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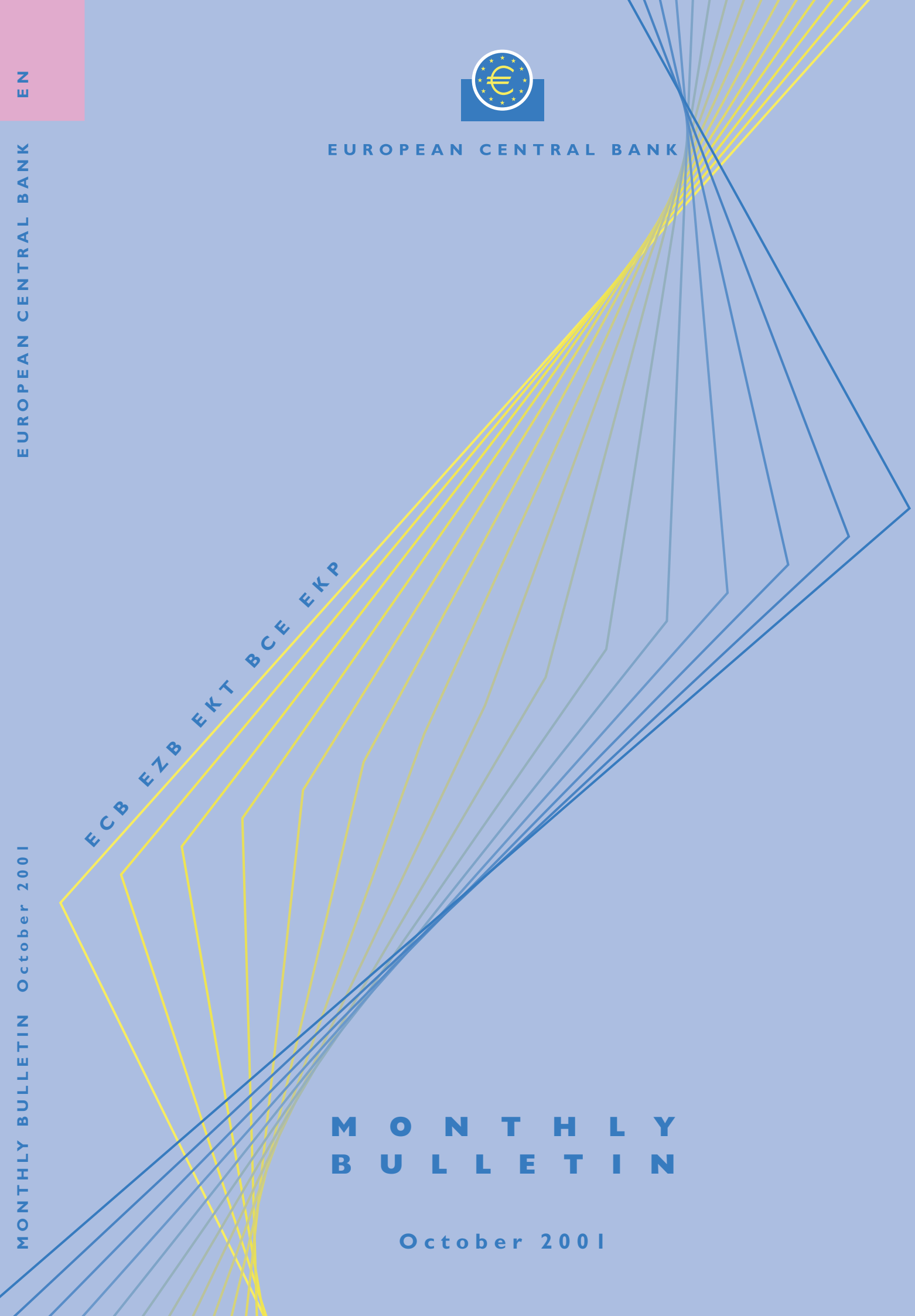
EUROPEAN CENTRAL BANK



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MONTHLY BULLETIN

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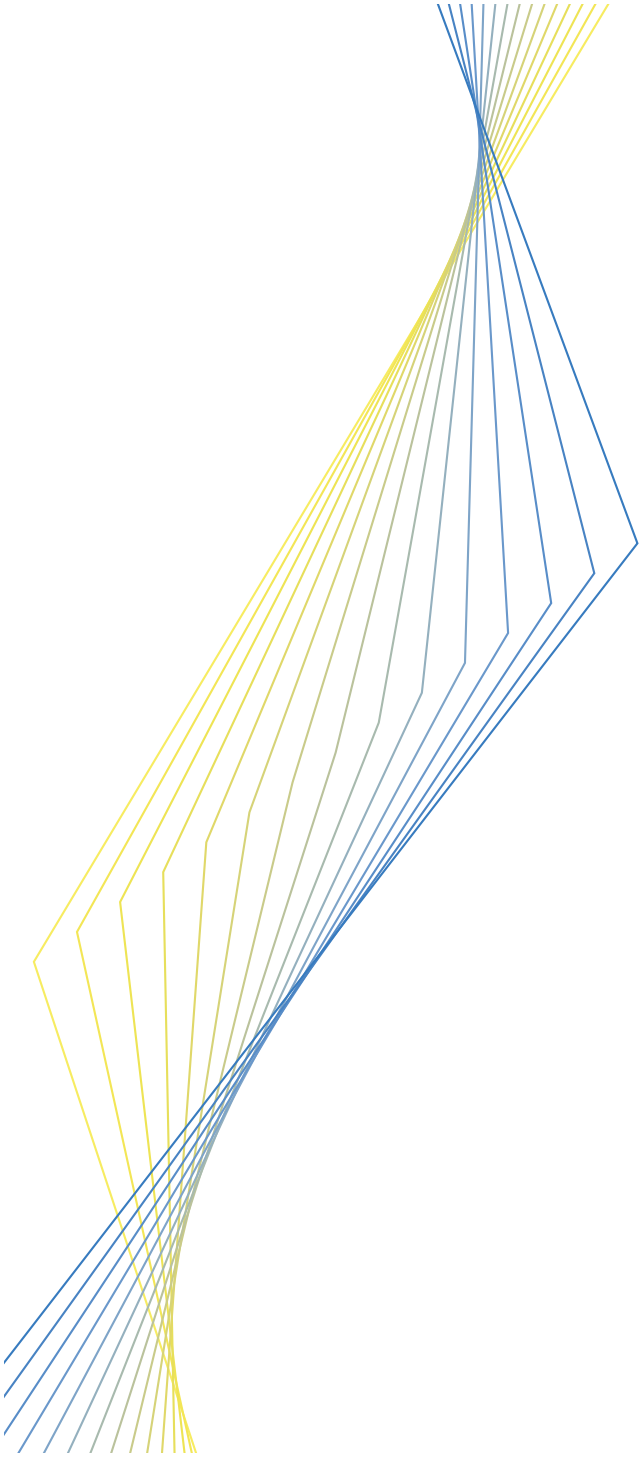

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Contents

Abbreviations

Countries

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

Others

BIS	Bank for International Settlements
BPM5	IMF Balance of Payments Manual (5th edition)
CDs	certificates of deposit
c.i.f.	cost, insurance and freight at the importer's border
CPI	Consumer Price Index
ECB	European Central Bank
ECU	European Currency Unit
EER	effective exchange rate
EMI	European Monetary Institute
ESA 95	European System of Accounts 1995
ESCB	European System of Central Banks
EU	European Union
EUR	euro
f.o.b.	free on board at the exporter's border
GDP	gross domestic product
HICP	Harmonised Index of Consumer Prices
ILO	International Labour Organization
IMF	International Monetary Fund
MFIs	Monetary Financial Institutions
NACE Rev. 1	Statistical classification of economic activities in the European Community
NCBs	national central banks
PPI	Producer Price Index
repos	repurchase agreements
SITC Rev. 3	Standard International Trade Classification (revision 3)
ULCM	Unit Labour Costs in Manufacturing

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

Editorial

At its meetings on 27 September and 11 October 2001, the Governing Council of the ECB decided to leave the minimum bid rate on the main refinancing operations of the Eurosystem at 3.75%. The interest rates on the marginal lending facility and the deposit facility were also left unchanged, at 4.75% and 2.75% respectively.

These decisions reflect the fact that the Governing Council views the current level of the key ECB interest rates as consistent with the maintenance of price stability over the medium term. Given the high level of uncertainty in the international environment, the Governing Council will continue to monitor developments very closely and thoroughly, and will assess new information in the context of its medium-term-oriented monetary policy strategy aimed at delivering price stability in the euro area.

The assessment underlying the Governing Council's decisions was based on the analysis of the information related to both pillars of the monetary policy strategy of the ECB.

Starting with the first pillar, M3 growth has increased over the past few months. The three-month average of the annual growth rates of M3 increased to 6.4% in the period from June to August 2001, up from 5.9% in the period from May to July 2001. However, M3 figures are still distorted upwards by holdings of money market paper and short-term debt securities by non-euro area residents. These holdings are currently estimated to have accounted for around three-quarters of a percentage point of annual M3 growth over recent months. In addition, a number of temporary factors have played an important role in shaping recent monetary developments. Notably, the relatively flat yield curve until August and uncertainty in stock markets have led to portfolio shifts by private investors from longer-term assets to shorter-term assets included in M3, in particular marketable instruments. Furthermore, the growth rate of credit to the private sector continued to slow down in August. For all these reasons, monetary developments are not seen to signal risks to price stability at this juncture. This notwithstanding, developments in monetary aggregates will have to be monitored carefully in the coming months.

As regards the second pillar, the assessment is currently surrounded by a particularly high degree of uncertainty, especially concerning the international environment. Last month's terrorist attacks had an immediate negative impact on economic activity and confidence, which could delay the resumption of higher economic growth. Against this background, it was important that policy-makers around the world acted with measures to support confidence. A further positive factor has been the recent fall in oil prices, which should help to contain inflationary pressures and support real disposable income of households, thereby sustaining consumption in many countries.

With regard to the euro area, economic growth was already slowing down before the attacks of 11 September. Real GDP growth in the second quarter of 2001 was only 0.1% quarter on quarter, down from 0.5% in the first quarter. Economic activity in the second quarter of 2001 was strongest for the services sector, while it weakened in the industrial and construction sectors. Evidence collected before 11 September, including surveys on business and consumer confidence, did not point to an early recovery.

At this stage, it would be premature to formulate a firm assessment of the macroeconomic effects of the tragic events in the United States and current activities to combat global terrorism. First releases of survey indicators sampled after 11 September suggest that confidence was immediately affected to some extent. However, these surveys were conducted too soon after the tragic events to allow respondents to formulate a thorough analysis of their implications. In this respect, it should also be mentioned that, after a period of turmoil following the terrorist attacks, financial markets in the euro area firmed as the economic situation was reassessed in a calmer

way. By 10 October, stock markets had returned to levels close to those prevailing before 11 September and an initial increase in corporate bond spreads had been reversed. In addition, long-term government bond yields were little affected by recent events.

The existence of the euro has eliminated exchange rate tensions within the euro area, which had typically plagued many of the countries when external shocks occurred in the past. Looking ahead, there are no major imbalances in the euro area which would require a lengthy period of economic adjustment. On account of policies aimed at price stability, fiscal consolidation, wage moderation and structural reform, the euro area fundamentals remain positive. Financing conditions are favourable and the expected decline in consumer price inflation should provide further support to household consumption in the euro area. Taken together, all these elements should provide a good base for a recovery in the course of next year once the initial shock has been absorbed. This notwithstanding, downside risks to the current prospects will have to be monitored.

As mentioned, inflation in the euro area is expected to continue falling. Annual consumer price inflation, as measured by the HICP, declined from a peak of 3.4% in May 2001 to 2.7% in August. Early indications point to a further decrease in annual consumer price inflation in September. The decline in external price pressures, which has also been reflected in producer prices, should support a continued dampening of short-term price pressures in the coming months. Furthermore, inflationary pressures from the demand side have weakened further. Against this background, there are good reasons to be confident that inflation in the euro area will continue to decline to a level consistent with price stability. The expected continuation of wage moderation should underpin this trend.

For the time being, the Governing Council sees a confirmation of its earlier assessment which led it to reduce the key ECB interest rates by 50 basis points on 17 September. In fact, as noted above, recent developments strengthened tendencies towards lower rates of inflation that were already prevailing before. Given their nature and potential economic consequences, the terrorist attacks clearly warranted a prompt, flexible and appropriate response by the Governing Council, in line with the medium-term-oriented monetary policy strategy of the ECB.

Regarding fiscal policies, there have been encouraging signs of firm fiscal consolidation in a significant number of euro area countries over past years, whereas, in a few other countries, progress towards balanced fiscal positions has been slower. It is natural for an economic slowdown to have adverse effects on member countries' budget positions. However, for countries with a budget position still not close to balance or in surplus, it is important to adhere to their medium-term consolidation plans. A short-lived slowdown should not significantly change the scope for reaching the targets set in the countries' stability programmes.

Turning to long-term prospects, in order to raise the rate of potential economic growth in the euro area, structural reforms in the level and composition of public revenue and expenditure, as well as in product and labour markets, have to continue. Advances in structural reforms have been made in times of high real GDP growth, although in many areas, including in labour markets, more could have been achieved. As adjustment needs are likely to become more visible in periods of less vigorous economic growth, policy-makers must now step up the reforms rather than allowing efforts to abate. Moving forward the reform agenda decisively would enable the euro area economy to absorb economic shocks more easily than in the past.

This issue of the Monthly Bulletin contains three articles. The first article discusses issues related to monetary policy rules. The second article analyses the bidding behaviour of counterparties in the Eurosystem's regular open market operations. The third reviews the logistics of the euro cash changeover in markets outside the euro area and the related parts of the Euro 2002 Information Campaign.

Economic developments in the euro area

1 Monetary and financial developments

Monetary policy decisions of the Governing Council of the ECB

At its meetings on 27 September and 11 October 2001, the Governing Council of the ECB decided to leave the minimum bid rate in the main refinancing operations, conducted as variable rate tenders, at 3.75%. The interest rates on the marginal lending facility and the deposit facility were also kept unchanged, at 4.75% and 2.75% respectively (see Chart 1).

Strong short-term M3 dynamics continue to reflect shifts out of longer-term assets

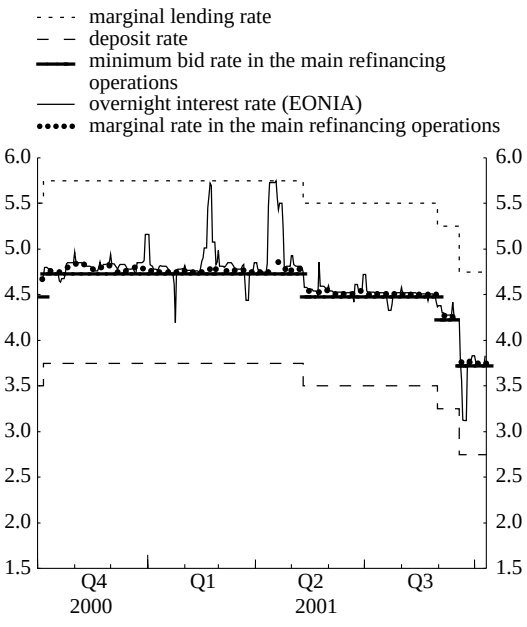
In the period from June to August 2001, the three-month average of the annual growth rates of M3 stood at 6.4%, up from 5.9% in the period from May to July. In August, the annual growth rate of M3 increased to 6.7%, from 6.4% in July (see Chart 2). With regard to the shorter-term dynamics of M3, the seasonally adjusted and six-month annualised growth rate of M3 stood at 8.0% in August, after 7.9% in July. When interpreting M3 developments, however, it has to be borne in mind that M3 figures contain non-euro area resident holdings of money market paper and debt securities with an initial maturity of up to two years. It is currently estimated that these holdings had an upward impact on the annual growth rate of M3 of around three-quarters of a percentage point in recent months.[1]

Several factors have to be taken into account when assessing the implications of current monetary growth for future price developments. The August data tend to confirm that the recent acceleration in M3 seems to be mainly driven by temporary

Chart 1

ECB interest rates and money market rates

(percentages per annum; daily data)

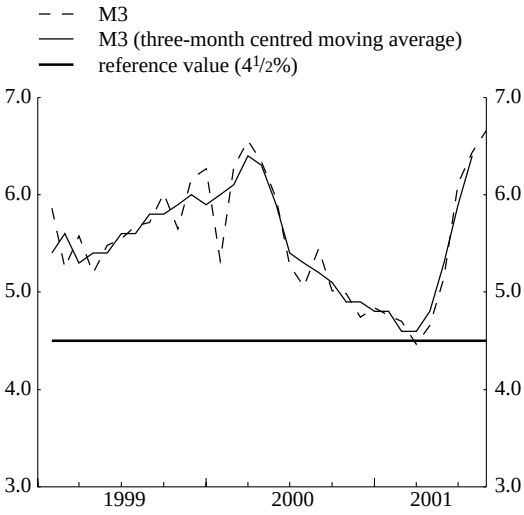


Sources: ECB and Reuters.

Chart 2

M3 growth and the reference value

(annual percentage changes; seasonally and calendar effect adjusted)



Source: ECB.

Note: Series not adjusted for non-euro area resident holdings of money market paper and debt securities with an initial maturity of up to two years. According to preliminary estimates, the adjustment for these holdings might reduce the annual growth rate of M3 by around three-quarters of a percentage point in recent months.

1 *The ECB intends to publish an M3 series which excludes all non-euro area resident holdings of negotiable instruments towards the end of this year.*

factors associated with the reallocation of the portfolios of euro area economic agents. The continued uncertainty in euro area stock markets has probably led to shifts into short-term secure assets included in M3. In addition, despite steepening somewhat over recent months, the yield curve remained relatively flat up to August by historical standards. Consequently, investors seem to have continued to shift funds out of longer-term instruments into shorter-term assets included in M3. This development is reflected in the further decrease in the annual growth of MFIs' longer-term financial liabilities in August. Moreover, economic agents had to adjust their transaction balances to the past one-off shocks to consumer prices resulting from the increases in energy and food prices. While such price shocks carry the risk of second-round effects on inflation via wage increases, the likelihood of the emergence of such effects and, hence, the risk of unfavourable implications for medium-term price developments should be regarded as rather limited in the current weak economic environment.

Overall, at the current juncture the strengthening of monetary dynamics in recent months should not imply risks to price stability over the medium term. At the same time, monetary developments have to be monitored closely in the coming months.

The annual growth rate of M1, which encompasses currency in circulation and overnight deposits, remained broadly unchanged in August 2001 at 3.6%, after 3.4% in July (see Table 1). However, as in previous months, developments in currency in circulation and overnight deposits differed significantly. Preparations by economic agents related to the euro cash changeover at the beginning of next year continued to exert a downward impact on the annual rate of change of currency in circulation, which fell from -6.4% in July to -8.3% in August. This is likely to mainly reflect a reduction in domestic cash hoardings and only to a small extent a flowback of the euro legacy currencies from abroad (see Box 1 in the section "Monetary and financial developments" in the September 2001 issue of the Monthly Bulletin). By contrast, overnight deposits continued to increase relatively strongly. The seasonally adjusted and six-month annualised growth rate of overnight deposits was 9.3% in August, compared with 2.3% in January. To a

Table 1

Summary table of monetary variables for the euro area

(annual percentage changes; quarterly averages)

	2000 Q4	2001 Q1	2001 Q2	2001 May	2001 June	2001 July	2001 Aug.
Seasonally and calendar effect adjusted							
M1	5.7	2.6	2.3	2.9	3.8	3.4	3.6
Currency in circulation	1.9	-1.3	-3.2	-3.9	-4.7	-6.4	-8.3
Overnight deposits	6.5	3.5	3.5	4.3	5.5	5.4	6.0
M2 - M1 (= other short-term deposits)	2.2	3.4	4.4	4.1	4.6	5.2	4.9
M2	3.8	3.1	3.4	3.5	4.2	4.3	4.3
M3 - M2 (= marketable instruments)	11.3	14.7	14.5	14.8	17.3	18.8	20.6
M3	4.9	4.7	5.0	5.2	6.1	6.4	6.7
Unadjusted for seasonal and calendar effects							
Longer-term financial liabilities (excluding capital and reserves)	3.7	3.7	3.0	2.7	2.4	2.3	1.7
Credit to euro area residents	6.4	6.0	5.9	5.9	6.1	6.2	5.9
Credit to general government	-6.0	-5.9	-3.6	-2.7	-1.5	-0.4	0.1
of which: Loans to general government	-1.9	-0.1	-1.3	-1.4	-1.6	-1.8	-1.2
Credit to other euro area residents	10.5	9.9	8.9	8.6	8.4	8.2	7.6
of which: Loans to the private sector	9.6	9.1	8.2	8.0	7.8	7.6	7.1

Source: ECB.

significant extent, this acceleration in overnight deposits is likely to mirror the shifts out of currency. Moreover, the current tendency of investors to place money for some time in liquid assets is likely to have contributed to this strong increase.

The annual growth rate of short-term deposits other than overnight deposits stood at 4.9% in August 2001. (In detail, the annual growth rate of deposits redeemable at a period of notice of up to three months recovered further to 0.9%, reaching a positive value for the first time since April 2000. The annual growth rate of deposits with an agreed maturity of up to two years remained high at 10.7% in August). In addition, the annual growth rate of marketable instruments increased further to 20.6%.

Both the development of short-term deposits other than overnight deposits and that of marketable instruments included in M3 were driven by similar factors. As indicated above, the continued uncertainty in stock markets and the preparations of euro area residents for the cash changeover should have led to shifts into short-term bank deposits and marketable instruments included in M3.

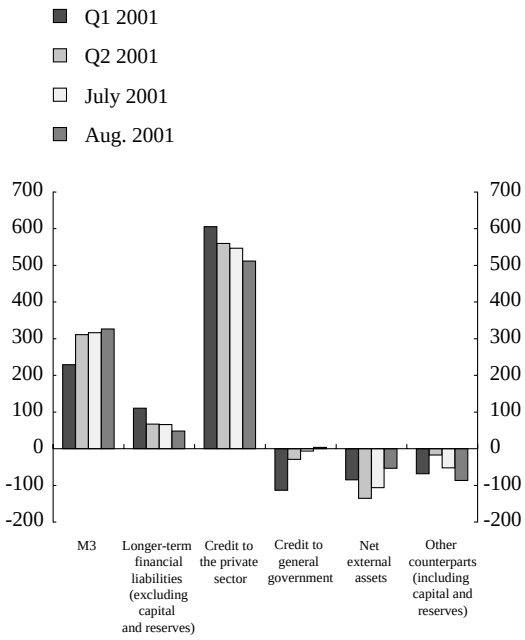
Moreover, the development in these short-term instruments is likely to be closely related to the relatively flat yield curve up to August. The spread between the euro area ten-year government bond yield and the three-month EURIBOR stood at around 70 basis points on average in August, which is relatively low by historical standards. As for retail interest rates, the interest rate spread between longer-term deposits, i.e. deposits with an agreed maturity of over two years and deposits redeemable at a period of notice of over three months, and the corresponding short-term deposits narrowed slightly in recent months. The attractiveness of short-term assets is also reflected in the subdued development of MFIs' longer-term financial liabilities, which consist of longer-term deposits held by euro area residents at euro area MFIs and longer-term securities issued by euro area MFIs (see Table 1 and Chart 3). In August, the annual rate of growth of longer-term financial liabilities (excluding capital and reserves) stood at only 1.7%, compared with 3.9% in January.

Finally, the demand for short-term deposits reflects the less pronounced decline in retail interest rates relative to money market rates in recent months and, hence, a narrowing of the respective spread. This is due to a lagged and, in particular with regard to deposits redeemable at notice of up to three months, only partial adjustment of their remuneration to financial market developments.

Chart 3

Movements in M3 and its counterparts

(annual flows; EUR billions; not adjusted for seasonal and calendar effects)



Source: ECB.

Note: Series not adjusted for non-euro area residents' holdings of money market paper and debt securities with an initial maturity of up to two years.

Further slowdown in credit to the private sector

As in previous months, the annual growth rate of credit to euro area residents remained around 6% in August (see Table 1). This broadly stable development, however, was the result of two contrasting movements. The annual rate of change of credit to general government continued to recover, albeit only slightly, standing at 0.1% in August 2001. By contrast, the annual growth rate of credit to the private sector, of which nearly 90% comprises loans, decreased further to 7.6% in August, compared with 10.5% in the last quarter of 2000. The slowdown in economic growth and the reduced impact of some special factors, such as lower merger and acquisition transactions and less buoyant housing markets in some euro area countries, seem to be the main reasons for the moderation in credit to the private sector.

Overall, the slowdown in credit to the private sector adds weight to the view that current monetary developments should not signal risks to price stability.

Finally, the net external asset position of the euro area MFI sector improved further in August 2001 (see Chart 3). As in June and July, there were considerable net inflows of assets in August, amounting to €44 billion. This is in line with euro area balance of payments developments, which show combined net direct and portfolio investment inflows (mainly of net equity) into the euro area for June and July (data for August are not yet available). Over the 12 months to August, the net external position of the euro area MFI sector decreased by €53 billion, which was half the €106 billion decrease in the 12-month period to July.

Slight deceleration in debt securities issuance in July

The annual growth of the amount outstanding of debt securities issued by euro area residents declined from 7.8% in June 2001 to 7.5% in July. Underlying this was a decrease in the annual growth of the amount outstanding of long-term debt securities from 7.7% in June to 7.3% in July, while the annual growth of the amount outstanding of short-term debt securities remained unchanged at 8.8% in July (see Chart 4).

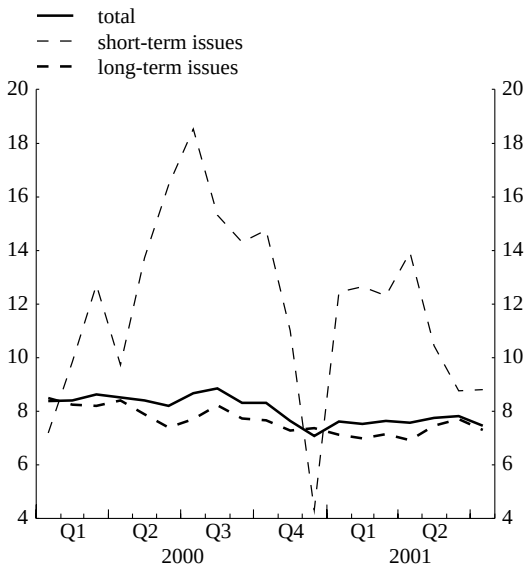
The currency breakdown shows that the annual growth of the amount outstanding of euro-denominated debt securities issued by euro area residents was 6.4% in July 2001, compared with 6.2% in the previous month. The share of euro-denominated debt securities issued by euro area residents in gross issuance rose from 92.3% in June to 94.0% in July.

As regards the sectoral breakdown, the annual growth of the amount outstanding of euro-denominated debt securities issued by MFIs was slightly down, from 6.5% in June 2001 to 6.3% in July, mainly on account of weak short-term securities issuance. The

Chart 4

Amounts outstanding of debt securities issued by euro area residents

(annual percentage changes)



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

annual growth of the amount outstanding of debt securities issued by non-monetary financial corporations and non-financial corporations remained virtually unchanged in July, at 32.6% and 21.6%, respectively. These continued strong annual growth rates in the non-MFI private sector may be explained by the fall in equity market prices and, possibly, a decline in internal sources of finance, reflecting weaker corporate earnings.

Turning to the general government sector, the annual growth of the amount outstanding of debt securities issued by central government increased slightly, from 2.6% in June 2001 to 2.8% in July. The annual growth rate of debt securities issuance by other general government also increased from 14.0% in June to 15.2% in July. These increases reflect the less favourable developments in public finance in 2001.

Retail bank interest rates declined slightly in August

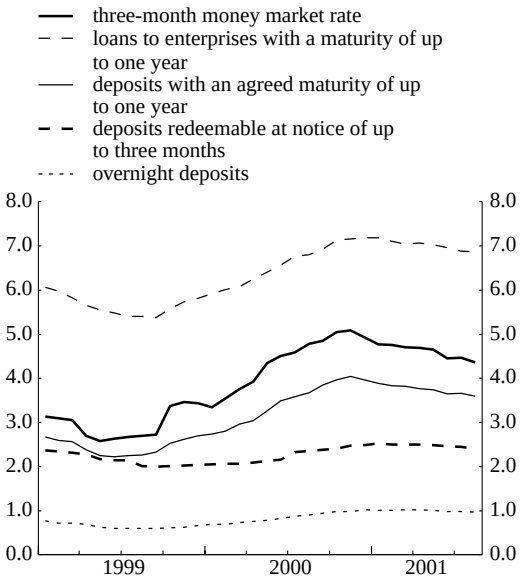
Short-term retail bank interest rates declined slightly in August 2001, in line with developments observed since the end of 2000 (see Chart 5). The average interest rates on deposits with an agreed maturity of up to one year and on deposits redeemable at notice of up to three months decreased by 7 basis points in August compared with the previous month. The overnight deposit rate and the average interest rate on loans to enterprises with a maturity of up to one year fell by around 2 basis points from July to August, compared with the 12 basis point fall in the average three-month money market rate over the same period.

Most long-term retail bank interest rates also decreased further in August 2001 (see Chart 6). This broadly mirrored a fall in average government bond yields by around 20 basis points from July to August. The average interest rates on deposits redeemable at notice of over three months and on loans to households for house purchase declined

Chart 5

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

(percentages per annum; monthly averages)

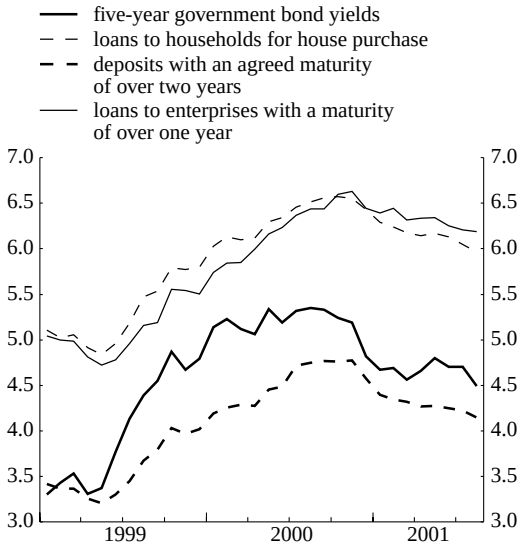


Sources: ECB aggregation of individual country data and Reuters.
Note: From 1 January 2001 onwards, Greek data are also included.

Chart 6

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

(percentages per annum; monthly averages)



Sources: ECB aggregation of individual country data and Reuters.
Note: From 1 January 2001 onwards, Greek data are also included.

by around 10 basis points between July and August.

Significant decline in money market interest rates

After being broadly stable in early September, money market interest rates decreased significantly in the wake of the terrorist attacks in the United States. The decrease in money market rates in the period between end-August and 10 October was of a similar magnitude across all maturities from one month up to one year. Thus, the downward slope of the EURIBOR yield curve remained broadly unchanged.

In the period between end-August and the terrorist attacks on 11 September, money market rates at the shorter end of the money market yield curve remained broadly stable. The EONIA increased temporarily (on the morning of 12 September) as market participants tended to increase their preference for holding excess liquidity (see Box 1). The two fine-tuning operations conducted by the Eurosystem on 12 and 13 September helped to restore normal conditions in the overnight money market. After the announcement of the decision to lower the key ECB interest rates on 17 September, the shortest money market rates declined to levels close to the new minimum bid rate of 3.75% in the Eurosystem's main refinancing operations. In the main refinancing operations settled on 19 and 26 September and 3 and 10 October, the marginal and average rates did not exceed the minimum bid rate of 3.75% by more than 2 basis points. However, following the insufficient bidding of the ECB's counterparties in the main refinancing operations conducted on 9 October, the EONIA increased.

The one-month and three-month EURIBOR declined by 53 and 63 basis points respectively between end-August and 10 October, and stood at 3.79% and 3.62% respectively on 10 October (see Chart 7). In the longer-term refinancing operation of the Eurosystem settled on 27 September, the marginal and weighted-average interest rates were 3.55% and 3.58% respectively. These levels were 65 basis points lower than the corresponding rates on the longer-term refinancing operation settled on 30 August.

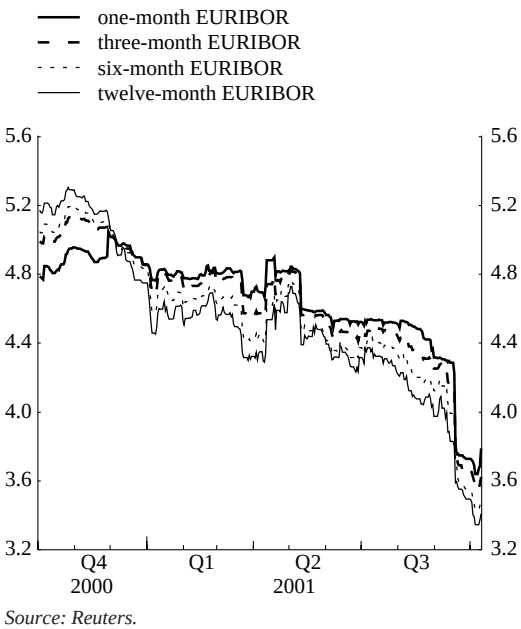
At the longer end of the money market yield curve, the six-month and twelve-month EURIBOR were equal to 3.49% and 3.41% respectively on 10 October, representing respective declines of 63 and 56 basis points compared with the end of August. Overall, the negative difference between the twelve-month and the one-month EURIBOR thus remained broadly unchanged after end-August, standing at 38 basis points on 10 October 2001.

The expected path of the three-month EURIBOR, as implied in the futures prices on contracts with delivery dates in December 2001, March 2002 and June 2002, decreased significantly between end-August and 10 October. A large part of the decline occurred on 11 September. Futures rates fell

Chart 7

Short-term interest rates in the euro area

(percentages per annum; daily data)



Source: Reuters.

Box 1

Monetary policy operations and liquidity conditions in the reserve maintenance period ending on 23 September 2001

During the reserve maintenance period from 24 August to 23 September 2001, the Eurosystem settled four main refinancing operations (MROs), one longer-term refinancing operation, and two fine-tuning operations.

The MROs were carried out as variable rate tenders with a minimum bid rate. In the first MRO, the minimum bid rate was 4.50%, in the second and third it was 4.25%, and in the fourth 3.75%. The allotted volumes ranged between €61 billion and €82 billion. The ratio of the amount bid to the volume allotted varied between 1.04 and 1.95, the average being 1.54. In the first MRO, the marginal and the weighted average rates equalled the minimum bid rate. In the second operation, the marginal and the weighted average rates were two and three basis points above the minimum bid rate, respectively, while in the third and fourth operations the corresponding spreads were one and two basis points. The number of participating counterparties ranged between 295 and 341, with an average of 326.

On 29 August, the Eurosystem conducted a longer-term refinancing operation through a variable rate tender with a pre-announced allotment volume of €20 billion. A total of 214 counterparties participated in the operation, submitting a total bid amount of €37.8 billion. The marginal and the weighted average rates were 4.20% and 4.23%, respectively.

In order to support the normal functioning of the markets and to provide liquidity after the terrorist attacks in the United States on 11 September, the ECB conducted fine-tuning operations on both 12 and 13 September. These were carried out as liquidity-providing reverse operations with same-day settlement and one-day maturity. Furthermore, they were conducted as quick tenders at a fixed rate of 4.25%. In both operations, the ECB satisfied all bids. In the first operation, bids amounted to €69.3 billion, with 63 counterparties participating. In the second operation, 45 counterparties submitted bids totalling €40.5 billion. Moreover, on 12 September the US Federal Reserve System and the ECB agreed on a swap arrangement, under which the ECB was eligible to draw up to USD 50 billion of deposits at the Federal Reserve Bank of New York against an equivalent amount of euro deposits at the ECB. The purpose of the agreement was to provide dollar liquidity to those euro area banks whose operations were temporarily affected by the market disturbances.

During the first days of the reserve maintenance period, the EONIA was stable at around 4.50%. However, it started to decline in the run-up to 30 August, when the Governing Council decided to lower the key ECB interest rates by 0.25 percentage point, and reached 4.28% on 7 September. As an indirect result of the terrorist attacks on 11 September, overnight rates rose sharply to the level of the marginal lending rate on the morning of 12 September. Later on that day, following the injection by the ECB of additional liquidity through a fine-tuning operation, overnight rates normalised and, at the end of the day, the EONIA, which measures the average interest rate during the day, had recorded an increase of only 13 basis points, to 4.42%. Tensions in the money market abated further following the fine-tuning operation on Thursday 13 September and the EONIA declined to a level close to the minimum bid rate of 4.25%. The bid-ask spreads quoted in the overnight market, however, only returned to normality at the beginning of the following week. On the afternoon of Monday 17 September, the Governing Council decided to lower its key interest rates by 0.50 percentage point. The EONIA dropped on the following day to 3.76%, just above the new minimum bid rate in the Eurosystem's main refinancing operations of 3.75%. Amid ample liquidity, the EONIA continued to decrease in the last days of the reserve maintenance period. On Friday 21 September, the last business day of the period, the EONIA stood at 3.12%, and a net recourse to the deposit facility of €2.9 billion confirmed the ample liquidity situation.

The net liquidity-absorbing impact of the autonomous factors (i.e. the factors not related to monetary policy) on the banking system's liquidity (item (b)) averaged €84.6 billion. The daily sum of autonomous factors

fluctuated between €73.6 billion and €100.5 billion. The estimates of average liquidity needs stemming from autonomous factors published for the maintenance period under review ranged between €74.3 billion and €87.0 billion. The published figures deviated from the actual outcome by an amount ranging from €0.1 billion to €7.8 billion. The exceptionally large deviation of €7.8 billion for the period from 10 to 18 September was due, inter alia, to the withdrawal of liquidity resulting from the foreign exchange swaps between the Eurosystem and some counterparties in the euro area, matched by recourse to the swap agreement set up between the Federal Reserve and the ECB in the aftermath of the events of 11 September. These events could not, of course, have been anticipated on 10 September, the publication date of the estimate.

Contributions to the banking system's liquidity
(EUR billions)

Daily average during the reserve maintenance period from 24 August to 23 September 2001

	Liquidity providing	Liquidity absorbing	Net contribution
(a) Monetary policy operations of the Eurosystem	**211.1**	**0.4**	**+ 210.7**
Main refinancing operations	147.1	-	+ 147.1
Longer-term refinancing operations	60.0	-	+ 60.0
Standing facilities	0.5	0.4	+ 0.1
Other operations	3.5	0.0	+ 3.5
(b) Other factors affecting the banking system's liquidity	**401.3**		**- 84.6**
Banknotes in circulation	-	335.4	- 335.4
Government deposits with the Eurosystem	-	45.2	- 45.2
Net foreign assets (including gold)	401.3	-	+ 401.3
Other factors (net)	-	105.3	- 105.3
(c) Credit institutions' holdings on current accounts with the Eurosystem (a) + (b)			**126.1**
(d) Required reserves			**125.3**

Source: ECB.
Totals may not add up due to rounding.

further also after the announcement of the decision to reduce the key ECB interest rates on 17 September. Overall, on 10 October the three-month EURIBOR implied in futures contracts with delivery dates in December 2001 and March 2002 were equal to 3.42% and 3.23% respectively, i.e. 47 and 48 basis points lower than end-August levels.

Long-term government bond yields declined in September

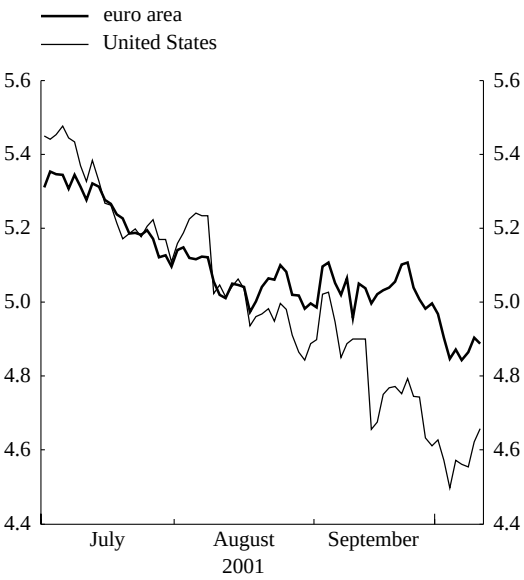
Long-term government bond yields in the euro area decreased between end-August and 10 October following a slight overall decline in August (see Chart 8). On 10 October, the average euro area ten-year government bond yield stood at close to 4.9%. In the United States, long-term government bond yields fell by 25 basis points between end-August and 10 October. As a result, the differential between ten-year government bond yields in the United States and the euro area moved deeper into negative territory from -10 basis points at end-August to around -25 basis points on 10 October.

In the United States, after the terrorist attacks on 11 September, the bond market remained closed for two days. The decline in long-term government bond yields seen during September mostly reflected safe-haven buying from investors. This seemed to be related to mounting concerns among financial market participants about the reaction of the stock markets immediately following the attacks as well as the capacity of the US

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. From 1 January 2001 onwards, euro area data include Greek data.

economy to recover rapidly. The release of relatively weak economic data contributed further to these concerns.

The largest declines in bond yields in the US took place at short and medium-term maturities, reflecting increased expectations by market participants of interest rate reductions by the Federal Open Market Committee. The two-year bond yield declined by 85 basis points between end-August and 10 October, to stand at about 2.8%. The US yield curve's slope, as measured by the differential between ten-year bond yields and three-month interest rates, reached a level of 220 basis points on 10 October. This is more than 260 basis points higher than its average level in 2000 when the slope was negative.

Developments in US index-linked bond markets suggest that the decline in nominal bond yields stemmed from expectations of both lower long-term inflation and weaker economic growth. The real yield of US ten-year index-linked bonds fell by around 15 basis points between end-August and 10 October. Over the same period, the US ten-year break-even inflation rate showed a decline of 5 basis points to stand at about 1.5% on 10 October.

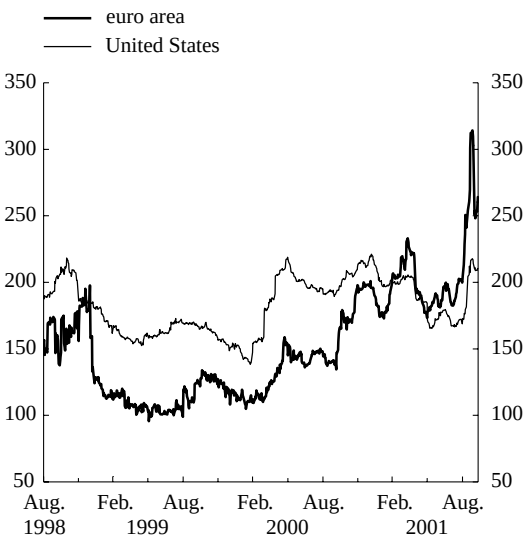
Between end-August and 10 October, corporate bond spreads – as measured by the spreads of BBB-rated bonds over government bonds of similar maturity – increased by 40 basis points, with most of this widening taking place after the terrorist attacks (see Chart 9). As a result, the financing costs of lower-graded US corporations increased slightly between end-August and 10 October.

In Japan, ten-year government bond yields remained broadly stable between end-August and 10 October, standing at about 1.4% on the latter date. Repatriation flows, increased risk-aversion and expectations of a possible

Chart 9

Corporate bond spreads in the euro area and the United States

(basis points; daily data; BBB rating)



Source: Bloomberg.
Note: Corporate bond spreads are calculated as the difference between (seven to ten-year) corporate bond yields and (seven to ten-year) government bond yields, using the indices published by Merrill Lynch.

loosening of monetary policy by the Bank of Japan, which subsequently materialised on 18 September, put downward pressure on long-term government bond yields. However, this downward pressure was counteracted by expectations that the Japanese government would resort to a large supplementary budget to boost the economy.

In the euro area, the decline in bond yields was most pronounced in the short to medium-term segments. In line with developments in the money market, two-year bond yields declined by 50 basis points between end-August and 10 October, to stand at 3.5% on the latter date. This drop in two-year yields indicated that market participants expected short-term interest rates to be lower than previously anticipated. Developments in implied forward euro area overnight interest rates between end-August and 10 October were consistent with this view, while at the same time indicating that no significant changes had taken place in short-term interest rate expectations at longer horizons (see Chart 10).

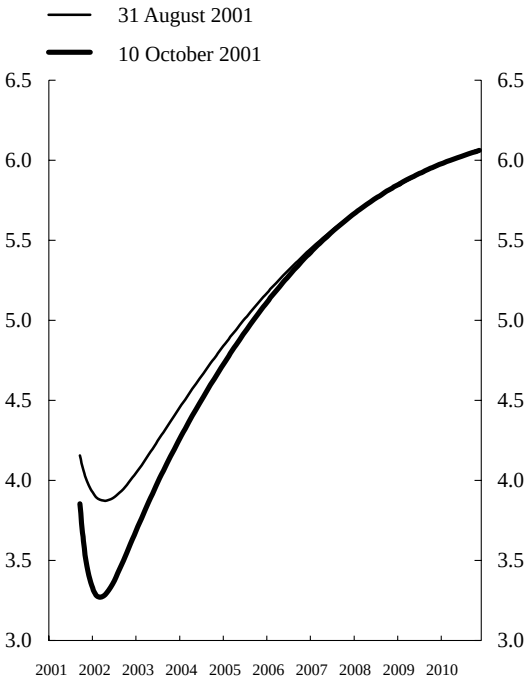
The real yield of the French ten-year index-linked government bond declined slightly between end-August and 10 October. Since ten-year nominal yields declined by more than the real yield, the ten-year break-even inflation rate fell by 15 basis points between end-August and 10 October, to around 1.2%. This figure was around 30 basis points below the average level in 2000 and shows that investors continue to have a high degree of confidence that price stability will be maintained in the medium term. However, short-term developments in index-linked bond yields and break-even inflation rates should be interpreted with caution, as a number of well-known caveats may apply.

Between end-August and 10 October, corporate bond spreads – as measured by the spreads of BBB-rated bonds over government bonds of similar maturity – increased by 55 basis points in the euro area. A succession of credit rating downgrades in the heavily indebted euro area telecommunications sector had already set in motion an increase in lower-quality corporate bond spreads before the terrorist attacks of 11 September. Following the attacks, BBB spreads in the euro area soared to heights not seen during Stage Three of EMU. However, in contrast to developments in the United States, the increase in the spread was largely reversed later on (see Chart 9).

Chart 10

Implied forward euro area overnight interest rates

(percentages per annum; daily data)



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

Stock prices declined amid high volatility in September

Stock market developments in September were dominated by the terrorist attacks in the United States on 11 September. Between the end of September and 10 October, stock markets in the euro area, the United States

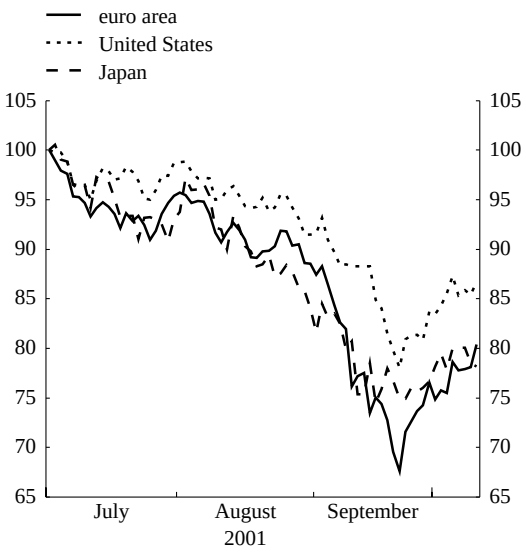
and Japan, as measured by the Dow Jones EURO STOXX, the Standard & Poor's 500 and the Nikkei 225 indices, all declined in very volatile environments (see Chart 11). After large falls in the days following the events in the United States, stock prices recovered somewhat in late September and early October. Implied volatilities in all the aforementioned indices increased significantly in the days following 11 September (see Chart 12). Although implied volatilities tended to decline towards the end of September and in early October, they remained at higher levels than typically seen in recent years. This seems to reflect some underlying uncertainty about the economic consequences of the terrorist attacks.

In the United States, the Standard & Poor's 500 index declined by 5% between end-August and 10 October, bringing the overall decline since end-2000 to 18%. The terrorist attacks caused the closure of the New York Stock Exchange for four days. When the US stock markets reopened on 17 September, the substantial uncertainty about the economic impact of the terrorist attacks fuelled a surge in volatility. The implied volatility derived from options on the Standard & Poor's 500 index increased to the highest levels seen in several years. Sectors in which earnings were most likely to be directly hit by the tragic events, such as the airline, insurance and tourism sectors, were among those that recorded more significant losses than the general index. However, stock market declines were broadly based, seemingly owing to expectations of lower economic growth. Macroeconomic data releases after the terrorist attacks also supported the overall perception of continued slow economic growth. However, the 50 basis point interest rate cuts by the US Federal Reserve System on 17 September and again on 3 October, as well as the announced fiscal stimulus package seemed to contribute to the recovery and lower volatility of US stock prices towards the end of September and in early October.

Chart 11

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

(index: 1 July 2001 = 100; daily data)

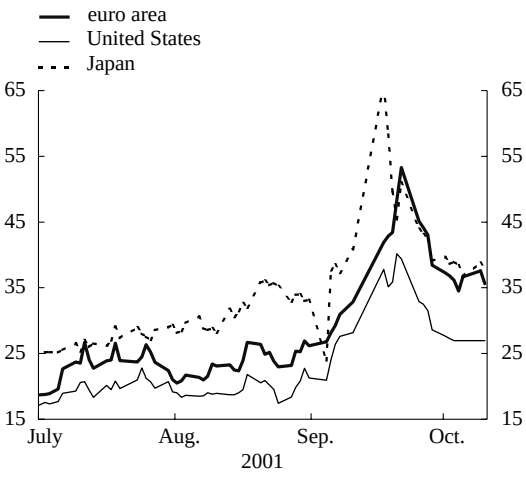


Source: Reuters.
Notes: Dow Jones EURO STOXX broad (stock price) index for the euro area, Standard & Poor's 500 for the United States and Nikkei 225 for Japan. From 1 January 2001 onwards, euro area data include Greek data.

Chart 12

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 index for the United States, and the Nikkei 225 for Japan.

In Japan, stock prices fell by 7% between the end of August and 10 October, bringing the overall decline since the end of 2000 to 28%. The events in the United States appeared to prompt a further downward adjustment to market expectations of output growth for the Japanese economy. Interventions in the foreign exchange market by the Bank of Japan to halt further appreciation of the yen seemed to contribute to a stock market recovery towards the end of September and in early October, as they had a positive effect on the stock prices of exporting companies. The implied volatility of the Nikkei 225 index increased markedly, after the terrorist attacks, but part of this was reversed later.

In the euro area, the Dow Jones EURO STOXX index declined by 9% between end-August and 10 October. Hence, the downward trend seen in recent months continued, bringing the cumulative decline since the end of 2000 to 27%. It appears that the perception by market participants of a deteriorating outlook for economic growth in the euro area was reinforced by the events in the United States, initially resulting in a broadly based decline in stock markets. Similar to developments in the United States, the sectors in which earnings were most likely to be directly affected by the events in the United States, such as the airline, insurance and tourism sectors, recorded the largest losses. The decline in stock markets was accompanied by a sizeable increase in implied volatility as derived from options on the Dow Jones EURO STOXX index. Implied volatility subsequently declined somewhat in early October, although it remained at high levels compared with those observed in recent years.

2 Price developments

HICP inflation slightly lower in August 2001

The year-on-year rate of change in the HICP, as reported by Eurostat, fell to 2.7% in August 2001 from 2.8% in July. When data for Greece are included in the base period over which the year-on-year rate of change is calculated, the annual rate of inflation is unchanged at 2.8% (see Table 2). The decline in the annual inflation rate from its peak of 3.4% in May 2001 reflects mostly energy price developments and, to a lesser extent, unprocessed food price movements (see Chart 13). Excluding the volatile components (energy and unprocessed food), the annual rate of change in the HICP, including Greece in the base period, was unchanged in August at 2.3%.

The year-on-year rate of change in the energy component of the HICP declined further in August 2001 to 2.1%, down from 2.9% in July. Energy prices fell 0.9% month-on-month in August, bringing the decline in energy prices over the last three months to 2.9%. While oil prices in dollar-denominated terms fell by 9.6% between May and August, the fall in euro-denominated terms was slightly larger, at 12.2%, due to the appreciation of the euro. Even though oil prices in euro-denominated terms were largely unchanged between August and September, favourable base effects from oil price movements one year

Table 2

Price and cost developments in the euro area

(annual percentage changes, unless otherwise indicated)

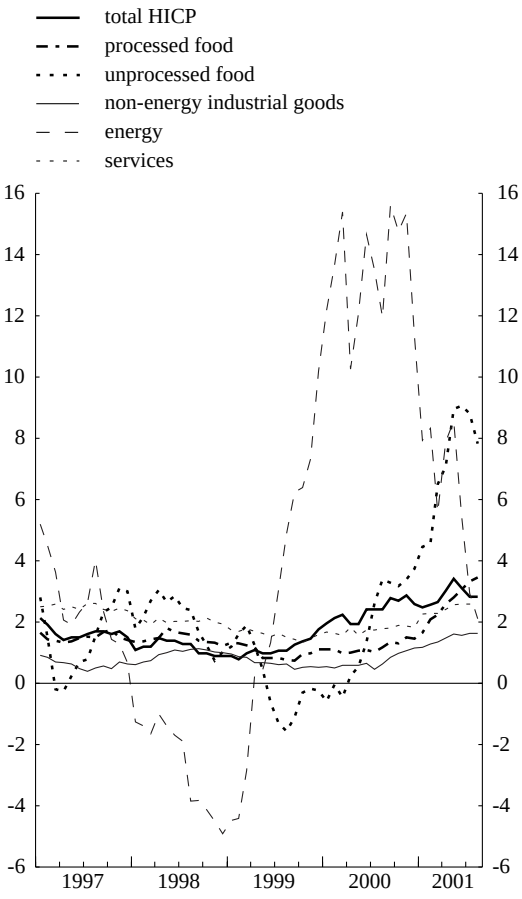
	1998	1999	2000	2000 Q4	2001 Q1	2001 Q2	2001 Q3	2001 Apr.	2001 May	2001 June	2001 July	2001 Aug.	2001 Sep.
Harmonised Index of Consumer Prices (HICP) and its components													
Overall index *of which:*	1.2	1.1	2.4	2.7	2.6	3.2	.	3.0	3.4	3.1	2.8	2.8	.
Goods	0.7	0.9	2.7	3.3	2.8	3.5	.	3.4	3.8	3.4	3.1	2.9	.
Food	1.7	0.6	1.4	2.2	3.2	5.0	.	4.3	5.2	5.4	5.5	5.2	.
Processed food	1.5	1.0	1.2	1.4	2.0	2.8	.	2.6	2.8	3.1	3.3	3.4	.
Unprocessed food	2.1	0.1	1.7	3.4	5.2	8.4	.	7.1	8.9	9.1	8.8	7.8	.
Industrial goods	0.2	1.0	3.4	3.8	2.6	2.8	.	2.9	3.2	2.4	1.9	1.7	.
Non-energy industrial goods	1.0	0.7	0.7	1.1	1.3	1.5	.	1.5	1.6	1.6	1.6	1.6	.
Energy	-2.6	2.3	13.4	13.8	7.3	7.3	.	7.9	8.6	5.4	2.9	2.1	.
Services	2.0	1.6	1.7	1.9	2.3	2.5	.	2.4	2.6	2.6	2.6	2.6	.
Other price and cost indicators													
Industrial producer prices [1]	-0.7	-0.4	5.4	6.2	4.5	3.7	.	4.2	3.7	3.2	2.1	1.7	.
Unit labour costs [2]	0.3	1.3	1.0	1.7	2.0	.	.	-	-	-	-	-	-
Labour productivity [2]	1.2	0.9	1.3	0.4	0.2	.	.	-	-	-	-	-	-
Compensation per employee [2]	1.5	2.3	2.4	2.1	2.2	.	.	-	-	-	-	-	-
Total hourly labour costs [3]	1.7	2.2	3.4	3.1	3.1	2.7	.	-	-	-	-	-	-
Oil prices (EUR per barrel) [4]	12.0	17.1	31.0	34.5	28.4	31.7	29.0	29.8	32.7	32.5	29.4	28.7	28.8
Commodity prices [5]	-12.5	-3.1	18.1	16.4	1.4	-0.9	-9.4	-1.1	-4.0	2.5	-1.0	-10.1	-16.7

Sources: Eurostat, national data, International Petroleum Exchange, HWWA (Hamburg Institute of International Economics) and ECB calculations.
Note: Data refer to the Euro 12 (including periods prior to 2001).
1) Excluding construction.
2) Whole economy.
3) Whole economy (excluding agriculture, public administration, education, health and other services).
4) Brent Blend (for one-month forward delivery). In ECU up to December 1998.
5) Excluding energy. In euro; in ECU up to December 1998.

Chart 13

Breakdown of HICP inflation in the euro area by component

(annual percentage changes; monthly data)



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

ago should result in a further fall in the contribution from energy prices to overall inflation. Furthermore, should the decline in oil prices in early October be sustained, then further falls in the contribution of energy prices to inflation should be observed in the coming months, reinforcing the expected decline in inflation.

Although the level of unprocessed food prices declined further in August 2001, with all of the decline resulting from fruit and vegetable price developments, there is no evidence that the prices of meat products have started to reflect an unwinding of the effects from BSE and foot-and-mouth disease. The year-on-year rate of change in unprocessed food prices declined to 7.8% in August from 8.8% in July. The year-on-year rate of change in processed food prices rose further in August, to stand at 3.4%, up from 3.3% in July. Much of the recent increase in processed food prices was due to developments in dairy and poultry-related products, providing support for the idea that the rise in the annual rate of change in processed food prices observed since December 2000 reflects the delayed impact of developments in unprocessed food prices.

The annual rates of change in the other HICP sub-components, non-energy industrial goods and services, remained steady from May to August 2001. The annual rate of change in non-energy industrial goods prices was unchanged at 1.6% and the year-on-year rate of change in services prices at 2.6%. Price trends observed further up the production chain suggest that the indirect upward impact from previous shocks may be peaking.

Although declines in the annual rate of change in non-energy industrial goods and services prices may be limited over the coming months, falls in the rates of change in the prices of the more volatile components, unprocessed food and energy, resulting from the unwinding of previous shocks, should lead to further decreases in the overall rate of inflation. Moreover, although the terrorist attacks in September in the United States are expected to have only a temporary impact on economic activity in the euro area, to the extent that economic activity is reduced, the impact should also result in some further easing of inflationary pressures.

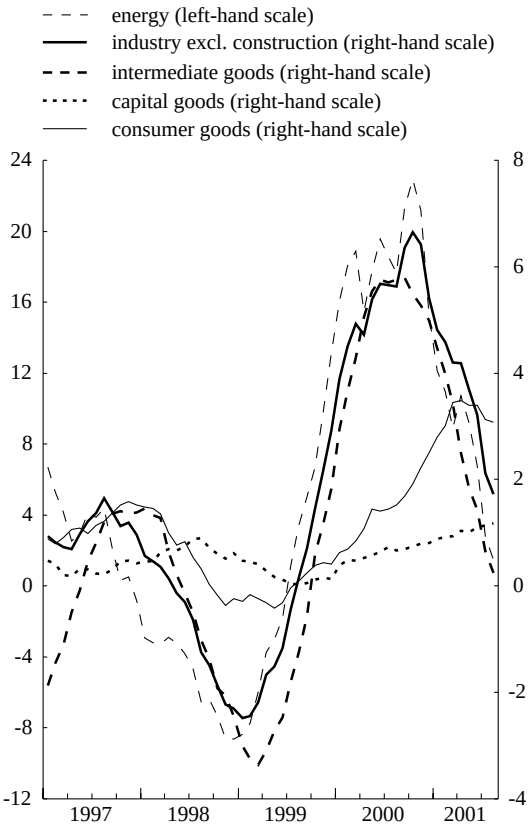
Further decline in the annual rate of change in producer prices in August 2001

The annual rate of change in industrial producer prices in the euro area declined to 1.7% in August 2001, down from 2.1% in July, with approximately half the fall resulting from energy price developments.

Chart 14

Breakdown of industrial producer prices for the euro area

(annual percentage changes; monthly data)



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

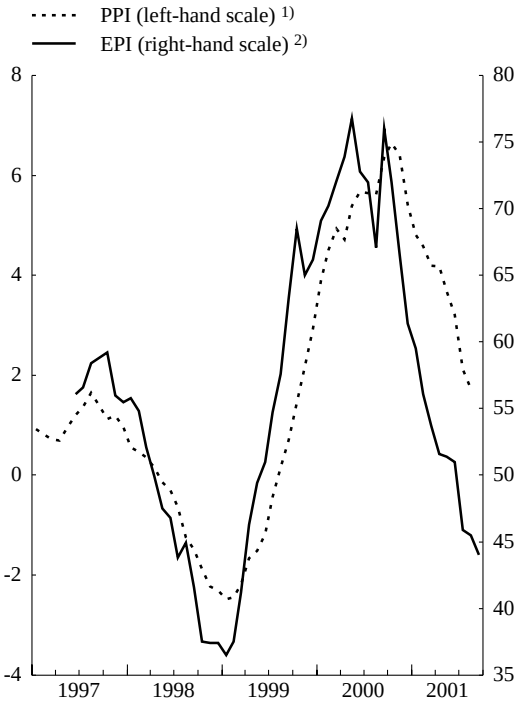
In terms of the main industrial groupings, the largest decline was observed in the year-on-year rate of change in energy prices, which fell from 2.8% in July to 1.4% in August (see Chart 14), reflecting both base effects and a decline in the price level in the energy sector of 0.6% in August. The year-on-year rate of change in intermediate goods prices fell to 0.2% in August, down from 0.7% in July. Thus, the impact on inflationary pressures from the intermediate goods part of the production chain is virtually neutral. The annual rate of change in consumer goods producer prices remained unchanged at 3.1% in August. In contrast, the annual rate of change in capital goods prices continued its gradual upward trend, increasing slightly in August to 1.2%, up from 1.1% in July.

With regard to survey indicators of future developments in producer prices, the latest information from the Eurozone Price Index, which measures input costs in the manufacturing sector, suggests that further downward movements in producer price changes may be expected (see Chart 15). Data from the latest European Commission Business Survey, also referring to September, support this view. The decreases observed in early October in euro-denominated oil prices would, if sustained, reinforce this pattern.

Chart 15

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.*

Decrease in the annual rate of change in hourly labour costs attributable to technical factors

The most recent data released by Eurostat suggest that the annual rate of change in euro area total hourly labour costs in the non-agricultural business sector declined to 2.7% in the second quarter of 2001, down from 3.1% in the first quarter. However, this decline is mainly due to technical factors, reflecting changes to wage payment practices in one euro area country. Analysis of the underlying data and consideration of reported wage negotiations suggest that the annual rate of change in hourly labour costs remained broadly unchanged compared with the first quarter and that wage developments remain relatively moderate.

Developments in residential property prices form an input into the analysis of risks to price stability under both pillars of the ECB's monetary policy strategy. Box 2 presents a brief review of house price developments in the euro area.

Box 2

Preliminary evidence on developments in euro area residential property prices

Residential property price developments in the euro area are an important input into the analysis of risks to price stability made within the ECB's two-pillar monetary policy strategy. Movements in house prices may influence consumer behaviour through confidence and wealth effects, and thus impact on consumption and saving patterns. In addition, an investigation of house price movements can contribute to the first-pillar analysis, which gives a prominent role to monetary aggregates and credit, as lending for house purchases represents a sizeable portion of overall loans to households. Finally, as loans for house purchases constitute a significant share of the lending of monetary financial institutions, extreme developments in house prices may have important implications for macroeconomic and financial stability.

Due to differences in legal frameworks, financial systems, historical factors and societal preferences, housing markets vary across the euro area. For example, the percentage of housing which is owner-occupied may vary according to, inter alia, tax regimes, legal protection offered to tenants, relative prices and cultural preferences. The proportion of houses to apartments may be different according to planning legislation, preferences and physical space constraints. These differences may have implications for aggregate house price measures as price trends for different house categories may vary over time, and the composition of additions to the housing stock (i.e. new housing) may differ significantly from the existing housing stock. Available national data sources vary according to whether they (a) include existing houses only, new houses only, or a combination of both, (b) include houses inside or outside the capital city only, or throughout the country, or (c) adjust for changes in the composition of housing. The last factor is used as a substitute for a proper adjustment for changes in the quality of housing transacted. Differences in market structure in terms of financing and broker intermediation in the property market also affect data availability, as frequently only mortgage-financed or agent-brokered transactions are reported.

