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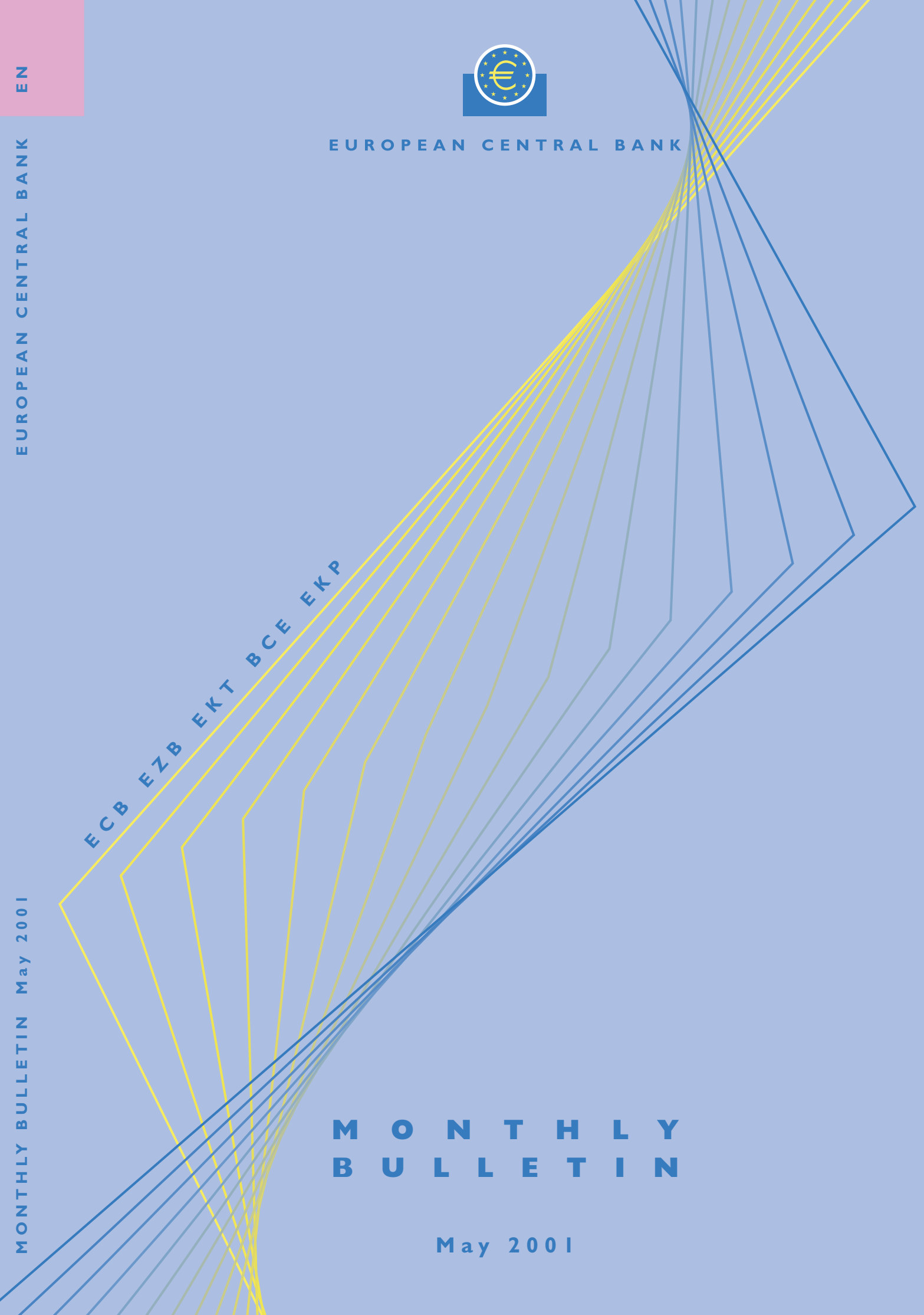
EUROPEAN CENTRAL BANK



MONTHLY BULLETIN

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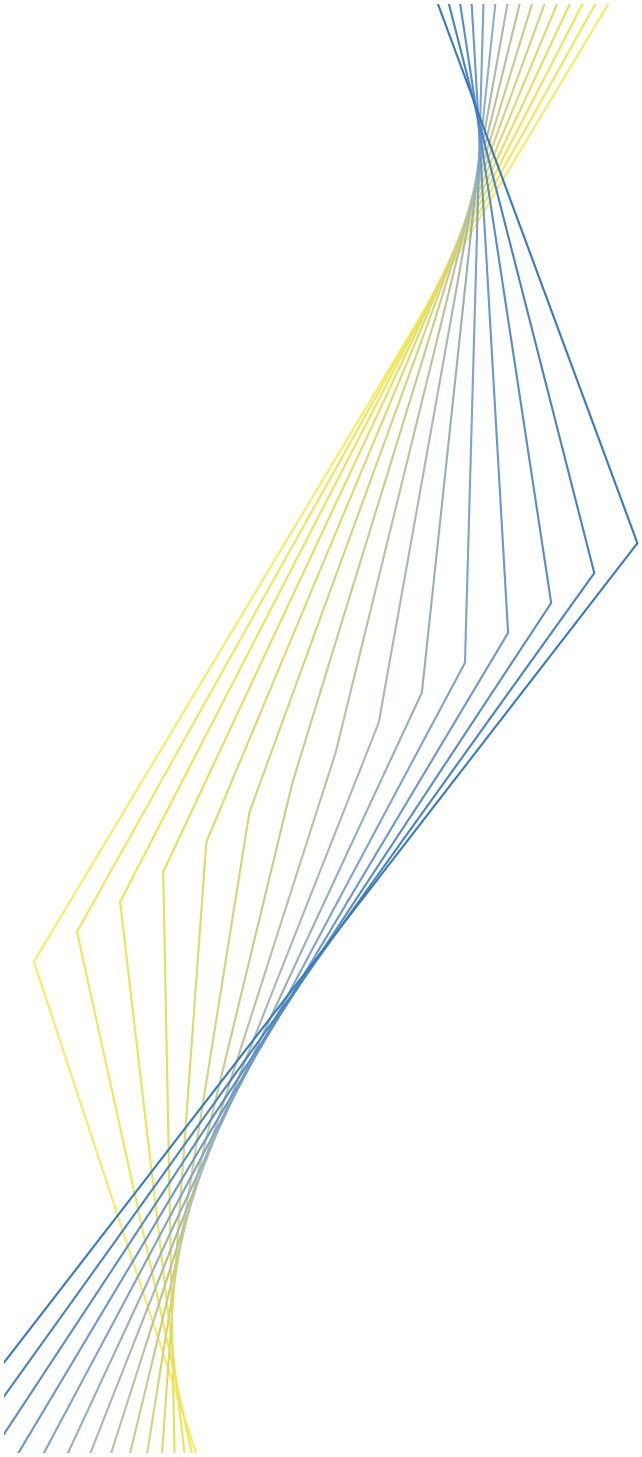

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Contents

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
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
NCBs	national central banks
repos	repurchase agreements
SITC Rev. 3	Standard International Trade Classification (revision 3)

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

Editorial

At its meeting on 10 May 2001 the Governing Council of the ECB decided to reduce the minimum bid rate on the main refinancing operations of the Eurosystem by 25 basis points to 4.50%. The interest rates on the marginal lending facility and the deposit facility were also lowered by 25 basis points, to 5.50% and 3.50% respectively.

This decision to reduce the key ECB interest rates is to be seen as an adjustment of the level of interest rates to somewhat lower inflationary pressure over the medium term. On the basis of the information available, these interest rates are now at an appropriate level to ensure price stability over the medium term, thereby contributing to sound economic growth. The decision should be seen against the background of the two-pillar monetary policy strategy of the ECB.

As regards the first pillar, recent information indicates that monetary developments no longer pose a risk to price stability. M3 growth has been on a gradual downward trend since spring 2000, reflecting the increase in the key ECB interest rates which occurred between November 1999 and October 2000. The three-month average of the annual growth rates of M3 was 4.8% in the period from January to March 2001. Over the past few months, lower rates of growth have also been recorded in credit aggregates.

Moreover, as already stated in previous issues of the Monthly Bulletin and other communications, there have been indications that the monetary growth figures are distorted upwards by non-euro area residents' purchases of negotiable paper included in M3. There is now clear evidence that the magnitudes involved are significant and higher than previously expected. As regards holdings of money market fund units/shares by non-euro area residents, for which data are now of publishable quality, the distortion has become greater over recent months and currently amounts to around half a percentage point of the annual rate of growth of M3. There have also been non-negligible upward distortions to the annual rate of growth of M3 as a result of non-euro area residents' holdings of other marketable paper included in M3. Precise statistical information on this effect is still being developed. Preliminary evidence indicates that this effect on M3 growth in early 2001 may have been similar in size to that related to non-resident holdings of money market funds units/shares. A detailed analysis of these distortions is provided in Box 1 in the "Monetary and financial developments" section of this issue of the Monthly Bulletin. The ECB intends to publish a revised M3 series towards the end of this year, which will then cover both types of distortion. In the meantime, the public will be kept regularly informed of ongoing developments.

Taking into account these factors, the slowdown in M3 over the last few months was more pronounced than previously thought, with estimates of corrected M3 growth being below the reference value of 4½% for some months. Overall, it can now be concluded that there is no longer a risk to price stability over the medium term signalled by the analysis of the first pillar.

Looking at the second pillar, available evidence indicates that upward risks to price stability over the medium term have diminished somewhat. This view is supported by recent forecasts. At the same time, economic growth trends and wage developments must continue to be monitored closely.

First, owing to the less favourable external environment, a moderation in real GDP growth in the euro area will dampen upward pressure on prices. Recently released indicators of economic activity confirm this moderation. This notwithstanding, current forecasts indicate that economic growth, supported by domestic demand, will be broadly in line with estimates of trend potential growth in 2001. The outlook for a continuation of solid growth in the euro area in the medium term and for inflation being in line with the ECB definition of price stability

is underpinned by the current level of government bond yields in the euro area.

Second, wage moderation has so far been maintained in the euro area as a whole, despite oil price increases in 1999 and in 2000. This has been a very positive factor and lends support to those forecasts which assume that current inflation rates will not spill over into future wage negotiations. However, wage developments need to be continuously monitored. An abatement of domestic cost pressures on HICP inflation in the medium term remains conditional on the continuation of wage moderation.

For some months to come, however, the medium-term inflation trend will be overshadowed by temporary developments in unprocessed food prices as a result of health concerns related to meat consumption and the consequences of foot-and-mouth disease. Moreover, the pass-through of the indirect effects of past rises in oil prices and the past depreciation of the euro is likely to continue for some months, as also suggested by recent data on producer prices. However, the effects of these factors, which have caused annual HICP inflation to remain clearly above 2% in early 2001, should gradually diminish over the course of the year, making it likely that HICP inflation will fall below 2% in 2002.

The Governing Council has to focus on the outlook for price stability in the medium term, as monetary policy works its way through the economy with time-lags. Overall, the medium-term outlook for price stability, as indicated by the two pillars taken together, is favourable. At the same time, the Governing Council underlines the need to remain vigilant. It is necessary to continue monitoring external and domestic demand trends, as well as wage developments. In this respect, wage negotiators should have full confidence in monetary policy maintaining price stability in the euro area over the medium term.

Achieving higher sustainable and non-inflationary growth requires that governments and social partners implement decisive structural measures in labour and product markets. Fiscal policy must continue its consolidation process and governments should abide by the commitments made in the Stability and Growth Pact and in the national stability programmes.

This issue of the ECB Monthly Bulletin contains three articles. The first presents various tools for the analysis of monetary developments. The second reviews the main features of the new Capital Accord proposed by the Basel Committee on Banking Supervision. The third presents an overview of the methodological framework underlying the quarterly financial accounts for euro area non-financial sectors, which are published for the first time in this issue of the ECB Monthly Bulletin.

Economic developments in the euro area

1 Monetary and financial developments

Monetary policy decisions of the Governing Council of the ECB

At its meeting on 10 May 2001, the Governing Council of the ECB decided to reduce the minimum bid rate in the main refinancing operations by 25 basis points, to 4.50%, starting from the operation to be settled on 15 May 2001. The interest rates on the deposit facility and the marginal lending facility were also reduced by 25 basis points, to 3.50% and 5.50% respectively, in both cases with effect from 11 May 2001 (see Chart 1).

M3 growth remains close to the reference value

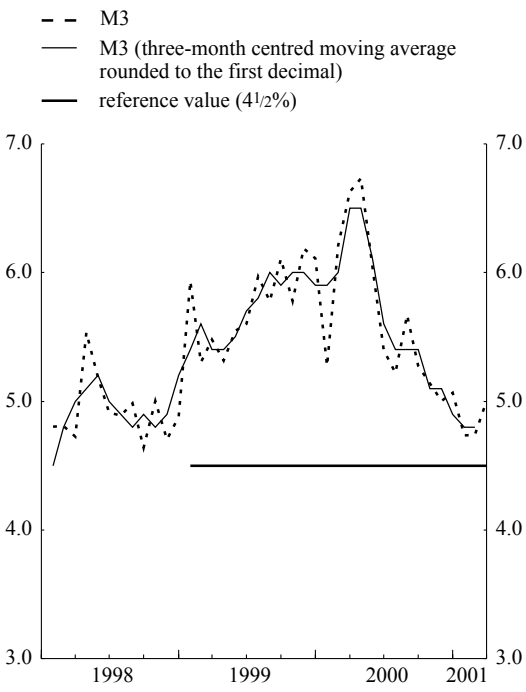
In March 2001 the three-month average of the annual growth rates of the broad monetary aggregate M3 remained unchanged at 4.8%. The annual growth rate of M3 increased to 5.0% in March, from 4.7% in February (see Chart 2). When interpreting this development, it should, however, be borne in mind that the annual growth rate of M3 in March was affected by a number of special influences.

First, the annual rate of increase of M3 was influenced by calendar effects. These effects result from differences in the money holding and payment behaviour on specific days of the week. They are particularly relevant in the case of euro area monetary statistics, since the latter are compiled on the basis of data as at the last working day of the month. For example, since the last day in March 2001 was a Saturday, some end-of-month payments of private sector non-MFIs to central government, which is not included in the money holding sector of the euro area, were probably postponed until the start of the following week and therefore month. Consequently, the holdings of M3 by euro

Chart 2

M3 growth and the reference value

(annual percentage changes)

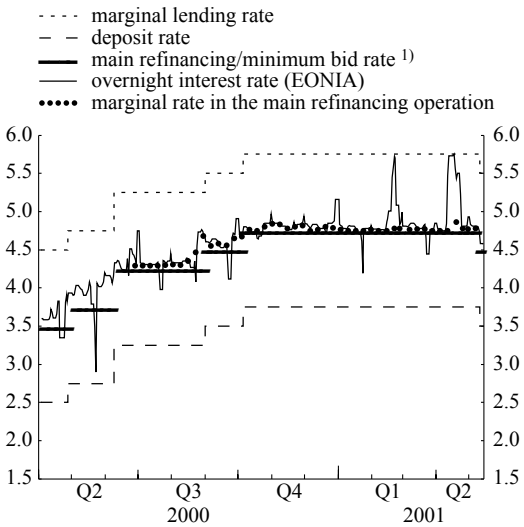


Source: ECB.

Chart 1

ECB interest rates and money market rates

(percentages per annum; daily data)



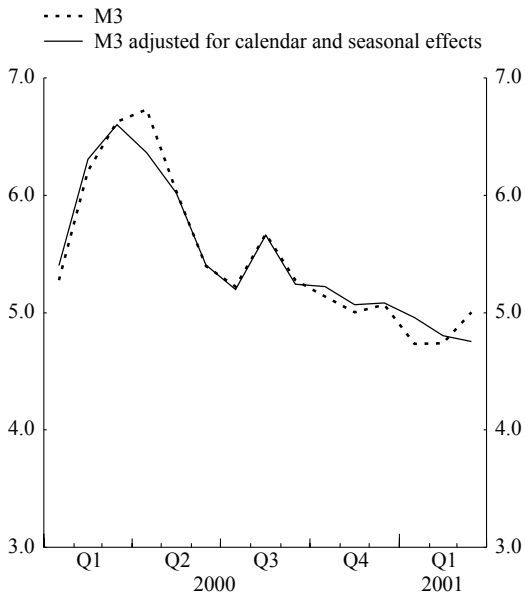
Sources: ECB and Reuters.

1) Starting from the operation settled on 28 June 2000, the main refinancing rate refers to the minimum bid rate applied to variable rate tenders.

Chart 3

Annual growth of M3

(annual percentage changes)



Source: ECB.

area private sector non-MFIs at the end of March 2001 were higher than in the same month of 2000 when the last day of the month had been a Friday. Taking out such effects, the annual rate of growth of M3 would have been broadly stable in March compared with February. Chart 3 illustrates this by showing the path of the annual growth rate of M3 based on seasonally and calendar adjusted data. As can be seen from the chart, the path traced by seasonally and calendar adjusted annual M3 growth is much smoother than that of the official M3 growth rate. The ECB developed the methodology for calculating these data in 2000 and now regards their quality to have been sufficiently tested. For this reason, the ECB will in the near future start officially calculating the annual growth rate of monetary data on the basis of seasonally and calendar adjusted monthly flows.

Second, in March, the rise in the annual rate of growth of M3 was also due to an increase in the upward effect caused by non-resident holdings of money market fund shares/units. As explained in Box 1, the impact of non-resident holdings of money market fund shares/units has led increasingly to an upward distortion of the annual growth rate of M3 since the late summer of 2000.

Third, the strong monthly increase in M3 in March – on a month-on-month basis M3 rose by 0.6% in seasonally adjusted terms – was probably fostered by the high volatility in stock markets in this month. This development seems to have increased the demand of investors for short-term secure and liquid assets remunerated at close to market interest rates, such as deposits with an agreed maturity of up to two years and marketable instruments.

Taking all these factors into account, it is fair to conclude that underlying monetary dynamics continued their downward trend in March 2001. Overall, also taking into consideration the measurement issues concerning negotiable instruments explained in Box 1, recent monetary developments indicate that risks to price stability stemming from such developments have disappeared at the current juncture.

Regarding the components of M3, the annual growth rate of the narrow monetary aggregate M1 rose slightly, to 2.1% in March, following 2.0% in February. This rise was exclusively attributable to an increase in the annual rate of growth of overnight deposits, from 2.6% in February to 2.9% in March (see Chart 4), which in turn was due to the above-mentioned calendar effects. By contrast, the annual rate of decline of currency in circulation became more pronounced (1.9% in March 2001, after 1.2% in February). This development could be related to some extent to a flowback of currency from outside the euro area ahead of the euro cash changeover at the end of this year. This might have dampened developments in currency in circulation over recent months.

The annual growth rate of short-term deposits other than overnight deposits increased to 4.2% in March, from 3.5% in

Box 1

Measurement issues related to the inclusion of negotiable instruments in euro area M3

The broad monetary aggregate M3 in the euro area includes negotiable instruments, namely money market fund shares/units, money market paper and debt securities with an initial maturity of up to two years. These negotiable instruments are part of euro area M3, since they are characterised by a relatively high degree of liquidity and low price volatility and, hence, represent close substitutes for other components of M3, such as time deposits.

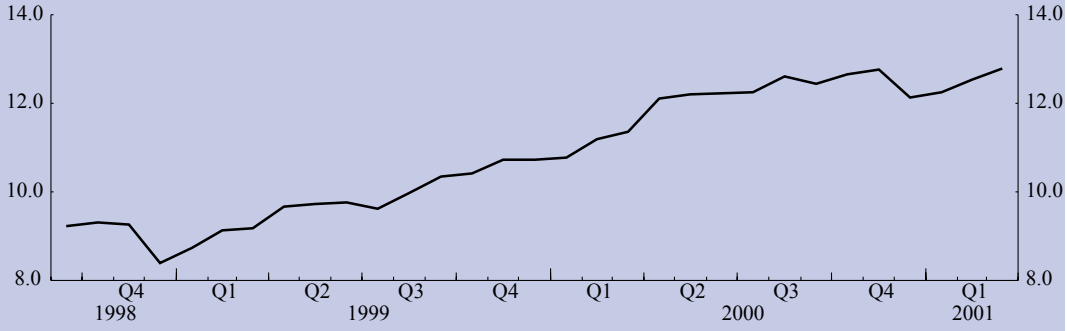
M3 is intended to measure the money holdings of euro area residents, since these holdings are deemed to be particularly relevant for an assessment of the implications of monetary developments for price stability within the euro area. Therefore, from a conceptual point of view, holdings of negotiable instruments by non-euro area residents should be excluded from M3. In practice, however, it is difficult to identify the residency of the holders of short-term negotiable instruments. As such instruments are frequently placed on the market via investment banks, held by end-investors through custody accounts and/or redeemed via international settlement systems, the issuing Monetary Financial Institutions (MFIs) often do not have reliable information about the residency of the actual holders of the instruments they have issued. These instruments are also traded to some extent on secondary markets.

Prior to the start of Stage Three of Economic and Monetary Union (EMU), the amounts outstanding of these negotiable instruments were rather small and were subject to only moderate growth over time. Furthermore, there was little evidence of non-euro area residents holding negotiable instruments issued by euro area MFIs to any significant extent. It was against this background that the decision was taken to include in the definition of M3 all negotiable instruments issued by euro area MFIs (excluding those issues held by euro area MFIs themselves).

Since the start of Stage Three of EMU the expansion of the negotiable instruments included in M3 has become very dynamic. The annual rate of growth of negotiable instruments has risen significantly since the final quarter of 1999, reaching temporarily more than 20%. As a consequence of the high annual rate of growth of negotiable instruments, the share of these instruments in the stock of euro area M3 has risen from below 10% prior to the start of Stage Three of EMU to 12% to 13% at present (see Chart A). There is evidence that this growth has to a significant extent been driven by demand from investors resident outside the euro area.

Chart A: Share of negotiable instruments in M3

(as a percentage of the stock of M3)



Source: ECB.

The increase in the holdings of negotiable instruments of euro area residents as well as of non-euro area residents since late 1999 might reflect both conjunctural and structural factors. The rise in short-term interest rates since autumn 1999 and the flattening of the yield curve in the euro area have generally increased the attractiveness of these short-term assets. Moreover, the correction in global stock markets since the second quarter of 2000 and the temporarily high volatility in these markets led to portfolio shifts into more secure assets such as short-term negotiable paper.

In addition to conjunctural effects, the increase in the demand for short-term negotiable instruments could also reflect some more lasting structural developments, in particular changes caused by a reduction in the worldwide supply of high-quality fixed income securities resulting from the process of budget consolidation in most industrialised countries. Short-term negotiable instruments issued by euro area MFIs could represent an alternative to investment in government bonds, in particular in an environment of a flat yield curve. In this respect, it should also be noted that demand on the part of non-euro area residents for money market paper and debt securities with a maturity of up to two years is very much focused on paper with the highest investment grade and, hence, on that paper which is the closest substitute for government bonds. Finally, the ageing population structure in many industrialised countries and the need for the reform of public pension systems have increasingly led to the emergence of private pension funds in a number of countries, thereby generally fuelling the demand for high-quality paper.

Previous issues of the Monthly Bulletin have pointed to the fact that M3 growth is influenced by non-euro area residents' holdings of negotiable instruments. While these holdings were initially small, there are indications that they have, over recent months, increasingly been leading to an upward distortion of M3 growth.

In assessing the impact on M3 growth, a distinction needs to be made between the non-euro area resident holdings of money market paper and short-term debt securities with an initial maturity of up to two years on the one hand and those of money market fund shares/units on the other. While for the former reliable quantitative estimates are not yet available, sufficiently reliable data are now available for the latter.

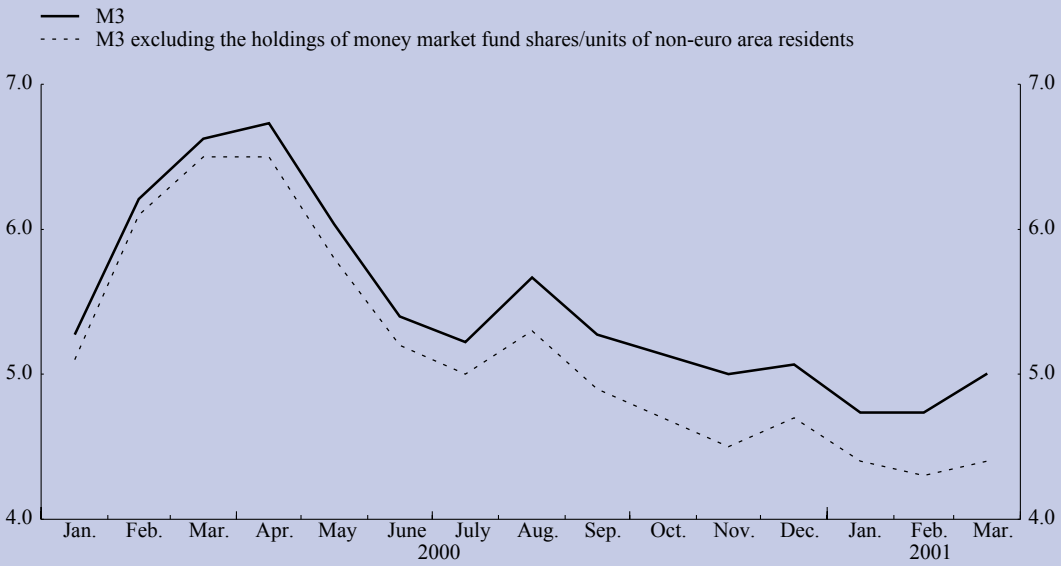
As far as the holdings of money market fund shares/units of non-euro area residents are concerned, the impact on the annual rate of growth of M3 was very small until late summer 2000 (see Chart B). Thereafter, this distortion gradually became more sizeable and it currently amounts to around half a percentage point. At the same time, as can be seen from Chart B, the impact resulting from the non-euro area resident holdings of money market fund shares/units has not affected the trend developments in monetary growth since the start of Stage Three of EMU, with the exception of the developments in the most recent past.

With regard to non-euro area residents' holdings of money market paper and short-term debt securities with an initial maturity of up to two years issued by euro area MFIs, a statistical project is currently under way to provide a more precise evaluation of this phenomenon. Preliminary information in this regard suggests that the impact on the annual growth rate of M3 in March 2001 of non-euro area residents' holdings of money market paper and debt securities with an initial maturity of up to two years might have been similar to that of non-euro area residents' holdings of money market fund shares/units. When these preliminary estimates of non-euro area residents' holdings of money market paper and short-term debt securities are taken into account, the upward effect on the annual growth rate of M3 increases further. While this has an impact on the level of the annual growth rate of M3, the currently available information indicates that trend developments in overall M3 growth since the start of Stage Three of EMU remain broadly unaffected.

Towards the end of this year the ECB intends to publish a revised M3 series, taking into account the total effect on the annual growth rate of M3 caused by non-euro area residents' holdings of all negotiable

Chart B: The influence on M3 growth of the holdings of money market fund shares/units of non-euro area residents

(annual percentage changes)



Source: ECB.

instruments. In the meantime, the ECB will continue to inform the public about the development of the non-resident holdings and explain how these are taken into account in the regular assessment of monetary developments. In particular, the ECB will provide regular monthly information on the effects of non-euro area residents' holdings of money market fund shares/units on annual M3 growth, starting with the press release on monetary developments for April 2001.

The Eurosystem's money and banking statistics are calculated on the basis of the fully harmonised consolidated balance sheet of the MFIs of the euro area and are, in particular, based on homogeneous definitions for the money-issuing and money-holding sectors and financial instrument categories. Moreover, monetary data for the euro area are available in a timely manner, on a monthly basis. Therefore, the ECB's monetary data are among the highest quality economic statistics available for the euro area. The generally high quality of monetary data for the euro area will be further enhanced with the identification of non-euro area residents' holdings of negotiable paper. The information on M3 thus remains reliable and will continue to be the focus when assessing monetary developments under the first pillar of the ECB's monetary policy strategy.

February. This was attributable both to an increase in the annual growth rate of deposits with an agreed maturity of up to two years and to a slower annual rate of decline in deposits redeemable at a period of notice of up to three months.

The annual rate of growth of marketable instruments fell from 15.8% in February to 14.7% in March. This decline was, however, mainly due to a strong base effect. On a month-on-month basis, marketable instruments rose considerably in seasonally adjusted terms in March (see Table 1). This dynamic development was partly attributable

Table 1

M3 and its main components

(end-of-month levels and seasonally adjusted month-on-month changes)

	Mar. 2001 levels	Jan. 2001 change		Feb. 2001 change		Mar. 2001 change		Jan. 2001 to Mar. 2001 average change	
	EUR billions	EUR billions	%	EUR billions	%	EUR billions	%	EUR billions	%
M3	5,276.4	12.7	0.3	39.1	0.8	31.7	0.6	27.8	0.5
Currency in circulation and overnight deposits (= M1)	2,040.0	-30.6	-1.5	32.0	1.6	-0.5	0.0	0.3	0.0
Other short-term deposits (= M2 - M1)	2,336.5	10.1	0.4	13.3	0.6	14.8	0.6	12.7	0.6
Marketable instruments (= M3 - M2)	899.9	33.3	3.9	-6.3	-0.7	17.3	2.0	14.8	1.7

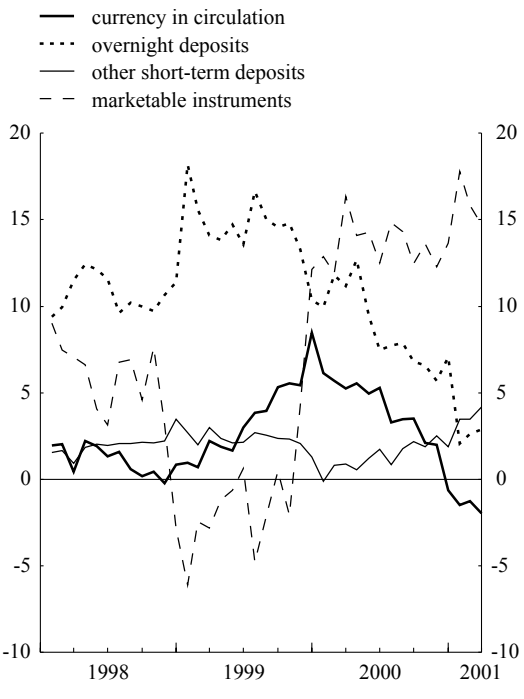
Source: ECB.
Note: Due to rounding, the components of M3 in euro (billions) may not add up to the total reported for M3.

to the above-mentioned purchases by non-residents. Moreover, these instruments are likely to have benefited from the high uncertainty on global stock markets in March.

Chart 4

Components of M3

(annual percentage changes)



Source: ECB.

Growth in credit to the private sector continued to moderate

Turning to the counterparts of M3, the annual growth rate of total credit granted to euro area residents stood at 5.7% in March 2001, compared with 5.8% in February. While the annual rate of change in credit extended to the private sector continued to fall, the annual rate of decline in credit extended to general government was lower in March (-5.4% after -6.1% in February).

With regard to credit to the private sector, the fall in its annual rate of growth to 9.2%, its lowest level since the start of Stage Three of Economic and Monetary Union, largely reflected the developments in loans. This seems to confirm earlier evidence of a slight moderation in the dynamics of loans to the private sector after the strong rises recorded in August and September 2000 (which may have stemmed to a large extent from the increased financing needs of telecommunications companies participating in the UMTS auctions). The moderation in the growth of loans to the private sector is likely to have reflected at least to some extent the increase in bank lending rates between mid-1999 and late 2000 (see Charts 6 and 7). Moreover, the weakening in business confidence over recent months may have dampened the demand for loans.

Table 2

M3 and its main counterparts

(end-of-month levels and 12-month flows; EUR billions)

	Amounts outstanding	12-month flows					
	2001 Mar.	2000 Oct.	2000 Nov.	2000 Dec.	2001 Jan.	2001 Feb.	2001 Mar.
1. Credit to the private sector	7,117.5	663.0	626.7	633.4	631.6	611.3	594.6
2. Credit to general government	2,018.9	-130.3	-141.3	-109.8	-119.0	-126.1	-110.6
3. Net external assets	186.0	-109.0	-98.9	-90.1	-95.7	-92.8	-49.4
4. Longer-term financial liabilities	3,793.8	234.7	198.6	161.4	159.8	152.9	157.8
5. Other counterparts (net liabilities)	252.3	-50.8	-48.3	27.3	28.5	9.0	29.9
M3 (=1+2+3-4-5)	5,276.4	239.7	236.3	244.8	228.7	230.6	246.9

Source: ECB.
Note: Due to rounding, the counterparts of M3 may not add up to the total reported for M3.

The annual rate of increase in longer-term financial liabilities of the MFI sector remained practically stable in March 2001 (4.4% after 4.3% in February). The continuing subdued demand for these instruments is likely to be related to the relatively flat yield curve prevailing since the final quarter of last year, which has made these instruments less attractive to investors.

In March 2001 the net external asset position of the euro area MFI sector decreased by €32 billion in absolute and non-seasonally adjusted terms. Over the 12 months to March, the net external assets of the MFI sector declined by €49 billion, compared with a cumulative decrease of €93 billion over the 12 months to February 2001 (see Table 2).

Debt securities issuance in the private sector remained high in February 2001

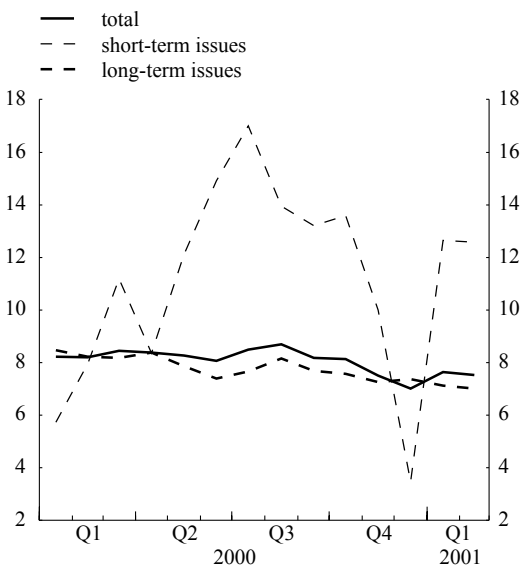
Following the rebound in issuance activity in January 2001, the annual growth of the amount outstanding of debt securities issued by euro area residents remained at 7.5% in February, virtually unchanged from the previous month. Similarly, the annual growth rates in the amounts outstanding of debt securities issued at both short and long-term maturities were little changed compared with January, remaining at 12.6% and 7.0% respectively in February 2001 (see Chart 5).

As regards the sectoral breakdown, issuance activity in the private sector remained strong in February 2001, in an environment of falling bond yields and narrowing spreads between high-quality corporate bonds and government bonds since the beginning of this year. Furthermore, weak stock market conditions in the first months of 2001 may have

Chart 5

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.

prompted a move by private sector issuers towards the debt markets. The annual growth of the amount outstanding of euro-denominated debt securities issued by MFIs remained unchanged, at 8.9%, in February 2001. The annual growth of the amount outstanding of debt securities issued by the non-MFI private sector, which had been rising since the last quarter of 2000, increased further in February 2001 to 24.2%, from 23.2% in January.

Public sector debt securities issuance remained moderate in February 2001. The annual growth of the amount outstanding of debt securities issued by the public sector decreased further, from 2.4% in January 2001 to 1.9% in February.

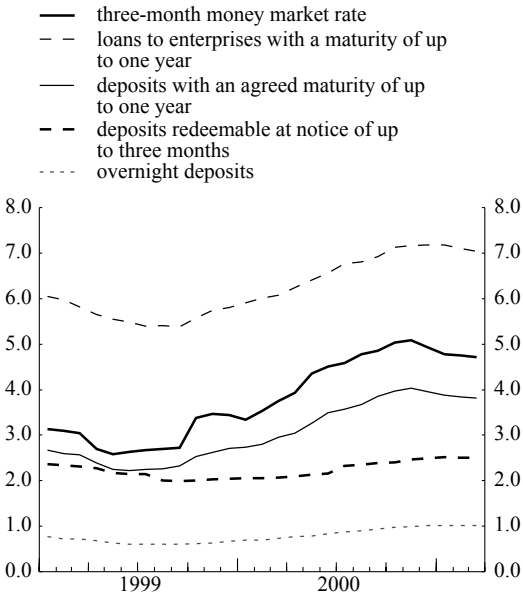
Retail bank interest rates, particularly lending rates, declined in March 2001

Short-term deposit rates remained broadly unchanged in March 2001 compared with February, while the interest rate on loans to enterprises with a maturity of up to one year declined by 6 basis points (see Chart 6). Over the longer term, from November 2000, when money market interest rates started to decline, to March 2001, the average rates on deposits with an agreed maturity of up to one year and the interest rate on loans to enterprises with a maturity of up to one year declined by around 25 basis points. By contrast, the interest rates on overnight deposits and on deposits redeemable at a period of notice of up to three months increased slightly over the same period. These interest rate changes contrasted with a decline in average three-month money market rates of almost 40 basis points between November 2000 and March 2001 and indicated significant differences in the pass-through of money market rates to short-term bank interest rates. The latter are probably mainly related to differences in competition in the various segments of the retail banking market.

