



EUROPEAN CENTRAL BANK

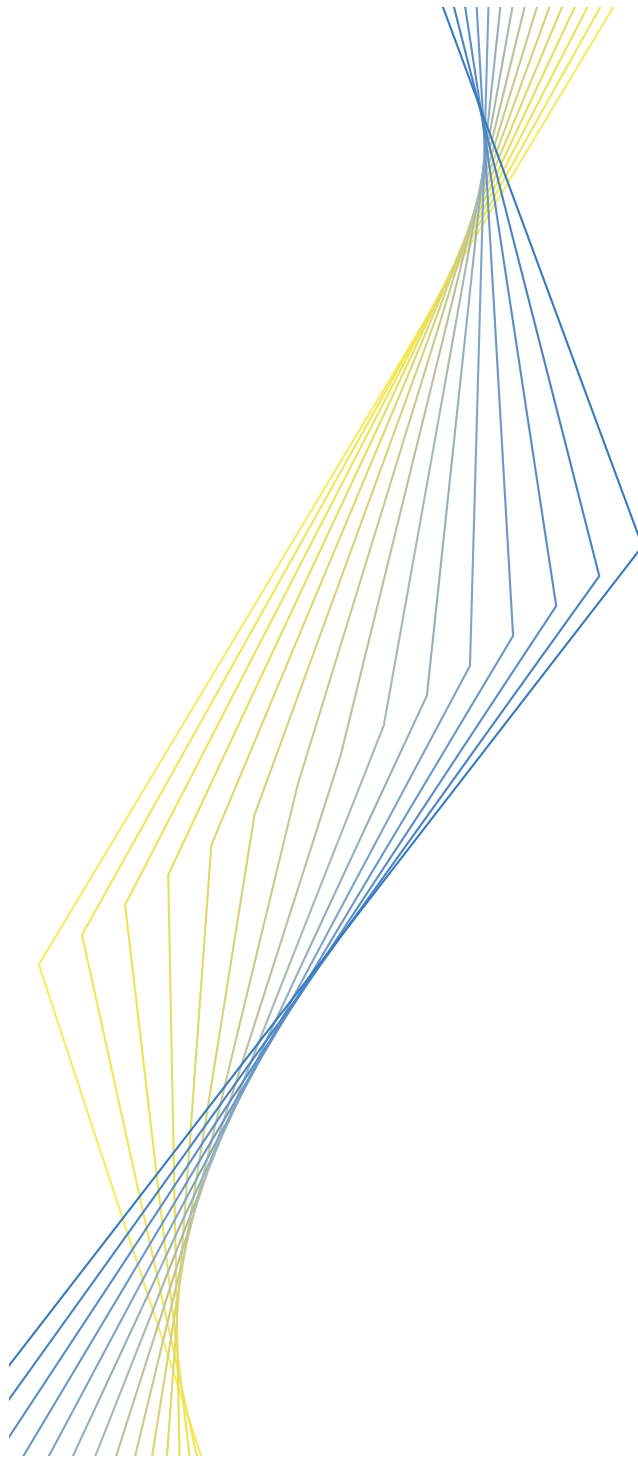
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**M O N T H L Y
B U L L E T I N**

October 2002



EUROPEAN CENTRAL BANK



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Abbreviations

Countries

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

Others

BIS	Bank for International Settlements
BPM5	IMF Balance of Payments Manual (5th edition)
CDs	certificates of deposit
c.i.f.	cost, insurance and freight at the importer's border
CPI	Consumer Price Index
ECB	European Central Bank
ECU	European Currency Unit
EER	effective exchange rate
EMI	European Monetary Institute
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 October 2002, the Governing Council of the ECB decided to leave the minimum bid rate on the main refinancing operations of the Eurosystem unchanged at 3.25%. The interest rates on the marginal lending facility and the deposit facility were also left unchanged at 4.25% and 2.25% respectively.

These decisions were based on a comprehensive analysis of monetary, financial and economic trends in the euro area, incorporating recent evidence and conducted within the framework of the ECB's monetary policy strategy. The Governing Council concluded that risks to price stability are at present balanced.

As regards the analysis under the first pillar, the three-month average of the annual growth rates of M3 was 7.1% in the period from June to August 2002, compared with 7.3% in the period from May to July 2002. Hence, in the euro area, monetary growth remained strong and liquidity ample.

Recent monetary developments, however, should be interpreted with care. On the one hand, monetary trends have been influenced by considerable uncertainty in financial markets and therefore partly reflect a strong liquidity preference among investors. On the other hand, the low level of short-term interest rates has tended to stimulate monetary expansion, reflected particularly in the increase in the narrow aggregate M1. At the same time, loans to the private sector appear to be stabilising at growth rates above 5%, a rate of expansion which, in real terms, is broadly in line with the long-term average.

Considering all the evidence relating to the first pillar, from a medium-term perspective, more liquidity is available than would be needed to finance sustainable, non-inflationary growth. However, given the current economic environment, the Governing Council does not see the risk of this translating into inflationary pressure in the near future.

Concerning the second pillar, the latest data and survey results confirm that economic activity in the euro area remains subdued. These data and results suggest that real GDP growth in the third quarter of 2002 may turn out to be similar to that of the first two quarters, when quarter-on-quarter expansion reached 0.4%. Against this background, previous expectations of an acceleration in economic activity in the second half of 2002 are unlikely to materialise. Given the subdued economic developments, real GDP forecasts by public and private institutions have been scaled downwards, with recent financial market developments also pointing to weakened growth expectations.

Nevertheless, the main scenario for the euro area is a return, in the course of 2003, to economic growth rates in line with those of potential. This scenario, which takes into account the sound economic fundamentals of the euro area, is contingent on a recovery in domestic demand and stronger growth in the world economy.

However, the uncertainty surrounding the economic outlook is high, owing, in particular, to the sharp declines in stock prices and their potential adverse effects on the economy, as well as to geopolitical tensions, as reflected in surging oil prices. The increase in direct and indirect holdings of equities by euro area households over recent years has raised the potential for recent financial market developments to have a negative influence on consumption through wealth effects. Moreover, recent financial market developments may make it more expensive to raise equity capital to finance corporate investment in the euro area. Although the evidence available suggests that the direct effects of stock market changes on spending in the euro area should be relatively limited, and much smaller than in other major economies, the fact that stock prices declined sharply worldwide has increased the downside risks surrounding the recovery. In addition, imbalances in the global economy and their potential spillover to the euro area

economy remain a significant source of risk to growth. Overall, it is particularly difficult at this juncture to assess the timing of the further strengthening of the economic upswing, both in the euro area and globally.

Turning to price developments, in August annual HICP inflation was 2.1%. Eurostat's flash estimate for September indicates an annual HICP inflation rate of 2.2%. While no detailed information is as yet available for individual HICP sub-components, the recent increase is likely to reflect the rise in energy prices. These developments generally remain in line with previous expectations of inflation rates hovering at around 2% for the remainder of the year. With regard to August 2002, for which data on single components are available, HICP inflation excluding unprocessed food and energy prices remained at 2.5%, close to the level observed at the beginning of 2002. This rate of increase masks, however, very different developments. Whereas the rate of growth of non-energy industrial goods prices has tended to decline significantly in the course of 2002, the dynamics of services prices have remained strong.

Looking ahead, short-term inflation trends will be affected by oil price developments. At the same time, the euro exchange rate, which has strengthened since early this year, and the overall economic environment should contribute towards reducing inflationary pressure. However, the assessment that inflation rates will fall and remain below 2% depends on the development of oil prices and on wage moderation. In this respect, nominal wage growth has been on an upward trend which, according to preliminary indications, may have come to a halt only recently. The inertia of consumer price developments in the euro area, especially in services prices, is also a factor which requires vigilance.

Overall, monetary policy will remain geared towards maintaining price stability and will continue to focus on the medium term, thereby providing a reliable anchor for

consumers and investors. At the current juncture, aggregate demand and exchange rate developments should contribute towards easing inflationary pressure, while monetary developments, wage trends and oil price developments could point to risks in the opposite direction. Consequently, all factors which could influence the balance of risks to price stability over the medium term will need to be monitored closely.

Regarding fiscal policies in the euro area, the Governing Council notes with concern that there is still insufficient ambition in some countries to bring budgets to positions close to balance or in surplus over the medium term. The current fiscal problems in some countries arise from the fact that these countries did not take the opportunity to improve substantially on their fiscal positions when economic growth rates were considerably higher than is currently the case. Given that this opportunity was missed, there is now no alternative but for all countries with remaining imbalances to make firm commitments to avoid excessive deficits, in keeping with the Treaty provisions, and to attain budgetary positions close to balance or in surplus, as required under the Stability and Growth Pact. Swift, decisive action is necessary in order to set up credible adjustment paths based both on realistic assumptions on the economic environment and on well-specified consolidation measures. These adjustment paths must entail significant yearly improvements in the cyclically adjusted budget balance, and must be followed strictly and be completed within the shortest possible time frame. To underpin this process, the ECB supports strict monitoring of the implementation of the consolidation strategies, the full use of the excessive deficit procedure and the rigorous application of accounting rules.

Credible fiscal consolidation is supportive to the outlook for economic growth. Direct effects on demand in the short term should be counteracted by higher credibility of the conduct of fiscal policy, boosting confidence and thus private spending. Furthermore, the

attainment of budgetary positions in line with the Stability and Growth Pact will gradually create scope for dealing with ageing-related issues and their impact on public finances.

It is also important that governments overcome the inertia in implementing structural reforms, both within the area of public expenditures and revenues and in labour, financial and product markets. Further delays in tackling, with greater determination, the underlying reasons for limited growth in potential output over the medium term, and for only partially exploiting the current

potential, are costly, making it increasingly difficult to reach the objectives set in the Lisbon Agenda. Structural reforms take time to unfold fully their benefits. Under the current circumstances, rapid and decisive action is particularly needed as it would support confidence.

This issue of the Monthly Bulletin contains two articles. The first reviews recent findings on the monetary policy transmission process in the euro area. The second analyses the main features of the repo market in the euro area.

Economic developments in the euro area

I Monetary and financial developments

Monetary policy decisions of the Governing Council of the ECB

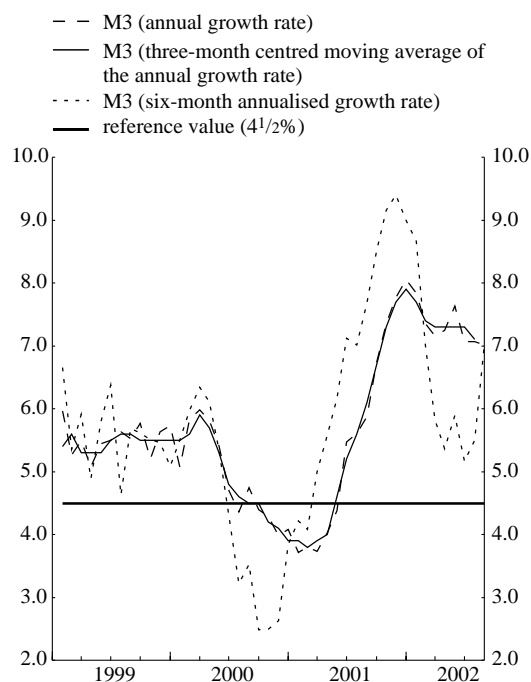
At its meeting on 10 October the Governing Council of the ECB decided to leave the minimum bid rate in the main refinancing operations, conducted as variable rate tenders, unchanged at 3.25%. The interest rates on both the marginal lending facility and the deposit facility were also kept unchanged, at 4.25% and 2.25% respectively (see Chart 1).

M3 growth remained high in August

The annual growth rate of the broad monetary aggregate M3 declined slightly in August to 7.0%, down from 7.1% in July (see Chart 2). However, this decrease in M3 growth on an annual basis was mainly attributable to base effects, and actually the monthly rate of change in M3 rose strongly in August (0.7%). The three-month average of the annual growth rates of M3 decreased to

Chart 2
M3 growth and the reference value

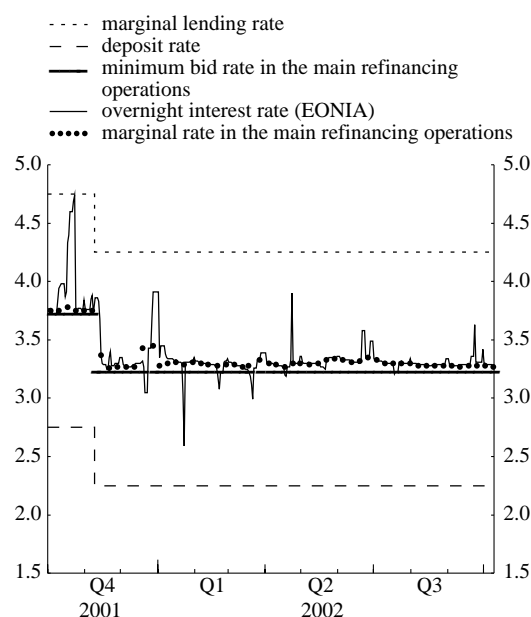
(adjusted for seasonal and calendar effects)



Source: ECB.

Chart 1
ECB interest rates and money market rates

(percentages per annum; daily data)



Sources: ECB and Reuters.

7.1% in the period from June to August 2002, down from 7.3% in the period from May to July.

The continuing strength of monetary growth in recent months reflects to some extent further portfolio shifts into short-term liquid assets prompted by heightened uncertainty on the financial markets. In addition, it is likely that these monetary dynamics have been partly fostered by the low opportunity cost of holding liquid instruments. As a result of the protracted high growth of M3, there is currently substantial liquidity in the euro area. Such high liquidity levels – if not corrected – would be a matter of concern for price stability in the medium term. However, in the current environment it is unlikely that excess liquidity will translate into inflationary pressure in the near future.

Turning to the main components of M3, in August the narrow monetary aggregate M1

rose to 7.8%, up from 7.6% in July (see Table I). As in previous months, this increase was driven by the continued rebound in currency in circulation, for which the seasonally adjusted monthly rise was €7.2 billion in August, slightly lower than the average monthly increase of €9.5 billion from March to July. The expansion of currency in circulation over the past few months probably reflects the gradual rebuilding of currency holdings by both domestic and foreign residents after the strong decline in the run-up to the euro cash changeover. Taking currency and overnight deposits together, the strengthening of annual M1 growth over the last few months partly reflects the effect of increased precautionary demand for liquid assets stemming from the current climate of financial uncertainty, but is also indicative of the low opportunity cost of holding the instruments included in this aggregate.

The annual rate of growth of short-term deposits other than overnight deposits moderated slightly in August, down to 5.4% from 5.5% in the previous month (see Table I). The annual rate of growth of marketable instruments declined to 10.1%, from 10.4% in July. However, this fall was mainly attributable to base effects because the shorter-term

dynamics of marketable instruments actually continued to pick up in August, consistent with the evidence of a renewed increase in demand for liquid assets due to high uncertainty on the financial markets.

As regards counterparts to M3 in the MFI balance sheet, in line with investors' heightened risk aversion, the annual rate of growth of MFIs' longer-term financial liabilities (excluding capital and reserves) also increased further in August, to 5.2% from 4.8% in the previous month.

Stabilisation in the annual rate of growth of loans to the private sector

Turning to the assets side of the MFI balance sheet, the annual rate of growth of credit to euro area residents stood at 4.2% in August, up from 4.1% in the previous month. However, this was the result of diverging developments in its two main components (see Chart 3). While the annual rate of growth of credit to general government declined (to 0.7%, from 0.9% in the previous month), that of credit to the private sector increased (to 5.2%, from 5.0% in July), reflecting stronger growth in loans (5.4%,

Table I
Summary table of monetary variables in the euro area

(annual percentage changes; quarterly averages)

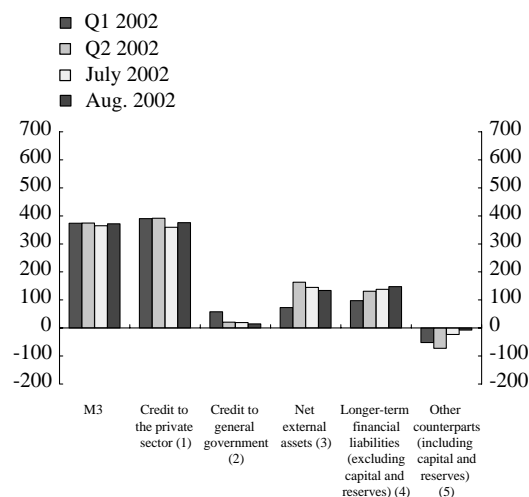
	2001 Q4	2002 Q1	2002 Q2	2002 May	2002 June	2002 July	2002 Aug.
<i>Adjusted for seasonal and calendar effects</i>							
M1	5.5	6.2	6.6	6.8	6.9	7.6	7.8
<i>of which: currency in circulation</i>	-18.5	-28.0	-20.0	-18.2	-14.4	-9.6	-5.7
<i>of which: overnight deposits</i>	10.4	13.0	11.7	11.5	10.8	10.8	10.1
M2 - M1 (= other short-term deposits)	6.0	6.8	6.4	6.7	6.1	5.5	5.4
M2	5.7	6.5	6.5	6.8	6.5	6.5	6.5
M3 - M2 (= marketable instruments)	19.0	14.6	12.6	13.1	10.7	10.4	10.1
M3	7.5	7.6	7.3	7.6	7.1	7.1	7.0
<i>Not adjusted for seasonal and calendar effects</i>							
Longer-term financial liabilities (excluding capital and reserves)	2.9	3.1	4.0	4.6	4.6	4.8	5.2
Credit to euro area residents	5.2	5.1	4.5	4.5	4.4	4.1	4.2
Credit to general government	-0.7	1.7	1.8	1.6	1.0	0.9	0.7
<i>of which: loans to general government</i>	-0.8	-0.8	-0.9	-1.0	-0.7	-0.6	-1.4
Credit to other euro area residents	6.9	6.1	5.3	5.4	5.4	5.0	5.2
<i>of which: loans to the private sector</i>	6.5	5.7	5.6	5.8	5.5	5.2	5.4

Source: ECB.

Chart 3

Movements in M3 and its counterparts

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



Source: ECB.

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

compared with 5.2% in July) and MFI holdings of shares and other equities. By contrast, the annual rate of growth of MFI holdings of securities other than shares fell. More generally, in recent months the annual rate of growth of loans to the private sector seems to have stabilised at around 5½%.

Finally, in August 2002 the net external position of the euro area MFI sector increased by €16.1 billion (in seasonally unadjusted terms). Over the 12 months to August, the net external assets of the euro area MFI sector rose by €133.9 billion, compared with €144.8 billion in the 12 months to July (see Chart 3).

Debt securities issuance continued to decline in July

The annual percentage growth of the amount outstanding of debt securities issued by euro area residents decreased further in July to 6.3%, from 6.5% in June. Underlying this were declines in the annual growth rate of the amounts outstanding of both long-term and short-term debt securities by 0.2 and 0.4 percentage point, to 6.5% and 3.9%,

respectively (see Chart 4). All major sectors contributed to the slower growth in amounts of debt securities outstanding.

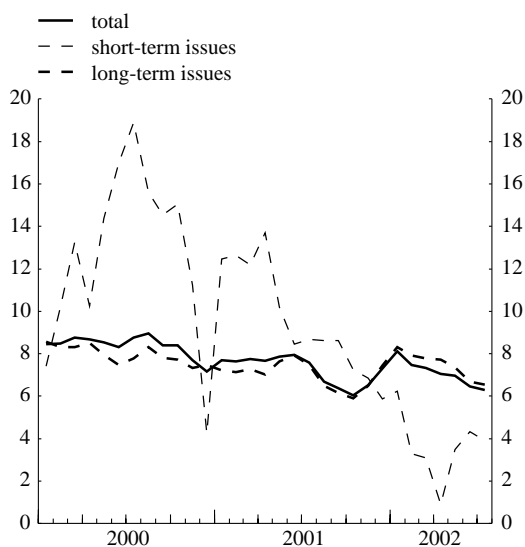
The currency breakdown shows that the annual growth of the amount outstanding of euro-denominated debt securities issued by euro area residents amounted to 6.4% in July, down from 6.8% in the previous month. At the same time, the share of euro-denominated debt securities issued by euro area residents in gross issuance was 91.1% in July, almost unchanged from 91.0% in the previous month.

Turning to the sectoral breakdown of euro-denominated debt securities issuance, the annual growth of the amount outstanding of debt securities issued by MFIs, the sector which accounts for the largest part of outstanding non-government issues, declined to 4.3% in July, from 5.0% in June. A lower supply of debt securities by MFIs may have reflected rather limited funding needs in an environment of slower credit growth and strong growth in deposits.

Chart 4

Amounts outstanding of debt securities issued by euro area residents

(annual percentage changes)



Source: ECB.

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

The annual growth of the amount outstanding of debt securities issued by non-financial corporations declined slightly to 8.0% in July, from 8.1% in the previous month. Issuing trends in this sector diverged significantly across maturities. The annual increase in the amount outstanding of long-term debt securities was 15.3%, while there was an annual decline in the amount outstanding of short-term debt securities of -15.1%. This phenomenon of robust issuance activity in the corporate bond market coupled with a strong slowdown in the commercial paper market is not uncommon in periods where uncertainties are prevalent about corporate credit quality and corporate credit ratings are downgraded, economic growth is moderate, and working capital financing needs are low.

At the same time, the annual growth in the amount outstanding of debt securities issued by non-monetary financial corporations remained high, although it decreased to 35.1% in July, from 39.9% in June. The continued buoyant issuance activity in this sector, which is relatively small compared with the market as a whole, may have reflected fairly high investor demand for corporate bonds with enhanced credit quality issued through special purpose vehicles (i.e. subsidiary companies whose operations are limited to the acquisition and financing of specific assets), in an environment where concerns about credit quality had been mounting.

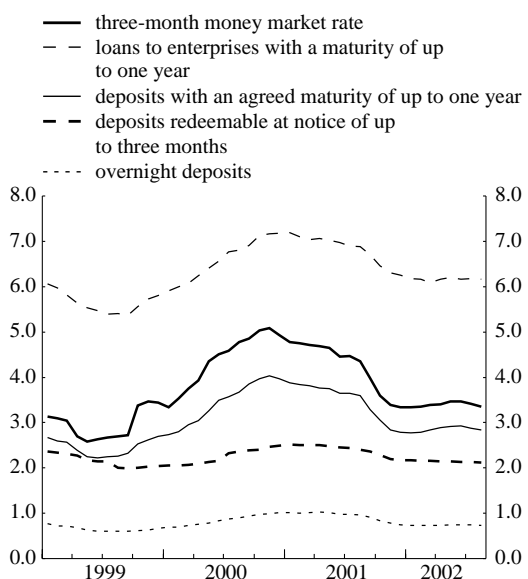
Turning to the general government sector, the annual growth of the amount outstanding of debt securities issued by central government decreased to 4.0% in July, from 4.2% in June. At the same time, however, the annual growth rate of the amount outstanding of debt securities issued by other parts of general government increased further to 36.6% in July, from 32.9% in the previous month.

Declining long-term retail bank interest rates

Short-term retail bank interest rates remained broadly unchanged in August, around levels close to those prevailing at the start of this year (see Chart 5). This pattern was in line with the fairly stable behaviour of three-month money market rates over the first eight months of the year.

Long-term retail bank interest rates declined after May 2002 (see Chart 6), when government bond yields started to decline. The only exception was a slight increase in the average interest rate on consumer credit. The average interest rate on long-term loans to enterprises decreased by around 15 basis points between May and August 2002. During the same period, the average interest rate on deposits with an agreed maturity of over two years and on loans to households for house purchase decreased by around 30 basis points. These declines in long-term retail bank interest rates compare with a decline in the average five-year government bond yield of

Chart 5
Short-term retail bank interest rates and a comparable market rate
(percentages per annum; monthly averages)

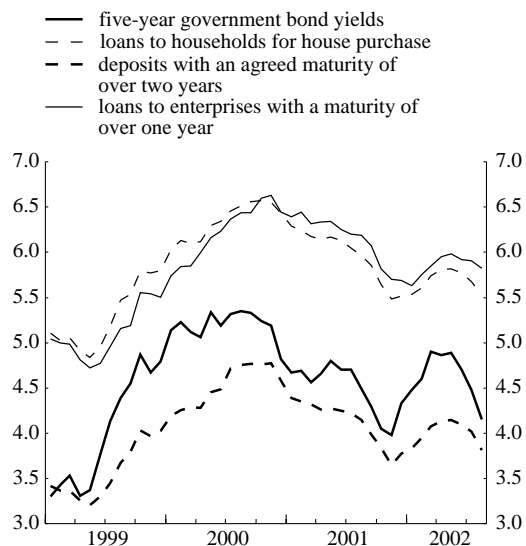


Sources: ECB aggregation of individual country data and Reuters.
 Note: From January 2001, data include Greece.

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.

around 80 basis points between May and August this year. The relatively sluggish adjustment of the average long-term lending rates to enterprises to long-term market interest rates may have been linked to rising concerns about creditworthiness, as suggested by a widening of the average BBB-rated corporate bond spread over long-term government bond yields of 50 basis points between May and August 2002.

Money market interest rates decreased in September

Money market interest rates have decreased since the beginning of September, continuing the trend seen since late May 2002. The decline in market rates was most pronounced at the longer maturities. As a consequence, the slope of the money market yield curve, as measured by the difference between the twelve-month and the one-month EURIBOR, which was slightly positive at the beginning of September, turned significantly negative. This reflected a growing belief among market

participants that short-term market interest rates would fall over the coming months. Since the beginning of September, the rates implied in futures prices have also fallen.

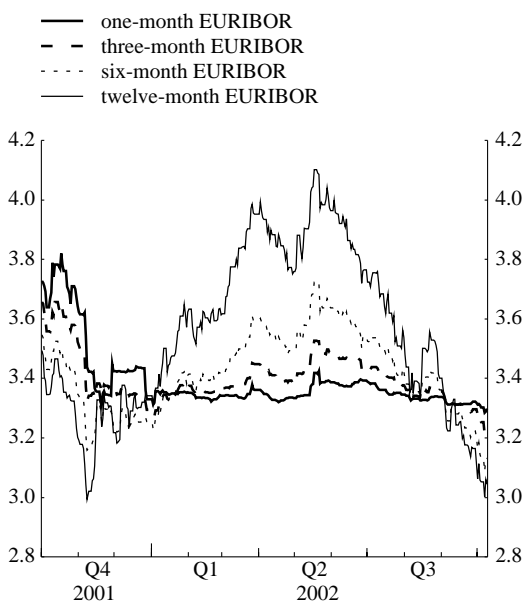
The overnight interest rate, as measured by the EONIA, fluctuated mainly between 3.28% and 3.36%, with few exceptions. Two-week money market rates remained close to the minimum bid rate in the ECB's main refinancing operations of 3.25%. The marginal and average rates of allotment in the Eurosystem's main refinancing operations settled in September and early October averaged respectively 3 and 4 basis points above the minimum bid rate (see Box 1).

The one-month and three-month EURIBOR decreased by 4 and 13 basis points respectively between the beginning of September and 9 October, when they stood at 3.30% and 3.23% (see Chart 7). The marginal and average interest rates in the Eurosystem's longer-term refinancing operation settled on 26 September were respectively 6 and 3 basis points lower than the then-prevailing three-month EURIBOR,

Chart 7

Short-term interest rates in the euro area

(percentages per annum; daily data)



Source: Reuters.

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

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

Regular monetary policy operations

(EUR billions; interest rates in percentages per annum)

Operation	Date of settlement	Date of maturity	Bids (amount)	Allotment (amount)	Bid-cover ratio	Number of participants	Minimum bid rate	Marginal rate	Weighted average rate
MRO	28/08/2002	11/09/2002	104.8	65.0	1.61	281	3.25	3.28	3.29
MRO	04/09/2002	18/09/2002	124.6	76.0	1.64	274	3.25	3.28	3.29
MRO	11/09/2002	25/09/2002	105.5	60.0	1.76	263	3.25	3.27	3.28
MRO	18/09/2002	02/10/2002	116.3	84.0	1.38	295	3.25	3.28	3.29
LTRO	29/08/2002	28/11/2002	35.5	15.0	2.24	158	-	3.33	3.34

Source: ECB.

The marginal rates in the MROs were stable at 3.27% or 3.28%.

As in the previous maintenance period, the volatility of the EONIA remained low. With the exception of 30 August, when the EONIA increased to 3.34% on account of the regular end-of-month effect, it remained in a narrow range from 3.28% to 3.29% until 19 September. On 20 and 23 September, the last two business days of the maintenance period, the EONIA increased to 3.36% and 3.63% respectively, as counterparties perceived liquidity conditions to be tight. The period ended with a net recourse to the marginal lending facility of €3.0 billion. The average difference between current account holdings and minimum reserve requirements was €0.6 billion.

The net liquidity-absorbing impact of the autonomous factors, i.e. the factors not related to monetary policy operations (item (b) of the table below), was, on average, €62.0 billion. The published estimates of the average liquidity needs arising from autonomous factors were in the range of €54.9 billion to €66.4 billion. The largest deviation between the published estimate and the actual figure occurred in the first week of the maintenance period, and amounted to €2.0 billion.

Contributions to the banking system's liquidity

(EUR billions)

Daily average during the reserve maintenance period from 24 August to 23 September 2002

	Liquidity providing	Liquidity absorbing	Net contribution
(a) Monetary policy operations of the Eurosystem	191.8	0.2	+191.6
Main refinancing operations	140.9	-	+140.9
Longer-term refinancing operations	50.8	-	+ 50.8
Standing facilities	0.1	0.2	-0.1
Other operations	-	-	0.0
(b) Other factors affecting the banking system's liquidity	362.3	424.4	-62.0
Banknotes in circulation	-	323.6	-323.6
Government deposits with the Eurosystem	-	49.1	-49.1
Net foreign assets (including gold)	362.3	-	+362.3
Other factors (net)	-	51.7	-51.7
(c) Credit institutions' holdings on current accounts with the Eurosystem (a) + (b)			129.6
(d) Required reserves			129.0

Source: ECB.

Note: Totals may not add up due to rounding.

at 3.23% and 3.26% respectively. This was 10 and 8 basis points lower than the corresponding rates in the longer-term refinancing operation settled on 29 August.

At the longer end of the money market yield curve the fall in interest rates was more pronounced. From the beginning of September until 9 October the six-month and twelve-month EURIBOR fell by 23 and 36 basis points respectively, standing at 3.13% and 3.04% on the latter date. The slope of the money market yield curve, as measured by the difference between the twelve-month and the one-month EURIBOR, which was slightly positive at 6 basis points at the beginning of September, turned negative during the period considered and stood at -26 basis points on 9 October.

The expected path of the three-month EURIBOR, as implied in the futures prices on contracts with delivery dates in 2002 and 2003, has also declined substantially since the beginning of September. The rates implied in futures prices on contracts with delivery dates in December 2002 and March, June and September 2003 decreased by 33, 49, 59 and 61 basis points respectively, to stand at 2.96%, 2.82%, 2.83% and 2.96% on 9 October.

Long-term government bond yields continued to fall in September

In September, long-term government bond yields declined further across most major markets in an environment where market participants became more pessimistic about growth prospects and where global stock markets were subject to further weakness and high volatility. Between end-August and 9 October 2002, yields on ten-year government bonds in the euro area declined by 25 basis points to 4.4% on the latter date. In the United States, ten-year government bond yields declined by about 55 basis points to a level of around 3.6% during the same period, their lowest level in more than 40 years. The differential between ten-year government bond yields in the United States

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.

and the euro area thus widened further by about 30 basis points between end-August and 9 October, to a level of around -80 basis points.

The general decline in government bond yields in the United States seems to have been driven largely by the more pessimistic market assessment about economic growth prospects following macroeconomic data releases in September. Flight-to-safety effects, which have played a prominent role in explaining the decrease in long-term bond yields since mid-May, might have also contributed to the decline in nominal yields in September.

The apparently more pessimistic views among market participants concerning longer-term economic developments in the United States was reflected in the real yield on US ten-year index-linked government bonds, which declined by 30 basis points between end-August and 9 October, reaching 2.1% on the latter date. In late September, two-year

bond yields reached levels slightly lower than the prevailing federal funds target rate of 1.75%.

The US ten-year break-even inflation rate declined by 30 basis points between end-August and 9 October, standing at 1.5% on the latter date. This decline seems to partly reflect the impact of ongoing portfolio reallocations from stocks into the most liquid fixed-income government bonds.

In Japan, in a relatively volatile environment, ten-year government bond yields declined overall by only 5 basis points between end-August and 9 October, ending the period at about 1.1%. After a fairly significant fall – linked to market participants’ anticipations that the Bank of Japan might increase its purchase of Japanese bonds – long-term rates increased following an announcement on 18 September that the Bank of Japan might purchase shares from commercial banks. The rise was further strengthened by the first ever under-subscription of a government bond auction in Japan.

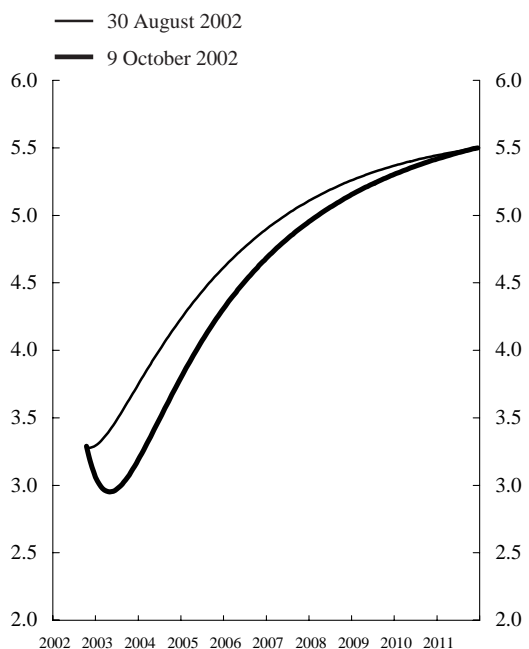
In the euro area, nominal bond yields also declined across the maturity spectrum in September, although by less than in the United States. The general decline in nominal bond yields in the euro area seemed to largely reflect spillover effects of developments in US bond markets. Recent declines in euro area bond yields may have also reflected perceptions among market participants of higher downward risks to the outlook for economic growth in the euro area.

The ten-year break-even inflation rate – as measured by the difference between ten-year nominal bond yields and ten-year French index-linked bond yields (indexed on the euro area HICP excluding tobacco) – declined by 10 basis points between end-August and 9 October, and was 1.7% on the latter date, the lowest level since February 2002. The real yield on ten-year index-linked bonds in the euro area declined by 15 basis points between end-August and 9 October, which was about half of the decline in US real yields,

indicating that market pessimism about US growth prospects did not seem to translate one-for-one into a less optimistic assessment of euro area growth prospects.

The implied forward overnight interest rate curve in the euro area shifted downwards between end-August and 9 October (see Chart 9). The biggest declines in implied forward overnight interest rates took place between short and medium-term horizons, whereas the long end of the curve hardly changed. The change in the shape of the implied forward rate curve may have reflected slightly higher downward risks as perceived by market participants with respect to the short to medium-term outlook for growth in the euro area by comparison with the previous month, whereas long-term

Chart 9
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.

expectations for the euro area may have changed little.

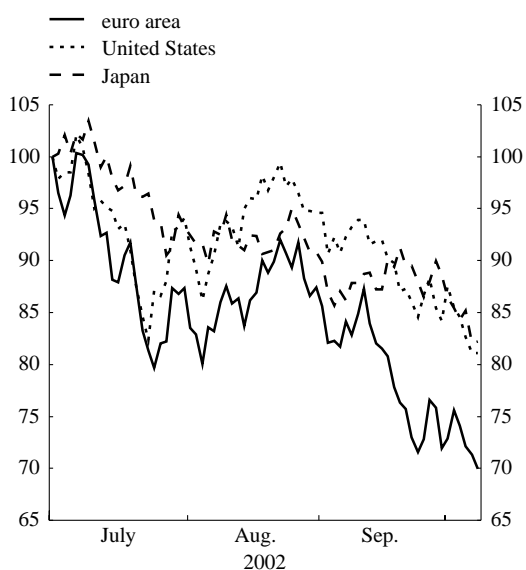
Reflecting market participants' heightened uncertainty about future long-term bond yield movements in the euro area, implied bond market volatility increased by about 0.6 percentage point between end-August and 9 October. On the latter date, euro area implied volatility stood at a level of around 6.1%, which was somewhat above the average levels in recent years.

Global stock prices declined significantly in September

In an environment where concerns resurfaced about the timing of the global economic recovery, stock price indices in the major economic regions declined significantly. In the euro area and in the United States, stock prices, as measured by the broad Dow Jones EURO STOXX and the Standard & Poor's 500 indices respectively, fell by 21% and 15% between end-August and 9 October 2002

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

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

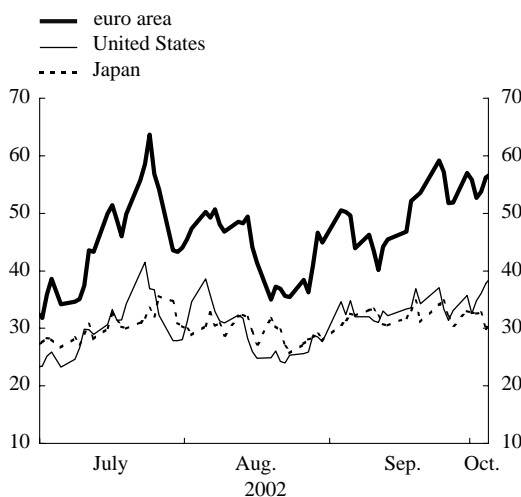


Source: Reuters.

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

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

(percentages per annum; daily data)



Source: Bloomberg.

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

(see Chart 10). In Japan, the Nikkei 225 index fell by 11% over the same period.

In the United States, the overall drop in stock prices between end-August and 9 October 2002 unwound the short-lived recovery seen in August. Economic data releases, which market participants seemed to view as providing mixed indications of underlying economic developments, as well as lower than expected earnings announcements by corporations, adversely influenced stock prices. In this environment, uncertainty concerning future stock price developments, as measured by implied volatility derived from options on the Standard & Poor's 500, rose significantly, by almost 13 percentage points, between end-August and 9 October 2002, to levels comparable with those prevailing at end-September 2001, following the terrorist attacks in the United States.

In Japan, the decline in stock prices as measured by the Nikkei 225 index was less pronounced than in other major markets.

This seemed to reflect factors specific to the Japanese market. In particular, an announcement made by the Bank of Japan to purchase equities from major Japanese banks had a positive (albeit short-lived) impact on stock prices. As in other major markets, uncertainty, as measured by implied volatility extracted from options on the Nikkei 225 index, increased between end-August and 9 October 2002, reaching a level slightly higher than the average of the past two years.

In the euro area the declines in stock prices, which were more pronounced than those in the United States, stemmed from worse than expected economic data releases as well as corporate earnings announcements that were

perceived as pointing towards a slower pace of economic recovery than previously anticipated. In addition, stock prices seemed to be adversely affected by uncertainties linked to political developments in the Middle East, including their potential impact on oil prices. Although the decline in stock prices was broadly based, there were particularly large drops in stock prices in the insurance and banking sectors. In this environment, investors' uncertainty as measured by the implied volatility extracted from options on the EURO STOXX index increased by 10 percentage points between end-August and 9 October 2002, reaching a level close to the peaks recorded around end-September 2001.

2 Price developments

HICP inflation estimated at 2.2% in September 2002

According to Eurostat's recent flash estimate, euro area HICP inflation was 2.2% in September 2002, up from 2.1% in August (see Table 2). Although a detailed HICP breakdown for September is not yet available, energy prices are likely to have been the main factor behind this slight increase.

Detailed HICP data are available for August 2002, however. HICP inflation rose to 2.1% in this month, up from 1.9% in July. This increase in inflation was driven mainly by base

effects resulting from past developments in unprocessed food and energy prices. The annual rate of increase in the HICP excluding unprocessed food and energy remained unchanged at 2.5%, reflecting small counterbalancing movements in services and non-energy industrial goods prices (see Chart I2).

The lower annual rate of decline in energy prices, at 0.5% in August 2002, compared with 1.7% in July, reflects mainly base effects owing to the fall in energy prices in August 2001, but also a small month-on-month increase of 0.3% in August 2002. Given the

Table 2
Price and cost developments in the euro area
(annual percentage changes, unless otherwise indicated)

	1999	2000	2001	2001	2002	2002	2002	2002	2002	2002	2002	2002	2002
				Q4	Q1	Q2	Q3	Apr.	May	June	July	Aug.	Sep.
Harmonised Index of Consumer Prices (HICP) and its components													
Overall index ¹⁾	1.1	2.3	2.5	2.1	2.6	2.1	.	2.4	2.0	1.8	1.9	2.1	2.2
<i>of which:</i>													
Goods	0.9	2.7	2.5	1.7	2.2	1.4	.	2.0	1.3	1.0	1.2	1.4	.
Food	0.6	1.4	4.5	4.7	4.9	2.8	.	3.6	2.7	2.3	2.1	2.3	.
Processed food	0.9	1.1	2.8	3.5	3.5	3.1	.	3.2	3.1	3.1	2.9	2.9	.
Unprocessed food	0.0	1.7	7.0	6.7	7.0	2.4	.	4.1	2.1	1.1	0.9	1.3	.
Industrial goods	1.0	3.4	1.5	0.2	0.9	0.7	.	1.2	0.6	0.3	0.7	0.9	.
Non-energy industrial goods	0.7	0.7	1.1	1.6	1.8	1.7	.	1.8	1.7	1.6	1.5	1.4	.
Energy	2.4	13.3	2.7	-4.1	-2.1	-2.4	.	-0.5	-2.9	-3.6	-1.7	-0.5	.
Services	1.5	1.7	2.5	2.8	3.1	3.2	.	3.0	3.3	3.2	3.2	3.3	.
Other price and cost indicators													
Industrial producer prices ²⁾	-0.4	5.5	2.1	-1.0	-0.9	-0.8	.	-0.7	-0.9	-1.0	-0.4	-0.2	.
Unit labour costs ³⁾	1.0	1.2	2.6	3.3	3.4	.	.	-	-	-	-	-	-
Labour productivity ³⁾	1.0	1.4	0.1	-0.4	-0.4	.	.	-	-	-	-	-	-
Compensation per employee ³⁾	2.0	2.6	2.7	2.9	2.9	.	.	-	-	-	-	-	-
Total hourly labour costs ⁴⁾	2.3	3.2	3.4	3.3	4.0	3.7	.	-	-	-	-	-	-
Oil prices (EUR per barrel) ⁵⁾	17.1	31.0	27.8	22.4	24.6	27.8	27.2	29.3	28.1	25.8	25.9	27.0	28.9
Commodity prices ⁶⁾	-5.9	16.7	-7.6	-15.6	-3.6	-5.5	-1.7	-1.4	-6.8	-8.4	-7.9	-1.3	4.7

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.

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

2) Excluding construction.

3) Whole economy.

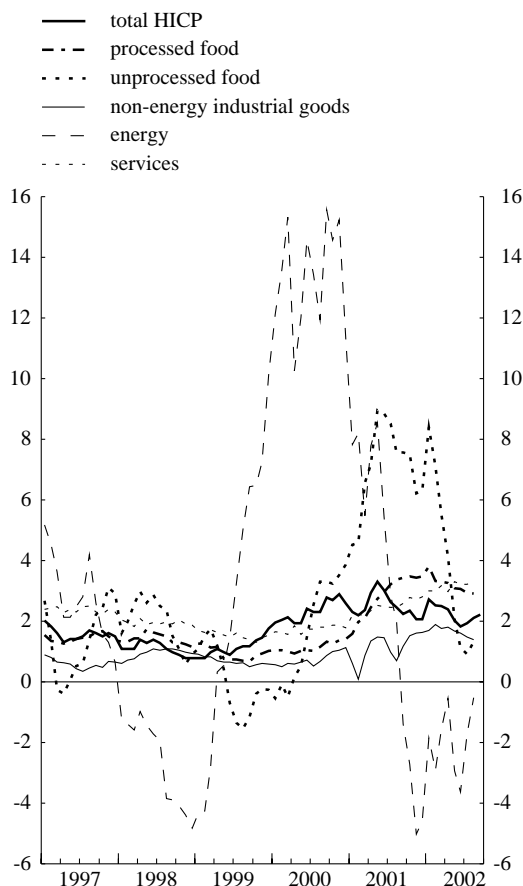
4) Whole economy (excluding agriculture, public administration, education, health and other services).

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

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

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

(annual percentage changes; monthly data)



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

rise in oil prices observed in August and September, energy prices are most likely the main factor behind the rise in overall HICP in September suggested by Eurostat's flash estimate.

The 0.4 percentage point rise in the year-on-year rate of change in unprocessed food prices, to 1.3% in August 2002, mainly reflects a less sharp seasonal fall than last year in fruit and vegetable prices – possibly resulting from recent severe weather conditions in some parts of Europe.

The year-on-year rate of change in non-energy industrial goods prices declined further to 1.4% in August 2002, down from 1.5% in July. This rate of change has fallen from 1.9% in February 2002, reflecting an unwinding of the indirect effects from past price shocks and an easing of external price pressures.

The annual rate of change in services prices edged up further to 3.3% in August, from 3.2% in July. This rise was due mainly to increases in both air transport services prices (which normally decline in August) and accommodation services prices. The persistence in the rate of services price increases reflects past wage developments, indirect effects from past price shocks and, to a small extent, some euro cash changeover effects at the turn of the year. However, little further cash changeover effects have been observed over the past six months.

Since early 2002, developments in consumers' perceptions of inflation and actual inflation have diverged. Box 2 discusses the recent evolution of these consumer perceptions and some possible reasons for the gap between perception and actual inflation developments.

Box 2
Recent developments in perceived and actual inflation

Cash changeover effects on prices, associated with the introduction of the euro, have attracted considerable attention in the course of 2002 – ranging from extensive reporting in the media to calls for consumer boycotts of retailers. It has been claimed that the official inflation figures, such as the Harmonised Index of Consumer Prices (HICP), are misleading and, hence, do not accurately reflect recent price increases faced by consumers.

According to the European Commission Consumer Survey, consumer inflation perceptions have, over the past few months, increased further, reaching new all-time highs. This contrasts starkly with actual HICP inflation, which has declined over the same period. Hence, developments in perceived inflation warrant close examination

at the current juncture, as its high levels may have consequences for other macroeconomic variables such as consumption and wage developments.

This box serves as an update of the box entitled “Recent developments in consumers’ inflation perceptions” contained in the July 2002 issue of the Monthly Bulletin. More specifically, it reviews developments in consumers’ inflation perceptions, concentrating in particular on the most recent period. The perceptions are also compared with consumers’ expectations as regards future inflation, as surveyed by the European Commission. Finally, the box summarises why the annual rate of change in the HICP is considered to be an appropriate measure of overall inflation at the aggregate euro area level. In this context, the plausible reasons for the divergent developments in perceived and actual inflation are highlighted.

Higher perceived inflation in 2002, despite lower HICP inflation

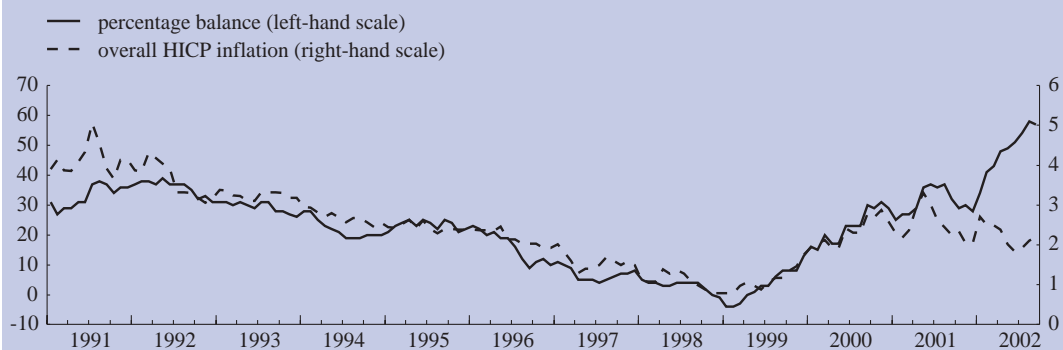
The developments in the European Commission’s indicator on perceived inflation have in the past tracked actual inflation measured by the HICP remarkably well. On occasions, although very seldom and to a minor extent, the two measures have diverged or moved in different directions. However, one and a half years ago, perceived and actual inflation started to diverge and, since January 2002, they have been moving in different directions (see Chart A). In August 2002, according to the European Commission Consumer Survey, the indicator on perceived inflation rose for the eighth consecutive month and reached an all-time high reading for the seventh month in a row. Although it declined marginally by one point in September 2002, it was still at its second highest reading since the start of the series in January 1985. By contrast, over the same period, actual inflation declined.

It would be worth closely examining this divergence between perceptions and actual inflation, given that it might have an impact on other macroeconomic variables. If inflation rates are perceived as being higher than they actually are, one consequence is that real wage developments and, therefore, purchasing power are being underestimated by consumers. This may have negative consequences on consumption, for example. It cannot be excluded that recent subdued developments in private consumption are at least partly explained by the high level of perceived inflation. In addition, if consumers incorrectly feel that they have lost purchasing power, there is a risk that this may trigger higher wage claims than warranted. Looking ahead, when consumers realise at some stage that they have more purchasing power than they previously thought, this should facilitate a convergence of perceived inflation towards actual inflation.

The perceptions themselves are also of interest as they may have an impact on the formation of inflation expectations. In addition, coupling consumers’ perceptions with their inflation expectations makes it possible

Chart A: Perceived and actual inflation

(percentage balances; annual percentage changes; monthly data)



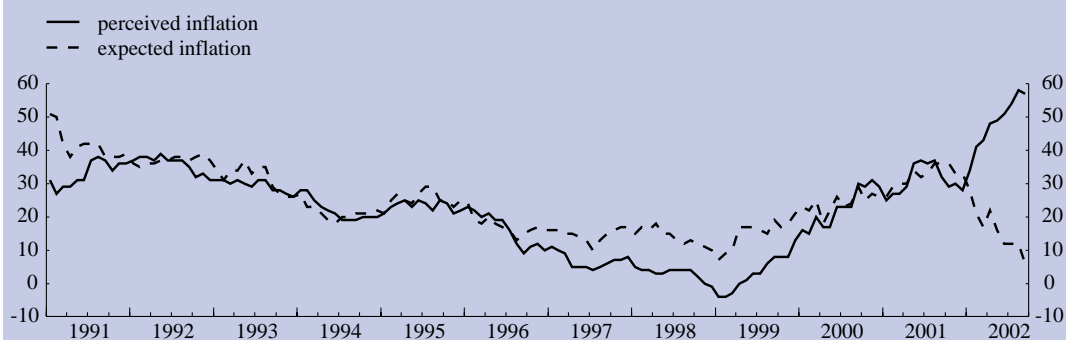
Sources: European Commission Business and Consumer Surveys and Eurostat.

Note: The European Commission’s indicator on perceived inflation takes the form of balance statistics, and cannot be directly related to the magnitude of the actual rate of inflation – it only gives qualitative information on the directional change in perceptions.

to assess how consumers interpret price shocks. For instance, if perceptions increase and expectations decline, this indicates that the shock is seen as transitory. This is exactly what has happened since the beginning of this year. While perceptions have gone up, expectations have been declining (see Chart B), which strongly suggests that consumers believe that the price hikes that, to their minds, have occurred this year are of a temporary nature and will revert. To some extent these developments support the view that perceptions should converge with actual inflation in the not too distant future.

Chart B: Perceived and expected inflation

(percentage balances; monthly data)



Source: European Commission Business and Consumer Surveys.

Note: The indicator on consumers' inflation expectations (over the next 12 months) is also obtained from the European Commission survey. It is constructed in the same manner as the indicator on perceptions, i.e. as a percentage balance.

The HICP is considered to be an appropriate measure of euro area inflation

The present gap between consumers' perceptions of past inflation developments and actual inflation developments can, to a large extent, be linked with the introduction of euro-denominated prices and price rises in some specific goods and services. However, it is important to note that the HICP is constructed so as to reflect overall consumer spending patterns and thereby to accurately measure inflation. In particular, the HICP covers all households' final monetary consumption expenditure, including that on (non-durable and durable) goods and services, over a recent year. The item weights in the HICP are updated in January each year in order to maintain the representativity of the index in terms of consumer expenditure. Hence, frequently purchased items are not under-represented.

The most plausible explanation for the high levels of perceived inflation in past months is that consumers attach great importance to price developments in the goods and services they buy more frequently. If price developments in these frequently purchased items differ significantly from price developments in products purchased less frequently, consumers may form an unrepresentative picture of the broad consumption basket – from which the HICP weights are derived – and thereby also of the price movements at an aggregate level. The above-mentioned explanation is supported if recent actual price developments are scrutinised. For instance, prices of petrol, fresh foods and restaurant services have all been affected by various shocks at some stage over the past few years. These items are also good examples of goods and services that are purchased more frequently and, hence, their price developments may be viewed as being particularly important by consumers when they assess developments in inflation.

Recently, however, prices of some of the above-mentioned items have started to fall. The month-on-month rate of increase in restaurant services prices, for instance, was 0.2% in August 2002, which is in line with the average increase witnessed in this month since 1996. This contrasts with January 2002, when the month-on-month increase in this component was 1.3%, which is 0.9 percentage point higher than the past average for that month. Also, price developments in other services, such as hairdressing, have started to ease to growth rates in line with past averages. In addition, fresh food prices have recently started to decline. For instance, the

year-on-year rate of change in unprocessed food prices stood at 1.3% in August 2002, which is significantly lower than in January 2002, when the increase was 8.4%. Unless new price shocks occur, consumers' perceptions regarding inflationary developments should decline – and reach levels consistent with actual inflation.

As regards the cash changeover, it is likely that the introduction of the euro has triggered some price increases, in particular within the services sector. However, taking into account the whole spectrum of reasons for raising prices, the euro-related reasons are assessed to only play a small role. The problem is that it is difficult to disentangle these cash changeover effects from the other sources of inflationary pressures. This partly explains why the euro has been wrongly associated with price increases – which in reality reflect other reasons. The weather-related shock to fresh food prices in January 2002, the timing of which coincided with the introduction of the euro banknotes and coins, is one example in this respect.

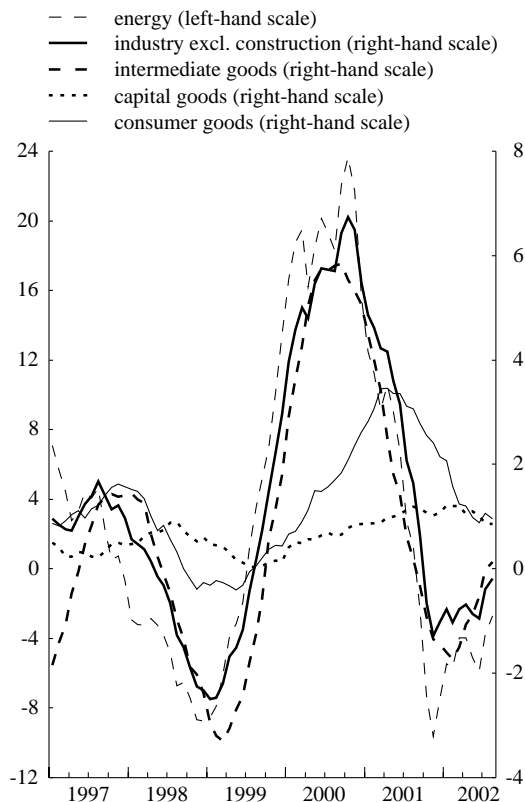
Producer price developments remain moderate

In August, the year-on-year rate of decline in euro area industrial producer prices stood at

0.2%, compared with 0.4% in July (see Chart 13). As in July, this slowdown was mainly due to a base effect in energy prices.

Chart 13
Breakdown of industrial producer prices for the euro area

(annual percentage changes; monthly data)



Source: Eurostat.

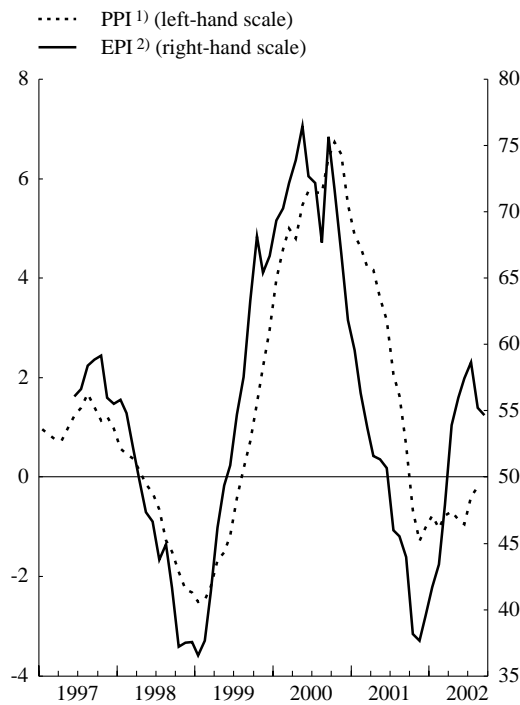
Note: Data refer to the Euro 12 (including periods prior to 2001).

In terms of the components of producer prices, the year-on-year rate of decline in energy producer prices decreased further to 2.7% in August 2002 from 3.8% in July. This deceleration mainly reflects a base effect of 0.8 percentage point from last year, although energy producer prices also rose by 0.3% month on month in August. Intermediate goods prices continued to be moderate, rising for the first time in year-on-year terms in almost a year, albeit only marginally by 0.1%. The annual rate of increase in consumer goods prices declined slightly to 1.0% in August, down from 1.1% in July.

With regard to survey indicators of producer price developments, the Eurozone Price Index (EPI) points to a further easing of upward pressures. Although the index is above 50, suggesting an increase in producer prices, it fell to 54.7 in September 2002, down from 55.2 in August (see Chart 14). On the other hand, energy prices are likely to have risen in September 2002, as oil prices increased by 7%, from €27.0 per barrel in August to €28.9 per barrel in September. Moreover, non-energy commodity prices increased by 4.7% year on year in September.

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

(monthly data)



Sources: Eurostat and Reuters.

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

- 1) Producer Price Index; annual percentage changes; excluding construction.
- 2) Eurozone Price Index; manufacturing input prices from the Purchasing Managers' Survey. An index value above 50 indicates an increase in manufacturing input prices, whereas a value below 50 indicates a decrease.

Indicators of labour cost growth mixed

Chart 15 presents recent developments in a number of alternative indicators of euro area labour cost growth. These indicators have been discussed in more detail in the February 2001 and September 2002 issues of the Monthly Bulletin. Each of these labour cost indicators is useful as they contain somewhat different information (for example, in terms of sector coverage or whether they include employers' social security contributions and whether they measure labour costs per month or per hour worked) and are available with differing degrees of timeliness. Thus, careful consideration of each measure allows

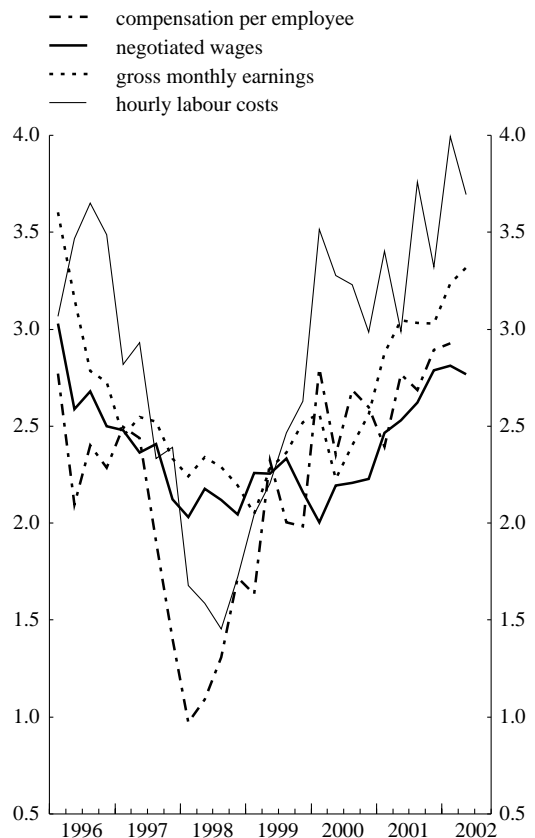
a balanced assessment of wage developments. Overall, the upward trend in wage growth earlier this year may have come to a halt only recently.

Available information on wage negotiations up to the second quarter of 2002 suggests that agreed wage settlements have remained unchanged at around 2.8% for the third consecutive quarter. As highlighted in the September 2002 issue of the Monthly Bulletin, this indicator is a useful complement to other labour cost measures as it captures underlying wage pressures.

The annual rate of growth in total hourly labour costs in the non-agricultural business sector decreased to 3.7% in the second quarter of 2002, down from 4.0% in the first

Chart 15
Selected labour cost indicators for the euro area

(annual percentage changes)



Sources: Eurostat, national data and ECB calculations.

quarter. However, given the volatility of this data series, interpreting short-term movements in this indicator is difficult. By contrast, growth in gross monthly earnings edged up to 3.3% in the second quarter of 2002, from 3.2% in the first quarter.

A more comprehensive, although less timely, insight into labour cost developments can be obtained from national accounts data. In the first quarter of 2002, the annual rate of change in unit labour costs edged up slightly to 3.4%, from 3.3% in the fourth quarter of

2001. The annual rate of growth in compensation per employee was unchanged at 2.9% in the first quarter of 2002, while the rate of decline in labour productivity, due mainly to the cyclical situation, was also unchanged at 0.4%.

Developments in residential property prices also form an input into the analysis of risks to price stability under both pillars of the ECB's monetary policy strategy. Box 3 presents a review of developments in euro area house prices.

Box 3

Residential property prices in the euro area

Residential property price developments are an important input into the analysis of risks to price stability made under the ECB's two-pillar monetary policy strategy. Movements in house prices may have an impact on consumer behaviour via confidence and wealth effects. Thus, residential property price movements have a role to play in analysing consumption and saving patterns. Consideration of house prices may also contribute to analysis under the first pillar, in which monetary aggregates and credit are given a prominent role, as lending for house purchases represents a significant portion of the lending of monetary and financial institutions (for an indication, see Table 2.5 (3) in the Statistical Annex). In addition, as loans for house purchases make up a large share of the lending of monetary and financial institutions, excessive developments in house prices may have implications for macroeconomic and financial stability.

