows in April largely related to inter-company loans provided by euro area firms to their foreign affiliates (€15.8 billion). At the same time, direct investment of non-residents in the euro area was far lower by comparison.

Although net portfolio investment flows were relatively small, there were significant, albeit partly offsetting, movements among the flows in debt instruments on both the asset and liability sides. In particular, while bonds and notes registered large net outflows in April – stemming from net purchases of foreign bonds and notes by euro area investors (€17.2 billion), as shown in Table 8.5 of the “Euro area statistics” – money market instruments recorded substantial net inflows both in assets (net sales by euro area

Chart 25

Euro area net flows in direct and portfolio investment

(EUR billions; monthly data; 12-month cumulated figures)



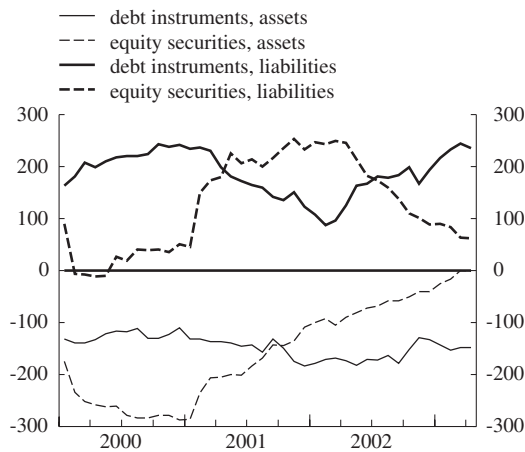
Source: ECB.

Note: A positive (negative) number indicates a net inflow (outflow).

Chart 26

Euro area investment in equity securities and debt instruments

(EUR billions; monthly data; 12-month cumulated figures)



Source: ECB.

Note: A positive (negative) number indicates a net inflow (outflow).

residents) and in liabilities (net purchases by non-euro area residents).

On the basis of 12-month cumulated data available up to April, combined direct and portfolio investment continued to register net inflows in 2003, reflecting developments in portfolio investment, in particular in debt instruments (see Chart 25). Debt instruments have been recording net inflows since the second half of 2002, as foreign investors increased their purchases of euro area bonds, notes and money market instruments. Conversely, equity flows, on both the asset and liability sides, continued to shrink in the course of the first four months of 2003 (see Chart 26).

Trends in euro area gross fixed capital formation

This article reviews the broad trends in euro area gross fixed capital formation (henceforth also referred to as “investment”) over the past two decades. Understanding these trends and their main determinants is important for the assessment of shorter-term developments, such as the rapid capital accumulation at the end of the 1990s and the protracted decline in 2001 and 2002.

Starting from the mid-1980s, there have been two long-term cycles in euro area gross fixed capital formation, which peaked around 1990 and 2000 respectively. The investment dynamics over these two cycles to a large extent reflect movements in growth expectations. Financial conditions may have played a role at specific junctures. In addition to the impulses from these macroeconomic determinants, special factors associated with German unification, government investment policy and advances in information technology also contributed to the dynamics of capital formation. These factors had an impact mainly on specific types of capital formation and thus help to explain changes in the composition of overall investment growth. While the impact of German unification and government investment policy was most pronounced in construction investment, the impact of technological advances was seen largely in network industries.

I Introduction

Fixed capital formation is a key determinant of both aggregate demand and supply. Understanding its dynamics is thus of great importance for the analysis of macroeconomic developments and the conduct of monetary policy. First, investment is relatively volatile and, while it accounts for only around one-fifth of GDP in the euro area, its developments can thus have a strong influence on the pattern of growth in aggregate demand. Second, net investment is a measure of the change in the capital stock and, thus, a key factor behind the rate of growth of potential output and the speed at which the economy can expand without inducing inflationary pressures.

In order to further understand the dynamics of fixed capital formation, this article reviews its broad trends since the 1980s. The starting point for the analysis is the mid-1980s, when investment began to recover after the retrenchment that followed the second oil shock. Understanding the broad trends in investment helps to put into perspective shorter-term developments, such as the rapid increase in real investment at the end of the 1990s and the protracted decline in 2001 and 2002. In particular, it can help to address the question of the extent to which more recent developments reflect the occurrence and unwinding of specific shocks.

This article follows up on previous analysis of euro area investment in the ECB's Monthly Bulletin (see Box 7 entitled “Factors behind the weakness in investment by type of product” in the March 2003 issue). Analysis of euro area gross fixed capital formation is hampered by the fact that detailed data on investment and some of its determinants are not always available for the euro area as a whole or for sufficiently long periods. The data used in this article are partly official euro area-wide data and partly ECB estimates based on data available for individual countries.

The analysis proceeds as follows. Section 2 briefly describes the broad trends in aggregate euro area investment as reflected in the two cycles starting around the mid-1980s and 1990s respectively. Section 3 discusses some of the main macroeconomic determinants, such as aggregate demand and expectations thereof, that typically play an important role in explaining these trends. At the same time, special factors, such as German unification and the advances in information technology, had a specific impact on individual types of capital formation and thus help to explain the changes in the composition of overall investment growth. Against this backdrop, Section 4 considers the dynamics of investment by type of sectoral activity and relates them to the specific factors at play in the individual investment cycles. Section 5 concludes.

2 Overview of investment dynamics in the euro area since the 1980s

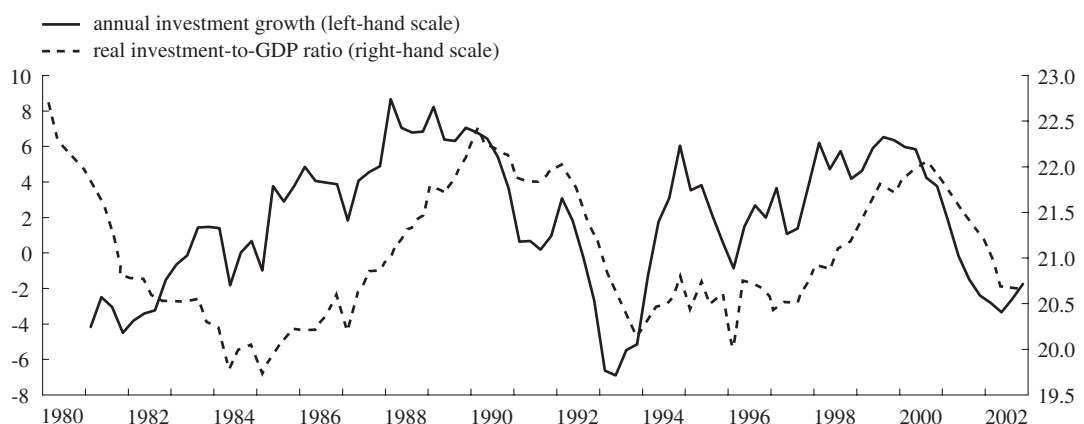
In the past two decades, aggregate real investment in the euro area has grown by 2¼% per annum on average, approximately the same rate as real GDP. However, its volatility, as measured by the standard deviation of the quarterly year-on-year growth rate, was around three times that of real GDP. Investment growth tended to be particularly strong when GDP growth was substantially above its medium-term trend and particularly weak when GDP growth was very low or negative. This “excess” volatility during particular phases of the economic cycle implies that marked movements in the ratio of aggregate real investment to real GDP emerged only over the full course of the cycle (see Chart 1).

In the period reviewed, the real investment-to-GDP ratio in the euro area went through two long-term cycles, peaking in 1990 and 2000 respectively. The first cycle started after the recession in the early 1980s, from an investment-to-GDP ratio of just below 20%. The dynamics initially remained fairly subdued, but picked up strongly towards the end of the decade. Early in 1990 the investment ratio reached a peak of almost 22½%, following annual rates of growth in

real investment of around 7%. Similarly, the second cycle started after the recession in the early 1990s, from a level of just above 20%; it was also characterised by subdued investment dynamics in the middle of the decade and a strong pick-up towards the end. Following annual rates of investment growth of around 6%, the investment ratio reached a peak of around 22% in mid-2000, i.e. almost the same level as at the peak of the previous cycle. In 2001 and 2002 investment declined and the investment-to-GDP ratio fell to below 21%. Most currently available forecasts from international institutions and private organisations indicate a moderate recovery of the investment ratio in 2003 and 2004.

Two features seem noteworthy when analysing the dynamics in aggregate investment since the mid-1980s. First, the investment dynamics in the two cycles were much less similar when measured in terms of the ratio of aggregate nominal investment to GDP. In particular, the peak in the nominal investment ratio reached in 2000 was well below that of 1990. The Box examines the difference between the dynamics in the real and nominal investment ratios and explains that each measure contains specific information for the analysis of investment.

Chart 1
Real aggregate investment in the euro area
(in percentages)



Sources: Eurostat and ECB calculations.
Note: Calculated from seasonally adjusted data.

Box

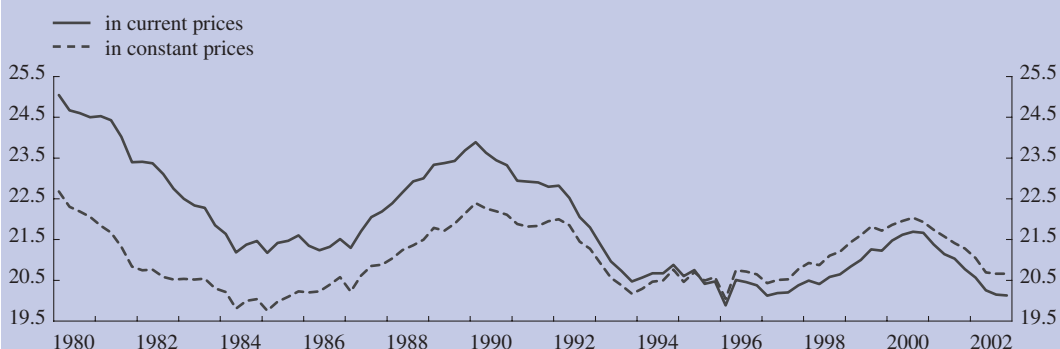
Real and nominal investment: what matters when?

Nominal investment measures the amount of money spent on purchasing capital goods; real investment is estimated by deflating nominal investment with an appropriate price index. In the period from the early 1980s onwards, the annual increase in the deflator of aggregate investment was on average $\frac{1}{2}$ percentage point lower than that of overall GDP. This decline in relative prices reflects, in particular, the fall in the level of prices for certain information and communication technology (ICT) products – such as computers – which accelerated from the mid-1980s onwards (see Box 2 of the article entitled “New technologies and productivity in the euro area” in the July 2001 issue of the ECB’s Monthly Bulletin).

When adjusted for price changes, the investment performance is considerably more impressive than when measured in nominal terms (see the chart below). For example, in 2000 the real investment-to-GDP ratio in the euro area almost reached the level recorded in 1990, while this was clearly not the case for the nominal ratio. It is nevertheless important to note that the nominal investment-to-GDP ratio also increased in both the late 1980s and the late 1990s. This shows that the higher contributions to growth from strong fixed capital formation in the cyclical peaks of 1990 and 2000 were not simply a product of price measurement methodologies but actually reflected higher spending in relation to overall resources.

Investment-to-GDP ratio in the euro area

(in percentages)



Sources: Eurostat and ECB calculations.

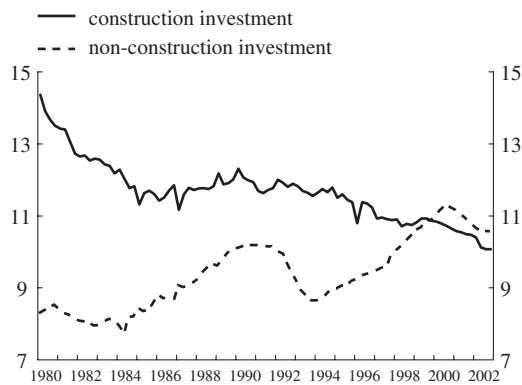
Note: Calculated from seasonally adjusted data.

Focusing on the real investment-to-GDP ratio is appropriate when, for instance, assessing the impact of capital accumulation on developments in labour productivity and thus overall growth. In this context, what matters are the services that a particular investment good supplies in the production process and not the amount of money spent on it. Owing to technical progress in the production of high-tech products, the services provided by ICT goods (services such as memory and speed in the case of computers) improved considerably, even though buyers did not have to pay more for these goods. On the other hand, focusing on developments in the nominal investment-to-GDP ratio is appropriate when assessing businesses’ ability to finance their investment. In this context, what matters are the actual outlays needed to purchase investment goods, as there might be constraints with regard to the availability of internal and/or external funds.

In particular, looking at the investment dynamics of the late 1990s, there were mutually reinforcing improvements in actual growth, in expectations of future growth and in stock market prices towards the end of the decade. In this favourable environment, financing constraints appear to have been of relatively limited importance at the aggregate level, and the focus of the analysis was typically on developments in real investment. In 2001 and 2002, the economic environment deteriorated, and the financing aspect of investment – and thus the information contained in nominal investment spending – came more to the fore. Thus, depending on the focus of economic analysis, both the real and the nominal investment ratio contain important specific information.

Chart 2
Real construction and non-construction investment

(as a percentage of real GDP)



Sources: Eurostat and ECB calculations.
 Note: Calculated from seasonally adjusted data.

Second, underlying the dynamics of aggregate investment in the past two long-term cycles were opposite trends in construction investment (comprising dwellings, other buildings and infrastructure) and in non-construction investment (essentially

comprising the various types of equipment investment and other investment). In the last two decades construction investment declined by around 2½ percentage points as a share of real GDP. This was more or less offset by a corresponding increase in the ratio of real equipment investment (see Chart 2). The cyclical upturns in the aggregate investment-to-GDP ratio starting in the 1980s and 1990s were both driven by the dynamics in equipment investment.

These features underline the fact that investment dynamics reflect a variety of different influences, many of which are unlikely to be adequately captured in models of aggregate investment. Against this background, the main determinants of investment discussed in the next section help to explain the broad pattern of aggregate investment over the economic cycle, while special factors of particular relevance to individual components of investment are examined in Section 4.

3 Main macroeconomic determinants of investment in the euro area

Investment decisions are made by a variety of decision-makers and are based on different economic considerations. Enterprises decide upon their investment projects by comparing expected future profits from investing in new capital with the (user) cost of buying and holding it. Households investing in dwellings compare future income flows with the costs of a mortgage-backed loan, the cost of renting, or the alternative of a financial investment. Similarly, governments also have to consider the cost of financing their investment projects, and are subject to budget constraints. Cutting across these different decision processes, there are three broad sets of macroeconomic variables that affect aggregate investment, namely expectations for future growth (of demand, income and profits), financial conditions and the price of capital goods.

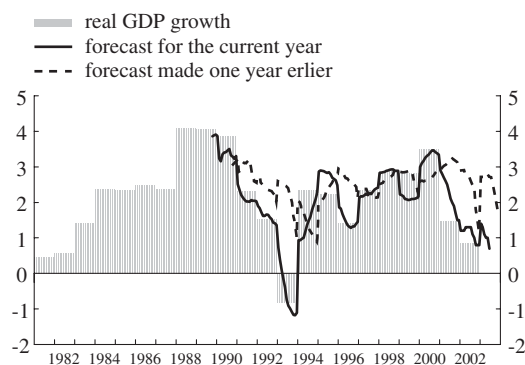
Given the time-lags in implementing investment decisions and the high cost of reversing them, expectations of future growth play an important role. Expectations can undergo considerable change, and “surprises” may have a disproportionately strong effect on investment, helping to explain the pronounced movements in the investment-to-GDP ratio observed in the last two decades. Moreover, the adjustment of investment plans to changes in expectation may not be gradual. For instance, irreversibility and lumpiness of investment projects may introduce “zones of inaction”, meaning that investment projects are not scaled down or up gradually but are potentially scrapped or launched as a whole when growth expectations exceed a particular threshold.

The expectations underlying individual investment projects cannot be directly measured. At the aggregate level, macroeconomic forecasts provide some information on the general economic outlook at individual points in time. Since the end of 1989 Consensus Economics has published, on a monthly basis, private sector forecasts for annual averages of key macroeconomic variables for the current year and the year ahead. It should be noted that investment decisions are based on expectations covering the whole period of the investment project and that the Consensus Economics forecast data can therefore only serve as an illustration.

Chart 3

Real GDP growth and Consensus Economics forecast

(annual percentage changes)



Sources: Eurostat, Consensus Economics and ECB calculations.
Note: Forecast data are based on a slightly varying coverage of euro area countries.

Real GDP as a measure of demand and income suggests that each of the two broad investment cycles was characterised by above-average growth, at the end of the 1980s and 1990s respectively (see Chart 3). Significantly, the real GDP forecasts made at the time suggest that the end of the 1990s was a period in which the positive growth expectations for the year ahead were mostly confirmed *ex post*. This was even the case when the financial crises in Russia and South-East Asia led to a temporary deterioration in current-year growth expectations. Finally, the year 2000 clearly surprised on the upside, considering that the forecasts made one year

earlier had been much lower. By contrast, with regard to growth in the last two years, and probably also this year, the earlier expectations were too positive. A similar negative surprise can be observed for the early 1990s, helping to explain why the decline in the investment-to-GDP ratio in these periods was relatively steep.

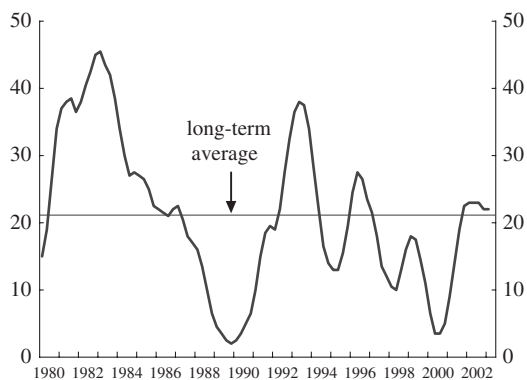
As a result of over-optimistic expectations and negative surprises, firms may find themselves with larger than warranted capacity and may subsequently invest less than would have been the case if demand expectations had been met. Survey evidence on the assessment of capacity in the manufacturing sector – which, however, only accounts for a little less than one-fifth of total investment – suggests that the number of firms that consider their production capacities more than sufficient has increased in the past two years. However, this number was, in the first quarter of 2003, close to its longer-term average and considerably lower than in the downturn of the early 1990s, suggesting that there is little evidence of an overhang from previous excessive capital accumulation that would still have to unwind (see Chart 4).

As regards the cost of capital, the real interest rate may be a good benchmark

Chart 4

Assessment of production capacity in manufacturing

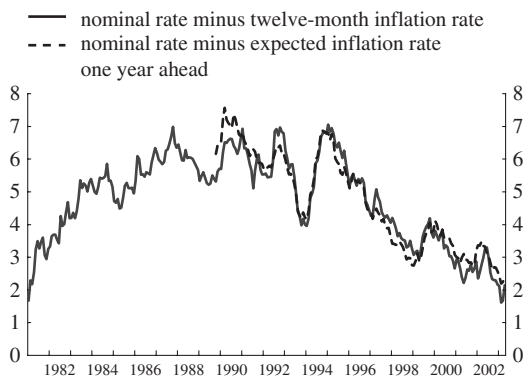
(percentage balance)



Sources: European Commission and ECB calculations.
Note: Seasonally adjusted data. A higher value indicates a larger share of firms with sufficient production capacities.

Chart 5
Measures of the real long-term interest rate in the euro area

(percentage per annum; monthly averages)



Sources: Eurostat and ECB calculations.
 Note: Expected inflation is calculated as a weighted average of the forecast for the current year and the forecast for the next year.

measure of the real opportunity cost of investing in fixed capital. Measures of the real interest rate are typically subject to a number of caveats considering that they depend, for instance, on the maturity of the interest rate chosen and on the proxy chosen for expected changes in the price level (see the article entitled “Stability-oriented policies and long-term real interest rates in the 1990s” in the November 1999 issue of the Monthly Bulletin). Chart 5 shows two measures of the euro area real interest rate, both based on the nominal ten-year government bond yield, but calculated on the basis of different proxies for inflation expectations. The first measure uses actual consumer price inflation as a proxy for inflation expectations, while the second measure uses the expectation of consumer price inflation for the 12 months ahead as implied by the Consensus Economics forecast. On the basis of these measures, developments in real interest rates were characterised by a broad upward trend during the investment cycle starting in the 1980s and by a broad downward trend during the cycle starting in the 1990s. This suggests that, taken on their own, real interest rates cannot explain the trends in fixed capital formation. This conclusion is in line with model-based evidence that aggregate demand tends to be a

more important factor in explaining developments in investment than the cost of capital.

Two caveats need, however, to be mentioned. First, risk premia are a significant part of the financing costs of enterprises and households and they can vary substantially with macroeconomic conditions and the financial position of firms and households. In this respect, the rise in the indebtedness of euro area non-financial corporations in recent years, coupled with macroeconomic uncertainty, has meant that corporate borrowers, particularly those with weak balance sheets, have had to pay a higher spread for credit vis-à-vis government borrowers.

Second, while the broad pattern of investment may be determined more strongly by demand expectations than financing conditions, the latter can have a significant impact on the timing of investment, especially when cash-flow constrained firms have to rely on external finance to implement their investment projects. For instance, in the past two years financial constraints may have added to the weakness of investment spending, partly counterbalancing the impact of generally low interest rates (see Box 2 entitled “The impact of financial factors on corporate investment in the euro area”, published in the June 2003 issue of the Monthly Bulletin). As regards the longer-term developments in internal finance, the ratio of nominal investment to gross operating surplus in the euro area appears to have been on a broad downward trend since the early 1980s, with peaks in 1990 and 2000 (See Chart 6). At the aggregate level, the gross operating surplus includes components such as rents and labour income of the self-employed that are not directly related to the funding of business investment. The developments in the gross operating surplus nevertheless suggest that, over time, the availability of cash-flow has become a less binding factor for investment.

Chart 6
Investment over gross operating surplus

(as a percentage; current prices)



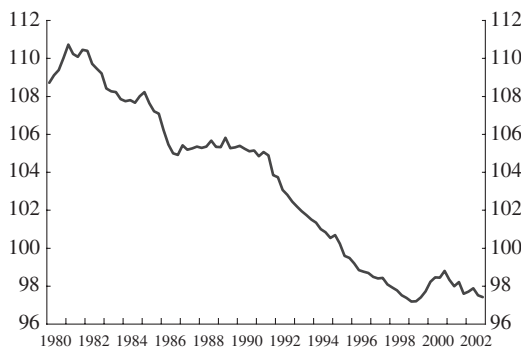
Sources: Eurostat and ECB calculations.
 Note: Calculated from seasonally adjusted data.

A downward impact on the cost of capital is associated with the fact that in the last two decades the prices of capital goods on average increased at a slower pace than overall prices as measured by the GDP deflator (see Chart 7). Following a line of reasoning mostly put forward for the United States, it has been argued that in particular the absolute decline in the prices for information and communication technologies (ICT), which accelerated in the course of the 1990s, explains the investment cycle starting in the 1990s and possible over-investment in certain types of equipment. Moreover, estimates based on annual data for individual euro area countries (covering around three-quarters of the euro area) suggest that the share of ICT-related expenditure in total nominal investment spending increased over most of the 1990s, implying that the impact of the relative price declines on real investment grew larger.¹ However, the rising share of ICT in total investment also implies a higher average rate of depreciation, considering that the service life of ICT tends to be much shorter than that of other capital goods. This rise in the rate of depreciation should have

had a counterbalancing effect on falling capital goods prices, increasing the (user) cost of capital. Moreover, the broad downward trend in relative prices for capital goods seems to have halted during the periods when investment was strongest, suggesting that this factor taken on its own cannot explain the investment performance.

Chart 7
Deflator of investment over GDP deflator

(index: 1995 = 100)



Sources: Eurostat and ECB calculations.
 Note: Calculated from seasonally adjusted data.

Taken together, the main macroeconomic determinants of investment, in particular developments in expectations of aggregate demand and, albeit less so, in the cost of capital, can help to explain at least part of the two broad cycles in aggregate investment starting in the 1980s and 1990s respectively. Differences between the investment performance of individual sectors can be explained by a number of specific shocks, as discussed below.

¹ Continuously falling capital goods prices could also have perverse effects on investment if they induce firms to wait in order to benefit from lower prices in the future. It is difficult to gauge the extent to which such effects play a role in actual investment decisions. The gains from lower prices of capital goods need to be weighed against the possible losses from missing an investment opportunity if investment is delayed. Possible early-mover advantages of capturing additional demand may often be much more important than any short-term gains from lower capital goods prices.

4 Breakdown of investment dynamics by economic activity

This section looks at disaggregated data on investment in order to gain an insight into specific factors that may have driven the dynamics over parts of the investment cycles. In the period from the 1980s onwards, a number of specific factors and shocks may have affected overall investment dynamics. The disaggregated data below highlight the possible impact of three such factors, namely German unification, changes in government investment policy, and the information and communication technology shock of the 1990s.

The disaggregation of investment considered below is based on a sectoral breakdown by type of activity and product. Though different from a breakdown by institutional sector (i.e. private enterprises, households and governments), the breakdown of investment by type of activity and product can be broadly mapped into a breakdown by institutional sector. Moreover, it avoids some of the problems of data interpretation arising from the fact that a number of previously public enterprises (particularly in the area of network industries) were privatised in the period under consideration.²

Aggregate investment is divided in four broad categories:³

- 1) In a number of industrial and services sectors, including agriculture, mining, manufacturing, the construction industry, commerce, hotels and business services (henceforth called, for the sake of brevity, “manufacturing and market services”) investment is predominantly made by private enterprises.
- 2) Residential investment is predominantly undertaken by households.
- 3) In network industries, which include electricity and gas production and distribution, water distribution, telecommunications and transport, investment has been and continues to be

a mixture of private and public, with government intervention in most cases omnipresent.

- 4) In a number of service sectors, including public administration, education, defence and health (henceforth called “non-market services”), investment has largely been public.

The contributions of these categories to overall investment growth are shown in Chart 8. On the basis of these data, the overall investment cycle has largely been shaped by the decisions in *manufacturing and market services*. This reflects the fact that investment in this category represents more than 40% of total euro area investment and that, measured in terms of the standard deviation of annual rates of growth, it has been the most volatile component of investment in the period since the 1980s. The category’s contribution to overall investment growth at the end of the 1990s did not reach that at the end of the 1980s, suggesting that the technology shock did not have a strong impact on this type of investment.

The breakdown also suggests that all investment activities followed a broadly similar cyclical pattern, with, in particular, the retrenchment in 2001 having been widespread. One notable exception is the pattern of *residential investment* in the mid-1990s. Unlike other major investment

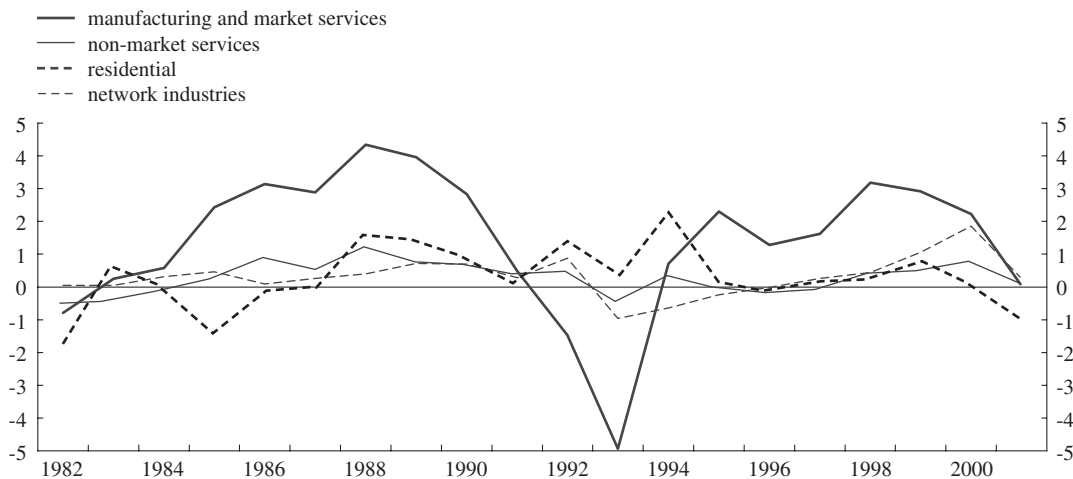
² The available institutional sector accounts provide nominal, but not real, investment series separately for households, financial and non-financial corporations and the public sector for the majority of euro area countries.

³ The four categories are based on the statistical classification of economic activities in the European Community (NACE Rev. I) as follows: 1) residential investment: as defined in the national accounts (gross fixed capital formation in housing); 2) “manufacturing and market services”: NACE sectors 01-37, 45-55 and 65-74 minus residential investment; 3) “network industries”: NACE sectors 40-41 and 60-64; 4) “non-market services”: NACE sectors 75-93. The euro aggregate series are based on data and ECB estimates for Belgium, Germany, France, Italy, the Netherlands, Austria and Finland, for which longer time series exist. These seven countries account for approximately 83% of total fixed capital investment in the euro area.

Chart 8

Contributions to real investment growth

(annual percentage points)



Sources: Eurostat, OECD, national sources and ECB estimates.

components, the contribution from residential investment, which accounts for around 30% of total euro area investment, remained positive and increased to a historical high in the early 1990s. Thereafter, during the upturn in the investment cycle that started in the mid-1990s, the contribution from residential investment was relatively weak, and in the downturn of 2001 and 2002 this category contributed about 1 percentage point to the fall in overall investment.

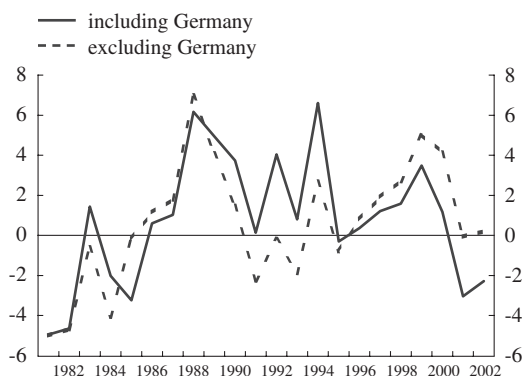
The distinct dynamics of residential investment to a large extent reflect the special

developments in Germany. In the wake of German unification, residential investment was boosted by government intervention. The resulting relatively abundant supply of housing as well as a number of changes in housing policy in the second half of the 1990s have contributed to the weakness of residential investment in Germany since then. In the rest of the euro area, residential investment followed the overall investment cycle more closely (Chart 9). While it decelerated sharply, residential investment in the rest of the euro area did not contract in 2001 and 2002, in part reflecting the fact that the household sector benefited from favourable financial conditions.⁴

Chart 9

Real residential investment in the euro area

(annual percentage changes)



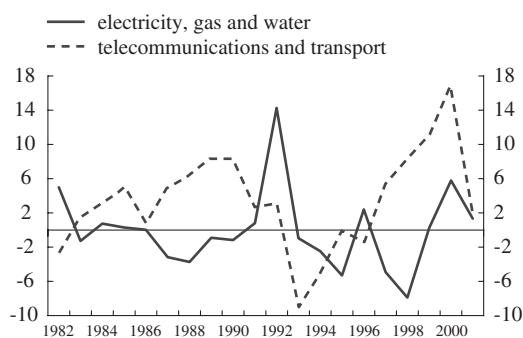
Sources: Eurostat, OECD and ECB estimates.

Investment by *network industries*, which were among the sectors most strongly affected by the information and communication technology shock, contributed substantially to the upswing in the investment cycle in the 1990s. In 2000 this type of investment activity contributed around 40% to total investment growth, although the share of network industries in total investment is relatively small, at less than 15%.

⁴ For a more detailed analysis of the determinants of demand for housing services, see the article entitled "Recent trends in residential property prices" in the May 2003 issue of the ECB's Monthly Bulletin, pp. 49-59.

Much of the growth in investment in this category is attributable to the telecommunications sector and was concentrated in 1999 and 2000 (see Chart 10). In this period telecommunications enterprises undertook large investment projects in new technologies, both in mobile telecommunications infrastructure and in fixed network infrastructure (particularly fibre-optic cable installation). The strong dynamics that unfolded in these industries over a relatively short period may have also reflected important structural reforms that had been introduced or were in the process of being introduced in this market in a number of euro area countries. These reforms related to liberalising entry barriers and privatising government-owned enterprises. A downward revision of expectations with regard to future returns in the sector, together with financial difficulties on the part of some of the main players, contributed to a large-scale investment

Chart 10
Real investment in network industries
(annual percentage changes)

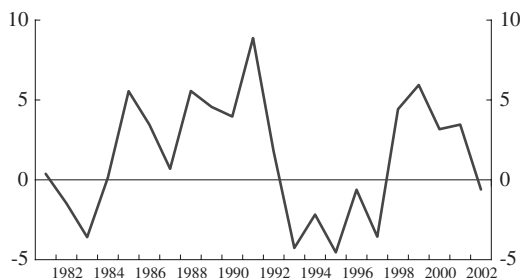


Sources: Eurostat, OECD, national sources and ECB estimates.

5 Conclusions

This article reviewed the broad trends in fixed capital formation since the 1980s, focusing on two long-term cycles starting in the mid-1980s and mid-1990s. The fact that the real investment-to-GDP ratio in 2000 almost reached the peak level of 1990 reflected the improved growth expectations at the time and a strong decline in the relative price of

Chart 11
Real government investment
(annual percentage changes)



Sources: OECD estimates and ECB calculations.

retrenchment starting in 2001. The retrenchment also had a significant impact on up-stream manufacturers of telecommunications equipment.

Finally, investment activities in *non-market services* contributed to the pick-up in the overall investment cycle in the 1990s, but the dynamics remained relatively subdued compared with those of the investment cycle starting in the 1980s. Non-market services account for around 14% of total investment, but this share has been gradually declining since the 1980s.

Estimates of real government investment confirm that this only started to rise towards the end of the investment cycle of the 1990s (see Chart 11). The relatively subdued investment activity in previous years reflected partly the privatisation of some activities and partly governments' decisions to cut back investment when confronted with fiscal consolidation requirements. As a result, public investment has been pro-cyclical.

capital goods against the background of favourable financial conditions.

As regards an explanation of the somewhat divergent developments in the individual components of investment, shocks such as those associated with German unification and the advances in information technology are

likely to have been of importance. While the impact of German unification was most evident in the growth of construction investment, the impact of advances in technology showed largely in the investment by network industries. These investment categories were also characterised by a stronger downward adjustment in the last two years, as the positive impulses from special factors ceased and reversed. Government investment, which was also mainly in construction, also contributed to the shape of the euro area capital accumulation cycles.

In light of these findings, developments in investment in the last two years appear to largely reflect adjustments to the deterioration in the outlook for growth and a revision of expectations with regard to returns, in particular in network industries. In this respect, a recovery in investment requires an improvement in expectations and confidence, which can be fostered by a stable macroeconomic environment and renewed momentum in the process of structural reform.

Early experience of the management of euro banknote printing and issuance

This article looks at the early experience in the areas of production and issuance of euro banknotes, as well as at anti-counterfeiting measures. It specifically focuses on continuous improvement challenges in these areas and on providing a level playing-field for cash services within the Eurosystem. Post-launch activities have concentrated on improvements in the production and quality management functions. The implemented decentralised production scenario with pooling provides economies of scale and helps – together with the quality management system – to ensure a supply of consistent quality banknotes. A level playing-field has been introduced by adopting common standards for the provision of cash services. The implementation of a stock management system in conjunction with common minimum sorting standards ensures an efficient use of the euro banknotes within the Eurosystem. At the same time, the counterfeiting threat calls for constant monitoring and the implementation of measures to minimise the potential impact of counterfeit banknotes. Given that a great deal of experience still remains to be gained with the single currency in all the above-mentioned areas, the Eurosystem will constantly monitor developments and seek to make improvements.

I Introduction

The preparations for the euro banknotes, from their design through to their launch, spanned almost a decade. This pre-launch phase largely involved a series of co-ordinated projects. Since the euro banknotes and coins were put into circulation on 1 January 2002, however, this project-based approach has evolved towards a situation of “business as usual”. One important aspect of this

evolution has been the ongoing management of the printing and issuance of euro banknotes. Business as usual, of course, requires continuous improvement in terms of production, technical progress, quality management, currency supply, stock management and counterfeit information. The following sections will consider each of these aspects in more detail.

2 Euro banknote production

Allocation of banknote production

The banknote production requirements for the launch were met using a decentralised production scenario, i.e. each national central bank (NCB) procured, in principle, its requirements in all denominations. However, bilateral and even multilateral pooling arrangements were possible and agreed upon by some NCBs. In April 2001, the Governing Council of the European Central Bank (ECB) decided that, as from 2002, euro banknote production would take place in accordance with a decentralised production scenario with pooling. Under this arrangement, each NCB would be responsible for procuring normally no more than two denominations. The decentralised pooling system enables the Eurosystem to benefit from economies of scale and helps it to ensure a supply of consistent-quality banknotes by reducing the

number of production sites for each denomination.

The responsibility for production of the different euro banknote denominations is assigned by the ECB, taking into account to the greatest possible extent the production preferences of the NCBs. Furthermore, the ECB takes into account the denominations for which an NCB was responsible in the previous year in order to benefit as much as possible from the experience gained by the printing works in the previous production of a certain denomination.

The assignment of responsibility for the Eurosystem production requirements for 2002 was based on each NCB's share in the total Eurosystem banknote requirements. For this allocation of the banknote production, national forecasts were used. This use of

national forecasts was justified because the needs were still heavily influenced by national circumstances, which were not expected to change drastically and immediately after the introduction of the euro banknotes. However, as time progresses, it is not possible to measure the impact of national factors on the circulation of banknotes owing to the influence of banknote migration resulting from tourism and other activities. Therefore, it has been decided to assign responsibility for banknote production to the NCBs in accordance with a specific key which is not based on estimated national needs.

The assignment to the NCBs of the responsibility for total Eurosystem banknote production is based on two key factors:

- each NCB's share in the ECB's capital key: this factor reflects the size of the respective country's economy and population, both of which influence developments in banknote requirements; and
- each NCB's share in the launch stock needs: this factor represents the best estimate of the specific national features of banknote demand.

Over time, the weights of these two factors will move gradually towards the ECB's capital key.

Banknote production volumes in 2003

In September 2002, the Governing Council decided on the total volume of euro banknotes to be produced in 2003 and the allocation of this production volume to the NCBs. In total, some 3.1 billion euro banknotes are being produced in 2003, after 4.8 billion in 2002 (see the table below). These banknotes are planned to cover any growth in the circulation and the replacement of banknotes no longer fit for circulation, and to ensure that NCBs have sufficient logistical stocks to accommodate all requests for banknotes, even in periods of seasonal peak demand.

In addition, the Governing Council decided on the production of banknotes and the further arrangements for the establishment of the Eurosystem Strategic Stock (ESS). This stock is intended for exceptional circumstances to cover an unexpected increase in the demand for euro banknotes or a sudden interruption in the supply of euro banknotes. The ESS consists of 30% of the total value of euro banknotes in circulation (held in the three high-value denominations) and 20% of the number of lower-value euro banknotes in circulation (held in these denominations). There are currently around 1.74 billion banknotes in the ESS.

Table
Production of euro banknotes in 2003¹⁾

Denomination	Quantity (millions of banknotes)	Value (€ millions)	NCBs commissioning production
€5	110.0	550	FR
€10	999.1	9,991	DE, GR, IE, AT
€20	1,071.1	21,422	DE, ES, FR, NL, PT
€50	657.0	32,850	BE, ES, IT, NL
€100	122.0	12,200	IT, FI
€200	133.0	26,600	DE, LU
TOTAL	3,092.2	103,613	

1) It should be noted that the stocks of €500 banknotes are sufficient, so there is no need to produce this denomination in 2003.

Continuous improvement philosophy

Prior to the launch of the euro, each participating country had produced its own national series of banknotes with its own quality standards to meet its own specific delivery requirements. The euro launch was the first time in Europe that a large number of printing works had been given the task of producing a single series of banknotes to common specifications and standards. Management procedures and quality standards varied widely across the printing works involved. Furthermore, the need to implement a common quality standard and to keep to a tight production schedule made the task even more challenging. One and a half years on from the launch, it can be said that the preparatory work was very effective.

The post-launch activities have focused on building upon this success and improving the overall production and quality management functions within the Eurosystem. This has been achieved through reviews of the whole system, particularly in the areas of technical standards and quality management, in co-operation with all the parties involved, including the NCBs and printing works. Improved communications and closer working relationships between the manufacturing sites and their key suppliers contributed to the effectiveness of these reviews. One significant operational improvement achieved by decentralised pooling has been a reduction in the number of printing works producing a particular denomination. This has reduced further the risk of varying quality standards for any given denomination. Attention has now shifted to the suppliers of the key raw materials to the printing works, with the goal of optimising the supply chain. The future challenge is to continuously improve systems by implementing the necessary measures to enhance efficiency and effectiveness within the Eurosystem banknote printing community.

The high output of the manufacturing sites before the launch of the euro, together with the reduced demand for banknotes resulting

from a more efficient circulation of the euro, have led to overcapacity in banknote printing in the euro area. The Eurosystem is reflecting upon this issue, the objective being to ensure efficient and secure production of banknotes to the highest standards, for both the current and future euro series.

In some countries, there have been complaints about the quality of the paper of the low-denomination euro banknotes. The Eurosystem is currently looking into this matter. However, a final assessment cannot be made before a full life cycle for each banknote denomination is complete. In general terms, the quality of the euro banknotes is higher than that of the legacy currency banknotes, as the euro banknotes are produced according to tight production tolerances while incorporating state-of-the-art security features. The banknote paper is similar to that used to produce several of the legacy currency banknotes. However, when making comparisons, it is always necessary to assess the banknote specifications in their entirety as the integration of certain security features may adversely affect the banknotes' resistance to wear and tear.

Health and safety and environmental issues

Well before the launch, the Eurosystem had commissioned analyses of the euro banknotes, assessing them against the most stringent European health and safety regulations. These tests were carried out on all seven denominations, all producers and all the production materials of suppliers. They confirmed that euro banknotes would not cause any health problems if used normally and would meet all legal requirements.

After the launch, the media reported on the presence of Tributyltin (TBT) in euro banknotes and the possible impact on health. TBT is used as a stabiliser in a large number of everyday products, including food packaging, textiles, wood preservatives and disinfectants. The ECB commissioned further

in-depth studies into TBT and concluded that there were indeed very small concentrations of TBT in specific raw materials used in euro banknote production, but that they were by no means significant enough to harm the general public. An individual would in fact need to consume more than 2,500 euro banknotes per day over a significant period of time to exceed the recommended tolerable daily intake. Irrespective of this, the ECB has taken action to eliminate TBT from the euro banknotes as part of its precautionary approach towards public health matters.

In late 2002, there were reports in the media about the possible presence of genetically modified cotton (GMC) in euro banknote paper. The ECB has started investigating both the possible presence of GMC fibres in euro banknotes and its potential impact on public health and the environment, in co-operation with suppliers and specialised institutions.

3 Euro banknote issuance

A level playing-field for NCB cash services

According to Article 105 (2) of the Treaty establishing the European Community, the European System of Central Banks (ESCB) has a responsibility to promote the smooth operation of payment systems in general. However, the position with regard to the various payment instruments is neutral, i.e. the Eurosystem neither promotes any particular payment instrument, nor prevents or hampers its use. The introduction of the euro banknotes and coins has posed considerable challenges to euro area NCBs, which have quite different national traditions and practices in the field of cash logistics and services. Against this background, the Governing Council has underlined on various occasions the importance of a level playing-field for cash services. It has consequently adopted certain measures contributing to a fair, competitive environment for the provision of cash services:

When selecting cotton for banknote paper, the same standards are applied as in the textile industry and there is no evidence that exposure to GMC damages health. The ECB is monitoring the issue closely and will take any action deemed necessary on the basis of its precautionary approach towards public health and environmental issues.

As part of its continuous improvement programme for banknote production, the ECB has initiated further studies on health and safety and environmental issues related to euro banknotes. The ECB remains fully committed to continuously monitoring developments in this field and improving Eurosystem banknote production standards, and is constantly seeking and evaluating opportunities to minimise the health and safety and environmental impact of the production and use of euro banknotes. Experience gained will be applied to both current and future banknote series.

- A common Eurosystem fee policy for the cash transactions of professional clients at NCB counters was implemented as from 1 March 2002, defining both free-of-charge services and fee-based services.
- With regard to cash recycling machines in the euro area, a common Eurosystem approach has been agreed resulting in the establishment of terms of reference for the use of these machines by credit institutions and other euro area parties engaged in the sorting and distribution of banknotes.¹
- A common approach to opening hours and debiting/crediting rules for cash services at NCB counters has also been defined.

The ECB will continue to analyse and discuss additional measures on an ad hoc basis with

¹ The terms of reference can be found on the ECB's website (www.ecb.int).

third parties, including the European Credit Sector Associations. Also in this context, the Cash User Group (CUG) was set up jointly by the European Commission and the ECB in January 2003. All sectors and industries involved in the handling of euro cash are represented in this group. This includes banks, retailers, cash-in-transit (CIT) companies, the cash-operated machine industry, as well as consumers and small and medium-sized enterprises. The CUG serves as a forum for regular dialogue on all issues related to the use of euro banknotes and coins, thus being an important body to help the European authorities in their efforts to continuously improve the use of Europe's single currency. It provides input for the monitoring of the performance of euro banknotes and coins and contributes to the better definition of the needs and expectations of private and professional users of euro cash.

Stock management and the efficient use of euro banknotes

In order to meet the demand for euro banknotes in any situation, the Eurosystem needs to keep an appropriate level of stocks. Euro banknotes are managed and stored in accordance with the principle of decentralisation. Accordingly, each NCB has to maintain a certain level of banknote stocks for logistical purposes, with a view to ensuring a smooth and efficient supply of euro banknotes under normal circumstances. NCBs should try to smooth irregular banknote flows by managing banknote surpluses and shortages at the regional/branch level by means of banknote transportation within their jurisdiction.

The main objective of the stock management system is to monitor and efficiently co-ordinate the logistical stocks at the

Eurosystem level, also taking into account the use of the ESS (see above). One key element is that the NCBs have calculated appropriate benchmark inventory levels per denomination for their logistical stocks. In view of existing national peculiarities, such as structural differences in NCBs' branch networks or differing seasonal fluctuations in demand, the benchmark levels may vary between NCBs and banknote denominations.

In addition, credit institutions and CIT companies may decide to also offer their cash services in euro area countries other than their own. As with tourism, this could lead to persistent imbalances in cross-border banknote flows, which may ultimately call for the transfer of banknote stocks between NCBs.

Whilst the NCBs are responsible for monitoring and managing the logistical stocks at the national level and for monitoring developments in these stocks in relation to euro banknote demand, the ECB centrally monitors the logistical stocks at the Eurosystem level and co-ordinates the cross-border use of logistical stocks. This is necessary to respond to changes in supply or demand in individual countries, or to banknote migration. To date, several bulk transfers of logistical stocks have been carried out in order to avoid imbalances in stocks among NCBs.

Depending on the accepted quality of the banknote circulation, NCBs could vary the threshold for determining banknote fitness in sorting machines, which would affect banknote destruction levels. However, given that the cost of replacing unfit banknotes is shared by all NCBs in accordance with the mixed production key, the Governing Council has agreed on common minimum NCB sorting standards.

4 Anti-counterfeiting measures for euro banknotes

Organisation of counterfeit handling within the ESCB

When considering the Eurosystem's approach to handling counterfeit euro banknotes, it was decided that a co-ordinated decentralised system would be adopted, in which the advantages of both centralised and decentralised approaches would be maintained.

The ECB has established a Counterfeit Analysis Centre (CAC) to look after the centralised elements of counterfeit banknote handling. The CAC is in charge of the analysis and classification of the better quality and/or international counterfeits, as well as acting as a National Analysis Centre (NAC) for euro counterfeits originating from outside the European Union (EU). For the euro coins, these functions are assumed by the European Technical and Scientific Centre (ETSC), which has been established by the EU Member States.

In parallel, each EU Member State has established an NAC for banknotes and a Coin National Analysis Centre (CNAC) for coins. The NACs and CNACs are institutions set up to manage counterfeits on a national basis.

All these centres contribute to the collection of data on counterfeit euro banknotes and coins which are fed into the Counterfeit Monitoring System (CMS) and they use the information that is centralised there to perform their respective tasks.

Within the ESCB, a specially established group – the Counterfeit Working Group (CWG) – deals with counterfeit matters. It is principally concerned with the statistical and technical reporting on and the analysis of counterfeit euro banknotes, the user management of the CMS and the co-ordination of communication between all relevant parties.

The Counterfeit Monitoring System

The CMS is a central repository where all the statistical and technical information on euro counterfeits (both banknotes and coins) is stored and put at the disposal of the authorised users.² It is a web-based application accessible by all the authorities in the EU involved in the fight against euro banknote and coin counterfeiting. The technical description of each new counterfeit class includes reproduction techniques, the way in which the different security features are imitated and pictures of the counterfeits. In addition, the CMS incorporates a geographical information system that is used in particular by the police to investigate the distribution of counterfeits.

Statistics

The early resistance of the euro to counterfeiting has been very encouraging. During 2002, fewer than 170,000 counterfeit euro banknotes were removed from circulation. This is less than a quarter of the aggregate quantity of counterfeits of the legacy currencies reported in 2001. The €50 banknote was clearly the favoured target of counterfeiters, accounting for over 80% of the counterfeit banknotes. So far, the euro has not been a significant target outside Europe: over 99% of euro counterfeit banknotes were recorded in the 12 euro area countries.

Future threats

The principal threats are perceived to be a significant rise in the quantity and/or quality of counterfeits or in their production and circulation outside the euro area. Measures currently under consideration to minimise the

² For example, the ESCB and the police.

probability and potential impact of these threats include an extension of the public awareness programme and the conclusion of co-operation agreements with NCBs and law enforcement authorities representing non-EU countries. In

addition, information gathered on counterfeits and their technological standards is fed back into Eurosystem banknote research and development to enhance the resilience of both current and future designs.

5 Further challenges ahead

One and a half years are clearly a very short time in the life of a physical currency. Therefore, it is still indeed necessary to speak of early experience. Given the fact that the euro is a currency for the citizens of 12 countries with very different cash handling traditions and practices, it will be quite some time before a steady-state situation is reached. A great deal of experience thus remains to be gained with the new currency in its unique surroundings. This experience

concerns production quality and quantity, the central banks' issuance and cash service policies, as well as the protection against counterfeiting, including the related research and development work. The Eurosystem will constantly monitor and seek to make improvements in these areas in order to exploit to the greatest possible extent the potential of a currency used by more than 300 million citizens.



Euro area statistics



Contents ¹

	Euro area overview table	5*
I	Monetary policy statistics	
	1.1 Consolidated financial statement of the Eurosystem	6*
	1.2 Key ECB interest rates	8*
	1.3 Eurosystem monetary policy operations allotted through tenders	8*
	1.4 Minimum reserve statistics	10*
	1.5 Banking system's liquidity position	11*
2	Monetary developments and investment funds in the euro area	
	2.1 Aggregated balance sheet of the Eurosystem	12*
	2.2 Aggregated balance sheet of the euro area MFIs, excluding the Eurosystem	13*
	2.3 Consolidated balance sheet of the euro area MFIs, including the Eurosystem	14*
	2.4 Monetary aggregates and counterparts	16*
	2.5 MFI loans by counterpart, type and original maturity	21*
	2.6 Deposits held with MFIs, by counterpart and instrument	24*
	2.7 Main MFI claims on and liabilities to non-residents of the euro area	26*
	2.8 Currency analysis of certain liabilities and assets of the euro area MFIs	28*
	2.9 Aggregated balance sheet of euro area investment funds	30*
	2.10 Aggregated balance sheet of euro area investment funds broken down by investment policy	31*
	2.11 Aggregated balance sheet of euro area investment funds broken down by type of investor	33*
3	Financial markets and interest rates in the euro area	
	3.1 Money market interest rates	34*
	3.2 Government bond yields	35*
	3.3 Stock market indices	36*
	3.4 Retail bank interest rates	37*
	3.5 Securities issues other than shares by original maturity, residency of the issuer and currency denomination	38*
	3.6 Euro-denominated securities other than shares by original maturity, residency and sector of the issuer	40*
	3.7 Annual growth rates of securities other than shares issued by euro area residents	46*
	3.8 Quoted shares issued by euro area residents	48*
4	HICP and other prices in the euro area	
	4.1 Harmonised Index of Consumer Prices	50*
	4.2 Selected other price indicators	51*
5	Real economy indicators in the euro area	
	5.1 National accounts	52*
	5.2 Selected other real economy indicators	54*
	5.3 European Commission Business and Consumer Surveys	55*
	5.4 Labour market indicators	56*
6	Saving, investment and financing in the euro area	
	6.1 Financial investment and financing of non-financial sectors	58*
	6.2 Financial investment and financing of insurance corporations and pension funds	62*
	6.3 Saving, investment and financing	64*

¹ See the ECB's website (www.ecb.int) for longer runs and more detailed data.

7	General government fiscal position in the euro area and in the euro area countries	
7.1	Revenue, expenditure and deficit / surplus	65*
7.2	Debt	66*
7.3	Change in debt	67*
8	Balance of payments and international investment position of the euro area (including reserves)	
8.1	Summary balance of payments	68*
8.2	Balance of payments: current and capital accounts	69*
8.3	Balance of payments: income account	70*
8.4	Balance of payments: direct investment account	71*
8.5	Balance of payments: portfolio investment account	72*
8.6	Balance of payments: other investment account and reserve assets	73*
8.7	Monetary presentation of the euro area balance of payments	75*
8.8	International investment position and reserve assets outstanding	76*
9	External trade in goods of the euro area	78*
10	Exchange rates	80*
11	Economic and financial developments in the other EU Member States	82*
12	Economic and financial developments outside the EU	
12.1	Economic and financial developments	83*
12.2	Saving, investment and financing	84*
	Technical notes	85*
	General notes	89*

Conventions used in the tables

“-”	data do not exist/data are not applicable
“.”	data are not yet available
“...”	nil or negligible
“billion”	10 ⁹
(p)	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 ¹⁾	M2 ¹⁾	M3 ¹⁾²⁾		MFI loans to euro area residents excluding MFIs and general government ¹⁾	Securities issued by non-financial and non-monetary financial corporations ¹⁾	3-month interest rate (EURIBOR, % per annum, period averages) ⁷⁾	10-year government bond yield (% per annum, period averages) ⁸⁾
	1	2	3	3-month moving average (centred) ⁴⁾				
2001	3.6	4.2	5.3	-	7.8	27.6	4.26	5.03
2002	7.3	6.5	7.2	-	5.3	22.0	3.32	4.92
2002 Q3	7.6	6.5	7.0	-	5.2	18.1	3.36	4.77
Q4	8.8	6.7	7.0	-	4.8	16.2	3.11	4.54
2003 Q1	10.1	7.0	7.5	-	4.9	16.4	2.69	4.16
Q2	.	.	.	-	.	.	2.37	3.96
2003 Jan.	9.4	6.5	7.2	7.4	4.9	15.4	2.83	4.27
Feb.	10.3	7.3	8.0	7.7	5.1	16.6	2.69	4.06
Mar.	11.7	7.9	7.9	8.2	4.6	18.6	2.53	4.13
Apr.	11.2	7.9	8.6	8.3	4.6	19.7	2.54	4.23
May	11.4	8.4	8.5	.	4.6	.	2.41	3.92
June	.	.	.	.	.	.	2.15	3.72

2. Price and real economy developments

	HICP	Industrial producer prices	Hourly labour costs (whole economy)	Real GDP	Industrial production (excluding construction)	Capacity utilisation in manufacturing (percentages)	Employment (whole economy)	Unemployment (% of labour force)
	9	10	11	12	13	14	15	16
2001	2.3	2.2	3.3	1.5	0.4	82.9	1.4	8.0
2002	2.3	0.0	3.7	0.8	-0.6	81.4	0.4	8.4
2002 Q3	2.1	0.0	3.5	1.0	0.1	81.5	0.3	8.4
Q4	2.3	1.3	3.7	1.2	1.2	81.5	0.2	8.5
2003 Q1	2.3	2.4	2.8	0.8	1.1	81.1	0.1	8.7
Q2	.	.	.	.	.	.	.	.
2003 Jan.	2.1	2.3	-	-	1.2	81.3	-	8.7
Feb.	2.4	2.6	-	-	2.0	-	-	8.7
Mar.	2.4	2.4	-	-	0.1	-	-	8.8
Apr.	2.1	1.7	-	-	0.8	80.8	-	8.8
May	1.9	1.3	-	-	.	-	-	8.8
June	2.0	.	-	-	.	-	-	.