Chart 6

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

(percentages per annum; monthly averages)



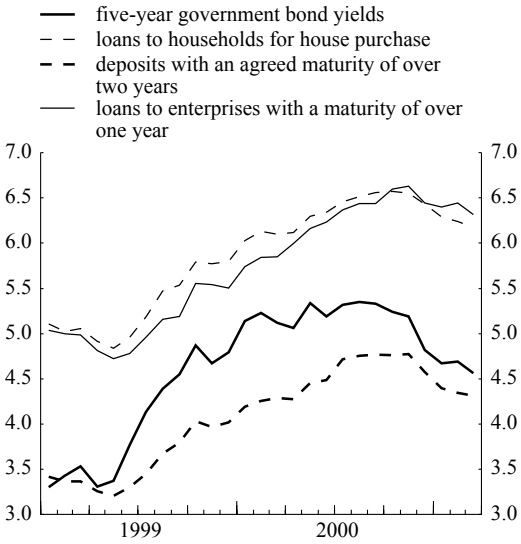
Sources: ECB aggregation of individual country data and Reuters.
Note: From 1 January 2001 onwards Greek data are also included.

Long-term retail bank interest rates declined in March 2001, by amounts ranging from 3 to 13 basis points compared with February (see Chart 7). The 3 basis point decrease in the interest rate on deposits with an agreed maturity of over two years was modest, while the long-term lending rates for enterprises and for housing loans to households declined by 7 and 13 basis points respectively. Turning to longer-term developments, from November 2000 to March 2001, in a period of falling government bond yields, the average rates on deposits with a maturity of over two years, on loans to households for house purchase and on loans to enterprises with a maturity of over one year declined by around 40 basis points. In comparison, between November 2000 and March 2001, the average five-year government bond yield fell by around 60 basis points. Overall, these developments indicate a relatively quick pass-through of capital market rates to bank interest rates.

Chart 7

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.

Money market interest rates rose in April and early May 2001

Money market interest rates increased in April and early May 2001, more than reversing the declines seen in March. The most marked increases were seen at the longer end of the money market yield curve, causing the negative difference between the twelve-month and one-month EURIBOR to become much less pronounced in early May.

The shortest money market interest rates were temporarily influenced by underbidding by banks in the main refinancing operation settled on 11 April (see Box 2). The overnight interest rate, as measured by the EONIA, increased sharply when money market liquidity tightened following the underbidding, but normalised again at the start of the new reserve maintenance period on 24 April. Two-week money market rates were also affected by the underbidding, although to a lesser extent. After standing slightly below the 4.75% minimum bid rate in the ECB's main refinancing operations in the last few days before 11 April, these rates rose sharply to around 5%, reflecting tight liquidity conditions, before falling again to stabilise at around 4.80% between 20 April and 8 May. In the main refinancing operations, the marginal and average rates of allotment increased to 4.86% and 4.91% respectively in the operation settled on 19 April, after having remained at 4.75% in the two previous operations. Subsequently, in the reserve maintenance period starting on 24 April, the allotment rates normalised and remained within a range of 5 basis points above the minimum bid rate of 4.75% in the operations settled on 25 and 30 April and on 7 May.

The one-month and three-month EURIBOR increased by 12 and 24 basis points respectively between end-March and 8 May, to stand at 4.82% and 4.80% (see Chart 8). Thus, the short end of the money market yield curve, which had a clearly negative slope at the end of March, was broadly flat on 8 May.

As usual, movements in the interest rates of allotment in the longer-term refinancing operations of the Eurosystem largely reflected developments in the three-month EURIBOR. In the operation settled on 25 April, the marginal and average rates of allotment were equal to 4.67% and 4.70% respectively. These levels were both 20 basis points higher than the corresponding rates on the longer-term refinancing operation settled on 29 March.

At the longer end of the money market yield curve, the six-month and twelve-month EURIBOR increased significantly, by 29 and 32 basis points respectively, between end-March and 8 May, to stand at 4.71% and 4.64%. The difference between the twelve-month and one-month EURIBOR became considerably less negative, moving from -38 basis points at end-March to -18 basis points on 8 May.

The expected path of the three-month EURIBOR in 2001, as implied in futures prices on contracts with delivery dates this year,

Box 2

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

Allotments in monetary policy operations

During the reserve maintenance period which lasted from 24 March to 23 April 2001 the Eurosystem settled four main refinancing operations (MROs) and one longer-term refinancing operation.

The MROs were carried out as variable rate tenders with a minimum bid rate of 4.75%. In the first MRO the marginal rate was slightly above the minimum bid rate, while it was equal to it in the second and third operations. In these MROs the weighted average rate was either 1 basis point higher than the marginal rate or equal to it. However, in the last operation of the reserve maintenance period, the marginal rate and the weighted average rate increased to 4.86% and 4.91% respectively, reflecting a shortage of liquidity caused by insufficient bids in the MRO conducted on 10 April 2001. The number of counterparties participating in the tenders ranged between 240 and 607, with an average of 405.

The gap between the volumes of the two outstanding MROs widened considerably owing to the underbidding in the operation conducted on 10 April. In that operation, the allotted volume reached a record low of €25 billion, which was significantly below the level which would have ensured the smooth fulfilment of reserve requirements. To address the resulting tight liquidity conditions, a record high volume of €172 billion was allotted in the fourth operation. However, liquidity conditions continued to be tight until the end of the reserve maintenance period. The ratio of the amount bid to the volume allotted ranged between 1.00 in the third operation, where the ECB satisfied all the bids, and 1.50 in the fourth operation, while the average for the reserve maintenance period was 1.12.

On 28 March 2001 the Eurosystem conducted a longer-term refinancing operation through a variable rate tender with a pre-announced allotment volume of €20 billion. However, owing to a technical problem in the submission of bids, the amount allotted had to be reduced to €19.1 billion. A total of 234 bidders participated in this operation, submitting a total amount of bids of €38.2 billion. The marginal and the weighted average rates of the operation were 4.47% and 4.50% respectively.

Contributions to the banking system's liquidity

(EUR billions)

Daily average during the reserve maintenance period from 24 March to 23 April 2001

	Liquidity providing	Liquidity absorbing	Net contribution
(a) Monetary policy operations of the Eurosystem	**233.0**	**0.5**	**+ 232.5**
Main refinancing operations	172.4	-	+ 172.4
Longer-term refinancing operations	58.4	-	+ 58.4
Standing facilities	2.2	0.5	+ 1.7
Other operations	0.0	0.0	0.0
(b) Other factors affecting the banking system's liquidity	**382.1**	**493.2**	**- 111.1**
Banknotes in circulation	-	354.6	- 354.6
Government deposits with the Eurosystem	-	49.5	- 49.5
Net foreign assets (including gold)	382.1	-	+382.1
Other factors (net)	-	89.1	- 89.1
(c) Credit institutions' holdings on current accounts with the Eurosystem (a) + (b)			**121.4**
(d) Required reserves			**120.8**

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

From the start of the reserve maintenance period until 9 April 2001 the EONIA ranged between 4.74% and 4.78%, with the exception of Friday, 30 March, when it temporarily increased to 4.85% owing to the usual end-of-month effect. Overnight rates rose to higher levels immediately after the shortfall of bids in the MRO conducted on 10 April. Further increases were experienced on the days which followed, as market participants took the view that liquidity conditions would remain tight until the end of the reserve maintenance period. On 17 April 2001, the EONIA reached the rate of the marginal lending facility for the first time since the launch of the euro. After the allotment decision on 18 April 2001, the EONIA fell to 5.56%. During the last three days of the reserve maintenance period, the EONIA continued to fluctuate within a relatively wide range well above the minimum bid rate.

Use of standing facilities

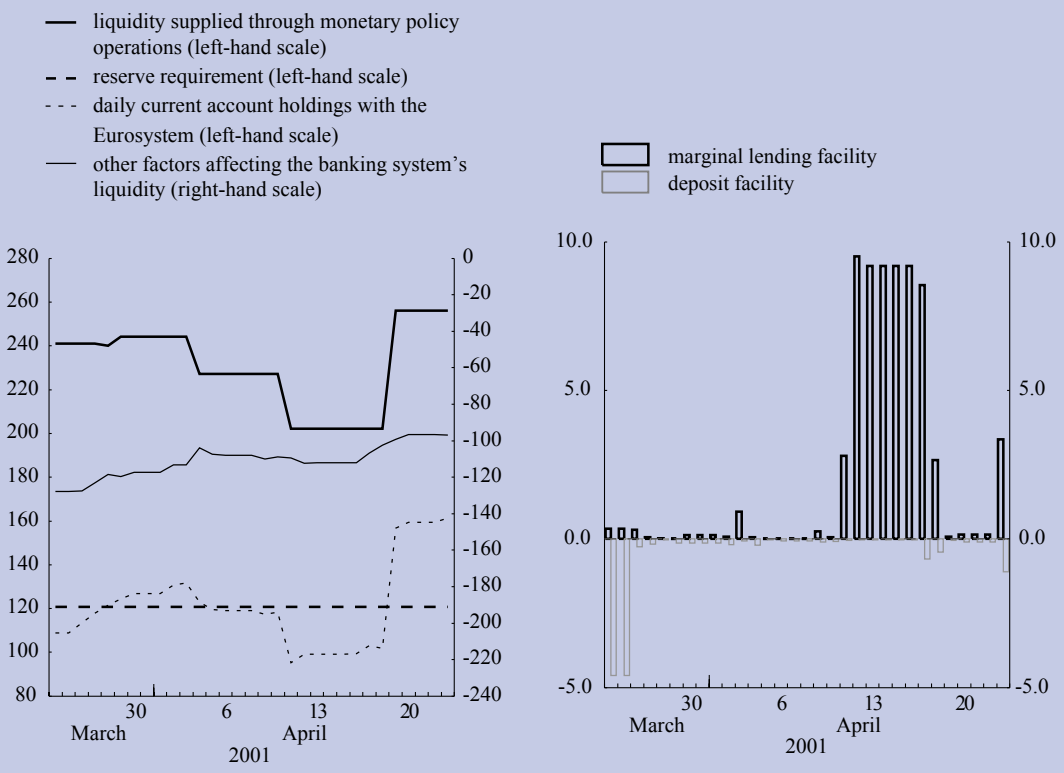
As a consequence of the tight liquidity conditions resulting from the underbidding on 10 April, the average daily use of the marginal lending facility increased from €0.5 billion in the preceding reserve maintenance period to €2.2 billion, which corresponds to €67 billion in accumulated terms. €64 billion of this total amount was used after the settlement of the third operation on 11 April 2001. The average use of the deposit facility remained stable at €0.4 billion.

Liquidity factors not related to monetary policy

The net liquidity-absorbing impact of the autonomous factors (the factors not related to monetary policy) on the banking system's liquidity (item (b) in the table above) was €111.1 billion on average, i.e. €7.1 billion lower than in the previous reserve maintenance period. This decrease mainly reflected lower government

Factors contributing to the banking system's liquidity during the reserve maintenance period ending on 23 April 2001

(EUR billions; daily data)



Source: ECB.

deposits and the transfer of profits of central banks to governments. The increase in net foreign assets reported in the consolidated balance sheet of the Eurosystem mainly reflects the revaluation which took place on 30 March 2001 and which did not, therefore, have any liquidity effects. The daily sum of autonomous factors fluctuated between €96.7 billion and €127.9 billion.

The published estimates of average liquidity needs stemming from autonomous factors ranged between €101.2 billion and €119.1 billion. They differed from the actual figures by an amount ranging from minus €1.8 billion to plus €2.3 billion.

Current account holdings of counterparties

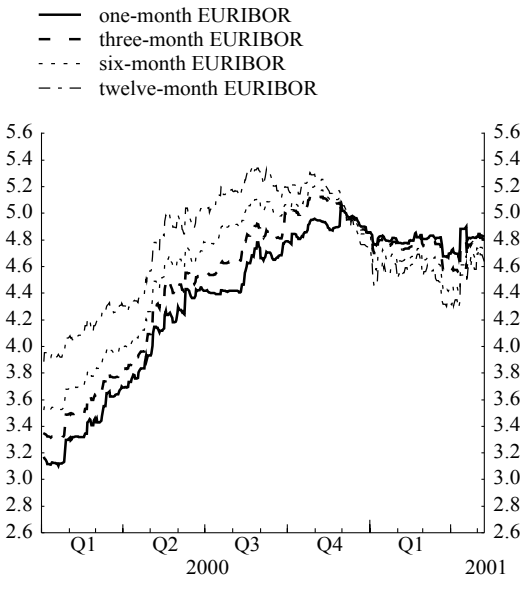
The average current account holdings amounted to €121.4 billion, and reserve requirements to €120.8 billion. The difference between the average current account holdings and the reserve requirements, constituting excess reserves held by counterparties, amounted to €0.6 billion, which was the same as in the previous reserve maintenance period.

also shifted considerably upwards between end-March and early May. On 8 May the three-month EURIBOR implied in contracts maturing in June, September and December 2001 were 4.66%, 4.46% and 4.46% respectively. These were respectively 40, 42 and 36 basis points higher than at end-March.

Chart 8

Short-term interest rates in the euro area

(percentages per annum; daily data)



Source: Reuters.

Long-term bond yields rose in April 2001

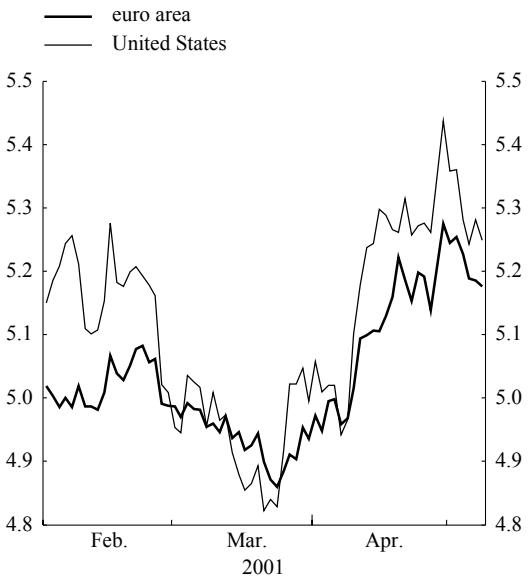
Following a period of broad stability during the first three months of 2001, long-term government bond yields in the euro area increased significantly between end-March and early May (see Chart 9). On 8 May 2001 the average euro area ten-year government bond yield stood at around 5.2%, which was approximately 25 basis points higher than the level seen at end-March. In US bond markets, the ten-year government bond yield also increased by approximately 25 basis points during the same period, to around 5.25%. As a result, the differential between ten-year government bond yields in the United States and the euro area remained broadly stable, at a level slightly above zero. In contrast, the spread between real yields on US ten-year index-linked government bonds and comparable French bonds continued to move further into negative territory, by around 35 basis points, to stand at about -50 basis points in early May.

In the United States, long-term government bond yields increased substantially between end-March and early May. Contributing to this were strong rebounds in US equity prices which may have triggered a flow out of the bond market, thereby reversing previously built up "safe-haven"-related portfolio

Chart 9

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 Greek data are also included.

positions. In this respect, the unexpected inter-meeting interest rate cut by the Federal Open Market Committee on 18 April bolstered US stock markets, while at the same time it seemed to have dissipated some of the most pessimistic market views concerning the US economic outlook. Towards the end of April and in early May, some economic data releases also seemed to contribute to improving optimism among investors about growth prospects, which in turn may have placed additional upward pressure on US long-term bond yields. However, recent developments in the US ten-year "break-even" inflation rate, which is obtained from the difference between US nominal and index-linked ten-year bond yields, suggest that market expectations of rising US inflation may account for much of the observed increase in US nominal bond yields. In particular, between end-March and 8 May, the US ten-year break-even inflation rate rose by almost 60 basis points, to around 2.3%, adding further to the increase of around 30 basis points in the break-even rate that had already occurred in the first three months of 2001. In this context, however, it should be kept in mind that the impact of safe-haven-related portfolio flows between bond and stock markets may complicate the interpretation of break-even inflation measures as indicators of inflation expectations.

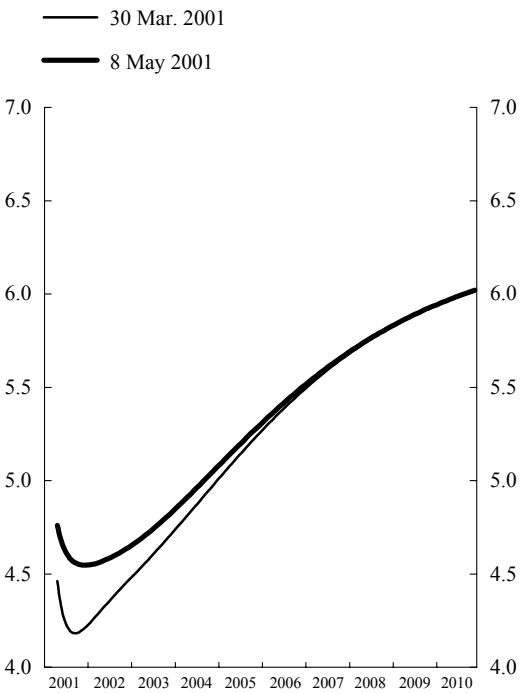
In Japan, the ten-year government bond yield stood at around 1.3% on 8 May 2001, which was little changed from the level prevailing at the end of March. Between end-March and early May yields initially increased markedly and subsequently reversed direction. The initial upward pressure on bond yields seemed to largely reflect portfolio shifts from bonds into equities following gains in Japanese stock prices, as well as uncertainties about the political outlook in Japan and concerns among investors that the Government might increase its debt by more than previously expected in order to finance new fiscal stimulus packages. Later on, following the appointment of a new Prime Minister, bond yields declined again, reflecting inter alia expectations among investors that the new Government would cap the issuance of government bonds.

Apart from the influence of developments in international bond markets, euro area government bond yields were affected by a number of factors in the course of April and early May. Somewhat more pronounced yield increases occurred at short and medium-term maturities and, as a result, the marked inversion at the short end of the euro area yield curve that had prevailed since the end of 2000 was reduced to some extent. This would tend to indicate that market participants revised upwards their expectations for the path of short-term interest rates in the euro area. Developments in the implied forward euro area overnight interest rate curve between end-March and 8 May were consistent with this view, while at the same time indicating that no significant changes had taken place with respect to short-term interest rate expectations over long horizons (see Chart 10).

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.

An important factor behind the rise in long-term euro area bond yields seems to have been the rebound in stock prices, which resulted in a reversal of safe-haven flows and may also have caused a waning of some of the pessimism among market participants about the global economic outlook. In the market for French index-linked bonds, the real yield on ten-year index-linked bonds increased by around 10 basis points between end-March and 8 May, while the corresponding break-even inflation rate rose by about 15 basis points. The increase in long-term real yields would appear to reflect the markets' recent upward revision of short-term interest rate expectations, and possibly a perceived reduction in downward risks to future growth prospects among investors. Apart from the usual caveats that apply to the break-even inflation rate as a measure of inflation expectations, the increase in this rate was probably influenced by recent flows from the bond market into equities, which reversed previously built up safe-haven positions, thus complicating the interpretation of recent trends. Overall, the current level of the French ten-year break-even inflation rate, at around 1.5%, remains close to the average rate since end-2000. This could be seen as indicating that investors continue to have relatively stable expectations regarding average inflation rates in the coming years.

Stock prices rebounded in April 2001

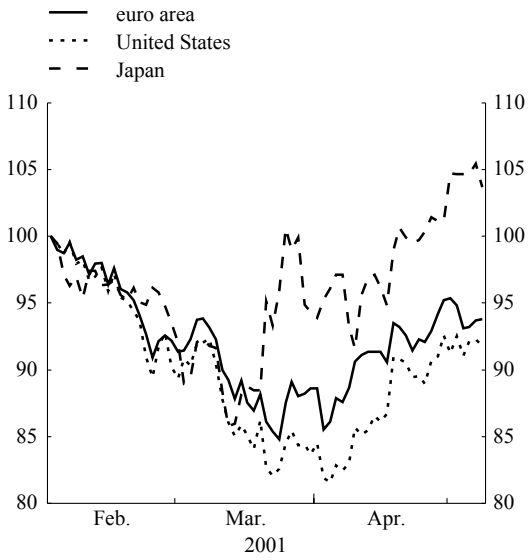
Stock prices in the euro area, Japan and the United States, as measured by the Dow Jones EURO STOXX index, the Nikkei 225 and the Standard & Poor's 500 index, all showed solid increases ranging from 5% to 10% between end-March and 8 May. The increases in April were the strongest on a month-on-month basis since the three indices started declining from their peaks reached at the end of the first quarter of last year. On 8 May the euro area index stood roughly 6% below its end-2000 level, while the US index was 3% below. The Nikkei stood 1% above its year-end level by 8 May (see Chart 11).

In the United States, on 4 April, stock prices reached their lowest level since October 1998, when measured by the Standard & Poor's 500 index. From April 4 onwards, US stock prices recovered, posting an increase of more than 12% by 8 May. The sharp rise in US stock prices was supported by several factors and coincided with a decline in volatility. First, after the steep fall in the Standard & Poor's 500 since September 2000, traditional indicators of stock market valuation such as the price/earnings ratio of the Standard & Poor's 500, although still high, reached their lowest levels since September 1998. Second, although corporate earnings generally declined in the first quarter, some earnings announcements, in particular in the high-technology sector, were better than expected. In addition, the surprise rate cut

Chart 11

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

(index: 1 February 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 Greek data are also included.

by the Federal Reserve on 18 April further bolstered the US stock market by reducing the opportunity cost of holding equities and probably, and perhaps more importantly, by increasing market participants' confidence in the likelihood that corporate earnings growth would quickly recover. As an immediate reaction to the Federal Reserve's decision to lower the federal funds target rate by 50 basis points, the Standard & Poor's index rose by 5% on 18 April. The Nasdaq Composite index also increased by 12% on that day. All in all, investors seemed to become less pessimistic and uncertain about future stock market developments in the United States, a perception that was further supported by the release in late April of the first estimate of GDP figures for the first quarter.

In Japan, stock prices also recorded robust increases in April in an environment of very high but declining volatility. Besides reflecting spillovers mainly from the US market, the significant rises in Japanese stock prices were also driven by domestic factors, in particular the new Government's stated commitment to resolving the bad debt problem of Japanese banks.

In the euro area, stock prices also rebounded in a less volatile environment, with a rise between end-March and 8 May of 6% as measured by the Dow Jones EURO STOXX index. By 8 May this index was around 11% higher than the low point reached on 23 March 2001. Spillovers from the United States seem to have played a major role in the turnaround of euro area stock prices. Downward revisions of growth prospects for the euro area seem to have been mitigated by positive reports on US growth, which were seen as supporting the profitability outlook of the euro area corporate sector in particular. The overall increase in the EURO STOXX index since the end of March was heavily influenced by the 22% rise in the technology sector, which was commensurate with the advance of close to 24% in the Nasdaq Composite index over the same period. Part of this increase can be explained by positive earnings reports by some prominent firms in this sector, but it should also be borne in mind that stock prices in the technology sector decreased more than in any other sector in the first three months of 2001.

2 Price developments

HICP inflation unchanged between February and March 2001

The annual percentage change in the overall Harmonised Index of Consumer Prices (HICP) in the euro area remained unchanged at 2.6% between February and March 2001. This masked significant, but counterbalancing, developments in the year-on-year rates for energy on the one hand and unprocessed food prices on the other (see Table 3). The annual percentage change in HICP excluding these more volatile components continued the gradual upward movement observed since the last quarter of 1999, increasing by 0.1 percentage point to 1.9% in March 2001.

The year-on-year rate of change in energy prices declined from 8.3% in February to 5.6% in March 2001, reflecting both the fall in the euro price of oil between February and March 2001 and base effects associated with the slight increase in oil prices between February and March 2000. By contrast, the annual rate of change in unprocessed food prices increased to 6.5% in March 2001, up 2.0 percentage points compared with the annual rate of change in February (see Chart 12). A large proportion of this increase appears to be related to health concerns associated with BSE and to recent measures taken to counteract the spread of foot-and-mouth disease in the EU. Against this background, Box 3 provides a more detailed

Table 3

Price and cost developments in the euro area

(annual percentage changes, unless otherwise indicated)

	1998	1999	2000	2000 Q2	2000 Q3	2000 Q4	2001 Q1	2000 Nov.	2000 Dec.	2001 Jan.	2001 Feb.	2001 Mar.	2001 Apr.
Harmonised Index of Consumer Prices (HICP) and its components													
Overall index	1.2	1.1	2.4	2.1	2.5	2.7	2.6	2.9	2.6	2.5	2.6	2.6	.
of which:													
Goods	0.7	0.9	2.7	2.3	2.9	3.2	2.8	3.5	3.0	2.7	2.9	2.8	.
Food	1.7	0.6	1.4	0.9	1.9	2.2	3.2	2.2	2.3	2.8	3.0	3.9	.
Processed food	1.5	1.0	1.2	1.0	1.2	1.4	2.0	1.5	1.4	1.7	2.1	2.2	.
Unprocessed food	2.0	0.1	1.7	0.7	3.1	3.5	5.2	3.4	3.7	4.5	4.5	6.5	.
Industrial goods	0.2	1.0	3.4	3.0	3.4	3.8	2.6	4.1	3.3	2.7	2.8	2.3	.
Non-energy industrial goods	1.0	0.7	0.7	0.6	0.6	1.1	1.3	1.1	1.1	1.2	1.3	1.3	.
Energy	-2.6	2.3	13.4	12.3	13.7	13.8	7.3	15.3	11.3	7.9	8.3	5.6	.
Services	2.0	1.6	1.7	1.7	1.8	1.8	2.3	1.9	1.8	2.2	2.3	2.3	.
Other price and cost indicators													
Industrial producer prices [1]	-0.7	-0.4	5.4	5.2	5.8	6.1	4.5	6.4	5.4	4.8	4.5	4.1	.
Unit labour costs [2]	0.2	1.3	1.0	0.6	1.3	1.6	.	-	-	-	-	-	-
Labour productivity [2]	1.2	0.9	1.2	1.5	1.0	0.5	.	-	-	-	-	-	-
Compensation per employee [2]	1.5	2.3	2.3	2.1	2.4	2.1	.	-	-	-	-	-	-
Total hourly labour costs [3]	1.8	2.2	3.7	3.8	3.8	3.4	.	-	-	-	-	-	-
Oil prices (EUR per barrel) [4]	12.0	17.1	31.0	28.8	33.7	34.5	28.4	37.7	28.8	27.5	29.9	28.1	29.8
Commodity prices [5]	-12.5	-3.1	18.1	18.3	18.0	16.4	1.4	18.2	8.6	3.3	1.7	-0.8	-1.1

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

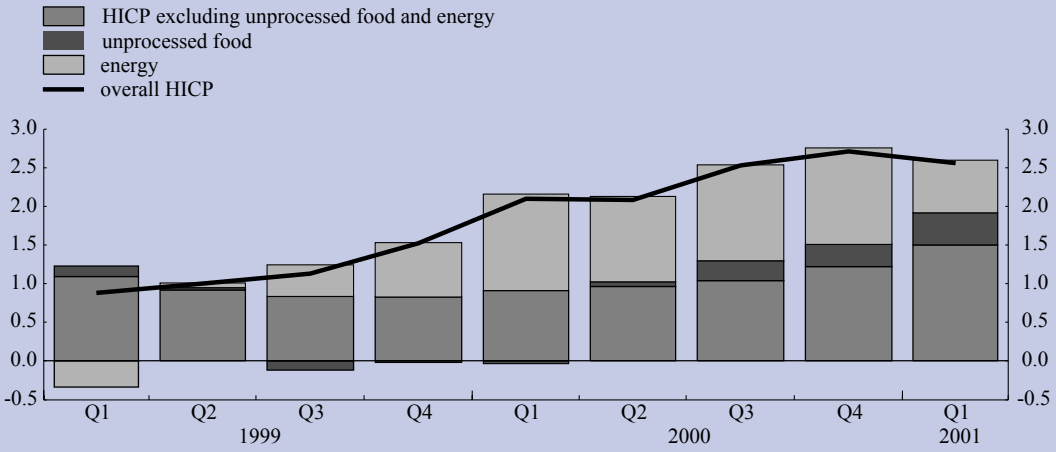
Box 3

Recent unprocessed food price developments: the impact of BSE and foot-and-mouth disease

Over recent years, developments in the euro area HICP have been significantly influenced by movements in its more volatile components, in particular energy and unprocessed food prices. While the contribution of energy prices to the overall HICP rate of inflation has recently declined, the steady rise in the contribution of unprocessed food prices to overall inflation observed over the last year has intensified in recent months (see the chart below). This larger contribution from unprocessed food prices is one of the reasons why overall inflation has remained quite high, even though the annual percentage change in energy prices fell substantially from 15.5% in November 2000 to 5.6% in March 2001.

Contributions to euro area overall HICP inflation

(annual percentage point contributions; quarterly data)



Sources: Eurostat and ECB calculations.

While unprocessed food prices are often influenced by the weather and other seasonal factors, the latest rise in their contribution to overall inflation appears, in part, to be related to health concerns associated with BSE in some euro area countries. More recently, the outbreak of foot-and-mouth disease in several European countries, and the preventative measures taken in order to combat the spread of the disease, also appear to have played a role. Largely reflecting these factors, the year-on-year rate of increase in unprocessed food prices rose significantly to 6.5% in March 2001, up 2.0 percentage points on the previous month and well above the average increase of 1.7% recorded in 2000. Given that unprocessed food prices have a weight of 8.0% in the overall HICP, in March 2001 they accounted for approximately 0.5 percentage point of the 2.6% year-on-year increase in the overall HICP. In addition, while the sharp increase in food prices has largely taken place in the unprocessed food component, processed food price increases have also picked up in the first few months of 2001, thereby adding to the overall upward pressure on the HICP from the food sector. Most notably, there has been a rise in prices for milk, cheese and eggs.

Higher meat prices provide some evidence of shifts in consumer demand

In order to examine these developments more closely, the table below provides a breakdown of unprocessed food price developments into its four sub-components: meat, fish, fruit and vegetable prices. These components have weights of 51.5%, 14.6%, 14.3% and 19.6% respectively in the overall unprocessed food component. Given their large weight, meat prices have been the main driving factor behind developments in the first three months of 2001. While a detailed breakdown of meat prices is not available for the euro area HICP, there is

some evidence at the national level that this partly reflects higher prices for beef substitutes such as pork and poultry. This suggests that consumers may have moved from beef to other alternatives. Such a view is also supported by the pick-up in fish prices. Fruit and vegetable prices also increased in March 2001, but it is more likely that this development reflects adverse weather conditions. In addition, apart from rising prices for substitutes, there is also some evidence that beef prices themselves have risen, perhaps reflecting a switch in consumer demand to more expensive organically farmed or imported beef.

Developments in euro area unprocessed food prices

(annual percentage changes, unless otherwise indicated)

	Weights[1), 2), 3)]		1999	2000	2000 Q2	2000 Q3	2000 Q4	2001 Q1	2000 Nov.	2000 Dec.	2001 Jan.	2001 Feb.	2001 Mar.
Unprocessed food *of which:*	100.0	8.0	0.1	1.7	0.7	3.1	3.5	5.2	3.4	3.7	4.5	4.5	6.5
Meat	51.5	4.1	-1.3	2.1	1.9	2.5	3.3	6.3	3.1	3.7	4.8	6.3	7.7
Fish	14.6	1.2	2.5	3.2	2.8	3.4	4.3	5.2	4.6	4.3	4.6	5.2	5.8
Fruit	14.3	1.1	-0.2	0.1	-1.6	1.9	2.0	3.9	1.9	3.1	3.5	3.0	5.2
Vegetables	19.6	1.6	2.6	0.7	-1.9	5.4	4.4	3.2	4.7	3.8	4.2	0.7	4.9

Sources: Eurostat and ECB calculations.
1) 2001 consumer spending weights.
2) First column: weight in unprocessed food.
3) Second column: weight in the overall HICP.

The potential impact on HICP inflation is not expected to be long-lasting

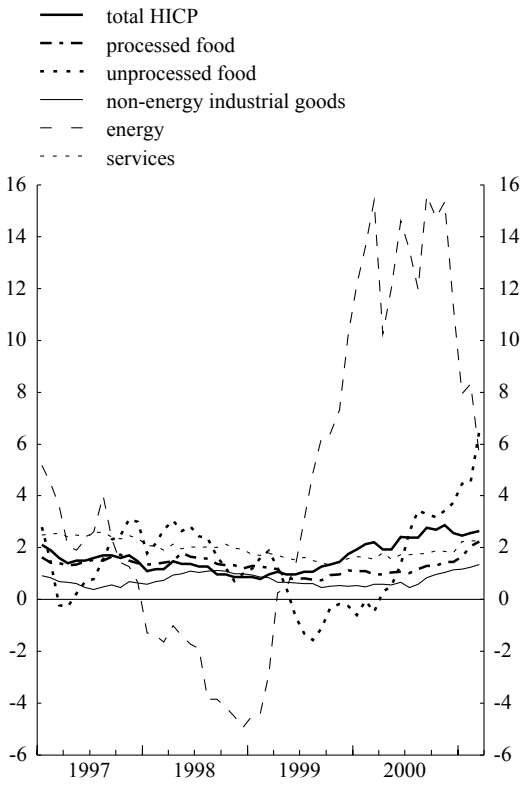
It is still too early to make a final assessment of these recent developments in unprocessed food prices. The most recent developments can in part be considered as a change in the relative price level of some foodstuffs in response to changing patterns in consumer demand. In this regard, there is significant uncertainty as to whether or not such a demand shift will be permanent. Should it prove to be only temporary, some of the recent price increases may be reversed, either fully or in part. Nevertheless, even if recent shifts in consumer demand were to prove to be more persistent, once market supply has adjusted to these changes, price increases should also subside. Thus, these relative price changes should not in themselves exert a lasting effect on euro area inflation. In addition, there are supply-side effects. In particular, the measures taken to eradicate BSE and to prevent the spread of foot-and-mouth disease may be associated with a reduction in the available livestock and, hence, may be adding to the upward pressure on prices stemming from shifts in consumer demand. Moreover, these supply-related measures may impose higher costs on the agricultural sector and, hence, may potentially have a "cost-push" effect on prices.

With regard to possible future effects on the euro area HICP, these can be expected – as in recent months – to be most clearly observed in unprocessed food prices. However, both the demand and supply factors mentioned above may have further effects on other components, such as processed food (e.g. milk, cheese and eggs), and on some sub-components of services prices for which foodstuffs are an important input (e.g. catering services, restaurants, cafés and the like). Overall, therefore, there is a need to closely monitor food and related price developments in the months ahead.

Chart 12

Breakdown of HICP inflation in the euro area by components

(annual percentage changes; monthly data)



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

overview and assessment of recent developments in prices of unprocessed food. In addition, perhaps as a result of higher input costs and shifts in consumer demand associated with the above-mentioned developments in the agricultural sector, the annual rate of change in prices of processed food increased further by 0.1 percentage point to stand at 2.2% in March 2001.

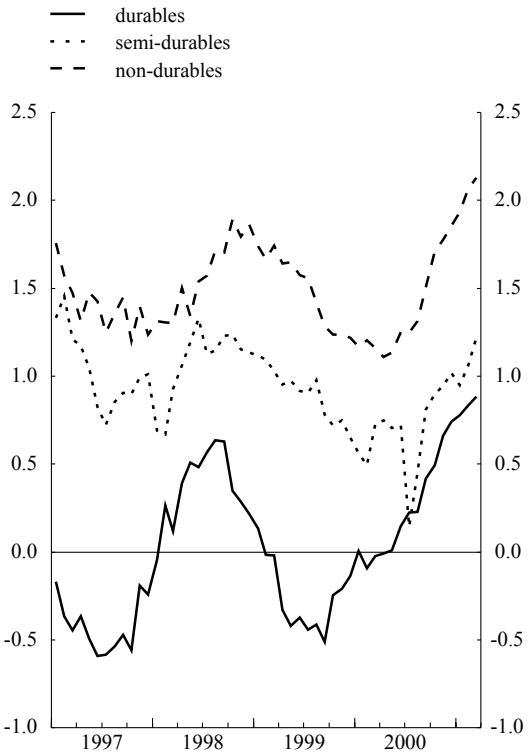
The annual rate of change in non-energy industrial goods prices remained unchanged between February and March 2001 at 1.3%. From the trough observed in July 2000 until March 2001 the annual percentage change in prices of non-energy industrial goods rose by 0.9 percentage point. Underlying this development are higher year-on-year rates of change in prices of durables and semi-durables as well as non-durables (see Chart 13). In fact, a more detailed analysis shows that almost all of the sub-components of non-energy industrial goods contributed positively to this increase. This broadly based increase reflects indirect effects associated with the past increases in oil prices and the depreciation of the euro (pass-through).

The year-on-year rate of change in services prices was 2.3% in March 2001, also unchanged compared with February. This suggests that the impact from recent changes in administered prices and indirect taxes in a few euro area countries, which have had an upward effect on services prices in recent months as discussed in previous issues of the Monthly Bulletin, has now largely materialised.