Some preliminary evidence on developments in euro area residential property prices was presented in the October 2001 issue of the Monthly Bulletin (Box 2), using data up to the first quarter of 2001. This box presents an update of this series with the most recently available data covering the period up to the first quarter of 2002. It also provides a more complete coverage of the euro area. However, it is worth remembering the caveats mentioned last year in relation to the heterogeneity of residential property prices. Housing markets vary across the euro area due to differences in legal frameworks, financial systems, historical factors and societal preferences. For example, the percentage of housing that is owner-occupied and the proportion of houses to apartments may vary significantly. These differences may have implications for aggregate house price measures as price trends for different house categories may differ over time, and the composition of additions to the housing stock (i.e. new housing) may vary significantly from the existing housing stock. Available national data sources vary according to how they treat new and/or existing housing, houses inside and/or outside the capital city or adjust for changes in the composition of housing.

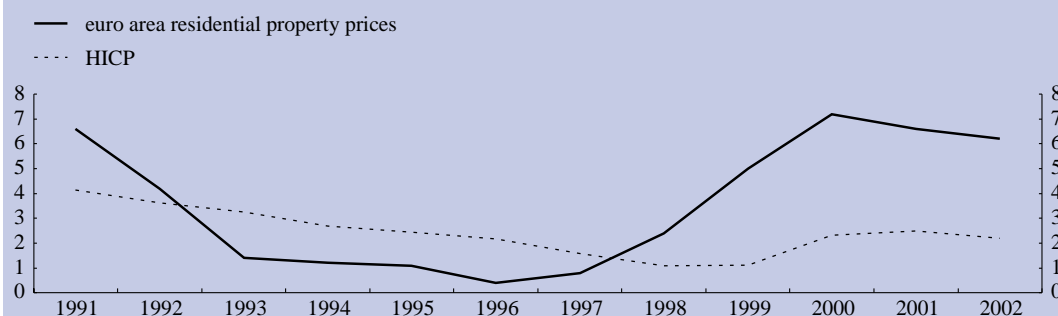
A harmonised framework for EU residential property price statistics does not currently exist and is not envisaged in the near future. National estimates sometimes originate from non-official or commercial sources. This box can therefore only present a rough measure of house prices in the euro area, constructed from national sources and subject to important caveats. In particular, as it is currently not possible to guarantee the comparability of data due to the differences in available data sources in terms of coverage and methodology, caution must be exercised when interpreting these data. These data provide information on the general direction of house price movements, but not a precise indication of short-term price changes or price levels.

The chart below presents the annual rate of change in residential property prices in the euro area between 1991 and early 2002. Annual growth rates in euro area house prices have been relatively strong at between 5% and

7% since 1999. As highlighted previously, some of this increase may be associated with the advent of Economic and Monetary Union (EMU). In particular, asset prices in some countries may have adjusted to reflect the expectation of sustained lower inflation and lower interest rates. Country-specific house price developments are also driven by factors such as demographics and economic growth. The rate of increase in house prices in some countries that had experienced significant growth appears to have attenuated somewhat. This may reflect weaker economic growth and the phasing-out of the effects related to the adjustment process to EMU. The rate of increase in euro area residential property prices, although relatively high at approximately 6% in the first quarter of 2002, has eased back slightly from its 2000 level.

Euro area residential property prices and HICP

(annual percentage changes; annual data)



Sources: Eurostat and ECB calculations.

Note: Residential property price data for 2002 refer to the first quarter. Residential property price data are not harmonised; the euro area aggregate is calculated from estimates for the 12 euro area countries. HICP data for 2002 refer to the average of annual inflation rates in the first eight months of 2002.

It is also worth highlighting that, despite the considerable heterogeneity of housing markets across the euro area, there is some degree of positive correlation of house price dynamics across the euro area, except in the case of some of the smaller economies. As highlighted above, dynamics in some of these economies may have been driven by the adjustment process to EMU. As a result of EMU, a higher correlation across the euro area may be envisaged in the future. However, house price dynamics will continue to be influenced by factors at the national level, including demographic developments, supply-side factors and income and employment growth.

Outlook for price stability contingent on oil prices and wage developments

Looking ahead, the short-term profile of price developments is conditional, to a large extent, on oil price movements. Inflation should hover around 2% for the remainder of the year. Nonetheless, the stronger euro

exchange rate since early this year, as well as the subdued economic environment, will contribute to a reduction in inflationary pressure. While the risks to the medium-term inflationary outlook remain balanced, this view hinges largely on wage moderation prevailing.

3 Output, demand and labour market developments

Moderate real GDP growth in the second quarter of 2002

According to Eurostat's first estimate for the second quarter of 2002, euro area real GDP increased by 0.3% quarter on quarter, compared with 0.4% in the first quarter (see Table 3). The composition of demand appears to have been more broadly based in the second quarter than in the first. More specifically, real private consumption increased by 0.4% quarter on quarter, following a contraction of 0.2% in the previous quarter, as more favourable consumer price developments helped raise real income growth. However, real investment declined for the sixth consecutive quarter, extending the period of downward adjustment. The contribution from net exports was only slightly positive, as the strengthening in export growth

was largely offset by a substantial pick-up in imports. According to value-added data, growth in the second quarter was largely concentrated in the services sector.

Industrial production (excluding construction) decreased by 0.9% month on month in July 2002, after having increased by 1.0% in June (see Table 4). The decline in July was broadly based across sectors, with the durable consumer goods sector being the only exception. In the three-month period up to July, industrial production increased by 0.1% compared with the three-month period up to April, after a quarter-on-quarter increase of 0.2% in the second quarter. This deceleration in industrial production was mainly caused by a strong slowdown in the growth of intermediate goods production. As production in this sector

Table 3

Composition of real GDP growth in the euro area

(percentage changes, unless otherwise indicated; seasonally adjusted)

	Annual rates ¹⁾								Quarterly rates ²⁾				
	1999	2000	2001	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2002 Q2	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2002 Q2
Real gross domestic product <i>of which:</i>	2.8	3.5	1.5	1.6	1.4	0.4	0.3	0.6	0.0	0.2	-0.3	0.4	0.3
Domestic demand	3.4	2.9	0.9	1.3	0.7	-0.1	-0.2	-0.2	0.2	-0.3	-0.2	0.1	0.2
Private consumption	3.5	2.5	1.8	1.8	1.8	1.6	0.4	0.3	0.5	0.1	0.0	-0.2	0.4
Government consumption	1.9	1.9	1.9	2.1	2.1	1.4	1.9	1.8	0.4	0.3	0.4	0.8	0.4
Gross fixed capital formation	5.9	4.8	-0.6	-0.1	-1.5	-2.5	-2.7	-2.9	-0.6	-0.6	-0.9	-0.6	-0.8
Changes in inventories ^{3), 4)}	-0.2	0.0	-0.4	-0.2	-0.4	-0.7	-0.2	-0.1	0.0	-0.3	-0.1	0.1	0.1
Net exports ³⁾	-0.6	0.6	0.6	0.4	0.7	0.5	0.5	0.8	-0.2	0.4	-0.1	0.3	0.1
Exports ⁵⁾	5.3	12.4	2.5	4.4	1.3	-3.3	-3.0	0.0	-1.2	-0.3	-1.7	0.1	1.9
<i>of which: goods</i>	5.1	12.4	2.4	4.0	1.1	-3.0	-2.5	.	-1.2	-0.3	-1.4	0.4	.
Imports ⁵⁾	7.4	11.1	1.1	3.6	-0.5	-4.9	-4.5	-2.2	-0.7	-1.5	-1.6	-0.7	1.7
<i>of which: goods</i>	7.2	11.3	0.5	3.4	-1.4	-5.8	-4.2	.	-0.5	-1.7	-1.4	-0.7	.
Real gross value added:													
Agriculture and fishing ⁶⁾	2.3	-0.3	-0.7	-1.0	-0.8	-0.3	0.9	0.9	0.1	1.4	-0.3	-0.3	0.1
Industry	1.3	3.7	0.6	1.0	0.5	-1.7	-1.9	-1.0	-0.9	-0.1	-1.5	0.5	0.0
Services	3.2	3.9	2.3	2.5	2.2	1.7	1.4	1.4	0.5	0.3	0.2	0.4	0.5

Sources: Eurostat and ECB calculations.

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

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

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

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

4) Including acquisitions less disposals of valuables.

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

6) Also includes hunting and forestry.

Table 4
Industrial production in the euro area

(annual percentage changes, unless otherwise indicated)

	2000	2001	2002 May	2002 June	2002 July	2002	2002	2002	2002	2002	2002	2002	2002
						May	June	July	Feb.	Mar.	Apr.	May	June
						month-on-month			three-month moving averages				
Total industry excluding construction by main industrial groupings:	5.5	0.2	-1.1	-0.5	-0.5	0.0	1.0	-0.9	0.8	0.8	0.6	0.2	0.1
Total indus. excl. construction and energy ¹⁾	5.9	0.0	-1.3	-0.8	-0.6	-0.4	1.0	-0.9	1.0	1.1	0.7	0.3	0.0
Intermediate goods	6.0	-0.9	0.3	-0.1	0.1	-0.3	0.8	-1.2	2.6	3.3	2.4	0.6	-0.3
Capital goods	9.3	1.2	-4.8	-1.9	-0.7	-1.1	1.3	-0.2	-0.7	-0.3	0.0	0.4	0.3
Consumer goods	2.3	0.1	-0.5	-1.1	-2.1	0.4	0.3	-1.3	-0.4	0.3	0.2	0.8	0.3
Durable consumer goods	6.2	-2.7	-7.2	-5.5	-2.4	-1.3	1.8	0.6	-0.9	-1.6	-2.7	-0.9	-0.1
Non-durable consumer goods	1.5	0.7	1.0	-0.1	-2.1	0.7	0.0	-1.6	-0.3	0.6	0.8	1.2	0.4
Energy	2.0	0.9	1.5	3.5	1.3	0.2	1.3	-0.3	0.2	-0.8	-0.9	0.1	0.7
Manufacturing	5.9	0.1	-1.8	-1.0	-0.3	-1.0	1.4	-0.7	0.7	1.2	0.8	0.6	0.1

Sources: Eurostat and ECB calculations.

Notes: Annual percentage changes are calculated using data adjusted for variations in the number of working days; percentage changes on the previous month and three-month centred moving averages against the corresponding average three months earlier are calculated using seasonally and working day adjusted data. Data refer to the Euro 12 (including periods prior to 2001).

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

had shown very strong increases up to March, out of line with growth developments in capital and consumer goods production, the current downturn could, in part, mark the return of production in this sector to levels more in line with broader economic developments.

Business confidence declined slightly, on average, in the third quarter

Recent developments in industrial production are broadly in line with the results of survey data, which point to some deceleration in industrial activity during the summer. In

Table 5
Results from European Commission Business and Consumer Surveys for the euro area

(seasonally adjusted data)

	1999	2000	2001	2001	2002	2002	2002	2002	2002	2002	2002	2002	2002
				Q4	Q1	Q2	Q3	Apr.	May	June	July	Aug.	Sep.
Economic sentiment index ¹⁾	-0.1	2.5	-2.8	-1.4	0.3	0.3	-0.4	-0.1	0.4	-0.2	-0.3	-0.3	0.2
Consumer confidence indicator ²⁾	8	12	6	-1	1	3	1	2	3	3	1	0	2
Industrial confidence indicator ²⁾	0	12	-1	-11	-7	-4	-5	-4	-3	-4	-4	-5	-5
Construction confidence indicator ²⁾	11	16	10	6	5	3	-2	3	4	3	0	-4	-1
Retail trade confidence indicator ²⁾	1	6	0	-3	-10	-12	-11	-11	-12	-12	-11	-10	-11
Services confidence indicator ²⁾	5	8	-7	-27	-19	-17	-23	-15	-16	-19	-22	-24	-22
Business climate indicator ³⁾	-0.1	1.3	-0.1	-1.2	-0.8	-0.5	-0.5	-0.7	-0.3	-0.5	-0.4	-0.6	-0.6
Capacity utilisation (%) ⁴⁾	82.3	84.4	83.1	81.6	81.1	81.1	.	81.2	-	-	81.0	-	-

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

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

1) Percentage changes compared with the previous period.

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

3) Units are defined as points of standard deviation.

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

particular, in the third quarter as a whole, the Purchasing Managers' Index (PMI) for the euro area manufacturing sector deteriorated, falling to 50.4 from 51.4 in the second quarter, remaining only just above the threshold of 50. In September, it actually fell below this value, reaching 48.9 (see Chart 16). According to the European Commission Business and Consumer Surveys, industrial confidence deteriorated slightly from the second to the third quarter, but remained unchanged in September (see Table 5). To some extent, the latest developments in the PMI and

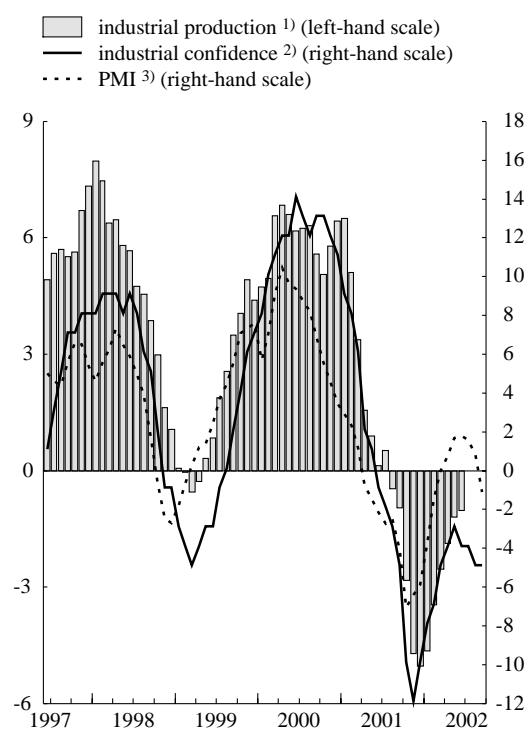
industrial confidence reflect an adjustment of favourable business expectations at the beginning of this year following recent financial market developments and the increased uncertainty as regards the global economic outlook.

According to the European Commission surveys, confidence improved marginally in the retail trade sector in the third quarter, but declined in the construction and services sectors. The PMI for the services sector also declined in the third quarter, to reach a level of 49.1 in September, just below the threshold of 50.

Chart 16

Industrial production, industrial confidence and the PMI for the euro area

(monthly data)



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

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

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

Overall, the various business survey indicators do not point to a strengthening of GDP growth in the third quarter, but would be in line with a quarter-on-quarter growth rate broadly similar to those in the first two quarters of 2002.

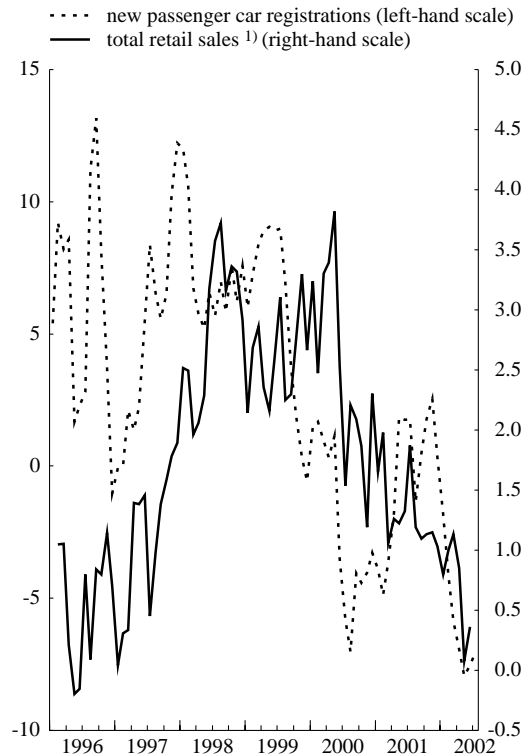
Mixed evidence from household spending indicators

As regards indicators of private consumption growth in the third quarter, the evidence is mixed. The July retail sales figures showed an increase of 0.6% month on month, after a 0.4% decline in June. Growth in new passenger car registrations continued to improve in August. Year on year, there was a small increase in growth of retail sales and new passenger car registrations over the summer (see Chart 17). European Commission survey data, however, indicate that consumer confidence, despite an improvement in September, declined slightly in the third quarter of 2002 as a whole. The survey results suggest that households have not become significantly more concerned about future economic developments, although there has been some worsening in households' assessment of the current economic situation. Overall, the data do not suggest further improvements in consumption growth in the third quarter.

Chart 17

New passenger car registrations and retail sales in the euro area

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



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.

No acceleration of economic growth this year

Available indicators, together with somewhat weaker prospects for the international economic environment and adverse

developments on financial markets, suggest that real GDP growth will not accelerate in the second half of this year. The main scenario is a return, in the course of 2003, to economic growth rates in line with those of potential output. This scenario, which takes into account the sound economic fundamentals in the euro area, is contingent on a recovery in domestic demand and stronger growth in the world economy. However, given the sources of downside risks, including oil prices, imbalances in the global economy, financial market uncertainties, and their possible repercussions on domestic activity, it is particularly difficult at this juncture to precisely assess the timing of the further strengthening of the economic upswing in the euro area.

Unemployment rate unchanged in August 2002

The standardised rate of unemployment for the euro area stood at 8.3% of the labour force in August, i.e. unchanged compared with the previous month (see Chart 18). This conceals a further rise of around 17,000 in the number of unemployed. Although this is below the increases registered in the first half of the year, which were above 50,000 on average per month, the overall pattern of increasing unemployment has not changed and a further rise is expected in the third quarter of the year.

The breakdown by age shows that, at 16.3% in August, the unemployment rate of those

Table 6

Unemployment in the euro area

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

	1999	2000	2001	2001 Q3	2001 Q4	2002 Q1	2002 Q2	2002 Mar.	2002 Apr.	2002 May	2002 June	2002 July	2002 Aug.
Total	9.4	8.5	8.0	8.0	8.1	8.1	8.2	8.2	8.2	8.2	8.3	8.3	8.3
Under 25 years ¹⁾	18.5	16.6	15.7	15.7	15.9	16.1	16.3	16.1	16.1	16.2	16.4	16.3	16.3
25 years and over	8.2	7.4	7.0	7.0	7.0	7.1	7.2	7.1	7.1	7.2	7.2	7.2	7.3

Source: Eurostat.

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

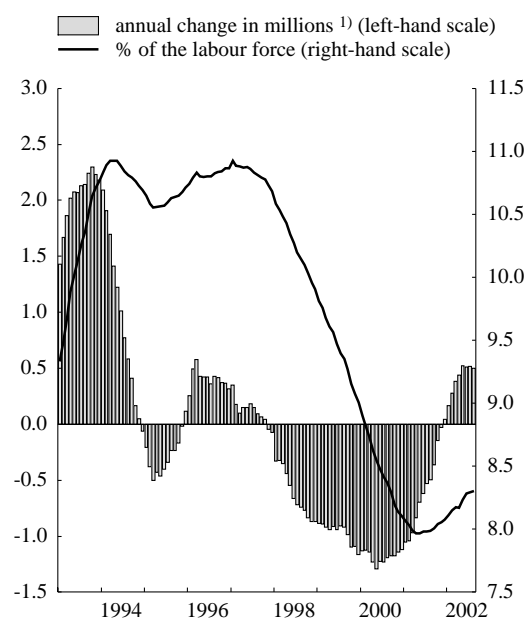
1) In 2001 this category represented 22.9% of total unemployment.

below 25 years of age remained unchanged compared with the previous month, while the unemployment rate of those aged 25 and above increased, from 7.2% in July to 7.3% in August 2002 (see Table 6). These developments correspond to a slight decrease in the number of young unemployed for the second consecutive month, which is mainly due to a change in the seasonal pattern in one country, and to a further increase in the number of unemployed aged 25 and above, although that increase was slightly smaller than in previous months. The breakdown at the national level indicates that the unemployment rate remained unchanged in most countries for which data are available.

Chart 18

Unemployment in the euro area

(monthly data; seasonally adjusted)



Source: Eurostat.

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

1) Annual changes are not seasonally adjusted.

Employment growth unchanged in the second quarter of 2002

According to national accounts data, total euro area employment is estimated to have increased by 0.1% quarter on quarter in the second quarter of 2002, unchanged from the previous quarter (see Table 7). However, in absolute terms, employment rose by only 92,000 in the second quarter of the year compared with an increase of 174,000 in the first quarter.

This slowdown, in line with the increase in unemployment, is visible in most sectors of the economy. The quarter-on-quarter decline in employment in industry, including construction, was greater in the second quarter of 2002 (-0.3%) than in the first quarter (-0.2%). This was due to a stronger decline in employment in the construction sector, while employment growth in industry excluding construction was somewhat less negative in the second quarter of 2002 compared with the two previous quarters. In the agricultural sector, employment continued to decline, by -0.2% quarter on quarter, although at a slower pace than in the first quarter of the year. Finally, in the services sector, the quarter-on-quarter employment growth rate slowed down from 0.3% in the first quarter of 2002 to 0.2% in the second quarter.

According to the European Commission Business Surveys up to September 2002, employment expectations for the euro area appear to confirm the signs of a bottoming-out of the decline in employment in construction and manufacturing in the second quarter of 2002. By contrast, no improvement in employment expectations in the services

Table 7
Employment growth in the euro area

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

	1999	2000	2001	2001	2001	2001	2002	2002	2001	2001	2001	2002	2002
				Q2	Q3	Q4	Q1	Q2	Q2	Q3	Q4	Q1	Q2
	Quarterly rates ¹⁾												
Whole economy	1.8	2.1	1.3	1.5	1.1	0.8	0.7	0.6	0.2	0.1	0.2	0.1	0.1
of which:													
Agriculture and fishing ²⁾	-2.6	-1.6	-0.8	-0.4	-1.2	-1.5	-2.3	-2.0	-0.5	-1.0	-0.3	-0.6	-0.2
Industry	0.3	0.8	0.4	0.7	0.1	-0.4	-0.8	-1.0	-0.1	-0.2	-0.2	-0.2	-0.3
Excluding construction	-0.2	0.6	0.4	0.7	0.1	-0.5	-0.9	-1.0	-0.2	-0.2	-0.3	-0.3	-0.2
Construction	2.0	1.6	0.4	0.7	0.3	-0.2	-0.6	-0.9	0.0	-0.2	-0.2	-0.2	-0.3
Services	2.7	2.9	1.9	1.9	1.7	1.5	1.5	1.4	0.4	0.4	0.4	0.3	0.2
Trade and transport ³⁾	2.3	2.8	1.5	1.4	1.3	1.2	1.5	1.1	0.3	0.5	0.4	0.2	-0.1
Finance and business ⁴⁾	5.6	6.0	3.7	3.9	3.1	2.8	1.9	2.1	0.6	0.5	0.6	0.1	0.8
Public administration ⁵⁾	1.8	1.5	1.4	1.4	1.3	1.2	1.4	1.3	0.4	0.2	0.4	0.5	0.2

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.

sector has been observed recently, although employment growth is still positive in that sector. The results of the Purchasing Managers' Surveys are less positive than those

of the European Commission surveys, pointing to a continued decline in employment in manufacturing and to a slowdown in employment growth in services.

Box 4 **Challenges concerning fiscal consolidation**

The current situation

Current projections for 2002 point to a considerably weaker fiscal outcome than previously projected. While part of the deterioration is due to the weaker-than-expected economic conditions and all countries have been negatively affected by this development, there are eight countries where this deterioration has not given rise to renewed imbalance. However, in the case of four countries deficits are still very high and the risk of an excessive deficit has increased.

Factors behind the difficulties and future challenges

The main reason why some countries are experiencing budgetary difficulties at present lies in the fact that they did not use the past period of higher growth to improve their fiscal position substantially. Given that this opportunity was missed, there is now no alternative but for all countries with remaining imbalances to make firm commitments to avoid excessive deficits and attain close to balance or in surplus budgetary positions.

In the past, consolidation deadlines have been postponed with negative effects on their credibility. According to the original commitments, all countries should already have attained fiscal positions close to balance or in surplus by 2002. For some countries this deadline was extended to 2003/04 to allow them to complete the transition phase within a reasonable period of time. However, it has now emerged that the countries have not

been using the additional time to put their public finances on a lastingly sound footing. The current situation of public finances in some countries is also partly the result of overly optimistic growth assumptions and, consequently, insufficiently ambitious consolidation efforts. In previous stability programmes, some countries relied on too high growth projections. With growth lower than projected, these countries are now finding themselves with balances below their originally planned path and closer to the deficit limit of 3% of GDP.

In addition, excessive reliance on one-off measures has proven to carry particular risks for consolidation. First, such measures do not improve the structural fiscal position. Even if they are implemented as planned, they can only provide some short-term alleviation of fiscal pressures, but leave public finances vulnerable to adverse economic developments. Second, returns from projected asset sales are subject to changes in market conditions and these sales do not therefore represent a reliable source of revenue. They should thus not be relied upon as the foundation for ambitious consolidation plans.

Finally, the most recent developments have revealed the importance of timely and accurate reporting on fiscal developments. For a number of countries, fiscal balance estimates have had to be revised downwards substantially and were only submitted with considerable lags. Inaccurate projections induce a delayed implementation of policy measures and reduce the value of multilateral surveillance procedures.

Overall, there is now the need for decisive action in order to set up credible adjustment paths on the basis of realistic assumptions on the economic environment and of well-specified consolidation measures. Such adjustment paths must entail significant yearly improvements in the cyclically adjusted balance, to be followed strictly and completed within the shortest possible time frame. To underpin this process, strict monitoring procedures for the implementation of the consolidation strategies, the full use of the excessive deficit procedure and the application of rigorous accounting rules are warranted.

Fiscal consolidation and the outlook for growth

The call for the completion of the fiscal consolidation process also in those member countries where fiscal imbalances persist, i.e. to avoid excessive deficits and to attain budgetary positions close to balance or in surplus in the medium term, is by no means detrimental to the outlook for economic growth. Reaching budgetary positions in line with the Stability and Growth Pact will improve fiscal sustainability and create the much needed room for manoeuvre to cope with the long-term costs of population ageing. This prospect will support growth in the medium to longer term. As concerns the short term, the attainment of budgetary positions in balance or in surplus creates the flexibility to let actual balances fluctuate with the economic cycle. This is already the case in those member countries complying with the Stability and Growth Pact. Calling for the transition to be completed in the few remaining countries, at an ambitious but reasonable pace, should also not negatively affect growth, as direct effects on short-term demand are counteracted by higher credibility of the conduct of fiscal policy – boosting confidence and thus private spending.

In summary, appropriately designed fiscal consolidation measures foster confidence and enhance the potential for growth, thus increasing the chances of their lasting success and supporting the sustainability of public finances. In particular, consolidation strategies are likely to be more successful if they focus on measures that are growth-friendly and emphasise expenditure adjustment rather than revenue increases.

4 Exchange rate and balance of payments developments

The euro remained broadly stable in September and early October 2002

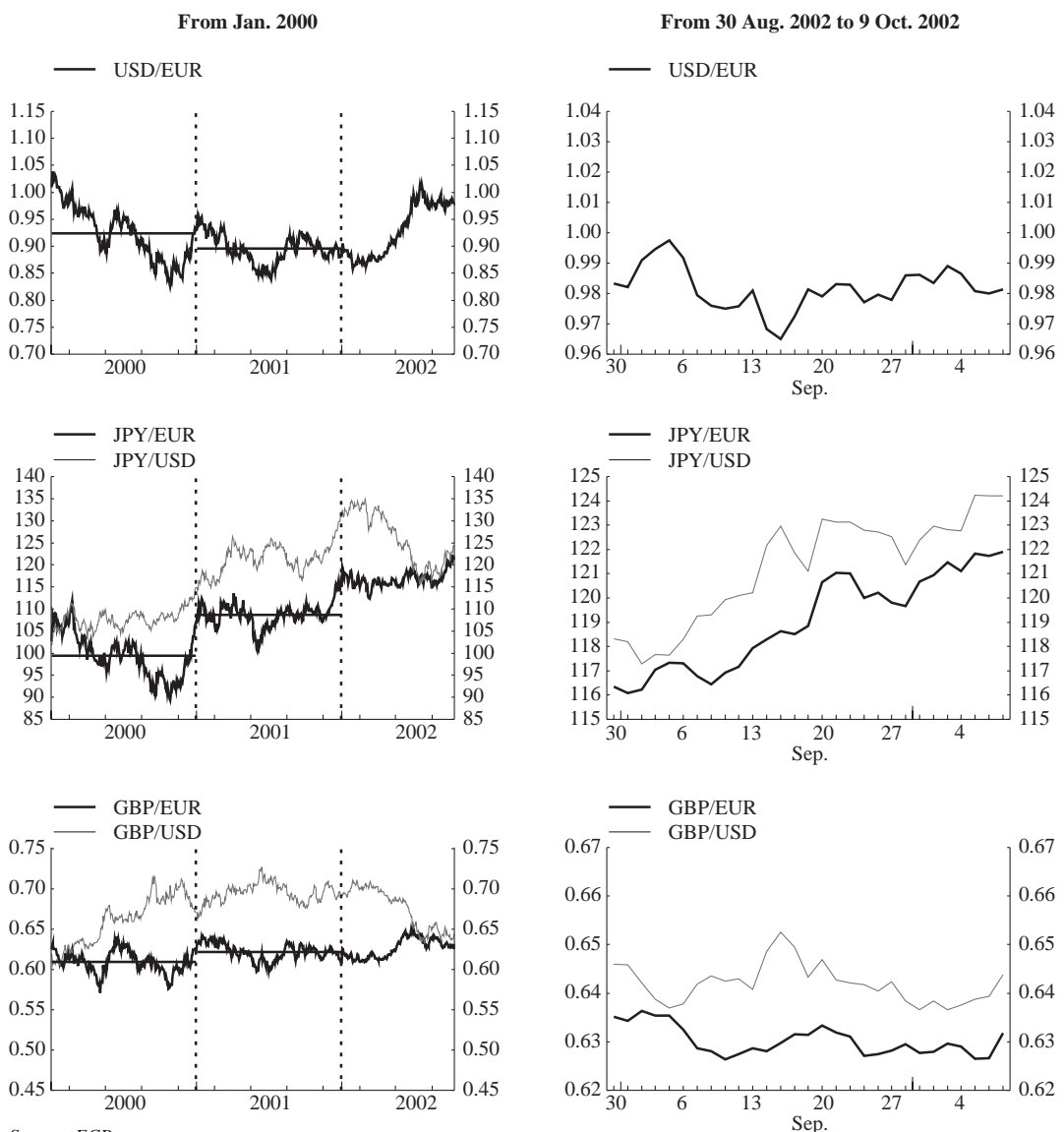
In September and early October 2002 developments in foreign exchange markets were dominated by a depreciation of the Japanese yen vis-à-vis all major currencies. Uncertainty among market participants about future policy measures to stem deflationary tendencies and preserve financial stability in

Japan was the main factor behind this development. By the end of the review period the euro, while having appreciated against the yen, traded against the US dollar close to its level at the end of August and had depreciated moderately vis-à-vis the pound sterling. In nominal effective terms, it stood on 9 October more than 5% above its average level in 2001.

Chart 19

Patterns in exchange rates

(daily data)



Source: ECB.

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

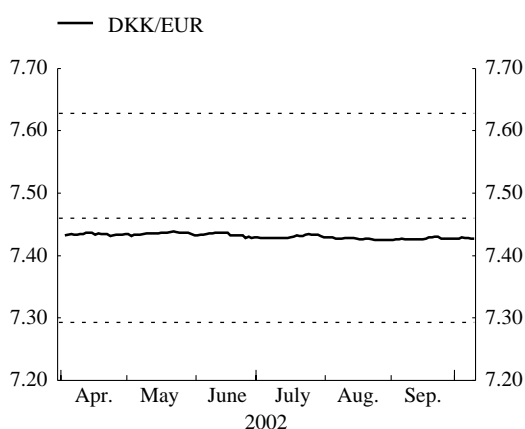
The euro continued to trade in a relatively moderate range vis-à-vis the US dollar in September and early October. In the first two weeks of the month, market nervousness ahead of the first anniversary of 11 September events and the prospect of war in Iraq seemingly favoured technical trading, which supported a moderate appreciation of the dollar against the euro. The release of the Beige Book in the United States – which cast some doubt on the growth prospects of the US economy – as well as the testimony of the Chairman of the Board of Governors of the Federal Reserve System before the Senate Budget Committee on 12 September – which highlighted the risks to growth stemming from the rising US fiscal deficit – did not have an immediate impact on the dollar (see Chart 19). Subsequently, however, the US dollar weakened slightly to eventually trade closely around USD 0.98 against the euro, as market participants reacted negatively to data releases on US industrial production and labour market conditions. On 9 October, the euro was quoted at USD 0.98, almost the same level as at the end of August and 9.6% stronger than its 2001 average.

The Japanese yen depreciated against all major currencies over the period under consideration, falling to a three-year low against the euro. The decline in the Japanese currency seems to have been temporarily accelerated by the Bank of Japan's announcement on 18 September that it would "explore policy measures to help banks reduce shareholdings and avert the impact of declining stocks on profit and capital", in combination with the undersubscribed auction of Japanese government bonds on 20 September. Towards the end of September and in early October the depreciation of the yen moderated somewhat, amid a stabilisation of the Japanese bond market and renewed hopes of banking sector reform. On 9 October the euro was quoted at JPY 121.9, 4.8% higher than at the end of August and about 12% stronger than its 2001 average.

The pound sterling appreciated moderately against the euro and the US dollar, amid data

Chart 20
Patterns of exchange rates within ERM II

(daily data)



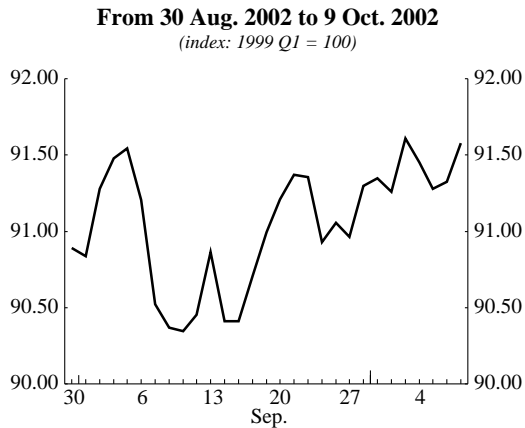
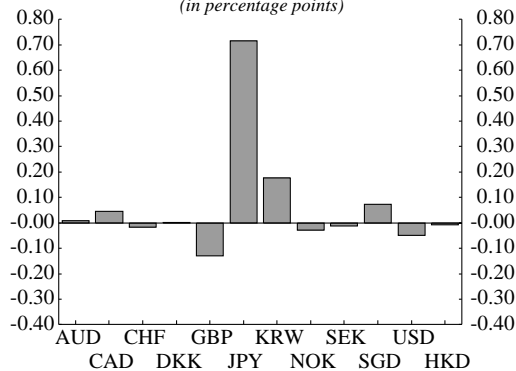
Source: ECB.

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

releases suggesting a better outlook for the UK economy in comparison with the United States and the euro area. On 9 October the euro traded against the pound sterling at GBP 0.63, just below its level at the end of August and 1.6% higher than its 2001 average.

As far as other European currencies are concerned, the Danish krone remained stable, fluctuating slightly below its central parity within ERM II (see Chart 20). The euro was also broadly stable against both the Swedish krona and the Swiss franc in the period under review. Among emerging market currencies, the Brazilian real depreciated significantly and fell to its lowest ever level against the US dollar, although it recovered somewhat in early October.

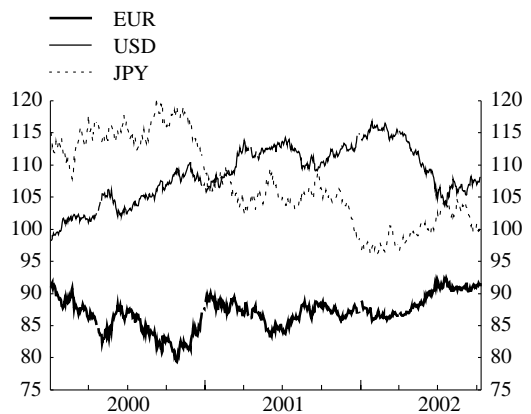
The nominal effective exchange rate of the euro, as measured against 12 major trading partners of the euro area, remained broadly stable in September and early October, as the appreciation against the Japanese yen and, to a smaller extent, the South Korean won was only partly offset by the moderate depreciation vis-à-vis the pound sterling (see Chart 21). On 9 October the nominal effective exchange rate of the euro was slightly above its end-August level and 5.2% stronger than its average level in 2001. In

Chart 21**The effective euro exchange rate and its decomposition¹⁾***(daily data)***Contributions to EER changes²⁾**
(in percentage points)

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.

nominal effective terms, the US dollar appreciated by roughly 2% in the period under review but stood on 9 October 2.6% below its annual average for 2001. By contrast, the Japanese yen depreciated in nominal effective terms in September and early October but stabilised towards the end of the period under review. On 9 October it was about 5.9% weaker than its average level in 2001 (see Chart 22).

Chart 22**Effective exchange rates of the euro, the US dollar and the Japanese yen¹⁾***(daily data; 1999 Q1 = 100)*

Source: ECB.

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

Current account recorded a surplus in July 2002

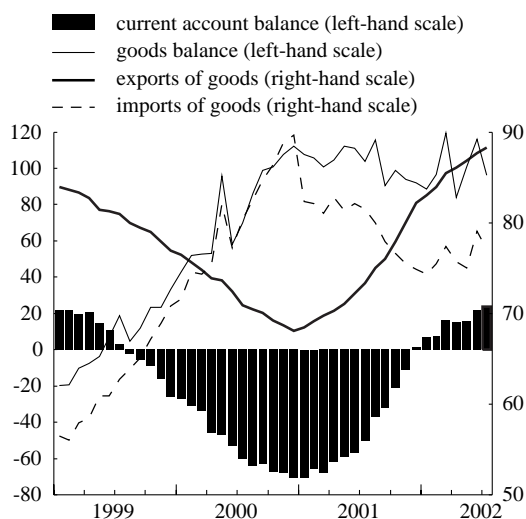
The euro area current account showed a surplus of €2.6 billion in July 2002 compared with a deficit of €0.2 billion in July 2001 (see Table 8). This development was principally the result of an increase in the goods surplus (from €10.9 billion to €14.2 billion), together with a €2.2 billion decrease in the deficit for current transfers, which more than offset a €0.6 billion reduction in the surplus for services and a €2.2 billion increase in the income deficit.

In the first seven months of 2002 the cumulated current account balance turned from a deficit of €20.6 billion in the same period last year into a surplus of €11.9 billion. A significant increase in the goods surplus (from €32.3 billion to €71.0 billion) was the main factor behind this development. Cumulated imports declined quite significantly from €576.6 billion to €536.0 billion, while cumulated exports were roughly at the same level as in the corresponding period of last year. The higher goods surplus was only marginally offset by a slightly higher income deficit and a small reduction in the surplus for services. Meanwhile, the deficit for

Chart 23

The euro area current account balance, the goods balance and exports and imports of goods

(EUR billions; seasonally adjusted)



Source: ECB.

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

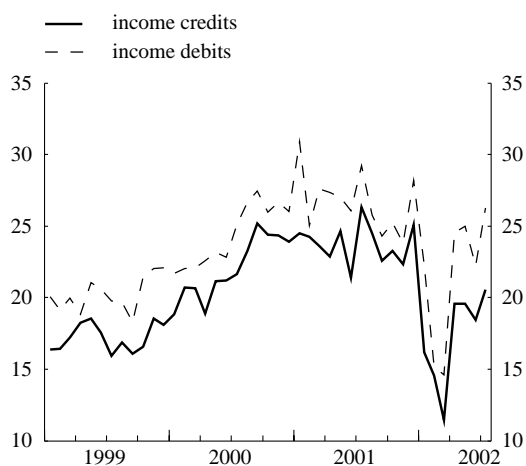
current transfers remained virtually unchanged.

Looking at month-on-month developments on the basis of seasonally adjusted data, although recent readings have been quite volatile, the

Chart 24

Euro area income credits and debits

(EUR billions; seasonally adjusted)



Source: ECB.

underlying growth in the value of exports of goods has been sluggish in recent months (see Chart 23). As in the recent past, the value of imports of both goods and services remained fairly flat in July compared with June, inter alia reflecting subdued demand trends in the euro area. In general, since the start of the year, exports and imports of services have been more subdued than trade in goods. Meanwhile, the increase in the income deficit in recent months reflects the fact that although income credits and debits are both rising, the increase in income credits has been somewhat smaller (see Chart 24).

Net inflows of combined direct and portfolio investment in July 2002

Combined direct and portfolio investment in the euro area registered net inflows of €10.6 billion in July 2002, as net outflows in direct investment (€3.6 billion) were more than offset by net inflows in portfolio investment (€14.2 billion). The net outflows in direct investment were the result of euro area investment abroad (€9.3 billion), mainly in equity capital and reinvested earnings (€12.2 billion), which were only partly offset by net inflows in this category (€5.7 billion). The net inflows in portfolio investment stemmed from large net inflows in bonds and notes (€14.8 billion).

In July 2002, investments by non-residents continued to be substantial in euro area bonds and notes (€17.8 billion – see Chart 25). Together with the declining investment in euro area equities by non-residents over the first seven months of 2002, the rising investment in euro area bonds and notes seems to be mostly associated with the uncertainty regarding the global economic outlook and the ensuing correction in equity valuations. Furthermore, investment in money market instruments registered net inflows of €3.6 billion owing to large non-resident transactions (€9.3 billion) in instruments issued by euro area residents. Investment in equities was relatively subdued on both the assets and liabilities sides.

On a cumulated basis in the first seven months of 2002, combined net direct and portfolio investment was virtually on balance (net outflows of €6.0 billion), compared with net outflows of €103.4 billion during the same period in 2001 (see Chart 26). Net outflows in combined direct and portfolio investment were, on average, in 2001 already lower than in 2000 as primarily equity

portfolio investment shifted from net outflows to net inflows while debt instruments still recorded significant net outflows. In the first seven months of 2002 portfolio investment in debt instruments also shifted to net inflows of €10.5 billion compared with net outflows of €70.5 billion over the same period in the previous year.

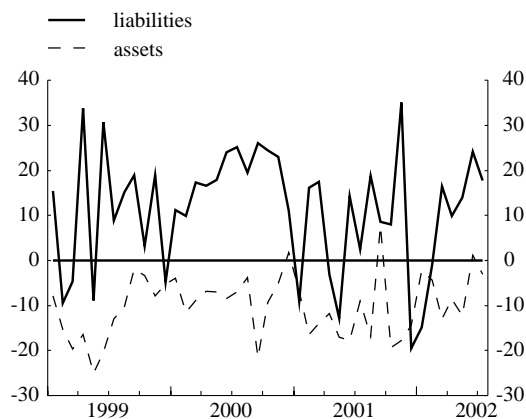
Table 8
Balance of payments of the euro area

(EUR billions; not seasonally adjusted)

	2001 Jan. - July	2001 July	2002 Jan. - July	2002 May	2002 June	2002 July
Current account balance	-20.6	-0.2	11.9	0.1	3.9	2.6
Credits	1011.6	153.2	980.3	140.8	141.1	148.6
Debits	1032.2	153.4	968.4	140.7	137.2	146.0
Goods balance	32.3	10.9	71.0	9.2	12.1	14.2
Exports	608.8	91.7	607.0	86.7	88.2	93.0
Imports	576.6	80.8	536.0	77.6	76.1	78.8
Services balance	2.9	1.5	0.8	2.8	2.0	0.9
Exports	182.4	30.8	182.1	28.0	27.0	29.7
Imports	179.5	29.3	181.3	25.2	25.0	28.8
Income balance	-31.3	-7.1	-35.9	-6.4	-3.4	-9.3
Current transfers balance	-24.5	-5.4	-24.0	-5.5	-6.7	-3.2
Capital account balance	6.8	0.4	7.1	1.1	1.1	0.5
Financial account balance	-1.7	-20.3	-72.6	4.9	-36.9	-11.2
Direct investment	-93.9	-1.5	-23.1	5.1	-15.5	-3.6
Abroad	-161.7	-15.8	-88.3	-14.6	-15.6	-9.3
Equity capital and reinvested earnings	-102.0	-16.3	-63.4	-9.2	-11.0	-12.2
Other capital, mostly inter-company loans	-59.8	0.5	-24.9	-5.4	-4.6	2.9
In the euro area	67.9	14.2	65.2	19.7	0.1	5.7
Equity capital and reinvested earnings	55.9	10.7	33.0	9.0	3.2	2.2
Other capital, mostly inter-company loans	12.0	3.6	32.2	10.7	-3.2	3.5
Portfolio investment	-9.5	3.2	17.1	32.0	14.3	14.2
Equities	61.0	5.1	6.6	21.9	-9.2	-4.2
Assets	-81.8	-10.2	-54.2	-5.8	-5.7	-7.2
Liabilities	142.8	15.4	60.9	27.6	-3.5	3.0
Debt instruments	-70.5	-1.9	10.5	10.1	23.5	18.4
Assets	-91.5	-4.7	-75.6	-20.4	-1.5	-8.7
Liabilities	21.0	2.8	86.2	30.5	25.0	27.1
Memo item:						
Combined net direct and portfolio investment	-103.4	1.7	-6.0	37.1	-1.3	10.6
Financial derivatives	-8.8	-7.4	-7.6	-1.9	-1.1	-7.0
Other investment	98.4	-14.5	-60.4	-32.4	-31.0	-12.3
Reserve assets	12.1	0.0	1.3	2.1	-3.5	-2.5
Errors and omissions	15.4	20.0	53.7	-6.1	31.9	8.1

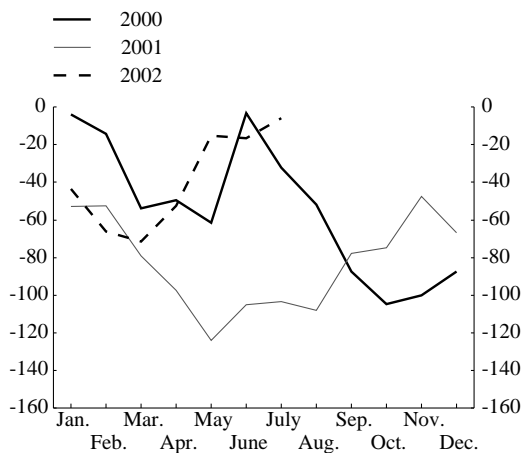
Source: ECB.

Notes: Figures may not add up due to rounding. For the financial account, a positive sign indicates an inflow, a negative sign an outflow; for reserve assets, a negative sign indicates an increase, a positive sign a decrease. A detailed set of tables on Euro 12 balance of payments data can be found on the ECB's website.

Chart 25**Euro area portfolio investment in bonds and notes***(EUR billions, monthly data)*

Source: ECB.

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

Chart 26**Euro area combined net direct and portfolio investment flows***(EUR billions, cumulated data)*

Source: ECB.

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

These net inflows in the portfolio investment account were more than offset by net outflows in direct investment amounting to €23.1 billion (on a cumulated basis over the first seven months of 2002). While direct investment from the euro area abroad declined from €161.7 billion in the first seven months of 2001 to €88.3 billion over the same period in 2002, the foreign direct

investment in the euro area was broadly unchanged at €65.2 billion. Since euro area companies invested heavily in the United States in past years (see Box 5), some plausible explanations for the fall of euro area direct investment abroad could be the slow-paced economic recovery in the United States and the uncertainty about US productivity.

Box 5**Developments in net financial flows between the euro area and the United States**

International financial flows have increased significantly in the past five years. Moreover, there have been marked changes in the composition and direction of financial flows among major economies. The purpose of this box is to provide some stylised facts about these changes for the United States and the euro area, and in particular to describe how financial flows between the euro area and the United States have evolved over time.

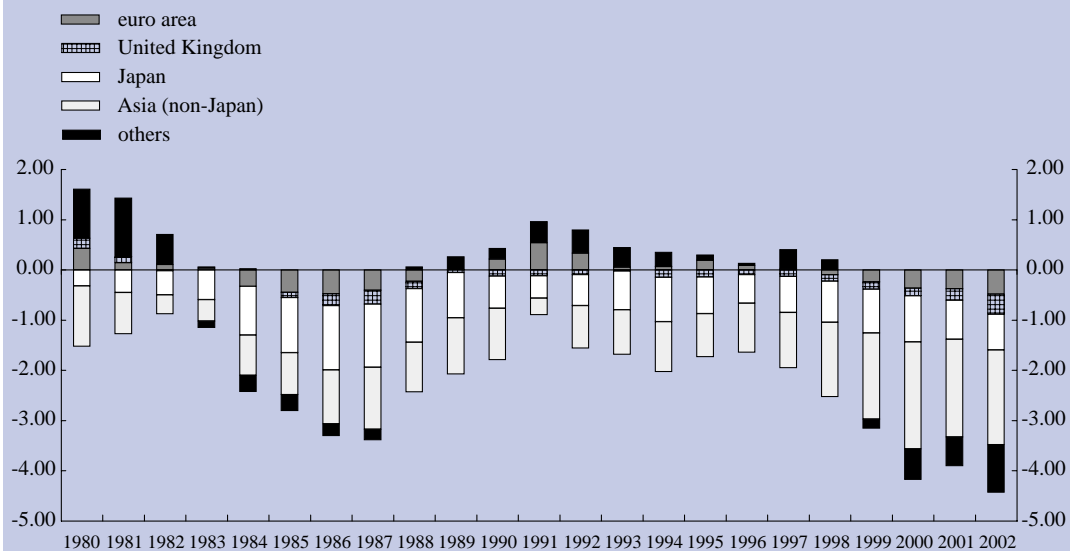
The geographical breakdown of financial flows for the United States

The US Bureau of Economic Analysis (BEA) provides a geographical breakdown of financial flows for the United States (such a breakdown is not yet available for the euro area).¹ These capital inflows have been associated with an increase in the US current account deficit since the early 1990s and have averaged 4.3% of GDP in the past three years. The geographical composition shows that the US current account deficit with the euro area has been relatively small in recent years. By contrast, it has been by far the largest with Asia and Japan (see Chart A below).

¹ In its geographical breakdown, the BEA reports data for the European Union as a whole and, separately for the United Kingdom. Therefore, in this box data for the euro area includes financial flows for Denmark and Sweden, except for portfolio investment data in Chart C where the US Treasury International Capital (TIC) system has been used. Note that US portfolio investment data are not directly comparable with those of the euro area balance of payments, as they rely on different data collection methods and definitions. The US TIC reporting system, in particular, identifies the first counterpart, thus tracking the place of transaction and not the ultimate owners of securities.

Chart A: US current account: geographical composition

(% of GDP)



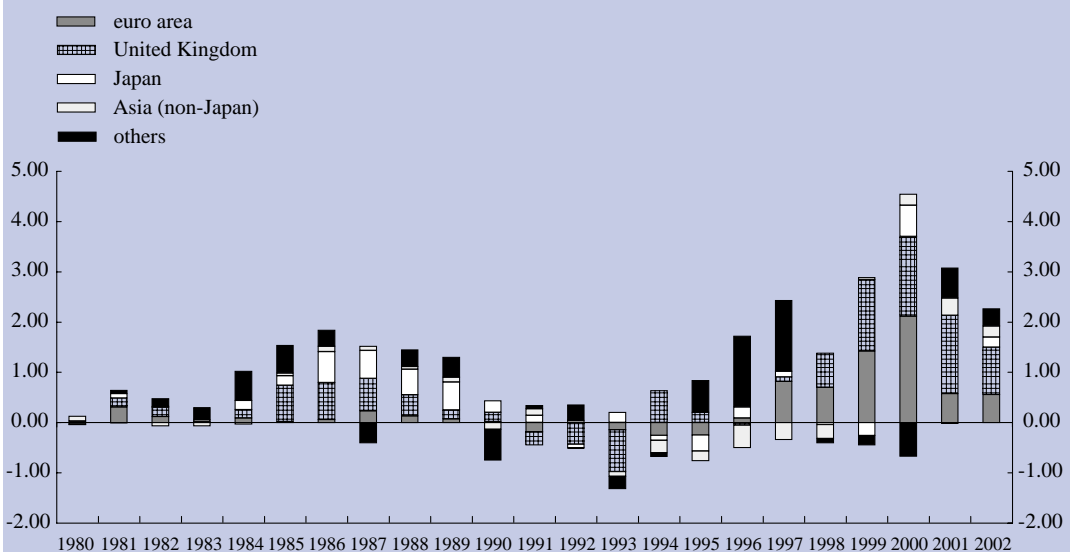
Sources: BEA and ECB calculations.

Note: 2002 figures for the first six months of the year are annualised.

However, the geographical composition of the current account deficit is very different from the geographical composition of capital flows on the financial account side. The United States has, in recent years, received substantial net capital inflows from the rest of the world. Net inflows in direct and portfolio investment into the country increased from close to balance in the early 1990s to around 2.5% of US GDP in the first six months of 2002 – the latest data available. The peak of net direct and portfolio investment flows occurred in 2000, amounting to 4.3% of US GDP. According to the data provided by the BEA, by far the largest share of inflows into the United States over the past five years has come from the euro area and the United Kingdom, while capital inflows from Asia including Japan have been substantially smaller (see Chart B below). However, it is important to note that the large share of the net financial flows from the United Kingdom to the

Chart B: US net direct and private portfolio investment: geographical composition

(% of GDP)



Sources: BEA and ECB calculations.

Note: 2002 figures for the first six months of the year are annualised.

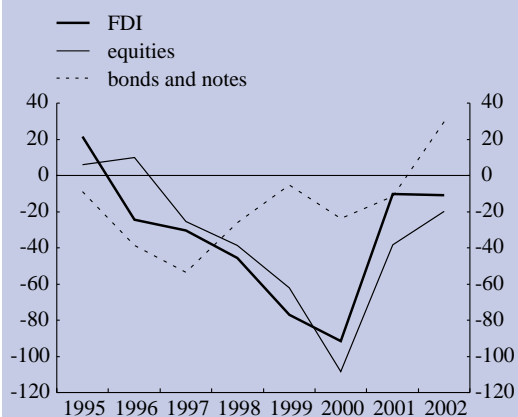
United States may also be due to the importance of London as a global financial centre rather than the activity of British firms and investors alone. In general, this suggests that the geographical breakdown of cross-border financial flows should be interpreted with caution, as the existence of intermediary countries makes it difficult to accurately identify the location of the original counterpart.

Main features of bilateral euro area – US financial flows

Looking at a finer decomposition of the financial flows between the euro area and the United States there are some marked differences between categories. Two-thirds of net flows in direct and portfolio investment from the euro area into the United States in the past decade has been in the form of portfolio investment.

Chart C: Net financial flows between the euro area and the United States

(EUR billions)



Sources: US Bureau of Economic Analysis, US Department of the Treasury and ECB calculations.

Note: 2002 figures for the first six months of the year are annualised. A negative sign indicates net financial outflows from the euro area and net inflows into the United States.

The exception to this finding were the years 1998-2000 when net direct investment flows from the euro area into the United States rose significantly. Chart C shows that net flows in foreign direct investment (FDI) from the euro area to the United States reached €91 billion in 2000 (0.9% of US GDP). The largest net flows from the euro area to the United States until 2000, however, occurred in the category of equity securities, which reached €108 billion in 2000. By contrast, net financial flows in bonds and notes were less sizeable. Since 2000, financial flows between the euro area and the United States have undergone substantial changes. First, net financial flows in direct and portfolio equity investment declined markedly in 2001 and levelled off in the first six months of 2002. Second, flows in bonds and notes turned from net inflows into the United States to net inflows into the euro area in the first six months of 2002 (see Chart C, above). Overall, the magnitude of net

financial flows between the euro area and the United States in 2001 and the first half of 2002 has returned to the levels observed in the mid-1990s.

Recent findings on monetary policy transmission in the euro area

This article draws on new Eurosystem research to provide a summary of recent findings on the transmission of monetary policy in the euro area. The article is structured around three main questions: What are the estimated effects of monetary policy changes on prices and output in the euro area? How are these effects channelled? How do the effects of monetary policy differ over time or across individual sectors or countries in the euro area?

The main results of the research into each of these questions can be summarised as follows. Monetary policy changes have a temporary effect on aggregate euro area output; over time, output tends to return to close to its original level. Although more muted at the start, the effect on consumer prices is long-lasting. Whereas these general results are clearly supported by the evidence discussed in this article, the more specific patterns of the transmission lags of monetary policy are subject to considerable uncertainty. This is due partly to the fact that the analysis is, by necessity, based predominantly on data from the period before the introduction of the euro. The existence of long and uncertain lags confirms that monetary policy should be focused on medium-term developments and should avoid attempting to fine-tune output or prices in the short term.

Investment appears to be an important driving force behind output changes in the wake of a monetary policy shock. The results confirm that business investment is sensitive both to changes in the user cost of capital and, to a more limited extent, to liquidity or cash-flow effects. Financial and credit constraints seem to play a role in explaining the response to monetary policy in some countries and for specific groups of firms or banks, but do not appear to be of central importance for the euro area as a whole.

The empirical evidence does not suggest that there are systematic differences between countries in policy transmission that are robust across different studies and methodologies. There is, however, evidence of a differential impact on economic sectors and also evidence that the effects of monetary policy on output may be stronger in periods when the balance sheets of households and firms are weak, such as during a downturn.

I Introduction

Drawing on new analyses conducted by the ECB in co-operation with the Eurosystem's research areas, this article provides a summary of recent findings on the transmission of monetary policy in the euro area. The Eurosystem's work was carried out by two different groups, namely the "Monetary Transmission Network", which focused on aggregate time series models and on microeconomic data, and the Monetary Policy Committee's "Working Group on Econometric Modelling", which concentrated on structural area-wide and national econometric models.¹ This article follows another on the same subject which appeared in the July 2000 issue of the ECB's Monthly Bulletin, and is a progress report that extends and updates these earlier findings.

The article is structured around three main questions: What is the estimated effect of monetary policy on prices and output in the euro area? How are these effects channelled? Are there differences in how monetary policy is transmitted throughout the euro area? The main results of research on each of these questions are examined in the three following sections of this article. The last section contains the overall conclusions of the research and discusses the links and implications for the ECB's monetary policy strategy.

¹ The complete research results have been published in ECB Working Papers Nos. 91-114.

2 Aggregate effects of monetary policy on prices and output

There is a general consensus on the *direction* of the effects of changes in policy-controlled interest rates on output and prices: an increase (decrease) in interest rates is thought, *ceteris paribus*, to have a downward (upward) effect on prices and output. However, there is far less agreement about the *magnitude* and *timing* of these effects. Obtaining updated estimates of the effect of monetary policy on the aggregate price level and economic activity in the euro area as a whole is of prime importance for policy-making. In order to attain its statutory goal of maintaining price stability in the medium term, the Governing Council needs to be aware of the size and the timing of the adjustments in the policy-controlled interest rate that are necessary at each time. This requires estimates of the effects of policy rate adjustments on prices at different time lags. In addition, since the ECB aims to attain price stability over the medium term, thereby avoiding the introduction of unnecessary fluctuations in other relevant macroeconomic variables, in particular economic activity, evidence about the effects of monetary policy on output is also important.

In order to create a comprehensive body of evidence, Eurosystem researchers have produced several estimates of the effects on prices and output using a variety of models and data. The results presented in this article were found to be fairly robust across different methodologies and are also consistent with indications from economic theory. It remains important to note, however, that despite their robustness, all these estimates are surrounded by a significant degree of uncertainty. This is partly due to the fact that the analysis is, by necessity, based predominantly on data from the period before the introduction of the euro. Hence the results may be subject to change as a consequence of the introduction of the new currency and the related change in the “monetary policy regime”.

As an illustration of the results obtained for the euro area as a whole, Table I shows the

simulation results of a temporary increase of 100 basis points (lasting for two years) in policy-controlled interest rates within three different macroeconomic models of the euro area: the ECB’s area-wide model (AWM), the aggregations of simulations of the individual national central bank country models (NCB) and of the NiGEM multi-country model, developed by the National Institute of Economic and Social Research (NIESR) in the United Kingdom. In line with the academic literature, the monetary policy changes are assumed to be *unexpected*, although policy moves are usually anticipated to a certain extent. Hence, the simulations lump together the *overall* effects of the policy change, including those stemming from any early signals or other information that may precede it. In these simulations, it is assumed that the long-term interest rate and the exchange rate respond in line with the expectations theory of the term structure of interest rates and the uncovered interest rate parity theory respectively. The long-term interest rate is assumed to increase by 20 basis points on impact, while the exchange rate is assumed to appreciate by 2%. In all cases, the maximum effect on real output occurs in the second year. The size of the effect after one year lies within a relatively narrow range of -0.2 to -0.4%. Moreover, all model results suggest that output eventually tends to return to the original value after the temporary monetary policy shock. For prices, the adjustment in response to the same shock is slower; the level of consumer prices decreases gradually. By contrast with the effects on output, the effects of monetary policy on the price level are long-lasting. According to Table I, the drop in the price level after three years lies in a range of -0.2 to -0.4%.

There are some differences in the persistence of the output and price effects across different models. Notably, models differ in how long it takes for output to return to baseline. For example, in the aggregation of the simulations calculated from the national models, euro area output returns to baseline

Table 1**Responses to a 1% increase in the policy-controlled interest rates of the euro area**

	Real GDP			Consumer prices		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
AWM	-0.34	-0.71	-0.71	-0.15	-0.30	-0.38
NCB	-0.22	-0.38	-0.31	-0.09	-0.21	-0.31
NiGEM	-0.34	-0.47	-0.37	-0.06	-0.10	-0.19

Sources: McAdam, P. and J. Morgan, ECB Working Paper No. 93; Van Els et al., ECB Working Paper No. 94.