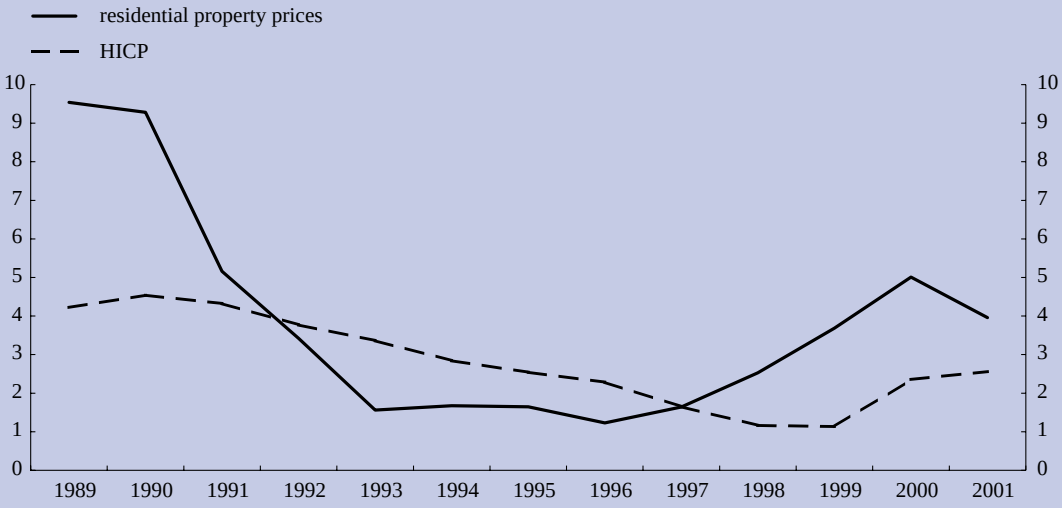
A harmonised framework for EU residential property price statistics does not currently exist and is not envisaged in the near future. National estimates sometimes originate from non-official or commercial sources. This box can therefore only present a rough measure of house prices in the euro area constructed from national sources, 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 available evidence on residential property price changes in the euro area between 1989 and early 2001. The declining annual rates of change observed between 1989 and 1993 reflect both an

unwinding of strong increases during the latter half of the 1980s and weak output growth in the euro area during the early part of the 1990s. Between 1993 and 1997 the measured rate of change in house prices was relatively stable, in the range of 1% to 2%. Between 1998 and 2000 the rate of increase picked up, reflecting developments in economic activity in the euro area and lower interest rates. In particular, with the advent of Economic and Monetary Union (EMU), asset prices in some countries may have adjusted to reflect the expectation of sustained lower inflation and consequently lower interest rates associated with EMU.

The chart presents the evolution of house price trends in the euro area alongside the development of consumer prices. There is little evidence that house prices in the euro area have moved significantly out of line with general price developments in the euro area as a whole over the period under review.

Euro area residential property prices and HICP
(annual percentage changes; annual data)



Sources: ECB calculations and Eurostat (HICP from 1995).
Note: Data for 2001 refer to the first quarter. Residential property price data are not harmonised; the euro area aggregate is calculated from estimates for 11 euro area countries; no data are available for Italy.

3 Output, demand and labour market developments

Growth in economic activity slowed down in the second quarter

With the exception of some survey data, the available information on real economic activity relates to periods before the terrorist attacks in the United States on 11 September. This information suggests that growth in economic activity in the euro area would remain subdued in the short term.

As reported in the previous issue of the Monthly Bulletin, according to Eurostat's first estimate, euro area real GDP rose by 0.1% quarter-on-quarter in the second quarter of 2001, down from 0.5% in the first quarter (see Table 3). The year-on-year growth rate also declined from 2.4% in the first quarter to 1.7% in the second. The contribution of net exports to real GDP growth was -0.3 percentage point in the second quarter of 2001 following a positive contribution of 0.5 percentage point in the first. As a result of the significant slowdown in world trade and lower intra euro area trade, export volumes declined by 1.2% quarter-on-quarter in the second quarter after a moderate increase of 0.3% in the first. Imports

continued to decline, by 0.6% in the second quarter after a decline of 1.1% in the first quarter of 2001. This decline is consistent with the weakness of changes in inventories and investment. Real investment decreased by 0.8% in the second quarter of 2001 after a slight increase of 0.1% quarter-on-quarter in the first, affected by the bleak external environment. Real private consumption growth slightly weakened at 0.6% quarter-on-quarter in the second quarter of 2001 after 0.8% in the first quarter. Nonetheless, consumption growth in the first half of 2001 was clearly higher than in the second half of 2000. This would suggest that the tax cuts effective in 2001 had a positive impact on private consumption in the first half of 2001, more than offsetting the negative effect arising from higher inflation.

Industrial production (excluding construction) declined in July 2001 by 1.6% month-on-month, after an increase in June of 1.0% (see Table 4). Also in terms of year-on-year growth rates, euro area production fell in July by 1.5%, after increasing by 1.7% in the previous month. In line with the weakening in world trade and real investment, in the three-month period up to July industrial production fell by 0.9% against the three-month period up to April. This compares to a decrease of 0.8% in the second quarter, and of 0.2% in the first quarter.

Similar developments have been observed in manufacturing production, which in July 2001 declined by 1.9% month-on-month after an increase of 1.2% month-on-month in the previous month. The main manufacturing sectors, the intermediate, capital and consumer goods sectors, all recorded a

Table 3

Composition of real GDP growth in the euro area

(percentage changes, unless otherwise indicated; seasonally adjusted)

	Annual rates [1]								Quarterly rates [2]				
	1998	1999	2000	2000 Q2	2000 Q3	2000 Q4	2001 Q1	2001 Q2	2000 Q2	2000 Q3	2000 Q4	2001 Q1	2001 Q2
Real gross domestic product	2.8	2.6	3.4	3.9	3.3	2.9	2.4	1.7	0.8	0.5	0.6	0.5	0.1
of which:													
Domestic demand	3.5	3.2	2.9	3.5	2.8	2.3	1.6	1.0	0.9	0.2	0.5	0.0	0.3
Private consumption	3.0	3.2	2.6	3.3	2.5	1.8	1.9	1.7	0.8	0.2	0.1	0.8	0.6
Government consumption	1.2	2.1	1.9	2.2	1.7	1.6	1.8	1.6	0.4	0.2	0.6	0.6	0.1
Gross fixed capital formation	5.1	5.5	4.4	4.9	4.1	3.3	1.8	0.1	0.9	1.0	-0.1	0.1	-0.8
Changes in inventories [3] [4]	0.4	-0.2	0.0	0.1	0.1	0.2	-0.3	-0.3	0.2	-0.1	0.3	-0.6	0.1
Net exports [3]	-0.6	-0.5	0.6	0.4	0.5	0.6	0.9	0.7	-0.1	0.3	0.1	0.5	-0.3
Exports [5]	7.1	5.1	11.9	11.9	12.0	11.4	8.6	4.8	2.4	3.1	2.6	0.3	-1.2
Imports [5]	9.7	7.0	10.7	11.1	11.0	10.3	6.5	3.1	2.8	2.4	2.3	-1.1	-0.6
Real gross value added:													
Agriculture and fishing [6]	1.7	2.6	0.0	-0.4	0.4	-0.6	0.2	0.4	-0.5	1.5	-0.2	-0.6	-0.3
Industry	2.6	1.1	4.2	4.5	3.9	3.6	2.6	0.6	0.5	0.6	0.6	0.9	-1.4
Services	3.0	3.1	3.5	3.8	3.4	3.2	2.8	2.5	0.8	0.6	0.7	0.6	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)

	1999	2000	2001 May	2001 June	2001 July	2001 May	2001 June	2001 July	2001 Feb.	2001 Mar.	2001 Apr.	2001 May	2001 June
						month-on-month			three-month moving averages				
Total industry excl. construction	2.0	5.4	0.0	1.7	-1.5	-0.3	1.0	-1.6	-0.2	-0.4	-1.1	-0.8	-0.9
by main industrial groupings:													
Total indus. excl. construction and energy [1]	1.8	5.7	-0.4	1.3	-1.7	0.0	0.7	-1.1	-0.4	-1.1	-2.2	-1.7	-1.3
Intermediate goods	1.5	5.8	-1.4	0.3	-2.6	0.1	0.6	-1.2	-1.4	-1.7	-2.3	-1.7	-1.3
Capital goods	2.4	8.5	1.1	2.8	-1.0	0.3	0.9	-1.6	1.0	-0.6	-1.7	-1.7	-1.0
Consumer goods	1.7	2.3	-0.4	1.3	-1.0	-0.2	0.3	-0.5	0.0	-0.1	-0.4	-0.4	-0.5
Durable consumer goods	1.4	5.8	-3.4	0.3	-6.0	-0.7	0.4	-2.3	-0.8	-1.1	-1.7	-1.6	-2.0
Non-durable consumer goods	1.7	1.6	0.2	1.6	0.1	-0.1	0.2	-0.1	0.2	0.2	-0.1	-0.1	-0.1
Energy	1.5	1.5	3.0	2.0	1.0	0.8	0.4	-0.5	0.6	1.4	1.3	2.1	1.8
Manufacturing	2.0	5.8	-0.4	1.6	-1.7	-0.5	1.2	-1.9	-0.4	-0.6	-1.5	-1.3	-1.4

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 manufacture of coke and refined petroleum products, but including non-energy mining and quarrying activities.

decrease in production in July. On a three-month moving average basis, production in the intermediate goods sector declined by 1.3%, in the capital goods sector by 1.0%, and in the consumer goods sector by 0.5%, the latter driven by the decline in the durable consumer goods sector (2.0%).

Business and consumer confidence weakened over the summer months

In October, the European Commission released the results of its Business and Consumer Surveys for both August and September (see Table 5). For the September results, most responses were provided before

Table 5

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

(seasonally adjusted data)

	1998	1999	2000	2000 Q4	2001 Q1	2001 Q2	2001 Q3	2001 Apr.	2001 May	2001 June	2001 July	2001 Aug.	2001 Sep.
Economic sentiment index [1]	2.4	-0.2	2.6	-0.4	-0.6	-1.4	-1.3	-0.5	-0.4	-0.6	-0.4	-0.6	0.0
Consumer confidence indicator [2]	6	7	12	12	12	9	3	11	9	8	5	3	2
Industrial confidence indicator [2]	6	0	12	12	8	2	-3	3	2	0	-2	-3	-4
Construction confidence indicator [2]	2	14	22	20	19	17	13	18	18	15	13	12	15
Retail confidence indicator [2]	3	0	5	2	3	-1	-1	1	-2	-2	1	-3	-1
Business climate indicator [3]	0.7	-0.1	1.3	1.3	0.9	0.1	-0.5	0.4	0.1	0.0	-0.4	-0.5	-0.6
Capacity utilisation (%) [4]	82.9	81.9	83.9	84.5	84.0	83.3	.	83.6	-	-	82.9	-	-

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 January 1985.
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.

the terrorist attacks in the United States. Euro area industrial confidence, as reported in the European Commission Business Survey, fell further by one index point in both August and September. The decline was mostly accounted for by falls in businesses' expectations of future production. The assessment of order books also fell, although only in September, while the assessment of stocks of finished products remained unchanged.

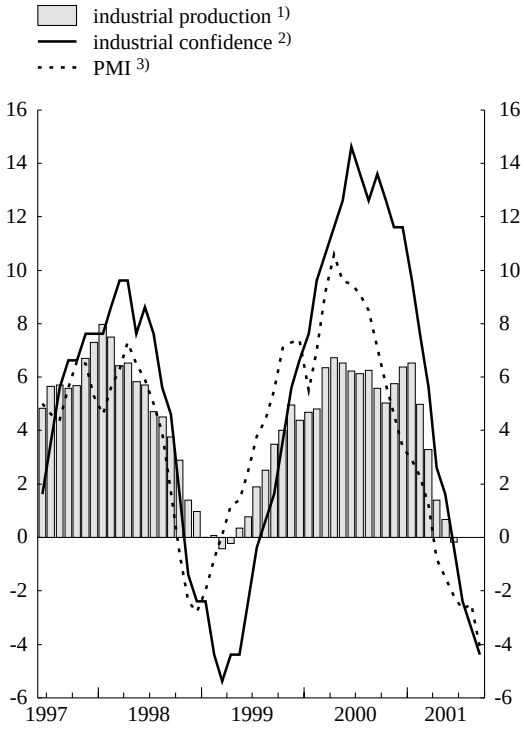
In September 2001, the Purchasing Managers' Index (PMI) for the euro area manufacturing sector declined by 1.6 index points to 45.9 after an increase of 0.2 index point in August (see Chart 16). Despite the small increase in August, the PMI indicates that production in the manufacturing sector declined further in the third quarter of 2001. The September 2001 survey was conducted after the terrorist attacks in the United States. Although the questions refer to a comparison of the actual situation in the current month with that in the previous month and not to expected developments, the September results may have been affected by the recent events. As regards the individual components, half of the decline in the PMI in September 2001 was due to a decline in the index for new orders. There were also declines in the indices for output changes and employment as well as a shortening in suppliers' delivery times, which point to reduced activity in the manufacturing sector. The index for stocks of purchased goods reported a small increase.

As regards the more volatile construction and retail confidence indicators, developments may best be observed on a quarterly basis. Confidence in the construction sector was lower in the third quarter compared with the second quarter, mainly reflecting lower employment expectations. The assessment of order books was broadly unchanged. The expected business situation in the retail trade sector was slightly lower in the third quarter, but overall confidence was unchanged.

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: When 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.

The calculation of the consumer confidence indicator has been revised by the European Commission to reflect the answers to forward-looking questions of the Consumer Survey. However, the earlier and new series on consumer confidence follow a very similar pattern. In August and September 2001, consumer confidence continued to decline because of more pessimistic unemployment expectations and a more pessimistic assessment of the future general economic situation. However, households' assessment of their own financial situation only fell slightly in August and remained unchanged in September. Regarding the decline in consumer confidence, it can be noted that

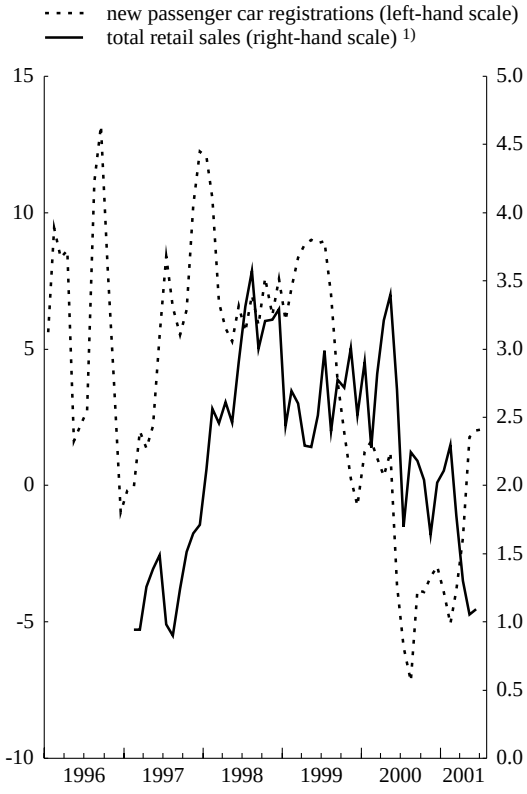
the link between consumer confidence and consumption growth is not always clear-cut, especially in the case of a decline driven in the short term by judgements of the general economic situation rather than by the consumers' own personal situation.

The volume of retail sales increased by 0.3% month-on-month in July, following an increase of 0.1% in June. In year-on-year terms the volume of retail sales increased by 1.1% in the three-month period up to July, after 1.1% in the second quarter and 2.3% in the first quarter of 2001 (see Chart 17). As regards the components of retail sales, over a longer term, sales of household equipment goods have shown a clear downturn to negative year-on-year growth in July 2001. In the three-month period up to August, growth in euro area new passenger car registrations weakened, increasing by just 1.2% against the preceding three-month period after increases of 4.0% and 6.5% in the three-month periods up to July and June respectively. Year-on-year, however, the three-month moving average growth rate still increased to stand at 2.1% in the period up to August.

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/A.A.A. (European Automobile Manufacturers' Association, Brussels).
Note: Data refer to the Euro 12 (including periods prior to 2001).
1) Calculated using seasonally adjusted data.

Uncertainty about the outlook has increased

Following the terrorist attacks in the United States, uncertainty about the outlook for the euro area economy has increased. It will be some time before data become available on the real economic developments, other than confidence indicators, which are needed to fully assess the impact of the recent events. It is, however, clear that the downward risk to the short-term outlook for economic growth in the euro area has increased. Nevertheless, a number of factors offer support. There are no fundamental imbalances in the euro area, which would require longer correction phases. In addition, financing conditions are favourable in the euro area, while the expected decline in inflation over the coming months should underpin growth in real disposable income and therefore in consumption.

Unemployment remained unchanged at 8.3% in August 2001

The standardised rate of unemployment for the euro area stood at 8.3% in August, unchanged compared with July (see Table 6). The absolute number of unemployed, however, continued to fall by around 26,000 in August, a number roughly similar to that of July. This decline was slightly larger than the average decline recorded in the second quarter of 2001 (13,000 on average per month). Nevertheless, it confirms the slowdown in the decline of unemployment recorded since the first quarter of 2001 (see also Chart 18), when the number of

Table 6

Unemployment in the euro area

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

	1998	1999	2000	2000 Q3	2000 Q4	2001 Q1	2001 Q2	2001 Mar.	2001 Apr.	2001 May	2001 June	2001 July	2001 Aug.
Total	10.8	10.0	8.9	8.8	8.6	8.4	8.4	8.4	8.4	8.4	8.4	8.3	8.3
Under 25 years [1]	21.5	19.5	17.5	17.2	16.8	16.5	16.5	16.5	16.5	16.5	16.5	16.4	16.3
25 years and over	9.3	8.6	7.8	7.6	7.5	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3

Source: Eurostat.
Notes: According to ILO recommendations. Data refer to the Euro 12 (including periods prior to 2001).
1) In 2000 this category represented 23.6% of total unemployment.

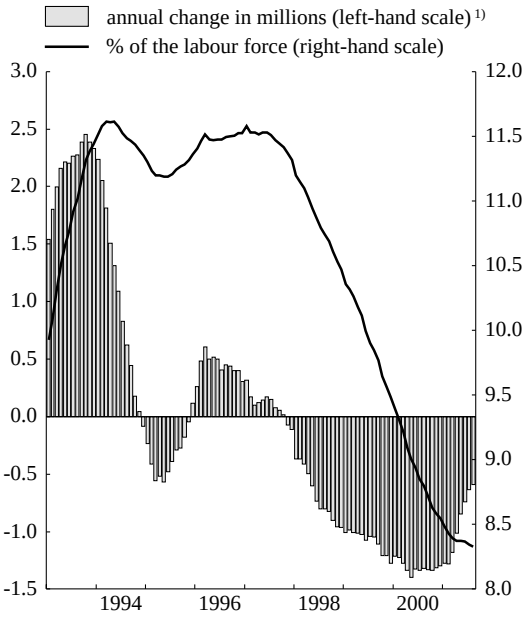
unemployed still decreased by an average 72,000 per month.

In recent months, the unemployment rate for those under the age of 25 seems to have been falling slightly more than for those aged 25 and over. Indeed, the youth unemployment rate fell by 0.1 percentage point both in July and in August, down to 16.3% (see Table 6). By contrast, the unemployment rate for the older age group remained unchanged from February to August 2001 at 7.3%.

Chart 18

Unemployment in the euro area

(monthly data)



Source: Eurostat.
Note: Data refer to the Euro 12 (including periods prior to 2001).
1) Annual changes are not seasonally adjusted.

Employment growth slowed down further in the second quarter of 2001

National account employment data for the euro area are still only available for the first quarter of 2001 and point to a 0.4% increase quarter-on-quarter (see Table 7). An estimate based on incomplete national sources suggests that the growth rate of euro area employment has been around 0.2% in the second quarter of 2001. This would lead to a decline in the year-on-year employment growth rate from 2.0% in the first quarter to around 1.6% in the second quarter of 2001. Employment expectations survey results, which have so far broadly anticipated employment developments (see Box 3), point to a continued slowdown in the third quarter of 2001, in line with the expected lagged impact of the economic slowdown. For the services sector, survey results continued to point to expectations of positive employment growth at the start of the third quarter, despite being less favourable than in the second quarter.

Table 7

Employment growth in the euro area

(annual percentage changes unless otherwise indicated; seasonally adjusted)

	1998	1999	2000	2000 Q1	2000 Q2	2000 Q3	2000 Q4	2001 Q1	2000 Q1	2000 Q2	2000 Q3	2000 Q4	2001 Q1
									Quarterly rates [1]				
Whole economy *of which:*	1.6	1.7	2.0	1.9	2.1	2.0	2.1	2.0	0.5	0.6	0.4	0.5	0.4
Agriculture and fishing [2]	-1.4	-3.1	-1.5	-1.8	-1.7	-1.6	-0.7	0.0	-0.3	-0.2	-0.4	0.2	0.4
Industry	1.0	0.3	1.0	0.7	1.0	1.0	1.2	1.2	0.2	0.4	0.2	0.4	0.3
Excluding construction	1.2	0.0	0.7	0.0	0.7	0.9	1.2	1.3	0.2	0.5	0.2	0.3	0.2
Construction	0.3	1.0	1.6	2.4	1.5	1.0	1.3	1.2	0.4	0.1	0.3	0.6	0.3
Services	2.2	2.6	2.8	2.6	2.9	2.8	2.8	2.4	0.7	0.8	0.6	0.6	0.4
Trade and transport [3]	1.7	2.4	2.9	2.9	3.1	2.8	2.7	2.1	0.8	0.7	0.7	0.6	0.2
Finance and business [4]	5.1	5.6	5.9	6.2	6.2	6.0	5.2	4.6	1.5	1.6	1.1	0.9	0.9
Public administration [5]	1.3	1.5	1.3	0.9	1.2	1.3	1.6	1.7	0.3	0.6	0.2	0.5	0.4

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.

Box 3

Euro area sectoral employment growth and employment business survey results

The year-on-year rate of growth in total employment increased in the course of 1999, and it stood at a high level of around 2% between the second quarter of 2000 and the first quarter of 2001. Favourable developments in economic activity stimulated a steady increase in services sector employment growth and positive employment growth in the manufacturing sector. In the second and third quarters of 2001, employment growth is expected to have shown signs of weakening, resulting from the lagged impact of the recent slowdown in economic activity. This expectation is mainly based on employers' replies to business surveys, which have proved to be a useful tool for anticipating employment developments at the sectoral level.

Two euro area business surveys on employment growth are currently available. The first is the European Commission (EC) Business Survey, which covers employment prospects in the months to come for a number of firms in the manufacturing, construction and retail trade sectors and, since very recently, the services sector as a whole. Survey results for the manufacturing and services sectors are released early in the second month of every quarter and refer to the same quarter, while expectations for retail trade and construction are issued monthly shortly after the end of the reference month. Data are provided from 1980 for the construction sector, from 1982 for the manufacturing sector and from 1986 for the retail trade sector. First results from the services survey only go back to the first quarter of 1999, and data are therefore too limited to show their predicting properties on actual employment growth in the services sector. The second available survey is from the Purchasing Managers Index (PMI) survey, collected by NTC Research on behalf of Reuters. It refers to samples of firms in manufacturing and in services. It is a monthly series and employers are asked to compare the level of employment in their firm with that of the previous month. Data are available relating to the period since July 1997 for the manufacturing sector and since July 1998 for services.

The charts show a fair degree of similarity between the employment survey results and the corresponding year-on-year employment growth rates provided by Eurostat. This similarity is also confirmed by standard correlation analysis. Given the available sectoral breakdown in ESA 95 national accounts, employment expectations for manufacturing can only be compared with employment growth in industry excluding construction, 95% of which is accounted for by manufacturing and the remaining 5% by utilities (such as water or electricity supply). The series on employment growth exhibits a high degree of positive contemporaneous correlation with the EC Business

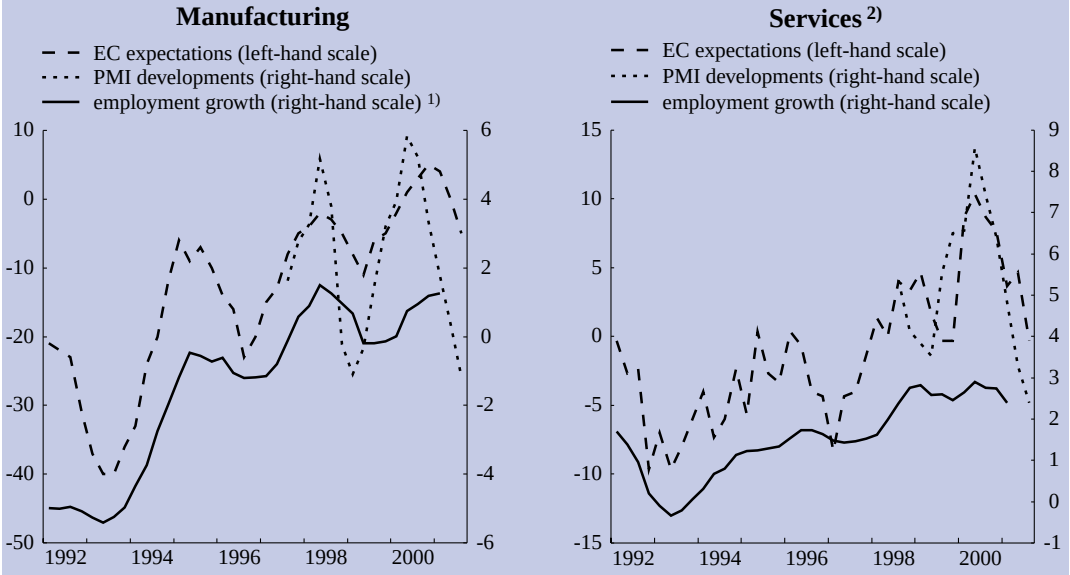
Survey results, while the degree of correlation is slightly lower with PMI survey results, with employment lagging somewhat. In the construction sector, a positive correlation can also be seen between actual employment growth and EC survey results. It is nevertheless somewhat lower than in manufacturing. This may reflect the fact that employment growth in construction tends to be more volatile and probably more difficult to predict. The correlation between the two series appears to be contemporaneous.

Finally, in the services sector, there is a rather large discrepancy as regards the coverage between the series for employment growth and employment expectations. While the longest series of EC survey results cover only retail trade, the most comparable national accounts' sub-sector given by the available breakdown of employment growth also includes wholesale trade, hotels and restaurants, transport and communications. In fact, retail trade accounts for less than half of the jobs registered in the ESA 95 sub-sector. Nevertheless, there appears to be a high degree of positive correlation between the two series, and, once again, survey results are contemporaneous to actual employment movements. As pointed out above, there has been a series of EC survey expectations for total services since January 1999, but there are still too few observations to carry out a similar analysis. Interestingly, the correlation between EC survey results for retail trade only and the series for employment growth in total services is also high, despite the discrepancy in coverage. The PMI survey results display a much lower positive correlation, but there again, the series is still far too short to draw any conclusions on the reliability of its relationship with actual employment growth in total services.

All in all, employment expectations are generally positively correlated with developments in year-on-year employment growth and follow contemporaneous movements. Given that employment survey results are published in a very timely manner compared with employment growth data (up to two quarters in advance), they provide a useful indication for sectoral and possibly total employment developments in the short run. However, some caveats should be mentioned. Surveys do not exhibit a real ability to predict turning points in employment developments. Expectation data from EC business surveys only cover business sector employment in part, and their correlation with employment, very high for the manufacturing sector, is lower for construction and retail trade, whereas PMI surveys are available for too short a period of time to properly assess their leading properties. At present, all surveys have in common that they point to a moderation in employment growth in the second and third quarters of 2001.

Employment business survey results and employment growth in the euro area

(annual percentage changes; percentage balances unless otherwise specified)



Sources: Eurostat, European Commission Business and Consumer Surveys, NTC Research and ECB calculations.
Note: A reading of PMI survey results above 0 indicates an increase in employment since the previous quarter and a value below 0, a decrease.
1) Refers to total industry excluding construction.
2) EC surveys refer only to retail trade; PMI results refer to most market related services (i.e hotels and restaurants, communication, financial intermediation, real estate and business services).

4 Exchange rate and balance of payments developments

Foreign exchange markets in the context of the terrorist attacks in the United States

In September, developments in the foreign exchange markets were mainly dominated by the tragic events in the United States. As a result, market uncertainty rose sharply on a temporary basis, and this appears, for the moment, to have shifted the markets' sentiment on exchange rates. Accordingly, some downward pressure on the US dollar was observed, while the Japanese authorities intervened in foreign exchange markets to counter a further appreciation of the Japanese currency. While the euro also appreciated, the main beneficiary of the dollar's decline was the Swiss franc, which gained from "safe haven" flows. Amid increasing global risk aversion, many emerging market currencies also weakened, reflecting their financial interdependence with the United States. Overall, however, the immediate market reaction proved rather moderate, which is not unusual compared with previous periods of sudden and unforeseeable shocks to industrial countries. In the wake of the decisions of major central banks to lower interest rates and to provide ample market liquidity, market uncertainty subsided and the euro traded within rather narrow margins against all major currencies towards the end of September and in early October.

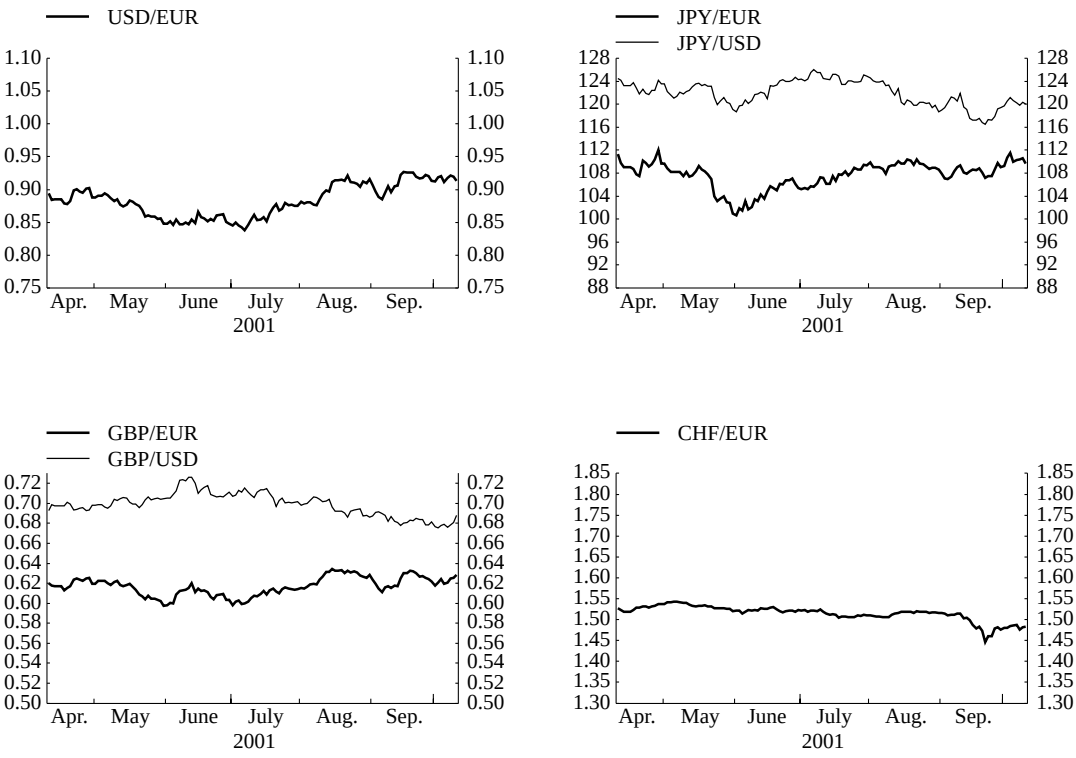
In early September, the US dollar strengthened amid conflicting signals on the state of the US economy. Following the terrorist attacks in the United States, uncertainty in foreign exchange markets temporarily surged, and the US dollar came under some depreciating pressure. However, the effects of these tragic events on the US currency are difficult to disentangle from other underlying factors weighing on the dollar in mid-September. In particular, a stream of data releases – including the "Beige Book" published by the Federal Reserve System on 19 September – broadly confirmed the subdued performance of the US economy before the events of 11 September. Against this background, the Federal Open Market Committee (FOMC) decided on 17 September, prior to the reopening of the New York stock exchange, to lower its target for the federal funds rate by 50 basis points. At its regular FOMC meeting on 3 October, the Federal Reserve System decided to cut its target for the federal funds rate further by another 50 basis points to 2.5%. The latter decision was widely expected and thus had no significant impact on the foreign exchange markets. In early October, some business and consumer confidence indices, which turned out to be better than anticipated in the aftermath of the attacks, provided rather mixed signals on the economic outlook. Together with the proposed fiscal stimulus package to cushion the slowdown, these data lent some support to the US dollar. On 10 October, the euro was quoted at USD 0.91 (see Chart 19), roughly at the same level as at the end of August and 1 % below its average value of 2000.

Despite further deteriorating business conditions in Japan, the Japanese yen was rather resilient at the beginning of September, owing mainly to the repatriation of sizeable funds from abroad. In the aftermath of the terrorist attacks on the United States, the Japanese yen even became subject to appreciating pressure. The Bank of Japan reduced its discount rate by 15 basis points on 18 September. Following the yen's rise to its highest level in six months against the US dollar in the third week of September, the Japanese authorities intervened repeatedly and unilaterally in foreign exchange markets to halt its appreciation. In early October, the weaker than expected Tankan Survey contributed to a weaker yen, which was quoted against the US dollar at roughly the same level on 10 October as before the attacks, although about 1% weaker than on 31 August. In comparison with end-August, the euro also appreciated by almost 1% against the Japanese yen, to stand at JPY 109.6

Chart 19

Patterns in exchange rates

(daily data)



Source: ECB.

on 10 October, which was more than 10% above its average level in 2000.

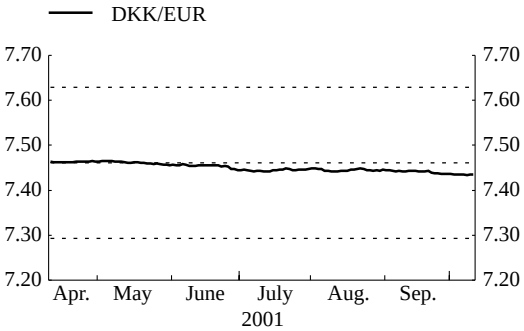
The pound sterling moved broadly in parallel with the US currency. After appreciating against the euro in early September, the pound sterling depreciated subsequent to the terrorist attacks on the United States, but partially rebounded again towards the end of September. The Bank of England cut its interest rates by 25 basis points on 18 September and again on 4 October. In late September, the strengthening of the pound sterling was also facilitated by somewhat stronger than expected data on real GDP growth for the second quarter of 2001, which, together with relatively strong private consumption, indicates that the slowdown in the United Kingdom might be less pronounced than in other major economies. Overall, the British currency was quoted at roughly the same level against the euro and the US dollar as at the end of August. On 10 October, the euro traded at GBP 0.63 vis-à-vis the pound sterling, i.e. about 3% above its 2000 average.

As regards other European currencies, the Danish krone continued to fluctuate within a

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 bands (±2.25% for DKK).

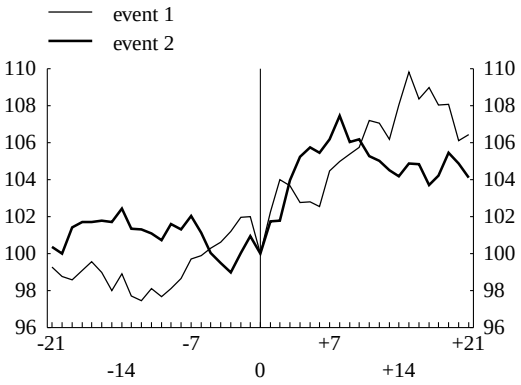
narrow range slightly below its central parity in ERM II (see Chart 20). In the third week of September, Danmarks Nationalbank as well as Sveriges Riksbank and the Swiss National Bank lowered their interest rates by 50 basis points. The strong appreciation momentum of the euro against the Swedish krona diminished towards the end of September, although the euro still traded more than 14% above its average against the Swedish currency in 2000.

In the aftermath of the tragic events in the United States, the Swiss franc strengthened amid "safe haven" flows, which reflects a typical pattern in periods of global tension (see Chart 21). The Swiss franc appreciated by up to 7% against the US dollar, temporarily reaching its highest level since January 2000. It initially also gained more than 4½% against the euro, trading at its highest level since the launch of the single currency. Subsequently, however, amid diminishing uncertainty in foreign exchange markets and a second interest rate reduction by the Swiss National Bank in reaction to the rapid appreciation of the Swiss franc against the euro in September, the Swiss currency lost roughly half of its earlier gains. On 10 October, the euro traded at CHF 1.48 against the Swiss franc, roughly 2% below its level on 30 August.

Chart 21

USD/CHF developments in two periods of tension [1)]

(index: day of event = 100)



Source: ECB.

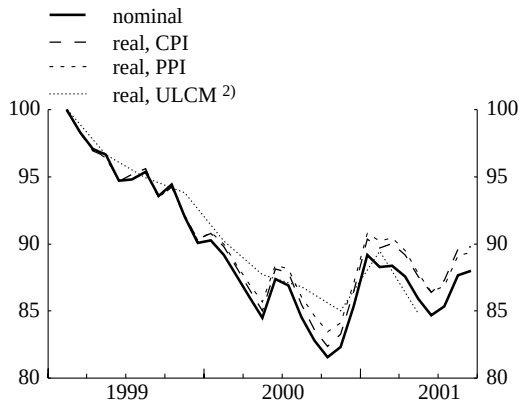
1) Data refer to a window of ± 21 business days around the Iraqi invasion of Kuwait (event 1, on 2 August 1990) and around the terrorist attacks in the United States (event 2, on 11 September 2001).

Chart 22

Effective euro exchange rates

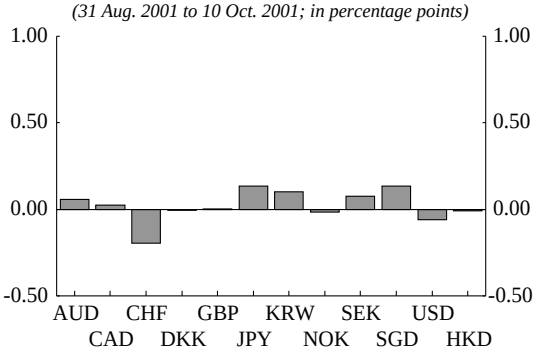
Nominal and real EERs [1)]

(monthly/quarterly averages; index: 1999 Q1 = 100)



Contributions to nominal EER changes [3)]

(31 Aug. 2001 to 10 Oct. 2001; in percentage points)



Source: ECB.

1) An upward movement of the index represents an appreciation of the euro. The latest observations are for September 2001 or, in the case of the ULCM-based real EERs, Q2 2001.

2) Unit Labour Costs in Manufacturing.

3) Changes are calculated using trade weights against 12 major partner currencies.

The nominal effective exchange rate of the euro, as measured against the currencies of the euro area's 12 most important trading partners, stood at roughly the same level on 10 October as at the end of August and approximately 3½% above its average level in 2000. In real terms, movements in CPI, PPI and ULCM-deflated effective exchange rates continued to follow the trend of the nominal index fairly closely (see Chart 22).

Current account deficit increased in July 2001

The current account deficit of the euro area increased from €2.5 billion in July 2000 to €4.1 billion in July 2001, mainly because of an increase in the deficit for income (from €4.7 billion to €8.1 billion), combined with a slight decrease in the surplus for services. These developments were only partly offset by an increase in the goods surplus (from €6.3 billion to €8.5 billion), while the deficit for current transfers remained virtually unchanged.

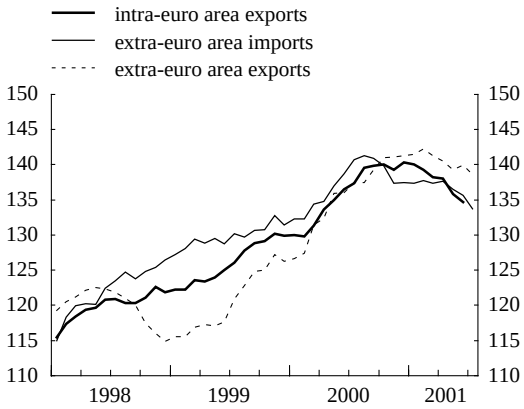
From January to July 2001, the cumulated current account deficit nonetheless declined to €15.3 billion, compared with €23.2 billion in the same period last year. This largely reflects a strong increase in the goods surplus, from €18.2 billion to €34.7 billion, which was only partially counterbalanced by the €7.6 billion increase in the deficit for income. Meanwhile, the cumulated deficits for services and current transfers increased only marginally.

Seasonally adjusted data show that the increase in the extra-euro area goods surplus since the beginning of the year is mainly attributable to a fall in the value of imports, largely resulting from lower import prices, while export values broadly stabilised in reflection of weak foreign demand. Chart 23 shows that the growth in extra-euro area export volumes (available until July 2001) slowed down around October 2000 and started declining around February 2001, while that in extra-euro area import volumes decelerated somewhat earlier and has remained broadly on a declining trend since September 2000. Intra-euro area export volumes (which are, by definition, equal to intra-euro area import volumes and are available until June 2001) also declined at about the same rate as extra-euro area import volumes from around January 2001 onwards. The slowdown in domestic demand, particularly in import-intensive categories such as investment expenditure, seems to be the principal factor driving the observed

Chart 23

Intra-euro area and extra-euro area trade volumes [1)]

(1999 = 100, seasonally adjusted, 3-month moving average)



Sources: Eurostat and ECB calculations based on Eurostat data.

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

decline in both extra-euro area import and intra-euro area export volumes.

As for trade price developments (proxied by unit value indices), intra-euro area and extra-euro area export unit value indices (available until June and July 2001 respectively) rose at roughly the same rate from January 1998 (see Chart 24). However, extra-euro area import unit value indices followed a different pattern as they were mostly driven by exchange rate and oil price developments. After peaking in November 2000, extra-euro area import unit values subsided significantly until April 2001 – mainly as a result of declining oil prices – and have since then remained well below last year's peak levels.

Net direct and portfolio investment inflows in July 2001

As in June, the euro area experienced combined net direct and portfolio investment inflows of €8.8 billion in July 2001.

Net inflows of €7.2 billion in the direct investment account resulted from net inflows of €13.5 billion in "other capital" – mostly

Table 8

Balance of payments of the euro area

(EUR billions; not seasonally adjusted)

	2000 Jan. - July	2000 July	2001 Jan. - July	2001 May	2001 June	2001 July
Current account balance	-23.2	-2.5	-15.3	-0.8	-0.8	-4.1
Credits	882.1	132.3	999.9	146.2	144.0	147.9
Debits	905.3	134.9	1015.1	147.0	144.8	152.0
Goods balance	18.2	6.3	34.7	5.3	8.3	8.5
Exports	536.3	81.5	605.3	88.9	89.1	90.0
Imports	518.1	75.3	570.6	83.6	80.8	81.6
Services balance	-1.2	1.5	-1.5	1.8	0.5	0.9
Exports	157.3	25.8	173.8	26.7	25.6	28.6
Imports	158.5	24.4	175.2	24.9	25.1	27.7
Income balance	-17.8	-4.7	-25.4	-2.6	-3.2	-8.1
Current transfers balance	-22.4	-5.5	-23.2	-5.3	-6.4	-5.4
Capital account balance	7.6	0.5	6.9	0.5	0.8	0.4
Financial account balance	38.1	-11.5	-7.6	-4.6	-15.6	-12.0
Direct investment	105.0	-24.6	-83.9	-40.4	-7.9	7.2
Abroad	-155.1	-19.9	-138.8	-48.4	-18.0	-6.0
Equity capital and reinvested earnings	-106.0	-28.0	-101.5	-41.6	-9.3	-11.8
Other capital, mostly inter-company loans	-49.1	8.0	-37.3	-6.7	-8.7	5.8
In the euro area	260.1	-4.7	54.9	8.0	10.0	13.2
Equity capital and reinvested earnings	215.9	5.5	47.9	7.7	4.6	5.4
Other capital, mostly inter-company loans	44.2	-10.2	7.0	0.3	5.4	7.8
Portfolio investment	-150.6	-13.1	-4.9	24.9	27.7	1.6
Equities	-246.5	-20.5	68.2	48.7	25.5	4.4
Assets	-197.8	-26.2	-68.9	-9.7	-11.0	-8.4
Liabilities	-48.7	5.7	137.1	58.4	36.5	12.8
Debt instruments	95.9	7.3	-73.1	-23.8	2.2	-2.8
Assets	-70.3	-9.6	-84.4	-12.1	-16.7	-4.0
Liabilities	166.2	17.0	11.3	-11.7	18.9	1.2
Memo item:						
Combined net direct and portfolio investment	-45.6	-37.8	-88.8	-15.4	19.8	8.8
Financial derivatives	7.2	-0.4	-8.1	3.4	-5.0	-4.8
Other investment	73.9	27.7	77.2	11.1	-29.5	-16.0
Reserve assets	2.7	-1.1	12.1	-3.6	-0.8	-0.0
Errors and omissions	-22.5	13.5	16.0	4.9	15.5	15.7

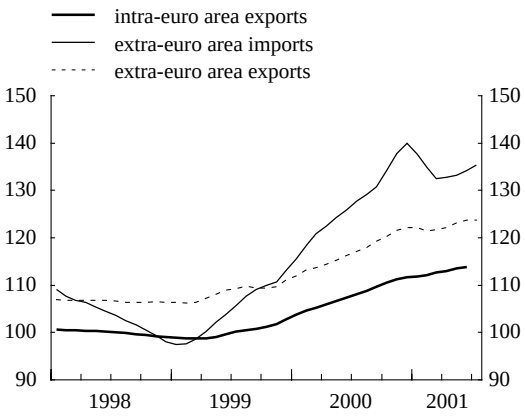
Source: ECB.

Notes: Figures may not add up due to rounding. For the financial account, a positive sign indicates an inflow, a negative sign an outflow; for reserve assets, a negative sign indicates an increase, a positive sign a decrease. A detailed set of tables on Euro 12 balance of payments data can be found in the "Past data for selected economic indicators for the euro area plus Greece" part of the "Euro area statistics" section of this issue of the Monthly Bulletin and on the ECB's website.

Chart 24

Intra-euro area and extra-euro area trade unit value indices [1)]

(1999 = 100, seasonally adjusted, 3-month moving average)



Sources: Eurostat and ECB calculations based on Eurostat data.

1) All data refer to the Euro 11; latest extra-euro area observations are for July 2001; latest intra-euro area observations are for June 2001.

inter-company loans – which more than compensated for net outflows of €6.3 billion in equity direct investment. The net inflow into the portfolio investment account of the euro area (€1.6 billion) derived from net equity inflows (€4.4 billion) exceeding the net outflows in debt instruments (€2.8 billion; see Table 8).

Despite the net inflows recorded over the past two months, cumulated net outflows for direct and portfolio investment from the euro area in the first seven months of 2001 were higher than those for the same period in 2000. Since the beginning of 2001, however, there has been a change in the composition of capital flows. Net inflows in direct investment in the corresponding period for 2000 (€105.0 billion) have become net outflows in 2001 (€83.9 billion). By contrast, large net outflows in portfolio investment (€150.6 billion) for the period from January to July 2000 have turned into a close-to-balance portfolio investment account in 2001. It should be noted, however, that data for 2000 were strongly affected by unusually large merger and acquisition transactions.

Issues related to monetary policy rules

In the recent academic literature, monetary policy rules have become a prominent feature. In this context, a policy rule is often understood as a description, for all possible contingencies, of how a policy instrument reacts to changes in the economic environment. Such a rule is typically either postulated in a simple form, linking the policy instrument to a small set of economic variables or indicators, or it is derived explicitly from an optimisation problem given a particular representation of policy objectives and the working of the economy.

This article discusses some issues related to such rules for monetary policy. It argues that simple rules linking changes in the monetary policy instrument directly to the evolution of a restricted number of indicator variables are too rigid and inefficient. At the same time, optimising rules based on some given model of the economy cannot take sufficient account of the limitations of the central bank's knowledge as regards the state of the economy and the "true" economic model.

In practice, central banks have to cope with the fact that knowledge about the economy is imperfect. For this reason, a commitment to a monetary policy strategy, which sets out the policy objective and the tools used to achieve it, is the appropriate way to take into account all relevant information, as well as model uncertainty and structural change in the economy. A monetary policy strategy provides a systematic framework for the analysis of information and the taking of policy decisions, without specific policy conclusions being predetermined in a mechanical manner.

1 Rules in monetary policy

The experience of the 1970s awakened policy-makers, observers and the general public to the causes and costs of high inflation. The late 1970s thus saw a lively resurgence of interest among economists in the issue of optimal monetary policy design. In academic circles, this period witnessed a revival of the long-standing monetary policy debate on rules versus discretion. The voluminous literature on monetary policy rules that has developed since then has contributed a number of key insights into the "science of monetary policy".

The first key contribution concerned the nature, scope and limits of monetary policy-making: in short, it considered the legitimate long-term *objectives* of monetary policy-making. In its original form, this debate built on the observation that paper money has historically created a temptation to engineer inflation surprises on an unsuspecting public. One source of such temptation has been attempts by governments to pursue a policy aimed at maintaining output above the "natural" or "potential" level to which it will gravitate in the long run. However, monetary "surprises" aimed at boosting output in the short run become ingrained in expectations over time. Moreover, if price setting depends on expectations of the future, higher expected inflation quickly turns into higher actual inflation. Thus, stimulative monetary "surprises" would rapidly lose their leverage – being anyhow only of a temporary nature – over the level of real economic activity. Against this background, any announcement by the central bank of its determination to keep inflation low and stable would not be believed. Inflation would be permanently higher – reflecting the so-called "inflation bias" – without any lasting gains in terms of output and employment, compared with a situation where policy-makers could commit themselves not to succumb to the temptation to surprise.

It was concluded that any appropriate policy rule should preclude attempts by the central bank to push output above its "natural" or "potential" level. One way to achieve this was to grant central banks institutional independence and assign them a clear, overriding mandate to maintain price stability on the grounds that this would serve to insulate monetary policy from pressures to pursue inappropriate objectives.

However, the problem of the credibility of monetary policy has not disappeared with the resolution of the academic dispute on objectives. Assigning a central bank a mandate based on outcomes – say, the achievement of price stability or low inflation – is no guarantee in theory that the preferred outcome will ultimately be delivered. Moreover, an understanding of the central bank's actions is important for its credibility and, therefore, its effectiveness in achieving its objectives. Thus it is now increasingly recognised that the case is strong for monetary policy to behave in a predictable and systematic way over time in order to have a stabilising effect on expectations. In this context, a clear framework, or strategy, that disciplines policy choices and keeps decisions consistently anchored to the mandated objectives can enhance the macroeconomic outcome in the medium term.

The notion of consistency in the way monetary policy responds to new occurrences has thus restated the importance of rules for monetary policy from a different angle. At the same time, the concept of monetary policy rules has been broadened considerably. In most recent literature, the scope of a rule goes beyond the long-term objectives of a central bank and embraces the procedures and strategies that should systematically guide the conduct of monetary policy along its way.

The renewed emphasis on rule-guided monetary policy in recent academic literature is generally welcome on two grounds. First, it provides a salutary antidote to the perennial risks of a discretionary, ad hoc approach to policy-making. Second, more recent literature has begun to move in the direction of greater realism, and thus greater relevance for practical policy, by restating the role of rules in the form of strategies and procedures guiding the daily conduct of monetary policy. The challenge for monetary policy in practice is to retain the virtues of rule-based policy-making, while taking into account the complex, uncertain and constantly evolving environment facing monetary policy-makers. In this respect, an explicit framework for information processing and decision-making by central banks can provide a further disciplining element in addition to a strong commitment to the overriding policy objective. As a consequence, the public is more likely to perceive monetary policy as moving steadily in a clear direction towards the indicated end-point, facilitating the achievement of the ultimate goal of price stability.

2 Simple rules

Traditionally, central banks and academics have tended to seek simple policy rules in order to reduce discretion and foster credibility. Simple rules were seen as a safeguard against overly ambitious policies, which were likely to become a source of additional uncertainty in the presence of long, variable and uncertain effects of policy on the economy.

In particular, simple *unconditional* policy rules have a long and distinguished history in monetary economics. The gold standard and, in general, all regimes making paper money directly or indirectly convertible into a precious commodity at a fixed price are prominent examples of this class of simple rules. Another simple unconditional rule providing a nominal anchor for the operation of a fiat currency is the constant money growth rule advocated by Milton Friedman, among others.[1] According to his proposal, the central bank should establish a constant rate of growth for the stock of money and maintain that growth rate consistently. Both a commodity currency regime, such as the gold standard, and the constant money growth rule rely entirely on a self-balancing

1 *See, for example, Milton Friedman (1956): "The quantity theory of money: A restatement" in Studies in Quantity Theory, Chicago University Press.*

endogenous reaction in the real interest rate relevant for private sector decisions to changes in output and prices. For example, a rule keeping the growth rate of money constant would generate an endogenous rise in the real interest rate in the wake of an increase in aggregate demand above potential output. This adjustment in the real interest rate would counteract the inflationary pressures associated with the excess demand.

However, in many circumstances such self-balancing forces in the economy may not operate to a sufficient degree or at an acceptable speed. Under certain circumstances, simple unconditional rules – like an unfettered gold standard or a constant money growth rule – may lead to undesirably high volatility in prices and output. As a consequence, such rules have not, in practice, been applied in their strict form.

Somewhat more elaborate *contingency* rules linking a policy instrument to a set of indicators have therefore been proposed in the theory of economic policy. A feedback or reaction formula of this kind makes the monetary policy instrument a mechanical function of a restricted number of information variables. The idea underlying simple feedback functions is, in principle, straightforward. Borrowing from control engineering, it builds a parallel between an economy and a mechanical system, the motion of which is controllable by an instrument. The feedback function spells out the way this instrument will react, over time, to what happens to the system in order to regulate and stabilise its functioning. Applied to the theory of monetary policy, a feedback function establishes a direct link between a number of selected information variables – deemed good indicators of risks to price stability – and an instrument used for monetary policy purposes.

The analytical framework of these simple state-dependent rules varies considerably across proposals. However, most share the notion that monetary policy should be geared towards achieving price stability or a low inflation rate in the medium term. Some rules also reflect the idea that monetary policy should minimise undue short-run fluctuations of output around its long-term potential. Differences concern the policy instrument which the central bank is assumed to adjust in reaction to the state of the economy, and the information variables taken to signal which state has emerged.

As far as the selection of the instrument is concerned, the proposed alternative is between the stock of base money and a short-term interest rate under the control of the central bank. A rule based on setting the level of base money requires that the central bank conduct open market operations to the extent necessary to enforce the quantity indicated by the rule and to accept whatever interest rate is required for base money demand to absorb that prescribed quantity. Alternatively, a rule based on the setting of interest rates implies that the quantity of base money be adjusted via appropriate open market operations to clear the market for base money at the particular interest rate implied by the rule.

Information variables – acting as the triggers of change in the instrument – are also diverse across rules. They may or may not include the variables directly representing the ultimate policy objective, i.e. first and foremost the inflation rate. In any event, information variables include macroeconomic indicators thought to be suggestive of the extent to which the goal variables risk departing from the stated targets.

One example of a simple feedback formula is the base-money rule, which was proposed by McCallum.[2] According to this rule, the central bank adjusts the monetary base in response to (i) deviations in the growth rate of nominal GDP from a specified target and (ii) some estimate of changes in money base velocity.

2 *See Bennett T. McCallum (1988): "Robustness properties of a rule for monetary policy", Carnegie-Rochester Conference Series on Public Policy 29.*

This type of rule has attracted somewhat less attention in recent years. This may be partly due to the tendency to assign monetary policy an unambiguous role in maintaining price stability, while a nominal GDP target may tend to blur responsibilities. In addition, central banks' operational frameworks, by and large, make it more natural to think of the interest rate as the policy instrument rather than the monetary base.

The following discussion, therefore, focuses on an example of a simple rule formulated in terms of the policy interest rate, namely a type of rule widely known as the "Taylor rule".[3] This rule has become rather popular both in academic literature and among professional central bank watchers in recent years.

Taylor-type rules

A conventional linear formulation of the Taylor rule is the following:

$$(1) \quad i_t = r^* + \pi^* + \alpha(\pi_t - \pi^*) + \beta(y_t - y^*)$$

where the short-term nominal interest rate i_t decided by the central bank at time t is set to track its long-term level (which is given by the sum of the long-run equilibrium value of the short-term real interest rate r^* and a long-term inflation objective π^*), unless contemporaneous inflation π_t is out of line with its long-term objective π^* and/or output y_t deviates from its long-term potential level y^*. In this formulation, the weights α and β assigned to the inflation and output deviations measure how aggressively policy should respond to deviations in inflation from its target, and in output from its potential level.

Typically, α is set at a value in excess of unity. This numerical constraint, known as the "Taylor principle", is thought to ensure that observed signs of inflationary pressures are met with a tightening of policy to a degree sufficient to induce an increase in the real rate of interest. This rise in the real rate of interest, in turn, is considered a guarantee that the destabilising forces acting on contemporary consumption and production decisions via inflation expectations are countered effectively and that aggregate spending is restrained in an equilibrating fashion. Some alternative representations of the rule feature a number of additional lagged terms on the right-hand side of the above expression, including lagged terms of the nominal interest rate instrument itself.

Forecast-based variants of this rule, featuring expected inflation $E_t\pi_{t+k}$ at the horizon k coinciding with the typical lag of monetary transmission, have also been proposed. Promoters of this latter version of the Taylor rule regard the inflation forecast term as an intermediate target variable of monetary policy, and often drop the output gap expression from (1). This is done on two grounds. First, it is argued that, when framing their response pattern, monetary authorities need to be conscious of the lags between the enactment of policy and its impact on inflation. These lags are regarded as being conveniently incorporated by choosing an appropriate forecast horizon k and by regarding $E_t\pi_{t+k}$ as a leading indicator of future price pressures. Second, since the current output gap is considered useful for predicting future inflation, it is already implicitly taken into account by the inflation forecast term and is thus not needed as an additional variable in (1), unless there is an explicit output smoothing objective (see Box 1 for details).

Proponents ascribe a number of virtues to Taylor rules. First, they are seen as very simple, easy to execute for the central bank and easy to verify, ex post, for the private sector. They therefore seem to simplify the communication of policy orientations to the general public. Second, proponents of the forecast-based version go as far as arguing that, in using predicted inflation as a trigger for reaction, this version of the rule

3 *See the seminal paper by John B. Taylor (1993): "Discretion versus policy rules in practice", Carnegie-Rochester Conference Series on Public Policy 39.*

encompasses all the relevant information for the purpose of policy-making.

A discussion of Taylor-type rules

It is a principle of good policy management that evidence of an incipient departure of key macroeconomic indicators from the values considered compatible with the objectives should make central banks vigilant and ready to act. In this sense, any systematic rule which feeds back from signs of divergence between objectives, on the one hand, and long-run sustainable values or outturns, on the other, encapsulates features of standard practice among stability-oriented central banks. This may partly account for the apparent success of some of these simple rules in loosely tracking past policy moves by central banks.[4]

However, it would be misleading to broaden the interpretation of these tests to inferences about the actual motives behind these central banks' steps in the conduct of policy. It should be noted that a number of monetary strategies, including the pursuit of a broad money growth target, if successful in maintaining the purchasing power of the currency, may – over a long sample period – be empirically indistinguishable from a policy wedded to the Taylor rule. As a consequence, a good econometric fit of a Taylor-type rule would have little, if anything, to suggest how central banks reacted to economic data and which indicators they actually consulted in the process of framing decisions. In addition, in making such empirical assessments, it should be kept in mind that econometric results, in general, appear to be very different depending on whether real-time or, alternatively, successively revised time series for output gaps are used.[5]

Normative implications of Taylor rules are, of course, even more difficult to substantiate. The first and foremost note of caution stems from considerations of efficiency in the use of information for policy purposes and applies to all simple rules in general. It cannot be assumed that all relevant information needed to conduct monetary policy is encapsulated in current inflation and the output gap. Other variables, such as monetary and credit aggregates, fluctuations in exchange rates, stock valuations, fiscal indicators, variations in international commodity prices and wage agreements are highly indicative of macroeconomic developments and thus help to interpret the current economic situation. Much of the daily work conducted in central banks is devoted to tackling the information problem. The collection of as large a body of statistics as necessary is undertaken to enable conclusions to be drawn about the sources and propagation patterns of business cycle shocks, their nature and duration, and their structural implications. A simple Taylor rule would be incapable of processing all the material and would ignore the great bulk of the insight that this wealth of evidence routinely provides to decision-makers.

Furthermore, different sources of shocks call for very different policy responses. The need for policy to react in the face of incoming evidence depends, inter alia, on whether shocks arise from the supply or demand side of the economy and whether they represent temporary disturbances to an unchanged underlying structure or a lasting alteration of economic parameters. Demand shocks are typically associated with deviations of inflation from the objective and of output from trend in the same direction. For instance, higher demand is generally associated with a hike in inflation and an upsurge in output. In these circumstances, the change in the real interest rate suggested by the rule tends to have an equilibrating impact on both prices and output. It may thus be deemed appropriate to alleviate the contemporary price pressures by facilitating a reabsorption of emerging capacity excesses, thereby removing the output conditions that could perpetuate those pressures in the future.

4 *See, for example, Richard Clarida, Jordi Galí and Mark Gertler (1998): "Monetary policy rules in practice: some international evidence", European Economic Review 42, pp. 1033-68.*

5 *See, for example, Anastasios Orphanides (2000): "The quest for prosperity without inflation", ECB Working Paper No. 15, March 2000.*

By contrast, monetary authorities often need to react differently to a shock on the supply side, which causes output and prices to move in opposite directions. In this instance, the potential of such a shock to develop into a self-perpetuating destabilising force has to be assessed primarily on the basis of labour and goods market information that cannot be adequately processed using the Taylor formula. Price-setting habits and wage agreements have to be attentively monitored and taken into account to ensure that the shock remains temporary and does not affect inflation expectations in a permanent fashion.

In short, driving forces of different natures, possibly associated with the same inflation outturn or forecast, require offsetting actions of varying intensity and duration, as they set in motion quite different dynamics and are associated with possibly opposite tendencies in the evolution of real variables. Taylor rules, by unduly restricting the universe of information brought to bear upon policy decisions, are not a reliable guide for policy from this perspective.

Furthermore, despite their much-popularised practical orientation, conventional Taylor rules are not as straightforward to implement as is sometimes argued. The output gap and the equilibrium real interest rate – both crucial to a normative usage of the rules – are non-observable variables. Their estimation is a very delicate task, which makes their systematic use as guides for daily policy management a perilous undertaking. Moreover, depending on the estimating methods employed, the resulting Taylor interest rates may vary over a wide range and thus not provide clear policy signals.

The output gap concept has proved elusive and available estimates are widely dispersed.[6] Conventional detrending methodologies used to estimate the excess of actual output over capacity are notoriously prone to real-time mismeasurement and suffer from a lack of theoretical foundation. Similarly, attempts to make intensive use of economic theory in constructing measures of the "natural" level of output, at which price pressures are supposedly absent, also rely on questionable assumptions and do not constitute a reliable basis for policy decisions. In all respects, linking policy steps to output gap estimates that are highly vulnerable to ex post revisions or sensitive to specific proxying hypotheses appears to be a hazardous experiment. In such circumstances, the risk of bad policy outcomes is significant.

The equilibrium real interest rate is also hard to conjecture. In a meaningful Taylor rule, the equilibrium real interest rate should be an index of a wider array of underlying financial conditions, the realisation of which is considered compatible with stable prices. However, in the absence of a reliable and uncontroversial model gauging actual asset valuations against their "fundamentals" and spelling out the economic mechanisms connecting fundamental asset prices to the natural level of activity, any quantification of this equilibrium concept is bound to be a crude guess.

A further problem with Taylor rules of the forecast-based type arises if the output gap is included in addition to an inflation forecast. In this case, such a rule would appear to be inconsistent with the general notion that the primary objective of monetary policy shall be price stability, and could instead be seen as reflecting two distinct objectives in their own right.