Chart 13

Developments in prices of non-energy industrial goods in the euro area

(annual percentage changes; monthly data)



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

HICP inflation likely to be volatile in the coming months before starting to fall

Over the coming months inflation rates are likely to be affected by a number of largely temporary factors before medium-term tendencies become fully visible. It is likely that euro area HICP inflation rose in April 2001. Base effects associated with the decline in energy prices in April 2000 in combination with the rebound in the oil price from €28.1 per barrel in March to €29.8 in April 2001 suggest that there will be no downward impact on overall inflation stemming from energy prices. In addition, developments in unprocessed food prices may have exerted further upward pressure on HICP inflation in April 2001. By contrast, looking further ahead, the contribution from energy prices to HICP inflation is likely to decline on average over the coming months on account of base effects. Obviously, a decline in the current euro price of oil would also make a positive contribution to this development. However, a further downward movement in overall HICP inflation stemming from energy prices will partly be counterbalanced for some months to come by ongoing indirect effects of past import price increases, in particular on prices of non-energy industrial goods. Moreover, in the light of recent developments related to BSE and foot-and-mouth disease, there are likely to be further increases in prices of food and food-related items in the immediate period ahead. Against this background, and in combination with the fact that the decline in oil prices has been less pronounced than assumed a few months ago, the point in time at which HICP inflation will fall below 2% may be delayed compared with previous expectations. Looking ahead over a more medium-term perspective, the moderation in growth should dampen upward pressure on prices. The forecasts currently available from various international organisations all project euro area consumer price inflation of below 2% on average in 2002, but this appears to be based on the assumption of continued wage moderation.

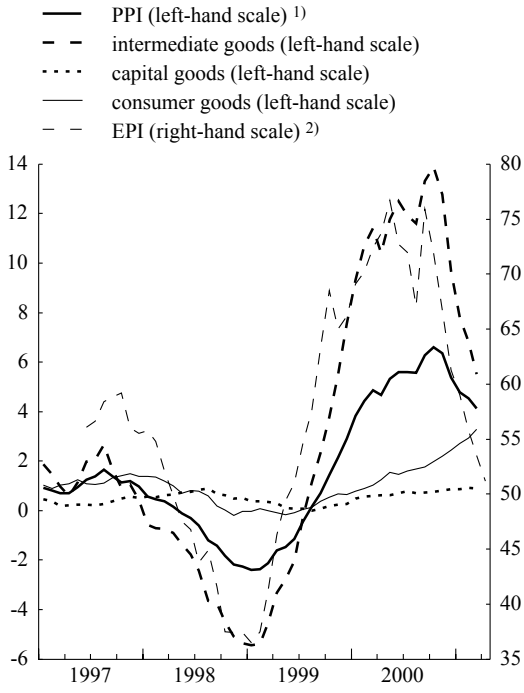
Annual rate of increase in producer prices continued to decline in March 2001

The latest data show a further decline in the annual growth rate of euro area industrial producer prices from 4.5% in February to 4.1% in March 2001 (see Chart 14). As in previous months, underlying the latest development in producer price inflation was a decline in the annual rate of change in intermediate goods prices from 6.8% in February to 5.5% in March 2001. The year-on-year rate of change in capital goods prices remained unchanged at 0.9% for the fourth consecutive month. Meanwhile, the annual rate of change in consumer goods prices

Chart 14

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.

increased by 0.3 percentage point compared with the previous month to stand at 3.1% in March 2001, reflecting upward movements in both of its main sub-components. The year-on-year rates of change in durable and non-durable goods prices in March 2001 were 2.1% and 3.7% respectively. For durables this was 0.2 percentage point higher than in February, whereas for non-durables it was 0.4 percentage point higher. A large proportion of the increase in prices of non-durable consumer goods can be explained by higher producer prices in industries producing food and beverages. In addition, the upward movement in prices for consumer goods also reflects the gradual pass-through of past raw material and oil price increases and the depreciation of the euro during most of 2000.

Looking at likely developments in overall producer prices in the short-term, there are factors suggesting some further moderation in the annual rate of change stemming from intermediate goods prices. First, there will be some downward effects on the year-on-year rate of change due to base effects associated with the increases observed in 2000. Second, reflecting to some extent the decline in the annual rate of change in the euro price of oil, the manufacturing input price index (Purchasing Managers' Survey) for the euro area has been on a downward trend since the autumn of 2000. Most recently, the index showed a further decline from 53.5 in March to 51.2 in April 2001. However, as regards capital and consumer goods prices, further indirect effects arising from the large import price increase observed over the last two years may continue to give rise to further upward pressure on overall producer prices.

Hourly labour costs growth in the fourth quarter of 2000 revised downward slightly

Eurostat revised downward its estimate of the annual growth rate in total hourly labour costs for the fourth quarter of 2000 by 0.1 percentage point to 3.4%, a decline of 0.4 percentage point compared with the third quarter. Meanwhile, the annual growth rate in compensation per employee declined from 2.4% in the third quarter to 2.1% in the fourth quarter of 2000. As mentioned in earlier issues of the Monthly Bulletin, higher increases in hourly labour costs than in compensation per employee can largely be explained by the shortening of the number of hours worked per week, statistical effects and certain one-off factors affecting total hourly labour costs. As regards the development of unit labour costs, the downward effect of the decline in the growth rate of compensation per employee was more than offset by a continuation of the cyclical decline in the annual growth rate of labour productivity, which decreased by 0.5 percentage point to 0.5% between the third and fourth quarters of 2000. As a result, the annual growth rate in unit labour costs increased to 1.6% in the last quarter of 2000, up from 1.3% in the previous quarter.

3 Output, demand and labour market developments

Real GDP growth remained robust in the fourth quarter of 2000

Eurostat's third estimate of national accounts developments in the fourth quarter of 2000 largely confirmed earlier estimates. Real GDP is estimated to have increased by 0.7% quarter-on-quarter in the fourth quarter of 2000, slightly faster than the rate of growth of 0.6% recorded in the third quarter (see Table 4). The slight increase in the quarter-on-quarter rate of growth in the fourth quarter of last year was the result of a higher contribution to growth from domestic demand, in particular from private consumption, which rose by 0.3% quarter-on-quarter in the fourth quarter of 2000, compared with 0.2% in the previous quarter. The contribution to growth from net exports remained at 0.2 percentage point in the fourth

Table 4

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	1999 Q4	2000 Q1	2000 Q2	2000 Q3	2000 Q4	1999 Q4	2000 Q1	2000 Q2	2000 Q3	2000 Q4
Real gross domestic product	2.9	2.5	3.4	3.4	3.5	3.8	3.3	3.0	1.0	0.9	0.8	0.6	0.7
of which:													
Domestic demand	3.5	3.1	2.8	3.2	2.8	3.3	2.8	2.4	0.9	0.7	0.8	0.3	0.5
Private consumption	3.1	3.0	2.6	2.9	2.6	3.2	2.5	2.1	0.7	0.7	0.9	0.2	0.3
Government consumption	1.0	1.5	1.9	1.7	2.0	2.1	1.7	1.9	0.5	0.8	0.3	0.1	0.6
Gross fixed capital formation	5.1	5.2	4.6	5.5	5.6	4.9	4.0	3.8	0.7	1.6	0.6	1.0	0.5
Changes in inventories [3), 4)]	0.4	0.0	0.0	0.0	-0.3	0.0	0.2	0.0	0.3	-0.2	0.1	0.0	0.1
Net exports [3)]	-0.6	-0.5	0.6	0.3	0.8	0.5	0.5	0.6	0.1	0.2	0.0	0.2	0.2
Exports [5)]	7.1	4.8	11.8	10.1	12.3	11.8	11.7	11.6	3.1	2.7	2.4	3.0	3.1
Imports [5)]	9.6	6.8	10.6	9.7	10.4	10.8	10.7	10.4	3.0	2.2	2.6	2.5	2.8
Real gross value added:													
Agriculture and fishing [6)]	1.6	2.4	0.3	2.9	0.8	-0.1	0.8	-0.2	0.7	-1.1	-0.6	1.8	-0.3
Industry	2.5	1.4	3.7	2.9	4.1	4.0	3.6	3.2	0.8	1.6	0.5	0.5	0.5
Services	3.1	2.9	3.6	3.2	3.6	3.7	3.5	3.5	0.9	1.0	0.8	0.8	0.9

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.

quarter of 2000, unchanged from the previous quarter. Compared with the first half of 2000, real GDP growth moderated somewhat in the second half of last year, but remained robust. Recorded growth in 2000 as a whole was very strong at 3.4%.

With regard to the output of sectors as measured by value added, output growth in the last quarter of 2000 was mainly driven by growth in the services sector, which grew by 0.9% quarter-on-quarter, while growth in the industrial sector remained unchanged at 0.5%. Compared with the second estimate, the growth rate for industry for 2000 as a whole was revised downward by Eurostat from 3.9% to 3.7%, while the growth rate for services was revised upward from 3.3% to 3.6%.

Industrial production growth moderated in February 2001

In February 2001, industrial production (excluding construction) increased by 0.6% compared with the previous month, after declining by 1.7% in January (see Table 5). In terms of year-on-year growth, it increased by 4.2% in February, compared with 5.5% in January 2001 and 5.6% on average in the second half of 2000. However, base effects may partly account for the decline in the year-on-year growth rate in February 2001, as production increased strongly between January and February 2000. On the whole, despite the moderate decrease in the first two months of 2001, growth in industrial production has remained robust and (up to February 2001) has not shown the clear and protracted decline that survey indicators would suggest (see Chart 15).

Manufacturing production growth fell to 4.8% year-on-year in February 2001, compared with 6.6% recorded in the previous month and 6.2% on average in the second half of 2000. The declining, but still relatively strong rate of growth in overall manufacturing production is reflected in all of the main sectors. In particular, year-on-year growth in the intermediate goods and consumer goods sectors, while remaining positive in February 2001, was lower than in the previous month and, in the case of intermediate goods, also lower than the average rate of growth in 2000. Growth in the capital goods sector also declined, but remained very high at 8.3% year-on-year in February 2001. Box 4 describes sectoral developments in industrial production in more detail.

Box 4

Developments in euro area manufacturing production and individual industries

Year-on-year growth in euro area manufacturing production saw only a relatively limited slowdown in the period between the peak in the spring of 2000 and February 2001. This is a remarkable development in the light of the strong rise in oil prices in the course of 2000 and the deterioration in the external environment since the end of last year. Overall, production growth in the period up to the first two months of this year has not shown the clear slowdown which would be suggested by the decline in the EC industrial confidence indicator and the PMI (see Chart 15 in this issue of the ECB Monthly Bulletin). Moreover, the cumulative slowdown in production growth since the peak recorded in the spring of 2000 has so far been much smaller than in the corresponding period following the peak at the beginning of 1998. In this box the pattern of production growth of the sectoral components of manufacturing is examined in order to investigate whether the relative robustness in the more recent period should be attributed to developments in only a few specific

Sectoral breakdown of manufacturing in the euro area

(annual percentage changes, unless otherwise indicated)

	weight (%)[1]	1999	2000	2000 Dec.	2001 Jan.	2001 Feb.	2000 Dec.	2001 Jan.	2001 Feb.	2000 Oct.	2000 Nov.	2000 Dec.	2001 Jan.
							month-on-month			3-month moving averages			
Manufacturing	**100.0**	**2.0**	**6.0**	**9.6**	**6.6**	**4.8**	**1.8**	**-0.5**	**0.5**	**1.0**	**1.5**	**1.8**	**2.2**
Food, beverages, tobacco	11.5	2.2	2.0	2.0	1.0	1.3	1.4	-3.0	2.0	-0.7	-0.5	-0.5	-0.1
Textiles and textile products	5.2	-6.4	-0.3	8.3	3.8	2.1	3.0	-3.0	0.1	-0.6	0.7	1.2	1.7
Leather and leather products	1.1	-3.1	-1.5	2.5	2.5	1.2	3.7	-1.9	1.9	-2.2	0.2	0.5	3.1
Wood and wood products	2.0	3.5	4.7	2.8	0.5	-2.0	0.8	-1.5	1.0	-1.4	-0.8	-0.3	0.3
Pulp, paper, publishing	8.3	4.0	3.2	5.5	1.6	2.3	2.2	-3.2	1.4	0.2	0.7	0.5	0.6
Coke, refined petroleum products, nuclear fuel	1.3	-5.1	1.2	1.6	3.4	-1.4	-3.1	2.2	-1.7	2.6	1.7	0.8	-0.7
Chemicals, chemical products, man-made fibres	10.9	4.0	4.6	3.6	3.9	3.2	-0.4	-1.3	0.1	1.2	1.8	1.3	0.3
Rubber and plastic products	4.5	3.3	6.1	8.5	3.8	2.3	2.8	-2.9	-0.1	-0.6	0.2	1.2	1.7
Non-metallic mineral products	5.0	2.1	3.2	4.5	1.8	-0.9	1.6	-2.4	1.6	1.3	1.6	1.8	1.6
Basic metals, metal products	13.3	0.4	6.0	8.0	5.9	2.8	1.2	-0.5	-0.2	-0.1	0.4	1.3	1.7
Machinery and equipment	11.0	-1.1	6.9	15.7	8.8	5.4	5.2	-2.3	-1.6	1.8	0.3	1.2	2.3
Electrical, optical equipment	12.0	4.3	13.8	17.4	16.5	13.9	4.1	-0.4	0.3	2.9	3.7	3.8	4.8
Transport equipment	10.2	3.5	8.4	14.8	10.1	7.1	4.5	-1.8	0.3	-1.1	0.5	3.4	5.2
Other manufacturing	3.7	2.1	3.5	8.6	1.7	2.1	3.8	-3.4	0.8	0.1	0.9	1.2	1.9

Sources: Eurostat and ECB calculations.
Note: Annual percentage changes are calculated by using data adjusted for variations in the number of working days; percentage changes on the previous month and three-month centred moving averages against the corresponding average three months earlier are calculated using seasonally and working day adjusted data.
1) Weights are based on value added in 1995.

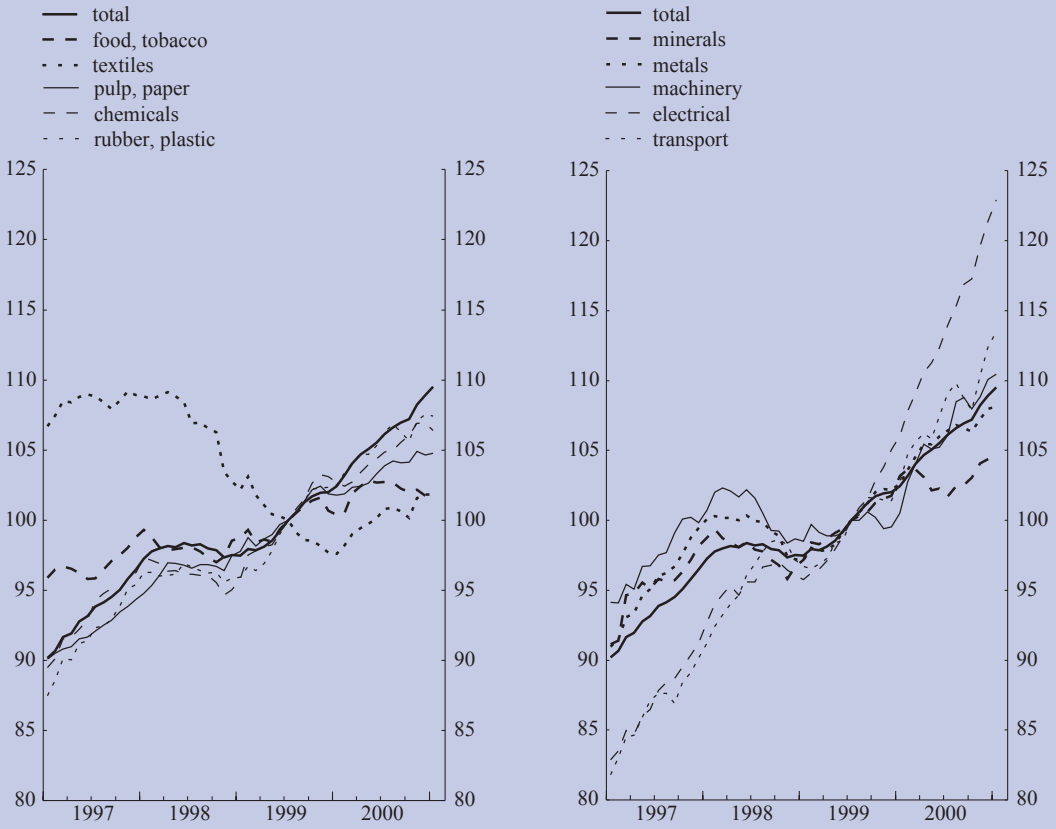
industries or whether it is a more general phenomenon. The former possibility is suggested, for example, by the somewhat higher degree of divergence between the year-on-year growth rates of individual manufacturing industries recorded in the more recent period. However, there may be several reasons for such a higher degree of divergence. In particular, the higher degree of divergence in production growth between individual industries in past months may reflect the different degrees of exposure to past oil price increases and to changes in the external environment.

The upturn in manufacturing production growth rates between 1999 and 2000 was relatively broadly based, but there were clear differences between sectors regarding the magnitude of the upturn and the rate of growth prevailing when the upturn took place (see the table). For example, production growth in industries producing textiles and leather was still negative in 2000 as a whole, although in the case of textiles there was a strong rise of 6 percentage points compared with 1999. By contrast, in industries producing machinery and electrical equipment, production growth increased by 8 and 9½ percentage points respectively, but it was only in the case of electrical equipment that the rate of growth in 2000 was clearly above average (13.8% compared with 6.0% in total manufacturing). Growth in industries producing basic metals and metal products and those producing rubber and plastic products was around 6% in 2000, which corresponded to the average level of growth in manufacturing, although the rise in growth compared with 1999 was more limited. Industries producing food, beverages and tobacco and those producing pulp and paper were exceptions in that their rates of growth in 2000 were lower than in 1999.

The pattern of growth in the first few months of 2001 was largely the same as in 2000. In particular, it appears that the relatively robust growth of manufacturing production was largely accounted for by those sectors

Manufacturing in the euro area

(index 1999 Q2 = 100; three-month centred moving averages; seasonally adjusted)



Sources: Eurostat and ECB calculations.
Note: For further information, see the table in this box.

which exhibited strong growth in 2000. For example, production in the electrical and optical equipment, transport equipment and machinery and equipment industries continued to record high growth rates (the average of the year-on-year growth rates in January and February 2001 being 15%, 8½% and 7% respectively). These industries account for one-third of total manufacturing output, and the strong increases in production more than compensated for the much lower growth in industries such as those producing food, beverages and tobacco, which recorded an average year-on-year rate of growth of 1% in the first two months of 2001, or non-metallic mineral products, where the average rate of growth was only ½% year-on-year in the first two months of this year. In other industries, such as those producing basic metals and metal products and those producing rubber and plastic products, which together account for almost one-fifth of total manufacturing production, the average rate of growth in the first two months of 2001 was 4½% and 3% respectively. Looking at the month-on-month developments, only industries producing food and beverages showed a clear tendency towards lower activity in the period up to February 2001. In the case of industries producing chemicals, rubber and plastic, as well as pulp and paper, the signs of lower activity have emerged more recently and are not particularly clear at the current juncture. (See the chart above, which shows the seasonally adjusted production indices of the largest sectors.)

Overall, it seems that the robust growth in manufacturing production in the months up to February 2001 can be attributed, in particular, to very strong growth in capital goods industries such as those producing transport equipment, machinery and equipment, and electrical and optical equipment. This strength may have benefited from the strong growth in the global economy in 2000 and the gain in competitiveness arising from the past depreciation of the euro and the moderate increases in wages and domestic prices. However, the particularly high exposure of capital goods industries to developments in the external environment may be expected to dampen growth in that sector in the coming months. The strong growth in capital goods industries up to February 2001 partly offset low growth in some non-durable consumer goods industries and intermediate goods industries. These latter industries may have been affected by the prolonged and steep increase in oil prices during 2000 and by the associated cost pressures and real income losses.

Survey data for the industrial sector continue to point to a slowdown in activity in the first half of 2001

According to the latest survey data, the divergence between industrial and consumer confidence in the euro area increased further in April 2001 (see Table 6). This supports the assessment that the recent weakening of the external environment is mainly affecting industry, and that developments in the household sector remain more resilient.

Table 5

Industrial production in the euro area

(annual percentage changes, unless otherwise indicated)

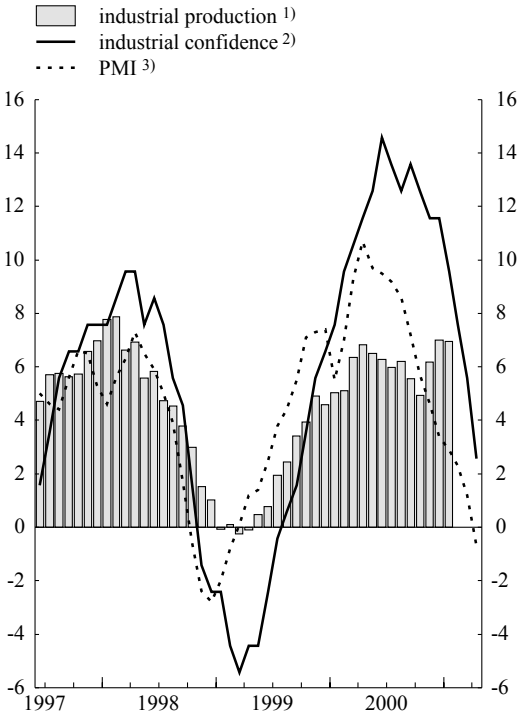
	1999	2000	2000 Dec.	2001 Jan.	2001 Feb.	2000 Dec.	2001 Jan.	2001 Feb.	2000 Sep.	2000 Oct.	2000 Nov.	2000 Dec.	2001 Jan.
						month-on-month			three-month moving averages				
Total industry excl. construct.	2.0	5.6	8.2	5.5	4.2	1.7	-1.7	0.6	0.9	1.3	1.6	1.7	1.4
Manufacturing	2.0	6.0	9.6	6.6	4.8	1.8	-0.5	0.5	1.3	1.0	1.5	1.8	2.2
by main industrial groupings:													
Intermediate goods	2.5	5.6	6.5	4.4	3.9	1.1	-1.2	1.1	0.8	1.2	1.5	1.4	1.3
Capital goods	1.5	9.1	14.8	11.5	8.3	1.8	0.3	0.2	2.5	2.4	2.5	2.9	3.0
Consumer goods	1.7	2.5	5.7	3.5	2.9	0.9	-0.3	0.6	0.5	0.6	1.0	1.1	1.3
Durable consumer goods	3.1	7.5	11.9	6.6	2.7	1.6	-0.7	0.5	0.9	1.2	1.6	1.9	1.9
Non-durable consumer goods	1.4	1.5	4.4	2.8	2.9	0.8	-0.2	0.6	0.4	0.5	0.9	1.0	1.1

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

Chart 15

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

(monthly data)



Sources: Eurostat, European Commission Business and Consumer Surveys, Reuters and ECB calculations.
Note: 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 values indicate an expansion of economic activity.

According to the European Commission's Business Survey, industrial confidence continued to fall in April, recording a stronger decline than that seen in previous months. However, despite the strong decrease in the first four months of 2001, this index still remained above its long-term average. The Purchasing Managers' Index (PMI) also continued to decline in April, for the twelfth consecutive month, and the decline in April was stronger than that seen in previous months. At 49.3, the PMI reached a two-year low and a level which is below the theoretical zero-growth threshold of 50 (see Chart 15). Capacity utilisation in April 2001 was lower than recorded in January 2001, but remained close to the very high level reached in October 2000. Overall, available survey evidence for the manufacturing sector continues to point to a decline in industrial production growth in the first half of 2001.

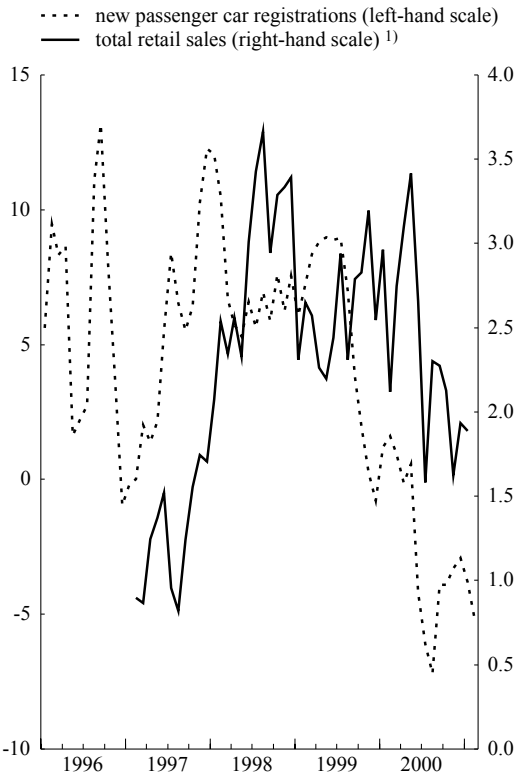
Consumer confidence remained high in April 2001

By contrast with the decline in industrial confidence, consumer confidence remained high in April 2001. For the first four months of this year it remained very close to the previous record high level recorded in mid-2000. A key feature of strong consumer

Chart 16

New passenger car registrations and retail sales in the euro area

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



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

Table 6

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

(seasonally adjusted data)

	1998	1999	2000	2000 Q2	2000 Q3	2000 Q4	2001 Q1	2000 Nov.	2000 Dec.	2001 Jan.	2001 Feb.	2001 Mar.	2001 Apr.
Economic sentiment index [1]	2.9	0.1	1.6	0.2	-0.4	-0.9	-0.6	-0.2	0.1	-0.2	-0.4	-0.5	-0.2
Consumer confidence indicator [2]	6	8	10	11	10	8	9	7	10	10	9	9	9
Industrial confidence indicator [2]	6	0	12	13	14	12	8	12	12	10	8	6	3
Construction confidence indicator [2]	2	14	22	23	23	20	19	20	19	21	18	18	18
Retail confidence indicator [2]	2	0	5	8	3	2	3	2	1	5	5	-1	3
Business climate indicator [3]	0.7	-0.1	1.3	1.4	1.4	1.3	0.8	1.2	1.2	1.0	1.0	0.6	0.4
Capacity utilisation (%) [4]	82.9	81.9	83.9	83.8	84.3	84.5	84.1	-	-	84.4	-	-	83.7

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 quarterly averages.

confidence in the months up to April 2001 was the continued positive assessment by households of their own financial situation. Various factors are likely to have contributed to strong consumer confidence, including the positive developments in the labour market, the decline in oil prices and, in some euro area countries, tax cuts. Confidence in the retail sector recovered in April 2001, after the sharp drop in the previous month. This indicator has also remained above its long-term average in recent months.

The latest data on retail sales volumes point to an increase of 0.1% month-on-month in February 2001, after a rise of 0.5% in the previous month. On a year-on-year basis, it rose by 1.2% in February 2001, compared with 2.7% in January. The average year-on-year growth in the first two months of 2001 was very close to the average growth rate recorded in the second half of 2000, but clearly below the average of the first half of last year (see Chart 16). New passenger car registrations fell by 0.4% month-on-month and by 4.2% year-on-year in March 2001. In the first quarter of 2001, new passenger car registrations were 5.2% lower than a year earlier, although new car registrations have been broadly stable since the third quarter of 2000.

Overall, growth in the euro area remained relatively robust, despite some signs of moderation in the second half of 2000. Survey indicators suggest that growth in industrial production might see a clear decline in the first half of 2001. Developments in industrial production and, more generally, in total output, will depend on the extent of the deterioration in the external environment and the resilience of domestic demand. At present, the available indicators relating to the household sector, such as EC consumer confidence, tend to suggest that private consumption and thus domestic demand could remain relatively resilient.

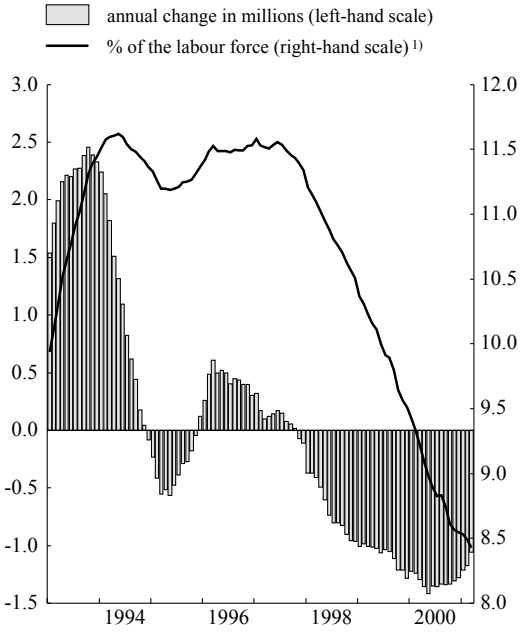
The unemployment rate fell to 8.4% in March 2001

In March 2001, the standardised rate of unemployment for the euro area fell to 8.4%,

Chart 17

Unemployment in the euro area

(monthly data)



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

0.1 percentage point lower than in February (see Table 7). This corresponds to a fall of around 81,000 in the number of unemployed, a monthly decline clearly higher than in the two previous months and similar to the rate of decline observed on average in the last quarter of 2000. Together with the release of March data, unemployment figures have been revised downwards significantly by around 0.2 percentage point from mid-1999 onwards. The revised estimate of unemployment for February 2001 is around 200,000 lower than the earlier estimate. Around three-quarters of the revision is attributable to the inclusion of the 2000 Community Labour Force Survey data, while the remainder can be attributed to a change in Eurostat's methodology for estimating euro area aggregates, which corrects the overestimation bias of the former approach. The revisions do not change the overall picture of a rapid decline in the euro area unemployment rate during 2000 and confirm that unemployment has continued to fall in the past few months, albeit at a slower pace than last year (see Chart 17).

The picture provided by the breakdown by age is also largely unaffected by the revision, although the estimated unemployment rate of both broad age groups was revised downward by between 0.1 and 0.3 percentage point over the period since mid-1999. The unemployment rate of those aged under 25 stood at 16.7% in March 2001, 0.1 percentage point lower than in February, resuming a slow decline after two consecutive months of small increases in the number of young unemployed. The unemployment rate of those aged over 25 also fell by 0.1 percentage point in March, to 7.3%. This corresponds to a fall in the number of unemployed of around 70,000, similar to that recorded in February and in line with the pace of decline recorded in the second half of 2000.

Table 7

Unemployment in the euro area

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

	1998	1999	2000	2000 Q2	2000 Q3	2000 Q4	2001 Q1	2000 Oct.	2000 Nov.	2000 Dec.	2001 Jan.	2001 Feb.	2001 Mar.
Total	10.9	10.0	8.9	9.0	8.8	8.6	8.5	8.6	8.6	8.5	8.5	8.5	8.4
Under 25 years 1)	21.6	19.5	17.5	17.6	17.3	16.8	16.7	16.9	16.7	16.7	16.7	16.8	16.7
25 years and over 2)	9.4	8.6	7.8	7.8	7.6	7.5	7.4	7.5	7.5	7.4	7.4	7.4	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.
2) In 2000 this category represented 76.4% of total unemployment.

Table 8

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	2000 Q1	2000 Q2	2000 Q3	2000 Q4
								Quarterly rates [1]			
Whole economy	1.6	1.6	2.0	1.8	2.0	2.0	2.1	0.5	0.5	0.5	0.6
Agriculture and fishing [2]	-1.3	-3.0	-1.2	-1.3	-1.6	-1.3	-0.4	0.2	-0.5	-0.3	0.2
Industry	1.0	0.4	0.9	0.8	0.8	1.0	1.1	0.1	0.2	0.4	0.4
Excluding construction [3]	1.2	0.3	0.7	0.1	0.7	0.9	1.0	0.1	0.3	0.3	0.3
Construction	0.4	0.8	1.4	2.3	0.8	1.1	1.6	0.2	-0.2	0.6	0.9
Services [4]	2.1	2.5	2.7	2.5	2.8	2.7	2.8	0.7	0.7	0.6	0.7
Trade and transport [5]	1.6	2.2	2.6	2.6	2.8	2.4	2.4	0.6	0.5	0.6	0.7
Finance and business [6]	4.9	5.3	6.1	6.1	6.4	6.1	5.7	1.6	1.6	1.2	1.2
Public administration [7]	1.3	1.4	1.4	1.0	1.3	1.4	1.8	0.4	0.5	0.3	0.5

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) Includes mining, quarrying, manufacturing, electricity, gas and water supplies.
4) Excludes extra-territorial bodies and organisations.
5) Also includes repairs, communication, hotels and restaurants.
6) Also includes real estate and renting services.
7) Also includes education, health and other services.

Robust employment growth in the fourth quarter of 2000

Employment growth in the euro area, based on ESA 95 national accounts data, is estimated to have been 0.6% in the fourth quarter of 2000 (see Table 8). This rate of growth is slightly above the rate recorded in the previous quarter, which has been revised upwards by 0.1 percentage point to 0.5%. In annual terms, employment growth reached 2.1% in the last quarter of the year, pointing to continued strong employment growth in the second half of 2000. This is in line with past evidence of employment growth lagging behind activity developments. For the year 2000 as a whole, net job creation was 2.0%, clearly above that of the two previous years.

Strong employment growth was broadly based across sectors in the fourth quarter of 2000. Employment growth in industry confirmed its steady increase over the year, from 0.1% to 0.4% in quarter-on-quarter terms, which represents an annual increase of 0.9%. Employment in services, on the other hand, maintained a robust quarter-on-quarter growth rate of around 0.7% over the year, growing at 2.7% in 2000. Looking at developments in 2001, employment expectations from survey data continue to point to a positive outlook. Purchasing Managers' Survey data, which extend up to April 2001, indicate continued job creation in the service sector, albeit at a lower pace than in the previous year. However, employment expectations for the industrial sector, provided in the April 2001 European Commission Business Survey, suggest a more marked slowdown in job creation in this sector.

4 Exchange rate and balance of payments developments

Major exchange rates broadly stable in April and early May

Despite the continuing uncertainty about the global economic outlook, and after a period of general appreciation by the US dollar in March, in April and in early May the foreign exchange markets were relatively calm.

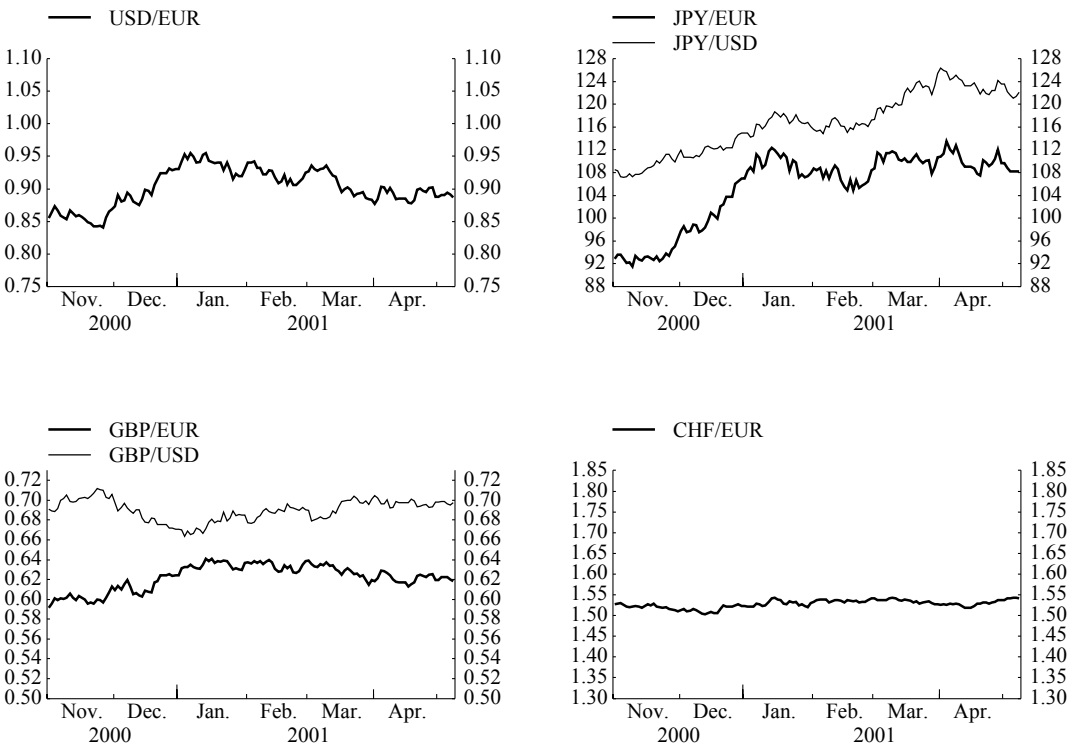
Against the US dollar, the euro fluctuated in a relatively narrow band and at the end of the period was at virtually the same level as in early April (see Chart 18). The temporary appreciation of the euro in the second half of April seemed to have been fuelled by the decision of the Federal Reserve System to cut interest rates by 50 basis points on 18 April, which brought short-term interest rates in the United States below those of the euro area for the first time since the launch of the single currency. In addition, revised forecasts made by international organisations suggest that the euro area economy would grow faster than the US economy also in 2002. This may have heightened awareness among market participants of the differences between the euro area and the United States in medium-term economic fundamentals. In early May, the euro stabilised following data releases that showed a stronger than expected advance estimate of US GDP growth in the first quarter of 2001, suggesting that the US economic slowdown could be less severe than anticipated. On 8 May, the euro was quoted at USD 0.89, 3.2% below its average level in 2000.