Notes: The table shows responses of real GDP and consumer prices to a two-year increase of 100 basis points in the policy-controlled interest rates of the euro area. Figures are expressed in per cent from baseline. Simulations are performed using the ECB's area-wide model (AWM), the NCBs' macroeconomic models (NCB) and the multi-country model of the NIESR (NiGEM).

after about five years, while the return occurs later, after seven years, in the NiGEM multi-country model. Overall, the detailed timing of the effects of monetary policy are subject to greater uncertainty than the evidence on the overall size of the effects.

The broad profiles of the output and price responses to monetary policy are robust across econometric models and methodologies. Using vector-autoregression (VAR) models, for example, the typical pattern over time of the response of euro area output after a monetary contraction is characterised by an inverted hump shape. Output begins to decline significantly roughly two quarters after the initial increase in the interest rate and returns to close to its original value after around two years (see the article entitled "Monetary policy transmission in the euro area" in the July 2000 issue of the ECB's Monthly Bulletin).

Overall, the results show that the effect of monetary policy on prices is very slow, but long-lasting, whereas the effect on output is significant in the short run, but temporary. These results are both qualitatively and

quantitatively comparable with those in the large body of empirical literature on the effects of monetary policy in other countries, notably the United States. They highlight two robust features of monetary policy transmission. First, the impact of monetary policy is neutral in the long run, i.e. a permanent change in the money supply (associated here with a temporary change, in the opposite direction, in the central bank instrument, the policy-controlled interest rate) has no significant long-run effect on real GDP, but does lead to a permanent change in the price level. This evidence is consistent with that given in the large body of theoretical and empirical literature on money neutrality. Second, monetary policy changes do have a temporary impact on output. This short-run non-neutrality is attributable to nominal and real rigidities in the goods and labour markets, which prevent prices from quickly adjusting after a change in monetary policy. This highlights the importance of the structural characteristics of the wage and price setting mechanisms in terms of enhancing the effectiveness of monetary policy on prices and reducing its costs in terms of output fluctuations.

3 Channels of monetary transmission

Monetary policy decisions are transmitted through the economy in a variety of ways, all of which eventually affect the evolution of prices and output. The monetary transmission mechanism is a combination of all the economic channels through which, over time, monetary policy affects the

economy.² There are two approaches to determining the importance of the different channels in affecting the evolution of prices

2 A more detailed overview of these mechanisms of monetary transmission can be found in the article published in the July 2000 issue of the ECB's Monthly Bulletin and in the volume entitled "The Monetary Policy of the ECB"; ECB, August 2001.

and output in the euro area. On the one hand, structural econometric models can be used to try to disentangle some of the channels and identify their relative quantitative importance at the macroeconomic level. One drawback in doing this is that the analysis is model-dependent, and the result can be driven partly by modelling choices. On the other hand, disaggregated data from balance sheets of non-financial firms and banks can be used to analyse specific key links in the transmission mechanism, such as the role of financial factors and the supply of bank credit. This approach is particularly promising given the importance of bank lending as a source of finance in the euro area. With this type of research, however, it is not always easy to deduce the macroeconomic importance of evidence in favour of financial factors playing a role. Hence, the pieces of evidence gathered by the two approaches are complementary and are best considered together.

In the following sections, these two pieces of evidence are discussed in turn. It should be noted, however, that this analysis is not exhaustive. In particular, important channels such as the direct effect of monetary policy on inflation expectations are not explicitly discussed. The Eurosystem's monetary policy strategy, with its emphasis on price stability over the medium term, plays an important role in anchoring inflation expectations at low levels and thereby contributing to the stability of the economy. Indirect evidence (e.g. the analysis of bond yields) supports the view that since the start of Stage Three of Economic and Monetary Union (EMU), expectations of inflation over the medium term have been well anchored by the Eurosystem's commitment to price stability. However, the effects induced by the credibility of the ECB's strategy are by their nature limited to the post-1999 period and therefore not easily captured by the econometric models used to analyse monetary transmission.

Macroeconometric evidence: decomposing the interest rate channels

Changes in the policy-controlled interest rate usually have a prompt impact on market interest rates and on prices of financial assets, such as bonds, equity and foreign exchange. As nominal prices and wages are sticky, a change in nominal short-term interest rates affects real interest rates and asset prices. The latter in turn influence real spending decisions and, through the ensuing imbalance between the demand and the supply for goods and services, also alter wages and prices with a delay. Changes in market expectations can speed up this stage of the transmission.

In a relatively closed economy such as the euro area, the "domestic channels" (primarily consumer and investment expenditure, including construction and inventories) are likely to be the most important. A temporary increase in real interest rates makes it more rewarding for households to delay consumption and increase saving. As households are willing to postpone consumption, current domestic demand for consumer goods and services is reduced (substitution channel). Price adjustments in domestic asset markets – for bonds, equities and real estate – affect the value of households' wealth and, therefore, spending (wealth channel). Interest rate changes can also have an impact on disposable income directly by affecting the proceeds from holding or borrowing via short-term and variable-coupon securities (income channel). Finally, changes in interest rates also change the cost of acquiring new capital and thereby affect the demand for fixed and inventory investment goods (cost-of-capital channel).

By modifying the relative return on assets denominated in domestic and foreign currency or by influencing expectations regarding future economic developments inside the euro area, an increase in domestic interest rates may also affect the exchange rate. An appreciation, for example, tends to put downward pressure on the domestic

price level through cheaper imported goods used in domestic consumption and production. Since domestic goods become more expensive relative to foreign goods, domestic and foreign demand for such goods is also likely to decrease, with a negative effect on GDP (exchange rate channel). It should be stressed, however, that most economic literature argues that the effects of interest rate changes on exchange rates are particularly difficult to predict in practice.

Goods prices can be expected to respond relatively quickly to any given change in the nominal effective exchange rate. By contrast, the transmission of monetary policy through the domestic substitution, income, wealth and cost-of-capital channels is likely to be slow in the short term, but more powerful and reliable in the medium term, in particular in a relatively closed economy such as the euro area. The importance of domestic demand in the transmission mechanism is illustrated in Table 2, which shows the percentage contributed by changes in consumption, fixed investment and the other components of aggregate demand to the change in GDP following a tightening of monetary policy. These contributions are calculated by weighting the response of each component according to its share in GDP. Consumption and investment together cover almost the totality of the effect on domestic demand and output (the remainder being accounted for by government consumption, changes in inventories and net exports). In particular,

the results show that investment is a main driving force, with a contribution of more than 80 percent to the total response of GDP after three years. Moreover, the importance of investment gradually increases over time, suggesting the existence of accelerator effects that build up gradually. The important role of investment in the transmission process is confirmed by country-level analyses and by the microeconomic evidence on the cost-of-capital channel discussed in the next section. The effect of consumption as a percentage of the total response to GDP remains quite steady over time and is estimated to be between one-third and one-half of the total response of GDP.

Microeconomic evidence and the credit channel

Households and firms may be constrained in their spending behaviour if desired spending exceeds currently available funds or the amount of credit that they can obtain. This mechanism, which arises under imperfect financial markets and gives rise to what is often referred to as the credit channel, operates in a number of different ways. The first is through the supply of bank lending, as firms and households often depend on banks as their main providers of external finance (bank-lending channel). Another is through the availability and value of collateral necessary for borrowing operations (balance sheet channel) or the availability of liquid

Table 2
Contributions of aggregate demand components to the GDP effect of an increase in the policy-controlled interest rates of the euro area

	NCB			AWM		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Consumption	33	37	37	48	50	46
Investment	32	57	83	50	70	88
Other	34	6	-20	2	-20	-34
Total	100	100	100	100	100	100

Source: ECB calculations based on Van Els et al., ECB Working Paper No. 94.

Note: The table shows the contributions of the components of aggregate demand to the effect of a two-year increase of 100 basis points in the policy-controlled interest rates of the euro area. Figures are expressed as a percentage of the total effect on real GDP. Simulations are performed using the NCBs' macroeconomic models (NCB) and the ECB's area-wide model (AWM).

funds (cash-flow channel). The credit channel depends on the level of interest rates and other asset prices and normally plays a role in addition to the more traditional interest rate channel, typically strengthening the effects generated through substitution, cost-of-capital and wealth effects. On the whole, the importance of the credit channel depends on the financial structure and the financial stability of the economy concerned (“financial accelerator” effects). The high degree of bank dependence and the limited breadth of the stock and other financial markets in the euro area are conducive to the existence of possible credit channel effects. As a consequence, attention to the importance of such channels, in particular the role of banks, in the transmission mechanism is warranted.

Empirical evidence on the behaviour of individual firms collected by the Eurosystem groups shows that the effects of changes in the cost of capital on firms’ investment decisions are significant (see the box). Cost-of-capital changes therefore seem to represent a significant element in the monetary transmission process. However, in most euro area countries cash-flow considerations also play a role in investment decisions, pointing to the possibility that firms are to some extent subject to liquidity constraints. In these circumstances, firms may not be able to fully fund all positive net-present-value projects because of the unavailability of internal or external finance.

Empirical evidence on the behaviour of individual banks shows that bank loans decline significantly after a tightening of monetary policy (see the box). Evidence from macroeconomic time series clearly confirms this effect. Moreover, the results for the euro area show that banks that hold relatively less liquid assets generally adjust their lending to changes in the short-term interest rate by

more than banks that hold more liquid assets. This suggests that the response of loans to monetary policy changes depends on the characteristics of banks, i.e. the *suppliers* of loans, as opposed to the economic units that *demand* them (households and non-financial firms). This indirect evidence supports the existence of loan supply effects for at least some categories of banks. However, the direct quantitative effects of the liquidity differences do not appear to be large. In addition, contrary to what has been observed in the United States, small banks or less capitalised banks do not seem to react differently to other banks in most countries. Possible reasons for this are the existence of relationship banking, foreign ownership, membership of bank networks, explicit or implicit deposit insurance schemes or other forms of guarantee.

While the results show that a bank-lending channel of monetary policy transmission is likely to be operative in at least some euro area countries, the evidence does not suggest an overwhelming role for such a channel in the euro area as a whole. This could be due to the fact that, in the past, the euro area has been characterised by a rather high degree of financial stability (as indicated by the very small incidence of bankruptcies in the banking sector). In fact, the banks for which the credit channel is important appear to account for a relatively small fraction of total bank lending. However, there could be differential effects of monetary policy among particular classes of banks or borrowers in those euro area countries where the bank-lending channel is found to operate more strongly.³

3 Details on the effects of monetary policy in individual countries can be found in ECB Working Papers Nos. 91-114.

4 Differences in monetary policy effects

This section examines whether the effects on prices and output are homogeneous within the euro area and over time. Asymmetries across countries or regions can arise for a variety of reasons, and can take many forms. First, different cyclical positions may cause different policy effects. Second, differences in the nature of output and in the production techniques can generate differences in the impact of monetary policy across sectors. Third, cross-border differences may result from a variety of factors, such as the legal and institutional framework, the sectoral decomposition of output, etc. Given the area-wide nature of the ECB's price stability objective, cross-country differences cannot be of direct relevance for monetary policy-making. However, an understanding of the factors which determine asymmetries in the transmission of monetary policy is important as it may make it easier to assess the overall policy transmission process, to select the best indicators, and – most importantly – to highlight areas where structural reform in goods, labour and financial markets may be necessary.

Differences according to the business cycle

One of the main reasons why the cyclical position of the economy may be of relevance for monetary policy is that the balance sheet position of households and firms is typically weaker in a downturn than in a boom. A weaker balance sheet of firms and households may accentuate a number of channels of monetary policy transmission, including the “cost-of-capital channel” and the “credit channel.” Evidence based on VAR analysis suggests that the effects of monetary policy on output are indeed larger in a recession (when balance sheets are weaker) than in a boom. This has been found to hold for most countries in the euro area, as well as for the United States.

The chart below illustrates the above by comparing the estimated effects of a common euro area interest rate tightening on industrial

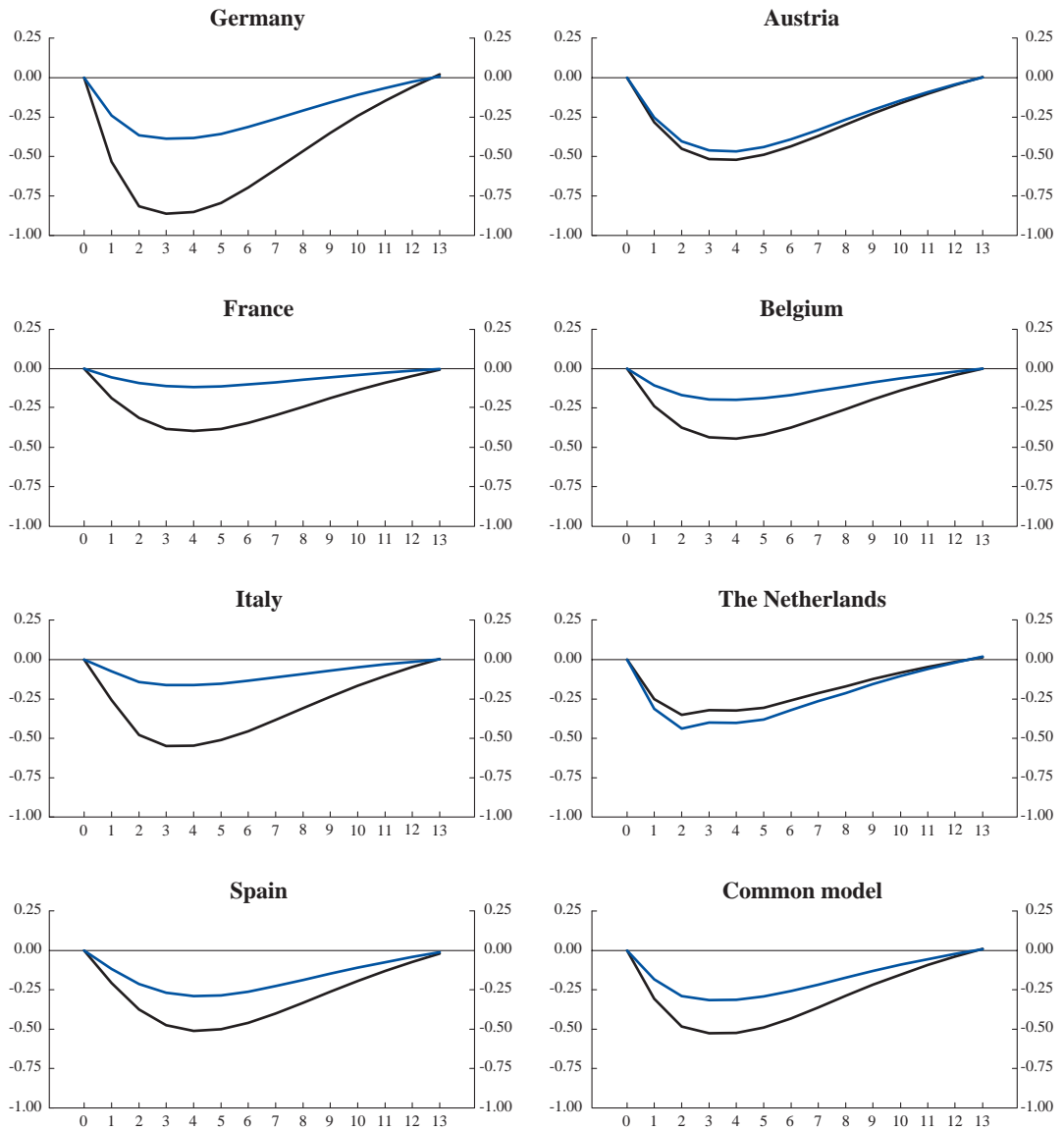
output in the seven largest countries of the euro area in a boom (blue line) and in a downturn (black line). The temporary increase in the policy-controlled interest rate is assumed to be the same in all cases, regardless of the state of the cycle. The simulations show that the *shape* and the *timing* of the effect in a boom and in a recession are similar; however the maximum *size* of the effect is on average larger in a downturn. It is assumed that, given the business cycle position, the effects of a tightening of monetary policy are the same as those of an easing of similar magnitude. The simulation therefore implies that the effect on output of a tightening in a boom is weaker than the effect of an easing in a downturn. Sectoral analysis has shown that those differences are typically larger in industries with weaker balance sheets.

Differences across sectors

Monetary policy changes can affect sectors differently for a number of reasons. First, demand for the respective products can be more or less interest-sensitive. For example, durable items such as investment goods, construction and durable consumption goods are likely to respond more strongly to monetary policy, as their acquisition can be shifted more easily over time. Second, if interest rate changes affect the exchange rate, industries producing tradable goods will be affected more strongly than the services industries. Third, sectors characterised by more capital-intensive production might display higher interest rate sensitivity, since changes in the cost of capital tend to have a greater impact on them. Fourth, monetary policy may affect firms' financing through its effect on collateral values, and the availability of collateral is to some extent sector-specific. Finally, interest rate changes might affect industries at different times depending on their position in the production chain: producers of final goods are likely to be affected earlier than producers of intermediate or primary goods.

Chart

Effects of monetary policy on euro area output in booms (blue line) and in downturns (black line)



Source: G. Peersman and F. Smets, "Are the effects of monetary policy in the euro area greater in recessions than in booms?", ECB Working Paper No. 52.

Notes: The table shows the effects of a temporary increase in the policy-controlled interest rates of the euro area on industrial output in booms (blue line) and in downturns (black line). The policy experiment concerns a temporary increase in short-term interest rates in the euro area of around 35 basis points. The horizontal axis refers to quarters following the increase.

The findings on cross-sectoral differences in monetary transmission in the euro area are still limited, but they are indicative.⁴ First, there seems to be significant cross-sectoral heterogeneity in the reaction of output to monetary policy. Monetary policy effects are greater for producers of durable goods. This holds true, for example, for the construction industry. Second, industries that use more capital in their production technology (e.g. petroleum refineries, iron and steel and non-ferrous metals) are more sensitive to monetary policy changes. Finally, there is also evidence that financial factors play a role in explaining cross-sectoral differences. However, given the relative homogeneity in the sectoral composition of output across the euro area countries (compared, for example, with the regional diversity in the United States), any degree of differential response of output across sectors is unlikely to lead to large cross-country differences in the overall transmission process.

Differences across countries

It should be stressed that it is very difficult to compare the effects of monetary policy changes across countries on the basis of largely pre-1999 data and to draw conclusions on the likely effect of the single monetary policy on the national economies; thus the results of such an exercise should be treated with caution. The effects of monetary policy

changes depend, to a large extent, on the monetary policy regime itself, as perceived by market agents who form expectations and react to monetary policy changes on the basis of such expectations. Hence, the change in policy regime due to the introduction of the euro is likely both to be particularly relevant in this case and to invalidate part of the inference that one can draw with regard to the effectiveness of monetary policy.

Despite these caveats, the fairly extensive literature on transmission mechanisms in individual economies and the results of the research recently conducted in the Eurosystem⁵ make it possible to draw a number of broad conclusions. A number of studies have used econometric models of individual countries to compare the effects of monetary policy. The rankings in terms of the magnitude of the policy effects established in these studies are normally not robust across different studies. In addition, confidence bands around those effects are generally wide so that ranking relative magnitudes becomes difficult. Overall, a comparison of different research findings points to the conclusion that differences in the estimated impact of monetary policy on output and prices across countries do not tend to be robust across different methodologies, data and models. Although differences may be detected in individual studies, they are often not statistically significant and moreover inconsistent across studies.

5 Conclusions

This article has presented an overview of recent research on monetary policy transmission in the euro area, focusing on aspects relevant for the conduct of the single monetary policy. Most of the analytical results were assembled in the course of recent research projects conducted jointly by the research areas of the Eurosystem central banks.

The findings concerning the response of prices to monetary policy confirm that the

ECB can use monetary policy effectively to maintain price stability in the euro area in the

4 See Dedola, L. and F. Lippi, "The monetary transmission mechanism: evidence from the industries of five OECD countries", Banca d'Italia Temi di Discussione No. 389; and Peersman, G. and F. Smets (2002), "The industry effects of monetary policy in the euro area", ECB Working Paper No. 165.

5 For further arguments and evidence on this issue see Majon, B. and G. Peersman, "A VAR description of the effects of monetary policy in the individual countries of the euro area", ECB Working paper No. 92; van Els, P., A. Locarno, J. Morgan and J.-P. Villetelle, "Monetary policy transmission in the euro area: what do aggregate and national structural models tell us?", ECB Working Paper No. 94; Angeloni, I., A. Kashyap, B. Mojon and D. Terlizzese, "Monetary transmission in the euro area: where do we stand?", ECB Working Paper No. 114.

medium term, thereby fulfilling its statutory objective. Consumer prices are affected gradually but permanently by monetary policy. By contrast, real output is affected by monetary policy only temporarily, and not in the medium to long term.

Empirical evidence points towards a large role for investment in the transmission of monetary policy. Investment responds to changes in the user cost of capital and, albeit to a lesser extent, to cash flow or liquidity effects. Loan supply effects, although present in some countries, do not appear to be of central importance in shaping the transmission of monetary policy in the euro area as a whole.

Monetary policy appears to have a different impact on the various economic sectors, depending on the nature of the goods or the services produced, on the sector's capital

intensity, and on the financial structure of the firms operating in it. Monetary policy effects are also found to be different according to the state of the economic cycle. By contrast, it is difficult to detect systematic differences across countries.

Whereas these general results are supported by sufficiently robust analysis, the more specific patterns of the transmission lags of monetary policy are subject to considerable uncertainty. The existence of long and uncertain lags to both prices and output in the transmission of monetary policy suggest that monetary policy decisions should, as laid down in the ECB's monetary policy strategy, have a medium-term orientation and refrain from attempting to stabilise short-run economic developments, thus avoiding causing undue fluctuations in output and other economic variables.

Box

Microeconomic analyses of firms' and banks' behaviour in the euro area

Eurosystem research groups have analysed corporate investment behaviour and bank lending patterns in the euro area using individual firm-level and bank-level data, applying both country-specific approaches (that facilitate accounting for national specificities) and a harmonised approach (that allows for easier cross-country comparisons). The results are presented in detail in a series of working papers published by the ECB.¹

The analytical framework for the analysis of non-financial firms was provided by the standard neo-classical theory of investment, expressing investment (as a ratio to the capital stock) as a function of firm sales and of the cost of capital to the firm. In addition to these variables, the availability of funds within the firm (expressed by the cash-flow-to-capital ratio) was also included to measure the existence of liquidity or capital constraints. The cash-flow-to-capital ratio becomes relevant if capital markets are not completely efficient. The estimated model also allows for firm-specific effects and aggregate shocks, as well as lagged investment. The inclusion of lagged variables attempts to capture the effects of delays in expectation building, investment decisions and the installation of capital goods.

The results² show that the user cost of capital (itself indirectly affected by the policy-controlled interest rates) is a main driver of fixed investment expenditures in most euro area countries. Expected demand developments (approximated by sales growth) and cash flow are also significant. The effects are well distributed within the population of non-financial firms, and there are no systematic differences according to firm size. These results, which have been confirmed by both the harmonised and the country-specific analyses, would suggest that, through corporate spending, monetary policy has a significant influence on the euro area economy.

The analysis of bank lending was aimed at identifying and measuring loan supply responses to monetary policy. Individual bank data were used to identify loan supply effects and to verify whether certain types of bank show a distinct reaction to monetary policy. Analyses of the US economy have shown that smaller, less liquid or less capitalised banks tend to display a comparatively stronger loan supply response to monetary policy restrictions (and the opposite for expansions). This has been interpreted as evidence that the supply of bank loans is responsive to monetary policy changes, to an extent that depends on the specific characteristics of the individual bank. Taken in conjunction with a sensitivity of non-financial firms to the availability of cash flow or liquidity, this may indicate that a "credit channel" of monetary policy is at work.

Again, both country-specific and harmonised analyses were carried out by Eurosystem researchers. The analytical framework was provided by a simple model whereby loans by each bank are explained by short-term interest rate changes, taken as a proxy of monetary policy shifts, as well as developments in real output and prices that express the main variables driving aggregate loan demand in the medium to long term. In addition, the model includes specific characteristics that identify each bank.

The results³ confirmed that monetary policy changes, together with GDP and prices, have a sizeable and rapid effect on bank loan developments. Of the three criteria suggested above, only asset liquidity (measured as the ratio of cash, interbank lending and securities to total assets) seems to be relevant for explaining the differential responses of banks to monetary policy changes. Conversely, bank size and the degree of bank capitalisation do not seem to influence the pattern of individual bank lending responses. This could be due both to banks' tendencies (observed in several euro area countries) to operate in co-operative networks and to the breadth and coverage of the (often implicit) safety schemes provided by public authorities. Both these factors would help to mitigate the effect of individual balance sheet characteristics on lending behaviour and, more generally, to reduce the potency of any "lending channel" of monetary policy.

1 ECB Working Papers Nos. 96-114.

2 See, in particular, Chatelain et al., "Firm investment and monetary transmission in the euro area", ECB Working Paper No. 112.

3 See, for a summary, Ehrmann et al., "Financial systems and the role of banks in monetary policy transmission in the euro area", ECB Working Paper No. 105.

Main features of the repo market in the euro area

The use of repos (sale and repurchase agreements) has become widely accepted as a financing and risk mitigation mechanism in the euro area. It has developed into a deep and resilient market used by a broad range of entities (central banks, commercial and investment banks, corporate treasurers, mutual funds, etc.) for differing purposes. The repo market has gained increasing importance in the money market and is now a sound alternative to unsecured lending or short-term securities issuance. The ECB, and the Eurosystem at large, has a special interest in the repo technique insofar as it is the main instrument used in its monetary policy and intraday credit operations. In addition, repos, because of their hybrid nature (cash and securities legs), provide a link between several markets (the securities markets, the unsecured money market and the derivatives and swap market) and contribute to increasing their liquidity. However, the integration of the national repo markets across the euro area has been and remains, despite considerable progress, a slow and complex process and is lagging behind the level of integration reached in other markets. Thus, further impetus is necessary to enable repo markets to reach the level of integration and efficiency that is needed to reap the full benefits of the financial area which has flourished with the advent of the single currency.

I The basics of the repo market

What is a repo?

A repo (a sale and repurchase agreement) involves a sale of securities with a simultaneous agreement to repurchase those securities at a specified price on a predetermined future date. Repos can be perceived from two different angles. In terms of its economic function, a repo is a very simple transaction, having similar effects as a secured cash loan. Strictly speaking, however, a repo is distinct from a secured cash loan, owing to its specific mechanism and legal structure.

In economic terms, a repo transaction can be seen as a mere loan of cash secured by the provision of securities as collateral. If – as in the case of any cash loan – a cash amount of €100 is lent, the “borrower” will, on the maturity of the loan, repay the “lender” the initial cash amount lent (€100) plus the interest due on the cash. The corresponding interest rate is called the repo rate, referred to as “r”. The difference to an unsecured cash loan is that the “borrower” of cash in a repo transaction provides the “lender” with collateral, generally in the form of securities. At the end of the transaction, the collateral is returned to the “borrower”. The main function of this collateral is to protect the “lender” against default by the “borrower”. Since the securities act as collateral, they can

be sold on the market in the event of default in order to recover the cash amount lent. Nevertheless, for this protection to be effective, the market value of the collateral should be at least equal to the cash amount lent and the accrued interest throughout the life of the transaction. In particular, the possibility of adverse changes in the market value of the collateral has to be taken into account. This is why the value of the collateral provided at the start of the loan is not equal to the cash amount lent, but higher. After the deduction of a certain percentage (referred to as the “haircut”), the value of the collateral must be at least equal to the cash amount. In other words, a counterparty willing to borrow €100 in cash should provide, at the beginning of the loan, collateral in an amount of C , so that $C \times (1 - h) = 100$, where h is the haircut. Consequently, during the life of the repo, the collateral is valued daily at market conditions, and its value C_t , after the deduction of the haircut h , has to be equal to the combined value of the cash lent and the accrued interest i_t , i.e. $C_t \times (1 - h) = 100 + i_t$. If it is less, the transaction is under-collateralised and the “borrower” of the cash should pay a margin call (generally in the form of more collateral) to the “lender”. If it is higher, the transaction is over-collateralised and the “lender” of the cash should pay a margin call to the “borrower” (usually by returning part of the collateral).

However, viewed from another angle, i.e. the legal one, a repo is distinct from a secured “loan” of cash on account of the legal set-up (sale and repurchase agreement) in which it is conducted. The “borrower”¹ of the cash (securities provider) is referred to as the seller, while the “lender” of the cash (securities taker) is the buyer. On the seller’s side, the transaction is a repo, i.e. a sale and repurchase of securities. Conversely, on the buyer’s side, the transaction is a reverse repo, i.e. a purchase and resale of securities.

Although a repo has some characteristics of both outright transactions and loans, it is a specific instrument. First, all the conditions of a repo are agreed in advance, namely the price of the initial sale of the securities (i.e. the market price on the starting date), the repo rate, the haircut, and the date and price of the repurchase of the securities (that price is the initial selling price). In addition, a repo is distinct from a loan owing to the full transfer of title to the securities from the seller to the buyer, who can thus re-use the securities in other transactions without any legal restrictions. However, as repos are temporary transactions, the seller remains exposed to the price fluctuations of the securities provided as collateral during the life of the transaction. Similarly, in most repo transactions, any payment flows or economic rights attached to the securities that come into effect during the life of the repo are also

transferred back to the seller. Box I explains in more detail the differences between a repo, sometimes called a “classic” repo, and other securities financing transactions that produce similar economic effects and are considered alternatives.

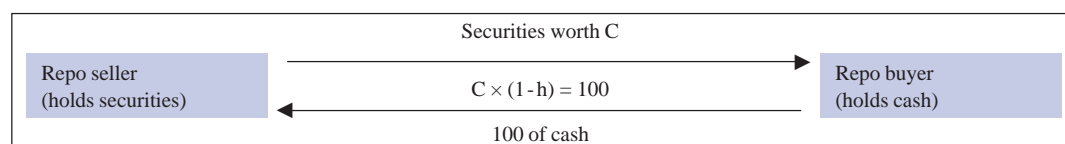
Another peculiarity of the repo technique is its specific treatment of risks, since the use of repos can be regarded as a technique for the transfer and mitigation of risk. Basically, the lender of cash in an unsecured transaction is exposed to the credit risk of the borrower. Conversely, the buyer (“lender” of the cash) in a repo mitigates its exposure to its counterparty by receiving collateral. The mitigation process comes into effect, through the use of collateral, only when the borrower of the cash defaults (the collateral is a “second line of defence”). However, the realisation of the collateral will provide the expected results only if the risks attached to the repo and the collateral are properly managed.

The risks attached to repo transactions per se are legal and operational. The legal risks are managed by ensuring that the repo trade is conducted on the basis of appropriate legal documentation, generally a master agreement that should be enforceable under the law

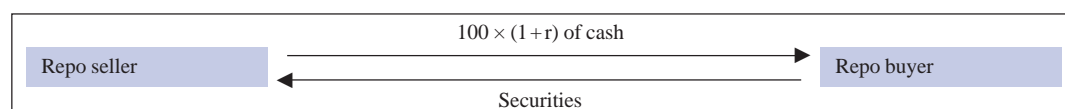
¹ For the sake of simplicity, the terms “lender” and “borrower” are used in connection with repo transactions in some parts of the article, although – in a legal sense – the terms “seller” and “buyer” should be used.

Chart I Mechanics of a repo transaction

Opening leg of the repo: sale of securities



Closing leg of the repo: repurchase of securities and payment of the repo rate



Note: C is the market value of the securities on the opening day, while h is the haircut and r is the repo rate.

Box I

Comparison between “classic” repo and other types of securities financing transactions

Sell and buy-back transactions

Sell and buy-back transactions involve a combination of a spot sale and a forward repurchase of securities (i.e. a repurchase at a future date at a price agreed in advance). The main differences to repos are the following:

- Legal documentation: traditionally, sell and buy-back transactions were conducted without any specific legal documentation, but this is changing as a number of master agreements now include an annex on sell and buy-back transactions.
- Margining: when sell and buy-back transactions are undocumented, there is no initial margining and daily marking to market, which makes these transactions more risky.
- Pricing and remuneration process: the repo “rate” is reflected in the difference between the forward and the spot price of the security. Differences in the treatment of coupons may also occur.

Sell and buy-back transactions initially developed in markets where there was no secure legal framework in place for repos, or where the settlement and IT systems of counterparties were not equipped to deal with repos. Although the use of repos has gradually gained ground, sell and buy-back transactions remain important for historical reasons in some national markets (e.g. in Spain and Italy).

Securities lending transactions

Securities lending transactions are trades where a security is legally lent (and not sold) in exchange for cash or other securities as collateral. These transactions are generally securities-driven. The main difference to a repo is that the legal ownership of the security is not transferred. There are also a number of other technical differences to repos:

- Remuneration process: the remuneration is based on a fee (not an interest rate), expressed as percentage of the market value of the lent securities. This may seem simpler than the use of repos for counterparties that do not closely monitor the level of short-term interest rates.
- Collateral: not only cash, but also securities can be used as collateral in securities lending transactions. In the case of high demand for borrowing specific securities, this allows counterparties lending them to lock in a profit, without having to reinvest the cash as in the case of repos.

Traditionally, securities lending involves mainly equities, while repos are used mainly for bonds.

governing the transaction. Such master agreements, which are examined in more detail in Sub-section 3.2, provide a standard contract for all repo trades (including haircuts, marking to market, etc.) between two counterparties and ensure that the financial assets provided as collateral can be liquidated easily and promptly in the event of default. Operational risks relate

mainly to the risk of loss resulting from inadequate or failed internal processes, people and systems. This risk is particularly relevant for repos, because of the heavy back-office involvement (i.e. daily marking to market, margining, etc.), and is managed by ensuring that the appropriate procedures are documented and implemented.

The risks that are specific to the collateral are the market, credit and liquidity risks. Market risk is linked to the level of volatility of the securities, which is most relevant between the moment the counterparty defaults and the moment the collateral can be sold. The credit risk is that of the issuer of the security. The liquidity risk reflects, in the event of default, the ease with which the collateral can be realised, and the impact the sale of the collateral may have on the market price. Market, credit and liquidity risks are managed by the haircut (which depends on the type of collateral), the daily valuation and the margining of the collateral. The haircut can also depend on the credit risk of the counterparty and on the maturity of the repo operation in question.

What are repos needed for?

A repo is a money market instrument, i.e. a transaction with a maturity between overnight and one year, together with unsecured interbank lending, short-term securities and short-term derivatives. The vast majority of the assets used as collateral in repo transactions are debt securities, but also equities, although the peculiar features of equities (i.e. corporate actions, such as voting rights or mergers) complicate the operational management of such repos.

A key distinguishing feature of repos is that they can be used either to obtain cash or to obtain securities. Therefore, the repo market can be seen as comprising two complementary market segments, a cash-driven segment and a securities-driven segment, in which a diversified range of market participants operates.

In the cash-driven segment, transactions are triggered by the willingness of a counterparty to borrow or lend cash, with securities serving as collateral. In such cases, the repo rate is close to the interbank rate, typically slightly below it, to reflect the repo transaction's status of "secured lending". As cash is the desired asset, the characteristics

of the securities given in exchange are of secondary importance, and transactions are generally conducted against "general collateral" (GC). In GC repo trades, all securities that are part of a basket of collateral defined by type and credit quality can be given as collateral. Examples of GC baskets are all bonds issued by euro area governments, or all corporate bonds included in a specific bond index.

The motivations of the cash provider (securities taker) in the cash-driven repo segment come from the mitigation of the counterparty risk of the "borrower". This latter risk is replaced by risks attached to the collateral, which are generally lower, depending on the type and management of the collateral. This risk transfer is reflected in the treatment of regulatory capital in repo transactions, where, for the calculation of the capital requirements, the counterparty risk weight is replaced by the collateral risk weight.² Provided that the collateral fulfils certain criteria, this substitution allows for a more favourable treatment of regulatory capital in repos than in unsecured lending transactions. In return, the repo rate earned on the cash lent is generally lower than the unsecured rate, as the credit risk component has been reduced. On the other side of the trade, the cash taker (securities provider) can borrow cash at generally better rates than in the case of unsecured borrowing, or can fund a long position in securities while retaining the market exposure on the securities. Repos also allow market participants which cannot obtain unsecured interbank funding because they do not have access to the interbank market, or because they have an inadequate credit standing, or because their counterparties have reached the limits of their unsecured credit exposure, to raise cash against collateral.

² This holds true for transactions recorded in the banking book (i.e. non-trading). For transactions recorded in the trading book (comprising positions which are held for trading purposes, as defined in the Directive on the capital adequacy of investments firms and credit institutions (93/6/EEC)), banks can choose either to have internal models recognised by supervisory authorities, or to adopt the "building block" approach, which covers specific and general market risk as well as counterparty risk.

In the securities-driven segment, transactions are triggered by the willingness of a counterparty to borrow or lend a specific security, with cash acting as collateral. This segment is mostly, although not exclusively, composed of specific securities that are in high demand. As these are especially sought after, their repo rate is substantially lower than the GC repo rate and the interbank rate, and these securities are said to be “specials”. The feature of being “specials” is not a permanent characteristic of securities, but only temporary.

The motivations of the securities borrower (cash provider) in the securities-driven segment are related to the willingness to acquire a specific security, for example, to cover a short position in this security, to cover a settlement failure, or for delivery on a futures contract settlement. On the other side of the trade, the securities provider (cash

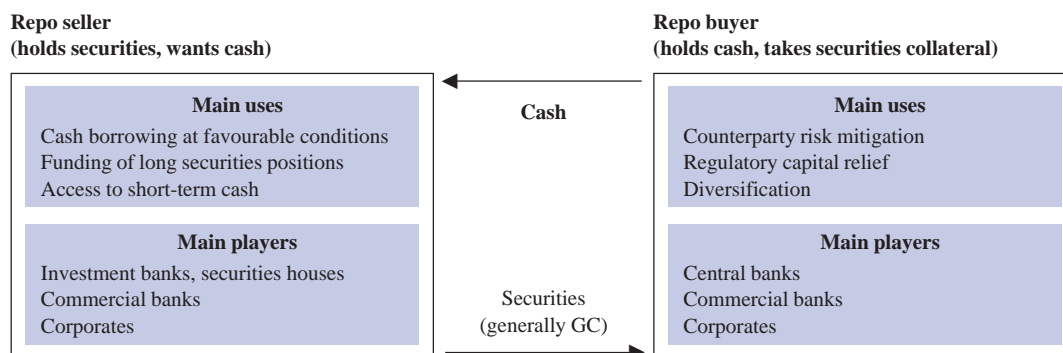
taker) can either fund its long securities position or “lend” its securities in repo transactions and reinvest the cash obtained at a higher rate (e.g. in the unsecured interbank market or at GC repo rates) in order to earn incremental income. Lending “on special” securities is thus a technique for the optimisation of securities portfolios.

Needless to say, a sizeable number of market participants are engaged in both segments, especially intermediaries, market makers and other counterparties conducting both repos and reverse repos. Some act as securities takers, using GC repos, and try, in turn, to use some of the GC securities as “specials” in repos. Market makers also try to exploit arbitrage opportunities created by price misalignments between repo and other markets, e.g. unusual spreads between repos and deposits, or between repos and derivatives. Repos can also be used to

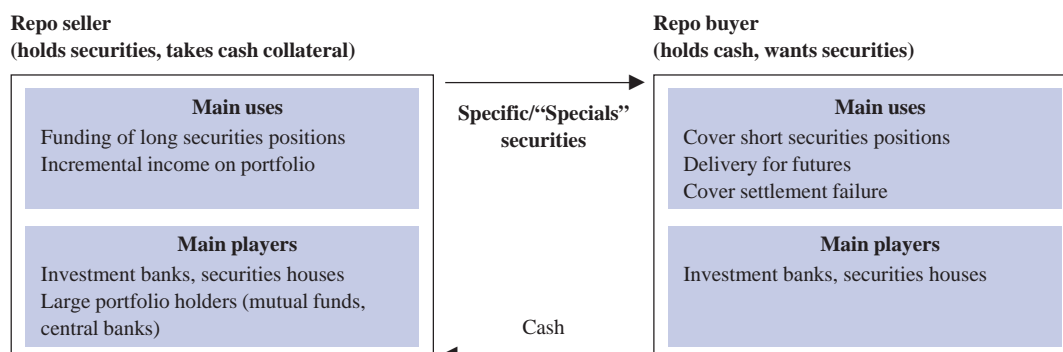
Chart 2

Main uses of and players in the repo market

Cash-driven segment:



Securities-driven segment:



arbitrage in basis trades. This involves a misalignment between the spot price of an asset and its forward prices (e.g. on the futures markets).

Overall, repos are a liquidity management and securities financing tool, which acts as a bridge between the money and securities markets, however this underplays its role. One of its crucial functions is to act as a catalyst for liquidity in other markets, and vice versa, enabling long and short securities positions to be financed and covered, respectively, through repos and further

encouraging market participants to trade actively in the securities and derivatives markets. In turn, the creation of futures contracts has generally led to an increase in turnover on the repo markets. In addition, use of repos contributes to enhancing the efficiency of pricing mechanisms in different markets, by allowing arbitrage. Finally, repos can contribute to the smooth functioning of the settlement system infrastructure, as it allows specific securities to be borrowed to avoid settlement failures (i.e. failures to meet commitments to deliver specific securities at a given time).

2 Development of the repo market in the euro area

This section gives a quantitative description of the repo market and its latest developments. Most of the figures and some of the findings presented in this section have been extracted from the ESCB's annual money market survey and from the semi-annual repo market survey of the European Repo Council (ERC).³ The ESCB survey is a flow analysis (turnover), while the ERC survey is a stock analysis (outstanding). The 2002 edition of the ESCB survey will be published shortly in a report entitled "The euro money market" (available on the ECB's website under "Publications", www.ecb.int).

Increasing size of the market since the launch of the euro

The euro area repo market has witnessed a significant increase in size in recent years. According to the ESCB's annual money market survey, which looks at data for the second quarter of each year, this market grew by 20 % between 1998 and 1999, by 24% between 1999 and 2000 and by nearly 45% between 2000 and 2001. This trend is still prevalent, as evidenced by the ERC's European repo market survey, with activity increasing by 13% between June and December 2001. In the meantime, other

segments of the money market (unsecured deposit and foreign exchange swaps) have seen an only limited increase in activity or even a slight decrease in some cases (see Chart 3). The total share of the repo market, as compared with overall cash money market activity, is currently estimated at between 35% and 40%, which is similar to the share of the deposit market.⁴

However, notwithstanding the strong growth in the euro area repo market, its size remains smaller than that of the US repo market. The amounts outstanding of repo and reverse repo reported by the respondents to the ERC survey stood at €2.3 trillion on 12 December 2001. By comparison, the amounts outstanding of repo and reverse repo reported by US government securities dealers to the Federal Reserve Bank of New York amounted to USD 3.5 trillion on the

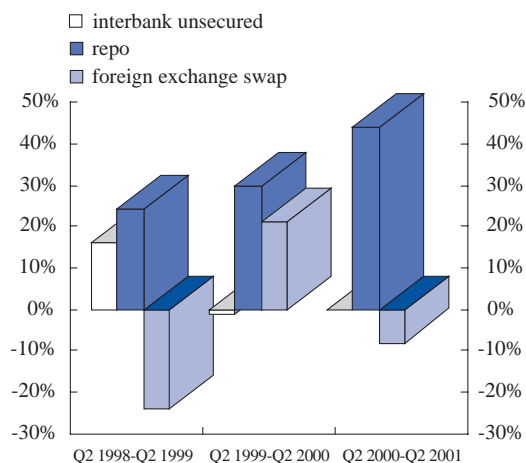
³ The ERC is a body sponsored by the International Securities Market Association (ISMA) in co-operation with ACI – The Financial Markets Association. Within the scope of the survey, a sample of 66 banks in Europe were asked for the value of their repo contracts outstanding at close of business on 12 December 2001. Although the euro was the dominant currency of denomination (representing 77% of reported amounts), the survey also included other currencies.

⁴ This figure, as well as the figures provided in Chart 3, should be viewed with some caution, as some of the banks participating in the ESCB survey did not always report their activity for each segment of the cash market.

Chart 3

Repo turnover relative to that of other money market instruments in the euro area

(Year-on-year changes in turnover)



Source: ESCB's annual money market surveys.

same date. This relatively high activity in the US repo market, as compared with that in the euro area repo market, is mainly due to a higher use of repos versus unsecured cash. As repo rates are far below deposit rates in the United States, funding via repos is more attractive. This situation is less pronounced in the euro area (see Chart 4). The average spread for the three-month maturity between the interbank rate and the GC repo rate in the United States was 21 basis points between June 2001 and June 2002, compared with 9 basis points in the euro area. In addition, the repo post-trade infrastructure, a crucial element of the repo cycle, is more efficient in the United States, where it is operated by a few entities, than in the euro area, where the infrastructure still remains fragmented (see Section 3).

The bulk of the repo transactions in the euro area are conducted in short-term maturities, with maturities ranging from overnight to up to three months accounting for slightly more than 95% of all repo transactions. The overnight maturity represents around 20% of all repo trades, well below the corresponding share of unsecured trades (around 65%)

owing to the aforementioned heavy operational and settlement burden, as well as credit risk considerations.

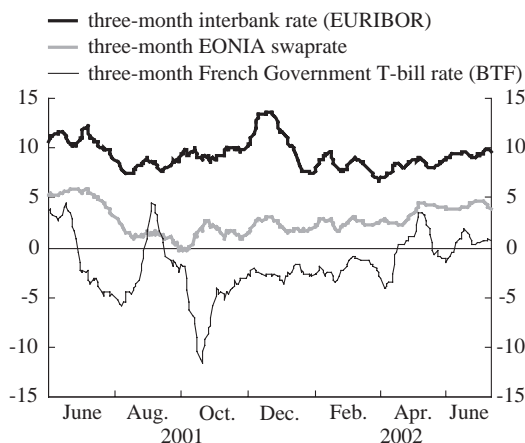
The liquidity and efficiency of the repo market is considered by the vast majority of market participants to be satisfactory, with the standard size of transactions ranging from €50 to €100 million. However, larger transaction sizes up to €1 billion are not regarded as problematic. Nevertheless, such amounts are usually, but not always, split up into several smaller transactions after the trade, in order to try to reduce the impact of a potential settlement failure.

The reasons behind the significant increase in the size and depth of the euro area repo market are mainly related to the need to reduce regulatory capital requirements, in response to European regulations on capital requirements. In addition, the repo market has benefited from the widespread tendency in the financial industry to limit the credit risk exposure, as repos are now considered more attractive as a means of lending money for longer periods of time.

Chart 4

Repo rates relative to other money market rates

(Spread against the three-month repo rate, in basis points, two-week moving average)



Sources: ECB, Reuters and Bloomberg.

Changes in the structure of the market

Since the launch of the euro, the repo market has evolved into a more mature market, not only in terms of size, but also in terms of its structure.

The use of repos to obtain funding has been extended from regular money market participants and bank treasurers to other participants in financial markets. Fund managers, corporations and even insurance companies have optimised the management of their portfolios to enhance their cash-holding activities. In addition, small and medium-sized banks also seem to be using the repo market more actively. The use of repos by a wide range of participants highlights its growing status as a market open to non-financial participants, whereas the unsecured interbank market can only be accessed by credit institutions.

Notwithstanding that 90% of all repo transactions are still conducted on the basis of sovereign bonds, a diversification in the type of repo collateral has taken place, thus attracting a wider range of market participants. Repos against mortgage-backed bonds (e.g. Pfandbriefe), corporate bonds and even equities are no longer unusual, although – according to the ERC survey – their share barely exceeds 5% of the total market. Further increases in the range of collateral accepted in repos would be beneficial for the future development of the repo market, as the main determinant of its size is the volume of the underlying collateral that can be used. In that respect, the development of repos involving non-sovereign assets currently appears to be slow in the euro area owing to the tightness of the spreads of these repos compared with GC repos. Thus, market participants do not have sufficient incentives to accept them.

In addition to the diversification in the types of collateral, there is also an overall trend towards the acceptance of a wider basket of sovereign bonds in GC repos, with a majority of the market participants accepting most

euro area government bonds. This has recently been reinforced by the EUREPO index, the launch of which was announced jointly by the ERC, the European Banking Federation (EBF), the European Savings Banks Group (ESBG) and the European Association of Co-operative Banks (EACB) in March 2002. The EUREPO is the rate at which any one prime bank offers funds in euro to another prime bank, with the former receiving EUREPO general collateral from the latter in exchange. For a given standard maturity, the EUREPO index is the average of the rates provided by EUREPO Panel banks. The list of EUREPO general collateral includes all government bonds and bills denominated in euro and issued, or guaranteed, by any of the euro area governments. Therefore, the use of the EUREPO index is likely to lead, progressively, to a harmonisation of the repo rates for government securities in different euro area countries.

The increase in European repo volumes in recent years has highlighted the burden of managing operational and risk aspects of repos, and has accelerated the development of systems and services to alleviate the heavy administrative and back-office burden involved. As a result, outsourcing schemes have developed (e.g. tri-party repos), together with the use of collateral management systems and electronic trading platforms (see Box 2).

First, via tri-party repos, market participants can outsource the bulk of post-trade treatment of repos to an agent. In a tri-party repo transaction, the two parties agree to exchange cash against collateral via an independent agent. The collateral can be any security (even any financial instrument) defined as eligible by both counterparties, and listed in a basket of securities enumerated in the applicable legal documentation. The role of the agent, often carried out by a prominent central securities depository or a bank, includes the processing of the transaction in terms of clearing, settlement and the management of the collateral throughout the duration of the operation. Tri-party repos

Box 2

Electronic repo trading

Traditionally, repos are traded directly between two counterparties, or via brokers. However, repo transactions through electronic trading platforms are increasing. According to the ERC survey, 15% of the repo business on 12 December 2001 was conducted electronically, compared with 8% in June 2001, while the share of transactions directly negotiated with other counterparties remained broadly unchanged at around 45%. In the meantime, the share of transactions negotiated via traditional brokers has declined from 46% to 40%. Electronic trading platforms provide several advantages, such as market transparency in terms of prices and a reduction of back-office costs, as the clearing process can be refined. Some platforms provide their members with a connection to a central clearing counterparty (CCP) which ensures anonymity and offers the benefits of netting. Netting enables the parties to repo trades to net their repos and reverse repos and to transfer only the net amount of cash and securities in payment and settlement systems, thus reducing the number of settlements.¹ Netting through central counterparties is even more efficient as the CCP interposes itself between the counterparties and becomes a party to all the transactions, instead of only the initial trading counterparties (this is known as “novation”), thus helping participants simplify their risk management through the substitution of one counterparty for many. The main advantage of an electronic trading platform using a CCP is also the possibility for a full integration of trading, clearing and settlement, as well as the availability of risk management facilities (margin, use of a collateral pool, etc.). In addition, some platforms offer straight-through processing (STP) and are built with an open architecture, providing a simple interface between the system and internal bank systems. Pre-defined standard repos (e.g. GC repos), as well as tailor-made transactions, are generally available. Lastly, platforms might offer some collateral management facilities, such as the possibility of substituting collateral throughout the duration of the operation. At present, the main electronic platforms in the euro repo market are BrokerTec, the Repo Trading Facility of the MTS group and Eurex Repo.

¹ Of course, neither netting nor CCPs are restricted to electronically traded repos.

offer various advantages. They enable market participants to raise cash using types of collateral other than government bonds at usually better rates than the unsecured cash market. Furthermore, the two counterparties, by outsourcing the processing of the operation (settlement and custody) to an agent, simplify their tasks and circumvent the difficulties related to the fragmentation of the post-trade infrastructure in the euro area (see Section 3). The main drawback of this product is its cost, still perceived as too high by market participants, which could explain its relatively modest market share in Europe, approximately 6%, according to the ERC survey.

Second, collateral management systems offer counterparties, which are unwilling to outsource, a convenient way of handling the operational treatment of repos. They were developed in response to a greater awareness

of euro area market participants' need to have sound and harmonised risk management practices. Indeed, repos require efficient collateral management in terms of haircuts, daily marking to market, margin calls, collateral substitution, possible position limits and possible netting facilities. Collateral management systems offer to handle these facilities and also allow the resulting operational risk to be reduced through automation. However, the main obstacles to their further development remain the high investment and implementation costs involved, especially in the case of small or occasional repo market participants.

Finally, similar to developments in other financial markets, electronic trading platforms are gaining ground in the repo market, owing to the different services they offer, as explained in more detail in Box 2.

3 Further integration of repo markets across the euro area

The interests of the ECB in an integrated and efficient repo market

The repo technique and market are traditionally important to central banks, as they often use this instrument in their monetary policy operations. Several reports published by Committees of the G10 central banks (available on www.bis.org) support this view. The ECB and the Eurosystem at large have a special interest in repos as they have been one of the main instruments used for the regular refinancing operations from the start of Stage Three of Economic and Monetary Union (EMU).

The Eurosystem is probably the largest single user of collateral in the euro area, through its monetary policy and intraday credit operations. Eurosystem monetary policy operations (in particular the two-week main refinancing operations) are not conducted solely via repos, but also via collateralised loans (e.g. pledge operations), depending on the operational set-up of the national central bank involved. In addition to liquidity-providing monetary policy operations, any intraday credit necessary to provide liquidity for a smooth settlement of payments in TARGET also needs to be fully collateralised. All in all, the total outstanding amount of collateral used in Eurosystem operations in 2001 amounted to, on average, €560 billion, €230 billion of which was related to monetary policy operations and €330 billion was used for intraday credit needs in TARGET. The Eurosystem's collateralised operations are conducted against a wide range of eligible collateral, ranging from sovereign bonds of euro area governments to mortgage-backed and corporate bonds. The type of collateral does not influence the rate of the credit, but different haircuts, adjusted to the risk profile of the collateral, apply. Eurosystem operations are one example of cash-driven transactions, in which the collateral is more or less neutral, provided that it fulfils the eligibility criteria. As the Eurosystem absorbs large amounts of

collateral from the private repo market, the ECB has a natural interest in its liquidity, efficiency and integration, thus enabling Eurosystem counterparties to easily acquire eligible securities in order to participate in the operations.

Another genuine interest of the ECB lies in the structure and functioning of the euro money market as a whole, of which the repo market is a component. The money market is where the ECB implements its monetary policy, thereby constituting the first link to the monetary policy transmission channel. In addition, the ECB provides the overall level of liquidity necessary in the money market, and is thus interested in the even distribution of this liquidity within the money market. Indeed, it is essential that money can flow smoothly from one money market segment to another, in order to reduce the volatility of short-term interest rates. Therefore, a more integrated repo market, indifferent to the location of securities and counterparties, would enable repos to become a genuine liquidity management instrument, on an equal footing with the unsecured interbank market.

But beyond the user perspective, the ECB has an interest in the repo market as a guardian of financial stability. Indeed, the ability of market participants to borrow securities in the repo market is a more efficient way of reducing the risk of securities settlement failure than buying securities outright on the market. In addition, repo markets, as collateralised markets, have merits for the reduction of systemic risk, by facilitating the continued supply of credit to borrowers who run into temporary difficulties, thus making the financial system more resilient to shocks. However, the use of collateral can also alter the market dynamics in certain circumstances, in particular through abrupt adjustments of collateral standards (e.g. haircuts) in times of stress.

Another keen interest of the ECB lies in the integration of the repo market. This is due to

its commitment towards fostering the development and integration of the euro area financial system, and to ensuring a level playing-field and the equal treatment of its counterparties across the euro area. This is of particular relevance in the case of the repo market, which forms a link between several markets, based on cash or securities. The fragmentation of the repo market could hamper the functioning of other important markets, such as the bond or futures markets. It is therefore essential to ensure that repo participants in the whole euro area money market can deal across the whole spectrum of both euro area counterparties and euro area securities without disproportionate differences in cost, efficiency or complexity.

Finally, more general considerations plead for the integration of the repo markets. An integrated repo market is crucial for promoting an efficient allocation of resources in the euro area, including the efficient use of capital by banks. It would also improve the completeness of markets, by extending the range of financing and investment opportunities available. Further integration would also favour a more liquid repo market, the benefits of which are clear in terms of lower costs of raising funds for borrowers, and more efficient pricing within and across market segments.

Initiatives towards integration since 1999

The launch of the euro accelerated progress towards the integration of all euro area financial markets. This is also relevant for the euro area repo market, where important work towards integration has been conducted by various entities.

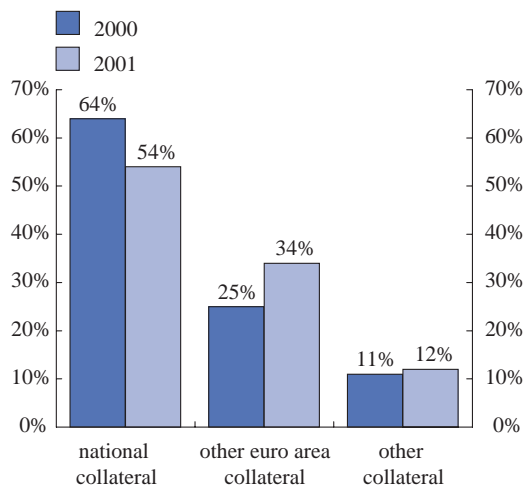
Market-based associations and participants have launched several initiatives designed to improve the integration of the repo market. The first initiatives, following the launch of the euro, were directed towards the harmonisation of market and risk management practices (conventions, marking to market, etc.). They also strove to remedy,

at an early stage, the lack of standardised and harmonised legal documentation in the repo market. Traditionally, domestic transactions were conducted on the basis of various local master agreements (if any), while the PSA/ISMA contract (governed by English law) was used almost exclusively in standard cross-border transactions. The latter was updated in 2000 to accommodate a wider range of market environments (such as those in Italy and Spain). In parallel, the creation in 2000 of the European Master Agreement (EMA) was aimed at reducing recourse to differing national agreements, as the EMA is, by design, a multi-jurisdictional, multi-lingual and multi-product agreement. By leaving it entirely to the parties to agree on both the governing law and the competent courts, the EMA is convenient to use between parties located in both the same and different jurisdictions. It could gradually develop into a standard for the domestic euro area repo market, although its use remains modest so far. The ECB officially welcomed the introduction of the EMA and has decided to use it for the management of its foreign exchange reserves and own funds.

In addition to other initiatives, the ERC, in conjunction with the EBF, has contributed to the creation of a benchmark repo rate curve, based on the EUREPO index, which helps to increase market transparency, and facilitates the convergence of national repo markets, given the wide GC basket. Other actions of the ERC were the launch of the semi-annual European repo survey, together with its ongoing role as a forum for discussions on aspects related to the European repo market.

Over the past few years, legislators have also acted to enhance and ensure the legal reliability of collateralisation techniques and practices, including the validity and effectiveness of the transfer of title arrangements, not least in the case of insolvency. A broad range of these aspects have been addressed by the European Council (EC) Directive on financial collateral arrangements, which entered into force in June 2002 and is to be translated into national

Chart 5
Structure of collateral in the euro area repo market



Source: ESCB annual money market surveys.
 Note: The figures include trades settled through intermediaries (custodians, tri-party).

law by the end of 2003. The ECB highly welcomed the proposal for this directive in its official opinion, dated 13 June 2001,⁵ as a significant and important effort to promote the efficient and safe use, at both the domestic and the cross-border level, of financial collateral over and beyond what had already been achieved with the Settlement Finality Directive of 1998.

In addition, the ECB itself, through the organisation of meetings with market participants and infrastructure operators and through its publications,⁶ is working towards increasing the awareness of the general public and professionals of the necessity to increase integration in the euro area financial markets.

Owing to this collection of initiatives in favour of market integration, indicators have recently pointed towards a heightened level of cross-border activity since the launch of the euro. For instance, counterparties have increased their use, in relative terms, of collateral from other euro area countries and reduced their dependence on national collateral (see Chart 5). Nonetheless, the internationalisation and integration of the repo markets are lagging behind when

compared with the securities-free markets. This is illustrated by the fact that trades between counterparties of the same euro area country still account for 40% of secured lending, but for only 30% of unsecured lending. This indicates that there remain some barriers to further integration of the repo market, thus continuing to prevent market participants to trade freely across the range of counterparties available in the euro area.

Remaining obstacles to further integration

The remaining obstacles to integration lie in the diversity of the types of securities in the euro area, in the fragmentation of the infrastructure, in remaining legal and fiscal issues and in the diversity of market practices. The task of removing these obstacles lies in the hands of a myriad of entities, and depends on the type of obstacle. These entities are mainly the market participants themselves, either directly or through their representative associations, legislators, regulators, central banks and infrastructure providers (e.g. clearing and settlement systems).

First, the way market participants perceive the different national characteristics of securities accepted as collateral in repo transactions constitutes one aspect of the fragmentation of the euro area repo market. For instance, given the different credit ratings of euro area governments, there might be differences in the terms of repo transactions (i.e. repo rate, haircut) with government securities as collateral, depending on the country. The same applies to the differences in the liquidity of government securities. Market integration would benefit from the extension of a euro GC approach, enabling participants to put securities with similar, although not the same, characteristics in the same basket. Eurosystem collateralised operations are an example of this approach.

⁵ Official Journal of the European Communities C 196 of 12 July 2001, p. 10.

⁶ See, for instance, ECB Occasional Paper No. 1, entitled "The impact of the euro on money and bond markets".

Another notable aspect of national characteristics of securities is their tax treatment (in particular that of coupons of government bonds), which would benefit from being better harmonised across the euro area.

Second, the organisation of the post-trade infrastructure in the euro area is a sizeable obstacle to a further integration of the repo market and its use as a liquidity management tool. Current cross-border arrangements are fragmented and complex, imposing costs, risks and inefficiencies on repo market participants. A simple example is that a counterparty willing to engage in a repo to obtain €100 million in cash against a basket of GC securities, which settle in five different settlement systems, might have to maintain five different settlement accounts (or go through one or several intermediaries, or links), in systems that have diverse operating hours, settlement deadlines, etc. The further consolidation of security settlement systems (SSSs) at the European level is a recurrent demand of euro area repo market participants. In this respect, competition forces unleashed by the euro alone have not so far been strong enough to trigger any widespread consolidation. Nineteen central securities depositories (CSDs) and two international securities depositories (ICSDs) were operating in the euro area in mid-2002. If widespread consolidation is seen as too slow, at least a cross-system inter-operability of clearing and settlement infrastructures should be pursued, together with better harmonisation and standardisation of netting, operating and communication practices and procedures between systems. In parallel, all remaining access barriers should be removed.