Finally, the stabilising properties of Taylor-type rules can also be questioned. The criticism has two dimensions. In the first place, Taylor rules – being interest rate-centred – are particularly vulnerable to the standard problem that results from the fact that nominal interest rates cannot be forced to be negative. Consequently, Taylor rules become rapidly ineffective in keeping the system anchored to the policy objectives in

6 *See, for example, the article entitled "Potential output growth and output gaps: concepts, uses and estimates" in the October 2000 issue of the Monthly Bulletin.*

situations where nominal interest rates decline to very low values.

Another instance in which Taylor-type rules fail as equilibrating devices and may, in fact, become an independent source of instability is when they are formulated in a forecast-based fashion. As argued in greater detail in Box 1, Taylor rules of this sort can exacerbate the tendency of economic systems to be excessively sensitive to arbitrary revisions of expectations.

Partly as a reflection of the above observations, decision-making bodies in central banks cannot mechanically apply the Taylor-type rules assumed in the theory. The informational basis, upon which they are designed to function, is simply too narrow to be of practical assistance in conducting policy.

Box 1

Are forecast-based Taylor rules always stabilising?

The Taylor rule has found extensive use as a convenient analytical device to formalise policy behaviour within the framework of a dynamic general equilibrium model of the private sector. It is in this analytical context that its capability to anchor macroeconomic magnitudes to policy objectives has been studied.

Dynamic general equilibrium models formalise the motion of the economy over time by means of a set of analytical expressions, which stem directly from optimising conditions concerning the consumption, saving, investment and production decisions of representative economic agents and firms. An extremely simplified version of this class of private sector model can be reduced to just two summary conditions, which express the current state of the private economy as functions of current shocks and expectations about the future:

$$(2)\quad \boldsymbol{y}_t = \gamma_0 - \gamma_1 (\boldsymbol{i}_t - E_t \pi_{t+1}) + E_t \boldsymbol{y}_{t+1} + e_t$$
$$(3)\quad \pi_t = \delta_0 E_t \pi_{t+1} + \delta_1 (\boldsymbol{y}_t - \boldsymbol{y}^*) + u_t$$

In (2) and (3), e_t and u_t are stochastic error terms and γ_0, γ_1, $\delta_1 > 0$ and $0 < \delta_0 < 1$ are given parameters. Equation (2) states that current output decisions react negatively to the contemporaneous real interest rate $(\boldsymbol{i}_t - E_t \pi_{t+1})$ and positively to expectations regarding future output conditions, $E_t \boldsymbol{y}_{t+1}$. This is consistent with the observation that a higher real cost of borrowing impacts negatively on firms' production, whereas rosier prospects for future production encourage investment and thus expand current output. Equation (3) assumes that observed price adjustments – as captured by current inflation π_t – react to expectations of future inflation and to the current level of resource utilisation, as proxied by the output gap, $(\boldsymbol{y}_t - \boldsymbol{y}^*)$. This condition reflects the assumption that firms, operating in an imperfectly competitive market, face costs in revising prices, so that, at any time, only a fraction of them post new prices. This fraction thus has an incentive to look ahead to future inflation, knowing that it will be costly to modify the current pricing decision again. Equation (2) is often referred to as portraying the evolution of aggregate demand for a given policy stance. Equation (3), by contrast, captures the supply side. Both equations are usually enriched by a complex structure of lagged terms for $\boldsymbol{y}_t$ and π_t, which are ignored in the formulation given above for the sake of simplicity.

A model such as that represented by equations (2) and (3) can be "closed" (i.e. solved for the relevant endogenous variables $\boldsymbol{y}_t$ and π_t) by appending a Taylor rule of, say, the forecast-based type described by the following equation (1a):

$$(1a)\quad \boldsymbol{i}_t = \boldsymbol{r}^* + \pi^* + \alpha (E_t \pi_{t+k} - \pi^*)$$

As explained in the text proper, advocates of (1a) stress the advantages attached to having policy decisions at time *t* react to the rate of inflation anticipated to prevail at a horizon *k* equal to the typical lag between the

taking of monetary measures and their impact on price determination. Existing macroeconometric models – it is maintained – can rationalise a transmission lag *k* of up to two years.

The issue of whether a policy programme based on a rule such as (1a) can provide an adequate anchor for nominal and real magnitudes in an economy described by equations (2) and (3) has attracted growing attention in recent years from both a theoretical and an applied perspective. Results are not always encouraging, however. Studies using numerical simulations have noted that rules such as (1a) sometimes turn out to be an important source of instability in that they render the economy prone to arbitrary revisions of expectations which are not justified by the structural fundamentals of the system as represented by preferences and technologies. The likelihood of encountering these instability problems proves to rise with the length of the chosen horizon, i.e. with *k*.

The ultimate origin of instability is twofold. First, if point inflation projections are surrounded by a wide area of uncertainty (as is likely the case in real forecasting exercises), which grows as the forecasting horizon lengthens, then the high sensitivity of policy to these forecasts (and their revisions) may induce excessive volatility in inflation and output outturns. Second, instability may stem from a more general problem which typically affects systems – like economies – the current state of which depends in crucial ways on expectations about their future state. Since there are generally multiple ways to form expectations, it is possible that shocks to expectations – even those completely divorced from changes in fundamentals – may lead to a number of different plausible current states of the economy. Rules that link policy action to forecasts make the current state of the economy especially sensitive to changes in expectations and thus make the system vulnerable to this sort of multiplicity. Instability arises from the fact that, in these circumstances, it is not fully determined how the system may respond to an exogenous shock such as e_t or u_t in equations (2) and (3).

In conclusion, the stabilising properties of Taylor-type rules such as (1a) deteriorate in response to certain events. Even if all the information and efficiency problems discussed in this article are left unconsidered, the capacity of such rules to provide the anchor that the economy needs to be firmly attached to the intended policy objectives may depend on the absence of destabilising shocks to expectations. The economy may thus need an anchor that the Taylor-type policy in (1a) appears incapable of offering.

3 Optimising rules

In order to assess the performance of simple rules such as the Taylor rule, their properties need to be examined in the context of some model (or range of models) of the economy, such as that illustrated in Box 1. In addition, a measure of society's welfare or a policy objective function needs to be specified to allow a comparison and a ranking of the macroeconomic outcomes associated with the use of different policy rules.[7] Given such a model and a specification of the objective function, it is then – at least theoretically – an obvious step to try to find a fully optimal rule that maximises the objective function, rather than to implement simple rules, which are likely to be suboptimal. If the fully optimal rule can be derived from such an optimisation procedure, there would thus seem not to be a case for considering simple rules such as Taylor's.

Indeed, a popular approach to modelling economic policy in the past decades has been to derive the optimal path for the setting of policy instruments starting from a specification of the objective function and a model describing the working of the economy. This approach rests on the

7 *See, for example, the analysis of Taylor-type rules in the various models contained in John Taylor (1999): "Monetary policy rules", NBER Conference Report, University of Chicago Press.*

assumption that there is a model of the economy in which policy-relevant variables such as inflation and output respond to policy measures according to a known pattern of reactions. Central banks should thus implement the optimal time path of the policy instrument derived from the model, namely the time path of the short-term interest rate which maximises a given specification of a policy objective function. That path would yield a macroeconomic outcome which, by construction, would be preferable to any alternative policy scenario.

In its canonical characterisation, this approach would amount to solving a standard constrained optimisation problem, with the model equations summarising the dynamics of the system acting as the constraints. The analytical solution to this procedure would yield a quite complex reaction formula whereby the policy instrument would be expressed as a function of all the state variables figuring in the model. In this way, the "best" policy move would be made contingent on the entire history of shocks relevant to monetary policy according to the structure of the model.

More recently, there have been new attempts in literature to apply this optimising approach to the problem of monetary policy design within the context of a rule-like institutional environment. In this more recent version, the central bank is assigned the objective of minimising the deviation of the model-projected inflation rate at some fixed horizon from a pre-specified target. This literature uses the notion of a "loss function" to represent the objectives mandated to the central bank. Typically, this loss function is assumed to be quadratic, meaning that perceived losses around target levels would be symmetric and increasing in the target misses.

Within this context, the rule-like element is represented by the central bank's commitment to an inflation target and to an optimising procedure – rather than a direct feedback rule – which has to be employed in the actual pursuit of the target. This procedure would be optimising in the sense that it would simulate a given model for a set of alternative interest rate paths and select that which is "best" according to the assumed loss function.[8]

The prescriptions for virtuous central banking embodied in optimising rules address some of the criticisms of simple rules discussed in Section 2 in an abstract way. Optimising rules of this type can embody a resolutely forward-looking orientation of policy, while avoiding some of the drawbacks associated with a policy reacting mechanically to a specific inflation forecast (as under a forecast-based Taylor rule). In principle, such a procedure could use state-of-the-art economic modelling to process information and inform policy decisions. In addition – at least theoretically – it may ensure that the information set, upon which decisions are based, is much broader than would be the case under simple rules.

However, the kind of optimising rules described above – if taken literally and applied mechanically – remain too restrictive for policy purposes in several respects. First, the optimising procedure, as proposed, seems to underrate the need for judgement in the use and interpretation of any economic model. Second, optimising rules mandating central banks to select a policy path which ensures that projections of goal variables are in line with their targets at *predetermined horizons* unduly restrict the relevant time frame for policy. Given that the transmission lag is variable, it is difficult to determine the relevant horizon for the projection path. Moreover, different types of models capture different elements of the transmission mechanism and are relevant at different time horizons. Restricting attention to a specific projection horizon may, in such circumstances, induce short-sighted reactions, the effects of which may have to be

8 *See, for example, Lars E. O. Svensson (1999): "Inflation targeting as a monetary policy rule", Journal of Monetary Economics 43.*

counteracted at a later date, with associated costs in terms of instability. Third, if optimising rules or procedures are implemented period by period, there appears to be no mechanism to ensure that the resulting policy recommendations and actions are consistent over time.

More generally, any such optimising rules or procedures are likely to remain too restrictive if the design of policy is conditional on the structure of any single model used. A sequence of policy moves which may be considered optimal on the basis of one model of the economy may often turn out to be associated with bad policy outcomes if simulated on the basis of a different model, representing alternative views about the workings of the transmission mechanism. Therefore, a variety of models need to be used for different purposes within central banks and various – more or less formal – ways of interpreting data and economic developments need to coexist. As a consequence, if a suite of models and other indicators are used and if they are complemented and combined with judgement, it becomes less clear how the proposed optimising rule could still be implemented as a strictly codified procedure. Moreover, any resulting projection path, taken by itself, will contain only very limited information. In such circumstances, it is more important to understand the factors underlying such a projection and to convey the judgement that motivates one particular view of the world rather than another.

For all these reasons, optimising rules as proposed in academic literature, while feasible in principle, remain insufficient for practical use in the strict sense of a monetary policy rule. In particular, such rules in their current form do not take sufficient account of the problem of model uncertainty and its far-reaching consequences for central banks. This has recently led another strand of literature to consider different decision criteria based on the notion of robustness of policy measures rather than the traditional principle of optimality, as discussed in Box 2 in more detail. However, at the present stage, it would be rather premature to draw any general conclusions from this emerging, alternative literature.

Box 2

Model diversity and robustness

Critics of optimising rules have emphasised their lack of robustness to the uncertainty surrounding the functioning of the economy. Notably, they stress the fact that policy recommendations stemming from the use of optimising rules are typically highly model-dependent. Two main methodological approaches have received particular attention in recent economic literature in an attempt to address issues related to uncertainty about the "true" model of the economy.

One approach to model uncertainty retains a Bayesian, probabilistic representation of uncertainty and the optimising approach commonly used in economics. If applied in the context of an optimising rule, the Bayesian approach to tackling model uncertainty would require the central bank to adopt the following procedure. First, the central bank would have to identify a class of models considered plausible representations of the functioning of the economy. Second, it would assign some probability to the lack of these various possible specifications. These probabilities should reflect the central bank's opinion on the likelihood of different models representing the "true" model of the economy. Lastly, the central bank would proceed by finding the path of its policy instrument that minimises its loss function conditional on the various models considered plausible, weighted by their respective likelihood. The resulting optimal path for the policy instrument would be a combination, i.e. a weighted average, of the optimal paths that would be found under each of the possible models considered.

Although this procedure could, in theory, be integrated into an optimising rule as described in this article, it is doubtful that this could be achieved in practice. In addition to the difficulties already mentioned, it would be very hard for the decision-making bodies of the central banks to specify numerically and reach an agreement on the probabilities to be assigned to the various models used in such a procedure.

Alternative approaches to model uncertainty do not require a well-specified probability distribution to be defined for the set of all the possible models describing the working of the economy, and thus may provide a way to deal with more pervasive, unstructured forms of uncertainty (e.g. of a "Knightian" nature). Such approaches need to consider alternative choice criteria, since traditional optimising techniques can no longer be applied. One extreme example of an alternative choice criterion is the so-called "minimax principle". In this case, the central bank would, as before, have to identify a number of plausible models and consider a number of alternative paths for its instrument, but without attributing a probability distribution to the models considered. The policy path carrying the lowest maximum downside risk across all conceivable models – i.e. that generating the best of all worst-case scenarios – would be chosen as the "safest" and thus the most robust one. This policy action would be given the highest ranking according to the minimax procedure.

A procedure of this kind would recognise that the nature of uncertainty facing central banks often cannot be easily captured in probabilistic terms and in a way that renders the standard axiomatic choice theory and optimising approaches used in economics always applicable. However, there is no agreement on which type of alternative choice criteria should be considered in such circumstances. In general, it has been found that the implications for monetary policy often differ significantly between the standard optimising approaches and alternative ways to model "robust" decision-making.

4 Monetary policy rules and central bank practice

The above considerations have shown that, while there is a broad consensus on the importance of a systematic or rule-based approach to monetary policy for credibility, it is not possible – or at any rate not wise – for central banks, in practice, to formally commit to a specific rule prescribing the setting of policy instruments in precise terms. The basic reasons for this were illustrated in Sections 2 and 3. *Simple rules* are unable to take into account all relevant information to be considered by central banks and to offer appropriate guidance for stabilising the economy under all conceivable circumstances. Conversely, more ambitious *optimising rules,* which tend to be more complex, are difficult to implement, communicate and monitor in practice. In addition, any optimising rule is only as good as the model on which it is based. Even small changes to the model used can often lead to very different results. Such a lack of robustness may thus cause serious policy errors in an economic environment that is uncertain and subject to continuous change.

More generally, it needs to be recognised that all economic models, including those used to discuss and evaluate monetary policy rules, are by nature an abstract and incomplete representation of the economy and the behaviour of economic agents. They can only capture some particular aspects of reality, and different models are useful for different purposes. However, monetary policy has to deal with and be robust to manifold forms of uncertainty, which are only captured very imperfectly in economic modelling.[9] In particular, model uncertainty implies that monetary policy cannot rely on any model-specific optimising rule. Instead, robust monetary policy-making needs to be compatible with different views of the structure of the economy and the monetary transmission process. In addition, the presence of model, parameter and data uncertainty – all else being

9 *See the article entitled "Monetary policy-making under uncertainty" in the January 2001 issue of the Monthly Bulletin.*

equal – cautions against an over-reliance on rules based on concepts or indicators (such as the equilibrium real interest rate or the output gap) which may be subject to large measurement errors and methodological dispute.

As a consequence of the degree of complexity and the nature of uncertainty involved in monetary policy, it is impossible, in practice, for central banks to write down the monetary policy decision problem in complete detail and to convey – with any degree of precision – its true "policy rule" or "reaction function" in the strict sense of the terms. That would require the central bank to specify a complete contingency plan describing the setting of policy as a function of an exhaustive list of possible events and circumstances to which central banks may react in the future.

Therefore, central banks not wishing to compromise on the efficiency and robustness of monetary policy for the sake of committing to a simple suboptimal rule or a model-specific optimising rule have no choice but to consider a broader notion of rule-governed or rule-based (rather than rule-bound) behaviour, as embodied, for example, in the commitment to an explicit monetary policy strategy. This is increasingly being taken into account in literature.

A monetary policy strategy can be defined in general terms as the central bank's framework for the taking of monetary policy decisions and their explanation to the public. As such, a strategy comprises a set of procedures structuring the analysis of information and the decision-making process by the central bank. It provides the framework within which economic information is analysed, interpreted and explained for the purpose of monetary policy-making. The notion of a strategy as a framework or set of procedures differs from the traditional concept of a monetary policy rule.

While a strategy serving as a procedural framework will usually involve, as a rule does, a definition of the central bank's monetary policy objective, it will not strictly predetermine the specific policy actions required to reach that objective ex ante. Instead, a strategy committed to a procedure may entail a commitment to examine regularly a predefined set of economic indicators and analytical frameworks. Such a procedure may broadly set out which steps are to be followed to synthesize and cross-check information coming from various indicators and models. Thus, a procedural "rule for analysis" should, in general, be better equipped to take into account uncertainty about the nature and length of the transmission mechanism – as reflected in complementary, competing models of the economy – than a simple "rule for action" or an optimising rule based on a single model.

As a consequence, a strategy serving as a procedural framework allows greater emphasis on the interpretation of economic developments, the nature and origins of economic shocks affecting the central bank's objectives and, ultimately, the economic "story" underlying its monetary policy decisions. In this regard, a strategy provides a framework for the systematic and consistent explanation of the considerations underpinning policy decisions, instead of representing policy as a reaction to individual indicators in isolation or the mechanical use of a specific model.

Central banks have in practice largely eschewed commitment to specific policy rules and they differ in the degree to which they have announced an explicit strategy. They also vary in the degree of precision with which objectives are defined and in the emphasis given to particular benchmarks or indicators. The remainder of this section briefly reviews the salient features of the ECB's monetary policy strategy. This provides one illustration of a commitment to a procedural framework, which may overcome some of the limitations and risks associated with an over-reliance on more narrowly defined monetary policy rules, as discussed in Sections 2 and 3.

The monetary policy strategy of the ECB sets out a systematic framework for monetary policy focused on maintaining price stability over the medium term. This framework can be interpreted as being rule-based, in particular with regard to the following elements. First, the strategy includes a clear commitment to the goal variable, i.e. the primary objective of price stability. Second, the strategy sets out a "framework for analysis" in the form of a procedural rule. This entails a prior commitment to conduct analysis and to explain policy in a systematic and structured way. Third, the use of benchmarks and "prompters" for further analysis is to some extent present in the ECB's strategy. This pertains, in particular, to the function of the monetary reference value within the broader analysis conducted under the first pillar. Lastly, the strategy may also be interpreted as broadly setting out the main features of the policy resulting from the procedural framework of analysis. In this context, the strategy, together with continuous explanation of monetary policy decisions under the strategy, should enable the public over time to trace and broadly anticipate how monetary policy reacts to observable data and indicators in a systematic manner.

The ECB's monetary policy strategy as a whole can be seen as addressing some of the pitfalls of the simple and model-specific optimising rules identified in the previous sections, namely the need for information efficiency, a nominal anchor in all circumstances and robustness.

First, the strategy provides a framework ensuring an efficient use and effective structuring of all information needed to take monetary policy decisions aimed at maintaining price stability over the medium term. The relevant set of information clearly extends beyond those variables typically included in simple monetary targeting or Taylor-type rules. For example, financial variables, such as bond yields, asset prices (including exchange rates), credit developments and balance sheet positions, provide additional information that is useful for monetary policy. Similarly, a host of survey and confidence indicators, as well as fiscal and labour market developments, are regularly scrutinised. Such a detailed and extensive range of information cannot be reduced to, or fully captured by, a few simple summary indicators of the kind typically featured in simple feedback rules.

In this context, the medium-term orientation of the ECB's monetary policy strategy also implies that policy does not feed back from a forecast at a particular fixed horizon (as would be the case with a simple forecast-based rule). Instead, the entire transmission process over a number of years and the nature of shocks influencing price developments need to be taken into account in deciding on the appropriate monetary policy response. More generally, the medium-term focus recognises the presence of different transmission channels affecting price developments with long, variable and uncertain lags. Money growth, in particular, is associated with inflation at a medium to long-term horizon.

Second, the clear commitment to the maintenance of price stability over the medium term supplies a stable nominal anchor to the economy in all circumstances. The prominent role for money in the ECB's strategy provides an additional safeguard in this regard, which is not present in standard Taylor rules.

Third, the two-pillar structure of the ECB's monetary policy strategy takes explicit account of the need for robustness in monetary policy-making.[10] Recognising different existing models of the structure of the economy and the nature of the monetary transmission mechanism, the ECB has chosen to organise its analysis into two pillars. The first pillar represents a group of models and analytical frameworks which embody a view

10 See the article entitled "The two pillars of the ECB's monetary policy strategy" in the November 2000 issue of the Monthly Bulletin.

of price level determination that accords an important role to money. The second pillar encompasses a range of alternative models of the inflation process, predominantly those which emphasise the interplay between supply and demand in the goods and labour markets.

The two-pillar structure reduces the scope for discretion, as it makes it more difficult for policy-makers to disregard or gloss over contradictory evidence (as may happen with a single summary device, such as a single inflation forecast). The two pillars of the strategy represent a commitment to always consider and base monetary policy decisions on a careful analysis of a wide range of information variables under both pillars of the strategy. In addition, if several plausible models (or, more broadly, modelling approaches) of the economy exist, taking this fact into account is likely to be superior to picking any particular "optimising" policy suggested by a specific modelling approach in isolation.

5 Concluding remarks

Commitment to a monetary policy strategy as described above places much higher demands in terms of transparency and effective communication on the central bank when explaining monetary policy decisions than would be the case with simple instrument rules as guides for policy decisions. However, given the shortcomings of the simple and optimising rules considered in this article, the use of any of these rules, even if only as benchmarks, would in many circumstances be misleading and not contribute to a better understanding of monetary policy. Thus, there is no convincing alternative to explaining monetary policy decisions in a way that corresponds closely to the internal framework of analysis underlying the central bank's decision-making process, rather than presenting them in terms of policy rules of the type discussed in this article and commonly used in academic literature. Moreover, a genuine understanding of the ECB's monetary policy approach cannot be gained from these policy rules. Such understanding is more likely to be promoted over time if the ECB's monetary policy is assessed on the basis of the systematic framework that the ECB has itself provided through the announcement of its monetary policy strategy.

Bidding behaviour of counterparties in the Eurosystem's regular open market operations

The Eurosystem's regular open market operations play an important role in steering interest rates and managing the liquidity situation in the money market. This article describes the main features of counterparties' bidding behaviour, focusing on the weekly main refinancing operations in the period from January 1999 to mid-June 2001. The period under review therefore covers both the fixed rate and the variable rate tenders. The spread between short-term money market rates and the tender rate, i.e. the rate applied to the fixed rate tender and the minimum bid rate in the variable rate tender, is identified as playing a key role in the bidding behaviour. In fixed rate tenders, the spread influenced the amount of bids submitted, while in the variable rate tenders, it significantly affected not only the level of the marginal and average rates of allotment, but also the dispersion of the bid rates. This article also describes and analyses the evolution of the degree of concentration of bids and allotments among bidders and suggests the conclusion that the bidding in the Eurosystem's tender operations is highly competitive. Generally, the analysis of the bidding behaviour confirms that the Eurosystem's regular tender operations are a market-oriented and highly efficient way to allot central bank funds to the banking system.

1 Introduction

The Eurosystem's regular open market operations play a prominent role in the implementation of monetary policy. In the period from January 1999 to mid-June 2001, the period under review in this article, the Eurosystem conducted 127 main refinancing operations (MROs) with an average allotment volume of around €80 billion and 31 longer-term refinancing operations (LTROs) with an average allotment volume of around €18 billion. This article analyses the bidding behaviour of counterparties in the weekly MROs conducted in the first two and a half years of Stage Three of Economic and Monetary Union (EMU). In Box 2, the bidding behaviour in the MROs is compared with the bidding behaviour in the LTROs.

The procedures for conducting MROs are described in detail in the document "The single monetary policy in Stage Three: General documentation on Eurosystem monetary policy instruments and procedures", November 2000 (the "General Documentation"). MROs are regular liquidity-providing reverse transactions with a weekly frequency which normally have a maturity of two weeks. They were conducted as fixed rate tenders from January 1999 to 20 June 2000, and from then until the end of the period under review as variable rate tenders with a minimum bid rate.

Although the banking system as a whole structurally needs liquidity from the Eurosystem, the individual counterparties can consider interbank borrowing, using mainly short-term maturities (overnight, one week, two week, one month), as an alternative to obtaining funds directly from the Eurosystem. Therefore, an equilibrium condition between the expected cost of refinancing with the Eurosystem and the expected cost of obtaining funds through the interbank market has to be satisfied. In particular, the difference between the two-week money market rates and the rate for refinancing directly with the Eurosystem naturally plays a key role in the counterparties' preference for the latter funding alternative.

The article is structured as follows: Section 2 analyses the bidding behaviour in the MROs conducted as fixed rate tenders, while Section 3 focuses on the bidding behaviour in the MROs conducted as variable rate tenders. Section 4 concludes.

2 Bidding behaviour in the fixed rate tenders

In fixed rate tenders counterparties submit bids only at the pre-announced fixed tender rate. From January 1999 to 20 June 2000 a total of 76 MROs were conducted as fixed rate tenders. The average allotment volume in the fixed rate tender MROs amounted to €69 billion. If the total amount of bids was higher than the intended allotment volume, the ECB allotted only a corresponding proportion of the bid amount to each bidder.

The aggregate bidding behaviour

The total bid amount submitted to the fixed rate tenders was mainly driven by the spread between the short-term money market rates and the fixed tender rate (see Chart 1). After having increased in the first months of 1999, the total bid amount fell markedly in March and April 1999 as strong expectations of an imminent interest rate decrease by the ECB meant that the short-term market rates fell below the fixed tender rate. The smallest aggregated bid amount experienced under the fixed rate tender (€67 billion) was submitted at the MRO conducted on 6 April 1999. It did not allow the ECB to allot an amount of liquidity that would normally have ensured a smooth fulfilment of minimum reserve requirements.[1]

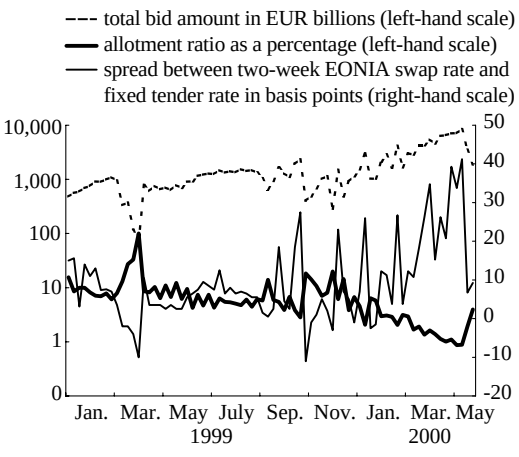
From mid-1999 to mid-2000, the short-term market rates were, on account of expectations of interest rate increases, most of the time above the fixed tender rate. This made refinancing through the fixed rate tender very attractive and, as a consequence, the bid amounts tended to expand exponentially. The highest aggregated amount of bids of €8,491 billion was submitted to the MRO of 6 June 2000. This total bid amount was more than 100 times greater than the actual liquidity needs implied by the reserve requirements and the autonomous factors.[2] Reflecting the expansion of bids, the allotment ratios, i.e. the ratios between the total allotments and the bid amounts, shrank over this period and finally fell to below 1% in the MRO allotted on 30 May 2000. In addition to this declining trend, significant volatility in allotment ratios was observed, particularly in the second half of 1999.

The volatility and associated uncertainty regarding the allotment ratio meant that counterparties who bid substantially more than their available collateral, i.e. who "overbid", were facing the risk of not having sufficient collateral to cover the allotted amount.[3] The degree of risk involved, however, depended on the overall amount of collateral available to the individual counterparties, in the sense that counterparties with a large amount of collateral faced a somewhat smaller risk of running short of collateral when overbidding. This may partly explain why there was a marked change in the ranking of the largest

Chart 1

Total bid amount, allotment ratio and the spread between the two-week EONIA swap rate and the fixed tender rate

(weekly data; left-hand scale: logarithmic; right-hand scale: linear)



Sources: Reuters and ECB.

1 See the discussion of the underbidding phenomenon in Box 1.

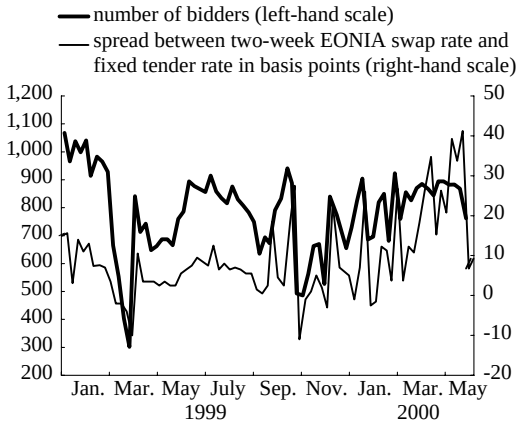
2 Autonomous liquidity factors can be defined as the items in the consolidated balance sheet of the Eurosystem, apart from monetary policy operations, which provide or withdraw liquidity and thus affect the current accounts which credit institutions hold with the Eurosystem.

3 The ECB clarified in a press release in February 1999 that only the alloted amount and not the bid amount needs to be covered by collateral.

Chart 2

Number of bidders and the spread between the two-week EONIA swap rate and the fixed tender rate

(weekly data)



Sources: Reuters and ECB.

bidders during the fixed rate tender period: in May 2000, when overbidding was close to its highest intensity, the three counterparties who had bid the most on average in June 1999 were ranked only between 11th and 27th in terms of bids submitted. From June 1999 to May 2000 these counterparties increased their total bid amounts by an average factor of just under four. This contrasts with the three largest bidders in May 2000, who had increased their bids by an average factor of 31 since June 1999. None of the three largest bidders in May 2000 had been among the largest 30 in June 1999.

The number of bidders was also mainly driven by the spread between the short-term money market rates and the tender rate (see Chart 2). The highest number of bidders participating in the fixed rate tender, 1,068, was achieved in the second tender of 1999. A few months later, on 6 April 1999, the number of bidders reached its lowest value of 302 for MROs conducted as fixed rate tenders as a result of the strong expectations of an interest rate reduction that prevailed at this point in time. During the rest of the fixed rate tender period, the number of bidders was fairly stable around the mean of 788.

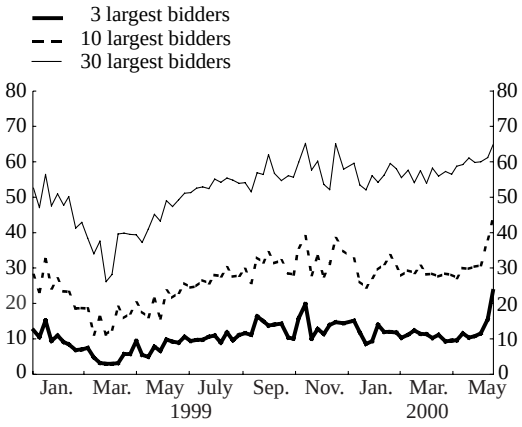
Concentration of bids and allotments

The extent to which the bids and allotments are concentrated on a small number of counterparties can be summarised by the share of bids and allotments of the 3, 10 and 30 largest bidders. In the case of fixed rate tenders, the concentrations of bids and allotments are equal. On average the 3, 10 and 30 largest bidders in the fixed rate tenders received, respectively, 11%, 27% and 52% of the overall liquidity allotted, suggesting a sufficient degree of competition for the allotment amounts. The large bidders significantly reduced their share of the overall bids from January 1999 to the interest rate reduction in April 1999 (see Chart 3). Their allotment shares increased again in the months following the interest rate reduction as well as in the two-week period between the announcement and the implementation of the variable rate tender procedure. Nevertheless, in spring 2000, when overbidding was increasing at a somewhat faster rate, the large bidders did not in general receive an unusually high share of the overall allotments.

Chart 3

The largest bidders' share of the aggregated bids and the overall allotments during the fixed rate tender

(weekly data; percentage share of total allotments and bids)



Source: ECB.

3 Bidding behaviour in the variable rate tenders

In a pure variable rate tender, counterparties may submit bids at several interest rates. When conducted according to the multiple rate allotment procedure, all bids above the marginal allotment rate are fully allotted at the interest rates at which the bids are placed, while bids at the marginal rate of allotment are allotted pro rata. At its meeting on 8 June 2000, the Governing Council of the ECB decided that, as from the maintenance period ending on 23 July 2000, the MROs of the Eurosystem would be conducted as variable rate tenders using the multiple rate allotment procedure. This decision was a response to the severe overbidding in the fixed rate tender procedure. Furthermore, the Governing Council decided to set a minimum bid rate which would take over the role from the fixed tender rate to signal the stance of monetary policy, and to publish a forecast of the liquidity needs together with the announcement of each MRO. The latter was introduced in order to facilitate counterparties' preparation of bids.[4] Counterparties adapted easily to the new tender procedure. Even in the first variable rate tender, there was a relatively low dispersion of bids, and already by the second tender, the spread between the marginal and the weighted average rate of allotment had reached its long-term average of 1 basis point.

Overview of the aggregated bidding behaviour in the variable rate tenders

In the variable rate tender the array of bids cannot simply be described by means of the bid amounts as in the fixed rate tender, but is rather illustrated by means of the bid curves, which express the amount of bids (on the y axis) submitted at the various bid rates (on the x axis).[5] Thus useful information on the bidding behaviour is provided by both the level of the bid rates and the extent to which the bids are spread around this level. In this article, the level and the heterogeneity of the bids are analysed by means of the marginal and average rates of allotment and by the "unevenness" of the bid curve. The absolute values of the marginal and average rates are a measure of the level around which the bid rates were concentrated, while the difference between the two expresses the dispersion of the bid rates. The unevenness is defined as the number of times the bid curve changes from an upward to a downward slope or vice versa, and hence describes how "non-smooth" the bid curve is.[6] In general, when bidding is more dispersed, the unevenness increases (i.e. the bid curve becomes less smooth), partly owing to the attractiveness of submitting bids at "round" rates at which the bid curve accordingly peaks. Chart 8 and Table 3 provide examples of bid curves and, among other key figures, the corresponding values for dispersion and unevenness.

The level of bids

The marginal rates of the MROs are highly correlated with the comparable short-term money market rates of, for instance, a two-week maturity (see Chart 4). This is a result of the fact that the latter represent the costs of an alternative funding opportunity, namely the interbank market, and are therefore used as "benchmarks" by counterparties when preparing their bids for the MROs. Consequently, the main factors that drive the level of the expected marginal rates are broadly related to those that drive the short-term money market rates. These factors include market expectations of changes in the key ECB interest rates, the liquidity

4 *For a more detailed description of these forecasts, see the box on autonomous factors in the article entitled "The switch to variable rate tenders in the main refinancing operations" in the July 2000 issue of the ECB Monthly Bulletin, as well as Box 2, entitled "Autonomous liquidity factors in the euro area and the use of the forecasts of liquidity needs provided by the ECB", in the July 2001 issue.*

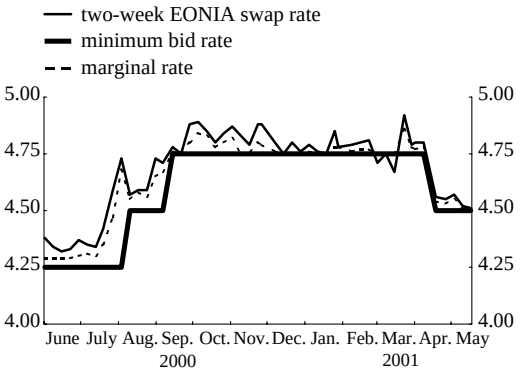
5 *The Eurosystem will in future provide the aggregate bidding curves in regular open market operations which have been conducted at least six months previously. Interested parties who may require this information for research purposes should contact Directorate General Operations.*

6 *Only changes of above €100 million are counted.*

Chart 4

Evolution of the two-week EONIA swap rate, the minimum bid rate and the marginal rate in the variable rate tenders

(weekly data; as a percentage)



Sources: Reuters and ECB.

conditions of the euro area (and hence also the result of the tenders), and special events such as ends of years.

Reflecting the very high degree of liquidity in the EONIA swap market, the two-week EONIA swap rate appears to be the most widespread benchmark among counterparties when preparing their bids. However, the two-week unsecured deposit rate, which is normally higher than the two-week swap rate, and the two-week general collateral repo rate, which, conversely, is normally lower, are also relevant. In fact, the marginal rate is usually below the deposit and swap rates and broadly in line with the repo rate (see Table 1). Consequently, bids are normally below the deposit rate and are mainly concentrated between the minimum bid rate and the swap rate (see Table 3).

Heterogeneity of bids

The fact that bids are heterogeneous, i.e. they are submitted at more than one interest rate, is related to a number of factors, of which the following may be highlighted:

- Counterparties concentrate their bids at different levels because they have different expectations regarding the marginal rate.

- Each individual counterparty may diversify its bids in a range centred around its expectation regarding the level of the marginal rate and hence submit bids at different rates. The degree of diversification depends on the extent of the uncertainty regarding the marginal rate and the counterparty's aversion to the possibility of not obtaining any funds directly from the central bank. This aversion may vary across counterparties on account of different credit risk premia to be paid in the interbank market, collateral considerations, different balance sheet structures, etc.

In sum, a higher degree of uncertainty about the marginal rate increases the heterogeneity of bids (i.e. the dispersion and unevenness), as counterparties place their bids in line with their different expectations, and, in addition, react to uncertainty by diversifying their bids.[7]

7 *Furthermore, it can be expected that, ceteris paribus, the heterogeneity of bids would increase in periods of market strain, when credit limits are stricter and credit risk premia are higher, because the latter increase the cost of not obtaining funds at the MROs.*

Table 1

Spreads between market and MRO rates in the period from 27 June 2000 to 12 June 2001

Spread (basis points)	Average	Standard deviation	Maximum	Minimum
Weighted average rate – Deposit rate	-3.3	2.5	+4	-11
Marginal rate – Deposit rate	-4.9	3.4	+4	-14
Weighted average rate – Swap rate	-1.8	2.7	+8	-9
Marginal rate – Swap rate	-3.4	3.4	+8	-12
Weighted average rate – Repo rate	+1.0	2.5	+6	-6
Marginal rate – Repo rate	-0.6	3.2	+6	-9

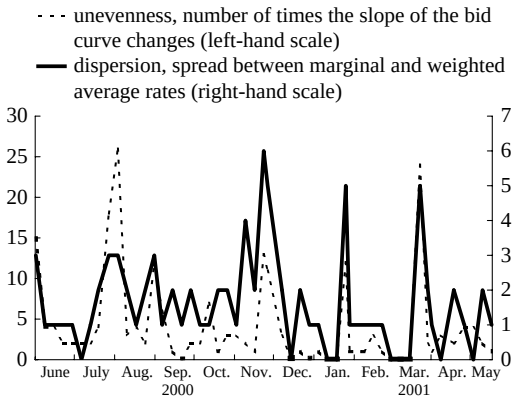
If the short-term money market rates are very close to or even below the minimum bid rate, the uncertainty regarding the marginal rate is rather low as the bids tend to cluster at the minimum bid rate. Hence, in such a scenario, the variable rate tender with a minimum bid rate becomes similar to a fixed rate tender. This was the case during most of the period from the end of 2000 to mid-June 2001, when the short-term money market rates were relatively low compared with the minimum bid rate (see Chart 4) because of general expectations of stable interest rates or interest rate decreases. Consequently, the dispersion and the unevenness were relatively low during most of this period (see Chart 5). However, on 13 February 2001 and 10 April 2001, counterparties bid, as on 6 April 1999 under the fixed rate tender, below the allotment amount that would have allowed for a steady fulfilment of the minimum reserve requirements. This "underbidding" implied a high degree of uncertainty regarding the marginal rate for the subsequent tenders, as counterparties did not know to what extent the allotment decisions would normalise the liquidity situation and hence bring short-term market rates back to more normal levels. Thus, the dispersion and unevenness peaked significantly in the tenders conducted on 20 February 2001 and 18 April 2001 (see Chart 5). A discussion of the underbidding phenomenon is provided in Box 1.

More generally, it can be observed that whenever the short-term money market rates are above the minimum bid rate, the uncertainty regarding the marginal rate and consequently the heterogeneity of bids are normally relatively high, as bids then do not simply cluster around the minimum bid rate. Indeed, for most of the second half of 2000, when the spread between the short-term money market rates and the minimum bid rate was relatively high (see Chart 4), the dispersion and unevenness of the bids were somewhat higher than during the period from the end of 2000 to mid-June 2001 (see Chart 5).

Chart 5

Unevenness and dispersion in variable rate tenders

(weekly data; left-hand scale: unevenness; right-hand scale: basis points)



Source: ECB.

The declining trend of the unevenness and the dispersion indicators that was experienced from the introduction of the variable rate tender to mid-June 2001 may not, however, only reflect the evolution of the market rates as explained above, but also, to some extent, a "learning process" among bidders.

The dispersion reached its maximum value on 19 December 2000, probably on account of the combination of an end of maintenance period and a year-end effect, while the unevenness was at its highest on 29 August 2000, owing to strong interest rate increase expectations as is further explained below.

The factors influencing the bidding behaviour reviewed so far suggest that a positive correlation is to be expected between the number of bidders and the total bid amount on the one hand, and the level of the spread between the short-term money market rates and the minimum bid rate on the other. Indeed, Chart 6 suggests that the general decline in the spread between the money market rates and the minimum bid rate that was experienced during the variable rate

Box 1

Underbidding in the fixed and variable rate tenders

As seen in the main text of this article, the variable rate tender with a minimum bid rate becomes very similar to a fixed rate tender when there are strong expectations of rate decreases. Indeed, two of the three cases of underbidding in the period from January 1999 to mid-June 2001 occurred under the variable rate tender with a minimum bid rate.

Overview of the three cases of underbidding

	7 April 1999	13 February 2001	10 April 2001
Bid amount (EUR billions)	66.6	65.3	25.0
Allotment allowing for a smooth fulfilment of minimum reserve requirements (EUR billions)	96.0	88.0	53.0
Accumulated net recourse to the marginal lending facility in the remaining days of the reserve maintenance period (EUR billions)	11.3	71.7	61.4
Maximum spread between the EONIA and the minimum bid rate until the end of the reserve maintenance period (basis points)	43	97	100
Average spread between the EONIA and the minimum bid rate until the end of the reserve maintenance period (basis points)	12	54	77

This box focuses on the two most recent cases in the period under review, both of which took place in 2001. On 13 February only €65.3 billion was allotted, when an allotment in the order of €88 billion would have allowed for a smooth fulfilment of reserves up to 20 February. On 10 April only €25 billion was bid, which was less than half of the amount that would have allowed counterparties to fulfil their reserve requirements smoothly up to 17 April. After both instances of underbidding the ECB provided large amounts of liquidity in the following MRO without, however, fully restoring neutral liquidity conditions. Indeed, the implied accumulated recourse to the marginal lending facility in the February and the April maintenance periods amounted to €78 billion and €65 billion respectively. When allotting high volumes in the tenders following the underbidding, the ECB also had to take into account the balance of the liquidity supply in the current and subsequent maintenance periods. The resulting tight liquidity conditions and exceptionally high interbank overnight rates enhanced the understanding that underbidding is a non-profit-making strategy for the banking community. Indeed, the high level of short-term market rates rewarded those who participated in the tenders as usual, while they imposed additional costs on those who bid less than usual. This underlines that underbidding is not an equilibrium strategy even when rate decreases are expected.

tender period (see Chart 4) was mirrored by a decrease in the number of bidders and the size of the total bid amount.

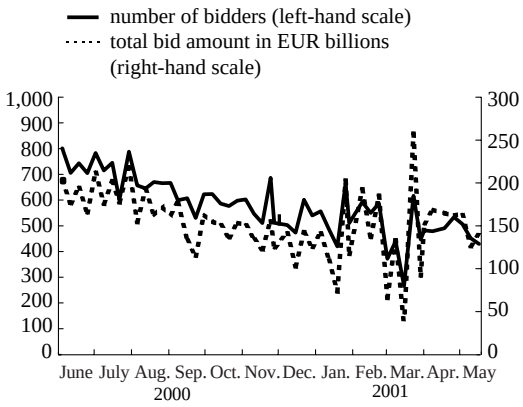
In the second half of 2000 the average number of bidders in the MROs amounted to 640, which was about 30% more than the average number of bidders in the first half of 2001 (485). The same declining trend was also observed for the total bid amount. The overall decline in the total bid amount meant that the "bid-cover ratio", which expresses how many times the total bid amount exceeds the total allotment amount, declined from levels of around 2.5 in June 2000 to levels of around 1.5 at the end of the period under review. At the same time, the average amount each counterparty bid per bid rate increased significantly from levels of around €100 million to current levels of around €150 million.[8]

8 *The average total bid amount per participant also increased from levels of around €250 million to current levels of around €300 million.*

Chart 6

Number of bidders and total bid amounts in variable rate tenders

(weekly data)



Source: ECB.

Over the whole variable rate tender period the number of participants in the MROs averaged 567, which is significantly lower than the average of 788 for the fixed rate tender period. This probably reflects the fact that, by contrast with the marginal rate of the variable rate tenders, the rate of the fixed rate tenders is certain (i.e. known in advance when the bids are submitted), and is lower than the money market rates with comparable maturity during periods of expectation of interest rate increases. In the same way, the difference between the number of bidders in the two tender periods may also partly be due to the fact that expectations of interest rate increases dominated the fixed rate tender period to a greater extent than the variable rate tender period. Considering the number of counterparties that actually received liquidity in the variable rate tenders, the decrease is even more significant. On average, 463 banks, or 83% of the participants, received liquidity in the variable rate tenders, which is 41% less than the average number of banks that participated in the fixed rate tenders (and thus by construction received liquidity).

Concentration of bids and allotments

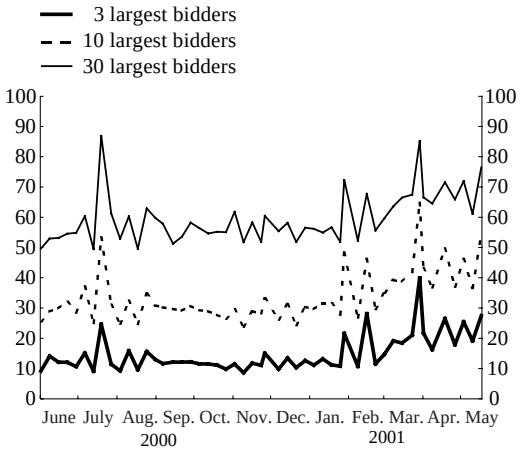
A high degree of competition in the MROs could also be observed during the variable rate tender period. Hence the concentration of the bids on the largest bidders remained rather limited, although slightly higher than in the fixed rate tender period. The share of the total allotment received by the largest 3, 10 and 30 bidders (see Chart 7) fluctuated in general around the mean values given in Table 2. However, there seems to have been a tendency for the concentration to increase since February 2001 and until the end of the period under review, which is probably related to the fall in the number of bids and bidders during that period.

The concentration of individual allotments was a little higher than the concentration of individual bids, i.e. large bidders were submitting more successful bids, in relative terms, in the sense that a higher proportion of their bids actually resulted in an allotment of liquidity (see Table 2).

Chart 7

The largest bidders' share of the overall allotments during the variable rate tender

(weekly data; percentage share of total allotments)



Source: ECB.

Table 2

Average concentration of individual allotments and bids in the variable rate tenders

	3 largest bidders	10 largest bidders	30 largest bidders
Average share of bids	12.5%	28.8%	53.5%
Average share of allotment	15.0%	33.8%	59.7%

Specific bidding behaviour in different market scenarios

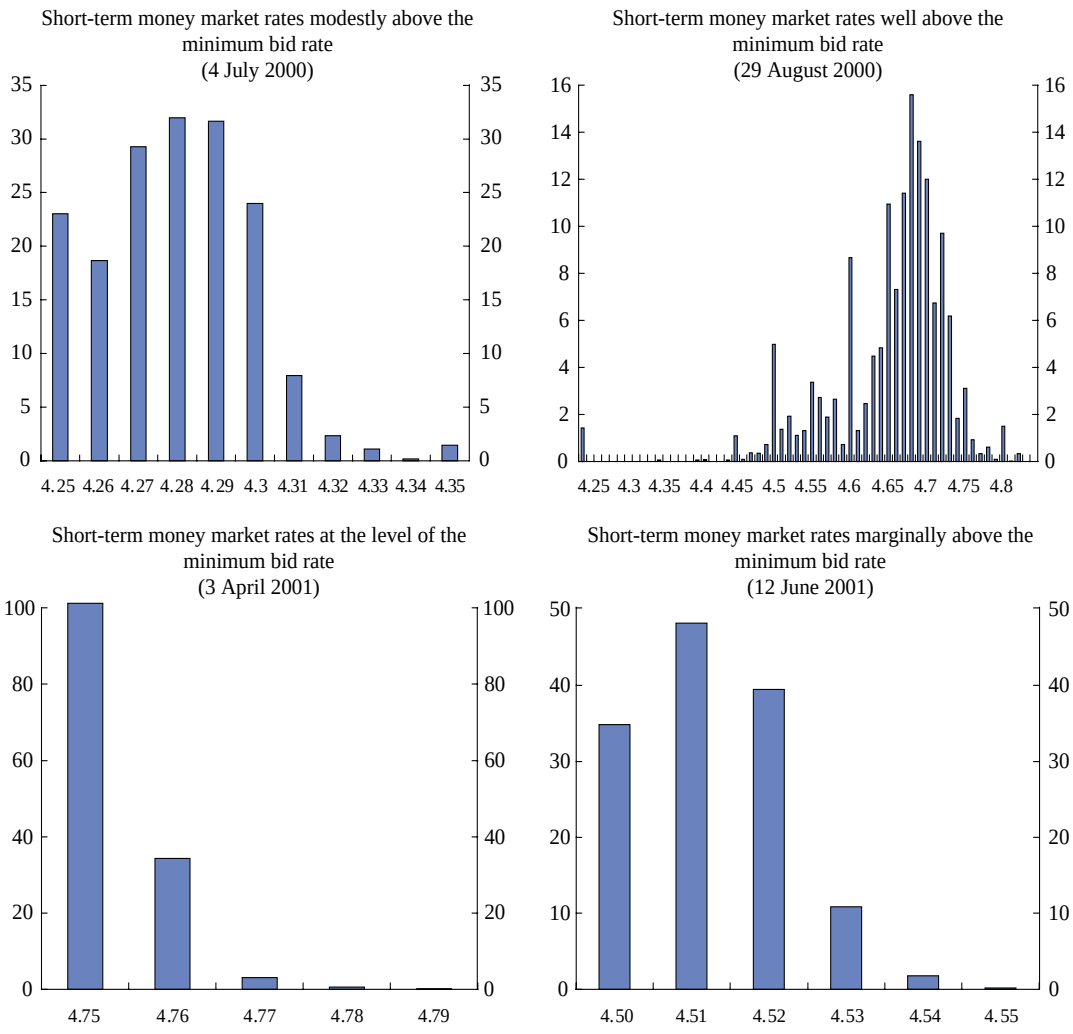
The selection of bid curves in Chart 8 provides a more detailed overview of the typical bidding behaviour under different market conditions experienced in the period under review.

Most of the statistics for the four selected tenders that are provided in Table 3, which also shows average, minimum and maximum

Chart 8

Bid curves under different market conditions

(x axis: bid rates as a percentage; y axis: bid amount in EUR billions)



Source: ECB.

Table 3

Bidding data for the MROs conducted through a variable rate tender

		4 July 2000	29 Aug. 2000	3 Apr. 2001	12 June 2001	Average [1]	Maximum [1]	Minimum [1]
1	Allotment volume (EUR billions)	58.0	68.0	118.0	67.0	88.9	172.0	5.0
2	Bid volume (EUR billions)	171.8	149.9	129.1	135.4	148.0	257.7	24.9
3	Bid-cover ratio	3.0	2.2	1.1	2.0	2.1	16.7	1.0
4	Number of bidders	700	649	422	411	567	800	240
5	Number of bids per bidder	3.0	3.0	1.4	1.8	2.3	3.3	1.2
6	Minimum bid rate (as a percentage)	4.25	4.25	4.75	4.50	4.60	4.75	4.25
7	Spread between minimum bid rate and marginal rate (basis points)	4	43	0	1	4.9	43	0
8	Spread between lowest bid rate and highest bid rate (basis points)	65	60	6	7	24	95	4
9	Dispersion (spread between marginal rate and weighted average rate in basis points)	1	3	0	2	1.6	6	0
10	Unevenness (number of times the slope of the bid curve reverses)	4	26	0	1	4.3	26	0
11	Share of bids placed between minimum bid rate and repo rate	59.9%	51.6%	0%	25.7%	55.3%	99.9%	0.0%
12	Share of bids placed between repo rate and swap rate	39.9%	42.6%	78.4%	35.6%	33.0%	99.0%	0.0%
13	Share of bids placed between swap rate and deposit rate	0.0%	3.9%	0.0%	37.2%	5.3%	48.5%	0.0%
14	Share of bids placed between deposit rate and highest bid rate	0.2%	1.9%	21.6%	1.5%	6.3%	100%	0.0%

1) For the period from 27 June 2000 to 12 June 2001.

values up to mid-June 2001, were published on wire services when the tender was announced or when the results were known (rows 1, 2, 3, 4, 6, 7, 8 and 9). The rest of the information has not yet been made publicly available (rows 5 and 10). The last four rows of the table provide the percentage of bids in four different ranges, delimited by the minimum bid rate, the repo rate, the EONIA swap rate, the deposit rate and the highest bid rate.

Already at the second MRO conducted as a variable rate tender on 4 July 2000, there was only a 1 basis point spread between the marginal and the weighted average rate, suggesting that counterparties had very quickly adapted to the new tender procedure. However, the spread between the lowest bid rate and the highest bid rate was, at 65 basis points, rather wide, although the volume bid at the highest rate was limited (€50 million). In this example, where no strong market expectations of imminent interest rate changes prevailed, a concentration of bids at the minimum bid rate was observed as counterparties were speculating on the off chance that the marginal rate would turn out to be the same as the minimum bid rate. This explains the relatively high proportion of bids submitted at a rate between the minimum bid rate and the repo rate.

When comparing the tender of 4 July 2000 to the last tender of the period under review, conducted on 12 June 2001, the "learning process" among counterparties mentioned above is clearly evident, although the bidding

Box 2

Longer-term refinancing operations

Between January 1999 and the end of May 2001, the Eurosystem conducted a total of 31 longer-term refinancing operations (LTROs) as variable rate tenders with pre-announced allotment volumes. In all the LTROs a multiple allotment procedure was applied and, other than for the very first operations, all had a three-month maturity, while the allotment volumes were set at between €15 billion and €25 billion. As regards the tender procedure, the main differences between LTROs and MROs are the pre-announced allotment volume and the absence of a minimum bid rate in the LTROs, such that the ECB acts as a "rate-taker" in LTROs. Furthermore, by contrast with the MROs, the allotment result in LTROs normally has no information content regarding liquidity conditions. Therefore, the allotment result itself should not normally have a significant impact on the market. The following table summarises the time series of the bidding parameters for the LTRO by providing the average, maximum and minimum values for the period from January 1999 to May 2001.

Bidding data for the LTROs conducted from January 1999 to May 2001

		Average	Maximum	Minimum
1	Allotment volume (EUR billions)	17.7	25.0	15.0
2	Bid volume (EUR billions)	55.6	91.1	15.9
3	Bid-cover ratio	3.2	5.3	1.1
4	Number of bidders	285	466	165
5	Number of bids per bidder	2.6	3.1	1.9
6	Marginal rate as a percentage	3.75	5.06	2.53
7	Spread between lowest bid and highest bid rate (basis points)	73	120	31
8	Dispersion (spread between marginal rate and weighted average rate in basis points)	3	23	0
9	Unevenness (number of times the slope of the bid curve reverses)	7.2	18	1

Both the dispersion and unevenness of bids in LTROs are higher than in MROs, which mainly reflects the absence of a minimum bid rate in the former and the differences between the counterparties involved in the two operations. LTROs represent a good opportunity for smaller counterparties, which have limited or no access to the interbank market, to receive liquidity for a longer period (i.e. three months). In LTROs the unevenness and dispersion also fell extremely early, indicating a quick learning process. They reached their minimum value as early as May 1999, implying that no further convergence of bidding was observed afterwards. While the bid-cover ratio fluctuated around 4 until April 2001, it has been closer to 2 since then. The number of participants has clearly been lower in the LTROs than in the MROs: an average of only 285 counterparties participated in the LTROs compared with 699 for MROs. All in all, 607 different banks participated in at least one LTRO compared with 1,199 for MROs. 34 banks participated exclusively in LTROs and 626 exclusively in MROs, while 573 banks participated in both MROs and LTROs. The number of bids per bidder was on average 2.6 (slightly higher than in MROs) and exhibited only limited fluctuations.

in the latter case of course also reflects low expectations of interest rate decreases. On 12 June 2001, the concentration at the minimum bid rate was much more pronounced, the bid curve was more even (with unevenness at one), and the spread between the lowest bid rate and the highest bid rate was, at only 7 basis points, much lower. Furthermore, it may be noted that the amount of bids in this operation remained rather high and the bid-cover ratio comfortable. This may reflect the fact that counterparties remembered the consequences of the two previous rounds of underbidding (see Box 1).

Expectations of an interest rate decrease had an effect on the bidding behaviour in the tender of 3 April 2001 – the one preceding the underbidding on 10 April. Consequently, a significant concentration (more than 80%) of bids at the minimum bid rate could be observed. Hence, the marginal and the weighted average rates were both at the minimum bid rate and the unevenness and dispersion indicators were very low (the bid curve falls continuously). The average number of bids per bidder was, of course, also rather low at 1.4, and the bid-cover ratio stood at 1.1, suggesting that the risk of underbidding had already become substantial. With deposit and swap rates at the level of the MRO minimum bid rate, and the repo rate just 1 basis point below the minimum bid rate, most of the bids to this MRO were submitted at the minimum bid rate, while a few bids were placed above this rate in order to secure the provision of central bank liquidity.

This contrasts with the bid curve in a scenario of expectations of interest rate increases, as prevailed, for example, on 29 August 2000. In this tender, the expectations of an interest rate increase not only led to a record spread between the minimum bid rate and the marginal rate (43 basis points), but also to a relatively high dispersion of bids, as indicated by the comparatively large spread between the marginal and the weighted average rates (3 basis points). Related to this, the bid curve was also exceptionally uneven (unevenness stood at 26), as counterparties tended to submit bids at round numbers. Indeed, local peaks of the bid curve appear at 4.45, 4.50, 4.55, 4.60, 4.65, 4.75 and 4.80, each of which increases the unevenness by two points. Here, too, a concentration of bids at the minimum bid rate could be observed, although the latter was 20 basis points away from the next bid rate at which bids of above €100 million were submitted. Again, this concentration at the minimum bid rate explains the relatively high proportion of bids submitted between the minimum bid rate and the repo rate.

Focusing mainly on the differences as compared with the MROs conducted as variable rate tenders, Box 2 describes some elements of the LTROs the Eurosystem conducted in the period under review.

4 Concluding remarks

This article has reviewed counterparties' bidding behaviour with regard to the main refinancing operations conducted by the Eurosystem in the period from January 1999 to mid-June 2001. In this period, both the fixed and the variable rate tender procedures were applied. The analysis identifies the most important factor for determining bidding behaviour as being the spread between short-term money market rates and the tender rate, i.e. the rate of the fixed rate tender or the minimum bid rate under the variable rate tender. In the spring of 2000 this spread was relatively high owing to market expectations of an increase in the key ECB interest rates. This resulted in an exponential increase in the total bids submitted to the fixed rate tenders. When overbidding reached very high levels, it was decided to switch to the variable rate tender procedure with a minimum bid rate in June 2000 and, at the same time, to start publishing a forecast of the liquidity needs together with the announcement of each MRO.

The transition to the variable rate tender procedure with a minimum bid rate was very smooth. The new tender procedure immediately solved the overbidding problem. Furthermore, the observed concentration of bids around the corresponding market rates suggested that counterparties could very quickly adapt to it.

Some increase in the dispersion and the unevenness of the bids appeared in periods of more intense expectations of interest rate increases, as a result of increased uncertainty regarding the marginal rate. A similar development was also observed when other factors, such as very tight liquidity conditions, resulted in greater uncertainty

regarding the marginal rate. Bids clustered at, or just above, the minimum bid rate when expectations of unchanged or falling interest rates prevailed. Uncertainty regarding the marginal rate tended to vanish under these circumstances and the variable rate tender became similar to a fixed rate tender.

The number of bidders declined during the period under review, reflecting at least to some extent the evolution of interest rate expectations, as well as a step decline resulting from the switch to the variable rate tender procedure.

Nevertheless, the number of bidders remained at a high level and, as suggested by the rather limited concentration of bids and allotments on the largest individual bidders in both tender regimes, there seems to be a high degree of competition in the Eurosystem's tender operations. In particular, the largest bidders did not receive an unusually high share of allotments during the period of strong overbidding in the fixed rate tender period. Furthermore, the marginal and weighted average rates of the variable rate tenders were well in line with the prevailing market rates.

In sum, it may be concluded that the Eurosystem's tender operations emerged, from the beginning of 1999, as a market-oriented and highly efficient way to channel central bank funds directly to a wide range of counterparties. The market orientation was supported by the move from the type of fixed rate tender applied by the Eurosystem in the first 18 months of Stage Three to the variable rate tender, whereby the minimum bid rate replaced the fixed tender rate in signalling the stance of monetary policy associated with the main refinancing operations.

The euro cash changeover in markets outside the euro area

On 1 January 1999 the euro was established as a new currency. On 1 January 2002, three years later, the euro banknotes and coins will be issued. With their arrival, the process of introducing a single European currency as agreed in Maastricht in 1991 will finally be complete. Paying with a single currency in daily transactions throughout the euro area can be regarded as an achievement of historic proportions and a major step towards greater European integration.

A significant number of banknotes issued by the NCBs of euro area countries circulate outside the euro area, especially in the EU accession countries and other neighbouring countries. Every effort should be made to ensure a smooth cash changeover both inside and outside the euro area. Extensive preparations have already been made for the smooth changeover inside the euro area. It is equally important for the Eurosystem to address proactively the issue of the international changeover and to prepare the markets and the general public appropriately so as to minimise costs and disruption. Efficient procedures are required to ensure that people who want euro in fiduciary form are able to obtain them.

This article outlines the logistics of the cash changeover in markets outside the euro area and the related parts of the Euro 2002 Information Campaign.

1 The logistics of the 2002 cash changeover outside the euro area

Some of the euro area currencies are also popular outside the euro area. For example, it is estimated that around 30 to 40% of Deutsche Mark banknotes in circulation are held outside Germany, with the majority probably in eastern and south-eastern European countries (including Turkey). Because of the close trading and tourism links between the euro area and these countries, it is to be expected that a large part of these holdings will be replaced by euro. The banknotes of the "legacy" currencies of the euro may be brought back at the beginning of 2002 to be exchanged at the counters of commercial banks, bureaux de change and central banks mainly in Austria, Germany and Finland as they have common borders with such countries. The exchange of old banknotes for new euro banknotes is expected to be concentrated at the very outset of 2002, mainly due to the fact that Deutsche Mark banknotes will cease to be legal tender on 31 December 2001. Although it is difficult to predict the precise volumes and times at which these banknotes may appear, pre-empting possible demand for euro banknotes by selecting appropriate distribution channels may help smooth the introduction of the euro.

Frontloading central banks outside the euro area

In the light of this, and taking into account the fact that the Governing Council of the ECB has already agreed on the main features of the financial modalities for the 2002 cash changeover and on the distribution and sub-frontloading of euro banknotes outside the euro area, the Eurosystem has addressed the issue of frontloading euro banknotes to the central banks of non-participating Member States, accession countries and certain other countries.

Taking on board the legal and logistical considerations, the Governing Council has decided – as announced to the public on 5 July 2001 – that, in the interest of a smooth cash changeover outside the euro area, these central banks can be frontloaded upon request, subject to the following specific terms and conditions:

- Frontloading of central banks will only be allowed as from 1 December 2001.

- Central banks outside the euro area will not be allowed to put the frontloaded

euro banknotes into circulation prior to 1 January 2002.

- Frontloaded central banks outside the euro area will have to settle the payment for the frontloaded amounts on the first business day of 2002.

- Frontloaded central banks will have to agree to store the euro banknotes and coins securely in order to prevent theft, robbery or destruction, and to take out appropriate insurance to cover such risks.