Vis-à-vis the Japanese yen, after a period of significant volatility in March, the euro fluctuated in a relatively narrow range, depreciating slightly from late April onwards, in line with developments in the dollar-yen

Chart 18

Patterns in exchange rates

(daily data)



Source: ECB.

currency pair. This appreciation of the yen mainly followed the rebound in the Japanese stock markets and may reflect the overall perception that significant steps towards the implementation of structural reforms may be taken. Meanwhile, the economic data releases in Japan continued to suggest declining industrial activity and general deflationary tendencies. On 8 May, the euro traded at JPY 108, 8.6% higher than its average level in 2000.

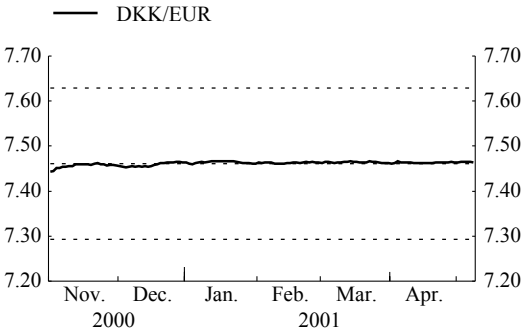
In April and early May, the euro continued to move in a narrow band against the pound sterling, which in turn stabilised against the US dollar after some depreciation in March. Signs of an improving UK budgetary position, on the one hand, and negative data releases showing a slightly sharper than expected slowdown in the UK economy in the first quarter of 2001, on the other hand, may have contributed to the general inertia of the pound sterling exchange rates. Furthermore, the approaching elections in the United Kingdom did not seem to have a marked impact on the pound sterling. On 8 May the euro traded at GBP 0.62, 1.7% higher than its average level in 2000.

Within ERM II, in April and early May the Danish krone continued to move in a narrow range around its central parity against the euro (see Chart 19). Regarding other European currencies, in April and early May the single currency appreciated against the Swiss franc, possibly as a result of the earlier decision by the Swiss National Bank to lower its target range for the 3-month LIBOR rate.

Chart 19

Patterns of exchange rates within ERM II

(daily data)



Source: ECB.

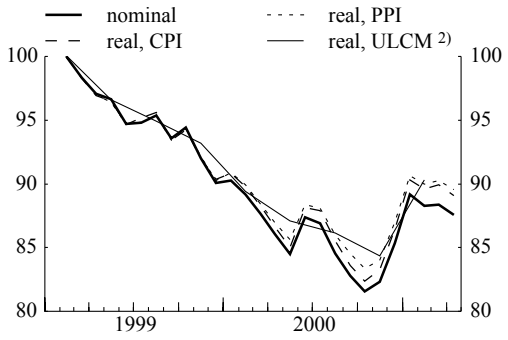
Note: The horizontal lines indicate the central parity (DKK 7.46) and the fluctuation bands (±2.25% for DKK).

Chart 20

Effective euro exchange rates

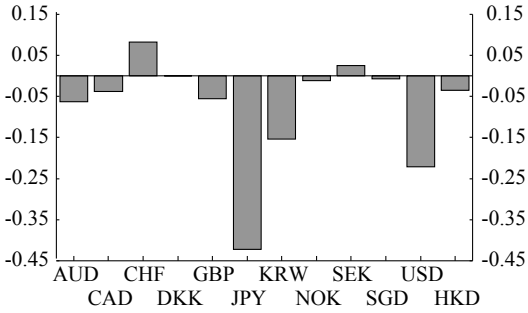
Nominal and real EERs [1]

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



Contributions to nominal EER changes [3]

(10 Apr. 2001 - 8 May 2001; in percentage points)



Source: ECB.

1) *An upward movement of the index represents an appreciation of the euro. The latest observations are for April 2001 and for the ULCM-based REER for Q1 2001.*
2) *Unit Labour Costs in Manufacturing.*
3) *Changes are calculated using trade weights against 12 major partner currencies.*

In nominal effective terms, as measured against the currencies of the euro area's most important trading partners, the broad stability of the euro in bilateral terms meant that the effective exchange rate index also remained stable, at a level close to the average level in 2001 thus far (see Chart 20). On 8 May, the nominal effective exchange rate index of the euro stood 1.5% higher than its average level in 2000. The CPI, the PPI and the ULCM-deflated effective exchange rate indices of the euro continued to move in parallel with the nominal rate.

Current account surplus in February 2001

The current account for the euro area turned into a €2.1 billion surplus in February 2001, from a €1.1 billion deficit in February 2000. This was primarily due to an increase in the goods surplus (from €2.2 billion in February 2000 to €3.3 billion in February 2001) combined with a shift from a €1.0 billion deficit to a €0.5 billion surplus for income and a small decrease in the deficit for services (from €1.8 billion to €1.1 billion), while the deficit for current transfers remained virtually unchanged (see Table 9).

Table 9

Balance of payments of the Euro 12

(EUR billions; not seasonally adjusted)

	2000 Jan. - Feb.	2000 Feb.	2001 Jan. - Feb.	2000 Dec.	2001 Jan.	2001 Feb.
Current account balance	-11.5	-1.1	-6.5	-9.9	-8.5	2.1
Credits	228.1	116.2	271.2	146.2	138.2	133.0
Debits	239.7	117.3	277.7	156.1	146.8	130.9
Goods balance	-0.2	2.2	1.4	-0.4	-1.9	3.3
Exports	135.6	71.9	161.0	86.5	79.4	81.5
Imports	135.8	69.7	159.6	86.8	81.3	78.3
Services balance	-3.6	-1.8	-3.6	-3.5	-2.5	-1.1
Exports	38.2	19.3	42.1	26.0	21.2	20.9
Imports	41.9	21.2	45.7	29.5	23.7	22.0
Income balance	-6.2	-1.0	-6.2	-0.1	-6.7	0.5
Current transfers balance	-1.5	-0.4	1.8	-6.0	2.5	-0.6
Capital account balance	2.4	0.9	3.0	1.8	1.4	1.6
Financial account balance	.	.	-2.6	.	-4.7	2.1
Direct investment	146.4	145.9	-5.2	-31.3	-4.5	-0.8
Abroad	-27.4	-20.1	-30.1	-19.9	-13.0	-17.1
Equity capital and reinvested earnings	-20.4	-13.6	-16.7	-19.8	-9.0	-7.7
Other capital, mostly intercompany loans	-7.1	-6.5	-13.4	-0.1	-4.0	-9.5
In the euro area	173.8	166.1	24.9	-11.4	8.5	16.4
Equity capital and reinvested earnings	166.5	159.1	20.0	-51.6	6.2	13.9
Other capital, mostly intercompany loans	7.4	7.0	4.8	40.2	2.3	2.5
Portfolio investment	-155.9	-151.7	-44.5	8.9	-45.5	0.9
Equity	-176.3	-161.3	-17.4	-7.8	-19.9	2.5
Assets	-90.4	-68.6	-28.8	-32.4	-17.8	-11.0
Liabilities	-86.0	-92.7	11.4	24.6	-2.1	13.5
Debt instruments	20.4	9.6	-27.2	16.7	-25.6	-1.6
Assets	-17.7	-17.1	-34.9	5.6	-16.5	-18.3
Liabilities	38.1	26.7	7.7	11.1	-9.1	16.8
Memo item:						
Combined net direct and portfolio investment	-9.5	-5.8	-49.8	-22.4	-50.0	0.2
Financial derivatives	1.1	1.9	-6.0	-4.2	-5.1	-1.0
Other investment	30.0	1.4	44.7	18.3	47.9	-3.2
Reserve assets	.	.	8.5	.	2.4	6.1
Errors and omissions	.	.	6.1	.	11.9	-5.7

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 ECB Monthly Bulletin and on the ECB's website.

The cumulative current account deficit in January and February 2001 stood at €6.5 billion, compared with a €11.5 billion deficit for the corresponding period in 2000. This was due to current transfers moving from a €1.5 billion deficit to a €1.8 billion surplus (primarily due to the €2.5 billion surplus recorded in January 2001), combined with a shift in the goods account from a €0.2 billion deficit to a €1.4 billion surplus.

The shift from deficit to surplus in the cumulative goods account for the first two months of 2001 compared with the same period last year stems from export values growing relatively faster (by 18.7%) than imports (by 17.5%) during this period. This seems to be partly the result of downward pressure on import price growth due to oil price developments, along with the appreciation of the nominal effective exchange rate of the euro in the last quarter of 2000, followed by a broad stabilisation.

Some of the improvement in the goods balance is also attributable to the lagged response of export volumes to the price competitiveness gains stemming from the earlier depreciation of the euro. Seasonally adjusted export and import volume and price data, which are now available for the whole of 2000, indicate that most of the growth in export values for the Euro 11 was due to an increase in export volumes (by 14.1% during 2000, against 7.1% for import volumes). The growth in import values, however, was mainly due to an increase in import prices (by 20.6% during 2000, against 8.8% for export prices) resulting from the decline of the euro and rising oil prices.

Direct and portfolio investment accounts close to balance in February 2001

Combined net direct and portfolio investment flows were close to zero in February 2001, in sharp contrast to net outflows in direct and, particularly, in portfolio investment in January 2001, which together amounted to €50.0 billion (see Table 9).

Net direct investment outflows amounted to €0.8 billion in February 2001, compared with €4.5 billion in January 2001 and €31.3 billion in December 2000. This decline is linked to the relatively high level of foreign direct investment in the euro area of €16.4 billion in February (€8.5 billion in January). Direct investment abroad by euro area residents totalled €17.1 billion in February (€13.0 billion in January); more than half of this amount (€9.5 billion) is related to "other capital", which is mostly inter-company loans.

Portfolio investment recorded net inflows of €0.9 billion in February 2001, compared with net outflows of €45.5 billion in January and net inflows of €8.9 billion in December 2000. After the exceptionally high level of net outflows in January 2001, which appeared to be related to one-off factors, the figures for February were more in line with the pattern of relatively small net inflows or net outflows in portfolio investment observed since September 2000. It is noteworthy that in February 2001 there were also net inflows in equities (€2.5 billion) for the first time since August 2000, reflecting mainly the decline in investment abroad by euro area residents.

Framework and tools of monetary analysis

The primary objective of the ECB's monetary policy is the maintenance of price stability. The ECB organises its analysis of the assessment of risks to price stability under two pillars. Under the first pillar, money plays a prominent role, implying that monetary aggregates are thoroughly analysed for their information content relevant for monetary policy. This role is signalled by the announcement of the reference value for the growth of the broad monetary aggregate M3. Under the second pillar, a range of other economic and financial indicators relevant for future price developments are analysed. The two pillars complement each other and allow for a broadly based and robust assessment of risks to future price stability.

This article focuses on the first pillar. According to empirical evidence for the euro area, the broadly defined monetary aggregate M3 has a stable relationship with the price level and displays good leading indicator properties for future inflation. These empirical properties are preconditions both for a meaningful monetary analysis and for money to be informative for monetary policy. Based on the empirical properties, a comprehensive monetary analysis needs to take a broad view. In this respect, econometric tools and expert judgement have to complement each other in order to arrive at a well-founded assessment of monetary developments and their implications for risks to price stability in the medium term. This article presents various tools useful for supporting monetary analysis.

1 Introduction

The statement that inflation is a monetary phenomenon in the long run is one of the central tenets of economic theory. Therefore, regardless of the monetary policy strategy which they pursue, the majority of the world's major central banks attach importance to monetary analysis.[1] There is a far-reaching consensus that an analysis of the monetary side of the economy can provide relevant information for monetary policy decisions aimed at the maintenance of price stability. This is attributable to the close relationship between monetary growth and inflation at longer time horizons, which has been demonstrated for a wide variety of countries.

Empirical evidence for the euro area also reveals a close relationship between monetary growth and inflation, thus supporting the prominent role which the ECB's monetary policy strategy explicitly assigns to money.[2] This prominent role for money is signalled by the announcement of a quantitative reference value for the growth rate of the broad monetary aggregate M3. The Governing Council of the ECB set the reference value at 4½% in December 1998. This value was subsequently confirmed in December 1999 and December 2000. It has been derived on the basis of the ECB's definition of price stability (increases in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2% p.a.), an assumption for trend potential output growth (2% to 2½%), and an assumption for the trend decline in velocity of M3 (½% to 1%). This definition implies that substantial or prolonged deviations of monetary growth from the reference value of 4½% would normally tend to signal risks to price stability in the medium term.

While the reference value is the focus for the evaluation of the monetary situation in the euro area, the first pillar goes beyond a comparison between actual M3 growth and the reference value. For example, small or shorter-term deviations from the reference value do not necessarily point to threats to price stability. In addition, after a longer period in which the reference value has been overstepped or understepped, M3 growth may undershoot or overshoot the reference value temporarily without this necessarily

1 *See the papers of the ECB's "Seminar on monetary analysis: Tools and applications", November 2000, on the ECB's website.*

2 *See the articles entitled "Euro area monetary aggregates and their role in the Eurosystem's monetary policy strategy" in the February 1999 issue of the Monthly Bulletin and "The two pillars of the ECB's monetary policy strategy" in the November 2000 issue of the Monthly Bulletin.*

being a cause for concern. Moreover, monetary data may be, on occasions, subject to special influences which temporarily impair the information content on future price developments. For these reasons, there is always a need to analyse carefully the dynamics of monetary developments and to extract the underlying reasons for the deviations of M3 growth from the reference value in order to assess the risks to price stability from the monetary side.

Monetary analysis has to take a broadly based approach. A detailed evaluation, on the basis of econometric models and the consolidated balance sheet of Monetary Financial Institutions (MFIs), combined with economic and institutional knowledge, are needed to complement the comparison between M3 growth and the reference value. A number of different analytical tools and techniques can be used to explain monetary developments and to assess their implications. First, with the help of money demand models, the growth of the broad monetary aggregate M3 can be analysed (see Section 2). Second, in order to analyse the information content of M3 for future price developments, in addition to the growth of the monetary aggregate, various indicators can be used to assess the liquidity situation of the economy (see Section 3). Third, a careful analysis of the components and counterparts of M3 always needs to be carried out (see Section 4). Finally, medium-term monetary analysis can be supported by short-term analysis in order to detect changes in the dynamics of monetary aggregates in a timely manner and to identify special factors which influence M3, but have no implications for price developments (see Section 5).

The use of a range of complementary tools allows for a comprehensive explanation and assessment of risks to price stability signalled by monetary developments. The results under the first pillar of the ECB's monetary policy strategy need to be cross-checked against the analysis under the second pillar, leading to a robust overall evaluation of risks to price stability in the medium term. This is of importance for a central bank, especially if facing uncertainty with regard to the structure of the economy.

2 Analysing M3 developments with the help of money demand models

One aspect of monetary analysis is identifying the driving forces behind monetary developments. Money demand frameworks are a powerful tool in this respect. Based on theoretical grounds, their aim is to explicitly relate money to its economic determinants. The focus of this section is on money demand models for the broad monetary aggregate M3, since in the euro area M3 displays a close relationship with inflation. M3 comprises a range of relatively liquid liabilities (currency in circulation, short-term deposits and marketable instruments) of euro area MFIs vis-à-vis non-MFI euro area residents (excluding central government).

Money demand models are typically expressed in terms of "real money", i.e. the nominal money stock deflated by a price index. If a stable relationship between real money and some explanatory variables of real money demand can be found, this implies that there is also likely to be a stable long-run relationship between nominal money and prices. In econometric models, the long-run demand for real money balances can be expressed as a function of a *scale variable and a measure of opportunity costs.* From a theoretical point of view, the choice of the preferred scale variable (for example real private consumption, real GDP, real wealth) depends on whether money is seen primarily as a means of transaction or also as a store of value. In the majority of empirical models for a broad monetary aggregate, the preferred measure is real GDP. The general result of money demand models for broad monetary aggregates, such as euro area M3, is an

income elasticity of above one, implying that real money demand tends to increase faster than real GDP. This can be explained by the fact that the demand for a broad monetary aggregate such as M3 does not only depend on current income, but also on the wealth situation, which is not fully captured by current real output. In other words, it reflects the fact that broad money is held for both transactions and savings purposes.

Apart from the scale variable, modelling money demand also requires the choice of an appropriate measure of the opportunity costs of holding money, which influence the investor's portfolio decision. In order to measure the opportunity costs for the broad monetary aggregate M3, an *own rate of return of M3,* representing the interest rate paid on the monetary aggregate M3, and the *rate of return on relevant alternative assets* have to be chosen.

Short-term market interest rates are sometimes used as a proxy for the own rate of return of M3. However, M3 includes components which are not remunerated (currency in circulation) or which are remunerated below market interest rates (most short-term deposits). In addition, the remuneration of most components of M3 only adjusts sluggishly to changes in money market rates. Against this background, an alternative approach to measuring the return on M3 is to construct an own rate of return of M3 by using a weighted average of the rates of return of the components of M3 (see Chart 1 (A) and (B)).

As for the rate of return on alternative assets, from a theoretical point of view the expected returns for a broad spectrum of alternative assets should be taken into account. At the same time, mainly for technical reasons, empirical money demand models usually include only one representative interest rate. This can also be justified by the observation that interest rates of different financial assets tend to move in parallel. Furthermore, for physical assets, (expected) inflation may be seen as a rough proxy of the expected nominal return. An increase in expected inflation may induce shifts from money to physical assets, since the real value of money falls with inflation, while that of physical assets is retained.

Finally, money demand frameworks need to take into account the fact that – e.g. owing to transaction costs – economic agents do not immediately adjust their money holdings to their desired demand for real money balances in the long term, i.e. economic agents adjust their money demand sluggishly to changes in income and interest rates. Therefore, the relationship between money and its long-run determinants has to be embedded in a dynamic framework which also captures the short-term behaviour of money.

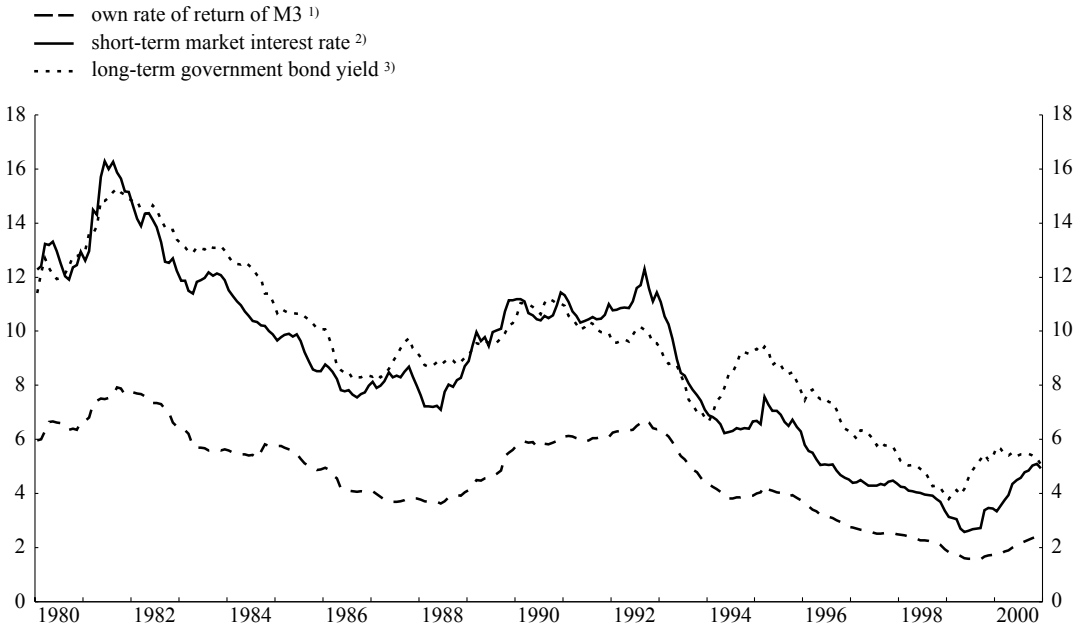
These considerations serve as a common basis for the various existing money demand models for the euro area. Box 1 provides examples of models for the monetary aggregate M3 developed by ECB staff. The use of more than one money demand model for the euro area helps to provide a robust foundation for the assessment of monetary developments. In particular, the models use different approaches to capturing the opportunity costs of holding money.

All the models provide evidence of a stable long-run money demand function for the euro area. As noted above, the feature of long-term stability is important for monetary analysis because, only if the relationship between money and its determinants is stable or at least predictable, is it possible to identify a growth rate of money which is in line with price stability over the medium term. In this context, an important feature of the models is that their long-run money demand equation supports the velocity assumption underlying the ECB's reference value for M3 growth. Hence, by using the long-term equilibrium value for output growth and the definition for price stability, the long-term model equations arrive at an equilibrium M3 growth rate of around 4½% p.a. (see Box 1).

Chart 1

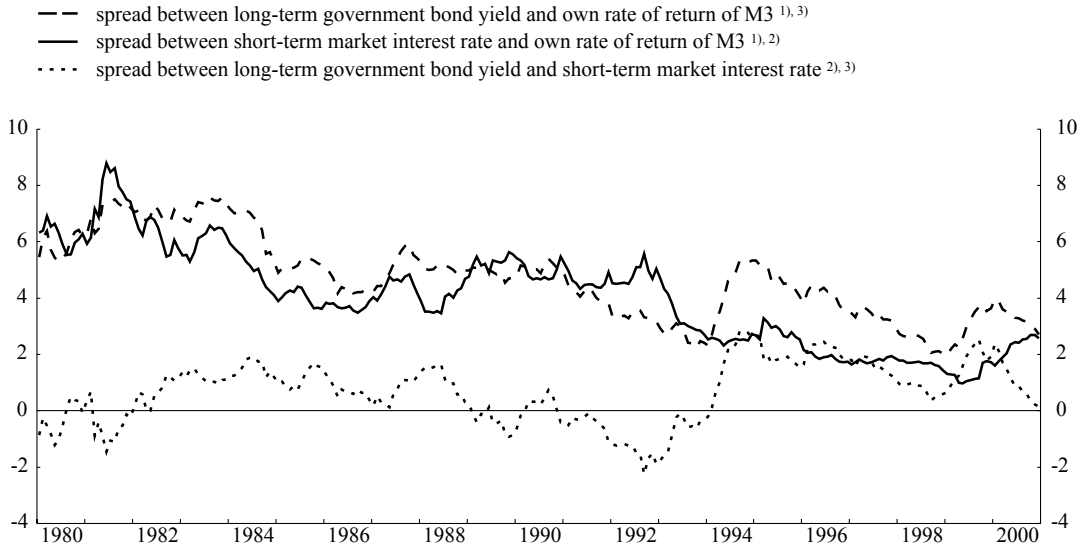
(A) Own rate of return of M3 and market interest rates

(percentages per annum; monthly data)



(B) Alternative measures of opportunity costs of money

(in percentage points; monthly data)



1) *The own rate of return of M3 is computed as the weighted average of the remunerations of the components of M3, with the weights given by the components' share in M3.*
2) *The short-term market interest rate refers to the euro area average of national three-month interbank rates until the end of 1998; and to the three-month EURIBOR from 1999 onwards.*
3) *The long-term government bond yield refers to the euro area average of yields on national ten-year government bonds or the closest substitute.*

Box 1

Money demand models for euro area M3

This box provides two examples of money demand models for the broad monetary aggregate M3 in the euro area: Brand and Cassola (Model 1) and Coenen and Vega (Model 2).[1]

In line with the empirical literature, these money demand models explain real M3 balances as a function of a scale variable and measures of the opportunity cost of holding money. Money demand models usually relate to real money, in accordance with the notion that a change in the price level will be fully reflected in nominal money in the long run. A common feature of these models is that they all include real GDP as a scale variable. However, they differ as regards the proxy for the opportunity cost included in their long-run money demand equations: while Model 1 includes the long-term government bond yield, Model 2 includes both the inflation rate and the spread between the long-term government bond yield and the short-term market interest rate.

The following table reports the income elasticities and the semi-elasticities of interest rates (or their spreads) in respect of real M3 in the long-run money demand equations of the different models (LT and ST stand for the long-term government bond yield and the short-term market interest rate, respectively, y denotes the natural logarithm of real GDP and π indicates annualised quarter-on-quarter changes in the price level):

Summary of the long-run money demand equations

Model	y	(LT-ST)	LT	π
Model 1	1.34		-2.03	
Model 2	1.28	-0.44		-1.3

Note: In both cases, money demand is modelled in terms of the natural logarithm of real money, where M3 is deflated using the GDP deflator. The coefficients in the table are estimated using quarterly data over the sample period Q1 1980 - Q3 2000. The data for M3 are aggregated using the irrevocable conversion rates fixed on 31 December 1998. Some of the estimated coefficients shown here differ somewhat from those presented in the original studies, because of changes in the sample period and the estimation procedures.

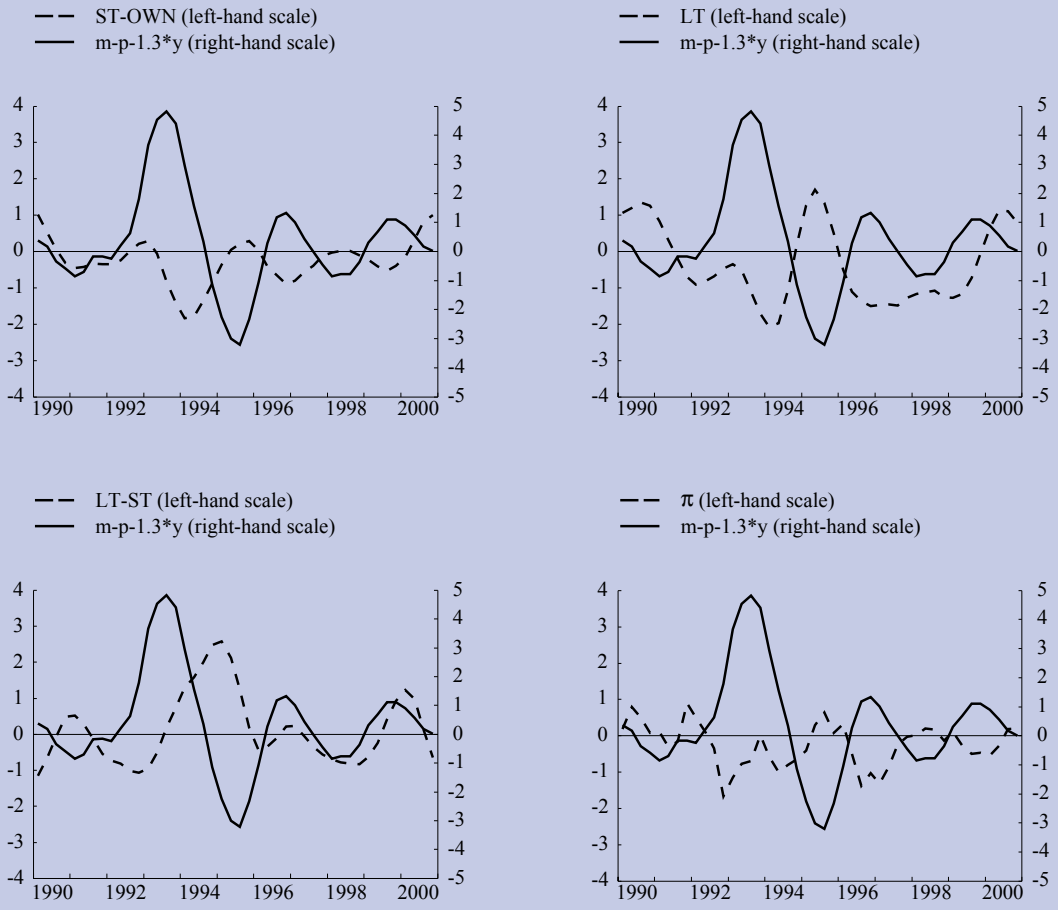
Both models show income elasticities which are above one and which are very similar. An implication of these results is that it is possible to derive the reference value for M3 growth of 4½% from the estimated money demand models. Indeed, the reference value can be obtained by multiplying the estimated income elasticities by the medium-term trend in output growth (2% to 2½%) and adding the ECB's definition of price stability (i.e. an increase in the HICP of below 2%).

The charts below serve as a simple illustration of the impact of the opportunity cost variables on the euro area demand for money. First, the difference between (1) the stocks of M3 (m) and (2) the sum of the price level (p) and real GDP (y) multiplied by the income elasticity of euro area money demand (set at the average value of 1.3 on the basis of the above results) was computed. In the context of a standard money demand framework, the resulting variable, $m - p - 1.3 \times y$, can be interpreted as an approximate measure of the part of the demand for M3 which is explained by opportunity cost variables. Thus, developments in this variable should show an inverse correlation with the individual opportunity cost variables. The figure plots the annual growth rates of $m - p - 1.3 \times y$ against the annual differences in the following opportunity cost variables: LT, (LT-ST) and π as well as the spread between the short-term interest rate and the own rate of return of M3 (ST-OWN) which, according to internal empirical investigations, seems to represent a convincing alternative measure of the opportunity cost of holding M3. The series are transformed by means of a four-quarter moving average in order to smooth those short-term developments that may blur the longer-term relationship between the variables. As the charts show, it is possible to observe a reasonably close correlation between the developments of $m - p - 1.3 \times y$ and the changes in the opportunity cost variables over the past few years.

1 *C. Brand and N. Cassola: "A money demand system for euro area M3", ECB Working Paper No. 39, 2000; G. Coenen and J.-L. Vega: "The demand for M3 in the euro area", ECB Working Paper No. 6, 1999.*

The inverse relationship between opportunity costs of money and the demand for M3

(annual differences in percentage points; annual percentage changes; quarterly data)



Note: Series are smoothed by means of four-quarter moving averages.

Money demand models can also be used to decompose total M3 growth into the determinants of money demand. The aim of such a decomposition is to gain quantitative insight into the underlying causes of monetary developments. This can assist in the explanation of ongoing monetary growth.

A decomposition shows the extent to which current monetary growth can be explained by the macroeconomic determinants of the model. For example, high monetary growth can be caused by strong real GDP growth, which, in turn, may indicate upward risks to future price stability. In addition, low interest rates can also fuel demand for money, owing to low opportunity costs with possible upward risks to price stability. In this case, however, part of the higher monetary growth could also be related to pure portfolio shifts, which would then not imply an increase in future price pressures. Such an analysis of monetary growth is important for a solid assessment of risks to price stability resulting from money, since the implications for price developments may vary according to the different reasons for M3 growth.

The decomposition of monetary growth into its macroeconomic determinants also indicates the extent to which monetary growth is not explained by the model. Hence, it may reveal additional information contained in monetary aggregates which is not captured by other macroeconomic variables. This unexplained part of current M3 growth may

or may not signal risks to price stability resulting from money. It can for instance indicate a monetary shock, for example an increase in the supply of loans owing to less restrictive rating standards of MFIs, which would be reflected in monetary growth and would be likely to have implications for price developments. However, it can also reflect special factors. A *special factor* is typically an identifiable monetary disturbance which is not captured by the macroeconomic explanatory variables of a money demand model and which may not have implications for price developments. For example, it could refer to institutional changes, such as a change in taxation affecting the relative attractiveness of monetary holdings, or to large one-off transactions (for example the financing of the German UMTS licences in August and September 2000). Ideally, a detailed institutional analysis can provide some additional insight by providing information concerning special events, thus reducing the unexplained part of monetary growth.

3 Leading indicator properties of M3 and measures of excess liquidity

Money as an indicator of future price developments

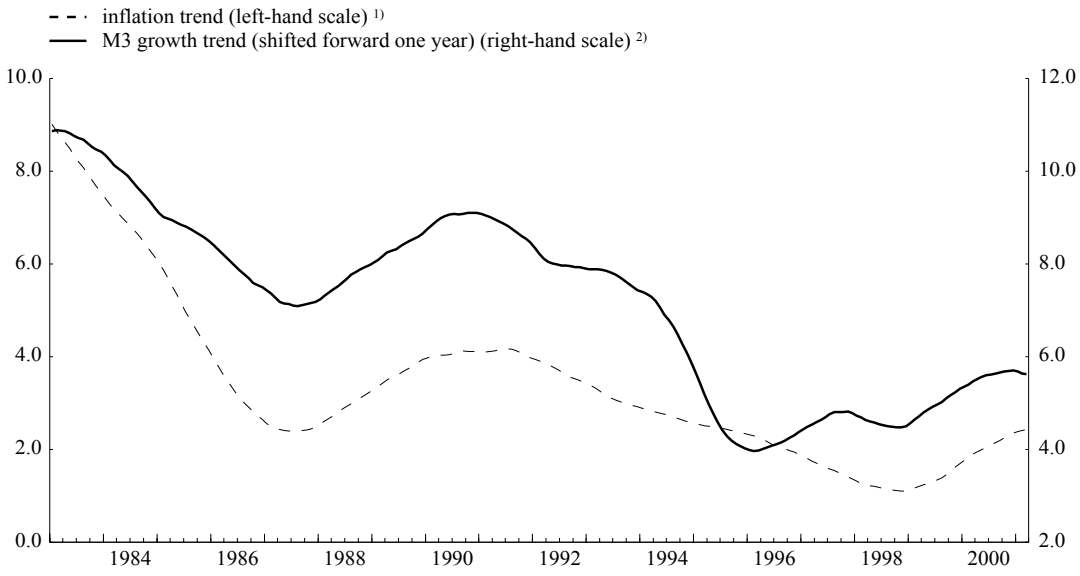
A stable, or at least predictable, long-run relationship between real money and its macroeconomic determinants is a precondition for meaningful monetary analysis. Furthermore, monetary developments are important for the conduct of monetary policy, as they contain information regarding future price developments and risks to future price stability.

According to empirical evidence for the euro area, the *broad monetary aggregate M3* possesses convincing leading indicator properties for future inflation over a medium to long-term time horizon. A simple illustration of this can be seen in Chart 2, which shows that over a medium-term horizon M3 growth broadly anticipates developments in inflation. This supports the significant role attached to nominal M3 growth under the first pillar.

Chart 2

M3 growth and inflation trends

(monthly data)



1) 24-month moving average of the annual percentage change in consumer prices (the CPI until January 1996, the HICP thereafter).

2) 24-month moving average of the annual percentage change in M3 shifted forward one year.

Excess liquidity measures

Apart from annual M3 growth, excess liquidity measures may also provide useful indications of future price developments. These measures refer to the difference between the level of the actual money stock and an estimate of the equilibrium money stock. Although commonly referred to as "excess liquidity" measures, these concepts can signal either excess liquidity or a liquidity shortfall. "Excess liquidity" refers to a positive deviation of the actual money stock from an estimate of the equilibrium money stock, while a "liquidity shortfall" is a negative deviation.

In addition to monitoring the annual growth rate of M3, these measures are useful for a comprehensive medium term-oriented monetary analysis, since a protracted upward or downward deviation of the observed money stock from its equilibrium level may bring about risks to price stability which might not be visible in the annual growth rate of M3. An in-depth analysis of the level of the money stock ensures that past excessive or weak monetary growth, which may still contain information about risks to price stability, is taken into account.

It is possible to construct various measures of excess liquidity – or liquidity shortfalls – based on the level of M3. These include the "nominal money gap", the "real money gap" and the "monetary overhang". The concepts differ in the determination of an equilibrium money stock. They may depend, for example, on the use and specification of a money demand model, the choice of a base period and the determination of equilibrium values.[3]

The simplest measure of excess liquidity is the *nominal money gap*. This refers to the excess liquidity (or, in the event of a negative gap, to the liquidity shortage) which results from the deviation of the observed nominal money stock from an equilibrium nominal money stock. The path of the latter can be based, for example, on the assumptions underlying the ECB's reference value for M3, i.e. the nominal stock of money consistent with price stability (inflation of below 2%), the assumption for trend potential output growth (2% to 2½%) and the assumption for the trend decline in velocity of M3 (½% to 1%).

A critical point when measuring this nominal money gap is that it requires a base period to be selected. The choice of such a base period is always arbitrary. Chart 3 illustrates the nominal money gap by – arbitrarily – choosing the last quarter before the start of Stage Three of Economic and Monetary Union (EMU) as the base period. The chart also takes account of the evidence that part of the money gap is caused by the holdings of non-euro area residents of money market fund shares/units (see Box 1 in the section entitled "Monetary and financial developments" in this issue of the Monthly Bulletin). It can be seen that a positive nominal money gap emerged in 1999 and 2000, reflecting monetary growth above the reference value. To some extent, this gap probably reflects the fact that actual output growth in 2000 turned out to be higher than the assumption for trend potential output growth underlying the reference value. However, part of the gap was also due to HICP inflation exceeding the level deemed compatible with price stability. As the latter factor was mainly due to a one-off oil price increase, not all of the money gap should be interpreted as indicating risks to future price stability. In addition, part of the nominal money gap can be explained by the impact on M3 caused by the holdings of non-euro area residents of money market fund shares/units. Finally, there is some evidence that part of the money gap is also related to special factors (see Box 4), as well as the statistical measurement problems of correctly identifying the holdings of non-euro area residents of money market paper and short-term debt securities included in M3 which have led to an upward distortion of M3 growth. These parts should not be interpreted as indicating risks to future price stability either.