In addition, the timing of settlement cycles is another area where progress in standardisation would be most welcome. The extension of an operationally efficient same-day settlement to all trades in the euro area could, in the medium term, greatly enhance the use of repos for managing very short-term liquidity. In this context, the European

System of Central Banks (i.e. the ECB and the 15 national central banks of the EU Member States) and the Committee of European Securities Regulators (CESR) are currently defining standards in the field of securities clearing and settlement. This work is aimed at increasing the safety, efficiency and level of harmonisation amongst the service providers. The ECB is also involved in other initiatives, be it in co-operation with the European Commission (through the Commission Working Group on Clearing and Settlement and active participation in the preparation of consultations and draft directives) or with market participants and service providers (through the creation of market contact groups created at the start of the single monetary policy as discussion forums).

Finally, in the field of market practices, sound risk management practices should be further pursued. As has been the case with undocumented sell and buy-back transactions in some euro area countries, improper risk management practices can be a reason for the lack of openness of national markets. Systematic documentation of repos, daily marking to market and margining should become the rule, not only to achieve better standardisation, but also to increase the resilience of repo markets in times of stress. In addition to the vigilance of the market participants themselves, the regulatory framework for banks' repo transactions also plays a key role. The new Basel Capital Accord (what is known as "Basel II") will revise the treatment of these transactions by introducing a more risk-sensitive approach. Although the final proposals are still under discussion, it is anticipated that the new framework will provide a range of options for the regulatory treatment of repos, taking into account the role of disclosure to markets as well as qualitative factors, such as the risk management systems of individual banks. Therefore, the alignment of supervisory standards with market practices will support the sound functioning of the repo market.

4 Conclusions

The advantages of repos in terms of risk mitigation and liquidity management are widely acknowledged by market participants and regulators. As a result, the repo market is developing fast in the euro area, and has, over time, attracted a broader range of market participants which trade diversified types of collateral. The repo market has also proved to provide important links inside the financial markets, as it promotes and facilitates the liquidity and functioning of other markets. However, notwithstanding the considerable progress that has been made in

this area, the integration of the national repo markets into one unified market is still lagging behind. Market participants will only be able to reap the full benefits provided by repos when there is a genuine euro area market, and not a myriad of national repo markets within the euro area. In this context, the ECB, as the central bank of the euro, has a certain responsibility to create awareness and co-ordinate efforts wherever necessary, and it therefore stands ready to support initiatives identified as marking progress towards market integration.



Euro area statistics



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

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

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

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

Data for the euro area plus Greece up to end-2000 are available in a downloadable format (CSV files) on the ECB's website (www.ecb.int).

Conventions used in the tables

"-"	data do not exist/data 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⁾				
2000	8.0	4.4	4.9	-	9.6	21.2	4.40	5.44
<i>Euro area enlargement</i>								
2001	3.6	4.2	5.4	-	7.8	26.3	4.26	5.03
2001 Q4	5.5	5.7	7.5	-	6.5	27.4	3.45	4.81
2002 Q1	6.2	6.5	7.6	-	5.7	28.7	3.36	5.13
Q2	6.6	6.5	7.3	-	5.6	24.2	3.45	5.26
Q3	.	.	.	-	.	.	3.36	4.77
2002 May	6.8	6.8	7.6	7.3	5.8	23.6	3.46	5.30
June	6.9	6.5	7.1	7.3	5.5	21.3	3.46	5.16
July	7.6	6.5	7.1	7.1	5.2	19.6	3.41	5.03
Aug.	7.8	6.5	7.0	.	5.4	.	3.35	4.73
Sep.	.	.	.	.	.	.	3.31	4.52

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
2000	2.3	5.5	3.2	3.5	5.5	83.8	2.2	8.4
<i>Euro area enlargement</i>								
2001	2.5	2.1	3.4	1.5	0.2	83.6	1.3	8.0
2001 Q4	2.1	-1.0	3.3	0.4	-3.8	82.2	0.8	8.1
2002 Q1	2.6	-0.9	4.0	0.3	-2.5	81.1	0.7	8.1
Q2	2.1	-0.8	3.7	0.6	-0.8	81.2	0.6	8.2
Q3	.	.	.	.	.	81.0	.	.
2002 May	2.0	-0.9	-	-	-1.1	-	-	8.2
June	1.8	-1.0	-	-	-0.5	-	-	8.3
July	1.9	-0.4	-	-	-0.5	-	-	8.3
Aug.	2.1	-0.2	-	-	.	-	-	8.3
Sep.	2.2	.	-	-	.	-	-	.

3. Balance of payments, reserve assets and exchange rates

(EUR billions, unless otherwise indicated)

	Balance of payments (net flows)				Reserve assets (end-of-period positions)	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)	
2000	-50.2	35.6	17.6	-111.5	378.0	88.2	86.3	0.924
<i>Euro area enlargement</i>								
2001	6.3	79.2	-103.3	36.4	392.4	91.0	88.1	0.896
2001 Q4	11.8	33.0	11.5	-0.4	392.4	92.0	88.7	0.896
2002 Q1	14.2	27.4	-16.8	-54.8	409.0	91.3	88.1	0.877
Q2	1.7	29.4	-2.7	57.7	367.0	93.9	90.5	0.919
Q3	.	.	.	.	.	97.9	93.9	0.984
2002 May	1.2	9.2	5.1	32.0	386.6	93.7	90.4	0.917
June	5.0	12.1	-15.5	14.3	367.0	96.4	92.7	0.955
July	3.1	14.2	-3.6	14.2	372.0	98.2	94.3	0.992
Aug.	.	.	.	.	372.9	97.7	93.6	0.978
Sep.	.	.	.	.	.	98.0	93.7	0.981

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

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

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

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

I Monetary policy statistics

Table 1.1

Consolidated financial statement of the Eurosystem

(EUR millions)

1. Assets

	Gold and gold receivables	Claims on non-euro area residents in foreign currency	Claims on euro area residents in foreign currency	Claims on non-euro area residents in euro	Lending to euro area credit institutions in euro	Main refinancing operations	Longer-term refinancing operations	Fine-tuning reverse operations
	1	2	3	4	5	6	7	8
2002 10 May	139,502	261,627	23,914	4,970	174,946	114,923	59,999	0
17	139,502	262,163	22,923	5,043	169,022	108,999	59,999	0
24	139,458	261,125	23,086	4,983	173,028	113,000	59,999	0
31	139,419	259,372	24,085	5,087	178,381	118,002	60,000	0
7 June	139,414	260,127	23,583	5,079	173,309	113,000	60,000	0
14	139,414	261,837	22,944	5,135	167,022	106,999	60,000	0
21	139,378	263,172	22,001	4,985	175,937	111,999	60,000	0
28	128,323	237,959	19,742	4,491	200,958	140,000	59,999	0
5 July	128,323	237,865	19,335	4,598	187,023	127,000	59,999	0
12	128,323	239,363	19,488	4,794	186,016	126,000	59,999	0
19	128,323	240,102	20,162	4,947	194,378	134,002	59,999	0
26	128,323	240,888	20,436	4,885	204,734	149,000	54,999	0
2 Aug.	128,323	240,117	19,987	4,936	194,032	139,001	54,999	0
9	128,323	239,409	19,302	4,824	192,067	136,998	54,999	0
16	128,323	237,438	19,399	4,949	189,105	133,999	54,999	0
23	128,323	239,979	17,924	4,827	189,037	133,999	54,999	0
30	128,323	238,451	17,005	5,304	197,034	146,998	50,000	0
6 Sep.	128,322	239,668	18,537	4,801	191,040	141,001	50,000	0
13	128,322	241,413	18,246	4,574	186,051	136,002	50,000	0
20	128,322	242,967	18,494	4,795	194,047	144,000	50,000	0
27	128,322	242,538	18,267	4,961	194,085	149,000	44,998	0
4 Oct.	131,211	248,348	18,472	4,475	190,377	145,000	44,998	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
2002 10 May	297,335	134,275	134,083	191	0	0	1	2,304	2,939
17	297,223	133,262	133,231	29	0	0	2	2,195	2,939
24	295,202	128,581	128,540	41	0	0	0	2,189	2,939
31	299,030	130,158	130,091	55	0	0	12	2,351	2,939
7 June	302,923	132,931	132,859	60	0	0	12	2,472	2,939
14	303,602	128,245	128,202	30	0	0	13	2,432	2,939
21	304,536	135,049	132,344	2,693	0	0	12	2,249	2,939
28	308,753	134,893	134,781	100	0	0	12	2,034	2,939
5 July	315,136	129,139	128,688	46	0	0	405	196	2,939
12	316,696	129,439	129,400	22	0	0	17	126	2,939
19	317,176	128,610	127,973	620	0	0	17	27	2,939
26	317,563	132,354	132,334	16	0	0	4	83	2,939
2 Aug.	323,953	129,253	129,237	12	0	0	4	31	2,939
9	326,029	127,605	127,592	10	0	0	3	281	2,939
16	325,804	129,440	129,406	31	0	0	3	209	2,939
23	321,224	131,308	128,703	2,602	0	0	3	115	2,939
30	321,780	126,066	125,935	130	0	0	1	131	2,939
6 Sep.	325,814	129,856	129,836	15	0	0	5	260	2,939
13	325,663	126,812	126,799	10	0	0	3	135	2,939
20	324,542	129,987	129,927	58	0	0	2	142	2,939
27	325,399	126,910	126,900	10	0	0	0	198	2,939
4 Oct.	331,672	127,336	127,250	85	0	0	1	235	2,939

Source: ECB.

Structural reverse operations	Marginal lending facility	Credits related to margin calls	Other claims on euro area credit institutions in euro	Securities of euro area residents in euro	General government debt in euro	Other assets	Total	
							9	10	11	12	13	14	15	16
0	14	10	253	30,330	67,708	88,366	791,617	2002 10 May
0	20	4	287	29,933	67,710	88,926	785,510	17
0	17	12	235	30,161	67,705	89,030	788,812	24
0	366	13	209	29,930	67,701	89,148	793,333	31
0	305	4	213	29,944	67,701	89,062	788,433	7 June
0	5	18	231	30,087	67,701	89,192	783,564	14
0	3,925	13	205	30,220	67,698	90,077	793,674	21
0	930	29	512	30,481	67,687	90,691	780,845	28
0	3	21	414	30,648	67,675	88,834	764,716	5 July
0	9	8	403	30,505	67,676	89,066	765,635	12
0	367	10	166	30,744	67,676	89,496	775,995	19
0	729	6	405	30,656	67,664	85,548	783,540	26
0	12	20	422	30,482	67,659	85,632	771,591	2 Aug.
0	23	47	402	30,630	67,638	86,034	768,630	9
0	69	38	151	30,673	67,198	86,272	763,509	16
0	28	11	144	30,919	67,198	85,740	764,092	23
0	22	14	367	31,361	67,198	85,794	770,838	30
0	5	34	244	31,538	67,198	84,224	765,573	6 Sep.
0	12	37	164	31,480	67,198	84,690	762,139	13
0	3	44	213	31,524	67,198	85,077	772,638	20
0	55	32	312	31,503	67,199	85,634	772,822	27
0	355	24	616	32,125	67,209	85,503	778,337	4 Oct.

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
53,628	8,515	1,405	18,929	6,990	64,635	136,887	63,775	791,617	2002 10 May
47,272	8,649	1,479	19,441	6,990	65,398	136,887	63,775	785,510	17
60,721	8,433	1,405	18,757	6,990	62,611	136,887	64,097	788,812	24
59,922	8,476	1,376	18,216	6,990	62,886	136,887	64,102	793,333	31
47,953	8,561	1,377	18,619	6,990	62,519	136,887	64,262	788,433	7 June
46,035	8,318	1,423	20,020	6,990	62,407	136,887	64,266	783,564	14
48,337	8,932	1,423	19,135	6,990	62,934	136,887	64,263	793,674	21
70,880	8,437	1,641	16,944	6,521	64,431	99,114	64,258	780,845	28
57,501	8,517	1,237	16,867	6,521	63,297	99,114	64,252	764,716	5 July
54,513	8,637	1,237	18,845	6,521	63,313	99,114	64,255	765,635	12
62,743	8,574	1,537	20,002	6,521	64,490	99,114	64,262	775,995	19
69,572	9,032	1,298	21,486	6,521	59,314	99,114	64,264	783,540	26
55,257	9,382	1,392	20,375	6,521	59,106	99,114	64,268	771,591	2 Aug.
52,290	8,643	1,312	19,716	6,521	59,910	99,114	64,270	768,630	9
47,496	8,609	1,285	17,306	6,521	60,512	99,114	64,274	763,509	16
49,783	9,128	1,287	18,418	6,521	59,980	99,114	64,275	764,092	23
63,849	8,972	1,271	16,111	6,521	59,807	99,114	64,277	770,838	30
51,729	8,671	1,282	15,092	6,521	60,016	99,114	64,279	765,573	6 Sep.
50,133	8,588	1,309	16,613	6,521	60,031	99,114	64,281	762,139	13
55,839	8,992	1,518	18,110	6,521	60,651	99,114	64,283	772,638	20
58,763	8,903	1,443	17,851	6,521	60,495	99,114	64,286	772,822	27
47,782	9,245	1,303	18,145	6,567	62,516	106,307	64,290	778,337	4 Oct.

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			
	Level 1	Change 2	Fixed rate	Minimum bid rate	Change 5	Level 6	Change 7
			Level 3	Level 4			
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
<i>Euro area enlargement</i>							
2001 11 May	3.50	-0.25	-	4.50	-0.25	5.50	-0.25
31 Aug.	3.25	-0.25	-	4.25	-0.25	5.25	-0.25
18 Sep.	2.75	-0.50	-	3.75	-0.50	4.75	-0.50
9 Nov.	2.25	-0.50	-	3.25	-0.50	4.25	-0.50

Source: ECB.

- 1) The date refers to the deposit and marginal lending facilities. For main refinancing operations, unless otherwise indicated, changes in the rate are effective from the first operation following the date indicated. The change on 18 September 2001 was effective on that same day.
- 2) On 22 December 1998 the ECB announced that, as an exceptional measure between 4 and 21 January 1999, a narrow corridor of 50 basis points would be applied between the interest rates for the marginal lending facility and the deposit facility, aimed at facilitating the transition to the new regime by market participants.
- 3) On 8 June 2000 the ECB announced that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders. The minimum bid rate refers to the minimum interest rate at which counterparties may place their bids.

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

Date of settlement	Bids (amount)	Allotment (amount)	Fixed rate tenders		Variable rate tenders		Running for (...) days
			Fixed rate	Minimum bid rate	Marginal rate ³⁾	Weighted average rate	
	1	2	3	4	5	6	7
2002 4 Apr.	112,796	55,000	-	3.25	3.30	3.31	13
10	112,847	48,000	-	3.25	3.29	3.29	14
17	102,694	49,000	-	3.25	3.27	3.28	13
24	115,604	60,000	-	3.25	3.30	3.31	14
30	106,166	49,000	-	3.25	3.30	3.31	15
8 May	108,472	66,000	-	3.25	3.29	3.30	14
15	108,733	43,000	-	3.25	3.30	3.30	14
22	112,438	70,000	-	3.25	3.33	3.34	14
29	114,221	48,000	-	3.25	3.34	3.35	14
5 June	114,258	65,000	-	3.25	3.33	3.34	14
12	97,462	42,000	-	3.25	3.31	3.32	14
19	112,227	70,000	-	3.25	3.32	3.33	14
26	111,439	70,000	-	3.25	3.35	3.36	14
3 July	108,626	57,000	-	3.25	3.33	3.33	14
10	102,931	69,000	-	3.25	3.30	3.32	14
17	104,849	65,000	-	3.25	3.30	3.31	14
24	108,732	84,000	-	3.25	3.30	3.31	14
31	86,879	55,000	-	3.25	3.30	3.31	14
7 Aug.	104,266	82,000	-	3.25	3.28	3.29	14
14	85,232	52,000	-	3.25	3.28	3.29	14
21	115,921	82,000	-	3.25	3.28	3.29	14
28	104,816	65,000	-	3.25	3.28	3.29	14
4 Sep.	124,579	76,000	-	3.25	3.28	3.29	14
11	105,528	60,000	-	3.25	3.27	3.28	14
18	116,252	84,000	-	3.25	3.28	3.29	14
25	105,130	65,000	-	3.25	3.28	3.29	14
2 Oct.	125,630	80,000	-	3.25	3.28	3.29	14
9	111,824	66,000	-	3.25	3.27	3.28	14

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 ³⁾	Weighted average rate		
	1	2	3	4	5	6	
2000 26 Oct.	43,085	15,000	-	5.06	5.07	91	
30 Nov.	31,999	15,000	-	5.03	5.05	91	
29 Dec.	15,869	15,000	-	4.75	4.81	90	
<i>Euro area enlargement</i>							
2001 25 Jan.	31,905	20,000	-	4.66	4.69	90	
1 Mar.	45,755	20,000	-	4.69	4.72	91	
29	38,169	19,101	-	4.47	4.50	91	
25 Apr.	43,416	20,000	-	4.67	4.70	92	
31 May	46,448	20,000	-	4.49	4.51	91	
28 June	44,243	20,000	-	4.36	4.39	91	
26 July	39,369	20,000	-	4.39	4.42	91	
30 Aug.	37,855	20,000	-	4.20	4.23	91	
27 Sep.	28,269	20,000	-	3.55	3.58	85	
25 Oct.	42,308	20,000	-	3.50	3.52	98	
29 Nov.	49,135	20,000	-	3.32	3.34	91	
21 Dec.	38,178	20,000	-	3.29	3.31	97	
2002 31 Jan.	44,547	20,000	-	3.31	3.33	84	
28 Feb.	47,001	20,000	-	3.32	3.33	91	
28 Mar.	39,976	20,000	-	3.40	3.42	91	
25 Apr.	40,580	20,000	-	3.35	3.36	91	
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	

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

Source: ECB.

- 1) The amounts shown may differ slightly from those in Table 1.1, columns 6 to 8, due to operations allotted but not settled.
- 2) On 8 June 2000 the ECB announced that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders. The minimum bid rate refers to the minimum interest rate at which counterparties may place their bids.
- 3) In liquidity providing (absorbing) operations, the marginal rate refers to the lowest (highest) rate at which bids were accepted.
- 4) This operation was conducted with a maximum rate of 3.00%.

Table 1.4**Minimum reserve statistics****1. Reserve base of credit institutions subject to reserve requirements ^{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	Money market paper	Deposits (over 2 years' agreed maturity and notice period)	Repos	Debt securities over 2 years' agreed maturity
	1	2	3	4	5	6	7
2001 Aug.	10,551.6	5,872.7	187.8	190.2	1,309.3	654.1	2,337.6
Sep.	10,627.3	5,956.0	188.2	191.3	1,315.7	631.6	2,344.6
Oct.	10,687.8	5,962.3	190.8	196.5	1,313.7	672.4	2,352.2
Nov.	10,798.1	6,073.4	199.0	191.3	1,300.9	656.5	2,376.9
Dec.	10,910.1	6,226.1	204.7	185.0	1,315.2	605.1	2,374.0
2002 Jan.	10,952.8	6,195.2	194.7	202.2	1,350.7	610.8	2,399.0
Feb.	10,964.1	6,164.7	196.8	196.0	1,337.1	653.2	2,416.3
Mar.	11,031.8	6,178.0	202.2	198.4	1,349.9	663.1	2,440.1
Apr.	11,076.4	6,176.1	205.1	199.8	1,355.1	699.1	2,441.2
May	11,111.6	6,150.4	204.3	206.2	1,355.8	741.7	2,453.2
June	11,009.1	6,083.3	203.3	204.2	1,355.3	699.2	2,463.9
July	10,999.6	6,069.3	202.3	206.3	1,368.0	691.0	2,462.7
Aug. ^(p)	10,950.9	6,007.2	202.3	201.3	1,359.8	703.3	2,477.0

Source: ECB.

- Liabilities vis-à-vis other credit institutions subject to the ESCB's minimum reserve system, the ECB and participating national central banks, are excluded from the reserve base. If a credit institution cannot provide evidence of the amount of its issues of debt securities with a maturity of up to two years and of money market paper held by the institutions mentioned above, it may deduct a certain percentage of these liabilities from its reserve base. This percentage was 10% for calculating the reserve base until November 1999, and 30% thereafter.
- Maintenance periods start on the 24th of the month and run to the 23rd of the following month; the required reserve is calculated from the reserve base as at the end of the preceding month.

2. Reserve maintenance 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
2001 Oct.	124.4	125.0	0.6	0.0	3.76
Nov.	126.1	126.6	0.5	0.0	3.62
Dec.	126.4	127.3	0.9	0.0	3.30
2002 Jan.	128.7	130.1	1.4	0.0	3.34
Feb.	131.7	132.4	0.7	0.0	3.30
Mar.	131.3	132.0	0.7	0.0	3.28
Apr.	130.6	131.1	0.5	0.0	3.30
May	131.0	131.5	0.5	0.0	3.30
June	131.0	131.7	0.7	0.0	3.33
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. ^(p)	127.7	.	.	.	.

Source: ECB.

- This table contains full data for completed maintenance periods and required reserves for the current maintenance period.
- 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.
- Aggregate average daily holdings of credit institutions required to hold a positive amount of reserves on their reserve accounts over the maintenance period.
- 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.
- 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.
- 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						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⁾	Deposit facility						
	2	3	4	5	6	7	8	9	10	11	12	
2001 Aug.	402.1	164.0	60.0	0.1	0.0	0.2	0.0	347.6	48.8	101.8	127.8	475.6
Sep.	401.3	147.1	60.0	0.5	3.5	0.4	0.0	335.4	45.2	105.4	126.1	461.9
Oct.	389.9	136.7	60.0	1.1	0.0	0.1	0.0	325.2	43.6	93.6	125.1	450.4
Nov.	385.0	132.3	60.0	0.2	0.0	0.3	0.0	311.3	46.1	93.1	126.7	438.3
Dec.	383.7	122.5	60.0	0.5	12.4	0.8	0.0	298.0	43.5	109.3	127.4	426.2
2002 Jan.	385.2	118.5	60.0	0.4	3.7	0.6	0.0	344.3	38.3	54.2	130.4	475.2
Feb.	386.0	127.3	60.0	0.2	0.0	0.1	0.0	306.2	49.6	85.2	132.6	438.8
Mar.	386.7	114.6	60.0	0.2	0.0	0.1	0.0	283.3	54.2	91.8	132.1	415.6
Apr.	395.4	112.7	60.0	0.4	0.0	0.2	0.0	285.9	55.9	95.3	131.2	417.3
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. ^(p)	362.3	140.9	50.8	0.1	0.0	0.2	0.0	323.6	49.1	51.7	129.6	453.4

Source: ECB.

1) The banking system's liquidity position is defined as the current account holdings in euro of credit institutions in the euro area with the Eurosystem. Amounts are derived from the consolidated financial statement of the Eurosystem.

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

3) Remaining items in the consolidated financial statement of the Eurosystem.

4) Equal to the difference between the sum of liquidity-providing factors (items 1 to 5) and the sum of liquidity-absorbing factors (items 6 to 10).

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

2 Monetary developments in the euro area

Table 2.1

Aggregated balance sheet of the Eurosystem

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

1. Assets

	Loans to euro area residents			Other euro area residents	Holdings of securities other than shares issued by euro area residents	Holdings of shares/other equity issued by euro area residents			External assets ¹⁾	Fixed assets	Re-remaining assets	Total				
	1	MFI ¹⁾	General government			2	3	4					5	6	7	8	9	10	11	12	13	14	15
1999	444.6	424.3	19.7	0.5	89.1	1.9	86.1	1.1	14.1	4.3	9.8	400.6	9.9	56.2	1,014.5	
2000 Q3	493.1	474.4	18.2	0.5	98.5	2.9	94.6	1.0	14.6	4.4	10.2	459.1	10.2	54.3	1,129.8	
Q4	445.0	427.4	17.1	0.5	97.4	2.5	93.6	1.3	15.3	4.3	11.0	380.7	11.2	56.1	1,005.7	
<i>Euro area enlargement</i>																
2001 Q1	401.7	373.9	27.2	0.6	105.0	2.7	101.2	1.1	14.7	4.6	10.1	396.7	11.3	54.4	983.8	
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	
2001 Aug.	391.1	363.3	27.2	0.6	107.6	3.5	102.9	1.2	14.0	4.6	9.4	396.8	12.0	54.5	975.9	
Sep.	388.2	360.4	27.2	0.6	106.6	3.7	101.9	1.1	13.1	4.8	8.3	397.1	11.9	54.8	971.7	
Oct.	356.7	328.9	27.2	0.6	107.8	3.9	102.8	1.2	13.4	4.8	8.7	400.0	12.0	55.5	945.6	
Nov.	370.0	342.4	27.1	0.6	107.3	3.8	102.2	1.2	13.6	4.7	8.9	400.5	12.1	55.0	958.5	
Dec.	412.7	386.4	25.7	0.6	107.0	3.8	101.8	1.3	13.8	4.6	9.2	399.0	11.9	54.3	998.6	
2002 Jan.	400.1	373.7	25.7	0.6	104.1	3.8	99.0	1.3	13.8	4.7	9.1	409.0	12.0	102.5	1,041.4	
Feb.	373.4	347.1	25.7	0.6	105.9	4.1	100.6	1.2	13.7	4.7	9.0	413.4	12.0	103.3	1,021.7	
Mar.	381.3	354.9	25.8	0.6	106.5	4.2	101.0	1.4	13.8	4.7	9.1	414.3	11.9	106.1	1,033.9	
Apr.	344.2	317.8	25.8	0.6	107.5	5.0	101.4	1.1	13.5	4.7	8.8	401.3	12.0	108.0	986.5	
May	356.1	329.7	25.7	0.6	107.0	4.9	101.0	1.0	13.3	4.7	8.6	394.5	12.0	110.2	993.1	
June	387.7	361.3	25.7	0.6	107.5	4.9	101.6	1.1	13.3	4.7	8.6	372.7	12.0	114.4	1,007.5	
July	364.0	337.7	25.7	0.6	107.7	5.1	101.9	0.8	13.8	4.7	9.0	377.9	12.1	116.1	991.6	
Aug. ^(p)	363.4	337.5	25.3	0.6	109.2	5.1	103.3	0.8	14.4	4.8	9.7	377.9	12.1	115.8	992.8	

2. Liabilities

	Currency in circulation		Deposits of euro area residents		Other general government/other euro area residents	Money market paper and debt securities issued	Capital and reserves	External liabilities ¹⁾	Remaining liabilities	Total
	1	2	3	4							5	6	7	8	9	10
1999	393.3	341.5	279.3	53.4	8.8	7.9	174.3	49.8	47.6	1,014.5
2000 Q3	373.5	404.2	346.1	45.6	12.5	4.6	221.2	75.0	51.4	1,129.8
Q4	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 Q1	370.5	312.6	253.4	46.8	12.4	5.5	204.6	26.8	63.8	983.8
Q2	368.8	342.2	274.1	51.8	16.3	5.6	223.7	32.6	54.2	1,027.2
2001 Aug.	356.0	320.4	259.2	46.6	14.7	5.6	211.6	28.4	53.9	975.9
Sep.	346.1	323.6	269.4	37.6	16.6	5.5	209.2	30.0	57.3	971.7
Oct.	333.8	302.8	244.7	40.0	18.1	5.5	210.6	34.3	58.5	945.6
Nov.	317.4	330.4	277.5	35.2	17.6	4.7	210.1	35.3	60.6	958.5
Dec.	285.9	391.9	342.4	35.1	14.4	4.6	209.8	35.6	70.8	998.6
2002 Jan.	339.7	345.2	285.1	44.9	15.2	4.6	214.5	37.4	100.0	1,041.4
Feb.	308.2	349.6	282.7	52.1	14.7	4.6	219.8	33.9	105.7	1,021.7
Mar.	309.1	355.1	282.4	56.3	16.4	4.6	217.8	36.8	110.5	1,033.9
Apr.	311.3	323.5	254.8	50.8	17.9	4.6	212.8	32.4	101.9	986.5
May	319.6	326.6	268.4	40.7	17.4	4.6	208.0	31.6	102.7	993.1
June	329.3	354.3	285.2	51.5	17.5	4.6	182.3	31.0	106.0	1,007.5
July	340.1	316.0	247.4	52.9	15.6	4.6	183.7	35.1	112.2	991.6
Aug. ^(p)	342.3	318.7	255.8	47.3	15.6	4.6	186.4	31.0	109.8	992.8

Source: ECB.

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

Table 2.3

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

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

1. Assets: levels

											Total
	Loans to euro area residents	General government	Other euro area residents	Holdings of securities other than shares issued by euro area residents	General government	Other euro area residents	Holdings of shares/ other equity issued by other euro area residents	External assets ²⁾	Fixed assets	Remaining assets	
	1	2	3	4	5	6	7	8	9	10	11
2001 Feb.	7,056.7	848.9	6,207.8	1,439.6	1,159.4	280.2	549.9	2,486.2	172.3	1,072.8	12,777.4
Mar.	7,126.3	851.7	6,274.6	1,455.6	1,167.4	288.2	567.1	2,638.9	172.0	1,117.3	13,077.3
Apr.	7,157.4	843.5	6,313.9	1,467.6	1,173.4	294.2	586.9	2,616.2	173.3	1,128.1	13,129.5
May	7,172.8	838.4	6,334.4	1,494.1	1,193.0	301.1	587.3	2,677.5	174.6	1,148.3	13,254.6
June	7,223.9	835.7	6,388.2	1,508.6	1,206.5	302.1	557.5	2,704.8	175.4	1,147.0	13,317.2
July	7,227.2	832.9	6,394.4	1,516.5	1,201.5	315.0	552.3	2,619.1	176.5	1,092.2	13,183.9
Aug.	7,198.4	828.8	6,369.6	1,516.6	1,192.9	323.7	545.1	2,624.7	176.9	1,082.6	13,144.3
Sep.	7,251.7	829.8	6,421.9	1,522.6	1,195.2	327.4	534.7	2,697.8	177.6	1,134.1	13,318.6
Oct.	7,278.5	827.2	6,451.2	1,516.6	1,186.8	329.9	543.7	2,742.9	178.3	1,164.2	13,424.2
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	1,516.4	1,179.2	337.2	568.3	2,807.4	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	568.2	2,829.5	177.5	1,169.2	13,671.8
Feb.	7,396.3	847.5	6,548.8	1,557.7	1,207.7	349.9	566.8	2,833.0	176.6	1,131.4	13,661.8
Mar.	7,458.9	853.0	6,605.9	1,575.7	1,229.1	346.6	563.0	2,845.1	176.4	1,082.3	13,701.3
Apr.	7,473.7	832.7	6,640.9	1,572.2	1,229.2	342.9	569.3	2,826.6	176.2	1,069.6	13,687.5
May	7,489.0	829.5	6,659.5	1,587.4	1,242.5	345.0	571.5	2,845.9	176.4	1,048.7	13,719.0
June	7,520.0	829.3	6,690.7	1,582.7	1,239.9	342.8	567.7	2,728.3	176.2	1,070.7	13,645.7
July	7,519.7	827.5	6,692.2	1,581.1	1,234.7	346.4	554.0	2,753.4	176.7	1,095.9	13,680.9
Aug. ^(p)	7,509.1	817.0	6,692.1	1,573.7	1,233.4	340.3	563.8	2,741.5	177.8	1,085.0	13,651.0

2. Liabilities: levels

														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 ³⁾	Money market paper and debt securities issued ³⁾	Capital and reserves	External liabilities ²⁾	Re-maining liabilities	Excess of inter-MFI liabilities	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2001 Feb.	335.0	155.6	5,380.3	1,625.6	2,218.0	1,323.5	213.2	336.0	1,711.5	911.3	2,475.3	1,491.6	-19.2	12,777.4
Mar.	336.3	150.3	5,419.7	1,636.1	2,238.2	1,322.8	222.6	346.1	1,719.5	927.0	2,663.0	1,536.9	-21.6	13,077.3
Apr.	336.2	152.5	5,449.5	1,666.9	2,237.4	1,323.9	221.4	354.1	1,720.3	928.1	2,676.4	1,524.7	-12.2	13,129.5
May	332.9	146.9	5,487.5	1,691.8	2,239.4	1,322.5	233.8	363.0	1,722.0	940.0	2,755.0	1,520.6	-13.2	13,254.6
June	333.0	165.5	5,521.1	1,731.8	2,237.0	1,330.8	221.5	360.5	1,740.5	965.9	2,743.3	1,504.4	-16.8	13,317.2
July	328.0	155.5	5,508.1	1,712.7	2,238.4	1,333.6	223.4	369.6	1,737.1	955.2	2,643.0	1,494.8	-7.4	13,183.9
Aug.	319.2	152.4	5,500.1	1,681.2	2,250.8	1,337.3	230.8	380.7	1,731.1	959.9	2,620.1	1,489.4	-8.6	13,144.3
Sep.	309.6	147.8	5,552.2	1,749.9	2,233.9	1,342.6	225.7	384.7	1,753.9	970.4	2,639.9	1,541.4	18.7	13,318.6
Oct.	295.5	153.3	5,574.8	1,750.3	2,237.6	1,351.9	235.1	395.9	1,767.9	981.1	2,661.6	1,588.7	5.5	13,424.2
Nov.	279.7	150.2	5,628.1	1,798.1	2,239.2	1,365.0	225.9	404.5	1,760.3	982.6	2,726.2	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	402.0	1,760.7	996.2	2,719.1	1,550.7	-8.5	13,576.7
2002 Jan.	246.5	148.9	5,737.0	1,847.8	2,254.2	1,418.8	216.2	420.8	1,775.8	1,007.6	2,755.2	1,577.6	2.4	13,671.8
Feb.	240.3	155.7	5,736.8	1,843.4	2,251.4	1,420.9	221.1	431.6	1,778.1	1,011.5	2,763.3	1,543.0	1.5	13,661.8
Mar.	254.3	157.5	5,758.6	1,839.3	2,266.7	1,423.0	229.6	435.9	1,793.0	1,013.0	2,786.6	1,500.1	2.4	13,701.3
Apr.	261.7	157.5	5,782.0	1,869.9	2,269.4	1,414.7	228.1	442.2	1,785.4	1,007.1	2,769.2	1,489.8	-7.4	13,687.5
May	273.9	149.0	5,799.6	1,870.1	2,279.1	1,415.5	234.8	447.3	1,806.4	1,011.3	2,750.3	1,488.5	-7.2	13,719.0
June	285.7	153.2	5,826.0	1,918.6	2,256.7	1,422.0	228.7	443.6	1,787.3	994.0	2,616.1	1,521.6	18.3	13,645.7
July	296.6	149.8	5,803.8	1,886.8	2,264.3	1,424.6	228.0	455.3	1,795.2	1,001.6	2,643.5	1,532.2	2.9	13,680.9
Aug. ^(p)	301.0	138.8	5,784.5	1,852.8	2,266.0	1,430.1	235.6	468.5	1,813.1	1,012.2	2,611.5	1,514.2	7.0	13,651.0

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) See Table 2.1, footnote 1.

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

3. Assets: flows ¹⁾

	Loans to euro area residents		Holdings of securities other than shares issued by euro area residents		Holdings of shares/ other equity issued by other euro area residents		External assets ²⁾	Fixed assets	Remaining assets	Total	
	1	2	3	4	5	6					7	8	9	10	11
2001 Mar.	60.8	2.4	58.5	10.8	3.1	7.7	17.2	97.2	0.1	46.0	232.0
Apr.	33.2	-8.2	41.4	12.1	6.6	5.5	18.4	-17.9	1.2	9.9	56.9
May	4.1	-5.6	9.7	25.9	20.8	5.1	1.0	-1.2	1.4	18.7	49.8
June	57.4	-2.6	60.0	14.0	13.3	0.7	-32.4	27.5	0.9	-1.4	66.0
July	12.7	-2.5	15.1	9.5	-3.2	12.7	-8.1	-41.3	1.1	-50.5	-76.5
Aug.	-18.9	-3.7	-15.2	4.9	-4.3	9.2	-6.0	57.2	0.3	-10.6	27.0
Sep.	48.6	1.0	47.5	-1.4	-4.3	2.9	-5.0	49.1	0.7	51.9	143.9
Oct.	25.4	-2.7	28.1	-7.0	-9.6	2.6	5.7	44.0	0.7	30.1	99.0
Nov.	66.0	16.0	50.1	9.9	7.9	2.1	-3.2	65.7	1.1	5.9	145.6
Dec.	27.8	3.7	24.1	-8.1	-10.2	2.1	22.3	-26.6	1.1	-17.2	-0.8
2002 Jan.	9.6	-3.1	12.7	26.8	21.9	5.0	-0.3	0.2	-2.5	31.0	64.8
Feb.	19.3	2.7	16.5	9.2	1.3	7.9	0.6	0.4	-0.9	-39.1	-10.5
Mar.	64.5	5.5	58.9	14.1	16.9	-2.9	-5.2	19.9	0.0	-48.1	45.2
Apr.	21.8	-20.0	41.8	-2.5	1.3	-3.8	6.5	18.9	-0.2	-13.2	31.4
May	25.6	-2.8	28.4	12.7	9.7	2.9	1.3	74.1	0.2	-21.1	92.8
June	39.6	0.3	39.3	-2.7	-0.8	-1.9	-3.6	-29.6	-0.2	22.2	25.8
July	-4.7	-2.0	-2.7	-4.7	-5.5	0.8	-10.6	-2.8	0.5	24.0	1.7
Aug. ^(p)	-10.4	-10.4	0.0	-6.4	-1.9	-4.5	8.9	-7.5	1.0	-10.9	-25.3

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 ³⁾	Money market paper and debt securities issued ³⁾	Capital and reserves	External liabilities ²⁾	Re-remaining liabilities	Excess of inter-MFI liabilities	Total
				Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2001 Mar.	1.3	-5.2	32.6	8.3	15.8	-0.8	9.3	11.6	2.7	16.5	133.7	47.0	-8.1	232.0
Apr.	-0.1	2.2	30.2	30.8	-0.5	1.1	-1.2	8.7	-2.4	1.3	18.4	-11.6	10.3	56.9
May	-3.3	-5.6	29.4	21.7	-3.0	-1.7	12.4	9.8	-11.7	8.4	11.8	12.4	-1.4	49.8
June	0.1	18.6	34.9	40.4	-1.6	8.3	-12.3	-1.5	20.4	19.1	-5.3	-18.2	-2.3	66.0
July	-5.0	-10.0	-8.2	-17.4	4.4	3.0	1.9	9.5	2.9	-6.5	-58.0	-11.1	9.8	-76.5
Aug.	-8.8	-3.1	-1.9	-29.6	16.3	3.9	7.5	10.5	1.4	7.3	30.1	-7.4	-1.2	27.0
Sep.	-9.6	-4.6	51.2	68.4	-17.4	5.3	-5.1	3.7	15.8	9.0	18.0	41.4	19.1	143.9
Oct.	-14.2	5.4	22.7	0.9	3.0	9.2	9.5	11.6	13.0	7.9	18.4	45.9	-11.8	99.0
Nov.	-15.7	-3.0	51.4	47.2	0.4	13.1	-9.2	9.8	23.9	2.9	38.5	33.1	4.6	145.6
Dec.	-40.0	-11.2	149.4	98.4	18.4	40.0	-7.4	-1.1	-0.7	14.7	-17.8	-74.7	-19.5	-0.8
2002 Jan.	6.8	10.4	-42.4	-49.4	-3.1	12.4	-2.3	19.8	10.4	13.4	13.8	20.9	11.7	64.8
Feb.	-6.2	6.9	0.3	-4.3	-2.5	2.1	4.9	10.8	4.8	-0.5	10.7	-36.5	-0.7	-10.5
Mar.	14.0	1.7	22.8	-3.8	16.1	2.2	8.4	3.2	18.4	5.1	25.6	-55.7	10.0	45.2
Apr.	7.4	0.0	27.6	32.1	5.2	-8.2	-1.5	8.0	-1.5	-4.9	20.6	-16.6	-9.2	31.4
May	12.2	-8.5	24.6	2.4	14.3	1.1	6.7	4.0	31.1	4.0	35.0	-9.6	0.1	92.8
June	11.8	4.2	33.0	50.5	-17.3	6.7	-6.9	-8.3	-0.3	-11.3	-66.4	39.9	23.1	25.8
July	11.0	-3.4	-25.5	-33.0	5.7	2.5	-0.7	12.9	0.0	9.8	-0.9	13.2	-15.3	1.7
Aug. ^(p)	4.4	-11.0	-4.0	-33.7	16.6	5.5	7.6	12.6	2.5	8.7	-23.7	-21.5	6.6	-25.3

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. 98=100 ³⁾
	Currency in circulation	Overnight deposits	Total	Index Dec. 98=100 ³⁾				
			1	2	3	4	5	6	7	8
2001 Feb.	335.0	1,692.9	2,028.0	112.22	1,049.0	1,269.7	4,346.7	107.99
Mar.	336.3	1,703.2	2,039.5	112.73	1,065.9	1,269.8	4,375.1	108.57
Apr.	336.2	1,735.9	2,072.1	114.53	1,067.8	1,273.4	4,413.3	109.52
May	332.9	1,759.2	2,092.1	115.46	1,069.0	1,273.2	4,434.3	109.85
June	333.0	1,798.4	2,131.4	117.66	1,066.2	1,283.0	4,480.6	111.03
July	328.0	1,780.3	2,108.3	116.48	1,073.2	1,287.2	4,468.7	110.83
Aug.	319.2	1,747.5	2,066.7	114.28	1,088.8	1,292.9	4,448.4	110.44
Sep.	309.6	1,815.1	2,124.7	117.47	1,070.9	1,299.7	4,495.3	111.59
Oct.	295.5	1,816.1	2,111.6	116.78	1,074.7	1,311.6	4,497.9	111.66
Nov.	279.7	1,864.6	2,144.3	118.55	1,077.6	1,326.4	4,548.2	112.87
Dec.	239.7	1,968.2	2,207.9	122.08	1,088.8	1,367.9	4,664.6	115.76
2002 Jan.	246.5	1,921.9	2,168.4	119.84	1,081.0	1,390.4	4,639.8	115.11
Feb.	240.3	1,917.2	2,157.5	119.24	1,076.7	1,394.5	4,628.8	114.85
Mar.	254.3	1,914.3	2,168.6	119.88	1,088.5	1,397.9	4,655.0	115.52
Apr.	261.7	1,945.7	2,207.4	122.10	1,092.4	1,391.9	4,691.7	116.52
May	273.9	1,946.2	2,220.0	122.93	1,100.4	1,394.0	4,714.4	117.23
June	285.7	1,994.3	2,279.9	126.35	1,075.7	1,400.3	4,755.9	118.42
July	296.6	1,960.9	2,257.5	125.05	1,084.1	1,403.3	4,744.8	117.99
Aug. ^(p)	301.0	1,928.3	2,229.3	123.50	1,097.1	1,409.2	4,735.6	117.78

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	Overnight deposits	Total	Annual growth rate ³⁾ (%)				
			1	2	3	4	5	6	7	8
2001 Mar.	1.3	8.1	9.3	2.0	14.2	-0.1	23.5	3.3
Apr.	-0.1	32.6	32.5	1.6	2.2	3.7	38.4	3.3
May	-3.3	20.1	16.9	3.2	-3.2	-0.5	13.2	3.7
June	0.1	39.6	39.7	4.3	-2.1	9.8	47.4	4.5
July	-5.0	-16.4	-21.4	3.3	9.1	4.4	-7.9	4.4
Aug.	-8.8	-30.9	-39.7	3.2	18.4	5.9	-15.5	4.3
Sep.	-9.6	67.4	57.7	5.5	-18.2	6.8	46.3	5.3
Oct.	-14.2	1.6	-12.6	5.0	3.3	11.8	2.6	5.4
Nov.	-15.7	47.8	32.0	5.5	1.9	14.8	48.8	5.9
Dec.	-40.0	103.9	63.9	5.1	11.1	41.5	116.5	6.1
2002 Jan.	6.8	-47.3	-40.5	6.7	-6.7	21.1	-26.1	6.8
Feb.	-6.2	-4.6	-10.8	6.3	-4.0	4.1	-10.6	6.4
Mar.	14.0	-2.5	11.5	6.3	12.3	3.4	27.2	6.4
Apr.	7.4	32.9	40.2	6.6	5.7	-5.8	40.1	6.4
May	12.2	2.7	14.9	6.5	11.4	2.3	28.6	6.7
June	11.8	50.1	61.9	7.4	-20.6	6.6	47.9	6.7
July	11.0	-34.5	-23.6	7.4	3.7	2.8	-17.0	6.5
Aug. ^(p)	4.4	-32.3	-27.9	8.1	13.4	6.0	-8.6	6.6

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, money market paper and debt securities up to 2 years.

M3 ²⁾						
Repurchase agreements	Money market fund shares/units	Money market paper and debt securities up to 2 years	Total	Index Dec. 98=100 ³⁾		
9	10	11	12	13		
213.2	336.0	145.5	5,041.3	110.10		2001 Feb.
222.6	346.1	139.3	5,083.1	110.91		Mar.
221.4	354.1	140.0	5,128.7	111.88		Apr.
233.8	363.0	135.0	5,166.1	112.51		May
221.5	360.5	145.2	5,207.8	113.44		June
223.4	369.6	140.4	5,202.1	113.41		July
230.8	380.7	142.5	5,202.4	113.53		Aug.
225.7	384.7	147.6	5,253.4	114.49		Sep.
235.1	395.9	149.5	5,278.4	115.02		Oct.
225.9	404.5	152.2	5,330.8	116.20		Nov.
218.5	402.0	145.9	5,430.9	118.38		Dec.
216.2	420.8	141.8	5,418.7	118.18		2002 Jan.
221.1	431.6	138.7	5,420.2	118.21		Feb.
229.6	435.9	137.2	5,457.7	119.06		Mar.
228.1	442.2	134.7	5,496.7	120.01		Apr.
234.8	447.3	144.0	5,540.5	121.09		May
228.7	443.6	130.5	5,558.8	121.61		June
228.0	455.3	125.9	5,554.0	121.36		July
235.6	468.5	126.8	5,566.6	121.64		Aug. ⁴⁾

M3 ²⁾						
Repurchase agreements	Money market fund shares/units	Money market paper and debt securities up to 2 years	Total	Annual growth rate ³⁾ (%)		
9	10	11	12	13		
9.3	11.6	-7.2	37.2	3.9		2001 Mar.
-1.2	8.7	-1.6	44.3	3.9		Apr.
12.4	9.8	-6.5	28.9	4.5		May
-12.3	-1.5	9.2	42.9	5.6		June
1.9	9.5	-4.9	-1.5	5.6		July
7.5	10.5	2.8	5.3	5.9		Aug.
-5.1	3.7	-0.9	44.0	6.9		Sep.
9.5	11.6	0.5	24.2	7.3		Oct.
-9.2	9.8	5.1	54.4	7.7		Nov.
-7.4	-1.1	-8.0	100.0	7.7		Dec.
-2.3	19.8	-0.4	-9.1	7.8		2002 Jan.
4.9	10.8	-4.0	1.1	7.4		Feb.
8.4	3.2	0.3	39.1	7.3		Mar.
-1.5	8.0	-3.2	43.4	7.3		Apr.
6.7	4.0	10.1	49.3	7.6		May
-6.9	-8.3	-8.7	24.0	7.2		June
-0.7	12.9	-6.4	-11.3	7.0		July
7.6	12.6	0.8	12.5	7.1		Aug. ⁴⁾

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

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

Table 2.4 (cont'd)
Monetary aggregates 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 Dec. 98=100 ⁴⁾
	Currency in circulation 1	Overnight deposits 2	Total	Index	Total	Index	Total			Index
			3	Dec. 98=100 ⁴⁾				Dec. 98=100 ⁴⁾	Dec. 98=100 ⁴⁾
2001 Feb.	342.0	1,704.8	2,046.8	113.26	2,305.1	103.78	4,351.9	108.12	
Mar.	338.9	1,709.9	2,048.9	113.25	2,325.0	104.56	4,373.9	108.54	
Apr.	337.5	1,722.8	2,060.3	113.88	2,335.8	105.06	4,396.1	109.10	
May	332.5	1,750.0	2,082.5	114.94	2,341.9	105.12	4,424.4	109.60	
June	329.1	1,764.9	2,093.9	115.59	2,357.4	105.85	4,451.3	110.30	
July	323.6	1,769.4	2,093.0	115.63	2,370.2	106.53	4,463.2	110.69	
Aug.	317.9	1,790.7	2,108.6	116.60	2,374.8	106.86	4,483.4	111.31	
Sep.	309.1	1,822.8	2,131.9	117.87	2,388.0	107.44	4,519.9	112.20	
Oct.	297.2	1,845.4	2,142.6	118.49	2,402.1	108.05	4,544.7	112.82	
Nov.	279.1	1,877.8	2,157.0	119.25	2,422.2	108.92	4,579.2	113.64	
Dec.	233.9	1,925.6	2,159.5	119.40	2,446.7	110.01	4,606.2	114.31	
2002 Jan.	251.8	1,929.3	2,181.1	120.54	2,452.2	110.25	4,633.3	114.95	
Feb.	245.0	1,930.4	2,175.4	120.24	2,458.2	110.53	4,633.7	114.97	
Mar.	253.1	1,914.0	2,167.1	119.80	2,478.0	111.44	4,645.1	115.28	
Apr.	263.6	1,930.5	2,194.1	121.37	2,476.9	111.48	4,671.0	116.00	
May	271.9	1,944.4	2,216.2	122.72	2,489.2	112.20	4,705.4	117.00	
June	281.8	1,947.1	2,228.9	123.53	2,488.1	112.35	4,717.0	117.45	
July	292.6	1,954.3	2,246.9	124.46	2,494.7	112.43	4,741.6	117.91	
Aug. ^(p)	299.8	1,968.1	2,267.9	125.64	2,498.5	112.62	4,766.4	118.55	

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	Monthly growth rate ⁴⁾ (%)	Annual growth rate ⁴⁾ (%)	Total	Monthly growth rate ⁴⁾ (%)	Annual growth rate ⁴⁾ (%)			
			3	4	5		6	7	8	9	10				11
2001 Mar.	-3.0	3.0	-0.1	0.0	1.7	17.2	0.7	4.4	17.1	0.4	3.1
Apr.	-1.4	12.8	11.3	0.6	1.7	11.0	0.5	4.9	22.4	0.5	3.4
May	-5.0	24.1	19.1	0.9	3.0	1.4	0.1	4.2	20.5	0.5	3.6
June	-3.4	15.3	11.8	0.6	4.0	16.3	0.7	4.6	28.1	0.6	4.3
July	-5.4	6.2	0.7	0.0	3.3	15.1	0.6	5.3	15.8	0.4	4.4
Aug.	-5.7	23.2	17.5	0.8	3.6	7.5	0.3	5.0	25.0	0.6	4.3
Sep.	-8.9	31.9	23.0	1.1	5.0	12.9	0.5	5.2	35.9	0.8	5.1
Oct.	-11.9	23.2	11.3	0.5	5.2	13.6	0.6	5.7	24.9	0.6	5.5
Nov.	-18.0	31.7	13.7	0.6	5.9	19.2	0.8	5.9	32.9	0.7	5.9
Dec.	-45.3	48.0	2.8	0.1	5.6	24.4	1.0	7.3	27.1	0.6	6.5
2002 Jan.	17.9	2.7	20.6	1.0	6.7	5.2	0.2	6.9	25.8	0.6	6.8
Feb.	-6.8	1.2	-5.6	-0.3	6.2	6.3	0.3	6.5	0.7	0.0	6.3
Mar.	8.1	-16.0	-8.0	-0.4	5.8	20.4	0.8	6.6	12.4	0.3	6.2
Apr.	10.4	18.0	28.5	1.3	6.6	0.9	0.0	6.1	29.3	0.6	6.3
May	8.3	16.1	24.4	1.1	6.8	15.9	0.6	6.7	40.2	0.9	6.8
June	9.9	4.7	14.6	0.7	6.9	3.3	0.1	6.1	17.9	0.4	6.5
July	10.8	6.0	16.9	0.8	7.6	1.8	0.1	5.5	18.7	0.4	6.5
Aug. ^(p)	7.2	14.1	21.3	0.9	7.8	4.2	0.2	5.4	25.5	0.5	6.5

Source: ECB.

- 1) Monetary aggregates comprise monetary liabilities of MFIs and central government (Post Office, Treasury) vis-à-vis non-MFI euro area residents excluding central government.
- 2) M3 and its components exclude holdings by non-residents of the euro area of money market fund shares/units, money market paper and debt securities up to 2 years.
- 3) Loans, with other components of credit, are shown without seasonal adjustment on page 20*.
- 4) For the calculations of the index and the growth rates, see the technical notes.

M3 ²⁾				Loans to other euro area residents (excluding government) ³⁾		
Marketable instruments ⁶⁾		Total	Index Dec. 98=100 ⁴⁾	Total	Index Dec. 98=100 ⁴⁾	
Total	Index Dec. 98=100 ⁴⁾					
9	10	11	12	13	14	
689.4	124.95	5,041.2	110.10	6,219.1	121.18	2001 Feb.
695.9	126.20	5,069.8	110.62	6,266.5	121.94	Mar.
701.5	126.96	5,097.6	111.20	6,301.1	122.65	Apr.
711.0	128.56	5,135.4	111.84	6,334.5	123.09	May
725.3	131.14	5,176.6	112.76	6,364.2	123.79	June
737.2	133.36	5,200.4	113.38	6,381.1	124.29	July
752.2	136.09	5,235.6	114.25	6,398.0	124.81	Aug.
767.8	137.74	5,287.6	115.23	6,433.8	125.42	Sep.
787.1	141.07	5,331.8	116.18	6,465.1	126.00	Oct.
787.2	141.75	5,366.5	116.98	6,503.6	126.74	Nov.
794.8	143.06	5,401.0	117.73	6,510.0	127.00	Dec.
785.3	142.18	5,418.7	118.18	6,535.6	127.45	2002 Jan.
785.8	142.11	5,419.4	118.19	6,562.7	128.02	Feb.
788.7	142.76	5,433.8	118.54	6,597.0	128.72	Mar.
791.3	143.40	5,462.3	119.26	6,626.0	129.42	Apr.
802.7	145.40	5,508.1	120.38	6,657.1	130.22	May
801.7	145.13	5,518.7	120.73	6,665.4	130.54	June
813.7	147.19	5,555.3	121.39	6,680.3	130.75	July
829.1	149.84	5,595.5	122.27	6,722.6	131.58	Aug. ^(p)

M3 ²⁾							Loans to other euro area residents (excluding 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	
6.9	1.0	7.9	24.0	0.5	3.7	3.9	39.0	0.6	8.7	2001 Mar.
4.2	0.6	8.2	26.5	0.5	4.0	4.0	36.7	0.6	8.4	Apr.
8.8	1.3	9.4	29.4	0.6	4.4	4.6	22.6	0.4	8.0	May
14.3	2.0	12.9	42.4	0.8	5.5	5.2	35.9	0.6	7.9	June
12.3	1.7	13.6	28.1	0.5	5.6	5.6	25.9	0.4	7.8	July
15.1	2.0	16.0	40.1	0.8	5.9	6.1	26.6	0.4	7.2	Aug.
9.1	1.2	17.6	45.0	0.9	6.7	6.7	31.0	0.5	6.7	Sep.
18.5	2.4	19.5	43.4	0.8	7.4	7.3	30.0	0.5	6.5	Oct.
3.8	0.5	19.7	36.7	0.7	7.8	7.7	37.9	0.6	6.6	Nov.
7.3	0.9	18.1	34.4	0.6	8.1	7.9	13.2	0.2	6.1	Dec.
-4.9	-0.6	14.4	20.9	0.4	7.8	7.7	23.2	0.4	5.8	2002 Jan.
-0.4	0.0	13.7	0.4	0.0	7.4	7.4	29.3	0.4	5.6	Feb.
3.6	0.5	13.1	16.0	0.3	7.2	7.3	36.1	0.6	5.6	Mar.
3.5	0.4	12.9	32.8	0.6	7.2	7.3	35.8	0.5	5.5	Apr.
11.1	1.4	13.1	51.3	0.9	7.6	7.3	41.0	0.6	5.8	May
-1.5	-0.2	10.7	16.4	0.3	7.1	7.3	16.3	0.2	5.5	June
11.4	1.4	10.4	30.1	0.5	7.1	7.1	10.7	0.2	5.2	July
14.7	1.8	10.1	40.1	0.7	7.0	.	42.5	0.6	5.4	Aug. ^(p)

5) Other short-term deposits comprise deposits with an agreed maturity of up to two years and deposits redeemable at notice of up to three months.

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

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

Table 2.4 (cont'd)
Monetary aggregates ¹⁾ and counterpart assets
(EUR billions (not seasonally adjusted) and percentage growth rates, unless otherwise indicated)
5. Main counterpart assets 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 government	Credit to other euro area residents	Of which loans	Index Dec. 98 =100 ³⁾		
	1	2	3	4	5	6	7	8	9	10
2001 Feb.	1,169.2	126.9	1,564.2	911.3	2,008.4	7,037.8	6,207.8	120.96	10.9	172.3
Mar.	1,172.5	126.4	1,576.9	927.0	2,019.1	7,129.9	6,274.6	122.10	-24.2	172.0
Apr.	1,169.7	124.6	1,577.7	928.1	2,016.9	7,195.0	6,313.9	122.90	-60.1	173.3
May	1,170.6	123.2	1,584.5	940.0	2,031.3	7,222.8	6,334.4	123.09	-77.5	174.6
June	1,170.9	122.0	1,593.0	965.9	2,042.1	7,247.9	6,388.2	124.26	-38.5	175.4
July	1,165.3	120.7	1,594.1	955.2	2,034.4	7,261.6	6,394.4	124.55	-23.9	176.5
Aug.	1,162.0	119.5	1,586.2	959.9	2,021.6	7,238.5	6,369.6	124.26	4.6	176.9
Sep.	1,163.0	118.6	1,604.7	970.4	2,025.0	7,284.1	6,421.9	125.18	57.8	177.6
Oct.	1,162.9	116.9	1,617.0	981.1	2,014.0	7,324.8	6,451.2	125.73	81.3	178.3
Nov.	1,161.6	115.8	1,606.6	982.6	2,034.3	7,379.6	6,501.9	126.71	101.4	179.1
Dec.	1,169.1	115.8	1,613.6	996.2	2,026.9	7,424.8	6,519.3	127.18	88.3	180.0
2002 Jan.	1,173.2	112.3	1,632.9	1,007.6	2,051.1	7,444.6	6,534.4	127.42	74.3	177.5
Feb.	1,174.7	111.2	1,638.8	1,011.5	2,055.2	7,465.6	6,548.8	127.75	69.8	176.6
Mar.	1,178.2	109.9	1,655.8	1,013.0	2,082.0	7,515.5	6,605.9	128.90	58.5	176.4
Apr.	1,177.0	108.0	1,650.2	1,007.1	2,062.0	7,553.1	6,640.9	129.71	57.4	176.2
May	1,178.8	106.8	1,661.9	1,011.3	2,072.0	7,576.0	6,659.5	130.27	95.6	176.4
June	1,181.0	106.6	1,656.5	994.0	2,069.2	7,601.2	6,690.7	131.04	112.2	176.2
July	1,180.3	106.6	1,668.8	1,001.6	2,062.2	7,592.6	6,692.2	130.98	109.9	176.7
Aug. ^(p)	1,168.8	106.8	1,685.7	1,012.2	2,050.5	7,596.2	6,692.1	130.98	130.0	177.8

6. Main counterpart assets 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 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 Mar.	1.5	-0.5	8.5	16.5	5.5	83.3	58.5	8.7	-36.6	0.1
Apr.	-2.7	-1.9	-0.1	1.3	-1.6	65.3	41.4	8.4	-36.4	1.2
May	0.1	-1.4	-5.1	8.4	15.2	15.8	9.7	8.0	-13.0	1.4
June	0.5	-1.1	11.5	19.1	10.7	28.4	60.0	7.9	32.7	0.9
July	-4.7	-1.4	7.5	-6.5	-5.6	19.8	15.1	7.7	16.7	1.1
Aug.	-2.1	-1.2	-1.2	7.3	-8.0	-11.9	-15.2	7.2	27.1	0.3
Sep.	0.8	-0.9	17.5	9.0	-3.3	45.5	47.5	6.7	31.2	0.7
Oct.	-0.3	-1.7	12.7	7.9	-12.3	36.4	28.1	6.5	25.6	0.7
Nov.	-1.6	-1.1	18.7	2.9	23.8	49.0	50.1	6.6	27.1	1.1
Dec.	7.3	0.1	7.6	14.7	-6.6	48.5	24.1	6.1	-8.9	1.1
2002 Jan.	3.6	-3.6	11.0	13.4	18.7	17.4	12.7	5.7	-13.6	-2.5
Feb.	1.6	-1.0	9.3	-0.5	4.0	25.1	16.5	5.6	-10.4	-0.9
Mar.	3.7	-1.3	18.7	5.1	22.5	50.9	58.9	5.6	-5.7	0.0
Apr.	-0.5	-1.9	1.2	-4.9	-18.6	44.5	41.8	5.5	-1.7	-0.2
May	3.0	-1.2	21.1	4.0	6.9	32.6	28.4	5.8	39.1	0.2
June	3.3	-0.2	8.5	-11.3	-0.5	33.8	39.3	5.5	36.9	-0.2
July	1.9	0.0	6.2	9.8	-7.5	-12.5	-2.7	5.2	-1.9	0.5
Aug. ^(p)	3.2	0.2	1.5	8.7	-12.3	4.4	0.0	5.4	16.1	1.0

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	Up to 1 year	Index Dec.98 =100 ²⁾	Total	Up to 1 year	Index Dec.98 =100 ²⁾	Central government ³⁾	Other general government					Total	Index Dec.98 =100 ²⁾
								State government	Local government		Social security funds			
	Over 5 years	Over 5 years												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
2000 Q4	395.0	252.9	142.9	31.5	21.8	114.8	172.2	297.3	255.4	350.9	315.8	14.6	835.0	99.4
<i>Euro area enlargement</i>														
2001 1 Jan.	395.4	253.4	-	31.6	21.8	-	185.6	297.3	255.4	351.5	316.4	15.2	849.6	-
2001 Q1	418.2	273.1	153.0	36.4	26.8	132.3	188.4	295.2	255.3	352.4	314.0	15.6	851.7	99.0
Q2	425.5	280.7	155.8	36.2	26.7	131.5	174.1	294.0	254.9	350.4	312.4	17.2	835.7	97.1
Q3	409.0	256.8	149.6	37.4	26.9	137.1	167.3	293.9	254.1	349.7	312.0	18.9	829.8	96.5
Q4	434.6	276.2	159.9	34.9	24.8	127.8	170.1	298.3	252.0	362.9	322.3	16.4	847.7	98.5
2002 Q1	459.0	305.0	169.1	38.9	28.3	142.2	180.4	294.0	248.2	362.1	318.2	16.5	853.0	99.1
Q2 ⁴⁾	461.4	304.1	169.9	37.8	26.8	137.4	162.4	280.9	245.8	368.0	316.3	17.9	829.3	96.5

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	Up to 1 year	Annual growth rate ²⁾ (%)	Total	Up to 1 year	Annual growth rate ²⁾ (%)	Central government ³⁾	Other general government					Total	Annual growth rate ²⁾ (%)
								State government	Local government		Social security funds			
	Over 5 years	Over 5 years												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
2001 Q1	28.1	22.7	19.7	4.8	5.0	-2.1	-0.5	-2.0	-0.1	-0.7	-3.7	0.4	-2.9	-0.5
Q2	7.5	7.6	14.8	-0.2	-0.1	-6.9	-14.8	-1.3	-0.4	-2.0	-1.7	1.6	-16.4	-1.9
Q3	-16.8	-23.9	7.8	1.5	0.2	13.8	-6.2	0.0	-0.7	-0.7	-0.4	1.7	-5.2	-0.8
Q4	28.0	21.6	11.9	-2.5	-2.1	11.3	1.9	4.4	-2.1	13.2	10.3	-2.5	16.9	-0.9
2002 Q1	25.0	29.3	10.5	3.9	3.5	7.5	10.1	-4.3	-3.8	-0.8	-4.1	0.1	5.1	0.1
Q2 ⁴⁾	2.3	-0.9	9.1	-1.3	-1.5	4.5	-16.8	-13.1	-2.4	5.9	-1.9	1.4	-22.5	-0.7

Source: ECB.