- In order to cover credit risks, frontloaded central banks will be required to provide the euro area NCB concerned with collateral from the moment of frontloading for the amounts of the frontloaded euro banknotes and coins until their guarantee obligations have been discharged. Collateral will be denominated in euro in order to avoid any exchange rate risks in the event of the realisation of such collateral.

- Central banks outside the euro area will be required to provide frontloading NCBs upon request with information on the identity of their sub-frontloaded customers, as well as the amount of sub-frontloaded banknotes per individual customer.

- Central banks outside the euro area will be required to apply appropriate measures against money laundering in connection with frontloaded euro banknotes.

All operational and practical arrangements for such frontloading will be taken care of bilaterally by the euro area NCB concerned and the counterparty central bank. In other words, a foreign central bank wishing to be frontloaded needs to contact one of the 12 euro area NCBs to make such arrangements. Central banks outside the euro area will be allowed to sub-frontload credit institutions within their respective jurisdictions as from 1 December 2001 in accordance with certain rules:

- The recipient credit institution shall not further sub-frontload or otherwise dispose of sub-frontloaded banknotes prior to 1 January 2002.

- The recipient credit institutions shall store the sub-frontloaded euro banknotes safely in order to prevent theft, robbery or destruction and they shall cover those risks by obtaining appropriate insurance or by other appropriate means.

- Central banks outside the euro area shall at any time have the right to audit and inspect the sub-frontloaded euro banknotes to confirm the fulfilment of the conditions concerning non-disposal and safe storage of the euro banknotes.

- The recipient credit institutions shall apply appropriate measures against money laundering in connection with sub-frontloaded euro banknotes.

On 13 September 2001, the Governing Council adopted an ECB Guideline on certain provisions on frontloading outside the euro area, which was published on the ECB's website at www.ecb.int and subsequently in the Official Journal of the European Communities.

Sub-frontloading by credit institutions located outside the euro area

In accordance with the ECB Guideline of 10 January 2001, which adopted certain provisions on the 2002 cash changeover, banks will be allowed to distribute frontloaded euro banknotes to their branches and headquarters located outside the euro area as from 1 December 2001. In addition, the Guideline allows frontloaded banks, from the same date, to sub-frontload their subsidiaries outside the euro area, as well as other banks which have neither their registered/head office nor any branches inside the euro area. Furthermore, in order to ensure a smooth cash changeover outside the euro area, the Governing Council – as

announced on 13 September 2001 – has decided to allow non-euro area credit institutions operating in the worldwide wholesale banknote market to sub-frontload euro banknotes to their customer banks outside the euro area from 1 December 2001. The detailed terms and conditions, which are in principle the same as those applying to foreign central banks, have also been laid down in the aforesaid ECB Guideline (see also the previous sub-section).

Adaptation of ATMs and currency sorting and accepting machines located outside the euro area

At its meeting on 14 December 2000, the Governing Council approved a framework for decentralised euro banknote tests for the manufacturers of banknote-accepting and processing machines and the banking sector in 2001. Accordingly, in-house tests by the above manufacturers will be allowed as part of the frontloading operation as from 1 September 2001. This means that parties entitled to be frontloaded/sub-frontloaded will be able to carry out in-house tests, which will facilitate the adaptation of machines and pave the way for a smooth changeover.

Taking the above factors into account, the Governing Council decided at its meeting on 21 June 2001 that euro banknotes could be made available to non-euro area manufacturers to enable them to adapt their machines in time for the cash changeover. In this context, it was deemed appropriate, mainly for logistical reasons, to centralise the delivery of such banknotes. Therefore, the Deutsche Bundesbank has been authorised to sell euro banknotes to non-euro area manufacturers, which have already participated in the euro test runs and have signed an agreement on the non-disclosure of confidential information. Eligible non-euro area manufacturers can purchase euro banknotes at face value and transport them to their premises for testing purposes on the following conditions:

- The euro banknotes are to be used exclusively for testing purposes.
- The counterparties are prohibited from passing on the purchased euro banknotes to any third parties whatsoever prior to 1 January 2002.
- The counterparties are required to store the euro banknotes securely in order to prevent theft, robbery or destruction, and to take out appropriate insurance to cover such risks.
- Any breach of the obligations of counterparties receiving banknotes for in-house tests will be subject to the payment of contractual penalties.

2 Final phase of the information campaign

Euro 2002 Information Campaign

With the unveiling by ECB President, Willem F. Duisenberg, of the security features of the euro banknotes on 30 August 2001, the Euro 2002 Information Campaign entered its most important phase. The mass media campaign was launched and, with the embargo on the security features lifted, the distribution of training kits and master material for posters, leaflets and other information for retailers, bankers and other cash handlers commenced.

Mass media campaign

The campaign advertising is designed to portray a dynamic and modern image, which works across the euro area and beyond. Television advertising commenced in all euro area countries in September and will continue until January. Advertising in the national press supports this TV campaign. In addition to these advertisements, the campaign aims to deliver most of the 200 million Public Information Leaflets being produced to

households in the euro area during October and November.

The purpose of the mass media campaign is to familiarise the public with the appearance of the banknotes and coins as well as with their security features. The advertising on the security features is designed to reassure people and to increase their awareness that, by taking a little care and quickly examining some of the security features, they can easily check the authenticity of the banknotes. This applies equally to cashiers and to the general public.

Beyond the euro area

A significant part of the campaign is dedicated to providing information and raising awareness outside the euro area. It is not necessary to achieve such a high level of coverage among the general public in non-euro area countries, so the policy is to target information at those who will need it for business or travel, as well as at the banking sector. For this reason, the campaign is co-operating with partners in the international travel and banking sectors, and will advertise in in-flight media and at airports. Mass media will also be used, with advertising on international TV channels and in the international press. This part of the mass media campaign will be implemented in December.

The international version of the Public Information Leaflet is being made available in 23 languages in addition to the languages of the campaign. This includes the languages of the accession countries and those countries where the legacy currencies are currently widely in circulation. The leaflet shows and describes the banknotes and coins and provides basic information about the changeover. For most people, this is all they will need to know about the new banknotes and coins. The extent to which it or the other campaign information materials are made available in these countries will depend largely on the degree to which the central banks and the banking sectors of these countries elect to use them for their information purposes.

Furthermore, some euro area NCBs are taking additional measures in countries where their national currency is in wide circulation.

The information campaign itself represents something of a logistical challenge, although, admittedly, not as great as that faced by those responsible for the cash distribution. The campaign must satisfy the need to proactively supply the public with information on the money that they will soon be using and be able to respond to their requests for information on "the EURO. OUR money".

Euro area statistics

Contents

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.

For analytical purposes, data for the euro area plus Greece up to end-2000 are shown in the additional tables starting on page 73* (for details, see the general notes).

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)	10-year government bond yield (% per annum, period averages)
				3-month moving average (centred)				
	1	2	3	4	5	6	7	8
1999	12.3	6.8	5.7	-	10.0	19.3	2.96	4.66
2000	8.0	4.4	5.5	-	9.6	20.8	4.40	5.44
2000 Q4	5.7	3.8	4.9	-	9.6	18.8	5.02	5.28
				Euro area enlargement				
2001 Q1	2.6	3.1	4.7	-	9.1	23.3	4.75	4.99
Q2	2.3	3.4	5.0	-	8.2	25.7	4.60	5.19
Q3	.	.	.	-	.	.	4.28	5.12
2001 Apr.	1.4	3.2	4.7	4.8	8.3	24.1	4.69	5.10
May	2.9	3.5	5.2	5.3	8.0	26.8	4.64	5.26
June	3.8	4.2	6.1	5.9	7.8	25.9	4.45	5.21
July	3.4	4.3	6.4	6.4	7.6	26.0	4.47	5.25
Aug.	3.6	4.3	6.7	.	7.1	.	4.35	5.06
Sep.	.	.	.	.	.	.	3.98	5.04

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
1999	1.1	-0.4	2.3	2.6	2.0	81.8	1.7	9.9
2000	2.3	5.4	3.3	3.4	5.4	83.8	2.0	8.9
2000 Q4	2.7	6.1	3.3	2.9	5.0	84.7	2.1	8.5
				Euro area enlargement				
2001 Q1	2.5	4.5	3.0	2.4	4.2	84.4	2.0	8.4
Q2	3.1	3.7	2.8	1.7	0.9	83.6	.	8.4
Q3	.	.	.	.	.	82.9	.	.
2001 Apr.	2.9	4.2	-	-	0.8	-	-	8.4
May	3.4	3.7	-	-	0.0	-	-	8.4
June	3.0	3.2	-	-	1.7	-	-	8.4
July	2.8	2.1	-	-	-1.5	-	-	8.3
Aug.	2.7	1.7	-	-	.	-	-	8.3
Sep.	.	.	-	-	.	-	-	.

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)	
	17	18	19	20	21	22	23	24
1999	7.7	83.4	-120.6	-41.7	372.3	96.6	95.8	1.066
2000	-24.3	52.2	-22.8	-128.9	377.7	88.2	86.3	0.924
2000 Q4	-10.5	10.4	-58.4	8.4	377.7	85.9	83.6	0.868
				Euro area enlargement				
2001 Q1	-3.3	7.4	-42.9	-38.2	393.4	91.4	88.9	0.923
Q2	-1.4	18.9	-48.2	31.7	410.2	89.5	86.9	0.873
Q3	.	.	.	.	.	91.2	88.0	0.890
2001 Apr.	-1.1	5.3	0.1	-20.9	386.7	91.0	88.5	0.892
May	-0.3	5.3	-40.4	24.9	409.0	89.3	86.7	0.874
June	0.0	8.3	-7.9	27.7	410.2	88.1	85.4	0.853
July	-3.7	8.5	7.2	1.6	397.5	89.1	86.2	0.861
Aug.	.	.	.	.	382.2	91.8	88.6	0.900
Sep.	.	.	.	.	.	92.6	89.1	0.911

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) Excluding holdings of money market fund shares/units by non-residents of the euro area.

I Monetary policy statistics

Table 1.1

Consolidated financial statement of the Eurosystem

(EUR millions)

1. Assets

	Gold and gold receivables	Claims on non-euro area residents in foreign currency	Claims on euro area residents in foreign currency	Claims on non-euro area residents in euro	Lending to euro area credit institutions in euro			
						Main refinancing operations	Longer-term refinancing operations	Fine-tuning reverse operations
	1	2	3	4	5	6	7	8
2001 11 May	118,464	265,647	23,056	5,295	218,172	158,996	59,100	0
18	118,464	270,299	20,613	5,622	210,191	150,999	59,100	0
25	118,464	267,707	23,033	5,365	221,196	162,002	59,100	0
1 June	118,464	269,198	22,368	5,174	226,403	167,001	59,100	0
8	118,464	269,037	22,207	5,225	224,204	165,001	59,100	0
15	118,464	269,055	22,943	5,322	214,433	155,000	59,100	0
22	118,454	270,437	23,176	5,303	217,891	158,001	59,100	0
29	128,512	279,018	22,540	5,654	236,201	176,000	59,999	0
6 July	128,512	280,463	22,357	5,362	226,190	166,000	59,999	0
13	128,512	280,417	23,247	5,687	214,057	154,000	59,999	0
20	128,492	280,794	23,804	5,688	212,051	152,000	59,999	0
27	128,405	279,768	24,046	5,626	233,033	172,999	60,001	0
3 Aug.	128,381	278,055	23,792	5,618	225,035	164,998	60,001	0
10	128,352	275,989	23,543	5,547	222,363	162,001	60,001	0
17	128,312	277,745	22,700	5,401	221,065	160,998	60,001	0
24	128,312	277,546	21,909	5,369	213,062	153,001	60,001	0
31	128,302	275,419	24,783	5,289	213,483	152,999	60,001	0
7 Sep.	128,268	274,275	24,166	5,419	212,066	152,000	60,001	0
14	128,229	274,508	21,487	5,316	206,078	142,999	60,001	0
21	128,229	272,731	22,101	5,264	192,542	132,000	60,001	0
28	128,236	262,282	22,121	5,171	213,410	151,999	60,002	0
5 Oct.	128,236	260,738	21,750	5,134	197,093	136,999	60,002	0

2. Liabilities

	Banknotes in circulation	Liabilities to euro area credit institutions in euro						Other liabilities to euro area credit institutions in euro	Debt certificates issued
			Current accounts (covering the minimum reserve system)	Deposit facility	Fixed-term deposits	Fine-tuning reverse operations	Deposits related to margin calls		
	1	2	3	4	5	6	7	8	9
2001 11 May	353,624	126,337	126,264	72	0	0	1	6,278	3,784
18	350,877	124,887	124,774	111	0	0	2	6,295	3,784
25	350,233	121,103	120,955	146	0	0	2	6,228	3,784
1 June	352,925	127,020	126,953	65	0	0	2	6,052	3,784
8	353,479	127,240	127,184	50	0	0	6	6,197	3,784
15	351,772	122,114	122,005	109	0	0	0	6,195	3,784
22	348,463	131,206	130,178	1,023	0	0	5	6,097	3,784
29	350,199	117,841	117,569	272	0	0	0	6,097	3,784
6 July	353,648	132,775	132,595	126	0	0	54	4,324	3,784
13	352,516	127,995	127,199	791	0	0	5	4,393	3,784
20	349,789	131,736	130,396	1,337	0	0	3	4,219	3,784
27	348,282	128,542	128,516	24	0	0	2	4,116	3,784
3 Aug.	351,627	125,212	125,179	31	0	0	2	4,164	3,784
10	349,258	127,305	126,241	1,062	0	0	2	4,343	3,784
17	345,581	129,735	129,687	46	0	0	2	4,162	3,784
24	338,873	125,018	124,998	18	0	0	2	4,119	3,784
31	337,682	118,781	118,722	55	0	0	4	4,164	3,784
7 Sep.	338,188	127,999	127,948	34	0	0	17	4,843	3,784
14	334,283	114,049	113,892	143	0	0	14	4,922	3,784
21	329,229	118,922	115,501	3,405	0	0	16	4,934	3,784
28	327,899	131,745	131,705	39	0	0	1	4,802	3,784
5 Oct.	329,095	120,574	120,452	109	0	0	13	5,160	3,784

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	51	25	313	27,889	70,174	91,888	820,898	2001 11 May
0	65	27	329	27,838	70,168	91,417	814,941	18
0	66	28	383	27,785	70,168	91,326	825,427	25
0	273	29	276	27,979	70,168	90,401	830,431	1 June
0	57	46	241	28,128	70,168	89,766	827,440	8
0	292	41	241	28,110	70,168	90,313	819,049	15
0	760	30	242	28,024	70,168	90,749	824,444	22
0	175	27	538	27,665	70,168	92,471	862,767	29
0	173	18	339	28,085	70,158	91,424	852,890	6 July
0	25	33	412	27,967	70,157	91,914	842,370	13
0	11	41	374	28,040	70,157	92,545	841,946	20
0	11	22	252	28,100	70,157	92,673	862,061	27
0	8	28	305	28,136	70,157	92,625	852,105	3 Aug.
0	305	56	281	28,141	70,157	86,614	840,988	10
0	9	57	249	28,280	70,157	86,693	840,603	17
0	25	35	260	28,325	70,157	87,419	832,360	24
0	437	46	252	28,371	70,160	87,329	833,389	31
0	43	22	320	28,286	70,160	85,090	828,051	7 Sep.
0	3,060	18	380	28,349	70,160	86,182	820,690	14
0	519	22	387	28,303	70,160	86,387	806,105	21
0	1,373	36	446	28,715	70,163	86,819	817,364	28
0	10	82	294	28,734	70,163	86,708	798,851	5 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	
40,734	8,549	3,779	12,947	6,984	72,369	126,268	59,245	820,898	2001 11 May
38,409	8,694	3,784	13,611	6,984	72,036	126,270	59,310	814,941	18
52,925	8,880	3,758	13,596	6,984	71,777	126,258	59,901	825,427	25
49,626	8,622	3,756	14,173	6,984	70,779	126,258	60,452	830,431	1 June
46,793	8,529	3,915	13,854	6,984	69,943	126,258	60,464	827,440	8
43,787	8,754	3,833	14,548	6,984	70,556	126,258	60,464	819,049	15
41,828	8,685	3,887	15,897	6,984	70,890	126,258	60,465	824,444	22
69,722	10,226	3,902	16,977	7,183	75,031	141,340	60,465	862,767	29
44,537	8,692	3,928	18,044	7,183	74,177	141,340	60,458	852,890	6 July
38,900	8,722	4,099	18,460	7,183	74,520	141,340	60,458	842,370	13
37,574	8,530	4,221	18,534	7,183	74,578	141,340	60,458	841,946	20
62,784	8,570	3,995	18,575	7,183	74,432	141,340	60,458	862,061	27
53,989	8,523	3,966	17,014	7,183	74,845	141,340	60,458	852,105	3 Aug.
51,402	8,727	4,011	15,204	7,183	67,972	141,340	60,459	840,988	10
51,485	8,466	4,138	15,369	7,183	68,901	141,340	60,459	840,603	17
54,847	8,543	3,986	14,679	7,183	69,528	141,340	60,460	832,360	24
62,840	8,459	3,982	15,649	7,183	69,065	141,340	60,460	833,389	31
47,863	8,489	3,978	14,669	7,183	69,255	141,340	60,460	828,051	7 Sep.
49,858	18,713	3,904	12,407	7,183	69,787	141,340	60,460	820,690	14
45,858	9,040	3,941	11,289	7,183	70,123	141,340	60,462	806,105	21
55,876	8,507	2,485	16,349	6,889	73,585	124,991	60,452	817,364	28
49,116	8,225	2,497	14,560	6,889	73,508	124,991	60,452	798,851	5 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			
			Fixed rate	Minimum bid rate			
	Level 1	Change 2	Level 3	Level 4	Change 5	Level 6	Change 7
1999 1 Jan.	2.00	-	3.00	-	-	4.50	-
4 [2]	2.75	0.75	3.00	-	...	3.25	-1.25
22	2.00	-0.75	3.00	-	...	4.50	1.25
9 Apr.	1.50	-0.50	2.50	-	-0.50	3.50	-1.00
5 Nov.	2.00	0.50	3.00	-	0.50	4.00	0.50
2000 4 Feb.	2.25	0.25	3.25	-	0.25	4.25	0.25
17 Mar.	2.50	0.25	3.50	-	0.25	4.50	0.25
28 Apr.	2.75	0.25	3.75	-	0.25	4.75	0.25
9 June	3.25	0.50	4.25	-	0.50	5.25	0.50
28 [3]	3.25	...	-	4.25	...	5.25	...
1 Sep.	3.50	0.25	-	4.50	0.25	5.50	0.25
6 Oct.	3.75	0.25	-	4.75	0.25	5.75	0.25
			Euro area enlargement				
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

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 latest change was effective from 18 September.*

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			
			Fixed rate	Minimum bid rate	Marginal rate [3]	Weighted average rate	Running for (...) days
	1	2	3	4	5	6	7
2001 4 Apr.	129,101	118,000	-	4.75	4.75	4.75	15
11	24,949	24,949	-	4.75	4.75	4.75	14
19	257,706	172,000	-	4.75	4.86	4.91	11
25	83,303	5,000	-	4.75	4.78	4.80	12
30	147,324	80,000	-	4.75	4.77	4.78	15
7 May	164,985	79,000	-	4.75	4.78	4.78	16
15	160,715	72,000	-	4.50	4.54	4.56	15
23	157,987	90,000	-	4.50	4.53	4.54	14
30	159,877	77,000	-	4.50	4.55	4.55	14
6 June	120,631	88,000	-	4.50	4.51	4.53	14
13	135,442	67,000	-	4.50	4.51	4.52	14
20	148,877	91,000	-	4.50	4.51	4.52	14
27	155,894	85,000	-	4.50	4.54	4.55	14
4 July	104,399	81,000	-	4.50	4.50	4.51	14
11	141,842	73,000	-	4.50	4.51	4.52	14
18	136,104	79,000	-	4.50	4.51	4.52	14
25	126,040	94,000	-	4.50	4.51	4.52	14
1 Aug.	100,746	71,000	-	4.50	4.50	4.51	14
8	132,809	91,000	-	4.50	4.50	4.51	14
15	111,157	70,000	-	4.50	4.50	4.51	14
22	142,012	83,000	-	4.50	4.50	4.51	14
29	72,907	70,000	-	4.50	4.50	4.50	14
5 Sep.	132,696	82,000	-	4.25	4.27	4.28	14
12	118,708	61,000	-	4.25	4.26	4.27	14
19	110,778	71,000	-	3.75	3.76	3.77	14
26	111,927	81,000	-	3.75	3.76	3.77	14
3 Oct.	76,444	56,000	-	3.75	3.75	3.76	14
10	60,510	60,510	-	3.75	3.75	3.75	14

2. Longer-term refinancing operations

Date of settlement	Bids (amount)	Allotment (amount)	Fixed rate tenders	Variable rate tenders		
			Fixed rate	Marginal rate [3]	Weighted average rate	Running for (...) days
	1	2	3	4	5	6
1999 14 Jan.	79,846	15,000	-	3.13	-	42
14	39,343	15,000	-	3.10	-	70
14	46,152	15,000	-	3.08	-	105
25 Feb.	77,300	15,000	-	3.04	-	91
25 Mar.	53,659	15,000	-	2.96	2.97	98
29 Apr.	66,911	15,000	-	2.53	2.54	91
27 May	72,294	15,000	-	2.53	2.54	91
1 July	76,284	15,000	-	2.63	2.64	91
29	64,973	15,000	-	2.65	2.66	91
26 Aug.	52,416	15,000	-	2.65	2.66	91
30 Sep.	41,443	15,000	-	2.66	2.67	84
28 Oct.	74,430	25,000	-	3.19	3.42	91
25 Nov.	74,988	25,000	-	3.18	3.27	98
23 Dec.	91,088	25,000	-	3.26	3.29	98
2000 27 Jan.	87,052	20,000	-	3.28	3.30	91
2 Mar.	72,960	20,000	-	3.60	3.61	91
30	74,929	20,000	-	3.78	3.80	91
27 Apr.	64,094	20,000	-	4.00	4.01	91
1 June	64,317	20,000	-	4.40	4.42	91
29	41,833	20,000	-	4.49	4.52	91
27 July	40,799	15,000	-	4.59	4.60	91
31 Aug.	35,417	15,000	-	4.84	4.87	91
28 Sep.	34,043	15,000	-	4.84	4.86	92
26 Oct.	43,085	15,000	-	5.06	5.07	91
30 Nov.	31,999	15,000	-	5.03	5.05	91
29 Dec.	15,869	15,000	-	4.75	4.81	90
			Euro area enlargement			
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

3. Other tender operations

Date of settlement	Type of operation	Bids (amount)	Allotment (amount)	Fixed rate tenders	Variable rate tenders		
				Fixed rate	Marginal rate [3]	Weighted average rate	Running for (...) days
	1	2	3	4	5	6	7
2000 5 Jan.	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
			Euro area enlargement				
2001 30 Apr.	Reverse transaction	105,377	73,000	-	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

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) The marginal rate refers to the lowest rate at which funds were allotted.

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
2000 Aug.	9,686.5	5,393.8	122.9	197.1	1,269.0	502.5	2,201.3
Sep.	9,773.3	5,465.7	123.6	193.6	1,270.2	502.1	2,218.2
Oct.	9,931.2	5,531.9	127.6	201.1	1,283.2	534.2	2,253.2
Nov. [3)]	10,074.5	5,653.4	130.0	199.9	1,282.2	561.5	2,247.6
Dec. [3)]	10,071.5	5,711.3	136.7	187.2	1,273.6	528.3	2,234.3
			Euro area enlargement				
2001 Jan.	10,164.2	5,712.6	139.2	196.7	1,275.6	574.6	2,265.6
Feb.	10,247.4	5,724.4	145.3	201.2	1,284.7	597.8	2,294.0
Mar.	10,503.6	5,883.5	151.1	203.4	1,292.6	654.7	2,318.3
Apr.	10,554.6	5,924.3	154.5	202.8	1,292.1	657.7	2,323.2
May	10,687.3	5,984.7	166.6	198.9	1,307.5	693.2	2,336.4
June	10,705.3	6,015.6	175.7	198.7	1,314.2	656.6	2,344.5
July	10,590.4	5,912.2	183.4	199.1	1,312.5	636.2	2,346.9
Aug. [(p)]	10,549.8	5,871.9	187.6	190.2	1,308.6	654.1	2,337.4

Source: ECB.

1) Liabilities vis-à-vis other credit institutions subject to the ESCB's minimum reserve system, the ECB and participating national central banks, are excluded from the reserve base. If a credit institution cannot provide evidence of the amount of its issues of debt securities with a maturity of up to two years and of money market paper held by the institutions mentioned above, it may deduct a certain percentage of these liabilities from its reserve base. This percentage was 10% for calculating the reserve base until November 1999, and 30% thereafter.

2) Maintenance periods start on the 24th of the month and run to the 23rd of the following month; the required reserve is calculated from the reserve base as at the end of the preceding month.

3) Includes the reserve base of credit institutions in Greece (EUR 134.4 billion in November and 134.6 billion in December 2000, EUR 107.3 billion and EUR 110.3 billion of which qualify for the 2% coefficient respectively). On a transitional basis, credit institutions located in participating Member States could choose to deduct from their own reserve base liabilities to credit institutions in Greece. Starting from the reserve base as at end-January 2001 the standard treatment applies.

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
2000 Oct.	113.7	114.2	0.5	0.0	4.69
Nov.	115.1	115.5	0.4	0.0	4.81
Dec.	116.6	117.2	0.6	0.0	4.78
		Euro area enlargement			
2001 Jan. [7)]	118.5	119.0	0.5	0.0	4.77
Feb.	120.1	120.6	0.5	0.0	4.76
Mar.	120.4	120.9	0.5	0.0	4.77
Apr.	120.8	121.3	0.5	0.0	4.77
May	124.2	124.8	0.7	0.0	4.71
June	125.0	125.6	0.6	0.0	4.52
July	126.4	127.0	0.6	0.0	4.51
Aug.	127.2	127.7	0.5	0.0	4.50
Sep.	125.3	126.0	0.7	0.0	4.27
Oct. [(p)]	124.5	-	-	-	-

Source: ECB.

1) This table contains full data for completed maintenance periods and required reserves for the current maintenance period.

2) The amount of reserve requirement of each individual credit institution is first calculated by applying the reserve ratio for the corresponding categories of liabilities to the eligible liabilities, using the balance sheet data as at the end of each calendar month; subsequently, each credit institution deducts from this figure a lump-sum allowance of EUR 100,000. The resulting reserve requirements are then aggregated at the euro area level.

3) Aggregate average daily holdings of credit institutions required to hold a positive amount of reserves on their reserve accounts over the maintenance period.

4) Average actual reserve holdings over the maintenance period in excess of the required reserves, computed on the basis of those credit institutions that have fulfilled the reserve requirement.

5) Average shortfalls of actual reserve holdings from required reserves over the maintenance period, computed on the basis of those credit institutions that have not fulfilled the reserve requirement.

6) This rate equals the average, over the maintenance period, of the ECB's rate (weighted according to the number of calendar days) on the Eurosystem's main refinancing operations (see Table 1.3).

*7) Owing to the adoption of the euro by Greece on 1 January 2001, the reserve requirement is an average, weighted by the number of calendar days, of the reserve requirements for the Euro 11 from 24 to 31 December 2000 and the reserve requirements for the Euro 12 from 1 to 23 January 2001 (i.e. 8/31 * EUR 116.9 billion + 23/31 * EUR 119.1 billion).*

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										
	Eurosystem's net assets in gold and foreign currency	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations [2)]	Deposit facility	Other liquidity-absorbing operations [2)]	Banknotes in circulation	Central government deposits with the Eurosystem	Other factors (net) [3)]		
	1	2	3	4	5	6	7	8	9	10	11	12
1999 Oct.	349.7	143.0	45.0	0.3	0.0	0.6	0.0	342.5	45.4	45.9	103.5	446.7
Nov.	351.8	140.5	53.7	0.3	0.0	0.4	0.0	343.1	51.5	47.3	104.2	447.6
Dec.	351.7	150.4	65.0	0.3	0.0	1.0	0.0	354.3	59.0	47.5	105.6	460.8
2000 Jan.	362.3	138.5	75.0	1.9	0.0	0.5	3.3	363.0	41.0	61.2	108.7	472.3
Feb.	367.8	130.9	70.5	0.1	0.0	0.2	0.0	347.6	49.2	64.2	108.1	455.9
Mar.	369.2	136.1	66.2	0.2	0.0	0.3	0.0	347.6	51.7	63.5	108.6	456.4
Apr.	377.1	136.7	61.0	0.2	0.0	0.9	0.0	349.7	45.6	69.1	109.7	460.3
May	378.8	142.6	60.0	0.4	0.0	2.3	0.0	353.8	41.9	71.8	112.0	468.2
June	378.1	140.9	59.9	0.3	0.2	0.8	0.0	354.1	38.3	72.1	114.2	469.1
July	380.8	157.9	59.9	0.4	0.0	0.5	0.0	357.0	50.4	76.8	114.1	471.7
Aug.	382.0	163.1	55.4	0.1	0.0	0.3	0.0	359.2	48.8	80.0	112.4	471.9
Sep.	381.6	173.1	51.1	0.3	0.0	0.2	0.0	354.8	56.6	81.2	113.3	468.3
Oct.	396.3	176.5	45.7	0.5	0.0	0.2	0.0	354.5	47.4	102.5	114.4	469.1
Nov.	398.6	183.7	45.0	0.2	0.0	0.2	0.0	352.7	49.8	109.2	115.7	468.6
Dec.	394.4	210.4	45.0	0.4	0.0	0.2	0.0	360.4	61.1	111.1	117.4	478.0
					Euro area enlargement							
2001 Jan.	383.7	205.3	45.0	0.5	0.0	0.6	0.0	368.3	52.2	94.2	119.1	488.0
Feb.	377.9	188.9	49.8	2.6	0.0	0.4	0.0	354.8	57.0	86.3	120.7	476.0
Mar.	375.6	185.2	54.1	0.4	0.0	0.5	0.0	353.0	53.0	87.7	121.0	474.5
Apr.	382.1	172.4	58.4	2.2	0.0	0.5	0.0	354.6	49.5	89.1	121.4	476.4
May	384.4	144.0	59.1	0.4	17.0	0.6	0.0	352.7	39.4	87.5	124.8	478.1
June	385.0	161.7	59.1	0.2	0.0	0.4	0.0	351.1	41.3	87.5	125.7	477.3
July	397.6	161.9	59.9	0.2	0.0	0.4	0.0	350.8	42.5	98.8	127.1	478.3
Aug.	402.1	164.0	60.0	0.1	0.0	0.2	0.0	347.6	48.8	101.8	127.8	475.6
Sep.	401.3	147.1	60.0	0.5	3.5	0.4	0.0	335.4	45.2	105.4	126.1	461.9

Source: ECB.

1) *The banking system's liquidity position is defined as the current account holdings in euro of credit institutions in the euro area with the Eurosystem. Amounts are derived from the consolidated financial statement of the Eurosystem.*
2) *Includes monetary policy operations initiated by national central banks in Stage Two and outstanding at the start of Stage Three (excluding outright operations and the issuance of debt certificates).*
3) *Remaining items in the consolidated financial statement of the Eurosystem.*
4) *Equal to the difference between the sum of liquidity-providing factors (items 1 to 5) and the sum of liquidity-absorbing factors (items 6 to 10).*
5) *Calculated as the sum of the deposit facility (item 6), banknotes in circulation (item 8) and credit institutions' current account holdings (item 11).*

2 Monetary developments in the euro area

Table 2.1

Aggregated balance sheet of the Eurosystem

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

1. Assets

	Loans to euro area residents				Holdings of securities other than shares issued by euro area residents				Holdings of shares/ other equity issued by euro area residents			External assets [1]	Fixed assets	Re-maining assets	Total
		MFIs [1]	General govern-ment	Other euro area residents		MFIs	General govern-ment	Other euro area residents		MFIs	Other euro area residents				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1998	225.2	204.6	20.4	0.1	87.8	1.1	86.2	0.5	5.5	1.8	3.7	322.3	7.9	49.3	698.0
1999 Q3	471.7	451.1	20.4	0.2	92.4	1.4	89.9	1.1	8.7	4.3	4.4	427.9	9.8	47.5	1,058.0
Q4	444.6	424.3	19.7	0.5	89.1	1.9	86.1	1.1	14.1	4.3	9.8	400.6	9.9	56.2	1,014.5
2000 Q1	443.4	424.5	18.4	0.5	96.2	2.4	92.7	1.1	14.4	4.3	10.1	439.1	9.8	48.9	1,051.8
Q2	580.7	561.8	18.4	0.5	97.4	2.6	93.6	1.2	14.7	4.4	10.4	454.8	10.0	51.7	1,209.3
2000 Aug.	482.5	463.7	18.4	0.5	98.5	2.8	94.4	1.3	14.7	4.4	10.3	435.4	10.2	52.3	1,093.5
Sep.	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
Oct.	478.8	460.1	18.2	0.5	98.7	2.6	94.9	1.2	15.0	4.4	10.7	454.7	10.5	53.9	1,111.6
Nov.	431.5	412.8	18.2	0.5	98.8	2.6	94.9	1.4	15.4	4.4	11.1	402.8	10.3	54.2	1,013.0
Dec.	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
							Euro area enlargement								
2001 1 Jan.	*457.0*	*429.3*	*27.1*	*0.6*	*105.3*	*2.5*	*101.4*	*1.3*	*15.3*	*4.3*	*11.0*	*394.2*	*11.3*	*57.4*	*1,040.4*
2001 Jan.	401.5	373.7	27.2	0.6	104.5	2.6	100.8	1.0	15.5	4.7	10.8	390.4	11.4	54.0	977.3
Feb.	398.8	371.0	27.2	0.6	105.2	2.5	101.5	1.2	14.9	4.6	10.3	386.2	11.3	53.6	970.1
Mar.	401.7	373.9	27.2	0.6	105.0	2.7	101.2	1.1	14.7	4.6	10.1	396.8	11.3	54.4	983.8
Apr.	376.1	348.3	27.2	0.6	106.5	2.6	102.7	1.3	14.7	4.6	10.1	390.3	11.7	53.6	952.9
May	398.5	370.7	27.2	0.6	106.4	2.9	102.3	1.3	14.3	4.6	9.7	398.9	11.8	53.2	983.1
June	426.0	398.2	27.2	0.6	105.8	3.1	101.5	1.2	14.2	4.6	9.6	414.7	11.9	54.5	1,027.2
July	424.4	396.6	27.2	0.6	106.9	3.3	102.4	1.2	14.3	4.7	9.7	404.9	12.0	57.3	1,019.9
Aug. [p]	391.1	363.3	27.2	0.6	107.6	3.5	102.9	1.2	14.1	4.6	9.4	396.7	12.0	54.5	976.0

2. Liabilities

	Currency in circulation	Deposits of euro area residents				Money market paper	Debt securities issued	Capital and reserves	External liabilities [1]	Remaining liabilities	Total
			MFIs [1]	Central government	Other general government/ other euro area residents						
	1	2	3	4	5	6	7	8	9	10	11
1998	359.1	152.0	94.2	54.4	3.5	8.5	5.3	97.1	18.6	57.4	698.0
1999 Q3	359.7	405.3	347.7	50.1	7.6	3.3	5.3	145.5	88.8	50.1	1,058.0
Q4	393.3	341.5	279.3	53.4	8.8	3.3	4.6	174.3	49.8	47.6	1,014.5
2000 Q1	366.2	372.1	319.8	43.1	9.1	1.7	4.6	186.5	75.1	45.7	1,051.8
Q2	374.3	497.9	432.8	52.6	12.5	1.7	4.6	193.4	92.0	45.4	1,209.3
2000 Aug.	373.2	401.0	336.1	53.8	11.2	1.7	4.6	199.4	66.6	46.9	1,093.5
Sep.	373.5	404.2	346.1	45.6	12.5	0.0	4.6	221.2	75.0	51.4	1,129.8
Oct.	372.6	388.1	323.3	51.1	13.7	0.0	4.6	225.3	69.5	51.6	1,111.6
Nov.	372.2	334.6	265.6	54.9	14.0	0.0	3.8	221.4	29.3	51.7	1,013.0
Dec.	390.2	327.3	270.4	47.1	9.8	0.0	3.8	197.5	29.9	57.0	1,005.7
					Euro area enlargement						
2001 1 Jan.	*399.3*	*346.2*	*288.0*	*47.9*	*10.4*	*0.0*	*5.6*	*199.2*	*30.9*	*59.1*	*1,040.4*
2001 Jan.	373.1	313.3	250.9	51.5	10.9	0.0	5.5	196.8	30.6	58.0	977.3
Feb.	370.6	313.1	249.7	52.0	11.4	0.0	5.5	194.8	27.9	58.3	970.1
Mar.	370.5	312.6	253.4	46.8	12.4	0.0	5.5	204.6	26.8	63.8	983.8
Apr.	372.5	289.9	234.8	41.2	13.8	0.0	5.5	205.6	25.3	54.1	952.9
May	369.5	317.5	266.5	36.0	15.1	0.0	5.5	212.1	27.6	50.9	983.1
June	368.8	342.2	274.1	51.8	16.3	0.0	5.6	223.7	32.6	54.2	1,027.2
July	366.9	343.5	282.7	46.9	14.0	0.0	5.6	214.6	31.9	57.4	1,019.9
Aug. [p]	356.1	320.4	259.2	46.6	14.7	0.0	5.6	211.3	28.4	54.2	976.0

Source: ECB.

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

Table 2.2

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

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

1. Assets

	Loans to euro area residents	MFIs	General government	Other euro area residents	Holdings of securities other than shares issued by euro area residents	MFIs	General government	Other euro area residents	Money market paper	Holdings of shares/ other equity issued by euro area residents	MFIs	Other euro area residents	External assets	Fixed assets	Remaining assets	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1998	9,088.4	3,154.6	822.0	5,111.8	2,021.0	720.8	1,112.0	188.1	107.3	521.0	168.5	352.6	1,591.7	150.6	776.8	14,256.7
1999 Q3	9,580.5	3,377.2	810.7	5,392.6	2,183.8	828.8	1,137.5	217.5	112.1	587.9	180.5	407.3	1,668.8	153.4	814.2	15,100.8
Q4	9,778.0	3,413.1	828.2	5,536.7	2,179.8	828.4	1,124.6	226.7	129.9	650.7	211.3	439.4	1,720.6	154.0	919.1	15,532.1
2000 Q1	10,020.0	3,510.6	821.3	5,688.1	2,225.3	869.5	1,128.0	227.8	131.9	729.6	230.2	499.4	1,823.0	152.0	977.6	16,059.2
Q2	10,126.9	3,463.8	817.2	5,845.8	2,211.1	894.9	1,073.2	243.0	155.2	704.0	210.0	494.0	1,888.5	154.2	1,021.1	16,261.0
2000 Aug.	10,139.2	3,442.9	803.6	5,892.6	2,216.6	927.1	1,034.2	255.3	152.9	704.1	203.7	500.4	1,980.4	155.1	1,108.0	16,456.2
Sep.	10,239.1	3,461.2	799.8	5,978.1	2,231.5	940.5	1,033.8	257.2	145.6	707.6	204.1	503.6	1,999.6	155.8	1,030.0	16,509.3
Oct.	10,304.1	3,481.4	801.7	6,021.0	2,222.9	939.1	1,020.6	263.1	151.7	709.4	206.0	503.3	2,056.6	157.5	1,100.7	16,702.8
Nov.	10,387.8	3,522.7	808.8	6,056.3	2,216.7	937.0	1,017.3	262.3	157.8	732.0	227.2	504.8	2,081.5	157.5	1,048.9	16,782.1
Dec.	10,419.8	3,510.6	818.7	6,090.5	2,192.4	932.7	995.8	263.8	146.0	750.9	240.3	510.5	2,022.2	158.7	1,022.2	16,712.2
Euro area enlargement																
2001 1 Jan.	*10,527.9*	*3,547.5*	*826.8*	*6,153.6*	*2,254.9*	*934.1*	*1,054.6*	*266.3*	*146.0*	*762.2*	*243.0*	*519.3*	*2,005.0*	*161.6*	*1,046.4*	*16,904.1*
2001 Jan.	10,598.8	3,583.7	830.9	6,184.2	2,249.7	935.3	1,044.8	269.5	156.0	779.2	247.4	531.8	2,068.9	160.4	1,066.6	17,079.5
Feb.	10,668.2	3,640.2	822.7	6,205.3	2,287.3	954.3	1,054.7	278.4	158.3	788.0	248.7	539.3	2,093.5	161.0	1,054.3	17,210.6
Mar.	10,805.1	3,707.5	825.3	6,272.3	2,318.9	968.4	1,064.0	286.5	162.1	812.5	255.4	557.0	2,235.7	160.8	1,096.8	17,592.0
Apr.	10,775.6	3,646.9	817.2	6,311.6	2,336.6	975.4	1,068.7	292.6	168.1	836.3	259.5	576.9	2,218.0	161.5	1,110.5	17,606.7
May	10,799.5	3,655.5	812.1	6,331.9	2,379.0	991.2	1,089.0	298.8	169.0	836.2	258.5	577.6	2,269.8	162.8	1,131.5	17,747.9
June	10,873.6	3,681.7	810.3	6,381.6	2,392.5	995.6	1,096.3	300.5	170.6	798.3	253.4	544.8	2,276.3	163.8	1,159.2	17,834.3
July	10,840.5	3,645.9	806.7	6,387.9	2,412.0	1,004.9	1,093.4	313.7	175.5	793.9	254.3	539.5	2,202.7	164.9	1,075.4	17,664.8
Aug. (p)	10,810.8	3,646.8	802.5	6,361.5	2,411.9	1,005.0	1,084.8	322.1	168.8	782.0	249.5	532.6	2,228.8	165.3	1,070.5	17,638.0

2. Liabilities

	Currency in circulation	Deposits of euro area residents	MFIs	Central government	Other general government/ other euro area residents	Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements	Money market fund shares/ units	Debt securities issued	Money market paper	Capital and reserves	External liabilities	Remaining liabilities	Total
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1998	0.4	8,286.4	3,305.2	95.4	4,885.8	1,387.1	1,929.0	1,393.2	176.5	241.4	2,099.8	161.6	754.6	1,507.0	1,205.5	14,256.7
1999 Q3	0.6	8,529.0	3,510.4	83.2	4,935.4	1,471.5	1,981.7	1,321.5	160.6	293.2	2,325.7	204.1	806.4	1,710.3	1,231.4	15,100.8
Q4	0.7	8,733.1	3,589.0	88.6	5,055.4	1,537.0	2,042.8	1,331.4	144.2	293.4	2,361.3	242.1	849.6	1,798.9	1,253.1	15,532.1
2000 Q1	0.7	8,809.6	3,612.5	87.1	5,110.0	1,568.0	2,052.7	1,312.0	177.3	325.1	2,421.0	248.8	890.7	2,018.8	1,344.6	16,059.2
Q2	0.6	8,849.9	3,623.7	93.4	5,132.8	1,596.1	2,078.1	1,291.3	167.3	344.7	2,478.1	261.1	898.5	2,032.6	1,395.4	16,261.0
2000 Aug.	0.0	8,801.9	3,579.6	86.8	5,135.5	1,566.4	2,120.2	1,279.6	169.4	345.7	2,529.4	276.1	906.8	2,143.0	1,453.3	16,456.2
Sep.	0.0	8,858.5	3,599.9	113.7	5,144.9	1,577.0	2,124.2	1,272.3	171.4	334.8	2,550.2	272.2	913.5	2,192.0	1,388.0	16,509.3
Oct.	0.0	8,903.8	3,630.1	121.3	5,152.4	1,577.0	2,141.3	1,263.5	170.6	336.9	2,574.0	281.3	917.9	2,258.8	1,430.1	16,702.8
Nov.	0.0	8,957.1	3,669.8	113.9	5,173.4	1,594.9	2,147.4	1,257.6	173.5	342.9	2,570.2	278.5	930.8	2,277.2	1,425.3	16,782.1
Dec.	0.0	9,057.4	3,679.5	117.4	5,260.4	1,648.9	2,158.3	1,278.3	174.9	323.3	2,563.2	262.2	940.0	2,186.4	1,379.7	16,712.2
Euro area enlargement																
2001 1 Jan.	*0.0*	*9,204.0*	*3,700.8*	*118.4*	*5,384.9*	*1,663.4*	*2,196.6*	*1,329.7*	*195.2*	*323.3*	*2,563.4*	*262.2*	*958.5*	*2,188.1*	*1,404.6*	*16,904.1*
2001 Jan.	0.0	9,191.1	3,727.3	95.6	5,368.2	1,613.2	2,210.2	1,331.0	213.8	337.2	2,594.7	274.9	964.1	2,301.9	1,415.6	17,079.5
Feb.	0.0	9,222.3	3,742.1	103.6	5,376.6	1,614.6	2,221.7	1,324.7	215.8	347.0	2,630.5	280.2	969.7	2,328.1	1,432.9	17,210.6
Mar.	0.0	9,324.8	3,806.1	103.6	5,415.1	1,624.1	2,241.1	1,324.0	225.9	358.8	2,662.1	278.5	982.2	2,512.7	1,472.8	17,592.0
Apr.	0.0	9,302.2	3,747.8	111.3	5,443.1	1,653.5	2,239.8	1,324.9	224.9	367.1	2,675.5	277.9	986.4	2,527.3	1,470.4	17,606.7
May	0.0	9,336.6	3,746.5	110.9	5,479.2	1,677.0	2,242.2	1,322.7	237.3	378.2	2,706.9	271.0	990.9	2,594.7	1,469.6	17,747.9
June	0.0	9,412.4	3,790.0	112.8	5,509.6	1,711.9	2,238.5	1,331.9	227.3	382.3	2,727.4	266.9	1,001.9	2,563.3	1,480.1	17,834.3
July	0.0	9,358.2	3,751.5	108.9	5,497.8	1,695.9	2,240.1	1,334.8	227.1	393.7	2,740.1	273.4	1,002.4	2,470.1	1,426.9	17,664.8
Aug. (p)	0.0	9,340.2	3,747.2	106.2	5,486.8	1,663.6	2,253.3	1,336.8	233.1	404.8	2,735.9	261.7	1,004.6	2,448.6	1,442.3	17,638.0

Source: ECB.

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

	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	General government 2	Other euro area residents 3	4	General government 5	Other euro area residents 6	7	8	9	10	11
2000 Feb.	6,453.5	836.1	5,617.3	1,465.5	1,230.7	234.8	468.7	2,203.4	161.8	972.6	11,725.7
Mar.	6,528.3	839.7	5,688.6	1,449.6	1,220.7	228.9	509.5	2,262.0	161.8	994.1	11,905.4
Apr.	6,591.4	842.4	5,749.0	1,435.6	1,198.6	237.0	522.2	2,362.9	162.6	1,034.3	12,109.1
May	6,614.9	835.8	5,779.1	1,432.0	1,187.9	244.2	535.9	2,351.4	163.0	1,035.3	12,132.6
June	6,681.9	835.6	5,846.3	1,411.0	1,166.8	244.2	504.3	2,343.3	164.2	1,039.0	12,143.7
July	6,708.5	833.8	5,874.6	1,393.1	1,140.7	252.4	509.0	2,370.5	164.9	1,086.3	12,232.3
Aug.	6,715.1	822.0	5,893.1	1,385.2	1,128.6	256.6	510.7	2,415.8	165.2	1,124.9	12,316.9
Sep.	6,796.6	818.0	5,978.5	1,386.6	1,128.4	258.2	513.8	2,458.7	166.0	1,049.9	12,371.5
Oct.	6,841.4	819.9	6,021.5	1,379.8	1,115.5	264.3	514.0	2,511.3	168.0	1,118.7	12,533.2
Nov.	6,883.8	827.0	6,056.8	1,375.9	1,112.2	263.7	515.8	2,484.3	167.7	1,067.7	12,495.2
Dec.	6,926.8	835.9	6,090.9	1,354.6	1,089.4	265.1	521.5	2,402.9	169.9	1,035.7	12,411.3
						Euro area enlargement					
2001 1 Jan.	*7,008.1*	*853.9*	*6,154.2*	*1,423.6*	*1,156.0*	*267.6*	*530.2*	*2,399.2*	*172.9*	*1,059.7*	*12,593.8*
2001 Jan.	7,042.9	858.1	6,184.8	1,416.2	1,145.6	270.6	542.7	2,459.3	171.8	1,082.6	12,715.5
Feb.	7,055.8	849.9	6,205.9	1,435.7	1,156.1	279.6	549.6	2,479.7	172.3	1,071.6	12,764.7
Mar.	7,125.4	852.6	6,272.9	1,452.7	1,165.2	287.6	567.1	2,632.5	172.0	1,116.1	13,066.0
Apr.	7,156.5	844.4	6,312.2	1,465.2	1,171.4	293.8	586.9	2,608.3	173.3	1,126.9	13,117.1
May	7,171.8	839.3	6,332.5	1,491.4	1,191.3	300.1	587.3	2,668.7	174.6	1,147.2	13,241.1
June	7,219.8	837.5	6,382.2	1,499.6	1,197.8	301.8	554.4	2,691.1	175.7	1,177.0	13,317.6
July	7,222.3	833.9	6,388.5	1,510.7	1,195.7	315.0	549.2	2,607.7	176.8	1,093.0	13,159.7
Aug. [p]	7,191.8	829.7	6,362.1	1,510.9	1,187.7	323.2	542.0	2,625.5	177.2	1,087.4	13,134.8

2. Liabilities: levels

	Currency in circulation	Deposits of central government	Deposits of other general government/ other euro area residents					Money market fund shares/ units and money market paper	Debt securities issued	Capital and reserves	External liabilities [2]	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
2000 Feb.	331.1	144.6	5,095.4	1,568.2	2,045.9	1,321.9	159.5	430.9	1,550.5	828.6	1,966.4	1,357.5	20.6	11,725.7
Mar.	334.6	130.2	5,119.1	1,577.1	2,052.7	1,312.0	177.3	443.7	1,553.7	842.6	2,093.9	1,390.3	-2.7	11,905.4
Apr.	337.7	131.8	5,157.8	1,612.6	2,061.0	1,304.4	179.8	451.2	1,573.6	852.4	2,213.1	1,411.7	-20.4	12,109.1
May	337.5	113.9	5,156.4	1,598.0	2,080.6	1,296.6	181.2	456.7	1,575.9	853.5	2,220.3	1,424.8	-6.5	12,132.6
June	341.2	146.0	5,145.3	1,608.7	2,078.2	1,291.3	167.3	452.3	1,585.1	877.5	2,124.7	1,440.9	30.8	12,143.7
July	343.0	134.7	5,150.2	1,605.1	2,088.5	1,284.6	172.0	463.3	1,584.0	893.9	2,160.9	1,475.8	26.4	12,232.3
Aug.	337.9	140.6	5,146.7	1,577.6	2,120.2	1,279.6	169.4	470.6	1,604.1	898.2	2,209.6	1,500.2	9.1	12,316.9
Sep.	338.9	159.3	5,157.4	1,589.5	2,124.2	1,272.3	171.4	461.5	1,611.4	926.3	2,267.0	1,439.4	10.4	12,371.5
Oct.	336.7	172.3	5,166.1	1,590.7	2,141.3	1,263.5	170.6	466.5	1,636.8	932.8	2,328.2	1,481.6	12.0	12,533.2
Nov.	336.8	168.8	5,187.5	1,608.9	2,147.4	1,257.6	173.5	463.6	1,634.4	920.7	2,306.5	1,477.0	-0.1	12,495.2
Dec.	347.5	164.6	5,270.2	1,658.7	2,158.3	1,278.3	174.9	439.6	1,631.7	892.9	2,216.3	1,436.7	11.8	12,411.3
							Euro area enlargement							
2001 1 Jan.	*355.3*	*166.2*	*5,395.3*	*1,673.4*	*2,196.9*	*1,329.7*	*195.2*	*439.6*	*1,632.4*	*910.4*	*2,219.0*	*1,463.7*	*12.0*	*12,593.8*
2001 Jan.	335.2	147.1	5,379.1	1,623.7	2,210.6	1,331.0	213.8	456.1	1,662.3	908.8	2,332.5	1,473.6	20.8	12,715.5
Feb.	334.2	155.6	5,388.1	1,625.6	2,222.0	1,324.7	215.8	468.8	1,679.2	911.2	2,356.0	1,491.1	-19.4	12,764.7
Mar.	335.4	150.3	5,427.6	1,636.2	2,241.4	1,324.0	225.9	475.2	1,696.5	926.7	2,539.5	1,536.7	-21.9	13,066.0
Apr.	335.3	152.5	5,456.9	1,666.9	2,240.2	1,324.9	224.9	476.8	1,703.1	927.9	2,552.6	1,524.4	-12.5	13,117.1
May	332.0	146.9	5,494.3	1,691.7	2,242.6	1,322.7	237.3	480.2	1,718.4	939.9	2,622.3	1,520.4	-13.3	13,241.1
June	332.2	164.6	5,525.8	1,727.8	2,238.9	1,331.9	227.3	478.6	1,734.3	967.6	2,595.9	1,534.3	-15.8	13,317.6
July	327.3	155.8	5,511.8	1,709.5	2,240.4	1,334.8	227.1	491.5	1,737.5	958.0	2,502.0	1,484.3	-8.3	13,159.7
Aug. [p]	318.5	152.8	5,501.5	1,677.9	2,253.7	1,336.8	233.1	497.6	1,733.0	961.8	2,477.0	1,496.4	-3.7	13,134.8

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. 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	General government 2	Other euro area residents 3	4	General government 5	Other euro area residents 6	7	8	9	10	11
2000 Mar.	71.8	4.5	67.3	-13.8	-7.0	-6.8	39.1	33.4	0.0	22.5	153.0
Apr.	55.9	2.3	53.6	-14.7	-21.4	6.7	11.7	13.1	0.8	32.9	99.7
May	22.4	-6.3	28.8	0.0	-7.5	7.5	12.4	11.3	0.5	1.0	47.5
June	60.6	-0.5	61.1	-17.1	-18.1	1.0	-31.9	7.9	1.4	4.5	25.4
July	22.3	-1.3	23.5	-19.3	-26.9	7.6	3.6	-3.5	0.7	47.0	50.9
Aug.	7.0	-8.6	15.6	-6.2	-9.8	3.6	1.9	3.8	0.3	38.5	45.3
Sep.	66.9	-4.1	71.1	0.3	-3.1	3.4	3.0	17.7	0.7	-75.9	12.7
Oct.	40.6	1.9	38.6	-8.0	-15.4	7.4	1.4	10.0	3.2	68.9	116.0
Nov.	49.1	7.2	41.9	-2.2	-1.4	-0.8	1.0	7.9	-0.3	-51.0	4.4
Dec.	61.3	9.9	51.4	-14.4	-17.7	3.4	5.5	7.0	1.2	-22.3	38.3
					Euro area enlargement						
2001 Jan.	34.0	2.9	31.1	-3.5	-7.5	4.1	12.8	60.4	-1.0	22.3	125.1
Feb.	13.5	-8.2	21.7	18.1	8.6	9.4	7.5	16.2	0.5	-11.9	43.9
Mar.	61.8	2.3	59.4	18.1	9.5	8.6	17.3	102.4	0.1	45.9	245.5
Apr.	32.8	-8.2	41.0	14.7	8.1	6.5	16.7	-19.3	1.2	9.9	56.0
May	5.1	-5.6	10.7	38.7	32.2	6.4	1.1	4.6	1.4	18.8	69.6
June	52.7	-1.7	54.4	10.1	7.7	2.4	-34.4	19.7	1.1	29.6	78.8
July	11.2	-3.4	14.6	11.5	-2.2	13.7	-6.6	-41.1	1.1	-79.7	-103.5
Aug. [p]	-21.4	-3.8	-17.6	4.9	-4.5	9.5	-5.9	65.5	0.4	-6.7	36.9

4. Liabilities: flows [1]

	Currency in circulation	Deposits of central government	Deposits of other general government/ other euro area residents					Money market fund shares/ units and money market paper	Debt securities issued	Capital and reserves	External liabilities [2]	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
2000 Mar.	3.5	-14.5	20.5	7.6	5.0	-10.0	17.8	12.3	1.2	12.5	107.2	33.5	-23.2	153.0
Apr.	3.3	1.6	33.0	33.4	4.9	-7.7	2.4	-0.7	19.1	9.3	36.1	14.6	-16.5	99.7
May	-0.2	-17.9	1.6	-11.3	20.3	-8.9	1.4	8.6	6.3	2.8	28.5	11.8	6.0	47.5
June	3.6	32.1	-7.9	12.0	-0.7	-5.3	-13.9	-4.4	15.8	19.0	-78.0	19.2	26.1	25.4
July	1.9	-11.3	1.1	-5.0	7.4	-6.1	4.7	10.7	-7.1	15.2	8.9	38.5	-7.0	50.9
Aug.	-5.1	5.9	-7.9	-29.3	29.3	-5.1	-2.7	6.1	11.7	4.7	12.0	33.4	-15.4	45.3
Sep.	1.0	18.7	4.6	10.8	-0.9	-7.4	2.0	-9.5	3.3	18.7	42.7	-65.7	-1.1	12.7
Oct.	-2.2	13.1	3.3	-0.8	13.8	-8.8	-0.8	3.9	16.3	5.1	20.7	46.5	9.4	116.0
Nov.	0.1	-3.6	26.0	20.0	8.8	-5.8	3.0	-1.8	5.3	-11.9	11.2	-7.5	-13.4	4.4
Dec.	10.7	-4.2	95.9	53.8	19.8	20.9	1.5	-13.4	5.2	-23.6	-16.1	-22.2	6.0	38.3
						Euro area enlargement								
2001 Jan.	-20.1	-19.1	-15.8	-49.5	13.8	1.3	18.6	18.2	24.4	-2.5	115.5	17.9	6.4	125.1
Feb.	-1.0	8.7	8.4	1.6	11.2	-6.3	1.9	12.7	16.3	2.8	19.9	16.4	-40.3	43.9
Mar.	1.3	-5.2	33.3	8.6	15.4	-0.8	10.1	4.9	13.0	17.2	138.0	51.2	-8.2	245.5
Apr.	-0.1	2.2	29.6	30.6	-0.9	0.9	-1.1	0.7	5.5	1.8	17.9	-11.5	10.0	56.0
May	-3.3	-5.6	29.5	21.9	-2.3	-2.5	12.4	1.6	2.5	8.6	14.1	23.4	-1.1	69.6
June	0.2	17.7	32.6	36.4	-3.1	9.3	-10.1	-1.5	19.0	20.8	-22.6	15.2	-2.6	78.8
July	-5.0	-8.8	-9.5	-16.8	4.3	3.0	-0.1	13.8	11.5	-6.6	-57.9	-48.8	7.8	-103.5
Aug. [p]	-8.8	-3.0	-4.6	-29.6	16.8	2.2	6.0	7.2	2.8	6.1	21.1	11.5	4.6	36.9

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

	M1				M2			
	Currency in circulation	Overnight deposits	Total	Index Dec. 98=100 [3]	Deposits with agreed maturity up to 2 years	Deposits redeemable at notice up to 3 months	Total	Index Dec. 98=100 [3]
	1	2	3	4	5	6	7	8
2000 Feb.	331.1	1,634.3	1,965.4	109.99	879.9	1,278.0	4,123.4	104.96
Mar.	334.6	1,642.8	1,977.4	110.58	888.2	1,267.5	4,133.1	105.14
Apr.	337.7	1,680.9	2,018.6	112.78	896.3	1,260.1	4,174.9	106.09
May	337.5	1,662.8	2,000.3	111.94	914.1	1,251.9	4,166.3	105.96
June	341.2	1,674.1	2,015.3	112.85	912.7	1,244.6	4,172.5	106.20
July	343.0	1,672.3	2,015.3	112.78	922.8	1,236.8	4,174.9	106.18
Aug.	337.9	1,643.1	1,981.0	110.75	953.3	1,230.4	4,164.6	105.83
Sep.	338.9	1,654.4	1,993.4	111.38	956.1	1,220.3	4,169.8	105.90
Oct.	336.7	1,656.8	1,993.6	111.28	972.2	1,211.1	4,176.8	105.97
Nov.	336.8	1,675.2	2,012.1	112.42	984.9	1,202.3	4,199.3	106.64
Dec.	347.5	1,728.8	2,076.4	116.23	990.2	1,221.4	4,288.0	109.14
				Euro area enlargement				
2001 1 Jan.	*355.3*	*1,743.5*	*2,098.8*	-	*1,027.1*	*1,271.5*	*4,397.4*	-
2001 Jan.	335.2	1,692.7	2,027.9	112.31	1,041.5	1,275.1	4,344.5	107.84
Feb.	334.2	1,693.0	2,027.2	112.26	1,054.1	1,269.8	4,351.1	107.99
Mar.	335.4	1,703.3	2,038.7	112.79	1,070.3	1,269.8	4,378.8	108.56
Apr.	335.3	1,735.8	2,071.2	114.58	1,071.6	1,273.4	4,416.1	109.49
May	332.0	1,759.2	2,091.2	115.53	1,072.4	1,273.1	4,436.8	109.83
June	332.2	1,794.5	2,126.7	117.51	1,069.4	1,283.0	4,479.1	110.89
July	327.3	1,777.5	2,104.8	116.38	1,076.3	1,287.3	4,468.4	110.72
Aug. [p]	318.5	1,744.7	2,063.2	114.19	1,091.5	1,292.5	4,447.1	110.31

2. Monetary aggregates: flows [4]

	M1				M2			
	Currency in circulation	Overnight deposits	Total	Annual growth rate [3] (%)	Deposits with agreed maturity up to 2 years	Deposits redeemable at notice up to 3 months	Total	Annual growth rate [3] (%)
	1	2	3	4	5	6	7	8
2000 Mar.	3.5	7.2	10.6	10.1	7.1	-10.6	7.1	5.1
Apr.	3.3	36.0	39.2	11.4	5.7	-7.6	37.3	5.5
May	-0.2	-14.7	-14.9	8.7	19.0	-9.2	-5.1	4.7
June	3.6	12.6	16.2	7.1	0.3	-7.3	9.2	4.3
July	1.9	-3.2	-1.3	6.9	8.3	-7.5	-0.5	3.7
Aug.	-5.1	-31.1	-36.3	7.1	28.9	-6.5	-13.9	4.3
Sep.	1.0	10.3	11.3	6.2	1.7	-10.1	2.9	4.1
Oct.	-2.2	0.4	-1.8	5.8	13.8	-9.3	2.7	3.7
Nov.	0.1	20.3	20.4	5.1	14.6	-8.6	26.4	3.7
Dec.	10.7	57.5	68.2	5.7	10.9	19.3	98.4	3.7
				Euro area enlargement				
2001 Jan.	-20.1	-50.6	-70.7	1.6	14.7	3.6	-52.5	2.6
Feb.	-1.0	0.0	-1.0	2.1	12.4	-5.4	6.0	2.9
Mar.	1.3	8.4	9.6	2.0	13.8	-0.1	23.3	3.3
Apr.	-0.1	32.5	32.4	1.6	1.5	3.6	37.5	3.2
May	-3.3	20.5	17.2	3.2	-3.3	-0.5	13.4	3.6
June	0.2	35.6	35.8	4.1	-2.5	9.9	43.2	4.4
July	-5.0	-15.4	-20.4	3.2	8.9	4.4	-7.0	4.3
Aug. [p]	-8.8	-30.8	-39.6	3.1	17.6	5.3	-16.6	4.2

Source: ECB.

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

2) Excluding holdings of money market fund shares/units by non-residents of the euro area.