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)	Effective exchange rate of the euro: broad group (1999 Q1 = 100)		USD/EUR exchange rate
	Current and capital accounts	Goods	Direct investment	Portfolio investment		Nominal	Real (CPI)	
2001	-9.8	75.5	-102.8	64.7	392.7	91.0	87.7	0.896
2002	73.5	133.3	-45.5	110.6	366.1	95.6	91.7	0.946
2002 Q3	25.3	38.5	-12.0	35.7	380.9	97.9	93.8	0.984
Q4	27.3	36.8	-8.3	38.4	366.1	99.4	94.9	0.999
2003 Q1	0.0	14.1	-6.6	13.1	339.1	104.1	99.3	1.073
Q2	.	.	.	.	.	108.1	102.8	1.137
2003 Jan.	-4.4	0.8	-0.9	-5.5	363.4	103.0	98.1	1.062
Feb.	2.3	8.9	2.8	-0.8	352.2	104.4	99.4	1.077
Mar.	2.1	4.4	-8.5	19.5	339.1	105.1	100.2	1.081
Apr.	-8.0	7.7	-19.8	5.4	332.4	105.2	100.3	1.085
May	.	.	.	.	323.1	109.1	103.7	1.158
June	.	.	.	.	.	109.9	104.4	1.166

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 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
2003	7 Feb.	130,641	231,438	17,498	5,305	214,019	169,000	45,000	0
	14	130,640	229,822	17,331	5,690	206,155	161,000	45,000	0
	21	130,314	228,010	17,686	6,230	216,190	170,001	45,000	0
	28	130,314	228,349	17,331	5,926	223,186	178,001	45,000	0
	7 Mar.	130,314	227,928	17,384	6,164	182,175	137,090	45,000	0
	14	130,314	226,868	17,048	5,511	270,123	225,091	45,000	0
	21	130,314	223,947	17,725	5,121	234,917	189,001	45,000	0
	28	130,314	224,146	16,800	5,202	232,049	187,000	45,000	0
	4 Apr.	122,728	216,872	17,072	4,783	220,040	174,999	45,000	0
	11	122,728	215,994	16,736	4,496	217,097	172,000	44,973	0
	18	122,728	215,786	16,528	4,551	223,000	177,998	44,973	0
	25	122,274	215,757	16,919	4,575	247,011	201,999	44,973	0
	2 May	122,274	214,456	16,721	4,597	207,989	163,001	44,979	0
	9	122,274	214,120	17,116	4,821	211,999	166,992	44,979	0
	16	122,274	215,054	16,946	4,493	218,054	173,001	44,979	0
	23	122,274	216,212	17,234	3,656	238,095	192,998	44,979	0
	30	122,246	214,154	17,283	3,384	247,352	202,001	44,988	0
	6 June	122,245	213,549	16,428	3,487	223,508	178,372	44,988	0
	13	122,245	214,814	15,494	3,322	246,854	201,372	44,988	0
	20	122,244	211,995	16,793	3,446	237,979	191,001	44,988	0
	27	122,244	212,918	17,133	3,411	257,883	212,000	45,000	0
	4 July	119,980	206,413	15,586	3,963	251,103	205,999	45,000	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
2003	7 Feb.	342,781	133,194	133,161	33	0	0	0	62	2,029
	14	342,890	128,006	127,947	59	0	0	0	61	2,029
	21	341,561	131,392	128,951	2,441	0	0	0	61	2,029
	28	345,414	125,405	125,346	59	0	0	0	62	2,029
	7 Mar.	350,078	89,529	89,431	98	0	0	0	62	2,029
	14	350,014	177,351	177,262	89	0	0	0	15	2,029
	21	350,482	128,616	127,972	623	0	0	21	15	2,029
	28	351,783	129,392	129,356	23	0	0	13	15	2,029
	4 Apr.	357,775	131,573	131,477	90	0	0	6	76	2,029
	11	360,186	128,359	128,321	29	0	0	9	76	2,029
	18	367,559	132,655	132,436	216	0	0	3	15	2,029
	25	363,873	147,509	147,427	80	0	0	2	15	2,029
	2 May	367,432	122,600	122,512	87	0	0	1	15	2,029
	9	368,111	129,360	129,284	75	0	0	1	15	2,029
	16	366,888	128,610	128,532	77	0	0	1	15	2,029
	23	365,344	126,340	121,748	741	3,850	0	1	15	2,029
	30	371,002	134,948	134,842	105	0	0	1	15	2,029
	6 June	376,039	112,718	112,667	50	0	0	1	15	2,029
	13	376,498	139,059	139,000	59	0	0	0	15	2,029
	20	375,979	134,360	134,098	262	0	0	0	15	2,029
	27	377,232	130,970	130,891	61	0	0	18	31	2,029
	4 July	383,664	133,314	133,183	109	0	0	22	31	2,029

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		
							9	10	11	12	13	14	15	16
0	3	16	330	30,675	44,436	107,701	782,044	2003	7 Feb.
0	110	45	326	31,685	44,355	109,365	775,370		14
0	1,145	44	250	32,602	44,355	109,171	784,809		21
0	148	37	552	33,484	44,355	107,151	790,649		28
0	50	35	938	33,495	44,340	107,218	749,960		7 Mar.
0	2	30	473	36,694	44,342	107,546	838,923		14
0	889	27	276	37,823	44,345	107,801	802,273		21
0	10	39	275	38,149	44,344	107,391	798,674		28
0	3	38	289	38,760	44,318	109,563	774,429		4 Apr.
0	109	15	164	39,658	44,322	109,351	770,550		11
0	14	15	134	39,785	44,279	109,666	776,461		18
0	30	9	116	40,185	44,273	109,529	800,643		25
0	1	8	111	40,295	44,273	109,631	760,351		2 May
0	0	28	195	40,543	44,274	109,789	765,135		9
0	53	21	197	40,996	44,270	109,580	771,868		16
0	90	28	158	42,348	44,266	109,647	793,894		23
0	313	50	330	42,294	44,260	110,128	801,435		30
0	99	49	225	43,067	44,261	110,286	777,056		6 June
0	415	79	347	43,381	44,261	110,952	801,670		13
0	1,922	68	287	43,811	44,261	110,891	791,707		20
0	796	87	244	44,146	44,262	111,327	813,568		27
0	16	88	253	44,099	43,781	116,929	802,107		4 July

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		
								10	11	12	13	14	15	16	17	18
52,197	8,473	1,017	15,776	6,339	73,256	82,848	64,072	782,044	2003	7 Feb.
51,338	8,543	1,017	15,195	6,339	72,734	82,848	64,370	775,370		14
58,968	8,421	1,025	14,113	6,339	74,543	82,840	63,517	784,809		21
70,147	8,704	1,024	14,054	6,339	70,187	82,840	64,444	790,649		28
60,226	8,659	1,050	14,772	6,339	69,932	82,840	64,444	749,960		7 Mar.
60,064	8,607	1,054	16,093	6,339	70,055	82,840	64,462	838,923		14
72,700	8,441	1,076	14,706	6,339	70,565	82,840	64,464	802,273		21
73,624	8,395	1,071	14,490	6,339	64,227	82,840	64,469	798,674		28
53,949	8,858	1,081	15,366	6,168	65,081	68,005	64,468	774,429		4 Apr.
51,602	8,717	1,005	14,572	6,168	65,227	68,005	64,604	770,550		11
44,996	9,172	1,045	14,304	6,168	65,907	68,005	64,606	776,461		18
59,278	8,455	1,048	14,132	6,168	65,475	68,005	64,656	800,643		25
40,143	9,506	1,048	12,990	6,168	65,853	67,910	64,657	760,351		2 May
37,661	8,904	1,032	13,626	6,168	65,634	67,910	64,685	765,135		9
46,332	8,803	1,029	13,644	6,168	65,729	67,910	64,711	771,868		16
69,296	9,551	987	16,002	6,168	65,231	67,910	65,021	793,894		23
65,536	8,815	1,049	14,022	6,168	64,918	67,910	65,023	801,435		30
58,912	8,966	961	13,725	6,168	64,606	67,910	65,007	777,056		6 June
55,148	9,020	959	15,216	6,168	64,640	67,910	65,008	801,670		13
48,390	10,583	952	14,626	6,168	65,686	67,910	65,009	791,707		20
72,975	8,738	1,002	16,047	6,168	65,455	67,910	65,011	813,568		27
57,937	8,810	916	16,418	5,997	65,784	62,226	64,981	802,107		4 July

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

With effect from ¹⁾	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 ²⁾	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 ³⁾	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
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
2002 6 Dec.	1.75	-0.50	-	2.75	-0.50	3.75	-0.50
2003 7 Mar.	1.50	-0.25	-	2.50	-0.25	3.50	-0.25
6 June	1.00	-0.50	-	2.00	-0.50	3.00	-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 ^{1) 2)}***(EUR millions; interest rates in percentages per annum)***1. Main refinancing operations ³⁾**

Date of settlement	Bids (amount)	Allotment (amount)	Fixed rate tenders		Variable rate tenders		Running for (...) days
			Fixed rate	Minimum bid rate	Marginal rate ⁴⁾	Weighted average rate ⁶⁾	
	1	2	3	4	5	6	7
2003 5 Feb.	115,836	86,000	-	2.75	2.78	2.79	14
12	100,544	75,000	-	2.75	2.76	2.78	14
19	125,104	95,000	-	2.75	2.77	2.78	13
26	110,698	83,000	-	2.75	2.75	2.76	14
4 Mar.	54,090	54,090	-	2.75	2.75	2.75	15
12	126,251	106,000	-	2.50	2.57	2.63	13
12	75,870	65,000	-	2.50	2.55	2.64	7
19	129,827	83,000	-	2.50	2.58	2.59	14
25	115,518	104,000	-	2.50	2.53	2.55	15
2 Apr.	112,031	71,000	-	2.50	2.53	2.54	14
9	133,547	101,000	-	2.50	2.53	2.53	14
16	126,889	77,000	-	2.50	2.53	2.54	14
23	156,979	125,000	-	2.50	2.54	2.55	14
30	106,071	38,000	-	2.50	2.55	2.55	14
7 May	120,843	76,000	-	2.50	2.53	2.54	14
7	67,356	53,000	-	2.50	2.53	2.54	7
14	145,595	97,000	-	2.50	2.53	2.54	14
21	157,067	96,000	-	2.50	2.57	2.58	14
28	184,856	106,000	-	2.50	2.59	2.61	12
4 June	72,372	72,372	-	2.50	2.50	2.50	14
7	145,751	129,000	-	2.00	2.09	2.11	16
18	111,215	62,000	-	2.00	2.12	2.12	14
25	166,404	150,000	-	2.00	2.10	2.12	14
2 July	111,698	56,000	-	2.00	2.10	2.11	14
9	130,689	101,000	-	2.00	2.08	2.10	14
9	67,965	43,000	-	2.00	2.09	2.10	7

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 ⁴⁾	Weighted average rate		5
1	2	3	4	5	6	7
2001 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
30 May	37,602	20,000	-	3.45	3.47	91
27 June	27,670	20,000	-	3.38	3.41	91
25 July	28,791	15,000	-	3.35	3.37	98
29 Aug.	33,527	15,000	-	3.33	3.34	91
26 Sep.	25,728	15,000	-	3.23	3.26	88
31 Oct.	27,820	15,000	-	3.22	3.24	91
28 Nov.	38,644	15,000	-	3.02	3.04	91
23 Dec.	42,305	15,000	-	2.93	2.95	94
2003 30 Jan.	31,716	15,000	-	2.78	2.80	90
27 Feb.	24,863	15,000	-	2.48	2.51	91
27 Mar.	33,367	15,000	-	2.49	2.51	91
30 Apr.	35,096	15,000	-	2.50	2.51	92
29 May	30,218	15,000	-	2.25	2.27	91
26 June	28,694	15,000	-	2.11	2.12	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 ⁴⁾	Weighted average rate		7
1	2	3	4	5	6	7	8	
2000 5 Jan. ⁵⁾	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
18 Dec.	Reverse transaction	28,480	10,000	-	2.75	2.80	2.82	6
2003 23 May	Collection of fixed-term deposits	3,850	3,850	2.50	-	-	-	3

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) With effect from April 2002, split tender operations, i.e. operations with one-week maturity conducted as standard tenders in parallel with a main refinancing operation, are classified as main refinancing operations. For split tender operations conducted before this month, see Table 1.3.3.
- 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.
- 4) In liquidity providing (absorbing) operations, the marginal rate refers to the lowest (highest) rate at which bids were accepted.
- 5) 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 ^{1) 2)}***(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 ³⁾	Deposits (over 2 years' agreed maturity and notice period)	Repos	Debt securities over 2 years' agreed maturity
	1	2	3	4	5	6
2002 May	11,111.6	6,150.4	410.5	1,355.8	741.7	2,453.2
June	11,009.1	6,083.3	407.5	1,355.3	699.2	2,463.9
July	10,999.6	6,069.3	408.6	1,368.0	691.0	2,462.7
Aug.	10,952.0	6,010.3	401.5	1,359.7	703.2	2,477.2
Sep.	11,054.3	6,055.4	405.0	1,373.5	747.6	2,472.7
Oct.	11,113.6	6,052.0	414.2	1,379.1	790.5	2,477.8
Nov.	11,207.0	6,142.9	426.9	1,365.2	784.2	2,487.7
Dec.	11,116.8	6,139.9	409.2	1,381.9	725.5	2,460.3
2003 Jan.	11,100.8	6,048.5	426.0	1,385.7	773.9	2,466.7
Feb.	11,214.2	6,092.6	434.0	1,396.4	808.2	2,483.0
Mar.	11,229.9	6,117.2	427.4	1,404.1	782.7	2,498.5
Apr.	11,315.2	6,155.9	433.0	1,406.9	815.2	2,504.2
May ^(p)	11,337.1	6,181.4	422.0	1,401.2	816.2	2,516.4

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 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.*
- 3) *Includes money market paper. For further details, see the general notes.*

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

Maintenance period ending in:	Required reserves ²⁾	Actual reserves ³⁾	Excess reserves ⁴⁾	Deficiencies ⁵⁾	Interest rate on minimum reserves ⁶⁾
	1	2	3	4	5
2002 July	130.7	131.3	0.6	0.0	3.32
Aug.	129.3	129.7	0.5	0.0	3.29
Sep.	129.0	129.5	0.5	0.0	3.28
Oct.	127.7	128.2	0.5	0.0	3.28
Nov.	128.7	129.2	0.5	0.0	3.28
Dec.	128.8	129.4	0.7	0.0	3.06
2003 Jan.	130.9	131.4	0.6	0.0	2.87
Feb.	130.4	131.0	0.6	0.0	2.78
Mar.	128.9	129.5	0.6	0.0	2.67
Apr.	130.0	130.5	0.5	0.0	2.53
May	130.3	130.8	0.5	0.0	2.54
June	131.2	131.7	0.5	0.0	2.34
July ^(p)	131.5	.	.	.	.

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 ¹⁾
(EUR billions; period averages of daily positions)

Maintenance period ending in:	Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions' current accounts ⁴⁾	Base money ⁵⁾
	Monetary policy operations of the Eurosystem					Deposit facility	Other liquidity-absorbing operations ²⁾	Banknotes in circulation	Central government deposits with the Eurosystem	Other factors (net) ³⁾		
	Eurosystem's net assets in gold and foreign currency ¹⁾	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations ²⁾							
1	2	3	4	5	6	7	8	9	10	11	12	
2002 May	397.7	110.6	60.0	0.1	0.0	0.3	0.0	293.7	49.2	93.5	131.7	425.6
June	396.2	112.6	60.0	0.5	0.0	0.4	0.0	300.8	45.1	91.2	131.8	433.0
July	369.1	130.4	60.0	0.2	0.0	0.2	0.0	313.4	54.4	60.3	131.4	445.0
Aug.	360.0	139.2	55.2	0.1	0.0	0.1	0.0	322.8	50.9	50.8	129.9	452.8
Sep.	362.3	140.9	50.8	0.1	0.0	0.2	0.0	323.6	49.1	51.7	129.6	453.4
Oct.	370.0	146.1	45.3	0.1	0.0	0.1	0.0	329.2	45.6	58.2	128.3	457.6
Nov.	372.1	147.5	45.0	0.1	0.0	0.1	0.0	334.0	42.8	58.6	129.3	463.4
Dec.	371.5	168.1	45.0	1.1	2.0	0.2	0.0	350.7	51.7	55.5	129.5	480.5
2003 Jan.	360.9	176.3	45.0	0.5	0.0	0.3	0.0	353.9	43.7	53.3	131.6	485.8
Feb.	356.4	168.6	45.0	0.3	0.0	0.3	0.0	340.7	50.2	48.0	131.1	472.2
Mar.	352.5	179.5	45.0	0.2	0.0	0.1	0.0	347.8	59.1	40.6	129.6	477.5
Apr.	337.4	179.4	45.0	0.1	0.0	0.2	0.0	358.5	52.1	20.5	130.6	489.3
May	333.1	177.1	45.0	0.4	0.0	0.2	0.1	366.2	42.6	15.5	130.9	497.3
June ⁴⁾	331.3	194.7	45.0	0.4	0.0	0.3	0.2	373.2	52.6	13.2	131.9	505.3

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 and investment funds 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 ²⁾				Holdings of shares/other equity issued by euro area residents			External assets ¹⁾	Fixed assets	Re-maining assets	Total	
	1	MFIs ¹⁾	General government	Other euro area residents	5	MFIs	General government	Other euro area residents	9	MFIs	Other euro area residents					11	12	13	14	15
2000	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	1,005.7	
<i>Euro area enlargement</i>																
2001 Q2	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	
Q3	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	54.8	971.7	
Q4	412.7	386.4	25.7	0.6	107.0	3.8	101.8	1.3	13.8	4.6	9.2	399.0	11.9	54.3	998.6	
2002 Q1	381.3	354.9	25.8	0.6	106.5	4.1	101.0	1.4	13.8	4.7	9.1	414.4	11.9	101.5	1,029.4	
2002 May	356.1	329.7	25.7	0.6	107.0	4.9	101.0	1.0	13.3	4.7	8.6	394.4	12.0	105.4	988.2	
June	387.7	361.3	25.7	0.6	107.9	4.9	101.6	1.4	12.9	4.7	8.2	372.7	12.0	108.8	1,001.9	
July	364.0	337.7	25.7	0.6	108.8	5.3	101.9	1.7	12.7	4.7	7.9	377.9	12.1	110.4	985.9	
Aug.	363.4	337.5	25.3	0.6	110.8	5.4	103.3	2.1	12.8	4.8	8.0	377.9	12.1	110.8	987.8	
Sep.	365.6	339.6	25.3	0.6	112.5	5.8	104.6	2.2	12.3	4.8	7.5	386.0	12.1	112.4	1,000.9	
Oct.	370.8	344.8	25.3	0.6	113.5	6.5	106.1	0.9	13.0	4.8	8.2	379.9	12.1	115.1	1,004.4	
Nov.	377.3	351.3	25.3	0.6	115.0	7.0	107.1	0.9	13.5	4.8	8.6	379.0	9.8	119.2	1,013.8	
Dec.	416.2	391.3	24.2	0.6	94.5	7.6	86.0	0.8	13.2	4.8	8.3	374.8	11.9	132.3	1,042.8	
2003 Jan.	412.3	387.5	24.2	0.6	96.7	8.5	87.4	0.8	13.0	4.9	8.1	373.3	12.1	116.9	1,024.8	
Feb.	410.2	385.4	24.1	0.6	100.7	9.1	90.8	0.8	12.9	5.0	7.9	363.3	12.0	121.1	1,020.5	
Mar.	411.8	387.0	24.1	0.6	105.2	9.5	94.8	0.8	12.5	5.1	7.5	349.7	11.9	123.6	1,015.1	
Apr.	369.6	344.9	24.1	0.6	107.6	9.6	97.1	0.8	13.0	5.1	7.9	341.0	12.0	128.2	971.9	
May ^(p)	444.7	420.0	24.0	0.7	112.0	10.4	100.5	1.0	12.2	4.4	7.7	333.4	11.9	130.8	1,045.6	

2. Liabilities

	Currency in circulation		Deposits of euro area residents			Debt securities issued ²⁾	Capital and reserves	External liabilities ¹⁾	Remaining liabilities	Total
	1	2	MFIs ¹⁾	Central government	Other general government/other euro area residents						6	7	8	9	10
2000	390.2	327.3	270.4	47.1	9.8	3.8	197.5	29.9	57.0	1,005.7
<i>Euro area enlargement</i>										
2001 Q2	368.8	342.2	274.1	51.8	16.3	5.6	223.7	32.6	54.2	1,027.2
Q3	346.1	323.6	269.4	37.6	16.6	5.5	209.2	30.0	57.3	971.7
Q4	285.9	391.9	342.4	35.1	14.4	4.6	209.8	35.6	70.8	998.6
2002 Q1	309.1	355.1	282.4	56.3	16.4	4.6	217.8	36.9	105.9	1,029.4
2002 May	319.6	326.6	268.4	40.7	17.4	4.6	207.9	31.6	98.0	988.2
June	329.3	354.3	285.2	51.5	17.5	4.6	182.3	31.0	100.5	1,001.9
July	340.1	316.0	247.4	52.9	15.6	4.6	183.7	35.1	106.6	985.9
Aug.	342.3	318.7	255.8	47.3	15.6	4.6	186.4	31.0	104.9	987.8
Sep.	347.0	317.6	258.9	41.7	17.0	4.6	190.2	32.5	109.1	1,000.9
Oct.	355.3	313.5	254.4	40.8	18.3	4.6	187.9	31.4	111.9	1,004.4
Nov.	360.8	319.3	255.2	46.2	17.9	3.6	185.7	31.5	112.9	1,013.8
Dec.	392.9	328.4	283.3	29.5	15.6	3.6	165.9	32.9	119.1	1,042.8
2003 Jan.	352.1	348.3	284.1	49.3	15.0	3.6	164.2	30.2	126.4	1,024.8
Feb.	358.1	346.0	276.9	54.2	14.9	2.8	159.5	28.6	125.5	1,020.5
Mar.	365.4	345.8	279.0	50.7	16.2	2.7	149.2	28.7	123.3	1,015.1
Apr.	378.7	292.1	233.2	42.0	16.9	2.7	144.6	27.6	126.1	971.9
May ^(p)	384.1	361.9	297.6	45.9	18.4	2.7	141.1	28.1	127.6	1,045.6

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.

2) Includes money market paper. For further details, see the general notes.

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 ¹⁾				Money market fund shares/units	Holdings of shares/other equity issued by euro area residents		External assets	Fixed assets	Remaining assets	Total	
	1	MFIs	General government	Other euro area residents	5	MFIs	General government	Other euro area residents		10	MFIs					Other euro area residents	13	14	15	16
2000	10,419.8	3,510.4	817.8	6,091.5	2,311.5	1,051.4	995.9	264.2	23.3	750.9	240.2	510.8	2,026.2	158.7	1,015.2	16,705.6
<i>Euro area enlargement</i>																
2001 Q2	10,894.4	3,698.3	808.5	6,387.6	2,529.2	1,123.3	1,104.9	300.9	32.9	799.3	251.3	548.0	2,290.1	163.5	1,128.3	17,837.7
Q3	10,953.2	3,729.3	802.6	6,421.3	2,543.2	1,123.5	1,093.3	326.4	36.1	771.6	245.1	526.4	2,300.6	165.7	1,115.8	17,886.2
Q4	11,134.7	3,794.0	822.0	6,518.7	2,535.9	1,122.9	1,077.4	335.6	38.5	810.8	251.9	559.0	2,408.8	168.1	1,129.5	18,226.3
2002 Q1	11,210.8	3,778.4	826.8	6,605.5	2,646.9	1,173.5	1,128.1	345.3	46.6	811.4	260.0	551.4	2,430.8	164.5	1,031.1	18,342.2
2002 May	11,329.0	3,866.4	803.4	6,659.1	2,673.9	1,188.7	1,141.2	343.9	50.8	826.0	265.7	560.3	2,451.4	164.4	984.6	18,480.1
June	11,334.7	3,839.8	804.4	6,690.5	2,675.0	1,195.9	1,137.5	341.7	58.3	819.0	263.4	555.6	2,358.6	164.3	1,002.3	18,412.2
July	11,339.5	3,844.7	802.8	6,691.9	2,671.9	1,192.8	1,135.5	343.6	60.5	808.1	266.9	541.2	2,378.8	164.6	1,025.6	18,449.0
Aug.	11,321.2	3,836.8	792.7	6,691.7	2,657.6	1,187.0	1,131.7	338.9	60.9	816.7	265.5	551.1	2,367.3	165.6	1,011.0	18,400.2
Sep.	11,406.6	3,885.0	795.5	6,726.1	2,687.2	1,190.0	1,148.6	348.6	62.1	805.1	263.6	541.5	2,427.5	166.2	1,057.9	18,612.6
Oct.	11,463.5	3,926.4	795.1	6,742.0	2,680.0	1,185.5	1,142.3	352.2	63.7	819.5	266.0	553.5	2,483.6	167.1	1,021.1	18,698.6
Nov.	11,592.2	4,034.5	803.9	6,753.9	2,706.7	1,203.5	1,147.3	355.8	65.6	822.9	264.7	558.2	2,558.2	167.1	1,055.3	18,968.1
Dec.	11,613.1	4,019.7	812.6	6,780.9	2,671.2	1,170.0	1,135.0	366.2	62.4	827.6	263.3	564.4	2,465.5	167.6	1,051.8	18,859.3
2003 Jan.	11,657.8	4,049.0	804.7	6,804.1	2,780.7	1,218.6	1,188.2	373.9	65.3	815.5	256.0	559.5	2,478.6	164.2	1,015.5	18,977.9
Feb.	11,734.1	4,099.3	804.1	6,830.6	2,815.9	1,227.8	1,207.8	380.3	66.4	812.1	255.9	556.2	2,545.7	162.9	1,042.1	19,179.2
Mar.	11,723.5	4,063.9	805.6	6,854.0	2,831.2	1,235.5	1,213.3	382.3	66.8	815.3	258.4	556.9	2,543.7	161.0	1,035.1	19,176.6
Apr.	11,788.1	4,098.5	800.1	6,889.5	2,851.0	1,224.3	1,228.0	398.7	69.9	836.0	259.9	576.1	2,563.6	159.0	1,043.7	19,311.4
May ^(p)	11,880.4	4,181.5	795.9	6,903.0	2,896.4	1,236.8	1,258.3	401.3	71.1	852.9	264.7	588.2	2,542.1	159.6	1,086.3	19,488.7

2. Liabilities

	Currency in circulation	Deposits of euro area residents	MFIs	Central government	Other general government/other euro area residents	Money market fund shares/units ²⁾				Debt securities issued ¹⁽²⁾	Capital and reserves	External liabilities	Remaining liabilities	Total	
						Over-night	With agreed maturity	Redeemable at notice	Repurchase agreements						10	11	12	13	14	15
2000	0.0	9,057.1	3,679.3	117.4	5,260.5	1,648.9	2,159.8	1,276.9	174.9	323.3	2,712.9	940.5	2,299.5	1,372.2	16,705.6
<i>Euro area enlargement</i>															
2001 Q2	0.0	9,424.3	3,805.6	113.7	5,505.0	1,716.1	2,236.6	1,330.8	221.5	390.2	2,861.3	998.0	2,713.8	1,450.1	17,837.7
Q3	0.0	9,484.8	3,839.0	110.2	5,535.5	1,733.7	2,233.5	1,342.6	225.7	417.3	2,875.5	1,011.1	2,613.4	1,484.1	17,886.2
Q4	0.0	9,696.6	3,829.6	103.9	5,763.1	1,882.1	2,257.5	1,405.0	218.5	436.5	2,882.9	1,041.9	2,687.4	1,480.9	18,226.3
2002 Q1	0.0	9,695.4	3,852.1	101.2	5,742.1	1,823.1	2,266.3	1,423.0	229.6	477.9	2,966.1	1,057.6	2,754.4	1,390.7	18,342.2
2002 May	0.0	9,810.7	3,920.5	108.3	5,781.9	1,852.8	2,278.8	1,415.5	234.8	493.4	2,994.0	1,071.3	2,723.4	1,387.2	18,480.1
June	0.0	9,836.4	3,926.6	103.5	5,806.3	1,898.8	2,256.3	1,421.7	229.6	497.5	2,984.6	1,071.6	2,589.0	1,433.2	18,412.2
July	0.0	9,818.1	3,932.1	99.0	5,787.1	1,870.1	2,263.8	1,424.3	228.8	510.7	2,989.6	1,081.4	2,613.1	1,436.1	18,449.0
Aug.	0.0	9,779.9	3,918.3	93.6	5,768.0	1,836.2	2,265.4	1,429.8	236.5	524.3	3,002.0	1,088.2	2,585.3	1,420.5	18,400.2
Sep.	0.0	9,870.6	3,960.8	104.6	5,805.2	1,891.3	2,242.8	1,432.8	238.3	522.5	3,004.3	1,094.1	2,642.2	1,478.9	18,612.6
Oct.	0.0	9,942.0	4,020.2	111.0	5,810.8	1,873.5	2,263.8	1,438.1	235.6	526.4	3,010.4	1,097.0	2,666.5	1,456.3	18,698.6
Nov.	0.0	10,092.3	4,127.2	101.3	5,863.8	1,925.7	2,259.8	1,448.7	229.6	542.8	3,038.1	1,100.1	2,706.2	1,488.6	18,968.1
Dec.	0.0	10,198.9	4,136.5	106.9	5,955.5	1,984.6	2,264.5	1,479.6	226.9	532.9	2,992.7	1,108.8	2,594.3	1,431.7	18,859.3
2003 Jan.	0.0	10,200.1	4,162.2	105.4	5,932.5	1,933.2	2,268.8	1,497.5	233.0	600.3	3,017.2	1,113.0	2,632.7	1,414.6	18,977.9
Feb.	0.0	10,297.4	4,220.3	121.6	5,955.5	1,932.9	2,277.8	1,511.0	233.8	613.8	3,037.2	1,110.7	2,686.0	1,434.3	19,179.2
Mar.	0.0	10,307.7	4,197.3	120.2	5,990.3	1,969.0	2,276.8	1,521.2	232.2	617.6	3,045.6	1,116.8	2,664.5	1,424.5	19,176.6
Apr.	0.0	10,339.6	4,196.5	115.2	6,027.9	1,988.4	2,281.2	1,527.3	231.0	632.6	3,064.0	1,118.0	2,686.7	1,470.4	19,311.4
May ^(p)	0.0	10,506.5	4,304.8	122.4	6,079.3	2,013.1	2,303.3	1,531.5	231.5	642.3	3,062.0	1,121.7	2,623.8	1,532.4	19,488.7

Source: ECB.

1) Includes money market paper. For further details, see the general notes.

2) 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						External assets ³⁾	Fixed assets	Remaining assets	Total	
	Loans to euro area residents	General government	Other euro area residents	Holdings of securities other than shares issued by euro area residents ²⁾	General government	Other euro area residents					
	1	2	3	4	5	6	7	8	9	10	11
2001 Nov.	7,345.2	843.3	6,501.9	1,524.1	1,191.0	333.1	544.6	2,827.6	179.1	1,153.9	13,574.5
Dec.	7,367.0	847.7	6,519.3	1,516.1	1,179.2	336.9	568.1	2,807.8	180.0	1,137.6	13,576.7
2002 Jan.	7,379.2	844.8	6,534.4	1,548.3	1,206.3	341.9	568.1	2,829.6	177.5	1,164.8	13,667.3
Feb.	7,396.2	847.5	6,548.7	1,557.7	1,207.8	349.9	566.7	2,833.2	176.6	1,126.8	13,657.2
Mar.	7,458.8	852.6	6,606.1	1,575.7	1,229.1	346.6	560.5	2,845.2	176.4	1,077.7	13,694.3
Apr.	7,473.6	832.4	6,641.2	1,572.2	1,229.3	342.9	566.8	2,826.5	176.2	1,065.0	13,680.2
May	7,488.9	829.2	6,659.7	1,587.2	1,242.3	345.0	568.9	2,845.8	176.4	1,044.3	13,711.5
June	7,521.2	830.1	6,691.1	1,582.0	1,239.0	343.0	563.9	2,731.2	176.2	1,067.6	13,642.2
July	7,521.1	828.5	6,692.6	1,582.7	1,237.4	345.3	549.1	2,756.7	176.7	1,092.7	13,679.1
Aug.	7,510.4	818.0	6,692.3	1,576.0	1,235.0	341.0	559.1	2,745.3	177.7	1,080.6	13,649.1
Sep.	7,547.5	820.8	6,726.8	1,603.9	1,253.2	350.8	549.1	2,813.5	178.3	1,130.0	13,822.2
Oct.	7,563.1	820.4	6,742.7	1,601.6	1,248.5	353.1	561.6	2,863.5	179.3	1,094.8	13,863.9
Nov.	7,583.7	829.2	6,754.5	1,611.1	1,254.4	356.7	566.9	2,937.2	177.0	1,135.1	14,010.9
Dec.	7,618.3	836.8	6,781.5	1,588.1	1,221.0	367.1	572.7	2,840.3	179.5	1,132.2	13,931.1
2003 Jan.	7,633.6	828.9	6,804.7	1,650.3	1,275.5	374.8	567.5	2,851.9	176.3	1,092.5	13,972.8
Feb.	7,659.5	828.3	6,831.3	1,679.7	1,298.6	381.1	564.1	2,908.9	174.9	1,124.4	14,112.1
Mar.	7,684.3	829.7	6,854.7	1,691.3	1,308.1	383.2	564.4	2,893.4	172.9	1,120.4	14,127.3
Apr.	7,714.3	824.2	6,890.2	1,724.6	1,325.1	399.5	584.0	2,904.6	171.0	1,129.5	14,228.5
May ^(p)	7,723.6	820.0	6,903.6	1,761.1	1,358.8	402.3	595.9	2,875.5	171.5	1,176.8	14,305.0

2. Liabilities: levels

	Liabilities											Excess of inter-MFI liabilities	Total	
	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 ⁴⁾	Debt securities issued ²⁴⁾	Capital and reserves	External liabilities ³⁾			Re-maining liabilities
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2001 Nov.	279.7	150.2	5,628.1	1,798.1	2,239.2	1,365.0	225.9	400.8	1,760.3	982.6	2,729.9	1,632.4	10.4	13,574.5
Dec.	239.7	139.0	5,777.6	1,896.2	2,257.9	1,405.0	218.5	398.0	1,760.8	995.2	2,723.0	1,551.8	-8.5	13,576.7
2002 Jan.	246.5	148.9	5,736.9	1,847.8	2,254.1	1,418.8	216.2	416.6	1,775.9	1,007.5	2,759.4	1,573.6	2.0	13,667.3
Feb.	240.3	155.7	5,736.7	1,843.3	2,251.4	1,420.9	221.1	427.0	1,778.2	1,011.5	2,768.0	1,538.8	1.1	13,657.2
Mar.	254.3	157.5	5,758.5	1,839.1	2,266.7	1,423.0	229.6	431.2	1,793.1	1,010.7	2,791.3	1,496.6	1.3	13,694.3
Apr.	261.7	157.5	5,781.8	1,869.7	2,269.3	1,414.7	228.1	437.5	1,785.5	1,004.6	2,774.0	1,486.6	-8.9	13,680.2
May	273.8	149.0	5,799.3	1,869.8	2,279.1	1,415.5	234.8	442.6	1,805.0	1,008.8	2,755.1	1,485.2	-7.3	13,711.5
June	285.8	155.0	5,823.9	1,916.0	2,256.6	1,421.7	229.6	439.2	1,788.3	985.8	2,619.9	1,533.6	10.7	13,642.2
July	296.8	151.9	5,802.6	1,885.4	2,264.1	1,424.3	228.8	450.3	1,796.1	993.4	2,648.1	1,542.7	-2.9	13,679.1
Aug.	301.1	141.0	5,783.6	1,851.6	2,265.7	1,429.8	236.5	463.4	1,814.3	1,004.3	2,616.3	1,525.4	-0.2	13,649.1
Sep.	306.7	146.3	5,822.2	1,908.0	2,243.1	1,432.8	238.3	460.4	1,813.0	1,015.9	2,674.8	1,588.0	-5.0	13,822.2
Oct.	313.9	151.8	5,829.1	1,891.4	2,264.1	1,438.1	235.6	462.7	1,823.0	1,014.0	2,697.9	1,568.2	3.3	13,863.9
Nov.	321.4	147.5	5,881.7	1,943.2	2,260.2	1,448.7	229.6	477.1	1,831.1	1,016.2	2,737.8	1,601.5	-3.4	14,010.9
Dec.	341.2	136.4	5,971.1	1,999.8	2,264.8	1,479.6	226.9	470.6	1,818.6	1,006.5	2,627.2	1,550.8	8.8	13,931.1
2003 Jan.	312.1	154.7	5,947.4	1,947.9	2,269.1	1,497.5	233.0	535.0	1,793.6	1,016.3	2,662.9	1,541.1	9.7	13,972.8
Feb.	319.3	175.8	5,970.4	1,947.5	2,278.1	1,511.0	233.8	547.3	1,803.0	1,009.3	2,714.5	1,559.8	12.5	14,112.1
Mar.	327.1	170.9	6,006.4	1,984.9	2,277.1	1,521.2	223.2	550.7	1,803.3	1,002.5	2,693.2	1,547.7	25.3	14,127.3
Apr.	336.2	157.2	6,044.8	2,005.0	2,281.4	1,527.3	231.0	562.7	1,832.8	997.6	2,714.4	1,596.5	-13.7	14,228.5
May ^(p)	343.7	168.3	6,097.8	2,031.2	2,303.5	1,531.5	231.5	571.2	1,817.6	993.7	2,651.9	1,660.0	0.9	14,305.0

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) Includes money market paper. For further details, see the general notes.

3) See Table 2.1, footnote 1.

4) 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 ¹⁾

	Loans to euro area residents		Other euro area residents	Holdings of securities other than shares issued by euro area residents ²⁾		Other euro area residents	Holdings of shares/ other equity issued by other euro area residents	External assets ³⁾	Fixed assets	Remaining assets	Total
	General government			General government							
	1	2	3	4	5	6	7	8	9	10	11
2001 Dec.	25.5	3.7	21.8	-8.4	-10.3	2.0	22.1	-26.2	1.1	-17.1	-3.0
2002 Jan.	9.5	-3.1	12.6	27.1	21.9	5.2	-0.3	-0.1	-2.5	26.6	60.2
Feb.	19.0	2.7	16.2	9.2	1.2	8.0	0.6	0.3	-0.9	-39.3	-11.1
Mar.	64.2	5.2	59.0	14.1	16.9	-2.9	-7.6	19.9	0.0	-48.1	42.4
Apr.	21.7	-20.0	41.7	-1.9	1.5	-3.3	6.3	18.0	-0.2	-13.1	30.8
May	25.4	-2.8	28.2	12.7	9.7	3.0	0.9	73.9	0.2	-20.8	92.3
June	40.7	1.4	39.3	-3.0	-1.3	-1.7	-5.1	-26.8	-0.2	23.7	29.2
July	-4.7	-1.8	-2.9	-2.5	-2.0	-0.5	-11.7	-2.4	0.5	23.9	3.1
Aug.	-10.6	-10.9	0.3	-5.7	-3.1	-2.6	9.4	-10.5	1.0	-12.1	-28.6
Sep.	38.3	2.8	35.4	20.8	11.5	9.3	-4.4	65.5	0.6	47.8	168.5
Oct.	18.2	-0.4	18.6	-0.4	-2.6	2.2	10.3	55.0	0.9	-35.8	48.2
Nov.	25.7	9.0	16.7	9.4	6.1	3.4	1.9	84.9	-2.3	39.6	159.2
Dec.	50.1	8.0	42.0	-3.9	-14.1	10.2	4.7	-33.2	1.7	-12.8	6.6
2003 Jan.	25.9	1.3	24.6	24.1	20.0	4.1	-0.6	18.0	-2.0	-25.8	40.2
Feb.	28.5	-2.4	30.8	24.5	17.8	6.7	-2.3	67.1	-1.5	28.9	145.1
Mar.	32.8	1.5	31.3	14.2	11.8	2.4	0.9	5.2	0.0	-14.6	38.6
Apr.	37.7	-5.3	43.0	30.7	19.4	11.3	16.1	40.0	-1.9	5.2	127.6
May ⁴⁾	21.3	-3.8	25.1	33.4	30.3	3.0	10.9	41.7	0.6	47.1	155.0

4. Liabilities: flows ¹⁾

	Currency in circulation	Deposits of central government	Deposits of other general government/ other euro area residents	Overnight				Money market fund shares/ units ⁴⁾	Debt securities issued ^{2a)}	Capital and reserves	External liabilities ³⁾	Re-maining liabilities	Excess of inter-MFI liabilities	Total
				Overnight	With agreed maturity	Redeem-able at notice	Repur-chase agree-ments							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2001 Dec.	-40.0	-11.2	149.3	98.4	18.4	40.0	-7.4	-1.3	-0.7	13.6	-17.4	-75.9	-19.5	-3.0
2002 Jan.	6.8	10.4	-42.5	-49.5	-3.1	12.4	-2.3	19.5	10.4	14.2	15.8	11.3	11.3	60.2
Feb.	-6.2	6.9	0.2	-4.3	-2.5	2.1	4.9	10.4	4.8	-0.8	11.2	-36.8	-0.7	-11.1
Mar.	14.0	1.7	22.8	-3.8	16.1	2.2	8.4	3.3	18.4	2.7	25.5	-55.2	9.3	42.4
Apr.	7.4	0.0	27.6	32.1	5.2	-8.2	-1.5	7.9	-1.6	-5.2	20.6	-16.3	-9.6	30.8
May	12.2	-8.5	24.6	2.4	14.4	1.1	6.7	4.0	29.7	3.7	34.8	-9.7	1.5	92.3
June	12.0	6.0	31.1	48.2	-17.3	6.4	-6.1	-7.3	1.5	-17.1	-67.9	55.2	15.6	29.2
July	11.0	-3.1	-24.5	-31.8	5.4	2.5	-0.7	12.0	5.3	9.6	-5.0	11.3	-13.5	3.1
Aug.	4.4	-11.0	-4.7	-33.6	15.7	5.5	7.7	12.3	4.1	9.0	-24.8	-20.6	2.8	-28.6
Sep.	5.6	1.6	39.5	56.4	-22.3	3.0	2.4	-2.7	15.7	9.3	47.4	54.0	-1.9	168.5
Oct.	7.2	5.5	7.8	-16.4	21.7	5.3	-2.8	2.1	11.3	0.0	25.5	-20.6	9.4	48.2
Nov.	7.5	-4.3	54.9	52.2	-3.6	10.6	-4.4	14.7	11.6	2.0	49.6	29.2	-5.9	159.2
Dec.	19.8	-11.0	86.3	49.2	8.6	31.2	-2.8	-6.1	-6.0	8.9	-55.0	-42.6	12.3	6.6
2003 Jan.	-7.4	15.2	-16.5	-50.4	1.2	18.1	14.7	19.4	12.4	11.0	10.7	-9.5	4.9	40.2
Feb.	7.2	18.6	23.0	-0.4	9.1	13.5	0.9	12.2	10.0	-4.3	56.4	16.6	5.4	145.1
Mar.	7.8	-5.0	38.0	38.1	0.2	10.3	-10.7	4.1	1.3	-2.5	-8.7	-9.2	12.8	38.6
Apr.	9.1	-13.7	41.9	21.4	6.4	6.2	7.9	11.5	29.6	-1.0	44.4	44.2	-38.4	127.6
May ⁴⁾	7.4	11.1	61.3	29.2	27.0	4.5	0.5	9.2	0.7	-6.6	0.6	59.3	11.9	155.0

Table 2.4
Monetary aggregates ¹⁾ 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. 01=100 ³⁾
	Currency in circulation ¹⁾	Overnight deposits ²⁾	Total	Index Dec. 01=100 ³⁾				
					1	2	3	4	5	6	7	8
2001 Nov.	279.7	1,864.6	2,144.3	97.11	1,077.6	1,327.9	4,549.8	97.47
Dec.	239.7	1,968.2	2,207.9	100.00	1,088.8	1,371.0	4,667.7	100.00
2002 Jan.	246.5	1,921.9	2,168.4	98.16	1,080.9	1,389.9	4,639.2	99.36
Feb.	240.3	1,917.1	2,157.4	97.67	1,076.7	1,394.2	4,628.3	99.14
Mar.	254.3	1,914.2	2,168.5	98.19	1,088.5	1,397.7	4,654.6	99.72
Apr.	261.7	1,945.5	2,207.2	100.01	1,092.0	1,391.4	4,690.6	100.57
May	273.8	1,945.4	2,219.2	100.66	1,099.6	1,393.5	4,712.3	101.16
June	285.8	1,992.1	2,277.9	103.41	1,074.8	1,399.6	4,752.3	102.15
July	296.8	1,959.3	2,256.1	102.37	1,083.7	1,402.7	4,742.5	101.81
Aug.	301.1	1,927.4	2,228.5	101.13	1,096.8	1,408.8	4,734.2	101.65
Sep.	306.7	1,984.3	2,291.0	103.96	1,073.6	1,411.4	4,776.0	102.55
Oct.	313.9	1,968.3	2,282.2	103.57	1,093.6	1,418.4	4,794.2	102.95
Nov.	321.4	2,020.9	2,342.3	106.32	1,086.2	1,430.0	4,858.5	104.34
Dec.	341.2	2,082.7	2,423.8	109.68	1,075.3	1,463.5	4,962.7	106.49
2003 Jan.	312.1	2,028.7	2,340.8	106.97	1,077.6	1,485.2	4,903.5	105.75
Feb.	319.3	2,029.0	2,348.4	107.32	1,079.7	1,501.0	4,929.0	106.30
Mar.	327.1	2,067.4	2,394.6	109.46	1,072.8	1,513.2	4,980.6	107.45
Apr.	336.2	2,088.6	2,424.9	110.91	1,080.4	1,521.7	5,027.0	108.51
May ^(p)	343.7	2,113.9	2,457.6	112.54	1,096.5	1,527.8	5,081.8	109.85

2. Monetary aggregates: flows ⁴⁾

	M2							
	M1				Deposits with agreed maturity up to 2 years	Deposits redeemable at notice up to 3 months	Total	Annual growth rate ³⁾ (%)
	Currency in circulation ¹⁾	Overnight deposits ²⁾	Total	Annual growth rate ³⁾ (%)				
					1	2	3	4	5	6	7	8
2001 Dec.	-40.0	103.8	63.8	5.1	11.1	43.0	117.9	6.1
2002 Jan.	6.8	-47.3	-40.6	6.7	-6.7	17.5	-29.8	6.7
Feb.	-6.2	-4.6	-10.8	6.3	-4.0	4.4	-10.5	6.4
Mar.	14.0	-2.6	11.4	6.3	12.3	3.5	27.3	6.4
Apr.	7.4	32.8	40.2	6.6	5.4	-6.2	39.4	6.4
May	12.2	2.1	14.3	6.4	10.9	2.4	27.6	6.7
June	12.0	48.6	60.6	7.3	-20.6	6.3	46.3	6.6
July	11.0	-33.8	-22.9	7.3	4.2	3.0	-15.7	6.4
Aug.	4.4	-31.7	-27.3	8.0	13.5	6.2	-7.7	6.6
Sep.	5.6	56.9	62.4	8.0	-23.3	2.6	41.8	6.4
Oct.	7.2	-15.8	-8.6	8.3	20.4	7.1	18.9	6.8
Nov.	7.5	53.0	60.5	9.5	-7.3	11.6	64.8	7.0
Dec.	19.8	54.4	74.2	9.7	-7.8	33.8	100.1	6.5
2003 Jan.	-7.4	-52.4	-59.9	9.0	3.5	21.8	-34.6	6.4
Feb.	7.2	0.4	7.6	9.9	2.2	15.9	25.6	7.2
Mar.	7.8	39.1	46.9	11.5	-6.0	12.2	53.1	7.7
Apr.	9.1	22.5	31.6	10.9	9.1	8.7	49.4	7.9
May ^(p)	7.4	28.3	35.7	11.8	19.9	6.4	62.0	8.6

Source: ECB.

1) Monetary aggregates comprise monetary liabilities of MFIs and central government (Post Office, Treasury) vis-à-vis non-MFI euro area residents excluding central government.

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

M3 ²⁾						
Repurchase agreements	Money market fund shares/units	Debt securities up to 2 years ⁵⁾	Total	Index Dec. 01=100 ³⁾		
9	10	11	12	13		
225.9	400.8	152.2	5,328.6	98.13		2001 Nov.
218.5	398.0	145.9	5,430.1	100.00		Dec.
216.2	416.6	141.8	5,413.8	99.76		2002 Jan.
221.1	427.0	138.8	5,415.1	99.78		Feb.
229.6	431.2	137.2	5,452.7	100.50		Mar.
228.1	437.5	134.7	5,490.9	101.28		Apr.
234.8	442.6	144.0	5,533.7	102.17		May
229.6	439.2	132.8	5,553.9	102.64		June
228.8	450.3	125.5	5,547.0	102.40		July
236.5	463.4	126.5	5,560.6	102.65		Aug.
238.3	460.4	131.3	5,606.0	103.48		Sep.
235.6	462.7	133.7	5,626.2	103.86		Oct.
229.6	477.1	131.1	5,696.3	105.20		Nov.
226.9	470.6	127.7	5,787.8	106.81		Dec.
233.0	535.0	108.3	5,779.7	106.92		2003 Jan.
233.8	547.3	108.8	5,819.0	107.64		Feb.
223.2	550.7	101.0	5,855.4	108.34		Mar.
231.0	562.7	125.4	5,946.1	109.99		Apr.
231.5	571.2	106.6	5,991.1	110.99		May ⁶⁾

M3 ²⁾						
Repurchase agreements	Money market fund shares/units	Debt securities up to 2 years ⁵⁾	Total	Annual growth rate ³⁾ (%)		
9	10	11	12	13		
-7.4	-1.3	-7.8	101.4	7.6		2001 Dec.
-2.3	19.5	-0.3	-12.9	7.7		2002 Jan.
4.9	10.4	-3.9	0.9	7.3		Feb.
8.4	3.3	0.2	39.1	7.3		Mar.
-1.5	7.9	-3.4	42.4	7.2		Apr.
6.7	4.0	9.8	48.1	7.5		May
-6.1	-7.3	-7.4	25.6	7.2		June
-0.7	12.0	-8.7	-13.2	6.9		July
7.7	12.3	1.1	13.4	7.1		Aug.
2.4	-2.7	3.6	45.1	7.0		Sep.
-2.8	2.1	2.6	20.7	6.9		Oct.
-4.4	14.7	-2.7	72.5	7.2		Nov.
-2.8	-6.1	-3.9	87.4	6.8		Dec.
14.7	19.4	6.2	5.6	7.2		2003 Jan.
0.9	12.2	0.2	38.9	7.9		Feb.
-10.7	4.1	-8.6	38.0	7.8		Mar.
7.9	11.5	20.2	89.0	8.6		Apr.
0.5	9.2	-17.6	54.1	8.6		May ⁶⁾

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.

5) Includes money market paper. For further details, see the general notes.