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

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

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.98 =100 ²⁾	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.98 =100 ²⁾
	1	2	3	4	5	6	7	8	9	10
2000 Q4	968.0	429.8	1,287.9	2,685.7	118.6	97.5	165.2	212.9	475.7	115.9
<i>Euro area enlargement</i>										
2001 1 Jan.	996.6	436.6	1,293.6	2,726.9	-	102.1	166.1	213.0	481.2	-
2001 Q1	1,034.2	445.9	1,313.6	2,793.7	120.9	98.7	168.4	212.8	479.9	115.0
Q2	1,051.7	456.3	1,343.4	2,851.5	123.1	100.1	171.1	217.7	488.8	117.5
Q3	1,027.2	467.3	1,371.8	2,866.2	124.3	100.6	170.7	221.7	493.1	118.6
Q4	1,017.9	489.8	1,394.3	2,902.0	125.9	102.6	170.4	226.7	499.6	120.0
2002 Q1	1,018.6	494.8	1,418.4	2,931.8	126.9	99.4	170.5	229.2	499.1	119.9
Q2 ^(p)	1,017.5	503.6	1,433.6	2,954.7	129.0	102.7	175.2	232.8	510.6	122.1

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 Q1	32.7	5.4	13.8	52.0	10.1	-4.4	0.1	0.5	-3.8	4.5
Q2	13.6	12.1	25.9	51.7	9.1	1.3	3.9	5.2	10.4	5.2
Q3	-19.3	14.3	32.3	27.3	7.5	0.9	-0.5	4.1	4.5	3.6
Q4	-10.1	23.9	22.5	36.3	6.1	1.9	-0.7	4.9	6.1	3.6
2002 Q1	-1.2	4.9	20.0	23.7	5.0	-4.2	1.2	2.5	-0.5	4.3
Q2 ^(p)	7.1	14.3	27.5	48.9	4.8	3.3	2.3	3.6	9.2	3.9

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											Non-profit institutions serving households			
Lending for house purchase ³⁾					Other lending					Total	Index Dec.98 =100 ²⁾	Total	Index Dec.98 =100 ²⁾	
Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.98 =100 ²⁾	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Index Dec.98 =100 ²⁾					
11	12	13	14	15	16	17	18	19	20	21	22	23	24	
22.2	62.4	1,792.7	1,877.3	121.7	147.4	101.3	340.0	588.6	112.8	2,941.6	118.8	38.2	109.3	2000 Q4
<i>Euro area enlargement</i>														
22.2	62.9	1,803.4	1,888.5	-	147.6	101.0	340.0	588.5	-	2,958.2	-	38.2	-	2001 1 Jan.
22.7	62.6	1,830.0	1,915.4	123.5	146.9	104.5	342.1	593.5	113.9	2,988.7	120.1	37.3	106.5	2001 Q1
23.3	63.2	1,866.3	1,952.8	125.7	148.8	100.9	342.7	592.4	114.9	3,034.0	122.0	40.7	116.5	Q2
23.6	61.9	1,904.0	1,989.5	128.1	144.3	100.8	342.1	587.2	114.1	3,069.8	123.5	39.0	111.6	Q3
23.8	62.0	1,933.0	2,018.8	130.0	144.6	101.9	343.6	590.0	115.2	3,108.5	125.2	39.0	111.7	Q4
24.2	61.8	1,970.5	2,056.6	132.4	142.6	101.0	337.9	581.6	114.7	3,137.2	126.6	38.7	110.7	2002 Q1
24.6	62.2	2,010.3	2,097.1	135.0	145.0	103.0	342.9	590.9	116.8	3,198.7	129.0	39.4	112.7	Q2 ⁴⁾

Households											Non-profit institutions serving households			
Lending for house purchase ³⁾					Other lending					Total	Annual growth rate ²⁾ (%)	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	23	24	
0.4	-0.2	27.9	28.1	8.1	0.4	3.1	2.3	5.8	3.2	30.1	6.5	-1.0	-4.8	2001 Q1
0.6	0.6	32.1	33.3	7.6	2.0	-1.8	5.3	5.5	2.9	49.3	6.2	3.5	8.1	Q2
0.2	-1.3	38.3	37.2	7.6	-4.5	0.1	0.2	-4.3	2.3	37.4	5.9	-1.7	3.7	Q3
0.2	0.1	28.7	29.0	6.8	0.3	3.4	2.1	5.9	2.2	41.0	5.3	0.0	2.2	Q4
0.4	-0.2	37.6	37.9	7.2	-1.5	-0.4	-0.8	-2.7	0.7	34.7	5.4	-0.4	3.9	2002 Q1
0.4	0.4	39.8	40.6	7.4	2.6	2.5	5.8	10.8	1.7	60.6	5.7	0.7	-3.3	Q2 ⁴⁾

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

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

Table 2.6

Deposits held with MFIs, by counterpart and instrument 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.98 =100 ³⁾	Total ²⁾				Index Dec.98 =100 ³⁾	Central government	Other general government			Total	Index Dec.98 =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	
2000 Q4	431.1	153.6	198.9	74.0	130.9	477.6	40.6	418.5	15.3	114.8	164.5	30.6	68.2	53.2	316.5	120.1
<i>Euro area enlargement</i>																
2001 1 Jan.	434.1	154.1	200.2	75.2	-	479.9	40.7	418.5	17.5	-	166.2	30.6	69.1	55.1	321.0	-
2001 Q1	442.8	151.8	195.1	91.2	133.5	483.8	38.2	423.3	18.8	115.7	150.3	30.9	65.0	57.2	303.5	113.4
Q2	456.3	164.3	196.7	89.3	136.4	486.3	41.4	424.2	16.9	116.4	165.5	31.4	66.8	60.8	324.6	121.3
Q3	456.1	162.7	202.6	85.6	134.0	487.8	39.3	426.9	17.9	116.8	147.8	33.3	67.4	60.4	308.9	115.5
Q4	468.6	157.9	218.7	86.7	136.4	495.4	48.0	427.5	16.4	118.6	139.0	30.0	68.9	61.0	299.0	111.7
2002 Q1	487.6	158.1	230.1	93.4	141.4	498.6	43.9	433.0	17.7	119.3	157.5	31.0	64.2	61.8	314.4	117.7
Q2 ⁴⁾	490.1	163.8	227.3	93.5	141.9	504.3	48.8	433.4	18.5	120.7	153.2	34.4	65.5	59.6	312.8	117.1

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 Q1	8.6	-2.5	-5.1	16.0	1.9	3.9	-2.5	4.7	1.3	4.3	-15.6	0.1	-4.1	2.1	-17.5	10.6
Q2	9.6	12.4	-2.1	-1.8	4.4	2.8	3.4	1.0	-1.9	4.5	15.1	0.5	1.9	3.6	21.1	6.5
Q3	-8.2	-1.6	-2.1	-3.7	2.2	1.5	-2.1	2.7	1.0	4.6	-17.7	1.9	0.5	-0.5	-15.7	-2.0
Q4	8.1	-4.6	11.4	1.2	4.2	7.6	8.8	0.6	-1.4	3.3	-8.8	-3.4	1.5	0.7	-10.0	-6.9
2002 Q1	17.0	0.1	9.5	6.7	5.8	3.0	-4.2	5.4	1.3	3.1	19.0	1.0	-4.7	0.7	16.1	3.8
Q2 ⁴⁾	1.9	5.3	-2.4	-0.5	4.0	5.7	4.9	0.4	0.7	3.7	-4.2	3.5	1.4	-2.1	-1.6	-3.4

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.98 =100 ³⁾	Overnight	With agreed maturity	Redeemable at notice	Repos	Total	Index Dec.98 =100 ³⁾
	1	2	3	4	5	6	7	8	9	10	11	12
2000 Q4	497.5	324.7	24.1	26.3	872.5	111.2	906.9	1,131.5	1,241.5	57.1	3,337.0	103.5
<i>Euro area enlargement</i>												
2001 1 Jan.	504.5	337.9	24.2	30.5	897.2	-	910.4	1,154.0	1,292.3	69.6	3,426.4	-
2001 Q1	479.0	348.2	24.1	32.4	883.7	108.5	906.1	1,192.4	1,287.1	78.9	3,464.5	104.6
Q2	514.6	334.7	24.4	32.1	905.8	110.8	947.2	1,198.8	1,293.5	81.3	3,520.8	106.3
Q3	514.8	321.9	25.4	34.5	896.7	111.9	963.6	1,203.8	1,305.3	84.6	3,557.3	107.5
Q4	577.1	336.6	27.5	36.5	977.6	121.6	1,043.5	1,195.8	1,365.7	76.8	3,681.9	111.4
2002 Q1	529.1	345.9	27.5	35.3	937.9	116.6	1,039.2	1,181.2	1,382.6	81.5	3,684.5	111.5
Q2 ⁴⁾	557.5	338.8	27.7	37.9	961.9	121.8	1,077.3	1,178.9	1,382.3	78.0	3,716.5	112.5

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 Q1	-28.5	5.8	-0.1	1.8	-21.1	7.4	-4.6	37.8	-5.8	9.3	36.7	2.4
Q2	32.7	-13.8	0.3	-0.4	18.9	6.1	41.1	6.4	6.3	2.3	56.2	4.4
Q3	3.9	1.7	0.4	2.5	8.6	5.2	16.2	5.2	12.7	3.4	37.4	6.0
Q4	62.1	12.0	2.0	2.0	78.2	9.4	80.1	-2.9	60.3	-7.8	129.8	7.6
2002 Q1	-48.5	9.1	0.0	-1.2	-40.6	7.4	-4.3	-10.3	15.1	4.7	5.2	6.6
Q2 ⁴⁾	34.8	4.5	0.2	2.3	41.9	9.9	37.7	-2.0	0.4	-3.5	32.5	5.8

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.98 =100 ³⁾	Banks ¹⁾		Non-banks				Total	Index Dec.98 =100 ³⁾
	Total	Index Dec.98 =100 ³⁾	General govern- ment	Other	Total	Index Dec.98 =100 ³⁾			Total	Index Dec.98 =100 ³⁾	General govern- ment	Other	Total	Index Dec.98 =100 ³⁾		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2000 Q4	945.4	92.9	78.9	445.6	524.5	127.0	1,469.9	102.7	174.2	175.4	290.6	184.2	474.8	108.9	649.0	121.2
<i>Euro area enlargement</i>																
2001 1 Jan.	964.1	-	78.9	449.3	528.2	-	1,492.3	-	171.3	-	296.2	184.0	480.2	-	651.5	-
2001 Q1	1,051.6	99.8	76.3	518.0	594.2	142.1	1,645.8	111.9	192.3	191.0	285.9	205.1	491.0	112.7	683.2	127.2
Q2	1,071.2	99.9	79.2	519.3	598.5	139.7	1,669.6	111.3	210.5	204.8	294.6	208.7	503.2	113.5	713.7	130.4
Q3	1,082.8	103.1	75.1	527.8	602.8	145.9	1,685.6	115.4	206.6	207.6	273.8	213.0	486.8	113.4	693.4	130.9
Q4	1,118.1	105.9	75.2	543.7	618.9	147.4	1,737.0	117.9	236.4	233.7	290.2	217.6	507.8	116.8	744.2	138.5
2002 Q1	1,104.5	104.4	76.8	556.6	633.5	151.1	1,738.0	117.8	262.6	258.9	276.0	217.6	493.6	113.7	756.2	140.7
Q2 ⁴⁾	1,085.9	109.5	73.5	529.0	602.6	154.4	1,688.5	122.4	243.9	255.4	243.3	212.8	456.1	111.6	700.0	138.4

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 govern- ment	Other	Total	Annual growth rate ³⁾ (%)			Total	Annual growth rate ³⁾ (%)	General govern- ment	Other	Total	Annual growth rate ³⁾ (%)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2001 Q1	70.3	7.0	3.7	58.4	62.1	20.5	132.5	11.6	15.5	30.5	4.9	11.7	16.6	6.2	32.1	12.0
Q2	1.0	3.4	2.9	-12.6	-9.7	18.4	-8.7	8.3	13.9	30.9	9.2	-5.8	3.4	5.3	17.3	11.7
Q3	34.9	10.2	-4.1	30.5	26.5	19.6	61.3	13.5	2.9	26.6	-22.3	21.9	-0.4	3.2	2.6	9.2
Q4	29.4	14.1	0.1	6.1	6.2	16.1	35.7	14.8	25.9	33.2	16.7	-2.4	14.3	7.2	40.2	14.2
2002 Q1	-16.0	4.6	3.6	11.9	15.5	6.4	-0.5	5.3	25.5	35.5	-10.8	-2.6	-13.4	0.8	12.0	10.6
Q2 ⁴⁾	53.2	9.6	-3.3	17.0	13.7	10.5	66.9	9.9	-3.5	24.7	-35.4	26.5	-8.9	-1.7	-12.3	6.1

Source: ECB.
1) The term "banks" is used in this table to indicate institutions of a similar type to MFIs resident outside the euro area.
2) Deposits placed by MFIs with banks located outside the euro area are included.

Table 2.7 (cont'd)

Holdings of shares and other equity issued by non-residents						Deposits held by non-residents								
Banks ¹⁾		Other		Total	Index Dec.98 =100 ³⁾	Banks ¹⁾		Non-banks				Total	Index Dec.98 =100 ³⁾	
Total	Index Dec.98 =100 ³⁾	Total	Index Dec.98 =100 ³⁾			Total	Index Dec.98 =100 ³⁾	General government	Other	Total	Index Dec.98 =100 ³⁾			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	
61.6	241.9	80.0	192.7	141.6	210.2	1,550.9	124.1	84.6	504.0	588.7	138.0	2,139.6	127.6	2000 Q4
<i>Euro area enlargement</i>														
62.3	-	80.2	-	142.5	-	1,560.8	-	85.6	507.9	593.4	-	2,154.3	-	2001 1 Jan.
65.1	252.2	94.3	227.3	159.4	235.4	1,781.7	139.6	89.3	577.1	666.4	152.7	2,448.2	143.0	2001 Q1
61.1	236.4	97.2	233.7	158.3	233.3	1,817.5	139.3	94.9	587.1	681.9	153.4	2,499.4	142.9	Q2
63.6	245.8	89.9	215.6	153.5	225.8	1,710.8	135.8	93.0	588.5	681.5	158.0	2,392.3	141.5	Q3
73.0	269.9	89.8	217.4	162.8	236.1	1,718.4	134.9	95.3	615.0	710.3	162.6	2,428.8	142.0	Q4
76.9	281.9	98.5	241.0	175.4	254.9	1,740.4	135.5	99.0	636.8	735.8	167.9	2,476.2	143.8	2002 Q1
77.8	286.1	97.9	239.8	175.8	255.9	1,606.7	133.5	96.0	606.9	702.8	169.9	2,309.6	142.8	Q2 ⁴⁾

Holdings of shares and other equity issued by non-residents						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	
2.6	27.0	14.4	46.7	17.0	38.1	193.5	13.3	3.5	59.6	63.1	21.1	256.6	15.3	2001 Q1
-4.1	15.3	2.7	45.4	-1.4	32.2	-3.6	14.6	5.6	-2.7	2.8	18.2	-0.8	15.6	Q2
2.4	8.5	-7.5	13.5	-5.1	11.4	-45.2	11.3	-1.9	22.4	20.6	14.0	-24.6	12.0	Q3
6.2	11.6	0.8	12.8	7.0	12.3	-12.0	8.7	2.3	17.5	19.8	17.9	7.8	11.2	Q4
3.3	11.8	9.8	6.1	13.0	8.3	7.6	-2.9	4.2	19.0	23.2	9.9	30.7	0.6	2002 Q1
1.1	21.0	-0.5	2.6	0.6	9.7	-25.1	-4.1	-3.0	11.6	8.5	10.7	-16.5	-0.1	Q2 ⁴⁾

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

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

Table 2.8
Currency analysis of certain liabilities and assets of the euro area MFIs 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 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
2000 Q4	3,949.7	3,526.3	47.5	376.0	265.0	34.4	61.0	15.6	5,434.7	5,256.5	27.3	150.9	115.1	14.6	11.3	10.0
<i>Euro area enlargement</i>																
2001 Q1	4,059.7	3,559.0	55.4	445.3	316.6	40.2	67.8	20.7	5,578.2	5,367.8	31.2	179.2	130.8	23.8	12.3	12.2
Q2	4,072.5	3,586.1	52.8	433.6	309.0	40.3	65.4	19.0	5,693.8	5,480.8	30.7	182.3	133.5	24.0	11.6	13.2
Q3	4,101.6	3,624.2	48.9	428.5	300.6	38.9	71.0	17.9	5,706.8	5,507.8	28.2	170.9	125.7	22.1	10.8	12.2
Q4	4,166.0	3,694.1	46.6	425.4	307.6	33.0	67.2	17.6	5,922.5	5,721.2	26.0	175.4	127.4	24.5	10.5	13.0
2002 Q1	4,128.6	3,640.1	46.1	442.4	315.8	40.0	65.6	21.0	5,923.1	5,719.3	28.5	175.2	126.9	23.1	10.7	14.6
Q2 ^(p)	4,227.3	3,783.6	42.8	400.8	278.7	40.7	63.3	18.2	5,999.5	5,810.4	26.8	162.3	115.1	23.1	11.0	13.1

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
2000 Q4	1,550.9	590.9	126.8	833.2	684.3	53.1	65.8	30.1	588.7	254.1	64.1	270.5	225.6	20.5	12.3	12.2
<i>Euro area enlargement</i>																
2001 Q1	1,781.7	698.6	142.6	940.6	776.8	66.4	65.8	31.5	666.4	295.7	70.6	300.2	255.9	17.6	14.2	12.4
Q2	1,817.5	690.1	133.8	993.6	815.4	72.9	73.2	32.2	681.9	286.7	73.2	322.0	274.2	19.3	13.6	14.9
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	661.9	144.8	933.7	781.0	44.4	74.6	33.8	735.8	312.7	66.6	356.5	302.8	20.0	18.9	14.8
Q2 ^(p)	1,606.7	647.5	142.1	817.1	669.5	39.3	73.7	34.6	702.8	321.9	62.9	318.1	269.6	19.3	18.0	11.2

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

	Debt securities								Money market paper							
	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
2000 Q4	2,567.1	2,246.1	46.5	274.5	157.3	62.1	35.4	19.7	262.2	215.8	2.4	44.1	34.0	5.6	2.9	1.5
<i>Euro area enlargement</i>																
2001 Q1	2,667.7	2,327.9	48.3	291.4	172.0	61.5	37.5	20.5	278.5	227.8	2.1	48.6	41.6	3.0	2.6	1.5
Q2	2,731.3	2,358.3	53.9	319.1	189.3	69.4	39.6	20.8	275.5	227.0	4.3	44.2	35.8	4.7	2.5	1.1
Q3	2,751.5	2,384.7	52.9	313.9	187.4	68.6	38.5	19.5	265.0	217.9	4.0	43.2	36.0	3.1	2.8	1.2
Q4	2,780.1	2,377.9	67.9	334.4	209.7	63.8	40.6	20.2	254.7	204.8	6.0	43.9	37.9	2.8	2.1	1.1
2002 Q1	2,844.8	2,428.7	71.5	344.6	219.8	56.4	43.3	25.2	274.7	226.1	5.4	43.2	36.9	2.4	2.6	1.3
Q2 ^(p)	2,849.1	2,447.0	68.4	333.7	207.9	55.4	44.5	25.9	285.5	233.8	6.6	45.0	39.1	1.8	2.4	1.7

Source: ECB.

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

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

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

Table 2.8 (cont'd)
Currency analysis of certain liabilities and assets of the euro area MFIs ¹⁾
(EUR billions (not seasonally adjusted; end of period))
Assets outstanding
4. Loans to 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 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
2000 Q4	3,937.8	-	-	-	-	-	-	-	6,927.0	6,622.8	32.4	271.8	151.6	41.2	74.3	4.7
<i>Euro area enlargement</i>																
2001 Q1	4,081.2	-	-	-	-	-	-	-	7,126.0	6,782.7	35.1	308.1	182.3	45.4	74.9	5.6
Q2	4,089.4	-	-	-	-	-	-	-	7,223.5	6,857.3	29.4	336.9	204.7	51.7	74.0	6.5
Q3	4,082.8	-	-	-	-	-	-	-	7,251.4	6,907.3	30.9	313.1	177.9	52.1	77.3	5.8
Q4	4,174.5	-	-	-	-	-	-	-	7,366.7	7,025.3	29.8	311.7	181.3	47.8	77.5	5.1
2002 Q1	4,126.3	-	-	-	-	-	-	-	7,458.5	7,106.8	30.5	321.1	187.0	51.0	76.8	6.3
Q2 ¹⁾	4,209.1	-	-	-	-	-	-	-	7,519.9	7,205.8	28.7	285.4	153.8	48.9	77.1	5.6

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

	Issued by MFIs								Issued by non-MFIs							
	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
2000 Q4	935.8	895.3	11.0	29.5	19.8	5.9	2.1	1.7	1,355.0	1,321.0	5.8	28.2	16.7	9.7	1.0	0.9
<i>Euro area enlargement</i>																
2001 Q1	971.8	931.5	9.7	30.5	20.6	6.3	1.7	1.8	1,453.2	1,413.3	3.8	36.0	21.2	13.1	1.1	0.6
Q2	994.4	951.3	11.0	32.1	22.1	6.5	1.6	1.8	1,506.9	1,465.1	4.9	36.9	21.7	13.3	1.1	0.8
Q3	999.2	959.7	9.6	29.9	21.0	5.9	1.5	1.5	1,521.2	1,482.2	4.2	34.8	20.4	12.6	1.2	0.6
Q4	1,011.8	966.8	12.4	32.6	23.1	6.3	1.4	1.8	1,515.2	1,477.4	3.7	34.1	20.3	12.1	1.1	0.6
2002 Q1	1,050.2	1,002.0	14.8	33.4	24.0	5.6	1.8	1.9	1,574.4	1,537.8	3.7	32.9	19.5	11.7	1.1	0.6
Q2 ¹⁾	1,062.5	1,015.6	13.6	33.4	23.7	5.8	2.1	1.8	1,581.9	1,547.0	4.2	30.7	17.0	11.8	1.2	0.8

6. Loans to 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
2000 Q4	945.4	410.0	89.2	446.2	337.8	44.2	32.6	31.7	524.5	163.3	45.3	315.8	271.2	11.5	25.9	7.2
<i>Euro area enlargement</i>																
2001 Q1	1,051.6	468.4	98.7	484.6	365.8	46.3	34.5	37.0	594.2	198.2	48.6	347.4	301.2	11.9	26.2	8.0
Q2	1,071.2	473.2	103.0	494.9	375.9	47.3	36.7	35.0	598.5	184.7	47.7	366.1	318.5	12.1	26.9	8.6
Q3	1,082.8	487.2	101.5	494.1	378.6	41.2	40.3	33.9	602.8	201.5	46.8	354.5	307.9	12.7	24.9	9.0
Q4	1,118.1	450.5	114.7	552.9	435.9	45.2	37.9	33.8	618.9	202.6	46.8	369.6	323.5	12.0	25.7	8.4
2002 Q1	1,104.5	432.0	131.1	541.5	424.3	45.6	37.3	34.3	633.5	199.5	49.9	384.1	331.6	16.4	26.9	9.2
Q2 ¹⁾	1,085.9	458.4	129.0	498.5	377.9	59.2	37.9	23.6	602.6	205.4	46.5	350.7	301.5	12.8	27.8	8.7

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 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
2000 Q4	174.2	61.4	20.0	92.9	78.2	7.7	2.5	4.6	474.8	111.7	31.8	331.2	290.9	27.1	3.6	9.7
<i>Euro area enlargement</i>																
2001 Q1	192.3	65.2	23.0	104.1	89.9	7.3	2.3	4.6	491.0	121.0	24.4	345.5	307.1	25.7	2.7	10.1
Q2	210.5	72.4	25.5	112.6	98.4	6.8	2.6	4.8	503.2	121.3	25.8	356.1	316.2	26.9	3.0	9.9
Q3	206.6	76.4	27.0	103.2	93.1	4.7	2.1	3.4	486.8	129.0	27.1	330.7	292.7	27.1	3.9	7.1
Q4	236.4	80.5	27.6	128.3	118.1	4.2	2.7	3.3	507.8	131.4	27.0	349.4	306.2	30.3	4.2	8.7
2002 Q1	262.6	86.8	33.5	142.3	130.6	4.4	2.9	4.5	493.6	127.7	26.9	339.0	298.6	24.6	5.0	10.8
Q2 ¹⁾	243.9	87.0	32.4	124.5	111.7	4.3	2.6	6.0	456.1	129.9	25.1	301.0	259.5	25.1	4.9	11.5

3 Financial markets and interest rates in the euro area

Table 3.1

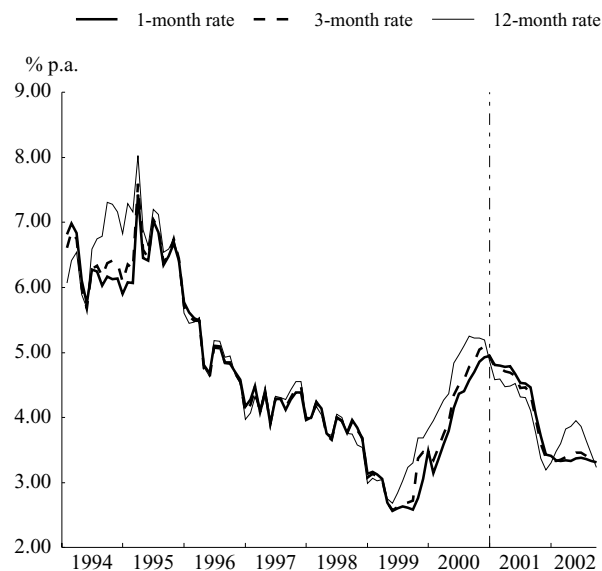
Money market interest rates ¹⁾

(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
1997	3.98	4.23	4.24	4.25	4.28	5.76	0.62
1998	3.09	3.84	3.83	3.78	3.77	5.57	0.66
1999	2.74	2.86	2.96	3.06	3.19	5.42	0.22
2000	4.12	4.24	4.40	4.55	4.78	6.53	0.28
<i>Euro area enlargement</i>							
2001	4.39	4.33	4.26	4.16	4.09	3.78	0.15
2001 Sep.	3.99	4.05	3.98	3.88	3.77	3.03	0.06
Oct.	3.97	3.72	3.60	3.46	3.37	2.40	0.08
Nov.	3.51	3.43	3.39	3.26	3.20	2.10	0.08
Dec.	3.34	3.42	3.34	3.26	3.30	1.92	0.08
2002 Jan.	3.29	3.35	3.34	3.34	3.48	1.82	0.09
Feb.	3.28	3.34	3.36	3.40	3.59	1.90	0.10
Mar.	3.26	3.35	3.39	3.50	3.82	1.99	0.10
Apr.	3.32	3.34	3.41	3.54	3.86	1.97	0.08
May	3.31	3.37	3.46	3.62	3.95	1.91	0.08
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
2002 6 Sep.	3.28	3.31	3.31	3.26	3.22	1.78	0.07
13	3.29	3.31	3.31	3.28	3.24	1.82	0.07
20	3.36	3.31	3.30	3.23	3.18	1.80	0.06
27	3.31	3.32	3.30	3.22	3.16	1.81	0.07
4 Oct.	3.29	3.30	3.25	3.13	3.05	1.76	0.07

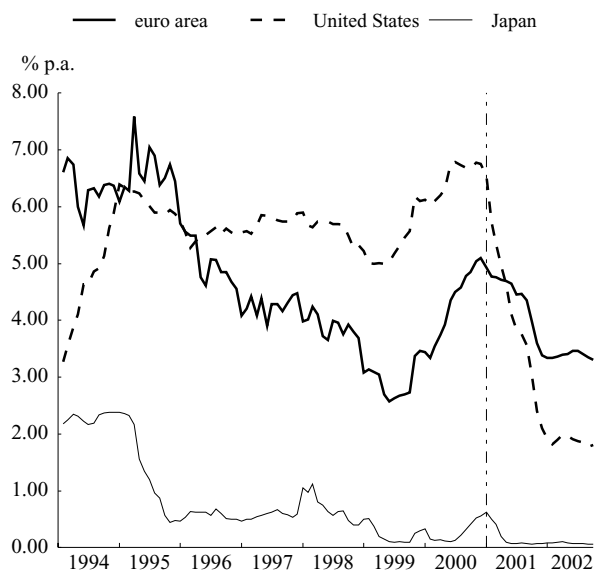
Euro area money market rates

(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

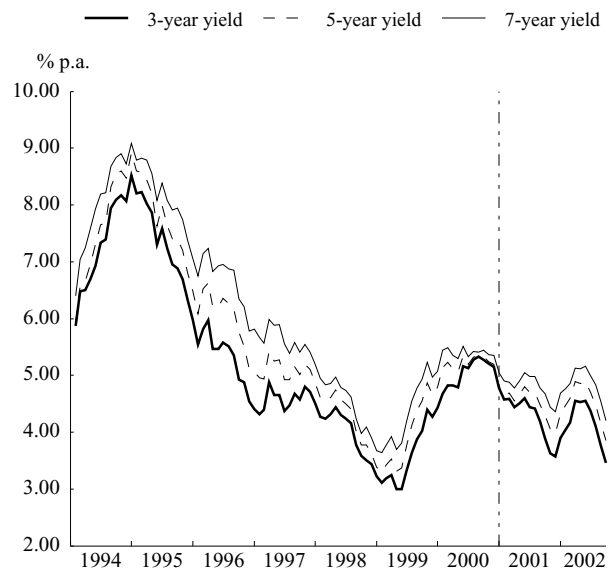
Government bond yields ¹⁾

(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
1997	4.33	4.51	4.87	5.20	5.99	6.45	2.15
1998	3.16	3.22	3.38	3.67	4.71	5.33	1.30
1999	3.38	3.63	4.01	4.38	4.66	5.64	1.75
2000	4.90	5.03	5.19	5.37	5.44	6.03	1.76
<i>Euro area enlargement</i>							
2001	4.11	4.23	4.49	4.79	5.03	5.01	1.34
2001 Sep.	3.77	3.89	4.29	4.67	5.04	4.76	1.40
Oct.	3.44	3.63	4.05	4.44	4.82	4.55	1.36
Nov.	3.36	3.58	3.98	4.37	4.67	4.61	1.33
Dec.	3.66	3.90	4.33	4.68	4.96	5.07	1.35
2002 Jan.	3.84	4.04	4.48	4.76	5.02	5.00	1.42
Feb.	3.96	4.17	4.60	4.85	5.07	4.90	1.52
Mar.	4.25	4.55	4.90	5.13	5.32	5.28	1.45
Apr.	4.21	4.53	4.86	5.12	5.30	5.21	1.39
May	4.25	4.55	4.89	5.16	5.30	5.15	1.38
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	4.73	4.24	1.26
Sep.	3.19	3.46	3.85	4.20	4.52	3.88	1.16
2002 6 Sep.	3.15	3.44	3.86	4.21	4.53	4.02	1.13
13	3.21	3.49	3.90	4.25	4.56	3.93	1.03
20	3.16	3.40	3.81	4.18	4.50	3.81	1.29
27	3.14	3.37	3.77	4.15	4.49	3.73	1.22
4 Oct.	2.99	3.28	3.70	4.14	4.49	3.72	1.15

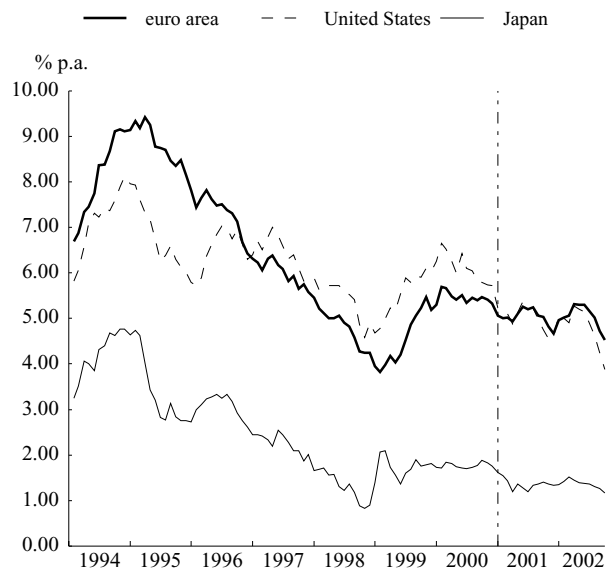
Euro area government bond yields

(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

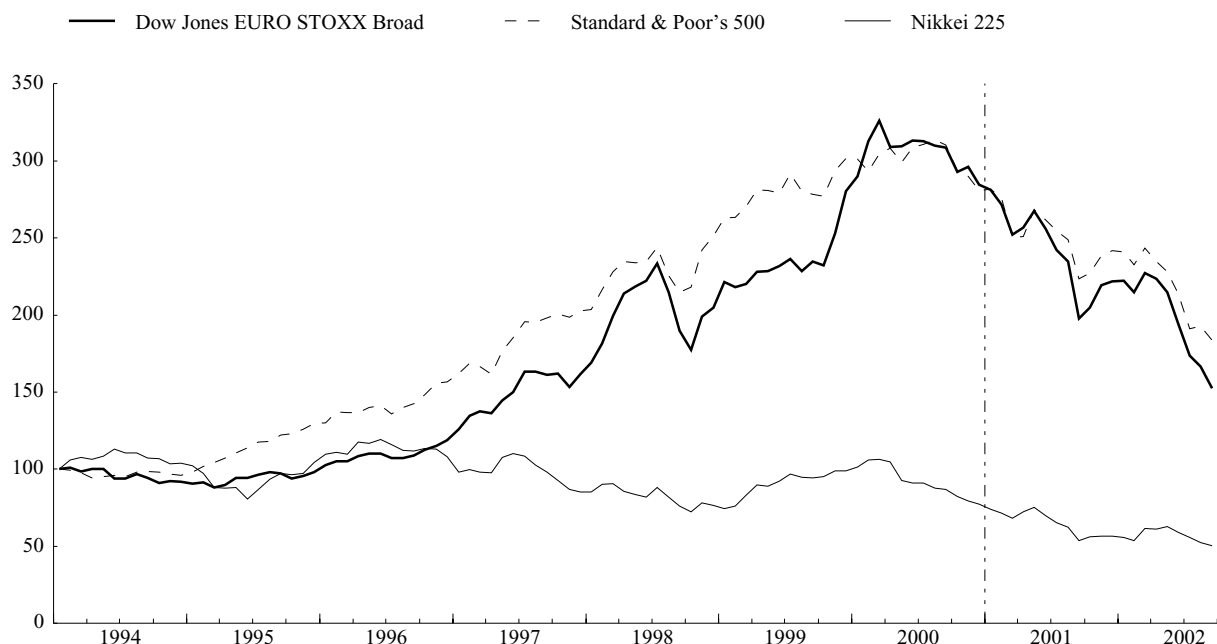
Stock market indices

(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	
1997	207.6	2,319.6	233.4	191.9	231.9	227.3	184.4	168.0	227.7	205.5	324.1	301.7	873.9	18,373.4
1998	280.5	3,076.3	257.9	245.0	295.5	249.3	281.3	218.4	333.6	282.4	488.1	348.9	1,085.3	15,338.4
1999	325.8	3,787.3	279.2	262.9	327.7	286.0	295.7	285.1	470.4	306.2	717.7	392.6	1,327.8	16,829.9
2000	423.9	5,075.5	299.1	292.9	324.3	342.3	350.7	378.0	963.1	341.7	1,072.5	476.0	1,426.7	17,162.7
<i>Euro area enlargement</i>														
2001	336.3	4,049.4	296.0	228.2	303.3	341.4	321.6	310.0	530.5	309.6	541.2	540.1	1,193.8	12,114.8
2001 Sep.	274.3	3,277.0	253.2	176.7	284.2	315.8	265.9	253.2	325.4	298.7	366.5	509.2	1,058.7	9,974.7
2001 Oct.	284.4	3,440.9	260.5	180.4	281.1	322.5	269.9	253.7	373.4	302.7	418.9	539.7	1,076.6	10,428.8
2001 Nov.	304.2	3,674.4	281.3	202.1	286.7	313.7	287.5	270.6	464.5	297.0	473.2	528.8	1,130.3	10,519.7
2001 Dec.	308.0	3,708.4	286.2	209.9	288.8	313.0	285.6	282.2	496.4	286.4	480.9	520.9	1,144.9	10,490.8
2002 Jan.	308.5	3,690.1	293.2	210.8	287.8	320.2	286.3	281.8	494.5	291.1	459.7	524.8	1,140.5	10,338.5
2002 Feb.	297.9	3,537.6	294.9	198.6	288.5	334.0	275.1	279.3	463.7	291.1	406.3	490.1	1,101.5	9,966.9
2002 Mar.	315.4	3,739.6	312.9	215.5	296.5	355.0	294.8	299.0	494.4	291.2	429.3	486.3	1,153.3	11,452.5
2002 Apr.	310.2	3,657.0	308.6	210.2	302.8	351.5	299.5	299.0	438.6	296.9	409.7	472.1	1,112.0	11,391.6
2002 May	298.2	3,503.5	306.9	204.3	300.7	347.3	293.7	296.7	378.3	290.6	355.9	460.8	1,079.9	11,695.8
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
2002 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
2002 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
2002 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
2002 6 Sep.	224.3	2,618.2	236.3	147.2	249.7	285.3	209.6	223.7	249.5	233.6	299.7	349.6	893.9	9,129.1
2002 13	218.4	2,530.8	233.0	145.1	246.3	280.1	200.8	222.1	239.5	227.6	291.9	340.6	889.8	9,241.9
2002 20	201.6	2,308.0	220.2	135.0	233.7	260.9	180.5	211.0	212.3	209.9	274.8	325.1	845.4	9,481.1
2002 27	201.6	2,343.2	217.7	134.9	236.3	275.6	175.4	203.2	216.5	213.1	267.3	336.0	827.4	9,530.4
2002 4 Oct.	191.8	2,224.7	204.6	127.9	235.6	269.7	160.4	186.1	198.3	211.0	265.4	334.2	800.6	9,027.6

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

(base month: January 1994 = 100; monthly)



Source: Reuters.

1) Monthly and yearly values are period averages.

Table 3.4

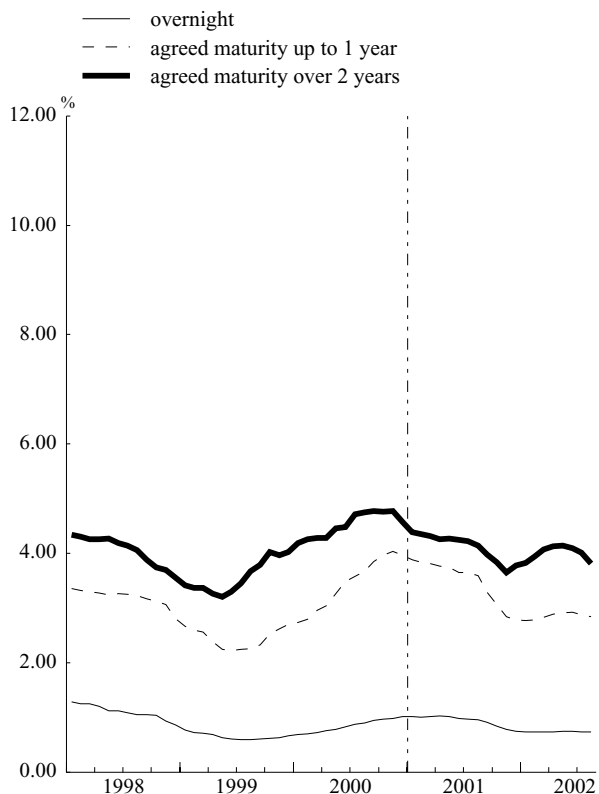
Retail bank interest rates

(percentages per annum; period averages)

	Deposit interest rates						Lending interest rates			
	Overnight 1	With agreed maturity			Redeemable at notice		To enterprises		To households	
		Up to 1 year 2	Up to 2 years 3	Over 2 years 4	Up to 3 months 5	Over 3 months 6	Up to 1 year 7	Over 1 year 8	Consumer lending 9	For house purchase 10
1999	0.65	2.44	2.45	3.57	2.15	2.76	5.65	5.10	9.39	5.29
2000	0.85	3.45	3.45	4.52	2.25	3.79	6.60	6.23	9.87	6.34
<i>Euro area enlargement</i>										
2001	0.94	3.49	3.49	4.12	2.40	3.59	6.83	6.15	10.12	5.97
2001 Aug.	0.96	3.59	3.59	4.14	2.40	3.68	6.89	6.19	10.16	5.96
2001 Sep.	0.91	3.28	3.28	3.98	2.36	3.33	6.71	6.07	10.08	5.86
2001 Oct.	0.84	3.06	3.06	3.84	2.29	3.01	6.46	5.82	9.99	5.65
2001 Nov.	0.78	2.84	2.83	3.65	2.19	2.75	6.31	5.71	9.87	5.48
2001 Dec.	0.74	2.79	2.78	3.77	2.17	2.79	6.26	5.69	9.81	5.52
2002 Jan.	0.73	2.77	2.77	3.83	2.17	2.80	6.18	5.63	9.78	5.53
2002 Feb.	0.73	2.78	2.79	3.95	2.15	2.91	6.16	5.75	9.81	5.61
2002 Mar.	0.73	2.84	2.84	4.07	2.15	3.00	6.09	5.85	9.76	5.74
2002 Apr.	0.74	2.89	2.90	4.13	2.14	3.07	6.17	5.95	9.82	5.81
2002 May	0.74	2.91	2.92	4.15	2.15	3.08	6.20	5.98	9.85	5.82
2002 June	0.74	2.93	2.94	4.09	2.13	3.08	6.17	5.92	9.81	5.77
2002 July	0.74	2.88	2.89	4.02	2.13	3.02	6.18	5.91	9.81	5.68
2002 Aug.	0.73	2.84	2.85	3.81	2.12	2.94	6.17	5.82	9.82	5.53

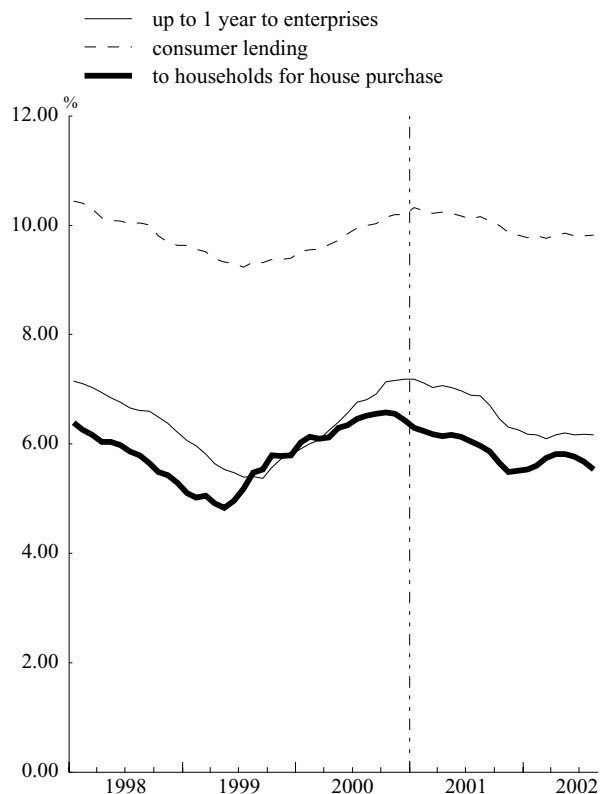
Deposit interest rates

(monthly)



Lending interest rates

(monthly)



Source: ECB.

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

Table 3.5**Securities issues other than shares by original maturity, residency of the issuer and currency denomination***(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
2001 July	394.5	386.3	8.2	737.3	370.6	365.2	5.4	649.5	23.9	21.1
Aug.	423.4	419.4	4.0	739.8	404.8	400.2	4.6	654.9	18.7	19.2
Sep.	397.8	400.2	-2.5	737.6	374.1	376.2	-2.1	653.3	23.7	24.1
Oct.	498.8	495.4	3.4	744.1	480.0	470.8	9.3	662.9	18.7	24.6
Nov.	486.3	490.6	-4.3	741.5	459.4	466.7	-7.3	655.4	26.9	23.9
Dec.	332.2	376.4	-44.2	697.3	307.7	353.4	-45.7	610.7	24.5	22.9
2002 Jan.	485.5	453.6	31.9	732.6	464.0	432.6	31.4	643.5	21.5	21.0
Feb.	406.3	408.1	-1.8	728.5	386.4	387.2	-0.8	643.9	19.8	20.9
Mar.	420.6	402.9	17.7	748.4	399.7	382.9	16.8	662.4	20.9	20.0
Apr.	401.5	406.6	-5.1	742.9	376.4	384.0	-7.6	654.9	25.1	22.6
May	399.8	377.7	22.1	764.5	376.3	357.7	18.6	673.1	23.5	20.1
June	336.2	341.2	-5.0	760.3	315.4	318.4	-2.9	671.9	20.7	22.8
July	403.9	391.8	12.1	766.0	381.1	371.0	10.1	680.3	22.8	20.8

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
2001 July	145.1	98.5	46.6	6,858.5	125.6	85.6	40.0	6,264.8	19.5	13.0
Aug.	93.5	73.9	19.6	6,863.0	78.1	63.5	14.5	6,278.1	15.5	10.4
Sep.	124.3	106.7	17.6	6,883.2	108.9	88.5	20.4	6,298.8	15.4	18.2
Oct.	144.9	108.4	36.6	6,922.4	123.9	91.5	32.4	6,331.5	21.0	16.8
Nov.	142.3	91.9	50.4	6,977.2	115.9	86.5	29.3	6,360.5	26.5	5.4
Dec.	123.6	87.4	36.2	7,012.4	113.1	76.9	36.1	6,395.8	10.6	10.5
2002 Jan.	174.0	111.5	62.5	7,079.7	156.3	105.5	50.8	6,444.8	17.7	6.0
Feb.	142.9	108.9	34.0	7,115.1	130.2	97.2	33.0	6,479.0	12.7	11.7
Mar.	164.8	103.2	61.7	7,175.6	143.0	92.1	50.8	6,529.2	21.8	11.0
Apr.	126.1	79.8	46.3	7,212.2	115.2	74.6	40.5	6,570.3	10.9	5.2
May	153.7	86.8	66.9	7,266.0	132.2	75.2	57.0	6,628.5	21.6	11.6
June	133.3	95.4	38.0	7,281.1	123.3	87.8	35.5	6,660.2	10.1	7.6
July	130.4	115.4	15.0	7,307.7	113.9	104.1	9.8	6,673.8	16.5	11.3

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
2001 July	539.6	484.9	54.8	7,595.9	496.2	450.8	45.4	6,914.2	43.5	34.1
Aug.	517.0	493.3	23.7	7,602.9	482.8	463.7	19.1	6,933.0	34.1	29.6
Sep.	522.1	507.0	15.1	7,620.7	483.0	464.7	18.3	6,952.1	39.1	42.3
Oct.	643.7	603.8	40.0	7,666.5	604.0	562.3	41.6	6,994.3	39.8	41.4
Nov.	628.6	582.5	46.1	7,718.7	575.2	553.3	22.0	7,016.0	53.4	29.2
Dec.	455.8	463.8	-8.0	7,709.6	420.7	430.3	-9.6	7,006.5	35.0	33.4
2002 Jan.	659.5	565.1	94.4	7,812.3	620.3	538.2	82.2	7,088.3	39.2	27.0
Feb.	549.1	517.0	32.1	7,843.5	516.6	484.4	32.2	7,123.0	32.5	32.6
Mar.	585.4	506.1	79.3	7,924.0	542.7	475.0	67.6	7,191.6	42.8	31.0
Apr.	527.6	486.4	41.2	7,955.1	491.6	458.7	32.9	7,225.2	36.1	27.7
May	553.6	464.5	89.0	8,030.5	508.5	432.9	75.6	7,301.6	45.1	31.7
June	469.5	436.6	32.9	8,041.3	438.7	406.2	32.6	7,332.2	30.8	30.4
July	534.3	507.2	27.1	8,073.8	495.0	475.1	20.0	7,354.1	39.2	32.1

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	
2.8	87.9	6.2	25.5	-19.3	50.2	376.8	390.7	-13.9	699.7	2001 July
-0.6	84.9	9.9	14.7	-4.8	45.4	414.7	415.0	-0.3	700.3	Aug.
-0.4	84.2	22.0	12.0	10.0	55.4	396.1	388.1	8.0	708.8	Sep.
-5.8	81.3	8.8	20.0	-11.1	44.3	488.9	490.8	-1.9	707.2	Oct.
3.1	86.1	16.2	12.9	3.3	47.6	475.5	479.6	-4.1	703.0	Nov.
1.5	86.6	17.1	10.2	6.9	54.5	324.8	363.7	-38.8	665.2	Dec.
0.5	89.2	11.3	24.2	-12.9	41.6	475.3	456.8	18.5	685.1	2002 Jan.
-1.1	84.6	13.4	11.8	1.7	43.3	399.8	398.9	0.9	687.2	Feb.
0.9	86.0	24.3	7.9	16.4	59.7	424.0	390.8	33.2	722.1	Mar.
2.6	88.0	9.7	28.1	-18.4	41.3	386.1	412.2	-26.1	696.2	Apr.
3.5	91.5	13.7	13.4	0.3	41.5	390.0	371.0	18.9	714.6	May
-2.1	88.3	20.9	8.0	12.9	54.4	336.4	326.4	10.0	726.4	June
1.9	85.7	.	.	.	.	.	.	.	.	July

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	
6.6	593.8	15.1	5.8	9.3	830.4	140.7	91.4	49.3	7,095.2	2001 July
5.1	584.9	13.0	6.0	7.0	837.6	91.1	69.5	21.6	7,115.7	Aug.
-2.8	584.3	8.4	9.0	-0.6	837.0	117.3	97.5	19.8	7,135.8	Sep.
4.2	590.9	20.6	4.6	16.0	852.9	144.5	96.1	48.4	7,184.4	Oct.
21.1	616.7	30.1	7.4	22.8	875.7	146.0	93.9	52.1	7,236.2	Nov.
0.1	616.6	14.2	13.4	0.8	876.5	127.2	90.3	36.9	7,272.3	Dec.
11.8	634.9	19.6	6.8	12.7	889.2	175.9	112.4	63.5	7,334.0	2002 Jan.
1.0	636.0	19.7	13.9	5.9	895.1	149.9	111.1	38.8	7,374.2	Feb.
10.8	646.4	25.4	12.0	13.5	908.6	168.4	104.1	64.3	7,437.8	Mar.
5.8	641.9	22.9	7.6	15.4	924.2	138.1	82.2	55.9	7,494.6	Apr.
9.9	637.5	26.2	8.2	18.0	942.4	158.4	83.4	75.0	7,570.9	May
2.5	620.8	29.4	10.6	18.8	961.1	152.7	98.4	54.3	7,621.3	June
5.2	633.9	.	.	.	.	.	.	.	.	July

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	681.7	21.3	31.3	-9.9	880.6	517.5	482.1	35.4	7,794.9	2001 July
4.5	669.9	22.9	20.7	2.2	883.0	505.8	484.5	21.3	7,816.0	Aug.
-3.2	668.6	30.4	21.0	9.4	892.4	513.4	485.7	27.7	7,844.6	Sep.
-1.7	672.2	29.5	24.6	4.9	897.2	633.4	586.9	46.5	7,891.6	Oct.
24.1	702.7	46.3	20.2	26.0	923.3	621.5	573.5	48.0	7,939.2	Nov.
1.6	703.2	31.3	23.7	7.7	931.0	452.1	454.0	-1.9	7,937.4	Dec.
12.2	724.1	30.9	31.0	-0.1	930.8	651.2	569.2	82.0	8,019.1	2002 Jan.
-0.1	720.6	33.2	25.6	7.5	938.4	549.7	510.0	39.7	8,061.4	Feb.
11.7	732.4	49.8	19.9	29.9	968.3	592.4	494.9	97.5	8,159.9	Mar.
8.3	729.9	32.6	35.7	-3.0	965.5	524.2	494.4	29.9	8,190.7	Apr.
13.4	728.9	39.9	21.6	18.3	983.9	548.4	454.5	93.9	8,285.5	May
0.4	709.2	50.3	18.6	31.7	1,015.5	489.0	424.8	64.2	8,347.7	June
7.1	719.6	.	.	.	.	.	.	.	.	July

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
2001 July	649.5	258.7	5.1	101.3	280.8	3.6	50.2	25.3	17.3	6.7
Aug.	654.9	254.3	4.4	106.8	285.9	3.6	45.4	23.1	15.7	5.8
Sep.	653.3	251.6	4.1	106.4	287.5	3.7	55.4	27.1	22.2	5.5
Oct.	662.9	261.4	3.8	110.3	284.0	3.4	44.3	23.3	16.4	4.0
Nov.	655.4	250.7	3.9	106.1	291.2	3.6	47.6	23.6	19.4	3.4
Dec.	610.7	240.3	3.4	95.4	267.4	4.1	54.5	23.8	24.4	4.4
2002 Jan.	643.5	257.4	3.7	100.1	278.8	3.5	41.6	18.8	18.9	3.1
Feb.	643.9	251.8	3.9	98.1	286.7	3.5	43.3	19.9	19.0	3.6
Mar.	662.4	258.9	4.3	96.9	299.0	3.3	59.7	26.4	26.2	6.4
Apr.	654.9	256.2	4.5	92.4	298.8	3.0	41.3	18.2	18.5	3.8
May	673.1	262.5	3.7	89.6	314.3	3.0	41.5	18.3	19.0	3.5
June	671.9	260.6	3.8	81.9	322.5	3.0	54.4	21.3	27.6	4.4
July	680.3	265.1	4.2	86.0	321.7	3.4				

2. Long-term

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 July	6,264.8	2,291.1	308.8	320.8	3,228.7	115.4	830.4	219.2	263.2	93.2
Aug.	6,278.1	2,291.1	311.8	327.4	3,229.6	118.3	837.6	220.3	270.2	93.9
Sep.	6,298.8	2,297.5	315.9	325.9	3,237.2	122.4	837.0	221.1	271.0	93.3
Oct.	6,331.5	2,313.0	326.7	323.5	3,240.8	127.5	852.9	224.1	277.4	95.3
Nov.	6,360.5	2,315.5	335.1	339.8	3,240.9	129.2	875.7	228.3	288.9	99.7
Dec.	6,395.8	2,318.0	364.1	345.0	3,238.3	130.4	876.5	230.5	288.5	100.8
2002 Jan.	6,444.8	2,322.8	369.4	350.3	3,269.0	133.4	889.2	230.7	292.1	104.2
Feb.	6,479.0	2,344.2	374.0	353.5	3,274.3	133.0	895.1	234.2	295.0	105.1
Mar.	6,529.2	2,365.3	379.4	353.9	3,293.1	137.6	908.6	236.6	305.7	106.8
Apr.	6,570.3	2,374.4	389.6	359.2	3,305.1	142.2	924.2	239.3	311.2	107.3
May	6,628.5	2,388.3	406.8	364.5	3,321.2	147.7	942.4	242.8	318.1	110.1
June	6,660.2	2,398.0	411.3	367.9	3,332.9	150.1	961.1	250.0	331.8	109.8
July	6,673.8	2,395.1	420.0	369.8	3,329.9	159.1				

3. Total

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 July	6,914.2	2,549.7	313.9	422.1	3,509.6	119.0	880.6	244.5	280.4	99.9
Aug.	6,933.0	2,545.4	316.2	434.1	3,515.5	121.8	883.0	243.4	285.9	99.7
Sep.	6,952.1	2,549.0	320.0	432.3	3,524.7	126.1	892.4	248.2	293.1	98.8
Oct.	6,994.3	2,574.4	330.5	433.8	3,524.8	130.8	897.2	247.4	293.8	99.3
Nov.	7,016.0	2,566.2	339.0	445.9	3,532.1	132.8	923.3	251.8	308.3	103.1
Dec.	7,006.5	2,558.3	367.6	440.4	3,505.6	134.6	931.0	254.4	312.9	105.2
2002 Jan.	7,088.3	2,580.2	373.0	450.4	3,547.8	136.9	930.8	249.5	311.0	107.4
Feb.	7,123.0	2,596.0	377.9	451.6	3,561.0	136.5	938.4	254.1	314.0	108.7
Mar.	7,191.6	2,624.2	383.6	450.8	3,592.1	140.9	968.3	262.9	331.9	113.2
Apr.	7,225.2	2,630.6	394.1	451.6	3,603.8	145.2	965.5	257.5	329.7	111.1
May	7,301.6	2,650.9	410.5	454.1	3,635.5	150.7	983.9	261.2	337.1	113.6
June	7,332.2	2,658.7	415.1	449.8	3,655.4	153.1	1,015.5	271.3	359.3	114.3
July	7,354.1	2,660.2	424.2	455.7	3,651.6	162.5				

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	
0.2	0.7	0.0	699.7	284.0	22.3	108.0	281.0	4.3	0.0	2001 July
0.1	0.6	0.0	700.3	277.4	20.1	112.6	286.0	4.2	0.0	Aug.
0.1	0.5	0.1	708.8	278.6	26.3	111.9	287.7	4.2	0.1	Sep.
0.1	0.3	0.2	707.2	284.6	20.2	114.3	284.2	3.7	0.2	Oct.
0.1	0.4	0.6	703.0	274.3	23.3	109.4	291.3	4.0	0.6	Nov.
0.1	0.5	1.3	665.2	264.1	27.8	99.8	267.5	4.7	1.3	Dec.
0.1	0.4	0.2	685.1	276.2	22.6	103.2	279.0	4.0	0.2	2002 Jan.
0.1	0.3	0.4	687.2	271.7	22.9	101.6	286.8	3.8	0.4	Feb.
0.1	0.2	0.4	722.1	285.2	30.5	103.3	299.2	3.5	0.4	Mar.
0.1	0.2	0.5	696.2	274.4	23.0	96.2	298.9	3.2	0.5	Apr.
0.1	0.2	0.4	714.6	280.9	22.7	93.0	314.4	3.2	0.4	May
0.2	0.5	0.5	726.4	282.0	31.4	86.3	322.7	3.5	0.5	June
										July

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	
94.0	46.1	114.7	7,095.2	2,510.3	572.0	414.0	3,322.7	161.5	114.7	2001 July
93.8	46.0	113.4	7,115.7	2,511.4	581.9	421.3	3,323.4	164.3	113.4	Aug.
92.0	46.0	113.6	7,135.8	2,518.5	586.9	419.2	3,329.1	168.4	113.6	Sep.
91.8	51.3	113.0	7,184.4	2,537.1	604.2	418.8	3,332.6	178.7	113.0	Oct.
91.5	51.7	115.7	7,236.2	2,543.7	624.0	439.5	3,332.4	180.9	115.7	Nov.
92.1	51.7	112.9	7,272.3	2,548.5	652.6	445.8	3,330.4	182.1	112.9	Dec.
91.3	56.5	114.4	7,334.0	2,553.5	661.5	454.5	3,360.3	189.8	114.4	2002 Jan.
92.0	56.3	112.5	7,374.2	2,578.4	669.0	458.6	3,366.4	189.3	112.5	Feb.
92.2	56.3	111.1	7,437.8	2,601.9	685.1	460.7	3,385.2	193.8	111.1	Mar.
94.1	61.3	111.0	7,494.6	2,613.7	700.8	466.5	3,399.2	203.5	111.0	Apr.
95.1	61.2	115.1	7,570.9	2,631.2	725.0	474.6	3,416.3	208.8	115.1	May
93.2	61.6	114.7	7,621.3	2,648.0	743.1	477.7	3,426.1	211.7	114.7	June
										July