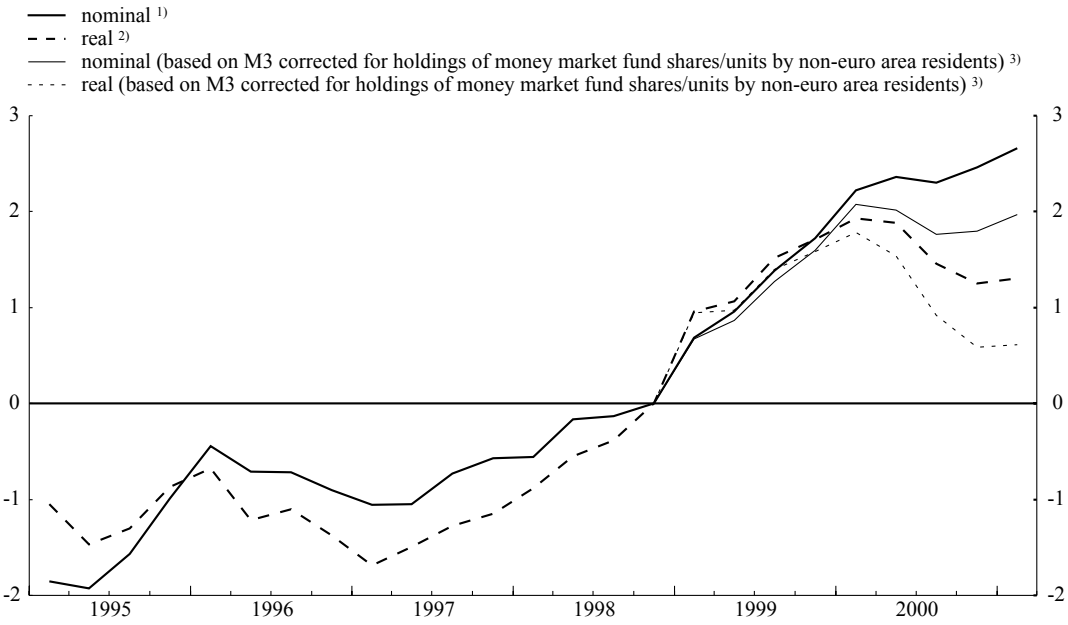
The concept of the money gap can also be defined in real terms. The *real money gap* reflects the deviation of the actual real money stock

3 *See also the article by K. Masuch, H. Pill and C. Willeke entitled "Framework and tools of monetary analysis" in the ECB's "Seminar on monetary analysis: Tools and applications", November 2000, published on the ECB's website.*

Chart 3

Estimates of the nominal and real money gap

(as a percentage of the level of M3 implied by the reference value of 4½%)



1) *The nominal money gap is constructed as the deviation of the actual stock of M3 not adjusted for special factors and measurement problems from the level consistent with monetary growth at the reference value of 4½%, taking the last quarter of 1998 as the base period.*
2) *The real money gap equals the nominal money gap less the deviation of consumer prices from the definition of price stability, taking the last quarter of 1998 as the base period.*
3) *Nominal and real money gap, respectively, corrected for holdings of money market fund shares/units by non-euro area residents (see Box 1 in the section entitled "Monetary and financial developments" in this issue of the Monthly Bulletin).*

from an equilibrium real money stock. Hence, the real money gap corresponds to the nominal money gap, except that it does not include past deviations of prices from the definition of price stability. When choosing the last quarter of 1998 as a base period, the real money gap also reveals a considerable build-up of excess liquidity in 1999 (see Chart 3). In contrast to the nominal money gap, the real money gap declined in the course of 2000, partly reflecting the fact that real monetary growth was dampened by inflation above the definition of price stability. When taking the non-euro area resident holdings of money market fund shares/units into account, the real money gap was relatively close to zero in the first quarter of 2001. Furthermore, the above-mentioned special factors and statistical measurement problems of M3 regarding the measurement of non-resident holdings of money market paper and short-term debt securities, as well as the arbitrary choice of the base period, must also be borne in mind.

Another measure of excess liquidity is the *monetary overhang/shortfall*. This describes the positive/negative deviation of the observed level of the nominal money stock from a model-estimated equilibrium money stock which is determined on the basis of the present economic situation, i.e. by inserting the current values of the macroeconomic determinants of money demand (output, prices and opportunity costs) into the long-run money demand equation. Consequently, the monetary overhang/shortfall reflects developments in money not explained by the macroeconomic variables of the long-run money demand model. It thus contains the information on money which is captured by the above-mentioned unexplained part of actual monetary growth as well as the short-term monetary dynamics. An in-depth institutional analysis can help to evaluate the monetary overhang/shortfall with regard to potential risks to price stability.

Chart 4 shows the average monetary overhang/ shortfall calculated on the basis of the two money demand models described in Box 1. It can be seen that an overhang had built up in 1999, implying that monetary growth was higher than expected on the basis of the long-run money demand equation. Since the second quarter of 2000, however, this average monetary overhang has become smaller. Taking the aforementioned special factors and measurement problems into account, it would appear that, at the end of 2000, the money stock was broadly in line with the long-term money demand resulting from the actual values of its long-run determinants.

As indicated above, apart from the growth of the monetary aggregate M3, such excess liquidity measures may display favourable leading indicator properties for future inflation. According to empirical evidence (see Box 2), some of the excess liquidity measures, most notably the real money gap, have provided good indications of future inflation in the past, in particular over a short to medium-term time horizon. Nevertheless, the uncertainties surrounding such excess liquidity measures must be borne in mind. Therefore, these measures must always be interpreted with caution, taking into account the specific economic circumstances. Box 2 also reports evidence showing that, as the time span lengthens, the growth of the broad monetary aggregate M3 is the most informative indicator for future inflation. This supports the prominent role given to nominal M3 growth under the first pillar of the ECB's medium term-oriented monetary policy strategy.

Chart 4

Estimate of the monetary overhang

(as a percentage of the equilibrium M3 stock; quarterly data)

Note: The series plotted represents the average of the monetary overhang not adjusted for special factors and measurement problems, calculated on the basis of the two money demand models described in Box 1.

Box 2

Leading indicator properties of monetary indicators for future inflation

A natural focus of monetary analysis is on the role of money as an indicator variable for future price developments. Such an approach does not necessarily account for the causes underlying monetary developments, but treats money purely as an information variable by trying to assess and exploit the predictive content of monetary aggregates for future inflation. Recent studies have shown that monetary and credit aggregates contain significant information relevant for future price developments in the euro area, especially over the medium-term horizon.

In a study by Nicoletti-Altimari,[1] a systematic examination of the leading indicator properties of a broad set of money-based indicators has been carried out by assessing the forecasting performance of the models including these indicators in predicting future inflation in the euro area over the period from 1992 to 2000. The monetary indicators considered in this study included the stocks of M1, M2, M3, loans to the private sector, and a number of other money-based indicators, such as the real money gap and the monetary overhang measure (see Section 3). The predictive content for future inflation of models, including the aforementioned monetary and money-based indicators, is compared with that of models including a number of alternative indicators derived from financial markets, real activity measures, labour market indicators and cost and price measures (such as unit labour costs and wage growth rates).

The procedure was based on performing a simulated out-of-sample forecasting exercise (i.e. using only the information available prior to the forecasting period) to predict inflation for forecast horizons varying from one quarter to three years ahead. The forecasts were based on a simple linear bivariate model containing past inflation and the selected indicator. The relative performance of the indicators at different horizons was assessed by comparing their forecast errors.[2] In order to check the robustness of the results obtained, the exercise was performed for different measures of inflation (HICP, the private consumption deflator and the GDP deflator), for different sample periods and with different specifications for the forecasting model.

The following main conclusions emerged from this study. First, the results support the idea that monetary and credit aggregates contain substantial information about future price developments in the euro area. The comparative advantages, in terms of forecasting performance, of models which include money-based indicators tend to increase as the forecast horizon is extended. This is consistent with the view that money contains information which is particularly useful for anticipating medium-term and low-frequency trends in inflation.

Second, among monetary variables, the level of the real money gap and the M3-based rate of change in a P-star indicator (i.e. the deviation of the nominal money stock from equilibrium real money balances) appear to be particularly useful for forecasting inflation at horizons of up to two years ahead. By contrast, models including the rate of growth of M3 and of loans are the best performing models for the longest horizons (beyond two years). At these longer horizons, it also proved useful to include the level of the monetary overhang derived from the Brand/Cassola model of demand for M3 (see Box 1). The analysis also clearly indicated that, at longer horizons, broad monetary aggregates show better leading indicator properties for future inflation than narrow aggregates. In general, these results are robust across the different price measures used and they are also consistent with other empirical studies,[3] which have lent broad support to the idea that the real money gap has substantive predictive content for future price developments in the euro area.

Overall, the results lend support to the idea that monetary and credit aggregates provide useful additional and independent information on medium-term inflation prospects for the euro area relative to the best non-monetary indicators, especially at horizons beyond one and a half years.

1 *See S. Nicoletti-Altimari, "Does money lead inflation in the euro area?", ECB Working Paper, forthcoming.*
2 *The method followed was to compare the ratio of the mean square error (MSE) of the model based on the different indicators.*
3 *See Gerlach and Svensson, "Money and Inflation in the Euro Area: A Case for Monetary Indicators?", NBER Working Paper No. 8025, 2000, and Trecroci and Vega, "The information content of M3 for future inflation", ECB Working Paper No. 33, 2000.*

4 Analysis of the components and counterparts of M3

In the monetary analysis, components and counterparts of M3 can also be examined within the consolidated balance sheet of MFIs. The consolidated MFI balance sheet of the euro area is based on the individual balance sheets of credit institutions (including the Eurosystem), money market funds and other MFIs located in the euro area, but excludes the interrelationships between these institutions.

Balance sheet identities as such do not reveal the underlying economic relationships. Combined with a sound institutional analysis, and relying on economic knowledge of the macroeconomic explanatory variables of balance sheet items (such as money and credit), however, they allow for a better understanding and assessment of monetary developments. An analysis of the structure of M3 growth is helpful for the explanation and assessment of M3 growth itself. The analysis of components and counterparts helps to trace M3 growth back to its economic and institutional determinants. In addition, some of the components and counterparts are directly informative with regard to economic activity or inflation. The M3 components and counterparts can also be analysed using an econometric model.[4] The possibility of making use of econometric tools is, however, limited at present, since in the case of the counterparts of M3 in particular, the time series for most items only begin in September 1997.

Analysis of the components of M3

A separate analysis of the *narrow aggregate M1,* which comprises the most liquid components of M3 (currency in circulation and overnight deposits), receives particular attention among the different components of M3. This is mainly on account of its large share in the broad aggregate M3 in the euro area (around 40%). Moreover, since M1 closely reflects the transaction purpose of money, it seems more closely related to aggregate spending than M3. In addition, M1 is highly sensitive to interest rate changes and hence usually shows a strong negative reaction to a rise in opportunity costs. Despite the resulting considerable volatility of the narrow monetary aggregate M1 in the short term, a stable demand function of M1 has been found for the euro area (see Box 3). However, owing to its volatility, M1 appears to be inferior to M3 as regards the information it contains on inflation in the medium term.

The other components of M3 (*short-term deposits other than overnight deposits and marketable instruments*) are also closely monitored, mainly in order to obtain additional information to explain and assess M3 growth. These components reflect – to a greater extent than M1 – the purpose of money as a store of wealth, but they are also relevant for transaction purposes since they can easily be transformed into cash without any significant costs. Overall, their inclusion in M3 implies that this broad aggregate is less interest-rate sensitive and more stable than M1, because portfolio shifts by non-MFIs resident in the euro area between different short-term assets are partly internalised within M3. At the same time, however, these components may prevent a significant and immediate slowdown in M3 growth in a period of rising short-term interest rates, because the remuneration of marketable instruments and part of the short-term deposits tends to be closely related to money market rates. Hence, particularly in periods when short-term market rates are changing, a careful analysis of the structure of M3 growth is required.

Analysis of the counterparts of M3

In the consolidated balance sheet of the MFI sector, any change in M3 is mirrored in the developments in the counterparts of M3,

4 *See, for example, A. Calza, A. Jung and L. Stracca, "An econometric analysis of the main components of M3 in the euro area", Weltwirtschaftliches Archiv, Vol. 136 (4), 2000.*

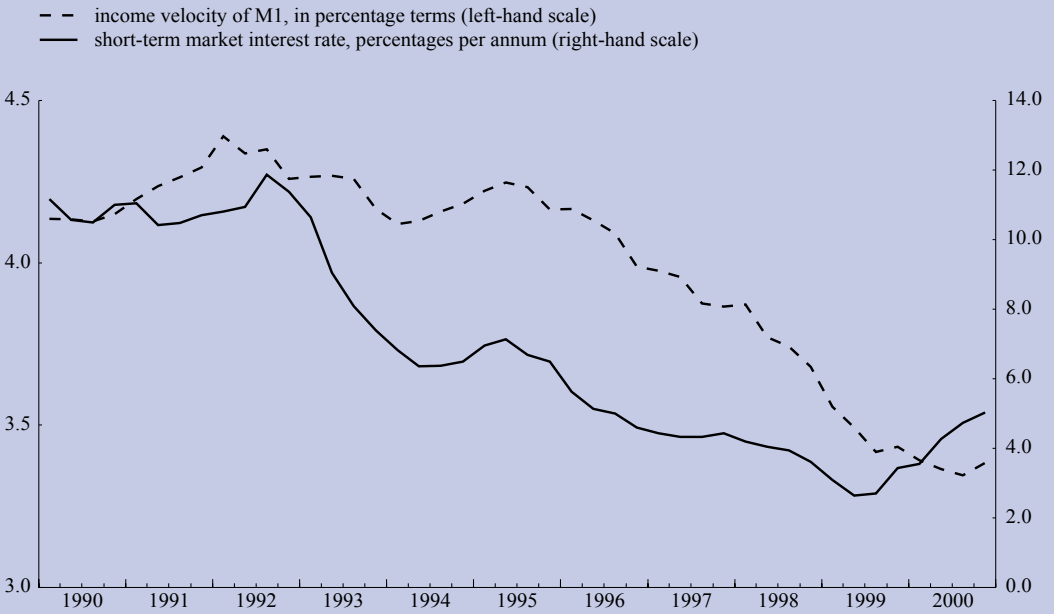
Box 3

The demand for euro area M1

The narrow monetary aggregate M1 includes the most liquid components of M3: currency in circulation and overnight deposits. M1 grew at high rates towards the end of the 1990s. As a consequence, there was a pronounced decline in M1 velocity (i.e. the ratio of real GDP to real M1 balances) in the late 1990s. As can be seen from the chart below, this occurred in parallel with a decline in short-term interest rates in the euro area.

M1 velocity and the short-term market interest rate

(quarterly data)



Note: Velocity is measured as the ratio of nominal GDP to M1 (both seasonally adjusted).

In principle, it is natural to expect M1 to rise – and M1 velocity to fall – when nominal short-term interest rates fall, since these interest rates represent the opportunity cost of holding currency and overnight deposits. However, there is also some evidence that the substantial decline in M1 velocity was related not only to the decrease in interest rates, but also to a rise in the interest rate elasticity of M1 in recent years.[1] The latter, in turn, may have been due to the fact that short-term interest rates have reached relatively low levels over the past few years. The higher interest elasticity at low levels of nominal interest rates may be related to transaction costs. Owing to the fixed transaction and learning costs involved in investing in interest-bearing assets, the increase in money demand may be stronger than that predicted by standard models when the opportunity cost for holding money falls to relatively low levels.[2] In addition, it is possible that the transition to an environment of price stability in Stage Three of EMU, and therefore to the expectation of low nominal interest rates on a lasting basis, may have changed the ways in which agents deal with financial investment and assess costs and benefits.

Since the start of Stage Three of EMU, the demand for M1 in the euro area has been affected by two special factors. First, a large increase in M1 holdings – in particular in overnight deposits – was recorded in January 1999. It is likely that this development was due, at least in part, to the new institutional and regulatory environment prevailing from the start of Stage Three of EMU (e.g. the new reserve requirement regime) and did not necessarily imply risks to price stability (see Box 4). M1 holdings may have also been temporarily influenced upwards by the uncertainties related to the transition to the year 2000, although its effect appears to have been of limited magnitude. Apart from these special factors, there is no evidence of a fundamental break in M1 demand since the launch of the euro.

1 *See L. Stracca, "The functional form of the demand for euro area M1", ECB Working Paper No. 51, 2001.*
2 *See C. Mullighan and X. Sala-i-Martin, "Extensive Margins and the Demand for Money at Low Interest Rates", Journal of Political Economy, Vol. 108, No. 5, 2000.*

most notably credit to the private sector, credit to general government, MFI longer-term financial liabilities and net external assets of MFIs. Interpreting such interdependencies is helpful in order to gain a better understanding of the reasons behind monetary growth, particularly in the shorter term. For example, shocks to monetary developments might be traced back to the supply of credit or to substitution with longer-term financial liabilities. If the latter arises in a situation of marked uncertainty in financial markets, the resulting developments in money could probably be regarded as temporary portfolio shifts which do not necessarily have implications for future inflation. By contrast, if monetary developments are related to more lasting changes in credit availability, such movements may be of relevance for the assessment of risks to price stability.

At the same time, it should be borne in mind that economic causality can run in several directions. On the one hand, higher credit growth can result in higher liquidity in the economy and thus higher growth of the monetary aggregates. On the other, an increase in money holdings of non-MFIs, for example owing to higher income growth, can induce higher credit growth. Moreover, components of the MFI balance sheet may be driven by the same economic factors in parallel, such as income growth or interest rate changes. Finally, movements in the counterparts of M3 do not necessarily imply movements in M3 itself. They can also reflect interrelations between the counterparts, for instance between credit and net external assets, for example due to the financing of investments abroad by euro area non-MFIs.

Credit to the private sector (loans and MFI holdings of securities) is the most important counterpart of M3 in quantitative terms and, hence, one of the key potential driving forces behind M3. In its regular monetary analysis, the ECB puts particular emphasis on developments in loans to the private sector, which account for around 90% of credit to the private sector and correspond to changes in net lending by the borrower. By contrast, changes in MFI holdings of securities often simply mirror transactions in the secondary market. The growth of loans deserves particular attention, since it may be closely related to aggregate spending. In addition, there is some empirical evidence which suggests that loans to the private sector in the past two decades display good leading indicator properties for consumer price inflation (see Box 2).

For a well-founded assessment of the underlying determinants of growth in loans, the quarterly data on loans by sector (non-financial corporations, financial corporations, households or government) and by purpose (loans to households are broken down into consumer credit, loans for house purchase and other loans) in the euro area are a particularly useful supplement to the regular counterpart analysis. For example, consumer credit is more likely to feed directly into aggregate spending than loans granted to financial corporations, which may be linked to a variety of purposes. A strong pace of growth of loans to the private sector is usually associated with favourable financing conditions and strong real economic activity. More specifically, according to empirical evidence for the euro area, the demand for real loans is positively related to real GDP and negatively related to real short-term and, in particular, real long-term interest rates, consistent with the rather long-term maturity structure of loans in the euro area.[5] However, loans may at times be explained by other factors, such as a profits' squeeze forcing companies to find a substitute for internal finance. Furthermore, data on mergers and acquisitions and information about prices in real estate markets can enhance the understanding of loan developments. Finally, the balance of payments statistics may also provide useful information at times, since, for example, capital outflows due to foreign direct investments may fuel the demand for loans from non-financial corporations without

5 *See A. Calza, C. Gartner and J. Sousa, "Modelling the demand for loans to the private sector in the euro area", ECB Working Paper No. 55, 2001.*

having implications for domestic price developments. Therefore, loan developments must always be scrutinised carefully.

In assessing the potential implications of credit growth for aggregate spending and inflation, the increase in the amount of financing taking place outside the MFI sector also has to be taken into account. While MFIs are the most important source of financing, the issuance of debt securities by non-financial corporations has increased substantially over the past few years.[6] In order to obtain a complete picture of the potential implications of financing and investment activities of non-MFIs in the euro area, it is therefore important to take a broader perspective. This is gathered from the analysis of the quarterly financial accounts, which complements the consolidated MFI balance sheet analysis (see the article entitled "Financing and financial investment of the non-financial sectors in the euro area" in this issue of the Monthly Bulletin).

MFI credit to general government, which at present accounts for slightly more than 20% of total credit in the euro area, is related to the borrowing requirements of the public sector. When interpreting MFI credit to general government, however, it should be taken into account that a significant part of total government debt consists of debt securities (at present about three quarters of total government debt in the euro area). Therefore, it is always necessary to analyse whether changes in MFI credit to general government are mainly attributable to corresponding changes in government debt or whether they simply reflect a change in the debtor structure of general government.

Longer-term financial liabilities mainly encompass those investment vehicles (deposits, debt securities) offered by MFIs which are less liquid and therefore not included in M3. Their development depends on real economic activity and opportunity costs, and also partly reflects substitution effects within the MFI balance sheet. Such substitution effects always have to be carefully analysed. For example, portfolio shifts into assets outside M3 due to a rise in opportunity costs may reflect a change in the decision between consumption and saving, with possible implications for price developments. However, a shift between longer-term financial liabilities and M3 can also be caused, for example, by tax changes or factors such as uncertainty in bond markets, and would then merely represent a portfolio shift without any lasting implications for aggregate spending or the outlook for price stability.

Finally, *net external assets* of the MFI sector (i.e. external assets minus external liabilities) mainly reflect the transactions of the euro area non-MFIs with residents outside the euro area. While transactions between MFIs and non-euro area residents in most cases have a similar impact on both external liabilities and external assets (with the exception of transactions in government securities or shares of non-MFIs) and, hence, leave net external assets unchanged, the settling of current account or financial transactions by non-MFIs with residents outside the euro area is mirrored in the net external asset position of the MFI sector. For example, payments for imports or foreign securities will result either in an increase in external liabilities or a decrease in external assets and, hence, a reduction in net external assets of the MFI sector. Therefore, it is worthwhile analysing this balance sheet item together with the euro area balance of payments. However, at present it is only possible to obtain a rough indication from the euro area balance of payments statistics of the underlying forces driving changes in net external assets, because a complete sectoral breakdown of the balance of payments transactions is not available.

Overall, an in-depth analysis of the components and counterparts of M3 is an important part of a detailed assessment of monetary developments under the first pillar of the ECB's monetary policy strategy. It should rely both on the consolidated MFI

6 *See the article entitled "Characteristics of corporate finance in the euro area" in the February 2001 issue of the Monthly Bulletin.*

balance sheet (possibly extended to include the analysis of quarterly financial accounts), complemented by additional knowledge of real economic and institutional developments, and on econometric models.

5 Short-term analysis of monetary developments

Owing to its medium-term orientation, the ECB's monetary policy is primarily interested in medium-term trends in monetary variables. At the same time, however, each month monetary analysis has to check whether new monetary data confirm or change the previous assessment. In particular, possible indications of a turning point in monetary trends need to be recognised as early as possible. Furthermore, monthly monetary developments should be investigated with a view to identifying special factors and measurement errors. These distortions must be taken into account in the assessment of monetary developments. For these reasons, it is also useful to exploit tools for the short-term analysis of monetary developments.

The monthly changes in the *annual* growth rates of M3 and its components and counterparts provide an initial indication of short-term monetary developments. However, for an assessment of the short-run dynamics of monetary growth, seasonally-adjusted *monthly* data give more accurate information, since they are not influenced by base effects. Moreover, monitoring the development of seasonally-adjusted monetary data over different time horizons (for example seasonally-adjusted and annualised six-month changes) is useful for an assessment of the shorter-term monetary dynamics and the detection of a change in monetary trends.

In addition to the monitoring of seasonally-adjusted data, the short-term analysis can be supported by time series models (for example reg-ARIMA models, see Box 4). Such models can be used to identify calendar effects which, on occasion, have a bearing on the change in annual growth rates. Furthermore, time series models allow the trend of a monetary time

Box 4

Identification and quantification of the distortion of M3 at the start of Stage Three of EMU on the basis of a univariate linear time series model

In the short-run analysis of monetary developments, univariate linear models such as seasonal reg-ARIMA models (Autoregressive Integrated Moving Average Models also allowing the existence of regression variables)[1] can be used for a variety of purposes. Such models are particularly useful for short-term forecasting and signal extraction, i.e. the estimation and analysis of short-term trends. One interesting application of such a model is the examination of the monetary developments around the start of Stage Three of EMU. In January 1999 the annual rate of growth in M3 increased very strongly, and this jump appeared to be only partly reversed in the following months.

In such a situation, time series analysis is a first step towards detecting the possible existence of "special events". On the basis of data up to December 1998, the one step-ahead forecast error for euro area M3 for January 1999 can be calculated. Formal tests using such models to compare the forecast with a confidence interval of 95% and the actual observed value indicated that the observed value for January 1999 could not be explained by the past values of M3. Consequently these observations needed to be analysed further.

For the period around the start of Stage Three of EMU, several underlying factors were identified as possibly being at the root of this strong increase in the annual rate of M3 growth. These factors included, in particular,

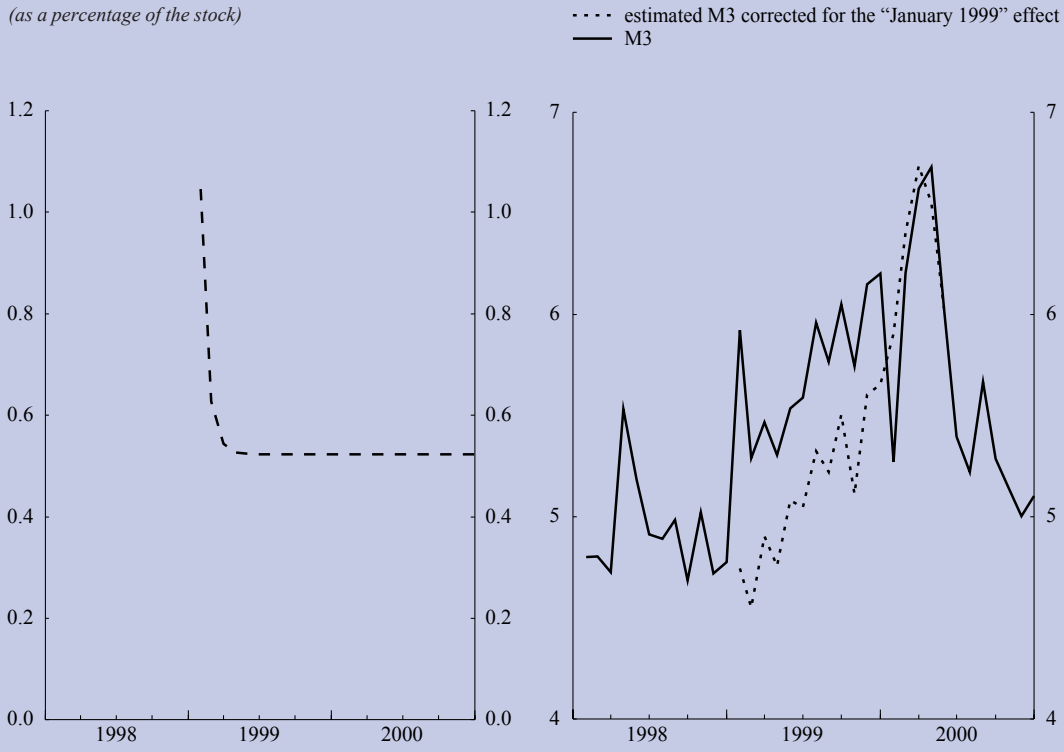
1 See also the ECB publication entitled "Seasonal adjustment of monetary aggregates and HICP for the euro area", August 2000.

new statistical reporting systems, the introduction of remuneration of minimum reserves (which led to a flowback of funds into the euro area), changes in tax laws in some euro area countries, and financial market uncertainties related to the transition to Stage Three of EMU. For all these reasons, in early 1999 the Governing Council did not regard the increase in M3 growth in January 1999 as being a cause for concern with regard to upward risks to price stability.

In order to further underpin this assessment, a reg-ARIMA model for M3 was used to estimate the type and the magnitude of the distortion in January 1999. One plausible effect at the start of Stage Three of EMU, which it was possible to estimate using this model, was the combination of a "one-off shock" dying out exponentially and a permanent change in the level of M3. Such a combination is reasonable because some of the institutional factors mentioned seem to have been temporary (e.g. the greater uncertainty), while others would be expected to permanently change the level of M3 (e.g. changes in the statistical reporting system and the reserve requirement system). This reg-ARIMA model indicates that the level of M3 was distorted upwards by around 1% in January 1999. However, the effect partly died out exponentially within the subsequent months and converged towards a permanent change in the level of around 0.5 percentage point.

Estimation of the distortion of the level of M3 around the start of Stage Three of EMU
(as a percentage of the stock)

Growth rate of M3
(annual percentage changes)



The charts above illustrate the results of this exercise. The left-hand chart shows the estimation of the distorting effect on the level of M3 around the start of Stage Three of EMU in percentage points (a one-off shock in January 1999 which dies out exponentially, ending in a permanent change in level). The right-hand chart focuses on the impact of this distortion on the annual rate of growth of M3. As can be seen in the right-hand chart, the series corrected for the "January 1999" effect gives a much smoother and clearer picture of the developments in M3 during 1999 and up to the first quarter of 2000, without changing the general picture of growth patterns. While it should be stressed that the estimated series in the right-hand chart is subject to considerable uncertainty and serves only illustrative purposes, it may be seen as a justification for the assessment of monetary developments made by the Governing Council in 1999.

series to be separated from transitory distortions. They are, therefore, a useful additional tool with which to obtain an early indication of a possible change in the trend of monetary developments. Moreover, by comparing the monetary dynamics which can be explained by the model with the actual monetary developments, the model-based short-term analysis helps to detect and quantify special factors and measurement errors. The detection of these effects is one important input in order to arrive at a well-founded assessment of monetary developments and to avoid misinterpretation.

However, on the basis of time series models, it is not possible to immediately classify a deviation of the observed monetary growth from the growth estimated by the model. One reason for this is that a change in the monetary trend naturally requires confirmation over several months. In addition, the model alone is not able to identify a special factor or a measurement error. Hence, a detailed institutional knowledge of special events is always essential. Nevertheless, even with institutional knowledge, it may sometimes be difficult to assess the potential implications of monetary disturbances for price developments at an early stage. Therefore, a cautious attitude is warranted when assessing special factors.

6 Concluding remarks

The ECB has assigned a prominent role to money in its monetary policy strategy and has signalled this by announcing a quantitative reference value for the annual growth of the broad monetary aggregate M3 over the medium term. As this article shows, there is ample empirical evidence which justifies this approach: the demand for M3 in the euro area is stable and M3 appears to have good leading indicator properties for price developments over the medium term.

While the reference value for the growth rate of M3 plays a prominent role in the analysis under the first pillar of the ECB's monetary policy strategy, a comprehensive monetary analysis must use a range of instruments to deepen and complement the analysis of the deviation of M3 growth from the reference value. This article has reviewed a number of tools available for supporting the analysis of monetary developments. Such tools serve two main purposes: explaining monetary developments and assessing their implications for the risks to price stability. In this respect, monetary analysis must combine the use of econometric models with a detailed evaluation on the basis of the consolidated MFI balance sheet and institutional knowledge.

The various analytical approaches all help to shape an assessment of the risks to price stability signalled by monetary and credit developments. In addition, in order to arrive at a robust evaluation of risks to price stability, the results under the first pillar need to be cross-checked against the assessment provided by economic and financial indicators under the second pillar. In order to produce a sound assessment, it is necessary to consider all the information which may be relevant for a monetary policy aimed at maintaining price stability over the medium term. Since the start of Stage Three of EMU, in view of the uncertainties surrounding the structure of the euro area economy and the availability of data, this approach has proved particularly useful for the stability-oriented monetary policy of the ECB.

The new capital adequacy regime – the ECB perspective

The new Capital Accord proposed by the Basel Committee on Banking Supervision represents a major improvement on the present one; it significantly enhances the effectiveness of capital regulation and the stability of the banking system. Effectiveness is increased primarily since the new Accord is more comprehensive and forward-looking. Stability is enhanced, first and foremost, because there is increased alignment of capital requirements with the risks taken by individual banks. Furthermore, the new Accord supports the development of banks' risk management practices, since internal risk ratings can be used for establishing the regulatory capital requirements (internal rating-based (IRB) approach).

The move towards a significantly more risk-sensitive regulatory framework creates challenges for the supervisory authorities in charge of implementing it and for international co-operation.

The first challenge is related to the increased volatility and cyclical sensitivity of the minimum capital requirements under the IRB approach. Consequently, banks may need higher capital buffers, over and above the minimum requirements, than before in order to avoid capital constraints in economic downturns. Encouraging banks to develop internal risk measures that give more emphasis to the time dimension of risks, paying close attention to the adequacy of banks' capital buffers and the implementation of other complementary supervisory measures (primarily "dynamic provisioning") might be duly considered by supervisors when adopting the new regulatory framework. In general, the implementation of a risk-sensitive and adequately stable IRB approach by a large number of banks would enhance financial stability.

The second challenge arises from the role the new proposals assign to supervisory authorities and market participants in disciplining banks' risk-taking. The smooth interaction between the three pillars of the new Accord (minimum capital requirements, supervisory review process and market discipline) is crucial to promote the safety and soundness of credit institutions. In particular, the effectiveness of the new tools and the need to safeguard equality in terms of international competition require an adequate convergence of supervisory practices, the international harmonisation of accounting standards and enhanced disclosure by banks. These developments would be particularly important in the context of the single market for financial services within the European Union.

1 Overview of the proposed new Capital Accord

The Basel Committee on Banking Supervision (BCBS) was established in 1974 and comprises the central banks and other banking supervisory authorities from the G10 countries, Spain and Luxembourg. It formulates supervisory standards and guidelines, and issues recommendations on best supervisory practices, thereby encouraging convergence towards common approaches. In 1988 the BCBS introduced the first Capital Accord that provided for a credit risk measurement framework and a minimum capital standard. The 1988 Accord has become a global standard for capital regulation. It establishes a uniform rule (i.e. the required minimum capital ratio) to hold 8% equity capital and other capital-like items in relation to risk-weighted assets, which are determined by allocating assets to specific risk buckets. The Accord has been instrumental in harmonising the international regulatory environment and in enhancing bank soundness.

Nevertheless, the 1988 framework has come under pressure as a result of several developments, which have eroded the effectiveness of its simple *rule-based* methodology. First, it has failed to prevent banks from incurring increased risks, and hence receiving higher margins, without increasing the capital required. This kind of *arbitrage* may be especially prevalent for corporate loans, since all loans to private sector firms are grouped together in a single

(100%) risk bucket irrespective of the underlying risk. Second, financial innovation has rendered the Accord's focus on traditional on-balance-sheet credit risks inadequate. As there is a higher relative burden on banks that have a relatively low-risk credit portfolio, asset securitisation and other transactions have also evidently been carried out in order to reduce the regulatory capital burden, possibly reducing banks' asset quality.

The new BCBS proposals entail substantial innovations to remedy these distortions, thus increasing the efficiency of financial intermediation via greater risk recognition and enhance the stability of the banking system. The BCBS presented a proposal for a new framework to replace the 1988 Accord in June 1999. Following extensive interaction with banks and industry groups, a second comprehensive consultative package was issued in January 2001, which will enable the BCBS to receive additional feedback on the proposal by the end of May 2001. It is envisaged that the new rules will be implemented by 2004. The European Commission has also issued a consultative document on the corresponding European Union (EU) regulation. This document basically supports the Basel recommendations, but focuses on certain issues of particular interest from an EU perspective. The Commission's consultative document is a first step towards the translation of the new Basel Accord into EU legislation.

The proposed new capital adequacy regime is substantially different from the present one: it is much more comprehensive, risk-sensitive and forward-looking. These characteristics represent marked improvements, but come at the inevitable expense of greater complexity. Box 1 contains a glossary of the key terms appearing in the new framework.

A comprehensive new approach to capital regulation

The new Accord considerably widens the scope of capital regulation: *minimum capital requirements* (*Pillar 1*), based on an enhanced methodology, are complemented by the *supervisory review process* (*Pillar 2*) and *market discipline* (*Pillar 3*). The proposed revisions improve the risk assessment methodology, which determines the denominator of the required capital ratio. The numerator, i.e. the capital elements, will not be changed at the present juncture, nor will the 8% minimum capital ratio.

There are two options for the measurement of credit risks: the *standardised approach* and the novel *internal rating-based (IRB) approach*. The standardised approach has a structure similar to the present Accord, but unlike the current simple risk buckets, it provides for risk weights based on the external ratings of banks' counterparties. National authorities endorse external credit assessment institutions in line with the broad criteria set out by the BCBS. In the IRB approach, the risk weights are based on banks' internal ratings of their borrowers, which are validated by national supervisors in line with the common criteria issued by the BCBS. Most banks base their rating methodology on the risk of a borrower's default (*probability of default*), while qualitative assessments can also play an important role. Other quantitative elements also influence the risk weights (loss given default, exposure at default, maturity and portfolio concentration representing the main elements).