M3 [2]					
Repurchase agreements	Money market fund shares/ units and money market paper [2]	Debt securities up to 2 years	Total	Index Dec. 98=100 [3]	
9	10	11	12	13	
159.5	430.9	90.9	4,804.5	106.58	2000 Feb.
177.3	443.7	90.7	4,844.8	107.38	Mar.
179.8	451.2	89.7	4,895.7	108.28	Apr.
181.2	456.7	87.5	4,891.6	108.35	May
167.3	452.3	86.8	4,878.9	108.19	June
172.0	463.3	76.7	4,886.9	108.28	July
169.4	470.6	81.0	4,885.6	108.12	Aug.
171.4	461.5	81.5	4,884.2	108.03	Sep.
170.6	466.5	88.2	4,902.2	108.27	Oct.
173.5	463.6	97.3	4,933.8	109.11	Nov.
174.9	439.6	106.4	5,009.0	111.23	Dec.
		Euro area enlargement			
195.2	*439.6*	*106.6*	*5,138.8*	-	*2001 1 Jan.*
213.8	456.1	106.9	5,121.3	110.89	2001 Jan.
215.8	468.8	115.1	5,150.7	111.51	Feb.
225.9	475.2	119.6	5,199.5	112.43	Mar.
224.9	476.8	125.3	5,243.1	113.35	Apr.
237.3	480.2	133.9	5,288.2	114.07	May
227.3	478.6	144.0	5,328.9	114.98	June
227.1	491.5	144.9	5,331.8	115.18	July
233.1	497.6	149.8	5,327.6	115.25	Aug. [p]

M3 [2]					
Repurchase agreements	Money market fund shares/ units and money market paper [2]	Debt securities up to 2 years	Total	Annual growth rate [3] (%)	
9	10	11	12	13	
17.8	12.3	-1.0	36.3	6.6	2000 Mar.
2.4	-0.7	1.4	40.4	6.7	Apr.
1.4	8.6	-1.7	3.2	5.9	May
-13.9	-4.4	1.7	-7.4	5.3	June
4.7	10.7	-10.7	4.2	5.1	July
-2.7	6.1	3.2	-7.4	5.4	Aug.
2.0	-9.5	0.6	-4.0	5.0	Sep.
-0.8	3.9	5.4	11.1	4.9	Oct.
3.0	-1.8	10.3	37.8	4.7	Nov.
1.5	-13.4	9.1	95.7	4.9	Dec.
		Euro area enlargement			
18.6	18.2	0.1	-15.5	4.5	2001 Jan.
1.9	12.7	8.1	28.7	4.6	Feb.
10.1	4.9	4.0	42.3	4.7	Mar.
-1.1	0.7	5.5	42.6	4.7	Apr.
12.4	1.6	6.0	33.4	5.3	May
-10.1	-1.5	10.6	42.3	6.3	June
-0.1	13.8	2.7	9.3	6.4	July
6.0	7.2	6.5	3.1	6.6	Aug. [p]

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	Overnight deposits	Total	Index Dec. 98=100 [4]	Total	Index Dec. 98=100 [4]		
	1	2	3	4	5	6	7	8
2000 Feb.	336.0	1,645.7	1,981.7	110.90	2,145.1	100.17	4,126.8	105.05
Mar.	336.4	1,661.3	1,997.7	111.72	2,145.7	100.14	4,143.5	105.41
Apr.	337.1	1,675.4	2,012.4	112.43	2,150.4	100.24	4,162.9	105.79
May	338.7	1,661.6	2,000.3	111.94	2,162.8	100.82	4,163.1	105.88
June	339.6	1,646.1	1,985.7	111.20	2,163.2	100.92	4,148.9	105.59
July	338.8	1,658.2	1,997.0	111.75	2,170.5	101.19	4,167.5	105.99
Aug.	339.0	1,675.3	2,014.3	112.61	2,183.2	101.70	4,197.5	106.67
Sep.	339.3	1,674.5	2,013.8	112.52	2,191.2	102.02	4,204.9	106.80
Oct.	339.8	1,678.6	2,018.4	112.67	2,200.9	102.36	4,219.3	107.05
Nov.	338.4	1,679.7	2,018.1	112.76	2,207.9	102.78	4,226.1	107.32
Dec.	338.0	1,676.9	2,014.8	112.79	2,198.3	102.60	4,213.1	107.23
				Euro area enlargement				
2001 1 Jan.	*345.5*	*1,691.1*	*2,036.6*	-	*2,284.7*	-	*4,321.3*	-
2001 Jan.	338.9	1,690.2	2,029.1	112.38	2,296.1	103.12	4,325.2	107.36
Feb.	339.0	1,710.7	2,049.7	113.50	2,308.6	103.67	4,358.3	108.17
Mar.	337.3	1,715.0	2,052.3	113.54	2,328.2	104.44	4,380.5	108.61
Apr.	336.1	1,725.1	2,061.3	114.03	2,340.6	105.01	4,401.8	109.14
May	332.8	1,752.2	2,085.0	115.19	2,343.7	104.95	4,428.8	109.63
June	330.8	1,757.7	2,088.5	115.40	2,357.3	105.58	4,445.7	110.07
July	324.3	1,764.6	2,088.9	115.50	2,374.5	106.45	4,463.4	110.60
Aug. [p]	317.9	1,789.2	2,107.1	116.62	2,377.8	106.72	4,484.9	111.25

4. Seasonally adjusted flows [7]

	M2										
	M1					Other short-term deposits [5]			Total	Monthly growth rate [4] (%)	Annual growth rate [4] (%)
	Currency in circulation	Overnight deposits	Total	Monthly growth rate [4] (%)	Annual growth rate [4] (%)	Total	Monthly growth rate [4] (%)	Annual growth rate [4] (%)			
	1	2	3	4	5	6	7	8	9	10	11
2000 Mar.	0.4	14.3	14.7	0.7	10.3	-0.7	0.0	0.7	14.0	0.3	5.1
Apr.	0.8	11.9	12.7	0.6	10.5	2.2	0.1	0.7	14.9	0.4	5.2
May	1.7	-10.4	-8.7	-0.4	9.0	12.5	0.6	1.1	3.8	0.1	4.7
June	0.8	-14.2	-13.4	-0.7	7.3	2.1	0.1	1.6	-11.3	-0.3	4.2
July	-0.8	10.7	10.0	0.5	6.4	5.8	0.3	1.2	15.7	0.4	3.6
Aug.	0.2	15.1	15.4	0.8	7.2	11.0	0.5	1.7	26.4	0.6	4.3
Sep.	0.3	-1.9	-1.6	-0.1	6.4	6.7	0.3	2.0	5.1	0.1	4.0
Oct.	0.5	2.1	2.6	0.1	5.9	7.3	0.3	2.0	9.9	0.2	3.9
Nov.	-1.4	3.0	1.6	0.1	5.3	9.1	0.4	2.5	10.7	0.3	3.8
Dec.	-0.4	0.9	0.5	0.0	5.2	-3.9	-0.2	2.1	-3.4	-0.1	3.6
					Euro area enlargement						
2001 Jan.	-6.9	-1.0	-8.0	-0.4	2.2	11.9	0.5	3.5	3.9	0.1	2.9
Feb.	0.1	20.1	20.2	1.0	2.3	12.3	0.5	3.5	32.6	0.8	3.0
Mar.	-1.7	2.4	0.7	0.0	1.6	17.1	0.7	4.3	17.8	0.4	3.0
Apr.	-1.2	10.0	8.8	0.4	1.4	12.6	0.5	4.8	21.5	0.5	3.2
May	-3.3	24.1	20.9	1.0	2.9	-1.2	-0.1	4.1	19.6	0.4	3.5
June	-2.1	5.9	3.8	0.2	3.8	14.1	0.6	4.6	17.9	0.4	4.2
July	-6.5	8.4	2.0	0.1	3.4	19.4	0.8	5.2	21.4	0.5	4.3
Aug. [p]	-6.4	26.6	20.2	1.0	3.6	6.0	0.3	4.9	26.2	0.6	4.3

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) *Excluding holdings of money market fund shares/units by non-residents of the euro area.*
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	
678.0	117.34	4,804.8	106.58	5,627.6	111.25	2000 Feb.
700.3	120.97	4,843.8	107.36	5,686.1	112.33	Mar.
706.3	121.01	4,869.2	107.69	5,743.6	113.32	Apr.
706.8	121.72	4,869.9	107.87	5,789.0	114.20	May
701.9	121.29	4,850.8	107.56	5,825.4	114.79	June
712.3	122.93	4,879.8	108.12	5,855.3	115.29	July
716.5	123.22	4,914.0	108.74	5,916.6	116.44	Aug.
718.6	123.54	4,923.6	108.90	5,989.4	117.59	Sep.
734.3	125.80	4,953.6	109.41	6,032.1	118.34	Oct.
737.9	126.82	4,963.9	109.78	6,062.8	119.07	Nov.
749.1	130.67	4,962.2	110.19	6,072.6	119.60	Dec.
		Euro area enlargement				
770.3	-	*5,091.6*	-	*6,135.7*	-	*2001 1 Jan.*
791.6	134.54	5,116.8	110.79	6,182.5	120.53	2001 Jan.
796.2	135.29	5,154.5	111.59	6,218.8	121.24	Feb.
806.1	136.64	5,186.6	112.15	6,269.0	122.08	Mar.
811.6	137.37	5,213.5	112.71	6,303.8	122.79	Apr.
829.5	139.68	5,258.3	113.43	6,341.6	123.34	May
844.4	142.29	5,290.1	114.14	6,359.3	123.77	June
863.8	146.03	5,327.2	115.08	6,367.8	124.10	July
876.7	148.65	5,361.6	115.98	6,388.4	124.67	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	
21.0	3.1	15.9	35.0	0.7	6.6	6.4	54.6	1.0	9.8	2000 Mar.
0.3	0.0	13.9	15.1	0.3	6.3	6.3	50.6	0.9	10.4	Apr.
4.1	0.6	13.9	7.9	0.2	6.0	5.9	44.1	0.8	10.2	May
-2.5	-0.4	11.9	-13.8	-0.3	5.3	5.4	30.3	0.5	9.4	June
9.5	1.3	14.4	25.2	0.5	5.1	5.3	25.1	0.4	9.1	July
1.7	0.2	13.0	28.1	0.6	5.4	5.2	58.5	1.0	9.5	Aug.
1.9	0.3	11.0	7.0	0.1	5.0	5.1	58.3	1.0	10.0	Sep.
13.1	1.8	12.0	23.1	0.5	5.0	4.9	38.4	0.6	9.8	Oct.
6.0	0.8	10.2	16.6	0.3	4.7	4.9	37.3	0.6	9.3	Nov.
22.4	3.0	12.6	19.0	0.4	4.8	4.8	27.1	0.4	9.6	Dec.
				Euro area enlargement						
23.3	3.0	16.2	27.2	0.5	4.8	4.8	47.1	0.8	9.3	2001 Jan.
4.4	0.6	15.3	37.0	0.7	4.7	4.6	36.9	0.6	9.0	Feb.
7.9	1.0	13.0	25.7	0.5	4.5	4.6	42.7	0.7	8.7	Mar.
4.3	0.5	13.5	25.8	0.5	4.7	4.8	36.4	0.6	8.3	Apr.
13.6	1.7	14.8	33.3	0.6	5.2	5.3	28.2	0.4	8.0	May
15.5	1.9	17.3	33.3	0.6	6.1	5.9	22.3	0.4	7.8	June
22.2	2.6	18.8	43.5	0.8	6.4	6.4	16.8	0.3	7.6	July
15.5	1.8	20.6	41.7	0.8	6.7	-	29.4	0.5	7.1	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 (excluding holdings by non-residents of the euro area) and money market paper together with debt securities issued with an original maturity of up to two years.
7) Calculated from monthly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

Table 2.4 (cont'd)

Monetary aggregates [1] and counterparts

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

5. Main counterparts of M3: levels at the end of the period

	Longer-term MFI liabilities				Credit [2]				Net external assets	Fixed assets
	Deposits with agreed maturity over 2 years	Deposits redeemable at notice over 3 months	Debt securities over 2 years	Capital and reserves	Credit to 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
2000 Feb.	1,166.4	112.4	1,459.7	828.6	2,066.9	6,320.9	5,617.3	111.04	237.1	161.8
Mar.	1,164.9	113.2	1,463.0	842.6	2,060.4	6,427.0	5,688.6	112.37	168.2	161.8
Apr.	1,165.1	112.8	1,483.9	852.4	2,041.0	6,508.3	5,749.0	113.43	149.7	162.6
May	1,167.0	114.0	1,488.5	853.5	2,023.7	6,559.1	5,779.1	114.00	131.1	163.0
June	1,165.8	115.5	1,498.3	877.5	2,002.3	6,594.9	5,846.3	115.21	218.6	164.2
July	1,166.2	116.6	1,507.2	893.9	1,974.5	6,636.0	5,874.6	115.67	209.6	164.9
Aug.	1,167.3	118.2	1,523.1	898.2	1,950.6	6,660.4	5,893.1	115.98	206.2	165.2
Sep.	1,168.5	120.5	1,529.9	926.3	1,946.4	6,750.6	5,978.5	117.37	191.7	166.0
Oct.	1,169.4	121.3	1,548.6	932.8	1,935.4	6,799.8	6,021.5	118.13	183.1	168.0
Nov.	1,162.8	124.0	1,537.2	920.7	1,939.2	6,836.3	6,056.8	118.95	177.8	167.7
Dec.	1,168.4	126.4	1,525.2	892.9	1,925.3	6,877.6	6,090.9	119.96	186.6	169.9
					Euro area enlargement					
2001 1 Jan.	*1,170.2*	*127.7*	*1,525.8*	*910.4*	*2,009.9*	*6,952.0*	*6,154.2*	*-*	*180.2*	*172.9*
2001 Jan.	1,169.4	127.9	1,555.3	908.8	2,003.7	6,998.0	6,184.8	120.57	126.8	171.8
Feb.	1,168.2	128.0	1,564.2	911.2	2,006.0	7,035.1	6,205.9	120.99	123.7	172.3
Mar.	1,171.4	127.6	1,576.9	926.7	2,017.7	7,127.6	6,272.9	122.15	93.0	172.0
Apr.	1,168.9	125.6	1,577.8	927.9	2,015.7	7,192.9	6,312.2	122.95	55.7	173.3
May	1,170.3	123.4	1,584.5	939.9	2,030.6	7,219.9	6,332.5	123.16	46.4	174.6
June	1,169.6	123.2	1,590.3	967.6	2,035.4	7,238.4	6,382.2	124.22	95.1	175.7
July	1,164.1	121.8	1,592.6	958.0	2,029.6	7,252.6	6,388.5	124.50	105.7	176.8
Aug. [p]	1,162.2	119.5	1,583.1	961.8	2,017.4	7,227.3	6,362.1	124.16	148.5	177.2

6. Main counterparts of M3: flows [4]

	Longer-term MFI liabilities				Credit [2]				Net external assets	Fixed assets
	Deposits with agreed maturity over 2 years	Deposits redeemable at notice over 3 months	Debt securities over 2 years	Capital and reserves	Credit to government	Credit to other euro area residents	Of which loans	Annual growth rate [3] (%)		
	1	2	3	4	5	6	7	8	9	10
2000 Mar.	-2.0	0.8	2.2	12.5	-2.4	99.6	67.3	9.9	-73.8	0.0
Apr.	-0.8	-0.4	17.6	9.3	-19.2	72.0	53.6	10.5	-23.0	0.8
May	1.3	1.2	8.0	2.8	-13.8	48.7	28.8	10.3	-17.2	0.5
June	-1.0	1.5	14.0	19.0	-18.6	30.2	61.1	9.4	85.9	1.4
July	-0.8	1.4	3.5	15.2	-28.2	34.8	23.5	9.1	-12.3	0.7
Aug.	0.4	1.7	8.5	4.7	-18.4	21.1	15.6	9.5	-8.1	0.3
Sep.	-2.5	2.2	2.7	18.7	-7.2	77.5	71.1	10.0	-25.0	0.7
Oct.	0.0	0.8	10.8	5.1	-13.5	47.4	38.6	9.8	-10.7	3.2
Nov.	-5.9	2.7	-5.0	-11.9	5.8	42.1	41.9	9.3	-3.3	-0.3
Dec.	8.9	2.5	-4.0	-23.6	-7.9	60.2	51.4	9.5	23.0	1.2
					Euro area enlargement					
2001 Jan.	-0.9	0.2	24.3	-2.5	-4.6	47.9	31.1	9.3	-55.1	-1.0
Feb.	-1.2	0.1	8.2	2.8	0.4	38.6	21.7	9.0	-3.7	0.5
Mar.	1.5	-0.4	9.0	17.2	11.8	85.3	59.4	8.7	-35.5	0.1
Apr.	-2.4	-2.0	0.0	1.8	0.0	64.2	41.0	8.4	-37.2	1.2
May	0.9	-2.2	-3.5	8.6	26.6	18.2	10.7	8.0	-9.5	1.4
June	-0.6	-0.3	8.4	20.8	6.0	22.4	54.4	7.8	42.3	1.1
July	-4.7	-1.3	8.8	-6.6	-5.5	21.7	14.6	7.6	16.9	1.1
Aug. [p]	-0.9	-2.4	-3.7	6.1	-8.3	-14.0	-17.6	7.1	44.4	0.4

1) Monetary aggregates comprise monetary liabilities of MFIs and central government (Post Office, Treasury) vis-à-vis non-MFI euro area residents excluding central government.
2) Credit comprises loans granted to non-MFIs resident in the euro area and holdings of securities issued by non-MFIs resident in the euro area.
3) For the calculations of the index and the growth rates, see the technical notes.
4) Calculated from monthly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

Table 2.5

MFI loans by counterpart, type and original maturity [1)]

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

1. Loans to non-monetary financial corporations and to government: levels at the end of the period

	Non-monetary financial intermediaries except insurance corporations and pension funds			Insurance corporations and pension funds			General government							
	Total		Index Dec.98 =100 [2)]	Total		Index Dec.98 =100 [2)]	Central government [3)]	Other general government					Total	Index Dec.98 =100 [2)]
		Up to 1 year			Up to 1 year			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
1999 Q4	315.7	191.4	120.4	29.4	20.7	107.1	199.5	292.9	252.7	339.9	307.7	15.6	847.9	100.4
2000 Q1	335.7	207.1	128.0	37.1	25.7	135.1	193.8	291.9	251.3	338.1	306.0	16.0	839.7	99.5
Q2	381.7	246.0	135.8	38.8	29.1	141.3	186.8	290.0	252.1	339.0	305.9	19.7	835.6	99.0
Q3	385.6	247.0	138.9	33.0	25.3	120.4	173.3	288.4	252.4	337.8	305.2	18.5	818.0	97.3
Q4	394.9	252.6	142.9	31.5	21.8	114.7	173.1	297.3	255.4	350.9	315.7	14.6	835.9	99.5
Euro area enlargement														
2001 1 Jan.	*395.5*	*253.1*	-	*31.5*	*21.8*	-	*185.6*	*297.3*	*255.4*	*351.5*	*316.3*	*15.2*	*849.6*	-
2001 Q1	417.7	272.7	152.9	35.9	26.8	130.7	189.3	295.3	255.3	352.4	314.0	15.6	852.5	99.1
Q2 [p)]	424.4	281.2	155.4	36.0	26.7	131.1	175.0	294.0	254.9	349.3	310.8	19.2	837.5	97.3

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

	Non-monetary financial intermediaries except insurance corporations and pension funds			Insurance corporations and pension funds			General government							
	Total		Annual growth rate [2)] (%)	Total		Annual growth rate [2)] (%)	Central government [3)]	Other general government					Total	Annual growth rate [2)] (%)
		Up to 1 year			Up to 1 year			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 Q1	19.8	15.7	13.1	7.7	4.9	2.7	-4.9	-1.0	-1.5	-1.8	-1.7	0.3	-7.4	0.0
Q2	20.5	13.8	17.4	1.7	3.5	-4.1	-7.3	-1.8	1.3	0.9	-0.1	3.7	-4.6	-0.3
Q3	8.5	1.1	23.0	-5.7	-3.8	-21.2	-10.0	-2.3	-0.3	-0.5	0.0	-1.2	-13.9	-1.2
Q4	11.2	6.7	18.6	-1.5	-3.5	7.1	0.3	8.8	3.0	12.8	10.3	-3.9	18.0	-0.9
Euro area enlargement														
2001 Q1	27.7	22.6	19.4	4.4	5.0	-3.3	-0.6	-2.0	-0.1	-0.7	-3.6	0.4	-2.9	-0.4
Q2 [p)]	6.9	8.5	14.4	0.1	-0.1	-7.2	-14.7	-1.3	-0.4	-3.0	-3.2	3.6	-15.4	-1.7

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
1999 Q4	858.8	372.9	1,195.8	2,427.5	107.0	88.4	156.4	195.6	440.4	107.6
2000 Q1	902.0	392.3	1,207.0	2,501.3	109.9	89.1	162.5	200.5	452.1	110.0
Q2	919.1	406.0	1,236.7	2,561.7	113.0	93.6	161.7	201.8	457.1	111.7
Q3	954.6	422.5	1,256.8	2,633.9	115.8	96.5	165.1	208.2	469.8	114.4
Q4	968.4	428.6	1,287.8	2,684.8	118.7	98.2	165.5	212.8	476.6	116.1
					Euro area enlargement					
2001 1 Jan.	*997.1*	*436.0*	*1,293.6*	*2,726.6*	-	*102.8*	*166.5*	*212.8*	*482.1*	-
2001 Q1	1,034.3	444.7	1,313.7	2,792.6	120.9	99.4	168.6	212.6	480.6	115.2
Q2 [p)]	1,057.3	449.3	1,340.7	2,847.3	123.0	101.1	172.3	216.7	490.1	117.4

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
2000 Q1	40.4	18.1	8.0	66.6	9.8	0.7	4.7	4.6	10.0	7.9
Q2	21.7	15.8	31.7	69.3	9.5	4.5	-0.3	2.8	7.0	7.1
Q3	29.0	16.3	18.2	63.5	11.3	2.1	3.1	5.8	11.0	8.0
Q4	19.3	10.1	36.4	65.8	10.9	1.7	0.5	4.6	6.9	7.9
					Euro area enlargement					
2001 Q1	32.5	5.3	13.5	51.3	10.0	-4.4	0.0	0.5	-4.0	4.7
Q2 [p)]	19.5	6.5	23.1	49.1	8.9	1.6	3.7	4.1	9.4	5.1

Source: ECB.

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

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

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	
19.9	60.4	1,627.0	1,707.3	112.0	141.7	98.5	339.3	579.5	109.6	2,727.2	110.8	37.4	107.1	1999 Q4
20.2	58.9	1,660.2	1,739.3	114.1	141.0	100.4	342.8	584.2	110.7	2,775.6	112.7	39.0	111.7	2000 Q1
21.3	60.7	1,698.9	1,780.9	116.7	144.9	102.2	341.4	588.5	111.9	2,826.5	114.9	37.6	107.7	Q2
22.8	63.1	1,747.4	1,833.3	118.9	142.5	100.9	342.1	585.5	111.8	2,888.6	116.6	37.5	107.5	Q3
23.1	62.5	1,791.2	1,876.7	121.6	146.4	101.7	340.1	588.2	113.0	2,941.6	118.9	38.2	109.3	Q4
Euro area enlargement														
23.1	*62.9*	*1,802.0*	*1,888.0*	-	*146.6*	*101.7*	*340.1*	*588.4*	-	*2,958.6*	-	*38.2*	-	*2001 1 Jan.*
22.8	61.9	1,831.9	1,916.6	123.5	146.0	104.4	341.9	592.2	113.9	2,989.4	120.1	37.3	106.5	2001 Q1
23.4	62.4	1,863.7	1,949.6	125.4	147.7	101.5	345.1	594.3	115.6	3,033.9	122.0	40.6	116.0	Q2 [p]

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	-1.1	32.5	31.8	11.3	-0.7	1.8	4.7	5.8	6.5	47.7	9.7	1.6	9.1	2000 Q1
1.1	1.6	37.2	40.0	10.2	3.9	2.6	-0.2	6.3	5.8	53.3	8.7	-1.4	5.1	Q2
-0.1	0.7	32.9	33.5	9.0	-1.7	-0.8	2.0	-0.6	5.0	43.9	8.0	0.0	3.8	Q3
0.2	-0.6	42.4	42.1	8.6	4.2	2.0	0.4	6.6	3.1	55.6	7.3	0.6	2.1	Q4
Euro area enlargement														
-0.4	-1.0	30.8	29.5	8.3	0.4	2.6	1.6	4.6	2.9	30.1	6.6	-1.0	-4.7	2001 Q1
0.6	0.6	27.8	28.9	7.4	1.8	-1.1	7.8	8.5	3.3	46.9	6.2	3.3	7.7	Q2 [p]

3) The definitions of consumer credit and lending for house purchase are not fully consistent across the euro area.
4) Calculated from quarterly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

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)]
		Overnight	With agreed maturity	Repos			Overnight	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
1999 Q4	398.9	143.1	181.7	69.3	119.8	447.7	32.2	400.4	11.9	108.2	142.0	31.2	59.2	48.2	280.5	106.7
2000 Q1	435.3	162.2	180.1	87.4	130.8	458.8	35.4	407.0	13.1	110.9	130.2	28.1	58.6	52.7	269.7	102.6
Q2	425.3	164.5	178.7	76.8	129.7	460.7	34.6	411.0	11.6	111.4	146.0	31.6	62.7	59.3	299.6	114.0
Q3	424.4	158.6	184.2	76.6	129.6	464.4	34.1	413.7	12.9	111.6	159.3	30.3	63.2	57.8	310.5	117.8
Q4	428.4	153.7	194.8	74.0	130.9	477.6	40.6	418.4	15.3	114.8	164.6	30.6	68.2	53.2	316.5	120.1
Euro area enlargement																
2001 1 Jan.	*431.4*	*154.2*	*196.1*	*75.2*	-	*479.8*	*40.7*	*418.5*	*17.5*	-	*166.2*	*30.6*	*69.1*	*55.1*	*321.0*	-
2001 Q1	441.7	151.8	192.9	91.2	134.0	483.5	38.2	423.0	18.8	115.7	150.3	30.9	65.0	57.2	303.5	113.5
Q2 [p)]	455.1	163.5	195.1	89.4	136.9	485.1	40.2	424.0	17.0	116.1	164.6	31.7	66.8	60.9	323.9	121.2

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)] (%)
		Overnight	With agreed maturity	Repos			Overnight	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 Q1	36.4	19.0	-1.6	18.1	15.4	11.1	3.2	6.7	1.2	7.6	-11.9	-2.1	-0.6	3.7	-10.9	6.1
Q2	-3.7	2.3	4.9	-10.6	7.1	1.9	0.3	2.8	-1.5	6.8	15.8	3.5	4.1	6.5	29.9	17.7
Q3	0.0	-5.8	6.2	-0.2	10.1	1.1	-0.7	0.3	1.3	5.7	13.3	-1.4	-0.4	-1.4	10.1	18.2
Q4	4.0	-4.8	10.6	-2.6	9.2	13.2	6.5	4.8	2.4	6.1	5.3	0.3	5.0	-4.6	6.0	12.5
Euro area enlargement																
2001 Q1	10.2	-2.5	-3.2	16.0	2.4	3.7	-2.5	4.6	1.3	4.3	-15.6	0.1	-4.1	2.1	-17.5	10.7
Q2 [p)]	9.6	11.6	-1.5	-1.7	5.6	1.8	2.3	1.0	-1.8	4.3	14.3	0.7	1.8	3.6	20.4	6.3

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
1999 Q4	446.0	281.3	23.9	21.5	772.7	100.2	871.6	1,100.2	1,295.3	39.4	3,306.4	102.5
2000 Q1	440.2	292.2	24.4	31.1	787.9	101.5	887.2	1,093.5	1,274.7	42.4	3,297.7	102.2
Q2	459.7	307.9	24.1	26.9	818.6	104.7	888.3	1,097.7	1,254.6	46.6	3,287.2	101.9
Q3	464.2	329.9	24.7	25.0	843.7	106.4	874.4	1,112.3	1,235.3	51.6	3,273.6	101.5
Q4	497.4	324.9	24.1	26.3	872.7	111.5	907.1	1,133.9	1,241.6	57.1	3,339.6	103.5
						Euro area enlargement						
2001 1 Jan.	*504.4*	*338.2*	*24.3*	*30.5*	*897.5*	-	*910.6*	*1,156.4*	*1,292.5*	*69.6*	*3,429.1*	-
2001 Q1	480.5	351.5	24.1	32.4	888.5	109.5	904.7	1,189.9	1,287.2	78.9	3,460.7	104.4
Q2 [p)]	515.0	334.9	24.4	33.3	907.6	111.5	944.7	1,198.1	1,293.4	82.5	3,518.7	106.2

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
2000 Q1	-7.7	7.4	0.5	9.6	9.7	6.1	15.1	-6.7	-20.8	3.0	-9.3	2.1
Q2	19.9	9.5	-0.3	-4.3	24.8	8.3	2.2	4.3	-21.2	4.2	-10.4	1.3
Q3	0.3	14.2	1.3	-2.0	13.8	8.9	-13.8	14.6	-19.6	5.0	-13.8	1.0
Q4	36.8	2.7	-0.5	1.3	40.3	11.3	32.8	22.2	6.5	5.5	67.0	1.0
						Euro area enlargement						
2001 Q1	-26.7	8.9	-0.2	1.8	-16.2	7.9	-6.2	33.0	-5.8	9.3	30.3	2.2
Q2 [p)]	31.8	-16.6	0.3	0.9	16.4	6.5	40.0	8.2	6.1	3.6	57.9	4.2

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
1999 Q4	888.1	90.3	78.8	380.0	458.7	115.6	1,346.8	97.6	117.5	137.1	273.1	142.6	415.8	102.7	533.3	109.1
2000 Q1	944.3	94.1	79.4	405.7	485.1	119.2	1,429.3	101.3	129.4	148.1	291.7	152.1	443.7	107.2	573.2	114.8
Q2	977.9	97.2	81.0	399.0	480.0	118.7	1,457.9	103.3	153.0	153.4	302.8	161.3	464.1	108.5	617.1	116.8
Q3	979.1	94.4	79.3	441.4	520.6	123.3	1,499.7	102.7	168.2	161.6	321.5	175.4	496.9	110.8	665.1	120.2
Q4	945.2	93.4	78.8	445.5	524.3	127.8	1,469.5	103.3	171.1	173.2	290.6	183.7	474.3	109.9	645.4	121.6
							Euro area enlargement									
2001 1 Jan.	*963.9*	-	*78.8*	*449.2*	*528.0*	-	*1,491.9*	-	*171.3*	-	*296.2*	*184.0*	*480.2*	-	*651.5*	-
2001 Q1	1,051.5	100.3	76.3	517.9	594.2	143.0	1,645.7	112.6	188.8	188.6	285.7	204.8	490.4	113.8	679.3	127.7
Q2 [p]	1,065.3	100.1	79.2	519.5	598.7	141.1	1,664.0	111.8	205.5	201.3	294.8	208.9	503.7	114.5	709.2	130.6

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
2000 Q1	37.2	-7.4	0.6	13.5	14.1	10.5	51.3	-2.0	9.4	14.9	19.1	-0.7	18.4	10.2	27.8	11.2
Q2	30.7	-6.4	2.2	-4.2	-2.0	4.3	28.7	-3.1	4.7	9.9	9.9	-4.4	5.4	13.3	10.1	12.7
Q3	-27.9	-2.6	-1.7	20.5	18.8	8.3	-9.1	0.9	8.1	23.4	16.8	-6.9	9.9	13.1	18.0	15.4
Q4	-9.8	3.5	-0.7	19.9	19.1	10.6	9.3	5.9	12.1	26.3	-31.6	27.2	-4.4	7.0	7.7	11.5
							Euro area enlargement									
2001 Q1	71.2	6.6	3.8	59.0	62.7	20.0	133.9	11.2	15.3	27.4	5.4	11.9	17.2	6.1	32.5	11.2
Q2 [p]	-3.0	3.0	2.9	-10.9	-8.0	18.9	-11.0	8.2	12.6	31.2	9.3	-6.3	3.0	5.5	15.6	11.8

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 govern-ment	Other	Total	Index Dec.98 =100 [3]			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	
38.4	164.3	54.5	131.9	92.8	143.4	1,342.5	111.6	72.4	410.9	483.3	117.5	1,825.8	113.1	1999 Q4
47.4	199.1	64.4	155.0	111.8	170.7	1,534.7	124.8	71.4	463.0	534.4	127.5	2,069.1	125.5	2000 Q1
50.8	205.6	67.5	160.8	118.3	176.8	1,505.4	122.4	77.2	469.8	547.0	130.6	2,052.4	124.5	Q2
58.0	227.1	81.4	191.3	139.4	203.9	1,577.8	123.5	81.7	526.2	607.9	140.2	2,185.7	127.8	Q3
61.6	242.6	80.0	194.1	141.6	211.4	1,550.5	125.1	84.6	503.9	588.5	139.1	2,139.1	128.7	Q4
						Euro area enlargement								
62.3	-	*80.2*	-	*142.5*	-	*1,560.5*	-	*85.6*	*507.8*	*593.3*	-	*2,153.8*	-	*2001 1 Jan.*
65.1	252.7	93.9	228.0	159.1	236.0	1,781.6	140.8	89.3	577.1	666.4	154.0	2,448.0	144.1	2001 Q1
61.4	237.6	95.2	230.7	156.5	231.8	1,808.0	140.1	94.1	590.0	684.1	155.4	2,492.1	144.0	Q2 [p]

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 govern-ment	Other	Total	Annual growth rate [3] (%)			
17	18	19	20	21	22	23	24	25	26	27	28	29	30	
8.1	97.8	9.6	43.9	17.7	62.3	158.7	12.3	-1.0	41.8	40.8	20.9	199.5	14.3	2000 Q1
1.6	42.3	2.4	29.4	4.0	34.4	-29.5	4.3	5.8	7.3	13.1	16.6	-16.4	7.3	Q2
5.3	31.7	12.8	64.6	18.1	49.5	14.3	9.7	4.4	35.8	40.2	22.2	54.5	12.9	Q3
4.0	47.7	1.2	47.2	5.1	47.4	20.3	12.1	3.0	-7.9	-4.9	18.3	15.4	13.8	Q4
						Euro area enlargement								
2.6	26.9	14.0	47.1	16.6	38.2	195.2	12.8	3.5	60.2	63.6	20.8	258.8	14.9	2001 Q1
-3.9	15.5	1.1	43.4	-2.8	31.1	-9.1	14.4	4.8	1.4	6.2	19.0	-2.9	15.7	Q2 [p]

3) For the calculation of the index and the growth rates, see the technical notes.
4) Calculated from quarterly differences in levels adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

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	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1999 Q4	3,868.4	3,456.8	46.6	364.9	261.7	29.5	54.7	19.0	5,206.2	5,041.1	25.8	139.3	101.4	17.3	11.7	8.9
2000 Q1	3,932.4	3,496.3	55.0	381.1	265.8	32.5	60.5	22.3	5,249.3	5,074.7	30.5	144.1	105.1	17.6	11.9	9.5
Q2	4,056.4	3,620.9	52.8	382.7	265.3	34.8	62.3	20.2	5,291.3	5,111.2	27.9	152.2	113.0	17.1	13.2	9.0
Q3	3,946.0	3,485.3	58.1	402.7	279.6	38.3	64.9	20.0	5,316.7	5,127.5	29.1	160.1	121.0	16.5	12.5	10.1
Q4	3,949.8	3,526.6	47.5	375.8	264.9	34.4	61.0	15.6	5,434.8	5,256.5	27.3	150.9	115.1	14.6	11.3	10.0
	Euro area enlargement															
2001 Q1	4,059.5	3,558.8	55.4	445.3	316.6	40.1	67.8	20.7	5,577.9	5,367.5	31.2	179.2	130.8	23.8	12.3	12.2
Q2 [p)]	4,064.1	3,579.0	51.7	433.4	308.7	41.3	64.5	19.0	5,690.5	5,478.0	30.3	182.2	133.6	23.6	11.9	13.2

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

	Banks [3)]								Non-banks							
	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1999 Q4	1,342.5	532.7	114.2	695.7	570.4	45.9	51.0	28.4	483.3	218.9	44.2	220.1	180.8	17.4	12.1	9.8
2000 Q1	1,534.7	605.5	151.1	778.1	615.3	66.4	65.8	30.6	534.4	244.1	51.4	238.9	195.3	21.6	11.4	10.8
Q2	1,505.4	598.7	134.0	772.7	613.8	60.9	63.2	34.8	547.0	243.3	52.1	251.6	203.7	22.0	15.1	10.7
Q3	1,577.8	612.0	145.4	820.4	661.5	63.1	63.4	32.4	607.9	252.7	61.0	294.2	245.5	23.1	13.8	11.8
Q4	1,550.5	590.3	126.8	833.5	684.6	53.1	65.7	30.1	588.5	254.0	64.0	270.5	225.5	20.5	12.3	12.2
	Euro area enlargement															
2001 Q1	1,781.6	698.5	142.6	940.5	776.8	66.4	65.8	31.5	666.4	295.7	70.6	300.1	255.9	17.6	14.2	12.4
Q2 [p)]	1,808.0	685.4	136.9	985.6	811.4	68.4	73.3	32.6	684.1	287.2	73.2	323.7	276.2	19.3	13.3	14.9

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

	Debt securities								Money market paper							
	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1999 Q4	2,365.9	2,101.0	40.0	224.8	128.6	48.2	30.7	17.3	245.4	220.5	1.8	23.1	15.4	4.2	2.3	1.2
2000 Q1	2,425.5	2,139.7	43.1	242.8	136.3	53.8	33.8	18.8	250.5	226.0	1.8	22.7	14.5	4.6	2.0	1.7
Q2	2,482.6	2,185.5	40.6	256.6	145.5	58.9	33.6	18.6	262.8	234.9	1.4	26.4	17.2	5.4	2.5	1.4
Q3	2,554.8	2,226.6	47.7	280.5	158.2	65.3	37.4	19.7	272.2	233.6	2.2	36.4	26.6	5.7	2.8	1.3
Q4	2,566.9	2,246.0	46.5	274.4	157.3	62.1	35.4	19.7	262.2	215.8	2.4	44.1	34.0	5.6	2.9	1.5
	Euro area enlargement															
2001 Q1	2,667.6	2,327.9	48.3	291.4	172.0	61.5	37.5	20.5	278.5	227.8	2.1	48.6	41.6	3.0	2.6	1.5
Q2 [p)]	2,733.0	2,359.8	54.7	318.4	188.4	70.3	39.3	20.5	266.9	219.5	3.8	43.7	36.5	3.3	2.6	1.3

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	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1999 Q4	3,837.4	-	-	-	-	-	-	-	6,385.1	6,151.9	23.4	209.9	115.8	28.3	62.0	3.8
2000 Q1	3,935.1	-	-	-	-	-	-	-	6,528.3	6,261.2	34.0	233.1	128.3	35.1	65.9	3.7
Q2	4,025.6	-	-	-	-	-	-	-	6,681.9	6,388.3	35.4	258.1	144.9	38.4	70.5	4.3
Q3	3,935.6	-	-	-	-	-	-	-	6,796.5	6,485.4	34.8	276.3	155.8	44.4	72.2	4.0
Q4	3,938.0	-	-	-	-	-	-	-	6,926.8	6,622.6	32.4	271.7	151.5	41.2	74.3	4.7
	Euro area enlargement															
2001 Q1	4,081.4	-	-	-	-	-	-	-	7,125.4	6,782.2	35.1	308.1	182.3	45.4	74.9	5.6
Q2 [p]	4,079.9	-	-	-	-	-	-	-	7,219.7	6,853.7	34.7	331.4	198.8	51.8	74.5	6.3

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

	Issued by MFIs								Issued by non-MFIs							
	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1999 Q4	830.3	795.7	8.1	26.5	17.4	5.0	2.5	1.6	1,438.5	1,406.0	5.6	27.0	13.5	11.0	1.2	1.3
2000 Q1	871.9	834.7	11.6	25.5	16.4	5.0	2.4	1.7	1,449.6	1,417.1	4.8	27.6	14.2	11.3	1.2	0.8
Q2	897.5	858.2	12.5	26.9	17.8	4.9	2.6	1.7	1,411.0	1,377.3	6.0	27.7	14.7	10.5	1.6	0.9
Q3	943.4	898.7	10.6	34.1	24.5	5.3	2.5	1.9	1,386.6	1,353.3	3.6	29.7	16.6	11.0	1.2	0.9
Q4	935.3	895.0	10.8	29.5	19.7	5.9	2.1	1.7	1,354.6	1,320.7	5.6	28.2	16.7	9.7	1.0	0.9
	Euro area enlargement															
2001 Q1	971.2	931.2	9.5	30.4	20.6	6.3	1.7	1.8	1,452.8	1,413.1	3.6	36.0	21.2	13.1	1.1	0.6
Q2 [p]	998.7	956.0	10.6	32.1	22.0	6.7	1.7	1.6	1,499.6	1,457.9	4.6	37.1	22.0	13.2	1.1	0.7

6. Loans to non-residents of the euro area

	Banks [3)]								Non-banks							
	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1999 Q4	888.1	384.3	74.9	428.9	317.3	49.2	30.0	32.5	458.7	146.6	41.4	270.7	234.0	11.1	19.4	6.2
2000 Q1	944.3	423.4	95.5	425.4	306.9	49.3	33.0	36.2	485.1	154.7	40.8	289.6	248.9	13.9	20.4	6.3
Q2	977.9	462.9	92.1	422.9	308.4	44.9	33.2	36.4	480.0	149.6	42.0	288.4	246.1	14.1	21.4	6.8
Q3	979.1	445.8	90.9	442.4	331.8	42.1	33.8	34.7	520.6	156.0	46.1	318.5	273.9	14.5	23.3	6.9
Q4	945.2	409.7	89.2	446.3	337.9	44.1	32.6	31.7	524.3	163.3	45.3	315.8	271.2	11.5	25.9	7.2
	Euro area enlargement															
2001 Q1	1,051.5	468.3	98.6	484.5	365.8	46.3	34.5	38.3	594.2	198.2	48.6	347.4	301.2	11.9	26.2	8.0
Q2 [p]	1,065.3	468.2	99.6	497.5	375.6	47.8	38.5	31.4	598.7	185.2	48.2	365.2	317.6	12.1	26.8	7.4

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

	Issued by banks [3)]								Issued by non-banks							
	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other	All currencies	Euro [2)]	Other EU currencies	Other currencies	USD	JPY	CHF	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1999 Q4	117.5	50.0	8.6	58.9	44.1	8.0	3.0	3.8	415.8	98.9	23.6	293.3	258.2	23.0	4.2	8.0
2000 Q1	129.4	52.8	9.0	67.6	51.7	7.8	3.0	5.1	443.7	94.9	27.8	321.1	279.3	27.1	5.6	9.1
Q2	153.0	59.4	13.7	79.8	63.7	7.9	2.7	5.5	464.1	95.7	28.3	340.1	299.4	26.9	4.5	9.3
Q3	168.2	60.6	17.1	90.4	75.1	8.2	2.7	4.4	496.9	109.1	32.2	355.6	312.0	30.3	4.2	9.0
Q4	171.1	61.1	19.7	90.3	75.6	7.7	2.4	4.6	474.3	111.5	31.7	331.0	290.6	27.1	3.6	9.7
	Euro area enlargement															
2001 Q1	188.8	64.8	22.7	101.3	87.1	7.3	2.3	4.8	490.4	120.8	24.4	345.3	306.8	25.7	2.7	10.2
Q2 [p]	205.5	70.7	25.2	109.6	95.2	7.2	2.2	4.5	503.7	122.9	25.7	355.1	314.7	27.3	3.0	9.3

3 Financial markets and interest rates in the euro area

Table 3.1

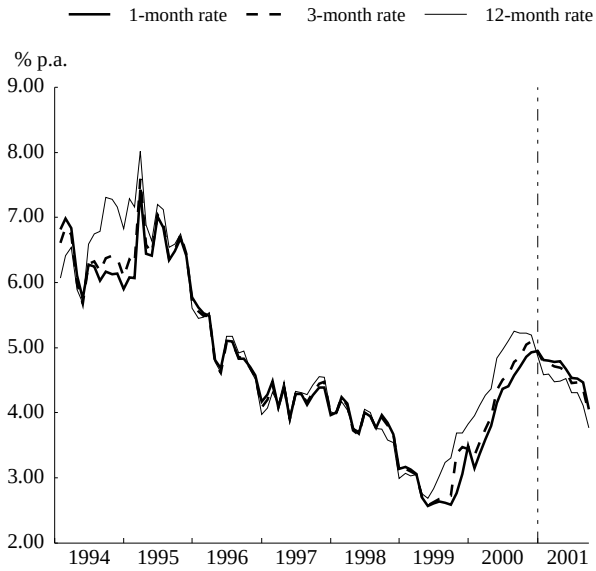
Money market interest rates [1]

(percentages per annum)

	Euro area [4]					United States [6]	Japan [6]
	Overnight deposits [2] [3]	1-month deposits [5]	3-month deposits [5]	6-month deposits [5]	12-month deposits [5]	3-month deposits	3-month deposits
	1	2	3	4	5	6	7
1996	4.04	4.95	4.92	4.89	4.93	5.51	0.57
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
2000 Sep.	4.59	4.70	4.85	5.04	5.22	6.67	0.41
Oct.	4.76	4.85	5.04	5.10	5.22	6.78	0.52
Nov.	4.83	4.92	5.09	5.13	5.19	6.75	0.55
Dec.	4.83	4.94	4.93	4.91	4.87	6.54	0.62
			Euro area enlargement				
2001 Jan.	4.75	4.81	4.77	4.68	4.58	5.73	0.50
Feb.	4.99	4.80	4.76	4.67	4.59	5.35	0.41
Mar.	4.78	4.78	4.71	4.58	4.47	4.96	0.19
Apr.	5.06	4.79	4.69	4.57	4.49	4.63	0.10
May	4.65	4.67	4.64	4.57	4.53	4.11	0.07
June	4.54	4.53	4.45	4.35	4.31	3.83	0.07
July	4.51	4.52	4.47	4.39	4.31	3.75	0.08
Aug.	4.49	4.46	4.35	4.22	4.11	3.56	0.08
Sep.	3.99	4.05	3.98	3.88	3.77	3.03	0.06
2001 7 Sep.	4.28	4.31	4.26	4.15	4.02	3.49	0.06
14	4.23	4.29	4.16	3.99	3.83	3.15	0.06
21	3.12	3.75	3.69	3.59	3.55	2.62	0.06
28	3.83	3.73	3.66	3.55	3.50	2.59	0.09
5 Oct.	3.72	3.64	3.56	3.43	3.35	2.48	0.08

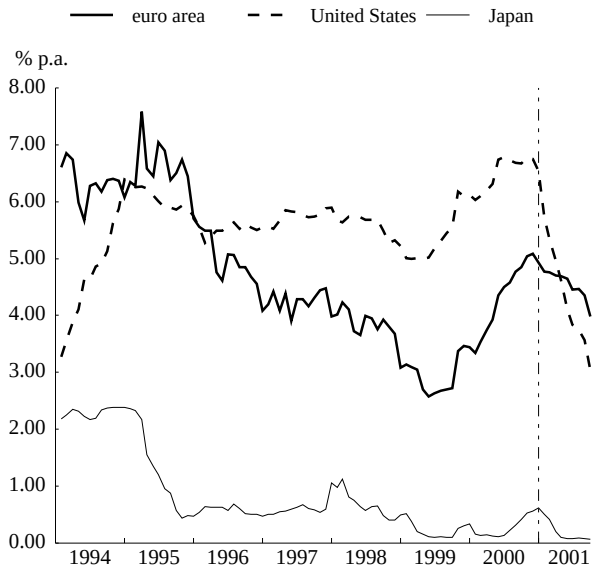
Euro area money market rates

(monthly)



3-month money market rates

(monthly)



Sources: Reuters and ECB.

1) *With the exception of the overnight rate to December 1998, monthly and yearly values are period averages.*
2) *Interbank deposit bid rates to December 1998. From January 1999 column 1 shows the euro overnight index average (EONIA).*
3) *End-of-period rates to December 1998; period averages thereafter.*
4) *Before January 1999 synthetic euro area rates were calculated on the basis of national rates weighted by GDP.*
5) *From January 1999, euro interbank offered rates (EURIBOR). Up to December 1998, London interbank offered rates (LIBOR) where available.*
6) *London interbank offered rates (LIBOR).*

Table 3.2

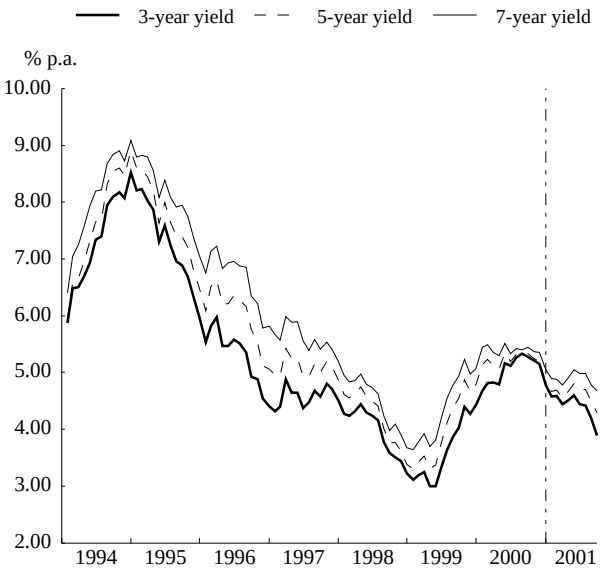
Government bond yields [1)]

(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
1996	4.17	4.41	5.06	5.82	7.23	6.54	3.03
1997	4.33	4.51	4.87	5.20	5.99	6.45	2.15
1998	3.16	3.22	3.38	3.67	4.71	5.33	1.30
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
2000 Sep.	5.22	5.28	5.33	5.44	5.47	5.80	1.88
Oct.	5.17	5.20	5.24	5.37	5.42	5.74	1.83
Nov.	5.12	5.15	5.19	5.35	5.34	5.72	1.75
Dec.	4.74	4.77	4.82	5.05	5.07	5.23	1.62
			Euro area enlargement				
2001 Jan.	4.55	4.57	4.67	4.90	5.01	5.14	1.54
Feb.	4.56	4.59	4.69	4.88	5.02	5.10	1.43
Mar.	4.44	4.44	4.56	4.78	4.94	4.89	1.19
Apr.	4.49	4.51	4.66	4.90	5.10	5.13	1.36
May	4.56	4.60	4.80	5.05	5.26	5.37	1.28
June	4.39	4.44	4.70	4.99	5.21	5.26	1.19
July	4.33	4.42	4.70	4.99	5.25	5.23	1.33
Aug.	4.11	4.19	4.49	4.78	5.06	4.97	1.36
Sep.	3.77	3.89	4.29	4.67	5.04	4.76	1.40
2001 7 Sep.	3.99	4.04	4.39	4.71	5.02	4.79	1.41
14	3.74	3.86	4.21	4.61	5.00	4.60	1.42
21	3.60	3.77	4.25	4.68	5.10	4.70	1.39
28	3.60	3.77	4.22	4.61	5.00	4.56	1.41
5 Oct.	3.43	3.62	4.07	4.46	4.84	4.51	1.39

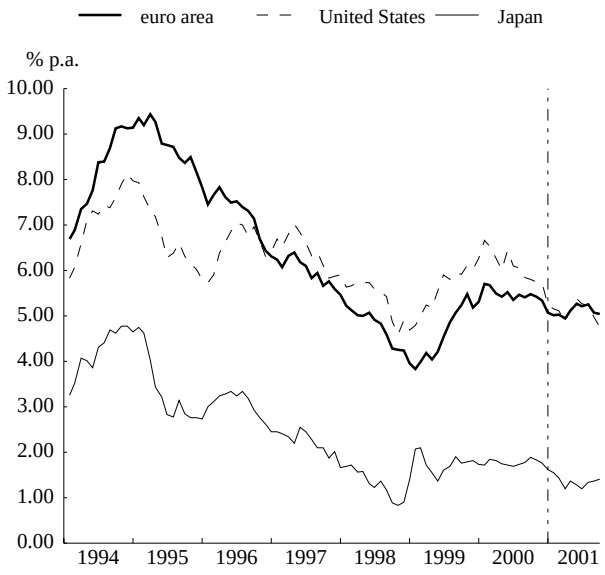
Euro area government bond yields

(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

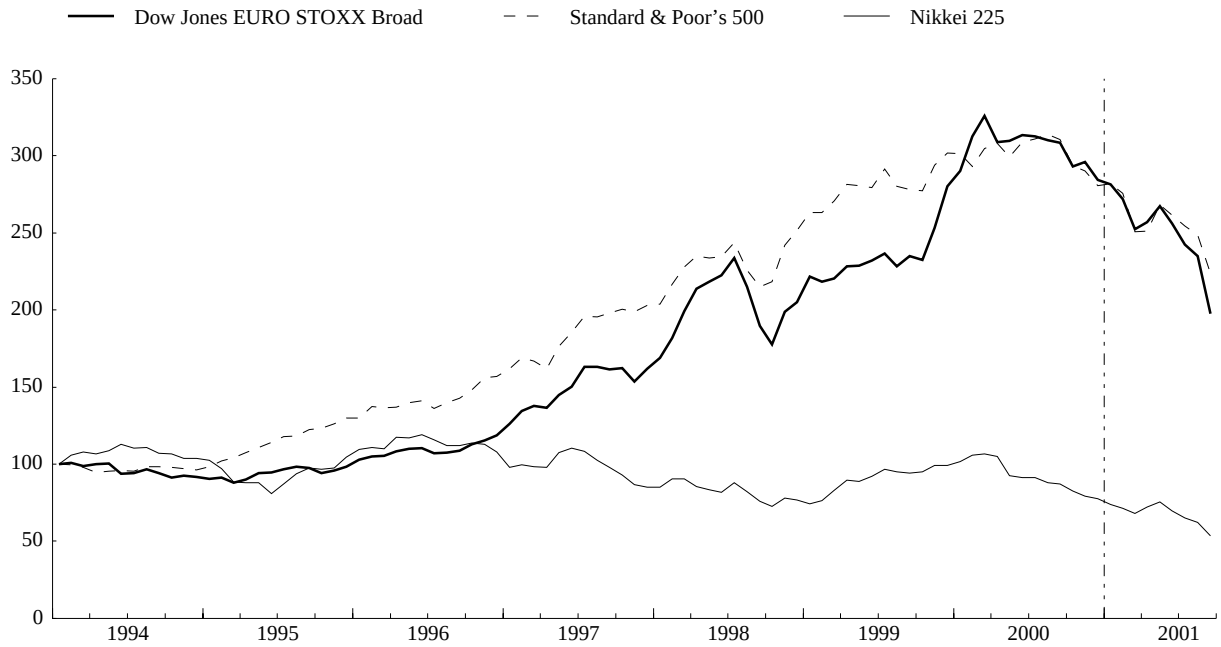
Stock market indices

(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	Techno-logy	Utilities	Tele-communi-cations	Health-care	Standard & Poor's 500	Nikkei 225
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1996	151.6	1,657.5	181.1	146.8	180.6	159.5	129.9	134.7	150.0	166.3	202.3	230.1	671.2	21,061.7
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
2000 Sep.	428.1	5,132.9	280.3	298.7	329.5	376.4	371.4	371.8	1,015.4	335.1	910.2	553.4	1,470.6	16,170.4
Oct.	406.4	4,893.2	281.2	278.4	331.5	373.7	366.3	349.4	864.6	336.3	824.3	561.2	1,390.1	15,342.7
Nov.	410.8	4,962.5	302.9	274.9	346.0	365.0	379.7	359.6	864.7	339.6	796.2	571.6	1,373.8	14,743.5
Dec.	394.5	4,787.1	319.1	257.4	330.2	337.9	365.9	354.3	865.0	326.7	715.4	554.6	1,329.7	14,409.7
						Euro area enlargement								
2001 Jan.	390.2	4,729.7	317.3	261.6	314.4	339.7	371.9	354.0	792.1	318.7	727.8	524.3	1,334.2	13,739.7
Feb.	377.1	4,525.9	320.2	260.4	319.0	349.5	364.5	355.7	656.6	317.8	654.4	549.5	1,305.5	13,274.1
Mar.	349.9	4,199.2	311.0	241.7	305.7	340.6	334.5	334.5	567.8	300.6	602.9	524.7	1,186.8	12,684.9
Apr.	356.3	4,305.2	308.4	242.6	304.8	352.5	339.4	329.9	587.4	311.5	635.0	534.6	1,189.2	13,436.7
May	370.8	4,481.8	316.5	258.9	312.0	371.8	345.9	345.9	662.4	311.0	623.9	553.2	1,270.7	14,014.3
June	355.1	4,289.7	306.4	241.8	316.9	379.2	341.0	328.6	553.5	320.9	538.3	580.1	1,238.7	12,974.9
July	336.2	4,037.8	302.7	233.8	316.6	349.9	328.2	306.5	449.5	324.2	512.0	565.7	1,205.9	12,140.1
Aug.	325.8	3,884.7	287.9	226.3	309.0	346.6	322.4	303.6	426.5	324.2	453.6	549.3	1,178.3	11,576.2
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 7 Sep.	293.3	3,456.5	282.1	198.0	297.4	339.3	290.2	275.6	323.1	311.1	359.8	536.0	1,085.8	10,516.8
14	260.6	3,091.2	244.7	161.3	274.1	311.3	251.4	245.4	306.8	288.8	332.6	498.8	1,092.5	10,008.9
21	240.3	2,877.7	213.0	149.7	267.1	267.0	221.7	222.0	296.0	278.7	353.4	477.8	965.8	9,555.0
28	272.5	3,296.7	249.0	169.2	280.6	311.8	264.2	240.6	321.6	300.1	392.6	531.7	1,040.9	9,774.7
5 Oct.	276.6	3,348.0	253.2	172.1	286.3	315.1	266.6	245.6	334.4	307.0	394.4	536.3	1,071.4	10,205.9

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.