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	46.9	114.8	7,794.9	2,794.2	594.3	522.0	3,603.8	165.8	114.8	2001 July
93.9	46.6	113.5	7,816.0	2,788.8	602.0	533.9	3,609.4	168.4	113.5	Aug.
92.1	46.5	113.7	7,844.6	2,797.2	613.2	531.1	3,616.8	172.6	113.7	Sep.
92.0	51.6	113.2	7,891.6	2,821.7	624.3	533.1	3,616.8	182.4	113.2	Oct.
91.6	52.1	116.3	7,939.2	2,818.0	647.3	549.0	3,623.7	184.9	116.3	Nov.
92.2	52.2	114.1	7,937.4	2,812.6	680.4	545.6	3,597.9	186.7	114.1	Dec.
91.4	56.9	114.6	8,019.1	2,829.6	684.1	557.7	3,639.2	193.8	114.6	2002 Jan.
92.2	56.6	112.9	8,061.4	2,850.0	691.9	560.3	3,653.2	193.1	112.9	Feb.
92.3	56.5	111.5	8,159.9	2,887.1	715.6	563.9	3,684.4	197.4	111.5	Mar.
94.2	61.5	111.5	8,190.7	2,888.1	723.8	562.7	3,698.0	206.7	111.5	Apr.
95.2	61.4	115.5	8,285.5	2,912.0	747.7	567.6	3,730.6	212.1	115.5	May
93.4	62.1	115.2	8,347.7	2,929.9	774.5	564.0	3,748.8	215.2	115.2	June
										July

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
2001 July	370.6	245.1	2.3	75.7	44.9	2.6	6.2	2.8	2.8	0.6
Aug.	404.8	287.4	1.6	69.0	45.3	1.5	9.9	4.8	4.1	0.9
Sep.	374.1	269.5	2.2	66.4	34.3	1.8	22.0	8.0	11.4	2.2
Oct.	480.0	345.9	2.0	85.9	45.1	1.1	8.8	3.0	4.7	0.9
Nov.	459.4	347.2	2.3	66.4	42.2	1.3	16.2	6.4	7.9	1.1
Dec.	307.7	228.5	1.3	52.6	23.4	1.9	17.1	6.6	8.4	1.3
2002 Jan.	464.0	327.5	2.1	71.2	61.3	2.0	11.3	5.0	5.0	1.1
Feb.	386.4	268.0	2.6	66.0	47.9	1.9	13.4	5.0	6.5	1.5
Mar.	399.7	286.5	2.2	60.1	49.0	1.8	24.3	10.7	10.1	3.3
Apr.	376.4	254.9	2.5	63.4	53.8	1.8	9.7	4.4	4.1	0.9
May	376.3	253.2	2.1	62.3	57.0	1.6	13.7	5.2	7.0	1.2
June	315.4	206.6	2.5	51.6	52.5	2.2	20.9	6.3	12.3	1.8
July	381.1	258.9	1.9	65.6	52.6	2.2				

2. Long-term

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 July	125.6	53.3	20.9	6.1	42.6	2.7	15.1	4.8	7.3	2.3
Aug.	78.1	29.9	7.7	7.7	29.6	3.1	13.0	3.4	8.6	0.9
Sep.	108.9	35.9	7.3	2.3	58.8	4.6	8.4	4.8	3.0	0.2
Oct.	123.9	58.7	14.1	4.5	40.8	5.8	20.6	4.4	7.9	2.3
Nov.	115.9	48.0	11.9	17.5	35.8	2.7	30.1	6.0	12.8	4.6
Dec.	113.1	43.0	35.7	9.1	23.0	2.2	14.2	6.4	4.0	2.2
2002 Jan.	156.3	47.5	11.1	6.5	88.0	3.2	19.6	4.1	4.5	3.7
Feb.	130.2	54.6	8.8	8.2	57.5	1.1	19.7	8.2	8.2	1.3
Mar.	143.0	56.4	9.0	2.8	69.4	5.3	25.4	8.6	12.1	3.3
Apr.	115.2	44.1	12.9	8.0	45.2	4.9	22.9	5.1	7.7	1.1
May	132.2	41.0	21.8	7.5	55.3	6.6	26.2	5.7	10.0	3.2
June	123.3	48.6	13.5	7.0	51.3	2.9	29.4	9.9	17.2	0.7
July	113.9	37.1	13.6	5.7	48.2	9.4				

3. Total

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 July	496.2	298.3	23.2	81.9	87.5	5.2	21.3	7.6	10.1	2.9
Aug.	482.8	317.3	9.3	76.6	74.9	4.6	22.9	8.2	12.7	1.7
Sep.	483.0	305.4	9.4	68.7	93.1	6.4	30.4	12.7	14.3	2.4
Oct.	604.0	404.6	16.1	90.3	86.0	6.9	29.5	7.5	12.6	3.2
Nov.	575.2	395.3	14.2	83.9	78.0	4.0	46.3	12.5	20.7	5.7
Dec.	420.7	271.5	37.0	61.7	46.4	4.1	31.3	13.0	12.4	3.6
2002 Jan.	620.3	375.0	13.2	77.6	149.3	5.2	30.9	9.1	9.5	4.8
Feb.	516.6	322.6	11.3	74.2	105.4	3.0	33.2	13.2	14.7	2.9
Mar.	542.7	342.9	11.3	62.9	118.4	7.1	49.8	19.3	22.2	6.6
Apr.	491.6	299.0	15.4	71.4	99.0	6.7	32.6	9.5	11.7	2.0
May	508.5	294.2	24.0	69.8	112.3	8.2	39.9	10.9	17.0	4.4
June	438.7	255.2	15.9	58.7	103.8	5.2	50.3	16.3	29.5	2.5
July	495.0	296.0	15.4	71.2	100.8	11.6				

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	
0.0	0.0	0.0	376.8	247.8	5.1	76.4	44.9	2.6	0.0	2001 July
0.1	0.0	0.0	414.7	292.2	5.7	69.8	45.4	1.5	0.0	Aug.
0.1	0.4	0.0	396.1	277.5	13.5	68.6	34.3	2.1	0.0	Sep.
0.0	0.0	0.2	488.9	349.0	6.7	86.7	45.1	1.2	0.2	Oct.
0.1	0.2	0.4	475.5	353.7	10.2	67.5	42.3	1.5	0.4	Nov.
0.0	0.1	0.7	324.8	235.0	9.7	53.9	23.4	2.0	0.7	Dec.
0.1	0.0	0.1	475.3	332.5	7.1	72.2	61.5	2.0	0.1	2002 Jan.
0.0	0.1	0.2	399.8	273.1	9.1	67.6	47.9	2.0	0.2	Feb.
0.0	0.1	0.1	424.0	297.2	12.4	63.4	49.0	1.9	0.1	Mar.
0.1	0.0	0.2	386.1	259.3	6.6	64.3	53.9	1.8	0.2	Apr.
0.0	0.0	0.1	390.0	258.4	9.1	63.6	57.0	1.6	0.1	May
0.0	0.3	0.1	336.4	213.0	14.8	53.4	52.5	2.6	0.1	June
										July

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	
0.5	0.1	0.0	140.7	58.1	28.3	8.4	43.2	2.7	0.0	2001 July
0.1	0.0	0.0	91.1	33.3	16.3	8.5	29.7	3.2	0.0	Aug.
0.1	0.0	0.4	117.3	40.7	10.2	2.5	58.9	4.6	0.4	Sep.
0.2	5.4	0.4	144.5	63.1	22.0	6.8	41.1	11.2	0.4	Oct.
1.0	0.5	5.1	146.0	54.1	24.7	22.1	36.8	3.2	5.1	Nov.
1.3	0.1	0.1	127.2	49.4	39.7	11.3	24.3	2.3	0.1	Dec.
0.0	5.1	2.1	175.9	51.6	15.6	10.2	88.0	8.3	2.1	2002 Jan.
1.5	0.3	0.3	149.9	62.8	17.0	9.5	59.0	1.4	0.3	Feb.
0.8	0.5	0.3	168.4	65.0	21.1	6.1	70.2	5.8	0.3	Mar.
3.3	5.1	0.7	138.1	49.2	20.6	9.1	48.5	10.0	0.7	Apr.
2.0	0.1	5.3	158.4	46.7	31.9	10.6	57.2	6.7	5.3	May
0.1	0.7	0.7	152.7	58.5	30.6	7.7	51.4	3.7	0.7	June
										July

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	
0.6	0.1	0.1	517.5	305.9	33.4	84.8	88.1	5.3	0.1	2001 July
0.2	0.0	0.1	505.8	325.5	22.0	78.4	75.1	4.7	0.1	Aug.
0.2	0.4	0.4	513.4	318.1	23.8	71.1	93.2	6.7	0.4	Sep.
0.2	5.4	0.5	633.4	412.1	28.7	93.5	86.2	12.3	0.5	Oct.
1.1	0.8	5.6	621.5	407.7	34.9	89.6	79.1	4.7	5.6	Nov.
1.3	0.3	0.8	452.1	284.5	49.4	65.3	47.8	4.3	0.8	Dec.
0.1	5.1	2.2	651.2	384.1	22.7	82.4	149.5	10.3	2.2	2002 Jan.
1.5	0.4	0.5	549.7	335.9	26.1	77.1	106.9	3.3	0.5	Feb.
0.8	0.5	0.4	592.4	362.2	33.5	69.5	119.2	7.6	0.4	Mar.
3.3	5.1	0.9	524.2	308.5	27.2	73.4	102.3	11.8	0.9	Apr.
2.0	0.1	5.5	548.4	305.1	41.0	74.2	114.3	8.3	5.5	May
0.2	1.0	0.9	489.0	271.5	45.4	61.2	103.9	6.2	0.9	June
										July

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
2001 July	5.4	-3.7	-0.2	3.7	4.0	1.6	-19.3	-6.7	-7.4	-4.8
Aug.	4.6	-5.2	-0.7	5.5	5.0	0.0	-4.8	-2.2	-1.6	-0.9
Sep.	-2.1	-3.2	-0.3	-0.4	1.7	0.1	10.0	4.0	6.5	-0.3
Oct.	9.3	9.6	-0.4	3.8	-3.5	-0.3	-11.1	-3.8	-5.8	-1.5
Nov.	-7.3	-10.7	0.1	-4.1	7.1	0.2	3.3	0.3	3.0	-0.6
Dec.	-45.7	-11.4	-0.5	-10.5	-23.8	0.6	6.9	0.2	5.0	1.0
2002 Jan.	31.4	15.7	0.2	4.6	11.4	-0.6	-12.9	-5.0	-5.5	-1.3
Feb.	-0.8	-6.6	0.2	-2.2	7.8	0.0	1.7	1.1	0.1	0.5
Mar.	16.8	5.4	0.4	-1.1	12.4	-0.2	16.4	6.5	7.2	2.8
Apr.	-7.6	-2.8	0.2	-4.5	-0.3	-0.3	-18.4	-8.1	-7.7	-2.6
May	18.6	6.8	-0.8	-2.9	15.5	0.0	0.3	0.1	0.5	-0.3
June	-2.9	-3.5	0.1	-7.9	8.3	0.0	12.9	3.0	8.6	1.0
July	10.1	6.3	0.3	4.0	-0.8	0.3				

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
2001 July	40.0	20.6	17.3	2.1	-2.2	2.1	9.3	2.5	5.6	2.0
Aug.	14.5	1.2	2.9	6.6	0.9	2.9	7.0	1.1	6.9	0.7
Sep.	20.4	6.0	4.2	-1.4	7.5	4.2	-0.6	0.8	0.8	-0.6
Oct.	32.4	15.3	10.8	-2.4	3.7	5.1	16.0	3.0	6.5	2.0
Nov.	29.3	2.1	8.4	16.9	0.1	1.8	22.8	4.2	11.5	4.4
Dec.	36.1	3.4	29.1	5.1	-2.6	1.2	0.8	2.3	-0.4	1.1
2002 Jan.	50.8	6.4	5.2	5.4	30.7	2.9	12.7	0.1	3.6	3.4
Feb.	33.0	20.1	4.6	3.2	5.4	-0.4	5.9	3.5	2.8	0.9
Mar.	50.8	21.8	5.4	0.4	18.7	4.6	13.5	2.4	10.7	1.7
Apr.	40.5	8.5	10.2	5.3	12.0	4.6	15.4	2.7	5.5	0.5
May	57.0	12.7	17.3	5.4	16.1	5.5	18.0	3.6	6.9	2.8
June	35.5	13.8	4.2	3.4	11.7	2.4	18.8	7.1	13.7	-0.3
July	9.8	-5.7	7.8	1.9	-3.0	8.9				

3. Total

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2001 July	45.4	17.0	17.1	5.8	1.7	3.7	-9.9	-4.2	-1.8	-2.8
Aug.	19.1	-4.0	2.3	12.1	5.9	2.8	2.2	-1.1	5.3	-0.2
Sep.	18.3	2.8	3.9	-1.8	9.2	4.3	9.4	4.7	7.3	-0.9
Oct.	41.6	24.9	10.4	1.4	0.2	4.7	4.9	-0.8	0.7	0.5
Nov.	22.0	-8.5	8.5	12.7	7.2	2.0	26.0	4.5	14.5	3.7
Dec.	-9.6	-8.1	28.6	-5.4	-26.4	1.7	7.7	2.5	4.5	2.1
2002 Jan.	82.2	22.2	5.5	10.0	42.1	2.3	-0.1	-4.9	-1.8	2.2
Feb.	32.2	13.5	4.8	1.0	13.2	-0.4	7.5	4.6	2.9	1.3
Mar.	67.6	27.2	5.8	-0.8	31.1	4.3	29.9	8.9	17.9	4.5
Apr.	32.9	5.6	10.4	0.8	11.7	4.3	-3.0	-5.4	-2.2	-2.1
May	75.6	19.6	16.5	2.5	31.6	5.5	18.3	3.7	7.4	2.5
June	32.6	10.3	4.4	-4.5	20.0	2.5	31.7	10.1	22.2	0.7
July	20.0	0.6	8.1	5.9	-3.9	9.2				

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

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
0.0	-0.1	-0.2	-13.9	-10.4	-7.6	-1.1	3.9	1.5	-0.2	2001 July
0.0	-0.1	0.0	-0.3	-7.4	-2.2	4.6	5.0	-0.2	0.0	Aug.
0.0	-0.1	0.0	8.0	0.8	6.2	-0.7	1.7	0.0	0.0	Sep.
0.0	-0.2	0.1	-1.9	5.8	-6.1	2.3	-3.5	-0.5	0.1	Oct.
0.0	0.1	0.4	-4.1	-10.4	3.2	-4.7	7.1	0.4	0.4	Nov.
0.0	0.1	0.7	-38.8	-11.2	4.5	-9.5	-23.9	0.6	0.7	Dec.
0.0	-0.1	-1.1	18.5	10.7	-5.2	3.3	11.5	-0.7	-1.1	2002 Jan.
0.0	-0.2	0.2	0.9	-5.5	0.3	-1.7	7.8	-0.2	0.2	Feb.
0.0	0.0	0.0	33.2	11.9	7.6	1.6	12.4	-0.3	0.0	Mar.
-0.1	0.0	0.1	-26.1	-10.9	-7.5	-7.1	-0.3	-0.3	0.1	Apr.
0.0	0.0	-0.1	18.9	6.9	-0.3	-3.2	15.5	0.0	-0.1	May
0.0	0.3	0.1	10.0	-0.5	8.7	-6.9	8.3	0.3	0.1	June
										July

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	
-0.5	0.0	-0.4	49.3	23.2	22.9	4.1	-2.7	2.1	-0.4	2001 July
-0.2	-0.1	-1.3	21.6	2.3	9.8	7.3	0.6	2.8	-1.3	Aug.
-1.8	0.0	0.2	19.8	6.8	5.0	-2.0	5.7	4.2	0.2	Sep.
-0.1	5.3	-0.6	48.4	18.3	17.3	-0.4	3.5	10.3	-0.6	Oct.
-0.4	0.4	2.7	52.1	6.3	19.9	21.2	-0.3	2.2	2.7	Nov.
0.6	0.0	-2.8	36.9	5.7	28.6	6.2	-2.0	1.2	-2.8	Dec.
-0.8	4.8	1.5	63.5	6.6	8.8	8.9	29.9	7.8	1.5	2002 Jan.
0.7	-0.2	-1.9	38.8	23.6	7.4	4.1	6.1	-0.5	-1.9	Feb.
0.1	0.0	-1.4	64.3	24.2	16.1	2.1	18.8	4.5	-1.4	Mar.
1.8	5.0	-0.1	55.9	11.1	15.6	5.8	13.8	9.6	-0.1	Apr.
0.9	-0.1	4.1	75.0	16.3	24.1	8.1	17.0	5.4	4.1	May
-1.9	0.5	-0.3	54.3	20.9	17.9	3.1	9.8	2.9	-0.3	June
										July

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	
-0.5	0.0	-0.6	35.4	12.8	15.3	3.0	1.3	3.7	-0.6	2001 July
-0.3	-0.2	-1.3	21.3	-5.1	7.6	11.9	5.6	2.6	-1.3	Aug.
-1.8	-0.1	0.2	27.7	7.5	11.2	-2.7	7.4	4.2	0.2	Sep.
-0.2	5.1	-0.5	46.5	24.1	11.2	1.9	0.0	9.8	-0.5	Oct.
-0.3	0.5	3.1	48.0	-4.1	23.1	16.5	6.9	2.6	3.1	Nov.
0.6	0.0	-2.2	-1.9	-5.5	33.1	-3.3	-25.9	1.8	-2.2	Dec.
-0.8	4.7	0.5	82.0	17.3	3.6	12.2	41.4	7.1	0.5	2002 Jan.
0.7	-0.3	-1.7	39.7	18.1	7.7	2.3	14.0	-0.7	-1.7	Feb.
0.1	-0.1	-1.4	97.5	36.1	23.7	3.7	31.2	4.3	-1.4	Mar.
1.8	5.0	0.0	29.9	0.2	8.2	-1.3	13.5	9.3	0.0	Apr.
0.9	-0.1	4.0	93.9	23.2	23.8	5.0	32.5	5.3	4.0	May
-1.8	0.7	-0.3	64.2	20.4	26.6	-3.8	18.2	3.2	-0.3	June
										July

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	61.1	61.1	38.9	38.9	100.0	100.0	61.1	38.9
	1	2	3	4	5	6	7	8	9	10
1998	102.7	1.1	101.8	0.7	104.4	1.9	-	-	-	-
1999	103.8	1.1	102.7	0.9	106.0	1.5	-	-	-	-
2000	106.3	2.3	105.5	2.7	107.8	1.7	-	-	-	-
<i>Euro area enlargement</i>										
2001	108.9	2.5	108.1	2.5	110.4	2.5	-	-	-	-
2001 Q3	109.2	2.4	108.2	2.3	111.2	2.5	109.2	0.3	108.5	110.8
Q4	109.5	2.1	108.6	1.7	111.2	2.8	109.6	0.3	108.6	111.6
2002 Q1	110.4	2.6	109.1	2.2	112.6	3.1	110.4	0.8	109.3	112.6
Q2	111.5	2.1	110.3	1.4	113.5	3.2	111.1	0.6	109.9	113.6
2001 Oct.	109.5	2.3	108.7	2.0	111.1	2.8	109.6	0.1	108.7	111.4
Nov.	109.5	2.1	108.5	1.5	111.1	2.7	109.6	0.0	108.5	111.6
Dec.	109.6	2.0	108.6	1.6	111.5	2.8	109.7	0.1	108.6	111.9
2002 Jan.	110.1	2.7	108.9	2.4	112.2	3.0	110.3	0.5	109.2	112.3
Feb.	110.2	2.5	108.8	2.1	112.7	3.0	110.3	0.1	109.2	112.6
Mar.	110.8	2.5	109.7	2.0	113.0	3.2	110.7	0.3	109.5	113.0
Apr.	111.4	2.4	110.4	2.0	113.2	3.0	111.0	0.3	110.0	113.1
May	111.5	2.0	110.4	1.3	113.6	3.3	111.2	0.2	109.9	113.7
June	111.5	1.8	110.2	1.0	113.9	3.2	111.2	0.0	109.7	113.9
July	111.3	1.9	109.4	1.2	114.8	3.2	111.3	0.1	109.8	114.1
Aug.	111.4	2.1	109.4	1.4	115.0	3.3	111.5	0.2	109.9	114.4
Sep. ²⁾	.	2.2	.	.	.	.	.	.	.	.

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⁾	20.4	12.3	8.1	40.7	32.0	8.7	9.7	6.3	2.5	14.3	6.1
	11	12	13	14	15	16	17	18	19	20	21
1998	1.6	1.4	2.0	0.2	0.9	-2.6	2.3	1.7	-1.0	2.2	1.8
1999	0.6	0.9	0.0	1.0	0.7	2.4	1.8	2.1	-4.4	2.0	1.8
2000	1.4	1.1	1.7	3.4	0.7	13.3	1.6	2.6	-4.2	2.3	2.4
<i>Euro area enlargement</i>											
2001	4.5	2.8	7.0	1.5	1.1	2.7	1.9	3.5	-2.8	3.3	2.6
2001 Q3	5.1	3.3	7.9	1.0	0.9	1.1	1.9	3.7	-2.5	3.2	2.7
Q4	4.7	3.5	6.7	0.2	1.6	-4.1	2.0	3.8	-1.8	3.6	2.9
2002 Q1	4.9	3.5	7.0	0.9	1.8	-2.1	2.3	3.6	-1.2	4.0	3.2
Q2	2.8	3.1	2.4	0.7	1.7	-2.4	2.4	3.4	-0.8	4.2	3.3
2001 Oct.	5.0	3.5	7.5	0.5	1.5	-2.7	2.0	3.8	-1.7	3.6	2.9
Nov.	4.5	3.4	6.2	0.0	1.6	-5.0	2.0	3.7	-2.0	3.5	2.9
Dec.	4.6	3.5	6.3	0.2	1.6	-4.6	2.0	4.0	-1.7	3.6	2.9
2002 Jan.	5.6	3.8	8.4	0.9	1.7	-1.9	2.2	3.6	-1.2	3.9	3.1
Feb.	4.8	3.3	7.1	0.7	1.9	-2.9	2.2	3.5	-1.2	4.0	3.2
Mar.	4.2	3.3	5.5	1.0	1.8	-1.6	2.3	3.7	-1.0	4.2	3.2
Apr.	3.6	3.2	4.1	1.2	1.8	-0.5	2.5	3.2	-0.9	3.8	3.3
May	2.7	3.1	2.1	0.6	1.7	-2.9	2.4	3.5	-0.7	4.4	3.4
June	2.3	3.1	1.1	0.3	1.6	-3.6	2.4	3.5	-0.8	4.3	3.3
July	2.1	2.9	0.9	0.7	1.5	-1.7	2.5	3.5	-0.8	4.2	3.4
Aug.	2.3	2.9	1.3	0.9	1.4	-0.5	2.5	3.9	-0.7	4.3	3.5
Sep.	.	.	.	.	.	.	.	.	.	.	.

Sources: Eurostat and ECB calculations.

1) Referring to the index period 2002.

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

3) Including alcoholic beverages and tobacco.

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

	Industrial producer prices											World market prices of raw materials ¹⁾		Oil prices ²⁾ (EUR per barrel)
	Industry excluding construction ³⁾									Construc- tion ⁴⁾	Manu- facturing	Total excluding energy		
	Total		Industry excluding construction and energy					Energy						
	Index 1995 = 100		Total	Inter- mediate goods	Capital goods	Consumer goods								
						Total	Durable consumer goods	Non-durable consumer goods						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1996	100.3	0.3	0.3	-1.8	1.4	1.7	2.0	1.7	0.9	1.4	0.9	6.0	-7.5	16.0
1997	101.4	1.1	0.6	0.2	0.3	1.1	0.6	1.2	3.2	1.3	0.8	10.7	14.6	17.0
1998	100.6	-0.8	0.2	-0.4	0.6	0.5	0.8	0.5	-5.2	0.3	-0.6	-21.0	-12.5	12.0
1999	100.2	-0.4	-0.6	-1.5	0.2	-0.1	0.7	-0.2	0.5	1.2	0.2	15.8	-5.9	17.1
2000	105.7	5.5	2.6	5.0	0.6	1.5	1.4	1.6	19.0	2.4	5.2	50.8	16.7	31.0
<i>Euro area enlargement</i>														
2001	108.2	2.1	1.8	1.2	1.0	3.0	2.1	3.1	2.6	2.2	1.2	-8.8	-7.6	27.8
2001 Q3	108.3	1.4	1.5	0.2	1.2	3.0	2.2	3.1	0.5	2.4	0.6	-11.3	-10.4	29.0
Q4	107.2	-1.0	0.7	-1.2	1.1	2.4	1.9	2.4	-8.2	1.3	-1.5	-28.8	-15.6	22.4
2002 Q1	107.4	-0.9	0.3	-1.6	1.2	1.6	1.8	1.6	-5.0	2.0	-0.7	-10.5	-3.6	24.6
Q2	108.0	-0.8	0.3	-0.8	1.1	1.0	1.5	1.0	-5.0	1.9	-0.4	-8.7	-5.5	27.8
Q3	.	.	.	.	.	.	.	.	.	.	.	-4.2	-1.7	27.2
2001 Sep.	108.3	0.6	1.2	-0.3	1.2	2.8	2.0	2.9	-2.3	.	-0.2	-20.7	-18.1	28.8
Oct.	107.6	-0.7	0.9	-0.9	1.1	2.6	1.9	2.6	-7.4	.	-1.3	-30.2	-19.3	23.8
Nov.	107.1	-1.3	0.6	-1.3	1.0	2.4	1.9	2.5	-9.6	.	-1.8	-34.1	-15.1	21.7
Dec.	106.9	-1.0	0.5	-1.5	1.1	2.1	2.0	2.2	-7.4	.	-1.5	-20.6	-12.3	21.5
2002 Jan.	107.2	-0.8	0.4	-1.6	1.2	2.1	1.9	2.1	-5.5	.	-0.7	-14.4	-6.5	22.6
Feb.	107.2	-1.0	0.2	-1.7	1.2	1.6	1.7	1.6	-5.7	.	-0.9	-15.2	-4.0	23.5
Mar.	107.7	-0.8	0.2	-1.5	1.2	1.2	1.7	1.2	-4.0	.	-0.5	-1.6	-0.3	27.9
Apr.	108.0	-0.7	0.3	-1.1	1.0	1.2	1.6	1.1	-4.0	.	-0.2	-1.2	-1.4	29.3
May	108.0	-0.9	0.3	-0.9	1.1	1.0	1.6	0.9	-5.1	.	-0.5	-9.5	-6.8	28.1
June	107.9	-1.0	0.4	-0.5	1.0	0.9	1.4	0.8	-5.9	.	-0.6	-14.9	-8.4	25.8
July	107.9	-0.4	0.6	0.0	0.9	1.1	1.2	1.0	-3.8	.	0.0	-10.2	-7.9	25.9
Aug.	108.0	-0.2	0.7	0.1	0.9	1.0	1.3	0.9	-2.7	.	0.3	-4.3	-1.3	27.0
Sep.	.	.	.	.	.	.	.	.	.	.	.	2.4	4.7	28.9

2. Deflators of gross domestic product⁵⁾
(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	0.8
1997	103.6	1.5	1.7	2.0	1.3	1.0	1.8	2.6
1998	105.3	1.7	1.2	1.4	1.2	0.9	-0.1	-1.5
1999	106.5	1.1	1.2	1.1	2.0	0.8	-0.5	-0.2
2000	107.9	1.3	2.5	2.2	2.6	2.6	4.6	8.2
2000 Q2	107.7	1.2	2.4	1.9	2.5	2.6	4.5	8.3
Q3	108.2	1.4	2.5	2.3	2.6	2.6	5.0	8.1
Q4	108.4	1.5	2.6	2.5	2.6	3.0	5.3	8.4
<i>Euro area enlargement</i>								
2001	110.8	2.4	2.2	2.4	2.3	2.0	1.5	0.8
2001 Q1	109.9	2.1	2.4	2.4	2.2	2.2	3.3	4.1
Q2	110.5	2.3	2.4	2.7	2.2	1.9	2.6	2.6
Q3	111.0	2.2	2.1	2.5	2.1	2.1	0.8	0.3
Q4	111.9	2.8	1.7	2.2	2.2	1.5	-0.1	-3.1
2002 Q1	112.5	2.4	1.8	2.5	2.2	1.8	0.4	-1.4

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 ⁵⁾	Changes in inventories ²⁾	Total	Exports ³⁾	Imports ³⁾
1	2	3	4	5	6	7	8	9	
1997	5,649.0	5,500.5	3,201.3	1,150.7	1,138.2	10.3	148.6	1,827.2	1,678.7
1998	5,882.6	5,742.6	3,331.8	1,176.6	1,201.9	32.2	140.0	1,949.1	1,809.1
1999	6,149.2	6,048.1	3,506.7	1,230.2	1,291.5	19.8	101.1	2,053.1	1,952.1
2000	6,444.8	6,376.9	3,672.8	1,285.9	1,387.5	30.7	67.9	2,412.5	2,344.6
<i>Euro area enlargement</i>									
2001	6,819.7	6,707.1	3,919.6	1,358.8	1,432.9	-4.3	112.6	2,544.6	2,432.0
2001 Q1	1,689.9	1,666.1	966.1	335.0	359.5	5.5	23.8	644.5	620.7
Q2	1,700.4	1,679.9	979.2	338.0	358.5	4.1	20.5	640.2	619.7
Q3	1,710.2	1,681.8	985.2	341.2	358.7	-3.2	28.4	634.3	605.9
Q4	1,719.2	1,679.3	989.2	344.6	356.2	-10.7	39.9	625.6	585.7
2002 Q1	1,735.3	1,692.4	994.8	348.7	356.2	-7.2	42.9	627.4	584.5
Q2	.	.	.	.	.	.	.	.	.

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 ⁴⁾	Changes in inventories ²⁾	Total	Exports ³⁾	Imports ³⁾
10	11	12	13	14	15	16	17	18	
1997	5,509.1	5,354.1	3,093.4	1,126.1	1,131.9	2.7	155.0	1,806.3	1,651.2
1998	5,666.9	5,544.3	3,187.5	1,142.4	1,189.7	24.7	122.5	1,939.1	1,816.5
1999	5,823.6	5,735.0	3,299.3	1,164.6	1,260.2	10.9	88.6	2,041.4	1,952.7
2000	6,025.4	5,900.0	3,382.0	1,186.7	1,319.6	11.7	125.4	2,293.3	2,167.9
<i>Euro area enlargement</i>									
2001	6,220.6	6,069.3	3,521.6	1,224.7	1,335.4	-12.5	151.3	2,378.6	2,227.3
2001 Q1	1,554.6	1,517.6	876.5	304.5	337.2	-0.7	37.0	603.4	566.4
Q2	1,555.2	1,521.2	881.1	305.8	335.1	-0.8	33.9	596.4	562.5
Q3	1,557.7	1,517.0	882.1	306.7	333.0	-4.8	40.7	594.5	553.8
Q4	1,553.2	1,513.5	881.9	307.8	330.0	-6.2	39.7	584.4	544.7
2002 Q1	1,558.7	1,514.4	880.4	310.2	328.1	-4.2	44.3	585.0	540.8
Q2	1,564.0	1,517.5	883.9	311.3	325.4	-3.1	46.5	596.4	549.9

(annual percentage changes)

1997	2.3	1.7	1.6	1.3	2.3	-	-	10.4	9.0
1998	2.9	3.6	3.0	1.4	5.1	-	-	7.4	10.0
1999	2.8	3.4	3.5	1.9	5.9	-	-	5.3	7.5
2000	3.5	2.9	2.5	1.9	4.7	-	-	12.3	11.0
<i>Euro area enlargement</i>									
2001	1.5	0.9	1.8	1.9	-0.6	-	-	2.5	1.1
2001 Q1	2.4	1.8	2.1	2.1	1.6	-	-	8.2	6.6
Q2	1.6	1.3	1.8	2.1	-0.1	-	-	4.4	3.6
Q3	1.4	0.7	1.8	2.1	-1.5	-	-	1.3	-0.5
Q4	0.4	-0.1	1.6	1.4	-2.5	-	-	-3.3	-4.9
2002 Q1	0.3	-0.2	0.4	1.9	-2.7	-	-	-3.0	-4.5
Q2	0.6	-0.2	0.3	1.8	-2.9	-	-	0.0	-2.2

Source: Eurostat.

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

2) Including acquisitions less disposals of valuables.

3) Exports and imports cover goods and services and include cross-border trade within the euro area. They are not fully consistent with Tables 8 and 9.

Value added by activity

3. Current prices

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

	Gross value added							Intermediate consumption of FISIM 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
1997	5,269.5	138.6	1,227.8	291.7	1,086.1	1,381.4	1,144.0	202.7	582.2
1998	5,469.1	138.8	1,276.7	294.9	1,139.6	1,439.8	1,179.3	201.4	615.0
1999	5,687.4	135.5	1,294.8	310.8	1,192.5	1,524.9	1,229.0	200.9	662.7
2000	5,967.7	136.3	1,348.8	326.0	1,263.5	1,616.4	1,276.7	211.6	688.7
<i>Euro area enlargement</i>									
2001	6,329.9	151.2	1,412.9	346.1	1,357.8	1,713.1	1,348.8	227.4	717.2
2001 Q1	1,566.5	36.6	355.9	85.4	334.8	421.6	332.3	55.9	179.2
Q2	1,578.5	37.5	353.6	86.1	339.0	427.0	335.3	56.7	178.6
Q3	1,588.2	38.6	353.9	86.8	341.4	428.8	338.6	57.3	179.3
Q4	1,596.7	38.4	349.4	87.8	342.6	435.6	342.7	57.5	180.0
2002 Q1	1,608.8	38.6	351.6	89.0	344.4	438.0	347.2	56.6	183.1
Q2	.	.	.	.	.	.	.	.	.

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
1997	5,167.0	140.2	1,217.5	290.1	1,071.2	1,338.3	1,109.7	213.8	556.0
1998	5,317.7	142.2	1,256.8	291.2	1,114.9	1,386.2	1,126.4	221.4	570.5
1999	5,458.6	145.4	1,269.6	299.0	1,164.6	1,437.7	1,142.4	230.0	594.9
2000	5,660.9	144.8	1,320.7	305.2	1,221.1	1,504.4	1,164.7	245.5	609.9
<i>Euro area enlargement</i>									
2001	5,859.0	152.2	1,347.6	310.4	1,283.4	1,567.2	1,198.2	260.8	622.5
2001 Q1	1,462.8	37.8	341.3	77.7	319.6	388.4	297.9	64.4	156.2
Q2	1,464.4	37.8	337.6	77.6	321.0	391.3	299.1	64.9	155.6
Q3	1,467.8	38.4	337.4	77.5	321.5	393.1	300.0	65.5	155.4
Q4	1,463.9	38.2	331.3	77.5	321.3	394.3	301.2	66.0	155.2
2002 Q1	1,469.7	38.1	334.1	76.9	322.5	395.2	302.8	65.4	154.5
Q2	1,474.9	38.2	334.7	76.3	323.8	397.4	304.5	65.7	154.8
<i>(annual percentage changes)</i>									
1997	2.4	0.4	3.3	-1.8	3.1	3.3	1.0	3.7	2.4
1998	2.9	1.4	3.2	0.4	4.1	3.6	1.5	3.5	2.6
1999	2.7	2.2	1.0	2.6	4.5	3.7	1.4	3.9	4.3
2000	3.7	-0.4	4.0	2.1	4.9	4.6	1.9	6.7	2.5
<i>Euro area enlargement</i>									
2001	1.7	-0.7	0.9	-0.5	2.6	2.7	1.4	4.7	0.1
2001 Q1	2.7	-0.8	3.5	-0.3	3.8	3.1	1.4	5.6	1.1
Q2	2.0	-1.0	1.4	-0.4	3.0	3.0	1.2	4.8	-0.4
Q3	1.6	-0.8	0.7	-0.6	2.4	2.6	1.5	4.3	0.1
Q4	0.6	-0.3	-1.9	-0.7	1.2	2.2	1.4	4.0	-0.3
2002 Q1	0.5	0.9	-2.1	-1.1	0.9	1.7	1.7	1.5	-1.1
Q2	0.7	0.9	-0.9	-1.7	0.9	1.6	1.8	1.2	-0.5

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.) 1995 = 100		Total	Inter- mediate goods	Capital goods	Consumer goods						
						Total	Durable consumer goods		Non-durable consumer goods			
1	2	3	4	5	6	7	8	9	10	11	12	
1998	3.7	109.3	4.3	4.8	4.0	7.8	2.7	4.6	2.3	1.2	1.3	4.8
1999	2.1	111.4	2.0	2.1	1.9	2.5	1.6	1.3	1.7	1.4	4.2	2.0
2000	5.0	117.6	5.5	6.0	6.0	9.3	2.2	6.2	1.5	1.8	2.0	5.9
<i>Euro area enlargement</i>												
2001	0.0	117.9	0.2	0.0	-0.9	1.2	0.1	-2.7	0.7	0.9	-0.5	0.1
2001 Q2	0.5	118.3	0.9	0.8	0.3	1.8	0.5	-1.8	1.0	1.1	-1.0	0.9
Q3	-0.4	117.9	-0.3	-0.5	-1.4	0.1	0.3	-3.8	1.1	0.7	-0.4	-0.5
Q4	-3.2	115.8	-3.8	-4.8	-6.0	-4.9	-2.9	-7.6	-1.9	2.9	0.7	-4.7
2002 Q1	-2.3	116.7	-2.5	-3.0	-1.9	-6.4	-1.2	-7.0	0.1	1.8	1.5	-3.5
Q2	-1.2	117.0	-0.8	-1.1	0.1	-3.1	-1.1	-6.4	0.1	2.2	-1.2	-1.2
2001 Oct.	-1.9	116.1	-2.6	-2.9	-3.6	-2.7	-2.1	-7.1	-1.0	-1.0	2.2	-2.9
Nov.	-3.4	115.4	-4.1	-5.1	-6.1	-5.5	-3.0	-7.5	-2.1	1.7	0.6	-5.0
Dec.	-4.4	115.8	-4.6	-6.6	-8.7	-6.5	-3.8	-8.2	-2.9	7.5	-1.1	-6.4
2002 Jan.	-2.5	116.3	-2.7	-3.3	-3.3	-6.1	-0.9	-7.1	0.4	2.6	1.0	-3.7
Feb.	-2.5	116.4	-2.9	-3.4	-2.3	-7.2	-1.1	-6.4	0.1	1.9	0.8	-3.8
Mar.	-1.9	117.4	-2.0	-2.3	-0.3	-5.9	-1.5	-7.5	-0.2	1.0	2.4	-2.9
Apr.	-0.8	116.6	-0.9	-1.2	0.0	-2.6	-1.6	-6.4	-0.6	1.8	0.4	-0.8
May	-2.0	116.6	-1.1	-1.3	0.3	-4.8	-0.5	-7.2	1.0	1.5	-3.2	-1.8
June	-0.8	117.7	-0.5	-0.8	-0.1	-1.9	-1.1	-5.5	-0.1	3.5	-0.7	-1.0
July	-1.3	116.6	-0.5	-0.6	0.1	-0.7	-2.1	-2.4	-2.1	1.3	1.5	-0.3
Aug.	.	.	.	.	.	.	.	.	.	.	.	.

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 1995 = 100	Total		Food, beverages, tobacco	Non-food				
	Index 1995 = 100			Index 1995 = 100				Textiles, clothing, footwear	Household equipment		
13	14	15	16	17	18	19	20	21	22		
1998	108.0	3.7	104.5	3.0	2.1	3.6	2.1	4.5	923	7.2	
1999	111.6	3.4	107.2	2.6	3.1	2.5	1.3	3.0	973	5.4	
2000	116.3	4.2	109.8	2.4	2.0	2.4	1.8	5.0	952	-2.1	
<i>Euro area enlargement</i>											
2001	121.4	4.0	111.3	1.4	1.2	1.4	0.9	-0.2	970	-0.6	
2001 Q2	121.5	4.2	111.5	1.2	0.9	1.3	1.2	-0.3	1,002	1.8	
Q3	122.4	4.5	111.3	1.2	1.2	1.0	0.7	-0.5	957	-1.4	
Q4	122.3	3.3	111.7	1.1	1.2	1.0	-0.2	-0.5	965	2.6	
2002 Q1	122.6	2.6	112.0	1.0	1.2	-0.1	0.2	-2.3	913	-4.1	
Q2	123.0	1.2	111.6	0.1	0.3	-0.4	-1.2	-2.5	911	-7.9	
2001 Oct.	120.9	3.1	110.6	0.5	1.6	0.7	-3.2	0.4	962	3.3	
Nov.	123.8	4.1	113.3	2.2	1.7	1.7	2.8	-0.7	968	3.3	
Dec.	122.3	2.7	111.4	0.7	0.4	0.5	-0.2	-1.2	964	0.8	
2002 Jan.	121.9	2.0	111.5	0.2	0.3	-0.5	-1.0	-2.1	926	-2.4	
Feb.	122.3	3.2	111.8	1.5	1.5	0.2	0.3	-1.5	920	-3.2	
Mar.	123.5	2.7	112.6	1.3	1.9	-0.1	1.5	-3.2	892	-6.2	
Apr.	122.7	2.2	111.4	0.6	1.0	-0.1	0.7	-2.6	893	-7.9	
May	123.4	1.7	111.9	0.6	1.3	-0.4	-3.8	-1.7	912	-6.8	
June	122.9	-0.3	111.4	-1.0	-1.3	-0.7	-0.4	-3.1	926	-9.2	
July	123.2	1.9	112.3	1.5	1.6	0.7	2.3	-0.5	898	-6.6	
Aug.	.	.	.	.	.	.	.	.	924	-4.5

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) Monthly averages.

Table 5.3

European Commission Business and Consumer Surveys

1. Economic sentiment indicator, manufacturing industry and consumer surveys

(percentage balances, seasonally adjusted, unless otherwise indicated)

	Economic sentiment indicator ¹⁾²⁾ (index 1995 = 100)	Manufacturing industry					Consumer confidence indicator ¹⁾				
		Industrial confidence indicator				Capacity utilisation ³⁾ (percentages)	Total ⁴⁾	Financial situation over next 12 months	Economic situation over next 12 months	Unemployment situation over next 12 months	Savings over next 12 months
		Total ⁴⁾	Order books	Stocks of finished products	Production expectations						
	1	2	3	4	5	6	7	8	9	10	11
1998	101.3	-1	-5	9	11	83.0	-5	2	-4	16	-1
1999	101.2	-7	-17	11	7	81.8	-3	3	-4	11	1
2000	103.7	5	3	5	17	83.8	1	4	1	1	2
<i>Euro area enlargement</i>											
2001	100.8	-8	-14	13	1	83.6	-5	2	-10	14	2
2001 Q3	100.1	-10	-17	15	1	83.4	-8	1	-13	19	0
2001 Q4	98.7	-18	-27	17	-9	82.2	-12	0	-18	30	2
2002 Q1	99.0	-14	-26	14	-1	81.1	-10	0	-12	28	0
2002 Q2	99.3	-11	-25	12	4	81.2	-8	-1	-9	22	-3
2002 Q3	98.9	-12	-28	11	3	81.0	-10	-1	-11	26	-3
2001 Sep.	99.9	-12	-19	16	-2	-	-9	1	-14	22	0
2001 Oct.	99.0	-17	-25	16	-9	-	-11	1	-18	28	3
2001 Nov.	98.4	-19	-28	18	-11	-	-13	0	-19	32	1
2001 Dec.	98.7	-17	-28	16	-8	-	-11	0	-16	30	1
2002 Jan.	98.9	-15	-28	14	-2	-	-11	0	-14	29	1
2002 Feb.	98.9	-14	-26	14	-3	-	-10	0	-11	28	0
2002 Mar.	99.2	-12	-25	13	3	-	-9	0	-10	26	0
2002 Apr.	99.1	-11	-26	12	4	-	-9	-1	-10	23	-3
2002 May	99.5	-10	-23	11	4	-	-8	-1	-8	22	-2
2002 June	99.3	-11	-25	12	4	-	-8	0	-8	22	-3
2002 July	99.0	-11	-26	11	4	-	-10	-1	-10	26	-4
2002 Aug.	98.7	-12	-30	10	4	-	-11	-1	-12	27	-4
2002 Sep.	98.9	-12	-27	12	2	-	-9	-1	-10	24	-2

2. Construction industry, retail trade and services surveys

(percentage balances, seasonally adjusted)

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

Source: European Commission Business and Consumer Surveys.

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

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

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

4) 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. Employment and unemployment in the whole economy ¹⁾
(annual percentage changes, seasonally adjusted, unless otherwise indicated)

	Employment						Unemployment			
	Total		By employment status		By selected sector		Total		Adult ²⁾	Youth ²⁾
	Millions		Employees	Self-employed	Industry excluding construction	Services	Millions	% of labour force	% of labour force	% of labour force
	1	2	3	4	5	6	7	8	9	10
1997	119.894	0.8	1.0	0.2	-0.2	1.4	13.946	10.9	9.4	21.9
1998	122.001	1.8	1.9	0.8	1.0	2.4	13.269	10.2	8.9	20.0
1999	124.209	1.8	2.2	-0.5	-0.2	2.7	12.253	9.3	8.2	18.0
2000	126.883	2.2	2.4	0.6	0.7	2.9	11.094	8.4	7.3	16.2
2000 Q2	126.610	2.3	2.6	0.3	0.6	3.1	11.178	8.5	7.4	16.4
Q3	127.262	2.2	2.5	0.8	0.9	3.0	10.960	8.3	7.2	16.0
Q4	127.914	2.2	2.4	1.5	1.2	2.9	10.728	8.1	7.1	15.6
<i>Euro area enlargement</i>										
2001	132.566	1.3	1.6	0.2	0.4	1.9	11.046	8.0	7.0	15.7
2001 Q1	132.183	1.9	2.1	1.0	1.2	2.4	11.039	8.0	7.0	15.7
Q2	132.468	1.5	1.7	0.6	0.7	1.9	10.976	8.0	7.0	15.6
Q3	132.658	1.1	1.4	-0.2	0.1	1.7	11.024	8.0	7.0	15.7
Q4	132.953	0.8	1.1	-0.6	-0.5	1.5	11.145	8.1	7.0	15.9
2002 Q1	133.127	0.7	1.0	-0.6	-0.9	1.5	11.285	8.1	7.1	16.1
Q2	133.219	0.6	0.8	-0.8	-1.0	1.4	11.426	8.2	7.2	16.3
2001 Aug.	-	-	-	-	-	-	11.016	8.0	7.0	15.7
Sep.	-	-	-	-	-	-	11.046	8.0	7.0	15.7
Oct.	-	-	-	-	-	-	11.111	8.0	7.0	15.8
Nov.	-	-	-	-	-	-	11.146	8.1	7.0	15.9
Dec.	-	-	-	-	-	-	11.178	8.1	7.0	15.9
2002 Jan.	-	-	-	-	-	-	11.235	8.1	7.1	16.0
Feb.	-	-	-	-	-	-	11.292	8.1	7.1	16.0
Mar.	-	-	-	-	-	-	11.329	8.2	7.1	16.1
Apr.	-	-	-	-	-	-	11.343	8.2	7.1	16.1
May	-	-	-	-	-	-	11.432	8.2	7.2	16.2
June	-	-	-	-	-	-	11.503	8.3	7.2	16.4
July	-	-	-	-	-	-	11.518	8.3	7.2	16.3
Aug.	-	-	-	-	-	-	11.535	8.3	7.3	16.3

2. Labour costs and productivity
(annual percentage changes)

	Unit labour cost in the whole economy, and components (s.a.)			Labour cost indices ³⁾					Earnings per employee in manufacturing	
	Unit labour cost	Compensation per employee	Labour productivity	Total	By component		By selected sector			
					Wages and salaries	Employers' social contributions and other costs	Industry excluding construction	Services		
	11	12	13	14	15	16	17	18	19	
1997	0.5	1.9	1.5	2.6	2.6	2.7	2.2	2.7	2.3	
1998	0.1	1.2	1.1	1.6	1.9	0.8	1.6	1.4	2.4	
1999	1.0	2.0	0.9	2.3	2.6	1.4	2.4	1.9	2.5	
2000	1.3	2.6	1.3	3.2	3.4	2.5	3.2	2.9	2.7	
2000 Q3	1.7	2.8	1.0	3.2	3.4	2.5	3.1	2.6	2.5	
Q4	2.2	2.7	0.5	3.0	3.2	2.1	2.8	2.9	2.5	
<i>Euro area enlargement</i>										
2001	2.6	2.7	0.1	3.4	3.6	2.6	3.2	3.2	3.2	
2001 Q1	1.9	2.4	0.5	3.4	3.8	2.3	3.2	3.3	3.4	
Q2	2.6	2.8	0.1	3.0	3.2	2.3	3.1	2.1	3.1	
Q3	2.4	2.7	0.2	3.8	3.9	3.1	3.6	3.7	3.3	
Q4	3.3	2.9	-0.4	3.3	3.5	2.7	3.0	3.6	2.9	
2002 Q1	3.4	2.9	-0.4	4.0	4.1	3.4	3.6	4.1	2.5	
Q2	.	.	.	3.7	3.7	3.5	3.1	3.9	.	

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

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

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

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

6 Saving, investment and financing in the euro area

Table 6.1

Financial investment and financing of non-financial sectors ¹⁾

(EUR billions (ECU billions to end-1998); 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
1998 Q2	4,699.1	315.5	4,100.3	1,204.9	1,452.7	1,341.9	100.8	147.4	135.8	239.7
Q3	4,677.4	311.8	4,074.2	1,184.2	1,451.1	1,341.4	97.4	156.4	135.0	237.6
Q4	4,825.9	323.4	4,211.2	1,282.9	1,463.3	1,386.3	78.6	149.8	141.5	215.3
1999 Q1	4,676.1	318.6	4,075.8	1,239.1	1,464.6	1,306.2	66.0	133.4	148.3	243.9
Q2	4,702.4	324.8	4,114.2	1,321.8	1,418.3	1,315.7	58.4	125.0	138.4	242.7
Q3	4,713.7	328.3	4,112.8	1,324.6	1,416.5	1,313.1	58.7	133.3	139.4	238.6
Q4	4,859.9	350.8	4,215.1	1,370.9	1,457.7	1,323.5	63.0	142.0	152.0	229.7
2000 Q1	4,837.9	335.5	4,222.3	1,379.6	1,462.5	1,303.3	76.8	130.2	150.0	260.5
Q2	4,894.9	342.0	4,256.9	1,409.7	1,485.7	1,282.6	78.9	146.0	150.0	247.1
Q3	4,915.1	339.8	4,266.5	1,396.9	1,524.0	1,263.7	81.9	159.2	149.6	253.9
Q4	5,030.3	348.4	4,361.6	1,464.4	1,542.4	1,269.1	85.6	164.5	155.9	230.1
<i>Euro area enlargement</i>										
2001 Q1	5,148.0	336.3	4,501.3	1,446.1	1,624.7	1,314.6	115.9	150.3	160.1	259.6
Q2	5,245.2	333.0	4,585.7	1,526.1	1,620.2	1,321.1	118.3	165.5	161.0	269.7
Q3	5,232.7	309.6	4,615.1	1,547.9	1,608.7	1,333.7	124.7	147.8	160.2	265.6
Q4	5,365.8	239.7	4,819.4	1,690.3	1,615.6	1,396.3	117.2	139.0	167.6	297.6
2002 Q1	5,368.8	254.3	4,779.3	1,637.6	1,607.2	1,413.0	121.6	157.5	177.7	303.0
Q2	.	285.7	4,837.9	1,706.4	1,599.1	1,412.8	119.6	153.2	.	.

	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
1998 Q2	1,555.9	167.6	1,388.3	3,500.8	2,070.8	1,429.9	186.7	2,523.8	2,256.5	267.4
Q3	1,546.6	156.5	1,390.1	3,138.9	1,698.5	1,440.4	187.9	2,518.6	2,248.5	270.1
Q4	1,544.1	155.5	1,388.6	3,495.4	1,974.3	1,521.1	172.7	2,616.0	2,345.9	270.1
1999 Q1	1,559.8	135.8	1,424.0	3,721.9	2,090.8	1,631.0	194.8	2,679.6	2,402.8	276.9
Q2	1,483.8	125.5	1,358.2	3,989.6	2,258.8	1,730.9	211.6	2,749.9	2,469.4	280.5
Q3	1,491.7	115.1	1,376.6	4,027.4	2,288.6	1,738.8	210.8	2,793.4	2,508.8	284.6
Q4	1,565.0	171.2	1,393.8	4,619.6	2,783.6	1,836.0	203.9	2,938.0	2,650.4	287.6
2000 Q1	1,583.4	191.5	1,391.9	4,863.0	2,926.7	1,936.2	218.3	3,054.1	2,758.6	295.5
Q2	1,618.5	196.5	1,422.0	4,752.6	2,843.3	1,909.3	208.8	3,099.9	2,800.6	299.3
Q3	1,689.0	215.4	1,473.6	4,864.2	2,940.7	1,923.5	207.3	3,154.0	2,850.5	303.5
Q4	1,761.5	232.9	1,528.6	4,885.5	3,010.2	1,875.3	203.4	3,182.0	2,878.0	304.0
<i>Euro area enlargement</i>										
2001 Q1	1,881.5	321.4	1,560.1	4,594.7	2,755.2	1,839.5	228.4	3,232.4	2,921.6	310.8
Q2	1,877.9	288.1	1,589.7	4,647.4	2,786.2	1,861.2	235.4	3,290.5	2,977.6	312.9
Q3	1,903.5	289.6	1,613.9	3,991.4	2,249.3	1,742.1	256.1	3,267.0	2,950.7	316.3
Q4	1,900.8	278.8	1,622.0	4,362.6	2,526.3	1,836.3	263.8	3,364.0	3,043.4	320.6
2002 Q1	1,976.3	318.3	1,658.0	4,449.2	2,580.9	1,868.3	293.9	3,448.1	3,119.2	329.0
Q2	.	.	.	.	.	.	.	.	.	.

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, 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.

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

	Loans taken from euro area MFIs and other financial corporations by											Memo: loans taken from banks outside the euro area by non-banks ³⁾
	Total	Taken from euro area MFIs	General government			Non-financial corporations			Households ⁴⁾			
			Total	Short-term	Long-term ⁵⁾	Total	Short-term	Long-term	Total	Short-term	Long-term	
	1	2	3	4	5	6	7	8	9	10	11	12
1998 Q2	6,006.2	5,453.0	901.1	31.9	869.2	2,505.2	878.9	1,626.2	2,599.9	232.5	2,367.4	151.3
Q3	6,081.8	5,524.1	903.5	33.3	870.2	2,528.7	866.2	1,662.5	2,649.6	233.8	2,415.9	147.4
Q4	6,227.5	5,663.5	911.2	36.0	875.2	2,600.7	902.9	1,697.8	2,715.6	240.8	2,474.8	151.3
1999 Q1	6,259.4	5,682.7	902.1	36.3	865.8	2,595.9	921.3	1,674.6	2,761.3	251.8	2,509.6	156.8
Q2	6,423.4	5,817.5	899.5	39.0	860.6	2,688.1	964.2	1,724.0	2,835.7	255.6	2,580.1	183.3
Q3	6,491.4	5,886.6	884.7	37.9	846.8	2,703.0	943.7	1,759.3	2,903.6	255.4	2,648.3	191.4
Q4	6,665.1	6,039.5	900.1	42.1	858.0	2,795.4	979.8	1,815.6	2,969.5	264.1	2,705.4	201.4
2000 Q1	6,809.9	6,156.4	890.4	41.1	849.3	2,894.2	1,038.0	1,856.2	3,025.2	265.6	2,759.7	221.1
Q2	6,957.6	6,262.2	884.8	42.0	842.8	2,994.4	1,090.7	1,903.7	3,078.3	274.4	2,804.0	219.7
Q3	7,102.2	6,379.6	865.0	39.9	825.0	3,102.3	1,152.4	1,949.9	3,134.9	275.9	2,859.0	252.3
Q4	7,264.2	6,500.5	880.2	42.0	838.2	3,199.5	1,167.3	2,032.2	3,184.4	281.0	2,903.4	245.2
<i>Euro area enlargement</i>												
2001 Q1	7,450.5	6,671.4	894.5	41.8	852.7	3,320.4	1,243.9	2,076.4	3,235.7	280.2	2,955.5	257.3
Q2	7,554.9	6,761.9	877.5	42.1	835.4	3,392.2	1,266.5	2,125.7	3,285.2	286.2	2,999.0	296.2
Q3	7,626.8	6,804.9	871.0	45.1	826.0	3,432.8	1,244.6	2,188.1	3,323.0	281.8	3,041.2	249.7
Q4	7,730.5	6,897.2	891.3	50.6	840.7	3,470.1	1,225.3	2,244.8	3,369.1	284.1	3,085.1	267.9
2002 Q1	7,804.4	6,960.6	895.8	53.3	842.5	3,506.3	1,223.3	2,283.0	3,402.3	279.4	3,122.9	289.6
Q2		7,022.0										
<i>Securities other than shares issued by</i>												
	Total	General government			Non-financial corporations			Quoted shares issued by non-financial corporations	Deposit liabilities of central government	Pension fund reserves of non- financial corporations		
		Total	Short-term	Long-term	Total	Short-term	Long-term					
	13	14	15	16	17	18	19	20	21	22		
1998 Q2	3,836.2	3,514.2	496.6	3,017.6	322.0	53.9	268.1	2,762.9	134.2	221.2		
Q3	3,927.0	3,595.0	498.6	3,096.4	332.0	55.3	276.7	2,362.0	133.8	224.1		
Q4	3,929.5	3,595.9	468.2	3,127.8	333.6	55.1	278.5	2,659.1	140.3	227.0		
1999 Q1	3,973.6	3,638.9	466.9	3,172.0	334.8	65.7	269.1	2,734.3	146.9	229.7		
Q2	3,956.6	3,616.0	459.3	3,156.7	340.7	66.4	274.3	2,955.3	136.6	232.6		
Q3	3,935.6	3,581.7	449.6	3,132.0	353.9	74.8	279.1	2,948.2	137.6	235.5		
Q4	3,896.3	3,532.6	421.1	3,111.5	363.8	78.2	285.5	3,959.9	149.8	238.7		
2000 Q1	3,964.9	3,598.8	425.3	3,173.5	366.1	78.7	287.4	4,422.6	147.6	241.0		
Q2	3,997.5	3,619.7	425.8	3,193.9	377.8	88.7	289.2	4,174.3	147.6	243.4		
Q3	4,033.5	3,635.5	421.8	3,213.7	397.9	95.6	302.4	4,053.3	147.2	245.3		
Q4	4,077.2	3,663.0	400.8	3,262.2	414.1	100.6	313.6	3,833.4	153.7	247.1		
<i>Euro area enlargement</i>												
2001 Q1	4,251.1	3,797.4	429.3	3,368.1	453.8	112.8	341.0	3,564.0	154.7	249.3		
Q2	4,310.2	3,830.3	440.7	3,389.7	479.9	123.9	355.9	3,572.4	155.2	251.5		
Q3	4,386.9	3,891.4	449.9	3,441.5	495.5	138.1	357.4	2,822.5	155.4	253.7		
Q4	4,393.3	3,879.3	434.4	3,444.9	514.0	136.5	377.5	3,276.5	165.5	253.1		
2002 Q1	4,451.4	3,931.9	446.8	3,485.1	519.5	143.6	375.9	3,324.0	174.8	255.6		
Q2												

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, 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) Including non-profit institutions serving households.

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

Transactions

1. Main financial assets ¹⁾

	Currency and deposits									Memo: deposits of non-banks with banks outside the euro area ²⁾
	Total	Currency	Deposits of non-financial sectors ³⁾ 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
1998 Q2	52.5	3.6	45.2	68.1	-5.7	-0.5	-16.7	8.0	-4.4	-4.9
Q3	-14.0	-3.7	-18.5	-17.7	2.7	-0.2	-3.3	9.0	-0.7	2.8
Q4	148.5	11.6	137.0	98.1	13.0	44.8	-18.9	-6.6	6.5	-24.5
1999 Q1	-40.3	-5.2	-37.7	-19.4	-15.7	10.1	-12.7	-4.2	6.8	23.4
Q2	22.0	6.2	34.2	81.3	-48.9	9.4	-7.6	-8.4	-9.9	-4.3
Q3	12.9	3.5	0.2	3.5	-1.1	-2.6	0.3	8.3	1.0	-2.8
Q4	138.7	22.3	95.1	44.2	36.4	10.3	4.2	8.7	12.7	-14.2
2000 Q1	-28.9	-15.3	0.4	6.1	0.9	-20.4	13.7	-11.9	-2.1	26.1
Q2	52.6	6.7	30.0	31.9	17.8	-21.8	2.1	15.8	0.1	-12.8
Q3	6.4	-2.2	-4.2	-17.3	28.8	-18.5	2.9	13.3	-0.5	-1.7
Q4	128.4	8.6	108.3	71.4	27.3	5.7	3.8	5.3	6.3	-16.7
<i>Euro area enlargement</i>										
2001 Q1	-17.4	-19.8	13.8	-34.4	40.8	-6.1	13.4	-15.6	4.2	13.6
Q2	93.8	-3.3	81.0	77.1	-4.7	6.3	2.3	15.1	0.9	5.8
Q3	6.1	-23.4	48.0	25.4	3.2	13.0	6.5	-17.7	-0.8	2.5
Q4	135.4	-69.9	206.8	142.4	9.4	62.5	-7.5	-8.8	7.4	12.2
2002 Q1	5.4	14.6	-38.4	-53.3	-4.3	14.9	4.3	19.0	10.1	4.4
Q2	.	31.4	77.0	74.9	3.8	0.5	-2.2	-4.2	0.7	.