The new Accord provides for two sub-options within the IRB approach: the *foundation approach* and the *advanced approach,* the latter being for banks with sophisticated internal risk management systems. Under both alternatives, banks need to have a system to estimate probabilities of default which is validated by supervisors, while internal estimates of the loss given default and the exposure at default may be used under the advanced approach. The

Box 1

Glossary of key terms in the new Capital Accord

Asset securitisation: Packaging of assets into securities for sale to third parties.

Credit risk: Risk of a loss from a default (i.e. failure to meet obligations to service debt) of a counterparty.

Economic capital target: Level of capital deemed appropriate by banks to cover future risks. The target stems from quantitative and qualitative internal risk assessments.

Exposure at default: The amount of exposure to a counterparty in the event of, and at the time of, that counterparty's default. This measure reflects the certainty of the exposure (e.g. it can be less than 100% for credit lines).

External ratings: Credit risk assessments issued by private or public sector credit assessment institutions (such as rating agencies).

Interest rate risk (on the banking book): Risk of a decline in earnings and (net) asset values in relation to traditional banking activities owing to movements in interest rates.

Internal ratings: Banks' own internal measures of credit risk associated with particular borrowers, usually based on quantitative probability of default estimates, but also involving qualitative assessments.

Internal rating-based (IRB) approach: One of the two main options for banks to establish the minimum regulatory capital requirements. The risk weights are based on banks' own internal ratings and certain other quantitative elements, subject to supervisory validation in line with the common criteria issued by the Basel Committee on Banking Supervision (BCBS).

IRB advanced approach: In this sub-option under the IRB approach, a bank with a sufficiently developed internal risk management system is permitted to use more internal inputs than probabilities of default for setting the capital charges (e.g. the exposure at default and the loss given default).

IRB foundation approach: In this sub-option under the IRB approach, banks estimate internally the probability of default associated with each borrower, while supervisors supply the other inputs.

Loss given default: A measure of the expected average loss that the bank will experience per unit of exposure, should a particular counterparty default.

Market risk (in the trading book): Risk of a loss from trading positions when market prices move adversely.

Operational risk: Risk of a loss mainly resulting from inadequate internal control systems, or from extraordinary external events.

Pillar 1: Rules that define the minimum capital requirements (ratio of capital to risk-weighted assets).

Pillar 2: Supervisory review process, which requires supervisors to assess banks' capital allocation techniques and capital adequacy, and compliance with the relevant standards.

Pillar 3: Strengthened market discipline via enhanced public disclosure requirements.

Probability of default: The probability that a counterparty will default in a chosen time horizon.

***Regulatory capital ratio*:** Required ratio (8%) of recognised capital items to risk-weighted assets.

***Risk weights*:** Methodology to ascribe to each balance and off-balance-sheet item a percentage weight reflecting the presumed credit risk. Risk buckets consist of the groups of these items with a particular risk weight.

***Risk-weighted assets*:** Weighted sum of the balance and off-balance-sheet items based on the risk weights.

Standardised approach: One of the two main options for banks to establish the minimum regulatory capital requirements. It introduces new risk weight categories in comparison with the current Accord. Moreover, the risk weights are based on external ratings of banks' counterparties, recognised by national supervisory authorities in line with the criteria established by the BCBS.

foundation approach can significantly increase the number of banks that are able to apply the internal risk measures. This is an especially appreciated feature of the proposals from an EU perspective, since the scarcity of external ratings would limit the risk differentiation available under the standardised approach.

Pillar 2 establishes an active role for supervisory authorities to judge whether a bank's capital position is consistent with its risk profile. Banks are required to assess their *economic (i.e. risk-based) capital targets,* and supervisors should have the possibility, when deemed necessary, of demanding capital in excess of the minimum requirement. The supervisory review process provides supervisors with considerably more discretion in assessing banks' capital adequacy than before. Tougher information disclosure recommendations under Pillar 3 are intended to enhance the ability of banks' stakeholders (e.g. subordinated debtholders or interbank depositors) to monitor a bank's risk profile and capital adequacy. The two additional pillars have the potential to increase the effectiveness of capital regulation significantly.

New risks will also be brought within the scope of the Accord, in addition to credit risks and market risks in trading activities. There will be capital charges on operational risks (Pillar I) and interest rate risks on the entire banking book (Pillar 2). In addition, credit risk mitigation techniques, i.e. the use of collateral and hedging instruments (guarantees and credit derivatives), and asset securitisation issues are recognised.

In order to smooth the transition from the current to the new regulatory framework, the BCBS intends to ensure that the aggregated capital requirement remains reasonably close to the present level. Hence, no additional burden would be created, while the distribution of the required capital may change considerably from bank to bank.

Smooth interaction between the three pillars will be a crucial element for the effectiveness of the new framework in enhancing supervisors' tools and market discipline, and in promoting the adoption of more refined risk-management techniques by banks. The new Accord will leave increased scope for discretion at the national level in the implementation of the three pillars and, especially, in the way in which they actually interact. The continued pursuance of the objective of international competitive equality will therefore call for enhanced convergence in supervisory practices. This issue is already being addressed at the EU level, reflecting the need for more uniform approaches in integrated financial markets.

Significant shift towards risk sensitivity

The main goal of the revision of the minimum capital requirements, and of the recognition of the other risks and credit risk mitigation techniques, is to narrow the present gap between the regulatory capital and the risk-based economic capital, which may have produced unwelcome distortions. Accordingly, the proposals lead to a substantially greater *risk sensitivity* of the capital requirements. In turn, this ensures that banks which take on greater risks also hold additional capital to cover these risks. The new Accord may also increase the chances that banks and supervisors will tackle any emerging capital adequacy problems rapidly. Hence, the impact on banking system stability is clearly beneficial.

Both standardised and IRB approaches are available for all basic types of claims on corporations, sovereigns (central government and, under specific conditions, other public sector entities) and banks. The risk weights in the IRB approach are more differentiated and cover a larger range, but there is also an increase, relative to the present set of rules, in the range of the risk weights in the standardised approach. For instance, top-rated companies receive a 20% risk weight and additional buckets of 50% and 150% are created. Table 1 presents representative values for the corporate risk weights under the "benchmark" IRB approach

and compares them with the standardised approach.

The risk weights for banks and sovereigns resemble those for corporate credits under both approaches, while a 0% risk weight is also available for sovereigns (if the respective sovereign rating is above or equal to AA-), as is currently the case with the OECD countries. As to claims on banks under the standardised approach, national supervisory authorities must consistently apply one of two options. First, the risk weights can depend on the ratings of the countries in which banks are incorporated. Under this first option, ratings above or equal to AA- would result in a 20% risk weight, which is currently applied to OECD country banks. Second, the risk weights can be based on external credit assessments of the banks themselves. Banks rated above or equal to AA- will receive a 20% risk weight. Risk weights are reduced in the case of short-term claims with an original maturity of three months or less.

Forward-looking proposals that support developments in risk management

Allowing the use of internal risk measures is a fundamental innovation, which reduces the likelihood of the regulatory framework becoming outdated as a result of developments in financial innovation and risk management techniques. In addition, banks' informational advantages can be better exploited to achieve a more accurate alignment between the regulatory capital and the target level of economic capital. Finally, placing responsibility clearly with the management gives banks incentives to develop internal risk management systems.

The inability to recognise credit *portfolio diversification* (i.e. default risk correlations between borrowers) has been identified as a major shortcoming of the present Accord. The consequence is that capital charges are disconnected from the actual risks at the bank level, as they focus on the individual credit level. Full recognition of portfolio diversification is not yet present in the new framework. However, the IRB approach is regarded as an "intermediate step" towards the regulatory acceptance of fully-fledged internal credit risk models, which explicitly recognise this aspect. Analogous internal models are already allowed for setting capital charges on the market risks in the trading portfolio.

In conclusion, the characteristics discussed above make the basic BCBS proposals very worthy of support. At the same time, the effectiveness of the new framework, its ability to promote more sophisticated risk

Table 1

Standardised and IRB approaches for corporate credits

External rating grade	Probability of default (%) [1]	Risk weights	
		Standardised approach	IRB approach [2]
Floor	0.03	20	**14**
AAA to AA-	0.03 to 0.05	20	**14** to **19**
A+ to A-	0.06 to 0.11	50	21 to 31
BBB+ to BB-	0.12 to 1.33	100	33 to 149
B+ to CCC or lower	1.34 to 20.00	150	150 to **625**
Cap	20.00	150	**625**
Unrated		100	

Sources: KMV Corporation and BCBS.

1) *According to KMV Corporation data.*

2) *Based on the maturity assumption of three years ("default" model yields the same as "marked-to-market" model), loss given default of 50% and exposure at default of 100% ("benchmark assumptions"). The figures in bold are from the BCBS. Others are interpolated.*

management techniques and its continued contribution to creating a regulatory environment coherent with the globalisation of financial intermediation will require a sustained effort by supervisory authorities. The remainder of the article addresses some issues which merit the attention of the supervisory authorities when implementing the framework, especially in the euro area and the rest of the EU, where banking markets are becoming increasingly integrated.

2 Minimum capital requirements and business cycles

The potential propensity of the banking system to intensify economic fluctuations ("financial pro-cyclicality") is an important concern from a financial and macroeconomic stability perspective. Pro-cyclicality arises if the capital (or provisions) accumulated during economic upturns are not adequate to cover the risks materialising in downturns and banks are forced to recall loans to satisfy capital requirements. Banks' retained profits, which add to capital, are typically boosted in favourable economic conditions and rise less rapidly (or even fall) in recessions. The same patterns usually govern loans and other assets. Hence, even in the absence of regulatory capital requirements, the quantities of banks' capital and assets are likely to be pro-cyclical, while the evolution of the capital ratio is generally ambiguous.

Capital regulation may affect financial pro-cyclicality. Namely, the minimum capital requirement may become binding in a downturn if banks' capital ratios fall close to the 8% level. The resulting capital shortage may induce banks to reduce lending beyond what would be warranted on the basis of the reduced demand for loans in a downturn. After reviewing the issue under the present Accord, the article concludes that the risk of financial pro-cyclicality could increase under the new Accord.

Pro-cyclical impact of the present Accord has probably been limited

The major global implications of the present Accord were reviewed in a BCBS Working Paper (see "Capital requirements and bank behaviour: the impact of the Basel Accord", 1999). First, average capital ratios have increased significantly since the late 1980s, owing to the pressure on weakly capitalised banks. This development has also reduced the risk of financial pro-cyclicality, as banks' *capital buffers* over and above the minimum level have increased. Indeed, banks often have these buffers against future losses, thus mitigating the threat of a capital shortage in worsened economic conditions. Also, in the euro area countries, banks' average capital ratios are generally higher now than in the late 1980s. The aggregated (weighted average) capital ratio across euro area countries has risen from approximately 9.0 at the end of 1989 to 10.6 at the end of 1999 (according to OECD and BIS data). The average capital ratio of the 100 largest euro area banks stood at approximately 10.9 at the end of 1999 (according to FitchIBCA BankScope commercial database). Their capital position is usually enhanced by a strong share of equity capital.

Second, banks usually raise new capital in favourable economic conditions, whereas cutting back loans or shifting to lower-risk assets is more cost-effective in troughs. There is evidence that weakly capitalised banks have sometimes reduced lending in downturns, or have moved out of high risk-weighted assets. However, it is difficult to assess whether the cause was the capital requirement or concern about a weakened credit quality. The existing global evidence suggests that the regulatory requirements may have become binding and affected lending only in deep downturns. Looking at the evolution over time in the euro area countries, banks' aggregated capital has often increased significantly in periods of higher economic growth since 1989, more

than offsetting simultaneous asset growth. Conversely, capital growth has often declined more than asset growth in periods of downturn. This pattern would indicate that bank capital has successfully acted as a cushion to absorb cyclical fluctuations without an apparent need to reduce lending owing to a capital shortage.

Potentially heightened pro-cyclical impact of the new Accord

In addition to the changes in capital and assets over time, the risk weights can likewise become cyclically sensitive under the new Accord, causing the capital requirement to increase in a downturn. Risk weights can become volatile, especially under the IRB approach, since banks' estimates of probabilities of default, and hence their internal ratings, would be likely to vary over time and depend on economic cycles (see illustration in Box 2). The survey carried out by the BCBS of major international banks' internal rating systems (see "Range of practice in banks' internal ratings systems", 2000) concluded that the ratings of almost all banks are based on borrowers' current conditions. They are usually valid for only a short time horizon of one year ("point-in-time risk measures"). Banks rarely attempt to take a longer-term view or to take into account the cyclical sensitivity of the default risk. Additional pro-cyclicality may also arise from credit risk mitigation techniques, e.g. as a result of the enhanced collateral position in growth periods.

The characteristics of banks' internal ratings seem to contrast with the external ratings of the major agencies. External ratings are typically intended to be valid for a longer period of time ahead and to withstand "normal cyclical fluctuation" ("through-the-cycle ratings"). Indeed, a number of recent studies have found that rating agencies move slowly and that their ratings are often inflexible. However, external ratings have experienced significant swings in times of financial crises, as was the case during the recent emerging markets' crises of 1997 and 1998. Hence, the risk weights based on external ratings could also be volatile in such situations.

The quantitative impact on the actual regulatory capital requirements would depend on the portfolio composition of individual banks. The illustrations in Box 2, however, suggest that the increase in the minimum required capital quantity under the IRB approach might be substantial in a deteriorating economic environment, on account of the new element of the volatility of the probability of default measures. Hence, banks could face increasing capital needs in periods when capital is most costly and could choose to reduce assets instead, which might deepen the downturn. In other words, banks could become vulnerable to rising risks in a downturn, if they did not accumulate capital buffers above the minimum regulatory requirement in an upturn. As noted, banks usually have buffers above the minimum to ensure that they will not face capital constraints. However, under the IRB approach, they could need significantly higher buffers than before to avoid the minimum capital ratio becoming binding in worsened conditions. The risk of adverse macroeconomic consequences would depend on the proportion of banks actually using the IRB approach.

The issue of the potentially heightened pro-cyclical impact of the new Accord has been acknowledged and analysed by the BCBS, and the second consultative paper discusses some possible ways forward. Possible means of dealing with the issue are considered in some detail hereafter.

Means of reducing the risk of financial pro-cyclicality

Certain elements could be introduced to reduce pro-cyclicality in the measurement of the probabilities of default themselves. Drawing on past experience and using longer-term average probabilities of default could be

Box 2

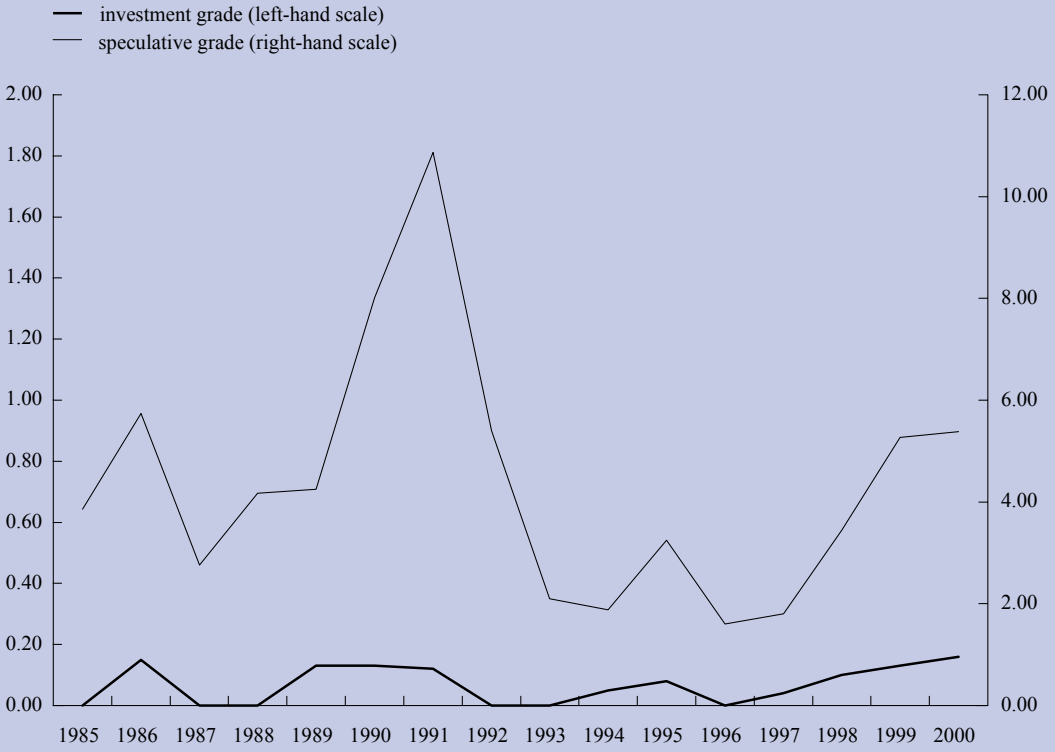
Illustrative examples of the potential pro-cyclical impact of the new minimum capital requirements

As noted in the main text, the volatility of banks' probability of default measures for their borrowers, and hence of internal ratings, is the main reason for the potentially increased pro-cyclicality of the capital requirements under the new Accord. Data on banks' own measures are not readily available. However, the volatility of the "point-in-time"-type measures of the probability of default might be illustrated by the actual default rates in the global pool of bond issuers rated by Standard & Poor's (S&P) (see Chart A). These default rates may be representative of the measures currently considered by banks, since they also reflect the short-term condition of the borrowers. Banks may also base their measures on the default rates issued by rating agencies. Default rates tend to follow to a significant extent the evolution of the business cycle, as for instance illustrated by their rise in 1991, which coincides with an economic slowdown in OECD countries.

Chart B provides a rough idea of the potential impact of the volatility of the default rates on a portfolio of commercial loans under the IRB approach, by considering two sample portfolio structures, where external ratings are ascribed to borrowers. The first portfolio structure (S&P) is based on the current external rating composition in the S&P database, whereas the second one (US50) is based on the internal ratings of the 50 largest US banks converted to the same external rating scale. The benefit of the latter is that loans without external ratings are also included. Unfortunately, this kind of information does not appear to be available for EU banks.

Chart B depicts the evolution of the minimum capital *quantity* needed under the IRB approach to maintain the 8% capital ratio for the two portfolios, assuming that the probabilities of default follow the actual default rates in the S&P database. The risk weights used in the calculations are provided by the Basel Committee on Banking

Chart A: Actual default rates in the pool of S&P-rated bond issuers, by rating category
(default rates as percentages)



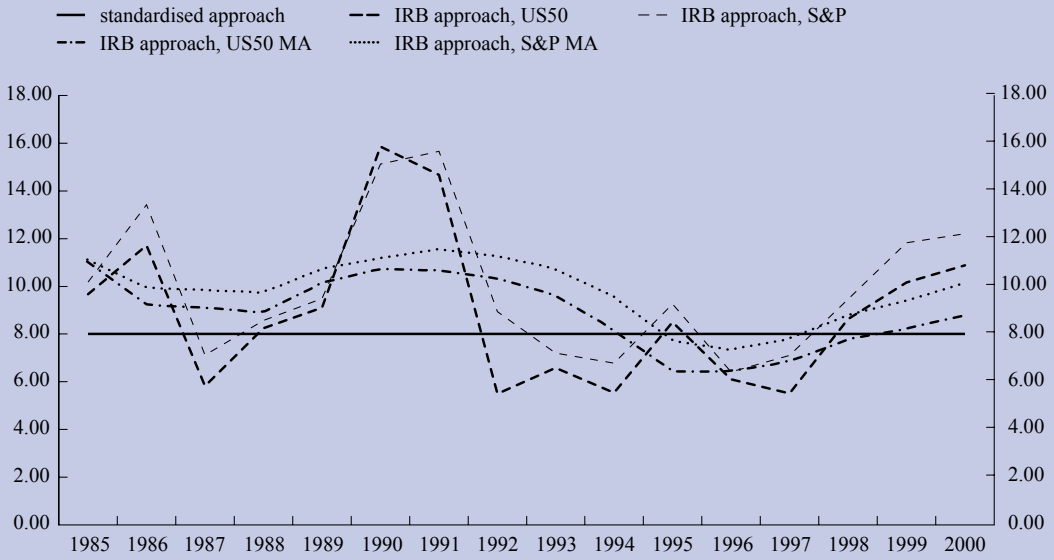
Sources: "Ratings Performance in 2000", Standard & Poor's. The actual default rates represent the realised defaults in the data set of close to 10,000 global bond issuers rated by S&P.

Supervision (BCBS) (Table 1, benchmark assumptions). The capital quantity is set equal to 8 for the standardised approach, which does not change, because the portfolio rating composition is fixed over time. The calculation isolates the additional pro-cyclical impact within the IRB approach owing to the new element of the volatility of the default rates and hence the changes in risk-weighted assets. The effect is quite significant: the lowest requirement in the examples is approximately 60% below the highest one in this experiment based on past data. The results are quite similar for the two sample portfolios, since while the US50 portfolio has fewer top-rated borrowers, it is more concentrated on the medium rating range, whereas the S&P portfolio is more evenly spread throughout the rating sphere.

Additional volatility in the capital requirement could also come from changes in portfolio composition over time, since the volatility of default rates of lower-rated firms is likely to be higher than that of top-rated firms (see Chart A). Hence, shifts in banks' portfolios towards weaker-quality borrowers, as might take place following the increasing use of securities market finance by higher-rated firms, could heighten pro-cyclicality.

Chart B also shows the minimum capital requirements for the sample portfolios based on a five-year *moving average* (backwards) of the default rates, illustrating that long-run averaging, as suggested by the BCBS, could indeed smooth fluctuations in the capital requirement and alleviate pro-cyclicality concerns.

Chart B: Required capital quantity for the sample portfolios over time
(quantity expressed in monetary units)



Note: MA = Moving average.
Sources: "Ratings Performance in 2000", Standard & Poor's, and "Credit Risk Rating Systems at Large US Banks", Treacy, W. and Carey, M., Journal of Banking and Finance, 2000, Vol. 24.

a theoretically simple, albeit a backward-looking solution (see example in Box 2). Establishing probabilities of default in a conservative fashion in upturns in the case of borrowers from cyclically sensitive industries or developing more rigorous forward-looking assessments via scenario analyses or stress tests could represent further solutions. These options would not necessarily lower the risk sensitivity of the capital requirements, since risk differences between borrowers would still be recognised. Indeed, the BCBS proposes that banks quantify their probability of default estimates in an adequately conservative and forward-looking fashion, or use stress tests to evaluate their capital adequacy.

As to the feasibility of such solutions, the first critical issue is the *adequacy of data.*

According to survey findings, banks often lack historical data and may therefore, at least at an early stage, not be able to implement stable and conservative internal ratings. A *joint database* aggregating rating information from banks (while maintaining the confidentiality of information on borrowers) has been proposed in the EU consultative document, for instance, to facilitate reliable implementation of the IRB approach, in particular by smaller banks. This initiative could be supported, also because it could help banks to establish internal ratings in a more reliable and conservative fashion.

Incentives represent the second critical issue. Banks incur substantial costs when approaching or falling below the minimum capital requirement; these are due, for instance, to potentially higher funding and capital acquisition costs, potentially adverse customer reactions, or supervisory interventions. They could then voluntarily increase their capital buffers or shift towards less risky assets. These developments would naturally reduce the risk of financial pro-cyclicality. In a competitive environment, however, banks might understate their capital needs in a buoyant part of the economic cycle in order to reduce their capital costs. Similarly, they may not promptly adjust their internal ratings downwards in deteriorating economic circumstances. These concerns could be aggravated if the bank in question were in a weak financial condition.

Hence, it seems necessary that *supervisory authorities* pay due attention, in implementing the new Accord, to the adequate stability and conservatism of banks' internal ratings. The current point-in-time status of banks' internal risk control systems and the lack of appreciation of cyclical risks are at the core of the pro-cyclicality concern. While it cannot be ruled out that spontaneous developments will take place among banks, progress could require guidance from supervisors as regards the appreciation of the development of risks over time.

Another solution discussed by the BCBS to mitigate the risk of financial pro-cyclicality relies on the supervisory review process. For instance, banks that are deemed especially cyclically sensitive might be required to hold capital buffers over and above the minimum during periods of high economic growth. This solution would entail significant discretion on the part of supervisors.

Further supervisory action outside the scope of the Accord could also be considered, first and foremost with regard to banks' *provisioning practices*. If banks assessed expected losses with due consideration of the entire future risk profile of the loan over economic cycles and set aside provisions to cover these expected losses, buffers against cyclical variation and capital deterioration would be created. This way of establishing provisions is called *"dynamic provisioning"*. It would be desirable from a financial stability angle, and its further investigation should be encouraged. It contrasts with the currently predominant "static provisions", which are set only when assets become impaired. Certain obstacles to dynamic provisioning may exist with respect to accounting practices and taxation. However, in the majority of the euro area countries, where loan-loss provisions are also allowed against non-impaired assets, accounting rules might not represent an insurmountable obstacle.

To conclude, it is advisable that supervisory authorities devote attention to the issue of pro-cyclicality when implementing the new framework. The EU supervisors could have a common interest in this, since macroeconomic conditions are gradually becoming more closely interwoven, especially in the single currency area. The potential means of mitigating the risk of financial pro-cyclicality through more conservative and forward-looking internal ratings and specific counter-measures by supervisors, primarily dynamic provisioning, should not be considered mutually exclusive, but complementary.

3 Other issues regarding minimum capital requirements

3.1 Incentives to develop internal risk management systems

One of the main innovations of the new Accord is its recognition of internal risk measures and the related potential incentives in favour of developing internal risk management systems. However, the potential beneficial effects depend crucially on the number of banks that effectively use the IRB approach. In particular, medium-sized and small banks may not yet have internal rating systems, or systems are not yet sufficiently developed to fulfil supervisory standards readily.

Obstacles may exist to the development of the IRB approach

The first hurdle when applying the IRB approach might lie in the *incentive structure* of the new framework. The range of risk weights is significantly wider in the IRB approach than in the standardised approach; thus, banks with a loan portfolio concentrated on lower-risk borrowers may have the strongest incentives to use the IRB approach, as it gives way to a lower capital requirement (as illustrated in Box 3). Banks with a higher-risk portfolio, by contrast, might stick to the standardised approach. An additional barrier to using the IRB approach may also result from the fact that risk weights can increase with the maturity of loans. Given that there is no maturity adjustment under the standardised approach, the discrepancy between the two approaches would therefore be higher, the longer the maturity.

Hence, those banks that would benefit most from more advanced internal credit risk management techniques could actually have the weakest incentives to develop them. The volatility of the capital charges, if calculated under the IRB approach, may also constitute an additional hurdle. Should banks with a lower risk focus opt for the IRB approach and those with a higher risk focus for the standardised approach, the minimum capital requirement for the entire banking system could also fall.

The BCBS acknowledges this issue and proposes some capital relief for banks using the IRB approach and further rewards for moving to the advanced approach. For banks with higher-risk portfolios, however, these envisaged incentives may not be decisive.

The second hurdle may be related to the *costs* of developing sufficiently robust internal rating systems. As the fixed investment costs are quite high, only sufficiently large banks could make these investments. The establishment of adequately large databases on borrowers and defaults to estimate probabilities of default reliably may represent a particularly costly element. Therefore, using commercially available data and methods for the development of IRB systems might be a solution for many banks. The joint database already referred to above could actually favour the setting-up of internal rating systems by small and medium-sized banks themselves. It would also allow a back-testing of individual systems and thereby facilitate consistent official recognition. Any collaboration between banks should not, of course, involve a transfer of risk management responsibility away from individual banks, or impair effective competition in the credit markets.

In conclusion, the high risk sensitivity of the IRB approach may hinder its widespread implementation by banks with riskier credit portfolios and could, therefore, lead to an undesirable split between banks using the standardised approach on the one hand, and the IRB approach on the other. This issue might be considered when calibrating the IRB approach. The Accord also provides for the possibility of supervisors playing an important role by exerting pressure to develop adequate risk management systems, to move towards the IRB approach and to define appropriate economic capital targets.

Box 3

Comparison of the standardised and the IRB approaches for corporate credits

The chart below assists the assessment of the incentives for banks to switch from the standardised to the IRB approach by comparing the risk weights applied to banks' corporate counterparties under the two approaches. In the chart, the risk weights under the IRB approach are expressed as a percentage of the risk weights under the standardised approach. The comparison is based on the benchmark IRB assumptions (described under Table 1) and is made for varying levels of bank asset quality, according to external ratings. The risk weights are derived for the different external ratings by, first, converting the ratings into the respective default probabilities (as in Table 1). Second, these default rates are translated into risk weights, based on the calibration currently envisaged by the Basel Committee on Banking Supervision (BCBS).

The exercise disregards many detailed features like the alleviation of credit risks via the use of collateral, guarantees or credit derivatives. However, the comparison includes the impact of the maturity adjustment of the risk weights under the IRB approach, since it could be a major source of discrepancy between the two approaches. No maturity adjustment is considered under the standardised approach. It applies to the advanced IRB approach and possibly also to the foundation IRB approach (although the BCBS envisages the possibility that maturity is disregarded in the foundation approach). The BCBS currently proposes two models for the calculation of the maturity adjustment, namely the "default" and the "marked-to-market" models. Only the former model is displayed here, since the alternative would produce principally the same kind of results, although maturity affects the risk weights more under the "marked-to-market" model. The "marked-to-market" model resorts to a broad definition of credit risk, which incorporates elements like rating downgrades or changes in credit spreads, and not only the occurrence of defaults as in the "default" model.

The chart reveals that banks could be more inclined to opt for the more risk-sensitive IRB approach (either the advanced or foundation version) when they have higher-quality exposures, and that the opposite result holds for

Risk weights under the IRB approach ("default" model maturity adjustment), as a percentage of the risk weights under the standardised approach

Sources: BCBS and KMV Corporation.

less favourably rated counterparties. The BCBS requires that banks apply consistently either the standardised or the IRB approach to all their major credit portfolios. For a loan maturity of up to three years, the IRB approach is generally more favourable than the standardised approach for borrowers down to the BBB-/BB+ grade, i.e. for investment grade borrowers. Speculative grade borrowers receive a risk weight, which can be up to four times higher under the IRB approach. In the case of longer maturities, e.g. five or ten-year credits, the cut-off point is at a higher rating.

The actual diversification of portfolios among borrowers of different quality would dictate the strength of the incentive or disincentive to apply the IRB approach. For the two sample portfolios used in Box 1, the IRB approach seems to lead to a higher capital charge at the moment (with year 2000 default rates). It should be noted that the changes in default rates over time would affect the comparison between the IRB approach and the standardised approach.

3.2 Implications for interbank activity

The new Accord is sometimes suspected of influencing the allocation of interbank business across banks, since capital charges could affect banks' lending choices. In principle, the implications for the structure of interbank activities could be quite different, depending on the option chosen by supervisors or banks to establish the capital charges. Here this issue is examined from a euro area perspective.

Under the first option within the standardised approach (based on sovereign ratings), all domestic counterparties would be assigned the same risk weighting, hence without major implications for euro area interbank market patterns. Under the second option within the standardised approach (based on the external ratings of interbank counterparties), the capital requirements resulting from the higher risk weights assigned to weaker-rated banks (see Table 2) might in principle strengthen the *concentration* of interbank activity on major, higher-rated banks. This might in turn induce a greater concentration of risks. A similar effect might take place under the IRB approach.

However, the advent of a more integrated interbank market has alleviated concerns of excessive concentration in the euro area. Furthermore, in the euro area the share of transactions with a maturity of less than three months is around 80% in the most common unsecured interbank lending transactions. These exposures would benefit from the favourable treatment under the second option, since the risk weight would be limited to 20% for all short-term exposures that are either unrated or rated above BBB-. According to Table 2, practically all the short-term interbank loans of euro area banks should fulfil this condition, since most participants other than the major and higher-rated wholesale interbank market players (EONIA banks) do not possess a rating and would therefore carry the risk weight of 20%. Finally, the relatively few longer-term loans that would be affected might be replaced by shorter-term contracts. In general, the capital alleviation for short-term exposures could significantly mitigate effects on the allocation of interbank activity.

Thus, from a euro area perspective, the choice between the options would probably not be very relevant in terms of affecting interbank market patterns, and the overall impact of the new Accord in this respect would be likely to remain limited. The first option within the standardised approach may, however, lead to situations of lending money to high-risk banks while making a low capital charge. This could weaken the appreciation of counterparty risks by lending banks. The second option might be more beneficial in this respect and could also weaken the assumption that banks will be supported in times of stress, since the focus is on banks rather than on sovereigns.

Table 2

Euro area banks by rating category (December 2000)

External rating grade	Risk weight (%) [1]	Risk weight, short-term (%) [1] [2]	EONIA banks [3]		Other 300 largest banks (i.e. other than EONIA)		Total	
			No. [4]	LS (%) [5]	No.	LS (%)	No.	LS (%)
AAA to AA-	20	20	18	51	16	11	34	38
A+ to A-	50	20	17	38	45	15	62	30
BBB+ to BBB-	50	20	1	1	5	1	6	1
BB+ to B-	100	50	0	0	0	0	0	0
Below B-	150	150	0	0	0	0	0	0
Unrated	50	20	10	10	234	73	244	31
Total			46	100	300	100	346	100

Source: FitchIBCA BankScope.

1) Risk weights under the standardised approach, Option 2 (based on bank ratings).

2) Short-term claims are defined as having an original maturity of three months or less.

3) EONIA (euro overnight index average) banks represent the main banks active in the euro area interbank markets. (The table depicts the EONIA banks of euro area origin.)

4) No. = Number of banks in a rating grade according to Standard & Poor's long-term debt ratings.

5) LS = Liability share of the banks in total interbank liabilities.

4 Contribution of the supervisory review process and market discipline to banking soundness

4.1 Effective implementation of the supervisory review process

The supervisory review process (Pillar 2) involves supervisors' assessment of the appropriate level of banks' capitalisation. This would be based on a variety of factors, including the experience and quality of the bank's management, its risk appetite and the adequacy of its risk management systems and controls. Supervisors should be able to take corrective action, when deemed appropriate. Hence, the role of supervisors is enhanced substantially.

The consultative package is not very specific, however, in giving *guidance on supervisors' action*. The considerable resource needs and the complexity of the process could limit the role of the supervisory review process. In any case, the effective implementation of Pillar 2 might require upgrading of supervisory capacities in some countries, or the elimination of any legal constraints on exercising discretion by supervisors.

A second concern is that subjective elements within the IRB approach and the supervisory review process could distort *international equivalence* in the application of capital standards. This is especially so because supervisory practices vary a great deal from country to country in any event. Unless more specific standards and co-ordination between authorities were endorsed, it would be difficult to secure an internationally consistent application of the new Accord. This is, in a way, a "rules versus discretion" issue, since the more flexible implementation associated with a greater recourse to discretion has to be balanced against the drawbacks brought about by national discrepancies in the implementation of the new Accord.

The EU represents a specific case for international co-ordination, because of the harmonised Community legislation for banking (and for securities and insurance) and the already substantial integration of money and capital markets since the introduction of the single currency. In this more integrated environment, convergence in supervisory practices would be particularly important. The Economic and Financial Committee's report on financial stability (April 2000) also highlighted the desirability of supervisory convergence. The issue has already attracted considerable attention in the main EU supervisory fora (the Banking Advisory Committee, the Banking

Supervision Committee of the European System of Central Banks and the Groupe de Contact). However, many legal and practical issues would need to be resolved. The work in the EU has so far been mainly focused on the identification of priority areas and on reaching agreement on the main principles for consistent risk assessment methodologies.

4.2 Complementary role of market discipline

For the first time, market discipline (Pillar 3) has been assigned an explicit role in the regulatory framework. Since the capital requirements will be established in a less transparent and more judgemental fashion, involving market participants as "outside reviewers" of banks' risk management and capital allocation systems may discipline banks and potentially also encourage convergence in supervisors' approaches to individual banks. Since the new Accord strengthens the connection between the reported regulatory capital ratio and the underlying risks of banks, the ratio will become more informative. The ratio could thus have an increased effect on banks' cost of funds and could therefore provide incentives for enhancing risk management and developing adequate capital buffers.

As strongly recommended by the BCBS, *timely and accurate disclosure* is a necessary condition for market discipline. The BCBS seeks the adoption of binding disclosure requirements, with clear remedial actions in the case of non-disclosure and inaccurate disclosure. Requirements would encompass three major areas: capital adequacy and the composition of capital, risk exposures and risk management processes and the scope of application of the new Accord to the various entities of financial groups. Owing to the lack of transparency of the actual rating processes of individual banks, an adequate disclosure of the qualitative features of banks' internal systems should merit sufficient attention.

The proposals would generally represent an important step forward towards increasing and improving disclosure. The BCBS proposes a flexible formulation of the disclosure requirements. It recommends that sophisticated international banks make the full range of "core" and "supplementary" information publicly available. All other institutions would have to disclose only core information, if deemed to be material. For smaller banks, the purpose of and need for disclosure should indeed be considered in order to avoid any unnecessary burden.