Table 2.4 (cont'd)
Monetary aggregates ¹⁾ 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 ⁵⁾			Total	Index ⁴⁾
	Currency in circulation 1	Overnight deposits 2	Total 3	Index ⁴⁾ 4	Total 5	Index ⁴⁾ 6	7			8
2001 Nov.	279.8	1,870.3	2,150.0	97.37	2,422.6	98.50	4,572.7	97.96	
Dec.	233.3	1,917.8	2,151.1	97.43	2,450.9	99.64	4,602.0	98.59	
2002 Jan.	251.7	1,924.5	2,176.2	98.52	2,452.3	99.68	4,628.5	99.13	
Feb.	244.8	1,932.3	2,177.1	98.56	2,449.3	99.57	4,626.4	99.10	
Mar.	254.1	1,921.7	2,175.8	98.52	2,471.6	100.50	4,647.4	99.57	
Apr.	263.4	1,939.2	2,202.6	99.81	2,476.9	100.80	4,679.5	100.33	
May	272.5	1,945.4	2,217.9	100.60	2,480.6	101.10	4,698.5	100.86	
June	281.8	1,948.2	2,230.1	101.24	2,486.1	101.50	4,716.1	101.37	
July	292.3	1,959.4	2,251.7	102.17	2,496.8	101.74	4,748.5	101.94	
Aug.	299.1	1,970.9	2,270.0	103.01	2,503.3	102.02	4,773.3	102.49	
Sep.	307.5	1,988.5	2,296.0	104.19	2,511.5	102.35	4,807.5	103.22	
Oct.	315.7	1,996.0	2,311.6	104.91	2,532.6	103.23	4,844.2	104.02	
Nov.	321.9	2,017.8	2,339.6	106.20	2,534.0	103.29	4,873.6	104.67	
Dec.	332.7	2,031.8	2,364.5	107.00	2,532.3	103.36	4,896.8	105.08	
2003 Jan.	317.4	2,040.2	2,357.6	107.74	2,538.6	103.67	4,896.1	105.59	
Feb.	323.6	2,055.7	2,379.4	108.74	2,552.2	104.23	4,931.6	106.36	
Mar.	332.4	2,074.2	2,406.6	110.01	2,573.1	105.12	4,979.7	107.43	
Apr.	338.6	2,087.1	2,425.7	110.95	2,591.4	105.94	5,017.1	108.30	
May ^(p)	342.2	2,105.4	2,447.6	112.09	2,611.9	106.94	5,059.5	109.37	

4. Seasonally adjusted flows ⁷⁾

	M2										
	M1					Other short-term deposits ⁵⁾			Total	Monthly growth rate ⁴⁾ (%)	Annual growth rate ⁴⁾ (%)
	Currency in circulation 1	Overnight deposits 2	Total 3	Monthly growth rate ⁴⁾ (%) 4	Annual growth rate ⁴⁾ (%) 5	Total 6	Monthly growth rate ⁴⁾ (%) 7	Annual growth rate ⁴⁾ (%) 8				9	10	11
2001 Dec.	-46.4	47.7	1.3	0.1	5.4	28.1	1.2	7.2	29.4	0.6	6.4
2002 Jan.	18.4	5.7	24.1	1.1	6.6	1.1	0.0	6.9	25.2	0.5	6.8
Feb.	-6.9	8.0	1.0	0.0	6.1	-2.8	-0.1	6.5	-1.8	0.0	6.3
Mar.	9.3	-10.2	-0.9	0.0	6.0	22.9	0.9	6.5	22.0	0.5	6.3
Apr.	9.3	19.0	28.3	1.3	6.7	7.3	0.3	6.2	35.6	0.8	6.4
May	9.1	8.4	17.5	0.8	6.8	7.3	0.3	6.6	24.8	0.5	6.7
June	9.3	4.8	14.1	0.6	6.9	9.8	0.4	6.0	24.0	0.5	6.4
July	10.5	10.1	20.5	0.9	7.6	5.9	0.2	5.5	26.5	0.6	6.5
Aug.	6.8	11.8	18.6	0.8	7.7	6.8	0.3	5.4	25.4	0.5	6.5
Sep.	8.4	17.5	25.9	1.1	8.1	8.2	0.3	5.1	34.1	0.7	6.5
Oct.	8.2	7.6	15.8	0.7	8.3	21.5	0.9	5.4	37.4	0.8	6.8
Nov.	6.2	22.2	28.4	1.2	9.1	1.6	0.1	4.9	30.0	0.6	6.8
Dec.	10.8	6.8	17.7	0.8	9.8	1.6	0.1	3.7	19.3	0.4	6.6
2003 Jan.	6.6	9.7	16.4	0.7	9.4	7.6	0.3	4.0	24.0	0.5	6.5
Feb.	6.3	15.5	21.8	0.9	10.3	13.7	0.5	4.7	35.5	0.7	7.3
Mar.	8.7	19.2	27.9	1.2	11.7	21.8	0.9	4.6	49.7	1.0	7.9
Apr.	6.3	14.1	20.4	0.8	11.2	20.1	0.8	5.1	40.5	0.8	7.9
May ^(p)	3.6	21.3	24.9	1.0	11.4	24.6	0.9	5.8	49.5	1.0	8.4

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 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 ²⁾				Loans to other euro area residents (excluding general government) ³⁾		
Marketable instruments ⁶⁾		Total	Index ⁴⁾	Total	Index ⁴⁾	
Total	Index ⁴⁾					
9	10	11	12	13	14	
784.0	102.85	5,356.7	98.65	6,511.5	99.81	2001 Nov.
789.1	103.50	5,391.1	99.28	6,513.1	99.91	Dec.
778.5	102.73	5,407.0	99.64	6,534.3	100.19	2002 Jan.
780.9	102.95	5,407.3	99.64	6,558.6	100.59	Feb.
784.5	103.49	5,431.9	100.12	6,595.8	101.19	Mar.
787.6	104.00	5,467.1	100.84	6,625.1	101.74	Apr.
800.7	105.67	5,499.2	101.53	6,661.8	102.45	May
802.2	105.75	5,518.4	101.99	6,660.8	102.56	June
809.9	106.70	5,558.4	102.61	6,680.5	102.79	July
823.9	108.45	5,597.2	103.32	6,718.4	103.38	Aug.
838.3	110.30	5,645.8	104.21	6,737.2	103.69	Sep.
838.6	110.33	5,682.8	104.91	6,757.2	104.04	Oct.
843.6	111.22	5,717.2	105.59	6,764.4	104.22	Nov.
853.7	112.55	5,750.5	106.13	6,778.5	104.67	Dec.
879.3	114.50	5,775.5	106.84	6,806.3	105.12	2003 Jan.
883.2	114.95	5,814.8	107.56	6,842.2	105.75	Feb.
859.6	111.86	5,839.2	108.04	6,843.2	105.88	Mar.
905.4	117.23	5,922.5	109.55	6,872.3	106.45	Apr.
886.4	115.02	5,945.9	110.15	6,905.2	107.14	May ⁹⁾

M3 ²⁾							Loans to other euro area residents (excluding general government) ³⁾			
Marketable instruments ⁶⁾			Total	Monthly growth rate ⁴⁾ (%)	Annual growth rate ⁴⁾ (%)	3-month moving average (centred) (%)	Total	Monthly growth rate ⁴⁾ (%)	Annual growth rate ⁴⁾ (%)	
Total	Monthly growth rate ⁴⁾ (%)	Annual growth rate ⁴⁾ (%)								
12	13	14	15	16	17	18	19	20	21	
4.9	0.6	17.5	34.3	0.6	7.9	7.8	6.0	0.1	6.1	2001 Dec.
-5.9	-0.7	13.9	19.3	0.4	7.7	7.6	18.7	0.3	5.7	2002 Jan.
1.7	0.2	13.4	-0.1	0.0	7.3	7.4	26.2	0.4	5.6	Feb.
4.1	0.5	12.8	26.1	0.5	7.2	7.2	38.7	0.6	5.5	Mar.
3.9	0.5	12.6	39.4	0.7	7.3	7.3	36.0	0.5	5.5	Apr.
12.6	1.6	12.9	37.4	0.7	7.5	7.3	46.4	0.7	5.8	May
0.6	0.1	10.9	24.6	0.4	7.1	7.2	6.9	0.1	5.4	June
7.2	0.9	10.2	33.7	0.6	7.0	7.0	15.3	0.2	5.1	July
13.3	1.6	9.9	38.7	0.7	7.0	7.0	38.4	0.6	5.4	Aug.
14.1	1.7	10.8	48.2	0.9	7.1	7.0	19.9	0.3	5.1	Sep.
0.2	0.0	7.8	37.6	0.7	6.9	7.0	22.6	0.3	4.9	Oct.
6.8	0.8	8.1	36.8	0.6	7.0	6.9	12.0	0.2	4.4	Nov.
10.1	1.2	8.7	29.4	0.5	6.9	7.1	29.1	0.4	4.8	Dec.
14.8	1.7	11.5	38.8	0.7	7.2	7.4	29.2	0.4	4.9	2003 Jan.
3.4	0.4	11.7	38.9	0.7	8.0	7.7	40.2	0.6	5.1	Feb.
-23.7	-2.7	8.1	26.0	0.4	7.9	8.2	8.8	0.1	4.6	Mar.
41.3	4.8	12.7	81.7	1.4	8.6	8.3	36.6	0.5	4.6	Apr.
-17.1	-1.9	8.9	32.4	0.5	8.5	.	44.5	0.6	4.6	May ⁹⁾

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 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 ¹⁾ and counterparts
(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 ²⁾				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 general government	Credit to other euro area residents	Of which loans	Index Dec. 01 =100 ³⁾		
	1	2	3	4	5	6	7	8	9	10
2001 Nov.	1,161.6	115.8	1,606.6	982.6	2,034.3	7,379.6	6,501.9	99.67	97.7	179.1
Dec.	1,169.1	115.8	1,613.6	995.2	2,026.9	7,424.4	6,519.3	100.00	84.7	180.0
2002 Jan.	1,173.2	112.3	1,632.9	1,007.5	2,051.1	7,444.4	6,534.4	100.19	70.1	177.5
Feb.	1,174.7	111.2	1,638.8	1,011.5	2,055.3	7,465.4	6,548.7	100.44	65.2	176.6
Mar.	1,178.2	109.9	1,655.8	1,010.7	2,081.7	7,513.2	6,606.1	101.35	54.0	176.4
Apr.	1,177.3	108.0	1,650.2	1,004.6	2,061.7	7,550.9	6,641.2	101.99	52.5	176.2
May	1,179.6	106.8	1,660.6	1,008.8	2,071.5	7,573.6	6,659.7	102.42	90.8	176.4
June	1,181.7	106.6	1,655.2	985.8	2,069.1	7,598.0	6,691.1	103.02	111.3	176.2
July	1,180.4	106.6	1,670.1	993.4	2,065.9	7,587.0	6,692.6	102.98	108.5	176.7
Aug.	1,168.9	106.8	1,687.1	1,004.3	2,053.0	7,592.5	6,692.3	102.98	129.0	177.7
Sep.	1,169.5	107.2	1,680.8	1,015.9	2,073.9	7,626.6	6,726.8	103.53	138.7	178.3
Oct.	1,170.5	106.2	1,688.7	1,014.0	2,068.8	7,657.4	6,742.7	103.81	165.6	179.3
Nov.	1,174.0	105.7	1,698.5	1,016.2	2,083.6	7,678.1	6,754.5	104.07	199.4	177.0
Dec.	1,189.5	105.8	1,689.7	1,006.5	2,057.8	7,721.2	6,781.5	104.72	213.1	179.5
2003 Jan.	1,191.5	103.7	1,684.5	1,016.3	2,104.4	7,747.0	6,804.7	105.10	189.0	176.3
Feb.	1,198.4	102.5	1,693.7	1,009.3	2,126.8	7,776.5	6,831.3	105.58	194.4	174.9
Mar.	1,204.3	100.9	1,701.5	1,002.5	2,137.8	7,802.2	6,854.7	106.06	200.2	172.9
Apr.	1,201.1	98.3	1,706.6	997.6	2,149.2	7,873.7	6,890.2	106.72	190.2	171.0
May ⁴⁾	1,207.1	96.9	1,709.2	993.7	2,178.8	7,901.9	6,903.6	107.11	223.6	171.5

6. Main counterparts of M3: flows ⁴⁾

	Longer-term MFI liabilities				Credit ²⁾				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 general government	Credit to other euro area residents	Of which loans	Annual growth rate ³⁾ (%)		
	1	2	3	4	5	6	7	8	9	10
2001 Dec.	7.3	0.1	7.4	13.6	-6.6	45.9	21.8	6.0	-8.9	1.1
2002 Jan.	3.6	-3.6	10.8	14.2	18.7	17.5	12.6	5.7	-14.3	-2.5
Feb.	1.6	-1.0	9.2	-0.8	3.9	24.9	16.2	5.6	-10.9	-0.9
Mar.	3.7	-1.3	18.8	2.7	22.1	48.5	59.0	5.5	-5.6	0.0
Apr.	-0.2	-1.9	1.3	-5.2	-18.5	44.6	41.7	5.5	-2.6	-0.2
May	3.5	-1.2	20.0	3.7	6.9	32.1	28.2	5.8	39.0	0.2
June	3.3	-0.2	9.0	-17.1	0.1	32.5	39.3	5.4	41.0	-0.2
July	1.3	0.0	13.8	9.6	-3.8	-15.1	-2.9	5.1	2.6	0.5
Aug.	2.2	0.2	2.8	9.0	-14.0	7.1	0.3	5.4	14.3	1.0
Sep.	1.0	0.4	12.0	9.3	14.3	40.3	35.4	5.1	18.1	0.6
Oct.	1.3	-1.0	9.0	0.0	-3.0	31.1	18.6	5.0	29.5	0.9
Nov.	3.7	-0.5	13.4	2.0	15.1	22.0	16.7	4.4	35.3	-2.3
Dec.	16.5	0.1	-1.8	8.9	-6.1	56.9	42.0	4.7	21.8	1.7
2003 Jan.	-2.3	-2.1	6.5	11.0	21.3	28.1	24.6	4.9	7.2	-2.0
Feb.	6.9	-1.2	10.1	-4.3	15.5	35.2	30.8	5.1	10.6	-1.5
Mar.	6.2	-1.6	9.5	-2.5	13.4	34.6	31.3	4.7	13.9	0.0
Apr.	-2.8	-2.6	9.4	-1.0	14.1	70.3	43.0	4.6	-4.4	-1.9
May ⁴⁾	7.1	-1.3	17.3	-6.6	26.5	39.0	25.1	4.6	41.1	0.6

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 ¹⁾
(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.01 =100 ²⁾	Total		Index Dec.01 =100 ²⁾	Central government ³⁾	Other general government					Total	Index Dec.01 =100 ²⁾
	1	Up to 1 year		4	Up to 1 year			5	8	State government		Local government			Social security funds
			9			10	11			12				
				Over 5 years				Over 5 years						
2001 Q3	409.0	256.8	93.7	37.4	26.9	107.3	167.3	293.9	254.1	349.7	312.0	18.9	829.8	98.0
Q4	434.4	276.0	100.0	34.9	24.8	100.0	170.1	298.3	252.0	362.9	322.3	16.4	847.7	100.0
2002 Q1	459.4	305.3	105.9	38.9	28.3	111.3	180.3	294.0	248.2	361.8	317.9	16.4	852.6	100.6
Q2	461.1	303.4	106.3	42.5	30.5	120.8	163.0	280.9	245.8	366.6	314.5	19.5	830.1	98.0
Q3	452.4	288.0	104.3	42.1	30.1	113.6	156.4	274.7	241.6	367.8	315.6	21.9	820.8	96.9
Q4	453.9	288.0	105.4	33.0	19.7	88.9	155.2	277.7	237.0	382.8	327.1	21.2	836.8	98.8
2003 Q1 ⁴⁾	470.6	301.2	107.1	42.1	29.8	118.5	158.7	267.2	229.2	382.2	330.0	21.1	829.1	97.8

2. Loans to non-monetary financial corporations and to government: flows ⁴⁾

	Non-monetary financial intermediaries except insurance corporations and pension funds			Insurance corporations and pension funds			General government							
	Total		Annual growth rate ²⁾ (%)	Total		Annual growth rate ²⁾ (%)	Central government ³⁾	Other general government					Total	Annual growth rate ²⁾ (%)
	1	Up to 1 year		4	Up to 1 year			5	6	7	State government				Local government		Social security funds
			8			9	10				11	12		
				Over 5 years				Over 5 years						
2001 Q4	27.5	21.3	12.0	-2.5	-2.1	11.5	1.9	4.4	-2.1	13.2	10.3	-2.5	16.9	-0.9
2002 Q1	25.6	29.8	10.5	3.9	3.5	7.5	10.1	-4.3	-3.8	-1.1	-4.4	0.1	4.8	0.0
Q2	1.6	-1.8	9.0	3.3	2.1	17.4	-16.2	-13.1	-2.4	4.8	-3.5	3.1	-21.4	-0.6
Q3	-8.7	-15.4	11.3	-2.5	-0.4	5.9	-6.7	-6.8	-4.7	1.2	1.1	2.4	-9.9	-1.1
Q4	4.7	3.4	5.4	-9.2	-10.5	-11.1	-0.8	3.1	-4.6	15.0	11.5	-0.7	16.6	-1.2
2003 Q1 ⁴⁾	7.3	4.1	1.1	10.9	10.2	6.5	2.2	-10.5	-7.9	-0.6	3.2	-0.1	-9.0	-2.8

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) 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 ¹⁾
(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 ³⁾				
	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.01 =100 ²⁾	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.01 =100 ²⁾
	1	2	3	4	5	6	7	8	9	10
2001 Q3	1,027.2	467.3	1,372.1	2,866.6	98.7	100.6	170.7	221.7	493.1	99.3
Q4	1,019.0	489.8	1,394.5	2,903.3	100.0	102.5	170.4	224.2	497.1	100.0
2002 Q1	1,018.8	494.8	1,418.9	2,932.5	100.8	99.3	170.5	226.5	496.2	99.8
Q2	1,008.4	502.7	1,434.1	2,945.2	102.1	102.2	173.6	230.1	505.9	101.3
Q3	992.9	505.4	1,450.4	2,948.8	102.2	104.1	175.6	233.8	513.5	102.4
Q4	980.7	514.8	1,477.3	2,972.8	103.6	102.2	179.1	236.4	517.8	103.8
2003 Q1 ^(p)	1,027.6	501.1	1,464.5	2,993.2	104.8	112.2	173.2	208.7	494.1	102.8

4. Loans to non-financial sectors other than government: flows ⁴⁾

	Non-financial corporations					Consumer credit ³⁾				
	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Annual growth rate ²⁾ (%)	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Annual growth rate ²⁾ (%)
	1	2	3	4	5	6	7	8	9	10
2001 Q4	-9.1	23.2	22.4	36.5	7.8	1.8	-0.7	2.4	3.5	4.2
2002 Q1	-2.1	4.7	20.3	22.8	5.0	-4.2	1.2	2.3	-0.7	3.7
Q2	-2.3	13.3	27.5	38.6	4.4	2.9	0.7	3.7	7.3	3.0
Q3	-13.1	0.2	14.9	2.0	3.5	1.9	0.0	3.7	5.6	3.2
Q4	-8.5	13.3	34.9	39.8	3.6	2.5	3.0	1.5	7.0	3.8
2003 Q1 ^(p)	50.8	-9.1	-4.9	36.7	4.0	9.4	-7.6	-7.0	-5.2	2.9

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												
Lending for house purchase ³⁾					Other lending ⁵⁾					Total	Index Dec.01 =100 ²⁾	
Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.01 =100 ²⁾	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.01 =100 ²⁾			
11	12	13	14	15	16	17	18	19	20	21	22	
22.5	61.1	1,905.3	1,988.9	98.4	153.4	104.2	368.6	626.2	99.4	3,108.2	98.8	2001 Q3
22.7	61.0	1,937.0	2,020.6	100.0	152.8	105.3	370.3	628.3	100.0	3,146.0	100.0	Q4
23.1	60.7	1,975.0	2,058.7	101.9	150.6	104.7	364.5	619.8	99.5	3,174.7	101.1	2002 Q1
23.7	60.7	2,019.1	2,103.5	104.1	157.6	107.2	367.5	632.3	101.7	3,241.7	103.2	Q2
24.6	60.7	2,059.1	2,144.4	106.1	151.3	103.7	370.0	625.0	101.1	3,282.8	104.5	Q3
25.8	64.9	2,087.3	2,177.9	107.7	157.1	98.9	370.0	626.0	101.7	3,321.7	105.9	Q4
16.3	69.2	2,124.5	2,210.0	109.2	145.6	94.9	405.1	645.6	102.8	3,350.1	106.9	2003 Q1 ^(p)

Households												
Lending for house purchase ³⁾					Other lending ⁵⁾					Total	Annual growth rate ²⁾ (%)	
Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Annual growth rate ²⁾ (%)	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Annual growth rate ²⁾ (%)			
11	12	13	14	15	16	17	18	19	20	21	22	
0.1	-0.1	31.4	31.5	7.5	-0.6	2.2	2.3	4.0	1.7	39.0	5.8	2001 Q4
0.4	-0.4	38.1	38.1	7.3	-1.7	-0.3	-1.2	-3.1	0.6	34.2	5.3	2002 Q1
0.6	0.0	44.2	44.8	7.8	7.1	2.8	3.7	13.7	1.4	65.8	5.7	Q2
0.9	0.0	39.6	40.5	7.8	-6.3	-1.5	3.8	-4.0	1.7	42.1	5.8	Q3
1.2	2.3	27.8	31.3	7.7	2.4	0.3	1.4	4.1	1.7	42.4	5.9	Q4
-9.4	4.3	36.6	31.6	7.2	-9.3	-1.3	17.2	6.5	3.3	33.2	5.8	2003 Q1 ^(p)

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.

5) Other lending includes loans to non-profit institutions serving households.

Table 2.6
Deposits held with MFIs, by counterpart and instrument ¹⁾
(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 ²⁾				Index Dec.01 =100 ³⁾	Total ²⁾				Index Dec.01 =100 ³⁾	Central government	Other general government			Total	Index Dec.01 =100 ³⁾
	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	
2001 Q3	455.3	162.7	201.8	85.6	98.8	487.8	39.3	426.9	17.9	98.5	147.8	33.3	67.4	60.4	308.9	103.3
Q4	465.8	157.9	217.3	85.3	100.0	495.4	48.0	427.5	16.4	100.0	139.0	30.0	68.9	61.0	299.0	100.0
2002 Q1	485.5	157.8	228.8	92.8	103.8	498.6	43.9	433.0	17.7	100.6	157.5	31.0	64.2	61.8	314.5	105.4
Q2	492.4	164.0	229.9	93.0	104.8	503.9	48.4	432.9	19.0	101.7	155.0	34.2	65.7	59.8	314.7	105.4
Q3	488.5	158.2	219.4	105.2	106.4	506.3	50.1	437.9	14.4	102.2	146.3	34.3	63.8	55.0	299.4	99.1
Q4	483.4	153.7	226.0	97.1	105.5	522.8	55.9	445.6	17.9	105.5	136.4	31.7	69.2	52.4	289.8	95.9
2003 Q1 ⁴⁾	524.7	166.3	250.7	99.5	116.2	535.2	59.5	453.8	18.2	107.8	170.9	32.2	65.9	53.1	322.1	104.7

2. Deposits held by non-monetary financial corporations and by government: flows ⁴⁾

	Non-monetary financial intermediaries except insurance corporations and pension funds					Insurance corporations and pension funds					General government					
	Total ²⁾				Annual growth rate ³⁾ (%)	Total ²⁾				Annual growth rate ³⁾ (%)	Central government	Other general government			Total	Annual growth rate ³⁾ (%)
	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	
2001 Q4	5.7	-4.7	10.5	-0.2	4.2	7.6	8.8	0.6	-1.4	3.8	-8.8	-3.4	1.5	0.7	-10.0	-6.9
2002 Q1	17.7	0.0	9.6	7.4	5.5	3.0	-4.2	5.3	1.3	3.1	19.0	1.0	-4.7	0.7	16.1	3.8
Q2	4.8	5.8	1.4	-0.4	4.2	5.3	4.5	-0.1	1.2	3.6	-2.5	3.3	1.5	-2.1	0.2	-2.9
Q3	7.3	-6.2	1.2	12.2	7.7	2.5	1.7	5.1	-4.6	3.8	-12.5	0.1	-1.9	-4.7	-19.0	-4.1
Q4	-3.9	-4.5	6.1	-6.5	5.5	16.5	5.8	7.7	3.5	5.5	-9.9	-2.6	5.5	-2.6	-9.5	-4.1
2003 Q1 ⁴⁾	48.9	12.6	23.7	10.9	12.0	11.6	3.7	7.4	0.4	7.2	28.9	0.5	-3.3	0.6	26.7	-0.6

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) 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 ¹⁾***(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 ²⁾					
	Overnight	With agreed maturity	Redeemable at notice	Repos	Total	Index Dec.01 =100 ³⁾	Overnight	With agreed maturity	Redeemable at notice	Repos	Total	Index Dec.01 =100 ³⁾
	1	2	3	4	5	6	7	8	9	10	11	12
2001 Q3	514.8	318.4	25.4	32.0	890.7	91.5	963.6	1,203.8	1,305.3	84.6	3,557.3	96.5
Q4	577.1	335.2	27.5	36.2	976.0	100.0	1,043.5	1,194.6	1,365.7	76.6	3,680.4	100.0
2002 Q1	529.1	344.5	27.5	33.8	934.9	95.7	1,039.1	1,180.1	1,382.6	80.6	3,682.4	100.1
Q2	555.7	337.5	27.7	37.0	957.9	99.9	1,076.3	1,174.7	1,382.0	77.0	3,710.0	100.9
Q3	562.3	337.9	28.7	36.4	965.3	100.7	1,066.7	1,172.2	1,391.8	78.4	3,709.0	100.9
Q4	596.9	340.3	30.5	34.7	1,002.4	105.6	1,117.7	1,180.8	1,435.9	74.7	3,809.0	103.3
2003 Q1 ⁴⁾	561.8	331.8	34.4	31.6	959.7	101.8	1,125.8	1,167.7	1,471.5	70.6	3,835.7	104.0

4. Deposits held by non-financial sectors other than government: flows ⁴⁾

	Non-financial corporations						Households ²⁾					
	Overnight	With agreed maturity	Redeemable at notice	Repos	Total	Annual growth rate ³⁾ (%)	Overnight	With agreed maturity	Redeemable at notice	Repos	Total	Annual growth rate ³⁾ (%)
	1	2	3	4	5	6	7	8	9	10	11	12
2001 Q4	62.1	14.5	2.0	4.3	82.8	12.4	80.1	-4.1	60.3	-8.0	128.3	10.4
2002 Q1	-48.5	9.2	0.0	-2.5	-41.8	8.0	-4.5	-10.1	15.1	4.0	4.5	6.5
Q2	33.0	4.6	0.2	3.0	40.8	10.3	36.9	-5.1	1.6	-3.7	29.7	5.7
Q3	5.6	1.4	0.9	0.0	8.0	10.1	-9.2	-2.8	9.7	1.4	-0.8	4.5
Q4	38.3	7.7	2.8	-1.7	47.1	5.6	40.5	8.6	43.4	-3.7	88.8	3.3
2003 Q1 ⁴⁾	-32.9	-4.9	3.9	-3.0	-36.9	6.3	8.1	-16.7	35.9	-4.1	23.2	3.8

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) 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 ¹⁾²⁾		Non-banks				Total	Index Dec.01 =100 ³⁾	Banks ¹⁾		Non-banks				Total	Index Dec.01 =100 ³⁾
	Total	Index Dec.01 =100 ³⁾	General government	Other	Total	Index Dec.01 =100 ³⁾			Total	Index Dec.01 =100 ³⁾	General government	Other	Total	Index Dec.01 =100 ³⁾		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2001 Q3	1,084.7	97.4	75.1	527.4	602.5	99.0	1,687.2	97.9	206.7	88.8	273.8	213.1	486.9	97.1	693.6	94.5
Q4	1,119.7	100.0	75.2	543.3	618.6	100.0	1,738.3	100.0	236.6	100.0	290.2	218.0	508.2	100.0	744.8	100.0
2002 Q1	1,104.8	98.5	76.8	556.1	633.0	102.5	1,737.8	99.9	262.9	110.8	275.9	217.8	493.7	97.3	756.6	101.6
Q2	1,083.4	102.9	73.2	529.6	602.9	104.8	1,686.3	103.6	244.0	109.2	244.5	214.6	459.2	96.0	703.2	100.2
Q3	1,122.2	105.6	76.3	540.1	616.3	106.3	1,738.5	105.9	249.8	110.2	253.1	231.8	484.9	99.9	734.7	103.2
Q4	1,183.4	114.2	72.0	520.0	592.0	105.5	1,775.4	111.2	244.2	110.9	248.2	229.1	477.3	101.3	721.5	104.4
2003 Q1 ^(p)	1,220.2	119.6	63.1	527.8	590.9	107.6	1,811.1	115.4	261.5	117.3	239.1	245.4	484.6	102.6	746.0	107.3

2. Flows ⁴⁾

	Loans to non-residents								Holdings of securities other than shares issued by non-residents							
	Banks ¹⁾²⁾		Non-banks				Total	Annual growth rate ³⁾ (%)	Banks ¹⁾		Non-banks				Total	Annual growth rate ³⁾ (%)
	Total	Annual growth rate ³⁾ (%)	General government	Other	Total	Annual growth rate ³⁾ (%)			Total	Annual growth rate ³⁾ (%)	General government	Other	Total	Annual growth rate ³⁾ (%)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2001 Q4	29.2	14.0	0.1	6.1	6.2	16.0	35.4	14.7	26.0	33.3	16.7	-2.1	14.6	7.3	40.6	14.3
2002 Q1	-17.3	4.4	3.6	11.8	15.4	6.3	-2.0	5.1	25.6	35.7	-10.9	-2.8	-13.7	0.9	11.9	10.7
Q2	50.2	9.1	-3.6	18.1	14.5	10.6	64.7	9.7	-3.8	24.7	-34.1	27.5	-6.6	-1.2	-10.4	6.5
Q3	28.4	8.5	3.0	5.3	8.3	7.4	36.7	8.1	2.3	24.1	4.6	14.0	18.6	2.9	20.9	9.2
Q4	91.6	14.2	-4.3	-0.2	-4.5	5.5	87.1	11.2	1.4	10.9	-5.2	12.1	6.9	1.3	8.3	4.4
2003 Q1 ^(p)	55.6	21.5	-8.9	20.5	11.6	5.0	67.2	15.5	14.1	5.8	-9.7	15.9	6.2	5.5	20.3	5.6

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 ⁵⁾						Deposits held by non-residents								
Banks ¹⁾		Other		Total	Index Dec.01 =100 ³⁾	Banks ¹⁾		Non-banks				Total	Index Dec.01 =100 ³⁾	
Total	Index Dec.01 =100 ³⁾	Total	Index Dec.01 =100 ³⁾			Total	Index Dec.01 =100 ³⁾	General government	Other	Total	Index Dec.01 =100 ³⁾			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	
63.6	90.9	89.9	99.2	153.5	95.6	1,710.8	100.7	93.0	588.5	681.5	97.2	2,392.3	99.7	2001 Q3
73.1	100.0	89.8	100.0	162.9	100.0	1,718.4	100.0	95.3	615.0	710.3	100.0	2,428.8	100.0	Q4
77.1	104.5	98.5	110.9	175.6	108.0	1,740.4	100.4	99.0	636.8	735.9	103.3	2,476.3	101.3	2002 Q1
77.0	104.2	100.9	113.4	177.9	109.3	1,605.9	98.9	96.2	607.6	703.8	104.6	2,309.7	100.6	Q2
79.5	107.6	94.3	105.9	173.9	106.7	1,644.0	99.3	102.5	613.5	715.9	105.8	2,359.9	101.2	Q3
78.7	107.4	98.7	113.2	177.4	110.6	1,607.9	99.9	98.7	591.2	689.9	104.5	2,297.8	101.2	Q4
-	-	-	-	-	-	1,611.1	101.8	98.4	604.4	702.8	108.4	2,313.9	103.7	2003 Q1 ^(p)

Holdings of shares and other equity issued by non-residents ⁵⁾						Deposits held by non-residents								
Banks ¹⁾		Other		Total	Annual growth rate ³⁾ (%)	Banks ¹⁾		Non-banks				Total	Annual growth rate ³⁾ (%)	
Total	Annual growth rate ³⁾ (%)	Total	Annual growth rate ³⁾ (%)			Total	Annual growth rate ³⁾ (%)	General government	Other	Total	Annual growth rate ³⁾ (%)			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	
6.3	11.8	0.8	12.9	7.1	12.4	-12.0	8.7	2.3	17.5	19.8	18.0	7.8	11.2	2001 Q4
3.3	12.0	9.8	6.1	13.0	8.4	7.6	-2.9	4.2	19.0	23.2	9.9	30.8	0.6	2002 Q1
-0.2	19.1	2.3	5.5	2.1	10.6	-26.1	-4.2	-2.8	12.3	9.5	10.9	-16.6	-0.1	Q2
2.5	18.4	-6.7	6.8	-4.1	11.7	5.8	-1.4	6.1	2.2	8.2	8.9	14.1	1.5	Q3
-0.1	7.4	6.5	13.2	6.3	10.6	9.9	-0.1	-3.7	-5.1	-8.9	4.5	1.0	1.2	Q4
-	-	-	-	-	-	31.0	1.4	-0.3	26.2	25.9	5.0	56.8	2.5	2003 Q1 ^(p)

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.

5) Breakdown discontinued with the entry into force of Regulation ECB/2001/13.

Table 2.8**Currency analysis of certain liabilities and assets of the euro area MFIs ¹⁾***(EUR billions (not seasonally adjusted; end of period))***Liabilities outstanding****1. Deposits placed by euro area residents**

	MFIs								Non-MFIs							
	All currencies 1	Euro ²⁾ 2	Other EU currencies 3	Other currencies 4	Other currencies				All currencies 9	Euro ³⁾ 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
2001 Q3	4,108.4	3,628.3	48.9	431.2	300.6	41.7	71.0	17.9	5,700.0	5,503.7	28.2	168.1	125.7	19.4	10.8	12.2
Q4	4,171.9	3,699.5	46.6	425.9	307.6	33.5	67.2	17.6	5,916.6	5,715.8	26.0	174.8	127.4	23.9	10.5	13.0
2002 Q1	4,134.6	3,645.4	46.1	443.0	315.8	40.6	65.6	21.0	5,915.9	5,712.5	28.8	174.6	126.8	22.4	10.7	14.6
Q2	4,211.9	3,771.7	41.3	398.8	276.4	40.8	62.8	18.8	5,978.9	5,791.1	26.7	161.0	115.0	22.3	10.9	12.8
Q3	4,219.7	3,799.3	38.8	381.6	266.0	37.1	58.1	20.4	5,968.5	5,782.3	27.3	158.9	115.6	20.8	9.5	13.0
Q4	4,419.8	4,014.2	36.6	369.0	252.9	33.2	60.3	22.6	6,107.4	5,929.8	24.2	153.4	109.0	20.1	11.3	13.0
2003 Q1 ⁴⁾	4,476.2	4,076.4	38.8	361.0	251.8	32.1	58.6	18.5	6,177.3	5,999.5	25.6	152.2	107.4	20.9	11.7	12.2

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

	Banks ³⁾								Non-banks							
	All currencies 1	Euro ²⁾ 2	Other EU currencies 3	Other currencies 4	Other currencies				All currencies 9	Euro ²⁾ 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
2001 Q3	1,710.8	664.3	140.3	906.2	745.2	53.5	76.3	31.2	681.5	297.7	69.2	314.5	263.0	18.4	17.1	16.0
Q4	1,718.4	631.1	132.3	955.1	799.1	48.5	75.3	32.1	710.3	308.1	60.8	341.4	293.9	16.8	18.1	12.6
2002 Q1	1,740.4	661.8	144.8	933.8	781.0	44.4	74.6	33.8	735.9	312.7	66.6	356.6	302.8	20.0	18.9	14.8
Q2	1,605.9	648.9	141.6	815.4	665.8	40.5	73.4	35.7	703.8	322.4	63.3	318.1	268.7	19.4	17.8	12.2
Q3	1,644.0	703.2	147.8	793.0	649.0	37.7	73.0	33.3	715.9	335.7	68.2	312.1	261.7	17.7	16.4	16.4
Q4	1,607.9	701.0	140.7	766.2	634.9	33.5	68.8	29.0	689.9	332.5	71.9	285.5	242.9	15.5	13.2	13.9
2003 Q1 ⁴⁾	1,611.1	740.9	133.8	736.3	598.7	33.9	70.6	33.1	702.8	363.4	66.6	272.8	224.8	17.6	14.0	16.4

3. Debt securities and money market paper issued by euro area MFIs ⁴⁾

	Debt securities and money market paper								
	All currencies 1	Euro ²⁾ 2	Other EU currencies 3	Other currencies					
				USD 5	JPY 6	CHF 7	Other 8		
2001 Q3		3,016.5	2,602.6	56.8	357.1	223.5	71.7	41.3	20.7
Q4		3,034.8	2,582.7	73.8	378.3	247.6	66.6	42.8	21.3
2002 Q1		3,119.5	2,654.8	76.8	387.8	256.6	58.8	45.9	26.5
Q2		3,136.0	2,682.1	75.1	378.9	247.4	56.6	46.8	28.1
Q3		3,149.5	2,692.4	79.1	378.0	243.6	54.4	50.8	29.2
Q4		3,142.4	2,683.3	80.1	378.9	241.0	57.1	50.8	30.0
2003 Q1 ⁴⁾		3,195.3	2,726.8	75.1	393.4	258.0	55.1	51.8	28.6

Source: ECB.

1) Levels at the end of the period. 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.

4) Includes money market paper. For further details, see the general notes.

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

	MFIs								Non-MFIs							
	All currencies	Euro ²⁾	Other EU currencies	Other currencies					All currencies	Euro ²⁾	Other EU currencies	Other currencies				
					USD	JPY	CHF	Other					USD	JPY	CHF	Other
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2001 Q3	4,089.7	-	-	-	-	-	-	-	7,251.7	6,907.3	30.9	313.5	178.2	52.1	77.3	5.8
Q4	4,180.4	-	-	-	-	-	-	-	7,367.0	7,025.2	29.8	312.0	181.6	47.8	77.5	5.1
2002 Q1	4,133.3	-	-	-	-	-	-	-	7,458.8	7,106.7	30.5	321.5	187.4	51.0	76.8	6.3
Q2	4,201.2	-	-	-	-	-	-	-	7,521.2	7,209.0	28.9	283.3	152.5	46.7	78.3	5.8
Q3	4,224.7	-	-	-	-	-	-	-	7,547.5	7,238.6	28.4	280.5	148.1	45.4	81.2	5.8
Q4	4,411.0	-	-	-	-	-	-	-	7,618.3	7,327.4	28.1	262.8	133.7	40.3	83.3	5.5
2003 Q1 ¹⁾	4,451.8	-	-	-	-	-	-	-	7,685.7	7,394.0	27.5	264.2	136.3	36.9	83.9	7.1

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

	Issued by MFIs								Issued by non-MFIs							
	All currencies	Euro ²⁾	Other EU currencies	Other currencies					All currencies	Euro ²⁾	Other EU currencies	Other currencies				
					USD	JPY	CHF	Other					USD	JPY	CHF	Other
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2001 Q3	1,127.2	1,073.9	256.3	226.6	203.8	9.1	7.0	6.8	1,522.6	1,483.6	4.2	34.8	20.4	12.6	1.2	0.6
Q4	1,126.7	1,071.6	24.1	50.8	37.9	9.0	1.8	2.1	1,516.1	1,478.6	3.6	33.9	20.1	12.1	1.1	0.6
2002 Q1	1,177.7	1,117.0	29.5	54.0	35.5	14.5	1.9	2.1	1,575.7	1,539.1	3.7	32.9	19.5	11.7	1.1	0.6
Q2	1,200.8	1,140.8	30.2	51.8	33.3	13.8	2.8	1.9	1,582.0	1,547.8	4.5	29.8	15.5	12.2	1.2	0.8
Q3	1,195.8	1,136.9	35.2	46.2	27.5	14.0	2.6	2.1	1,603.9	1,568.9	5.1	29.8	15.9	11.7	1.4	0.7
Q4	1,177.7	1,126.8	29.7	37.6	27.2	6.7	1.9	1.8	1,588.1	1,552.6	6.2	29.2	15.9	11.1	1.5	0.7
2003 Q1 ¹⁾	1,245.0	1,181.3	27.7	36.0	23.0	8.0	2.6	2.4	1,691.3	1,652.7	4.6	34.0	21.9	10.2	1.1	0.8

6. Loans to non-residents of the euro area

	Banks ³⁾								Non-banks							
	All currencies	Euro ²⁾	Other EU currencies	Other currencies					All currencies	Euro ²⁾	Other EU currencies	Other currencies				
					USD	JPY	CHF	Other					USD	JPY	CHF	Other
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2001 Q3	1,084.7	488.3	101.5	494.8	378.6	42.0	40.3	33.9	602.5	201.5	46.8	354.2	307.5	12.7	24.9	9.0
Q4	1,119.7	452.2	114.7	552.9	435.9	45.2	37.9	33.8	618.6	202.3	46.8	369.5	323.4	12.0	25.7	8.4
2002 Q1	1,104.8	432.2	131.1	541.6	424.4	45.6	37.3	34.3	633.0	199.4	49.9	383.7	331.2	16.4	26.9	9.2
Q2	1,083.4	457.7	129.9	495.9	375.0	61.4	36.1	23.4	602.9	205.7	46.6	350.5	300.8	12.8	28.1	8.8
Q3	1,122.2	495.3	143.8	483.0	369.9	55.8	33.4	23.9	616.3	219.8	46.2	350.3	297.0	15.4	29.0	8.9
Q4	1,183.4	554.3	119.7	509.4	401.0	55.1	31.7	21.8	592.0	212.6	45.0	334.5	283.3	14.2	27.8	9.1
2003 Q1 ¹⁾	1,220.2	598.7	114.0	507.5	399.0	53.3	32.2	23.0	590.9	222.5	44.4	324.1	276.2	11.7	27.4	8.8

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

	Issued by banks ³⁾								Issued by non-banks							
	All currencies	Euro ²⁾	Other EU currencies	Other currencies					All currencies	Euro ²⁾	Other EU currencies	Other currencies				
					USD	JPY	CHF	Other					USD	JPY	CHF	Other
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2001 Q3	206.7	76.5	27.0	103.2	93.1	4.7	2.1	3.4	486.9	129.1	27.1	330.7	292.7	27.1	3.9	7.1
Q4	236.6	80.7	27.6	128.3	118.1	4.2	2.7	3.3	508.2	131.5	27.1	349.6	306.4	30.3	4.2	8.7
2002 Q1	262.9	87.1	33.5	142.4	130.5	4.4	2.9	4.5	493.7	127.9	26.9	339.0	298.6	24.6	5.0	10.8
Q2	244.0	87.5	32.6	123.9	111.8	4.0	2.3	5.9	459.2	132.4	25.0	301.7	260.7	24.3	5.0	11.7
Q3	249.8	90.9	38.7	120.1	111.6	4.0	1.4	3.2	484.9	136.3	31.6	316.9	273.8	26.2	5.4	11.6
Q4	244.2	89.2	34.8	120.1	111.8	4.1	1.4	2.9	477.3	133.9	33.6	309.8	268.2	25.4	5.8	10.4
2003 Q1 ¹⁾	261.5	101.0	42.2	118.3	97.6	9.6	8.6	2.5	484.6	152.1	34.5	298.0	245.2	36.6	3.6	12.6

Table 2.9**Aggregated balance sheet of euro area investment funds ¹⁾***(EUR billions (not seasonally adjusted; end of period))***1. Assets**

									Total
	Deposits	Holdings of securities other than shares	Holdings of securities other than shares		Holdings of shares/ other equity	Holdings of investment fund shares	Fixed assets	Other assets	
			Up to 1 year	Over 1 year					
	1	2	3	4	5	6	7	8	9
2001 Q2	248.7	1,293.6	62.0	1,231.7	1,340.4	211.9	104.3	92.2	3,291.3
Q3	242.4	1,293.9	62.6	1,231.4	1,053.9	192.4	105.0	90.4	2,977.9
Q4	244.6	1,309.9	63.5	1,246.5	1,219.1	209.6	108.9	98.7	3,190.8
2002 Q1	253.6	1,308.7	70.7	1,238.0	1,263.3	224.6	111.0	98.0	3,259.2
Q2	242.8	1,312.6	75.4	1,237.1	1,056.1	215.2	108.0	99.8	3,034.4
Q3	236.7	1,337.4	74.3	1,263.0	844.8	203.4	121.0	103.2	2,846.5
Q4 ^(p)	242.0	1,336.6	72.5	1,264.1	853.6	203.4	123.5	106.8	2,865.9

2. Liabilities

				Total
	Deposits and loans taken	Investment fund shares	Other liabilities	
	1	2	3	4
2001 Q2	39.3	3,164.2	87.8	3,291.3
Q3	41.5	2,858.8	77.6	2,977.9
Q4	41.1	3,075.6	74.1	3,190.8
2002 Q1	42.6	3,137.7	78.8	3,259.2
Q2	39.1	2,919.8	75.5	3,034.4
Q3	38.9	2,732.3	75.3	2,846.5
Q4 ^(p)	40.1	2,748.6	77.2	2,865.9

3. Total assets/liabilities broken down by investment policy and type of investor

	Funds by investment policy							Funds by type of investor		Total
	Equity funds	Bond funds	Mixed funds	Real estate funds	Other funds	General public funds	Special investors' funds			
	1	2	3	4	5	6	7	8		
2001 Q2	947.5	1,019.3	857.1	123.6	343.8	2,510.3	781.0	3,291.3		
Q3	738.2	1,019.1	756.0	127.0	337.7	2,241.8	736.1	2,977.9		
Q4	839.6	1,031.7	810.3	134.0	375.2	2,408.1	782.7	3,190.8		
2002 Q1	862.4	1,039.3	820.3	142.3	394.8	2,464.2	794.9	3,259.2		
Q2	728.7	1,037.0	762.6	139.2	366.9	2,262.4	772.0	3,034.4		
Q3	585.2	1,063.2	699.9	145.6	352.6	2,092.3	754.2	2,846.5		
Q4 ^(p)	593.5	1,068.1	701.7	150.8	351.7	2,091.0	774.9	2,865.9		

Source: ECB.

1) Other than money market funds. Data refer to euro area countries excluding Ireland. For further details, see the general notes.

Table 2.10**Aggregated balance sheet of euro area investment funds broken down by investment policy***(EUR billions (not seasonally adjusted; end of period))***1. Assets of equity funds**

	Deposits 1	Holdings of securities other than shares 2	Up to 1 year		Holdings of shares/ other equity 5	Holdings of investment fund shares 6	Other assets 7	Total 8
			Up to 1 year 3	Over 1 year 4				
			2001 Q2	48.8					34.7	4.5	30.2	830.5	21.0	12.6	947.5
Q3	41.2	30.6	4.2	26.4	636.1	16.7	13.6	738.2
Q4	39.5	29.0	3.0	26.1	735.2	19.4	16.5	839.6
2002 Q1	39.3	28.7	2.9	25.8	759.1	20.6	14.7	862.4
Q2	34.0	27.4	4.0	23.4	630.0	22.2	15.0	728.7
Q3	29.0	26.5	3.7	22.8	496.5	19.1	14.1	585.2
Q4 ^(a)	26.7	28.2	3.1	25.1	505.6	18.3	14.9	593.5

2. Liabilities of equity funds

	Total				
	Deposits and loans taken 1	Investment fund shares 2	Other liabilities 3	4	
2001 Q2		3.2	936.4	8.0	947.5
Q3		4.1	727.9	6.1	738.2
Q4		2.6	831.4	5.6	839.6
2002 Q1		3.5	852.7	6.1	862.4
Q2		4.4	718.7	5.6	728.7
Q3		4.1	576.0	5.1	585.2
Q4 ^(a)		3.9	586.0	3.6	593.5

3. Assets of bond funds

	Deposits 1	Holdings of securities other than shares 2	Up to 1 year		Holdings of shares/ other equity 5	Holdings of investment fund shares 6	Other assets 7	Total 8
			Up to 1 year 3	Over 1 year 4				
			2001 Q2	78.6					858.5	29.4	829.1	36.4	12.3	33.6	1,019.3
Q3	74.9	865.5	32.2	833.3	34.3	12.7	31.6	1,019.1
Q4	73.2	875.5	33.2	842.3	38.5	11.2	33.4	1,031.7
2002 Q1	77.9	874.0	37.3	836.7	42.9	11.5	33.0	1,039.3
Q2	75.9	882.2	38.5	843.8	33.2	10.8	34.9	1,037.0
Q3	78.3	902.1	37.2	865.0	32.6	11.6	38.5	1,063.2
Q4 ^(a)	83.9	902.5	36.9	865.6	32.0	12.3	37.5	1,068.1

4. Liabilities of bond funds

	Total				
	Deposits and loans taken 1	Investment fund shares 2	Other liabilities 3	4	
2001 Q2		7.3	984.5	27.5	1,019.3
Q3		8.1	991.2	19.8	1,019.1
Q4		8.4	1,007.3	16.0	1,031.7
2002 Q1		8.5	1,013.2	17.7	1,039.3
Q2		7.9	1,011.5	17.6	1,037.0
Q3		7.0	1,039.2	17.0	1,063.2
Q4 ^(a)		7.7	1,044.0	16.5	1,068.1

Source: ECB.

Table 2.10 (cont'd)
Aggregated balance sheet of euro area investment funds broken down by investment policy
(EUR billions (not seasonally adjusted; end of period))
5. Assets of mixed funds

									Total
	Deposits 1	Holdings of securities other than shares 2			Holdings of shares/ other equity 5	Holdings of investment fund shares 6	Fixed assets 7	Other assets 8	9
			Up to 1 year 3	Over 1 year 4					
2001 Q2	55.8	296.3	18.0	278.3	382.8	93.8	2.6	25.9	857.1
Q3	55.2	290.4	16.4	274.0	297.5	85.7	2.5	24.8	756.0
Q4	56.9	286.5	17.0	269.5	347.5	92.7	2.4	24.3	810.3
2002 Q1	52.6	283.8	18.1	265.7	357.0	100.3	2.3	24.4	820.3
Q2	54.2	286.9	20.6	266.3	298.8	94.6	2.1	26.0	762.6
Q3	53.0	291.7	21.3	270.4	234.3	88.1	5.2	27.7	699.9
Q4 ^(p)	53.9	295.4	21.4	274.0	233.0	87.8	3.4	28.2	701.7

6. Liabilities of mixed funds

				Total
	Deposits and loans taken 1	Investment fund shares 2	Other liabilities 3	4
2001 Q2	3.4	834.1	19.6	857.1
Q3	3.3	734.4	18.3	756.0
Q4	2.9	790.9	16.5	810.3
2002 Q1	2.9	799.4	18.0	820.3
Q2	3.1	741.3	18.2	762.6
Q3	3.5	676.9	19.5	699.9
Q4 ^(p)	3.0	677.3	21.5	701.7

7. Assets of real estate funds

									Total
	Deposits 1	Holdings of securities other than shares 2			Holdings of shares/ other equity 5	Holdings of investment fund shares 6	Fixed assets 7	Other assets 8	9
			Up to 1 year 3	Over 1 year 4					
2001 Q2	6.6	8.7	0.5	8.2	1.0	1.3	101.5	4.4	123.6
Q3	9.8	7.6	0.5	7.1	0.9	1.5	102.3	4.9	127.0
Q4	8.6	10.7	0.5	10.1	1.0	2.0	106.1	5.7	134.0
2002 Q1	11.5	12.9	0.6	12.3	1.1	2.1	108.3	6.4	142.3
Q2	13.5	9.8	0.6	9.2	0.9	3.9	105.1	6.0	139.2
Q3	13.3	10.7	0.6	10.1	0.8	5.1	109.5	6.2	145.6
Q4 ^(p)	10.9	9.5	0.5	8.9	0.8	7.0	115.7	6.9	150.8

8. Liabilities of real estate funds

				Total
	Deposits and loans taken 1	Investment fund shares 2	Other liabilities 3	4
2001 Q2	24.1	95.0	4.5	123.6
Q3	24.8	97.9	4.4	127.0
Q4	25.9	103.3	4.8	134.0
2002 Q1	26.7	110.7	4.9	142.3
Q2	22.3	112.1	4.8	139.2
Q3	22.9	117.7	5.0	145.6
Q4 ^(p)	24.5	120.9	5.4	150.8

Source: ECB.

Table 2.11**Aggregated balance sheet of euro area investment funds broken down by type of investor***(EUR billions (not seasonally adjusted; end of period))***1. Assets of general public funds**

							Total
	Deposits 1	Holdings of securities other than shares 2	Holdings of shares/ other equity 3	Holdings of investment fund shares 4	Fixed assets 5	Other assets 6	7
2001 Q2	209.3	919.1	1,047.7	170.4	96.5	67.4	2,510.3
Q3	196.4	912.1	820.2	151.6	96.4	65.1	2,241.8
Q4	201.0	928.7	949.2	167.0	99.1	63.2	2,408.1
2002 Q1	213.3	921.8	984.8	176.8	100.6	66.9	2,464.2
Q2	199.2	915.7	818.4	166.7	96.1	66.3	2,262.4
Q3	187.9	917.6	654.4	156.0	107.9	68.5	2,092.3
Q4 ^(p)	190.7	905.4	663.0	153.1	108.9	69.9	2,091.0

2. Liabilities of general public funds

				Total
	Deposits and loans taken 1	Investment fund shares 2	Other liabilities 3	4
2001 Q2	35.7	2,397.4	77.3	2,510.3
Q3	37.4	2,137.4	67.0	2,241.8
Q4	36.4	2,312.9	58.8	2,408.1
2002 Q1	38.1	2,360.2	65.9	2,464.2
Q2	34.0	2,166.0	62.4	2,262.4
Q3	33.0	1,997.8	61.5	2,092.3
Q4 ^(p)	33.6	1,995.7	61.7	2,091.0

3. Assets of special investors' funds

							Total
	Deposits 1	Holdings of securities other than shares 2	Holdings of shares/ other equity 3	Holdings of investment fund shares 4	Fixed assets 5	Other assets 6	7
2001 Q2	39.4	374.6	292.7	41.5	7.8	24.9	781.0
Q3	46.0	381.8	233.7	40.7	8.6	25.3	736.1
Q4	43.6	381.2	270.0	42.6	9.8	35.6	782.7
2002 Q1	40.3	386.9	278.4	47.8	10.3	31.2	794.9
Q2	43.6	396.9	237.7	48.5	11.9	33.5	772.0
Q3	48.8	419.8	190.3	47.5	13.1	34.7	754.2
Q4 ^(p)	51.3	431.2	190.6	50.3	14.7	36.9	774.9

4. Liabilities of special investors' funds

				Total
	Deposits and loans taken 1	Investment fund shares 2	Other liabilities 3	4
2001 Q2	3.6	766.8	10.6	781.0
Q3	4.2	721.4	10.5	736.1
Q4	4.6	762.8	15.3	782.7
2002 Q1	4.5	777.5	12.9	794.9
Q2	5.1	753.8	13.1	772.0
Q3	5.9	734.5	13.8	754.2
Q4 ^(p)	6.5	753.0	15.4	774.9

Source: ECB.