	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
1998 Q2	-66.4	-24.9	-41.5	118.5	24.4	94.1	0.0	46.5	44.5	2.0
Q3	-12.7	-11.2	-1.5	100.2	14.3	85.9	1.0	42.9	40.3	2.6
Q4	-13.0	-2.2	-10.8	82.7	63.2	19.5	-16.1	49.5	47.6	2.0
1999 Q1	20.0	-13.1	33.1	105.3	3.7	101.6	2.9	64.7	58.6	6.0
Q2	-43.0	-11.9	-31.0	150.1	65.5	84.7	16.8	54.5	50.0	4.5
Q3	-4.6	-13.0	8.4	95.4	54.7	40.7	-0.4	57.7	52.9	4.8
Q4	89.3	50.7	38.6	-7.6	24.8	-32.4	-6.8	70.8	68.7	2.1
2000 Q1	11.0	26.9	-15.8	-13.2	-60.2	47.0	12.9	76.3	69.9	6.3
Q2	46.1	4.5	41.6	68.2	49.2	19.0	-9.7	56.7	52.1	4.6
Q3	80.0	19.6	60.4	150.9	142.6	8.4	-1.8	56.5	51.7	4.8
Q4	20.7	7.3	13.4	219.1	181.0	38.1	-4.0	58.4	59.1	-0.7
<i>Euro area enlargement</i>										
2001 Q1	130.1	92.7	37.5	62.3	25.8	36.6	24.7	59.5	54.2	5.3
Q2	-1.6	-34.9	33.4	43.2	38.7	4.5	6.4	56.1	53.1	3.0
Q3	38.6	-1.6	40.2	68.1	43.4	24.8	20.1	52.1	47.5	4.6
Q4	-3.9	-14.4	10.4	4.1	-23.4	27.5	7.3	70.0	65.7	4.2
2002 Q1	100.3	44.2	56.1	54.0	8.2	45.8	29.9	68.9	60.5	8.4
Q2	.	.	.	.	.	.	.	.	.	.

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

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

	Loans taken from euro area MFIs and other financial corporations by											Memo: loans taken from banks outside the euro area by non-banks ³⁾
	Total	Taken from euro area MFIs	General government			Non-financial corporations			Households ⁴⁾			
			Total	Short-term	Long-term ⁵⁾	Total	Short-term	Long-term	Total	Short-term	Long-term	
	1	2	3	4	5	6	7	8	9	10	11		12
1998 Q2	118.2	111.3	-5.9	-3.7	-2.2	56.6	22.5	34.1	67.5	9.1	58.4	6.4
Q3	81.1	82.2	2.8	1.4	1.4	27.6	-15.0	42.6	50.7	1.2	49.4	-0.7
Q4	160.2	151.0	8.3	2.8	5.5	75.8	37.3	38.5	76.0	7.1	68.9	3.5
1999 Q1	89.6	75.6	-7.7	0.3	-8.0	21.1	23.3	-2.2	76.2	9.2	67.0	1.9
Q2	162.7	133.2	-4.1	2.7	-6.8	89.6	41.2	48.4	77.2	3.9	73.3	23.9
Q3	70.6	71.5	-14.7	-1.1	-13.6	17.3	-16.7	34.0	67.9	-0.3	68.2	8.4
Q4	170.4	146.6	15.1	4.2	10.9	86.4	34.0	52.4	68.8	8.8	60.0	-7.0
2000 Q1	141.6	108.8	-8.3	-0.9	-7.4	91.9	54.7	37.2	58.0	1.6	56.4	15.1
Q2	163.4	118.4	-5.9	0.9	-6.8	113.4	62.2	51.3	55.9	9.8	46.1	-0.8
Q3	132.1	91.6	-16.2	-2.1	-14.1	96.6	53.4	43.2	51.8	0.0	51.8	23.2
Q4	185.0	140.1	15.6	2.1	13.5	116.3	19.6	96.7	53.1	5.3	47.7	1.9
<i>Euro area enlargement</i>												
2001 Q1	95.4	78.2	-3.8	-0.5	-3.3	62.1	38.1	24.0	37.1	-4.2	41.3	9.2
Q2	104.5	88.0	-17.3	0.3	-17.7	64.7	20.9	43.7	57.2	6.1	51.1	33.6
Q3	83.6	57.9	-6.0	2.9	-8.9	50.6	-15.8	66.4	38.9	-4.1	43.1	-38.0
Q4	103.8	94.3	18.6	5.5	13.1	35.9	-18.0	53.9	49.3	2.2	47.1	4.1
2002 Q1	73.6	63.2	4.4	2.7	1.6	30.1	-4.0	34.0	39.1	-5.2	44.3	20.5
Q2	.	87.7	.	.	.	.	.	.	.	.	.	.

	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
1998 Q2	53.3	50.6	-1.3	51.9	2.7	-1.8	4.4	36.8	-2.1	2.2	
Q3	61.3	54.0	2.1	52.0	7.3	1.6	5.7	10.1	-0.4	2.2	
Q4	-10.5	-15.4	-31.0	15.6	4.8	0.5	4.4	40.1	6.4	1.9	
1999 Q1	73.9	60.5	1.1	59.4	13.4	10.4	3.0	10.8	6.6	2.3	
Q2	37.9	29.3	-7.4	36.7	8.5	0.6	8.0	34.4	-10.3	2.3	
Q3	55.9	37.8	-10.8	48.6	18.2	8.3	9.8	35.4	1.0	2.3	
Q4	-12.1	-19.7	-27.7	8.0	7.6	3.3	4.3	43.0	12.1	2.3	
2000 Q1	60.8	58.9	10.0	48.9	1.8	0.5	1.4	19.4	-2.2	1.9	
Q2	37.1	23.0	-1.0	23.9	14.1	10.2	3.9	29.7	0.0	1.9	
Q3	49.3	25.5	-2.7	28.2	23.8	7.2	16.6	72.2	-0.4	1.9	
Q4	-1.0	-17.7	-27.0	9.3	16.7	5.2	11.5	51.6	6.4	1.8	
<i>Euro area enlargement</i>											
2001 Q1	76.0	38.5	32.3	6.1	37.5	11.0	26.5	54.7	1.1	2.2	
Q2	86.1	60.3	10.7	49.6	25.7	11.0	14.7	46.5	0.4	2.2	
Q3	49.0	30.0	8.7	21.3	19.0	14.1	4.9	17.6	0.2	2.2	
Q4	6.2	-11.1	-22.1	11.0	17.3	-1.6	18.9	7.3	10.1	-0.5	
2002 Q1	110.8	96.7	21.5	75.2	14.1	6.9	7.2	10.9	9.3	2.4	
Q2	.	.	.	.	.	.	.	.	.	.

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, 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) Including non-profit institutions serving households.

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

Table 6.2

Saving, investment and financing ¹⁾

(EUR billions (ECU billions to 1998), 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	367.5	1,092.4	-751.6	26.6	0.1	1,528.1	0.7	484.6	222.1	420.9	164.6	201.1	34.1
1996	340.2	1,121.8	-783.6	1.7	0.4	1,730.6	-3.0	395.0	398.1	384.4	312.5	193.6	50.0
1997	352.2	1,138.2	-796.9	10.8	0.1	1,913.3	-0.2	393.4	331.9	446.4	482.9	222.1	36.8
1998	412.3	1,202.4	-822.9	32.5	0.2	2,370.8	11.0	430.2	361.7	511.0	815.5	209.7	31.6
1999	450.0	1,291.9	-861.2	19.2	0.1	3,040.6	1.3	552.7	433.9	883.9	899.5	255.2	14.1
2000	489.6	1,388.2	-910.8	28.6	-16.3	2,778.7	1.3	350.4	256.2	802.9	1,110.6	250.5	6.8
<i>Euro area enlargement</i>													
2001	458.6	1,434.3	-969.7	-6.4	0.5	2,510.3	-0.5	591.6	473.2	697.4	547.9	248.7	-48.0

	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	414.0	1,158.3	-751.6	7.3	1,481.6	477.7	277.7	380.7	139.9	205.6
1996	413.2	1,188.6	-783.6	8.2	1,657.6	472.4	378.0	335.2	275.8	196.2
1997	458.8	1,241.3	-796.9	14.4	1,806.7	509.2	319.0	375.6	373.1	229.8
1998	488.2	1,298.7	-822.9	12.4	2,294.8	645.9	322.5	472.8	634.2	219.4
1999	504.4	1,354.2	-861.2	11.4	2,986.2	927.1	493.2	750.5	552.8	262.5
2000	526.7	1,425.9	-910.8	11.6	2,741.7	533.6	411.0	823.9	720.2	253.0
<i>Euro area enlargement</i>										
2001	511.9	1,471.3	-969.7	10.4	2,457.1	683.2	477.8	565.2	483.0	248.0

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	155.9	570.0	-438.3	219.9	33.4	10.0	39.9	64.5	236.0	530.3	139.9	-87.3	126.0	90.6
1996	137.3	589.8	-454.4	262.0	54.4	-13.8	55.4	85.9	123.6	536.0	275.7	6.8	144.1	117.2
1997	158.5	615.8	-468.9	238.8	24.4	-12.7	46.1	94.0	110.0	543.8	287.4	12.1	154.2	111.5
1998	203.7	661.3	-487.4	418.3	55.0	-9.7	87.8	199.9	146.9	590.3	475.1	25.8	243.6	197.1
1999	221.4	708.2	-508.4	596.7	26.6	58.7	175.0	301.2	108.3	571.8	709.8	47.7	416.8	230.5
2000	322.7	776.7	-542.1	803.3	69.9	69.5	167.3	414.5	95.6	595.3	1,030.5	56.4	544.4	425.3
<i>Euro area enlargement</i>														
2001	223.0	802.0	-576.2	531.9	83.1	53.5	135.6	178.3	74.5	605.6	680.4	99.6	309.1	264.8

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	160.3	350.5	-192.5	431.1	185.2	82.4	1.2	178.7	454.5	605.6	136.9	135.8	3,445.2	17.6
1996	158.2	360.5	-203.7	439.6	145.6	24.3	93.6	189.0	436.4	620.2	161.3	160.1	3,520.3	17.6
1997	154.2	351.4	-198.7	427.5	69.1	-18.8	194.9	215.8	413.2	588.3	168.5	167.1	3,613.4	16.3
1998	161.8	361.2	-203.1	450.7	95.5	-115.5	290.2	204.4	399.8	567.8	212.7	211.4	3,726.8	15.2
1999	175.2	393.3	-215.2	485.2	115.4	6.7	199.5	242.7	391.7	558.9	268.7	267.2	3,853.9	14.5
2000	181.3	413.3	-224.6	428.2	52.2	83.2	129.0	242.9	387.7	565.6	221.8	220.1	4,004.4	14.1
<i>Euro area enlargement</i>														
2001	173.2	420.0	-243.2	421.7	179.6	102.4	73.8	234.4	424.4	617.4	170.5	168.6	4,270.3	14.5

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	Received by EU institutions	Social contributions		Sales	Capital revenue		Memo: fiscal burden ²⁾
		Direct taxes	Households	Corporations	Employers	Employees			Capital taxes					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1992	47.5	46.7	11.9	9.8	2.0	13.0	0.9	17.2	8.7	5.4	2.4	0.7	0.6	42.6
1993	48.1	47.6	12.1	10.0	2.0	13.2	0.8	17.5	8.7	5.5	2.5	0.5	0.3	43.1
1994	47.6	47.2	11.6	9.5	2.0	13.5	0.8	17.5	8.5	5.7	2.5	0.5	0.2	42.8
1995	47.2	46.6	11.6	9.5	2.0	13.3	0.9	17.3	8.4	5.6	2.5	0.5	0.3	42.6
1996	48.0	47.5	12.0	9.6	2.3	13.4	0.8	17.6	8.7	5.6	2.5	0.5	0.3	43.3
1997	48.3	47.6	12.2	9.6	2.6	13.6	0.7	17.6	8.8	5.5	2.5	0.7	0.4	43.7
1998	47.7	47.2	12.4	9.9	2.5	14.1	0.7	16.5	8.5	4.9	2.5	0.5	0.3	43.3
1999	48.2	47.7	12.8	10.1	2.6	14.4	0.6	16.4	8.5	4.9	2.5	0.6	0.3	43.8
2000	47.9	47.4	13.0	10.2	2.7	14.2	0.6	16.2	8.4	4.9	2.4	0.5	0.3	43.7

Euro area enlargement

2001	47.3	46.8	12.7	10.0	2.6	13.9	0.6	16.0	8.4	4.8	2.3	0.5	0.3	42.9
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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	Paid by EU institutions	Investment	Capital transfers		Paid by EU institutions	
														1	2	3	4	5	6	7	8	9	10	11	12	13	14
1992	52.4	47.7	11.4	5.0	5.7	25.6	21.9	2.4	0.5	4.7	3.2	1.5	0.0	46.7
1993	53.8	49.2	11.6	5.1	5.9	26.6	22.9	2.5	0.6	4.6	3.1	1.6	0.0	47.9
1994	52.7	48.4	11.3	5.0	5.5	26.6	22.9	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	22.8	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	23.2	2.2	0.6	4.0	2.6	1.4	0.0	46.6
1997	50.9	47.1	11.0	4.8	5.1	26.3	23.1	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	25.9	22.6	2.1	0.5	3.9	2.4	1.5	0.1	45.2
1999	49.5	45.4	10.7	4.7	4.2	25.8	22.6	2.0	0.5	4.1	2.5	1.6	0.1	45.3
2000	48.8	44.8	10.5	4.7	4.0	25.5	22.2	1.9	0.5	4.0	2.5	1.5	0.0	44.8

Euro area enlargement

2001	48.8	44.5	10.5	4.7	3.9	25.3	22.2	1.9	0.5	4.3	2.6	1.6	0.0	44.8
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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
1992	-4.9	-4.3	-0.3	-0.2	0.0	0.8	20.8	11.4	5.0	5.0	1.8	-2.4	8.8	12.0
1993	-5.7	-5.0	-0.4	-0.2	-0.1	0.2	21.2	11.6	5.1	5.0	1.9	-2.5	8.9	12.3
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	8.6	12.2
1995	-5.0	-4.2	-0.5	-0.1	-0.3	0.7	20.5	11.2	4.8	5.1	1.8	-2.5	8.4	12.1
1996	-4.3	-3.6	-0.4	-0.1	-0.2	1.4	20.6	11.2	4.8	5.2	1.8	-2.5	8.5	12.1
1997	-2.6	-2.3	-0.4	0.1	0.0	2.5	20.4	11.0	4.8	5.1	1.8	-2.5	8.4	12.0
1998	-2.2	-2.2	-0.2	0.1	0.1	2.5	20.0	10.7	4.6	5.1	1.7	-2.5	8.1	11.9
1999	-1.3	-1.6	-0.1	0.1	0.4	2.9	20.0	10.7	4.7	5.1	1.7	-2.5	8.2	11.8
2000	-0.9	-1.3	-0.2	0.1	0.4	3.1	20.0	10.5	4.7	5.1	1.7	-2.4	8.1	11.8

Euro area enlargement

2001	-1.5	-1.6	-0.4	0.1	0.4	2.5	20.0	10.5	4.7	5.1	1.7	-2.3	8.1	11.9
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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
1998	-0.7	-2.2	-2.5	-2.7	-2.7	2.4	-2.8	3.1	-0.8	-2.4	-2.6	1.3
1999	-0.5	-1.5	-1.9	-1.1	-1.6	2.2	-1.8	3.6	0.7	-2.3	-2.4	1.9
2000	0.1	1.1	-0.8	-0.6	-1.3	4.4	-0.5	5.6	2.2	-1.5	-2.9	7.0
2001	0.4	-2.8	.	-0.1	-1.4	1.5	-2.2	6.1	0.1	0.2	-4.1	4.9

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 licences in 2000 (the euro area deficit / surplus including those proceeds is equal to 0.2). Data before 1995 are partially estimated. Transactions between countries and EU institutions are included and consolidated. Transactions among governments are not consolidated.
- 2) The fiscal burden comprises taxes and social contributions.
- 3) Comprises social benefits, social transfers in kind via market producers and transfers to non-profit institutions serving households.
- 4) Comprises total expenditure minus interest expenditure.
- 5) Corresponds to final consumption expenditure (P.3) of the general government in the ESA 95.
- 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	MFI	Other financial corporations	Other sectors	
1	2	3	4	5	6	7	8	9	10	
1992	61.0	2.6	16.2	10.1	32.0	50.3	26.4	7.6	16.3	10.7
1993	67.3	2.7	17.0	10.0	37.6	52.5	27.6	8.7	16.2	14.8
1994	70.0	2.9	16.1	10.3	40.6	55.8	29.8	9.9	16.0	14.2
1995	74.2	2.9	17.7	9.9	43.8	58.3	30.5	10.9	16.9	15.9
1996	75.4	2.9	17.2	9.9	45.5	58.9	30.3	13.2	15.5	16.5
1997	74.9	2.8	16.3	8.9	46.8	56.9	29.0	14.4	13.4	17.9
1998	73.1	2.8	15.1	7.9	47.3	53.3	27.0	16.2	10.2	19.8
1999	71.9	2.9	14.1	6.9	48.0	49.7	25.3	14.8	9.6	22.3
2000	69.4	2.7	13.0	6.2	47.5	45.9	22.8	13.3	9.8	23.6
<i>Euro area enlargement</i>										
2001	69.2	2.6	12.6	6.3	47.7	44.8	22.2	12.2	10.4	24.4

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
1992	61.0	49.8	4.7	6.1	0.4	12.3	48.7	6.4	17.8	21.1	22.1	59.7	2.2	1.3
1993	67.3	55.3	5.2	6.3	0.6	12.0	55.3	6.7	18.5	24.4	24.4	65.6	2.9	1.7
1994	70.0	57.9	5.4	6.1	0.5	11.2	58.8	7.4	16.6	26.7	26.7	68.1	3.0	1.9
1995	74.2	61.7	5.7	6.0	0.8	10.6	63.6	6.9	17.6	26.4	30.2	72.3	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	62.4	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	73.1	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	71.9	60.1	6.2	5.3	0.3	6.3	65.6	5.1	14.5	26.8	30.6	70.0	-	1.9
2000	69.4	57.9	6.1	5.1	0.3	5.5	63.9	4.5	14.4	27.4	27.6	67.6	-	1.8
<i>Euro area enlargement</i>														
2001	69.2	57.7	6.2	5.0	0.3	5.8	63.4	3.2	.	.	.	67.5	-	1.7

3. Euro area countries – government debt

	BE	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI
	1	2	3	4	5	6	7	8	9	10	11	12
1998	119.2	60.9	105.8	64.6	59.5	55.2	116.3	6.3	66.8	63.9	55.0	48.8
1999	114.9	61.2	104.3	63.1	58.5	49.7	114.5	6.0	63.1	64.9	54.4	46.8
2000	109.2	60.2	104.7	60.5	57.3	39.1	110.5	5.6	55.8	63.6	53.3	44.0
2001	107.6	59.5	.	57.1	57.3	36.4	109.8	5.6	52.8	63.2	55.5	43.4

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⁾
	1	2	3	4	5	6	7	8	9	10	11	12	13
1992	6.7	5.6	0.4	0.7	0.1	0.1	1.1	1.0	4.5	4.8	3.1	0.6	1.9
1993	8.0	7.5	0.3	0.1	0.1	0.2	1.2	0.1	6.5	3.6	2.0	1.3	4.4
1994	6.0	5.2	0.2	0.7	0.0	0.4	-0.1	0.9	4.9	5.9	3.6	1.7	0.2
1995	7.8	5.5	0.2	2.2	-0.2	0.2	2.3	0.0	5.2	5.3	2.2	1.5	2.4
1996	3.8	4.2	-0.2	0.1	-0.3	0.1	0.1	0.4	3.2	2.6	0.8	2.6	1.2
1997	2.3	2.4	0.2	-0.2	0.0	0.0	-0.2	-0.6	3.1	0.3	-0.1	1.8	2.0
1998	1.6	1.9	-0.2	0.0	0.0	0.1	-0.4	-0.6	2.6	-1.0	-0.8	2.4	2.7
1999	1.6	1.3	0.3	0.0	0.0	0.2	-0.4	-0.7	2.5	-1.6	-0.7	-0.7	3.2
2000	0.8	0.8	0.1	-0.1	0.0	0.0	-0.5	-0.3	1.7	-1.5	-1.3	-0.9	2.4
<i>Euro area enlargement</i>													
2001	1.7	1.7	0.0	0.1	0.0	0.0	-0.1	0.4	1.3	0.4	-0.1	-0.4	1.3

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	Privatisations	Equity injections				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1992	6.7	-4.9	1.8	0.7	0.1	0.1	0.3	0.2	-0.1	0.2	0.4	0.3	0.7	0.0
1993	8.0	-5.7	2.3	1.5	1.3	0.2	0.3	-0.2	-0.3	0.1	0.3	0.3	0.1	0.3
1994	6.0	-5.1	0.9	0.0	-0.2	0.1	0.3	-0.1	-0.4	0.2	0.2	0.0	0.7	0.1
1995	7.8	-5.0	2.7	0.6	0.1	-0.1	0.5	0.1	-0.4	0.2	0.2	0.0	2.2	-0.3
1996	3.8	-4.3	-0.5	-0.1	-0.1	0.0	0.0	-0.1	-0.3	0.2	-0.2	-0.2	0.1	-0.2
1997	2.3	-2.6	-0.3	-0.5	0.2	-0.1	-0.1	-0.5	-0.8	0.3	0.2	0.2	-0.2	0.3
1998	1.6	-2.2	-0.6	-0.5	0.2	0.0	0.0	-0.7	-0.8	0.3	-0.2	0.0	0.0	0.1
1999	1.6	-1.3	0.3	-0.2	0.3	0.1	0.1	-0.7	-0.9	0.2	0.3	0.2	0.0	0.2
2000	0.8	0.2	1.0	1.0	0.7	0.2	0.2	-0.1	-0.4	0.2	0.1	0.0	-0.1	0.0
<i>Euro area enlargement</i>														
2001	1.7	-1.4	0.3	-0.3	-0.5	0.1	0.1	0.0	-0.3	0.2	0.0	0.0	0.1	0.5

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

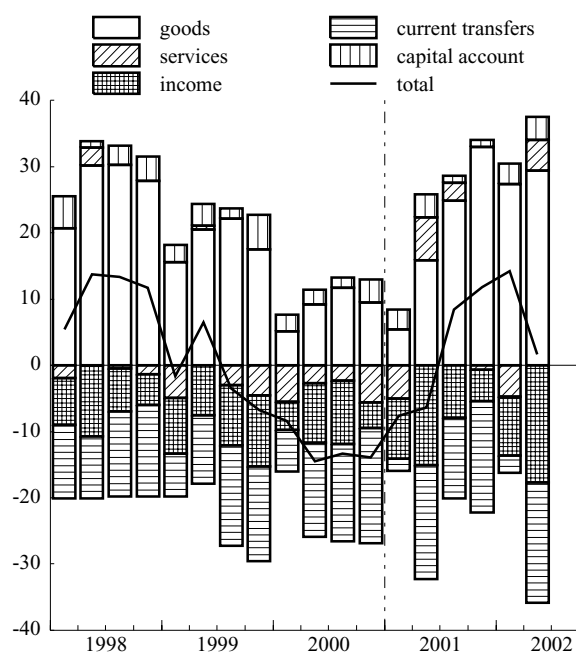
Summary balance of payments ^{1) 2)}

(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	62.1	116.4	3.1	-15.2	-42.2	13.0	.	-44.5	-24.3	.	.	.	.
1998	31.9	109.0	-1.1	-28.8	-47.2	12.4	-68.4	-81.3	-110.0	-8.2	123.0	8.2	24.1
1999	-18.3	75.6	-11.9	-35.7	-46.3	12.9	10.9	-118.1	-45.7	4.5	160.1	10.1	-5.5
2000	-59.9	35.6	-16.1	-26.7	-52.6	9.7	93.4	17.6	-111.5	-1.7	171.5	17.6	-43.2
<i>Euro area enlargement</i>													
2001	-2.3	79.2	3.5	-36.8	-48.2	8.5	-72.3	-103.3	36.4	-20.6	-2.7	17.8	66.1
2001 Q2	-9.9	15.9	6.5	-15.1	-17.2	3.5	-12.0	-51.7	25.7	0.7	10.8	2.5	18.4
Q3	7.4	24.8	2.7	-7.9	-12.2	1.0	-55.2	-22.4	49.6	-12.0	-72.8	2.5	46.7
Q4	10.7	33.0	-0.7	-4.7	-16.9	1.1	-35.8	11.5	-0.4	-7.2	-42.9	3.3	24.0
2002 Q1	11.1	27.4	-4.7	-8.9	-2.6	3.1	-28.3	-16.8	-54.8	0.3	46.1	-3.1	14.1
Q2	-1.8	29.4	4.6	-17.7	-18.2	3.5	-33.1	-2.7	57.7	-0.9	-94.2	6.9	31.5
2001 May	-2.2	4.4	2.8	-3.9	-5.4	0.5	-9.6	-41.5	15.1	3.6	16.8	-3.6	11.3
June	-1.0	8.4	2.1	-4.2	-7.3	0.8	-14.0	-11.0	29.8	-4.6	-27.4	-0.8	14.2
July	-0.2	10.9	1.5	-7.1	-5.4	0.4	-20.3	-1.5	3.2	-7.4	-14.5	0.0	20.0
Aug.	6.0	7.8	0.9	0.3	-3.0	0.6	-11.3	-7.0	2.4	-3.6	-7.2	4.1	4.7
Sep.	1.6	6.1	0.4	-1.1	-3.8	0.1	-23.6	-13.9	44.0	-1.0	-51.1	-1.6	22.0
Oct.	4.6	11.9	0.6	-2.4	-5.5	0.3	-23.0	3.8	-0.7	-2.7	-20.7	-2.6	18.2
Nov.	3.3	9.9	-1.1	-0.1	-5.4	0.2	-8.4	10.8	16.5	-2.9	-32.8	0.0	4.9
Dec.	2.8	11.2	-0.2	-2.2	-6.0	0.6	-4.3	-3.0	-16.2	-1.6	10.7	5.9	0.9
2002 Jan.	0.4	3.8	-2.5	-6.6	5.6	2.5	-50.0	-1.6	-41.8	2.5	-3.7	-5.3	47.1
Feb.	3.7	10.0	-1.8	-0.6	-3.8	0.2	6.4	-8.4	-14.3	1.4	25.2	2.5	-10.3
Mar.	7.1	13.6	-0.4	-1.7	-4.4	0.3	15.3	-6.8	1.3	-3.6	24.6	-0.2	-22.7
Apr.	-5.8	8.2	-0.1	-7.9	-6.0	1.3	-1.1	7.7	11.5	2.1	-30.8	8.3	5.6
May	0.1	9.2	2.8	-6.4	-5.5	1.1	4.9	5.1	32.0	-1.9	-32.4	2.1	-6.1
June	3.9	12.1	2.0	-3.4	-6.7	1.1	-36.9	-15.5	14.3	-1.1	-31.0	-3.5	31.9
July	2.6	14.2	0.9	-9.3	-3.2	0.5	-11.2	-3.6	14.2	-7.0	-12.3	-2.5	8.1

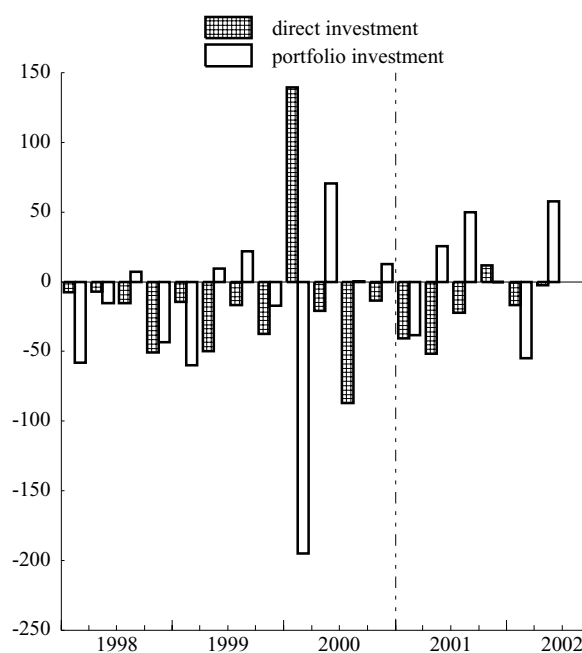
Current and capital accounts

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



Direct and portfolio investment

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



Source: ECB.

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

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

Table 8.2**Balance of payments: current and capital accounts 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	1,156.3	62.1	754.6	638.3	214.2	211.0	189.5	204.7	60.1	102.3	18.9	5.9
1998	1,277.7	1,245.8	31.9	784.4	675.4	231.9	233.0	198.5	227.3	63.0	110.1	17.7	5.3
1999	1,334.5	1,352.7	-18.3	818.1	742.5	244.5	256.4	207.0	242.7	64.8	111.1	19.1	6.3
2000	1,597.6	1,657.5	-59.9	986.8	951.3	279.5	295.7	264.0	290.7	67.2	119.9	18.3	8.7
<i>Euro area enlargement</i>													
2001	1,717.2	1,719.4	-2.3	1,038.3	959.1	318.7	315.2	285.5	322.3	74.8	122.9	16.4	7.9
2001 Q2	435.1	444.9	-9.9	262.7	246.8	83.0	76.5	74.4	89.5	15.0	32.2	5.3	1.8
Q3	424.7	417.3	7.4	255.1	230.3	86.0	83.2	69.0	76.9	14.7	26.9	2.7	1.7
Q4	434.1	423.4	10.7	266.0	233.0	81.0	81.7	71.5	76.2	15.5	32.4	4.0	3.0
2002 Q1	413.6	402.5	11.1	253.0	225.6	71.7	76.4	58.2	67.1	30.8	33.4	4.6	1.5
Q2	418.1	419.9	-1.8	261.0	231.6	80.8	76.1	61.9	79.6	14.3	32.5	5.0	1.6
2001 May	148.3	150.5	-2.2	89.0	84.7	28.3	25.6	26.0	29.9	4.9	10.3	1.4	1.0
June	148.1	149.1	-1.0	90.0	81.6	28.4	26.3	25.4	29.6	4.3	11.6	1.3	0.4
July	153.2	153.4	-0.2	91.7	80.8	30.8	29.3	25.7	32.8	5.1	10.5	1.0	0.6
Aug.	136.8	130.8	6.0	82.1	74.3	29.1	28.2	21.3	21.0	4.4	7.4	1.1	0.5
Sep.	134.7	133.1	1.6	81.3	75.2	26.1	25.8	22.0	23.1	5.2	9.0	0.6	0.5
Oct.	149.6	145.0	4.6	95.1	83.2	28.0	27.4	21.9	24.3	4.6	10.1	1.0	0.7
Nov.	138.8	135.5	3.3	89.3	79.4	24.6	25.7	20.1	20.2	4.7	10.2	0.9	0.6
Dec.	145.7	142.9	2.8	81.6	70.4	28.5	28.7	29.5	31.7	6.2	12.1	2.2	1.7
2002 Jan.	141.5	141.2	0.4	79.2	75.4	24.1	26.6	20.8	27.5	17.4	11.8	3.0	0.5
Feb.	131.5	127.9	3.7	82.5	72.5	22.7	24.5	19.3	19.9	7.1	10.9	0.8	0.6
Mar.	140.5	133.4	7.1	91.3	77.7	24.9	25.3	18.1	19.7	6.3	10.7	0.8	0.5
Apr.	136.1	141.9	-5.8	86.1	77.9	25.8	25.9	19.6	27.5	4.7	10.7	1.9	0.6
May	140.8	140.7	0.1	86.7	77.6	28.0	25.2	21.0	27.4	5.1	10.5	1.5	0.4
June	141.1	137.2	3.9	88.2	76.1	27.0	25.0	21.4	24.7	4.6	11.3	1.6	0.5
July	148.6	146.0	2.6	93.0	78.8	29.7	28.8	20.1	29.4	5.8	9.0	1.1	0.6

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
2000 Q2	387.3	407.2	-19.8	241.5	231.8	67.3	72.6	60.9	70.0	17.7	32.7
Q3	410.5	426.4	-16.0	252.9	245.0	71.6	74.2	70.2	79.0	15.8	28.2
Q4	431.7	449.5	-17.8	264.8	259.8	75.5	80.9	73.8	76.8	17.5	32.1
<i>Euro area enlargement</i>											
2001 Q1	428.7	435.8	-7.2	260.8	245.5	76.4	77.0	72.4	83.6	19.0	29.7
Q2	431.5	438.0	-6.5	263.5	246.3	80.7	78.1	68.9	80.5	18.3	33.1
Q3	432.5	427.1	5.4	260.0	239.4	80.4	80.1	73.4	79.3	18.8	28.3
Q4	423.6	413.9	9.7	254.9	227.0	79.6	78.2	70.7	77.3	18.3	31.4
2002 Q1	398.1	390.1	8.0	258.9	227.2	77.7	79.5	42.2	52.1	19.3	31.2
Q2	412.0	413.3	-1.3	258.1	229.8	78.8	77.9	57.6	71.8	17.6	33.9
2001 May	145.7	145.0	0.7	88.4	81.4	27.1	25.8	24.7	27.0	5.5	10.8
June	141.5	146.0	-4.5	88.2	82.1	26.4	26.3	21.4	26.1	5.6	11.5
July	146.5	148.6	-2.1	86.7	81.5	27.3	27.2	26.3	29.2	6.1	10.7
Aug.	146.7	140.7	6.0	89.1	80.0	27.0	27.1	24.5	25.8	6.1	7.8
Sep.	139.4	137.8	1.6	84.1	77.9	26.1	25.8	22.6	24.3	6.6	9.8
Oct.	141.7	138.0	3.7	85.7	76.7	26.3	25.7	23.3	25.3	6.4	10.4
Nov.	138.7	135.8	2.9	84.8	75.5	25.6	26.1	22.4	23.8	6.0	10.4
Dec.	143.2	140.1	3.1	84.4	74.9	27.7	26.4	25.1	28.2	6.0	10.6
2002 Jan.	133.8	132.6	1.2	83.7	74.4	26.8	26.9	16.2	22.3	7.1	9.0
Feb.	130.7	128.1	2.6	85.3	75.5	25.1	26.4	14.6	15.2	5.8	11.0
Mar.	133.6	129.4	4.2	89.9	77.4	25.8	26.2	11.4	14.6	6.4	11.2
Apr.	134.3	138.3	-4.0	82.8	75.7	26.1	26.7	19.6	24.5	5.8	11.4
May	138.2	136.9	1.3	86.1	75.0	26.7	25.5	19.6	25.0	5.8	11.5
June	139.5	138.1	1.4	89.2	79.1	26.0	25.8	18.4	22.2	5.9	11.0
July	138.2	138.3	-0.1	85.3	77.1	25.3	25.9	20.6	26.3	7.1	9.1

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	207.0	242.7	12.6	5.0	194.4	237.7	42.7	50.3	64.1	101.5	87.7	85.9
2000	264.0	290.7	13.2	5.4	250.8	285.2	57.4	59.3	74.6	106.9	118.7	119.0
<i>Euro area enlargement</i>												
2001	285.5	322.3	13.5	5.8	272.0	316.4	68.6	67.2	84.1	117.7	119.2	131.6
2001 Q1	70.6	79.6	3.3	1.1	67.2	78.5	15.6	15.4	17.8	26.3	33.8	36.8
Q2	74.4	89.5	3.4	1.5	71.0	88.0	18.8	15.4	21.5	39.4	30.7	33.3
Q3	69.0	76.9	3.3	1.7	65.6	75.2	15.1	15.1	22.4	29.1	28.1	31.0
Q4	71.5	76.2	3.4	1.6	68.1	74.7	19.1	21.2	22.3	22.9	26.6	30.6
2002 Q1	58.2	67.1	3.4	1.2	54.8	65.9	11.2	12.4	19.1	27.6	24.5	25.9

	Income on direct investment				Income on portfolio investment			
	Equity		Debt		Equity		Debt	
	Credit 13	Debit 14	Credit 15	Debit 16	Credit 17	Debit 18	Credit 19	Debit 20
1999	36.2	46.1	6.4	4.2	9.5	34.0	54.6	67.5
2000	47.4	52.2	10.0	7.1	14.2	30.6	60.5	76.3
<i>Euro area enlargement</i>								
2001	58.4	58.9	10.2	8.3	16.5	38.8	67.7	78.9
2001 Q1	13.1	13.0	2.5	2.4	2.4	7.0	15.4	19.4
Q2	16.2	13.0	2.6	2.4	5.3	17.1	16.2	22.3
Q3	12.9	13.5	2.2	1.7	3.9	8.6	18.5	20.5
Q4	16.1	19.4	3.0	1.8	4.8	6.2	17.5	16.7
2002 Q1	9.1	11.1	2.1	1.3	4.4	7.2	14.7	20.4

Source: ECB.

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

	Abroad							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	-93.1	.	.	.	.	.	48.6	.	.	.	.	.	.
1998	-172.8	.	.	.	.	.	91.5	.	.	.	.	.	.
1999	-315.6	-234.7	-22.6	-212.1	-81.0	-1.7	-79.3	197.5	144.2	3.6	140.6	53.3	0.2	53.1
2000	-382.4	-283.6	-24.7	-258.9	-98.7	-2.2	-96.5	400.0	296.4	11.7	284.7	103.6	0.2	103.5
<i>Euro area enlargement</i>														
2001	-225.5	-139.8	-12.3	-127.4	-85.8	-0.7	-85.1	122.3	77.8	7.0	70.8	44.5	0.4	44.0
2001 Q2	-80.6	-59.2	-5.0	-54.2	-21.4	-0.2	-21.2	28.9	16.4	-0.2	16.6	12.4	-0.1	12.5
Q3	-46.6	-28.0	-0.9	-27.1	-18.5	-0.4	-18.2	24.1	15.7	-0.9	16.5	8.5	0.0	8.4
Q4	-33.0	-26.0	-1.8	-24.3	-7.0	-0.1	-6.9	44.5	17.0	8.6	8.4	27.6	0.1	27.5
2002 Q1	-42.3	-28.1	-2.2	-25.9	-14.2	0.0	-14.2	25.5	11.8	1.2	10.7	13.6	-0.1	13.7
Q2	-36.7	-23.1	-5.9	-17.2	-13.6	-0.2	-13.4	34.0	18.9	0.7	18.3	15.1	0.0	15.1
2001 May	-51.8	-41.3	-2.2	-39.1	-10.5	0.0	-10.5	10.3	10.2	0.9	9.3	0.1	0.1	0.0
June	-21.9	-8.5	0.4	-8.9	-13.4	-0.1	-13.3	10.9	3.4	0.1	3.3	7.5	-0.1	7.7
July	-15.8	-16.3	-0.1	-16.2	0.5	-0.1	0.6	14.2	10.7	0.0	10.6	3.6	0.0	3.6
Aug.	-10.7	-5.9	-1.1	-4.8	-4.8	-0.1	-4.7	3.7	-1.9	-0.8	-1.1	5.6	0.0	5.6
Sep.	-20.1	-5.8	0.3	-6.1	-14.2	-0.2	-14.1	6.2	6.9	-0.1	7.0	-0.8	0.0	-0.8
Oct.	4.8	-10.5	-0.6	-9.8	15.3	0.0	15.3	-1.1	-7.4	0.4	-7.8	6.3	0.0	6.3
Nov.	-16.2	-5.9	0.4	-6.3	-10.3	0.0	-10.3	27.0	11.8	1.9	9.8	15.2	0.0	15.2
Dec.	-21.6	-9.7	-1.5	-8.1	-11.9	0.0	-11.9	18.6	12.6	6.3	6.3	6.0	0.0	6.0
2002 Jan.	-8.1	-8.0	-0.5	-7.5	0.0	0.0	0.0	6.5	1.5	0.2	1.3	5.0	0.0	5.0
Feb.	-19.7	-4.9	-0.3	-4.6	-14.9	0.0	-14.9	11.3	3.3	1.1	2.2	8.0	0.0	8.0
Mar.	-14.5	-15.2	-1.4	-13.7	0.7	-0.1	0.8	7.6	7.0	-0.1	7.1	0.6	-0.1	0.7
Apr.	-6.6	-3.0	-4.1	1.1	-3.6	0.0	-3.6	14.3	6.7	0.3	6.4	7.6	-0.1	7.6
May	-14.6	-9.2	-1.0	-8.2	-5.4	0.0	-5.4	19.7	9.0	0.6	8.4	10.7	0.0	10.7
June	-15.6	-11.0	-0.9	-10.1	-4.6	-0.2	-4.4	0.1	3.2	-0.2	3.5	-3.2	0.1	-3.3
July	-9.3	-12.2	-3.4	-8.8	2.9	0.0	2.9	5.7	2.2	0.8	1.4	3.5	0.1	3.4

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	149.3	121.6	27.7
1999	-311.4	265.7	-156.3	92.4	-155.1	-154.4	-0.7	173.4	117.4	55.9
2000	-412.8	301.2	-288.5	44.9	-124.3	-102.7	-21.6	256.3	229.6	26.7
<i>Euro area enlargement</i>										
2001	-270.1	306.5	-97.0	241.3	-173.1	-153.7	-19.4	65.2	76.2	-11.0
2001 Q2	-75.5	101.3	-42.5	108.7	-33.0	-46.6	13.6	-7.5	-1.6	-5.9
Q3	-24.0	73.7	-1.0	53.4	-23.0	-18.2	-4.8	20.2	29.8	-9.5
Q4	-87.7	87.2	-24.4	60.5	-63.3	-51.6	-11.6	26.7	23.4	3.3
2002 Q1	-72.0	17.2	-32.6	31.5	-39.4	-19.6	-19.8	-14.3	0.8	-15.1
Q2	-42.0	99.7	-14.4	26.4	-27.5	-19.6	-8.0	73.3	48.1	25.2
2001 May	-28.1	43.2	-14.5	58.8	-13.6	-17.0	3.5	-15.7	-12.8	-2.8
June	-26.8	56.6	-11.6	38.9	-15.2	-17.8	2.6	17.7	14.3	3.3
July	-14.9	18.2	-10.2	15.4	-4.7	-9.1	4.4	2.8	2.4	0.4
Aug.	-23.0	25.4	-4.7	13.6	-18.3	-16.9	-1.5	11.8	18.7	-6.9
Sep.	13.9	30.1	13.9	24.4	0.1	7.7	-7.6	5.6	8.6	-2.9
Oct.	-35.4	34.7	-7.9	23.0	-27.5	-19.4	-8.1	11.7	8.0	3.7
Nov.	-41.1	57.6	-10.0	24.8	-31.1	-17.7	-13.4	32.9	35.0	-2.2
Dec.	-11.1	-5.1	-6.5	12.7	-4.6	-14.5	9.8	-17.9	-19.6	1.7
2002 Jan.	-28.5	-13.3	-14.7	15.1	-13.9	-2.2	-11.6	-28.4	-14.8	-13.6
Feb.	-16.3	2.0	-8.6	7.3	-7.8	-4.4	-3.3	-5.2	-0.8	-4.4
Mar.	-27.1	28.4	-9.4	9.1	-17.7	-12.9	-4.8	19.4	16.4	3.0
Apr.	-8.5	20.0	-3.0	2.3	-5.6	-8.6	3.0	17.8	10.0	7.8
May	-26.2	58.2	-5.8	27.6	-20.4	-12.2	-8.3	30.5	13.9	16.6
June	-7.2	21.5	-5.7	-3.5	-1.5	1.2	-2.7	25.0	24.2	0.8
July	-15.9	30.1	-7.2	3.0	-8.7	-3.0	-5.7	27.1	17.8	9.3

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	-155.0	-2.1	-152.8	0.1	-15.4	-139.1	-1.7	-137.4	0.9	-8.1	6.5	-0.1	6.7
2000	0.0	-4.4	-284.1	-2.5	-281.6	-1.7	-72.7	-28.4	-1.2	-27.2	2.2	-11.5	-12.2	-0.7	-11.5
<i>Euro area enlargement</i>															
2001	-0.4	3.3	-100.0	-2.0	-97.9	1.9	-70.5	-85.1	-0.9	-84.2	-2.4	-33.1	16.1	0.1	16.0
2001 Q2	0.0	6.3	-48.8	-0.7	-48.0	0.7	-22.3	-25.0	0.0	-25.0	-0.7	2.1	12.2	-0.1	12.3
Q3	-0.1	3.3	-4.3	-0.4	-3.9	1.0	4.2	-23.4	-0.1	-23.3	0.1	-13.4	8.6	-0.5	9.1
Q4	-0.1	4.7	-28.9	-0.5	-28.4	-0.7	-36.2	-14.7	-0.3	-14.5	-0.3	-3.8	-7.5	1.9	-9.5
2002 Q1	0.0	-4.9	-27.8	-1.4	-26.3	0.2	-4.7	-15.1	-0.5	-14.7	0.8	-13.5	-7.0	-1.1	-5.9
Q2	0.0	-1.8	-12.6	.	.	-0.2	-7.7	-11.6	.	.	.	.	.	.	.
2002 Feb.	0.0	1.1	-9.7	.	.	0.2	-3.9	-0.7	.	.	1.4	-5.2	0.5	.	.
Mar.	0.0	-3.3	-6.0	.	.	0.1	-3.6	-9.4	.	.	-0.3	-1.5	-3.0	.	.
Apr.	0.0	1.8	-4.8	.	.	0.2	2.0	-10.8	.	.	0.5	-0.8	3.3	.	.
May	0.0	-3.9	-1.8	.	.	0.0	-3.9	-8.2	.	.	-1.0	-1.6	-5.7	.	.
June	0.0	0.3	-6.0	.	.	-0.3	-5.9	7.4	.	.	.	.	.	.	.
July	0.0	0.2	-7.3	.	.	0.5	3.5	-7.0	.	.	.	.	.	.	.

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		Eurosystem		General government		MFIs (excluding the Eurosystem)						Other sectors	
	Assets 1	Liabilities 2	Assets 3	Liabilities 4	Assets 5	Liabilities 6	Total		Long-term		Short-term		Assets 13	Liabilities 14
							Assets 7	Liabilities 8	Assets 9	Liabilities 10	Assets 11	Liabilities 12		
1998	-81.9	204.9	-0.7	3.5	-1.0	-6.1	-22.6	192.4	-37.6	40.4	15.0	152.0	-57.6	15.2
1999	-32.5	192.6	-2.0	6.6	3.3	-13.0	18.1	161.1	-47.2	53.8	65.3	107.3	-51.8	37.8
2000	-178.9	350.5	-1.1	0.9	-2.5	1.0	-131.3	289.6	-49.3	53.0	-82.0	236.6	-44.0	58.9
<i>Euro area enlargement</i>														
2001	-240.8	238.1	0.6	4.4	3.2	-1.2	-221.7	230.4	-43.6	22.0	-178.1	208.4	-22.9	4.5
2001 Q2	8.1	2.6	-0.8	4.3	-0.3	2.8	12.0	-9.1	-10.2	17.0	22.2	-26.1	-2.7	4.7
Q3	-55.1	-17.7	1.0	-0.9	-0.1	0.0	-53.0	-30.1	-7.8	11.2	-45.2	-41.3	-3.0	13.3
Q4	-57.7	14.8	-0.4	3.7	1.2	4.2	-45.7	7.8	-18.1	-8.1	-27.6	15.9	-12.9	-1.0
2002 Q1	26.4	19.7	-0.4	1.2	0.2	-8.4	22.0	26.6	0.7	11.8	21.3	14.8	4.7	0.2
Q2	-85.2	-9.0	-0.6	-3.5	-2.5	1.6	-63.2	-12.1	-7.4	20.6	-55.8	-32.7	-19.0	5.1
2001 May	2.3	14.5	-0.3	1.6	1.2	2.4	4.7	4.9	-7.3	4.2	12.0	0.7	-3.4	5.6
June	-1.2	-26.2	-0.3	4.2	-1.3	1.2	-7.2	-30.2	-2.6	7.4	-4.6	-37.6	7.5	-1.4
July	46.3	-60.9	0.7	-0.4	-1.6	0.8	46.0	-67.3	-2.0	1.9	48.0	-69.2	1.2	6.0
Aug.	-30.7	23.5	0.1	-2.4	1.7	-2.6	-31.6	24.9	-5.9	3.7	-25.7	21.2	-0.9	3.6
Sep.	-70.8	19.7	0.1	1.9	-0.1	1.7	-67.4	12.4	0.1	5.6	-67.5	6.7	-3.4	3.8
Oct.	-33.0	12.2	-0.5	4.5	-0.6	2.1	-22.5	6.1	-3.7	2.1	-18.8	4.0	-9.4	-0.5
Nov.	-59.4	26.6	0.0	2.0	1.8	2.5	-53.0	23.0	-9.8	-13.5	-43.2	36.5	-8.3	-0.9
Dec.	34.7	-24.0	0.1	-2.8	0.1	-0.4	29.8	-21.3	-4.7	3.3	34.4	-24.6	4.8	0.4
2002 Jan.	3.8	-7.5	-0.7	2.6	-1.1	-8.8	15.7	0.7	-0.4	6.4	16.2	-5.7	-10.2	-2.0
Feb.	27.8	-2.6	-0.1	-3.8	1.3	-1.6	6.4	12.6	-5.6	1.4	12.0	11.2	20.3	-9.8
Mar.	-5.2	29.8	0.4	2.4	0.1	2.1	-0.2	13.2	6.7	3.9	-6.9	9.3	-5.4	12.1
Apr.	-51.4	20.6	-0.4	-4.3	0.5	-0.5	-29.6	21.1	-4.3	7.7	-25.3	13.4	-22.0	4.4
May	-63.6	31.3	-0.1	-0.5	-1.2	-0.6	-56.1	34.5	-5.5	8.4	-50.6	26.1	-6.2	-2.2
June	29.8	-60.9	-0.1	1.3	-1.8	2.7	22.5	-67.7	2.4	4.5	20.2	-72.3	9.2	2.9
July	-3.5	-8.7	0.4	2.7	-0.4	-1.2	11.1	-3.8	4.6	5.4	6.5	-9.2	-14.6	-6.4

2. Other investment by sector and instrument ¹⁾
2.1. Eurosystem

	Loans/currency and deposits			Other assets/liabilities		
	Assets 1	Liabilities 2	Balance 3	Assets 4	Liabilities 5	Balance 6
1999	-1.2	6.7	5.5	-0.8	-0.1	-0.9
2000	-1.1	0.9	-0.2	0.0	0.0	0.0
<i>Euro area enlargement</i>						
2001	0.6	4.5	5.0	0.0	0.0	0.0
2001 Q1	0.8	-2.7	-1.9	0.0	0.0	0.0
Q2	-0.8	4.3	3.5	0.0	0.0	0.0
Q3	1.0	-0.9	0.0	0.0	0.0	0.0
Q4	-0.4	3.8	3.4	0.0	0.0	0.0
2002 Q1	-0.4	1.2	0.7	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.

2.2. General government

	Trade credits			Loans/currency and deposits			Other assets/liabilities		
	Assets 7	Liabilities 8	Balance 9	Assets 10	Liabilities 11	Balance 12	Assets 13	Liabilities 14	Balance 15
1999	0.0	0.0	0.0	4.4	-13.1	-8.7	-1.2	0.2	-1.0
2000	0.1	0.0	0.1	-1.8	1.0	-0.8	-0.8	0.0	-0.8
<i>Euro area enlargement</i>									
2001	-0.1	0.0	-0.1	4.6	-1.2	3.4	-1.3	0.0	-1.3
2001 Q1	0.0	0.0	0.0	2.9	-8.0	-5.1	-0.5	-0.2	-0.7
Q2	0.0	0.0	0.0	0.1	2.7	2.8	-0.4	0.1	-0.3
Q3	0.0	0.0	0.0	0.2	0.0	0.2	-0.3	0.0	-0.3
Q4	0.0	0.0	0.0	1.4	4.1	5.5	-0.2	0.1	-0.1
2002 Q1	0.0	0.0	0.0	0.5	-8.1	-7.6	-0.3	-0.3	-0.6

2.3. MFIs (excluding the Eurosystem)

	Loans/currency and deposits			Other assets/liabilities		
	Assets 16	Liabilities 17	Balance 18	Assets 19	Liabilities 20	Balance 21
1999	17.3	160.4	177.7	0.8	0.7	1.5
2000	-127.3	284.3	157.0	-4.1	5.3	1.3
<i>Euro area enlargement</i>						
2001	-208.0	220.6	12.6	-13.7	9.8	-3.9
2001 Q1	-130.5	257.8	127.3	-4.5	3.9	-0.6
Q2	15.4	-11.9	3.5	-3.4	2.8	-0.6
Q3	-51.9	-31.9	-83.8	-1.1	1.8	0.7
Q4	-41.0	6.5	-34.4	-4.7	1.3	-3.4
2002 Q1	21.5	21.7	43.3	0.4	4.9	5.3

2.4. Other sectors

	Trade credits			Loans/currency and deposits			Other assets/liabilities		
	Assets 22	Liabilities 23	Balance 24	Assets 25	Liabilities 26	Balance 27	Assets 28	Liabilities 29	Balance 30
1999	-7.5	4.8	-2.7	-21.3	20.4	-1.0	-23.0	12.7	-10.3
2000	-14.9	10.4	-4.5	-23.8	53.6	29.8	-5.4	-5.0	-10.4
<i>Euro area enlargement</i>									
2001	-7.5	3.0	-4.5	-9.2	1.2	-8.0	-6.2	0.3	-5.8
2001 Q1	-4.8	4.2	-0.6	3.0	-16.3	-13.3	-2.5	-0.4	-3.0
Q2	-3.7	1.8	-1.9	2.1	3.9	6.0	-1.2	-1.0	-2.1
Q3	-1.7	-1.5	-3.2	0.3	13.6	13.9	-1.7	1.3	-0.4
Q4	2.5	-1.4	1.1	-14.6	0.0	-14.6	-0.8	0.4	-0.4
2002 Q1	-0.9	-1.2	-2.1	5.9	0.7	6.6	-0.3	0.8	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	6.9	12.5	-11.3	0.2	3.5	2.0	-0.1	0.0
2000	17.6	1.0	0.3	2.9	13.3	4.3	4.7	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
2001 Q1	9.5	0.3	-0.4	0.2	9.5	7.8	-8.2	-1.1	5.2	5.7	0.0	0.0
Q2	2.5	-0.1	-0.6	-0.7	4.0	0.2	-1.8	0.0	5.5	0.0	0.0	0.0
Q3	2.5	0.2	0.0	-4.5	6.7	-0.9	3.1	0.0	4.9	-0.4	0.0	0.0
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

Source: ECB.

1) Increase (-); decrease (+)

Table 8.7
International investment position and reserve assets outstanding
1. Net international investment position ¹⁾
(EUR billions (ECU billions in 1997); assets minus liabilities; end-of-period positions)

	Total	Direct investment			Portfolio investment					Financial derivatives	Other investment				Reserve assets
		Total	Equity (including reinvested earnings)	Other capital	Total	Equity securities	Debt instruments				Total	Trade credits	Loans/currency and deposits	Other assets/liabilities	
							Total	Bonds and notes	Money market instruments						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1997	32.7	177.6	148.6	29.1	-724.7	-358.7	-366.0	-339.8	-26.2	-5.9	222.4	79.8	51.3	91.4	363.3
1998	-147.9	152.2	124.2	28.0	-713.5	-462.0	-251.5	-229.0	-22.5	2.3	81.7	100.0	-107.1	88.8	329.4
1999	-75.0	402.4	318.9	83.5	-752.8	-591.3	-161.4	-108.4	-53.0	10.1	-107.3	111.9	-338.2	119.0	372.6
2000	-101.4	466.6	395.0	71.6	-666.8	-366.9	-299.9	-263.1	-36.7	7.0	-286.2	115.7	-530.4	128.5	378.0
<i>Euro area enlargement</i>															
2001 1 Jan.	-152.1	459.3	388.5	70.8	-721.5	-375.8	-345.7	-308.6	-37.1	7.0	-288.2	114.9	-531.6	128.5	391.2

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

2. Reserves and related assets of the Eurosystem and of the European Central Bank 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	In fine troy ounces (millions) ²⁾	Special drawing rights	Reserve position in the IMF	Foreign exchange							Financial derivatives		
						Total	Currency and deposits		Securities			Total			
							With monetary authorities and the BIS ⁷⁾	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.	372.6	116.4	402.762	4.5	24.3	227.5	12.8	23.8	191.1	0.0	134.3	56.7	-0.2	0.0	14.6
2000 Dec.	378.0	117.8	399.537	4.3	20.8	235.0	9.2	20.9	204.2	0.0	153.9	50.3	0.7	0.0	15.8
<i>Euro area enlargement</i>															
2001 1 Jan.	391.2	119.2	404.119	4.3	21.2	246.5	9.2	28.3	208.2	0.0	157.9	50.3	0.7	0.0	16.3
2001 Jan.	385.7	115.0	404.119	4.5	22.3	244.0	11.8	20.8	210.7	-	-	-	0.7	0.0	20.9
Feb.	383.9	116.5	404.119	4.8	21.3	241.3	10.4	22.3	207.8	-	-	-	0.8	0.0	21.2
Mar.	392.9	117.6	403.153	4.9	21.4	249.0	9.7	29.4	209.5	-	-	-	0.5	0.0	20.2
Apr.	386.3	119.5	403.153	4.9	21.1	240.8	11.5	24.3	204.6	-	-	-	0.4	0.0	23.4
May	408.5	127.2	403.153	5.6	22.3	253.4	10.6	27.6	215.0	-	-	-	0.2	0.0	22.9
June	410.0	128.6	403.089	5.7	22.9	252.8	9.8	31.6	211.2	-	-	-	0.2	0.0	22.7
July	397.1	122.3	402.639	5.5	22.7	246.6	8.5	36.5	201.2	-	-	-	0.4	0.0	23.8
Aug.	381.8	120.0	402.430	5.5	21.9	234.4	8.3	28.3	197.3	-	-	-	0.5	0.0	23.7
Sep.	393.4	129.0	401.904	5.4	25.8	233.2	10.2	25.9	196.7	-	-	-	0.4	0.0	21.9
Oct.	393.6	123.9	401.902	5.4	24.9	239.5	8.6	33.3	197.1	-	-	-	0.5	0.0	21.9
Nov.	396.5	124.4	401.903	5.4	24.7	241.9	7.9	33.7	199.9	-	-	-	0.4	0.0	22.2
Dec.	392.4	126.1	401.876	5.5	25.3	235.6	8.0	25.9	201.2	-	-	-	0.4	0.0	24.9
2002 Jan.	407.8	131.4	401.877	5.5	25.7	245.2	8.3	38.2	198.4	-	-	-	0.3	0.0	22.3
Feb.	411.4	137.9	401.798	5.6	26.0	242.0	9.0	35.6	197.2	-	-	-	0.2	0.0	22.6
Mar.	409.0	138.7	401.527	5.5	25.8	238.9	9.6	39.0	190.1	-	-	-	0.2	0.0	21.8
Apr.	394.2	137.0	400.564	5.3	24.2	227.7	10.3	34.2	182.9	-	-	-	0.3	0.0	23.8
May	386.6	139.3	400.324	5.2	23.4	218.7	11.5	33.9	173.0	-	-	-	0.3	0.0	23.0
June	367.0	127.8	400.197	4.7	26.3	208.2	11.2	32.1	164.5	-	-	-	0.4	0.0	20.0
July	372.0	124.6	400.199	4.8	26.6	216.0	9.9	37.9	167.8	-	-	-	0.4	0.0	20.0
Aug.	372.9	127.2	399.953	5.0	26.4	214.2	10.0	34.2	169.7	-	-	-	0.4	0.0	17.4
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	27.7	6.5	0.0	0.0	2.6
2000 Dec.	44.7	7.0	24.030	0.0	0.0	37.7	0.6	6.8	30.0	0.0	19.8	10.2	0.3	0.0	3.8
<i>Euro area enlargement</i>															
2001 Jan.	45.6	7.0	24.656	0.0	0.0	38.6	0.7	3.4	34.3	-	-	-	0.3	0.0	3.5
Feb.	46.3	7.1	24.656	0.0	0.0	39.2	0.6	4.5	33.9	-	-	-	0.3	0.0	3.0
Mar.	46.3	7.2	24.656	0.0	0.0	39.1	0.6	7.3	31.1	-	-	-	0.0	0.0	3.9
Apr.	44.8	7.3	24.656	0.0	0.0	37.5	0.8	5.7	31.0	-	-	-	0.0	0.0	3.6
May	49.6	7.8	24.656	0.0	0.0	41.9	0.8	7.1	34.0	-	-	-	0.0	0.0	2.7
June	50.7	7.9	24.656	0.1	0.0	42.8	0.9	9.6	32.3	-	-	-	0.0	0.0	3.1
July	49.8	7.5	24.656	0.1	0.0	42.3	1.0	11.7	29.6	-	-	-	0.0	0.0	2.9
Aug.	45.5	7.3	24.656	0.1	0.0	38.1	1.1	6.1	30.8	-	-	-	0.0	0.0	3.5
Sep.	44.5	7.9	24.656	0.1	0.0	36.5	1.4	4.4	30.6	-	-	-	0.0	0.0	3.9
Oct.	47.9	7.6	24.656	0.1	0.0	40.2	0.9	7.2	32.1	-	-	-	0.0	0.0	2.8
Nov.	48.3	7.6	24.656	0.1	0.0	40.6	0.9	6.1	33.6	-	-	-	0.0	0.0	3.2
Dec.	49.0	7.7	24.656	0.1	0.0	41.2	0.8	7.0	33.3	-	-	-	0.0	0.0	3.6
2002 Jan.	51.8	8.1	24.656	0.1	0.0	43.6	1.1	9.0	33.5	-	-	-	0.0	0.0	3.5
Feb.	51.1	8.5	24.656	0.1	0.0	42.6	1.1	9.5	32.0	-	-	-	0.0	0.0	3.7
Mar.	50.9	8.5	24.656	0.1	0.0	42.3	1.2	9.0	32.1	-	-	-	0.0	0.0	3.6
Apr.	48.7	8.4	24.656	0.1	0.0	40.2	1.8	7.8	30.6	-	-	-	0.0	0.0	3.7
May	46.8	8.6	24.656	0.1	0.0	38.1	1.4	7.9	28.9	-	-	-	0.0	0.0	4.0
June	45.6	7.9	24.656	0.1	0.0	37.7	1.2	9.0	27.5	-	-	-	0.0	0.0	3.7
July	46.9	7.7	24.656	0.1	0.0	39.1	1.1	9.9	28.1	-	-	-	0.0	0.0	3.4
Aug.	45.9	7.8	24.656	0.2	0.0	37.9	1.4	6.8	29.7	-	-	-	0.0	0.0	2.8

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 (ECU billions to end-1998); 2000=100 for columns 12 and 13)													
1998	797.1	369.9	179.9	214.0	697.8	711.4	393.5	123.0	175.9	540.3	41.6	79.2	71.1
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	1,057.4	486.5	234.0	283.8	923.5	1,008.6	570.7	176.2	223.8	730.9	107.1	105.8	98.7
2001 Q2	266.8	124.7	58.7	70.2	232.6	259.6	149.3	45.2	55.8	187.4	28.8	105.9	101.3
Q3	257.6	118.1	55.7	70.9	225.1	239.1	134.8	38.8	56.3	171.6	27.8	106.5	98.3
Q4	271.9	120.9	62.8	74.3	237.1	246.6	135.7	44.4	56.6	179.7	23.1	104.0	93.9
2002 Q1	256.2	117.9	53.8	71.9	223.8	238.9	134.9	39.4	55.4	174.5	23.6	106.4	94.0
Q2	270.1	125.5	57.3	73.3	231.9	245.5	140.4	39.5	55.5	172.7	24.9	106.3	94.8
2002 Feb.	83.2	38.1	17.2	23.9	72.7	77.7	43.7	12.7	18.2	56.5	8.1	105.7	94.2
Mar.	92.3	42.2	20.0	25.6	80.7	81.2	45.7	13.9	18.6	60.0	7.5	107.4	94.7
Apr.	89.8	41.4	18.8	25.0	78.0	84.7	48.0	14.0	19.2	60.6	8.5	106.2	95.9
May	90.3	42.6	19.3	24.0	78.5	81.7	46.9	13.2	18.3	58.2	8.5	108.1	95.2
June	90.1	41.6	19.2	24.3	75.5	79.1	45.5	12.2	17.9	53.9	7.9	104.5	93.2
July	92.0	42.9	20.1	25.2	81.2	79.9	45.0	12.4	18.8	57.4	4.4	102.1	92.4
Volumes (annual percentage changes; 2000=100 for columns 12 and 13) ³⁾													
1998	3.6	4.2	6.0	3.8	4.0	11.4	8.2	21.8	7.7	13.4	-4.5	87.6	89.7
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	1.7	-1.1	4.3	3.8	2.0	-1.6	-1.9	-5.7	-2.6	-3.7	-1.3	101.9	98.2
2001 Q2	2.9	0.7	4.2	5.0	3.2	-1.4	-1.5	-3.9	-2.6	-2.7	-0.5	101.6	98.4
Q3	0.3	-2.3	2.8	2.8	0.9	-4.4	-4.6	-11.1	-2.3	-6.7	-2.9	102.2	97.7
Q4	-2.7	-7.1	-1.1	1.0	-3.3	-2.8	-3.5	-13.0	-2.7	-6.7	-0.3	100.2	96.9
2002 Q1	.	.	.	.	.	.	.	.	.	.	.	.	.
Q2	.	.	.	.	.	.	.	.	.	.	.	.	.
2002 Feb.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	.	.	.	.	.	.	.	.	.	.	.	.	.
Apr.	.	.	.	.	.	.	.	.	.	.	.	.	.
May	.	.	.	.	.	.	.	.	.	.	.	.	.
June	.	.	.	.	.	.	.	.	.	.	.	.	.
July	.	.	.	.	.	.	.	.	.	.	.	.	.
Unit values (annual percentage changes; 2000=100 for columns 12 and 13) ³⁾													
1998	0.9	-0.7	0.8	2.0	1.5	-5.4	-6.5	-3.6	1.2	-1.1	-30.4	90.5	79.4
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	3.7	3.0	3.0	5.2	3.9	0.5	-0.3	3.1	5.0	2.8	-11.5	103.9	100.6
2001 Q2	5.8	5.1	4.2	7.0	5.7	6.0	6.3	5.3	7.5	6.1	4.3	104.3	103.0
Q3	3.1	0.8	2.3	6.6	3.0	-0.4	-2.3	2.4	5.3	2.2	-12.7	104.3	100.7
Q4	0.2	0.2	0.5	2.0	1.1	-10.5	-12.6	-2.9	-0.2	-5.2	-34.0	103.9	97.0
2002 Q1	.	.	.	.	.	.	.	.	.	.	.	.	.
Q2	.	.	.	.	.	.	.	.	.	.	.	.	.
2002 Feb.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mar.	.	.	.	.	.	.	.	.	.	.	.	.	.
Apr.	.	.	.	.	.	.	.	.	.	.	.	.	.
May	.	.	.	.	.	.	.	.	.	.	.	.	.
June	.	.	.	.	.	.	.	.	.	.	.	.	.
July	.	.	.	.	.	.	.	.	.	.	.	.	.