Progress in accounting harmonisation and "disclosure culture" would be required

A major impediment to the effectiveness of market discipline could be the inadequate international harmonisation of *accounting principles,* which would hamper comparability across banks from different jurisdictions. Even within a quite homogeneous area like the EU, definitions of core items for evaluating banks' soundness, such as loan-loss provisions and non-performing assets, can differ markedly across countries. Work on these issues is currently under way in the BCBS.

Another hindrance could be the immaturity of the "disclosure culture". In the EU the *frequency* of banks' disclosure seems underdeveloped compared with that in the United States. Relying on the information available from commercial databases, which may not present a fully comprehensive picture of the situation, the proportion of listed banks issuing half-yearly accounts in the euro area or the EU, for example, seems to be less than half of that in the United States (see Table 3). As rightly pointed out by the BCBS, annual disclosure is not frequent enough in most circumstances. Moreover, the *content* of disclosure seems to be more extensive in the case of the US banks. For example, the proportion of listed US banks producing information on their problem loans is apparently more than twice as high as that in the euro area or the EU. In addition, other public information for assessing banks' asset quality is still fairly limited in the EU. The availability of information from non-listed banks, which do not face the stock market-related

disclosure standards or issue other securities market instruments, could be significantly lower than from listed banks. Variations in disclosure requirements from country to country can also be significant within the EU.

As far as the *access* to disclosed information is concerned, the establishment and use of internet sites is improving the situation. At the end of 2000, a large number of EU banks had already set up sites (see Table 3).

The implementation of the new Accord creates an *opportunity* to improve the situation, which seems particularly important for the EU. This calls for an international effort to achieve more harmonised accounting standards and to strengthen banks' disclosure, as intended by the BCBS. An effective and rapid implementation of the disclosure requirements could face problems owing to the discrepancies in the powers of supervisors to enforce these requirements. Therefore, the proposal in the EU consultative document to ensure that the new framework gives the EU supervisors the necessary legal authority is very welcome. In addition, not only should the level of information increase, but also the differences across borders should be reduced. The effective market discipline in the EU could suffer if some authorities implemented the new disclosure requirements in a less stringent fashion.

Finally, disclosure is not a sufficient condition for market discipline. Banks' stakeholders need to have adequate incentives to monitor banks and impose discipline on managers. An adequate number of creditors who are not covered by deposit insurance appears to be the most important factor generating effective market discipline. These creditors (bondholders and interbank lenders) have the strongest incentives to monitor banks' risk-taking and capital adequacy, and, therefore, to react in terms of a higher risk premium if their credit risk increases. In the recent debate, the beneficial role of subordinated debt is often mentioned, since subordinated debtholders have a junior status and run a more material risk of losing their investment. Shareholders may have an incentive to increase risk-taking themselves, on account of limited liability and adverse incentives related to deposit insurance. However, the importance of this effect may be overstated for banks that are far from economic insolvency. Table 3 indicates that the number of listed banks issuing subordinated debt, and the share of subordinated debt in total assets, are broadly similar in the EU and the United States. Moreover, the number of listed banks is comparatively high in the EU. Hence, from these perspectives (disregarding the structure of security holdings and other governance issues), the preconditions for the functioning of market discipline in the EU might be as good as those in the United States.

Table 3

Disclosure by listed banks in EU countries and the United States (December 2000)

	Number of listed banks	Percentage of listed banks producing:				Number of listed banks that issued subordinated debt	Subordinated debt as a percentage of total assets [2]
		Quarterly accounts	Half-yearly accounts	Internet sites	Information on problem loans [1]		
Euro area	230	4.3	33.9	74.8	41.7	147	1.5
EU	343	3.8	34.7	72.9	37.9	201	1.6
United States	235	87.2	88.5	91.5	91.9	217	1.6

Source: FitchIBCA BankScope.

1) Overdue loans, restructured loans and other non-performing loans.

2) Total subordinated debt divided by total assets of all listed banks.

Financing and financial investment of the non-financial sectors in the euro area

In this issue of the Monthly Bulletin the ECB is publishing, for the first time, quarterly financial accounts data for euro area non-financial sectors. At present, these data cover the period from the fourth quarter of 1997 to the second quarter of 2000. This article provides an overview of the methodological framework underlying the new Table on Financing and Investment (TFI) and analyses the structure and the development of the main financing and financial investment components of the non-financial sectors in the euro area.

Over the period under review, the financing needs of the non-financial sectors grew steadily, at annual rates of around 6%. While the demand for funds on the part of general government was relatively subdued, more significant increases in financing needs were seen in the private sector, notably in the household sector. On the financial investment side, the private sector favoured long-term assets, in particular mutual fund shares, quoted shares and insurance products, partly reflecting the increasing need to provide for retirement. The large net acquisitions of quoted shares and mutual fund shares were accompanied by rising stock market prices, resulting in substantial increases in financial assets.

1 Introduction

In this issue of the Monthly Bulletin, the ECB is publishing, for the first time, quarterly financial accounts data. These data provide an overview of the financial transactions and amounts outstanding of the non-financial sectors in the euro area. The data are based on euro area banking and securities issues statistics, government finance statistics, quarterly national financial accounts, and BIS international banking statistics. While all 12 countries participating in the euro area contribute to the euro area statistics, Ireland and Luxembourg do not as yet provide quarterly national financial accounts data. The data currently available cover the period from the fourth quarter of 1997 to the second quarter of 2000.

The new data presented in the TFI are based on a statistical framework which is described in the "European system of national and regional accounts in the Community (the ESA 95)".[1] Three elements essentially constitute this framework: 1) the grouping of economic agents into economic sectors; 2) the selection of the financing and financial investment components; and 3) the relationship between stocks and transactions.[2]

- In the TFI, the euro area economy is assumed to consist of two main groups of sectors, namely the non-financial sectors (general government, non-financial corporations, and households including non-profit institutions serving households) and the financial sectors (Monetary Financial Institutions (MFIs), other financial intermediaries including financial auxiliaries, and insurance corporations and pension funds).

- The new statistics focus on the financing and financial investment activities of the non-financial sectors, covering most of the liability and financial asset categories defined in the ESA 95. These are currency and deposits, loans, securities other than shares (excluding financial derivatives), shares (excluding unquoted shares) and certain insurance products (referred to as "insurance technical reserves" in the ESA 95, since they constitute the provisions of pension funds, insurance and non-financial corporations to cover the claims of policy holders). In essence, these instruments are those which are either mediated through financial corporations to non-financial sectors or traded on capital markets.[3]

1 *Council Regulation (EC) No. 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community (the ESA 95).*
2 *For more details, see the related methodological note on the ECB's website at http://www.ecb.int.*
3 *Information on other financial instruments (financial derivatives, unquoted shares, equity other than shares and other receivables and payables) is not available. The same applies for loans granted by general government and non-financial corporations.*

- The outstanding liabilities and assets constitute the "stocks" in the framework of the financial accounts. "Financial transactions" reflect the financing and financial investment decisions during the quarter. Changes in outstanding amounts are the result of such transactions, but also of revaluations and other changes, such as write-offs or write-downs of loans, and reclassifications between liability and financial asset categories and sectors.

The detailed data are shown in Table 6.1 of the "Euro area statistics" section.[4] Table 1 provides an overview of these data. It shows the main items under the financing and financial investment of the non-financial sectors in terms of amounts outstanding as at mid-2000.

4 *Table 6.2 of the "Euro area statistics" section of this issue of the Monthly Bulletin provides some annual data on saving, investment and financing in the euro area as a first step towards more comprehensive sectoral accounts data based on the ESA 95. However, these annual data cannot yet be reconciled with the quarterly financial transaction data as shown in Table 6.1.*

Table 1

Financial investment and financing of non-financial sectors in the euro area at mid-2000 [1)]

(amounts outstanding)

Main financial assets	EUR billions	%	Main liabilities	EUR billions	%
Total	**14,535**	**100.0**	**Total**	**15,526**	**100.0**
Currency and deposits	**4,897**	**33.7**	**Loans**	**6,951**	**44.8**
Currency	341	2.3	a) taken from		
Deposits with	4,556	31.3	Euro area MFIs	6,261	40.3
Euro area MFIs	4,405	30.3	Other financial corporations	690	4.4
Non-MFIs	150	1.0	b) granted to		
Securities other than shares	**1,592**	**11.0**	General government	885	5.7
Short-term	161	1.1	Short-term	42	0.3
Long-term	1,432	9.8	Long-term	844	5.4
Shares [2)]	**4,908**	**33.8**	Non-financial corporations	2,994	19.3
Quoted shares	2,952	20.3	Short-term	1,088	7.0
Mutual fund shares	1,956	13.5	Long-term	1,905	12.3
o/w Money market fund shares	221	1.5	Households [3)]	3,072	19.8
Insurance technical reserves	**3,138**	**21.6**	Short-term	274	1.8
Net equity of households in life insurance reserves and pension funds reserves	2,829	19.5	Long-term	2,798	18.0
			Securities other than shares	**4,003**	**25.8**
			General government	3,600	23.2
Prepayments of insurance premiums and reserves for outstanding claims	309	2.1	Short-term	425	2.7
			Long-term	3,175	20.4
			Non-financial corporations	403	2.6
			Short-term	91	0.6
			Long-term	312	2.0
			Quoted shares		
			issued by non-financial corporations	**4,157**	**26.8**
			Deposits		
			liabilities of central government	**148**	**1.0**
			Pension fund reserves		
			of non-financial corporations	**267**	**1.7**

Source: ECB.

1) Non-financial sectors comprise general government, non-financial corporations and households including non-profit institutions serving households.

2) Excluding unquoted shares.

3) Including non-profit institutions serving households.

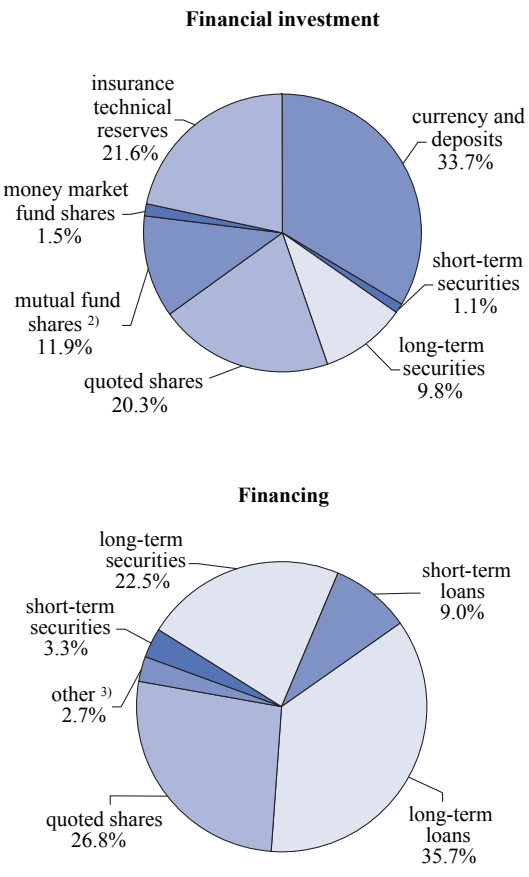
2 The financial balance sheet of the non-financial sectors in the euro area

The main financial assets shown in Table 1 amounted to €14,535 billion (around 230% of annual GDP in the euro area) in mid-2000. Securities, including quoted shares, accounted for nearly half of this figure, and currency and deposits for one-third. Insurance technical reserves represented one-fifth of the main financial assets covered in the table (see Chart 1).

Chart 1

Financial investment and financing of non-financial sectors in the euro area at mid-2000 [1)]

(amounts outstanding of the main components as a percentage of total)



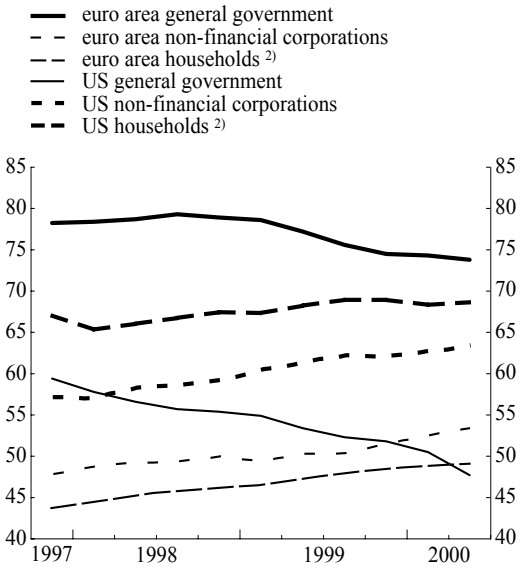
Source: ECB.

1) *Non-financial sectors comprise general government, non-financial corporations and households including non-profit institutions serving households.*
2) *Excluding money market fund shares.*
3) *Deposit liabilities of central government and pension fund reserves of non-financial corporations.*

Chart 2

Debt of non-financial sectors in the euro area and in the United States [1)]

(amounts outstanding as a percentage of annual GDP, end of period)



Sources: ECB and Federal Reserve Board.

1) *Non-financial sectors comprise general government, non-financial corporations and households including non-profit institutions serving households.*
2) *Including non-profit institutions serving households.*

The main liabilities shown in Table 1 amounted to €15,526 billion (250% of GDP) in mid-2000. Securities, including quoted shares, comprised more than half of the financing sources of the non-financial sectors, and loans around 45%. Most of the funding (almost 90% of the liabilities) was at maturities exceeding one year.

The data also allow debt aggregates to be compiled for each of the non-financial sectors, namely general government, non-financial corporations and households. Debt comprises the liabilities as shown in Table 1, excluding quoted shares issued by non-financial corporations. In the euro area, debt incurred by non-financial sectors was equal to around 180% of GDP in mid-2000. This ratio is similar to the corresponding ratio in the United States. The sectoral detail showed lower debt ratios for the private sectors in the euro area than in the United States (see Chart 2).

By contrast, the ratio of general government debt to GDP was higher in the euro area than in the United States. In mid-2000 the respective ratios stood at 75% in the euro area and 48% in the United States, following a much faster reduction in the United States than in the euro area during recent years. In terms of liability categories, the debt structure of the non-financial sectors was broadly similar, with around 60% of loans and 40% of securities, both in the euro area and in the United States. While general government financing in the United States was mainly based on long-term securities, private debt primarily consisted of bank loans.

3 Financing of the non-financial sectors

Table 2 summarises the development between the last quarter of 1998 and the second quarter of 2000 in financing in the euro area economy across sectors, by liability category and maturity, and shows whether the financing was provided by MFIs or by other sectors. For all these breakdowns, Table 2 provides information on types of transactions, specifically their ratios to GDP, and their annual growth rates.

As can be seen from the table, the financing needs of the individual non-financial sectors, and the extent to which their requirements for funds have been satisfied, have grown steadily, although at different rates. The annual rate of growth in the main financing components fluctuated at around 6% within a very narrow range of less than half a percentage point. In the case of general government, growth rates fluctuated between

Table 2

Financing of non-financial sectors in the euro area [1)]

	Main financing components												
		Financing of general government					Financing of non-financial corporations					Financing of households [2)]	
			Loans		Securities other than shares	Held by euro area MFIs		Loans		Securities other than shares	Quoted shares		Loans taken from euro area MFIs
				Taken from euro area MFIs					Taken from euro area MFIs				
Ratio to GDP [3)]													
1998	Q4	12.6	2.5	-0.1	0.0	2.5	0.7	6.2	3.8	3.3	0.5	1.7	3.8	3.6
1999	Q4	12.5	1.7	-0.2	0.0	1.8	1.4	6.6	4.3	3.5	0.8	1.3	4.2	3.9
2000	Q1	12.7	1.5	-0.2	0.0	1.7	0.3	6.9	4.7	3.6	0.5	1.5	4.3	4.1
	Q2	13.3	1.7	-0.3	0.0	1.8	-0.3	7.4	4.8	3.5	0.7	1.6	4.2	4.0
Annual growth rates														
1998	Q4	6.2	3.4	-0.5	0.0	4.5	3.3	7.4	9.3	9.1	8.7	5.1	9.0	9.3
1999	Q1	6.3	3.6	0.4	1.3	4.2	5.7	6.8	9.3	9.8	9.7	4.1	9.8	10.1
	Q2	6.1	2.8	0.0	0.7	3.6	2.1	6.9	10.3	10.2	11.3	3.2	10.3	10.6
	Q3	6.1	2.0	-1.9	-0.3	3.0	5.1	7.7	9.9	9.7	13.9	4.6	9.9	10.0
	Q4	5.8	2.3	-1.3	0.3	3.1	7.0	7.0	10.1	9.3	14.1	3.1	9.4	9.7
2000	Q1	5.9	2.0	-1.5	0.0	2.9	1.8	7.3	11.2	9.9	9.3	3.4	9.7	10.0
	Q2	6.1	2.3	-1.8	-0.3	3.2	-1.5	7.4	11.3	9.4	13.3	3.4	9.3	9.6

Source: ECB.

1) Non-financial sectors comprise general government, non-financial corporations and households including non-profit institutions serving households.

2) Including non-profit institutions serving households.

3) Sum of quarterly transactions (T) as a percentage of sum of quarterly GDP; compiled as $100*(T+T_{-1}+T_{-2}+T_{-3})/(GDP+GDP_{-1}+GDP_{-2}+GDP_{-3})$.

2% and 3½%, and in the case of households and non-financial corporations within ranges of around 9-10½% and 6½-7½% respectively.

The relatively low and declining pace at which the general government's financial needs expanded mainly mirrors the reduction in fiscal deficits. There was, in fact, a decrease in loans granted to general government.

The high demand for funds on the part of households and, to a lesser degree, non-financial corporations generally reflected the rebound in economic activity in the course of 1999 and the high level of industrial and consumer confidence in the euro area. Moreover, the gross saving of the private sector has declined over recent years while gross fixed capital formation has continued to rise, thereby increasing the demand for financing. Furthermore, in the case of households, whose gross borrowing requirements have expanded at a significantly higher pace than those of non-financial corporations, the need for financing may also be associated with a strong demand for housing finance and, possibly, with purchases of long-term financial assets.

The broader aggregates are more stable than their components, since a great deal of financial substitution took place within them. This is particularly apparent in Table 2, where the financing aggregates of the general government and the non-financial corporations are compared with those referring exclusively to the financing taken from the MFI sector. The latter clearly present more volatile patterns.

Moreover, trends differ among the components. In the context of a declining need for funds, governments have moved away from borrowing from MFIs in favour of securities issues largely taken up outside the MFI sector. As regards non-financial corporations, the strong and steady growth of the loans granted by MFIs to this sector, at around 10% a year, and the high increase in the issuance of debt securities contrast with a relatively moderate increase in the supply of quoted shares. This pattern may be partially explained by the low level of interest rates. In addition, the strong growth in the issuance of long-term securities by non-financial corporations may have been stimulated by the introduction of the euro and the creation of a much wider, deeper and more liquid securities market. Nevertheless, the issuance of fixed-income instruments by euro area non-financial corporations continued to represent a relatively small share of the overall financing of this sector. (See also the article entitled "Characteristics of corporate finance in the euro area" in the February 2001 issue of the ECB Monthly Bulletin.)

4 Financial investment of the non-financial sectors

Table 3 summarises the development of the financial investment of the non-financial sectors in the euro area. This information is currently less comprehensive than that on financing because it is not possible to identify completely the investment behaviour of the individual sectors. At the same time, the information available makes it possible to identify some major trends in the financial investment of the non-financial sectors over the reporting period.

In the period under review the annual growth rate of the financial investment of non-financial sectors fluctuated between 6% and 7%. Growth in holdings of individual instruments, however, varied somewhat.

It is of interest to compare the development of overall financial investment with that of M3.[5] As M3 corresponds to around only one-

5 *It is not possible at present to identify M3 precisely within the framework of the new statistics on the financial investment of the non-financial sectors, since information on holdings by sector and maturity is not complete.*

third of overall financial investment, the potential scope for substitution between the financial investment included in M3 and other financial investment is, in principle, large. However, annual rates of growth for M3 were as stable as those for overall financial investment, fluctuating within a range of between 5% and 6½% from the fourth quarter of 1998 to the second quarter of 2000. In fact, it seems that the bulk of the substitution within financial investment occurred between quoted shares, mutual fund shares and securities other than shares.

The fact that until the end of 1999 M3 growth was lower than the growth in financial investment suggests that the non-financial sectors invested relatively strongly in long-term financial assets (including long-term securities, quoted shares, insurance products and non-monetary mutual fund shares). Overall, the annual growth rate of investment in these long-term financial assets was between 9% and 10% from the end of 1998 to the third quarter of 1999, before declining to 7% by the second quarter of 2000. By contrast, financial investment in currency and MFI deposits, short-term securities and money market fund shares increased at a relatively moderate annual rate of 3-5% over the same period.

The relative attraction of long-term financial assets was linked to the rising valuation on the stock exchanges for most of the period, stimulating financial investment in quoted shares and in mutual fund shares. By contrast, investment in securities other than shares was adversely affected by the rise in long-term interest rates (and the associated fall in bond prices) until the end of 1999. At the start of 2000, the reversal of the situation in the financial markets (characterised by a stabilisation of long-term rates and greater volatility in the stock markets) was accompanied by a moderation in the financial investment in quoted shares and long-term mutual fund shares and a parallel recovery in the demand for securities other than shares.

Table 3

Financial investment of non-financial sectors in the euro area [1)]

	Main financial investment components								Memo: M3
		Currency and deposits	Short-term securities other than shares	Long-term securities other than shares	Quoted shares	Mutual fund shares	Money market fund shares	Insurance technical reserves	
Ratio to GDP [2)]									
1998 Q4	12.1	3.6	-0.8	-1.1	1.5	5.0	-0.1	3.9	3.5
1999 Q4	13.6	3.6	-0.2	1.0	1.8	3.3	0.3	4.2	4.5
2000 Q1	12.4	3.3	0.0	0.9	1.0	2.7	0.2	4.5	4.8
Q2	12.2	3.1	0.2	1.3	1.0	2.1	0.1	4.5	4.0
Annual growth rates									
1998 Q4	6.2	4.5	-23.3	-4.7	5.5	25.4	-2.1	9.6	4.8
1999 Q1	6.9	5.2	-24.4	-0.9	5.9	22.3	4.0	9.5	5.4
Q2	7.0	4.7	-19.4	3.2	6.2	18.4	6.0	9.4	5.5
Q3	7.2	5.0	-21.7	3.2	8.5	15.7	9.4	9.5	5.8
Q4	6.7	4.6	-9.6	4.5	5.6	13.2	9.3	9.9	6.0
2000 Q1	6.1	4.4	-0.3	4.0	2.9	10.3	7.0	10.3	6.0
Q2	5.9	4.2	8.7	6.2	2.7	7.6	1.8	10.2	6.3

Source: ECB.

1) Non-financial sectors comprise general government, non-financial corporations and households including non-profit institutions serving households.

2) Sum of quarterly transactions (T) as a percentage of sum of quarterly GDP; compiled as $100*(T+T_{-1}+T_{-2}+T_{-3})/(GDP+GDP_{-1}+GDP_{-2}+GDP_{-3})$.

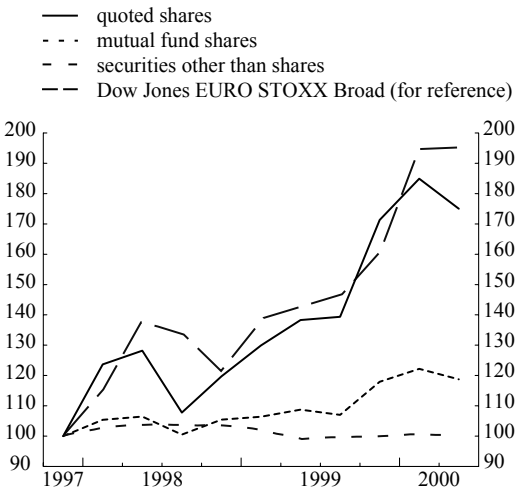
Over the period under review, there was continuously strong demand on the part of households for investment in insurance products. This development, together with the strong demand for mutual fund shares, can be partly explained by the increasing need to arrange for additional private pension provisions in the light of ageing populations across Europe. The introduction of the euro, reinforcing the stability of the macroeconomic environment and anchoring inflationary expectations in the medium term, is likely to bolster this kind of financial investment.

The non-financial sectors' balance sheet data displays substantial revaluation effects linked to the rise in stock exchange prices over the reporting period as a whole. The new data allow an evaluation of this asset price effect. Chart 3 shows the valuation effects for the holdings of quoted shares, mutual fund shares and other securities by the non-financial sectors. Overall, holding gains for quoted shares reached a maximum in the first quarter of 2000 (amounting to around 85% of the initial value of shares at the end of 1997), while the decline in stock prices starting in the second quarter of 2000 resulted in some holding losses towards the end of the period. The valuation effect was considerably lower for mutual fund shares (the value of which was 22% higher in the first quarter of 2000 than at the end of 1997) since only some of these funds are equity-based. For securities other than shares, valuation effects were relatively moderate over the same period (no more than 5% of the value at the end of 1997).

Chart 3

Asset prices of shares and securities held by non-financial sectors in the euro area [1)]

(revaluations including other changes, cumulated, end 1997=100)



Source: ECB.

1) Shares excluding unquoted shares. Non-financial sectors comprise general government, non-financial corporations and households including non-profit institutions serving households.

5 Conclusions

This article has provided a short overview of the TFI within the framework of quarterly financial accounts as well as an analysis of the main features of the financing and financial investment of the non-financial sectors from the end of 1997 until mid-2000. The development of the financing and financial investment of the non-financial sectors can now be integrated into the analysis of monetary and financial developments. This article gives some examples in order to illustrate the usefulness of supplementing the analysis of MFI statistics with information gained from these financial accounts data.

Financial accounts allow the monitoring of M3 and its components to be complemented by the regular analysis of the investment behaviour of the non-financial sectors. Money is indeed the most important form of short-term financial investment, and the demand for money reflects to some extent financial arbitrage across the whole spectrum of financial assets held by economic agents. In parallel, the analysis of MFI credit can be usefully complemented by monitoring the overall borrowing requirements and structure of financing of the various non-financial sectors, including the type of financing instruments and the relative importance of

creditor sectors. This also allows account to be taken of movements in the debt held by non-MFI sectors.

One difficulty concerning the use of these data lies in the relatively long delay before the information becomes available (currently nine months). The time lag should be shorter in order for the data to be used in the analysis of recent monetary developments. Improvements in the timeliness of these data are planned. Furthermore, an enhancement of the dataset is envisaged (including a breakdown of M3 by individual counterpart sector), which will further increase the fields of application of the quarterly financial accounts data.

These data also provide a basis for an enhanced analysis of the link between financial and non-financial developments. A full integration of the real and financial variables requires more complete financial accounts covering the whole range of sectors and more comprehensive non-financial accounts by sector. Further work is planned in this area.

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 69* (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]		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	12.4	6.8	5.7	-	10.0	19.1	2.96	4.66
2000	8.0	4.4	5.7	-	9.6	20.1	4.40	5.44
2000 Q3	6.9	4.0	5.4	-	9.4	18.5	4.74	5.44
Q4	5.6	3.8	5.1	-	9.6	18.4	5.02	5.28
2000 Nov.	5.1	3.7	5.0	5.1	9.3	17.9	5.09	5.34
Dec.	5.7	3.7	5.1	4.9	9.5	21.7	4.93	5.07
				Euro area enlargement				
2001 Q1	2.4	2.9	4.8	-	9.1	.	4.75	4.99
Q2	.	.	.	-	.	.	.	.
2001 Jan.	1.5	2.6	4.7	4.8	9.3	23.2	4.77	5.01
Feb.	2.0	2.8	4.7	4.8	8.9	24.2	4.76	5.02
Mar.	2.1	3.2	5.0	.	8.6	.	4.71	4.94
Apr.	.	.	.	.	.	.	4.69	5.10

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	2.2	2.5	2.0	81.8	1.6	9.9
2000	2.3	5.4	3.7	3.4	5.6	83.8	2.0	8.8
2000 Q3	2.5	5.8	3.6	3.3	5.8	83.9	2.0	8.7
Q4	2.7	6.1	3.5	3.0	5.5	84.7	2.1	8.5
2000 Nov.	2.9	6.3	-	-	4.5	-	-	8.5
Dec.	2.6	5.4	-	-	8.2	-	-	8.5
				Euro area enlargement				
2001 Q1	2.5	4.5	.	.	.	84.4	.	8.5
Q2	.	.	.	.	.	83.7	.	.
2001 Jan.	2.4	4.8	-	-	5.5	-	-	8.5
Feb.	2.6	4.5	-	-	4.2	-	-	8.5
Mar.	2.6	4.1	-	-	.	-	-	8.4
Apr.	.	.	-	-	.	-	-	.

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)		US dollar/euro exchange rate
	Current and capital accounts	Of which 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	-24.2	53.0	-21.5	-136.4	377.7	88.2	86.3	0.924
2000 Q3	-4.5	17.9	-94.3	3.5	408.0	87.3	85.3	0.905
Q4	-10.4	11.2	-57.0	0.9	377.7	85.9	83.6	0.868
2000 Nov.	-1.4	3.9	-10.0	-3.9	400.1	85.1	82.9	0.856
Dec.	-7.1	1.4	-30.7	9.2	377.7	88.1	85.8	0.897
				Euro area enlargement				
2001 Q1	.	.	.	.	393.4	91.4	88.9	0.923
Q2	.	.	.	.	.	.	.	.
2001 Jan.	-7.1	-1.9	-4.5	-45.5	386.0	91.7	89.1	0.938
Feb.	3.6	3.3	-0.8	0.9	384.3	91.0	88.5	0.922
Mar.	.	.	.	.	393.4	91.4	89.0	0.910
Apr.	.	.	.	.	.	91.0	88.5	0.892

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.

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 [1]			
						Main refinancing operations	Longer-term refinancing operations	Fine-tuning reverse operations
	1	2	3	4	5	6	7	8
2000 8 Dec.	124,947	273,559	16,393	3,564	265,329	220,000	45,000	0
15	124,947	272,796	16,345	3,760	264,536	218,999	45,000	0
22	124,947	273,521	15,403	3,447	259,304	212,000	45,000	0
29	117,073	258,688	15,750	3,746	268,648	222,988	45,000	0
			Euro area enlargement					
2001 5 Jan.	118,615	267,566	17,616	5,209	248,106	202,986	45,000	0
12	118,611	265,734	18,826	4,365	241,060	196,000	45,000	0
19	118,611	267,616	19,319	4,825	241,137	196,000	45,000	0
26	118,611	266,468	19,635	4,543	255,203	205,001	49,999	0
2 Feb.	118,611	264,109	20,800	4,895	238,202	188,000	49,998	0
9	118,612	263,935	19,529	5,104	234,240	184,000	49,998	0
16	118,612	263,845	19,827	5,363	215,455	165,307	49,998	0
23	118,612	263,734	20,292	5,472	273,967	220,305	49,998	0
2 Mar.	118,612	261,032	21,542	5,612	237,017	182,000	54,999	0
9	118,612	260,395	21,156	5,831	225,058	169,999	54,999	0
16	118,612	257,433	21,235	5,824	249,571	194,000	54,999	0
23	118,612	256,078	23,197	5,791	241,408	186,000	54,999	0
30	118,464	271,583	20,123	5,410	244,282	184,999	59,102	0
6 Apr.	118,464	269,050	21,952	5,335	227,143	167,984	59,102	0
13	118,464	269,145	21,763	4,915	211,297	142,948	59,102	0
20	118,464	268,162	21,809	5,125	256,277	196,950	59,102	0
27	118,464	266,450	23,097	5,136	236,228	176,999	59,100	0
4 May	118,464	266,005	22,816	5,182	217,129	84,995	59,100	0

2. Liabilities

	Banknotes in circulation	Liabilities to euro area credit institutions in euro [1]						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
2000 8 Dec.	363,755	116,443	116,335	108	0	0	0	-	3,784
15	364,276	117,935	117,842	93	0	0	0	-	3,784
22	373,063	115,681	114,353	1,328	0	0	0	-	3,784
29	371,370	124,642	124,402	240	0	0	0	305	3,784
				Euro area enlargement					
2001 5 Jan.	372,834	117,327	117,241	74	0	0	12	7,679	3,784
12	365,730	117,119	116,997	70	0	0	52	8,234	3,784
19	359,929	124,202	124,012	133	0	0	57	8,110	3,784
26	355,553	123,461	123,410	40	0	0	11	7,980	3,784
2 Feb.	357,130	119,172	117,436	1,736	0	0	0	7,949	3,784
9	356,364	120,930	120,808	122	0	0	0	7,381	3,784
16	353,878	93,343	91,629	1,714	0	0	0	7,372	3,784
23	352,004	144,476	143,724	752	0	0	0	7,477	3,784
2 Mar.	355,137	118,928	118,887	41	0	0	0	7,584	3,784
9	355,046	110,334	110,292	42	0	0	0	7,602	3,784
16	352,886	127,324	126,675	648	0	0	1	7,601	3,784
23	350,384	113,375	108,462	4,912	0	0	1	7,414	3,784
30	351,685	126,879	126,738	141	0	0	0	6,116	3,784
6 Apr.	356,089	119,056	118,997	59	0	0	0	6,065	3,784
13	360,869	99,094	99,063	31	0	0	0	6,102	3,784
20	353,674	160,289	159,406	103	0	0	780	6,097	3,784
27	352,680	133,176	133,145	23	0	0	8	6,070	3,784
4 May	355,925	121,749	121,639	106	0	0	4	6,083	3,784

Source: ECB.

1) With effect from December 2000, the term "credit institutions" has replaced the term "financial sector counterparties".

2) With effect from December 2000, this is shown as an item in its own right; the "other claims" item was previously part of "lending to financial sector counterparties in the euro area in euro".