3 Financial markets and interest rates in the euro area

Table 3.1

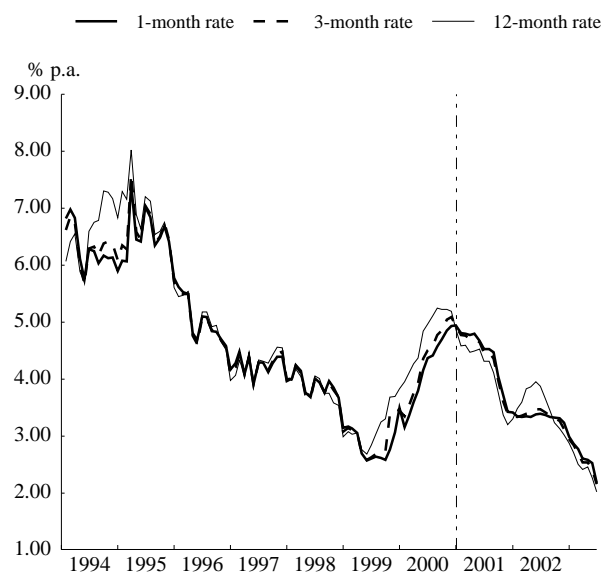
Money market interest rates ¹⁾

(percentages per annum)

	Euro area ⁴⁾					United States ⁶⁾	Japan ⁶⁾
	Overnight deposits ²⁾³⁾ 1	1-month deposits ⁵⁾ 2	3-month deposits ⁵⁾ 3	6-month deposits ⁵⁾ 4	12-month deposits ⁵⁾ 5	3-month deposits ⁶⁾ 6	3-month deposits ⁷⁾ 7
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
2002	3.29	3.30	3.32	3.35	3.49	1.80	0.08
2002 June	3.35	3.38	3.46	3.59	3.87	1.88	0.07
July	3.30	3.36	3.41	3.48	3.64	1.85	0.07
Aug.	3.29	3.33	3.35	3.38	3.44	1.78	0.07
Sep.	3.32	3.32	3.31	3.27	3.24	1.80	0.07
Oct.	3.30	3.31	3.26	3.17	3.13	1.78	0.07
Nov.	3.30	3.23	3.12	3.04	3.02	1.46	0.07
Dec.	3.09	2.98	2.94	2.89	2.87	1.41	0.06
2003 Jan.	2.79	2.86	2.83	2.76	2.71	1.37	0.06
Feb.	2.76	2.77	2.69	2.58	2.50	1.34	0.06
Mar.	2.75	2.60	2.53	2.45	2.41	1.29	0.06
Apr.	2.56	2.58	2.54	2.47	2.45	1.30	0.06
May	2.56	2.52	2.41	2.32	2.26	1.28	0.06
June	2.21	2.18	2.15	2.08	2.01	1.12	0.06
2003 6 June	2.15	2.16	2.15	2.09	2.01	1.21	0.06
13	2.14	2.15	2.13	2.04	1.94	1.09	0.06
20	2.16	2.16	2.14	2.06	1.98	1.02	0.06
27	2.14	2.16	2.15	2.10	2.07	1.11	0.06
4 July	2.12	2.15	2.14	2.08	2.04	1.11	0.05

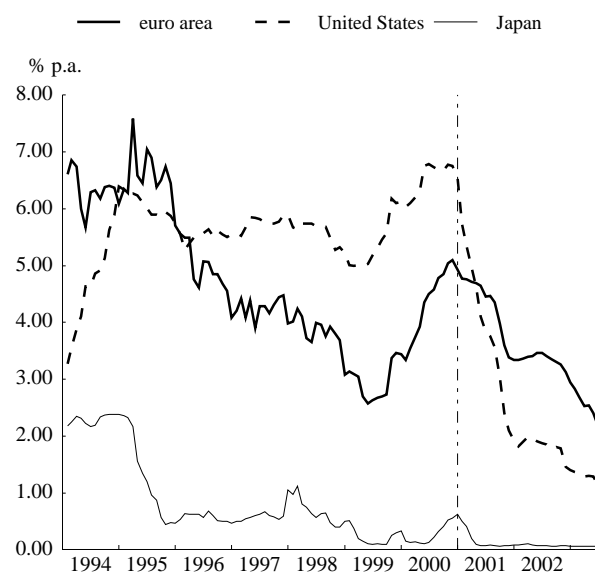
Euro area money market rates

(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

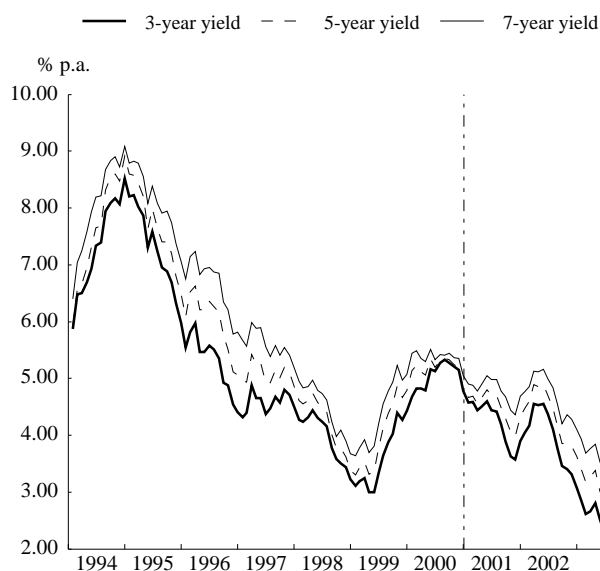
Government bond yields ¹⁾

(percentages per annum)

	Euro area ²⁾					United States	Japan
	2 years ¹	3 years ²	5 years ³	7 years ⁴	10 years ⁵	10 years ⁶	10 years ⁷
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
2002	3.68	3.94	4.35	4.70	4.92	4.60	1.27
2002 June	4.10	4.37	4.70	4.99	5.16	4.90	1.36
July	3.83	4.10	4.48	4.84	5.03	4.62	1.30
Aug.	3.47	3.76	4.15	4.54	4.76	4.24	1.26
Sep.	3.19	3.46	3.85	4.20	4.52	3.88	1.16
Oct.	3.13	3.41	3.86	4.36	4.62	3.91	1.09
Nov.	3.04	3.31	3.81	4.28	4.59	4.04	0.99
Dec.	2.84	3.08	3.63	4.10	4.41	4.03	0.97
2003 Jan.	2.64	2.85	3.40	3.93	4.27	4.02	0.84
Feb.	2.45	2.61	3.18	3.68	4.06	3.90	0.83
Mar.	2.50	2.66	3.26	3.76	4.13	3.79	0.74
Apr.	2.59	2.81	3.38	3.85	4.23	3.94	0.66
May	2.31	2.53	3.02	3.54	3.92	3.56	0.57
June	2.08	2.29	2.79	3.32	3.72	3.32	0.56
2003 6 June	2.07	2.27	2.76	3.32	3.74	3.35	0.51
13	1.94	2.12	2.59	3.12	3.53	3.10	0.45
20	2.08	2.30	2.84	3.36	3.77	3.38	0.59
27	2.25	2.49	3.04	3.54	3.93	3.57	0.73
4 July	2.17	2.43	3.01	3.53	3.96	3.66	1.05

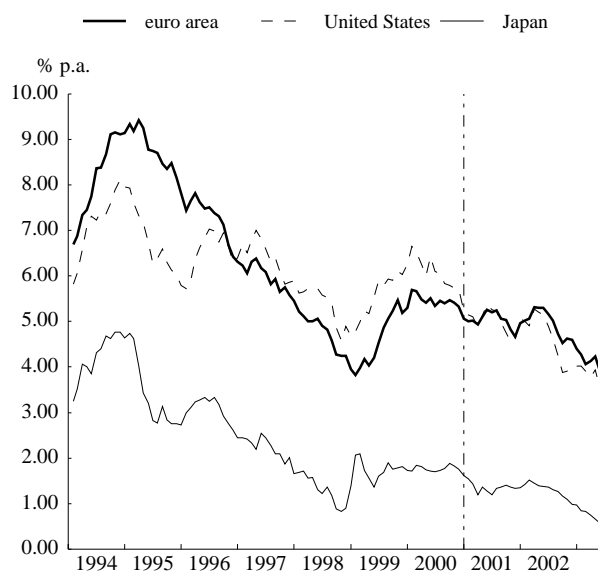
Euro area government bond yields

(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

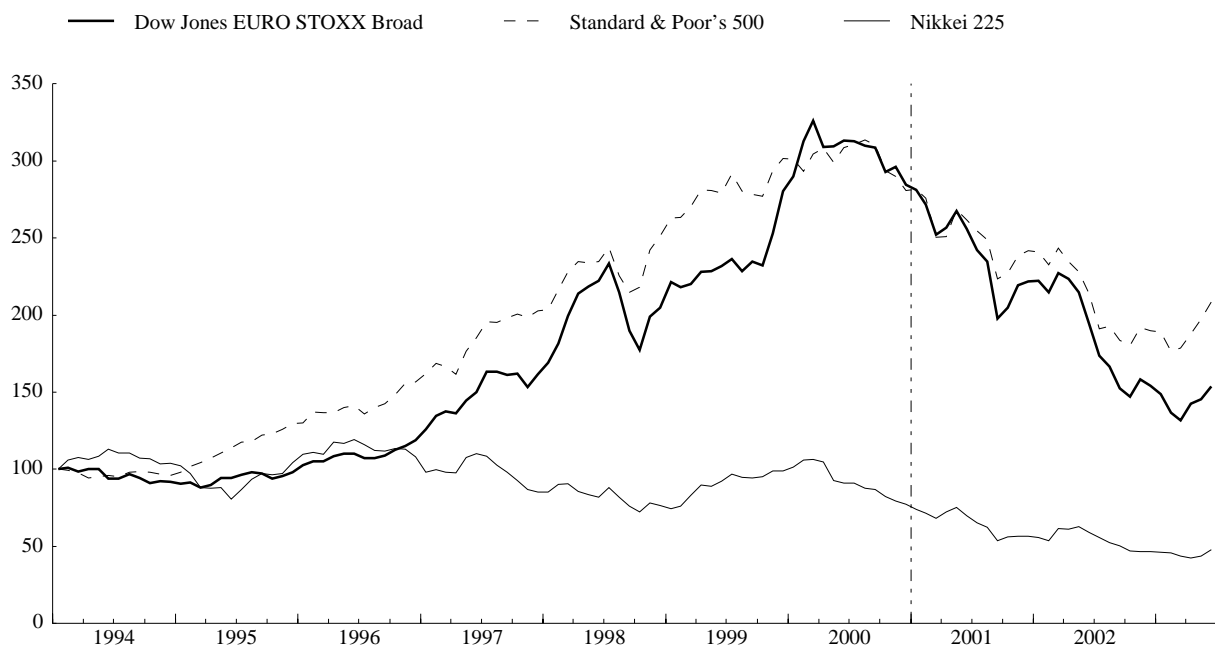
Stock market indices

(index levels, in points)¹⁾

	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			Standard & Poor's 500	Nikkei 225
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
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
2002	259.9	3,023.4	267.5	175.0	266.5	308.9	243.3	252.4	345.1	255.5	349.2	411.8	995.4	10,119.3
2002 June	269.8	3,143.1	293.1	187.5	282.1	324.6	263.8	275.3	312.4	273.0	302.4	408.1	1,014.0	10,965.9
July	241.2	2,810.6	267.8	160.9	252.1	298.6	229.2	248.8	282.1	244.0	300.4	370.6	905.5	10,352.3
Aug.	231.3	2,697.4	243.6	152.9	250.1	290.9	217.4	227.9	258.8	236.7	310.0	376.6	912.6	9,751.2
Sep.	211.8	2,450.2	227.2	140.6	241.2	274.0	193.1	215.3	229.0	221.2	283.1	337.0	870.1	9,354.8
Oct.	204.0	2,384.7	214.4	135.3	236.5	272.1	177.8	193.6	235.8	209.6	286.8	345.4	854.6	8,781.1
Nov.	219.5	2,559.0	224.2	145.4	234.8	272.4	197.0	208.8	289.6	215.2	324.5	347.1	910.1	8,699.6
Dec.	213.6	2,475.1	225.3	139.4	226.5	268.8	194.2	205.2	270.4	207.3	322.5	324.4	899.1	8,674.8
2003 Jan.	206.3	2,377.4	213.0	130.9	220.2	262.4	186.5	198.5	250.2	210.0	330.0	313.8	896.0	8,567.4
Feb.	189.8	2,170.9	185.8	121.5	196.5	245.1	172.2	186.0	226.5	198.1	309.4	274.3	836.6	8,535.8
Mar.	183.0	2,086.5	176.1	115.4	188.4	241.1	164.5	181.2	228.2	185.6	292.8	275.2	846.6	8,171.0
Apr.	197.9	2,278.2	193.4	122.5	203.9	250.0	181.0	192.0	251.6	201.0	324.8	288.7	889.6	7,895.7
May	202.0	2,303.0	196.4	124.9	202.3	249.6	187.4	198.5	258.2	208.3	324.9	304.2	935.8	8,122.1
June	213.5	2,443.3	205.0	133.0	206.5	266.1	201.2	207.4	271.5	216.7	340.7	318.9	988.0	8,895.7
2003 6 June	212.7	2,421.9	203.0	133.7	205.6	262.9	198.5	207.4	280.9	216.9	337.0	317.5	987.8	8,785.9
13	213.2	2,440.3	204.0	132.5	206.7	268.8	202.0	207.8	267.0	216.5	334.7	319.4	988.6	8,980.6
20	218.5	2,515.3	210.4	135.3	215.2	273.2	206.4	211.9	274.7	221.0	344.7	330.1	995.7	9,120.4
27	214.2	2,453.5	206.4	135.5	204.7	265.8	202.4	207.6	269.0	216.4	349.9	306.3	976.2	9,104.1
4 July	211.4	2,408.2	208.7	135.6	202.9	259.4	199.4	208.7	265.4	210.9	340.3	304.8	985.7	9,547.7

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

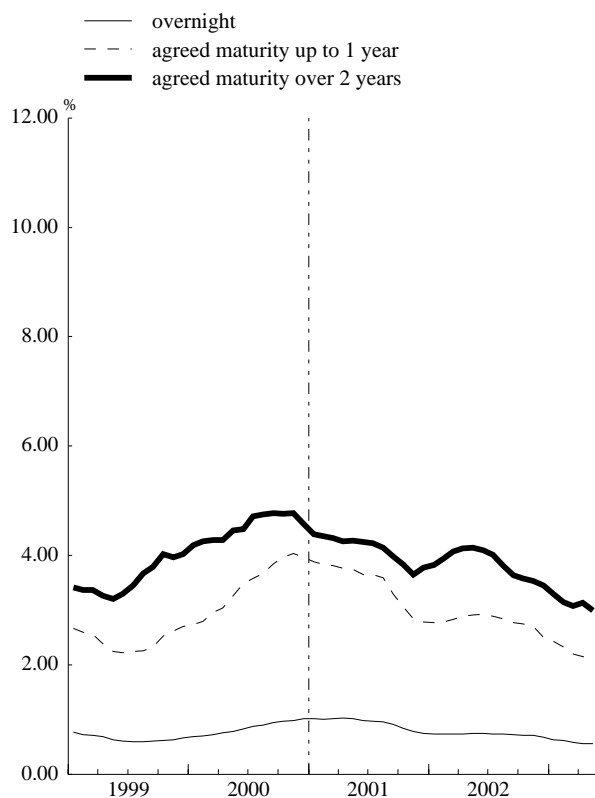
Retail bank interest rates

(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
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
2002	0.73	2.80	2.80	3.85	2.13	2.85	6.13	5.71	9.78	5.54
2002 May	0.74	2.91	2.92	4.15	2.15	3.08	6.20	5.98	9.87	5.82
June	0.74	2.93	2.94	4.09	2.13	3.08	6.18	5.92	9.83	5.77
July	0.74	2.89	2.90	4.02	2.13	3.02	6.16	5.79	9.78	5.68
Aug.	0.73	2.84	2.85	3.81	2.12	2.94	6.15	5.71	9.79	5.53
Sep.	0.73	2.77	2.77	3.64	2.13	2.73	6.12	5.61	9.85	5.38
Oct.	0.72	2.74	2.74	3.58	2.11	2.63	6.13	5.54	9.72	5.26
Nov.	0.71	2.70	2.69	3.53	2.11	2.55	6.10	5.50	9.70	5.21
Dec.	0.68	2.51	2.51	3.45	2.05	2.41	5.98	5.34	9.58	5.10
2003 Jan.	0.63	2.43	2.43	3.30	2.04	2.34	5.85	5.30	9.50	4.92
Feb.	0.62	2.32	2.32	3.15	2.02	2.12	5.79	5.21	9.42	4.78
Mar.	0.59	2.20	2.19	3.08	1.97	2.05	5.65	5.19	9.30	4.70
Apr.	0.56	2.15	2.14	3.14	1.93	2.05	5.52	5.16	9.25	4.73
May	0.56	2.10	2.10	2.99	1.91	1.92	5.47	5.03	9.27	4.58

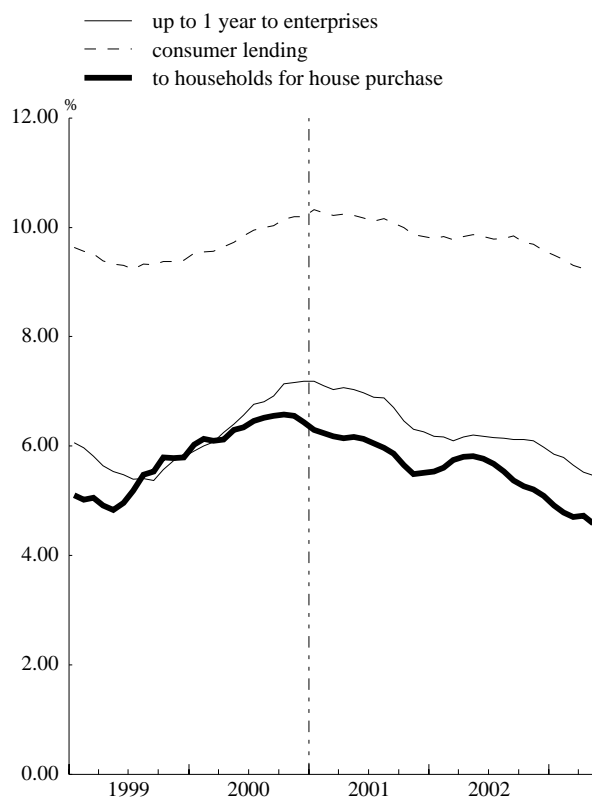
Deposit interest rates

(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 ¹⁾				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
2002 Apr.	403.4	407.0	-3.6	749.5	377.3	384.4	-7.1	659.3	26.1	22.7
May	402.1	379.9	22.2	770.5	378.2	358.7	19.5	677.7	23.9	21.2
June	337.6	342.2	-4.6	766.2	317.0	319.1	-2.1	676.8	20.7	23.1
July	406.0	392.2	13.8	772.6	382.4	371.4	11.0	685.0	23.6	20.9
Aug.	384.5	378.1	6.4	775.6	366.2	356.8	9.3	693.1	18.3	21.3
Sep.	414.9	400.6	14.3	792.7	392.1	381.0	11.0	706.7	22.8	19.6
Oct.	468.3	456.4	11.9	806.1	441.8	433.3	8.5	715.3	26.5	23.1
Nov.	435.5	413.0	22.5	830.5	413.5	388.9	24.6	740.1	22.0	24.2
Dec.	406.1	451.6	-45.5	783.5	386.8	429.9	-43.1	696.0	19.3	21.7
2003 Jan.	545.1	487.4	57.6	840.8	518.6	462.7	55.9	751.0	26.5	24.7
Feb.	456.2	428.4	27.8	865.8	433.5	408.3	25.1	775.6	22.7	20.1
Mar.	450.8	440.6	10.3	874.5	431.8	423.1	8.8	784.2	19.0	17.5
Apr.	475.2	456.1	19.1	889.8	453.7	431.7	22.0	805.7	21.4	24.3

2. Long-term

	By euro area residents									
					In euro ¹⁾				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
2002 Apr.	127.6	80.2	47.4	7,232.4	116.2	74.7	41.5	6,582.6	11.4	5.5
May	149.6	88.0	61.6	7,280.9	127.0	76.0	51.0	6,634.8	22.6	12.0
June	133.5	95.4	38.1	7,295.8	123.4	87.5	35.8	6,666.7	10.1	7.8
July	132.3	114.2	18.1	7,325.3	115.2	104.6	10.6	6,680.8	17.1	9.6
Aug.	69.4	64.7	4.7	7,327.4	59.5	55.1	4.4	6,684.8	9.9	9.6
Sep.	141.2	87.2	53.9	7,380.7	121.8	75.3	46.5	6,730.5	19.3	11.9
Oct.	124.0	92.5	31.5	7,411.7	105.9	81.7	24.2	6,755.0	18.1	10.8
Nov.	133.0	96.5	36.6	7,445.6	119.3	90.4	28.9	6,783.9	13.7	6.1
Dec.	140.2	173.7	-33.5	7,392.8	128.5	160.5	-32.0	6,750.8	11.7	13.2
2003 Jan.	177.7	134.3	43.4	7,423.8	154.9	125.2	29.8	6,781.0	22.7	9.2
Feb.	164.3	112.1	52.2	7,478.2	145.8	103.6	42.2	6,823.8	18.5	8.5
Mar.	161.0	100.8	60.1	7,534.1	145.7	91.9	53.7	6,877.8	15.3	8.9
Apr.	158.8	123.8	35.0	7,560.0	144.2	114.9	29.3	6,907.4	14.6	8.9

3. Total

	By euro area residents									
					In euro ¹⁾				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
2002 Apr.	531.0	487.3	43.8	7,981.9	493.5	459.1	34.4	7,241.8	37.5	28.2
May	551.7	467.9	83.8	8,051.4	505.2	434.7	70.5	7,312.5	46.5	33.2
June	471.1	437.6	33.6	8,062.0	440.3	406.6	33.7	7,343.5	30.8	31.0
July	538.3	506.5	31.8	8,097.9	497.6	476.0	21.6	7,365.9	40.7	30.4
Aug.	453.9	442.8	11.1	8,103.0	425.7	411.9	13.8	7,377.8	28.2	30.9
Sep.	556.1	487.8	68.2	8,173.4	513.9	456.4	57.5	7,437.2	42.2	31.5
Oct.	592.3	548.8	43.4	8,217.8	547.6	515.0	32.7	7,470.4	44.6	33.9
Nov.	568.5	509.5	59.0	8,276.1	532.8	479.3	53.5	7,524.0	35.7	30.3
Dec.	546.3	625.3	-79.0	8,176.3	515.3	590.4	-75.1	7,446.8	31.0	34.9
2003 Jan.	722.8	621.8	101.0	8,264.6	673.5	587.9	85.7	7,531.9	49.2	33.9
Feb.	620.4	540.5	80.0	8,344.0	579.2	511.9	67.3	7,599.4	41.2	28.5
Mar.	611.8	541.4	70.4	8,408.6	577.5	515.0	62.5	7,662.0	34.3	26.4
Apr.	633.9	579.9	54.1	8,449.8	597.9	546.7	51.3	7,713.1	36.0	33.2

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 ¹⁾				Total in euro ¹⁾				
Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	
11	12	13	14	15	16	17	18	19	20	
3.4	90.2	9.7	28.1	-18.4	41.3	387.0	412.5	-25.5	700.5	2002 Apr.
2.6	92.8	13.7	13.4	0.3	41.5	391.9	372.1	19.8	719.3	May
-2.4	89.5	20.9	8.0	12.9	54.4	337.9	327.1	10.7	731.2	June
2.7	87.6	14.7	24.8	-10.1	44.4	397.1	396.2	0.9	729.4	July
-3.0	82.6	12.1	11.5	0.6	44.9	378.3	368.4	9.9	738.0	Aug.
3.3	86.0	31.7	7.7	24.0	68.9	423.8	388.7	35.1	775.6	Sep.
3.4	90.7	17.1	31.3	-14.2	54.7	458.8	464.5	-5.7	770.1	Oct.
-2.2	90.4	14.6	16.9	-2.3	52.4	428.0	405.7	22.3	792.5	Nov.
-2.4	87.5	23.8	10.6	13.2	65.6	410.6	440.5	-29.9	761.6	Dec.
1.7	89.8	16.3	34.5	-18.2	47.4	534.9	497.2	37.7	798.3	2003 Jan.
2.6	90.3	20.1	14.1	5.9	53.3	453.5	422.5	31.1	828.9	Feb.
1.5	90.3	33.2	9.7	23.5	76.9	465.0	432.7	32.3	861.1	Mar.
-2.9	84.1	.	.	.	.	.	.	.	.	Apr.

currencies		By non-residents of the euro area in euro ¹⁾				Total in euro ¹⁾				
Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	
11	12	13	14	15	16	17	18	19	20	
5.9	649.9	23.0	7.6	15.4	924.1	139.2	82.3	56.9	7,506.7	2002 Apr.
10.6	646.1	26.3	8.2	18.0	942.3	153.3	84.2	69.0	7,577.1	May
2.3	629.0	29.3	11.0	18.3	960.5	152.7	98.6	54.1	7,627.2	June
7.5	644.4	11.6	8.2	3.4	964.0	126.9	112.9	14.0	7,644.8	July
0.2	642.6	7.0	8.1	-1.1	962.8	66.5	63.2	3.3	7,647.6	Aug.
7.4	650.3	24.3	11.4	12.9	975.8	146.2	86.7	59.4	7,706.3	Sep.
7.3	656.7	13.2	13.1	0.1	975.9	119.0	94.8	24.3	7,730.9	Oct.
7.6	661.7	13.6	12.1	1.6	977.5	133.0	102.5	30.5	7,761.4	Nov.
-1.5	642.0	18.3	10.9	7.4	984.9	146.8	171.4	-24.6	7,735.7	Dec.
13.6	642.8	23.8	7.2	16.6	1,001.6	178.8	132.3	46.4	7,782.6	2003 Jan.
10.0	654.4	26.5	17.7	8.8	1,010.4	172.3	121.3	51.0	7,834.2	Feb.
6.4	656.3	28.7	9.6	19.2	1,029.5	174.4	101.5	72.9	7,907.3	Mar.
5.7	652.6	.	.	.	.	.	.	.	.	Apr.

currencies		By non-residents of the euro area in euro ¹⁾				Total in euro ¹⁾				
Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	
11	12	13	14	15	16	17	18	19	20	
9.4	740.1	32.7	35.7	-3.0	965.4	526.2	494.8	31.4	8,207.2	2002 Apr.
13.3	738.9	39.9	21.6	18.3	983.9	545.2	456.3	88.8	8,296.4	May
-0.1	718.5	50.2	19.1	31.2	1,014.9	490.6	425.7	64.9	8,358.5	June
10.2	732.1	26.4	33.0	-6.7	1,008.3	524.0	509.0	14.9	8,374.2	July
-2.7	725.2	19.1	19.7	-0.6	1,007.7	444.8	431.6	13.2	8,385.6	Aug.
10.7	736.3	56.0	19.1	37.0	1,044.7	569.9	475.4	94.5	8,481.9	Sep.
10.7	747.4	30.3	44.3	-14.1	1,030.6	577.9	559.3	18.6	8,501.0	Oct.
5.5	752.1	28.2	29.0	-0.8	1,029.9	561.0	508.2	52.8	8,553.9	Nov.
-3.9	729.5	42.1	21.5	20.6	1,050.5	557.4	611.9	-54.5	8,497.3	Dec.
15.3	732.7	40.1	41.7	-1.6	1,049.0	713.7	629.6	84.1	8,580.9	2003 Jan.
12.6	744.6	46.6	31.8	14.7	1,063.7	625.8	543.8	82.1	8,663.1	Feb.
7.9	746.6	61.9	19.2	42.7	1,106.3	639.4	534.2	105.2	8,768.4	Mar.
2.8	736.7	.	.	.	.	.	.	.	.	Apr.

Table 3.6**Euro-denominated securities other than shares by original maturity, residency and sector of the issuer ¹⁾***(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
2002 Apr.	659.3	260.4	4.5	92.6	298.8	3.0	41.3	18.2	18.6	3.8
May	677.7	266.9	3.7	89.9	314.3	3.0	41.5	18.3	19.2	3.5
June	676.8	265.4	3.8	82.0	322.5	3.0	54.4	21.3	28.0	4.4
July	685.0	269.7	4.1	86.2	321.7	3.4	44.4	18.3	22.8	2.8
Aug.	693.1	269.9	4.3	86.7	328.8	3.3	44.9	18.1	23.9	2.6
Sep.	706.7	276.6	4.1	87.7	335.7	2.6	68.9	26.8	37.3	4.0
Oct.	715.3	284.0	4.2	88.5	335.6	3.0	54.7	20.9	28.1	3.5
Nov.	740.1	304.7	4.7	89.9	337.8	3.1	52.4	18.2	28.1	3.7
Dec.	696.0	281.4	4.3	85.3	321.8	3.2	65.6	20.5	37.9	4.6
2003 Jan.	751.0	313.3	4.5	92.6	337.9	2.6	47.4	18.1	26.4	2.4
Feb.	775.6	318.6	5.9	95.9	352.0	3.2	53.3	21.4	28.9	2.5
Mar.	784.2	313.5	6.3	98.4	362.8	3.2	76.9	27.6	44.5	3.3
Apr.	805.7	321.1	5.9	98.9	376.5	3.3				

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
2002 Apr.	6,582.6	2,379.6	390.4	363.9	3,306.3	142.4	924.1	235.0	360.7	108.7
May	6,634.8	2,393.7	401.6	369.2	3,322.4	147.9	942.3	238.6	367.5	111.5
June	6,666.7	2,403.5	406.0	372.8	3,334.1	150.4	960.5	246.0	381.0	111.0
July	6,680.8	2,402.1	413.4	375.1	3,331.1	159.2	964.0	246.0	385.3	110.7
Aug.	6,684.8	2,401.0	413.7	373.0	3,337.0	160.1	962.8	245.4	385.0	110.8
Sep.	6,730.5	2,422.6	421.6	375.8	3,348.7	161.8	975.8	246.2	394.3	109.3
Oct.	6,755.0	2,418.7	428.0	375.0	3,367.8	165.5	975.9	247.0	395.9	109.0
Nov.	6,783.9	2,416.2	441.2	378.3	3,381.2	167.0	977.5	249.3	398.2	108.4
Dec.	6,750.8	2,401.8	472.1	379.9	3,328.2	168.7	984.9	251.9	402.9	109.5
2003 Jan.	6,781.0	2,396.8	473.7	386.3	3,351.3	172.7	1,001.6	258.0	412.1	111.0
Feb.	6,823.8	2,407.8	482.4	390.4	3,365.0	178.1	1,010.4	264.5	414.1	112.3
Mar.	6,877.8	2,417.6	494.3	399.1	3,385.7	181.1	1,029.5	274.6	417.8	112.2
Apr.	6,907.4	2,425.7	508.4	407.2	3,381.9	184.3				

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
2002 Apr.	7,241.8	2,639.9	394.9	456.6	3,605.1	145.4	965.4	253.2	379.4	112.5
May	7,312.5	2,660.5	405.3	459.1	3,636.7	150.9	983.9	256.9	386.7	115.0
June	7,343.5	2,668.9	409.8	454.8	3,656.7	153.4	1,014.9	267.3	408.9	115.4
July	7,365.9	2,671.7	417.5	461.2	3,652.8	162.6	1,008.3	264.3	408.0	113.5
Aug.	7,377.8	2,670.9	418.0	459.7	3,665.8	163.4	1,007.7	263.5	408.9	113.4
Sep.	7,437.2	2,699.1	425.7	463.5	3,684.4	164.4	1,044.7	272.9	431.6	113.3
Oct.	7,470.4	2,702.7	432.3	463.5	3,703.4	168.5	1,030.6	267.9	424.0	112.5
Nov.	7,524.0	2,720.9	445.9	468.2	3,718.9	170.1	1,029.9	267.5	426.4	112.1
Dec.	7,446.8	2,683.3	476.4	465.1	3,650.1	171.9	1,050.5	272.4	440.8	114.1
2003 Jan.	7,531.9	2,710.1	478.3	478.9	3,689.3	175.3	1,049.0	276.1	438.5	113.4
Feb.	7,599.4	2,726.4	488.4	486.3	3,717.0	181.4	1,063.7	285.9	443.0	114.8
Mar.	7,662.0	2,731.1	500.6	497.5	3,748.6	184.3	1,106.3	302.2	462.3	115.5
Apr.	7,713.1	2,746.8	514.2	506.1	3,758.4	187.5				

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	
0.1	0.1	0.5	700.5	278.6	23.1	96.4	298.9	3.1	0.5	2002 Apr.
0.1	0.1	0.4	719.3	285.2	22.9	93.4	314.4	3.1	0.4	May
0.2	0.1	0.5	731.2	286.7	31.8	86.4	322.7	3.1	0.5	June
0.2	0.0	0.2	729.4	288.0	26.9	89.0	321.8	3.4	0.2	July
0.1	0.0	0.1	738.0	288.0	28.2	89.3	329.0	3.4	0.1	Aug.
0.2	0.0	0.6	775.6	303.3	41.4	91.8	335.9	2.7	0.6	Sep.
0.1	0.2	1.8	770.1	304.9	32.4	92.1	335.7	3.2	1.8	Oct.
0.1	0.2	2.0	792.5	322.9	32.9	93.6	337.8	3.3	2.0	Nov.
0.0	0.2	2.4	761.6	302.0	42.2	89.8	321.9	3.4	2.4	Dec.
0.0	0.1	0.4	798.3	331.4	30.9	95.0	338.0	2.7	0.4	2003 Jan.
0.0	0.1	0.4	828.9	339.9	34.9	98.4	352.0	3.4	0.4	Feb.
0.0	0.2	1.2	861.1	341.1	50.8	101.7	362.8	3.4	1.2	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

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	
94.1	14.6	111.0	7,506.7	2,614.6	751.1	472.7	3,400.4	156.9	111.0	2002 Apr.
95.1	14.6	115.1	7,577.1	2,632.2	769.1	480.8	3,417.5	162.5	115.1	May
93.2	14.6	114.7	7,627.2	2,649.5	786.9	483.7	3,427.3	165.0	114.7	June
93.1	14.6	114.3	7,644.8	2,648.1	798.7	485.7	3,424.2	173.8	114.3	July
93.4	14.6	113.6	7,647.6	2,646.4	798.7	483.8	3,430.4	174.7	113.6	Aug.
94.1	14.7	117.3	7,706.3	2,668.8	815.9	485.1	3,442.8	176.5	117.3	Sep.
93.6	14.6	115.9	7,730.9	2,665.7	823.9	484.0	3,461.4	180.1	115.9	Oct.
93.1	14.6	113.8	7,761.4	2,665.5	839.4	486.7	3,474.3	181.6	113.8	Nov.
92.7	14.3	113.6	7,735.7	2,653.8	875.0	489.4	3,420.9	183.0	113.6	Dec.
92.2	14.0	114.4	7,782.6	2,654.8	885.9	497.3	3,443.5	186.7	114.4	2003 Jan.
92.7	14.9	111.8	7,834.2	2,672.3	896.6	502.7	3,457.8	193.0	111.8	Feb.
92.7	15.4	116.9	7,907.3	2,692.2	912.1	511.3	3,478.4	196.5	116.9	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

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	
94.2	14.6	111.5	8,207.2	2,893.2	774.3	569.1	3,699.3	160.0	111.5	2002 Apr.
95.2	14.6	115.5	8,296.4	2,917.4	792.0	574.1	3,731.9	165.5	115.5	May
93.4	14.7	115.2	8,358.5	2,936.2	818.7	570.2	3,750.0	168.1	115.2	June
93.3	14.7	114.5	8,374.2	2,936.1	825.6	574.7	3,746.1	177.3	114.5	July
93.5	14.7	113.7	8,385.6	2,934.4	826.9	573.1	3,759.4	178.1	113.7	Aug.
94.3	14.7	117.9	8,481.9	2,972.1	857.3	576.8	3,778.7	179.1	117.9	Sep.
93.7	14.8	117.7	8,501.0	2,970.6	856.2	576.1	3,797.2	183.2	117.7	Oct.
93.2	14.8	115.9	8,553.9	2,988.4	872.3	580.3	3,812.1	184.9	115.9	Nov.
92.7	14.5	116.0	8,497.3	2,955.7	917.2	579.3	3,742.8	186.3	116.0	Dec.
92.2	14.1	114.8	8,580.9	2,986.2	916.7	592.3	3,781.5	189.4	114.8	2003 Jan.
92.8	15.0	112.2	8,663.1	3,012.3	931.4	601.1	3,809.8	196.4	112.2	Feb.
92.7	15.5	118.1	8,768.4	3,033.3	962.9	613.1	3,841.2	199.8	118.1	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

Table 3.6 (cont'd)**Euro-denominated securities other than shares by original maturity, residency and sector of the issuer ¹⁾***(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
2002 Apr.	377.3	255.9	2.5	63.3	53.8	1.8	9.7	4.4	4.1	0.9
May	378.2	255.0	2.1	62.5	57.0	1.6	13.7	5.2	7.1	1.2
June	317.0	208.1	2.5	51.7	52.5	2.2	20.9	6.3	12.6	1.8
July	382.4	260.2	1.8	65.6	52.6	2.2	14.7	5.9	8.2	0.6
Aug.	366.2	257.8	1.8	50.9	53.9	1.8	12.1	4.5	6.8	0.6
Sep.	392.1	278.4	1.9	56.8	53.0	2.0	31.7	11.1	18.0	2.0
Oct.	441.8	319.4	2.2	64.7	53.1	2.3	17.1	5.0	9.0	1.3
Nov.	413.5	302.9	2.4	58.2	47.7	2.3	14.6	4.7	8.4	1.2
Dec.	386.8	291.3	2.2	46.4	44.3	2.6	23.8	6.3	15.6	1.3
2003 Jan.	518.6	375.7	2.1	66.0	72.9	1.9	16.3	6.3	9.4	0.3
Feb.	433.5	308.0	2.2	56.6	64.4	2.1	20.1	7.2	11.6	1.0
Mar.	431.8	300.4	2.3	62.9	63.7	2.6	33.2	10.2	20.6	1.4
Apr.	453.7	307.6	1.8	70.8	71.6	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
2002 Apr.	116.2	44.8	13.0	8.2	45.2	4.9	23.0	5.1	12.8	1.1
May	127.0	41.5	16.2	7.4	55.3	6.6	26.3	5.7	10.1	3.2
June	123.4	48.2	13.6	7.4	51.3	2.9	29.3	9.9	17.7	0.7
July	115.2	37.9	13.6	6.1	48.2	9.4	11.6	2.9	6.9	0.4
Aug.	59.5	28.1	2.8	2.1	25.2	1.3	7.0	3.1	2.7	0.3
Sep.	121.8	52.3	12.0	4.5	50.4	2.6	24.3	5.2	12.6	0.2
Oct.	105.9	39.0	9.5	0.9	52.1	4.4	13.2	4.6	6.7	0.3
Nov.	119.3	48.1	16.2	3.5	48.0	3.6	13.6	5.6	6.6	0.8
Dec.	128.5	45.6	37.0	7.9	34.4	3.7	18.3	6.1	8.8	2.2
2003 Jan.	154.9	57.9	6.1	8.9	75.8	6.3	23.8	7.9	12.4	1.7
Feb.	145.8	55.6	12.8	8.6	62.4	6.3	26.5	10.8	6.7	3.5
Mar.	145.7	53.8	14.7	10.4	63.1	3.7	28.7	13.2	8.2	0.6
Apr.	144.2	50.3	17.6	10.9	61.7	3.7				

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
2002 Apr.	493.5	300.8	15.5	71.5	99.0	6.7	32.7	9.5	16.9	2.0
May	505.2	296.5	18.3	69.9	112.3	8.2	39.9	10.9	17.2	4.4
June	440.3	256.2	16.1	59.1	103.8	5.2	50.2	16.3	30.3	2.5
July	497.6	298.1	15.4	71.7	100.8	11.6	26.4	8.8	15.1	1.0
Aug.	425.7	285.9	4.6	53.1	79.0	3.2	19.1	7.7	9.6	0.9
Sep.	513.9	330.7	13.9	61.3	103.5	4.6	56.0	16.3	30.7	2.1
Oct.	547.6	358.5	11.7	65.6	105.2	6.7	30.3	9.6	15.8	1.6
Nov.	532.8	351.0	18.6	61.6	95.7	5.8	28.2	10.3	15.0	2.0
Dec.	515.3	336.8	39.1	54.3	78.7	6.4	42.1	12.4	24.4	3.5
2003 Jan.	673.5	433.6	8.1	74.9	148.7	8.2	40.1	14.2	21.9	2.1
Feb.	579.2	363.6	15.1	65.2	126.9	8.4	46.6	18.1	18.4	4.5
Mar.	577.5	354.1	17.0	73.3	126.7	6.3	61.9	23.5	28.9	2.0
Apr.	597.9	357.9	19.4	81.7	133.3	5.6				

*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	0.0	0.2	387.0	260.3	6.6	64.2	53.9	1.8	0.2	2002 Apr.
0.0	0.0	0.1	391.9	260.2	9.2	63.8	57.0	1.6	0.1	May
0.0	0.0	0.1	337.9	214.4	15.1	53.5	52.5	2.2	0.1	June
0.0	0.0	0.0	397.1	266.1	10.0	66.2	52.6	2.2	0.0	July
0.0	0.0	0.1	378.3	262.3	8.6	51.5	53.9	1.8	0.1	Aug.
0.1	0.0	0.5	423.8	289.5	19.9	58.7	53.1	2.0	0.5	Sep.
0.0	0.1	1.6	458.8	324.5	11.2	66.0	53.1	2.5	1.6	Oct.
0.0	0.0	0.2	428.0	307.6	10.8	59.4	47.7	2.3	0.2	Nov.
0.0	0.0	0.5	410.6	297.5	17.8	47.7	44.3	2.7	0.5	Dec.
0.0	0.1	0.1	534.9	382.0	11.5	66.4	72.9	2.0	0.1	2003 Jan.
0.0	0.0	0.2	453.5	315.2	13.9	57.6	64.4	2.1	0.2	Feb.
0.0	0.0	0.9	465.0	310.6	22.9	64.3	63.7	2.6	0.9	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

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	
3.3	0.0	0.7	139.2	49.9	25.8	9.3	48.5	4.9	0.7	2002 Apr.
2.0	0.0	5.3	153.3	47.2	26.3	10.6	57.2	6.6	5.3	May
0.1	0.1	0.7	152.7	58.1	31.4	8.1	51.4	3.0	0.7	June
0.9	0.1	0.3	126.9	40.8	20.6	6.5	49.1	9.5	0.3	July
0.3	0.1	0.5	66.5	31.2	5.5	2.4	25.5	1.4	0.5	Aug.
0.7	0.2	5.5	146.2	57.5	24.6	4.7	51.1	2.7	5.5	Sep.
0.2	0.0	1.3	119.0	43.7	16.2	1.2	52.2	4.4	1.3	Oct.
0.0	0.0	0.5	133.0	53.7	22.9	4.3	48.0	3.6	0.5	Nov.
0.4	0.0	0.8	146.8	51.6	45.8	10.0	34.8	3.7	0.8	Dec.
0.5	0.0	1.3	178.8	65.8	18.5	10.6	76.3	6.3	1.3	2003 Jan.
3.3	1.0	1.1	172.3	66.4	19.6	12.1	65.7	7.4	1.1	Feb.
0.4	0.6	5.7	174.4	67.0	22.9	11.0	63.5	4.3	5.7	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

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	
3.3	0.0	0.9	526.2	310.3	32.4	73.5	102.3	6.7	0.9	2002 Apr.
2.0	0.0	5.5	545.2	307.4	35.5	74.3	114.3	8.2	5.5	May
0.2	0.1	0.9	490.6	272.5	46.4	61.6	103.9	5.3	0.9	June
1.0	0.1	0.4	524.0	306.8	30.5	72.8	101.8	11.7	0.4	July
0.3	0.1	0.6	444.8	293.5	14.1	54.0	79.4	3.3	0.6	Aug.
0.8	0.2	6.0	569.9	347.0	44.5	63.4	104.2	4.8	6.0	Sep.
0.2	0.1	2.9	577.9	368.1	27.4	67.2	105.3	6.9	2.9	Oct.
0.0	0.0	0.7	561.0	361.4	33.7	63.7	95.7	5.9	0.7	Nov.
0.4	0.0	1.3	557.4	349.2	63.6	57.8	79.1	6.4	1.3	Dec.
0.5	0.1	1.4	713.7	447.8	30.0	76.9	149.2	8.3	1.4	2003 Jan.
3.3	1.0	1.3	625.8	381.7	33.5	69.7	130.2	9.5	1.3	Feb.
0.4	0.6	6.6	639.4	377.6	45.9	75.3	127.2	6.9	6.6	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

Table 3.6 (cont'd)
Euro-denominated securities other than shares by original maturity, residency and sector of the issuer ¹⁾
(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
2002 Apr.	-7.1	-2.2	0.2	-4.5	-0.3	-0.3	-18.4	-8.1	-7.7	-2.6
May	19.5	7.6	-0.8	-2.7	15.5	0.0	0.3	0.1	0.5	-0.3
June	-2.1	-2.5	0.1	-8.1	8.3	0.0	12.9	3.0	8.8	1.0
July	11.0	7.1	0.3	4.1	-0.9	0.3	-10.1	-3.0	-5.2	-1.6
Aug.	9.3	1.5	0.2	0.5	7.2	0.0	0.6	-0.2	1.1	-0.2
Sep.	11.0	4.1	-0.3	1.1	6.9	-0.7	24.0	8.6	13.5	1.4
Oct.	8.5	7.5	0.2	0.8	-0.3	0.3	-14.2	-5.8	-9.1	-0.5
Nov.	24.6	20.5	0.5	1.4	2.2	0.1	-2.3	-2.7	0.0	0.2
Dec.	-43.1	-22.2	-0.4	-4.7	-15.9	0.1	13.2	2.3	9.8	0.9
2003 Jan.	55.9	32.8	0.3	7.3	16.1	-0.6	-18.2	-2.5	-11.6	-2.1
Feb.	25.1	5.8	1.4	3.3	14.0	0.6	5.9	3.3	2.6	0.0
Mar.	8.8	-4.9	0.3	2.5	10.9	0.0	23.5	6.2	15.6	0.8
Apr.	22.0	8.2	-0.4	0.5	13.7	0.1				

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
2002 Apr.	41.5	9.4	9.9	5.5	12.0	4.6	15.4	2.7	10.5	0.5
May	51.0	12.9	11.2	5.3	16.1	5.5	18.0	3.6	6.7	2.8
June	35.8	13.8	4.4	3.5	11.7	2.5	18.3	7.4	13.5	-0.6
July	10.6	-5.0	7.4	2.3	-3.0	8.9	3.4	0.0	4.3	-0.3
Aug.	4.4	-0.8	0.3	-1.9	5.9	0.9	-1.1	-0.6	-0.2	0.1
Sep.	46.5	22.4	7.9	2.8	11.7	1.7	12.9	0.8	9.3	-1.5
Oct.	24.2	-4.4	6.4	-0.8	19.3	3.7	0.1	0.8	1.5	-0.3
Nov.	28.9	0.2	13.1	0.8	13.3	1.5	1.6	2.3	2.4	-0.6
Dec.	-32.0	-14.5	31.1	2.6	-52.9	1.7	7.4	2.6	4.7	1.1
2003 Jan.	29.8	-5.5	1.6	6.6	23.1	4.0	16.6	6.1	9.2	1.4
Feb.	42.2	10.3	8.7	4.1	13.7	5.4	8.8	6.5	2.0	1.4
Mar.	53.7	9.4	11.9	8.9	20.5	2.9	19.2	10.1	3.7	-0.1
Apr.	29.3	7.7	14.1	8.1	-3.8	3.2				

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
2002 Apr.	34.4	7.2	10.1	1.0	11.8	4.4	-3.0	-5.4	2.8	-2.1
May	70.5	20.4	10.4	2.6	31.6	5.5	18.3	3.7	7.2	2.5
June	33.7	11.3	4.5	-4.6	20.0	2.5	31.2	10.4	22.4	0.4
July	21.6	2.1	7.7	6.4	-3.9	9.2	-6.7	-3.0	-1.0	-1.9
Aug.	13.8	0.8	0.5	-1.4	13.0	0.8	-0.6	-0.8	0.9	-0.1
Sep.	57.5	26.4	7.7	3.8	18.6	1.0	37.0	9.4	22.7	-0.1
Oct.	32.7	3.1	6.5	0.0	19.1	4.0	-14.1	-5.0	-7.6	-0.8
Nov.	53.5	20.6	13.6	2.2	15.5	1.6	-0.8	-0.4	2.4	-0.4
Dec.	-75.1	-36.7	30.7	-2.0	-68.9	1.8	20.6	4.9	14.4	2.0
2003 Jan.	85.7	27.3	1.9	13.9	39.2	3.4	-1.6	3.6	-2.3	-0.7
Feb.	67.3	16.1	10.1	7.4	27.7	6.0	14.7	9.8	4.6	1.4
Mar.	62.5	4.5	12.2	11.4	31.4	2.9	42.7	16.3	19.3	0.7
Apr.	51.3	15.9	13.7	8.6	9.9	3.3				

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	0.0	0.1	-25.5	-10.3	-7.5	-7.1	-0.3	-0.3	0.1	2002 Apr.
0.0	0.0	-0.1	19.8	7.7	-0.3	-3.0	15.5	0.0	-0.1	May
0.0	0.0	0.1	10.7	0.5	8.9	-7.1	8.3	0.0	0.1	June
0.0	0.0	-0.2	0.9	4.2	-4.9	2.5	-0.9	0.3	-0.2	July
0.0	0.0	-0.1	9.9	1.3	1.3	0.3	7.1	0.0	-0.1	Aug.
0.1	0.0	0.5	35.1	12.7	13.2	2.5	6.9	-0.7	0.5	Sep.
-0.1	0.1	1.2	-5.7	1.7	-9.0	0.3	-0.3	0.5	1.2	Oct.
0.0	0.0	0.2	22.3	17.8	0.5	1.5	2.1	0.1	0.2	Nov.
-0.1	0.0	0.3	-29.9	-20.0	9.4	-3.8	-16.0	0.1	0.3	Dec.
0.0	-0.1	-2.0	37.7	30.3	-11.3	5.2	16.1	-0.7	-2.0	2003 Jan.
0.0	0.0	0.0	31.1	9.1	4.0	3.3	14.0	0.7	0.0	Feb.
0.0	0.0	0.8	32.3	1.3	16.0	3.4	10.8	0.0	0.8	Mar.
										Apr.

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	
1.8	0.0	-0.1	56.9	12.1	20.4	6.0	13.9	4.7	-0.1	2002 Apr.
0.9	0.0	4.1	69.0	16.4	18.0	8.1	17.0	5.5	4.1	May
-1.9	0.0	-0.3	54.1	21.2	17.9	3.0	9.8	2.5	-0.3	June
-0.1	0.0	-0.5	14.0	-5.0	11.7	2.0	-3.1	8.9	-0.5	July
0.3	0.0	-0.7	3.3	-1.4	0.0	-1.7	6.2	0.9	-0.7	Aug.
0.7	0.0	3.7	59.4	23.2	17.2	1.3	12.4	1.7	3.7	Sep.
-0.5	-0.1	-1.4	24.3	-3.6	7.9	-1.1	18.8	3.6	-1.4	Oct.
-0.5	0.0	-2.0	30.5	2.4	15.5	0.2	12.9	1.5	-2.0	Nov.
-0.4	-0.3	-0.3	-24.6	-11.8	35.7	3.7	-53.4	1.4	-0.3	Dec.
-0.5	-0.3	0.7	46.4	0.5	10.8	8.0	22.6	3.7	0.7	2003 Jan.
0.6	0.9	-2.6	51.0	16.8	10.7	5.5	14.3	6.3	-2.6	Feb.
-0.1	0.5	5.1	72.9	19.5	15.6	8.8	20.5	3.4	5.1	Mar.
										Apr.

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	
1.8	0.0	0.0	31.4	1.8	12.9	-1.2	13.5	4.4	0.0	2002 Apr.
0.9	0.0	4.0	88.8	24.1	17.7	5.0	32.5	5.5	4.0	May
-1.8	0.0	-0.3	64.9	21.7	26.9	-4.2	18.2	2.6	-0.3	June
-0.1	0.0	-0.7	14.9	-0.8	6.8	4.5	-4.0	9.2	-0.7	July
0.3	0.0	-0.8	13.2	0.0	1.3	-1.4	13.3	0.8	-0.8	Aug.
0.8	0.0	4.2	94.5	35.9	30.4	3.7	19.3	1.0	4.2	Sep.
-0.6	0.1	-0.2	18.6	-2.0	-1.1	-0.8	18.5	4.1	-0.2	Oct.
-0.5	0.0	-1.8	52.8	20.2	16.0	1.7	15.0	1.6	-1.8	Nov.
-0.5	-0.3	0.1	-54.5	-31.8	45.1	0.0	-69.4	1.5	0.1	Dec.
-0.5	-0.4	-1.2	84.1	30.9	-0.5	13.2	38.7	3.1	-1.2	2003 Jan.
0.6	0.9	-2.6	82.1	25.9	14.7	8.8	28.3	7.0	-2.6	Feb.
-0.1	0.5	5.9	105.2	20.8	31.6	12.1	31.3	3.4	5.9	Mar.
										Apr.

Table 3.7**Annual growth rates of securities other than shares issued by euro area residents ¹⁾***(percentage changes)***1. Short-term**

	In all currencies combined						
	Total		MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government
	1	Index Dec.01= 100 2					
2002 Apr.	0.5	106.9	-2.9	-18.0	1.3	4.4	36.1
May	3.8	110.0	2.2	-32.8	-8.3	10.5	27.8
June	4.5	109.4	0.4	-25.1	-15.2	16.7	50.8
July	5.3	111.3	3.8	-16.4	-14.0	14.6	-3.1
Aug.	5.4	112.3	4.8	0.6	-18.0	15.2	-1.3
Sep.	7.8	114.3	8.9	0.8	-17.0	16.3	-19.4
Oct.	8.9	116.0	10.5	14.9	-18.5	17.9	-0.9
Nov.	12.3	119.3	18.6	23.3	-14.6	15.6	-5.3
Dec.	12.7	112.7	14.7	30.4	-10.4	19.3	-14.3
2003 Jan.	15.2	121.0	17.6	28.9	-7.3	21.1	-15.2
Feb.	19.3	125.0	22.4	60.3	-1.7	23.0	0.6
Mar.	17.8	126.5	19.0	53.1	2.0	21.4	5.7
Apr.	21.0	129.3	20.3	36.8	7.2	25.9	18.1

2. Long-term

	In all currencies combined						
	Total		MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government
	1	Index Dec.01= 100 2					
2002 Apr.	7.9	102.9	7.6	32.3	16.3	3.8	25.1
May	8.0	103.8	8.1	32.9	14.5	3.5	29.3
June	7.5	104.3	7.8	30.3	12.9	3.1	31.4
July	7.1	104.6	6.8	27.5	11.7	3.1	36.3
Aug.	6.8	104.6	6.5	26.9	8.8	3.3	34.0
Sep.	7.3	105.4	7.1	27.7	11.7	3.6	30.9
Oct.	7.2	105.9	6.3	26.9	12.3	3.9	29.7
Nov.	7.0	106.4	5.8	27.1	7.8	4.3	29.0
Dec.	5.9	105.9	5.0	25.1	6.9	2.9	29.4
2003 Jan.	5.7	106.5	4.7	24.0	7.2	2.7	29.9
Feb.	5.9	107.3	4.4	25.1	7.6	3.0	34.6
Mar.	5.8	108.1	3.8	26.1	9.4	3.0	32.4
Apr.	5.6	108.6	3.9	25.8	10.1	2.4	30.9

3. Total

	In all currencies combined						
	Total		MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government
	1	Index Dec.01= 100 2					
2002 Apr.	7.2	103.3	6.3	31.6	13.2	3.9	25.4
May	7.6	104.3	7.4	31.9	9.6	4.1	29.3
June	7.2	104.8	6.9	29.6	7.1	4.2	31.7
July	6.9	105.2	6.4	27.0	6.3	4.1	35.1
Aug.	6.7	105.3	6.3	26.7	3.1	4.3	32.9
Sep.	7.4	106.2	7.3	27.4	5.5	4.6	29.4
Oct.	7.4	106.8	6.8	26.8	5.4	5.0	28.9
Nov.	7.5	107.6	7.2	27.1	3.1	5.2	28.1
Dec.	6.5	106.5	6.0	25.1	3.6	4.1	28.0
2003 Jan.	6.6	107.8	6.1	24.0	4.4	4.1	28.7
Feb.	7.1	108.9	6.3	25.4	5.8	4.6	33.7
Mar.	6.9	109.8	5.5	26.4	8.0	4.5	31.7
Apr.	7.0	110.5	5.6	25.9	9.6	4.3	30.6

Source: ECB.

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

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

In euro ²⁾								
Total	Index Dec.01= 100	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government		
								8	9	10	11	12	13	14
-0.1	107.3	-5.2	-18.0	-0.2	4.7	38.6	2002 Apr.	
3.3	110.5	1.0	-32.8	-10.1	10.6	26.0	May	
4.2	110.1	-0.8	-27.1	-16.6	16.5	51.6	June	
5.1	111.9	3.6	-18.5	-15.6	14.5	-7.0	July	
5.7	113.5	6.1	-1.8	-19.4	15.0	-7.0	Aug.	
7.7	115.3	9.0	-1.8	-18.1	16.7	-28.9	Sep.	
7.6	116.6	8.1	12.1	-20.3	18.1	-11.8	Oct.	
12.3	120.7	20.4	20.6	-15.9	15.9	-14.0	Nov.	
13.6	113.6	16.6	27.3	-11.4	20.3	-23.4	Dec.	
16.1	122.8	20.5	26.0	-8.1	21.1	-27.0	2003 Jan.	
20.1	126.9	25.7	57.4	-2.8	22.7	-9.0	Feb.	
18.3	128.3	21.1	50.3	0.9	21.3	-2.7	Mar.	
22.9	131.9	25.3	34.1	6.4	25.9	8.9	Apr.	

In euro ²⁾								
Total	Index Dec.01= 100	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government		
								8	9	10	11	12	13	14
7.5	102.7	5.6	44.6	19.4	3.8	26.2	2002 Apr.	
7.4	103.5	5.9	42.7	17.3	3.6	30.2	May	
7.0	104.1	5.7	39.2	15.8	3.2	32.3	June	
6.4	104.2	4.5	33.9	15.7	3.1	37.6	July	
6.3	104.3	4.5	32.7	12.8	3.3	35.0	Aug.	
6.7	105.0	5.1	33.5	14.2	3.4	31.8	Sep.	
6.5	105.4	4.3	30.9	14.8	3.9	29.5	Oct.	
6.5	105.9	4.2	31.5	9.4	4.3	28.8	Nov.	
5.4	105.4	3.5	29.3	8.4	2.8	29.0	Dec.	
5.1	105.8	3.1	28.2	8.6	2.5	29.1	2003 Jan.	
5.2	106.5	2.6	28.9	8.7	2.7	33.8	Feb.	
5.1	107.3	2.0	29.9	11.1	2.8	31.5	Mar.	
4.9	107.8	1.9	30.2	11.6	2.3	29.5	Apr.	

In euro ²⁾								
Total	Index Dec.01= 100	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government		
								8	9	10	11	12	13	14
6.7	103.1	4.5	43.3	14.8	3.9	26.4	2002 Apr.	
7.0	104.1	5.4	41.3	10.7	4.2	30.1	May	
6.7	104.6	5.0	38.1	8.2	4.2	32.7	June	
6.3	104.9	4.4	33.1	8.2	4.1	36.2	July	
6.2	105.1	4.6	32.3	4.9	4.2	33.7	Aug.	
6.8	105.9	5.5	33.0	6.3	4.5	30.0	Sep.	
6.6	106.4	4.7	30.7	5.9	5.0	28.4	Oct.	
7.0	107.2	5.8	31.4	3.4	5.3	27.6	Nov.	
6.1	106.1	4.7	29.3	4.1	4.1	27.4	Dec.	
6.1	107.3	4.8	28.2	4.9	4.0	27.7	2003 Jan.	
6.5	108.3	4.9	29.2	6.2	4.3	32.7	Feb.	
6.4	109.2	3.9	30.2	8.9	4.3	30.7	Mar.	
6.6	109.9	4.2	30.3	10.5	4.2	29.0	Apr.	

Table 3.8**Quoted shares issued by euro area residents***(EUR billions; end-of-period stocks; market values)***Amounts outstanding**

	Total 1	MFIs 2	Non-monetary financial corporations 3	Non-financial corporations 4
2000 Apr.	5,861.7	670.4	654.9	4,536.4
May	5,752.7	673.4	648.2	4,431.2
June	5,707.4	680.6	645.7	4,381.0
July	5,835.4	700.3	696.3	4,438.9
Aug.	5,948.9	742.1	700.4	4,506.4
Sep.	5,640.6	730.3	687.7	4,222.7
Oct.	5,667.9	718.9	664.4	4,284.5
Nov.	5,466.7	674.4	673.5	4,118.7
Dec.	5,431.7	687.0	675.0	4,069.6
<i>Euro area enlargement</i>				
2001 Jan.	5,668.5	762.2	706.3	4,200.0
Feb.	5,249.6	710.1	661.6	3,877.9
Mar.	5,029.0	686.3	620.4	3,722.4
Apr.	5,365.9	715.3	643.4	4,007.2
May	5,235.2	697.9	627.0	3,910.4
June	4,991.3	676.5	635.1	3,679.7
July	4,959.8	647.0	572.4	3,740.4
Aug.	4,648.2	643.2	576.6	3,428.4
Sep.	4,054.6	535.7	485.3	3,033.6
Oct.	4,277.9	551.5	497.7	3,228.7
Nov.	4,523.9	587.5	512.0	3,424.3
Dec.	4,656.4	617.3	511.1	3,528.0
2002 Jan.	4,575.1	623.8	518.8	3,432.5
Feb.	4,545.6	622.4	509.8	3,413.4
Mar.	4,748.1	665.3	536.6	3,546.2
Apr.	4,569.8	678.0	517.5	3,374.2
May	4,432.0	666.3	484.9	3,280.9
June	4,113.0	614.8	463.4	3,034.8
July	3,709.7	515.6	395.4	2,798.7
Aug.	3,519.2	521.7	371.0	2,626.5
Sep.	2,977.8	412.6	276.0	2,289.2
Oct.	3,250.9	446.9	321.2	2,482.8
Nov.	3,434.7	487.3	346.0	2,601.4
Dec.	3,130.5	450.7	283.6	2,396.2
2003 Jan.	2,993.8	425.8	261.1	2,306.9
Feb.	2,900.3	425.2	270.7	2,204.4
Mar.	2,775.5	413.0	236.0	2,126.5
Apr.	3,127.4	471.4	291.6	2,364.4

Total outstanding amounts*(EUR billions; end-of-period stocks; market values)*

Source: ECB.



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 (%) ¹⁾	100.0	100.0	59.1	59.1	40.9	40.9	100.0	100.0	59.1	40.9
	1	2	3	4	5	6	7	8	9	10
1999	103.8	1.1	102.7	0.9	106.0	1.5	-	-	-	-
2000	106.0	2.1	105.3	2.5	107.5	1.5	-	-	-	-
<i>Euro area enlargement</i>										
2001	108.5	2.3	107.7	2.3	110.2	2.5	-	-	-	-
2002	110.9	2.3	109.5	1.7	113.6	3.1	-	-	-	-
2002 Q2	111.0	2.1	109.9	1.4	113.1	3.1	110.7	0.6	109.4	113.2
Q3	111.1	2.1	109.2	1.3	114.5	3.3	111.2	0.4	109.6	114.1
Q4	111.7	2.3	110.1	1.8	114.5	3.1	111.8	0.5	110.0	114.8
2003 Q1	112.5	2.3	110.8	2.0	115.3	2.7	112.6	0.8	111.1	115.4
2002 July	111.0	2.0	108.9	1.2	114.5	3.2	111.0	0.1	109.4	113.8
Aug.	111.0	2.1	108.9	1.4	114.6	3.3	111.2	0.2	109.6	114.1
Sep.	111.3	2.1	109.7	1.4	114.2	3.2	111.5	0.3	109.9	114.3
Oct.	111.6	2.3	110.1	1.8	114.2	3.1	111.7	0.2	110.1	114.6
Nov.	111.5	2.3	110.0	1.8	114.2	3.1	111.7	0.0	109.9	114.8
Dec.	112.0	2.3	110.2	1.9	115.2	3.0	111.9	0.2	110.1	115.1
2003 Jan.	111.9	2.1	110.2	1.6	115.0	2.8	112.3	0.4	110.7	115.2
Feb.	112.4	2.4	110.7	2.1	115.4	2.7	112.6	0.3	111.1	115.4
Mar.	113.1	2.4	111.7	2.2	115.6	2.6	113.0	0.3	111.5	115.6
Apr.	113.2	2.1	111.7	1.5	116.0	2.9	112.8	-0.1	111.1	115.9
May	113.2	1.9	111.6	1.4	116.0	2.5	112.8	0.0	111.0	116.1
June ²⁾	.	2.0	.	.	.	.	.	.	.	.