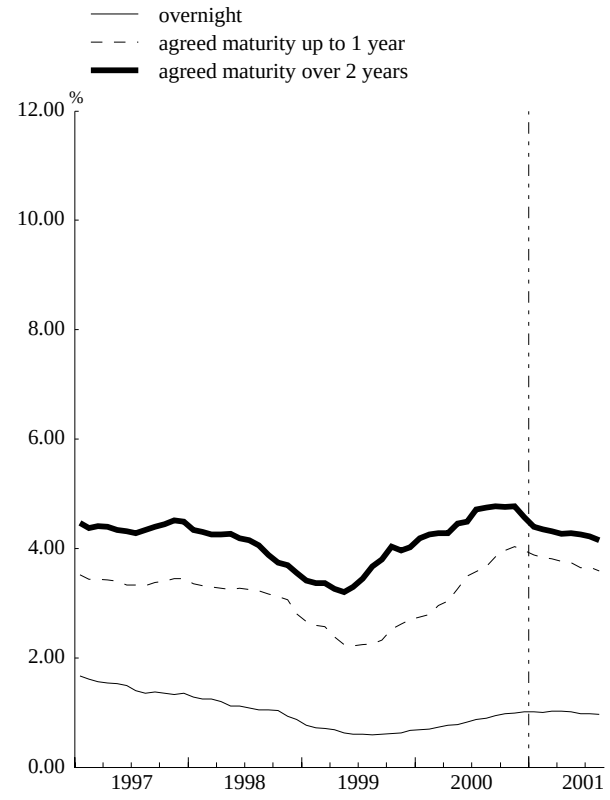
Table 3.4

Retail bank interest rates

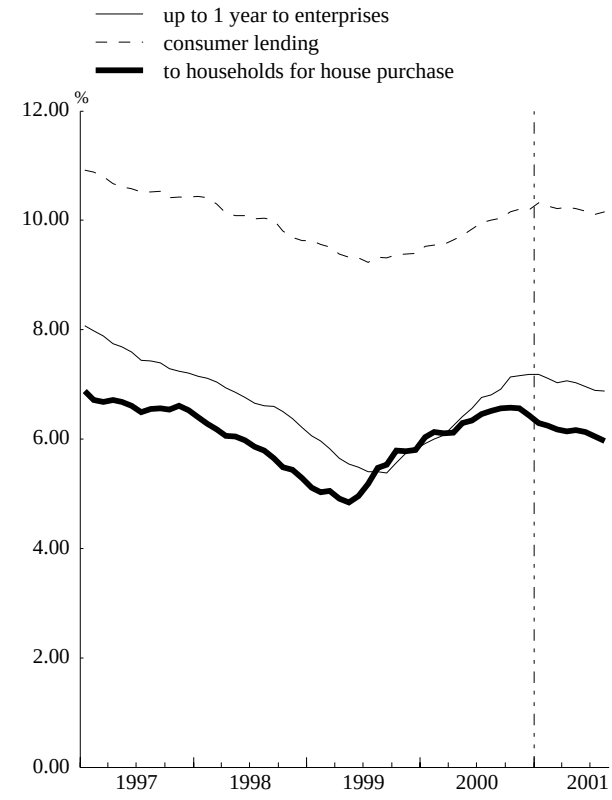
(percentages per annum; period averages)

	Deposit interest rates						Lending interest rates			
	Overnight	With agreed maturity			Redeemable at notice		To enterprises		To households	
		Up to 1 year	Up to 2 years	Over 2 years	Up to 3 months	Over 3 months	Up to 1 year	Over 1 year	Consumer lending	For house purchase
	1	2	3	4	5	6	7	8	9	10
1998	1.10	3.20	3.22	4.06	2.61	3.25	6.73	5.80	10.05	5.87
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	3.44	4.52	2.25	3.79	6.60	6.23	9.86	6.34
2000 Aug.	0.89	3.67	3.67	4.75	2.36	4.06	6.81	6.44	10.00	6.51
Sep.	0.94	3.85	3.83	4.77	2.38	4.20	6.92	6.44	10.03	6.56
Oct.	0.97	3.96	3.96	4.76	2.40	4.14	7.13	6.60	10.15	6.57
Nov.	0.99	4.04	4.03	4.77	2.47	4.25	7.16	6.63	10.20	6.56
Dec.	1.01	3.96	3.96	4.58	2.49	4.21	7.18	6.45	10.19	6.43
				Euro area enlargement						
2001 Jan.	1.01	3.88	3.88	4.39	2.52	4.01	7.19	6.40	10.32	6.29
Feb.	1.01	3.84	3.83	4.35	2.50	3.99	7.11	6.44	10.26	6.24
Mar.	1.02	3.81	3.81	4.32	2.50	3.99	7.04	6.32	10.22	6.18
Apr.	1.03	3.76	3.76	4.26	2.50	3.91	7.07	6.34	10.24	6.14
May	1.01	3.75	3.74	4.27	2.48	3.91	7.03	6.34	10.22	6.17
June	0.98	3.65	3.65	4.25	2.46	3.85	6.96	6.25	10.17	6.13
July	0.98	3.66	3.65	4.22	2.44	3.80	6.89	6.21	10.11	6.05
Aug.	0.96	3.59	3.59	4.15	2.41	3.68	6.87	6.19	10.16	5.96

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
2000 July	287.1	282.6	4.4	669.4	269.7	266.4	3.2	613.3	17.4	16.2
Aug.	276.6	276.2	0.4	672.7	261.0	258.6	2.4	616.1	15.6	17.6
Sep.	311.5	315.2	-3.7	671.4	293.4	298.7	-5.3	611.4	18.1	16.5
Oct.	355.2	342.5	12.7	686.5	338.2	330.3	7.9	618.8	17.0	12.1
Nov.	302.1	302.4	-0.3	687.0	283.7	290.1	-6.4	612.7	18.4	12.2
Dec.	246.0	278.6	-32.6	654.0	229.7	264.5	-34.8	578.7	16.3	14.1
Euro area enlargement										
2001 Jan.	376.3	346.8	29.5	688.0	358.6	326.2	32.4	615.9	17.7	20.6
Feb.	404.8	390.8	13.9	703.2	384.1	373.7	10.4	626.0	20.7	17.2
Mar.	452.7	436.4	16.3	723.4	432.6	417.7	14.9	643.3	20.1	18.7
Apr.	441.9	431.8	10.1	734.3	424.3	412.8	11.5	654.5	17.6	19.0
May	477.8	480.9	-3.1	735.9	456.6	460.4	-3.8	652.0	21.2	20.5
June	410.7	418.7	-8.0	727.1	388.1	395.6	-7.5	642.9	22.6	23.2
July	392.7	385.6	7.1	734.7	369.6	365.1	4.5	648.9	23.1	20.5

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
2000 July	133.0	80.0	53.0	6,298.0	106.6	71.1	35.6	5,788.4	26.4	8.9
Aug.	107.7	61.4	46.4	6,357.2	83.7	52.7	31.0	5,820.8	24.1	8.7
Sep.	111.9	77.0	35.0	6,397.1	91.3	66.7	24.5	5,846.1	20.7	10.2
Oct.	126.9	89.3	37.5	6,447.7	102.4	77.0	25.4	5,872.7	24.4	12.3
Nov.	106.8	77.7	29.1	6,464.6	92.4	65.5	26.9	5,898.9	14.4	12.2
Dec.	99.1	102.4	-3.3	6,439.3	86.8	87.2	-0.4	5,901.3	12.3	15.3
Euro area enlargement										
2001 Jan.	153.0	145.3	7.7	6,536.9	136.1	133.4	2.8	5,995.0	16.8	11.9
Feb.	137.3	84.6	52.7	6,590.4	115.8	70.2	45.6	6,042.7	21.5	14.4
Mar.	154.8	101.3	53.5	6,654.5	127.1	86.7	40.5	6,085.2	27.6	14.6
Apr.	114.9	74.0	40.9	6,694.0	98.2	64.5	33.7	6,118.4	16.7	9.5
May	131.8	78.8	52.9	6,764.1	115.6	67.1	48.5	6,167.2	16.1	11.7
June	134.5	76.2	58.3	6,818.0	115.2	58.8	56.4	6,222.1	19.3	17.4
July	133.0	86.6	46.4	6,855.3	124.7	81.2	43.6	6,266.0	8.3	5.4

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
2000 July	420.1	362.6	57.5	6,967.3	376.3	337.5	38.8	6,401.7	43.8	25.1
Aug.	384.3	337.6	46.8	7,029.9	344.7	311.3	33.4	6,436.8	39.6	26.3
Sep.	423.4	392.2	31.2	7,068.5	384.7	365.5	19.2	6,457.5	38.8	26.7
Oct.	482.0	431.8	50.2	7,134.1	440.6	407.4	33.3	6,491.5	41.4	24.4
Nov.	408.9	380.1	28.8	7,151.6	376.1	355.6	20.5	6,511.6	32.8	24.5
Dec.	345.1	381.0	-35.9	7,093.3	316.5	351.6	-35.2	6,480.0	28.6	29.4
Euro area enlargement										
2001 Jan.	529.3	492.1	37.2	7,224.9	494.7	459.5	35.1	6,610.9	34.6	32.5
Feb.	542.0	475.4	66.6	7,293.6	499.9	443.9	55.9	6,668.6	42.2	31.5
Mar.	607.5	537.7	69.8	7,377.9	559.8	504.4	55.4	6,728.5	47.7	33.3
Apr.	556.8	505.8	51.0	7,428.3	522.5	477.3	45.2	6,772.9	34.3	28.5
May	609.5	559.7	49.8	7,500.0	572.3	527.5	44.8	6,819.2	37.3	32.2
June	545.2	494.9	50.3	7,545.1	503.3	454.4	48.9	6,865.0	42.0	40.5
July	525.7	472.2	53.5	7,590.0	494.4	446.3	48.0	6,914.9	31.3	25.9

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

	By non-residents of the euro area in euro [1]					Total in euro [1]				
currencies										
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	
1.2	56.1	5.5	18.3	-12.8	30.4	275.1	284.7	-9.6	643.7	2000 July
-2.0	56.6	8.0	10.6	-2.6	27.8	269.1	269.3	-0.2	643.9	Aug.
1.6	60.0	24.7	7.3	17.4	45.2	318.1	306.0	12.0	656.6	Sep.
4.8	67.7	9.6	20.8	-11.2	33.9	347.8	351.2	-3.4	652.7	Oct.
6.1	74.3	15.0	8.0	7.0	40.9	298.7	298.1	0.6	653.6	Nov.
2.2	75.3	18.8	6.1	12.7	53.6	248.5	270.6	-22.1	632.3	Dec.
				Euro area enlargement						
-2.8	72.0	11.4	27.3	-15.9	37.7	369.9	353.5	16.4	653.6	2001 Jan.
3.5	77.2	11.1	11.5	-0.4	37.3	395.1	385.1	10.0	663.2	Feb.
1.4	80.1	25.4	5.4	20.0	57.3	458.0	423.1	34.9	700.5	Mar.
-1.4	79.8	6.8	26.1	-19.2	38.0	431.1	438.8	-7.7	692.6	Apr.
0.7	83.9	11.2	11.9	-0.7	37.4	467.9	472.3	-4.4	689.4	May
-0.5	84.2	24.9	8.9	16.0	53.4	413.0	404.5	8.5	696.3	June
2.6	85.8	.	.	.	.	.	.	.	.	July

	By non-residents of the euro area in euro [1]					Total in euro [1]				
currencies										
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	
17.5	509.5	18.3	9.3	9.0	673.7	125.0	80.4	44.6	6,462.2	2000 July
15.4	536.4	13.2	7.5	5.7	679.7	96.9	60.2	36.7	6,500.5	Aug.
10.4	551.0	31.1	14.4	16.7	697.5	122.4	81.1	41.3	6,543.6	Sep.
12.1	574.9	26.7	6.7	20.0	716.4	129.1	83.7	45.4	6,589.2	Oct.
2.2	565.7	19.5	7.3	12.1	727.9	111.9	72.8	39.1	6,626.8	Nov.
-3.0	538.0	20.4	7.8	12.7	739.4	107.2	94.9	12.3	6,640.7	Dec.
				Euro area enlargement						
4.9	541.9	17.4	10.2	7.2	734.4	153.5	143.6	10.0	6,729.4	2001 Jan.
7.1	547.7	36.8	14.7	22.1	757.1	152.6	85.0	67.6	6,799.8	Feb.
13.0	569.3	36.6	9.0	27.6	786.0	163.7	95.6	68.1	6,871.2	Mar.
7.2	575.5	20.0	9.9	10.1	796.5	118.2	74.4	43.8	6,914.9	Apr.
4.4	596.9	26.9	12.0	14.9	811.9	142.6	79.1	63.5	6,979.1	May
2.0	596.0	32.8	9.7	23.2	835.9	148.0	68.5	79.5	7,057.9	June
2.8	589.3	.	.	.	.	.	.	.	.	July

	By non-residents of the euro area in euro [1]					Total in euro [1]				
currencies										
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	
18.7	565.6	23.8	27.6	-3.8	704.1	400.1	365.1	34.9	7,105.8	2000 July
13.3	593.0	21.2	18.1	3.1	707.5	365.9	329.4	36.5	7,144.4	Aug.
12.1	611.0	55.8	21.7	34.1	742.6	440.5	387.2	53.3	7,200.2	Sep.
17.0	642.6	36.3	27.5	8.7	750.3	476.9	434.9	42.0	7,241.9	Oct.
8.3	640.0	34.4	15.3	19.2	768.8	410.6	370.9	39.7	7,280.4	Nov.
-0.8	613.3	39.3	13.9	25.4	793.0	355.7	365.5	-9.8	7,273.0	Dec.
				Euro area enlargement						
2.1	613.9	28.8	37.5	-8.7	772.0	523.5	497.1	26.4	7,383.0	2001 Jan.
10.6	625.0	47.9	26.2	21.7	794.4	547.7	470.1	77.6	7,463.0	Feb.
14.4	649.5	62.0	14.4	47.6	843.3	621.7	518.8	103.0	7,571.7	Mar.
5.8	655.4	26.8	35.9	-9.1	834.6	549.3	513.2	36.1	7,607.5	Apr.
5.1	680.7	38.2	23.9	14.3	849.3	610.4	551.4	59.0	7,668.5	May
1.4	680.1	57.8	18.6	39.2	889.3	561.0	473.0	88.1	7,754.3	June
5.4	675.1	.	.	.	.	.	.	.	.	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
2000 July	613.3	264.7	4.6	77.3	263.7	2.9	30.4	12.9	8.1	7.9
Aug.	616.1	263.7	4.3	79.4	266.4	2.3	27.8	11.8	7.0	7.8
Sep.	611.4	256.4	4.1	81.1	267.1	2.8	45.2	15.1	11.9	16.7
Oct.	618.8	259.7	4.5	86.3	265.6	2.7	33.9	13.0	9.5	10.2
Nov.	612.7	254.4	4.6	86.9	263.9	3.0	40.9	15.4	12.4	12.4
Dec.	578.7	244.0	4.5	86.0	241.4	2.9	53.6	20.8	13.6	18.0
				Euro area enlargement						
2001 Jan.	615.9	257.1	5.0	89.4	261.5	2.9	37.7	15.0	10.8	11.2
Feb.	626.0	260.3	4.9	93.1	265.4	2.2	37.3	15.0	11.4	10.2
Mar.	643.3	265.0	5.1	94.5	276.5	2.2	57.3	20.8	17.5	18.0
Apr.	654.5	269.2	5.5	92.4	285.3	2.2	38.0	13.1	13.7	10.7
May	652.0	260.9	5.5	99.1	284.1	2.4	37.4	13.6	14.2	9.0
June	642.9	261.6	5.2	97.2	276.9	2.0	53.4	19.2	19.7	13.7
July	648.9	259.0	5.0	100.4	280.8	3.6	.	.	.	.

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
2000 July	5,788.4	2,133.3	228.8	272.0	3,054.2	100.2	673.7	193.4	87.4	143.8
Aug.	5,820.8	2,147.0	234.5	275.5	3,062.3	101.6	679.7	198.3	88.7	146.0
Sep.	5,846.1	2,162.4	234.1	275.9	3,072.0	101.8	697.5	200.0	94.1	152.3
Oct.	5,872.7	2,173.3	239.3	280.2	3,076.1	103.9	716.4	212.1	96.7	153.0
Nov.	5,898.9	2,175.3	243.5	284.8	3,089.7	105.5	727.9	216.2	102.2	156.0
Dec.	5,901.3	2,175.6	255.6	287.7	3,075.8	106.5	739.4	219.6	102.2	160.6
				Euro area enlargement						
2001 Jan.	5,995.0	2,199.8	253.2	284.6	3,150.3	107.1	734.4	220.9	104.5	162.2
Feb.	6,042.7	2,229.8	258.3	288.6	3,157.1	108.8	757.1	231.3	105.4	177.1
Mar.	6,085.2	2,240.9	265.8	299.2	3,168.7	110.5	786.0	243.7	108.2	184.5
Apr.	6,118.4	2,247.7	271.7	303.2	3,183.2	112.7	796.5	244.7	114.1	187.8
May	6,167.2	2,255.7	281.0	312.2	3,205.0	113.4	811.9	249.6	116.1	197.5
June	6,222.1	2,270.7	287.7	319.1	3,231.2	113.4	835.9	259.1	117.2	203.1
July	6,266.0	2,292.7	304.5	324.3	3,229.3	115.2	.	.	.	.

3. Total

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2000 July	6,401.7	2,398.0	233.4	349.3	3,317.9	103.1	704.1	206.3	95.5	151.7
Aug.	6,436.8	2,410.7	238.8	354.8	3,328.6	103.9	707.5	210.1	95.8	153.8
Sep.	6,457.5	2,418.8	238.2	356.9	3,339.1	104.6	742.6	215.1	106.0	169.0
Oct.	6,491.5	2,433.0	243.7	366.5	3,341.7	106.6	750.3	225.1	106.1	163.2
Nov.	6,511.6	2,429.7	248.1	371.7	3,353.6	108.5	768.8	231.6	114.6	168.4
Dec.	6,480.0	2,419.6	260.1	373.7	3,317.2	109.4	793.0	240.4	115.8	178.5
				Euro area enlargement						
2001 Jan.	6,610.9	2,456.9	258.2	374.0	3,411.8	110.0	772.0	235.9	115.3	173.4
Feb.	6,668.6	2,490.1	263.3	381.7	3,422.5	111.0	794.4	246.3	116.7	187.3
Mar.	6,728.5	2,506.0	270.9	393.7	3,445.2	112.7	843.3	264.5	125.7	202.5
Apr.	6,772.9	2,516.9	277.1	395.6	3,468.4	114.9	834.6	257.8	127.8	198.4
May	6,819.2	2,516.6	286.5	411.3	3,489.2	115.7	849.3	263.2	130.3	206.5
June	6,865.0	2,532.3	292.9	416.3	3,508.1	115.4	889.3	278.2	136.9	216.8
July	6,914.9	2,551.8	309.5	424.7	3,510.1	118.8	.	.	.	.

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	0.4	1.0	643.7	277.6	12.7	85.1	263.9	3.3	1.0	2000 July
0.2	0.5	0.6	643.9	275.5	11.4	87.1	266.5	2.8	0.6	Aug.
0.2	0.5	0.8	656.6	271.5	16.0	97.8	267.3	3.2	0.8	Sep.
0.2	0.4	0.6	652.7	272.7	13.9	96.5	265.9	3.1	0.6	Oct.
0.2	0.2	0.3	653.6	269.8	17.0	99.2	264.1	3.2	0.3	Nov.
0.1	0.4	0.8	632.3	264.7	18.0	103.9	241.5	3.3	0.8	Dec.
					Euro area enlargement					
0.1	0.3	0.2	653.6	272.2	15.8	100.6	261.6	3.2	0.2	2001 Jan.
0.1	0.4	0.1	663.2	275.3	16.3	103.3	265.5	2.6	0.1	Feb.
0.2	0.3	0.4	700.5	285.8	22.6	112.4	276.7	2.5	0.4	Mar.
0.1	0.3	0.1	692.6	282.3	19.2	103.1	285.3	2.5	0.1	Apr.
0.1	0.4	0.1	689.4	274.5	19.8	108.0	284.2	2.8	0.1	May
0.2	0.4	0.2	696.3	280.8	24.9	110.9	277.1	2.4	0.2	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	
100.3	29.9	118.8	6,462.2	2,326.7	316.2	415.8	3,154.5	130.1	118.8	2000 July
99.9	28.9	117.9	6,500.5	2,345.3	323.2	421.5	3,162.2	130.4	117.9	Aug.
100.5	33.4	117.3	6,543.6	2,362.3	328.2	428.1	3,172.4	135.2	117.3	Sep.
101.1	34.0	119.5	6,589.2	2,385.4	335.9	433.2	3,177.2	138.0	119.5	Oct.
101.5	33.7	118.3	6,626.8	2,391.5	345.7	440.9	3,191.2	139.3	118.3	Nov.
101.1	38.8	117.2	6,640.7	2,395.2	357.8	448.3	3,176.9	145.3	117.2	Dec.
					Euro area enlargement					
89.3	36.5	121.1	6,729.4	2,420.7	357.7	446.8	3,239.6	143.6	121.1	2001 Jan.
87.2	37.2	118.9	6,799.8	2,461.1	363.7	465.7	3,244.3	146.0	118.9	Feb.
89.7	42.5	117.5	6,871.2	2,484.6	374.0	483.7	3,258.4	153.0	117.5	Mar.
90.6	42.4	117.0	6,914.9	2,492.3	385.8	491.0	3,273.7	155.1	117.0	Apr.
91.5	41.4	115.8	6,979.1	2,505.3	397.1	509.7	3,296.6	154.7	115.8	May
93.5	47.8	115.2	7,057.9	2,529.7	404.9	522.3	3,324.7	161.2	115.2	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	
100.5	30.3	119.8	7,105.8	2,604.3	328.9	501.0	3,418.4	133.4	119.8	2000 July
100.1	29.4	118.5	7,144.4	2,620.8	334.6	508.6	3,428.7	133.2	118.5	Aug.
100.7	33.8	118.1	7,200.2	2,633.8	344.2	525.9	3,439.8	138.4	118.1	Sep.
101.4	34.5	120.1	7,241.9	2,658.0	349.8	529.7	3,443.1	141.1	120.1	Oct.
101.7	34.0	118.6	7,280.4	2,661.3	362.6	540.1	3,455.3	142.5	118.6	Nov.
101.2	39.2	118.0	7,273.0	2,660.0	375.8	552.2	3,418.4	148.6	118.0	Dec.
					Euro area enlargement					
89.4	36.8	121.3	7,383.0	2,692.8	373.5	547.4	3,501.2	146.8	121.3	2001 Jan.
87.4	37.6	119.1	7,463.0	2,736.4	380.0	569.1	3,509.9	148.7	119.1	Feb.
89.9	42.8	117.9	7,571.7	2,770.5	396.6	596.1	3,535.1	155.5	117.9	Mar.
90.7	42.8	117.1	7,607.5	2,774.7	405.0	594.1	3,559.1	157.6	117.1	Apr.
91.6	41.7	115.9	7,668.5	2,779.8	416.8	617.7	3,580.8	157.5	115.9	May
93.7	48.2	115.4	7,754.3	2,810.5	429.8	633.2	3,601.8	163.6	115.4	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
2000 July	269.7	167.6	2.6	56.1	41.5	1.8	5.5	2.0	1.4	1.7
Aug.	261.0	168.2	2.0	51.2	38.1	1.6	8.0	3.5	1.5	2.9
Sep.	293.4	196.7	2.8	55.6	36.3	2.0	24.7	6.7	6.8	10.8
Oct.	338.2	237.8	2.6	60.3	35.5	1.9	9.6	3.7	2.7	2.8
Nov.	283.7	189.7	3.0	55.9	33.6	1.5	15.0	5.5	4.7	4.7
Dec.	229.7	162.1	2.1	45.9	18.0	1.6	18.8	7.1	2.9	8.1
				Euro area enlargement						
2001 Jan.	358.6	238.7	3.4	66.9	47.7	1.9	11.4	4.5	3.6	3.1
Feb.	384.1	275.9	2.2	63.1	41.4	1.5	11.1	4.3	3.4	3.2
Mar.	432.6	312.8	3.1	67.0	48.1	1.6	25.4	8.2	7.1	9.7
Apr.	424.3	301.7	3.2	69.4	48.5	1.4	6.8	1.9	2.4	2.4
May	456.6	341.6	2.8	71.1	39.2	1.9	11.2	5.0	4.0	2.0
June	388.1	282.2	2.7	64.6	37.4	1.1	24.9	8.6	8.6	7.3
July	369.6	244.7	2.3	75.2	44.9	2.6	.	.	.	.

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
2000 July	106.6	44.9	15.8	8.8	35.0	2.1	18.3	4.3	2.2	9.2
Aug.	83.7	38.1	8.3	4.0	31.5	1.8	13.2	8.1	1.7	3.2
Sep.	91.3	40.8	5.0	3.6	40.8	1.0	31.1	8.1	5.9	9.8
Oct.	102.4	43.3	7.6	5.7	43.3	2.5	26.7	14.4	3.3	3.0
Nov.	92.4	33.6	8.6	8.1	39.0	3.0	19.5	7.0	5.7	4.3
Dec.	86.8	38.7	18.4	4.5	23.1	2.0	20.4	7.8	0.8	6.1
				Euro area enlargement						
2001 Jan.	136.1	56.4	4.0	0.8	72.1	2.8	17.4	5.6	3.3	3.9
Feb.	115.8	57.6	8.7	5.0	42.1	2.4	36.8	13.6	2.2	16.3
Mar.	127.1	45.2	11.3	14.4	53.3	2.8	36.6	14.4	4.0	8.7
Apr.	98.2	41.0	8.4	7.1	39.1	2.6	20.0	6.4	6.4	4.2
May	115.6	38.2	12.1	11.7	52.9	0.7	26.9	8.5	4.8	11.8
June	115.2	44.5	10.1	10.5	49.6	0.5	32.8	13.2	2.5	7.9
July	124.7	53.1	18.0	8.7	42.6	2.4	.	.	.	.

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
2000 July	376.3	212.6	18.4	64.9	76.5	3.9	23.8	6.3	3.5	10.9
Aug.	344.7	206.2	10.3	55.2	69.6	3.4	21.2	11.6	3.2	6.1
Sep.	384.7	237.6	7.8	59.2	77.0	3.1	55.8	14.7	12.7	20.6
Oct.	440.6	281.1	10.2	66.0	78.8	4.5	36.3	18.2	6.1	5.8
Nov.	376.1	223.3	11.6	64.0	72.6	4.5	34.4	12.5	10.4	9.0
Dec.	316.5	200.8	20.5	50.4	41.1	3.7	39.3	14.9	3.7	14.2
				Euro area enlargement						
2001 Jan.	494.7	295.0	7.4	67.7	119.8	4.7	28.8	10.1	6.9	7.0
Feb.	499.9	333.5	10.9	68.1	83.5	3.9	47.9	17.9	5.6	19.5
Mar.	559.8	358.0	14.4	81.4	101.5	4.4	62.0	22.5	11.1	18.4
Apr.	522.5	342.7	11.7	76.5	87.6	4.0	26.8	8.2	8.8	6.6
May	572.3	379.8	15.0	82.7	92.1	2.6	38.2	13.5	8.8	13.9
June	503.3	326.7	12.9	75.1	87.0	1.6	57.8	21.8	11.1	15.2
July	494.4	297.8	20.3	83.9	87.5	4.9	.	.	.	.

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

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
0.0	0.1	0.2	275.1	169.7	3.9	57.9	41.5	1.9	0.2	2000 July
0.0	0.2	0.0	269.1	171.7	3.5	54.1	38.1	1.8	0.0	Aug.
0.1	0.1	0.2	318.1	203.4	9.6	66.4	36.4	2.1	0.2	Sep.
0.0	0.1	0.2	347.8	241.6	5.3	63.1	35.5	2.0	0.2	Oct.
0.1	0.0	0.0	298.7	195.2	7.7	60.6	33.6	1.5	0.0	Nov.
0.0	0.2	0.4	248.5	169.2	5.0	54.0	18.0	1.8	0.4	Dec.
					Euro area enlargement					
0.1	0.0	0.1	369.9	243.1	7.0	70.0	47.8	1.9	0.1	2001 Jan.
0.0	0.1	0.0	395.1	280.2	5.6	66.2	41.4	1.6	0.0	Feb.
0.1	0.1	0.3	458.0	321.0	10.2	76.7	48.2	1.7	0.3	Mar.
0.0	0.1	0.0	431.1	303.6	5.7	71.8	48.5	1.5	0.0	Apr.
0.1	0.1	0.0	467.9	346.6	6.8	73.1	39.3	2.1	0.0	May
0.1	0.1	0.2	413.0	290.8	11.4	71.9	37.5	1.2	0.2	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	
1.5	0.3	1.0	125.0	49.2	17.9	18.0	36.5	2.4	1.0	2000 July
0.1	0.0	0.1	96.9	46.1	10.0	7.2	31.7	1.8	0.1	Aug.
1.8	5.4	0.3	122.4	48.9	10.9	13.4	42.5	6.4	0.3	Sep.
1.3	1.0	3.6	129.1	57.7	11.0	8.7	44.6	3.5	3.6	Oct.
1.7	0.1	0.6	111.9	40.6	14.3	12.4	40.8	3.1	0.6	Nov.
0.2	5.4	0.1	107.2	46.6	19.2	10.6	23.3	7.4	0.1	Dec.
					Euro area enlargement					
1.2	0.3	3.0	153.5	62.0	7.3	4.7	73.4	3.1	3.0	2001 Jan.
2.7	1.7	0.2	152.6	71.3	10.9	21.3	44.8	4.0	0.2	Feb.
3.1	5.3	1.1	163.7	59.6	15.3	23.1	56.5	8.1	1.1	Mar.
1.3	0.5	1.2	118.2	47.3	14.8	11.3	40.4	3.1	1.2	Apr.
1.7	0.0	0.1	142.6	46.7	17.0	23.5	54.6	0.8	0.1	May
2.0	6.5	0.7	148.0	57.6	12.6	18.4	51.6	7.0	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	
1.5	0.4	1.2	400.1	218.8	21.9	75.8	78.1	4.3	1.2	2000 July
0.2	0.2	0.1	365.9	217.8	13.5	61.3	69.8	3.5	0.1	Aug.
1.9	5.5	0.5	440.5	252.3	20.5	79.8	78.9	8.5	0.5	Sep.
1.3	1.0	3.8	476.9	299.3	16.3	71.9	80.2	5.5	3.8	Oct.
1.8	0.1	0.6	410.6	235.8	22.1	73.0	74.4	4.6	0.6	Nov.
0.2	5.6	0.6	355.7	215.8	24.2	64.6	41.3	9.3	0.6	Dec.
					Euro area enlargement					
1.3	0.3	3.1	523.5	305.1	14.3	74.7	121.1	5.1	3.1	2001 Jan.
2.8	1.8	0.2	547.7	351.5	16.5	87.5	86.3	5.7	0.2	Feb.
3.2	5.3	1.5	621.7	380.5	25.5	99.8	104.7	9.7	1.5	Mar.
1.3	0.6	1.2	549.3	350.9	20.5	83.2	88.9	4.6	1.2	Apr.
1.7	0.2	0.1	610.4	393.3	23.8	96.6	93.8	2.8	0.1	May
2.1	6.6	1.0	561.0	348.4	24.0	90.3	89.1	8.2	1.0	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
2000 July	3.2	4.5	0.4	1.1	-3.5	0.7	-12.8	-6.1	-2.7	-3.9
Aug.	2.4	-1.4	-0.3	2.1	2.6	-0.6	-2.6	-1.1	-1.1	-0.1
Sep.	-5.3	-8.0	-0.3	1.7	0.7	0.4	17.4	3.3	4.9	8.9
Oct.	7.9	3.8	0.4	5.2	-1.5	-0.1	-11.2	-2.2	-2.4	-6.5
Nov.	-6.4	-5.6	0.1	0.6	-1.8	0.3	7.0	2.5	2.9	2.1
Dec.	-34.8	-11.1	-0.1	-1.1	-22.5	0.0	12.7	5.4	1.2	5.6
					Euro area enlargement					
2001 Jan.	32.4	13.1	0.6	3.4	14.9	0.5	-15.9	-5.7	-2.8	-6.8
Feb.	10.4	3.6	-0.1	3.6	3.9	-0.7	-0.4	0.0	0.6	-1.0
Mar.	14.9	2.7	0.2	1.0	11.1	-0.1	20.0	5.8	6.1	7.8
Apr.	11.5	4.4	0.4	-2.0	8.8	0.0	-19.2	-7.6	-3.8	-7.3
May	-3.8	-9.5	0.1	6.6	-1.1	0.2	-0.7	0.4	0.5	-1.7
June	-7.5	2.2	-0.3	-1.7	-7.3	-0.4	16.0	5.6	5.5	4.7
July	4.5	-4.0	-0.2	3.1	4.0	1.6	.	.	.	.

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
2000 July	35.6	19.0	11.9	5.9	-2.4	1.2	9.0	0.3	1.1	6.8
Aug.	31.0	12.6	5.4	3.5	8.1	1.4	5.7	4.7	1.3	2.1
Sep.	24.5	11.4	2.8	0.4	9.7	0.3	16.7	1.4	5.2	5.9
Oct.	25.4	9.5	5.4	4.4	4.1	2.1	20.0	12.7	2.6	0.9
Nov.	26.9	2.8	4.3	4.6	13.6	1.6	12.1	4.6	5.5	3.3
Dec.	-0.4	-2.5	12.2	2.9	-13.9	1.0	12.7	3.8	0.0	4.8
					Euro area enlargement					
2001 Jan.	2.8	22.4	-2.4	-3.2	-14.8	0.8	7.2	1.1	2.4	2.9
Feb.	45.6	28.1	5.1	3.9	6.8	1.7	22.1	9.9	0.8	14.9
Mar.	40.5	9.5	7.0	10.6	11.7	1.8	27.6	11.9	2.7	7.1
Apr.	33.7	7.5	5.5	4.0	14.5	2.2	10.1	0.8	5.9	3.2
May	48.5	7.8	9.3	8.9	21.9	0.6	14.9	4.7	1.9	9.5
June	56.4	16.5	6.7	7.0	26.2	0.0	23.2	9.1	1.0	5.5
July	43.6	22.0	16.8	5.2	-2.2	1.9	.	.	.	.

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
2000 July	38.8	23.5	12.3	7.0	-5.9	1.9	-3.8	-5.8	-1.5	2.9
Aug.	33.4	11.2	5.2	5.6	10.8	0.7	3.1	3.6	0.2	2.0
Sep.	19.2	3.4	2.6	2.1	10.4	0.7	34.1	4.8	10.1	14.9
Oct.	33.3	13.3	5.7	9.6	2.6	2.0	8.7	10.5	0.2	-5.6
Nov.	20.5	-2.8	4.4	5.2	11.9	1.9	19.2	7.0	8.4	5.4
Dec.	-35.2	-13.6	12.0	1.9	-36.4	0.9	25.4	9.2	1.2	10.4
					Euro area enlargement					
2001 Jan.	35.1	35.4	-1.8	0.2	0.1	1.2	-8.7	-4.6	-0.4	-3.9
Feb.	55.9	31.7	5.0	7.4	10.7	1.0	21.7	9.9	1.4	13.9
Mar.	55.4	12.2	7.1	11.6	22.8	1.7	47.6	17.7	8.8	14.8
Apr.	45.2	11.9	5.9	2.1	23.2	2.2	-9.1	-6.8	2.1	-4.2
May	44.8	-1.7	9.3	15.5	20.7	0.9	14.3	5.2	2.4	7.9
June	48.9	18.7	6.4	5.2	18.9	-0.4	39.2	14.7	6.5	10.2
July	48.0	18.0	16.6	8.3	1.7	3.5	.	.	.	.

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

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
0.0	0.1	-0.2	-9.6	-1.5	-2.3	-2.8	-3.5	0.8	-0.2	2000 July
0.0	0.1	-0.4	-0.2	-2.5	-1.3	2.0	2.6	-0.5	-0.4	Aug.
0.0	0.0	0.2	12.0	-4.6	4.6	10.6	0.8	0.4	0.2	Sep.
0.0	0.0	-0.2	-3.4	1.7	-2.1	-1.3	-1.5	-0.1	-0.2	Oct.
0.0	-0.2	-0.3	0.6	-3.2	3.1	2.7	-1.8	0.1	-0.3	Nov.
-0.1	0.2	0.4	-22.1	-5.8	1.1	4.5	-22.6	0.1	0.4	Dec.
					Euro area enlargement					
0.0	-0.1	-0.6	16.4	7.3	-2.2	-3.4	14.9	0.3	-0.6	2001 Jan.
0.0	0.1	-0.1	10.0	3.6	0.5	2.6	3.9	-0.5	-0.1	Feb.
0.1	-0.1	0.3	34.9	8.5	6.3	8.8	11.2	-0.1	0.3	Mar.
-0.1	0.0	-0.3	-7.7	-3.3	-3.4	-9.3	8.6	0.0	-0.3	Apr.
0.0	0.1	0.0	-4.4	-9.1	0.6	4.9	-1.1	0.3	0.0	May
0.1	0.0	0.1	8.5	7.8	5.2	3.0	-7.2	-0.4	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	
1.2	0.2	-0.5	44.6	19.2	13.1	12.7	-1.3	1.4	-0.5	2000 July
-0.4	-1.0	-1.0	36.7	17.3	6.7	5.6	7.7	0.4	-1.0	Aug.
0.5	4.3	-0.6	41.3	12.8	8.0	6.3	10.2	4.6	-0.6	Sep.
0.7	0.7	2.4	45.4	22.1	8.0	5.3	4.8	2.8	2.4	Oct.
0.4	-0.3	-1.2	39.1	7.4	9.8	7.9	14.0	1.3	-1.2	Nov.
-0.4	5.4	-1.0	12.3	1.4	12.2	7.8	-14.3	6.3	-1.0	Dec.
					Euro area enlargement					
-0.5	0.0	1.3	10.0	23.5	0.0	-0.3	-15.3	0.8	1.3	2001 Jan.
-2.1	0.7	-2.2	67.6	38.1	5.9	18.7	4.7	2.4	-2.2	Feb.
2.4	5.0	-1.5	68.1	21.4	9.7	17.7	14.1	6.8	-1.5	Mar.
0.8	0.0	-0.6	43.8	8.3	11.4	7.2	15.3	2.1	-0.6	Apr.
1.0	-1.1	-1.1	63.5	12.5	11.2	18.5	22.8	-0.4	-1.1	May
1.9	6.3	-0.6	79.5	25.6	7.7	12.4	28.1	6.3	-0.6	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	
1.2	0.2	-0.8	34.9	17.7	10.8	9.9	-4.8	2.1	-0.8	2000 July
-0.4	-0.9	-1.4	36.5	14.8	5.4	7.6	10.4	-0.2	-1.4	Aug.
0.5	4.3	-0.4	53.3	8.2	12.6	16.9	11.0	5.0	-0.4	Sep.
0.7	0.7	2.3	42.0	23.8	5.9	4.0	3.3	2.7	2.3	Oct.
0.3	-0.5	-1.5	39.7	4.2	12.8	10.5	12.2	1.4	-1.5	Nov.
-0.5	5.5	-0.6	-9.8	-4.4	13.3	12.3	-36.9	6.5	-0.6	Dec.
					Euro area enlargement					
-0.5	-0.1	0.7	26.4	30.8	-2.2	-3.7	-0.4	1.2	0.7	2001 Jan.
-2.1	0.8	-2.2	77.6	41.6	6.4	21.3	8.7	1.9	-2.2	Feb.
2.5	4.9	-1.1	103.0	29.8	16.0	26.4	25.2	6.6	-1.1	Mar.
0.7	-0.1	-0.9	36.1	5.0	8.0	-2.1	24.0	2.1	-0.9	Apr.
1.0	-1.0	-1.1	59.0	3.5	11.8	23.4	21.7	-0.2	-1.1	May
2.0	6.3	-0.5	88.1	33.4	12.9	15.4	20.9	5.9	-0.5	June
.	.	.	.	.	.	.	.	.	.	July

4 HICP and other prices in the euro area

Table 4.1

Harmonised Index of Consumer Prices [1)]

(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 (%) [2)]	100.0	100.0	61.9	61.9	38.1	38.1	100.0	100.0	61.9	38.1
	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	105.4	2.7	107.8	1.7	-	-	-	-
2000 Q2	105.9	2.1	105.1	2.3	107.4	1.7	105.7	0.6	104.8	107.5
Q3	106.6	2.5	105.7	2.9	108.5	1.8	106.6	0.8	105.8	108.0
Q4	107.2	2.7	106.7	3.2	108.2	1.8	107.3	0.7	106.8	108.5
2000 Sep.	107.0	2.8	106.4	3.3	108.2	1.8	107.0	0.6	106.5	108.2
Oct.	107.0	2.7	106.5	3.2	108.1	1.9	107.1	0.1	106.6	108.4
Nov.	107.3	2.9	106.8	3.4	108.2	1.8	107.4	0.3	106.9	108.6
Dec.	107.4	2.6	106.8	3.0	108.5	1.8	107.4	0.0	106.8	108.7
				Euro area enlargement						
2001 Q1	107.8	2.5	107.1	2.7	109.3	2.2	107.9	0.5	107.1	109.4
Q2	109.2	3.1	108.8	3.5	110.1	2.5	109.1	1.1	108.5	110.2
2001 Jan.	107.3	2.4	106.5	2.6	109.0	2.2	107.6	0.1	106.7	109.3
Feb.	107.9	2.6	107.1	2.8	109.5	2.2	107.9	0.3	107.1	109.3
Mar.	108.3	2.6	107.7	2.8	109.5	2.2	108.1	0.3	107.5	109.5
Apr.	108.8	2.9	108.3	3.4	109.9	2.4	108.7	0.5	108.0	110.2
May	109.4	3.4	109.1	3.8	110.0	2.5	109.2	0.4	108.8	110.2
June	109.5	3.0	109.1	3.4	110.4	2.5	109.3	0.1	108.9	110.4
July	109.4	2.8	108.4	3.0	111.3	2.5	109.2	-0.1	108.5	110.6
Aug.	109.4	2.7	108.3	2.8	111.4	2.5	109.3	0.1	108.6	110.8

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 (%) [2)]	20.3	12.3	8.0	41.6	32.1	9.5	10.0	6.2	2.4	13.9	5.6
	11	12	13	14	15	16	17	18	19	20	21
1998	1.6	1.4	2.0	0.1	0.9	-2.6	2.3	1.7	-1.0	2.2	1.8
1999	0.6	0.9	0.0	1.0	0.6	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
2000 Q2	0.9	1.0	0.7	3.1	0.6	12.3	1.5	2.5	-4.8	2.5	2.5
Q3	1.9	1.2	3.0	3.4	0.6	13.7	1.6	2.6	-4.2	2.5	2.5
Q4	2.2	1.3	3.5	3.7	1.0	13.7	1.8	2.8	-4.6	2.4	2.1
2000 Sep.	2.1	1.3	3.3	4.0	0.8	15.6	1.6	2.7	-4.3	2.5	2.3
Oct.	2.0	1.2	3.2	3.9	1.0	14.6	1.8	2.7	-4.9	2.5	2.2
Nov.	2.2	1.4	3.5	4.1	1.0	15.2	1.8	2.8	-4.4	2.4	2.0
Dec.	2.4	1.4	3.9	3.3	1.1	11.3	1.8	2.9	-4.5	2.2	2.1
				Euro area enlargement							
2001 Q1	3.2	1.9	5.3	2.5	1.2	7.2	1.9	3.2	-4.2	3.1	2.5
Q2	5.0	2.8	8.5	2.8	1.5	7.3	1.8	3.6	-2.8	3.3	2.7
2001 Jan.	2.7	1.6	4.5	2.6	1.1	7.8	1.9	3.3	-4.5	3.0	2.4
Feb.	3.1	2.0	4.7	2.7	1.1	8.2	1.9	3.2	-4.2	3.1	2.5
Mar.	3.9	2.2	6.7	2.3	1.3	5.6	1.8	3.1	-4.0	3.1	2.5
Apr.	4.4	2.5	7.3	2.9	1.5	7.8	1.8	3.6	-2.8	3.1	2.6
May	5.3	2.8	9.2	3.1	1.6	8.6	1.8	3.6	-2.8	3.5	2.6
June	5.4	3.0	9.0	2.4	1.6	5.5	1.8	3.5	-2.7	3.4	2.8
July	5.4	3.3	8.7	1.8	1.5	2.9	1.8	3.8	-2.4	3.2	2.8
Aug.	5.1	3.4	7.7	1.6	1.5	2.1	1.8	3.7	-2.7	3.3	2.8

Sources: Eurostat and ECB calculations.

1) Extended coverage from January 2000 and January 2001. The change affects annual percentage changes during 2000 and 2001, in particular services (miscellaneous). See the general notes for a brief explanation.

2) Referring to the index period 2001.

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]									Construction [4]	Manufacturing		Total excluding energy	
	Total		Industry excluding construction and energy						Energy					
	Index, 1995 = 100		Total	Intermediate goods	Capital goods	Consumer goods								
						Total	Durable consumer goods	Non-durable consumer goods						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1996	100.3	0.3	0.3	-1.8	1.3	1.7	2.0	1.7	0.7	1.4	0.9	6.5	-6.9	16.0
1997	101.4	1.1	0.6	0.2	0.3	1.1	0.6	1.2	3.0	1.2	0.8	10.0	12.9	17.0
1998	100.6	-0.8	0.2	-0.4	0.6	0.5	0.7	0.5	-5.1	0.3	-0.6	-21.2	-12.5	12.0
1999	100.2	-0.4	-0.6	-1.5	0.2	-0.1	0.7	-0.2	0.4	1.1	0.2	17.8	-3.1	17.1
2000	105.6	5.4	2.5	5.0	0.6	1.4	1.4	1.4	18.4	2.3	5.2	51.7	18.1	31.0
2000 Q3	106.4	5.9	2.9	5.8	0.7	1.5	1.5	1.6	19.0	2.0	5.5	46.7	18.0	33.7
Q4	107.9	6.1	3.0	5.2	0.8	2.2	1.7	2.3	19.6	3.0	5.4	37.7	16.4	34.5
2000 Sep.	107.3	6.3	2.9	5.8	0.7	1.7	1.6	1.7	21.1	-	5.9	50.3	21.4	37.2
Oct.	108.0	6.6	2.9	5.5	0.7	1.9	1.6	1.9	22.7	-	6.0	56.6	23.1	36.8
Nov.	108.2	6.4	3.0	5.3	0.8	2.2	1.7	2.3	21.0	-	5.6	45.6	18.2	37.7
Dec.	107.6	5.4	3.0	5.0	0.8	2.5	1.6	2.6	15.2	-	4.5	13.7	8.6	28.8
						Euro area enlargement								
2001 Q1	108.2	4.5	2.9	4.0	0.9	3.1	2.0	3.2	10.6	2.2	3.2	4.8	1.4	28.4
Q2	108.8	3.7	2.3	1.9	1.0	3.4	2.2	3.6	8.9	1.8	2.6	5.2	-0.9	31.7
Q3	.	.	.	.	.	.	.	.	.	.	.	-11.1	-9.4	29.0
2001 Jan.	107.9	4.8	3.0	4.5	0.9	2.8	1.9	2.9	12.1	-	3.6	8.4	3.3	27.3
Feb.	108.2	4.6	2.9	4.0	0.9	3.0	2.0	3.2	11.0	-	3.3	6.5	1.7	29.9
Mar.	108.4	4.2	2.9	3.4	0.9	3.4	2.2	3.6	8.9	-	2.8	-0.2	-0.8	28.1
Apr.	108.7	4.2	2.6	2.5	1.0	3.5	2.2	3.7	10.7	-	3.0	11.1	-1.1	29.8
May	108.9	3.7	2.3	1.8	1.0	3.4	2.2	3.6	9.2	-	2.7	1.9	-4.0	32.7
June	108.9	3.2	2.1	1.4	1.1	3.4	2.2	3.6	6.8	-	2.1	3.4	2.5	32.5
July	108.3	2.1	1.8	0.7	1.1	3.1	2.1	3.3	2.8	-	1.3	-1.1	-1.0	29.4
Aug.	108.2	1.7	1.6	0.2	1.2	3.1	2.1	3.2	1.4	-	0.9	-10.3	-10.1	28.7
Sep.	.	.	.	.	.	.	.	.	.	-	.	-20.4	-16.7	28.8

2. Deflators of gross domestic product [5]

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

	Total		Domestic demand				Exports [6]	Imports [6]
	Index, 1995 = 100			Private consumption	Government consumption	Gross fixed capital formation		
	15	16	17	18	19	20	21	22
1996	102.0	2.1	2.1	2.4	2.2	0.9	0.9	0.8
1997	103.6	1.5	1.7	2.0	1.3	1.0	1.8	2.6
1998	105.3	1.7	1.3	1.4	1.4	0.9	0.0	-1.4
1999	106.4	1.1	1.2	1.1	1.7	0.9	-0.5	-0.1
2000	107.8	1.3	2.5	2.2	1.9	2.5	4.7	8.2
1999 Q1	106.1	1.4	0.7	0.8	1.3	0.5	-2.3	-4.2
Q2	106.4	1.1	1.0	1.0	1.7	0.7	-1.5	-1.9
Q3	106.5	1.0	1.3	1.1	1.9	1.0	-0.2	0.9
Q4	106.8	0.9	1.7	1.5	2.0	1.4	1.9	4.3
2000 Q1	107.3	1.1	2.4	2.1	2.0	2.1	3.8	7.9
Q2	107.6	1.1	2.3	1.9	1.6	2.3	4.5	8.2
Q3	108.1	1.4	2.6	2.4	1.9	2.5	5.0	8.4
Q4	108.4	1.5	2.7	2.5	1.9	2.8	5.1	8.4
			Euro area enlargement					
2001 Q1	109.7	1.9	2.4	2.3	1.9	2.5	3.3	4.6

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

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

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

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

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

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

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

5 Real economy indicators in the euro area

Table 5.1

National accounts [1]

GDP and expenditure components

1. Current prices

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

	GDP								
	Total	Domestic demand					External balance [3]		
		Total	Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories [2]	Total	Exports [3]	Imports [3]
	1	2	3	4	5	6	7	8	9
1996	5,534.2	5,408.5	3,142.9	1,142.4	1,121.7	1.5	125.7	1,658.0	1,532.3
1997	5,647.1	5,498.1	3,199.0	1,150.7	1,138.0	10.4	149.0	1,829.0	1,680.0
1998	5,878.8	5,738.7	3,328.0	1,177.0	1,201.5	32.1	140.2	1,947.2	1,807.0
1999	6,134.5	6,029.1	3,492.0	1,229.7	1,286.0	21.4	105.4	2,047.3	1,941.9
2000	6,424.4	6,352.6	3,660.0	1,276.0	1,374.6	42.0	71.9	2,398.7	2,326.8
2000 Q1	1,582.2	1,560.5	900.8	315.1	336.7	7.9	21.7	566.0	544.3
Q2	1,598.9	1,582.3	911.9	317.6	341.8	11.0	16.6	585.8	569.2
Q3	1,614.2	1,596.4	920.3	320.0	347.1	8.9	17.8	612.1	594.3
Q4	1,629.1	1,613.4	927.0	323.2	349.0	14.2	15.7	634.8	619.1
				Euro area enlargement					
2001 Q1	1,682.3	1,656.3	960.7	331.6	358.6	5.4	26.0	641.9	615.9
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	Changes in inventories [2]	Total	Exports [3]	Imports [3]
	10	11	12	13	14	15	16	17	18
1996	5,383.5	5,263.0	3,045.0	1,112.0	1,106.0	0.1	120.5	1,637.7	1,517.2
1997	5,507.1	5,352.6	3,091.8	1,126.0	1,131.4	3.4	154.5	1,807.1	1,652.6
1998	5,663.0	5,540.5	3,185.4	1,139.7	1,189.0	26.5	122.4	1,934.7	1,812.2
1999	5,811.5	5,719.1	3,286.6	1,163.6	1,253.7	15.2	92.5	2,032.8	1,940.3
2000	6,008.7	5,880.4	3,370.5	1,185.7	1,308.1	16.2	128.3	2,276.5	2,148.3
2000 Q1	1,487.6	1,457.4	836.7	294.9	323.5	2.3	30.2	547.0	516.8
Q2	1,499.1	1,470.0	843.2	296.0	326.2	4.7	29.0	560.1	531.1
Q3	1,506.5	1,473.0	844.8	296.5	329.4	2.4	33.5	577.3	543.8
Q4	1,515.5	1,479.9	845.8	298.4	329.0	6.7	35.6	592.1	556.5
				Euro area enlargement					
2001 Q1	1,550.1	1,509.2	871.5	303.9	335.8	-2.0	40.9	600.2	559.3
Q2	1,550.9	1,514.1	876.7	304.3	333.1	0.0	36.7	592.9	556.2
(annual percentage changes)									
1996	1.4	1.0	1.6	1.7	1.2	-	-	4.3	3.1
1997	2.3	1.7	1.5	1.3	2.3	-	-	10.3	8.9
1998	2.8	3.5	3.0	1.2	5.1	-	-	7.1	9.7
1999	2.6	3.2	3.2	2.1	5.4	-	-	5.1	7.1
2000	3.4	2.8	2.6	1.9	4.3	-	-	12.0	10.7
2000 Q1	3.6	2.8	2.6	2.0	5.4	-	-	12.4	10.3
Q2	3.9	3.5	3.3	2.2	4.8	-	-	12.0	11.2
Q3	3.3	2.7	2.5	1.7	4.0	-	-	12.1	11.1
Q4	2.9	2.3	1.8	1.7	3.2	-	-	11.5	10.3
				Euro area enlargement					
2001 Q1	2.4	1.6	1.9	1.8	1.8	-	-	8.6	6.5
Q2	1.7	1.0	1.7	1.6	0.1	-	-	4.8	3.1

Source: Eurostat.

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

2) Including acquisitions less disposals of valuables.

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

Value added by 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
1996	5,172.4	139.7	1,207.0	300.7	1,059.5	1,333.2	1,132.4	200.6	562.4
1997	5,263.9	138.2	1,227.2	291.9	1,086.2	1,376.6	1,143.8	199.6	582.7
1998	5,463.0	138.0	1,274.6	295.0	1,135.7	1,441.2	1,178.4	200.0	615.8
1999	5,672.4	135.4	1,294.8	311.6	1,179.6	1,527.6	1,223.5	202.7	664.8
2000	5,944.5	137.0	1,372.1	326.5	1,231.1	1,614.0	1,263.8	211.6	691.5
2000 Q1	1,463.7	33.8	336.4	81.6	303.2	396.2	312.4	52.6	171.1
Q2	1,479.0	33.9	341.5	81.3	306.7	400.9	314.8	53.1	173.1
Q3	1,494.9	34.7	345.6	81.4	309.0	406.5	317.8	53.0	172.3
Q4	1,507.0	34.6	348.6	82.3	312.2	410.4	318.9	52.9	175.0
				Euro area enlargement					
2001 Q1	1,557.1	36.8	359.8	86.0	324.1	421.9	328.4	54.1	179.3
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
1996	5,040.3	139.5	1,178.0	295.5	1,039.6	1,288.2	1,099.4	200.2	543.4
1997	5,158.5	140.2	1,216.5	290.4	1,071.7	1,330.1	1,109.6	207.5	556.1
1998	5,305.3	142.5	1,253.2	292.0	1,110.6	1,382.0	1,125.0	213.8	571.5
1999	5,439.2	146.2	1,262.6	299.0	1,159.2	1,433.2	1,138.7	222.1	594.5
2000	5,634.0	146.1	1,321.9	304.6	1,207.3	1,496.9	1,157.2	231.5	606.2
2000 Q1	1,394.3	36.4	326.3	76.9	297.7	369.3	287.7	57.0	150.3
Q2	1,404.1	36.2	329.4	75.9	300.8	372.6	289.2	57.7	152.7
Q3	1,413.2	36.8	332.0	75.9	302.7	376.2	289.7	58.2	151.5
Q4	1,422.4	36.7	334.2	75.9	306.1	378.8	290.7	58.6	151.7
				Euro area enlargement					
2001 Q1	1,455.5	38.6	341.6	77.8	315.2	386.4	295.9	59.7	154.3
Q2	1,454.8	38.5	337.3	76.2	316.1	390.0	296.7	60.4	156.5
(annual percentage changes)									
1996	1.4	5.5	-0.3	-1.8	0.9	3.6	1.7	2.5	1.4
1997	2.3	0.4	3.3	-1.7	3.1	3.2	0.9	3.7	2.3
1998	2.8	1.7	3.0	0.6	3.6	3.9	1.4	3.1	2.8
1999	2.5	2.6	0.8	2.4	4.4	3.7	1.2	3.9	4.0
2000	3.6	-0.1	4.7	1.9	4.1	4.4	1.6	4.2	2.0
2000 Q1	3.7	0.6	4.8	3.6	3.9	4.9	1.5	4.8	2.6
Q2	3.9	-0.5	5.0	2.4	4.6	4.6	1.9	5.1	4.2
Q3	3.5	0.3	4.6	1.0	3.9	4.4	1.6	3.7	1.6
Q4	3.3	-0.7	4.4	0.5	4.1	3.9	1.5	3.5	-0.4
				Euro area enlargement					
2001 Q1	2.6	0.2	3.5	-1.2	3.6	3.3	1.3	3.5	0.6
Q2	1.9	0.4	1.3	-2.1	2.8	3.3	1.0	3.5	0.4

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
1997	3.6	104.8	4.3	4.7	6.2	4.9	2.5	1.8	2.6	0.1	0.2	4.9
1998	3.5	109.3	4.3	4.4	3.6	7.5	2.8	5.0	2.3	1.1	0.3	4.8
1999	1.9	111.4	2.0	1.8	1.5	2.4	1.7	1.4	1.7	1.3	2.9	2.0
2000	5.0	117.5	5.4	5.7	5.8	8.5	2.3	5.8	1.5	1.7	2.2	5.8
2000 Q2	5.5	117.3	6.2	6.2	6.3	8.4	3.9	8.3	3.0	2.2	2.3	6.5
Q3	5.2	118.5	5.9	6.1	5.9	9.5	2.6	5.2	2.0	2.5	1.0	6.3
Q4	4.4	119.6	5.0	5.4	5.2	8.7	2.1	4.2	1.7	-0.5	1.0	5.8
2000 Oct.	3.3	118.6	3.9	3.8	4.1	6.2	0.7	2.5	0.4	1.8	-0.4	4.3
Nov.	3.6	119.5	4.4	4.6	4.6	7.7	1.2	1.9	1.1	-0.4	0.7	5.0
Dec.	6.3	120.7	7.0	8.1	7.2	12.1	4.6	8.9	3.7	-2.7	3.2	8.2
Euro area enlargement												
2001 Q1	3.1	119.4	4.2	4.3	2.8	8.0	2.9	2.8	2.9	-1.4	-2.1	5.0
Q2	0.2	118.4	0.9	0.4	-0.5	1.8	0.4	-1.6	0.8	1.8	-3.6	0.7
2001 Jan.	4.2	118.9	5.0	5.3	4.1	9.9	2.6	3.6	2.4	-1.1	-0.5	6.0
Feb.	3.5	119.9	4.7	4.7	3.0	8.4	3.3	1.8	3.6	-0.9	-0.9	5.4
Mar.	1.7	119.3	3.0	3.1	1.5	6.0	2.7	3.0	2.7	-2.3	-4.6	3.7
Apr.	-0.1	118.3	0.8	0.3	-0.5	1.4	0.2	-1.8	0.6	0.7	-4.9	0.9
May	-0.6	117.9	0.0	-0.4	-1.4	1.1	-0.4	-3.4	0.2	3.0	-4.6	-0.4
June	1.2	119.1	1.7	1.3	0.3	2.8	1.3	0.3	1.6	2.0	-1.4	1.6
July	.	117.1	-1.5	-1.7	-2.6	-1.0	-1.0	-6.0	0.1	1.0	.	-1.7
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							
	Total		Total		Food, beverages, tobacco	Non-food			Thousands [3)] (s.a.)	
	Index 1995 = 100		Index 1995 = 100				Textiles, clothing, footwear	Household equipment		
	13	14	15	16	17	18	19	20	21	22
1997	104.1	2.2	101.6	1.2	1.1	1.3	0.7	1.4	861	4.2
1998	107.9	3.6	104.6	2.9	2.1	3.6	2.1	4.5	923	7.2
1999	111.6	3.4	107.3	2.6	3.1	2.5	1.3	3.0	973	5.4
2000	116.1	4.1	109.8	2.3	2.0	2.2	1.6	4.7	953	-2.2
2000 Q2	115.9	4.9	110.0	3.3	2.9	3.2	1.8	5.3	972	0.9
Q3	116.7	4.3	110.1	2.2	1.4	2.2	3.0	3.9	932	-7.8
Q4	118.0	3.7	110.5	1.6	1.3	1.4	0.5	3.5	926	-3.2
2000 Oct.	117.9	3.9	110.4	1.6	1.2	1.2	0.8	2.8	912	-6.9
Nov.	118.2	3.4	110.4	1.4	1.1	1.5	0.0	4.4	929	-3.2
Dec.	117.9	3.7	110.6	1.8	1.6	1.6	0.7	3.5	936	1.7
Euro area enlargement										
2001 Q1	119.6	4.6	111.2	2.3	1.9	2.5	2.4	1.2	950	-5.1
Q2	120.9	4.0	111.3	1.1	0.8	1.0	0.8	-0.6	1,012	1.8
2001 Jan.	119.7	5.4	111.4	2.8	2.6	3.3	4.9	3.2	943	-5.6
Feb.	119.5	3.4	111.3	1.6	1.6	1.3	0.0	0.4	955	-6.2
Mar.	119.6	5.0	111.1	2.5	1.5	2.8	2.4	0.0	954	-3.7
Apr.	120.5	3.9	111.5	1.3	1.2	1.2	1.2	-0.5	972	-1.8
May	120.9	2.9	111.2	0.2	0.1	0.0	-0.1	-1.9	999	0.0
June	121.3	5.1	111.3	1.7	1.1	1.9	1.5	0.5	1,066	7.3
July	121.5	4.2	111.6	1.4	1.8	1.4	1.1	-2.0	930	-1.1
Aug.	.	.	.	.	.	.	.	.	964	-0.9

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

Table 5.3

Business and consumer surveys

(percentage balances, seasonally adjusted, unless otherwise indicated)

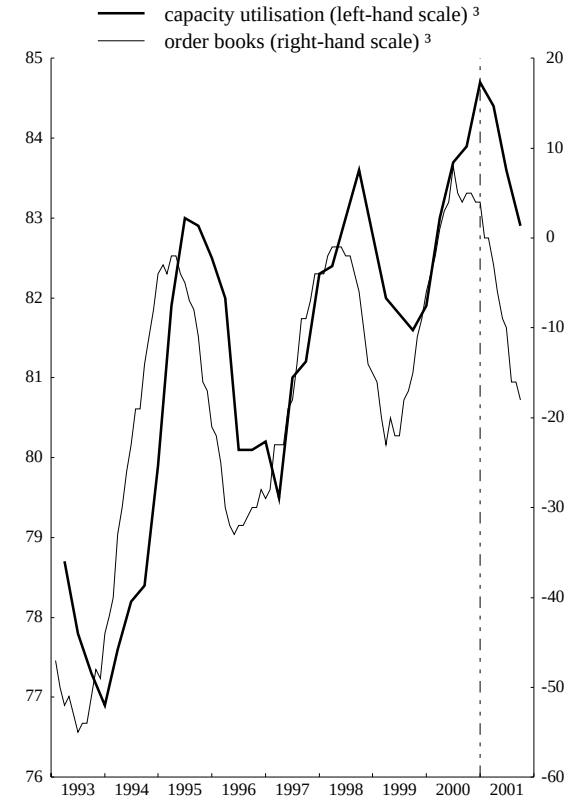
	Manufacturing industry				Construction confidence indicator	Retail trade confidence indicator	Consumer confidence indicator [2]
	Confidence indicator	Production expectations	Assessment of order books	Capacity utilisation [1] (percentages)			
	1	2	3	4	5	6	7
1997	-4	11	-15	81.0	-33	-9	-13
1998	-1	11	-5	83.0	-19	-3	-5
1999	-7	7	-17	81.8	-7	-5	-4
2000	5	17	3	83.8	1	-1	1
2000 Q3	6	18	5	83.9	2	-2	1
Q4	5	18	4	84.7	0	-3	1
2000 Sep.	6	18	5	-	-1	-1	-2
Oct.	6	19	5	-	2	-1	0
Nov.	5	17	4	-	-1	-3	0
Dec.	5	18	4	-	-2	-4	2
			Euro area enlargement				
2001 Q1	1	12	-1	84.4	-1	-2	1
Q2	-5	5	-8	83.6	-3	-6	-2
Q3	-10	2	-17	82.9	-7	-6	-8
2001 Jan.	3	14	0	-	1	0	1
Feb.	1	12	0	-	-2	0	1
Mar.	-1	9	-3	-	-2	-5	1
Apr.	-4	6	-6	-	-2	-4	0
May	-5	6	-9	-	-2	-7	-2
June	-7	3	-10	-	-5	-7	-3
July	-9	5	-16	-	-7	-4	-6
Aug.	-10	2	-16	-	-8	-8	-8
Sep.	-11	-1	-18	-	-5	-6	-9

Consumer and industrial confidence indicators

(percentage balances; monthly, seasonally adjusted)

Capacity utilisation and order books

(capacity utilisation, percentages, quarterly; order books, percentage balances, monthly; seasonally adjusted)



Source: European Commission Business and Consumer Surveys.

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

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

3) Manufacturing.

Table 5.4
Labour market indicators

1. Employment and unemployment in the whole economy [1]
(annual percentage changes, unless otherwise indicated)

	Employment						Unemployment (s.a.)			
	Total		By employment status		By selected sector		Total		Adult [2]	Youth [2]
	Index, 1995 = 100		Employees	Self-employed	Industry excluding construction	Services	Millions	% of labour force	% of labour force	% of labour force
	1	2	3	4	5	6	7	8	9	10
1996	100.6	0.6	0.5	0.4	-1.0	1.7	14.729	11.5	9.8	23.9
1997	101.4	0.8	0.9	0.1	-0.4	1.5	14.816	11.5	9.9	23.2
1998	103.1	1.6	1.8	0.4	1.2	2.2	14.064	10.8	9.4	21.2
1999	104.8	1.7	2.2	-0.4	0.0	2.6	12.965	9.9	8.6	19.1
2000	106.9	2.0	2.4	0.3	0.7	2.8	11.663	8.9	7.7	17.1
2000 Q2	106.8	2.1	2.5	0.0	0.7	2.9	11.784	8.9	7.8	17.3
Q3	107.2	2.0	2.3	0.4	0.9	2.8	11.484	8.7	7.6	16.8
Q4	107.8	2.1	2.3	1.1	1.2	2.8	11.217	8.5	7.4	16.4
2000 Aug.	-	-	-	-	-	-	11.495	8.7	7.6	16.9
Sep.	-	-	-	-	-	-	11.383	8.6	7.5	16.7
Oct.	-	-	-	-	-	-	11.282	8.6	7.5	16.5
Nov.	-	-	-	-	-	-	11.214	8.5	7.4	16.4
Dec.	-	-	-	-	-	-	11.156	8.5	7.4	16.3
Euro area enlargement										
2001 Q1	108.2	2.0	2.2	0.8	1.3	2.4	11.497	8.4	7.3	16.5
Q2	.	.	.	.	.	.	11.400	8.4	7.3	16.5
2001 Jan.	-	-	-	-	-	-	11.573	8.5	7.4	16.6
Feb.	-	-	-	-	-	-	11.485	8.4	7.3	16.5
Mar.	-	-	-	-	-	-	11.432	8.4	7.3	16.5
Apr.	-	-	-	-	-	-	11.401	8.4	7.3	16.5
May	-	-	-	-	-	-	11.405	8.4	7.3	16.5
June	-	-	-	-	-	-	11.392	8.4	7.3	16.5
July	-	-	-	-	-	-	11.367	8.3	7.3	16.4
Aug.	-	-	-	-	-	-	11.341	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
1996	1.9	3.0	1.1	3.4	3.0	4.4	3.6	4.0	3.6
1997	0.7	2.2	1.6	2.6	2.6	2.6	2.1	2.8	2.3
1998	0.1	1.3	1.2	1.7	2.1	0.9	1.6	1.5	2.2
1999	1.3	2.2	0.9	2.3	2.5	1.5	2.6	1.9	2.7
2000	1.0	2.4	1.3	3.3	3.6	2.5	3.3	3.0	2.7
1999 Q2	1.8	2.3	0.5	2.2	2.4	1.4	2.4	2.1	2.9
Q3	1.2	2.1	0.9	2.5	2.7	1.7	2.8	2.2	2.9
Q4	0.3	2.1	1.8	2.8	3.0	1.9	3.0	1.9	2.5
2000 Q1	0.4	2.4	2.1	3.2	3.5	2.6	3.5	3.2	3.0
Q2	0.4	2.0	1.6	3.3	3.6	2.6	3.4	3.0	2.9
Q3	1.2	2.3	1.0	3.4	3.7	2.5	3.3	2.9	2.5
Q4	1.7	2.1	0.4	3.3	3.6	2.2	3.0	3.0	2.3
Euro area enlargement									
2001 Q1	2.0	2.2	0.2	3.0	3.4	1.7	2.8	2.8	3.2
Q2	.	.	.	2.8	3.3	1.4	2.8	2.1	.

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

1) *Data for employment are based on the ESA 95. Due to differences in coverage, quarterly data are not fully consistent with annual data. Data for unemployment follow ILO recommendations.*
2) *Adult: 25 years and over; youth: below 25 years; expressed as a percentage of the labour force for the relevant age group.*
3) *Hourly labour costs for the whole economy, excluding the agriculture, public administration, education and health sectors. Owing to differences in coverage, components are not consistent with the total.*

6 Saving, investment and financing in the euro area

Table 6.1

Financial investment and financing of non-financial sectors [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
1997 Q4	4,685.2	320.5	4,072.2	1,158.1	1,466.3	1,322.5	125.3	153.9	138.7	215.8
1998 Q1	4,642.3	311.7	4,050.9	1,133.2	1,457.0	1,342.7	118.0	139.4	140.2	247.2
Q2	4,699.0	315.4	4,100.3	1,204.9	1,452.7	1,341.9	100.8	147.4	135.8	239.7
Q3	4,677.4	311.7	4,074.2	1,184.2	1,451.1	1,341.4	97.4	156.4	135.1	237.6
Q4	4,827.6	323.3	4,212.9	1,282.9	1,465.0	1,386.3	78.6	149.8	141.6	213.0
1999 Q1	4,677.3	317.7	4,077.8	1,239.1	1,466.3	1,306.5	66.0	133.4	148.4	243.9
Q2	4,703.6	323.9	4,116.3	1,321.8	1,420.2	1,315.9	58.4	125.0	138.4	242.7
Q3	4,715.2	327.3	4,115.1	1,324.5	1,418.6	1,313.3	58.7	133.3	139.4	238.6
Q4	4,861.6	349.9	4,217.6	1,370.5	1,460.7	1,323.4	63.0	142.0	152.1	229.7
2000 Q1	4,839.8	334.6	4,225.0	1,379.6	1,465.5	1,303.2	76.8	130.2	150.0	260.6
Q2	4,896.6	341.2	4,259.4	1,409.6	1,488.5	1,282.5	78.9	146.0	150.1	247.2
Q3	4,916.4	338.9	4,268.6	1,396.8	1,526.4	1,263.5	81.9	159.3	149.7	254.1
Q4	5,033.0	347.5	4,364.3	1,464.4	1,545.0	1,269.3	85.6	164.6	156.6	230.9
					Euro area enlargement					
2001 Q1	.	335.4	4,502.4	1,446.2	1,625.5	1,314.7	115.9	150.3	.	.
Q2	.	332.2	4,585.7	1,524.1	1,619.7	1,321.0	120.8	164.6	.	.