Sources: Eurostat and ECB calculations based on Eurostat data (volume calculations and seasonal adjustment of unit values).

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

2) The commodity breakdown in columns 2 to 4 and 7 to 9 is in accordance with the Classification by Broad Economic Categories. Manufactured goods (columns 5 and 10) and oil (column 11) are in accordance with the SITC Rev.3.

3) For 2001, unit value indices, which are also used for the estimation of volumes, refer to the euro area excluding Greece.

2. Geographical breakdown ¹⁾

(EUR billions (ECU billions to end-1998); not seasonally adjusted, unless otherwise indicated)

	Total 1	Total (s.a.) 2	United Kingdom 3	Sweden 4	Denmark 5	Candidate 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.)													
1998	797.1	-	150.5	31.6	20.6	101.5	51.1	120.3	23.9	114.9	49.7	42.4	90.5
1999	832.8	-	161.4	33.1	21.1	102.9	56.1	135.1	26.8	119.2	48.4	39.1	89.6
2000	1,013.7	-	189.7	38.8	23.2	131.0	63.4	171.4	34.2	151.6	56.1	46.7	107.8
Euro area enlargement													
2001	1,057.4	-	199.8	36.6	24.0	137.2	66.5	179.5	34.5	165.1	60.2	49.8	104.2
2001 Q2	266.8	265.4	50.8	9.1	6.0	34.5	16.8	45.4	8.4	41.1	15.5	12.9	26.5
Q3	257.6	266.9	49.0	8.3	5.9	32.9	16.2	43.9	8.2	40.4	14.5	12.1	26.3
Q4	271.9	260.8	50.1	9.5	6.1	36.0	16.3	44.9	8.8	43.2	15.8	12.6	28.5
2002 Q1	256.2	266.7	51.1	9.1	6.1	33.7	15.8	44.2	7.8	39.0	14.0	10.2	25.3
Q2	270.1	266.4	50.3	9.1	6.1	37.2	16.6	44.9	7.7	42.3	15.4	11.2	.
2002 Feb.	83.2	88.3	16.7	3.0	1.9	11.3	5.3	14.2	2.5	12.4	4.5	3.3	8.1
Mar.	92.3	89.8	18.2	3.2	2.1	12.1	5.7	15.8	2.8	14.5	5.1	3.8	9.1
Apr.	89.8	88.8	17.1	3.3	2.0	12.1	5.5	15.2	2.6	13.8	5.0	3.7	9.7
May	90.3	90.3	16.8	2.9	2.0	12.7	5.6	15.0	2.5	14.1	5.3	3.6	.
June	90.1	87.3	16.4	2.9	2.1	12.4	5.5	14.8	2.6	14.4	5.1	3.8	.
July	92.0	85.4	.	.	.	.	.	.	.	.	.	.	.
% change versus previous year													
2002 July	-0.9	-	.	.	.	.	.	.	.	.	.	.	.
Imports (c.i.f.)													
1998	711.4	-	122.6	30.9	17.4	71.6	40.9	104.8	48.5	132.0	45.8	29.3	67.6
1999	781.2	-	131.0	33.2	18.6	80.4	43.2	113.2	53.9	151.8	49.0	30.4	76.5
2000	1,008.4	-	156.6	38.0	21.8	101.2	49.8	140.7	65.5	211.6	72.2	39.7	111.5
Euro area enlargement													
2001	1,008.6	-	152.5	33.7	20.9	117.3	53.0	138.2	58.6	207.6	73.7	40.9	112.2
2001 Q2	259.6	259.1	39.4	8.6	5.0	29.7	13.2	36.2	15.7	52.2	19.0	11.3	29.4
Q3	239.1	251.4	35.4	7.6	5.1	28.4	12.1	31.3	13.1	51.0	17.9	10.2	27.0
Q4	246.6	240.2	38.4	8.5	5.6	30.0	14.0	32.7	13.5	50.2	17.0	9.5	27.2
2002 Q1	238.9	240.5	35.7	8.2	5.1	29.2	12.7	32.6	12.5	49.0	17.8	9.2	26.9
Q2	245.5	242.5	36.3	8.7	5.1	30.6	13.3	32.0	13.0	46.8	16.8	10.4	.
2002 Feb.	77.7	80.4	11.5	2.6	1.7	9.8	4.5	10.5	3.8	15.5	5.9	2.8	9.3
Mar.	81.2	80.8	12.5	2.9	1.7	10.3	4.3	11.2	4.4	16.4	5.7	3.3	8.6
Apr.	84.7	81.8	12.4	3.0	1.7	10.3	4.7	11.4	4.6	15.9	5.9	3.7	11.2
May	81.7	81.2	12.3	2.8	1.7	9.9	4.3	10.6	4.3	15.8	5.8	3.3	.
June	79.1	79.5	11.5	2.9	1.7	10.4	4.3	10.0	4.1	15.1	5.2	3.4	.
July	79.9	78.8	.	.	.	.	.	.	.	.	.	.	.
% change versus previous year													
2002 July	-4.9	-	.	.	.	.	.	.	.	.	.	.	.
Balance													
1998	85.7	-	28.0	0.7	3.2	29.9	10.2	15.5	-24.6	-17.1	3.9	13.1	22.9
1999	51.6	-	30.4	-0.1	2.6	22.5	12.9	21.9	-27.1	-32.6	-0.6	8.7	13.1
2000	5.3	-	33.1	0.8	1.4	29.8	13.6	30.7	-31.3	-60.0	-16.1	7.0	-3.7
Euro area enlargement													
2001	48.8	-	47.4	2.9	3.1	19.9	13.5	41.3	-24.1	-42.6	-13.5	8.9	-7.9
2001 Q2	7.2	6.3	11.4	0.5	1.0	4.8	3.6	9.2	-7.3	-11.0	-3.5	1.6	-2.9
Q3	18.5	15.5	13.5	0.6	0.8	4.5	4.1	12.6	-4.8	-10.6	-3.4	1.9	-0.7
Q4	25.3	20.6	11.7	1.0	0.5	5.9	2.3	12.3	-4.7	-7.0	-1.2	3.1	1.2
2002 Q1	17.3	26.2	15.4	0.9	1.0	4.5	3.1	11.6	-4.7	-10.0	-3.8	1.0	-1.7
Q2	24.7	23.9	14.0	0.5	1.1	6.5	3.2	12.9	-5.3	-4.5	-1.5	0.8	.
2002 Feb.	5.5	7.9	5.3	0.4	0.3	1.5	0.9	3.7	-1.3	-3.1	-1.3	0.5	-1.2
Mar.	11.1	9.0	5.7	0.2	0.4	1.8	1.4	4.6	-1.6	-1.9	-0.5	0.5	0.6
Apr.	5.1	7.0	4.7	0.3	0.3	1.7	0.8	3.7	-2.0	-2.1	-0.9	0.0	-1.5
May	8.6	9.1	4.5	0.1	0.3	2.8	1.2	4.4	-1.8	-1.7	-0.5	0.3	.
June	11.0	7.8	4.9	0.0	0.5	2.0	1.2	4.8	-1.5	-0.7	-0.1	0.5	.
July	12.0	6.5	.	.	.	.	.	.	.	.	.	.	.

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	100.5	90.4	96.6	1.134	137.1	1.644	0.692
1998	101.5	101.3	101.6	99.7	96.6	99.1	1.121	146.4	1.622	0.676
1999	95.7	95.7	95.7	96.2	96.6	95.8	1.066	121.3	1.600	0.659
2000	85.7	86.5	87.0	86.9	88.2	86.3	0.924	99.5	1.558	0.609
2000 Q1	89.0	89.6	89.8	89.3	91.1	89.5	0.986	105.5	1.607	0.614
Q2	86.0	86.6	87.0	87.4	88.4	86.6	0.933	99.6	1.563	0.610
Q3	84.7	85.7	86.3	86.3	87.3	85.3	0.905	97.4	1.544	0.612
Q4	83.0	84.0	84.9	84.6	85.9	83.6	0.868	95.3	1.516	0.600
2000 Jan.	90.2	90.8	90.9	-	92.4	90.7	1.014	106.5	1.610	0.618
Feb.	89.2	89.8	90.0	-	91.2	89.6	0.983	107.6	1.607	0.615
Mar.	87.7	88.3	88.5	-	89.7	88.1	0.964	102.6	1.604	0.611
Apr.	86.1	86.6	87.0	-	88.4	86.7	0.947	99.9	1.574	0.598
May	84.5	85.0	85.7	-	86.9	85.1	0.906	98.1	1.556	0.602
June	87.4	88.1	88.4	-	89.9	88.1	0.949	100.7	1.561	0.629
July	86.9	87.9	88.1	-	89.4	87.5	0.940	101.4	1.551	0.623
Aug.	84.6	85.5	86.1	-	87.0	85.1	0.904	97.8	1.551	0.607
Sep.	82.8	83.6	84.6	-	85.3	83.3	0.872	93.1	1.531	0.608
Oct.	81.6	82.4	83.4	-	84.4	82.2	0.855	92.7	1.513	0.589
Nov.	82.3	83.3	84.1	-	85.1	82.9	0.856	93.3	1.522	0.600
Dec.	85.4	86.4	87.1	-	88.1	85.8	0.897	100.6	1.514	0.613
<i>Euro area enlargement</i>										
2001	87.3	88.9	89.2	88.7	91.0	88.1	0.896	108.7	1.511	0.622
2001 Q1	88.6	89.8	90.4	89.4	91.4	88.7	0.923	109.1	1.533	0.633
Q2	86.0	87.7	87.8	87.5	89.5	86.8	0.873	106.9	1.528	0.614
Q3	87.0	88.7	88.8	88.1	91.2	88.0	0.890	108.3	1.507	0.619
Q4	87.5	89.6	89.7	89.7	92.0	88.7	0.896	110.5	1.473	0.621
2002 Q1	87.1	89.7	89.6	89.3	91.3	88.1	0.877	116.1	1.473	0.615
Q2	88.8	91.7	91.4	91.6	93.9	90.5	0.919	116.5	1.465	0.629
Q3	91.3	94.3	94.2	-	97.9	93.9	0.984	117.2	1.464	0.635
2001 Jan.	89.2	90.2	90.8	-	91.7	89.0	0.938	109.6	1.529	0.635
Feb.	88.3	89.4	90.2	-	91.0	88.3	0.922	107.1	1.536	0.634
Mar.	88.4	89.8	90.4	-	91.4	88.9	0.910	110.3	1.535	0.629
Apr.	87.6	89.1	89.4	-	91.0	88.4	0.892	110.4	1.529	0.622
May	85.9	87.6	87.6	-	89.3	86.7	0.874	106.5	1.533	0.613
June	84.7	86.3	86.3	-	88.1	85.4	0.853	104.3	1.522	0.609
July	85.4	87.1	87.1	-	89.1	86.2	0.861	107.2	1.514	0.609
Aug.	87.7	89.3	89.4	-	91.8	88.6	0.900	109.3	1.514	0.627
Sep.	88.0	89.7	89.8	-	92.6	89.4	0.911	108.2	1.491	0.623
Oct.	88.0	90.0	90.0	-	92.8	89.5	0.906	109.9	1.479	0.624
Nov.	86.8	88.8	89.0	-	91.3	88.0	0.888	108.7	1.466	0.618
Dec.	87.7	89.9	90.0	-	91.9	88.6	0.892	113.4	1.475	0.620
2002 Jan.	87.6	90.3	90.2	-	91.6	88.4	0.883	117.1	1.475	0.617
Feb.	86.8	89.3	89.3	-	91.1	87.8	0.870	116.2	1.477	0.612
Mar.	86.8	89.6	89.3	-	91.2	88.2	0.876	114.7	1.468	0.616
Apr.	87.2	90.1	89.8	-	91.7	88.5	0.886	115.8	1.466	0.614
May	88.6	91.5	91.1	-	93.7	90.4	0.917	115.9	1.457	0.628
June	90.6	93.5	93.2	-	96.4	92.7	0.955	117.8	1.472	0.644
July	91.7	94.7	94.4	-	98.2	94.3	0.992	117.1	1.462	0.639
Aug.	91.1	94.0	93.9	-	97.7	93.6	0.978	116.3	1.464	0.636
Sep.	91.2	94.1	94.2	-	98.0	93.7	0.981	118.4	1.465	0.631
% ch. vs. ⁴⁾ prev. month										
2002 Sep.	0.2	0.2	0.3	-	0.3	0.1	0.3	1.8	0.1	-0.9
% ch. vs. ⁴⁾ prev. year										
2002 Sep.	3.7	4.9	4.9	-	5.8	4.9	7.7	9.4	-1.8	1.2

Source: ECB.

1) More details of the calculation are given in the general notes.

2) To December 1998, rates for the ECU (source BIS); from January 1999, rates for the euro.

3) Indicative rates for these currencies are shown up to September 2000, as the ECB did not provide official reference rates for these currencies before that.

Bilateral ECU or euro exchange rates ²⁾								
Swedish krona	Danish krone	Norwegian krone	Canadian dollar	Australian dollar	Hong Kong dollar ⁵⁾	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
8.50	7.45	8.11	1.434	1.564	7.68	1,109.8	1.674	2000 Q1
8.28	7.46	8.20	1.381	1.585	7.27	1,042.0	1.608	Q2
8.40	7.46	8.10	1.341	1.576	7.06	1,009.5	1.569	Q3
8.60	7.45	8.04	1.325	1.632	6.77	1,011.6	1.516	Q4
8.60	7.44	8.12	1.469	1.542	7.89	1,145.9	1.697	2000 Jan.
8.51	7.45	8.10	1.427	1.564	7.65	1,110.8	1.674	Feb.
8.39	7.45	8.11	1.408	1.583	7.51	1,076.1	1.654	Mar.
8.27	7.45	8.15	1.389	1.588	7.38	1,051.4	1.620	Apr.
8.24	7.46	8.20	1.355	1.570	7.06	1,015.3	1.566	May
8.32	7.46	8.25	1.402	1.597	7.40	1,061.1	1.641	June
8.41	7.46	8.18	1.389	1.598	7.33	1,047.9	1.636	July
8.39	7.46	8.10	1.341	1.557	7.05	1,007.6	1.556	Aug.
8.41	7.46	8.03	1.295	1.575	6.80	973.2	1.517	Sep.
8.52	7.45	8.00	1.292	1.618	6.67	965.1	1.498	Oct.
8.63	7.46	8.00	1.320	1.639	6.68	990.6	1.497	Nov.
8.66	7.46	8.13	1.368	1.642	7.00	1,089.6	1.558	Dec.
<i>Euro area enlargement</i>								
9.26	7.45	8.05	1.386	1.732	6.99	1,154.8	1.604	2001
9.00	7.46	8.20	1.410	1.741	7.20	1,174.7	1.616	2001 Q1
9.13	7.46	8.01	1.345	1.701	6.81	1,138.9	1.583	Q2
9.41	7.44	8.01	1.374	1.734	6.94	1,150.1	1.582	Q3
9.48	7.44	7.97	1.416	1.751	6.99	1,155.2	1.634	Q4
9.16	7.43	7.81	1.398	1.692	6.84	1,155.3	1.607	2002 Q1
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
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.
-0.9	0.0	-0.9	0.7	-0.7	0.3	1.3	0.9	% ch. vs. ⁴⁾ prev. month 2002 Sep.
-5.2	-0.2	-8.0	8.2	-0.6	7.7	0.4	8.7	% ch. vs. ⁴⁾ prev. year 2002 Sep.

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 ECU or 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												
1998	1.3	1.1	56.2	4.94	7.50	-0.9	3.0	2.5	2.2	4.9	5.4	4.27
1999	2.1	3.1	52.7	4.91	7.44	1.9	2.2	2.3	1.8	4.8	-0.2	3.44
2000	2.7	2.5	46.8	5.64	7.45	1.6	1.5	3.0	6.2	4.4	1.1	5.00
2001	2.3	2.8	44.7	5.08	7.45	2.5	3.7	1.0	1.7	4.3	5.7	4.70
2001 Q2	2.5	-	-	5.27	7.46	1.6	3.9	0.8	0.9	4.4	3.4	5.06
Q3	2.3	-	-	5.18	7.44	3.6	4.1	1.1	1.9	4.3	7.9	4.73
Q4	2.0	-	-	4.83	7.44	0.2	3.7	0.4	-1.3	4.2	9.6	3.77
2002 Q1	2.5	-	-	5.21	7.43	2.4	2.6	1.0	-3.2	4.2	2.4	3.63
Q2	2.1	-	-	5.36	7.43	2.1	0.8	2.2	3.9	4.2	2.8	3.71
Q3	.	-	-	4.91	7.43	.	.	.	.	.	.	3.57
2002 Apr.	2.3	-	-	5.40	7.43	-	-	-	7.3	4.2	3.1	3.67
May	1.9	-	-	5.42	7.44	-	-	-	2.4	4.2	3.2	3.73
June	2.2	-	-	5.27	7.43	-	-	-	2.3	4.2	2.1	3.73
July	2.2	-	-	5.13	7.43	-	-	-	-1.7	4.3	3.9	3.68
Aug.	2.4	-	-	4.87	7.43	-	-	-	-5.8	4.3	.	3.58
Sep.	.	-	-	4.74	7.43	-	-	-	.	.	.	3.45
Sweden												
1998	1.0	1.9	70.5	4.99	8.92	3.7	0.9	3.6	3.8	8.3	3.5	4.36
1999	0.6	1.5	65.0	4.98	8.81	2.7	-1.0	4.5	1.9	7.1	6.8	3.32
2000	1.3	3.7	55.3	5.37	8.45	3.5	5.8	3.6	7.9	5.8	6.2	4.07
2001	2.7	4.8	56.6	5.11	9.26	3.4	4.4	1.2	-0.8	4.9	.	4.11
2001 Q2	3.0	-	-	5.20	9.13	2.2	5.5	1.0	-2.5	4.8	1.1	4.15
Q3	3.1	-	-	5.28	9.41	4.2	4.9	0.4	-2.5	4.8	2.6	4.34
Q4	3.0	-	-	5.12	9.48	3.9	4.5	0.7	-3.3	5.0	.	3.85
2002 Q1	2.9	-	-	5.42	9.16	4.4	4.8	0.3	-2.3	5.1	.	4.00
Q2	1.9	-	-	5.64	9.16	4.2	.	2.7	0.1	5.0	.	4.43
Q3	.	-	-	5.16	9.23	.	.	.	.	.	.	4.41
2002 Apr.	2.2	-	-	5.69	9.14	-	-	-	0.2	5.1	.	4.38
May	1.7	-	-	5.69	9.22	-	-	-	1.5	5.0	.	4.46
June	1.7	-	-	5.53	9.11	-	-	-	-1.4	4.9	.	4.45
July	1.8	-	-	5.37	9.27	-	-	-	.	4.9	.	4.45
Aug.	1.7	-	-	5.14	9.25	-	-	-	.	4.8	.	4.41
Sep.	.	-	-	4.97	9.17	-	-	-	.	.	.	4.38
United Kingdom												
1998	1.6	0.2	47.7	5.60	0.676	-0.5	2.9	2.9	0.9	6.1	9.6	7.42
1999	1.3	1.1	45.1	5.01	0.659	-2.1	3.0	2.4	0.8	5.8	5.5	5.54
2000	0.8	3.9	42.1	5.33	0.609	-1.8	2.3	3.1	1.6	5.3	6.6	6.19
2001	1.2	0.8	39.1	5.01	0.622	-2.0	3.9	2.0	-2.1	5.0	8.0	5.04
2001 Q2	1.5	-2.1	39.6	5.18	0.614	-2.9	4.5	2.0	-1.6	4.9	7.5	5.30
Q3	1.5	1.4	38.8	5.13	0.619	-1.5	3.5	1.8	-2.7	5.0	7.8	5.00
Q4	1.0	-2.0	38.8	4.82	0.621	-2.5	3.4	1.6	-5.6	5.1	7.7	4.16
2002 Q1	1.5	2.7	37.9	5.13	0.615	-1.1	3.0	1.0	-5.6	5.1	6.1	4.08
Q2	0.9	-3.1	38.3	5.28	0.629	-2.2	.	1.3	-4.3	5.1	5.8	4.17
Q3	.	.	.	4.71	0.635	.	.	.	.	.	.	4.01
2002 Apr.	1.3	0.0	37.7	5.33	0.614	-	-	-	-4.1	5.2	5.7	4.17
May	0.8	-5.8	38.1	5.35	0.628	-	-	-	0.2	5.1	5.7	4.15
June	0.6	-3.6	38.3	5.17	0.644	-	-	-	-8.9	5.1	6.1	4.18
July	1.1	4.1	37.9	5.02	0.639	-	-	-	-2.0	.	5.7	4.06
Aug.	1.0	-2.6	37.3	4.67	0.636	-	-	-	.	.	5.7	3.99
Sep.	.	.	.	4.45	0.631	-	-	-	.	.	.	3.99

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

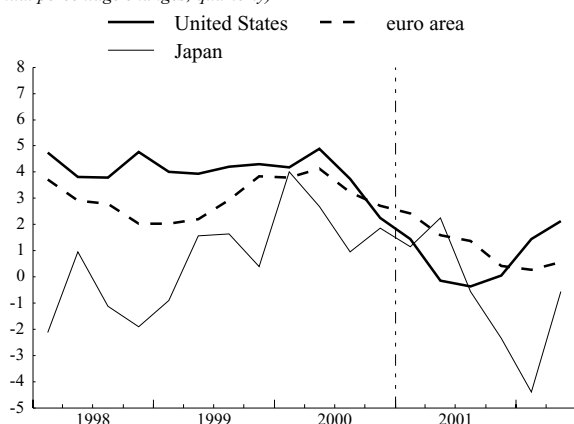
Economic and financial developments

(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.)	M2 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 ECU or 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											
1998	1.6	0.4	4.3	5.9	4.5	7.3	5.57	5.33	1.121	0.3	53.4
1999	2.2	-1.1	4.1	4.2	4.2	7.6	5.42	5.64	1.066	0.7	50.4
2000	3.4	3.2	3.8	4.7	4.0	6.1	6.53	6.03	0.924	1.4	45.2
2001	2.8	0.6	0.3	-4.2	4.8	8.7	3.78	5.01	0.896	-0.5	44.8
2001 Q2	3.4	2.4	-0.1	-4.2	4.5	8.1	4.19	5.25	0.873	0.2	43.7
Q3	2.7	0.1	-0.4	-5.6	4.8	9.4	3.46	4.98	0.890	-1.7	44.1
Q4	1.9	0.9	0.1	-6.1	5.6	10.3	2.15	4.74	0.896	-1.0	44.8
2002 Q1	1.3	-0.6	1.4	-3.7	5.6	9.2	1.90	5.06	0.877	-3.0	45.2
Q2	1.3	-1.6	2.1	-1.2	5.9	7.6	1.92	5.08	0.919	-3.2	45.2
Q3	.	.	.	.	5.7	.	1.81	4.25	0.984	.	.
2002 Apr.	1.6	.	.	-2.2	6.0	7.3	1.97	5.21	0.886	.	.
May	1.2	.	.	-1.5	5.8	8.0	1.91	5.15	0.917	.	.
June	1.1	.	.	0.1	5.9	7.7	1.88	4.90	0.955	.	.
July	1.5	.	.	0.0	5.9	7.9	1.85	4.62	0.992	.	.
Aug.	1.8	.	.	.	5.7	8.0	1.78	4.24	0.978	.	.
Sep.	.	.	.	.	5.6	.	1.80	3.88	0.981	.	.
Japan											
1998	0.7	6.3	-1.1	-7.1	4.1	4.4	0.66	1.30	146.4	-10.7	.
1999	-0.3	-2.4	0.7	0.8	4.7	3.7	0.22	1.75	121.3	-7.1	.
2000	-0.7	-6.3	2.4	5.9	4.7	2.1	0.28	1.76	99.5	-7.4	120.0
2001	-0.7	5.8	0.1	-7.8	5.0	2.8	0.15	1.34	108.7	.	127.0
2001 Q2	-0.7	3.6	2.3	-5.6	4.9	2.7	0.08	1.28	106.9	.	.
Q3	-0.8	9.2	-0.6	-10.8	5.1	3.1	0.07	1.36	108.3	.	.
Q4	-1.0	11.1	-2.3	-13.5	5.4	3.2	0.08	1.35	110.5	.	.
2002 Q1	-1.4	6.6	-4.4	-10.9	5.3	3.6	0.10	1.46	116.1	.	.
Q2	-0.9	-1.7	-0.6	-3.6	5.3	3.5	0.08	1.37	116.5	.	.
Q3	.	.	.	.	.	.	0.07	1.24	117.2	.	.
2002 Apr.	-1.1	1.1	.	-6.1	5.2	3.6	0.08	1.39	115.8	.	.
May	-0.9	-3.2	.	-2.1	5.4	3.5	0.08	1.38	115.9	.	.
June	-0.7	-2.9	.	-2.5	5.4	3.4	0.07	1.36	117.8	.	.
July	-0.8	.	.	3.8	5.4	3.3	0.07	1.30	117.1	.	.
Aug.	-0.9	.	.	1.9	.	3.5	0.07	1.26	116.3	.	.
Sep.	.	.	.	.	.	.	0.07	1.16	118.4	.	.

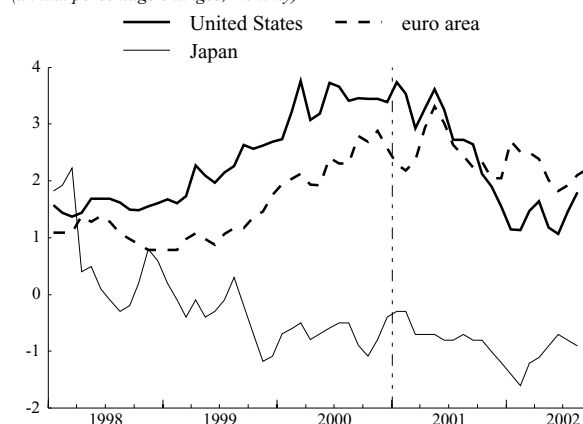
Real gross domestic product

(annual percentage changes; quarterly)



Consumer price indices

(annual percentage changes; monthly)



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

1) Manufacturing.

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

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

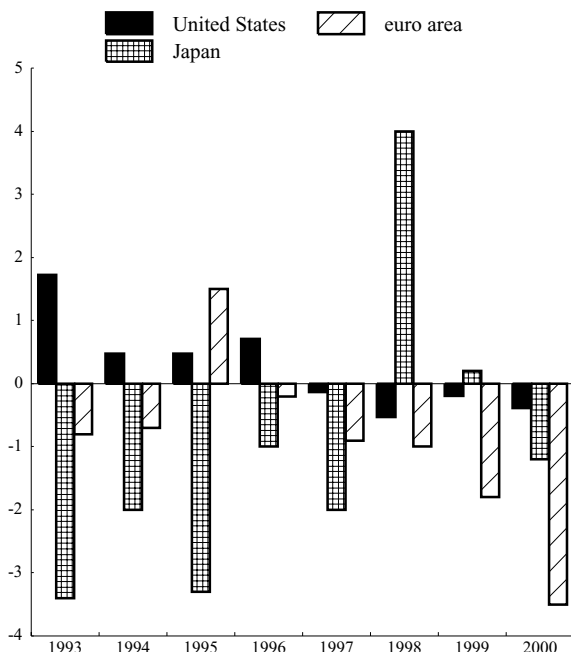
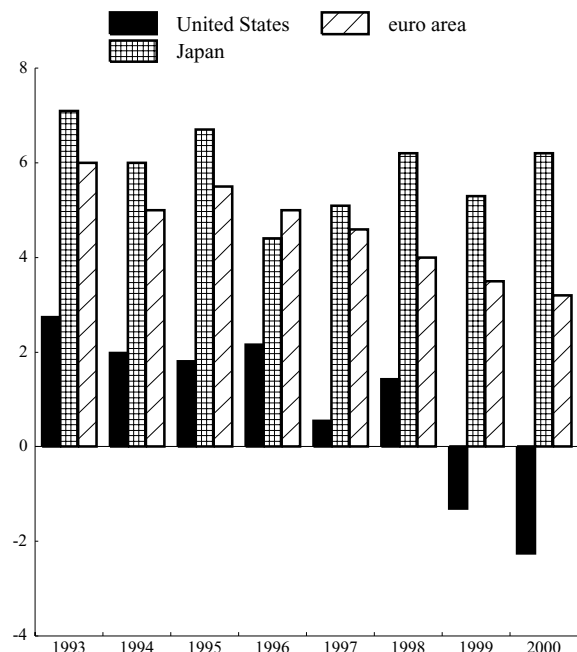
4) For more information, see Table 10.

5) Japan: the 1998 deficit includes a large debt assumption; financial accounts sources for 1999.

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

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

	National saving and investment			Investment and financing of non-financial corporations						Investment and financing of households 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													
1998	18.8	20.7	-2.3	9.4	8.6	6.5	8.2	7.0	1.4	12.3	6.9	12.8	5.5
1999	18.4	20.9	-3.0	9.5	8.9	10.5	8.2	10.6	2.8	12.4	4.9	11.2	6.2
2000	18.4	21.1	-4.0	9.7	9.1	7.7	7.5	8.1	2.5	12.5	3.4	11.5	5.7
2001	16.5	19.1	-3.7	7.9	8.5	2.9	7.7	2.8	1.7	13.0	5.3	11.6	5.7
2000 Q3	18.5	21.1	-4.2	9.9	9.3	7.6	7.5	8.1	1.6	12.5	4.1	11.6	6.1
Q4	17.8	20.9	-4.3	9.5	9.0	5.2	7.3	5.5	0.2	12.3	0.1	11.4	3.8
2001 Q1	16.9	20.0	-4.1	8.6	8.9	3.3	7.1	4.4	1.8	12.9	4.2	11.4	3.5
Q2	16.6	19.3	-3.8	8.1	8.6	1.9	7.4	2.3	2.3	12.9	6.1	11.2	6.5
Q3	16.5	18.8	-3.5	7.7	8.3	3.3	7.8	2.9	0.6	12.9	8.9	12.8	9.0
Q4	15.9	18.2	-3.6	7.1	8.0	2.9	8.5	1.9	2.1	13.4	2.0	10.9	3.9
2002 Q1	15.6	18.6	-4.1	7.5	7.8	2.2	7.9	2.3	0.1	12.8	6.8	12.3	6.7
Q2	15.5	18.7	-4.8	7.7	7.6	2.0	7.7	2.4	1.4	12.7	6.4	12.7	5.9
Japan													
1998	29.1	26.9	2.6	15.6	15.6	-5.9	13.3	-8.3	-0.4	5.3	6.3	11.7	-0.9
1999	27.6	25.8	2.2	14.4	14.8	2.4	13.5	-3.5	1.7	5.2	5.1	11.1	0.2
2000	27.7	25.9	2.3	15.2	15.5	2.4	13.8	0.3	1.2	5.2	4.1	10.9	0.0
2001	.	27.5	.	.	.	-2.4	.	-5.8	1.7	.	3.0	.	-0.1
2000 Q3	27.9	26.1	2.6	.	.	11.1	.	-1.0	-0.3	.	-0.4	.	1.2
Q4	27.2	26.9	1.8	.	.	7.0	.	12.7	2.7	.	7.4	.	0.5
2001 Q1	33.2	27.1	2.3	.	.	8.8	.	-2.4	2.2	.	-4.0	.	3.2
Q2	.	23.5	.	.	.	-28.0	.	-16.0	4.2	.	12.3	.	-4.7
Q3	.	26.1	.	.	.	6.4	.	-8.9	-1.1	.	-5.2	.	2.6
Q4	.	25.1	.	.	.	2.3	.	3.2	1.5	.	8.9	.	-1.5
2002 Q1	.	27.3	.	.	.	9.8	.	-6.5	-2.4	.	-6.3	.	2.4
Q2	.	22.7	.	.	.	-26.3	.	-21.2	1.6	.	7.3	.	-8.7

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 Table 2.4¹

Seasonal adjustment of the euro area monetary aggregates

The approach used relies on multiplicative decomposition through X-12-ARIMA (version 0.2.2).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 to fulfil the additivity constraint.

Seasonal factors are estimated for the index of adjusted stocks. They are then applied to the levels expressed in EUR billions and to the adjustments due to reclassifications, other revaluations, etc., yielding seasonally adjusted values for the levels, the adjustments and thus for the flows. Seasonal factors are revised at annual intervals or as required.

Calculation of growth rates

Growth rates may be calculated from flows or the index of adjusted stocks.

If F_t^M represents the flow in month t , L_t the level outstanding at the end of the month t , X_t^M the rate of change in month t (augmented by one) defined as

$$(a) \quad X_t^M = \left(\frac{F_t^M}{L_{t-1}} + 1 \right)$$

and I_t the index of adjusted stocks in month t , defined as

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

where the base $I_{\text{DEC}1998} = 100$ is used, the annual percentage change a_t for month t – i.e. the change in the 12 months ending in month t – may be calculated as follows:

$$(b) \quad a_t = \left(\prod_{i=0}^{11} X_{t-i}^M - 1 \right) \times 100$$

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

Similarly, the monthly change, as shown in Table 2.4.4, may be calculated as $(I_t/I_{t-1} - 1) \times 100$. Finally, the three-month moving average for M3 is obtained as $(a_t + a_{t-1} + a_{t-2})/3$.

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

Relating to Tables 2.5 to 2.8

As far as possible, the data have been harmonised and are comparable. Nevertheless, as a result of the implementation of a new reporting scheme in January 1999, outstanding levels for Tables 2.5 to 2.8 prior to the first quarter of 1999 are not directly comparable with those referring to later periods, although they are sufficiently comparable for structural analysis. A detailed analysis of the growth rates can be performed for Tables 2.5 to 2.7 where quarterly flows are shown.

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

Calculation of growth rates

Growth rates may be calculated from flows or the index of adjusted stocks.

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 Version 0.2.2.", December 1998, Time Series Staff, Bureau of the Census, Washington, D.C.

For internal purposes, multiplicative models of TRAMO-SEATS also are used. For details on TRAMO-SEATS, see Gomez, V. and Maravall, A. (1996), "Programs TRAMO and SEATS: Instructions for the User", Bank of Spain, Working Paper No. 9628, Madrid.

If F_t^Q represents the flow in the quarter ending in month t , X_t^Q the rate of change (augmented by one) in the quarter ending in month t defined as

$$(d) \quad X_t^Q = \left(\frac{F_t^Q}{L_{t-3}} + 1 \right)$$

and I_t and L_t are defined as above, the annual percentage change a_t referring to the quarter ending in month t may be calculated as follows:

$$(e) \quad a_t = \left(\prod_{i=0}^3 X_{t-3i}^Q - 1 \right) \times 100$$

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

Similarly, the quarterly change may be calculated as $(I_t/I_{t-3} - 1) \times 100$.

Roundings may give rise to differences from the annual percentage changes shown in Tables 2.5 to 2.7. The index of adjusted stocks is available with a higher level of precision on the ECB's website (www.ecb.int) on the "Euro area statistics – download" page (in CSV file format), from which the exact percentage changes in Tables 2.5 to 2.7 may be calculated.

Relating to Table 4.1

Seasonal adjustment of the HICP ¹

The approach used relies on multiplicative decomposition through X-12-ARIMA (version 0.2.2) (see footnote 2 on the previous page). The seasonal adjustment of the total HICP for the euro area is carried out indirectly by aggregating the seasonally adjusted euro area series for processed food, unprocessed food, industrial goods excluding energy and services. Energy is added without adjustment since there is no statistical evidence of seasonality. Seasonal factors are revised at annual intervals or as required.

Relating to Table 8.2

Seasonal adjustment of the balance of payments current account

The approach relies on multiplicative decomposition through X-12-ARIMA (version 0.2.2) (see footnote 2 on the previous page). The seasonal adjustment for goods includes a working day and an Easter adjustment, whereas that for services includes only a working day adjustment. The seasonal adjustment of the total current account is carried out by aggregating the seasonally adjusted euro area series for goods, services, income and current transfers. Seasonal factors are revised at annual intervals or as required.

¹ See footnote 1 on the previous page.

General notes

The basis for the statistics compiled by the European Central Bank (ECB) is presented in the document entitled "Statistical information collected and compiled by the ESCB", dated May 2000. This document is an update of the report entitled "Statistical requirements for Stage Three of Monetary Union (Implementation Package)" of July 1996, and describes the provision of statistics as it stands today. The document covers money and banking and related statistics, balance of payments statistics, international investment position statistics and financial accounts statistics. The requirements of the ECB for statistics on prices and costs, national accounts, the labour market, government receipts and expenditure, short-term indicators of output and demand, and the European Commission Business and Consumer Surveys are set out in the document entitled "Requirements in the field of general economic statistics" of August 2000.¹

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 in 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 direct download in compressed comma separated value (CSV) files.

Owing to the fact that the composition of the ECU does not coincide with the currencies of the Member States which have adopted the single currency, pre-1999 amounts converted from the participating currencies into ECU at current ECU exchange rates are affected by movements in the currencies of Member States which have not adopted the euro. To avoid this effect in the monetary statistics, the pre-1999 data in Tables 2.1 to 2.8 are expressed in units converted from national currencies at the irrevocable euro exchange rates established on 31 December 1998. Unless indicated otherwise, price and cost statistics before 1999 are based on the data expressed in national currency terms.

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

As a general rule, the cut-off date for the statistics included in the ECB's Monthly Bulletin is the day preceding the first meeting in the month of the Governing Council of the ECB. For this issue, it was 9 October 2002.

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

Overview

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

Monetary policy and financial statistics

Tables 1.1 to 1.5 show the consolidated financial statement of the Eurosystem, data on Eurosystem operations, statistics relating to minimum reserves, and the banking system's liquidity position. Tables 1.2 and 1.3 reflect the switch to variable rate tenders in June 2000. Monetary data relating to Monetary Financial Institutions (MFIs), including the Eurosystem, are shown in Tables 2.1 to 2.3. Table 2.3 is consolidated; inter-MFI positions within the euro area are not shown, but any difference between the sum total of such claims and liabilities as recorded is shown in column 13. Table 2.4 sets out monetary aggregates drawn from the consolidated MFI balance sheet; they also include some (monetary) liabilities of central government. The M3 data shown in Table 2.4 exclude holdings by non-residents of the euro area of i) shares/units issued by money market funds located in the euro area, and ii) money market paper and debt securities issued with

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

a maturity up to two years by MFIs located in the euro area. Accordingly, these holdings are included in the item external liabilities shown in Table 2.3, and as a result have an impact on the item net external assets shown in Table 2.4. Table 2.5 shows a quarterly sectoral and maturity analysis of loans by MFIs to euro area residents. Table 2.6 shows a quarterly analysis of deposits held by euro area residents with MFIs. Table 2.7 provides a quarterly analysis of MFI claims on and liabilities to non-residents of the euro area. Table 2.8 shows a quarterly currency analysis of certain MFI balance sheet items. Tables 2.5 to 2.7 show flows adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions, and annual percentage changes. A complete list of MFIs is published on the ECB's website. Details of the sector definitions are set out in the "Money and Banking Statistics Sector Manual: Guidance for the statistical classification of customers" (ECB, November 1999). The "Money and Banking Statistics Compilation Guide" (EMI, April 1998) explains recommended practices to be followed by the NCBs. From 1 January 1999 the statistical information is collected and compiled on the basis of the ECB Regulation concerning the consolidated balance sheet of the Monetary Financial Institutions sector (ECB/1998/16, as replaced from January 2003 by ECB/2001/13).

Statistics on money market interest rates, long-term government bond yields and stock market indices (Tables 3.1 to 3.3) are produced by the ECB using data from wire services. For details concerning the statistics on retail bank interest rates (Table 3.4), see the footnote at the bottom of the relevant page.

Statistics on securities issues are presented in Tables 3.5 and 3.6. They are broken down into short-term and long-term securities. "Short-term" means securities with an original maturity of one year or less (in accordance with the ESA 95, in exceptional cases two years or less). Securities with a longer maturity, or with optional maturity

dates, the latest of which is more than one year away, or with indefinite maturity dates, are classified as long-term. The statistics on securities issues are estimated to cover approximately 95% of total issues by euro area residents. Table 3.5 shows securities issued, redemptions and amounts outstanding, broken down into short-term securities and long-term securities. Net issues differ from the change in amounts outstanding owing to valuation changes, reclassifications and other adjustments. Table 3.6 contains a sectoral breakdown of issuers of euro-denominated securities, whether resident in the euro area or elsewhere. For euro area residents, the sectoral breakdown is in line with the European System of Accounts 1995 (ESA 95).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.

² The code numbers in the ESA 95 for the sectors shown in tables in the Monthly Bulletin are: MFIs (including the Eurosystem), which comprises the ECB and the national central banks of Member States in the euro area (S.121) and other monetary financial institutions (S.122); non-monetary financial corporations, 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).

Prices and real economy indicators

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

The Harmonised Index of Consumer Prices (HICP) for the euro area (Table 4.1) is available from 1995 onwards. The index is based on national HICPs that follow the same methodology in all euro area countries. The breakdown by goods and services components is derived from the Classification of individual consumption by purpose (Coicop) used for the HICP. The HICP covers monetary expenditure on final consumption by households on the economic territory of the euro area. The table includes seasonally adjusted HICP data which are compiled by the ECB.

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

Table 5.2 shows selected other real economy indicators. The implementation of Council Regulation (EC) No. 1165/98 of 19 May 1998 concerning short-term statistics will enlarge the range of available euro area data. The breakdown by end-use of the products applied in Tables 4.2.1 and 5.2.1 represents the harmonised sub-division of industry excluding construction (NACE sections C to E) into Main Industrial Groupings as defined in Commission Regulation (EC) No. 586/2001 of 26 March 2001.

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

Employment data (Table 5.4) are based on the ESA 95. Whenever coverage of the euro area is incomplete, some data are estimated by the ECB on the basis of the information available. Unemployment rates conform to International Labour Organization (ILO) guidelines. The labour force estimates underlying the unemployment rate are different from the sum of the employment and unemployment levels published in Table 5.4.

Financial accounts statistics

Table 6.1 shows quarterly data on financial accounts for non-financial sectors in the euro area, comprising general government (S.13), non-financial corporations (S.11), and households (S.14) including non-profit institutions serving households (S.15). The data (not seasonally adjusted) cover levels outstanding and financial transactions classified according to the ESA 95 and show the main financial investment and financing activities of the non-financial sectors. On the financing side (liabilities) the data are presented by ESA 95 sector and original maturity. Whenever possible the financing taken from MFIs is 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. While both levels and transactions may throw light on economic developments, the latter are more likely to be the focus of attention.

The quarterly data are based on euro area MFI statistics, quarterly national financial accounts, and BIS international banking statistics. While all euro area countries contribute to the euro area statistics, Ireland and Luxembourg, as yet, do not provide quarterly national financial accounts data.

Table 6.2 has changed following the provision of capital accounts and financial accounts data for the years 1995 to 2001 under the ESA 95 Regulation (Council Regulation (EC) No. 2223/96 of 25 June 1996). The new table shows annual data on saving, (financial and non-financial) investment and financing for euro area sectors as a whole, and for non-financial corporations and households separately. These annual data provide, in particular, fuller sectoral information on the acquisition of financial assets and are consistent with the quarterly data in Table 6.1.

General government fiscal position

Tables 7.1 to 7.3 show the general government fiscal position in the euro area. The data are mainly consolidated and are based on the ESA 95 methodology. The euro area aggregates are compiled by the ECB from harmonised data provided by the NCBs, which are regularly updated. Data on deficit and debt for the euro area countries may differ from those used by the European Commission in the context of the excessive deficit procedure.

Table 7.1 shows general government revenue and expenditure on the basis of definitions laid down in Commission Regulation No. 1500/2000 of 10 July 2000 amending the ESA 95. Table 7.2 shows details of general government gross consolidated debt at nominal value in accordance with the Treaty provisions on the excessive deficit procedure. Tables 7.1 and 7.2 include summary data for individual euro area countries owing to their importance in the framework of the Stability and Growth Pact. Table 7.3 analyses changes in general government debt. The difference between the change in government debt and government deficit, the deficit-debt adjustment, is mainly explained by government transactions in financial assets and by foreign exchange valuation effects.

Balance of payments and international investment position of the euro area (including reserves), trade in goods and exchange rates

The concepts and definitions used in balance of payments statistics (Tables 8.1 to 8.6) and international investment position (i.i.p.) statistics generally conform to the 5th edition of the IMF Balance of Payments Manual (October 1993), to the ECB Guideline of May 2000 (ECB/2000/04) on the statistical reporting requirements of the ECB, and to Eurostat's documentation.

The euro area balance of payments is compiled by the ECB. Data up to December 1998 are expressed in ECU. The recent monthly figures for balance of payments statistics should be regarded as provisional. Data are revised with the publication of the detailed quarterly balance of payments data. Earlier data are revised periodically.

Some earlier data have been partially estimated and may not be fully comparable with more recent observations. That is the case for the b.o.p. financial account before end-1998, the services account before end-1997, the monthly pattern of income for the years 1997 to 1999 and the i.i.p. at end-1997. Table 8.5.2 provides a sectoral breakdown of euro area purchasers of securities issued by non-residents of the euro area. It is not possible to show a sectoral breakdown of euro area issuers of securities acquired by non-residents.

The euro area i.i.p. (Table 8.7.1) is compiled on a net basis by aggregating national data. The i.i.p. is valued at current market prices with the exception of direct investment stocks, where book values are used to a large extent.

The outstanding amounts of the Eurosystem's international reserves and related assets are shown in Table 8.7.2 with the corresponding reserves and related assets held by the ECB. The data in Table 8.7.2 are in line with the recommendations for the IMF/BIS template

on international reserves and foreign currency liquidity. Earlier data are revised on an ongoing basis. Reserve assets data before end-1999 are not fully comparable with later observations. A publication on the statistical treatment of the Eurosystem's international reserves is available on the ECB's website.

Table 9 shows data on euro area external trade in goods. The main source for the data is Eurostat. The ECB derives volume indices from Eurostat value and unit value indices, and performs seasonal adjustment of unit value indices, while value data are seasonally and working day adjusted by Eurostat.

The commodity breakdown is in accordance with the classification by Broad Economic Categories (based on the SITC Rev. 3 definition) for intermediate, capital and consumption goods, and with the SITC Rev. 3 for manufactured goods and oil. The geographical breakdown shows main trading partners, individually or in regional groups. The 13 EU candidate countries are Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia and Turkey.

Owing to differences in definitions, classification, coverage and time of recording, external trade data, in particular imports, are not fully comparable with the goods item in the balance of payments statistics (Tables 8.1 and 8.2). Part of the difference arises from the inclusion of insurance and freight services in the recording of goods imported, which accounted for about 3.8% of the value of imports (c.i.f.) in 1998 (ECB estimates).

Table 10 shows ECB calculations of nominal and real effective exchange rate indices for the euro based on weighted averages of bilateral euro exchange rates. Weights are based on 1995-97 manufactured goods trade with the trading partners and capture third-market effects. Up to December 2000, the narrow group is composed of the countries whose currencies are shown in the table plus Greece. On adopting the euro in January 2001, Greece ceased to be a partner country in the effective exchange rate of the euro and the weighting scheme has been adjusted accordingly. In addition, the broad group includes the following countries: Algeria, Argentina, Brazil, China, Croatia, Cyprus, the Czech Republic, Estonia, Hungary, India, Indonesia, Israel, Malaysia, Mexico, Morocco, New Zealand, the Philippines, Poland, Romania, Russia, Slovakia, Slovenia, South Africa, Taiwan, Thailand and Turkey. Real rates are calculated using consumer prices (CPI), producer prices in manufacturing (PPI) and unit labour costs in manufacturing (ULCM). Where deflators are not yet available, estimates are used. The bilateral rates shown are those against the 12 currencies used in the ECB's calculation of the "narrow" effective exchange rate of the euro. The ECB publishes daily reference rates for these and some other currencies.

Other statistics

Statistics on other EU Member States (Table 11) follow the same principles as those for data relating to the euro area. Data for the United States and Japan contained in Tables/Charts 12.1 and 12.2 are obtained from national sources.



Chronology of monetary policy measures of the Eurosystem¹

4 January 2000

The ECB announces that on 5 January 2000 the Eurosystem will conduct a liquidity-absorbing fine-tuning operation with same-day settlement. This measure aims at restoring normal liquidity conditions in the money market after the successful transition to the year 2000.

5 January 2000

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 3.0%, 4.0% and 2.0% respectively.

15 January 2000

At the request of the Greek authorities, the ministers of the euro area Member States, the ECB and the ministers and central bank governors of Denmark and Greece decide, following a common procedure, to revalue the central rate of the Greek drachma in the exchange rate mechanism (ERM II) by 3½%, with effect from 17 January 2000.

20 January 2000

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 3.0%, 4.0% and 2.0% respectively.

It also announces that the Eurosystem intends to allot an amount of €20 billion for each of the longer-term refinancing operations to be conducted in the first half of 2000. This amount takes into consideration the expected liquidity needs of the banking system of the euro area in the first half of 2000 and the desire of the Eurosystem to continue to provide the bulk of its refinancing of the financial sector through its main refinancing operations.

3 February 2000

The Governing Council of the ECB decides to raise the interest rate on the main refinancing operations of the Eurosystem by 0.25 percentage point to 3.25%, starting from the operation to be settled on 9 February 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 4.25% and 2.25% respectively, both with effect from 4 February 2000.

17 February, 2 March 2000

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

16 March 2000

The Governing Council of the ECB decides to raise the interest rate on the main refinancing operations of the Eurosystem by 0.25 percentage point to 3.5%, starting from the operation to be settled on 22 March 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 4.5% and 2.5% respectively, with effect from 17 March 2000.

30 March, 13 April 2000

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 3.5%, 4.5% and 2.5% respectively.

¹ The chronology of monetary policy measures of the Eurosystem taken in 1999 can be found on pages 176 to 179 of the ECB Annual Report 1999.

27 April 2000

The Governing Council of the ECB decides to raise the interest rate on the main refinancing operations of the Eurosystem by 0.25 percentage point to 3.75%, starting from the operation to be settled on 4 May 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 4.75% and 2.75% respectively, both with effect from 28 April 2000.

11 May 2000

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 3.75%, 4.75% and 2.75% respectively.

25 May 2000

The Governing Council of the ECB decides that the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility will remain unchanged at 3.75%, 4.75% and 2.75% respectively.

8 June 2000

The Governing Council of the ECB decides to raise the interest rate on the main refinancing operations of the Eurosystem by 0.50 percentage point to 4.25% and to apply this in the two operations (which will be conducted as fixed rate tenders) to be settled on 15 and 21 June 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 5.25% and 3.25% respectively, both with effect from 9 June 2000.

It also announces that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem

will be conducted as variable rate tenders, applying the multiple rate auction procedure. The Governing Council decides to set a minimum bid rate for these operations equal to 4.25%. The switch to variable rate tenders in the main refinancing operations is not intended as a further change in the monetary policy stance of the Eurosystem, but as a response to the severe overbidding which has developed in the context of the current fixed rate tender procedure.

19 June 2000

In accordance with Article 122 (2) of the Treaty establishing the European Community, the ECOFIN Council decides that Greece fulfils the necessary conditions on the basis of the criteria set out in Article 121 (1) and abrogates the derogation of Greece with effect from 1 January 2001. The ECOFIN Council took its decision, taking account of the reports of the European Commission and the ECB on the progress made in the fulfilment by Sweden and Greece of their obligations regarding the achievement of Economic and Monetary Union, after consulting the European Parliament, and after a discussion in the EU Council meeting in the composition of Heads of State or Government.

The ECOFIN Council, acting with the unanimity of the Member States of the European Community without a derogation and the Member State concerned, upon a proposal from the European Commission and after consultation of the ECB, also adopts the irrevocable conversion rate between the Greek drachma and the euro, with effect from 1 January 2001. Following the determination of the euro conversion rate of the Greek drachma (which is equal to its prevailing central rate against the euro in the exchange rate mechanism, ERM II), the ECB and the Bank of Greece announce that they will monitor the convergence of the market exchange rate of the Greek drachma against the euro towards its euro conversion rate, which should be completed at the latest by 29 December 2000.

21 June 2000

The Governing Council of the ECB decides that the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 5.25% and 3.25% respectively. It reiterates that, as announced on 8 June 2000, the forthcoming main refinancing operations of the Eurosystem will be conducted as variable rate tenders, applying the multiple rate auction procedure, with a minimum bid rate of 4.25%.

The Governing Council also announces that, for the longer-term refinancing operations to be conducted in the second half of 2000, the Eurosystem intends to allot an amount of €15 billion per operation. This amount takes into consideration the expected liquidity needs of the banking system of the euro area in the second half of 2000 and the desire of the Eurosystem to continue to provide the bulk of its refinancing of the financial sector through its main refinancing operations.

6 July, 20 July, 3 August 2000

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.25%, 5.25% and 3.25% respectively.

31 August 2000

The Governing Council of the ECB decides to raise the minimum bid rate on the main refinancing operations of the Eurosystem by 0.25 percentage point to 4.50%, with effect from the operation to be settled on 6 September 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.50% and 3.50% respectively, both with effect from 1 September.

14 September 2000

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.50%, 5.50% and 3.50% respectively.

5 October 2000

The Governing Council of the ECB decides to raise the minimum bid rate on the main refinancing operations of the Eurosystem by 0.25 percentage point to 4.75%, with effect from the operation to be settled on 11 October 2000. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.75% and 3.75% respectively, both with effect from 6 October.

19 October, 2 November, 16 November, 30 November 2000

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively.

14 December 2000

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively.

In addition, it decides to reconfirm the existing reference value for monetary growth, namely an annual growth rate of 4½% for the broad aggregate M3. This decision is taken on the grounds that the available evidence continues to support the assumptions underlying the initial derivation of the reference value in December

1998 (and its confirmation in December 1999), namely that, over the medium term, M3 income velocity declines at a trend rate in the range from ½% to 1% per annum and potential output grows at a trend rate between 2% and 2½% per annum. The Governing Council will undertake the next review of the reference value in December 2001.

2 January 2001

On 1 January 2001 the euro was introduced in Greece. Greece thus became the twelfth EU Member State to adopt the single currency and the first to do so since the start of Stage Three of Economic and Monetary Union (EMU) on 1 January 1999. As a result, the Bank of Greece is now a full member of the Eurosystem, with the same rights and obligations as the 11 national central banks of the EU Member States which previously adopted the euro. In accordance with Article 49 of the Statute of the European System of Central Banks and of the European Central Bank, the Bank of Greece pays up the remainder of its contribution to the capital of the ECB, as well as its share of the ECB's reserves, and also transfers to the ECB its contribution to the foreign reserve assets of the ECB.

Further to the announcement on 29 December 2000, the first main refinancing operation of 2001, in which the Greek counterparties of the Eurosystem participate for the first time, is successfully conducted. The allotment volume of €101 billion takes into account the additional liquidity needs of the euro area banking system resulting from the integration of the Greek Monetary Financial Institutions.

4 January 2001

The Governing Council of the ECB decides that the minimum bid rate for the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively.

In addition, it decides on an allotment amount of €20 billion per operation for the longer-term refinancing operations to be conducted in 2001. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2001 and the desire of the Eurosystem to continue to provide the bulk of refinancing of the financial sector through its main refinancing operations. The Governing Council may adjust the allotment amount in the course of the year in the event of unexpected developments in liquidity needs.

18 January, 1 February, 15 February, 1 March, 15 March, 29 March, 11 April, 26 April 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.75%, 5.75% and 3.75% respectively.

10 May 2001

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.25 percentage point to 4.50%, with effect from the operation to be settled on 15 May 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.50% and 3.50% respectively, both with effect from 11 May 2001.

23 May, 7 June, 21 June, 5 July, 19 July, 2 August 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.50%, 5.50% and 3.50% respectively.

30 August 2001

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.25 percentage point to 4.25%, with effect from the operation to be settled on 5 September 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 5.25% and 3.25% respectively, both with effect from 31 August 2001.

13 September 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.25%, 5.25% and 3.25% respectively.

17 September 2001

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 3.75%, with effect from the operation to be settled on 19 September 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 4.75% and 2.75% respectively, both with effect from 18 September 2001.

27 September, 11 October, 25 October 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.75%, 4.75% and 2.75% respectively.

8 November 2001

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 3.25%, starting from the operation to be settled on 14 November 2001. In addition, it decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 4.25% and 2.25% respectively, both with effect from 9 November 2001.

6 December 2001

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

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

3 January 2002

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.25%, 4.25% and 2.25% respectively.

The Governing Council also decides on an allotment amount of €20 billion per operation for the longer-term refinancing operations to be conducted in 2002. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2002 and the desire of the Eurosystem to continue to provide the bulk of refinancing of the financial sector through its main refinancing operations. The Governing Council may adjust the allotment amount in the course of the year in the event of unexpected developments in liquidity needs.

**7 February, 7 March, 4 April,
2 May, 6 June, 4 July, 1 August,
12 September, 10 October 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.

Documents published by the European Central Bank

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Annual Report

"Annual Report 1998", April 1999.

"Annual Report 1999", April 2000.

"Annual Report 2000", May 2001.

"Annual Report 2001", April 2002.

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.

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“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.

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“TARGET Annual Report 2001, April 2002.

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“TARGET Interlinking specification as at November 2001”, June 2002.

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“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.

Information brochures

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“The euro: integrating financial services”, August 2000.

“TARGET”, August 2000.

“The European Central Bank”, April 2001.

“The euro banknotes and coins”, May 2001.

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“The euro and the integration of financial services”, September 2001.

“The euro banknotes and coins”, August 2002.