2. Breakdown of goods and services

	Goods						Services				
	Food ³⁾			Industrial goods			Housing	Transport	Communi- cation	Recreation and personal	Miscellan- eous
	Total	Processed food ³⁾	Unprocessed food	Total	Non-energy industrial goods	Energy					
Weight in the total (%) ¹⁾	19.3	11.7	7.6	39.8	31.6	8.2	10.4	6.3	2.9	14.9	6.4
	11	12	13	14	15	16	17	18	19	20	21
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	1.2	1.8	3.0	0.5	13.0	1.5	2.5	-7.1	2.4	2.5
<i>Euro area enlargement</i>											
2001	4.5	2.9	7.0	1.2	0.9	2.2	1.8	3.6	-4.1	3.6	2.7
2002	3.1	3.1	3.1	1.0	1.5	-0.6	2.4	3.2	-0.3	4.2	3.4
2002 Q2	2.9	3.2	2.5	0.7	1.6	-2.3	2.4	3.2	-0.2	4.2	3.4
Q3	2.3	2.9	1.4	0.8	1.3	-0.7	2.4	3.4	0.0	4.3	3.5
Q4	2.3	2.7	1.7	1.6	1.2	2.9	2.5	3.0	-0.2	4.0	3.4
2003 Q1	2.0	3.2	0.2	2.0	0.7	7.0	2.4	3.2	-0.8	3.0	3.7
2002 July	2.2	3.0	1.0	0.7	1.3	-1.6	2.4	3.4	0.0	4.3	3.5
Aug.	2.3	3.0	1.4	0.9	1.3	-0.3	2.4	3.6	-0.1	4.4	3.5
Sep.	2.4	2.8	1.7	0.9	1.3	-0.2	2.4	3.2	0.1	4.3	3.4
Oct.	2.3	2.7	1.7	1.5	1.2	2.6	2.4	3.0	0.1	4.3	3.3
Nov.	2.4	2.6	2.0	1.5	1.3	2.4	2.5	3.2	-0.4	4.0	3.4
Dec.	2.2	2.7	1.3	1.7	1.2	3.8	2.5	2.8	-0.5	3.8	3.5
2003 Jan.	1.5	2.9	-0.6	1.7	0.6	6.0	2.5	3.3	-0.7	3.2	3.6
Feb.	2.1	3.3	0.3	2.2	0.7	7.7	2.4	3.3	-0.9	3.0	3.7
Mar.	2.3	3.3	0.8	2.2	0.8	7.5	2.4	3.0	-0.7	2.8	3.7
Apr.	2.4	3.4	1.0	1.1	0.8	2.2	2.4	3.2	-0.6	3.5	3.6
May	2.5	3.4	1.2	0.9	1.0	0.7	2.4	2.9	-0.5	2.5	3.5
June	.	.	.	.	.	.	.	.	.	.	.

Sources: Eurostat and ECB calculations.

1) Referring to the index period 2003.

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 ¹⁾	Oil prices ²⁾ (EUR per barrel)	
	Industry excluding construction ³⁾								Energy	Construction ⁴⁾	Manufacturing			Total excluding energy
	Total		Industry excluding construction and energy					Total				Durable consumer goods	Non-durable consumer goods	
	Index 2000 = 100		Total	Intermediate goods	Capital goods									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1997	96.0	1.1	0.4	0.2	0.3	0.7	0.6	1.2	3.0	1.4	0.8	10.7	14.6	17.0
1998	95.4	-0.7	0.1	-0.4	0.6	0.7	0.7	0.5	-4.6	0.3	-0.5	-21.0	-12.5	12.0
1999	95.0	-0.4	-0.6	-1.5	0.2	0.6	0.7	-0.2	0.2	1.3	0.1	15.8	-5.9	17.1
2000	100.0	5.3	2.5	5.1	0.6	1.4	1.4	1.6	17.3	2.5	4.8	50.8	16.7	31.0
<i>Euro area enlargement</i>														
2001	102.2	2.2	1.7	1.2	1.0	3.0	1.8	3.1	2.7	2.3	1.2	-8.8	-7.6	27.8
2002	102.1	0.0	0.5	-0.3	0.9	1.3	1.6	1.3	-1.9	2.7	0.3	-3.2	-1.7	26.5
2002 Q2	102.1	-0.7	0.2	-0.8	1.0	1.1	1.7	1.0	-4.1	2.5	-0.3	-8.7	-5.5	27.8
Q3	102.3	0.0	0.6	0.3	0.8	1.2	1.5	1.1	-2.1	2.6	0.4	-4.2	-1.6	27.2
Q4	102.6	1.3	1.0	1.0	0.8	1.4	1.3	1.4	2.8	3.1	1.5	14.0	4.4	26.5
2003 Q1	104.1	2.4	1.2	1.6	0.4	1.4	0.9	1.5	7.3	.	2.2	10.2	-4.2	28.4
Q2	.	.	.	.	.	.	.	.	.	.	.	-13.5	-8.0	22.7
2002 June	102.0	-0.8	0.3	-0.5	0.9	0.9	1.6	0.8	-4.9	-	-0.4	-14.9	-8.4	25.8
July	102.1	-0.2	0.5	0.1	0.8	1.1	1.4	1.0	-2.9	-	0.2	-10.2	-7.6	25.9
Aug.	102.2	0.0	0.6	0.3	0.8	1.1	1.6	1.1	-1.9	-	0.5	-4.3	-1.3	27.0
Sep.	102.5	0.2	0.7	0.4	0.8	1.3	1.6	1.3	-1.4	-	0.6	2.4	4.7	28.9
Oct.	102.7	1.1	0.9	0.8	0.7	1.4	1.4	1.4	2.3	-	1.3	14.3	7.8	27.9
Nov.	102.4	1.2	1.0	1.2	0.8	1.3	1.2	1.3	2.4	-	1.3	10.5	3.4	24.2
Dec.	102.7	1.6	1.1	1.2	0.8	1.5	1.3	1.5	3.9	-	1.8	17.2	2.1	27.1
2003 Jan.	103.7	2.3	1.1	1.4	0.5	1.4	1.1	1.4	6.7	-	2.0	17.2	-1.5	28.3
Feb.	104.1	2.6	1.2	1.7	0.3	1.5	1.0	1.6	8.2	-	2.4	16.8	-3.7	29.8
Mar.	104.3	2.4	1.2	1.7	0.3	1.4	0.8	1.5	7.2	-	2.1	-1.7	-7.2	27.2
Apr.	103.8	1.7	1.1	1.5	0.3	1.3	0.6	1.4	3.2	-	1.1	-15.2	-6.7	22.9
May	103.5	1.3	1.0	1.3	0.3	1.5	0.7	1.6	1.7	-	0.6	-16.6	-8.7	21.9
June	.	.	.	.	.	.	.	.	.	-	.	-8.3	-8.6	23.3

2. Deflators of gross domestic product ⁵⁾
(annual percentage changes, unless otherwise indicated; seasonally adjusted)

	Total		Domestic demand	Private consumption	Government consumption	Gross fixed capital formation	Exports ⁶⁾	Imports ⁶⁾
	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	0.7
1997	103.6	1.5	1.7	2.0	1.3	0.9	1.8	2.6
1998	105.3	1.7	1.3	1.4	1.2	0.9	-0.1	-1.5
1999	106.4	1.1	1.2	1.1	1.9	0.8	-0.5	-0.3
2000	107.9	1.4	2.6	2.2	2.6	2.5	4.7	8.2
<i>Euro area enlargement</i>								
2001	111.0	2.5	2.3	2.4	2.4	2.0	1.5	0.7
2002	113.6	2.4	2.2	2.4	1.8	2.0	-0.7	-1.5
2001 Q2	110.8	2.6	2.6	2.7	2.7	2.1	2.5	2.6
Q3	111.2	2.3	2.2	2.5	2.2	2.1	0.5	0.0
Q4	112.2	2.9	1.8	2.1	2.2	1.7	-0.6	-3.5
2002 Q1	112.8	2.7	2.3	2.6	2.0	2.0	-0.9	-1.9
Q2	113.3	2.3	2.1	2.2	1.7	2.2	-1.1	-1.9
Q3	114.0	2.6	2.1	2.3	1.8	1.9	-0.3	-1.9
Q4	114.6	2.1	2.2	2.4	1.7	1.9	-0.3	-0.2

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 ¹⁾

GDP and expenditure components

1. Current prices

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

	GDP								
	Total	Domestic demand					External balance ³⁾		
		Total	Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories ²⁾	Total	Exports ³⁾	Imports ³⁾
1	2	3	4	5	6	7	8	9	
1998	5,883.6	5,743.8	3,328.8	1,176.4	1,203.6	34.9	139.9	1,949.1	1,809.2
1999	6,150.4	6,048.5	3,504.9	1,230.0	1,291.8	21.7	101.9	2,052.4	1,950.6
2000	6,453.1	6,385.2	3,672.5	1,289.2	1,389.1	34.3	67.9	2,416.7	2,348.8
<i>Euro area enlargement</i>									
2001	6,840.1	6,727.7	3,918.1	1,369.3	1,437.4	2.8	112.5	2,556.1	2,443.7
2002	7,063.5	6,889.3	4,033.5	1,431.6	1,427.6	-3.4	174.1	2,571.2	2,397.0
2001 Q4	1,727.8	1,689.9	989.0	348.0	357.8	-4.9	37.9	630.7	592.8
2002 Q1	1,744.0	1,703.8	995.2	352.6	357.5	-1.5	40.2	627.2	587.0
Q2	1,758.6	1,716.4	1,002.9	356.8	355.1	1.5	42.2	639.5	597.3
Q3	1,775.5	1,727.1	1,013.3	359.9	356.6	-2.7	48.4	652.2	603.9
Q4	1,785.5	1,742.0	1,022.2	362.3	358.3	-0.7	43.4	652.3	608.9
2003 Q1	.	.	.	.	.	.	.	.	.

2. Constant prices

(ECU billions at 1995 prices, seasonally adjusted)

	GDP								
	Total	Domestic demand					External balance ³⁾		
		Total	Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories ²⁾	Total	Exports ³⁾	Imports ³⁾
10	11	12	13	14	15	16	17	18	
1998	5,667.3	5,544.7	3,184.3	1,142.2	1,191.0	27.3	122.5	1,939.1	1,816.6
1999	5,826.5	5,738.1	3,297.2	1,164.7	1,260.6	15.6	88.4	2,040.3	1,951.9
2000	6,029.9	5,906.3	3,380.3	1,189.5	1,322.1	14.4	123.6	2,295.3	2,171.7
<i>Euro area enlargement</i>									
2001	6,227.3	6,079.4	3,519.0	1,231.0	1,339.0	-9.7	148.0	2,391.7	2,243.7
2002	6,279.4	6,092.4	3,538.3	1,264.6	1,303.9	-14.4	187.0	2,421.6	2,234.6
2001 Q4	1,556.0	1,517.6	881.6	310.5	331.1	-5.6	38.4	591.7	553.3
2002 Q1	1,562.5	1,517.6	879.8	313.5	328.8	-4.6	44.9	590.4	545.5
Q2	1,568.6	1,520.1	882.2	315.9	324.6	-2.6	48.5	602.7	554.2
Q3	1,573.6	1,524.0	886.3	317.3	325.1	-4.7	49.6	614.8	565.2
Q4	1,574.7	1,530.7	890.0	317.9	325.4	-2.5	44.0	613.7	569.7
2003 Q1	1,574.8	1,538.3	893.1	318.6	320.9	5.8	36.5	609.8	573.3
<i>(annual percentage changes)</i>									
1998	2.9	3.5	3.0	1.4	5.1	-	-	7.4	10.0
1999	2.8	3.5	3.5	2.0	5.8	-	-	5.2	7.4
2000	3.5	2.9	2.5	2.1	4.9	-	-	12.5	11.3
<i>Euro area enlargement</i>									
2001	1.5	1.0	1.8	2.2	-0.6	-	-	3.0	1.7
2002	0.8	0.2	0.5	2.7	-2.6	-	-	1.2	-0.4
2001 Q4	0.6	0.1	1.6	2.0	-2.4	-	-	-2.3	-3.8
2002 Q1	0.4	-0.1	0.5	2.6	-2.8	-	-	-2.7	-4.3
Q2	0.8	-0.3	0.2	3.0	-3.3	-	-	1.0	-1.8
Q3	1.0	0.4	0.6	2.9	-2.6	-	-	3.0	1.7
Q4	1.2	0.9	0.9	2.4	-1.7	-	-	3.7	3.0
2003 Q1	0.8	1.4	1.5	1.6	-2.4	-	-	3.3	5.1

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 economic activity

3. Current prices

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

	Gross value added							Intermediate consumption of FISIM ¹⁾	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
1998	5,471.0	138.7	1,276.8	295.4	1,139.8	1,441.3	1,179.0	202.2	614.8
1999	5,689.3	136.0	1,293.3	310.7	1,191.2	1,527.6	1,230.6	201.6	662.7
2000	5,973.1	136.9	1,347.3	326.5	1,261.2	1,620.3	1,280.9	212.1	692.2
<i>Euro area enlargement</i>									
2001	6,344.2	151.7	1,412.0	347.3	1,356.5	1,719.7	1,357.0	232.4	728.3
2002	6,560.0	149.7	1,430.7	360.7	1,394.4	1,797.8	1,426.7	237.9	741.3
2001 Q4	1,604.3	38.4	350.6	88.6	342.8	438.6	345.3	59.1	182.6
2002 Q1	1,619.0	38.0	353.3	89.9	345.3	442.3	350.2	59.0	184.0
Q2	1,634.1	37.3	357.2	89.6	347.6	447.7	354.7	58.8	183.2
Q3	1,648.4	37.5	360.2	90.2	349.7	451.9	358.9	59.3	186.3
Q4	1,658.4	36.9	360.0	91.0	351.9	455.8	362.9	60.8	187.8
2003 Q1	.	.	.	.	.	.	.	.	.

4. Constant prices

(ECU billions at 1995 prices, seasonally adjusted)

	Gross value added							Intermediate consumption of FISIM ¹⁾	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
1998	5,319.6	142.3	1,256.7	291.9	1,114.4	1,388.3	1,126.0	222.4	570.1
1999	5,462.5	146.0	1,268.3	299.2	1,164.2	1,441.4	1,143.4	231.2	595.2
2000	5,667.4	145.6	1,319.0	306.2	1,220.6	1,508.2	1,167.8	247.6	610.1
<i>Euro area enlargement</i>									
2001	5,865.3	151.8	1,348.6	311.0	1,282.4	1,569.5	1,202.1	264.7	626.8
2002	5,938.2	150.8	1,359.0	308.2	1,299.4	1,589.2	1,231.6	271.1	612.4
2001 Q4	1,467.4	38.0	333.1	78.0	321.2	394.3	302.8	67.1	155.7
2002 Q1	1,475.7	37.8	336.9	77.7	323.4	395.0	304.9	66.8	153.6
Q2	1,484.0	37.7	340.5	77.0	324.4	397.2	307.2	67.2	151.8
Q3	1,488.3	37.8	341.6	76.8	325.3	398.0	308.8	68.0	153.4
Q4	1,490.2	37.5	340.0	76.7	326.4	399.0	310.7	69.1	153.6
2003 Q1	1,490.6	37.8	341.4	74.8	326.4	399.8	310.5	69.0	153.2
<i>(annual percentage changes)</i>									
1998	2.9	1.5	3.2	0.4	4.0	3.7	1.5	3.6	2.6
1999	2.7	2.6	0.9	2.5	4.5	3.8	1.5	4.0	4.4
2000	3.8	-0.3	4.0	2.3	4.8	4.6	2.1	7.1	2.5
<i>Euro area enlargement</i>									
2001	1.7	-1.3	1.1	-0.6	2.6	2.6	1.4	5.4	0.7
2002	1.2	-0.7	0.8	-0.9	1.3	1.3	2.4	2.4	-2.3
2001 Q4	0.8	-1.1	-1.3	-0.3	1.4	2.0	1.7	4.7	-0.1
2002 Q1	0.8	-0.2	-1.3	0.0	1.2	1.4	2.1	2.3	-2.3
Q2	1.3	-0.1	1.0	-0.8	1.2	1.3	2.5	1.9	-3.7
Q3	1.3	-1.1	1.3	-1.1	1.3	1.1	2.6	2.6	-1.8
Q4	1.6	-1.4	2.1	-1.7	1.6	1.2	2.6	2.9	-1.3
2003 Q1	1.0	0.1	1.3	-3.7	0.9	1.2	1.8	3.2	-0.3

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 ¹⁾

1. Industrial production

(annual percentage changes, unless otherwise indicated)

	Total	Industry excluding construction ²⁾									Construction	Manufacturing
		Total			Industry excluding construction and energy					Energy		
		Index (s.a.) 2000 = 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	
1999	2.1	95.0	1.9	2.0	1.9	2.3	1.7	1.4	1.7	0.7	4.1	1.9
2000	4.9	100.1	5.3	5.6	5.9	8.5	2.0	6.4	1.1	1.9	2.4	5.6
<i>Euro area enlargement</i>												
2001	0.3	100.6	0.4	0.2	-0.6	1.4	0.5	-1.8	1.0	1.5	0.3	0.3
2002	-0.7	99.9	-0.6	-0.8	0.3	-2.0	-0.6	-5.5	0.3	0.9	-0.1	-0.8
2002 Q1	-2.4	99.4	-2.8	-3.3	-2.2	-6.2	-1.2	-6.9	0.0	1.3	1.7	-3.6
Q2	-1.0	99.9	-0.7	-1.0	0.0	-2.1	-0.8	-6.2	0.2	2.1	-0.2	-0.8
Q3	-0.1	100.2	0.1	-0.2	1.1	-1.1	-1.1	-4.4	-0.4	1.5	0.1	-0.1
Q4	0.7	100.3	1.2	1.5	2.5	1.4	0.5	-4.3	1.4	-0.9	-1.7	1.5
2003 Q1	0.6	100.5	1.1	0.6	1.8	0.8	-1.0	-5.5	-0.1	4.1	-3.4	0.9
2002 July	0.3	100.3	0.7	0.3	1.4	-0.2	-0.9	-2.2	-0.6	2.6	0.4	0.4
Aug.	-0.9	100.0	-0.8	-1.0	-0.1	-1.3	-1.7	-9.1	-0.6	0.9	-0.5	-0.8
Sep.	0.0	100.2	0.2	0.0	1.8	-1.8	-0.7	-3.5	-0.1	1.0	0.4	0.0
Oct.	0.5	100.4	1.3	0.7	1.6	0.2	0.4	-3.8	1.2	4.7	-2.3	1.0
Nov.	2.1	100.9	2.7	3.4	4.3	3.9	1.8	-2.1	2.6	-1.7	-0.6	3.3
Dec.	-0.5	99.5	-0.5	0.2	1.3	0.0	-0.8	-7.5	0.4	-4.7	-2.2	0.2
2003 Jan.	1.0	100.5	1.2	1.0	2.6	0.8	-1.0	-4.3	-0.4	1.4	-0.7	1.0
Feb.	1.2	100.8	2.0	1.0	1.4	2.4	-0.5	-5.0	0.3	8.8	-3.8	1.0
Mar.	-0.4	100.1	0.1	0.0	1.4	-0.5	-1.3	-6.9	-0.2	2.4	-5.4	0.6
Apr.	.	100.6	0.8	0.3	1.6	-1.3	0.4	-5.1	1.4	3.5	.	-0.3
May	.	.	.	.	.	.	.	.	.	.	.	.

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 ³⁾ (s.a.)	
	Total		Index 2000 = 100	Total		Food, beverages, tobacco	Non-food				
	Index 2000 = 100			Index 2000 = 100				Textiles, clothing, footwear	Household equipment		
13	14	15	16	17	18	19	20	21	22		
1999	96.0	3.0	97.8	2.4	2.7	2.2	1.4	2.3	973	5.4	
2000	99.9	4.1	100.0	2.3	2.1	2.1	1.5	4.4	953	-2.1	
<i>Euro area enlargement</i>											
2001	104.1	4.2	101.6	1.6	1.8	1.5	0.9	-0.3	968	-0.8	
2002	105.9	1.7	101.7	0.1	0.5	-0.2	-0.9	-1.9	926	-4.3	
2002 Q1	105.0	2.3	101.6	0.2	0.4	-0.6	-0.3	-2.3	918	-4.3	
Q2	105.6	1.6	101.3	-0.3	0.2	0.0	-1.3	-2.1	917	-7.6	
Q3	106.3	1.6	102.2	0.5	0.8	0.4	-1.5	-0.7	919	-4.8	
Q4	106.4	1.4	101.7	-0.1	0.7	-0.5	-0.6	-2.6	950	0.2	
2003 Q1	108.1	2.9	102.4	0.8	2.4	0.5	-1.6	0.2	895	-2.6	
2002 July	106.0	1.4	102.1	0.8	0.7	0.7	0.0	0.3	899	-7.1	
Aug.	106.7	2.1	102.6	0.7	1.4	0.3	0.1	-1.9	925	-4.1	
Sep.	106.4	1.3	101.8	0.1	0.3	0.2	-4.4	-0.3	931	-2.6	
Oct.	107.1	3.2	102.6	1.8	1.7	2.0	5.0	-1.5	929	-3.3	
Nov.	106.1	0.7	101.7	-0.7	1.1	-1.5	-4.8	-3.2	942	-1.2	
Dec.	106.1	0.3	100.9	-1.3	-0.6	-1.8	-1.7	-3.1	980	6.1	
2003 Jan.	108.0	3.4	103.3	2.5	4.1	1.6	2.7	0.4	887	-5.3	
Feb.	108.2	2.9	102.5	1.1	2.9	0.4	-3.8	-0.6	894	-3.5	
Mar.	108.0	2.4	101.4	-1.2	0.3	-0.4	-3.6	0.8	904	0.6	
Apr.	108.0	2.3	102.9	2.1	2.4	0.5	-0.5	0.5	871	-3.9	
May	.	.	.	.	.	.	.	.	862	-5.3

Sources: Eurostat, except columns 21 and 22 (ECB calculation based on data from the ACEA, 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) Annual and quarterly figures are averages of monthly totals.

Table 5.3

European Commission Business and Consumer Surveys ¹⁾

1. Economic sentiment indicator, manufacturing industry and consumer surveys

(percentage balances ²⁾, unless otherwise indicated; seasonally adjusted)

	Economic sentiment indicator ³⁾ (index 1995 = 100)	Manufacturing industry					Consumer confidence indicator				
		Industrial confidence indicator				Capacity utilisation ⁴⁾ (percentages)	Total ⁵⁾	Financial situation over next 12 months	Economic situation over next 12 months	Unemployment situation over next 12 months	Savings over next 12 months
		Total ⁵⁾	Order books	Stocks of finished products	Production expectations						
	1	2	3	4	5	6	7	8	9	10	11
1999	101.4	-7	-16	11	7	82.6	-3	3	-4	11	1
2000	103.8	5	2	4	16	84.4	1	4	1	1	2
2001	100.8	-9	-15	14	1	82.9	-5	2	-10	14	2
2002	99.1	-11	-25	11	3	81.4	-11	-1	-12	26	-3
2002 Q2	99.5	-10	-24	11	6	81.4	-8	-1	-9	22	-3
Q3	99.0	-11	-27	11	4	81.5	-10	-1	-11	26	-3
Q4	98.7	-10	-23	10	3	81.5	-14	-3	-15	30	-8
2003 Q1	98.2	-11	-24	10	0	81.1	-19	-5	-23	39	-9
Q2	98.1	-12	-28	9	0	.	-19	-4	-22	41	-9
2002 June	99.5	-10	-25	12	6	-	-8	0	-8	22	-3
July	99.0	-12	-27	11	2	81.2	-10	-1	-10	26	-4
Aug.	98.8	-12	-28	10	2	-	-11	-1	-12	27	-4
Sep.	99.2	-10	-26	12	7	-	-9	-1	-10	24	-2
Oct.	99.0	-10	-25	10	6	81.7	-12	-2	-12	27	-7
Nov.	98.7	-10	-22	10	3	-	-14	-4	-15	30	-7
Dec.	98.5	-10	-22	10	1	-	-16	-4	-19	33	-9
2003 Jan.	98.3	-11	-22	9	-1	81.3	-18	-5	-21	36	-9
Feb.	98.4	-11	-23	11	2	-	-19	-5	-23	39	-9
Mar.	97.8	-12	-26	10	-1	-	-21	-6	-26	42	-9
Apr.	98.1	-12	-27	10	0	80.8	-19	-5	-22	40	-9
May	98.1	-13	-28	9	-1	-	-20	-4	-23	43	-9
June	98.2	-12	-28	9	0	-	-19	-4	-22	40	-8

2. Construction industry, retail trade and services surveys

(percentage balances ²⁾, seasonally adjusted)

	Construction confidence indicator			Retail trade confidence indicator				Services confidence indicator			
	Total ⁵⁾	Order books	Employment expectations	Total ⁵⁾	Present business situation	Volume of stocks	Expected business situation	Total ⁵⁾	Business climate	Demand in recent months	Demand in the months ahead
	12	13	14	15	16	17	18	19	20	21	22
1999	-10	-17	-2	-7	-7	17	2	27	25	26	31
2000	-5	-13	3	-2	1	17	9	30	36	23	33
2001	-11	-16	-4	-7	-7	17	2	15	16	8	20
2002	-20	-28	-12	-16	-23	18	-9	1	-4	-6	13
2002 Q2	-18	-24	-10	-18	-24	20	-9	5	1	1	14
Q3	-23	-32	-14	-17	-23	15	-11	-1	-5	-8	11
Q4	-24	-31	-16	-15	-21	16	-8	-4	-13	-4	4
2003 Q1	-21	-28	-14	-17	-24	17	-10	-5	-16	-11	11
Q2	-22	-29	-15	-15	-20	18	-6	-2	-12	-1	5
2002 June	-18	-25	-11	-18	-23	18	-12	3	-3	1	10
July	-21	-31	-10	-17	-23	17	-11	0	-4	-7	10
Aug.	-25	-34	-16	-16	-22	14	-12	-2	-4	-12	11
Sep.	-23	-30	-15	-17	-25	15	-11	0	-6	-5	12
Oct.	-23	-32	-14	-16	-21	15	-11	-4	-13	-4	5
Nov.	-25	-32	-18	-14	-17	18	-7	-4	-13	-4	5
Dec.	-23	-30	-15	-16	-24	16	-7	-5	-13	-4	2
2003 Jan.	-22	-29	-15	-19	-29	18	-10	-4	-15	-12	14
Feb.	-21	-28	-13	-13	-17	14	-9	-4	-15	-8	10
Mar.	-21	-28	-14	-18	-25	18	-12	-7	-17	-13	9
Apr.	-21	-28	-14	-17	-24	17	-9	-4	-15	-2	5
May	-23	-29	-16	-13	-19	18	-3	-2	-12	0	5
June	-23	-29	-16	-14	-18	18	-6	-1	-10	0	6

Source: European Commission Business and Consumer Surveys.

1) Data refer to the Euro 12.

2) Difference between the percentages of respondents giving positive and negative replies.

3) 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.

4) Data are collected in January, April, July and October each year. The quarterly figures shown are the average of two successive surveys. Annual data are derived from quarterly averages.

5) The confidence indicators are calculated as simple averages of the components shown; the assessment of stocks (columns 4 and 17) and unemployment (column 10) are used with inverted signs for the calculation of confidence indicators.

Table 5.4
Labour market indicators ¹⁾
1. Employment
(annual percentage changes, unless otherwise indicated; seasonally adjusted)

	Whole economy		By employment status		By economic activity					
	Millions		Employees	Self-employed	Agriculture, hunting, forestry and fishing	Manufacturing, energy and mining	Construction	Trade, repairs, hotels and restaurants, transport and communication	Financial, real estate, renting and business services	Public administration, education, health and other services
Weight in the total ²⁾	100.0	100.0	84.2	15.8	4.7	19.3	7.0	25.2	14.2	29.6
	1	2	3	4	5	6	7	8	9	10
1998	122.358	1.8	2.0	0.9	-1.3	1.0	0.1	2.1	5.3	1.6
1999	124.604	1.8	2.3	-0.6	-2.5	-0.2	1.9	2.3	5.6	1.9
2000	127.376	2.2	2.5	0.8	-1.5	0.6	1.7	3.1	5.8	1.6
<i>Euro area enlargement</i>										
2001	133.118	1.4	1.6	0.2	-0.6	0.3	0.4	1.6	3.8	1.3
2002	133.700	0.4	0.6	-0.6	-2.0	-1.2	-1.1	0.7	1.9	1.4
2002 Q1	133.637	0.7	0.9	-0.4	-2.2	-1.0	-0.9	1.3	2.3	1.4
Q2	133.730	0.5	0.7	-0.7	-2.0	-1.2	-0.9	0.8	2.1	1.4
Q3	133.699	0.3	0.5	-0.8	-1.9	-1.2	-1.4	0.4	1.7	1.4
Q4	133.734	0.2	0.3	-0.4	-2.0	-1.5	-1.4	0.4	1.6	1.3
2003 Q1	133.728	0.1	0.1	0.0	-2.1	-1.6	-1.3	0.2	1.4	1.1

2. Unemployment
(seasonally adjusted)

	Total		By age ³⁾				By gender ⁴⁾			
			Adult		Youth		Male		Female	
	Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	Millions	% of labour force
	11	12	13	14	15	16	17	18	19	20
1998	13.270	10.2	10.146	8.9	3.124	20.0	6.445	8.6	6.825	12.5
1999	12.247	9.3	9.431	8.2	2.815	18.0	5.901	7.8	6.345	11.4
2000	11.104	8.4	8.555	7.3	2.549	16.2	5.286	7.0	5.818	10.3
<i>Euro area enlargement</i>										
2001	11.062	8.0	8.535	7.0	2.527	15.7	5.313	6.7	5.749	9.7
2002	11.667	8.4	9.061	7.4	2.606	16.3	5.770	7.3	5.897	9.8
2002 Q1	11.401	8.2	8.834	7.2	2.567	16.0	5.576	7.0	5.825	9.8
Q2	11.602	8.3	8.994	7.3	2.607	16.2	5.724	7.2	5.878	9.8
Q3	11.749	8.4	9.131	7.4	2.618	16.3	5.834	7.4	5.915	9.9
Q4	11.918	8.5	9.273	7.5	2.645	16.6	5.948	7.5	5.970	9.9
2003 Q1	12.186	8.7	9.475	7.6	2.711	16.9	6.096	7.7	6.090	10.1
2002 May	11.607	8.3	9.007	7.3	2.600	16.2	5.729	7.2	5.879	9.8
June	11.690	8.4	9.048	7.3	2.643	16.4	5.788	7.3	5.902	9.8
July	11.721	8.4	9.100	7.4	2.621	16.3	5.812	7.3	5.910	9.9
Aug.	11.748	8.4	9.130	7.4	2.619	16.3	5.835	7.4	5.913	9.9
Sep.	11.778	8.5	9.164	7.4	2.614	16.3	5.856	7.4	5.923	9.9
Oct.	11.834	8.5	9.214	7.5	2.620	16.4	5.894	7.4	5.940	9.9
Nov.	11.922	8.5	9.274	7.5	2.648	16.6	5.950	7.5	5.972	9.9
Dec.	11.997	8.6	9.331	7.5	2.666	16.7	6.000	7.6	5.997	10.0
2003 Jan.	12.103	8.7	9.405	7.6	2.698	16.9	6.055	7.6	6.048	10.0
Feb.	12.191	8.7	9.477	7.6	2.714	17.0	6.102	7.7	6.089	10.1
Mar.	12.263	8.8	9.544	7.7	2.719	17.0	6.132	7.7	6.131	10.2
Apr.	12.326	8.8	9.604	7.7	2.722	17.0	6.165	7.7	6.161	10.2
May	12.349	8.8	9.628	7.8	2.721	17.0	6.179	7.8	6.170	10.2

Sources: ECB calculations based on Eurostat data (columns 1 to 10) and Eurostat (columns 11 to 20).

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

2) In 2002.

3) Adult: 25 years and over; youth: below 25 years; rates are expressed as a percentage of the labour force for the relevant age group.

4) Rates are expressed as a percentage of the labour force for the relevant gender.

3. Unit labour costs, compensation per employee and labour productivity

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

	Total		By economic activity					
	Index 1995=100 1	2	Agriculture, hunting, forestry and fishing 3	Manufacturing, energy and mining 4	Construction 5	Trade, repairs, hotels and restaurants, transport and communication 6	Financial, real estate renting and business services 7	Public administration, education, health and other services 8
Unit labour costs ¹⁾								
2000	104.3	1.3	1.5	-0.3	2.0	0.0	4.2	1.8
<i>Euro area enlargement</i>								
2001	107.2	2.7	3.4	2.0	3.9	1.9	2.7	3.1
2002	109.5	2.1	1.9	0.9	3.1	1.7	2.8	1.4
2002 Q1	109.0	3.3	6.5	3.1	3.6	2.8	3.4	2.4
Q2	109.2	2.1	-0.2	0.6	3.0	1.7	2.4	1.5
Q3	109.5	1.8	-1.2	0.5	2.7	1.3	2.6	1.2
Q4	110.1	1.3	2.9	-0.6	3.0	1.0	2.8	0.5
2003 Q1	.	.	.	.	.	.	.	.
Compensation per employee								
2000	110.2	2.6	2.8	3.0	2.7	1.7	3.0	2.3
<i>Euro area enlargement</i>								
2001	113.7	2.8	2.7	2.7	2.9	2.8	1.5	3.3
2002	116.5	2.5	3.3	3.0	3.3	2.3	2.2	2.4
2002 Q1	115.6	2.9	8.6	2.8	4.6	2.6	2.5	3.0
Q2	116.1	2.4	1.8	2.9	3.2	2.1	1.6	2.5
Q3	116.9	2.4	-0.5	3.1	3.0	2.2	2.0	2.3
Q4	117.5	2.3	3.5	3.0	2.7	2.2	2.4	1.8
2003 Q1	.	.	.	.	.	.	.	.
Labour productivity ²⁾								
2000	105.7	1.2	1.2	3.3	0.6	1.6	-1.1	0.5
<i>Euro area enlargement</i>								
2001	106.0	0.1	-0.7	0.8	-1.0	1.0	-1.1	0.1
2002	106.5	0.4	1.3	2.0	0.2	0.6	-0.6	1.0
2002 Q1	106.0	-0.3	2.1	-0.3	0.9	-0.1	-0.8	0.7
Q2	106.4	0.3	1.9	2.2	0.1	0.4	-0.7	1.0
Q3	106.7	0.6	0.8	2.6	0.2	0.9	-0.6	1.1
Q4	106.8	1.0	0.6	3.6	-0.3	1.2	-0.4	1.3
2003 Q1	106.8	0.7	2.2	3.0	-2.4	0.8	-0.2	0.7

4. Hourly labour cost indicators

(annual percentage changes, unless otherwise indicated)

	Total ³⁾		By component		By selected economic activity		
	Index (s.a.) 1996=100 9	10	Wages and salaries 11	Employers' social contributions 12	Manufacturing, energy and mining 13	Construction 14	Services 15
2000	109.3	2.8	3.0	2.0	3.4	3.2	1.7
<i>Euro area enlargement</i>							
2001	112.8	3.3	3.4	2.6	3.1	3.6	3.9
2002	117.0	3.7	3.7	3.8	3.2	3.6	3.6
2002 Q1	116.2	4.3	4.3	4.1	3.7	4.6	5.1
Q2	116.3	3.4	3.3	3.7	2.8	3.2	3.6
Q3	117.3	3.5	3.4	3.7	3.0	3.5	3.0
Q4	118.4	3.7	3.7	3.9	3.4	3.3	3.0
2003 Q1	119.4	2.8	2.6	3.1	2.9	2.5	2.0

Sources: ECB calculations based on Eurostat data (columns 1 to 8 and 15) and Eurostat (columns 9 to 14).

1) Compensation (at current prices) per employee divided by value added (at constant prices) per person employed.

2) Value added (at constant prices) per person employed.

3) Hourly labour costs for the whole economy, excluding agriculture, public administration, education, health and other services. 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 ¹⁾

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

Amounts outstanding

1. Main financial assets ²⁾

	Currency and deposits										Memo: deposits of non-banks with banks outside the euro area ³⁾
	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 ⁴⁾		
			Total	Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements				
	1	2	3	4	5	6	7	8	9	10	
1999 Q1	4,677.3	318.6	4,075.8	1,239.1	1,464.6	1,306.2	66.0	133.4	149.5	243.9	
Q2	4,704.4	324.8	4,114.2	1,321.8	1,418.3	1,315.7	58.4	125.0	140.4	242.7	
Q3	4,716.7	328.3	4,112.8	1,324.6	1,416.5	1,313.1	58.7	133.3	142.3	238.6	
Q4	4,859.1	350.8	4,215.1	1,370.9	1,457.7	1,323.5	63.0	142.0	151.2	229.7	
2000 Q1	4,838.4	335.5	4,222.3	1,379.6	1,462.5	1,303.3	76.8	130.2	150.5	260.5	
Q2	4,895.0	342.0	4,256.9	1,409.7	1,485.7	1,282.6	78.9	146.0	150.1	247.1	
Q3	4,915.8	339.8	4,266.5	1,396.9	1,524.0	1,263.7	81.9	159.2	150.2	253.9	
Q4	5,032.2	348.4	4,361.6	1,464.4	1,542.4	1,269.1	85.6	164.5	157.8	230.1	
<i>Euro area enlargement</i>											
2001 Q1	5,138.1	336.3	4,494.1	1,446.1	1,620.9	1,314.6	112.6	150.3	157.3	259.6	
Q2	5,236.0	333.0	4,579.2	1,526.1	1,616.7	1,321.1	115.3	165.5	158.3	268.8	
Q3	5,225.6	309.6	4,609.0	1,547.9	1,605.2	1,333.7	122.2	147.8	159.1	265.6	
Q4	5,366.7	239.7	4,816.3	1,690.3	1,613.0	1,396.3	116.7	139.0	171.6	298.1	
2002 Q1	5,363.7	254.3	4,774.3	1,637.4	1,604.8	1,413.0	119.1	157.5	177.6	301.7	
Q2	5,447.0	285.8	4,827.6	1,703.6	1,593.8	1,412.5	117.6	155.0	178.7	278.1	
Q3	5,461.1	306.7	4,827.4	1,699.6	1,585.8	1,423.3	118.8	146.3	180.7	289.0	
Q4	5,633.7	341.2	4,964.8	1,790.2	1,593.2	1,469.6	111.9	136.4	191.3	291.6	
2003 Q1	.	327.1	4,946.6	1,759.1	1,572.7	1,509.3	105.5	170.9	.	.	

	Securities other than shares			Shares ⁵⁾				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
1999 Q1	1,575.5	154.1	1,421.3	4,044.3	2,425.8	1,618.5	194.9	2,686.3	2,403.5	282.8
Q2	1,488.2	144.3	1,343.9	4,166.4	2,448.9	1,717.5	211.4	2,755.8	2,468.9	286.9
Q3	1,493.6	133.1	1,360.5	4,083.1	2,358.2	1,724.9	210.0	2,798.0	2,507.2	290.8
Q4	1,559.2	166.3	1,392.9	4,823.8	3,003.8	1,819.9	204.2	2,943.1	2,649.0	294.1
2000 Q1	1,549.0	174.3	1,374.7	4,888.8	2,970.4	1,918.4	214.9	3,061.4	2,760.6	300.8
Q2	1,580.2	180.4	1,399.8	4,801.1	2,908.8	1,892.2	204.6	3,108.1	2,803.5	304.7
Q3	1,663.0	198.7	1,464.3	4,843.9	2,938.4	1,905.5	204.1	3,163.0	2,854.5	308.5
Q4	1,746.1	216.6	1,529.5	4,867.5	3,009.2	1,858.3	200.1	3,192.8	2,885.3	307.5
<i>Euro area enlargement</i>										
2001 Q1	1,855.1	276.4	1,578.7	4,544.8	2,725.2	1,819.6	224.0	3,243.6	2,930.1	313.4
Q2	1,852.4	237.0	1,615.5	4,513.4	2,664.6	1,848.8	232.3	3,302.4	2,986.8	315.7
Q3	1,887.0	233.4	1,653.6	4,023.8	2,296.2	1,727.7	253.1	3,277.6	2,958.2	319.4
Q4	1,917.7	225.0	1,692.7	4,375.8	2,553.2	1,822.5	260.1	3,370.8	3,050.1	320.7
2002 Q1	1,974.9	265.7	1,709.2	4,464.3	2,610.2	1,854.2	290.7	3,406.3	3,076.6	329.7
Q2	1,996.5	229.7	1,766.8	4,078.9	2,321.8	1,757.1	292.8	3,425.4	3,091.9	333.5
Q3	2,045.6	253.5	1,792.0	3,472.4	1,753.5	1,718.9	309.9	3,452.1	3,115.5	336.6
Q4	2,071.0	255.4	1,815.5	3,478.9	1,777.2	1,701.7	308.1	3,506.0	3,168.2	337.8
2003 Q1	.	.	.	.	.	.	.	.	.	.

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. Financial derivatives, loans granted by general government and non-financial corporations, unquoted shares and other 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.

2. Main liabilities ¹⁾

	Loans taken from euro area MFIs and other financial corporations by											Memo: loans taken from banks outside the euro area by non-banks ²⁾
	Total	Taken from euro area MFIs	General government			Non-financial corporations			Households ³⁾			
			Total	Short-term	Long-term ⁴⁾	Total	Short-term	Long-term	Total	Short-term	Long-term	
	1	2	3	4	5	6	7	8	9	10	11	12
1999 Q1	6,250.2	5,682.6	900.5	36.0	864.5	2,590.9	919.8	1,671.1	2,758.8	250.5	2,508.4	156.8
Q2	6,413.8	5,817.3	897.9	38.6	859.3	2,682.9	962.5	1,720.4	2,833.0	254.2	2,578.8	183.3
Q3	6,481.7	5,886.4	883.1	37.5	845.5	2,697.9	942.0	1,755.9	2,900.8	253.9	2,646.8	191.4
Q4	6,654.3	6,039.0	898.5	41.7	856.7	2,789.7	977.8	1,811.9	2,966.1	262.2	2,703.9	201.4
2000 Q1	6,799.2	6,155.9	889.1	40.8	848.3	2,888.2	1,036.0	1,852.3	3,021.9	263.6	2,758.2	221.1
Q2	6,946.5	6,261.7	884.0	41.6	842.3	2,987.7	1,088.0	1,899.7	3,074.9	272.3	2,802.6	219.7
Q3	7,091.7	6,379.2	864.5	39.6	825.0	3,095.7	1,149.7	1,946.0	3,131.5	273.9	2,857.6	252.3
Q4	7,255.3	6,500.0	880.3	41.7	838.6	3,194.4	1,165.2	2,029.2	3,180.6	278.9	2,901.7	245.2
<i>Euro area enlargement</i>												
2001 Q1	7,452.7	6,671.1	896.3	41.8	854.5	3,321.6	1,243.2	2,078.4	3,234.8	278.6	2,956.2	257.3
Q2	7,558.0	6,761.6	880.4	42.1	838.3	3,393.3	1,265.5	2,127.8	3,284.3	284.6	2,999.7	279.2
Q3	7,629.9	6,804.6	874.2	45.1	829.1	3,433.6	1,243.6	2,190.1	3,322.1	280.1	3,042.0	249.7
Q4	7,749.0	6,897.1	901.3	50.6	850.7	3,474.0	1,226.7	2,247.2	3,373.7	281.5	3,092.3	268.9
2002 Q1	7,823.2	6,959.9	905.6	53.3	852.3	3,508.8	1,223.1	2,285.8	3,408.8	277.1	3,131.7	278.5
Q2	7,907.3	7,017.0	878.5	53.5	825.0	3,549.0	1,207.9	2,341.1	3,479.8	287.8	3,192.1	245.5
Q3	7,946.9	7,052.4	869.6	54.8	814.8	3,554.6	1,189.6	2,365.1	3,522.7	283.8	3,238.9	238.0
Q4	8,066.1	7,131.3	884.6	60.7	823.9	3,597.7	1,172.7	2,425.0	3,583.8	289.2	3,294.6	240.2
2003 Q1	.	7,172.4	.	.	.	.	.	.	.	.	.	.

	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
1999 Q1	3,967.8	3,634.9	465.8	3,169.1	333.0	64.3	268.7	2,968.2	148.8	219.6
Q2	3,952.9	3,612.1	458.2	3,153.8	340.8	66.6	274.2	3,090.6	139.6	221.9
Q3	3,931.9	3,577.4	448.1	3,129.2	354.6	75.0	279.6	3,015.8	141.7	224.2
Q4	3,898.3	3,533.3	419.7	3,113.6	364.9	78.3	286.7	4,196.1	148.9	226.5
2000 Q1	3,953.7	3,586.0	425.1	3,160.9	367.7	78.8	289.0	4,535.8	148.2	228.4
Q2	3,987.5	3,607.7	425.6	3,182.1	379.8	88.9	290.9	4,381.0	147.9	230.2
Q3	4,020.2	3,621.0	422.0	3,199.0	399.2	95.6	303.6	4,222.7	147.9	232.1
Q4	4,066.7	3,647.8	400.5	3,247.2	418.9	101.1	317.9	4,069.6	155.3	233.9
<i>Euro area enlargement</i>										
2001 Q1	4,243.5	3,787.5	429.8	3,357.7	456.0	112.1	343.9	3,722.4	154.7	236.1
Q2	4,292.7	3,811.8	441.6	3,370.2	481.0	123.1	357.9	3,679.7	155.1	238.3
Q3	4,377.7	3,879.7	450.3	3,429.4	498.1	137.1	360.9	3,033.6	156.3	240.5
Q4	4,389.9	3,874.6	434.3	3,440.3	515.3	136.0	379.4	3,528.0	168.6	241.4
2002 Q1	4,445.7	3,925.5	446.7	3,478.7	520.2	141.3	378.9	3,546.2	174.5	243.8
Q2	4,535.9	4,021.6	481.7	3,539.9	514.2	126.9	387.3	3,034.8	175.6	246.2
Q3	4,647.4	4,119.3	480.0	3,639.3	528.0	134.4	393.6	2,289.2	177.5	248.6
Q4	4,655.7	4,124.5	480.1	3,644.4	531.2	140.6	390.5	2,396.2	188.1	251.1
2003 Q1	.	.	.	.	.	.	.	2,126.5	.	.

Source: ECB.

1) Most of the financial asset and liability categories defined in the ESA 95 are covered. Financial derivatives, loans granted by general government and non-financial corporations, unquoted shares and other equity, and other receivables and payables are not included.

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

3) Including non-profit institutions serving households.

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

Table 6.1 (cont'd)
Financial investment and financing of non-financial sectors ¹⁾
(EUR billions; not seasonally adjusted)
Transactions
1. Main financial assets ²⁾

	Currency and deposits									Memo: deposits of non-banks with banks outside the euro area ³⁾
	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 ⁴⁾	
			Total	Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements			
	1	2	3	4	5	6	7	8	9	10
1999 Q1	2.8	-5.2	2.4	-12.6	0.7	26.9	-12.5	-4.2	9.8	23.4
Q2	22.6	6.2	33.9	81.3	-49.1	9.3	-7.6	-8.4	-9.1	-4.3
Q3	13.7	3.5	0.0	3.5	-1.2	-2.6	0.3	8.3	1.9	-2.8
Q4	132.8	22.3	94.2	44.2	35.7	10.2	4.2	8.7	7.6	-14.2
2000 Q1	-28.4	-15.3	-0.4	6.1	0.3	-20.5	13.7	-11.9	-0.7	26.1
Q2	52.1	6.7	30.0	31.9	17.8	-21.8	2.1	15.8	-0.4	-12.8
Q3	5.7	-2.2	-5.5	-17.4	27.7	-18.7	2.9	13.3	0.1	-1.7
Q4	130.8	8.6	109.5	71.5	28.3	5.8	3.8	5.3	7.6	-16.7
<i>Euro area enlargement</i>										
2001 Q1	84.8	-19.8	120.6	-23.8	72.6	44.9	26.9	-15.6	-0.5	13.6
Q2	94.7	-3.3	81.8	77.1	-4.3	6.3	2.7	15.1	1.0	4.8
Q3	8.1	-23.4	48.3	25.4	3.0	13.0	7.0	-17.7	0.9	3.4
Q4	143.7	-69.9	209.9	142.3	10.6	62.5	-5.4	-8.8	12.4	12.2
2002 Q1	-0.6	14.6	-40.2	-53.4	-4.1	14.9	2.3	19.0	6.0	2.7
Q2	103.3	31.5	73.2	72.2	0.9	1.7	-1.7	-2.5	1.1	-10.0
Q3	11.0	20.9	0.6	-4.4	-7.3	10.6	1.7	-12.5	2.0	9.2
Q4	171.6	34.5	136.3	83.8	12.8	46.6	-6.9	-9.9	10.6	8.5
2003 Q1	.	7.6	-15.8	-28.9	-20.6	40.0	-6.4	28.9	.	.

	Securities other than shares			Shares ⁵⁾				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
1999 Q1	52.6	4.3	48.3	105.3	1.7	103.5	4.3	63.9	58.1	5.8
Q2	-41.1	-12.2	-28.9	152.2	67.5	84.7	15.6	53.2	49.0	4.2
Q3	-1.7	-12.5	10.8	87.6	47.5	40.1	-2.0	56.0	51.9	4.1
Q4	67.8	32.1	35.7	-17.5	13.5	-31.0	-12.6	74.3	70.9	3.5
2000 Q1	5.7	19.9	-14.2	-16.9	-64.8	47.8	13.5	80.6	73.8	6.8
Q2	42.6	5.3	37.3	67.8	48.5	19.3	-7.2	56.9	53.0	3.9
Q3	75.7	21.3	54.4	105.8	98.2	7.6	-1.2	57.0	53.0	3.9
Q4	17.6	6.7	10.9	179.6	141.1	38.5	-5.0	60.4	61.4	-1.0
<i>Euro area enlargement</i>										
2001 Q1	100.0	60.5	39.5	45.1	-2.2	47.3	22.1	61.9	56.0	5.9
Q2	-2.3	-34.1	31.9	41.0	34.4	6.6	3.4	56.6	54.3	2.2
Q3	31.9	-4.3	36.3	57.5	31.1	26.4	14.1	51.8	48.1	3.8
Q4	3.3	-12.9	16.2	-0.7	-24.4	23.6	3.0	60.2	58.9	1.3
2002 Q1	63.4	36.5	26.9	47.5	5.0	42.5	26.4	70.2	61.1	9.1
Q2	-10.0	-42.2	32.2	25.2	12.2	13.1	-1.5	51.4	47.6	3.7
Q3	38.9	24.9	14.0	45.2	21.7	23.5	13.6	51.4	48.2	3.2
Q4	-2.5	-6.5	4.1	-34.9	-45.5	10.6	-4.3	57.2	56.0	1.2
2003 Q1	.	.	.	.	.	.	.	.	.	.

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. Financial derivatives, loans granted by general government and non-financial corporations, unquoted shares and other 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.

2. Main liabilities ¹⁾

	Loans taken from euro area MFIs and other financial corporations by											Memo: loans taken from banks outside the euro area by non-banks ²⁾	
	Total	Taken from euro area MFIs	General government			Non-financial corporations			Households ³⁾				
			Total	Short-term	Long-term ⁴⁾	Total	Short-term	Long-term	Total	Short-term	Long-term		
	1	2	3	4	5	6	7	8	9	10	11	12	
1999 Q1	141.2	127.3	-8.6	0.1	-8.8	47.9	34.9	13.1	101.9	15.0	86.9	1.7	
Q2	162.3	133.1	-4.1	2.7	-6.7	89.3	41.0	48.4	77.0	3.8	73.2	23.9	
Q3	70.5	71.5	-14.7	-1.1	-13.6	17.4	-16.7	34.1	67.7	-0.3	68.1	8.4	
Q4	171.2	146.3	15.0	4.2	10.9	87.9	33.6	54.2	68.3	8.4	59.9	-7.0	
2000 Q1	141.4	108.8	-7.9	-0.9	-7.0	91.3	54.7	36.6	58.0	1.5	56.5	15.1	
Q2	162.9	118.4	-5.5	0.9	-6.4	112.6	61.5	51.0	55.8	9.7	46.1	-0.8	
Q3	132.8	91.6	-15.8	-2.1	-13.7	96.8	53.4	43.5	51.7	-0.1	51.8	23.2	
Q4	188.0	140.2	16.1	2.2	13.9	119.3	20.2	99.0	52.7	5.3	47.4	1.9	
					<i>Euro area enlargement</i>								
2001 Q1	156.4	137.2	-3.6	-0.5	-3.2	106.8	67.0	39.8	53.2	-0.3	53.6	9.2	
Q2	109.2	88.0	-16.2	0.3	-16.5	68.3	20.7	47.6	57.1	6.0	51.1	16.8	
Q3	88.5	57.9	-5.7	2.9	-8.7	55.3	-15.9	71.2	38.9	-4.2	43.1	-21.4	
Q4	118.6	92.4	26.2	5.5	20.8	40.5	-19.1	59.6	51.8	1.4	50.4	4.2	
2002 Q1	74.9	61.9	4.2	2.7	1.5	28.9	-5.8	34.7	41.8	-4.9	46.7	8.4	
Q2	103.3	83.0	-25.6	0.2	-25.8	58.3	-3.9	62.2	70.5	10.9	59.6	-18.7	
Q3	38.3	34.2	-9.1	1.3	-10.4	1.6	-17.6	19.2	45.8	-4.0	49.8	-9.0	
Q4	134.4	98.7	15.8	5.9	9.9	53.0	-11.9	64.9	65.6	6.3	59.3	8.9	
2003 Q1	.	60.6	.	.	.	.	.	.	.	.	.	.

	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	
1999 Q1	74.0	60.6	1.2	59.4	13.4	10.4	3.0	10.9	9.6	2.8	
Q2	39.0	29.0	-7.7	36.7	10.0	2.3	7.8	34.7	-9.2	2.8	
Q3	56.5	38.6	-10.0	48.6	17.9	8.2	9.7	34.7	2.1	2.8	
Q4	-12.2	-19.8	-27.9	8.1	7.6	3.4	4.1	42.1	7.2	2.8	
2000 Q1	62.0	61.0	10.9	50.1	1.0	0.5	0.5	20.7	-0.7	2.8	
Q2	38.9	23.5	-1.3	24.8	15.4	10.2	5.2	28.9	-0.3	2.8	
Q3	48.8	25.8	-2.3	28.1	23.0	7.0	16.0	68.8	0.0	2.8	
Q4	-0.7	-20.2	-27.4	7.2	19.6	6.5	13.1	55.0	7.4	2.8	
					<i>Euro area enlargement</i>						
2001 Q1	75.1	37.8	32.5	5.3	37.3	11.5	25.8	52.4	-0.6	3.1	
Q2	85.1	59.4	10.7	48.6	25.7	11.6	14.1	45.0	0.5	3.1	
Q3	47.9	29.6	8.8	20.8	18.3	13.9	4.3	10.2	1.2	3.1	
Q4	7.1	-8.5	-22.2	13.8	15.6	-1.8	17.4	7.3	12.3	1.8	
2002 Q1	102.6	93.0	21.7	71.3	9.7	5.6	4.1	9.4	6.0	3.3	
Q2	59.7	62.0	33.9	28.1	-2.3	-15.2	12.9	4.7	1.1	3.3	
Q3	56.5	46.0	-0.9	46.9	10.4	7.7	2.8	-0.3	1.9	3.8	
Q4	2.3	-0.7	-8.4	7.7	3.0	6.1	-3.2	-6.1	10.6	2.5	
2003 Q1	.	.	.	.	.	.	.	.	.	.

Source: ECB.

1) Most of the financial asset and liability categories defined in the ESA 95 are covered. Financial derivatives, loans granted by general government and non-financial corporations, unquoted shares and other equity, and other receivables and payables are not included.

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

3) Including non-profit institutions serving households.