	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
	11	12	13	14	15	16	17	18	19	20
1997 Q4	1,572.4	204.6	1,367.7	2,692.0	1,529.7	1,162.4	184.9	2,384.1	2,129.4	254.7
1998 Q1	1,589.7	196.4	1,393.3	3,204.5	1,881.1	1,323.4	186.5	2,463.8	2,199.6	264.2
Q2	1,538.5	172.2	1,366.2	3,421.4	1,992.2	1,429.2	186.7	2,522.3	2,255.9	266.4
Q3	1,532.6	161.2	1,371.3	3,130.2	1,686.9	1,443.3	187.9	2,567.8	2,298.7	269.1
Q4	1,524.1	157.6	1,366.5	3,446.3	1,924.1	1,522.2	172.8	2,631.5	2,362.4	269.1
1999 Q1	1,564.3	136.9	1,427.4	3,670.9	2,032.9	1,638.1	194.8	2,706.9	2,428.2	278.7
Q2	1,504.6	130.4	1,374.2	3,917.0	2,176.1	1,741.0	211.4	2,774.8	2,494.1	280.7
Q3	1,506.9	119.3	1,387.6	4,000.0	2,249.1	1,750.9	208.7	2,841.0	2,557.5	283.4
Q4	1,538.9	147.2	1,391.7	4,507.0	2,669.4	1,837.6	199.1	2,956.0	2,669.1	286.9
2000 Q1	1,533.6	146.0	1,387.6	4,810.0	2,873.1	1,936.9	208.4	3,042.7	2,742.2	300.5
Q2	1,586.0	145.5	1,440.5	4,760.5	2,840.5	1,920.0	197.2	3,096.9	2,793.8	303.1
Q3	1,645.6	162.2	1,483.4	4,898.8	2,964.8	1,934.0	201.6	3,148.8	2,842.3	306.4
Q4	1,702.7	177.2	1,525.5	5,051.8	3,123.3	1,928.5	203.7	3,215.4	2,906.5	308.8
					Euro area enlargement					
2001 Q1	.	.	.	.	.	.	.	.	.	.
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. These are currency and deposits, securities other than shares, loans (except those granted by general government and non-financial corporations), quoted shares, mutual fund shares and insurance technical reserves. Other financial instruments (financial derivatives, unquoted shares, other (than share) equity and other receivables and payables) are not included.*
3) *BIS international banking statistics. The BIS definition of banks is close to that of MFIs.*
4) *Covering deposits with euro area central government (S.1311), other financial intermediaries (S.123) and insurance corporations and pension funds (S.125).*
5) *Excluding unquoted shares.*

Table 6.1 (cont'd)

Financial investment and financing of non-financial sectors [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		General government			Non-financial corporations			Households [4]			
		Taken from euro area MFIs	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
1997 Q4	5,840.6	5,321.0	923.7	54.2	869.5	2,405.9	837.7	1,568.1	2,511.1	225.0	2,286.1	141.6
1998 Q1	5,896.5	5,360.2	907.3	35.5	871.8	2,449.7	853.7	1,596.0	2,539.5	224.0	2,315.4	146.9
Q2	6,005.7	5,453.3	902.1	31.7	870.4	2,502.7	877.2	1,625.5	2,600.8	233.4	2,367.4	151.3
Q3	6,079.9	5,523.9	903.2	33.2	870.1	2,526.7	864.3	1,662.4	2,650.0	233.9	2,416.2	147.4
Q4	6,223.5	5,660.2	911.2	35.9	875.3	2,598.2	902.1	1,696.1	2,714.1	240.3	2,473.8	150.8
1999 Q1	6,252.9	5,673.9	903.0	36.1	866.9	2,585.5	917.9	1,667.5	2,764.4	251.3	2,513.1	156.8
Q2	6,421.6	5,814.2	900.5	38.7	861.7	2,683.4	960.0	1,723.4	2,837.7	255.3	2,582.4	183.3
Q3	6,487.1	5,882.6	885.9	37.7	848.1	2,697.4	938.9	1,758.5	2,903.8	255.1	2,648.7	191.4
Q4	6,669.1	6,040.0	900.6	42.1	858.5	2,795.0	979.6	1,815.4	2,973.5	264.2	2,709.3	201.4
2000 Q1	6,811.5	6,155.5	890.4	41.1	849.3	2,894.2	1,039.0	1,855.2	3,026.8	265.5	2,761.3	221.1
Q2	6,959.5	6,261.4	884.1	42.0	842.1	2,996.3	1,091.1	1,905.2	3,079.1	274.1	2,805.0	219.7
Q3	7,100.9	6,378.0	863.5	39.9	823.6	3,105.1	1,146.9	1,958.2	3,132.3	275.9	2,856.4	252.2
Q4	7,273.0	6,500.4	880.2	42.0	838.2	3,203.9	1,161.2	2,042.6	3,189.0	281.6	2,907.3	257.5
Euro area enlargement												
2001 Q1	.	6,671.9	.	.	.	.	.	.	.	.	.	.
Q2	.	6,759.4	.	.	.	.	.	.	.	.	.	.

	Securities other than shares issued by							Quoted shares issued by non-financial corporations	Deposit liabilities of central government	Pension fund reserves of non-financial corporations
	Total	General government			Non-financial corporations					
		Total	Short-term	Long-term	Total	Short-term	Long-term			
	13	14	15	16	17	18	19	20	21	22
1997 Q4	3,636.8	3,333.9	504.3	2,829.5	302.9	45.8	257.1	1,972.6	135.2	236.2
1998 Q1	3,754.0	3,434.4	491.3	2,943.1	319.6	55.7	263.9	2,428.8	136.3	239.1
Q2	3,817.0	3,495.0	489.7	3,005.2	322.1	53.9	268.1	2,643.9	134.2	242.1
Q3	3,909.0	3,576.1	491.4	3,084.7	332.9	55.5	277.4	2,275.2	133.8	245.1
Q4	3,915.0	3,581.5	462.8	3,118.6	333.5	54.9	278.5	2,590.3	140.3	248.2
1999 Q1	3,972.5	3,624.7	463.5	3,161.2	347.8	66.2	281.7	2,686.6	146.9	251.2
Q2	3,956.4	3,601.3	452.9	3,148.4	355.1	67.2	287.9	2,929.4	136.6	254.3
Q3	3,942.9	3,573.6	446.1	3,127.5	369.4	75.4	294.0	3,037.5	137.6	257.4
Q4	3,907.2	3,527.0	421.5	3,105.5	380.2	78.6	301.6	3,896.1	149.8	260.8
2000 Q1	3,959.4	3,573.1	417.9	3,155.2	386.4	80.7	305.7	4,319.8	147.6	263.6
Q2	4,005.1	3,599.9	421.8	3,178.1	405.1	90.6	314.6	4,074.7	147.6	266.6
Q3	4,043.2	3,618.0	416.7	3,201.3	425.2	97.5	327.7	3,975.6	147.2	269.0
Q4	4,082.4	3,634.5	401.4	3,233.1	447.9	103.1	344.7	3,791.3	153.7	271.4
Euro area enlargement										
2001 Q1	.	.	.	.	.	.	.	.	.	.
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. These are currency and deposits, securities other than shares, loans (except those granted by general government and non-financial corporations), quoted shares, mutual fund shares and insurance technical reserves. Other financial instruments (financial derivatives, unquoted shares, other (than share) equity and other receivables and payables) are not included.*
3) *BIS international banking statistics. The BIS definition of banks is close to that of MFIs.*
4) *Including non-profit institutions serving households.*
5) *Including all loans taken by central government from MFIs in the euro area.*

Transactions

1. Main financial assets [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
1997 Q4	130.4	9.4	111.5	73.9	5.1	37.6	-5.1	3.2	6.3	-13.3
1998 Q1	-45.8	-8.8	-24.1	-25.8	-11.1	20.1	-7.3	-14.5	1.6	29.0
Q2	52.1	3.6	44.8	68.0	-5.9	-0.5	-16.7	8.0	-4.4	-4.9
Q3	-14.6	-3.7	-19.2	-18.0	2.3	-0.3	-3.3	9.0	-0.7	4.0
Q4	149.8	11.6	138.3	98.0	14.4	44.8	-18.9	-6.6	6.5	-23.6
1999 Q1	-39.0	-5.2	-36.4	-19.2	-15.1	10.5	-12.7	-4.2	6.8	21.5
Q2	22.4	6.2	34.5	81.3	-48.5	9.3	-7.6	-8.4	-9.9	-4.4
Q3	13.4	3.4	0.7	3.6	-0.6	-2.6	0.3	8.3	1.0	-1.9
Q4	139.8	22.3	96.1	44.2	37.8	9.9	4.2	8.7	12.7	-14.1
2000 Q1	-27.8	-15.3	1.5	6.7	1.4	-20.4	13.7	-11.9	-2.1	25.4
Q2	51.0	6.7	28.5	31.5	16.8	-21.8	2.1	15.8	0.0	-13.1
Q3	7.4	-2.2	-3.2	-17.0	29.3	-18.5	2.9	13.3	-0.4	-2.0
Q4	128.8	8.6	108.0	71.3	26.9	6.0	3.8	5.3	6.9	-17.4
				Euro area enlargement						
2001 Q1	.	-19.8	12.2	-34.2	39.1	-6.1	13.4	-15.6	.	.
Q2	.	-3.2	80.4	75.3	-5.8	6.1	4.8	14.3	.	.

	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
	11	12	13	14	15	16	17	18	19	20
1997 Q4	5.2	-7.7	12.8	64.1	47.3	16.7	-12.4	53.6	51.8	1.8
1998 Q1	-27.3	-8.4	-19.0	78.9	-20.2	99.1	7.1	66.9	54.6	12.4
Q2	-71.1	-25.0	-46.1	114.6	21.3	93.3	-0.2	46.9	44.9	2.0
Q3	-6.0	-11.0	5.0	115.1	29.3	85.8	0.8	43.2	40.6	2.6
Q4	-11.8	-1.6	-10.1	73.2	54.5	18.7	-16.2	50.2	48.2	1.9
1999 Q1	22.5	-12.9	35.4	109.3	8.0	101.3	0.0	70.5	58.1	12.5
Q2	-35.3	-11.1	-24.1	147.5	59.2	88.4	16.5	54.3	51.7	2.7
Q3	-5.2	-9.8	4.6	93.7	55.6	38.1	-2.5	56.6	53.4	3.2
Q4	52.0	24.4	27.6	-3.5	29.6	-33.1	-9.6	74.1	71.8	2.4
2000 Q1	-24.7	3.5	-28.2	-4.7	-39.1	34.4	5.0	83.9	71.0	12.9
Q2	46.8	-0.6	47.4	93.4	80.3	13.1	-14.3	56.1	53.3	2.8
Q3	68.9	17.2	51.7	156.3	144.2	12.0	1.1	55.3	52.0	3.3
Q4	7.5	7.3	0.3	267.1	200.0	67.1	-0.9	63.7	61.3	2.4
				Euro area enlargement						
2001 Q1	.	.	.	.	.	.	.	.	.	.
Q2	.	.	.	.	.	.	.	.	.	.

Source: ECB.

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

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). 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		General government			Non-financial corporations			Households [4]			
		Taken from euro area MFIs	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
1997 Q4	154.6	146.2	21.1	4.4	16.7	67.4	27.7	39.7	66.2	6.6	59.5	-16.4
1998 Q1	68.0	43.9	-15.7	-18.5	2.8	55.8	27.1	28.6	28.0	-0.7	28.7	3.9
Q2	116.7	110.6	-5.5	-3.7	-1.9	54.4	22.1	32.3	67.8	9.4	58.4	6.4
Q3	78.3	81.0	2.6	1.4	1.2	25.7	-15.9	41.6	50.0	0.5	49.5	-0.4
Q4	161.9	150.8	8.8	2.8	6.1	76.8	37.6	39.2	76.3	6.7	69.5	-2.1
1999 Q1	76.2	68.2	-6.9	0.1	-7.0	10.6	20.1	-9.5	72.5	8.9	63.6	1.0
Q2	164.4	138.9	-4.3	2.6	-6.9	93.9	40.1	53.8	74.7	3.9	70.9	23.6
Q3	70.7	71.2	-14.7	-1.0	-13.7	18.5	-17.3	35.7	67.0	-0.3	67.3	8.5
Q4	171.8	151.9	15.0	4.3	10.7	88.3	38.2	50.1	68.5	8.9	59.6	-6.8
2000 Q1	139.0	108.4	-8.9	-0.9	-8.1	93.1	56.7	36.4	54.8	1.4	53.3	14.8
Q2	156.7	116.6	-6.9	0.8	-7.7	109.5	57.1	52.5	54.1	8.4	45.6	-0.9
Q3	122.9	93.4	-16.9	-2.1	-14.8	91.6	48.4	43.2	48.3	0.3	48.0	22.3
Q4	187.1	140.0	17.0	2.1	14.9	110.9	18.9	92.0	59.2	6.0	53.2	11.7
					Euro area enlargement							
2001 Q1	.	77.5	.	.	.	.	.	.	.	.	.	.
Q2	.	83.9	.	.	.	.	.	.	.	.	.	.

	Securities other than shares issued by							Quoted shares issued by non-financial corporations	Deposit liabilities of central government	Pension fund reserves of non-financial corporations
	Total	General government			Non-financial corporations					
		Total	Short-term	Long-term	Total	Short-term	Long-term			
	13	14	15	16	17	18	19	20	21	22
1997 Q4	-7.9	-3.7	-31.9	28.2	-4.2	-7.5	3.3	44.1	6.9	2.3
1998 Q1	63.8	53.4	-11.4	64.9	10.4	9.6	0.9	11.3	1.1	2.4
Q2	52.8	49.9	-1.3	51.2	2.9	-1.8	4.7	37.6	-2.1	2.4
Q3	61.0	53.7	2.0	51.7	7.3	1.4	5.9	10.9	-0.4	2.4
Q4	-10.7	-16.2	-31.0	14.9	5.4	0.8	4.7	40.8	6.4	2.2
1999 Q1	76.5	61.7	5.5	56.2	14.7	11.0	3.8	10.9	6.6	2.5
Q2	42.2	33.0	-8.5	41.5	9.1	0.9	8.3	36.1	-10.3	2.5
Q3	53.5	34.9	-8.4	43.4	18.5	8.1	10.4	34.4	1.0	2.5
Q4	-8.4	-15.3	-27.8	12.5	6.9	3.1	3.8	42.0	12.1	2.6
2000 Q1	62.6	62.2	10.7	51.5	0.4	1.7	-1.3	22.3	-2.2	2.4
Q2	43.9	24.1	-0.9	25.1	19.7	10.0	9.7	31.5	0.0	2.4
Q3	51.9	25.6	-2.7	28.3	26.2	7.7	18.5	72.8	-0.4	2.4
Q4	2.9	-25.2	-27.0	1.8	28.1	5.6	22.4	51.9	6.4	2.4
				Euro area enlargement						
2001 Q1	.	.	.	.	.	.	.	.	.	.
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. These are currency and deposits, securities other than shares, loans (except those granted by general government and non-financial corporations), quoted shares, mutual fund shares and insurance technical reserves. Other financial instruments (financial derivatives, unquoted shares, other (than share) equity and other receivables and payables) are not included.*
3) *BIS international banking statistics. The BIS definition of banks is close to that of MFIs.*
4) *Including non-profit institutions serving households.*
5) *Including all loans taken by central government from MFIs in the euro area.*

Table 6.2

Saving, investment and financing

(as a percentage of GDP, unless otherwise indicated)

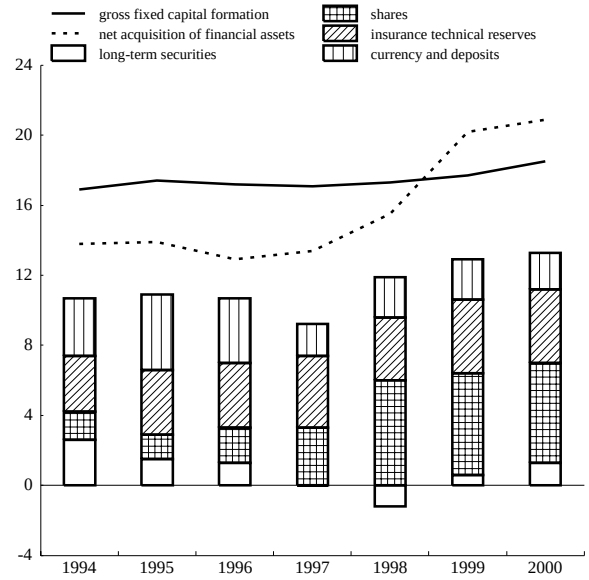
	Euro area saving and investment [1]			Investment of private non-financial sectors [1] [2]							
	Gross saving	Gross fixed capital formation	Net lending to the rest of the world	Gross fixed capital formation	Non-financial corporations	Net acquisition of financial assets	Currency and deposits	Securities other than shares	Long-term securities	Shares	Insurance technical reserves
	1	2	3	4	5	6	7	8	9	10	11
1993	20.2	20.3	0.5	16.8	10.6	13.0	5.5	0.4	0.9	0.5	3.0
1994	20.6	20.1	0.2	16.9	10.3	13.8	3.3	2.4	2.6	1.6	3.2
1995	21.9	20.6	0.5	17.4	10.8	13.9	4.3	1.8	1.5	1.4	3.7
1996	21.6	20.3	0.9	17.2	10.8	12.9	3.7	0.2	1.3	2.0	3.7
1997	22.1	20.1	1.5	17.1	10.7	13.4	1.8	-0.6	0.0	3.3	4.1
1998	22.0	20.3	0.9	17.3	11.0	15.5	2.3	-2.0	-1.2	6.0	3.6
1999	22.0	20.8	0.2	17.7	11.3	20.2	2.3	0.8	0.6	5.8	4.2
2000	22.0	21.3	-0.2	18.5	12.1	20.9	2.1	2.0	1.3	5.7	4.2

	Financing of private non-financial sectors [1] [2]								Net financial investment [3]	Financial investment as a % of gross investment [4]	Net incurrence of liabilities as a % of financing [5]
	Gross saving	Households	Net incurrence of liabilities	Securities other than shares	Long-term securities	Shares	Loans	Long-term loans			
	12	13	14	15	16	17	18	19	20	21	22
1993	20.8	12.8	7.7	1.2	1.4	1.4	3.7	4.5	5.3	43.6	27.0
1994	20.7	11.8	9.6	1.0	1.1	1.6	3.7	3.8	4.2	45.0	31.7
1995	21.8	12.1	7.4	-1.8	-1.7	1.4	4.8	3.6	6.5	44.4	25.3
1996	21.3	11.9	8.8	0.2	0.0	1.6	5.7	4.8	4.1	42.9	29.2
1997	20.6	11.4	9.5	0.1	0.1	1.3	5.9	4.7	3.9	43.9	31.6
1998	19.7	10.5	12.5	0.4	0.3	2.4	7.6	5.9	3.0	47.3	38.8
1999	18.6	9.8	17.6	0.8	0.4	3.2	9.7	7.6	2.6	53.3	48.6
2000	18.7	9.7	21.0	1.3	0.8	3.6	10.6	7.1	-0.1	53.0	52.9

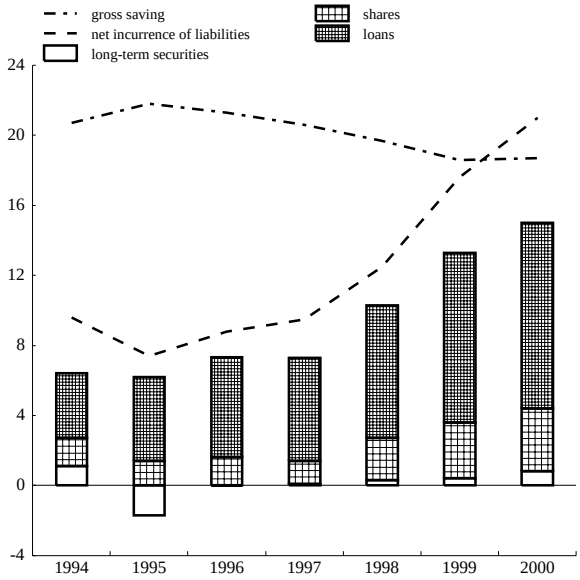
Investment and financing of private non-financial sectors [1] [2]

(as a percentage of GDP)

Investment



Financing



Source: ECB.

1) *Selected items of investment and financing.*
2) *Private non-financial sectors comprise non-financial corporations, households and non-profit institutions serving households.*
3) *Column 6 - column 14.*
4) *Column 6 ÷ (column 4 + column 6).*
5) *Column 14 ÷ (column 12 + column 14).*

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

Table 7.1

Revenue, expenditure and deficit / surplus [1]

(as a percentage of GDP)

1. Euro area – revenue

	Total	Current revenue	Direct taxes			Indirect taxes		Social contributions			Sales	Capital revenue	Capital taxes	Memo: fiscal burden [2]
				Households	Corporations		Received by EU institutions		Employers	Employees				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1991	46.4	46.0	11.8	9.5	2.2	13.0	0.9	16.7	8.5	5.1	2.3	0.4	0.2	41.7
1992	47.4	46.7	11.9	9.8	2.0	13.0	0.9	17.1	8.6	5.2	2.4	0.7	0.6	42.5
1993	48.0	47.5	12.1	10.0	2.1	13.2	0.8	17.4	8.6	5.3	2.5	0.5	0.3	43.0
1994	47.5	47.1	11.6	9.5	2.0	13.5	0.8	17.5	8.5	5.4	2.5	0.4	0.2	42.7
1995	47.2	46.6	11.6	9.5	2.0	13.3	0.9	17.3	8.4	5.6	2.5	0.5	0.3	42.6
1996	48.0	47.5	12.0	9.6	2.3	13.4	0.8	17.6	8.7	5.6	2.5	0.5	0.3	43.3
1997	48.3	47.6	12.2	9.6	2.6	13.6	0.7	17.6	8.8	5.6	2.5	0.7	0.4	43.7
1998	47.7	47.2	12.4	9.9	2.5	14.1	0.7	16.5	8.5	4.9	2.5	0.5	0.3	43.3
1999	48.3	47.8	12.8	10.1	2.7	14.4	0.6	16.5	8.5	5.0	2.4	0.6	0.3	43.9
2000	47.9	47.4	13.0	10.1	2.7	14.2	0.6	16.3	8.5	4.9	2.4	0.5	0.3	43.8

2. Euro area – expenditure

	Total	Current expenditure								Capital expenditure				Memo: primary expenditure [4]
		Total	Compensation of employees	Intermediate consumption	Interest	Current transfers	Subsidies				Investment	Capital transfers		
							Social payments [3]		Paid by EU institutions				Paid by EU institutions	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1991	51.1	46.3	11.2	5.0	5.3	24.9	21.0	2.4	0.6	4.8	3.2	1.6	0.0	45.8
1992	52.2	47.5	11.4	5.0	5.6	25.5	21.9	2.3	0.5	4.7	3.2	1.5	0.0	46.6
1993	53.6	49.1	11.6	5.2	5.8	26.5	22.8	2.4	0.6	4.6	3.1	1.6	0.1	47.8
1994	52.6	48.3	11.3	5.0	5.5	26.5	22.9	2.3	0.5	4.4	2.9	1.5	0.1	47.1
1995	52.2	47.7	11.2	4.8	5.7	26.1	22.8	2.2	0.6	4.5	2.7	1.8	0.1	46.5
1996	52.2	48.3	11.2	4.8	5.7	26.6	23.2	2.2	0.6	4.0	2.6	1.4	0.0	46.6
1997	50.8	47.1	11.0	4.7	5.1	26.2	23.1	2.1	0.5	3.7	2.4	1.3	0.1	45.7
1998	49.9	46.0	10.7	4.7	4.7	25.9	22.7	2.0	0.5	3.9	2.4	1.5	0.1	45.2
1999	49.6	45.5	10.7	4.7	4.2	25.9	22.6	2.0	0.5	4.1	2.5	1.6	0.1	45.4
2000	48.7	44.7	10.5	4.7	4.0	25.5	22.2	1.9	0.5	3.9	2.5	1.4	0.1	43.6

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

	Deficit (-) / surplus (+)					Primary deficit (-) / surplus (+)	Government consumption [5]							
	Total	Central government	State government	Local government	Social security funds		Total	Compensation of employees	Intermediate consumption	Transfers in kind via market producers	Consumption of fixed capital	Sales (minus)	Government collective consumption	Government individual consumption
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1991	-4.7	-4.6	-0.3	-0.2	0.3	0.6	20.4	11.2	5.0	4.8	1.8	-2.3	8.6	11.7
1992	-4.8	-4.2	-0.3	-0.2	0.0	0.8	20.7	11.4	5.0	4.9	1.8	-2.4	8.7	12.0
1993	-5.7	-5.0	-0.4	-0.2	-0.1	0.2	21.1	11.6	5.2	5.0	1.9	-2.5	8.9	12.2
1994	-5.1	-4.4	-0.5	-0.2	0.0	0.4	20.8	11.3	5.0	5.1	1.8	-2.5	8.6	12.1
1995	-5.0	-4.2	-0.5	-0.1	-0.3	0.7	20.5	11.2	4.8	5.1	1.8	-2.5	8.5	12.0
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	20.3	11.0	4.7	5.1	1.8	-2.5	8.4	12.0
1998	-2.2	-2.2	-0.2	0.2	0.0	2.5	20.0	10.7	4.7	5.1	1.7	-2.5	8.1	11.8
1999	-1.3	-1.6	-0.1	0.1	0.4	2.9	20.0	10.7	4.7	5.1	1.7	-2.4	8.2	11.9
2000	-0.8	-1.3	-0.1	0.2	0.5	3.2	19.9	10.5	4.7	5.1	1.7	-2.4	8.1	11.8

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

	BE	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI
	1	2	3	4	5	6	7	8	9	10	11	12
1997	-2.0	-2.7	-4.0	-3.2	-3.0	1.2	-2.7	3.4	-1.1	-1.9	-2.7	-1.5
1998	-0.8	-2.2	-2.4	-2.6	-2.7	2.3	-2.8	3.5	-0.8	-2.4	-2.4	1.3
1999	-0.6	-1.6	-1.8	-1.1	-1.6	2.3	-1.8	3.7	0.4	-2.2	-2.1	1.9
2000	0.1	1.2	-1.1	-0.3	-1.3	4.5	-0.3	6.1	2.2	-1.1	-1.5	6.9

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

1) *Revenue, expenditure and deficit / surplus based on the ESA 95, but the figures exclude proceeds from sales of UMTS licences in 2000 (the euro area deficit / surplus including those proceeds is equal to 0.4). Data before 1995 are partially estimated. Transactions between countries and EU institutions are included and consolidated. Transactions among governments are not consolidated.*
2) *The fiscal burden comprises taxes and social contributions.*
3) *Comprises social benefits, social transfers in kind via market producers and transfers to non-profit institutions serving households.*
4) *Comprises total expenditure minus interest expenditure.*
5) *Corresponds to final consumption expenditure (P.3) of the general government in the ESA 95.*

Table 7.2

Debt [1]

(as a percentage of GDP)

1. Euro area – government debt by financial instrument and sector of the holder

	Total	Financial instrument				Holder				
		Coins and deposits	Loans	Short-term securities	Long-term securities	Domestic creditors [2]				Other creditors [3]
						Total	MFIs	Other financial corporations	Other sectors	
	1	2	3	4	5	6	7	8	9	10
1991	57.4	2.6	16.1	9.6	29.1	48.1	24.7	7.2	16.2	9.2
1992	60.9	2.6	16.8	10.1	31.5	50.2	26.4	7.5	16.4	10.7
1993	67.2	2.7	17.6	9.9	37.0	52.5	27.6	8.5	16.3	14.8
1994	70.0	2.9	16.8	10.3	40.0	56.2	29.9	9.9	16.4	13.8
1995	74.2	2.9	18.3	9.8	43.1	58.6	30.5	10.9	17.1	15.6
1996	75.4	2.9	17.8	9.9	44.8	59.2	30.3	13.2	15.8	16.2
1997	74.9	2.8	17.0	8.9	46.1	57.2	29.1	14.4	13.7	17.7
1998	73.1	2.8	15.8	7.9	46.6	53.6	27.0	16.2	10.4	19.6
1999	72.0	2.9	14.8	6.9	47.5	50.1	25.3	14.9	9.9	22.0
2000	69.6	2.7	13.6	6.3	47.0	46.4	22.9	13.5	10.0	23.2

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
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1991	57.4	46.6	4.5	6.0	0.3	11.8	45.6	4.8	17.7	18.8	20.9	56.3	1.7	1.1
1992	60.9	49.7	4.7	6.1	0.4	12.2	48.7	6.3	17.8	20.9	22.2	59.6	2.1	1.3
1993	67.2	55.2	5.2	6.3	0.6	11.9	55.3	6.7	18.5	24.3	24.5	65.5	2.7	1.7
1994	70.0	57.9	5.4	6.1	0.5	11.2	58.8	7.4	16.6	26.6	26.8	68.1	2.8	1.9
1995	74.2	61.7	5.7	6.0	0.8	10.6	63.6	6.9	17.6	26.3	30.3	72.3	2.7	1.9
1996	75.4	62.9	6.1	5.9	0.5	10.2	65.2	6.3	19.2	25.3	30.9	73.5	2.5	1.9
1997	74.9	62.3	6.3	5.6	0.6	8.8	66.0	6.0	18.6	25.2	31.0	72.8	2.6	2.0
1998	73.1	61.0	6.3	5.4	0.3	7.7	65.4	5.5	16.3	25.9	30.9	71.4	2.9	1.7
1999	72.0	60.2	6.2	5.3	0.3	7.0	65.1	5.0	14.4	26.8	30.9	70.2	-	1.8
2000	69.6	58.1	6.1	5.1	0.3	5.6	64.0	4.4	14.5	27.4	27.7	67.8	-	1.8

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
1997	125.3	61.0	108.2	66.7	59.3	65.1	120.2	6.1	69.9	64.7	58.9	54.1
1998	119.7	60.9	105.0	64.7	59.5	54.8	116.4	6.4	66.8	63.9	54.7	48.8
1999	115.9	61.3	103.9	63.4	58.5	49.3	114.6	6.0	63.1	64.7	54.5	47.3
2000	110.3	60.3	102.7	60.7	57.6	38.6	110.5	5.3	56.1	63.1	53.7	44.0

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
1991	5.2	5.1	0.0	0.2	-0.1	0.2	1.2	0.0	3.9	.	.	.	.
1992	6.8	5.6	0.4	0.7	0.1	0.1	1.6	1.0	4.0	4.8	3.1	0.6	1.9
1993	8.1	7.5	0.3	0.1	0.1	0.2	1.3	0.1	6.4	3.7	2.0	1.2	4.4
1994	6.1	5.2	0.2	0.7	0.0	0.4	0.0	0.9	4.8	6.3	3.6	1.8	-0.3
1995	7.7	5.5	0.2	2.2	-0.2	0.2	2.4	0.0	5.2	5.2	2.2	1.5	2.5
1996	3.8	4.2	-0.2	0.1	-0.3	0.1	0.2	0.4	3.2	2.7	0.8	2.6	1.1
1997	2.3	2.4	0.2	-0.2	0.0	0.0	-0.1	-0.6	3.0	0.2	-0.1	1.8	2.1
1998	1.6	1.9	-0.2	0.0	0.0	0.1	-0.4	-0.6	2.6	-1.1	-0.8	2.4	2.7
1999	1.6	1.3	0.3	0.0	0.0	0.2	-0.5	-0.7	2.6	-1.5	-0.7	-0.7	3.1
2000	0.8	0.8	0.1	-0.1	0.0	-0.1	-0.5	-0.3	1.7	-1.5	-1.3	-0.7	2.3

2. Euro area – deficit-debt adjustment

	Change in debt	Deficit (-) / surplus (+) [8]	Deficit-debt adjustment [9]											
			Total	Transactions in main financial assets held by general government							Valuation effects		Other changes in volume	Other [11]
				Total	Currency and deposits	Securities [10]	Loans	Shares and other equity	Privatisations	Equity injections		Exchange rate effects		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1991	5.2	-4.7	0.5	1.1	0.3	0.1	0.4	0.2	-0.1	0.2	0.0	0.1	0.2	-0.8
1992	6.8	-4.8	2.0	0.8	0.2	0.1	0.3	0.2	-0.1	0.2	0.4	0.3	0.7	0.1
1993	8.1	-5.7	2.4	1.3	1.0	0.2	0.3	-0.2	-0.3	0.1	0.3	0.3	0.1	0.6
1994	6.1	-5.1	1.0	0.2	0.0	0.1	0.3	-0.1	-0.4	0.2	0.2	0.0	0.7	-0.1
1995	7.7	-5.0	2.7	0.6	0.0	-0.1	0.5	0.1	-0.4	0.2	0.2	0.0	2.2	-0.3
1996	3.8	-4.3	-0.4	-0.1	-0.1	0.0	0.0	-0.1	-0.3	0.2	-0.2	-0.1	0.1	-0.3
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	-0.6	0.2	0.0	-0.2	-0.6	-0.8	0.1	-0.2	0.0	0.0	0.3
1999	1.6	-1.3	0.3	0.0	0.4	0.2	0.1	-0.7	-0.8	0.1	0.3	0.2	0.0	0.0
2000	0.8	0.3	1.1	1.0	0.9	0.2	0.1	-0.2	-0.4	0.1	0.1	0.0	-0.1	0.1

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)] ÷ 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

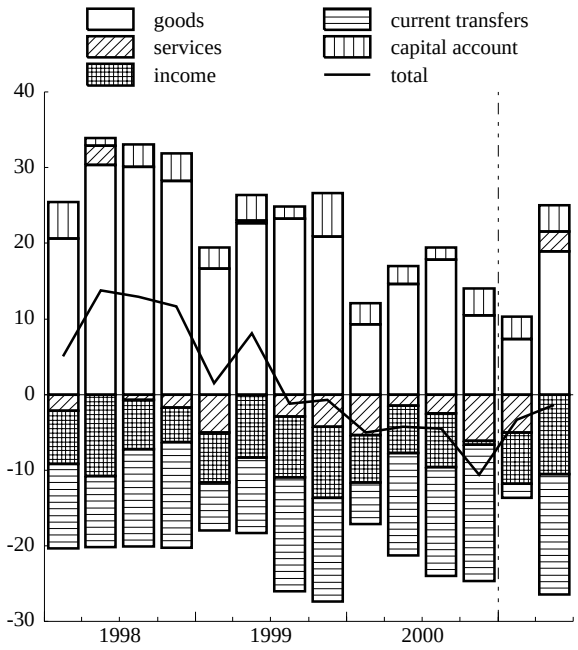
Summary balance of payments [1) 2)]

(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	61.5	115.7	3.1	-15.2	-42.2	13.0	.	-44.5	-24.3	.	.	.	.
1998	31.1	109.3	-2.0	-28.8	-47.4	12.4	-61.2	-83.2	-99.7	-7.5	120.9	8.2	17.8
1999	-5.8	83.4	-11.8	-32.4	-45.0	13.5	19.1	-120.6	-41.7	8.1	163.1	10.2	-26.8
2000	-34.7	52.2	-15.3	-20.2	-51.4	10.4	6.8	-22.8	-128.9	-1.1	142.0	17.5	17.5
2000 Q2	-6.6	14.7	-1.4	-6.3	-13.5	2.4	-2.9	-18.2	51.9	4.8	-45.3	3.8	7.2
Q3	-6.1	17.9	-2.5	-7.1	-14.4	1.6	-14.0	-94.3	3.5	0.4	71.9	4.5	18.5
Q4	-14.2	10.4	-6.1	-0.5	-17.9	3.6	-24.0	-58.4	8.4	-8.8	24.1	10.7	34.6
2000 May	-0.1	4.4	-0.3	-1.0	-3.1	0.6	10.5	-8.7	1.9	0.3	15.7	1.3	-11.0
June	-0.6	5.9	0.2	-1.5	-5.3	0.2	-16.2	-10.6	55.8	2.3	-66.1	2.3	16.5
July	-2.2	8.1	0.0	-4.6	-5.8	0.5	-12.0	-24.6	-12.9	-0.4	26.3	-0.4	13.8
Aug.	-3.9	4.1	-0.6	-1.6	-5.8	0.2	0.6	-41.1	13.6	-0.9	27.8	1.2	3.1
Sep.	0.1	5.7	-1.9	-0.9	-2.9	0.9	-2.5	-28.6	2.8	1.8	17.8	3.7	1.6
Oct.	-3.4	4.6	-1.8	0.2	-6.4	0.3	3.5	-17.6	5.2	-1.7	16.9	0.7	-0.4
Nov.	-3.5	2.9	-1.0	0.2	-5.5	1.6	-10.9	-9.9	-2.4	-3.0	-3.3	7.7	12.8
Dec.	-7.3	2.9	-3.3	-0.9	-6.0	1.8	-16.6	-30.9	5.6	-4.1	10.5	2.3	22.1
						Euro area enlargement							
2001 Q1	-6.3	7.4	-5.0	-6.8	-1.9	3.0	12.8	-42.9	-38.2	-2.8	87.2	9.6	-9.5
Q2	-4.9	18.9	2.6	-10.5	-15.9	3.5	-8.4	-48.2	31.7	-0.5	6.1	2.5	9.8
2001 Jan.	-9.4	-3.2	-2.4	-6.5	2.7	1.3	-2.9	-10.0	-42.2	-4.8	51.9	2.4	11.0
Feb.	2.3	3.6	-1.0	0.3	-0.5	1.5	-3.2	0.2	-2.1	-0.9	-4.9	4.5	-0.6
Mar.	0.9	7.0	-1.6	-0.5	-4.0	0.2	18.9	-33.1	6.2	3.0	40.2	2.7	-19.9
Apr.	-3.3	5.3	0.3	-4.7	-4.2	2.2	11.8	0.1	-20.9	1.1	24.6	7.0	-10.7
May	-0.8	5.3	1.8	-2.6	-5.3	0.5	-4.6	-40.4	24.9	3.4	11.1	-3.6	4.9
June	-0.8	8.3	0.5	-3.2	-6.4	0.8	-15.6	-7.9	27.7	-5.0	-29.5	-0.8	15.5
July	-4.1	8.5	0.9	-8.1	-5.4	0.4	-12.0	7.2	1.6	-4.8	-16.0	0.0	15.7

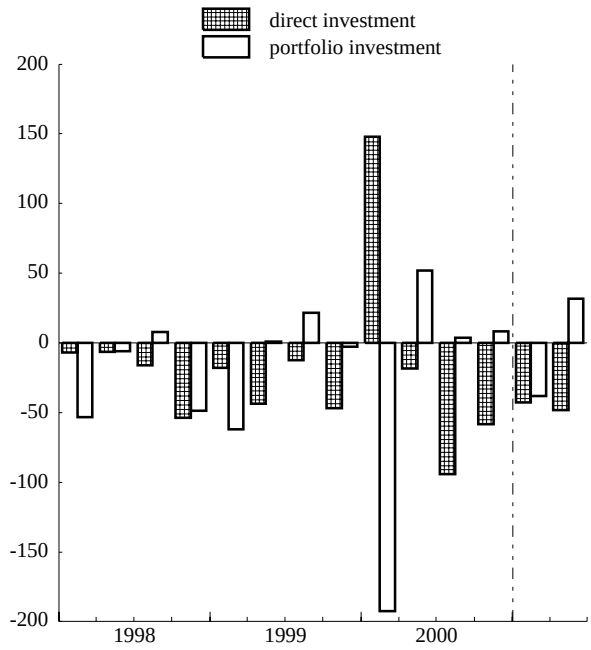
Current and capital accounts

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



Direct and portfolio investment

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



Source: ECB.

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

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

Table 8.2

Balance of payments: current and capital accounts [1)]

(EUR billions (ECU billions to end-1998))

1. Main items

	Current account											Capital account	
	Total			Goods		Services		Income		Current transfers			
	Credit 1	Debit 2	Net 3	Credit 4	Debit 5	Credit 6	Debit 7	Credit 8	Debit 9	Credit 10	Debit 11	Credit 12	Debit 13
1997	1,212.9	1,151.4	61.5	749.1	633.4	214.2	211.0	189.5	204.7	60.1	102.3	18.9	5.9
1998	1,270.2	1,239.2	31.1	779.2	669.9	229.8	231.9	198.5	227.3	62.7	110.0	17.7	5.3
1999	1,335.6	1,341.4	-5.8	814.5	731.1	241.5	253.3	213.2	245.6	66.4	111.5	19.7	6.2
2000	1,578.4	1,613.2	-34.7	979.1	926.9	270.2	285.5	262.3	282.5	66.9	118.3	19.3	8.8
2000 Q2	387.7	394.3	-6.6	239.0	224.3	66.8	68.3	66.9	73.2	14.9	28.4	4.7	2.4
Q3	391.5	397.6	-6.1	244.6	226.7	70.7	73.2	64.2	71.3	11.9	26.4	4.3	2.7
Q4	439.7	453.9	-14.2	274.4	263.9	74.1	80.2	76.5	77.0	14.8	32.7	5.9	2.3
2000 May	137.7	137.8	-0.1	84.8	80.4	23.0	23.3	23.9	24.9	6.1	9.2	1.7	1.1
June	133.9	134.5	-0.6	82.0	76.1	23.5	23.2	24.2	25.6	4.3	9.6	1.0	0.8
July	131.6	133.8	-2.2	82.4	74.4	24.3	24.3	20.9	25.5	3.9	9.7	1.1	0.6
Aug.	123.8	127.8	-3.9	77.0	73.0	23.8	24.4	19.4	21.0	3.6	9.4	1.5	1.3
Sep.	136.1	136.0	0.1	85.2	79.4	22.6	24.5	23.9	24.8	4.4	7.3	1.7	0.8
Oct.	146.2	149.6	-3.4	93.6	89.0	25.0	26.7	24.1	23.9	3.6	10.0	0.9	0.6
Nov.	145.9	149.4	-3.5	93.7	90.8	23.8	24.8	23.4	23.3	5.0	10.5	2.2	0.6
Dec.	147.6	154.9	-7.3	87.1	84.2	25.4	28.7	28.9	29.8	6.2	12.3	2.9	1.1
					Euro area enlargement								
2001 Q1	423.7	430.0	-6.3	253.2	245.8	68.5	73.5	72.4	79.1	29.6	31.5	4.4	1.5
Q2	428.3	433.2	-4.9	262.1	243.2	76.7	74.0	74.9	85.4	14.7	30.6	5.2	1.7
2001 Jan.	141.1	150.5	-9.4	79.3	82.4	22.4	24.8	23.8	30.4	15.6	12.9	1.8	0.5
Feb.	135.1	132.8	2.3	81.8	78.2	22.4	23.4	23.0	22.7	7.9	8.4	1.9	0.4
Mar.	147.5	146.7	0.9	92.1	85.1	23.7	25.3	25.6	26.1	6.1	10.2	0.7	0.5
Apr.	138.1	141.4	-3.3	84.0	78.7	24.3	24.0	24.2	28.9	5.6	9.8	2.6	0.4
May	146.2	147.0	-0.8	88.9	83.6	26.7	24.9	25.8	28.4	4.8	10.1	1.4	0.9
June	144.0	144.8	-0.8	89.1	80.8	25.6	25.1	24.9	28.1	4.3	10.7	1.2	0.4
July	147.9	152.0	-4.1	90.0	81.6	28.6	27.7	24.5	32.6	4.8	10.1	1.0	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
1999 Q2	330.2	328.4	1.8	195.9	174.9	60.5	62.3	56.5	63.8	17.3	27.5
Q3	336.7	341.6	-4.8	208.3	188.2	60.6	64.4	51.4	59.8	16.5	29.2
Q4	350.2	356.1	-5.9	216.6	198.7	62.4	66.8	52.8	62.2	18.3	28.4
2000 Q1	361.6	364.1	-2.5	226.0	208.7	63.2	65.2	55.9	63.1	16.6	27.1
Q2	382.6	393.5	-10.9	237.7	225.1	65.5	69.2	61.9	67.3	17.4	31.9
Q3	402.0	411.0	-8.9	251.2	236.8	67.5	71.2	67.9	75.4	15.4	27.6
Q4	432.1	445.7	-13.6	263.9	256.3	73.8	80.0	76.9	77.3	17.4	32.0
2000 May	135.2	133.8	1.4	82.8	77.2	22.3	23.0	23.5	23.1	6.7	10.5
June	124.7	131.1	-6.3	77.8	75.1	21.5	23.2	20.2	22.0	5.2	10.7
July	129.1	135.1	-6.0	80.7	77.7	22.3	23.3	21.2	24.0	4.8	10.2
Aug.	134.2	138.7	-4.5	84.3	79.2	22.4	23.5	22.5	26.3	5.0	9.7
Sep.	138.6	137.1	1.5	86.2	79.9	22.8	24.4	24.1	25.1	5.5	7.7
Oct.	141.4	144.5	-3.1	86.5	83.8	24.2	25.7	25.4	24.7	5.2	10.3
Nov.	144.4	148.8	-4.3	88.0	85.7	24.6	26.3	25.8	26.0	6.1	10.8
Dec.	146.3	152.4	-6.1	89.5	86.9	25.0	28.0	25.7	26.6	6.1	10.9
					Euro area enlargement						
2001 Q1	430.8	431.9	-1.1	261.5	245.2	75.9	76.7	74.3	81.3	19.1	28.8
Q2	424.8	434.2	-9.4	262.1	246.5	75.3	76.0	70.0	78.0	17.3	33.7
2001 Jan.	143.6	143.1	0.5	86.6	81.0	25.0	25.1	25.4	28.6	6.6	8.4
Feb.	144.7	144.6	0.2	87.9	82.9	25.9	25.9	24.7	26.1	6.2	9.5
Mar.	142.5	144.3	-1.8	87.0	81.3	25.0	25.6	24.2	26.5	6.3	10.9
Apr.	143.6	145.5	-1.9	87.6	81.6	25.6	25.4	23.8	27.7	6.6	10.7
May	143.6	143.8	-0.1	87.1	81.1	25.8	25.2	25.2	26.3	5.6	11.1
June	137.6	144.9	-7.4	87.5	83.8	23.9	25.4	21.0	23.9	5.2	11.9
July	141.4	150.3	-8.9	85.0	83.3	25.2	25.6	25.3	30.7	5.9	10.7

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							
					Total		Direct investment		Portfolio investment		Other investment	
	Credit 1	Debit 2	Credit 3	Debit 4	Credit 5	Debit 6	Credit 7	Debit 8	Credit 9	Debit 10	Credit 11	Debit 12
1999	213.2	245.6	12.4	5.0	200.8	240.6	44.1	45.4	64.1	105.9	92.6	89.4
2000	262.3	282.5	12.6	5.2	249.7	277.3	67.8	59.4	67.6	103.6	114.3	114.3
2000 Q1	54.7	61.0	3.1	1.1	51.5	59.9	13.3	13.5	13.5	21.7	24.8	24.7
Q2	66.9	73.2	3.0	1.4	64.0	71.9	19.2	13.8	17.2	30.8	27.6	27.3
Q3	64.2	71.3	3.1	1.4	61.1	69.9	15.4	15.1	17.7	26.6	28.1	28.3
Q4	76.5	77.0	3.4	1.3	73.0	75.7	20.0	17.1	19.3	24.6	33.8	34.0
					Euro area enlargement							
2001 Q1	72.4	79.1	3.4	1.1	69.0	78.0	17.1	14.7	18.1	26.6	33.8	36.7

	Income on direct investment				Income on portfolio investment							
	Equity		Debt		Equity		Debt instruments					
							Total		Bonds and notes		Money market instruments	
	Credit 13	Debit 14	Credit 15	Debit 16	Credit 17	Debit 18	Credit 19	Debit 20	Credit 21	Debit 22	Credit 23	Debit 24
1999	37.7	41.5	6.4	3.8	9.6	32.5	54.5	73.4	51.7	71.7	2.9	1.7
2000	57.9	52.1	9.9	7.4	11.5	37.8	56.0	65.8	.	.	.	.
2000 Q1	11.0	12.0	2.3	1.5	1.9	5.8	11.6	15.9	.	.	.	.
Q2	16.9	12.2	2.3	1.6	3.5	17.2	13.7	13.5	.	.	.	.
Q3	13.2	13.1	2.2	2.0	3.1	7.9	14.6	18.7	.	.	.	.
Q4	16.8	14.8	3.2	2.3	3.1	6.9	16.2	17.6	.	.	.	.
					Euro area enlargement							
2001 Q1	14.4	12.3	2.6	2.4	2.4	7.0	15.7	19.6	.	.	.	.

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 intercompany loans	Total	Equity capital and reinvested earnings	Other capital, mostly intercompany loans
	1	2	3	4	5	6
1997	-93.1	.	.	48.6	.	.
1998	-175.0	.	.	91.8	.	.
1999	-286.8	-212.2	-74.6	166.2	126.8	39.5
2000	-339.7	-270.1	-69.6	316.9	197.0	120.0
2000 Q2	-71.9	-44.8	-27.1	53.7	19.3	34.5
Q3	-117.9	-111.7	-6.2	23.7	15.5	8.2
Q4	-86.6	-80.5	-6.1	28.3	-29.0	57.3
2000 May	-33.8	-15.2	-18.6	25.1	11.4	13.7
June	-22.1	-22.2	0.2	11.5	2.7	8.8
July	-19.8	-27.9	8.1	-4.7	5.4	-10.2
Aug.	-54.0	-56.1	2.1	13.0	3.6	9.3
Sep.	-44.1	-27.7	-16.4	15.4	6.4	9.1
Oct.	-33.7	-32.3	-1.5	16.2	10.6	5.6
Nov.	-30.5	-25.5	-5.0	20.5	8.6	12.0
Dec.	-22.4	-22.7	0.3	-8.4	-48.1	39.7
			Euro area enlargement			
2001 Q1	-59.9	-28.5	-31.4	17.0	27.6	-10.7
Q2	-72.9	-61.2	-11.7	24.7	14.8	9.8
2001 Jan.	-17.8	-11.7	-6.2	7.8	5.4	2.4
Feb.	-16.0	-3.3	-12.8	16.3	14.7	1.6
Mar.	-26.0	-13.6	-12.4	-7.1	7.5	-14.6
Apr.	-6.6	-10.3	3.8	6.7	2.5	4.2
May	-48.4	-41.6	-6.7	8.0	7.7	0.3
June	-18.0	-9.3	-8.7	10.0	4.7	5.4
July	-6.0	-11.8	5.8	13.2	5.4	7.8

Source: ECB.

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

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	-327.6	227.9	-105.5	105.9	-222.1	-203.8	-18.2	122.0	108.3	13.7
1999	-309.6	267.8	-155.4	106.0	-154.1	-153.6	-0.5	161.8	109.0	52.8
2000	-409.6	280.8	-286.8	13.5	-122.9	-114.9	-8.0	267.3	231.0	36.2
2000 Q2	-85.2	137.0	-54.3	52.4	-30.9	-24.6	-6.3	84.6	50.7	33.9
Q3	-91.8	95.3	-56.1	29.7	-35.7	-30.8	-4.9	65.6	73.6	-8.1
Q4	-78.8	87.2	-59.5	37.1	-19.3	-20.9	1.6	50.1	59.9	-9.8
2000 May	-28.1	29.9	-18.6	8.4	-9.5	-6.1	-3.4	21.5	18.4	3.1
June	-29.1	84.9	-18.2	47.0	-10.9	-9.4	-1.5	38.0	19.3	18.7
July	-36.9	24.0	-26.2	5.7	-10.7	-8.3	-2.4	18.3	25.3	-7.0
Aug.	-23.9	37.5	-20.4	18.2	-3.5	-1.5	-2.0	19.4	18.0	1.4
Sep.	-30.9	33.7	-9.5	5.8	-21.5	-21.0	-0.4	27.9	30.4	-2.5
Oct.	-18.4	23.6	-9.1	4.1	-9.4	-11.4	2.1	19.5	26.9	-7.4
Nov.	-29.5	27.1	-16.8	6.8	-12.7	-11.6	-1.1	20.3	24.6	-4.3
Dec.	-30.9	36.5	-33.6	26.2	2.7	2.1	0.6	10.3	8.4	1.9
				Euro area enlargement						
2001 Q1	-83.3	45.1	-28.5	20.9	-54.9	-38.1	-16.7	24.2	15.9	8.3
Q2	-57.6	89.3	-32.1	103.5	-25.6	-34.5	9.0	-14.1	-0.2	-13.9
2001 Jan.	-36.7	-5.5	-20.2	0.2	-16.5	-7.0	-9.5	-5.7	-12.0	6.3
Feb.	-28.9	26.8	-12.6	12.4	-16.3	-16.1	-0.2	14.4	12.8	1.6
Mar.	-17.7	23.9	4.3	8.3	-22.0	-15.0	-7.0	15.6	15.1	0.5
Apr.	-8.1	-12.8	-11.3	8.5	3.2	-3.4	6.6	-21.3	-11.3	-10.1
May	-21.8	46.7	-9.7	58.4	-12.1	-13.5	1.4	-11.7	-6.7	-5.0
June	-27.7	55.4	-11.0	36.5	-16.7	-17.7	1.0	18.9	17.7	1.2
July	-12.4	14.0	-8.4	12.8	-4.0	-7.9	3.9	1.2	3.0	-1.8

2. Assets by instrument and sector of holder

	Equity				Debt instruments							
					Bonds and notes				Money market instruments			
	Euro-system	General govern-ment	MFIs (excl. the Euro-system)	Other sectors	Euro-system	General govern-ment	MFIs (excl. the Euro-system)	Other sectors	Euro-system	General govern-ment	MFIs (excl. the Euro-system)	Other sectors
	1	2	3	4	5	6	7	8	9	10	11	12
1999	0.1	-2.1	-1.7	-151.8	0.1	-1.7	-15.2	-136.8	0.9	-0.1	-7.5	6.2
2000	-0.1	-2.4	-4.6	-279.7	-1.9	-1.2	-45.5	-66.2	2.1	-0.3	3.3	-13.1
2000 Q1	0.0	-0.7	1.7	-117.9	-1.2	-0.1	-15.5	-21.7	1.2	0.1	3.2	-2.8
Q2	0.0	-0.7	1.5	-55.1	0.6	-0.7	-7.7	-16.8	0.0	0.0	1.3	-7.5
Q3	-0.1	-0.4	-2.8	-52.8	-2.3	-0.4	-19.4	-8.8	0.5	-1.3	-1.0	-3.1
Q4	0.0	-0.6	-5.0	-53.9	0.9	0.0	-2.9	-18.9	0.6	0.9	-0.2	0.4
					Euro area enlargement							
2001 Q1	-0.1	-0.4	-11.0	-16.9	1.0	-0.6	-18.2	-20.3	-1.6	-0.1	-18.2	3.2

Source: ECB.

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

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

Table 8.6

Balance of payments: other investment account and reserve assets

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

1. Other investment by sector [1) 2)]

	Total		Eurosystem		General government		MFIs (excluding the Eurosystem)						Other sectors	
							Total		Long-term		Short-term			
	Assets 1	Liabilities 2	Assets 3	Liabilities 4	Assets 5	Liabilities 6	Assets 7	Liabilities 8	Assets 9	Liabilities 10	Assets 11	Liabilities 12	Assets 13	Liabilities 14
1998	-82.3	203.2	-0.7	3.5	-1.0	-7.6	-22.6	192.5	-37.6	40.5	15.0	152.0	-58.0	14.9
1999	-20.9	184.0	0.0	4.6	2.8	-12.5	18.2	159.6	-46.4	54.4	64.6	105.2	-41.9	32.3
2000	-189.0	331.0	0.0	-1.7	-4.0	2.5	-128.2	273.9	-46.9	47.7	-81.3	226.2	-56.8	56.4
2000 Q2	-29.3	-16.0	0.0	3.1	1.0	-0.3	-21.1	-20.7	-4.9	7.6	-16.2	-28.3	-9.3	2.0
Q3	-29.2	101.1	0.0	-1.7	-4.0	1.4	-14.3	72.3	-9.6	8.9	-4.7	63.4	-11.0	29.0
Q4	-51.6	75.7	0.0	2.0	5.0	4.1	-62.9	59.2	-21.3	11.2	-41.6	48.0	6.3	10.4
2000 May	-14.0	29.7	0.0	-2.4	0.5	0.6	-9.1	27.8	-0.5	-0.8	-8.5	28.7	-5.4	3.6
June	19.6	-85.7	0.0	2.3	0.2	-0.4	18.8	-85.7	1.0	2.6	17.8	-88.3	0.6	-2.0
July	5.4	20.9	0.0	-1.6	3.5	1.2	9.3	16.6	-7.0	7.6	16.3	8.9	-7.4	4.7
Aug.	-26.2	54.0	0.0	-1.8	-1.5	1.0	-19.3	24.8	-0.7	-1.1	-18.6	25.9	-5.3	30.0
Sep.	-8.5	26.2	0.0	1.7	-6.0	-0.7	-4.2	31.0	-1.9	2.4	-2.3	28.6	1.7	-5.7
Oct.	-11.0	27.9	0.0	0.3	8.2	1.6	-18.9	24.8	-3.1	6.4	-15.8	18.5	-0.3	1.1
Nov.	-50.6	47.3	0.0	0.7	-3.2	0.9	-48.8	48.1	-6.5	7.4	-42.4	40.7	1.4	-2.3
Dec.	10.0	0.5	0.0	1.0	0.0	1.5	4.8	-13.8	-11.7	-2.6	16.5	-11.1	5.2	11.6
						Euro area enlargement								
2001 Q1	-140.1	227.2	0.0	-3.1	2.5	-8.6	-133.8	250.0	-9.1	1.6	-124.7	248.3	-8.8	-11.1
Q2	0.6	5.5	-0.8	4.3	-0.7	2.2	6.6	-6.3	-11.7	14.5	18.4	-20.8	-4.5	5.3
2001 Jan.	-46.6	98.5	0.0	0.5	3.6	-6.4	-50.5	104.9	-4.2	-1.8	-46.3	106.7	0.3	-0.6
Feb.	-5.7	0.8	0.0	-1.8	0.1	-4.0	-2.3	7.3	-2.9	4.4	0.5	2.9	-3.5	-0.6
Mar.	-87.7	127.9	0.0	-1.8	-1.2	1.8	-80.9	137.8	-2.0	-1.0	-78.9	138.7	-5.7	-9.9
Apr.	9.1	15.5	-0.3	-1.6	-0.5	-1.0	14.3	17.4	-1.0	4.5	15.4	12.9	-4.5	0.7
May	-8.0	19.1	-0.3	1.6	1.2	1.6	-5.3	10.1	-7.3	4.1	2.0	6.0	-3.6	5.7
June	-0.5	-29.1	-0.2	4.2	-1.5	1.6	-2.4	-33.8	-3.3	5.9	1.0	-39.7	3.6	-1.0
July	45.2	-61.2	0.7	-0.4	-1.5	0.9	48.7	-63.8	-0.6	0.1	49.3	-63.9	-2.7	2.1

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	0.0	5.5	5.5	0.0	-0.9	-0.9
2000	0.0	-1.8	-1.8	0.0	0.0	0.0
2000 Q1	0.0	-5.1	-5.1	0.0	0.0	0.0
Q2	0.0	3.0	3.0	0.0	0.0	0.0
Q3	0.0	-1.8	-1.8	0.0	0.0	0.0
Q4	0.0	2.0	2.0	0.0	0.0	0.0
		Euro area enlargement				
2001 Q1	0.0	-3.2	-3.2	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	3.9	-12.6	-8.7	-1.2	0.2	-1.0
2000	0.0	0.0	0.1	-3.7	-1.8	-5.5	-0.3	4.3	3.9
2000 Q1	0.0	0.0	0.0	-5.9	-2.3	-8.2	-0.1	-0.4	-0.5
Q2	0.0	0.0	0.0	1.2	-0.5	0.7	-0.2	0.2	0.0
Q3	0.0	0.0	0.0	-4.0	0.6	-3.4	0.0	0.8	0.8
Q4	0.1	0.0	0.1	5.0	0.4	5.4	-0.1	3.7	3.6
				Euro area enlargement					
2001 Q1	0.0	0.0	0.0	3.1	-8.3	-5.3	-0.5	-0.2	-0.7

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	17.7	158.9	176.6	0.5	0.7	1.2
2000	-124.3	268.5	144.2	-3.9	5.4	1.5
2000 Q1	-27.7	163.0	135.3	-2.2	0.1	-2.1
Q2	-22.3	-21.5	-43.8	1.2	0.8	2.0
Q3	-12.8	72.2	59.4	-1.4	0.1	-1.3
Q4	-61.5	54.8	-6.7	-1.4	4.4	2.9
			Euro area enlargement			
2001 Q1	-129.3	246.1	116.8	-4.5	3.9	-0.6

2.4. Other sectors

	Trade credits			Loans/currency and deposits			Other assets/liabilities		
	Assets 22	Liabilities 23	Balance 24	Assets 25	Liabilities 26	Balance 27	Assets 28	Liabilities 29	Balance 30
1999	-6.4	3.4	-3.0	-13.2	17.5	4.3	-22.4	11.4	-11.0
2000	-15.3	7.0	-8.3	-36.2	54.6	18.3	-5.2	-5.2	-10.4
2000 Q1	-4.3	2.9	-1.4	-38.1	18.4	-19.8	-0.4	-6.4	-6.8
Q2	-3.9	0.3	-3.6	-5.3	2.8	-2.5	-0.1	-1.0	-1.1
Q3	-2.1	2.1	0.0	-8.0	27.1	19.1	-0.9	-0.2	-1.1
Q4	-5.0	1.7	-3.3	15.2	6.3	21.5	-3.9	2.4	-1.5
				Euro area enlargement					
2001 Q1	-5.1	4.0	-1.1	-1.2	-14.6	-15.8	-2.6	-0.5	-3.0

3. Reserve assets [1)]

	Total	Monetary gold	Special drawing rights	Reserve position in the IMF	Foreign exchange							Other claims
					Total	Currency and deposits		Securities			Financial derivatives	
						With monetary authorities and the BIS	With banks	Equity	Bonds and notes	Money market instruments		
	1	2	3	4	5	6	7	8	9	10	11	12
1999	10.2	0.3	1.0	2.0	7.1	2.3	-1.0	0.2	3.6	2.1	-0.1	0.0
2000	17.5	1.0	0.3	2.9	12.8	4.0	4.3	0.0	-5.7	10.4	-0.2	0.5
2000 Q1	-1.4	0.7	0.2	0.2	-2.8	2.3	-4.5	0.0	2.6	-3.1	0.0	0.2
Q2	3.8	0.0	-0.1	3.3	0.7	-0.9	0.2	0.0	-3.7	5.3	-0.2	-0.1
Q3	4.5	0.3	-0.1	0.0	4.3	1.5	4.8	0.0	-5.4	3.5	-0.1	0.0
Q4	10.7	0.0	0.3	-0.6	10.5	1.1	3.8	0.0	0.8	4.7	0.0	0.5
					Euro area enlargement							
2001 Q1	9.6	0.3	-0.4	0.3	10.7	7.8	-6.9	-1.1	5.2	5.7	0.0	-1.3

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	-175.3	136.4	112.7	23.7	-704.6	-476.0	-228.6	-205.4	-23.2	2.2	61.5	99.7	-102.1	63.9	329.2
1999	-131.0	373.4	290.8	82.6	-730.9	-596.8	-134.1	-72.7	-61.4	1.9	-147.8	112.6	-340.4	80.0	372.3

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														Memo: related assets
	Total	Monetary gold		Special drawing rights	Reserve position in the IMF	Foreign exchange							Financial derivatives	Other claims	
						Total	Currency and deposits		Securities						
			In fine troy ounces (millions)				With monetary authorities and the BIS	With banks	Total	Equities	Bonds and notes	Money market instruments			Claims on euro area residents denominated in foreign currency
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Eurosystem [2]															
1998 Dec. [3]	329.2	99.6	404.131	5.2	23.2	199.9	12.6	18.3	169.0	0.0	116.6	52.4	0.0	1.3	7.6
1999 Dec.	372.3	116.4	402.762	4.5	24.3	225.1	12.8	21.7	190.5	0.0	134.0	56.5	0.0	2.1	14.4
2000 Jan. [4]	378.0	116.2	401.639	4.3	24.4	230.9	14.4	28.0	188.4	-	-	-	0.2	2.3	14.7
Feb. [4]	383.2	121.1	400.503	4.4	23.9	231.4	12.0	25.8	193.4	-	-	-	0.2	2.4	16.1
Mar.	385.3	116.0	400.503	4.4	24.8	238.8	12.7	25.9	200.1	-	-	-	0.2	1.3	17.0
Apr.	399.7	121.3	400.503	4.3	22.7	249.6	18.2	28.3	202.9	-	-	-	0.2	1.9	18.1
May	388.8	117.2	400.503	4.5	21.1	244.4	16.2	28.8	199.2	-	-	-	0.2	1.6	19.1
June	385.8	120.8	400.503	4.5	20.5	238.3	14.3	24.4	199.4	-	-	-	0.1	1.8	18.3
July [4]	391.3	119.6	399.539	4.5	20.9	244.4	10.5	27.1	206.6	-	-	-	0.2	1.9	17.5
Aug.	402.6	124.3	399.539	4.8	20.9	251.5	10.9	25.2	215.3	-	-	-	0.2	1.2	17.3
Sep.	408.0	124.7	399.539	4.9	21.3	255.9	11.2	24.3	220.1	-	-	-	0.3	1.2	16.6
Oct. [4]	416.2	125.6	399.538	4.7	21.5	263.1	10.3	24.3	228.2	-	-	-	0.3	1.4	16.3
Nov. [4]	400.1	123.8	399.537	4.8	20.8	249.8	9.0	22.6	217.8	-	-	-	0.3	0.9	16.7
Dec.	377.7	117.8	399.537	4.3	20.8	234.1	9.7	19.5	204.4	-	-	-	0.5	0.6	15.8
Euro area enlargement															
2001 1 Jan.	*390.9*	*119.2*	*404.119*	*4.4*	*21.2*	*245.5*	*16.8*	*19.8*	*208.4*	-	-	-	*0.5*	*0.7*	*16.3*
2001 Jan.	386.0	115.0	404.119	4.5	22.3	243.4	11.8	19.9	211.2	-	-	-	0.5	0.8	20.9
Feb.	384.3	116.5	404.119	4.8	21.3	241.0	10.4	21.7	208.4	-	-	-	0.5	0.6	21.2
Mar. [4]	393.4	117.6	403.153	4.9	21.4	247.5	9.8	27.3	210.0	-	-	-	0.5	2.0	20.2
Apr.	386.7	119.5	403.153	4.9	21.1	240.7	11.5	23.7	205.1	-	-	-	0.4	0.6	23.4
May	409.0	127.2	403.153	5.6	22.3	252.0	10.6	25.7	215.5	-	-	-	0.2	1.8	22.9
June [4]	410.2	128.6	403.089	5.7	22.9	249.8	9.8	28.4	211.3	-	-	-	0.2	3.2	22.7
July [4]	397.5	122.3	402.639	5.5	22.7	243.1	8.5	32.7	201.6	-	-	-	0.4	3.9	23.8
Aug. [4]	382.2	120.0	402.430	5.5	21.9	232.8	8.3	26.3	197.8	-	-	-	0.5	2.0	23.7
European Central Bank [5]															
1999 Dec.	49.3	7.0	24.030	0.0	0.0	40.9	0.3	6.4	34.3	0.0	28.0	6.3	0.0	1.4	2.6
2000 Jan.	49.9	7.0	24.030	0.0	0.0	41.2	0.4	7.2	33.6	-	-	-	0.0	1.7	3.2
Feb.	48.0	7.3	24.030	0.0	0.0	39.0	0.4	6.1	32.5	-	-	-	0.0	1.7	4.2
Mar.	49.7	7.0	24.030	0.0	0.0	41.9	0.4	7.4	34.1	-	-	-	0.0	0.9	4.3
Apr.	52.7	7.3	24.030	0.0	0.0	44.1	1.1	7.9	35.1	-	-	-	0.0	1.4	4.3
May	50.0	7.0	24.030	0.0	0.0	42.0	1.7	6.0	34.2	-	-	-	0.0	1.0	4.5
June	50.5	7.2	24.030	0.0	0.0	42.1	0.9	6.3	34.9	-	-	-	0.0	1.2	3.7
July	51.0	7.2	24.030	0.0	0.0	42.8	0.5	5.5	36.8	-	-	-	0.0	1.0	4.1
Aug.	55.0	7.5	24.030	0.0	0.0	46.4	0.6	7.5	38.3	-	-	-	0.0	1.2	4.1
Sep.	52.4	7.5	24.030	0.0	0.0	43.7	0.7	6.1	36.9	-	-	-	0.0	1.2	3.7
Oct.	53.8	7.6	24.030	0.0	0.0	44.9	0.7	6.4	37.7	-	-	-	0.0	1.4	4.0
Nov.	47.2	7.4	24.030	0.0	0.0	38.8	0.7	5.0	33.1	-	-	-	0.0	0.9	3.0
Dec.	45.1	7.1	24.030	0.0	0.0	37.3	0.6	6.1	30.6	-	-	-	0.0	0.6	3.8
Euro area enlargement															
2001 Jan.	45.9	7.0	24.656	0.0	0.0	38.2	0.7	2.6	34.9	-	-	-	0.0	0.7	3.5
Feb.	46.7	7.1	24.656	0.0	0.0	38.9	0.6	3.9	34.4	-	-	-	0.0	0.6	3.0
Mar.	46.7	7.2	24.656	0.0	0.0	37.5	0.7	5.2	31.6	-	-	-	0.0	2.0	3.9
Apr.	45.3	7.3	24.656	0.0	0.0	37.5	0.8	5.2	31.5	-	-	-	0.0	0.5	3.6
May	50.1	7.8	24.656	0.0	0.0	40.5	0.8	5.2	34.5	-	-	-	0.0	1.8	2.7
June	50.9	7.9	24.656	0.1	0.0	40.1	0.9	6.8	32.5	-	-	-	0.0	2.8	3.1
July	50.2	7.5	24.656	0.1	0.0	38.8	1.0	7.8	30.0	-	-	-	0.0	3.9	2.9
Aug.	45.9	7.3	24.656	0.1	0.0	36.5	1.1	4.2	31.3	-	-	-	0.0	2.0	3.5

Source: ECB.