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

Table 6.2**Financial investment and financing of insurance corporations and pension funds***(EUR billions; not seasonally adjusted; end of period)***Amounts outstanding**

	Main financial assets ¹⁾										
	Deposits with euro area MFIs					Loans			Securities other than shares		
	Total	Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements	Total	Short-term	Long-term	Total	Short-term	Long-term
1	2	3	4	5	6	7	8	9	10	11	
1999 Q1	426.0	32.1	380.1	3.0	10.8	323.3	42.6	280.8	1,007.1	37.1	970.1
Q2	430.9	36.4	380.5	3.3	10.7	321.7	42.5	279.2	1,020.5	35.7	984.8
Q3	436.6	32.0	389.8	3.3	11.5	313.6	41.3	272.3	1,032.2	35.1	997.1
Q4	447.5	32.2	400.3	3.3	11.7	313.6	41.1	272.5	1,035.2	38.5	996.7
2000 Q1	458.9	35.4	407.1	3.2	13.1	317.1	45.1	272.0	1,068.3	45.2	1,023.1
Q2	460.8	34.6	411.1	3.5	11.6	316.1	46.5	269.6	1,089.6	46.4	1,043.2
Q3	464.6	34.1	413.8	3.7	12.9	317.3	47.1	270.2	1,089.1	46.1	1,043.1
Q4	477.6	40.6	418.5	3.2	15.3	311.6	50.5	261.1	1,085.3	40.4	1,044.8
<i>Euro area enlargement</i>											
2001 Q1	483.8	38.2	423.3	3.5	18.8	310.4	50.8	259.6	1,120.7	41.8	1,078.9
Q2	486.3	41.4	424.2	3.8	16.9	315.4	53.6	261.8	1,130.6	43.9	1,086.7
Q3	487.8	39.3	426.9	3.8	17.9	313.8	53.1	260.8	1,149.3	44.4	1,104.9
Q4	495.4	48.0	427.5	3.4	16.4	316.3	55.8	260.5	1,185.1	44.2	1,140.9
2002 Q1	498.6	43.9	433.0	4.0	17.7	328.3	56.1	272.2	1,236.2	54.2	1,182.0
Q2	503.9	48.4	432.9	3.7	19.0	332.6	60.6	272.0	1,223.0	40.9	1,182.2
Q3	506.3	50.1	437.9	3.9	14.4	330.4	61.6	268.9	1,280.4	51.1	1,229.3
Q4	522.8	55.9	445.6	3.5	17.9	327.1	60.5	266.7	1,297.9	53.9	1,243.9
2003 Q1	535.2	59.5	453.8	3.7	18.2	.	.	.	.	.	.

	Main financial assets ¹⁾					Main liabilities ¹⁾						
	Shares ²⁾				Prepayments of insurance premiums and reserves for outstanding claims	Loans taken from euro area MFIs and other financial corporations		Securities other than shares	Quoted shares	Insurance technical reserves		
	Total	Quoted shares	Mutual fund shares	Money market fund shares		Total	Taken from euro area MFIs			Total	Net equity of households in life insurance reserves and pension fund reserves	Prepayments of insurance premiums and reserves for outstanding claims
1999 Q1	932.3	538.9	393.4	33.7	70.1	49.8	36.1	1.6	293.1	2,444.6	2,124.0	320.6
Q2	1,002.0	580.7	421.2	36.6	71.3	54.4	40.4	3.8	279.7	2,512.0	2,186.4	325.6
Q3	1,012.3	586.2	426.1	33.7	72.5	56.4	41.9	4.5	272.1	2,552.7	2,222.0	330.7
Q4	1,232.6	719.5	513.1	33.4	75.5	44.1	29.6	4.5	332.4	2,697.0	2,359.8	337.2
2000 Q1	1,348.0	777.2	570.8	37.1	78.0	52.3	37.1	5.1	363.4	2,814.4	2,467.5	346.8
Q2	1,362.7	771.2	591.5	40.6	78.9	54.2	38.8	5.1	332.2	2,859.4	2,508.1	351.3
Q3	1,411.5	796.8	614.6	37.4	80.0	49.0	33.1	7.9	358.9	2,912.7	2,556.8	355.9
Q4	1,331.3	726.6	604.7	36.9	78.4	47.3	31.5	9.1	326.3	2,938.1	2,582.4	355.7
<i>Euro area enlargement</i>												
2001 Q1	1,326.7	730.2	596.6	44.8	80.8	51.3	36.4	9.1	311.8	2,988.0	2,623.6	364.4
Q2	1,364.7	757.0	607.6	46.5	81.7	51.2	36.2	9.6	315.6	3,045.4	2,678.1	367.3
Q3	1,232.2	666.4	565.9	45.9	83.6	52.2	37.4	9.6	221.5	3,021.4	2,648.1	373.3
Q4	1,331.8	723.8	608.0	46.0	92.2	48.5	34.9	10.0	234.7	3,118.2	2,730.3	387.9
2002 Q1	1,418.6	793.9	624.7	47.5	96.5	54.5	38.9	10.2	257.0	3,155.5	2,753.0	402.5
Q2	1,299.3	699.9	599.4	50.1	97.4	59.2	42.5	10.5	226.5	3,172.9	2,765.9	407.0
Q3	1,150.7	585.8	564.9	48.7	98.7	63.3	42.1	10.6	127.2	3,198.8	2,786.3	412.4
Q4	1,183.1	608.2	574.9	52.8	98.9	47.8	32.6	10.6	113.3	3,251.9	2,838.5	413.4
2003 Q1	.	.	.	.	.	.	42.1	.	103.1	.	.	.

Source: ECB.

1) Most of the financial asset and liability categories defined in the ESA 95 are covered. Financial derivatives, loans granted by general government and non-financial corporations, unquoted shares and other equity, and other receivables and payables are not included.

2) Excluding unquoted shares.

Table 6.3**Saving, investment and financing ¹⁾***(EUR billions, unless otherwise indicated)***1. All sectors in the euro area ²⁾**

	Net acquisition of non-financial assets					Net acquisition of financial assets							
	Total	Gross fixed capital formation	Consumption of fixed capital (-)	Changes in inventories ³⁾	Non-produced assets	Total	Monetary gold and SDRs	Currency and deposits	Securities other than shares ⁴⁾	Loans	Shares and other equity	Insurance technical reserves	Other investment (net) ⁵⁾
	1	2	3	4	5	6	7	8	9	10	11	12	13
1995	368.2	1,093.3	-751.7	26.4	0.1	1,601.0	0.7	500.7	223.0	422.0	164.5	202.6	87.6
1996	340.8	1,122.7	-783.9	1.6	0.4	1,730.2	-3.0	396.2	398.1	383.0	315.0	195.5	45.4
1997	353.2	1,139.5	-797.1	10.8	0.1	1,917.7	-0.2	394.4	332.3	449.9	485.6	223.7	32.0
1998	412.5	1,203.6	-823.6	32.3	0.2	2,385.4	11.0	430.7	360.9	523.1	816.1	216.0	27.6
1999	448.0	1,291.8	-863.7	19.8	0.1	3,060.8	1.3	557.7	435.9	880.8	905.0	255.1	25.1
2000	490.8	1,389.1	-913.1	31.3	-16.6	2,776.9	1.3	350.0	241.4	796.0	1,120.9	257.7	9.6
<i>Euro area enlargement</i>													
2001	465.1	1,437.4	-973.6	-0.7	2.0	2,537.6	-0.5	587.6	405.3	705.3	597.2	238.3	4.3

	Changes in net worth ⁶⁾				Net incurrence of liabilities						
	Total	Gross saving	Consumption of fixed capital (-)	Net capital transfers receivable	Total	Currency and deposits	Securities other than shares ⁴⁾	Loans	Shares and other equity	Insurance technical reserves	
	14	15	16	17	18	19	20	21	22	23	
1995	413.0	1,159.8	-751.7	5.0	1,556.1	495.4	277.7	437.2	139.8	206.0	
1996	410.7	1,190.0	-783.9	4.6	1,660.3	472.3	378.2	335.3	278.2	196.3	
1997	456.1	1,241.8	-797.1	11.4	1,814.7	511.6	319.0	378.6	375.6	229.9	
1998	486.5	1,299.1	-823.6	11.1	2,311.5	648.4	324.2	481.7	635.7	221.5	
1999	498.3	1,352.0	-863.7	10.0	3,010.5	929.3	496.2	762.6	557.7	264.7	
2000	514.4	1,419.4	-913.1	8.1	2,753.3	531.4	414.0	825.2	725.6	257.1	
<i>Euro area enlargement</i>											
2001	483.4	1,449.4	-973.6	7.6	2,519.2	676.1	476.7	582.5	533.4	250.5	

2. Non-financial corporations

	Net acquisition of non-financial assets			Net acquisition of financial assets					Changes in net worth ⁶⁾		Net incurrence of liabilities			
	Total	Gross fixed capital formation	Consumption of fixed capital (-)	Total	Currency and deposits	Securities other than shares ⁴⁾	Loans	Shares and other equity	Total	Gross saving	Total	Securities other than shares ⁴⁾	Loans	Shares and other equity
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1995	155.0	569.8	-438.7	255.4	34.7	10.1	40.0	64.7	270.4	531.1	140.0	-87.3	126.0	90.6
1996	136.3	589.4	-454.8	267.3	54.2	-12.9	55.1	87.5	126.2	538.1	277.3	7.0	143.8	119.0
1997	157.5	615.2	-469.3	245.3	25.3	-13.6	46.3	95.9	113.6	546.1	289.2	12.1	154.5	113.0
1998	202.4	660.3	-487.9	433.5	54.9	-6.9	96.6	200.9	150.6	590.3	485.3	23.8	252.7	198.2
1999	221.9	708.2	-508.5	615.3	28.4	87.0	169.8	308.3	113.9	573.4	723.3	48.9	422.1	235.7
2000	323.7	775.5	-543.2	816.3	70.3	93.8	167.9	425.7	97.4	594.0	1,042.6	58.9	546.8	429.0
<i>Euro area enlargement</i>														
2001	226.9	801.1	-577.3	609.2	83.0	73.5	137.8	225.9	93.7	617.9	742.4	96.9	324.3	309.2

3. Households ⁷⁾

	Net acquisition of non-financial assets			Net acquisition of financial assets					Changes in net worth ⁶⁾		Net incurrence of liabilities		Memo:	
	Total	Gross fixed capital formation	Consumption of fixed capital (-)	Total	Currency and deposits	Securities other than shares ⁴⁾	Shares and other equity	Insurance technical reserves	Total	Gross saving	Total	Loans	Disposable income	Gross saving ratio ⁸⁾
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1995	167.7	351.6	-186.4	394.7	190.1	82.5	0.8	180.1	425.5	606.7	136.9	135.8	3,602.8	16.8
1996	164.3	361.8	-198.9	433.4	146.6	22.7	94.4	190.9	436.4	620.0	161.3	160.1	3,761.0	16.5
1997	160.2	353.7	-194.7	422.1	70.4	-18.3	195.0	217.4	413.8	589.1	168.5	167.1	3,787.9	15.6
1998	169.0	363.7	-198.1	443.6	95.7	-117.6	289.6	210.9	401.0	568.0	211.5	210.1	3,896.8	14.6
1999	177.4	392.5	-212.7	480.4	118.2	-15.8	196.7	241.6	384.4	553.3	273.4	271.9	4,058.2	13.6
2000	184.9	411.8	-219.8	414.8	53.1	35.1	134.2	251.7	377.7	555.9	222.0	220.2	4,228.5	13.1
<i>Euro area enlargement</i>														
2001	179.8	420.2	-239.6	389.7	179.5	50.0	59.0	226.2	397.1	594.5	172.5	170.6	4,512.7	13.2

Source: ECB.

1) Non-consolidated data.

2) All sectors comprise general government (S.13), non-financial corporations (S.11), financial corporations (S.12) and households (S.14) including non-profit institutions serving households (S.15).

3) Including net acquisition of valuables.

4) Excluding financial derivatives.

5) Financial derivatives, other accounts receivable/payable and statistical discrepancies.

6) Arising from saving and net capital transfers receivable, after allowance for consumption of fixed capital (-).

7) Including non-profit institutions serving households.

8) Gross saving as a percentage of disposable income.

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

Table 7.1

Revenue, expenditure and deficit / surplus ¹⁾

(as a percentage of GDP)

1. Euro area – revenue

	Total	Current revenue					Indirect taxes			Social contributions		Sales	Capital revenue		Memo: fiscal burden ²⁾
		Direct taxes	Households	Corporations	Received by EU institutions	Employers	Employees	Capital taxes							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1993	48.0	47.5	12.1	9.8	2.0	13.2	0.8	17.5	8.7	5.6	2.5	0.5	0.3	43.1	
1994	47.6	47.1	11.6	9.3	1.9	13.4	0.8	17.5	8.5	5.7	2.5	0.4	0.2	42.8	
1995	47.2	46.6	11.6	9.2	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	9.4	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	9.3	2.5	13.5	0.7	17.6	8.8	5.6	2.5	0.7	0.4	43.7	
1998	47.7	47.2	12.4	9.6	2.5	14.1	0.7	16.5	8.5	5.0	2.5	0.5	0.3	43.3	
1999	48.2	47.7	12.8	9.8	2.6	14.3	0.6	16.4	8.5	5.0	2.5	0.5	0.3	43.8	
2000	47.8	47.3	13.0	10.0	2.7	14.2	0.6	16.2	8.4	4.9	2.4	0.5	0.3	43.6	
<i>Euro area enlargement</i>															
2001	47.1	46.6	12.6	9.8	2.5	13.9	0.6	16.0	8.4	4.8	2.3	0.5	0.3	42.8	
2002	46.6	46.0	12.1	9.5	2.4	13.8	0.5	16.0	8.4	4.7	2.3	0.6	0.3	42.3	

2. Euro area – expenditure

	Total	Current expenditure							Capital expenditure			Memo: primary expenditure ⁴⁾		
		Total	Compensation of employees	Intermediate consumption	Interest	Current transfers	Social payments ³⁾	Subsidies	Investment	Capital transfers	Paid by EU institutions			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1993	53.7	49.2	11.6	5.1	5.9	26.6	22.9	2.5	0.6	4.6	3.1	1.6	0.1	47.9
1994	52.7	48.3	11.3	5.0	5.5	26.5	23.0	2.4	0.6	4.3	2.9	1.5	0.0	47.2
1995	52.2	47.7	11.2	4.8	5.7	26.1	22.9	2.2	0.6	4.5	2.7	1.8	0.1	46.5
1996	52.3	48.3	11.2	4.8	5.7	26.6	23.3	2.2	0.6	4.0	2.6	1.4	0.0	46.6
1997	50.9	47.2	11.0	4.7	5.1	26.3	23.2	2.1	0.6	3.7	2.4	1.3	0.1	45.8
1998	50.0	46.0	10.7	4.6	4.7	26.0	22.7	2.0	0.5	3.9	2.4	1.5	0.1	45.3
1999	49.5	45.4	10.7	4.7	4.2	25.8	22.6	2.0	0.5	4.0	2.5	1.5	0.1	45.3
2000	48.7	44.8	10.5	4.7	4.0	25.5	22.3	1.9	0.5	3.9	2.5	1.4	0.0	44.7
<i>Euro area enlargement</i>														
2001	48.7	44.6	10.5	4.7	4.0	25.4	22.3	1.9	0.5	4.2	2.5	1.6	0.0	44.8
2002	48.8	44.8	10.6	4.8	3.7	25.7	22.8	1.8	0.5	4.0	2.4	1.6	0.0	45.1

3. Euro area – deficit / surplus, primary deficit / surplus and government consumption

	Deficit (-) / surplus (+)					Primary deficit (-) / surplus (+)	Government consumption ⁵⁾							
	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
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1993	-5.7	-5.0	-0.4	-0.2	-0.1	0.2	21.2	11.6	5.1	5.0	2.0	-2.5	9.0	12.2
1994	-5.1	-4.4	-0.5	-0.2	0.0	0.4	20.8	11.3	5.0	5.1	1.9	-2.5	8.7	12.1
1995	-5.1	-4.2	-0.5	-0.1	-0.3	0.6	20.5	11.2	4.8	5.1	1.9	-2.5	8.6	11.9
1996	-4.3	-3.6	-0.4	0.0	-0.2	1.4	20.6	11.2	4.8	5.2	1.9	-2.5	8.6	12.0
1997	-2.6	-2.3	-0.4	0.1	0.0	2.5	20.4	11.0	4.7	5.1	1.9	-2.5	8.4	11.9
1998	-2.3	-2.2	-0.3	0.1	0.0	2.4	20.0	10.7	4.6	5.1	1.8	-2.5	8.2	11.8
1999	-1.3	-1.6	-0.1	0.1	0.4	2.9	20.0	10.7	4.7	5.1	1.8	-2.5	8.2	11.8
2000	-1.0	-1.3	-0.1	0.1	0.4	3.1	20.0	10.5	4.7	5.2	1.8	-2.4	8.1	11.9
<i>Euro area enlargement</i>														
2001	-1.6	-1.6	-0.4	0.0	0.3	2.3	20.0	10.5	4.7	5.2	1.8	-2.3	8.1	11.9
2002	-2.3	-1.9	-0.5	-0.1	0.2	1.5	20.3	10.6	4.8	5.3	1.8	-2.3	8.2	12.2

4. Euro area countries – deficit (-) / surplus (+) ⁶⁾

	BE	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI
	1	2	3	4	5	6	7	8	9	10	11	12
1999	-0.5	-1.5	-1.8	-1.2	-1.8	2.3	-1.7	3.5	0.7	-2.3	-2.8	2.0
2000	0.1	1.1	-1.9	-0.8	-1.4	4.3	-0.6	6.1	2.2	-1.5	-2.8	6.9
2001	0.4	-2.8	-1.4	-0.1	-1.5	1.1	-2.6	6.4	0.1	0.3	-4.2	5.1
2002	0.0	-3.6	-1.2	-0.1	-3.1	-0.1	-2.3	2.6	-1.1	-0.6	-2.7	4.7

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

1) Revenue, expenditure and deficit / surplus based on the ESA 95, but the figures exclude proceeds from the sale of UMTS (Universal Mobile Telecommunications Systems) licences in 2000 (the euro area deficit / surplus including those proceeds is equal to 0.1). 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.

6) Including proceeds from the sale of UMTS licences.

Table 7.2**Debt ¹⁾***(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 ²⁾				Other creditors ³⁾
						Total	MFIs	Other financial corporations	Other sectors	
1	2	3	4	5	6	7	8	9	10	
1993	67.3	2.7	17.0	10.0	37.6	52.5	27.6	8.8	16.2	14.8
1994	70.0	2.9	16.1	10.3	40.6	55.8	29.8	10.0	16.0	14.2
1995	74.2	2.9	17.7	9.9	43.8	58.3	30.5	11.0	16.8	15.9
1996	75.4	2.9	17.2	9.9	45.5	58.9	30.3	13.2	15.4	16.5
1997	74.9	2.8	16.3	8.9	46.8	56.9	29.0	14.5	13.4	17.9
1998	73.2	2.8	15.1	7.9	47.3	53.4	27.0	16.3	10.2	19.8
1999	72.1	2.9	14.2	6.9	48.1	49.8	25.2	14.9	9.7	22.3
2000	69.6	2.7	13.0	6.2	47.6	45.9	22.8	13.3	9.8	23.6
<i>Euro area enlargement</i>										
2001	69.2	2.6	12.5	6.3	47.8	44.6	22.5	12.5	9.6	24.6
2002	69.1	2.5	11.8	6.7	48.0	43.4	21.7	12.1	9.5	25.7

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

	Total	Issued by ⁴⁾				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 ⁵⁾	Non-domestic currency	Other currencies
1993	67.3	55.2	5.2	6.3	0.6	11.9	55.4	6.6	18.4	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	16.5	26.8	26.7	68.1	3.0	1.9
1995	74.2	61.7	5.7	6.0	0.8	10.6	63.6	6.8	17.6	26.4	30.2	72.3	2.9	1.9
1996	75.4	62.9	6.1	5.9	0.5	10.2	65.2	6.3	19.2	25.4	30.8	73.5	2.7	1.9
1997	74.9	62.3	6.3	5.6	0.6	8.8	66.0	6.0	18.6	25.4	30.8	72.8	2.8	2.0
1998	73.2	61.1	6.3	5.4	0.4	7.7	65.4	5.5	16.4	26.1	30.7	71.4	3.2	1.7
1999	72.1	60.2	6.2	5.3	0.3	6.5	65.6	5.0	14.4	26.9	30.7	70.2	-	1.9
2000	69.6	58.1	6.1	5.1	0.3	5.7	63.8	4.4	14.3	27.6	27.7	67.7	-	1.9
<i>Euro area enlargement</i>														
2001	69.2	57.8	6.2	4.9	0.3	6.0	63.2	3.2	14.6	26.3	28.3	67.5	-	1.8
2002	69.1	57.5	6.4	4.8	0.3	6.2	62.8	3.2	15.7	24.8	28.5	67.5	-	1.6

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
1999	114.9	61.2	105.1	63.1	58.5	49.3	114.9	6.0	63.1	67.5	54.3	47.0
2000	109.6	60.2	106.2	60.5	57.2	39.3	110.6	5.6	55.8	66.8	53.3	44.5
2001	108.5	59.5	107.0	56.9	56.8	36.8	109.5	5.6	52.8	67.3	55.6	43.8
2002	105.4	60.8	104.9	54.0	59.1	34.0	106.7	5.7	52.6	67.9	58.0	42.7

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 ¹⁾

(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 ²⁾	Valuation effects ³⁾	Other changes in volume ⁴⁾	Aggregation effect ⁵⁾	Coins and deposits	Loans	Short-term securities	Long-term securities	Domestic creditors ⁶⁾	MFIs	Other financial corporations	Other creditors ⁷⁾
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	1.7	1.9	-0.2	0.0	0.0	0.1	-0.4	-0.6	2.6	-1.0	-0.8	2.4	2.6
1999	1.7	1.4	0.3	0.1	0.0	0.2	-0.4	-0.7	2.6	-1.5	-0.7	-0.7	3.2
2000	0.9	0.8	0.1	-0.1	0.0	0.0	-0.5	-0.3	1.7	-1.5	-1.3	-0.9	2.4
<i>Euro area enlargement</i>													
2001	1.7	1.7	0.0	0.0	0.0	0.0	-0.2	0.4	1.4	0.2	0.1	-0.1	1.5
2002	2.0	2.5	-0.1	-0.4	0.0	0.0	-0.4	0.6	1.7	0.2	0.0	0.0	1.9

2. Euro area – deficit-debt adjustment

	Change in debt	Deficit (-)/surplus (+) ⁸⁾	Deficit-debt adjustment ⁹⁾											Other ¹¹⁾
			Total	Transactions in main financial assets held by general government							Valuation effects	Exchange rate effects	Other changes in volume	
				Total	Currency and deposits	Securities ¹⁰⁾	Loans	Shares and other equity	Equity injections					
									Privatisations	Equity injections				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
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	-5.1	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	-0.2	-0.1	0.0	-0.1	-0.1	-0.3	0.2	-0.2	-0.1	0.1	-0.2
1997	2.3	-2.6	-0.3	-0.5	0.2	-0.1	0.0	-0.5	-0.8	0.3	0.2	0.2	-0.2	0.2
1998	1.7	-2.3	-0.6	-0.5	0.1	0.0	-0.1	-0.6	-0.8	0.3	-0.2	0.0	0.0	0.1
1999	1.7	-1.3	0.4	-0.1	0.5	0.1	0.0	-0.7	-0.9	0.2	0.3	0.2	0.1	0.1
2000	0.9	0.1	1.0	0.9	0.7	0.1	0.2	-0.2	-0.4	0.2	0.1	0.0	-0.1	0.1
<i>Euro area enlargement</i>														
2001	1.7	-1.6	0.1	-0.4	-0.6	0.1	0.2	-0.1	-0.3	0.2	0.0	0.0	0.0	0.5
2002	2.0	-2.3	-0.2	0.2	0.3	0.0	0.1	-0.2	-0.4	0.1	-0.1	-0.1	-0.4	0.0

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

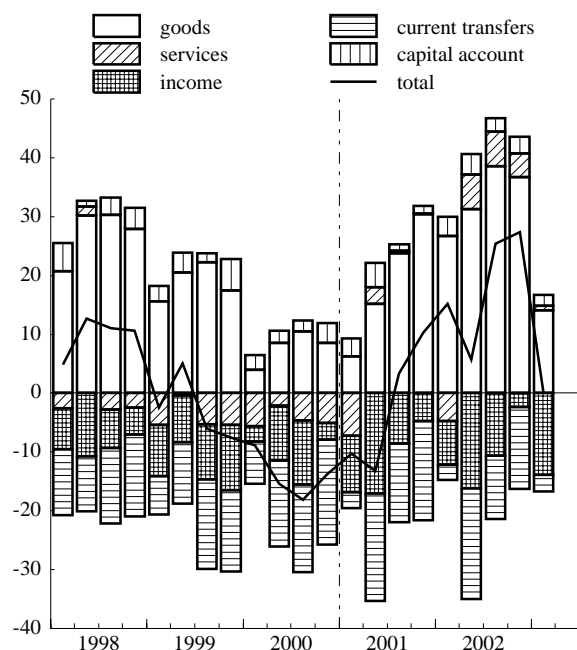
Summary balance of payments ^{1) 2)}

(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	56.7	116.4	-2.3	-15.2	-42.2	13.0	.	-44.4	-24.1	.	.	.	.
1998	26.7	109.0	-6.3	-28.8	-47.2	12.4	-67.0	-81.3	-109.9	-8.2	124.2	8.2	27.9
1999	-23.8	75.7	-16.5	-37.0	-46.1	12.8	13.5	-119.5	-41.4	3.3	161.0	10.1	-2.5
2000	-66.0	31.6	-17.5	-25.5	-54.6	9.8	66.9	-16.5	-111.6	-3.4	180.8	17.6	-10.7
<i>Euro area enlargement</i>													
2001	-19.4	75.5	-3.7	-39.9	-51.2	9.5	-24.9	-102.8	64.7	-3.5	-1.1	17.8	34.7
2002	61.7	133.3	11.0	-36.6	-46.0	11.8	-137.7	-45.5	110.6	-13.9	-186.7	-2.2	64.3
2002 Q1	12.0	26.7	-4.7	-7.4	-2.6	3.2	-8.2	-16.0	-35.8	2.5	44.1	-3.1	-6.9
Q2	2.2	31.3	5.9	-16.2	-18.8	3.5	-19.8	-9.2	72.2	-2.8	-86.7	6.7	14.1
Q3	23.0	38.5	5.9	-10.7	-10.7	2.3	-50.3	-12.0	35.7	-9.6	-59.7	-4.6	24.9
Q4	24.5	36.8	4.0	-2.3	-13.9	2.8	-59.5	-8.3	38.4	-3.9	-84.4	-1.3	32.2
2003 Q1	-1.9	14.1	0.7	-13.9	-2.9	1.9	-28.4	-6.6	13.1	0.3	-46.9	11.7	28.5
2002 Feb.	4.7	10.1	-1.4	-0.2	-3.9	0.4	13.3	-9.1	-8.6	2.1	26.4	2.5	-18.3
Mar.	7.4	13.5	-0.8	-0.8	-4.4	0.3	17.9	-8.1	6.4	-2.9	22.7	-0.2	-25.6
Apr.	-5.8	7.3	0.6	-7.7	-6.0	1.3	14.8	8.1	16.0	1.4	-19.1	8.4	-10.3
May	0.7	10.3	2.1	-6.4	-5.3	1.0	5.6	1.5	34.2	-2.0	-30.0	1.9	-7.3
June	7.4	13.7	3.2	-2.1	-7.5	1.1	-40.2	-18.8	22.0	-2.2	-37.7	-3.5	31.8
July	4.8	15.3	1.7	-9.0	-3.1	0.5	-17.4	-6.7	10.7	-8.2	-10.7	-2.6	12.1
Aug.	9.9	12.2	0.4	0.3	-3.0	0.6	-11.5	1.7	8.3	-2.1	-21.1	1.8	1.0
Sep.	8.3	11.1	3.9	-2.0	-4.6	1.2	-21.3	-7.0	16.7	0.7	-27.9	-3.8	11.8
Oct.	3.8	12.3	0.2	-2.4	-6.3	1.5	-18.5	-7.1	25.2	-0.4	-38.5	2.2	13.2
Nov.	11.5	13.7	1.4	0.4	-4.0	0.4	-26.0	0.5	15.8	-1.5	-38.4	-2.4	14.0
Dec.	9.1	10.7	2.4	-0.4	-3.7	0.9	-15.0	-1.7	-2.6	-2.0	-7.5	-1.2	4.9
2003 Jan.	-6.5	0.8	-0.4	-10.1	3.1	2.1	-15.6	-0.9	-5.5	-1.0	-9.6	1.5	20.0
Feb.	3.2	8.9	-0.1	-2.6	-3.0	-0.9	-13.8	2.8	-0.8	1.0	-22.3	5.4	11.6
Mar.	1.4	4.4	1.2	-1.2	-3.0	0.7	1.0	-8.5	19.5	0.3	-15.0	4.7	-3.1
Apr.	-8.1	7.7	0.6	-10.1	-6.3	0.1	4.3	-19.8	5.4	-4.7	22.9	0.5	3.7

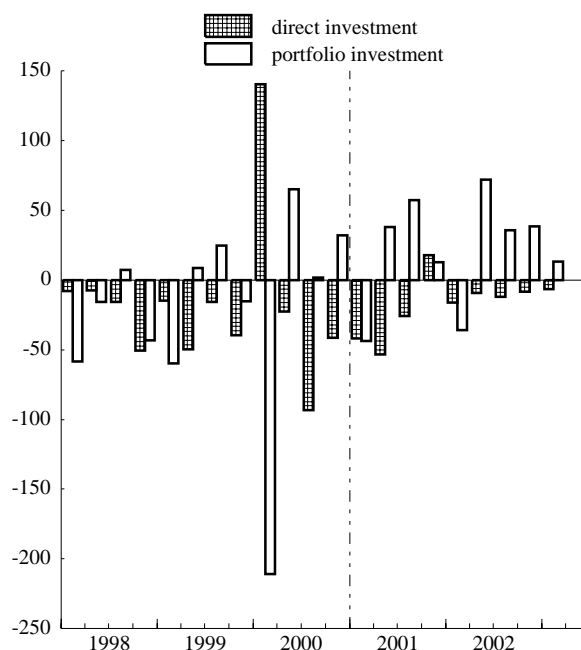
Current and capital accounts

(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 ¹⁾
(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	1,161.8	56.7	754.6	638.3	214.3	216.5	189.5	204.7	60.0	102.3	18.9	5.9
1998	1,277.3	1,250.6	26.7	784.4	675.4	231.6	237.9	198.5	227.3	62.9	110.1	17.7	5.3
1999	1,337.0	1,360.8	-23.8	818.3	742.5	246.7	263.2	207.3	244.2	64.8	110.9	19.1	6.3
2000	1,613.1	1,679.1	-66.0	989.8	958.3	287.5	304.9	269.1	294.6	66.7	121.3	18.3	8.5
<i>Euro area enlargement</i>													
2001	1,716.3	1,735.7	-19.4	1,033.0	957.6	325.0	328.7	283.1	322.9	75.3	126.5	17.0	7.5
2002	1,713.6	1,651.9	61.7	1,059.7	926.4	331.7	320.7	238.1	274.7	84.1	130.1	19.1	7.3
2002 Q1	416.5	404.6	12.0	254.9	228.2	72.5	77.3	58.3	65.7	30.8	33.4	4.7	1.5
Q2	429.3	427.1	2.2	267.3	236.0	84.5	78.6	62.5	78.6	15.1	33.9	5.0	1.5
Q3	426.8	403.8	23.0	263.2	224.7	89.8	83.9	55.4	66.0	18.4	29.2	4.1	1.7
Q4	441.0	416.5	24.5	274.3	237.6	84.9	81.0	62.0	64.4	19.7	33.6	5.3	2.5
2003 Q1	410.7	412.6	-1.9	251.9	237.8	74.3	73.6	52.8	66.7	31.7	34.5	5.1	3.2
2002 Feb.	132.8	128.1	4.7	83.5	73.3	23.1	24.5	19.2	19.4	7.1	10.9	1.0	0.6
Mar.	142.0	134.5	7.4	91.8	78.3	25.1	25.9	18.7	19.6	6.3	10.8	0.7	0.5
Apr.	141.4	147.2	-5.8	88.4	81.1	27.5	26.8	20.2	27.9	5.3	11.3	1.9	0.6
May	143.0	142.3	0.7	88.9	78.6	28.2	26.1	20.5	26.9	5.3	10.6	1.5	0.4
June	144.9	137.6	7.4	89.9	76.3	28.8	25.6	21.7	23.8	4.5	12.0	1.6	0.5
July	151.1	146.3	4.8	93.5	78.2	31.3	29.6	20.1	29.1	6.3	9.4	1.1	0.6
Aug.	134.9	125.1	9.9	81.7	69.5	28.9	28.6	18.3	18.0	6.0	9.0	1.3	0.7
Sep.	140.8	132.4	8.3	88.1	77.0	29.6	25.7	17.0	19.0	6.1	10.7	1.6	0.4
Oct.	151.3	147.5	3.8	97.7	85.4	28.8	28.7	19.7	22.1	5.1	11.4	2.1	0.6
Nov.	144.9	133.3	11.5	91.7	78.0	26.7	25.3	19.7	19.3	6.7	10.7	1.2	0.8
Dec.	144.8	135.7	9.1	84.9	74.1	29.4	27.0	22.6	22.9	7.9	11.6	2.0	1.1
2003 Jan.	143.3	149.7	-6.5	81.8	80.9	25.2	25.6	18.7	28.7	17.6	14.4	2.6	0.5
Feb.	130.8	127.6	3.2	83.1	74.2	22.9	23.0	17.1	19.7	7.7	10.7	1.5	2.4
Mar.	136.6	135.2	1.4	87.0	82.7	26.2	24.9	17.0	18.2	6.4	9.4	1.0	0.3
Apr.	138.6	146.7	-8.1	86.1	78.4	26.3	25.7	21.6	31.7	4.7	11.0	0.5	0.4

2. Main current account items (seasonally adjusted)

	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
2001 Q1	431.6	440.4	-8.8	261.0	245.6	78.8	81.9	72.7	83.6	19.1	29.4
Q2	432.2	443.4	-11.2	261.3	244.1	81.5	82.3	70.7	83.3	18.7	33.7
Q3	428.4	430.1	-1.8	257.2	238.9	82.1	82.5	70.6	78.1	18.4	30.6
Q4	422.9	420.1	2.8	254.1	228.9	81.8	81.7	68.4	76.6	18.7	32.9
2002 Q1	425.1	409.9	15.2	263.9	228.6	81.6	81.8	59.8	67.9	19.8	31.5
Q2	427.8	418.2	9.6	265.8	232.4	82.9	80.7	59.6	71.3	19.5	33.9
Q3	430.9	411.5	19.4	265.9	232.0	83.7	78.8	59.0	68.7	22.3	31.9
Q4	430.2	412.5	17.7	264.6	233.5	83.2	79.3	60.1	66.3	22.3	33.5
2003 Q1	416.9	414.3	2.7	258.5	235.9	83.8	77.9	54.1	68.6	20.5	31.9
2002 Feb.	142.3	138.5	3.8	88.3	77.0	27.2	27.3	20.7	22.8	6.0	11.4
Mar.	140.5	136.6	3.9	89.2	77.2	27.1	27.1	17.7	21.0	6.5	11.4
Apr.	142.7	142.4	0.3	88.1	77.9	27.9	27.6	20.2	25.6	6.4	11.4
May	141.8	137.9	3.9	88.4	76.5	27.2	26.6	19.7	23.7	6.6	11.1
June	143.3	137.9	5.4	89.3	78.0	27.8	26.5	19.7	22.0	6.5	11.4
July	141.8	138.2	3.6	87.5	76.8	27.0	26.6	20.1	24.5	7.2	10.2
Aug.	145.1	137.6	7.5	89.4	77.6	27.6	26.9	20.4	22.6	7.7	10.5
Sep.	144.0	135.6	8.4	89.1	77.5	29.1	25.3	18.5	21.6	7.4	11.2
Oct.	143.2	140.4	2.8	88.3	78.5	27.5	27.0	20.1	23.2	7.3	11.6
Nov.	145.4	137.8	7.7	89.0	77.2	28.1	26.5	20.6	22.9	7.7	11.2
Dec.	141.6	134.4	7.2	87.3	77.7	27.6	25.8	19.3	20.3	7.4	10.6
2003 Jan.	143.5	141.2	2.2	88.6	78.6	28.3	26.1	19.4	25.5	7.2	11.0
Feb.	140.1	138.2	1.9	87.7	77.9	27.2	25.8	18.5	23.4	6.7	11.1
Mar.	133.3	134.8	-1.5	82.3	79.4	28.3	26.0	16.1	19.6	6.6	9.8
Apr.	142.3	143.3	-1.0	88.2	77.2	26.7	26.3	21.7	28.8	5.7	11.0

Source: ECB.

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

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	207.3	244.2	12.6	4.9	194.7	239.3	42.7	51.2	64.2	102.2	87.8	85.8
2000	269.1	294.6	13.2	5.3	255.9	289.4	61.3	64.5	76.7	107.4	117.9	117.5
<i>Euro area enlargement</i>												
2001	283.1	322.9	14.0	5.9	269.1	317.0	69.5	68.9	82.5	118.2	117.1	129.8
2002	238.1	274.7	14.4	5.7	223.7	269.0	56.9	55.3	83.2	121.9	83.6	91.8
2001 Q4	71.0	75.8	3.6	1.4	67.4	74.3	19.5	22.2	22.2	22.3	25.7	29.9
2002 Q1	58.3	65.7	3.5	1.2	54.7	64.5	11.3	12.9	20.6	26.4	22.8	25.1
Q2	62.5	78.6	3.5	1.4	58.9	77.2	17.2	16.3	22.0	38.6	19.8	22.3
Q3	55.4	66.0	3.6	1.6	51.8	64.5	10.9	11.8	20.5	31.0	20.3	21.6
Q4	62.0	64.4	3.8	1.5	58.2	62.9	17.4	14.3	20.1	25.9	20.7	22.7

	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	46.7	6.5	4.6	9.5	34.0	54.7	68.3
2000	50.5	56.8	10.9	7.7	14.3	30.6	62.4	76.8
<i>Euro area enlargement</i>								
2001	59.3	60.1	10.2	8.9	17.3	43.8	65.2	74.4
2002	49.3	49.7	7.5	5.7	20.6	53.0	62.5	68.9
2001 Q4	16.4	20.1	3.1	2.1	4.8	6.3	17.4	16.0
2002 Q1	9.3	11.6	2.1	1.3	4.8	8.8	15.7	17.6
Q2	15.4	15.1	1.8	1.2	6.5	23.8	15.5	14.8
Q3	9.5	10.5	1.4	1.3	4.4	10.4	16.1	20.6
Q4	15.2	12.5	2.2	1.8	4.9	10.0	15.2	15.9

Source: ECB.

Table 8.4
Balance of payments: direct investment account ¹⁾
(EUR billions (ECU billions to end-1998); net flows)

	By resident units abroad							By non-resident units in the euro area						
	Total	Equity capital and reinvested earnings			Other capital (mostly inter-company loans)			Total	Equity capital and reinvested earnings			Other capital (mostly inter-company loans)		
		Total	MFIs ²⁾	Non-MFIs	Total	MFIs ²⁾	Non-MFIs		Total	MFIs ²⁾	Non-MFIs	Total	MFIs ²⁾	Non-MFIs
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1997	-93.2	.	.	.	.	.	48.7	.	.	.	.	.	.
1998	-172.7	.	.	.	.	.	91.4	.	.	.	.	.	.
1999	-320.9	-239.5	-25.0	-214.6	-81.3	-0.6	-80.7	201.3	145.7	3.5	142.2	55.6	0.2	55.4
2000	-443.3	-351.7	-35.5	-316.2	-91.5	0.3	-91.8	426.7	301.0	12.4	288.6	125.8	0.1	125.7
<i>Euro area enlargement</i>														
2001	-259.2	-167.0	-13.9	-153.1	-92.1	-0.6	-91.6	156.4	99.9	5.3	94.6	56.5	0.7	55.8
2002	-174.5	-145.7	-18.4	-127.3	-28.8	-0.5	-28.3	129.0	94.1	3.2	90.9	34.9	0.7	34.2
2002 Q1	-55.5	-41.6	-2.5	-39.1	-13.9	0.0	-13.8	39.5	26.3	1.2	25.2	13.1	0.0	13.1
Q2	-47.0	-28.8	-6.0	-22.7	-18.2	-0.3	-17.9	37.7	22.1	2.8	19.3	15.6	0.1	15.6
Q3	-32.5	-36.2	-5.2	-31.0	3.7	-0.1	3.8	20.5	12.2	-0.4	12.6	8.4	0.6	7.8
Q4	-39.5	-39.1	-4.8	-34.4	-0.4	-0.1	-0.3	31.3	33.5	-0.3	33.9	-2.3	0.0	-2.3
2003 Q1	-32.5	-16.7	-2.3	-14.4	-15.8	-0.2	-15.6	25.9	16.6	1.1	15.5	9.3	-0.3	9.6
2002 Feb.	-21.4	-5.1	-0.4	-4.8	-16.2	0.0	-16.2	12.2	3.4	1.2	2.2	8.9	0.0	8.9
Mar.	-27.4	-27.9	-1.5	-26.4	0.5	-0.1	0.5	19.3	20.2	-0.1	20.3	-0.9	0.0	-0.8
Apr.	-7.7	-2.3	-4.1	1.8	-5.4	0.0	-5.4	15.8	9.4	2.0	7.4	6.4	0.0	6.4
May	-18.0	-10.5	-1.0	-9.5	-7.4	0.0	-7.4	19.4	6.5	0.7	5.8	13.0	0.0	12.9
June	-21.3	-15.9	-0.9	-15.0	-5.4	-0.3	-5.1	2.5	6.2	0.1	6.2	-3.7	0.1	-3.8
July	-13.1	-14.5	-3.4	-11.1	1.4	0.0	1.4	6.4	2.8	0.9	1.9	3.6	0.0	3.6
Aug.	-1.1	-6.6	-0.3	-6.3	5.5	-0.1	5.5	2.8	2.4	-0.8	3.2	0.4	0.7	-0.3
Sep.	-18.3	-15.2	-1.5	-13.7	-3.1	0.0	-3.1	11.3	7.0	-0.6	7.5	4.3	-0.1	4.4
Oct.	-13.3	-7.1	-0.9	-6.2	-6.1	0.0	-6.1	6.2	6.6	0.2	6.4	-0.4	-0.1	-0.2
Nov.	-22.0	-16.4	-0.3	-16.1	-5.6	0.0	-5.5	22.5	15.5	-0.4	15.9	7.0	0.1	6.9
Dec.	-4.3	-15.6	-3.5	-12.1	11.3	0.0	11.3	2.6	11.4	-0.2	11.6	-8.8	0.0	-8.9
2003 Jan.	-10.9	-6.7	-0.8	-5.9	-4.2	0.0	-4.2	10.0	8.4	0.3	8.1	1.6	0.0	1.6
Feb.	-5.4	-5.0	-0.6	-4.4	-0.4	0.0	-0.4	8.2	5.5	1.1	4.5	2.7	0.0	2.7
Mar.	-16.1	-5.0	-0.9	-4.1	-11.1	-0.1	-11.0	7.6	2.7	-0.3	3.0	5.0	-0.4	5.4
Apr.	-21.9	-6.1	-1.4	-4.7	-15.8	-0.3	-15.5	2.1	1.3	0.1	1.1	0.8	0.0	0.9

Source: ECB.
1) Inflows (+); outflows (-).
2) Excluding the Eurosystem.

Table 8.5
Balance of payments: portfolio investment account ¹⁾
(EUR billions (ECU billions to end-1998); net flows)
1. By instrument ²⁾

	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	149.4	121.3	28.1
1999	-311.3	269.8	-156.5	93.0	-154.8	-154.9	0.1	176.8	117.0	59.9
2000	-409.0	297.4	-285.9	49.9	-123.1	-114.3	-8.8	247.5	239.2	8.3
<i>Euro area enlargement</i>										
2001	-291.0	355.8	-108.3	233.2	-182.7	-160.1	-22.6	122.5	115.1	7.4
2002	-172.8	283.3	-40.8	89.2	-132.0	-78.1	-53.9	194.2	128.6	65.6
2002 Q1	-75.0	39.2	-32.1	34.5	-42.9	-21.9	-21.0	4.8	7.1	-2.3
Q2	-54.2	126.5	-13.9	36.0	-40.3	-25.3	-15.0	90.5	61.4	29.1
Q3	-19.8	55.5	12.7	6.0	-32.5	-17.3	-15.2	49.5	26.3	23.2
Q4	-23.7	62.1	-7.5	12.8	-16.2	-13.5	-2.7	49.4	33.7	15.6
2003 Q1	-50.3	63.5	8.7	8.1	-59.0	-55.1	-3.9	55.3	49.7	5.6
2002 Feb.	-18.6	10.1	-8.8	9.4	-9.8	-5.7	-4.2	0.6	1.2	-0.5
Mar.	-28.9	35.2	-9.9	11.7	-19.0	-13.2	-5.8	23.5	17.5	6.0
Apr.	-13.2	29.3	-1.9	6.5	-11.3	-10.1	-1.2	22.8	15.1	7.7
May	-29.5	63.7	-5.8	27.8	-23.6	-14.7	-9.0	35.9	22.8	13.1
June	-11.6	33.5	-6.2	1.7	-5.4	-0.6	-4.8	31.8	23.5	8.3
July	-15.8	26.5	-6.4	4.5	-9.4	-1.3	-8.1	22.0	13.4	8.6
Aug.	-4.4	12.7	5.1	-0.3	-9.5	-10.1	0.5	13.0	2.1	10.9
Sep.	0.4	16.4	14.0	1.9	-13.6	-6.0	-7.7	14.5	10.8	3.7
Oct.	1.0	24.2	-0.6	-3.7	1.6	-4.0	5.6	27.9	15.7	12.3
Nov.	-9.1	24.8	-0.3	16.5	-8.8	-5.0	-3.7	8.3	6.6	1.7
Dec.	-15.6	13.1	-6.6	-0.1	-9.0	-4.5	-4.6	13.1	11.5	1.7
2003 Jan.	-22.6	17.1	2.0	14.1	-24.7	-17.0	-7.7	3.0	4.3	-1.3
Feb.	-20.5	19.7	-0.1	2.8	-20.4	-22.4	2.0	16.9	9.0	7.9
Mar.	-7.2	26.6	6.8	-8.8	-14.0	-15.8	1.8	35.4	36.4	-1.0
Apr.	-13.6	19.0	-3.1	5.3	-10.5	-17.2	6.7	13.7	2.1	11.6

2. Assets by instrument and sector of holder

	Equity					Debt instruments									
	Euro-system	MFIs ³⁾	Non-MFIs			Euro-system	MFIs ³⁾	Bonds and notes			Money market instruments				
			Total	General government	Other sectors			Euro-system	MFIs ³⁾	Non-MFIs		Euro-system	MFIs ³⁾	Non-MFIs	
										Total	General government			Other sectors	Total	General government	Other sectors
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1999	0.1	-1.5	-155.1	-2.1	-153.0	0.1	-15.4	-139.6	-1.7	-137.9	0.9	-8.1	7.3	-0.1	7.5
2000	-0.1	-4.3	-281.6	-2.6	-278.9	-1.9	-46.3	-66.1	-1.5	-64.6	2.2	-15.5	4.6	-1.0	5.5
<i>Euro area enlargement</i>															
2001	-0.4	3.8	-111.8	-2.1	-109.8	1.9	-71.1	-90.9	-1.2	-89.6	-2.3	-34.5	14.3	-0.2	14.5
2002	-0.3	-9.7	-30.8	-5.2	-25.6	3.7	-7.0	-74.8	-1.0	-73.8	2.1	-35.0	-21.0	-0.9	-20.1
2002 Q1	0.0	-4.8	-27.3	-1.4	-25.8	0.4	-4.7	-17.5	-0.5	-17.0	0.8	-13.0	-8.8	-1.1	-7.7
Q2	-0.1	-3.7	-10.1	-2.0	-8.1	2.4	-2.3	-25.4	0.2	-25.6	0.0	-1.9	-13.1	-0.1	-13.0
Q3	-0.1	2.8	10.0	-0.6	10.6	-1.1	-2.9	-13.3	-0.3	-13.0	0.9	-13.3	-2.7	0.2	-3.0
Q4	-0.1	-4.0	-3.5	-1.2	-2.3	2.1	3.0	-18.6	-0.4	-18.1	0.4	-6.8	3.6	0.1	3.5
2003 Q1	-0.1	-2.7	11.6	.	.	0.2	-23.5	-31.9	.	.	-1.5	-2.5	0.1	.	.
2002 Nov.	-0.1	-1.2	0.9	.	.	1.4	-6.2	-0.3	.	.	-0.1	-9.8	6.2	.	.
Dec.	0.0	-0.6	-6.0	.	.	0.2	5.3	-10.0	.	.	0.1	-0.5	-4.2	.	.
2003 Jan.	0.0	1.4	0.6	.	.	0.0	-12.7	-4.2	.	.	-0.3	-10.9	3.4	.	.
Feb.	-0.1	-0.9	0.9	.	.	1.0	-10.1	-13.3	.	.	-0.9	-0.3	3.2	.	.
Mar.	0.0	-3.3	10.1	.	.	-0.7	-0.7	-14.4	.	.	-0.2	8.6	-6.6	.	.
Apr.	-0.1	0.6	-3.6	.	.	-0.8	-7.5	-8.9	.	.	0.5	2.5	3.6	.	.

Source: ECB.

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

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

3) Excluding the Eurosystem.

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 ¹⁾²⁾**

	Total		Eurosysteem		General government		MFIs (excluding the Eurosysteem)						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	-81.5	205.6	-0.7	3.5	-1.0	-6.1	-22.6	192.4	-37.6	40.4	15.0	152.0	-57.1	15.9
1999	-31.8	192.7	-1.9	6.6	3.3	-13.0	16.3	161.2	-47.2	53.8	63.5	107.4	-49.4	37.9
2000	-179.0	359.8	-1.1	0.9	-2.2	0.7	-130.4	288.8	-50.0	52.5	-80.4	236.3	-45.4	69.5
<i>Euro area enlargement</i>														
2001	-250.2	249.0	0.6	4.4	2.9	-0.5	-227.6	233.5	-45.3	22.4	-182.3	211.1	-26.1	11.6
2002	-224.4	37.7	-1.2	0.1	0.0	-8.3	-167.3	29.5	-28.3	51.9	-139.0	-22.3	-55.9	16.4
2002 Q1	19.8	24.3	-0.4	1.2	-0.6	-8.3	18.7	25.8	-2.5	11.4	21.2	14.4	2.2	5.6
Q2	-77.6	-9.1	-0.6	-3.5	0.9	3.8	-62.7	-11.8	-4.4	19.8	-58.3	-31.6	-15.2	2.4
Q3	-62.1	2.3	0.3	-0.1	-0.5	-2.8	-34.9	9.6	-4.7	4.6	-30.2	5.0	-26.9	-4.3
Q4	-104.5	20.1	-0.4	2.5	0.3	-1.0	-88.3	6.0	-16.6	16.1	-71.7	-10.1	-16.1	12.7
2003 Q1	-111.0	64.1	-0.6	-4.3	-1.7	-9.2	-57.4	58.7	-8.7	17.5	-48.7	41.2	-51.4	18.9
2002 Feb.	27.0	-0.6	-0.1	-3.8	1.0	-1.6	5.3	12.4	-7.7	1.3	13.1	11.1	20.8	-7.6
Mar.	-9.2	31.9	0.4	2.4	-0.2	2.1	-1.4	12.9	6.2	3.8	-7.5	9.1	-8.0	14.5
Apr.	-42.2	23.1	-0.4	-4.3	1.7	5.6	-30.1	22.2	-4.2	7.1	-25.9	15.1	-13.3	-0.4
May	-64.2	34.2	-0.1	-0.5	0.0	0.0	-56.0	36.4	-3.9	8.2	-52.1	28.2	-8.0	-1.7
June	28.8	-66.4	-0.1	1.3	-0.7	-1.8	23.4	-70.4	3.7	4.4	19.7	-74.8	6.2	4.5
July	-2.3	-8.4	0.4	2.7	-0.2	-1.2	14.0	-9.8	2.8	1.6	11.2	-11.4	-16.5	-0.1
Aug.	8.5	-29.7	0.1	-5.0	-0.6	-2.2	12.8	-17.9	0.4	2.0	12.4	-19.9	-3.8	-4.6
Sep.	-68.3	40.4	-0.2	2.1	0.3	0.6	-61.7	37.3	-7.9	0.9	-53.8	36.3	-6.6	0.4
Oct.	-68.8	30.3	-0.1	-0.3	-0.4	1.3	-54.2	22.4	-4.4	7.6	-49.8	14.8	-14.2	7.0
Nov.	-78.3	39.9	0.9	1.2	-1.6	-0.3	-65.5	34.8	-7.8	-7.0	-57.6	41.8	-12.1	4.2
Dec.	42.5	-50.1	-1.3	1.6	2.2	-2.0	31.3	-51.2	-4.4	15.5	35.8	-66.7	10.2	1.5
2003 Jan.	-9.5	-0.2	0.5	-2.4	-2.3	-6.2	6.5	3.4	-2.0	9.3	8.5	-5.8	-14.1	5.0
Feb.	-82.8	60.4	-0.5	-2.0	-3.8	-2.9	-55.2	54.6	-4.3	6.1	-50.9	48.4	-23.3	10.8
Mar.	-18.8	3.8	-0.5	0.1	4.5	-0.1	-8.7	0.7	-2.4	2.1	-6.3	-1.4	-14.0	3.1
Apr.	-40.5	63.4	0.0	-0.3	1.1	2.7	-32.6	55.8	-3.4	2.9	-29.2	53.0	-9.0	5.2

2. Other investment by sector and instrument ¹⁾**2.1. Eurosysteem**

	Loans/currency and deposits			Other assets/liabilities		
	Assets 1	Liabilities 2	Balance 3	Assets 4	Liabilities 5	Balance 6
1999	-1.1	6.7	5.6	-0.8	-0.1	-0.9
2000	-1.1	0.9	-0.2	0.0	0.0	0.0
<i>Euro area enlargement</i>						
2001	0.6	4.4	5.0	0.0	0.0	0.0
2002	-1.2	0.0	-1.1	0.0	0.0	0.0
2001 Q4	-0.4	3.8	3.4	0.0	0.0	0.0
2002 Q1	-0.4	1.2	0.7	0.0	0.0	0.0
Q2	-0.6	-3.5	-4.1	0.0	0.0	0.0
Q3	0.3	-0.2	0.1	0.0	0.0	0.0
Q4	-0.4	2.6	2.1	0.0	0.0	0.0

Source: ECB.

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

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

Table 8.6 (cont'd)
Balance of payments: other investment account and reserve assets
(EUR billions; net flows)
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	-1.4	0.6	-0.8	-0.9	0.1	-0.8
<i>Euro area enlargement</i>									
2001	-0.1	0.0	-0.1	4.4	-0.6	3.9	-1.4	0.1	-1.3
2002	1.5	0.0	1.4	-0.6	-8.0	-8.6	-0.8	-0.3	-1.1
2001 Q4	0.0	0.0	0.0	2.1	4.7	6.8	-0.1	0.1	-0.1
2002 Q1	0.0	0.0	0.0	-0.3	-8.0	-8.3	-0.3	-0.3	-0.6
Q2	1.4	0.0	1.4	-0.2	3.6	3.4	-0.3	0.2	-0.2
Q3	0.0	0.0	0.0	-0.3	-2.7	-3.0	-0.2	0.0	-0.3
Q4	0.0	0.0	0.0	0.2	-0.9	-0.6	0.1	-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	15.5	160.5	176.0	0.8	0.7	1.5
2000	-126.3	283.5	157.1	-4.1	5.3	1.3
<i>Euro area enlargement</i>						
2001	-213.6	223.7	10.0	-13.9	9.8	-4.1
2002	-163.6	32.5	-131.1	-3.7	-2.9	-6.6
2001 Q4	-41.6	3.3	-38.2	-4.7	1.3	-3.4
2002 Q1	24.1	19.7	43.9	-5.5	6.0	0.5
Q2	-61.8	-10.5	-72.3	-0.9	-1.3	-2.2
Q3	-32.6	7.6	-25.0	-2.3	2.0	-0.3
Q4	-93.4	15.6	-77.7	5.0	-9.7	-4.6

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	-18.9	21.7	2.9	-23.0	11.3	-11.7
2000	-14.6	10.5	-4.0	-25.2	64.0	38.8	-5.7	-5.0	-10.7
<i>Euro area enlargement</i>									
2001	-0.4	0.6	0.1	-25.3	10.6	-14.7	-0.3	0.4	0.1
2002	-9.6	-2.3	-11.9	-43.5	14.4	-29.1	-2.8	4.3	1.5
2001 Q4	2.6	-1.2	1.4	-27.7	-2.3	-30.0	-0.1	0.5	0.4
2002 Q1	-1.2	-0.5	-1.7	5.0	5.3	10.3	-1.6	0.8	-0.8
Q2	-3.6	-1.4	-5.0	-11.4	2.9	-8.6	-0.1	0.9	0.8
Q3	-2.8	0.9	-1.9	-23.9	-7.2	-31.2	-0.1	2.0	1.9
Q4	-2.0	-1.4	-3.4	-13.1	13.5	0.4	-1.0	0.6	-0.4

3. Reserve assets ¹⁾

	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	6.1	12.5	-12.1	0.2	3.5	2.0	-0.1	0.8
2000	17.6	1.0	0.3	2.9	13.3	4.3	4.6	0.0	-5.6	10.1	-0.1	0.0
<i>Euro area enlargement</i>												
2001	17.8	0.6	-1.0	-4.2	22.5	10.0	-5.3	-1.1	20.4	-1.6	0.0	0.0
2002	-2.2	0.7	0.2	-2.0	-1.2	-2.3	-15.3	0.0	8.2	8.4	-0.2	0.0
2001 Q4	3.3	0.1	-0.1	0.8	2.4	2.7	1.7	0.0	4.8	-6.9	0.0	0.0
2002 Q1	-3.1	-0.2	0.0	-0.4	-2.4	-1.7	-12.4	0.0	4.2	7.4	0.0	0.0
Q2	6.7	0.5	0.5	-2.1	7.8	-0.6	1.2	0.0	4.3	3.1	-0.2	0.0
Q3	-4.6	-0.1	-0.2	0.2	-4.6	-2.4	-3.0	0.0	1.9	-1.2	0.0	0.0
Q4	-1.3	0.4	-0.1	0.3	-1.9	2.3	-1.2	0.0	-2.2	-0.9	0.0	0.0

Source: ECB.