1) More comprehensive data in accordance with the template on international reserves and foreign currency liquidity can be found on the ECB's website.
2) The figures are not fully comparable with those in Table 1.1 owing to differences in coverage and valuation.
3) Position as at 1 January 1999.
4) Changes in the gold holdings of the Eurosystem are due to transactions in gold within the terms of the Central Bank Gold Agreement of 26 September 1999.
5) Part of the Eurosystem's reserves.

9 External trade in goods of the euro area

Table 9

1. Values, volumes and unit values by commodity [1) 2)]

(not seasonally adjusted, unless otherwise indicated)

	Exports of goods (f.o.b.)					Imports of goods (c.i.f.)						Total (s.a.) (1995=100)	
	Total				Memo:	Total				Memo:			
	1	Intermediate 2	Capital 3	Consumption 4	Manufactures 5	6	Intermediate 7	Capital 8	Consumption 9	Manufactures 10	Oil 11	Exports 12	Imports 13
Values (EUR billions (ECU billions to end-1998); 1995=100 for columns 12 and 13)													
1997	762.8	357.3	168.3	202.3	661.0	674.2	389.3	104.8	161.4	481.9	62.6	122.5	119.8
1998	797.1	369.6	179.8	213.6	697.8	711.4	393.3	122.9	175.8	540.3	41.6	128.1	126.4
1999	832.8	386.5	183.2	224.2	725.0	781.2	423.2	143.6	192.1	590.6	61.5	133.8	138.8
2000	1,007.6	477.3	218.6	261.9	873.7	1,001.3	572.0	175.6	214.0	719.4	117.7	161.9	177.9
2000 Q1	230.3	109.1	47.7	61.3	199.6	232.8	132.3	40.0	51.5	169.3	26.0	151.6	161.7
Q2	247.9	117.9	54.6	63.0	215.0	244.4	139.2	43.2	51.9	177.6	26.3	157.7	172.8
Q3	250.5	120.0	53.2	65.0	217.2	246.2	141.4	41.2	53.6	175.1	31.1	165.8	184.2
Q4	278.9	130.4	63.2	72.6	241.9	277.9	159.0	51.2	57.1	197.3	34.3	173.8	195.5
Euro area enlargement													
2001 Q1	258.5	121.3	56.1	67.8	226.2	260.5	146.8	47.5	54.4	190.5	26.9	172.6	181.4
Q2	265.3	121.5	59.2	68.1	232.0	256.6	143.0	43.8	53.7	185.8	27.6	171.9	181.1
2001 Feb.	83.5	38.8	18.0	22.4	73.1	82.1	46.5	14.4	17.5	60.0	8.6	173.6	182.1
Mar.	93.8	43.7	20.8	24.5	82.5	91.3	50.5	18.0	18.7	67.6	9.0	171.6	181.8
Apr.	83.3	37.9	18.7	20.9	72.6	83.7	46.0	14.9	17.3	60.6	8.7	169.1	181.2
May	90.8	41.9	19.7	23.4	79.2	87.6	49.4	14.7	18.1	63.4	9.4	172.2	179.6
June	91.3	41.6	20.8	23.9	80.2	85.4	47.6	14.2	18.4	61.8	9.5	174.5	182.4
July	91.7	.	.	.	.	83.9	.	.	.	.	.	171.3	181.7
Volumes (annual percentage changes; 1995=100 for columns 12 and 13) [3)]													
1997	10.8	9.1	12.0	10.6	12.0	7.2	8.3	13.1	6.7	10.7	2.4	115.9	110.3
1998	3.6	4.2	5.9	3.6	4.0	11.6	8.1	21.8	7.6	13.4	-4.5	120.1	123.1
1999	2.2	2.9	-0.8	3.5	1.4	6.1	3.5	13.0	7.8	7.1	6.0	122.7	130.6
2000	11.8	11.3	11.1	11.2	12.4	5.1	5.3	9.4	2.5	7.3	3.7	137.3	137.4
2000 Q1	14.6	13.6	10.7	14.9	15.0	5.9	6.1	8.8	5.8	9.6	-0.9	133.4	133.8
Q2	14.3	12.9	12.1	13.1	14.7	6.1	5.8	11.3	2.7	9.1	0.1	135.6	137.3
Q3	9.6	8.7	9.0	10.7	10.1	5.8	5.9	8.9	2.0	7.2	3.2	139.1	140.9
Q4	9.4	10.5	12.7	7.0	10.3	2.8	3.4	8.7	-0.4	3.3	6.2	142.3	139.7
Euro area enlargement													
2001 Q1	6.2	4.9	13.0	6.7	7.5	1.4	0.2	7.8	-3.1	1.4	-2.8	141.9	137.0
Q2	2.0	-1.8	6.1	2.8	3.0	-2.7	-5.1	-5.5	-4.8	-3.1	-4.3	139.0	134.9
2001 Feb.	5.8	3.0	18.2	3.0	7.3	-2.4	-3.9	3.7	-5.5	-2.6	-5.3	143.9	136.9
Mar.	-0.6	-1.2	4.2	0.3	0.4	-1.0	-2.0	10.7	-8.8	-1.4	0.0	139.8	137.3
Apr.	7.8	2.6	13.7	5.4	8.7	4.8	1.5	7.3	-1.0	3.6	5.8	137.3	136.5
May	-3.5	-5.9	-4.5	-1.3	-2.7	-8.0	-9.2	-13.6	-9.8	-8.0	-10.4	139.2	133.7
June	3.0	-1.0	10.8	4.5	4.1	-3.9	-6.5	-8.1	-3.2	-3.7	-6.5	140.4	134.4
July	4.5	.	.	.	.	-1.3	.	.	.	.	.	138.9	133.6
Unit values (annual percentage changes; 1995=100 for columns 12 and 13) [3)]													
1997	2.8	2.6	3.5	3.5	2.7	5.8	5.4	5.5	4.8	4.9	4.2	105.7	108.6
1998	0.9	-0.7	0.8	2.0	1.5	-5.4	-6.5	-3.6	1.2	-1.1	-30.4	106.6	102.8
1999	2.3	1.7	2.7	1.4	2.4	3.5	3.9	3.4	1.4	2.0	39.4	108.9	106.2
2000	8.3	11.0	7.4	5.1	7.2	21.9	28.3	11.8	8.7	13.5	84.8	117.8	129.4
2000 Q1	6.7	9.9	5.6	4.3	5.7	22.4	30.6	10.0	6.3	11.1	171.3	113.6	120.8
Q2	6.8	9.5	8.3	3.9	5.7	21.5	28.7	10.9	8.1	12.5	101.4	116.3	125.9
Q3	9.1	12.7	7.5	4.4	8.5	20.0	26.6	10.4	7.9	12.5	71.0	119.2	130.8
Q4	10.0	11.4	7.7	7.4	8.8	23.9	28.3	15.1	12.6	18.1	53.1	122.1	140.0
Euro area enlargement													
2001 Q1	7.0	6.5	5.8	5.6	6.8	9.3	9.5	9.1	8.3	10.0	3.1	121.6	132.5
Q2	6.4	5.7	4.5	7.0	6.4	6.6	6.6	6.0	7.7	6.9	4.2	123.7	134.3
2001 Feb.	5.7	5.0	6.3	5.1	5.5	9.8	10.3	8.9	7.8	10.2	6.0	120.6	133.0
Mar.	7.9	7.7	6.7	5.9	8.0	7.1	6.3	8.1	8.5	8.6	-4.8	122.7	132.3
Apr.	6.4	6.7	5.4	5.3	6.1	7.8	8.0	6.2	8.5	8.4	5.8	123.1	132.8
May	6.2	4.9	5.0	7.1	6.3	6.3	6.4	5.3	7.1	6.0	6.9	123.6	134.3
June	6.4	5.4	3.2	8.6	6.6	5.9	5.6	6.8	7.6	6.5	1.0	124.3	135.7
July	4.4	.	.	.	.	5.8	.	.	.	.	.	123.3	136.0

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	Total (s.a.)	United Kingdom	Sweden	Denmark	Candidate countries	Switzer-land	United States	Japan	Asia excl. Japan	Africa	Latin America	Other countries
	1	2	3	4	5	6	7	8	9	10	11	12	13
						Exports (f.o.b.)							
1997	762.8	-	141.7	29.2	19.4	90.2	46.8	102.6	26.5	132.7	43.1	38.1	92.4
1998	797.1	-	150.2	31.5	20.5	101.5	51.1	119.9	23.9	114.9	49.7	42.4	91.5
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	1,007.6	-	188.3	38.5	22.7	130.6	63.2	170.3	34.1	150.6	55.9	46.4	107.1
2000 Q1	230.3	235.2	45.0	9.3	5.5	28.7	15.2	38.8	8.2	32.8	12.4	10.1	24.2
Q2	247.9	244.7	46.7	9.7	5.6	32.4	15.5	40.9	7.9	36.7	14.6	10.9	27.1
Q3	250.5	257.2	46.2	9.1	5.4	32.6	15.5	42.8	8.7	37.8	13.5	12.0	26.9
Q4	278.9	269.6	50.4	10.5	6.2	36.8	17.0	47.7	9.3	43.3	15.4	13.4	28.9
						Euro area enlargement							
2001 Q1	258.5	264.9	49.1	9.6	6.1	33.3	17.0	45.1	9.2	39.8	14.3	12.1	22.9
Q2	265.3	264.0	50.5	9.0	7.1	33.5	16.5	45.0	8.3	40.2	15.2	12.7	.
2001 Feb.	83.5	88.8	16.0	3.1	2.0	10.7	5.5	14.2	3.0	12.5	5.0	4.0	7.5
Mar.	93.8	87.8	17.8	3.4	2.2	12.0	6.3	15.9	3.3	14.7	5.2	4.4	8.8
Apr.	83.3	86.6	15.9	3.0	2.0	10.3	5.3	14.4	2.6	12.5	4.9	4.0	8.4
May	90.8	88.1	16.8	3.0	3.2	11.7	5.8	15.2	2.8	13.8	5.2	4.3	.
June	91.3	89.3	17.9	3.0	2.0	11.5	5.4	15.4	3.0	13.9	5.1	4.4	.
July	91.7	87.7	.	.	.	.	.	.	.	.	.	.	.
% change versus previous year													
2001 July	9.1	-	.	.	.	.	.	.	.	.	.	.	.
						Imports (c.i.f.)							
1997	674.2	-	117.7	27.1	16.9	60.2	36.9	94.3	43.3	124.8	49.7	28.4	74.8
1998	711.4	-	122.3	30.8	17.3	71.6	40.9	104.8	48.5	132.0	45.8	29.3	68.0
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	1,001.3	-	155.3	37.6	21.4	100.5	48.4	139.4	64.5	209.8	72.1	39.3	112.9
2000 Q1	232.8	226.5	37.8	9.1	5.1	23.4	11.8	31.9	15.8	46.7	16.7	8.6	25.9
Q2	244.4	242.0	37.4	9.6	5.2	24.6	11.7	35.1	16.6	49.7	16.7	10.5	27.1
Q3	246.2	257.9	36.5	8.7	5.1	24.9	11.6	33.7	15.0	54.3	17.8	10.0	28.6
Q4	277.9	273.8	43.6	10.2	6.0	27.6	13.2	38.7	17.0	59.1	20.9	10.2	31.3
						Euro area enlargement							
2001 Q1	260.5	256.6	38.5	8.9	5.2	29.0	13.5	37.5	16.1	53.9	19.8	9.8	28.3
Q2	256.6	256.1	38.8	8.5	5.1	28.9	13.0	35.8	15.5	50.5	18.7	11.0	.
2001 Feb.	82.1	85.9	12.4	2.9	1.6	9.4	4.5	11.5	4.9	16.6	6.3	3.0	9.1
Mar.	91.3	85.7	13.4	3.1	1.8	10.4	4.9	13.9	5.7	18.4	6.8	3.4	9.4
Apr.	83.7	85.4	12.6	2.8	1.7	9.3	4.3	11.8	5.5	16.8	6.1	3.4	9.4
May	87.6	84.7	13.4	2.9	1.7	9.7	4.4	12.0	5.3	17.1	6.3	3.9	.
June	85.4	86.0	12.8	2.8	1.7	9.9	4.2	12.0	4.7	16.7	6.3	3.7	.
July	83.9	85.7	.	.	.	.	.	.	.	.	.	.	.
% change versus previous year													
2001 July	4.5	-	.	.	.	.	.	.	.	.	.	.	.
						Balance							
1997	88.6	-	23.9	2.1	2.5	30.0	9.9	8.3	-16.9	8.0	-6.5	9.7	17.5
1998	85.7	-	27.8	0.7	3.2	29.9	10.2	15.1	-24.6	-17.2	3.9	13.1	23.5
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	6.3	-	33.0	1.0	1.3	30.0	14.8	30.8	-30.4	-59.3	-16.2	7.1	-5.8
2000 Q1	-2.6	8.7	7.3	0.2	0.4	5.3	3.4	7.0	-7.7	-13.9	-4.3	1.4	-1.7
Q2	3.5	2.7	9.3	0.1	0.4	7.8	3.7	5.8	-8.7	-13.0	-2.2	0.4	0.0
Q3	4.4	-0.7	9.7	0.4	0.3	7.7	3.9	9.1	-6.3	-16.5	-4.2	2.1	-1.7
Q4	1.0	-4.2	6.8	0.3	0.2	9.2	3.8	9.0	-7.7	-15.8	-5.5	3.1	-2.4
						Euro area enlargement							
2001 Q1	-2.0	8.3	10.6	0.8	0.9	4.4	3.5	7.6	-7.0	-14.2	-5.5	2.3	-5.4
Q2	8.7	7.9	11.7	0.5	2.1	4.7	3.5	9.2	-7.2	-10.3	-3.5	1.6	.
2001 Feb.	1.4	3.0	3.6	0.2	0.4	1.3	1.1	2.7	-1.9	-4.1	-1.3	1.0	-1.6
Mar.	2.5	2.2	4.4	0.3	0.3	1.5	1.4	2.0	-2.4	-3.7	-1.6	1.0	-0.7
Apr.	-0.4	1.1	3.3	0.2	0.3	1.1	1.0	2.6	-2.9	-4.3	-1.2	0.6	-1.0
May	3.2	3.5	3.4	0.2	1.5	2.0	1.3	3.2	-2.6	-3.2	-1.1	0.4	.
June	5.9	3.3	5.0	0.2	0.4	1.6	1.2	3.4	-1.7	-2.8	-1.2	0.7	.
July	7.8	2.0	.	.	.	.	.	.	.	.	.	.	.

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
1996	107.9	108.8	107.5	111.4	95.4	105.9	1.270	138.1	1.568	0.814
1997	99.1	99.4	99.3	100.4	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	96.3	96.6	95.8	1.066	121.3	1.600	0.659
2000	85.7	86.5	87.0	87.4	88.2	86.3	0.924	99.5	1.558	0.609
1999 Q1	100.0	100.0	100.0	100.0	100.0	100.0	1.122	130.7	1.599	0.687
Q2	96.1	96.0	96.0	96.7	96.5	96.0	1.057	127.7	1.600	0.658
Q3	94.6	94.7	94.6	94.9	95.5	94.6	1.049	118.7	1.602	0.655
Q4	92.2	92.2	92.3	93.8	94.2	92.6	1.038	108.4	1.600	0.636
2000 Q1	89.0	89.6	89.8	90.2	91.1	89.5	0.986	105.5	1.607	0.614
Q2	86.0	86.6	87.0	87.7	88.4	86.6	0.933	99.6	1.563	0.610
Q3	84.7	85.7	86.3	86.8	87.3	85.3	0.905	97.4	1.544	0.612
Q4	83.0	84.0	84.9	85.0	85.9	83.6	0.868	95.3	1.516	0.600
1999 Jan.	102.0	101.8	101.8	-	101.4	101.4	1.161	131.3	1.605	0.703
Feb.	99.9	99.9	99.8	-	100.0	100.1	1.121	130.8	1.598	0.689
Mar.	98.3	98.3	98.4	-	98.7	98.6	1.088	130.2	1.595	0.671
Apr.	97.1	96.9	97.0	-	97.5	97.2	1.070	128.2	1.602	0.665
May	96.6	96.5	96.4	-	96.9	96.4	1.063	129.7	1.603	0.658
June	94.7	94.7	94.7	-	95.1	94.5	1.038	125.3	1.595	0.650
July	94.8	95.2	94.9	-	95.0	94.4	1.035	123.7	1.604	0.658
Aug.	95.4	95.6	95.4	-	96.3	95.5	1.060	120.1	1.600	0.660
Sep.	93.6	93.4	93.4	-	95.2	93.8	1.050	112.4	1.602	0.647
Oct.	94.4	94.2	94.3	-	96.3	94.7	1.071	113.5	1.594	0.646
Nov.	92.0	92.0	92.1	-	94.0	92.4	1.034	108.2	1.605	0.637
Dec.	90.1	90.4	90.3	-	92.2	90.7	1.011	103.7	1.601	0.627
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	83.5	-	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
				Euro area enlargement						
2001 Q1	88.6	90.0	90.5	89.5	91.4	88.9	0.923	109.1	1.533	0.633
Q2	86.0	87.7	87.9	84.8	89.5	86.9	0.873	106.9	1.528	0.614
Q3	87.0	88.9	88.5	85.0	91.2	88.0	0.890	108.3	1.507	0.619
2001 Jan.	89.2	90.3	90.8	-	91.7	89.1	0.938	109.6	1.529	0.635
Feb.	88.3	89.7	90.2	-	91.0	88.6	0.922	107.1	1.536	0.634
Mar.	88.4	90.0	90.4	-	91.4	89.1	0.910	110.3	1.535	0.629
Apr.	87.6	89.2	89.5	-	91.0	88.5	0.892	110.4	1.529	0.622
May	85.9	87.6	87.8	-	89.3	86.7	0.874	106.5	1.533	0.613
June	84.7	86.4	86.4	-	88.1	85.4	0.853	104.3	1.522	0.609
July	85.4	87.3	86.8	-	89.1	86.2	0.861	107.2	1.514	0.609
Aug.	87.7	89.6	89.1	-	91.8	88.6	0.900	109.3	1.514	0.627
Sep.	88.0	89.8	89.4	-	92.6	89.1	0.911	108.2	1.491	0.623
% ch. vs. [4] prev. month										
2001 Sep.	0.4	0.2	0.3	-	0.9	0.6	1.2	-1.0	-1.5	-0.6
% ch. vs. [4] prev. year										
2001 Sep.	-	-	-	-	-	-	4.5	16.2	-2.6	2.5

Source: ECB.

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

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

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

Bilateral ECU or euro exchange rates [2]								
Swedish krona	Danish krone	Norwegian krone	Canadian dollar	Australian dollar	Hong Kong dollar [3]	Korean won [3]	Singapore dollar [3]	
11	12	13	14	15	16	17	18	
8.51	7.36	8.20	1.731	1.623	9.68	1,007.9	1.765	1996
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
8.98	7.44	8.60	1.696	1.770	8.69	1,342.6	1.911	1999 Q1
8.90	7.43	8.24	1.557	1.618	8.19	1,258.8	1.810	Q2
8.71	7.44	8.22	1.558	1.613	8.14	1,252.8	1.772	Q3
8.65	7.44	8.19	1.528	1.613	8.07	1,217.4	1.737	Q4
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
9.08	7.44	8.65	1.765	1.839	8.99	1,362.4	1.950	1999 Jan.
8.91	7.44	8.65	1.679	1.751	8.68	1,330.2	1.905	Feb.
8.94	7.43	8.51	1.651	1.726	8.43	1,336.2	1.881	Mar.
8.91	7.43	8.32	1.594	1.668	8.30	1,292.2	1.834	Apr.
8.97	7.43	8.23	1.553	1.605	8.24	1,272.1	1.820	May
8.83	7.43	8.17	1.524	1.580	8.05	1,212.6	1.775	June
8.74	7.44	8.18	1.540	1.576	8.03	1,229.4	1.756	July
8.75	7.44	8.26	1.583	1.645	8.23	1,269.1	1.779	Aug.
8.63	7.43	8.23	1.552	1.619	8.15	1,260.1	1.781	Sep.
8.73	7.43	8.29	1.581	1.641	8.32	1,289.9	1.793	Oct.
8.63	7.44	8.19	1.516	1.618	8.04	1,215.9	1.727	Nov.
8.59	7.44	8.10	1.491	1.580	7.86	1,149.6	1.694	Dec.
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.
				Euro area enlargement				
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
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.
								% ch. vs. [4] prev. month
3.9	0.0	-0.7	2.9	5.0	1.2	2.1	0.5	2001 Sep.
								% ch. vs. [4] prev. year
15.0	-0.3	-0.4	10.2	14.5	4.5	21.1	5.0	2001 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.

11 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						
1997	1.9	0.3	61.2	6.25	7.48	0.6	1.9	3.0	5.3	5.6	4.7	3.73
1998	1.3	1.1	55.6	4.94	7.50	-0.9	2.3	2.8	2.2	5.2	4.6	4.27
1999	2.1	3.1	52.0	4.91	7.44	1.8	3.0	2.1	1.8	5.2	4.2	3.44
2000	2.7	2.8	46.1	5.64	7.45	2.3	1.4	3.2	6.2	4.7	1.9	5.00
2000 Q2	2.9	-	-	5.67	7.46	1.7	2.1	3.7	7.8	4.7	1.3	4.73
Q3	2.6	-	-	5.69	7.46	4.1	0.4	3.5	8.1	4.7	2.3	5.84
Q4	2.6	-	-	5.42	7.45	1.8	1.1	2.9	6.1	4.8	1.8	5.48
2001 Q1	2.3	-	-	5.03	7.46	4.3	2.4	1.8	5.2	4.7	.	5.26
Q2	2.5	-	-	5.27	7.46	3.2	3.1	1.3	0.9	4.5	.	5.06
Q3	.	-	-	5.18	7.44	.	.	.	.	.	.	4.73
2001 Apr.	2.6	-	-	5.14	7.46	-	-	-	1.4	4.6	.	5.11
May	2.8	-	-	5.35	7.46	-	-	-	-3.8	4.5	.	5.11
June	2.2	-	-	5.33	7.45	-	-	-	5.2	4.5	.	4.96
July	2.3	-	-	5.32	7.44	-	-	-	5.1	4.4	.	4.93
Aug.	2.5	-	-	5.12	7.45	-	-	-	0.3	4.3	.	4.81
Sep.	.	-	-	5.11	7.44	-	-	-	.	.	.	4.43
						Sweden						
1997	1.8	-1.5	74.5	6.62	8.65	-	0.6	2.1	7.0	9.9	4.2	4.43
1998	1.0	1.9	71.8	4.99	8.92	3.7	0.9	3.6	3.8	8.3	3.5	4.36
1999	0.6	1.8	65.2	4.98	8.81	2.8	-0.4	4.1	2.0	7.2	6.8	3.32
2000	1.3	4.1	55.6	5.37	8.45	3.1	5.6	3.6	8.5	5.9	6.2	4.07
2000 Q2	1.2	-	-	5.30	8.28	2.0	4.5	4.1	10.2	6.1	8.9	4.09
Q3	1.3	-	-	5.30	8.40	2.6	5.3	3.7	9.1	5.7	5.1	4.14
Q4	1.5	-	-	5.09	8.60	4.3	6.7	2.3	8.8	5.4	2.2	4.06
2001 Q1	1.6	-	-	4.83	9.00	3.6	2.4	2.3	5.9	5.2	0.2	4.10
Q2	3.0	-	-	5.20	9.13	1.2	4.4	1.0	-2.1	4.9	1.1	4.15
Q3	.	-	-	5.28	9.41	.	.	.	.	.	.	4.34
2001 Apr.	3.0	-	-	4.93	9.11	-	-	-	-4.1	5.0	-0.3	4.04
May	3.1	-	-	5.27	9.06	-	-	-	0.6	5.0	-1.4	4.09
June	3.0	-	-	5.39	9.21	-	-	-	-2.6	4.8	5.0	4.32
July	2.9	-	-	5.42	9.26	-	-	-	.	4.8	2.2	4.44
Aug.	3.0	-	-	5.16	9.31	-	-	-	.	4.7	2.5	4.40
Sep.	.	-	-	5.26	9.67	-	-	-	.	.	.	4.14
						United Kingdom						
1997	1.8	-2.0	51.1	7.13	0.692	0.9	2.9	3.4	1.3	7.0	11.2	6.92
1998	1.6	0.4	48.1	5.60	0.676	0.0	3.1	3.0	0.8	6.3	9.7	7.42
1999	1.3	1.3	45.7	5.01	0.659	-1.0	3.4	2.1	0.6	6.1	5.4	5.54
2000	0.8	1.9	42.8	5.33	0.609	-1.5	1.9	2.9	1.6	5.5	6.6	6.19
2000 Q2	0.6	-0.5	43.7	5.31	0.610	-1.4	1.4	3.3	2.7	5.6	5.8	6.28
Q3	0.8	2.2	42.3	5.31	0.612	-1.8	1.6	2.7	0.8	5.4	8.3	6.21
Q4	0.9	0.0	42.5	5.09	0.600	-1.4	1.7	2.4	0.9	5.3	8.5	6.07
2001 Q1	0.9	6.2	40.2	4.90	0.633	0.0	2.1	2.7	0.8	5.1	9.0	5.72
Q2	1.5	-2.5	40.3	5.18	0.614	.	.	2.3	-2.2	5.0	7.4	5.30
Q3	.	.	.	5.13	0.619	.	.	.	.	.	.	5.00
2001 Apr.	1.1	1.2	39.8	5.03	0.622	-	-	-	-1.0	5.0	7.7	5.40
May	1.7	-4.9	39.9	5.21	0.613	-	-	-	-3.1	5.1	7.2	5.25
June	1.7	-3.7	40.3	5.30	0.609	-	-	-	-2.6	5.1	7.5	5.26
July	1.4	5.4	39.6	5.30	0.609	-	-	-	-3.5	.	7.6	5.25
Aug.	1.8	0.0	39.5	5.07	0.627	-	-	-	.	.	.	5.00
Sep.	.	.	.	5.02	0.623	-	-	-	.	.	.	4.73

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

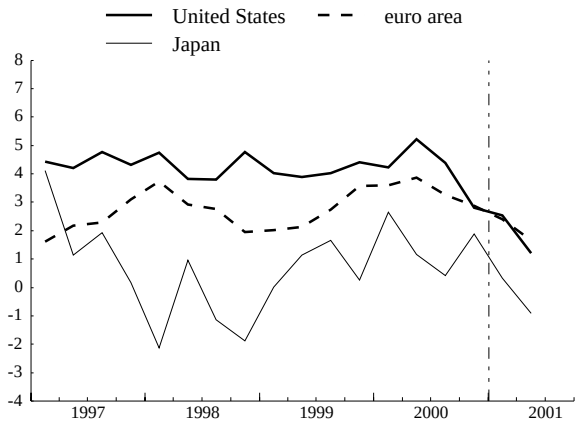
Economic and financial developments

(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						
1997	2.3	0.0	4.4	7.6	5.0	4.9	5.76	6.45	1.134	-0.9	56.4
1998	1.6	0.7	4.3	5.5	4.5	7.3	5.57	5.33	1.121	0.3	53.4
1999	2.2	-1.7	4.1	4.8	4.2	7.6	5.42	5.64	1.066	0.8	50.5
2000	3.4	-3.8	4.1	6.0	4.0	6.1	6.53	6.03	0.924	1.7	44.9
2000 Q2	3.3	-4.4	5.2	7.0	4.0	6.2	6.63	6.18	0.933	1.7	46.8
Q3	3.5	-5.4	4.4	6.4	4.0	6.1	6.70	5.89	0.905	1.9	45.6
Q4	3.4	-1.5	2.8	4.3	4.0	6.2	6.69	5.56	0.868	1.7	45.0
2001 Q1	3.4	1.8	2.5	0.4	4.2	7.5	5.35	5.04	0.923	1.5	45.1
Q2	3.4	8.3	1.2	-2.8	4.5	8.5	4.19	5.25	0.873	1.1	43.6
Q3	.	.	.	.	4.8	.	3.46	4.98	0.890	.	.
2001 Apr.	3.3	-	-	-1.7	4.5	8.2	4.63	5.13	0.892	-	-
May	3.6	-	-	-2.5	4.4	8.5	4.11	5.37	0.874	-	-
June	3.2	-	-	-4.2	4.5	9.0	3.83	5.26	0.853	-	-
July	2.7	-	-	-4.0	4.5	9.2	3.75	5.23	0.861	-	-
Aug.	2.7	-	-	-5.5	4.9	9.2	3.56	4.97	0.900	-	-
Sep.	.	-	-	.	4.9	.	3.03	4.76	0.911	-	-
					Japan						
1997	1.7	-2.2	1.8	3.6	3.4	3.1	0.62	2.15	137.1	-2.7	.
1998	0.7	6.3	-1.1	-7.1	4.1	4.4	0.66	1.30	146.4	-10.3	.
1999	-0.3	-2.5	0.8	0.8	4.7	3.7	0.22	1.75	121.3	-10.4	.
2000	-0.7	-6.5	1.5	5.9	4.7	2.1	0.28	1.76	99.5	.	.
2000 Q2	-0.7	-7.3	1.2	7.1	4.7	2.3	0.12	1.72	99.6	.	.
Q3	-0.6	-6.1	0.4	5.5	4.6	1.9	0.32	1.79	97.4	.	.
Q4	-0.8	-5.3	1.9	4.9	4.8	2.1	0.56	1.73	95.3	.	.
2001 Q1	-0.4	-0.2	0.3	-1.1	4.8	2.6	0.37	1.38	109.1	.	.
Q2	-0.7	3.7	-0.9	-5.7	4.9	2.8	0.08	1.28	106.9	.	.
Q3	.	.	.	.	.	.	0.07	1.36	108.3	.	.
2001 Apr.	-0.7	2.0	-	-4.2	4.8	2.5	0.10	1.36	110.4	-	-
May	-0.7	2.3	-	-3.9	4.9	2.9	0.07	1.28	106.5	-	-
June	-0.8	7.2	-	-8.8	4.9	3.2	0.07	1.19	104.3	-	-
July	-0.8	.	-	-8.8	5.0	3.3	0.08	1.33	107.2	-	-
Aug.	-0.7	.	-	-11.7	5.0	3.4	0.08	1.36	109.3	-	-
Sep.	.	.	-	.	.	.	0.06	1.40	108.2	-	-

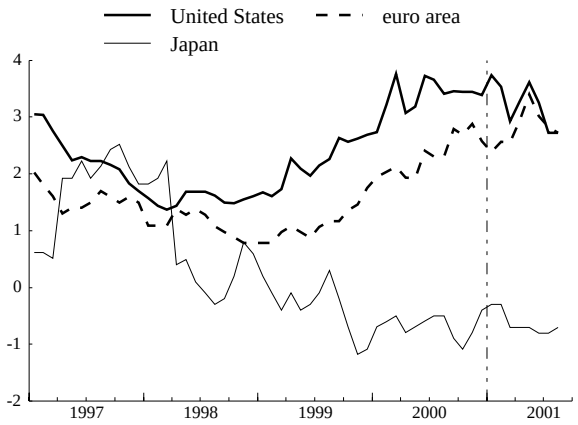
Real gross domestic product

(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

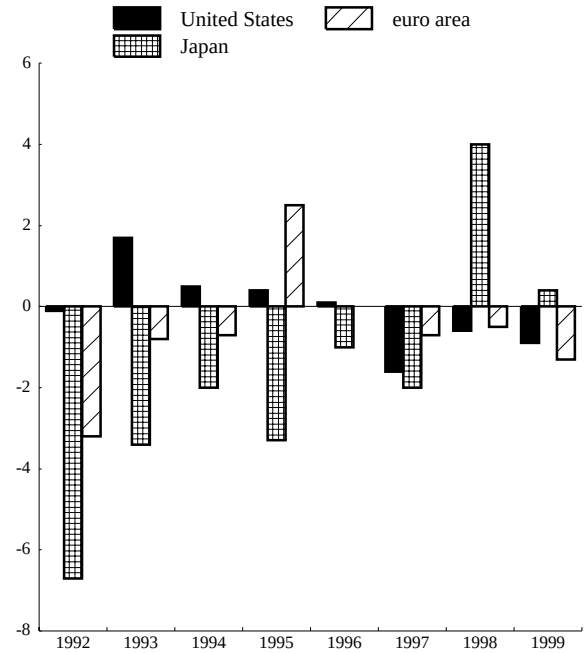
Saving, investment and financing

(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						
1997	18.1	19.9	-1.5	9.4	8.6	1.8	8.7	3.4	2.2	11.8	4.0	12.1	4.4
1998	18.8	20.7	-2.3	9.6	8.8	6.5	8.1	7.1	1.5	12.3	5.7	12.8	5.5
1999	18.4	20.9	-3.3	10.1	9.4	6.9	8.1	7.8	3.3	12.6	4.5	11.2	6.4
2000	18.1	21.1	-4.4	10.2	9.7	5.8	8.0	7.1	2.7	12.7	3.1	10.3	5.6
1999 Q3	18.2	20.8	-3.6	10.0	9.5	7.6	7.9	8.5	3.8	12.6	4.1	11.0	6.1
Q4	18.0	21.2	-3.7	10.2	9.4	5.6	8.1	7.0	3.5	12.6	4.6	10.5	6.5
2000 Q1	18.0	21.0	-4.1	10.0	9.6	8.8	8.0	9.8	5.7	13.0	3.4	10.3	7.6
Q2	18.3	21.4	-4.2	10.3	9.5	6.8	8.1	8.0	3.1	12.7	4.0	10.4	5.7
Q3	18.2	21.2	-4.5	10.4	9.8	5.4	8.2	6.9	2.4	12.6	3.7	10.1	5.7
Q4	17.9	21.0	-4.5	10.0	9.6	2.4	7.9	3.8	-0.1	12.5	1.3	10.2	3.5
2001 Q1	17.3	20.2	-4.1	9.3	9.6	2.0	7.5	3.5	1.9	12.7	3.9	10.3	4.0
Q2	17.1	19.7	-4.1	8.8	9.1	1.7	7.3	2.9	3.1	12.8	5.6	10.5	6.5
							Japan						
1997	30.2	28.7	2.2	16.6	16.1	3.2	13.8	1.2	0.1	6.0	6.9	11.3	0.7
1998	29.1	26.9	2.6	15.6	15.6	-6.0	13.3	-8.3	-0.3	5.3	6.1	11.7	-1.0
1999	27.8	26.0	2.2	14.5	14.7	3.3	13.7	-2.0	1.8	5.3	5.9	11.3	-0.3
2000	.	26.0	.	.	.	2.6	.	1.0	1.0	.	4.3	.	-0.4
1999 Q3	.	26.4	.	.	.	9.4	.	0.1	2.7	.	4.2	.	2.3
Q4	.	26.9	.	.	.	19.1	.	13.7	4.0	.	12.7	.	1.4
2000 Q1	.	26.3	.	.	.	15.5	.	4.4	-1.2	.	-0.7	.	5.3
Q2	.	24.8	.	.	.	-25.0	.	-17.2	2.5	.	8.8	.	-7.5
Q3	.	27.1	.	.	.	12.7	.	1.8	-0.2	.	0.6	.	1.4
Q4	.	27.1	.	.	.	6.8	.	13.7	2.7	.	7.9	.	-0.5
2001 Q1	.	27.5	.	.	.	8.9	.	-3.3	0.2	.	-4.8	.	2.7
Q2	.	23.4	.	.	.	-29.5	.	-17.3	4.8	.	14.3	.	-6.4

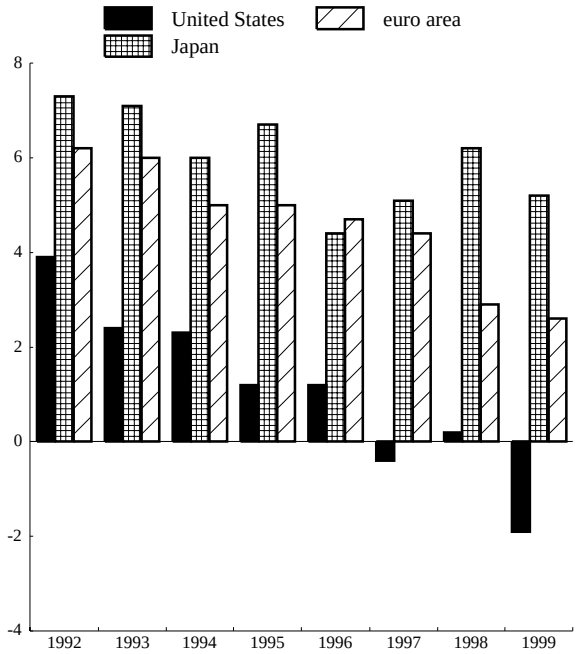
Net lending of non-financial corporations

(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.

Past data for selected economic indicators for the euro area plus Greece

A. Main monetary and financial markets statistics

A.1 Monetary aggregates and counterparts

(EUR billions (not seasonally adjusted; end of period) and annual percentage changes [1])

	M1		M2		M3 [2]		Credit [3]		MFI loans to residents of the euro area plus Greece excluding MFIs and general government	
	Amount 1	% change 2	Amount 3	% change 4	Amount 5	% change 6	Amount 7	% change 8	Amount 9	% change 10
1999 Jan.	1,818.0	.	4,046.6	.	4,608.4	.	7,856.9	.	5,169.0	.
Feb.	1,787.3	.	4,005.3	.	4,592.9	.	7,877.0	.	5,171.3	.
Mar.	1,809.4	.	4,023.9	.	4,611.0	.	7,952.1	.	5,219.0	.
Apr.	1,823.9	.	4,044.4	.	4,649.7	.	7,985.0	.	5,240.7	.
May	1,856.1	.	4,073.2	.	4,686.1	.	8,062.1	.	5,278.0	.
June	1,900.1	.	4,100.5	.	4,710.9	.	8,141.4	.	5,371.5	.
July	1,901.0	.	4,117.9	.	4,720.1	.	8,161.5	.	5,407.9	.
Aug.	1,865.8	.	4,084.7	.	4,701.5	.	8,164.4	.	5,402.9	.
Sep.	1,892.0	.	4,094.0	.	4,728.3	.	8,215.6	.	5,442.7	.
Oct.	1,897.4	.	4,110.5	.	4,747.8	.	8,286.6	.	5,490.4	.
Nov.	1,933.6	.	4,140.5	.	4,801.3	.	8,387.8	.	5,556.3	.
Dec.	1,988.5	.	4,239.6	.	4,893.2	.	8,410.2	.	5,589.0	.
2000 Jan.	1,997.1	9.4	4,233.6	4.2	4,900.2	5.3	8,467.5	8.1	5,633.8	8.8
Feb.	1,986.7	10.8	4,226.9	5.2	4,920.9	6.2	8,529.0	8.5	5,670.0	9.5
Mar.	1,998.1	10.1	4,236.7	4.9	4,961.3	6.5	8,627.2	8.4	5,741.4	9.9
Apr.	2,039.8	11.4	4,280.5	5.4	5,015.6	6.7	8,693.1	8.7	5,803.8	10.5
May	2,021.0	8.7	4,271.8	4.6	5,011.3	6.0	8,728.6	8.2	5,834.5	10.3
June	2,038.0	7.1	4,282.0	4.2	5,004.2	5.4	8,745.2	7.3	5,902.4	9.5
July	2,037.8	6.9	4,281.0	3.6	5,010.6	5.2	8,760.1	7.1	5,931.9	9.2
Aug.	2,002.5	7.0	4,269.5	4.1	5,010.8	5.5	8,763.2	7.1	5,951.9	9.6
Sep.	2,014.5	6.1	4,275.4	4.0	5,011.0	5.1	8,852.2	7.3	6,038.9	10.1
Oct.	2,013.7	5.7	4,282.7	3.7	5,030.4	5.1	8,892.8	6.7	6,082.9	9.9
Nov.	2,032.4	4.9	4,304.9	3.7	5,062.6	4.8	8,934.3	6.0	6,119.0	9.4
Dec.	2,098.8	5.5	4,397.4	3.7	5,138.8	5.0	8,961.9	6.5	6,154.2	9.6

A.2 Financial market interest rates and statistics on securities other than shares

(percentages per annum and EUR billions)

	Money market rates		Government bond yields		Euro-denominated securities issued by residents of the euro area plus Greece					
					Gross issues					
	3-month deposits 11	12-month deposits 12	2 years 13	10 years 14	Total 15	By MFIs [4] 16	By general government [4] 17	By non-financial and non-monetary financial corporations [4] 18	Net issues 19	Amounts outstanding 20
1999 Jan.	3.33	3.24	3.11	3.87	348.2	47.1	39.4	13.5	64.0	5,786.9
Feb.	3.27	3.19	3.17	4.02	292.0	49.1	35.6	15.3	49.4	5,835.6
Mar.	3.21	3.19	3.19	4.22	297.2	47.8	35.4	16.8	43.7	5,879.7
Apr.	2.87	2.91	2.93	4.09	333.8	48.8	34.4	16.9	42.3	5,921.8
May	2.75	2.83	2.89	4.24	290.9	46.4	37.7	15.9	51.0	5,973.9
June	2.80	2.98	3.16	4.56	279.3	48.6	28.7	22.7	38.1	6,012.3
July	2.84	3.17	3.38	4.89	328.1	44.5	36.4	19.1	42.1	6,052.9
Aug.	2.86	3.37	3.65	5.10	239.1	50.2	32.3	17.5	35.4	6,088.8
Sep.	2.89	3.43	3.75	5.27	311.6	51.7	31.2	17.1	59.8	6,147.1
Oct.	3.53	3.81	4.16	5.51	305.5	51.6	30.2	18.3	52.9	6,201.3
Nov.	3.64	3.82	4.07	5.22	286.2	56.9	26.1	17.0	43.5	6,246.0
Dec.	3.58	3.94	4.24	5.32	236.0	66.7	20.1	13.2	-32.8	6,218.1
2000 Jan.	3.47	4.04	4.43	5.72	347.8	56.6	30.5	12.9	1.9	6,214.1
Feb.	3.65	4.18	4.59	5.68	355.1	57.7	26.4	15.9	61.5	6,274.3
Mar.	3.86	4.33	4.62	5.51	378.7	58.7	26.4	14.9	53.7	6,329.9
Apr.	4.03	4.42	4.61	5.43	346.0	54.1	26.2	19.7	38.5	6,366.5
May	4.44	4.88	5.04	5.53	384.1	59.9	22.7	17.4	52.1	6,427.3
June	4.59	5.01	5.05	5.36	335.4	57.8	21.7	20.5	32.2	6,461.2
July	4.66	5.14	5.21	5.47	378.0	56.2	21.7	22.0	38.7	6,500.2
Aug.	4.85	5.28	5.30	5.41	346.3	59.6	21.5	18.9	34.5	6,536.3
Sep.	4.91	5.24	5.24	5.48	386.9	61.4	21.3	17.3	20.1	6,557.4
Oct.	5.08	5.23	5.16	5.42	442.8	63.5	19.3	17.2	34.3	6,592.3
Nov.	5.12	5.20	5.12	5.34	378.0	59.1	20.9	20.1	21.5	6,613.0
Dec.	4.94	4.87	4.75	5.07	318.2	63.1	14.6	22.3	-41.0	6,575.6

Sources: ECB, Reuters for columns 11 and 12.

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. For the calculation of growth rates, see the technical notes.*
2) *Excluding holdings of money market fund shares/units by non-residents of the euro area.*
3) *Credit comprises loans granted to non-MFIs resident in the euro area plus Greece and holdings of securities issued by non-MFIs resident in the euro area plus Greece.*
4) *As a percentage of the total.*

B. Price, real economy and fiscal developments

B.1 Price developments

(annual percentage changes)

	HICP						Industrial producer prices (excluding construction)	Deflators of GDP			
	Total	Goods				Services		GDP			
		Total	Food	Non-energy industrial goods	Energy				Private consumption	Government consumption	Gross fixed capital formation
	1	2	3	4	5	6	7	8	9	10	11
1996	2.3	2.0	2.3	1.6	3.1	2.9	0.4	2.1	2.5	2.2	1.0
1997	1.7	1.2	1.5	0.6	2.6	2.5	1.1	1.6	2.1	1.4	1.1
1998	1.2	0.7	1.7	1.0	-2.6	2.0	-0.7	1.7	1.5	1.5	1.0
1999	1.1	0.9	0.6	0.7	2.3	1.6	-0.4	1.1	1.1	1.8	0.9
2000	2.4	2.7	1.4	0.7	13.4	1.7	5.4	1.4	2.2	2.0	2.5
1999 Q4	1.5	1.5	0.5	0.5	8.0	1.5	2.2	0.9	1.5	2.1	1.4
2000 Q1	2.1	2.3	0.5	0.5	13.7	1.6	4.4	1.2	2.1	2.0	2.1
Q2	2.1	2.3	0.9	0.6	12.3	1.7	5.3	1.2	1.9	1.7	2.3
Q3	2.5	2.9	1.9	0.6	13.7	1.8	5.9	1.5	2.4	1.9	2.5
Q4	2.7	3.3	2.2	1.1	13.8	1.9	6.2	1.5	2.5	1.9	2.9
1999 Dec.	1.7	1.8	0.6	0.5	10.2	1.6	2.9	-	-	-	-
2000 Jan.	1.9	2.0	0.4	0.5	12.2	1.7	3.9	-	-	-	-
Feb.	2.1	2.3	0.6	0.5	13.7	1.6	4.5	-	-	-	-
Mar.	2.2	2.5	0.4	0.6	15.4	1.6	4.9	-	-	-	-
Apr.	1.9	1.9	0.7	0.6	10.3	1.8	4.7	-	-	-	-
May	1.9	2.2	0.8	0.6	12.1	1.6	5.4	-	-	-	-
June	2.4	2.7	1.2	0.7	14.6	1.7	5.7	-	-	-	-
July	2.4	2.7	1.6	0.5	13.5	1.7	5.7	-	-	-	-
Aug.	2.4	2.7	2.0	0.6	12.0	1.8	5.6	-	-	-	-
Sep.	2.8	3.4	2.1	0.8	15.6	1.8	6.4	-	-	-	-
Oct.	2.7	3.3	2.0	1.0	14.8	1.9	6.7	-	-	-	-
Nov.	2.9	3.5	2.2	1.1	15.4	1.9	6.4	-	-	-	-
Dec.	2.6	3.0	2.3	1.1	11.4	1.8	5.4	-	-	-	-

B.2 Real economy and fiscal developments

(annual percentage changes, unless otherwise indicated)

	Real GDP				Industrial production (excluding construction)	Retail sales (constant prices)	Employment (whole economy)	Unemployment (% of labour force)	Trade balance (EUR billions; (ECU billions to end-1998))	Government deficit (-) / surplus (+) (% of GDP)	Government debt (% of GDP)
		Private consumption	Government consumption	Gross fixed capital formation							
	12	13	14	15	16	17	18	19	20	21	22
1996	1.4	1.6	1.7	1.3	0.4	0.5	0.6	11.5	62.4	-4.3	76.0
1997	2.3	1.6	1.3	2.5	4.2	1.2	0.8	11.5	74.5	-2.6	75.4
1998	2.8	3.0	1.2	5.1	4.3	3.0	1.6	10.8	68.7	-2.2	73.7
1999	2.6	3.2	2.1	5.5	2.0	2.6	1.7	10.0	33.4	-1.3	72.6
2000	3.4	2.6	1.9	4.4	5.4	2.4	2.0	8.9	-15.6	-0.8	70.1
1999 Q4	3.6	3.1	2.3	5.9	4.5	3.0	1.6	9.6	8.2	-	-
2000 Q1	3.6	2.6	2.0	5.5	4.7	2.3	1.9	9.3	-7.5	-	-
Q2	3.9	3.3	2.2	4.9	6.2	3.4	2.1	9.0	-3.0	-	-
Q3	3.3	2.5	1.7	4.1	5.8	2.2	2.0	8.8	-0.9	-	-
Q4	2.9	1.8	1.6	3.3	5.1	1.6	2.1	8.6	-4.2	-	-
1999 Dec.	-	-	-	-	5.2	2.8	-	9.5	1.4	-	-
2000 Jan.	-	-	-	-	2.5	2.3	-	9.4	-6.9	-	-
Feb.	-	-	-	-	5.4	3.6	-	9.3	-2.0	-	-
Mar.	-	-	-	-	6.1	0.9	-	9.2	1.4	-	-
Apr.	-	-	-	-	6.6	3.9	-	9.1	-1.4	-	-
May	-	-	-	-	6.8	4.8	-	9.0	-1.0	-	-
June	-	-	-	-	5.1	1.5	-	8.9	-0.5	-	-
July	-	-	-	-	5.7	1.8	-	8.9	3.7	-	-
Aug.	-	-	-	-	6.7	1.8	-	8.8	-2.3	-	-
Sep.	-	-	-	-	5.3	3.1	-	8.7	-2.3	-	-
Oct.	-	-	-	-	3.9	1.7	-	8.6	0.1	-	-
Nov.	-	-	-	-	4.4	1.4	-	8.6	-2.0	-	-
Dec.	-	-	-	-	6.9	1.9	-	8.5	-2.2	-	-

Sources: European Commission (Eurostat) and ECB calculations.

C. Summary balance of payments [1)]

(EUR billions; 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	54.6	99.9	9.4	-16.8	-38.0	15.0	.	.	.	.	.	.	.
1998	23.5	92.8	4.4	-30.1	-43.6	14.8	.	.	.	.	.	.	.
1999	-13.8	64.1	-3.5	-33.0	-41.4	15.6	23.9	-120.6	-36.4	8.5	164.5	8.0	-25.6
2000	-45.0	28.3	-4.4	-21.1	-47.8	12.6	11.4	-25.2	-120.1	-0.8	143.0	14.5	20.9
1999 Q4	-9.5	15.2	-2.5	-9.6	-12.7	6.3	3.2	-46.8	-2.4	-0.3	53.3	-0.6	0.0
2000 Q1	-11.5	3.1	-3.9	-6.5	-4.2	3.9	50.8	147.6	-190.4	2.7	91.6	-0.7	-43.2
Q2	-9.1	8.8	1.3	-6.5	-12.7	3.2	-1.2	-17.9	52.9	4.8	-45.4	4.4	7.2
Q3	-6.5	12.3	2.1	-7.3	-13.5	1.6	-14.9	-95.9	7.6	0.5	69.7	3.3	19.7
Q4	-17.8	4.1	-3.9	-0.7	-17.4	3.9	-23.3	-58.9	9.7	-8.8	27.2	7.5	37.2
1999 Dec.	-4.7	3.5	-1.0	-2.7	-4.5	3.1	-6.5	-20.3	0.1	-0.1	14.7	-0.9	8.1
2000 Jan.	-10.4	-2.4	-1.8	-5.2	-1.1	1.5	22.3	0.8	-4.2	-0.8	28.5	-2.1	-13.3
Feb.	-1.1	2.2	-1.8	-1.0	-0.4	0.9	-1.9	145.8	-151.7	1.9	1.4	0.7	2.1
Mar.	0.0	3.3	-0.3	-0.3	-2.7	1.5	30.5	1.0	-34.4	1.6	61.6	0.8	-31.9
Apr.	-6.9	2.5	-0.7	-3.9	-4.8	2.3	3.9	1.1	-5.6	2.1	6.1	0.1	0.7
May	-1.0	2.3	0.7	-1.1	-2.9	0.6	10.9	-8.5	1.1	0.4	16.8	1.1	-10.5
June	-1.3	4.0	1.3	-1.5	-5.1	0.3	-16.0	-10.5	57.4	2.3	-68.4	3.2	17.0
July	-2.5	6.3	1.5	-4.7	-5.5	0.5	-11.5	-24.6	-13.1	-0.4	27.7	-1.1	13.5
Aug.	-3.5	2.4	1.1	-1.7	-5.3	0.2	-0.3	-42.8	17.1	-0.9	25.4	1.0	3.6
Sep.	-0.4	3.6	-0.4	-0.9	-2.7	0.9	-3.1	-28.5	3.7	1.8	16.6	3.4	2.6
Oct.	-4.3	2.6	-0.8	0.1	-6.3	0.4	5.2	-17.6	5.7	-1.7	18.2	0.7	-1.2
Nov.	-5.0	0.5	-0.3	0.1	-5.3	1.6	-10.7	-9.8	-1.3	-2.9	-4.5	7.8	14.1
Dec.	-8.5	1.0	-2.7	-0.9	-5.9	1.9	-17.7	-31.5	5.3	-4.1	13.5	-1.0	24.3

D. Effective exchange rates

(period averages; index 1999 Q1=100)

	Narrow group				Broad group	
	Nominal	Real CPI	Real PPI	Real ULCM	Nominal	Real CPI
	1	2	3	4	5	6
1996	108.1	108.7	107.5	111.5	95.4	105.8
1997	99.1	99.4	99.2	100.4	90.3	96.5
1998	101.5	101.3	101.5	99.6	96.5	99.1
1999	95.6	95.7	95.7	96.3	96.5	95.8
2000	85.4	86.3	86.8	87.3	88.0	86.1
1999 Q4	92.0	92.1	92.2	93.7	94.1	92.6
2000 Q1	88.8	89.5	89.6	90.1	90.9	89.3
Q2	85.7	86.4	86.9	87.6	88.2	86.5
Q3	84.5	85.4	86.1	86.7	87.1	85.1
Q4	82.7	83.8	84.7	84.9	85.7	83.4
1999 Dec.	89.9	90.3	90.2	-	92.1	90.7
2000 Jan.	90.1	90.7	90.8	-	92.3	90.6
Feb.	89.0	89.7	89.8	-	91.0	89.4
Mar.	87.4	88.1	88.3	-	89.5	88.0
Apr.	85.8	86.4	86.8	-	88.2	86.6
May	84.2	84.8	85.5	-	86.7	84.9
June	87.1	87.9	88.3	-	89.8	88.0
July	86.7	87.6	88.0	-	89.2	87.3
Aug.	84.3	85.3	85.9	-	86.8	84.9
Sep.	82.5	83.4	84.4	-	85.1	83.1
Oct.	81.3	82.1	83.2	-	84.2	82.0
Nov.	82.0	83.0	83.9	-	84.9	82.7
Dec.	85.1	86.2	86.9	-	87.9	85.7

Source: ECB.

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

Technical notes

Relating to Table 2.4[1]

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

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

and I_t the index of adjusted stocks in month t, 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:

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

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

Similarly, the monthly change, as shown in Table 2.4.4, may be calculated as $(I_t/I_{t-1} - 1)*100$. 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. In any case, Tables 2.5 to 2.8 can be used for a 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.

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

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

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.

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:

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

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

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

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 and services includes 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. More detailed and longer runs of data, with further explanatory notes, are available in a downloadable format (csv files) on the ECB's website (www.ecb.int) and new or expanded data will appear in the ECB Monthly Bulletin as they become available.

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

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

As a general rule, the cut-off date for the statistics included in the ECB Monthly Bulletin is the day preceding the first meeting in the month of the Governing Council of the ECB. For this issue it was 10 October 2001.

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 shares/units issued by

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).*

money market funds 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).

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 Eurosystem) comprises the ECB and the national central banks of Member States in the euro area (S.121) and other monetary financial institutions (S.122); non-monetary financial corporations comprises other financial intermediaries (S.123), financial auxiliaries (S.124) and insurance corporations and pension funds (S.125); non-financial corporations (S.11); central government (S.1311); other general government comprises state government (S.1312), local government (S.1313) and social security funds (S.1314).*

Prices and real economy indicators

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

The Harmonised Index of Consumer Prices (HICP) for the euro area (Table 4.1) is available from 1995 onwards. 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. Data from January 2000 include the cost of health and educational services; data from January 2001 also cover hospital services and social services provided to people living at home, in retirement homes and in residences for the disabled; earlier data on the extended basis are, in general, not available. The HICP from January 2000 also covers spending by non-residents which had previously been excluded from the HICP in certain Member States. The table includes seasonally adjusted HICP data which are compiled by the ECB.

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

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

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

Employment data (Table 5.4) are based on the ESA 95. Whenever coverage of the euro area is incomplete, some data are estimated by the ECB on the basis of the information available. Unemployment rates conform to International Labour Organization (ILO) guidelines.

Financial accounts statistics

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

The quarterly data are based on euro area MFI and securities issues statistics, government finance statistics, quarterly national financial accounts, and BIS

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

Table 6.2 shows annual data on saving, (financial and non-financial) investment and financing in the euro area. These data cannot yet be reconciled with the quarterly data presented in Table 6.1.

General government fiscal position

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

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

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

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

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

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

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

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

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

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

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

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

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

Other statistics

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

Past data for selected economic indicators for the euro area plus Greece

Data for the euro area plus Greece up to end-2000 are shown in an additional table at the end of the "Euro area statistics" section. This table provides past data for the euro area plus Greece for a selected number of indicators. Detailed information on the different parts of the table is provided below.

Table A.1 presents monetary aggregates and the main counterparts of M3, as drawn from

the consolidated MFI balance sheet. For the consolidation of the data referring to the "Euro 11 plus Greece", balance sheet positions of MFIs in the first 11 countries participating in the euro area vis-à-vis those resident in Greece have been taken into account. Business denominated in Greek drachmas has also been identified and treated as if it had been in euro.

Table A.2 shows financial market interest rates and securities other than shares statistics. Before January 1999 synthetic euro area money market rates were calculated on the basis of national rates weighted by GDP. From January 1999 to December 2000 euro interbank offered rates (EURIBOR) and ATHIBOR are weighted by GDP. Up to August 2000, 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.

For securities issues statistics (also shown in Table A.2), the fact that residents of Greece will become residents of the euro area has given rise to two structural modifications. The first change involves the inclusion of all securities issued by Greek residents in euro and Greek drachmas. The second effect is caused by the inclusion of all securities issued by euro area residents – in addition to those in Greece – and denominated in Greek drachmas. Securities issues statistics including Greece are compiled for both stocks and flows.

Aggregated data for the euro area plus Greece on price and real economy developments (Table B) are provided by the European Commission (Eurostat). Data on fiscal developments have been aggregated by the ECB.

Table C presents selected balance of payments past data for the euro area plus Greece. The methodology applied is generally the same as that used in Section 8. All available information for the past data is shown on the ECB's web site (in the "Statistics, Latest monetary, financial and balance of payments statistics – release schedules" section).

Table D shows past nominal and real effective exchange rate indices for the euro plus the Greek drachma. The methodology applied for the calculation is the same as that described in the article in the April 2000 issue of the ECB Monthly Bulletin entitled "The nominal and real effective exchange rates of the euro". New weights for the euro area partner countries have been calculated, excluding Greece from the partners but including it in the euro area (for the countries included in the calculations, see the general notes for Table 10). A "theoretical" euro exchange rate, in which account is taken of Greek drachma-related developments as well as deflators for the euro area plus Greece, has been constructed prior to January 2001. The full set of data, starting from 1990 (1993 for the broad group), can be downloaded in csv format from the ECB's website.

Chronology of monetary policy measures of the Eurosystem[1]

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 operation 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 operation 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 operation 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 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.

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