1) Increase (-); decrease (+)

Table 8.7
Monetary presentation of the euro area balance of payments ¹⁾
(EUR billions)

	Current and capital accounts	Direct investment		Portfolio investment			Other investment		Financial derivatives	Errors and omissions	Total ⁵⁾	Memo item: transactions in the external counterpart of M3 ⁶⁾
		By resident units abroad (non-MFIs)	By non-resident units in the euro area ²⁾	Assets Non-MFIs	Liabilities		Assets Non-MFIs	Liabilities Non-MFIs				
					Equity ³⁾	Debt instruments ⁴⁾						
	1	2	3	4	5	6	7	8	9	10	11	12
2000	-56.2	-408.0	426.7	-343.1	37.2	209.8	-47.6	70.2	-3.4	-10.7	-125.1	142.2
2000 Q1	-8.9	-68.4	217.6	-129.2	-103.3	38.2	-40.3	10.6	1.3	-35.8	-118.0	118.0
Q2	-15.4	-88.8	71.6	-66.7	66.9	70.7	-5.5	4.1	4.4	3.7	45.1	-35.2
Q3	-18.1	-121.4	40.3	-75.1	28.9	55.7	-12.3	38.3	0.1	23.2	-40.4	51.6
Q4	-13.8	-129.4	97.1	-72.1	44.7	45.1	10.5	17.1	-9.3	-1.9	-11.8	7.8
<i>Euro area enlargement</i>												
2001	-9.8	-244.7	155.7	-188.4	172.9	83.7	-23.2	11.1	-3.5	34.7	-11.4	4.5
2002	73.5	-155.5	128.3	-126.6	52.4	183.7	-55.9	8.1	-13.9	64.3	158.3	-168.4
2001 Q1	-10.3	-72.9	35.4	-46.0	1.7	22.4	2.8	-12.1	1.4	-32.5	-110.1	105.8
Q2	-13.2	-91.2	43.2	-70.1	89.6	5.1	0.8	9.5	12.0	-2.0	-16.3	18.0
Q3	3.4	-56.1	31.3	-22.9	42.0	27.8	-3.5	11.9	-10.3	47.4	71.0	-75.8
Q4	10.3	-24.6	45.8	-49.4	39.6	28.3	-23.2	1.8	-6.6	21.8	43.9	-43.4
2002 Q1	15.2	-53.0	39.5	-53.6	15.2	3.9	1.6	-2.7	2.5	-6.9	-38.4	30.9
Q2	5.7	-40.7	37.7	-48.6	38.5	83.6	-14.3	6.2	-2.8	14.1	79.3	-77.5
Q3	25.3	-27.2	19.9	-6.0	-4.6	56.7	-27.4	-7.1	-9.6	24.9	44.8	-35.1
Q4	27.3	-34.7	31.2	-18.4	3.4	39.6	-15.8	11.7	-3.9	32.2	72.6	-86.7
2003 Q1	0.0	-30.0	26.2	-20.2	11.0	50.5	-53.0	9.7	0.3	28.5	22.9	-31.8

Source: ECB.

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

2) Including all transactions of the non-MFI sector, and MFI sector transactions in equity capital and reinvested earnings.

3) Excluding money market fund shares/units.

4) Excluding debt securities with a maturity of up to two years and issued by euro area MFIs.

5) Sum of columns 1 to 10; errors and omissions (column 10) are those shown in Table 8.1 (column 13) of the Monthly Bulletin; remaining differences (in absolute values) with column 12 are explained in a methodological note available on the statistics section of the ECB's website (www.ecb.int).

6) Source: Monthly Bulletin, Table 2.4.6, column 9.

Table 8.8**International investment position ¹⁾ and reserve assets outstanding***(EUR billions (ECU billions in 1997); end-of-period positions)***1. Summary international investment position**

	Total		Direct investment 3	Portfolio investment 4	Financial derivatives 5	Other investment 6	Reserve assets 7
	1	as % of GDP 2					
Net international investment position ²⁾³⁾							
1997	16.3	0.3	181.5	-750.5	-5.9	223.8	367.3
1998	-170.1	-2.8	152.0	-748.5	2.3	86.5	337.6
1999	-297.3	-4.7	369.6	-881.2	16.0	-183.9	382.2
2000	-414.7	-6.3	428.4	-804.9	8.5	-437.2	390.4
2001	-152.2	-2.2	530.7	-682.7	-5.9	-387.0	392.7
Outstanding assets							
1999	5,796.7	92.5	1,174.5	2,058.1	111.1	2,070.8	382.2
2000	6,740.0	102.5	1,609.7	2,344.1	117.9	2,277.9	390.4
2001	7,459.4	109.1	1,859.9	2,499.8	123.7	2,583.4	392.7
Outstanding liabilities							
1999	6,094.0	97.2	804.9	2,939.3	95.1	2,254.7	-
2000	7,154.7	108.8	1,181.2	3,149.1	109.3	2,715.1	-
2001	7,611.6	111.3	1,329.2	3,182.5	129.5	2,970.5	-

2. Direct investment

	By resident units abroad						By non-resident units in the euro area					
	Equity capital and reinvested earnings			Other capital (mostly inter-company loans)			Equity capital and reinvested earnings			Other capital (mostly inter-company loans)		
	Total 1	MFIs ⁴⁾ 2	Non-MFIs 3	Total 4	MFIs ⁴⁾ 5	Non-MFIs 6	Total 7	MFIs ⁴⁾ 8	Non-MFIs 9	Total 10	MFIs ⁴⁾ 11	Non-MFIs 12
1999	938.7	85.7	853.0	235.8	1.8	234.0	606.3	24.3	582.0	198.6	1.7	196.9
2000	1,256.0	115.9	1,140.1	353.7	2.3	351.3	880.6	31.8	848.8	300.7	1.8	298.9
2001	1,478.4	132.0	1,346.4	381.5	2.6	378.9	985.6	42.4	943.2	343.6	2.6	341.0

3.1. Portfolio investment by instrument

	Equity		Debt instruments					
	Assets 1	Liabilities 2	Assets			Liabilities		
			Total 3	Bonds and notes 4	Money market instruments 5	Total 6	Bonds and notes 7	Money market instruments 8
1999	1,013.6	1,698.1	1,044.4	937.2	107.2	1,241.2	1,138.5	102.7
2000	1,183.6	1,627.6	1,160.5	1,038.4	122.1	1,521.5	1,399.9	121.6
2001	1,111.5	1,577.6	1,388.3	1,208.1	180.1	1,604.9	1,505.5	99.4

3.2. Portfolio investment: assets by instrument and sector of holder

	Equity					Debt instruments									
	Euro-system 9	MFIs ⁴⁾ 10	Non-MFIs			Bonds and notes			Money market instruments						
			Total 11	General government 12	Other sectors 13	Euro-system 14	MFIs ⁴⁾ 15	Non-MFIs			Euro-system 19	MFIs ⁴⁾ 20	Non-MFIs		
								Total 16	General government 17	Other sectors 18			Total 21	General government 22	Other sectors 23
1999	0.4	25.9	987.3	4.1	983.2	4.5	257.2	675.4	6.2	669.3	2.6	68.5	36.1	0.2	35.9
2000	0.9	42.7	1,140.0	5.6	1,134.4	3.4	328.5	706.5	5.7	700.9	0.5	85.6	36.0	0.1	35.8
2001	1.2	43.7	1,066.7	6.6	1,060.0	2.1	422.1	784.0	8.0	776.0	2.8	125.2	52.1	0.2	51.9

Source: ECB.

1) Data refer to the Euro 12, i.e. they include Greece.

2) Assets minus liabilities.

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

4) Excluding the Eurosystem.

4. Other investment by sector and instrument

	Eurosystem						General government							
	Total		Loans/currency and deposits		Other assets/liabilities		Total		Trade credits		Loans/currency and deposits		Other assets/liabilities	
	Assets 1	Liabilities 2	Assets 3	Liabilities 4	Assets 5	Liabilities 6	Assets 7	Liabilities 8	Assets 9	Liabilities 10	Assets 11	Liabilities 12	Assets 13	Liabilities 14
1999	3.1	27.4	3.0	27.1	0.1	0.3	125.5	57.3	2.5	0.1	72.4	45.4	50.6	11.8
2000	3.0	32.2	2.9	31.9	0.1	0.3	133.8	60.0	2.8	0.2	77.5	47.7	53.5	12.1
2001	3.0	36.4	2.9	36.2	0.1	0.2	132.5	63.8	3.1	0.2	73.6	51.4	55.9	12.3

	MFIs (excluding the Eurosystem)						Other sectors							
	Total		Loans/currency and deposits		Other assets/liabilities		Total		Trade credits		Loans/currency and deposits		Other assets/liabilities	
	Assets 15	Liabilities 16	Assets 17	Liabilities 18	Assets 19	Liabilities 20	Assets 21	Liabilities 22	Assets 23	Liabilities 24	Assets 25	Liabilities 26	Assets 27	Liabilities 28
1999	1,317.7	1,823.5	1,291.8	1,798.1	25.9	25.5	624.5	346.5	161.0	90.7	394.2	225.7	69.3	30.1
2000	1,458.5	2,168.4	1,421.4	2,126.4	37.1	42.0	682.6	454.5	179.5	110.2	418.9	314.8	84.2	29.5
2001	1,719.5	2,407.3	1,668.6	2,354.1	50.9	53.2	728.4	462.9	177.6	109.7	478.4	321.9	72.4	31.4

5. Reserves and related assets of the Eurosystem and of the European Central Bank ¹⁾

(EUR billions; end-of-period positions, unless otherwise indicated)

	Reserve assets													Other claims	Memo: related assets Claims on euro area residents denominated in foreign currency
	Total	Monetary gold	Special drawing rights	Reserve position in the IMF	Foreign exchange										
					Total	Currency and deposits		Securities				Financial derivatives			
						With monetary authorities and the BIS	With banks	Total	Equities	Bonds and notes	Money market instruments				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Eurosystem ³⁾															
1998 Dec. ⁴⁾	329.4	99.6	404.131	5.2	23.4	201.2	12.6	19.6	169.0	0.0	116.6	52.4	0.0	0.0	7.6
1999 Dec.	372.1	116.4	402.758	4.5	24.3	226.9	13.5	23.0	190.7	0.0	133.9	56.8	-0.2	0.0	14.6
2000 Dec.	377.2	117.1	399.537	4.3	20.8	235.0	9.7	20.1	204.4	0.0	154.0	50.4	0.7	0.0	15.8
<i>Euro area enlargement</i>															
2001 1 Jan.	390.4	118.4	404.157	4.3	21.2	246.5	16.8	20.5	208.5	0.0	158.1	50.4	0.7	0.0	16.3
2001 Dec.	392.7	126.1	401.876	5.5	25.3	235.8	8.0	25.9	201.5	1.2	147.0	53.3	0.4	0.0	24.7
2002 Dec.	366.1	130.4	399.022	4.8	25.0	205.8	10.3	35.3	159.8	-	-	-	0.4	0.0	22.4
2003 Feb.	352.2	128.2	397.765	4.8	24.3	194.9	10.4	38.4	145.6	-	-	-	0.5	0.0	19.3
Mar.	339.1	122.3	397.765	4.7	24.4	187.7	7.9	36.4	142.8	-	-	-	0.6	0.0	18.9
Apr.	332.4	119.9	396.324	4.5	25.0	183.1	7.6	33.6	141.0	-	-	-	0.9	0.0	18.4
May	323.1	121.1	396.233	4.5	24.2	173.3	6.9	33.6	131.6	-	-	-	1.1	0.0	18.7
European Central Bank ⁵⁾															
1999 Dec.	49.3	7.0	24.030	0.0	0.0	42.3	0.3	7.8	34.3	0.0	27.8	6.5	0.0	0.0	2.6
2000 Dec.	45.3	7.0	24.030	0.0	0.0	38.2	0.6	6.8	30.6	0.0	20.4	10.2	0.3	0.0	3.8
<i>Euro area enlargement</i>															
2001 Dec.	49.3	7.8	24.656	0.1	0.0	41.4	0.8	7.0	33.6	0.0	23.5	10.1	0.0	0.0	3.6
2002 Dec.	45.5	8.1	24.656	0.2	0.0	37.3	1.2	9.9	26.1	-	-	-	0.0	0.0	3.0
2003 Feb.	42.0	7.9	24.656	0.2	0.0	33.9	1.3	8.8	23.8	-	-	-	0.0	0.0	2.6
Mar.	40.5	7.6	24.656	0.2	0.0	32.8	0.9	9.3	22.6	-	-	-	0.0	0.0	3.0
Apr.	40.7	7.5	24.656	0.2	0.0	33.1	0.9	6.8	25.4	-	-	-	0.0	0.0	2.5
May	39.2	7.5	24.656	0.2	0.0	31.4	0.8	8.0	22.6	-	-	-	0.0	0.0	2.4

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) 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.

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

4) Position as at 1 January 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 ^{1) 2)}

(not seasonally adjusted, unless otherwise indicated)

	Exports of goods (f.o.b.)					Imports of goods (c.i.f.)						Total (s.a.) (2000=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; 2000=100 for columns 12 and 13)													
1999	832.8	386.5	183.2	224.2	725.0	781.2	423.2	143.6	192.1	590.6	61.5	82.5	78.1
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	100.0	100.0
<i>Euro area enlargement</i>													
2001	1,060.8	491.6	235.8	287.0	930.8	1,011.1	575.1	178.2	226.1	738.1	107.5	106.3	98.9
2002	1,077.9	493.8	226.8	302.7	939.2	975.2	547.6	160.2	228.6	708.0	102.4	108.0	95.4
2002 Q1	259.2	119.6	53.5	73.0	226.4	240.1	135.4	39.2	55.9	176.2	22.7	107.7	94.2
Q2	273.4	127.8	57.5	74.7	238.6	249.0	142.0	40.6	57.2	181.1	25.8	108.4	96.1
Q3	267.1	121.4	55.3	76.2	232.7	234.5	131.2	37.7	56.6	170.8	26.0	108.3	95.1
Q4	278.3	124.9	60.6	78.9	241.5	251.7	139.0	42.8	58.9	180.0	27.9	107.5	96.1
2003 Q1	254.7	116.6	51.2	72.1	221.0	248.6	140.2	39.0	56.8	177.0	29.4	105.4	97.1
2002 Nov.	93.4	41.9	20.3	26.8	81.3	83.9	46.0	14.9	19.5	60.6	8.5	109.2	97.0
Dec.	85.1	38.0	19.6	22.7	73.4	77.6	42.1	13.3	18.2	54.6	9.3	105.7	94.4
2003 Jan.	82.3	38.1	16.0	23.3	71.2	83.6	46.7	13.5	19.4	59.4	10.1	106.9	97.4
Feb.	84.6	38.5	16.9	24.2	73.6	79.2	44.9	11.8	18.2	56.1	9.3	106.6	96.6
Mar.	87.8	40.0	18.2	24.6	76.3	85.8	48.6	13.6	19.2	61.5	10.0	102.8	97.2
Apr.	85.4	39.5	18.1	23.3	74.2	82.4	46.5	13.7	18.8	59.2	8.9	104.4	96.0
Volumes (annual percentage changes; 2000=100 for columns 12 and 13)													
1999	2.2	2.8	-0.8	3.3	1.4	6.1	3.5	12.9	7.7	7.1	6.0	89.3	95.2
2000	12.4	12.5	12.7	12.7	13.6	5.9	6.8	11.7	4.5	8.9	4.7	100.0	100.0
<i>Euro area enlargement</i>													
2001	5.1	1.8	8.6	7.9	5.8	-1.2	-1.0	-3.9	-0.1	-1.7	-1.6	105.3	98.8
2002	1.8	1.0	-3.5	4.3	1.2	-1.5	-2.5	-8.2	1.6	-2.7	-1.5	107.8	97.6
2002 Q1	-2.0	-3.2	-7.8	2.1	-2.8	-5.8	-5.5	-18.7	-0.7	-8.7	-0.9	106.5	96.7
Q2	2.9	3.1	-2.4	4.8	2.5	-1.1	-1.4	-9.5	2.7	-2.6	-2.4	107.8	97.9
Q3	5.4	4.7	-0.4	7.1	4.6	1.4	0.1	-0.7	2.5	1.4	-2.7	109.0	97.8
Q4	3.1	3.2	-2.5	5.7	2.3	1.1	-1.0	-1.7	4.2	0.5	1.2	107.8	98.1
2003 Q1	0.9	-0.6	-1.3	2.0	0.4	3.4	0.1	6.3	4.9	4.2	0.2	107.0	99.4
2002 Nov.	2.5	1.5	-0.1	5.5	2.5	-2.0	-4.5	-1.7	-0.2	-3.0	-0.4	109.2	99.3
Dec.	5.2	6.2	-0.8	5.9	4.0	4.4	0.9	0.8	9.4	4.6	0.8	106.5	96.3
2003 Jan.	3.8	2.5	0.0	5.3	3.0	2.5	-2.5	14.1	5.2	4.3	-4.6	108.4	99.2
Feb.	2.1	0.3	1.1	2.2	1.9	1.6	-0.6	-0.5	3.2	2.5	-2.9	108.0	99.0
Mar.	-2.8	-4.1	-4.4	-1.1	-2.9	5.9	3.5	5.6	6.3	6.0	8.3	104.6	100.1
Apr.	.	.	.	.	.	.	.	.	.	.	.	.	.
Unit values (annual percentage changes; 2000=100 for columns 12 and 13)													
1999	2.3	1.7	2.7	1.4	2.4	3.5	3.9	3.4	1.4	2.0	39.4	92.4	82.0
2000	8.3	11.0	7.4	5.1	7.2	21.9	28.3	11.8	8.7	13.5	84.8	100.0	100.0
<i>Euro area enlargement</i>													
2001	1.0	0.7	0.3	1.9	1.0	0.2	-1.3	1.6	2.8	1.7	-11.0	101.0	100.2
2002	-0.7	-1.4	-0.5	0.5	-0.7	-2.4	-2.8	-2.1	-1.0	-1.6	-3.8	100.3	97.8
2002 Q1	0.9	-0.5	1.5	2.9	0.9	-3.4	-5.7	-0.6	1.1	-0.6	-16.8	101.1	97.6
Q2	-0.7	-1.4	-0.3	0.4	-0.6	-3.2	-4.2	-1.8	-1.1	-1.6	-8.4	100.6	98.3
Q3	-1.9	-2.7	-1.8	-0.6	-1.9	-3.4	-3.6	-3.4	-2.8	-2.8	-4.6	99.5	97.4
Q4	-1.1	-1.1	-1.5	-0.6	-1.2	0.6	2.5	-2.7	-1.4	-1.5	19.3	99.8	98.0
2003 Q1	-2.6	-1.9	-3.1	-3.1	-2.8	0.2	3.4	-6.4	-3.3	-3.6	29.3	98.6	97.7
2002 Nov.	-0.9	-0.9	-1.3	-0.6	-1.1	0.3	1.7	-2.9	-0.6	-1.3	14.8	100.1	97.8
Dec.	-2.3	-1.9	-2.7	-2.5	-2.6	0.2	2.9	-3.9	-3.2	-2.7	24.9	99.3	98.2
2003 Jan.	-2.5	-2.1	-2.8	-2.5	-2.7	1.4	4.6	-5.9	-1.7	-2.6	32.6	98.7	98.3
Feb.	-2.3	-1.4	-2.1	-3.3	-2.6	0.4	4.1	-5.6	-4.2	-3.9	34.0	98.8	97.7
Mar.	-3.0	-2.2	-4.3	-3.5	-3.4	-1.3	1.6	-7.7	-3.9	-4.4	22.1	98.3	97.2
Apr.	.	.	.	.	.	.	.	.	.	.	.	.	.

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.

2. Geographical breakdown ¹⁾

(EUR billions; not seasonally adjusted, unless otherwise indicated)

	Total 1	Total (s.a.) 2	United Kingdom 3	Sweden 4	Denmark 5	Acceding countries 6	Switzer- land 7	United States 8	Japan 9	Asia excl. Japan 10	Africa 11	Latin America 12	Other countries 13
Exports (f.o.b.)													
1999	832.8	-	161.4	33.1	21.1	77.3	56.1	135.1	26.8	119.2	48.4	39.1	113.6
2000	1,013.7	-	189.7	38.8	23.2	94.6	63.4	171.4	34.2	151.6	56.1	46.7	141.6
<i>Euro area enlargement</i>													
2001	1,060.8	-	201.9	36.9	24.3	105.9	66.3	180.0	34.5	165.3	60.3	49.8	135.6
2002	1,077.9	-	204.3	36.9	24.7	112.1	63.9	181.7	32.6	170.4	59.8	43.1	148.5
2002 Q1	259.2	269.5	52.1	9.2	6.0	26.3	15.9	44.8	7.9	39.4	14.1	10.2	33.3
Q2	273.4	271.3	51.6	9.3	6.2	28.7	16.2	45.9	7.8	42.9	15.6	11.3	37.8
Q3	267.1	271.1	50.4	8.4	6.0	27.8	15.7	44.3	8.3	43.0	14.9	10.6	37.8
Q4	278.3	269.0	50.3	10.0	6.5	29.2	16.1	46.7	8.6	45.1	15.2	11.0	39.7
2003 Q1	254.7	263.8	48.9	9.7	6.3	27.4	16.4	41.3	7.8	39.2	13.6	9.5	.
2002 Nov.	93.4	91.1	17.3	3.5	2.3	10.1	5.5	15.7	2.9	14.5	4.8	3.4	13.5
Dec.	85.1	88.2	15.0	2.8	1.9	8.4	4.8	13.9	2.6	14.9	5.0	3.4	12.4
2003 Jan.	82.3	89.2	15.5	3.1	1.9	8.9	5.3	14.2	2.5	12.2	4.6	3.1	11.0
Feb.	84.6	89.0	15.9	3.2	2.0	9.2	5.5	13.7	2.7	13.3	4.4	3.0	.
Mar.	87.8	85.7	17.5	3.4	2.4	9.3	5.6	13.4	2.6	13.7	4.7	3.3	.
Apr.	85.4	87.1	.	.	.	.	.	.	.	.	.	.	.
% change versus previous year													
2003 Apr.	-6.0	-	.	.	.	.	.	.	.	.	.	.	.
Imports (c.i.f.)													
1999	781.2	-	131.0	33.2	18.6	60.3	43.2	113.2	53.9	151.8	49.0	30.4	95.4
2000	1,008.4	-	156.6	38.0	21.8	76.8	49.8	140.7	65.5	211.6	72.2	39.7	134.0
<i>Euro area enlargement</i>													
2001	1,011.1	-	154.0	34.3	21.3	88.8	52.9	138.1	58.6	207.9	74.0	40.9	140.3
2002	975.2	-	145.1	34.3	21.7	93.5	51.9	125.1	52.6	203.8	68.3	39.1	140.0
2002 Q1	240.1	241.3	36.4	8.2	5.1	22.2	12.7	33.0	12.8	49.2	17.8	9.3	33.2
Q2	249.0	246.1	37.7	8.9	5.2	23.9	13.6	32.9	13.5	48.8	17.1	10.7	36.6
Q3	234.5	243.5	33.9	8.0	5.2	22.6	12.3	28.7	12.6	51.2	16.2	9.9	33.9
Q4	251.7	245.9	37.0	9.2	6.1	24.7	13.3	30.5	13.6	54.5	17.2	9.3	36.3
2003 Q1	248.6	248.5	35.0	9.0	5.8	24.7	13.0	28.4	13.5	53.8	18.6	8.8	.
2002 Nov.	83.9	82.8	12.4	3.1	2.1	8.4	4.4	10.6	4.7	18.2	5.4	2.9	11.8
Dec.	77.6	80.6	12.0	2.9	2.0	7.4	4.0	9.0	4.0	16.7	5.3	2.6	11.7
2003 Jan.	83.6	83.1	11.0	2.8	2.0	8.0	4.1	9.8	4.6	18.7	6.2	3.0	13.4
Feb.	79.2	82.4	11.3	3.0	2.0	7.9	4.3	8.8	4.2	17.1	6.0	2.7	.
Mar.	85.8	82.9	12.7	3.2	1.9	8.8	4.6	9.8	4.7	18.1	6.3	3.1	.
Apr.	82.4	81.9	.	.	.	.	.	.	.	.	.	.	.
% change versus previous year													
2003 Apr.	-4.4	-	.	.	.	.	.	.	.	.	.	.	.
Balance													
1999	51.6	-	30.4	-0.1	2.6	17.0	12.9	21.9	-27.1	-32.6	-0.6	8.7	18.2
2000	5.3	-	33.1	0.8	1.4	17.8	13.6	30.7	-31.3	-60.0	-16.1	7.0	7.6
<i>Euro area enlargement</i>													
2001	49.7	-	47.8	2.7	3.0	17.1	13.4	42.0	-24.1	-42.5	-13.7	8.9	-4.7
2002	102.7	-	59.2	2.6	3.1	18.5	11.9	56.6	-19.9	-33.4	-8.5	4.0	8.5
2002 Q1	19.1	28.2	15.7	0.9	0.9	4.1	3.2	11.8	-4.9	-9.8	-3.8	1.0	0.1
Q2	24.4	25.2	13.8	0.4	1.0	4.8	2.7	13.0	-5.7	-5.9	-1.5	0.6	1.2
Q3	32.6	27.6	16.5	0.5	0.8	5.2	3.3	15.6	-4.3	-8.2	-1.3	0.7	3.9
Q4	26.6	23.1	13.2	0.8	0.4	4.5	2.8	16.2	-5.0	-9.4	-2.0	1.7	3.3
2003 Q1	6.1	15.4	13.9	0.7	0.5	2.7	3.4	13.0	-5.7	-14.6	-5.0	0.7	.
2002 Nov.	9.5	8.3	4.9	0.4	0.2	1.7	1.1	5.1	-1.7	-3.8	-0.6	0.4	1.7
Dec.	7.5	7.6	3.0	0.0	-0.1	1.0	0.8	4.9	-1.4	-1.8	-0.3	0.8	0.7
2003 Jan.	-1.3	6.0	4.4	0.3	-0.1	0.9	1.2	4.5	-2.1	-6.4	-1.7	0.1	-2.4
Feb.	5.4	6.5	4.7	0.2	0.0	1.3	1.2	4.8	-1.5	-3.7	-1.6	0.3	.
Mar.	2.0	2.8	4.8	0.2	0.6	0.5	1.0	3.7	-2.1	-4.5	-1.7	0.2	.
Apr.	3.0	5.2	.	.	.	.	.	.	.	.	.	.	.

Sources: Eurostat and ECB calculations based on Eurostat data (balance and other countries).

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 (Tables 8.1 and 8.2).

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 ¹⁾						Bilateral ECU or euro exchange rates ²⁾			
	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	100.6	90.4	96.5	1.134	137.1	1.644	0.692
1998	101.5	101.3	101.6	99.4	96.6	99.1	1.121	146.4	1.622	0.676
1999	95.7	95.7	95.7	96.0	96.6	95.8	1.066	121.3	1.600	0.659
2000	85.7	86.3	87.1	87.1	88.2	86.0	0.924	99.5	1.558	0.609
<i>Euro area enlargement</i>										
2001	87.3	88.6	89.3	87.7	91.0	87.7	0.896	108.7	1.511	0.622
2002	90.0	92.5	92.9	90.7	95.6	91.7	0.946	118.1	1.467	0.629
2001 Q1	88.6	89.5	90.6	89.2	91.4	88.4	0.923	109.1	1.533	0.633
Q2	86.0	87.3	87.9	86.9	89.5	86.4	0.873	106.9	1.528	0.614
Q3	87.0	88.3	89.0	86.8	91.2	87.7	0.890	108.3	1.507	0.619
Q4	87.5	89.3	89.9	87.9	92.0	88.4	0.896	110.5	1.473	0.621
2002 Q1	87.1	89.4	89.9	87.5	91.3	87.8	0.877	116.1	1.473	0.615
Q2	88.8	91.4	91.6	90.0	93.9	90.2	0.919	116.5	1.465	0.629
Q3	91.3	93.9	94.4	92.4	97.9	93.8	0.984	117.2	1.464	0.635
Q4	92.5	95.4	95.5	92.9	99.4	94.9	0.999	122.4	1.467	0.636
2003 Q1	96.9	100.1	99.8	97.2	104.1	99.3	1.073	127.6	1.466	0.670
Q2	101.3	104.8	105.0	-	108.1	102.8	1.137	134.7	1.518	0.702
2001 Jan.	89.2	89.9	91.0	-	91.7	88.6	0.938	109.6	1.529	0.635
Feb.	88.3	89.1	90.4	-	91.0	88.1	0.922	107.1	1.536	0.634
Mar.	88.4	89.4	90.5	-	91.4	88.4	0.910	110.3	1.535	0.629
Apr.	87.6	88.8	89.6	-	91.0	88.0	0.892	110.4	1.529	0.622
May	85.9	87.2	87.7	-	89.3	86.2	0.874	106.5	1.533	0.613
June	84.7	86.0	86.4	-	88.1	85.0	0.853	104.3	1.522	0.609
July	85.4	86.8	87.2	-	89.1	85.9	0.861	107.2	1.514	0.609
Aug.	87.7	89.0	89.6	-	91.8	88.3	0.900	109.3	1.514	0.627
Sep.	88.0	89.3	90.0	-	92.6	89.0	0.911	108.2	1.491	0.623
Oct.	88.0	89.6	90.1	-	92.8	89.1	0.906	109.9	1.479	0.624
Nov.	86.8	88.4	89.2	-	91.3	87.6	0.888	108.7	1.466	0.618
Dec.	87.7	89.8	90.3	-	91.9	88.5	0.892	113.4	1.475	0.620
2002 Jan.	87.6	89.9	90.5	-	91.6	88.1	0.883	117.1	1.475	0.617
Feb.	86.8	89.0	89.6	-	91.1	87.4	0.870	116.2	1.477	0.612
Mar.	86.8	89.3	89.7	-	91.2	87.8	0.876	114.7	1.468	0.616
Apr.	87.2	89.7	90.1	-	91.7	88.1	0.886	115.8	1.466	0.614
May	88.6	91.1	91.4	-	93.7	89.9	0.917	115.9	1.457	0.628
June	90.6	93.2	93.4	-	96.4	92.4	0.955	117.8	1.472	0.644
July	91.7	94.4	94.7	-	98.2	94.1	0.992	117.1	1.462	0.639
Aug.	91.1	93.6	94.2	-	97.7	93.5	0.978	116.3	1.464	0.636
Sep.	91.2	93.7	94.4	-	98.0	93.6	0.981	118.4	1.465	0.631
Oct.	91.7	94.3	94.5	-	98.5	94.2	0.981	121.6	1.465	0.630
Nov.	92.5	95.1	95.3	-	99.3	94.6	1.001	121.7	1.467	0.637
Dec.	93.6	96.7	96.8	-	100.4	96.0	1.018	124.2	1.468	0.642
2003 Jan.	95.8	98.8	99.0	-	103.0	98.1	1.062	126.1	1.462	0.657
Feb.	97.1	100.2	100.1	-	104.4	99.4	1.077	128.6	1.467	0.670
Mar.	97.9	101.2	100.2	-	105.1	100.2	1.081	128.2	1.469	0.683
Apr.	98.6	102.0	101.9	-	105.2	100.3	1.085	130.1	1.496	0.689
May	102.5	106.0	106.4	-	109.1	103.7	1.158	135.8	1.516	0.713
June	102.7	106.3	106.8	-	109.9	104.4	1.166	138.1	1.541	0.702
% ch. vs. ⁴⁾ prev. month										
2003 June	0.2	0.3	0.4	-	0.7	0.6	0.7	1.6	1.7	-1.5
% ch. vs. ⁴⁾ prev. year										
2003 June	13.3	14.0	14.4	-	14.0	12.9	22.1	17.2	4.7	9.0

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 ²⁾								
Swedish krona	Danish krone	Norwegian krone	Canadian dollar	Australian dollar	Hong Kong dollar ³⁾	Korean won ³⁾	Singapore dollar ³⁾	
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
<i>Euro area enlargement</i>								
9.26	7.45	8.05	1.386	1.732	6.99	1,154.8	1.604	2001
9.16	7.43	7.51	1.484	1.738	7.37	1,175.5	1.691	2002
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
9.16	7.43	7.52	1.428	1.666	7.17	1,157.8	1.657	Q2
9.23	7.43	7.40	1.536	1.796	7.67	1,172.7	1.729	Q3
9.09	7.43	7.32	1.569	1.791	7.79	1,215.4	1.767	Q4
9.18	7.43	7.57	1.620	1.809	8.37	1,288.9	1.872	2003 Q1
9.14	7.43	7.96	1.589	1.774	8.87	1,373.8	1.987	Q2
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.
9.22	7.44	7.52	1.421	1.666	7.15	1,150.1	1.651	May
9.11	7.43	7.40	1.463	1.679	7.45	1,160.6	1.703	June
9.27	7.43	7.40	1.532	1.792	7.74	1,169.2	1.740	July
9.25	7.43	7.43	1.533	1.805	7.63	1,167.1	1.716	Aug.
9.17	7.43	7.36	1.543	1.793	7.65	1,182.6	1.732	Sep.
9.11	7.43	7.34	1.548	1.783	7.65	1,211.9	1.751	Oct.
9.08	7.43	7.32	1.574	1.785	7.81	1,208.2	1.767	Nov.
9.10	7.43	7.29	1.587	1.808	7.94	1,226.9	1.786	Dec.
9.17	7.43	7.33	1.636	1.822	8.28	1,250.1	1.843	2003 Jan.
9.15	7.43	7.54	1.630	1.811	8.40	1,282.8	1.880	Feb.
9.23	7.43	7.84	1.594	1.795	8.43	1,335.4	1.895	Mar.
9.15	7.43	7.83	1.585	1.781	8.46	1,337.4	1.928	Apr.
9.16	7.42	7.87	1.602	1.787	9.03	1,390.0	2.007	May
9.12	7.42	8.16	1.580	1.755	9.10	1,392.3	2.023	June
-0.4	0.0	3.7	-1.4	-1.8	0.7	0.2	0.8	% ch. vs. ⁴⁾ prev. month 2003 June
0.0	-0.1	10.2	8.0	4.5	22.0	20.0	18.8	% ch. vs. ⁴⁾ prev. year 2003 June

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 ¹⁾ as a % per annum	Exchange rate ²⁾ as national currency per euro	Current and new capital account as a % of GDP	Unit labour costs ³⁾	Real GDP	Industrial production index ⁴⁾	Standardised unemployment rate as a % of labour force (s.a.)	Broad money ⁵⁾	3-month interest rate ¹⁾ as a % per annum
	1	2	3	4	5	6	7	8	9	10	11	12
Denmark												
1999	2.1	3.3	53.0	4.91	7.44	1.8	2.4	2.6	0.1	4.8	-0.2	3.44
2000	2.7	2.6	47.4	5.64	7.45	1.5	1.4	2.9	5.7	4.4	1.1	5.00
2001	2.3	3.1	45.4	5.08	7.45	3.1	3.7	1.4	1.3	4.3	5.7	4.70
2002	2.4	1.9	45.2	5.06	7.43	2.9	1.4	1.6	1.5	4.5	3.5	3.54
2002 Q1	2.5	-	-	5.21	7.43	2.7	3.0	1.2	-0.6	4.3	2.3	3.63
Q2	2.1	-	-	5.36	7.43	3.2	0.6	3.1	4.5	4.4	2.8	3.71
Q3	2.4	-	-	4.92	7.43	3.8	1.0	1.1	0.9	4.6	2.6	3.57
Q4	2.7	-	-	4.74	7.43	2.1	1.0	1.0	1.1	4.7	6.1	3.27
2003 Q1	2.8	-	-	4.30	7.43	3.4	0.4	1.2	1.5	5.0	19.1	2.83
Q2	.	-	-	4.12	7.43	.	.	.	.	.	.	2.48
2003 Jan.	2.6	-	-	4.43	7.43	-	-	-	-0.5	4.9	17.7	2.97
Feb.	2.9	-	-	4.21	7.43	-	-	-	3.0	5.0	21.1	2.83
Mar.	2.8	-	-	4.26	7.43	-	-	-	2.1	5.0	18.5	2.67
Apr.	2.5	-	-	4.41	7.43	-	-	-	-0.1	5.0	20.6	2.67
May	2.1	-	-	4.09	7.42	-	-	-	-0.9	5.2	24.4	2.54
June	.	-	-	3.85	7.42	-	-	-	.	.	.	2.22
Sweden												
1999	0.6	1.5	62.7	4.98	8.81	2.6	-1.2	4.6	2.2	6.7	6.8	3.32
2000	1.3	3.4	52.8	5.37	8.45	3.8	5.0	4.4	6.3	5.6	6.2	4.07
2001	2.7	4.5	54.4	5.11	9.26	3.8	5.8	1.1	-0.3	4.9	3.4	4.11
2002	2.0	1.2	52.4	5.31	9.16	4.1	2.1	1.9	-1.2	4.9	5.3	4.24
2002 Q1	2.9	-	-	5.42	9.16	5.5	4.7	0.8	-1.2	4.9	7.0	4.00
Q2	1.9	-	-	5.64	9.16	5.3	0.8	3.1	0.1	4.8	5.3	4.43
Q3	1.5	-	-	5.16	9.23	4.1	1.4	2.4	-1.1	4.9	5.8	4.41
Q4	1.6	-	-	5.00	9.09	1.8	1.7	1.3	-2.5	5.1	3.1	4.09
2003 Q1	2.9	-	-	4.59	9.18	5.5	-0.5	2.2	-1.9	5.3	5.6	3.72
Q2	.	-	-	4.41	9.14	.	.	.	.	.	.	3.28
2003 Jan.	2.6	-	-	4.71	9.17	-	-	-	1.5	5.4	5.2	3.83
Feb.	3.3	-	-	4.48	9.15	-	-	-	-2.4	5.2	5.7	3.75
Mar.	2.9	-	-	4.57	9.23	-	-	-	-4.4	5.3	5.9	3.56
Apr.	2.3	-	-	4.73	9.15	-	-	-	2.2	5.4	4.5	3.56
May	2.0	-	-	4.37	9.16	-	-	-	.	5.4	7.1	3.35
June	.	-	-	4.12	9.12	-	-	-	.	.	.	2.93
United Kingdom												
1999	1.3	1.1	45.1	5.01	0.659	-2.1	2.9	2.4	0.8	5.9	5.5	5.54
2000	0.8	3.9	42.1	5.33	0.609	-1.8	2.3	3.1	1.6	5.4	6.6	6.19
2001	1.2	0.8	39.0	5.01	0.622	-1.1	4.1	2.1	-2.1	5.0	8.1	5.04
2002	1.3	-1.4	38.6	4.91	0.629	-0.8	.	1.9	-3.5	5.1	6.0	4.06
2002 Q1	1.5	2.8	37.7	5.13	0.615	-0.2	2.7	1.4	-5.9	5.1	6.1	4.08
Q2	0.9	-3.6	38.1	5.28	0.629	-2.1	2.6	1.8	-4.3	5.1	5.7	4.17
Q3	1.1	-0.7	37.7	4.71	0.635	0.0	1.5	2.3	-2.4	5.2	5.7	4.01
Q4	1.6	-3.0	38.3	4.52	0.636	-1.0	.	2.3	-1.2	5.0	6.3	3.98
2003 Q1	1.5	-1.2	37.6	4.34	0.670	1.8	.	2.1	-0.8	5.0	6.9	3.80
Q2	.	.	.	4.35	0.702	.	.	.	.	.	.	3.64
2003 Jan.	1.4	3.3	37.6	4.31	0.657	-	-	-	-0.7	5.0	6.7	3.98
Feb.	1.6	-1.4	37.3	4.29	0.670	-	-	-	-0.3	5.1	6.8	3.75
Mar.	1.6	-5.4	37.6	4.41	0.683	-	-	-	-1.2	5.0	7.2	3.66
Apr.	1.5	-2.3	37.5	4.56	0.689	-	-	-	-0.9	.	8.1	3.65
May	1.2	-6.9	37.9	4.31	0.713	-	-	-	-4.1	.	8.3	3.63
June	.	.	.	4.19	0.702	-	-	-	.	.	.	3.64

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

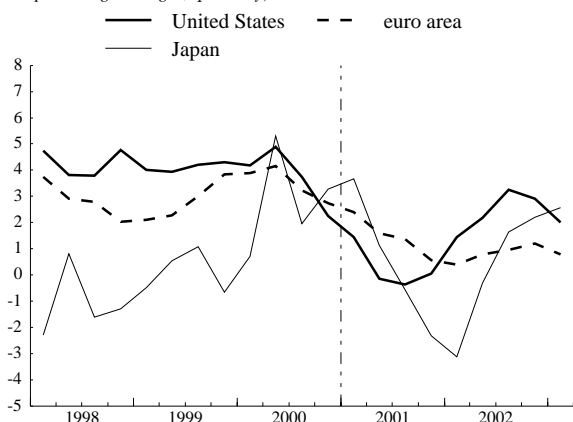
Economic and financial developments

(annual percentage changes, unless otherwise indicated)

	Consumer price index	Unit labour costs ¹⁾	Real GDP	Industrial production index ¹⁾	Unemployment rate as a % of labour force (s.a.)	Broad money ²⁾	3-month interbank deposit rate ³⁾ as a % per annum	10-year government bond yield ³⁾ as a % per annum	Exchange rate ⁴⁾ as national currency per euro	Fiscal deficit (-)/surplus (+) ⁵⁾ as a % of GDP	Gross public debt ⁶⁾ as a % of GDP
	1	2	3	4	5	6	7	8	9	10	11
United States											
1999	2.2	-1.1	4.1	5.0	4.2	8.7	5.42	5.64	1.066	0.7	49.6
2000	3.4	3.2	3.8	5.2	4.0	9.4	6.53	6.03	0.924	1.4	44.3
2001	2.8	0.7	0.3	-4.1	4.8	11.4	3.78	5.01	0.896	-0.5	44.0
2002	1.6	-1.1	2.4	-1.0	5.8	8.0	1.80	4.60	0.946	-3.4	46.2
2002 Q1	1.3	-0.8	1.4	-4.0	5.6	10.7	1.90	5.06	0.877	-3.0	44.3
Q2	1.3	-1.5	2.2	-1.5	5.8	7.9	1.92	5.08	0.919	-3.3	44.6
Q3	1.6	-1.9	3.3	0.5	5.8	7.2	1.81	4.25	0.984	-3.4	45.3
Q4	2.2	-0.3	2.9	1.1	5.9	6.3	1.55	3.99	0.999	-3.8	46.2
2003 Q1	2.9	1.2	2.0	0.4	5.8	6.1	1.33	3.90	1.073	-4.0	46.8
Q2	.	.	.	.	6.2	.	1.24	3.61	1.137	.	.
2003 Jan.	2.6	-	-	0.8	5.7	6.2	1.37	4.02	1.062	-	-
Feb.	3.0	-	-	0.5	5.8	6.1	1.34	3.90	1.077	-	-
Mar.	3.0	-	-	0.0	5.8	6.1	1.29	3.79	1.081	-	-
Apr.	2.2	-	-	-1.1	6.0	6.3	1.30	3.94	1.085	-	-
May	2.1	-	-	-1.3	6.1	6.6	1.28	3.56	1.158	-	-
June	.	-	-	.	6.4	.	1.12	3.32	1.166	-	-
Japan											
1999	-0.3	-1.9	0.1	0.2	4.7	3.7	0.22	1.75	121.3	-7.2	118.2
2000	-0.7	-6.2	2.8	5.7	4.7	2.1	0.28	1.76	99.5	-7.4	126.1
2001	-0.7	4.8	0.4	-6.8	5.0	2.8	0.15	1.34	108.7	-6.1	134.6
2002	-0.9	-3.0	0.1	-1.4	5.4	3.3	0.08	1.27	118.1	.	.
2002 Q1	-1.4	5.5	-3.1	-9.9	5.3	3.6	0.10	1.46	116.1	.	.
Q2	-0.9	-1.5	-0.3	-3.8	5.4	3.5	0.08	1.37	116.5	.	.
Q3	-0.8	-7.0	1.6	3.2	5.4	3.3	0.07	1.24	117.2	.	.
Q4	-0.5	-8.6	2.2	5.9	5.4	2.9	0.07	1.01	122.4	.	.
2003 Q1	-0.2	-7.4	2.6	5.6	5.4	1.9	0.06	0.80	127.6	.	.
Q2	.	.	.	.	.	1.6	0.06	0.60	134.7	.	.
2003 Jan.	-0.4	-9.5	-	8.2	5.5	1.9	0.06	0.84	126.1	-	-
Feb.	-0.2	-6.7	-	4.8	5.2	1.9	0.06	0.83	128.6	-	-
Mar.	-0.1	-5.6	-	4.1	5.4	1.7	0.06	0.74	128.2	-	-
Apr.	-0.1	.	-	3.3	5.4	1.3	0.06	0.66	130.1	-	-
May	-0.2	.	-	1.6	5.4	1.6	0.06	0.57	135.8	-	-
June	.	.	-	.	.	1.8	0.06	0.56	138.1	-	-

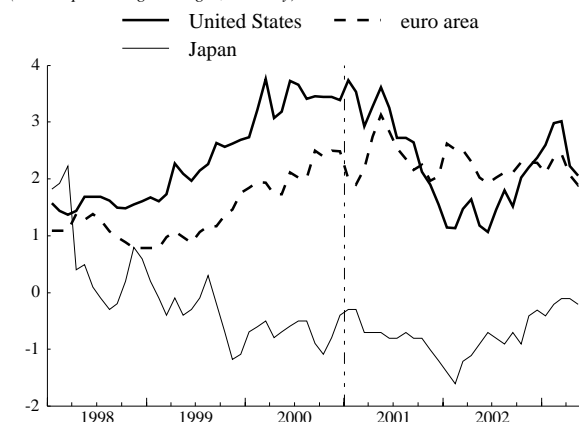
Real gross domestic product

(annual percentage changes; quarterly)



Consumer price indices

(annual percentage changes; monthly)



Sources: National data (columns 1, 2 (United States), 3, 4, 5, 6, 9 and 10); OECD (column 2 (Japan)); Eurostat (euro area chart data); Reuters (column 7 and 8); ECB calculation (column 11).

1) Manufacturing.

2) Average-of-period values; M3 for US, M2+CDs for Japan.

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

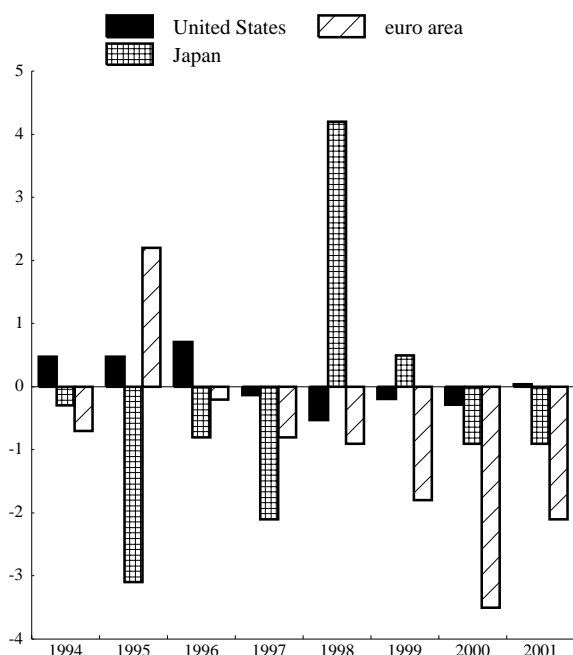
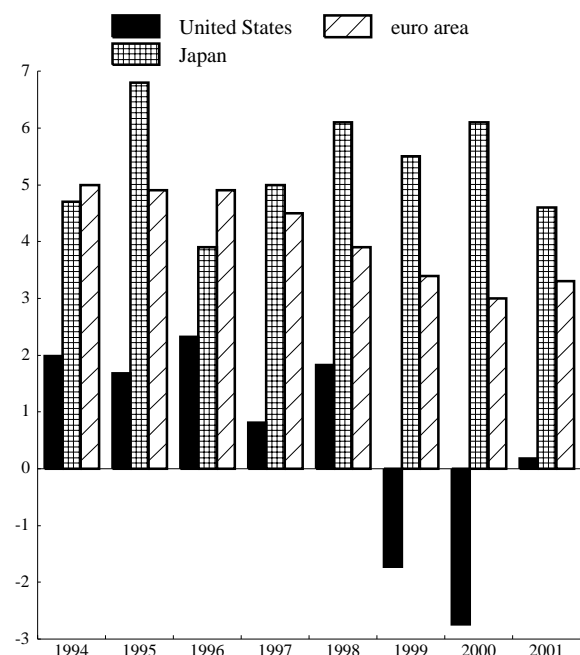
4) For more information, see Table 10.

5) 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 ¹⁾			
	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													
1999	18.4	20.9	-3.0	9.5	8.9	10.5	8.2	10.6	2.9	12.4	4.5	11.2	6.2
2000	18.4	21.1	-4.0	9.7	9.1	12.3	7.5	12.6	2.7	12.5	3.0	11.5	5.7
2001	16.5	19.1	-3.7	7.9	8.5	1.9	7.7	1.8	2.1	13.0	5.9	11.6	5.8
2002	15.1	18.6	-4.7	7.7	7.6	1.6	7.7	1.8	0.3	12.8	6.6	12.5	7.0
2001 Q2	16.6	19.3	-3.8	8.1	8.6	1.4	7.4	1.7	2.8	12.9	6.0	11.2	6.7
Q3	16.5	18.8	-3.5	7.7	8.3	0.1	7.8	0.3	0.9	12.9	8.9	12.8	9.1
Q4	15.9	18.2	-3.6	7.1	8.0	2.1	8.5	0.8	2.4	13.4	2.5	10.9	3.6
2002 Q1	15.5	18.6	-4.1	7.5	7.8	1.7	7.9	1.5	0.3	12.8	6.5	12.3	6.8
Q2	15.5	18.7	-4.8	7.7	7.6	2.9	7.7	2.9	1.1	12.7	5.6	12.7	5.9
Q3	14.6	18.6	-4.7	7.8	7.6	0.0	7.5	0.6	-1.4	12.9	4.7	12.5	6.6
Q4	14.6	18.7	-5.1	7.8	7.5	1.8	7.6	2.2	1.1	12.7	9.4	12.5	8.5
2003 Q1	14.2	18.5	-5.2	7.5	7.4	2.6	7.3	3.1	0.8	12.7	8.3	12.4	8.4
Japan													
1999	27.8	25.9	2.2	14.4	14.8	2.4	13.7	-3.5	1.7	5.2	5.1	11.5	0.2
2000	27.7	26.2	2.3	15.8	15.4	2.4	14.3	0.3	1.2	5.2	4.1	10.7	0.0
2001	26.4	25.6	2.0	15.7	15.2	-2.3	14.1	-5.7	1.7	4.9	3.0	8.6	-0.1
2002	.	23.7	.	.	.	-3.0	.	-6.6	-0.3	.	1.5	.	-2.1
2001 Q2	24.2	25.4	1.7	.	.	-26.7	.	-15.3	4.0	.	11.8	.	-4.5
Q3	25.9	25.3	2.1	.	.	6.3	.	-8.9	-1.1	.	-5.2	.	2.6
Q4	25.5	25.5	2.0	.	.	2.3	.	3.2	1.5	.	8.8	.	-1.5
2002 Q1	29.6	22.8	3.4	.	.	10.0	.	-6.7	-2.5	.	-6.5	.	2.5
Q2	.	22.7	.	.	.	-25.0	.	-19.0	2.0	.	7.4	.	-8.0
Q3	.	23.7	.	.	.	-0.8	.	-7.5	-2.6	.	-4.3	.	-0.1
Q4	.	25.0	.	.	.	3.8	.	6.1	1.5	.	8.5	.	-2.5
2003 Q1	.	22.9	.	.	.	23.3	.	13.9	0.2	.	-6.9	.	2.7

Net lending of non-financial corporations
(as a percentage of GDP)

Net lending of households ¹⁾
(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 Tables 2.3 to 2.7

Calculation of flows

Monthly flows are calculated from monthly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

If L_t represents the level outstanding at the end of the month t , C_t^M the reclassification adjustment in month t , E_t^M the exchange rate adjustment and V_t^M the other revaluation adjustments, the flow F_t^M in month t is defined as:

$$a) F_t^M = (L_t - L_{t-1}) - C_t^M - E_t^M - V_t^M$$

Similarly, the quarterly flow F_t^Q for the quarter ending in month t is defined as:

$$b) F_t^Q = (L_t - L_{t-3}) - C_t^Q - E_t^Q - V_t^Q$$

where L_{t-3} is the level outstanding at the end of month $t-3$ (the end of the previous quarter) and, for example, C_t^Q is the reclassification adjustment in the quarter ending in month t .

Relating to Table 2.4

Calculation of growth rates

Growth rates may be calculated from flows or from the index of adjusted stocks. If F_t^M and L_t are defined as above, the index I_t of adjusted stocks in month t is defined as:

$$c) I_t = I_{t-1} \times \left(1 + \frac{F_t^M}{L_{t-1}} \right)$$

As a base, the index (of the non-seasonally adjusted series) is set equal to 100 on December 2001. The annual percentage change a_t for month t – i.e. the change in the 12 months ending in month t – may be calculated using either of the following two formulae:

$$d) a_t = \left[\prod_{i=0}^{11} \left(1 + \frac{F_{t-i}^M}{L_{t-1-i}} \right) - 1 \right] \times 100$$

$$e) a_t = \left(\frac{I_t}{I_{t-12}} - 1 \right) \times 100$$

Similarly, the month-on-month percentage change a_t^M for month t may be calculated as:

$$f) a_t^M = \left(\frac{F_t^M}{L_{t-1}} \right) \times 100$$

$$g) a_t^M = \left(\frac{I_t}{I_{t-1}} - 1 \right) \times 100$$

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) on the "Euro area statistics – download" page (in CSV file format), from which the exact percentage changes in Table 2.4 may be calculated.

Seasonal adjustment of the euro area monetary aggregates and loans¹

The approach used relies on a multiplicative decomposition through X-12-ARIMA.² 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.

The seasonal adjustment procedures are first applied to the index of adjusted stocks.³ The resulting

¹ For details, see "Seasonal adjustment of monetary aggregates and HICP for the euro area", ECB (August 2000).

² 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", *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.

³ It follows that for the seasonally adjusted series, the level of the index for the base period, i.e. December 2001, generally differs from 100, reflecting the seasonality of that month.

estimates of the seasonal factors are then applied to the levels and to the adjustments arising from reclassifications and revaluations, in turn yielding seasonally adjusted flows. Seasonal (and trading day) factors are revised at annual intervals or as required.

Relating to Tables 2.5 to 2.8

As far as possible, the data have been harmonised and are comparable over time. Nevertheless, as a result of the implementation of a new reporting scheme in January 1999, outstanding levels for periods prior to the first quarter of 1999 are not always directly comparable with those referring to later periods.

The values reported for Tables 2.5 to 2.8 are revised on a quarterly basis (in the March, June, September and December issues). As a consequence, minor discrepancies may arise between these tables and those reporting monthly data.

Calculation of growth rates

Growth rates may be calculated from flows or from the index of adjusted stocks. If F_t^Q and L_{t-3} are defined as above, the index I_t of adjusted stocks for the quarter ending in month t is defined as:

$$h) I_t = I_{t-3} \times \left(1 + \frac{F_t^Q}{L_{t-3}} \right)$$

As a base, the index is set equal to 100 on December 2001. The annual percentage change in the four quarters ending in month t , i.e. a_t , may be calculated using either of the following two formulae:

$$i) a_t = \left[\prod_{i=0}^3 \left(1 + \frac{F_{t-3i}^Q}{L_{t-3(i+1)}} \right) - 1 \right] \times 100$$

$$j) a_t = \left(\frac{I_t}{I_{t-12}} - 1 \right) \times 100$$

Similarly, the quarter-on-quarter percentage change a_t^Q for the quarter ending in month t may be calculated as:

$$k) a_t^Q = \left(\frac{F_t^Q}{L_{t-3}} \right) \times 100$$

$$l) a_t^Q = \left(\frac{I_t}{I_{t-3}} - 1 \right) \times 100$$

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) 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 3.7

Calculation of growth rates

Growth rates are calculated on the basis of financial transactions and therefore exclude reclassifications, revaluations, exchange rate variations and any other changes which do not arise from transactions. They may be calculated from flows or from the index of adjusted stocks. If N_t^M represents the flow (net issues) in month t and L_t the level outstanding at the end of the month t , the index I_t of adjusted stocks in month t is defined as:

$$m) I_t = I_{t-1} \times \left(1 + \frac{N_t^M}{L_{t-1}} \right)$$

As a base, the index is set equal to 100 on December 2001. The annual percentage change a_t for month t – i.e. the change in the 12 months ending in month t – may be calculated using either of the following two formulae:

$$n) a_t = \left[\prod_{i=0}^{11} \left(1 + \frac{N_{t-i}^M}{L_{t-1-i}} \right) - 1 \right] \times 100$$

$$o) a_t = \left(\frac{I_t}{I_{t-12}} - 1 \right) \times 100$$

The method to calculate the growth rates in the field of securities issues statistics is the same as the one used for the monetary aggregates with the only difference being that an "N" is used here rather than an "F". The reason is to distinguish the different ways of obtaining "flows" used for the monetary aggregates and "net issues" for securities issues statistics, where the ECB collects information on gross issues and redemptions separately.

Relating to Table 4.1

Seasonal adjustment of the HICP⁴

The approach used relies on multiplicative decomposition through X-12-ARIMA (see footnote 2 on page 85*). 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 (see footnote 2 on page 85*). Goods raw data are first pre-adjusted to take into

account “working day”, “leap year” and “Easter” effects. Services include only a “working day” pre-adjustment. The seasonal adjustment for goods and services is carried out using these pre-adjusted series. Income and current transfers do not include any pre-adjustment at all. 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.

⁴ See footnote 1 on page 85*.



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. The document covers money and banking and related statistics, balance of payments statistics, international investment position statistics and financial accounts statistics. The ECB’s requirements 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 2000.¹

The focus of these statistics is the euro area as a whole. New data will appear in the ECB’s Monthly Bulletin as they become available. More detailed and longer runs of data, with further explanatory notes, are available on the statistics section of the ECB’s website (www.ecb.int). The services available within “Statistics on-line” include a Browser interface with search facilities, subscription to different datasets and the possibility to download data directly in compressed Comma Separated Value (CSV) files.

Given that the composition of the ECU does not coincide with the currencies of the countries 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 EU 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 where appropriate.

As a general rule, the cut-off date for the statistics included in the ECB’s Monthly Bulletin is the day preceding the first meeting in the month of the Governing Council of the ECB. For this issue, the cut-off date was 9 July 2003.

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

Reference statistical series relating to the euro area cover EU Member States that had adopted the euro at the time to which the statistics relate. This means that euro area data up to end-2000 cover the Euro 11 and, from the beginning of 2001, data 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 enlargement of the euro area. In the charts, the break is indicated by a dotted line. Where possible, absolute and percentage changes for 2001 calculated from a base in 2000 use a series which takes into account the impact of Greece’s entry into the euro area.

Data for the euro area plus Greece up to end-2000 can be downloaded (CSV files) from the ECB’s website (www.ecb.int).

The group “acceding countries” consists of the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia.

¹ The ECB is responsible for money, banking and financial markets statistics 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).

Overview

Key developments in the euro area are summarised in an overview table.

Monetary policy 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 developments and investment funds

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) debt securities issued with a maturity of up to two years by MFIs located in the euro area. Accordingly, these holdings are included in the external liabilities item shown in Table 2.3 and, as a result, have an 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 "Guidance Notes to Regulation ECB/2001/13 on the MFI Balance Sheet Statistics" (ECB, November 2002) 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 2003 by ECB/2001/13).

Further to the entry into force of Regulation ECB/2001/13, the balance sheet item "money market paper" has been merged with the item "debt securities" on both the assets and liabilities side of the MFI balance sheet.

Table 2.9 shows end-quarter outstanding stocks for the balance sheet of the euro area investment funds (other than money market funds). The balance sheet is aggregated and thus includes among the liabilities holdings by investment funds of shares/units issued by other investment funds. Total assets/liabilities are also broken down by investment policy (equity funds, bond funds, mixed funds, real estate funds, and other funds) and by type of investor (general public funds and special investors' funds). Table 2.10 shows the aggregated balance sheet for each investment fund sector as identified by investment policy, and Table 2.11 shows the aggregated balance sheet broken down by type of investor.

Financial markets and interest rates

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 cover securities other than shares (debt securities), which are presented in Tables 3.5, 3.6 and 3.7 as well as quoted shares, which are presented in Table 3.8. Debt securities are broken down into short-term and long-term securities. "Short-term" means securities with an original maturity of one year or less (in exceptional cases, in accordance with the ESA 95, 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 debt securities 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).² 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.

Table 3.7 shows annual growth rates for debt securities issued by euro area residents and by sector of the issuer, which are based on financial transactions that occur when an institutional unit acquires or disposes of financial assets and incurs or repays liabilities. The annual growth rates therefore exclude reclassifications, revaluations, exchange rate variations and any other changes which do not arise from transactions.

Table 3.8 shows the outstanding amounts of quoted shares issued by euro area residents broken down by issuing sector. The monthly data for quoted shares issued by non-financial corporations correspond to the quarterly series shown in Table 6.1 (Main liabilities, column 20).

HICP and other prices

The data described in this section and the "Real economy indicators" section are with a few exceptions, produced by the European Commission (mainly Eurostat) and national statistical authorities. Euro area results are obtained by aggregating data for individual countries. As far as possible, the data are

² The code numbers in the ESA 95 for the sectors shown in tables in the ECB's Monthly Bulletin are: MFIs (including the Eurosystem) which comprises the ECB and the national central banks of the euro area member countries (S.121) and other monetary financial institutions (S.122); non-monetary financial corporations, which 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); and other general government, which comprises state government (S.1312), local government (S.1313) and social security funds (S.1314).

harmonised and comparable. As a general rule, however, the availability of comparable data is 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.

Real economy indicators

With regard to statistics on national accounts (Tables 4.2 and 5.1), the implementation of the ESA 95 from 1999 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 by Commission Regulation (EC) No. 586/2001 of 26 March 2001.

Opinion survey data (Table 5.3) draw on the European Commission Business and Consumer Surveys.

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. The labour force estimates underlying the unemployment rate are different from the sum of the employment and unemployment levels published in Table 5.4.

Saving, investment and financing

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 cover amounts outstanding and 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 presented separately. The information on financial investment (assets) is currently less detailed than that on financing, especially since a breakdown by sector is not possible.

Table 6.2 shows quarterly data on financial accounts for insurance corporations and pensions funds (S.125) in the euro area. As in Table 6.1, the data cover amounts outstanding and financial transactions and show the main financial investment and financing activities of this sector.

The quarterly data in both tables are based on quarterly national financial accounts, MFI balance sheet and securities issues statistics. Table 6.1 also refers to data taken from BIS international banking statistics. Although all euro area countries contribute to the MFI balance sheet and securities issues statistics, Ireland and Luxembourg do not yet provide quarterly national financial accounts data.

Table 6.3 shows annual data on saving, (financial and non-financial) investment and financing for the euro area sectors as a whole, and for the non-financial corporations and households separately. These annual data provide, in particular, fuller sector information on the acquisition of financial assets and are consistent with the quarterly data in the two previous tables.

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 (EC) 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 (including reserves)

The concepts and definitions used in balance of payments statistics (Tables 8.1 to 8.6) and

international investment position (Tables 8.8.1 to 8.8.4) statistics generally conform to the 5th edition of the IMF Balance of Payments Manual (October 1993), to the ECB Guideline of May 2003 (ECB/2003/7) on the statistical reporting requirements of the ECB, and to Eurostat's documentation.

The euro area balance of payments (b.o.p.) data are compiled by the ECB. Data up to December 1998 are expressed in ECU. The recent monthly figures for b.o.p. statistics should be regarded as provisional. Data are revised with the publication of the update for the next month and of the detailed quarterly b.o.p. data. Earlier data are revised periodically or as a result of methodological changes in the compilation of the source data.

Some earlier data have been partially estimated and may not be fully comparable with more recent observations. Table 8.5.2 provides a sectoral breakdown of euro area purchasers of securities issued by non-residents of the euro area. For the time being, it is not possible to show a sectoral breakdown of euro area issuers of securities acquired by non-residents.

A specific methodological note on the monetary presentation of the euro area b.o.p. (Table 8.7) is available in the statistics section of the ECB's website (www.ecb.int). See also Box 1 on page 15 of the June 2003 issue of the ECB's Monthly Bulletin.

The euro area i.i.p. (Tables 8.8.1 to 8.8.4) is compiled on the basis of euro area member countries' positions vis-à-vis non-euro area residents (i.e. considering the euro area as a whole economy) from end-1999 positions with the result that euro area assets and liabilities are shown separately (see also Box 9 in the December 2002 issue). The i.i.p. is compiled on a "net" basis, i.e. by aggregating national data regarding end-1997 and end-1998 positions. The "net" and the "extra-euro area" based compilation methodologies may not give fully comparable results. 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 8.8.5 with the corresponding reserves and related assets held by the ECB. The data in Table 8.8.5 are in line with the recommendations for the IMF/BIS template on international reserves and foreign currency liquidity. Earlier data are continually revised. 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 ("Statistical treatment of the Eurosystem's international reserves", October 2000).

External trade in goods

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.

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).

Exchange rates

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 Greece. When Greece joined the euro area in January 2001, it 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. For more detailed information, see the ECB's Occasional Paper No. 2 ("The effective exchange rates of the euro", Luca Buldorini, Stelios Makrydakis and Christian Thimann, February 2002), which can be downloaded from the ECB's website.

Economic and financial developments outside the euro area

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.

Chronology of monetary policy measures of the Eurosystem¹

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

¹ The chronology of monetary policy measures of the Eurosystem taken in 1999 and 2000 can be found on pages 176 to 179 of the ECB Annual report 1999 and on pages 205 to 208 of the ECB Annual report 2000 respectively.

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,
6 June, 4 July 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.

10 July 2002

The Governing Council of the ECB decides to reduce the allotment amount for each of the longer-term refinancing operations to be conducted in the second half of 2002 from €20 billion to €15 billion. This latter amount takes into consideration the expected liquidity needs of the euro area banking system in the second half of 2002 and reflects the desire of the Eurosystem to continue to provide the bulk of liquidity through its main refinancing operations.

**1 August, 12 September, 10 October,
7 November 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.

5 December 2002

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 2.75%, starting from the operation to be settled on 11 December 2002. It also decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 3.75% and 1.75% respectively, both with effect from 6 December 2002.

In addition, it decides that the reference value for the annual growth rate of the broad monetary aggregate M3 will remain at 4½%.

9 January 2003

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 2.75%, 3.75% and 1.75% respectively.

23 January 2003

The Governing Council of the ECB decides to implement the following two measures to improve the operational framework for monetary policy:

Firstly, the timing of the reserve maintenance period will be changed so that it will always start on the settlement day of the main refinancing operation (MRO) following the Governing Council meeting at which the monthly assessment of the monetary policy stance is pre-scheduled. Furthermore, as a rule, the implementation of changes to the standing facility rates will be aligned with the start of the new reserve maintenance period.

Secondly, the maturity of the MROs will be shortened from two weeks to one week.

These measures are scheduled to come into effect during the first quarter of 2004.

Further to the press release of 10 July 2002, the Governing Council also decides to maintain at €15 billion the allotment amount for each of the longer-term refinancing operations to be conducted in the year 2003. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2003 and reflects the desire of the Eurosystem to continue to provide the bulk of liquidity through its main refinancing operations.

6 February 2003

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 2.75%, 3.75% and 1.75% respectively.

6 March 2003

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.25 percentage point to 2.50%, starting from the operation to be settled on 12 March 2003. It also decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 3.50% and 1.50% respectively, both with effect from 7 March 2003.

3 April 2003

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 2.50%, 3.50% and 1.50% respectively.

8 May 2003

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 2.50%, 3.50% and 1.50% respectively.

It also announces the results of its evaluation of the ECB's monetary policy strategy. This strategy, which was announced on 13 October 1998, consists of three main elements: a quantitative definition of price stability, a prominent role for money in the assessment of risks to price stability, and a broadly based assessment of the outlook for price developments.

The Governing Council confirms the definition of price stability formulated in October 1998, namely that "price stability is defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%. Price stability is to be maintained over the medium term". At the same time, the Governing Council agrees that in the pursuit of price stability it will aim to maintain inflation rates close to 2% over the medium term.

The Governing Council confirms that its monetary policy decisions will continue to be based on a comprehensive analysis of the risks to price stability. At the same time, the Governing Council decides to clarify in its communication the respective roles played by economic and monetary analysis in the process of coming to the Council's overall assessment of risks to price stability.

To underscore the longer-term nature of the reference value for monetary growth as a benchmark for the assessment of monetary developments, the Governing Council also decides that it will no longer conduct a review of the reference value on an annual basis. However, it will continue to assess the underlying conditions and assumptions.

5 June 2003

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 2.0%, starting from the operation to be settled on 9 June 2003. It also decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 3.0% and 1.0% respectively, both with effect from 6 June 2003.

10 July 2003

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 2.0%, 3.0% and 1.0% respectively.

Documents published by the European Central Bank

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

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

Annual Report

- "Annual Report 1998", April 1999.
 - "Annual Report 1999", April 2000.
 - "Annual Report 2000", May 2001.
 - "Annual Report 2001", April 2002.
 - "Annual Report 2002", April 2003.
-

Convergence Report

- "Convergence Report 2000", May 2000.
 - "Convergence Report 2002", May 2002.
-

Monthly Bulletin

Articles published from January 1999 onwards:

- "The euro area at the start of Stage Three", January 1999.
- "The stability-oriented monetary policy strategy of the Eurosystem", January 1999.
- "Euro area monetary aggregates and their role in the Eurosystem's monetary policy strategy", February 1999.
- "The role of short-term economic indicators in the analysis of price developments in the euro area", April 1999.
- "Banking in the euro area: structural features and trends", April 1999.
- "The operational framework of the Eurosystem: description and first assessment", May 1999.
- "The implementation of the Stability and Growth Pact", May 1999.
- "Longer-term developments and cyclical variations in key economic indicators across euro area countries", July 1999.
- "The institutional framework of the European System of Central Banks", July 1999.
- "The international role of the euro", August 1999.
- "The balance sheets of the Monetary Financial Institutions of the euro area in early 1999", August 1999.
- "Inflation differentials in a monetary union", October 1999.
- "ESCB preparations for the year 2000", October 1999.
- "Stability-oriented policies and developments in long-term real interest rates in the 1990s", November 1999.
- "TARGET and payments in euro", November 1999.
- "Legal instruments of the European Central Bank", November 1999.
- "The euro area one year after the introduction of the euro: key characteristics and changes in the financial structure", January 2000.
- "Foreign exchange reserves and operations of the Eurosystem", January 2000.
- "The Eurosystem and the EU enlargement process", February 2000.
- "Consolidation in the securities settlement industry", February 2000.

“The nominal and real effective exchange rates of the euro”, April 2000.
 “EMU and banking supervision”, April 2000.
 “The information content of interest rates and their derivatives for monetary policy”, May 2000.
 “Developments in and structural features of the euro area labour markets”, May 2000.
 “The switch to variable rate tenders in the main refinancing operations”, July 2000.
 “Monetary policy transmission in the euro area”, July 2000.
 “Population ageing and fiscal policy in the euro area”, July 2000.
 “Price and cost indicators for the euro area: an overview”, August 2000.
 “The external trade of the euro area economy: stylised facts and recent trends”, August 2000.
 “Potential output growth and output gaps: concept, uses and estimates”, October 2000.
 “The ECB’s relations with institutions and bodies of the European Community”, October 2000.
 “The two pillars of the ECB’s monetary policy strategy”, November 2000.
 “Issues arising from the emergence of electronic money”, November 2000.
 “The euro area after the entry of Greece”, January 2001.
 “Monetary policy-making under uncertainty”, January 2001.
 “The ECB’s relations with international organisations and fora”, January 2001.
 “Characteristics of corporate finance in the euro area”, February 2001.
 “Towards a uniform service level for retail payments in the euro area”, February 2001.
 “The external communication of the European Central Bank”, February 2001.
 “Assessment of general economic statistics for the euro area”, April 2001.
 “The collateral framework of the Eurosystem”, April 2001.
 “The introduction of euro banknotes and coins”, April 2001.
 “Framework and tools of monetary analysis”, May 2001.
 “The new capital adequacy regime – the ECB perspective”, May 2001.
 “Financing and financial investment of the non-financial sectors in the euro area”, May 2001.
 “New technologies and productivity in the euro area”, July 2001.
 “Measures of underlying inflation in the euro area”, July 2001.
 “Fiscal policies and economic growth”, August 2001.
 “Product market reforms in the euro area”, August 2001.
 “Consolidation in central counterparty clearing in the euro area”, August 2001.
 “Issues related to monetary policy rules”, October 2001.
 “Bidding behaviour of counterparties in the Eurosystem’s regular open market operations”, October 2001.
 “The euro cash changeover in markets outside the euro area”, October 2001.
 “The information content of composite indicators of the euro area business cycle”, November 2001.
 “The economic policy framework in EMU”, November 2001.
 “Economic fundamentals and the exchange rate of the euro”, January 2002.
 “Euro banknote preparations: from cash changeover to post-launch activities”, January 2002.
 “The stock market and monetary policy”, February 2002.
 “Recent developments in international co-operation”, February 2002.
 “The operation of automatic fiscal stabilisers in the euro area”, April 2002.
 “The role of the Eurosystem in payment and clearing systems”, April 2002.
 “Enhancements to MFI balance sheet and interest rate statistics”, April 2002.
 “The liquidity management of the ECB”, May 2002.
 “International supervisory co-operation”, May 2002.
 “Implications of the euro cash changeover on the development of banknotes and coins in circulation”, May 2002.

“Characteristics of the euro area business cycle in the 1990s”, July 2002.
“The Eurosystem’s dialogue with EU accession countries”, July 2002.
“Developments in the external direct and portfolio investment flows of the euro area”, July 2002.
“Price level convergence and competition in the euro area”, August 2002.
“Recent developments and risks in the euro area banking sector”, August 2002.
“Saving, financing and investment in the euro area”, August 2002.
“Recent findings on monetary policy transmission in the euro area”, October 2002.
“Main features of the repo market in the euro area”, October 2002.
“The accountability of the ECB”, November 2002.
“Transparency in the monetary policy of the ECB”, November 2002.
“The composition of employment growth in the euro area in recent years”, November 2002.
“The demand for currency in the euro area and the impact of the euro cash changeover”, January 2003.
“CLS – purpose, concept and implications”, January 2003.
“The relationship between monetary policy and fiscal policies in the euro area”, February 2003.
“Exchange rate regimes for emerging market economies”, February 2003.
“The need for comprehensive reforms to cope with population ageing”, April 2003.
“Developments in general economic statistics for the euro area”, April 2003.
“A bank lending survey for the euro area”, April 2003.
“Recent trends in residential property prices in the euro area”, May 2003.
“Electronification of payments in Europe”, May 2003.
“The adjustment of voting modalities in the Governing Council”, May 2003.
“The outcome of the ECB’s evaluation of its monetary policy strategy”, June 2003.
“Trends in euro area gross fixed capital formation”, July 2003.
“Early experience of the management of euro banknote printing and issuance”, July 2003.

Occasional Paper Series

- 1 “The impact of the euro on money and bond markets” by J. Santillán, M. Bayle and C. Thygesen, July 2000.
 - 2 “The effective exchange rates of the euro” by L. Buldorini, S. Makrydakis and C. Thimann, February 2002.
 - 3 “Estimating the trend of M3 income velocity underlying the reference value for monetary growth” by C. Brand, D. Gerdesmeier and B. Roffia, May 2002.
 - 4 “Labour force developments in the euro area since the 1980s” by V. Genre and R. Gómez-Salvador, July 2002.
 - 5 “The evolution of clearing and central counterparty services for exchange-traded derivatives in the United States and Europe: a comparison” by D. Russo, T. L. Hart and A. Schönenberger, September 2002.
 - 6 “Banking integration in the euro area” by I. Cabral, F. Dierick and J. Vesala, December 2002.
 - 7 “Economic relations with regions neighbouring the euro area in the ‘Euro Time Zone’” by F. Mazzaferro, A. Mehl, M. Sturm, C. Thimann and A. Winkler, December 2002.
-

Working Paper Series

- 1 “A global hazard index for the world foreign exchange markets” by V. Brousseau and F. Scacciavillani, May 1999.
- 2 “What does the single monetary policy do? A SVAR benchmark for the European Central Bank” by C. Monticelli and O. Tristani, May 1999.

- 3 "Fiscal policy effectiveness and neutrality results in a non-Ricardian world" by C. Detken, May 1999.
- 4 "From the ERM to the euro: new evidence on economic and policy convergence among EU countries" by I. Angeloni and L. Dedola, May 1999.
- 5 "Core inflation: a review of some conceptual issues" by M. Wynne, May 1999.
- 6 "The demand for M3 in the euro area" by G. Coenen and J.-L. Vega, September 1999.
- 7 "A cross-country comparison of market structures in European banking" by O. De Bandt and E. P. Davis, September 1999.
- 8 "Inflation zone targeting" by A. Orphanides and V. Wieland, October 1999.
- 9 "Asymptotic confidence bands for the estimated autocovariance and autocorrelation functions of vector autoregressive models", by G. Coenen, January 2000.
- 10 "On the effectiveness of sterilized foreign exchange intervention", by R. Fatum, February 2000.
- 11 "Is the yield curve a useful information variable for the Eurosystem?" by J. M. Berk and P. van Bergeijk, February 2000.
- 12 "Indicator variables for optimal policy" by L. E. O. Svensson and M. Woodford, February 2000.
- 13 "Monetary policy with uncertain parameters" by U. Söderström, February 2000.
- 14 "Assessing nominal income rules for monetary policy with model and data uncertainty" by G. D. Rudebusch, February 2000.
- 15 "The quest for prosperity without inflation" by A. Orphanides, March 2000.
- 16 "Estimating the implied distribution of the future short-term interest rate using the Longstaff-Schwartz model" by P. Hördahl, March 2000.
- 17 "Alternative measures of the NAIRU in the euro area: estimates and assessment" by S. Fabiani and R. Mestre, March 2000.
- 18 "House prices and the macroeconomy in Europe: results from a structural VAR analysis" by M. Iacoviello, April 2000.
- 19 "The euro and international capital markets" by C. Detken and P. Hartmann, April 2000.
- 20 "Convergence of fiscal policies in the euro area" by O. De Bandt and F. P. Mongelli, May 2000.
- 21 "Firm size and monetary policy transmission: evidence from German business survey data" by M. Ehrmann, May 2000.
- 22 "Regulating access to international large-value payment systems" by C. Holthausen and T. Rønde, June 2000.
- 23 "Escaping Nash inflation" by In-Koo Cho and T. J. Sargent, June 2000.
- 24 "What horizon for price stability" by F. Smets, July 2000.
- 25 "Caution and conservatism in the making of monetary policy" by P. Schellekens, July 2000.
- 26 "Which kind of transparency? On the need for clarity in monetary policy-making" by B. Winkler, August 2000.
- 27 "This is what the US leading indicators lead" by M. Camacho and G. Perez-Quiros, August 2000.
- 28 "Learning, uncertainty and central bank activism in an economy with strategic interactions" by M. Ellison and N. Valla, August 2000.
- 29 "The sources of unemployment fluctuations: an empirical application to the Italian case" by S. Fabiani, A. Locarno, G. Oneto and P. Sestito, September 2000.
- 30 "A small estimated euro area model with rational expectations and nominal rigidities" by G. Coenen and V. Wieland, September 2000.
- 31 "The disappearing tax base: is foreign direct investment eroding corporate income taxes?" by R. Gropp and K. Kostial, September 2000.
- 32 "Can indeterminacy explain the short-run non-neutrality of money?" by F. De Fiore, September 2000.

- 33 "The information content of M3 for future inflation in the euro area" by C. Trecroci and J. L. Vega, October 2000.
- 34 "Capital market development, corporate governance and the credibility of exchange rate pegs" by O. Castrén and T. Takalo, October 2000.
- 35 "Systemic Risk: A survey" by O. De Bandt and P. Hartmann, November 2000.
- 36 "Measuring core inflation in the euro area" by C. Morana, November 2000.
- 37 "Business fixed investment: evidence of a financial accelerator in Europe" by P. Vermeulen, November 2000.
- 38 "The optimal inflation tax when taxes are costly to collect" by F. De Fiore, November 2000.
- 39 "A money demand system for euro area M3" by C. Brand and N. Cassola, November 2000.
- 40 "Financial structure and the interest rate channel of ECB monetary policy" by B. Mojon, November 2000.
- 41 "Why adopt transparency? The publication of central bank forecasts" by P. M. Geraats, January 2001.
- 42 "An area-wide model (AWM) for the euro area" by G. Fagan, J. Henry and R. Mestre, January 2001.
- 43 "Sources of economic renewal: from the traditional firm to the knowledge firm", by D. Rodriguez Palenzuela, February 2001.
- 44 "The supply and demand for Eurosystem deposits – The first 18 months", by U. Bindseil and F. Seitz, February 2001.
- 45 "Testing the rank of the Hankel Matrix: a statistical approach", by G. Camba-Méndez and G. Kapetanios, March 2001.
- 46 "A two-factor model of the German term structure of interest rates" by N. Cassola and J. B. Luís, March 2001.
- 47 "Deposit insurance and moral hazard: does the counterfactual matter?" by R. Gropp and J. Vesala, March 2001.
- 48 "Financial market integration in Europe: on the effects of EMU on stock markets" by M. Fratzscher, March 2001.
- 49 "Business cycle and monetary policy analysis in a structural sticky-price model of the euro area" by M. Casares, March 2001.
- 50 "Employment and productivity growth in service and manufacturing sectors in France, Germany and the United States" by T. von Wachter, March 2001.
- 51 "The functional form of the demand for euro area M1" by L. Stracca, March 2001.
- 52 "Are the effects of monetary policy in the euro area greater in recessions than in booms?" by G. Peersman and F. Smets, March 2001.
- 53 "An evaluation of some measures of core inflation for the euro area" by J.-L. Vega and M. A. Wynne, April 2001.
- 54 "Assessment criteria for output gap estimates" by G. Camba-Méndez and D. Rodriguez Palenzuela, April 2001.
- 55 "Modelling the demand for loans to the private sector in the euro area" by A. Calza, G. Gartner and J. Sousa, April 2001.
- 56 "Stabilization policy in a two country model and the role of financial frictions" by E. Faia, April 2001.
- 57 "Model-based indicators of labour market rigidity" by S. Fabiani and D. Rodriguez Palenzuela, April 2001.
- 58 "Business cycle asymmetries in stock returns: evidence from higher order moments and conditional densities" by G. Pérez-Quirós and A. Timmermann, April 2001.
- 59 "Uncertain potential output: implications for monetary policy" by M. Ehrmann and F. Smets, April 2001.

- 60 “A multi-country trend indicator for euro area inflation: computation and properties” by E. Angelini, J. Henry and R. Mestre, April 2001.
- 61 “Diffusion index-based inflation forecasts for the euro area” by E. Angelini, J. Henry and R. Mestre, April 2001.
- 62 “Spectral based methods to identify common trends and common cycles” by G. C. Mendez and G. Kapetanios, April 2001.
- 63 “Does money lead inflation in the euro area?” by S. Nicoletti Altimari, May 2001.
- 64 “Exchange rate volatility and euro area imports” by R. Anderton and F. Skudelny, May 2001.
- 65 “A system approach for measuring the euro area NAIRU” by S. Fabiani and R. Mestre, May 2001.
- 66 “Can short-term foreign exchange volatility be predicted by the Global Hazard Index?” by V. Brousseau and F. Scacciavillani, June 2001.
- 67 “The daily market for funds in Europe: has something changed with the EMU?” by G. Pérez-Quirós and H. Rodríguez Mendizábal, June 2001.
- 68 “The performance of forecast-based monetary policy rules under model uncertainty” by A. Levin, V. Wieland and J. C. Williams, July 2001.
- 69 “The ECB monetary policy strategy and the money market” by V. Gaspar, G. Pérez-Quirós and J. Sicilia, July 2001.
- 70 “Central bank forecasts of liquidity factors: quality, publication and the control of the overnight rate” by U. Bindseil, July 2001.
- 71 “Asset market linkages in crisis periods” by P. Hartmann, S. Straetmans and C. G. de Vries, July 2001.
- 72 “Bank concentration and retail interest rates” by S. Corvoisier and R. Gropp, July 2001.
- 73 “Interbank lending and monetary policy transmission – evidence for Germany” by M. Ehrmann and A. Worms, July 2001.
- 74 “Interbank market integration under asymmetric information” by X. Freixas and C. Holthausen, August 2001.
- 75 “Value at risk models in finance” by S. Manganelli and R. F. Engle, August 2001.
- 76 “Rating agency actions and the pricing of debt and equity of European banks: what can we infer about private sector monitoring of bank soundness?” by R. Gropp and A. J. Richards, August 2001.
- 77 “Cyclically adjusted budget balances: an alternative approach” by C. Bouthevillain, P. Cour-Thimann, G. van den Dool, P. Hernández de Cos, G. Langenus, M. Mohr, S. Momigliano and M. Tujula, September 2001.
- 78 “Investment and monetary policy in the euro area” by B. Mojon, F. Smets and P. Vermeulen, September 2001.
- 79 “Does liquidity matter? Properties of a synthetic divisia monetary aggregate in the euro area” by L. Stracca, October 2001.
- 80 “The microstructure of the euro money market” by P. Hartmann, M. Manna and A. Manzanares, October 2001.
- 81 “What can changes in structural factors tell us about unemployment in Europe?” by J. Morgan and A. Mourougane, October 2001.
- 82 “Economic forecasting: some lessons from recent research” by D. Hendry and M. P. Clements, October 2001.
- 83 “Chi-squared tests of interval and density forecasts, and the Bank of England’s fan charts” by K. F. Wallis, November 2001.
- 84 “Data uncertainty and the role of money as an information variable for monetary policy” by G. Coenen, A. Levin and V. Wieland, November 2001.
- 85 “Determinants of the euro real effective exchange rate: a BEER/PEER approach” by F. Maeso-Fernandez, C. Osbat and B. Schnatz, November 2001.

- 86 “Rational expectations and near rational alternatives: how best to form expectations” by M. Beeby, S. G. Hall and S. B. Henry, November 2001.
- 87 “Credit rationing, output gap and business cycles” by F. Boissay, November 2001.
- 88 “Why is it so difficult to beat the random walk forecast of exchange rates?” by L. Kilian and M. P. Taylor, November 2001.
- 89 “Monetary policy and fears of financial instability” by V. Brousseau and C. Detken, November 2001.
- 90 “Public pensions and growth” by S. Lambrecht, P. Michel and J.-P. Vidal, November 2001.
- 91 “The monetary transmission mechanism in the euro area: more evidence from VAR analysis” by G. Peersman and F. Smets, December 2001.
- 92 “A VAR description of the effects of the monetary policy in the individual countries of the euro area” by B. Mojon and G. Peersman, December 2001.
- 93 “The monetary transmission mechanism at the euro area level: issues and results using structural macroeconomic models” by P. McAdam and J. Morgan, December 2001.
- 94 “Monetary policy transmission in the euro area: what do aggregate and national structural models tell us?” by P. van Els, A. Locarno, J. Morgan and J.-P. Villetelle, December 2001.
- 95 “Some stylised facts on the euro area business cycle” by A.-M. Agresti and B. Mojon, December 2001.
- 96 “The reaction of bank lending to monetary policy measures in Germany” by A. Worms, December 2001.
- 97 “Asymmetries in bank lending behaviour. Austria during the 1990s” by S. Kaufmann, December 2001.
- 98 “The credit channel in the Netherlands: evidence from bank balance sheets” by L. De Haan, December 2001.
- 99 “Is there a bank lending channel of monetary policy in Spain?” by I. Hernando and J. Martínez-Pagés, December 2001.
- 100 “Transmission of monetary policy shocks in Finland: evidence from bank level data on loans” by J. Topi and J. Vilmunen, December 2001.
- 101 “Monetary policy and bank lending in France: are there asymmetries?” by C. Loupias, F. Savignac and P. Sevestre, December 2001.
- 102 “The bank lending channel of monetary policy: identification and estimation using Portuguese micro bank data” by L. Farinha and C. Robalo Marques, December 2001.
- 103 “Bank-specific characteristics and monetary policy transmission: the case of Italy” by L. Gambacorta, December 2001.
- 104 “Is there a bank lending channel of monetary policy in Greece? Evidence from bank level data” by S. N. Brissimis, N. C. Kamberoglou and G. T. Simigiannis, December 2001.
- 105 “Financial systems and the role of banks in monetary policy transmission in the euro area” by M. Ehrmann, L. Gambacorta, J. Martínez-Pagés, P. Sevestre and A. Worms, December 2001.
- 106 “Investment, the cost of capital, and monetary policy in the nineties in France: a panel data investigation” by J.-B. Chatelain and A. Tiomo, December 2001.
- 107 “The interest rate and credit channel in Belgium: an investigation with micro-level firm data” by P. Butzen, C. Fuss and P. Vermeulen, December 2001.
- 108 “Credit channel and investment behaviour in Austria: a microeconomic approach” by M. Valderrama, December 2001.
- 109 “Monetary transmission in Germany: new perspectives on financial constraints and investment spending” by U. von Kalckreuth, December 2001.
- 110 “Does monetary policy have asymmetric effects? A look at the investment decisions of Italian firms” by E. Gaiotti and A. Generale, December 2001.

- I 11 “Monetary transmission: empirical evidence from Luxembourg firm level data”
by P. Lünnemann and T. Mathä, December 2001.
- I 12 “Firm investment and monetary transmission in the euro area” by J.-B. Chatelain,
A. Generale, I. Hernando, U. von Kalckreuth and P. Vermeulen, December 2001.
- I 13 “Financial frictions and the monetary transmission mechanism: theory, evidence and policy
implications”, by C. Bean, J. Larsen and K. Nikolov, January 2002.
- I 14 “Monetary transmission in the euro area: where do we stand?” by I. Angeloni,
A. Kashyap, B. Mojon and D. Terlizzese, January 2002.
- I 15 “Monetary policy rules, macroeconomic stability and inflation: a view from the trenches” by
A. Orphanides, December 2001.
- I 16 “Rent indices for housing in West Germany 1985 to 1998” by J. Hoffmann and C. Kurz,
January 2002.
- I 17 “Hedonic house prices without characteristics: the case of new multiunit housing”
by O. Bover and P. Velilla, January 2002.
- I 18 “Durable goods, price indexes and quality change: an application to automobile prices in Italy,
1988-98” by G. M. Tomat, January 2002.
- I 19 “Monetary policy and the stock market in the euro area” by N. Cassola and C. Morana,
January 2002.
- I 20 “Learning stability in economics with heterogeneous agents” by S. Honkapohja and
K. Mitra, January 2002.
- I 21 “Natural rate doubts” by A. Beyer and R. E. A. Farmer, February 2002.
- I 22 “New technologies and productivity growth in the euro area” by F. Vijselaar and
R. Albers, February 2002.
- I 23 “Analysing and combining multiple credit assessments of financial institutions”
by E. Tabakis and A. Vinci, February 2002.
- I 24 “Monetary policy, expectations and commitment” by G. W. Evans and S. Honkapohja,
February 2002.
- I 25 “Duration, volume and volatility impact of trades” by S. Manganelli, February 2002.
- I 26 “Optimal contracts in a dynamic costly state verification model” by C. Monnet and
E. Quintin, February 2002.
- I 27 “Performance of monetary policy with internal central bank forecasting”
by S. Honkapohja and K. Mitra, February 2002.
- I 28 “Openness, imperfect exchange rate pass-through and monetary policy” by F. Smets and
R. Wouters, March 2002.
- I 29 “Non-standard central bank loss functions, skewed risks, and certainty equivalence”
by A. al-Nowaihi and L. Stracca, March 2002.
- I 30 “Harmonized indexes of consumer prices: their conceptual foundations” by E. Diewert,
March 2002.
- I 31 “Measurement bias in the HICP: what do we know, and what do we need to know?”
by M. A. Wynne and D. Rodríguez-Palenzuela, March 2002.
- I 32 “Inflation dynamics and dual inflation in accession countries: a ‘new Keynesian’ perspective” by
O. Arratibel, D. Rodríguez-Palenzuela and C. Thimann, March 2002.
- I 33 “Can confidence indicators be useful to predict short-term real GDP growth?”
by A. Mourougane and M. Roma, March 2002.
- I 34 “The cost of private transportation in the Netherlands, 1992-99” by B. Bode and
J. Van Dalen, March 2002.
- I 35 “The optimal mix of taxes on money, consumption and income” by F. De Fiore and
P. Teles, April 2002.
- I 36 “Retail bank interest rate pass-through: new evidence at the euro area level” by
G. de Bondt, April 2002.
- I 37 “Equilibrium bidding in the Eurosystem’s open market operations” by U. Bindseil, April 2002.

- 138 “‘New’ views on the optimum currency area theory: what is EMU telling us?” by F. P. Mongelli, April 2002.
- 139 “On currency crises and contagion” by M. Fratzscher, April 2002.
- 140 “Price setting and the steady-state effects of inflation” by M. Casares, May 2002.
- 141 “Asset prices and fiscal balances” by F. Eschenbach and L. Schuknecht, May 2002.
- 142 “Modelling the daily banknotes in circulation in the context of the liquidity management of the European Central Bank” by A. Cabrero, G. Camba-Mendez, A. Hirsch and F. Nieto, May 2002.
- 143 “A non-parametric method for valuing new goods” by L. Blow and I. Crawford, May 2002.
- 144 “A failure in the measurement of inflation: results from a hedonic and matched experiment using scanner data” by M. Silver and S. Heravi, May 2002.
- 145 “Towards a new early warning system of financial crises” by M. Bussiere and M. Fratzscher, May 2002.
- 146 “Competition and stability – what’s special about banking?” by E. Carletti and P. Hartmann, May 2002.
- 147 “Time-to-build approach in a sticky price, sticky wage optimising monetary model” by M. Casares, May 2002.
- 148 “The functional form of yield curves” by V. Brousseau, May 2002.
- 149 “The Spanish block of the ESCB multi-country model” by A. Willman and A. Estrada, May 2002.
- 150 “Equity and bond market signals as leading indicators of bank fragility” by R. Gropp, J. Vesala and G. Vulpes, June 2002.
- 151 “G7 inflation forecasts” by F. Canova, June 2002.
- 152 “Short-term monitoring of fiscal policy discipline” by G. Camba-Mendez and A. Lamo, June 2002.
- 153 “Euro area production function and potential output: a supply side system approach” by A. Willman, June 2002.
- 154 “The euro bloc, the dollar bloc and the yen bloc: how much monetary policy independence can exchange rate flexibility buy in an interdependent world?” by M. Fratzscher, June 2002.
- 155 “Youth unemployment in the OECD: demographic shifts, labour market institutions, and macroeconomic shocks” by J. F. Jimeno and D. Rodriguez-Palenzuela, June 2002.
- 156 “Identifying endogenous fiscal policy rules for macroeconomic models” by J. J. Perez and P. Hiebert, July 2002.
- 157 “Bidding and performance in repo auctions: evidence from ECB open market operations” by Kjell G. Nyborg, U. Bindseil and I. A. Strebulaev, July 2002.
- 158 “Quantifying embodied technological change” by P. Sakellars and D. J. Wilson, July 2002.
- 159 “Optimal public money” by C. Monnet, July 2002.
- 160 “Model uncertainty and the equilibrium value of the real effective euro exchange rate” by C. Detken, A. Dieppe, J. Henry, C. Marin and F. Smets, July 2002.
- 161 “The optimal allocation of risks under prospect theory” by L. Stracca, July 2002.
- 162 “Public debt asymmetries: the effect on taxes and spending in the European Union” by S. Krogstrup, August 2002.
- 163 “The rationality of consumers’ inflation expectations: survey-based evidence for the euro area” by M. Forsells and G. Kenny, August 2002.
- 164 “Euro area corporate debt securities market: first empirical evidence” by G. de Bondt, August 2002.
- 165 “The industry effects of monetary policy in the euro area” by G. Peersman and F. Smets, August 2002.
- 166 “Monetary and fiscal policy interactions in a micro-founded model of a monetary union” by R. M. W. J. Beetsma and H. Jensen, August 2002.

- 167 “Identifying the effects of monetary policy shocks on exchange rates using high frequency data” by J. Faust, J. H. Rogers, E. Swanson and J. H. Wright, August 2002.
- 168 “Estimating the effects of fiscal policy in OECD countries” by R. Perotti, August 2002.
- 169 “Modelling model uncertainty” by A. Onatski and N. Williams, August 2002.
- 170 “What measure of inflation should a central bank target?” by G. Mankiw and R. Reis, August 2002.
- 171 “An estimated stochastic dynamic general equilibrium model of the euro area” by F. Smets and R. Wouters, August 2002.
- 172 “Constructing quality-adjusted price indices: a comparison of hedonic and discrete choice models” by N. Jonker, September 2002.
- 173 “Openness and equilibrium determinacy under interest rate rules” by F. de Fiore and Z. Liu, September 2002.
- 174 “International monetary policy co-ordination and financial market integration” by A. Sutherland, September 2002.
- 175 “Monetary policy and the financial accelerator in a monetary union” by S. Gilchrist, J. O. Hairault and H. Kempf, September 2002.
- 176 “Macroeconomics of international price discrimination” by G. Corsetti and L. Dedola, September 2002.
- 177 “A theory of the currency denomination of international trade” by P. Bacchetta and E. van Wincoop, September 2002.
- 178 “Inflation persistence and optimal monetary policy in the euro area” by P. Benigno and J. D. López-Salido, September 2002.
- 179 “Optimal monetary policy with durable and non-durable goods” by C. J. Erceg and A. T. Levin, September 2002.
- 180 “Regional inflation in a currency union: fiscal policy versus fundamentals” by M. Duarte and A. L. Wolman, September 2002.
- 181 “Inflation dynamics and international linkages: a model of the United States, the euro area and Japan” by G. Coenen and V. Wieland, September 2002.
- 182 “The information content of real-time output gap estimates: an application to the euro area” by G. Rünstler, September 2002.
- 183 “Monetary policy in a world with different financial systems” by E. Faia, October 2002.
- 184 “Efficient pricing of large-value interbank payment systems” by C. Holthausen and J.-C. Rochet, October 2002.
- 185 “European integration: what lessons for other regions? The case of Latin America” by E. Dorrucci, S. Firpo, M. Fratzscher and F. P. Mongelli, October 2002.
- 186 “Using money market rates to assess the alternatives of fixed versus variable rate tenders: the lesson from 1989-98 data for Germany” by M. Manna, October 2002.
- 187 “A fiscal theory of sovereign risk” by M. Uribe, October 2002.
- 188 “Should central banks really be flexible?” by H. P. Grüner, October 2002.
- 189 “Debt reduction and automatic stabilisation” by P. Hiebert, J. J. Pérez and M. Rostagno, October 2002.
- 190 “Monetary policy and the zero bound to interest rates: a review” by T. Yates, October 2002.
- 191 “The fiscal costs of financial instability revisited” by L. Schuknecht and F. Eschenbach, November 2002.
- 192 “Is the European Central Bank (and the United States Federal Reserve) predictable?” by G. Pérez-Quirós and J. Sicilia, November 2002.
- 193 “Sustainability of public finances and automatic stabilisation under a rule of budgetary discipline” by J. Marín, November 2002.
- 194 “Sensitivity analysis of volatility: a new tool for risk management” by S. Manganelli, V. Ceci and W. Vecchiato, November 2002.

- 195 “In-sample or out-of-sample tests of predictability: which one should we use?” by A. Inoue and L. Kilian, November 2002.
- 196 “Bootstrapping autoregressions with conditional heteroskedasticity of unknown form” by S. Gonçalves and L. Kilian, November 2002.
- 197 “A model of the Eurosystem’s operational framework for monetary policy implementation” by C. Ewerhart, November 2002.
- 198 “Extracting risk-neutral probability densities by fitting implied volatility smiles: some methodological points and an application to the 3M EURIBOR futures option prices” by A. B. Andersen and T. Wagener, December 2002.
- 199 “Time variation in the tail behaviour of bund futures returns” by T. Werner and C. Upper, December 2002.
- 200 “Interdependence between the euro area and the United States: what role for EMU?” by M. Ehrmann and M. Fratzscher, December 2002.
- 201 “Euro area inflation persistence” by N. Batini, December 2002.
- 202 “Aggregate loans to the euro area private sector” by A. Calza, M. Manrique and J. Sousa, January 2003.
- 203 “Myopic loss aversion, disappointment aversion and the equity premium puzzle” by D. Fielding and L. Stracca, January 2003.
- 204 “Asymmetric dynamics in the correlations of global equity and bond returns” by L. Cappiello, R. F. Engle and K. Sheppard, January 2003.
- 205 “Real exchange rate in an inter-temporal n-country-model with incomplete markets” by B. Mercereau, January 2003.
- 206 “Empirical estimates of reaction functions for the euro area” by D. Gerdesmeier and B. Roffia, January 2003.
- 207 “A comprehensive model on the euro overnight rate” by F. R. Würtz, January 2003.
- 208 “Do demographic changes affect risk premiums? Evidence from international data” by A. Ang and A. Maddaloni, January 2003.
- 209 “A framework for collateral risk control determination” by D. Cossin, Z. Huang, D. Aunon-Nerin and F. González, January 2003.
- 210 “Anticipated Ramsey reforms and the uniform taxation principle: the role of international financial markets” by S. Schmitt-Grohé and M. Uribe, January 2003.
- 211 “Self-control and savings” by P. Michel and J. P. Vidal, January 2003.
- 212 “Modelling the implied probability of stock market movements” by E. Glatzer and M. Scheicher, January 2003.
- 213 “Aggregation and euro area Phillips curves” by S. Fabiani and J. Morgan, February 2003.
- 214 “On the selection of forecasting models” by A. Inoue and L. Kilian, February 2003.
- 215 “Budget institutions and fiscal performance in central and eastern European countries” by H. Gleich, February 2003.
- 216 “The admission of accession countries to an enlarged monetary union: a tentative assessment” by M. Ca’ Zorzi and R. A. De Santis, February 2003.
- 217 “The role of product market regulations in the process of structural change” by J. Messina, March 2003.
- 218 “The zero-interest-rate bound and the role of the exchange rate for monetary policy in Japan” by G. Coenen and V. Wieland, March 2003.
- 219 “Extra-euro area manufacturing import prices and exchange rate pass-through” by B. Anderton, March 2003.
- 220 “The allocation of competencies in an international union: a positive analysis” by M. Ruta, April 2003.
- 221 “Estimating risk premia in money market rates” by A. Durré, S. Evjen and R. Pilegaard, April 2003.

- 222 “Inflation dynamics and subjective expectations in the United States” by K. Adam and M. Padula, April 2003.
- 223 “Optimal monetary policy with imperfect common knowledge” by K. Adam, April 2003.
- 224 “The rise of the yen vis-à-vis the (“synthetic”) euro: is it supported by economic fundamentals?” by C. Osbat, R. Ruffer and B. Schnatz, April 2003.
- 225 “Productivity and the (“synthetic”) euro-dollar exchange rate” by C. Osbat, F. Vijselaar and B. Schnatz, April 2003.
- 226 “The central banker as a risk manager: quantifying and forecasting inflation risks” by L. Kilian and S. Manganelli, April 2003.
- 227 “Monetary policy in a low pass-through environment” by T. Monacelli, April 2003.
- 228 “Monetary policy shocks – a non-fundamental look at the data” by M. Klaeffering, May 2003.
- 229 “How does the ECB target inflation?” by P. Surico, May 2003.
- 230 “The euro area financial system: structure, integration and policy initiatives” by P. Hartmann, A. Maddaloni and S. Manganelli, May 2003.
- 231 “Price stability and monetary policy effectiveness when nominal interest rates are bounded at zero” by G. Coenen, A. Orphanides and V. Wieland, May 2003.
- 232 “Describing the Fed’s conduct with Taylor rules: is interest rate smoothing important?” by E. Castelnuovo, May 2003.
- 233 “The natural real rate of interest in the euro area” by N. Giammarioli and N. Valla, May 2003.
- 234 “Unemployment, hysteresis and transition” by M. León-Ledesma and P. McAdam, May 2003.
- 235 “Volatility of interest rates in the euro area: evidence from high frequency data” by N. Cassola and C. Morana, June 2003.
- 236 “Swiss monetary targeting 1974-96: the role of internal policy analysis” by G. Rich, June 2003.
- 237 “Growth expectations, capital flows and international risk sharing” by O. Castrén, M. Miller and R. Stiebert, June 2003.
- 238 “The impact of monetary union on trade prices” by R. Anderton, R. E. Baldwin and D. Taglioni, June 2003.
- 239 “Temporary shocks and unavoidable transitions to a high-unemployment regime” by W. J. Denhaan, June 2003.
- 240 “Monetary policy transmission in the euro area: any changes after EMU?” by I. Angeloni and M. Ehrmann, July 2003.

Other publications

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

“Improving cross-border retail payment services: the Eurosystem’s view”, September 1999.
 “Compendium: Collection of legal instruments, June 1998 – May 1999”, October 1999.
 “European Union balance of payments/international investment position statistical methods”, November 1999.
 “Money and banking statistics compilation guide, addendum I: money market paper”, November 1999.
 “Money and banking statistics sector manual”, second edition, November 1999.
 “Report on the legal protection of banknotes in the European Union Member States”, November 1999.
 “Correspondent central banking model (CCBM)”, November 1999.
 “Cross-border payments in TARGET: A users’ survey”, November 1999.
 “Money and banking statistics: Series keys for the exchange of balance sheet items time series”, November 1999.
 “Money and banking statistics: Handbook for the compilation of flow statistics”, December 1999.
 “Payment systems in the European Union: Addendum incorporating 1998 figures”, February 2000.
 “Interlinking: Data dictionary”, Version 2.02, March 2000.
 “Asset prices and banking stability”, April 2000.
 “EU banks’ income structure”, April 2000.
 “Statistical information collected and compiled by the ESCB”, May 2000.
 “Correspondent central banking model (CCBM)”, July 2000.
 “Statistical requirements of the European Central Bank in the field of general economic statistics”, August 2000.
 “Seasonal adjustment of monetary aggregates and HICP for the euro area”, August 2000.
 “Improving cross-border retail payment services”, September 2000.
 “Statistical treatment of the Eurosystem’s international reserves”, October 2000.
 “European Union balance of payments/international investment position statistical methods”, November 2000.
 “Information guide for credit institutions using TARGET”, November 2000.
 “The single monetary policy in Stage Three: General documentation on Eurosystem monetary policy instruments and procedures”, November 2000.
 “EU banks’ margins and credit standards”, December 2000.
 “Mergers and acquisitions involving the EU banking industry: facts and implications”, December 2000.
 “Annual report on the activities of the Anti-Fraud Committee of the European Central Bank”, January 2001.
 “Cross-border use of collateral: A user’s survey”, February 2001.
 “Price effects of regulatory reform in selected network industries”, March 2001.
 “The role of central banks in prudential supervision”, March 2001.
 “Money and banking statistics in the accession countries: Methodological Manual”, April 2001.
 “TARGET: Annual Report”, May 2001.
 “A guide to Eurosystem staff macroeconomic projection exercises”, June 2001.
 “Payment and securities settlement systems in the European Union”, June 2001.
 “Why price stability?”, June 2001.
 “The euro bond market”, July 2001.
 “The euro money market”, July 2001.
 “The euro equity markets”, August 2001.
 “The monetary policy of the ECB”, August 2001.
 “Monetary analysis: tools and applications”, August 2001.
 “Review of the international role of the euro”, September 2001.

“The Eurosystem’s policy line with regard to consolidation in central counterparty clearing”, September 2001.
 “Provisional list of MFIs of the accession countries (as at the end of December 2000)”, October 2001.
 “TARGET: the Trans-European Automated Real-time Gross settlement Express Transfer system – update 2001”, November 2001.
 “European Union balance of payments/international investment position statistical methods”, November 2001.
 “Fair value accounting in the banking sector”, November 2001.
 “Towards an integrated infrastructure for credit transfers in euro”, November 2001.
 “Accession countries: balance of payments/international investment position statistical methods”, February 2002.
 “List of Monetary Financial Institutions and institutions subject to minimum reserves”, February 2002.
 “Labour market mismatches in euro area countries”, March 2002.
 “Compendium: Collection of legal instruments, June 1998 – December 2001”, March 2002.
 “Evaluation of the 2002 cash changeover”, April 2002.
 “TARGET Annual Report 2001, April 2002.
 “The single monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures”, April 2002.
 “Annual report on the activities of the Anti-Fraud Committee of the European Central Bank, covering the period from January 2001 to January 2002”, May 2002.
 “Developments in banks’ liquidity profile and management”, May 2002.
 “The Eurosystem’s terms of reference for the use of cash-recycling machines by credit institutions and other euro area institutions engaged in the sorting and distribution of banknotes to the public as a professional activity”, May 2002.
 “Bond markets and long-term interest rates in European Union accession countries”, June 2002.
 “TARGET minimum common performance features of RTGS systems within TARGET as at November 2001”, June 2002.
 “TARGET Interlinking data dictionary as at November 2001”, June 2002.
 “TARGET Interlinking specification as at November 2001”, June 2002.
 “TARGET Interlinking user requirement as at November 2001”, June 2002.
 “Task force on portfolio investment collection systems, Final Report”, June 2002.
 “Measurement issues in European consumer price indices and the conceptual framework of the HICP”, July 2002.
 “Payment and securities settlement systems in the European Union: Addendum incorporating 2000 figures”, July 2002.
 “Financial sectors in EU accession countries”, August 2002.
 “Payment and securities settlement systems in accession countries”, August 2002.
 “TARGET Interlinking specification”, November 2002.
 “TARGET Interlinking data dictionary”, November 2002.
 “Guidance Notes to Regulation ECB/2001/13 on the MFI balance sheet statistics”, November 2002.
 “Structural analysis of the EU banking sector”, November 2002.
 “European Union balance of payments/international investment position statistical methods”, November 2002.
 “Review of the international role of the euro”, December 2002.
 “Euro money market study 2001 (MOC)”, December 2002.
 “EU banking sector stability”, February 2003.
 “Review of the foreign exchange market structure”, March 2003.

“List of Monetary Financial Institutions and institutions subject to minimum reserves”, February 2003.
“Structural factors in the EU housing markets”, March 2003.
“List of Monetary Financial Institutions in the accession countries”, March 2003.
“Memorandum of Understanding on the exchange of information among credit registers for the benefit of reporting institutions”, March 2003.
“Memorandum of Understanding on Economic and Financial Statistics between the Directorate General Statistics of the European Central Bank and the Statistical Office of the European Communities (Eurostat).
Annex 1: Share of responsibilities in the field of balance of payments and international investment position statistics”, March 2003.
“TARGET Annual Report 2002”, April 2003.
“Supplementary guidance notes concerning statistics on the holders of money market fund shares/units”, April 2003.
“Money, banking and financial market statistics in the accession countries.
Methodological Manual. Vol. 1: The current definition and structure of money and banking statistics in the accession countries”, May 2003.
“Money, banking and financial market statistics in the accession countries.
Methodological Manual. Vol. 2: Statistics on other financial intermediaries, financial markets and interest rates in the accession countries”, May 2003.
“Accession countries: balance of payments/international investment position statistical methods”, May 2003.
“Electronic money system security objectives according to the common criteria methodology”, May 2003.
“The transformation of the European financial system, Second ECB Central Banking Conference, October 2002, Frankfurt am Main”, June 2003.
“Letter from the ECB President to the President of the Convention regarding the draft Constitutional Treaty”, June 2003.
“Developments in national supervisory structures”, June 2003.
“Oversight standards for euro retail payment systems”, June 2003.
“Towards a Single Euro Payments Area – progress report”, June 2003.
“Amendments to the risk control framework for tier one and tier two eligible assets”, July 2003.

Information brochures

“TARGET: facts, figures, future”, September 1999.
“EPM: the ECB payment mechanism”, August 2000.
“The euro: integrating financial services”, August 2000 (out of print).
“TARGET”, August 2000 (out of print).
“The European Central Bank”, April 2001.
“The euro banknotes and coins”, May 2001.
“TARGET – update 2001”, July 2001.
“The euro and the integration of financial services”, September 2001.
“The euro, our money”, June 2002.