Structural reverse operations	Marginal lending facility	Credits related to margin calls	Other claims on euro area credit institutions in euro [2]	Securities of euro area residents in euro	General government debt in euro	Other assets	Total	
9	10	11	12	13	14	15	16	
0	89	77	163	25,936	58,772	87,468	855,968	2000 8 Dec.
0	272	83	182	25,685	58,664	87,650	854,381	15
0	1,957	94	253	25,840	58,263	87,885	848,610	22
0	607	53	578	25,958	57,671	86,953	835,065	29
			Euro area enlargement					
0	59	61	805	28,859	69,375	87,600	843,751	2001 5 Jan.
0	10	50	1,304	29,221	69,375	88,286	836,782	12
0	113	24	1,071	29,016	69,375	89,240	840,210	19
0	181	22	963	28,168	70,255	89,616	853,462	26
0	163	41	1,130	27,474	70,207	89,787	835,215	2 Feb.
0	213	29	586	27,533	70,207	89,991	829,737	9
0	127	23	503	27,358	70,207	90,451	811,621	16
0	3,648	16	864	27,499	70,207	90,942	871,589	23
0	7	11	820	27,555	70,207	89,142	831,539	2 Mar.
0	17	43	822	27,368	70,207	88,741	818,190	9
0	524	48	503	27,363	70,207	89,364	840,112	16
0	348	61	318	27,428	70,211	89,734	832,777	23
0	128	53	554	27,880	70,211	89,452	847,959	30
0	9	48	431	27,880	70,211	88,643	829,109	6 Apr.
0	9,191	56	530	28,306	70,211	90,089	814,720	13
0	142	83	706	27,666	70,168	90,392	858,769	20
0	64	65	462	27,786	70,168	91,481	839,272	27
72,999	25	10	616	27,869	70,168	91,426	819,675	4 May

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	
73,400	10,656	860	12,169	7,077	68,515	144,152	55,157	855,968	2000 8 Dec.
68,122	10,813	856	12,401	7,077	69,807	144,152	55,157	854,381	15
54,035	11,139	855	12,728	7,077	70,939	144,152	55,157	848,610	22
57,038	10,824	807	12,414	6,702	73,452	117,668	56,059	835,065	29
				Euro area enlargement					
57,333	11,715	5,833	10,778	7,168	76,187	118,752	54,361	843,751	2001 5 Jan.
56,759	10,870	5,655	11,476	7,168	76,415	119,144	54,428	836,782	12
55,539	10,906	5,354	13,483	7,168	78,162	119,144	54,429	840,210	19
73,786	11,099	5,101	12,968	7,168	78,859	119,274	54,429	853,462	26
60,481	11,452	5,054	11,947	7,168	77,371	119,274	54,433	835,215	2 Feb.
53,668	10,734	5,001	13,367	7,168	77,633	119,274	54,433	829,737	9
64,859	9,985	4,996	13,399	7,168	78,207	119,274	55,356	811,621	16
73,957	10,152	4,984	14,463	7,168	78,432	119,274	55,418	871,589	23
57,893	9,787	4,981	13,138	7,168	78,447	119,274	55,418	831,539	2 Mar.
53,188	9,841	4,936	12,450	7,168	79,148	119,274	55,419	818,190	9
61,006	10,653	4,902	9,896	7,168	79,265	119,274	56,353	840,112	16
69,459	9,972	4,795	11,110	7,168	79,689	119,274	56,353	832,777	23
60,504	8,542	3,772	12,978	6,984	82,491	126,268	57,956	847,959	30
53,735	8,328	3,796	12,767	6,984	73,302	126,268	58,935	829,109	6 Apr.
54,424	8,438	3,790	13,345	6,984	72,721	126,268	58,901	814,720	13
43,892	8,530	3,789	12,868	6,984	73,693	126,268	58,901	858,769	20
53,869	8,444	3,780	12,399	6,984	72,574	126,268	59,244	839,272	27
42,408	8,847	3,782	12,263	6,984	72,337	126,268	59,245	819,675	4 May

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

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.*
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
2000 1 Nov.	150,445	90,000	-	4.75	4.84	4.85	14
8	147,173	95,000	-	4.75	4.83	4.84	14
15	130,251	90,000	-	4.75	4.78	4.80	14
22	148,887	108,000	-	4.75	4.80	4.82	14
29	147,060	92,000	-	4.75	4.82	4.83	14
6 Dec.	129,916	128,000	-	4.75	4.75	4.79	14
13	116,112	91,000	-	4.75	4.76	4.78	14
20	152,151	121,000	-	4.75	4.80	4.86	14
27	118,217	102,000	-	4.75	4.79	4.84	14
Euro area enlargement							
2001 3 Jan.	136,434	101,000	-	4.75	4.76	4.78	14
10	95,841	95,000	-	4.75	4.75	4.75	14
17	137,641	101,000	-	4.75	4.75	4.77	14
24	118,546	104,000	-	4.75	4.75	4.76	14
31	137,610	84,000	-	4.75	4.76	4.77	14
7 Feb.	104,384	100,000	-	4.75	4.75	4.75	14
14	65,307	65,307	-	4.75	4.75	4.75	12
21	200,526	155,000	-	4.75	4.78	4.83	14
26	109,632	27,000	-	4.75	4.78	4.79	16
7 Mar.	189,927	143,000	-	4.75	4.76	4.77	14
14	130,260	51,000	-	4.75	4.77	4.78	14
21	182,057	135,000	-	4.75	4.77	4.78	14
28	57,526	50,000	-	4.75	4.75	4.75	14
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

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

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

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 Mar.	9,490.8	5,306.7	117.1	174.9	1,231.3	543.8	2,116.9
Apr.	9,629.4	5,411.5	116.7	174.7	1,243.2	537.5	2,145.9
May	9,641.5	5,390.3	118.4	188.4	1,241.3	541.4	2,161.7
June	9,539.4	5,316.9	120.4	184.7	1,250.6	506.7	2,160.1
July	9,590.1	5,348.0	119.8	192.3	1,258.0	489.9	2,182.2
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. [(p)]	10,500.8	5,883.6	151.2	202.9	1,292.1	653.6	2,317.6

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 May	111.3	111.8	0.5	0.0	3.67
June	113.4	113.9	0.5	0.0	3.90
July	113.3	114.0	0.7	0.0	4.28
Aug.	111.8	112.3	0.5	0.0	4.32
Sep.	112.6	113.1	0.5	0.0	4.57
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 [(p)]	124.2	-	-	-	-

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

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 [1)]

(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 [2)]	Fixed assets	Re-maining assets	Total
		MFIs [2)]	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 Q1	620.1	599.5	20.4	0.2	94.0	1.5	91.9	0.6	8.1	4.0	4.1	427.3	9.3	52.5	1,211.4
Q2	807.8	787.2	20.4	0.2	92.4	1.5	90.0	0.9	8.7	4.4	4.3	498.6	9.7	47.4	1,464.5
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	48.2	1,058.8
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 Mar.	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	49.0	1,051.9
Apr.	471.4	452.5	18.4	0.5	96.7	2.6	93.0	1.1	14.4	4.3	10.1	438.0	9.9	51.4	1,081.8
May	469.2	450.3	18.4	0.5	97.1	2.7	93.2	1.2	14.4	4.4	10.1	441.9	10.0	51.9	1,084.5
June	580.7	561.8	18.4	0.5	97.4	2.6	93.6	1.2	14.7	4.4	10.4	454.8	10.0	51.8	1,209.4
July	501.4	482.6	18.4	0.5	98.2	2.5	94.5	1.2	14.7	4.4	10.3	449.7	10.1	51.6	1,125.7
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	52.4	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	54.4	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	1,111.7
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	54.3	1,013.0
Dec.	445.0	427.4	17.1	0.5	97.4	2.5	93.6	1.3	15.2	4.3	10.9	380.7	10.4	56.1	1,004.8
Euro area enlargement															
2001 1 Jan.	*457.0*	*429.3*	*27.1*	*0.6*	*105.3*	*2.5*	*101.4*	*1.3*	*15.2*	*4.3*	*10.9*	*394.2*	*10.5*	*57.4*	*1,039.5*
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	10.6	54.0	976.5
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	10.5	53.7	969.3
Mar. [(p)]	401.7	373.9	27.2	0.6	105.0	2.7	101.2	1.1	14.9	4.7	10.2	396.7	11.2	54.4	983.9

2. Liabilities

	Currency in circulation	Deposits of euro area residents				Money market paper	Debt securities issued	Capital and reserves	External liabilities [2)]	Remaining liabilities	Total
			MFIs [2)]	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 Q1	348.6	561.0	498.1	54.4	8.5	4.9	5.3	138.0	97.9	55.8	1,211.4
Q2	356.1	743.2	691.3	43.1	8.9	4.9	5.3	140.7	171.4	43.0	1,464.5
Q3	359.7	405.3	347.7	50.1	7.6	3.3	5.3	146.3	88.8	50.1	1,058.8
Q4	393.3	341.5	279.3	53.4	8.8	3.3	4.6	175.1	49.8	46.8	1,014.5
2000 Mar.	366.2	372.1	319.8	43.1	9.1	1.7	4.6	186.9	75.1	45.4	1,051.9
Apr.	372.7	394.2	340.4	43.4	10.3	1.7	4.6	189.7	75.2	43.8	1,081.8
May	371.8	390.7	345.1	34.1	11.5	1.7	4.6	188.7	82.4	44.7	1,084.5
June	374.3	497.9	432.8	52.6	12.5	1.7	4.6	193.8	92.0	45.0	1,209.4
July	377.7	414.9	354.7	49.7	10.5	1.7	4.6	196.6	84.6	45.6	1,125.7
Aug.	373.2	401.0	336.1	53.8	11.2	1.7	4.6	200.1	66.6	46.3	1,093.5
Sep.	373.5	404.2	346.1	45.6	12.5	0.0	4.6	222.1	75.0	50.6	1,129.8
Oct.	372.6	388.1	323.3	51.1	13.7	0.0	4.6	226.3	69.5	50.6	1,111.7
Nov.	372.2	334.6	265.6	54.9	14.0	0.0	3.8	222.5	29.3	50.6	1,013.0
Dec.	390.2	327.3	270.4	47.1	9.8	0.0	3.8	200.1	29.9	53.5	1,004.8
Euro area enlargement											
2001 1 Jan.	*399.3*	*346.2*	*288.0*	*47.9*	*10.4*	*0.0*	*5.6*	*201.8*	*30.9*	*55.7*	*1,039.5*
2001 Jan.	373.1	313.3	250.9	51.5	10.9	0.0	5.5	197.9	30.6	56.1	976.5
Feb.	370.6	313.1	249.7	52.0	11.4	0.0	5.5	195.3	27.9	56.9	969.3
Mar. [(p)]	370.5	312.6	253.4	46.8	12.4	0.0	5.5	205.4	26.8	63.0	983.9

Source: ECB.

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

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

Table 2.2

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

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

1. Assets

	Loans to euro area residents				Holdings of securities other than shares issued by euro area residents				Money market paper	Holdings of shares/ other equity issued by euro area residents			External assets	Fixed assets	Remaining assets	Total
		MFIs	General government	Other euro area residents		MFIs	General government	Other euro area residents			MFIs	Other euro area residents				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1998	9,088.3	3,154.6	822.0	5,111.7	2,020.9	720.7	1,112.0	188.1	107.3	521.0	168.5	352.6	1,591.7	150.6	776.8	14,256.6
1999 Q1	9,258.4	3,268.8	817.9	5,171.7	2,090.7	761.8	1,134.1	194.8	100.0	566.7	171.7	395.0	1,640.3	149.7	877.1	14,682.8
Q2	9,462.4	3,321.6	817.8	5,323.0	2,142.6	801.1	1,128.9	212.5	102.8	585.8	171.5	414.3	1,660.3	151.7	867.4	14,973.0
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	226.8	129.9	650.7	211.3	439.4	1,720.6	154.0	919.1	15,532.1
2000 Mar.	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
Apr.	10,067.3	3,494.8	824.0	5,748.5	2,220.0	878.3	1,105.7	235.9	149.1	744.3	232.2	512.1	1,924.9	152.7	1,018.7	16,277.0
May	10,146.8	3,550.8	817.4	5,778.6	2,232.8	895.1	1,094.7	243.0	157.2	763.3	237.4	525.8	1,909.6	153.1	1,018.4	16,381.1
June	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
July	10,080.7	3,391.1	815.5	5,874.1	2,218.0	920.6	1,046.3	251.2	152.8	700.3	201.6	498.8	1,920.8	154.8	1,070.0	16,297.5
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.	10,420.7	3,511.2	818.7	6,090.8	2,192.5	932.7	995.9	263.9	146.0	750.9	240.3	510.6	2,022.2	158.8	1,022.2	16,713.2
Euro area enlargement																
2001 1 Jan.	*10,528.8*	*3,548.1*	*826.7*	*6,153.9*	*2,253.9*	*932.9*	*1,054.6*	*266.3*	*146.0*	*762.2*	*242.9*	*519.3*	*2,005.0*	*161.7*	*1,046.4*	*16,905.1*
2001 Jan.	10,591.5	3,579.0	830.7	6,181.7	2,253.1	936.4	1,046.4	270.3	156.0	776.3	247.4	528.9	2,069.2	160.4	1,066.6	17,073.2
Feb.	10,659.2	3,635.0	822.8	6,201.4	2,288.1	956.7	1,053.4	278.1	158.3	785.0	248.7	536.4	2,091.0	161.1	1,068.7	17,211.5
Mar. (p)	10,795.7	3,706.1	823.8	6,265.8	2,322.5	968.8	1,066.6	287.1	161.9	809.0	256.3	552.7	2,237.2	161.1	1,104.2	17,591.7

2. Liabilities

	Currency in circulation	Deposits of euro area residents								Money market fund shares/ units	Debt securities issued	Money market paper	Capital and reserves	External liabilities	Remaining liabilities	Total
			MFIs	Central government	Other general government/ other euro area residents	Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1998	0.4	8,286.3	3,305.2	95.4	4,885.7	1,387.1	1,928.9	1,393.2	176.5	241.4	2,099.8	161.6	754.6	1,507.0	1,205.5	14,256.6
1999 Q1	0.5	8,346.3	3,395.4	79.0	4,871.9	1,390.6	1,988.7	1,314.2	178.3	280.1	2,188.8	180.5	771.0	1,623.9	1,291.6	14,682.8
Q2	0.5	8,466.2	3,443.7	81.9	4,940.6	1,484.3	1,965.9	1,323.9	166.5	305.7	2,265.3	183.2	794.3	1,674.2	1,283.6	14,973.0
Q3	0.6	8,529.0	3,510.4	83.2	4,935.4	1,471.5	1,981.4	1,321.9	160.6	307.5	2,325.7	204.1	806.4	1,696.1	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	309.8	2,361.3	242.1	849.6	1,782.6	1,253.1	15,532.1
2000 Mar.	0.7	8,809.6	3,612.5	87.1	5,110.0	1,568.0	2,052.7	1,312.0	177.3	343.1	2,421.0	248.8	890.7	2,000.8	1,344.6	16,059.2
Apr.	0.7	8,822.4	3,586.6	88.3	5,147.5	1,602.3	2,061.0	1,304.4	179.8	409.7	2,450.0	248.1	899.8	2,078.7	1,367.5	16,277.0
May	0.6	8,874.3	3,649.6	79.8	5,144.9	1,586.5	2,080.6	1,296.6	181.2	412.7	2,469.2	260.0	907.1	2,077.4	1,379.8	16,381.1
June	0.6	8,849.9	3,623.7	93.4	5,132.8	1,596.1	2,078.1	1,291.3	167.3	410.3	2,478.1	261.1	898.5	1,967.1	1,395.4	16,261.0
July	0.6	8,770.1	3,545.4	85.0	5,139.7	1,594.6	2,088.5	1,284.6	172.0	408.9	2,502.5	272.6	903.8	2,009.3	1,429.7	16,297.5
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	419.1	2,529.4	276.1	906.8	2,069.6	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	409.1	2,550.2	272.2	913.5	2,117.8	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	412.2	2,574.0	281.3	917.9	2,183.4	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	421.7	2,570.2	278.5	930.8	2,198.4	1,425.3	16,782.1
Dec.	0.0	9,058.1	3,680.1	117.4	5,260.6	1,649.1	2,158.3	1,278.3	175.0	393.9	2,563.2	262.2	940.2	2,115.9	1,379.7	16,713.2
Euro area enlargement																
2001 1 Jan.	*0.0*	*9,202.2*	*3,701.3*	*118.4*	*5,382.5*	*1,663.6*	*2,196.6*	*1,329.7*	*195.2*	*393.9*	*2,563.4*	*262.2*	*958.7*	*2,117.6*	*1,404.5*	*16,905.1*
2001 Jan.	0.0	9,188.8	3,726.9	95.9	5,366.0	1,611.1	2,209.6	1,330.9	214.3	409.0	2,594.7	274.7	965.2	2,226.5	1,414.3	17,073.2
Feb.	0.0	9,235.4	3,758.6	102.7	5,374.1	1,612.9	2,220.6	1,324.6	216.1	424.5	2,631.0	274.1	969.9	2,237.5	1,439.1	17,211.5
Mar. (p)	0.0	9,343.7	3,830.2	103.7	5,409.9	1,623.7	2,238.0	1,323.4	224.7	443.0	2,656.8	276.0	977.8	2,421.0	1,473.4	17,591.7

Source: ECB.

Table 2.3

Consolidated balance sheet of the euro area MFIs, including the Eurosystem [1)]

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

1. Assets: levels outstanding

	Loans to euro area residents			Holdings of securities other than shares issued by euro area residents			Holdings of shares/ other equity issued by other euro area residents	External assets [3)]	Fixed assets	Remaining assets	Total
		General government	Other euro area residents		General government	Other euro area residents					
	1	2	3	4	5	6	7	8	9	10	11
1999 Sep.	6,223.9	831.1	5,392.8	1,446.0	1,227.4	218.6	411.7	2,096.7	163.3	829.5	11,171.2
Oct.	6,279.8	840.3	5,439.5	1,456.0	1,239.6	216.4	414.8	2,133.9	163.3	873.7	11,321.5
Nov.	6,357.5	853.5	5,504.0	1,461.6	1,237.3	224.3	430.7	2,191.9	164.5	922.6	11,528.9
Dec.	6,385.1	847.9	5,537.2	1,438.6	1,210.7	227.8	449.2	2,121.2	164.0	931.1	11,489.2
2000 Jan.	6,422.0	840.6	5,581.5	1,450.4	1,221.7	228.7	453.4	2,166.3	162.3	955.5	11,609.8
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	994.2	11,905.5
Apr.	6,591.4	842.4	5,749.0	1,435.6	1,198.6	237.0	522.2	2,362.9	162.6	1,034.4	12,109.2
May	6,614.9	835.8	5,779.1	1,432.0	1,187.9	244.2	535.9	2,351.4	163.0	1,035.4	12,132.7
June	6,681.9	835.6	5,846.3	1,411.0	1,166.8	244.2	504.3	2,343.3	164.2	1,039.1	12,143.8
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	12,232.4
Aug.	6,715.1	822.0	5,893.1	1,385.2	1,128.6	256.6	510.7	2,415.8	165.2	1,125.0	12,317.0
Sep.	6,796.6	818.0	5,978.5	1,386.6	1,128.4	258.3	513.8	2,458.7	166.0	1,049.9	12,371.6
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	12,533.3
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	12,495.3
Dec.	6,927.1	835.9	6,091.3	1,354.6	1,089.5	265.2	521.5	2,402.9	169.1	1,035.6	12,410.9
						Euro area enlargement					
2001 1 Jan.	*7,008.4*	*853.9*	*6,154.5*	*1,423.7*	*1,156.0*	*267.6*	*530.2*	*2,399.2*	*172.1*	*1,059.7*	*12,593.3*
2001 Jan.	7,040.3	858.0	6,182.4	1,418.6	1,147.2	271.3	539.7	2,459.7	171.0	1,082.7	12,712.0
Feb.	7,052.1	850.0	6,202.0	1,434.1	1,154.8	279.3	546.7	2,477.3	171.5	1,086.0	12,767.7
Mar. (p)	7,117.4	851.1	6,266.4	1,456.0	1,167.8	288.2	562.9	2,633.8	172.4	1,123.3	13,065.9

2. Liabilities: levels outstanding

	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 [3)]	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
1999 Sep.	327.3	133.3	4,943.0	1,479.1	1,981.4	1,321.9	160.6	402.9	1,500.8	767.8	1,784.9	1,281.4	29.8	11,171.2
Oct.	329.6	135.1	4,959.2	1,481.6	2,001.8	1,318.4	157.5	409.7	1,514.3	776.0	1,855.5	1,307.0	35.1	11,321.5
Nov.	330.1	146.1	4,998.1	1,516.3	2,010.1	1,313.0	158.6	428.1	1,525.4	779.9	1,917.5	1,371.6	32.1	11,528.9
Dec.	349.9	142.0	5,064.2	1,545.8	2,042.8	1,331.4	144.2	425.2	1,535.5	809.2	1,832.3	1,299.9	30.9	11,489.2
2000 Jan.	333.0	133.7	5,089.6	1,574.8	2,028.0	1,331.7	155.0	430.1	1,534.8	825.6	1,917.3	1,339.1	6.7	11,609.8
Feb.	331.1	144.6	5,095.4	1,568.2	2,045.9	1,321.9	159.5	449.1	1,550.6	828.8	1,948.1	1,357.4	20.6	11,725.7
Mar.	334.6	130.2	5,119.1	1,577.1	2,052.7	1,312.0	177.3	461.7	1,553.7	843.0	2,075.9	1,390.0	-2.7	11,905.5
Apr.	337.7	131.8	5,157.8	1,612.6	2,061.0	1,304.4	179.8	510.4	1,573.6	852.9	2,154.0	1,411.3	-20.4	12,109.2
May	337.5	113.9	5,156.4	1,598.0	2,080.6	1,296.6	181.2	517.2	1,575.9	853.9	2,159.8	1,424.5	-6.5	12,132.7
June	341.2	146.0	5,145.3	1,608.7	2,078.2	1,291.3	167.3	517.8	1,585.1	878.0	2,059.1	1,440.5	30.8	12,143.8
July	343.0	134.7	5,150.2	1,605.1	2,088.5	1,284.6	172.0	530.4	1,584.0	894.5	2,093.9	1,475.3	26.4	12,232.4
Aug.	337.9	140.6	5,146.7	1,577.6	2,120.2	1,279.6	169.4	544.1	1,604.1	898.9	2,136.2	1,499.6	9.1	12,317.0
Sep.	338.9	159.3	5,157.4	1,589.5	2,124.2	1,272.3	171.4	535.7	1,611.4	927.1	2,192.8	1,438.6	10.4	12,371.6
Oct.	336.7	172.3	5,166.1	1,590.7	2,141.3	1,263.5	170.6	541.9	1,636.9	933.8	2,252.9	1,480.7	12.0	12,533.3
Nov.	336.8	168.8	5,187.5	1,608.9	2,147.4	1,257.6	173.5	542.4	1,634.4	921.8	2,227.7	1,476.0	-0.1	12,495.3
Dec.	347.5	164.6	5,270.4	1,658.9	2,158.3	1,278.3	175.0	510.1	1,631.7	895.6	2,145.8	1,433.2	11.8	12,410.9
							Euro area enlargement							
2001 1 Jan.	*355.3*	*166.2*	*5,392.9*	*1,673.6*	*2,197.0*	*1,329.7*	*195.2*	*510.1*	*1,632.4*	*913.2*	*2,148.5*	*1,460.2*	*12.0*	*12,593.3*
2001 Jan.	335.2	147.4	5,376.9	1,621.7	2,210.0	1,330.9	214.3	527.7	1,661.2	911.0	2,257.1	1,470.5	25.0	12,712.0
Feb.	334.2	154.7	5,385.5	1,623.9	2,221.0	1,324.6	216.1	540.4	1,677.3	911.9	2,265.3	1,496.0	2.3	12,767.7
Mar. (p)	335.2	150.4	5,422.3	1,635.8	2,238.4	1,323.4	224.7	557.0	1,690.8	922.3	2,447.8	1,536.5	3.6	13,065.9

Source: ECB.

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

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

3) See Table 2.1, footnote 2.

3. Assets: flows [2]

	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 [3]	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
1999 Oct.	54.4	9.1	45.4	19.8	22.5	-2.7	2.9	21.2	0.1	44.3	142.8
Nov.	74.0	12.9	61.2	11.4	3.9	7.5	10.5	24.5	1.2	48.9	170.4
Dec.	30.0	-5.8	35.8	-28.5	-31.7	3.2	13.2	-80.8	-0.4	5.3	-61.2
2000 Jan.	32.6	-7.5	40.1	15.0	13.8	1.2	3.9	22.3	-1.6	24.3	96.6
Feb.	32.1	-4.4	36.5	15.5	9.3	6.2	13.7	31.7	-0.4	17.0	109.7
Mar.	72.0	4.5	67.4	-13.7	-6.9	-6.8	39.1	32.9	0.0	22.2	152.4
Apr.	55.9	2.3	53.6	-16.3	-21.3	5.0	11.7	14.8	0.8	33.2	100.0
May	22.4	-6.3	28.8	0.0	-7.5	7.5	12.4	11.2	0.5	0.9	47.5
June	60.5	-0.5	60.9	-17.1	-18.1	1.0	-31.9	7.4	1.4	4.0	24.4
July	22.3	-1.3	23.6	-19.1	-26.8	7.6	3.6	-3.4	0.7	46.9	51.1
Aug.	7.1	-8.6	15.7	-6.1	-9.7	3.6	1.9	3.9	0.3	38.5	45.6
Sep.	67.3	-4.1	71.5	0.4	-3.0	3.4	3.0	18.3	0.7	-75.9	13.9
Oct.	40.7	1.9	38.8	-8.3	-15.5	7.2	1.6	9.3	3.2	68.9	115.4
Nov.	49.2	7.2	42.1	-1.8	-1.4	-0.4	1.2	8.8	-0.3	-51.0	6.1
Dec.	64.0	12.6	51.4	-16.7	-18.6	1.9	5.5	5.2	0.2	-24.9	33.5
					Euro area enlargement						
2001 Jan.	31.3	2.9	28.4	-0.2	-5.8	5.6	9.4	60.5	-1.0	23.0	122.9
Feb.	12.3	-7.9	20.2	14.2	5.8	8.4	7.5	13.6	0.5	2.8	50.9
Mar. [p]	58.9	0.7	58.1	21.7	12.3	9.5	15.5	106.4	0.8	38.7	242.0

4. Liabilities: flows [2]

	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 [3]	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
1999 Oct.	2.3	1.8	13.9	1.6	19.0	-3.5	-3.2	6.4	11.0	6.7	55.1	40.3	5.3	142.8
Nov.	0.5	11.0	34.4	33.0	5.7	-5.4	1.1	17.8	6.0	2.8	33.4	67.4	-2.9	170.4
Dec.	19.5	-4.1	65.6	29.3	32.3	18.4	-14.4	-14.7	10.5	11.3	-89.8	-60.1	0.5	-61.2
2000 Jan.	-16.9	-8.3	23.0	28.1	-16.0	0.3	10.7	0.9	-2.5	17.9	66.4	43.2	-27.0	96.6
Feb.	-1.8	10.9	5.4	-6.8	17.5	-9.9	4.5	19.0	15.6	4.5	25.7	16.4	13.9	109.7
Mar.	3.5	-14.5	20.5	7.6	5.0	-10.0	17.8	12.1	1.2	12.6	107.6	32.7	-23.2	152.4
Apr.	3.3	1.6	33.0	33.4	4.9	-7.7	2.4	2.3	14.7	9.4	35.0	15.7	-14.9	100.0
May	-0.2	-17.9	1.6	-11.3	20.3	-8.9	1.4	9.9	6.3	2.7	27.1	11.9	6.0	47.5
June	3.6	32.1	-7.9	12.0	-0.7	-5.3	-13.9	-3.9	15.8	18.9	-78.6	18.4	26.1	24.4
July	1.9	-11.3	1.1	-5.0	7.4	-6.1	4.7	12.1	-7.1	15.6	7.3	38.4	-7.0	51.1
Aug.	-5.1	5.9	-7.9	-29.3	29.3	-5.1	-2.7	12.6	11.7	5.1	5.5	33.2	-15.4	45.6
Sep.	1.0	18.7	4.6	10.8	-0.9	-7.4	2.0	-8.7	3.3	20.0	41.9	-65.8	-1.1	13.9
Oct.	-2.2	13.1	3.3	-0.8	13.8	-8.8	-0.8	5.0	17.0	5.4	19.6	44.9	9.4	115.4
Nov.	0.1	-3.6	26.0	20.0	8.8	-5.8	3.0	1.8	4.7	-11.3	7.6	-5.8	-13.4	6.1
Dec.	10.7	-4.2	96.3	54.1	19.8	20.9	1.5	-21.3	5.6	-21.8	-12.6	-25.9	6.7	33.5
						Euro area enlargement								
2001 Jan.	-20.1	-18.8	-18.2	-51.8	13.3	1.2	19.1	21.4	22.7	-3.1	110.2	19.0	9.9	122.9
Feb.	-1.0	7.5	8.0	1.9	10.7	-6.3	1.8	12.5	15.5	1.7	4.7	24.7	-22.7	50.9
Mar. [p]	1.1	-4.2	31.5	10.0	14.1	-1.3	8.6	15.2	9.2	11.9	137.7	41.8	-2.1	242.0

Table 2.4

Monetary aggregates [1] and counterparts

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

1. Levels outstanding at the end of the period

	M1				M2				Repurchase agreements	Money market fund shares/ units and money market paper	Debt securities up to 2 years
	Currency in circulation	Overnight deposits	Total	Index Dec. 98=100 [2]	Deposits with agreed maturity up to 2 years	Deposits redeemable at notice up to 3 months	Total	Index Dec. 98=100 [2]			
	1	2	3	4	5	6	7	8	9	10	11
1999 Sep.	327.3	1,542.2	1,869.5	104.87	846.2	1,272.4	3,988.1	101.76	160.6	402.9	76.1
Oct.	329.6	1,546.6	1,876.2	105.20	861.4	1,270.3	4,008.0	102.18	157.5	409.7	74.7
Nov.	330.1	1,580.5	1,910.6	107.04	860.8	1,265.2	4,036.6	102.81	158.6	428.1	76.2
Dec.	349.9	1,614.1	1,964.0	110.00	881.6	1,287.7	4,133.3	105.26	144.2	425.2	88.8
2000 Jan.	333.0	1,642.4	1,975.4	110.58	864.8	1,288.9	4,129.1	105.10	155.0	430.1	87.2
Feb.	331.1	1,634.3	1,965.4	110.02	879.9	1,278.0	4,123.4	104.99	159.5	449.1	90.9
Mar.	334.6	1,642.8	1,977.4	110.61	888.2	1,267.5	4,133.1	105.17	177.3	461.7	90.7
Apr.	337.7	1,680.9	2,018.6	112.81	896.3	1,260.1	4,174.9	106.12	179.8	510.4	89.7
May	337.5	1,662.8	2,000.3	111.98	914.1	1,251.9	4,166.3	105.99	181.2	517.2	87.5
June	341.2	1,674.1	2,015.3	112.88	912.7	1,244.6	4,172.5	106.22	167.3	517.8	86.8
July	343.0	1,672.3	2,015.3	112.81	922.8	1,236.8	4,174.9	106.21	172.0	530.4	76.7
Aug.	337.9	1,643.1	1,981.0	110.78	952.1	1,230.4	4,163.5	105.83	169.4	544.1	81.0
Sep.	338.9	1,654.4	1,993.4	111.41	955.1	1,220.3	4,168.8	105.91	171.4	535.7	81.5
Oct.	336.7	1,656.8	1,993.6	111.31	971.2	1,211.1	4,175.8	105.97	170.6	541.9	88.2
Nov.	336.8	1,675.2	2,012.1	112.45	984.0	1,202.3	4,198.4	106.64	173.5	542.4	97.3
Dec.	347.5	1,728.7	2,076.2	116.26	989.3	1,221.4	4,287.0	109.14	175.0	510.1	106.4
					Euro area enlargement						
2001 1 Jan.	*355.3*	*1,743.4*	*2,098.7*	-	*1,026.2*	*1,271.5*	*4,396.4*	-	*195.2*	*510.1*	*106.6*
2001 Jan.	335.2	1,690.2	2,025.4	112.21	1,041.0	1,275.0	4,341.4	107.79	214.3	527.7	108.9
Feb.	334.2	1,691.0	2,025.2	112.18	1,052.2	1,269.7	4,347.0	107.91	216.1	540.4	114.3
Mar. [p]	335.2	1,704.7	2,040.0	112.90	1,067.4	1,269.2	4,376.5	108.54	224.7	557.0	118.2

2. Flows [4]

	M1				M2				Repurchase agreements	Money market fund shares/ units and money market paper	Debt securities up to 2 years
	Currency in circulation	Overnight deposits	Total	Annual percentage change [4]	Deposits with agreed maturity up to 2 years	Deposits redeemable at notice up to 3 months	Total	Annual percentage change [4]			
	1	2	3	4	5	6	7	8	9	10	11
1999 Oct.	2.3	3.6	5.8	13.0	12.5	-2.1	16.3	7.1	-3.2	6.4	-1.9
Nov.	0.5	32.2	32.7	11.8	-2.5	-5.2	25.0	6.5	1.1	17.8	0.7
Dec.	19.5	33.4	52.9	10.0	20.6	22.5	96.0	5.3	-14.4	-14.7	13.1
2000 Jan.	-16.9	27.4	10.4	9.3	-17.7	1.1	-6.1	4.2	10.7	0.9	-1.9
Feb.	-1.8	-8.2	-10.1	10.7	16.5	-10.9	-4.4	5.3	4.5	19.0	3.7
Mar.	3.5	7.2	10.6	10.1	7.1	-10.6	7.1	5.1	17.8	12.1	-1.0
Apr.	3.3	36.0	39.2	11.4	5.7	-7.6	37.3	5.5	2.4	2.3	-0.2
May	-0.2	-14.7	-14.9	8.7	19.0	-9.2	-5.1	4.7	1.4	9.9	-1.7
June	3.6	12.6	16.2	7.1	0.3	-7.3	9.2	4.3	-13.9	-3.9	1.7
July	1.9	-3.2	-1.3	6.9	8.3	-7.5	-0.5	3.7	4.7	12.1	-10.7
Aug.	-5.1	-31.1	-36.3	7.1	27.8	-6.5	-15.0	4.2	-2.7	12.6	3.2
Sep.	1.0	10.3	11.3	6.2	1.8	-10.1	3.0	4.1	2.0	-8.7	0.6
Oct.	-2.2	0.4	-1.8	5.8	13.8	-9.3	2.7	3.7	-0.8	5.0	5.6
Nov.	0.1	20.3	20.4	5.1	14.6	-8.6	26.4	3.7	3.0	1.8	10.1
Dec.	10.7	57.5	68.3	5.7	10.9	19.3	98.5	3.7	1.5	-21.3	9.8
					Euro area enlargement						
2001 Jan.	-20.1	-53.1	-73.2	1.5	15.0	3.5	-54.7	2.6	19.1	21.4	1.7
Feb.	-1.0	0.5	-0.5	2.0	11.0	-5.4	5.1	2.8	1.8	12.5	5.4
Mar. [p]	1.1	11.8	12.9	2.1	12.9	-0.6	25.2	3.2	8.6	15.2	3.3

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) Taking the December 1998 outstanding level (not seasonally adjusted) as 100, the index shows the cumulative product of changes from that date calculated from flows as described in footnote 4. The percentage change in the index between any two dates corresponds to the change in the aggregate excluding such reclassifications, etc.

M3			Main counterparts of M3									
Total	Index, Dec. 98=100 [2]		Longer-term MFI liabilities				Credit [3]				Net external 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 [2]		
12	13	14	15	16	17	18	19	20	21	22	23	
4,627.7	102.95		1,135.8	111.0	1,424.7	767.8	2,058.6	6,023.1	5,392.8	106.71	311.8	1999 Sep.
4,649.8	103.34		1,140.8	110.1	1,439.7	776.0	2,080.0	6,070.6	5,439.5	107.61	278.4	Oct.
4,699.6	104.34		1,149.8	110.2	1,449.1	779.9	2,090.7	6,159.0	5,504.0	108.82	274.4	Nov.
4,791.5	106.11		1,161.6	112.2	1,446.8	809.2	2,058.6	6,214.3	5,537.2	109.52	288.9	Dec.
4,801.4	106.19		1,163.6	111.4	1,447.7	825.6	2,062.3	6,263.5	5,581.5	110.32	249.0	2000 Jan.
4,822.8	106.70		1,166.4	112.4	1,459.7	828.8	2,066.9	6,320.9	5,617.3	111.04	255.4	Feb.
4,862.9	107.49		1,164.9	113.2	1,463.0	843.0	2,060.4	6,427.0	5,688.6	112.37	186.2	Mar.
4,954.8	108.42		1,165.1	112.8	1,483.9	852.9	2,041.0	6,508.3	5,749.0	113.43	208.9	Apr.
4,952.2	108.52		1,167.0	114.0	1,488.5	853.9	2,023.7	6,559.1	5,779.1	114.00	191.7	May
4,944.4	108.37		1,165.8	115.5	1,498.3	878.0	2,002.3	6,594.9	5,846.3	115.20	284.2	June
4,954.0	108.49		1,166.2	116.6	1,507.2	894.5	1,974.5	6,636.0	5,874.6	115.66	276.6	July
4,958.0	108.45		1,168.4	118.2	1,523.1	898.9	1,950.6	6,660.4	5,893.1	115.97	279.6	Aug.
4,957.5	108.38		1,169.4	120.5	1,529.9	927.1	1,946.4	6,750.6	5,978.5	117.38	265.9	Sep.
4,976.5	108.65		1,170.4	121.3	1,548.6	933.8	1,935.4	6,799.8	6,021.5	118.14	258.4	Oct.
5,011.6	109.55		1,163.7	124.0	1,537.2	921.8	1,939.2	6,836.3	6,056.8	118.97	256.6	Nov.
5,078.5	111.49		1,169.3	126.4	1,525.2	895.6	1,925.3	6,877.9	6,091.3	119.98	257.1	Dec.
					Euro area enlargement							
5,208.3	-		*1,171.1*	*127.7*	*1,525.8*	*913.2*	*2,009.9*	*6,952.3*	*6,154.5*	-	*250.7*	*2001 1 Jan.*
5,192.3	111.22		1,169.4	127.9	1,552.4	911.0	2,005.2	6,993.4	6,182.4	120.53	202.6	2001 Jan.
5,217.8	111.75		1,169.1	128.0	1,563.0	911.9	2,004.8	7,028.0	6,202.0	120.93	211.9	Feb.
5,276.4	112.87		1,171.2	127.6	1,572.6	922.3	2,018.9	7,117.5	6,266.4	122.06	186.0	Mar. [p]

M3			Main counterparts of M3									
Total	Annual percentage change [4]	3-month moving average (centred)	Longer-term MFI liabilities				Credit [3]				Net external 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 percentage change [4]		
12	13	14	15	16	17	18	19	20	21	22	23	
17.6	5.8	6.0	6.2	-0.8	12.8	6.7	31.5	45.6	45.4	10.1	-33.9	1999 Oct.
44.7	6.2	6.0	8.1	0.0	5.2	2.8	16.7	79.1	61.2	10.3	-9.0	Nov.
80.0	6.1	5.9	11.7	2.1	-2.6	11.3	-37.5	52.2	35.8	9.5	9.0	Dec.
3.6	5.3	5.9	1.6	-0.9	-0.6	17.9	6.3	45.2	40.1	8.8	-44.1	2000 Jan.
22.8	6.2	6.0	1.0	1.0	11.9	4.5	4.9	56.4	36.5	9.5	6.0	Feb.
36.0	6.6	6.5	-2.0	0.8	2.2	12.6	-2.4	99.7	67.4	9.9	-74.7	Mar.
41.9	6.7	6.5	-0.8	-0.4	14.9	9.4	-19.0	70.3	53.6	10.5	-20.2	Apr.
4.6	6.0	6.1	1.3	1.2	8.0	2.7	-13.8	48.7	28.8	10.3	-15.9	May
-6.9	5.4	5.6	-1.0	1.5	14.0	18.9	-18.6	30.1	60.9	9.4	86.0	June
5.6	5.2	5.4	-0.8	1.4	3.6	15.6	-28.0	34.9	23.6	9.1	-10.8	July
-2.0	5.7	5.4	1.5	1.7	8.5	5.1	-18.3	21.2	15.7	9.5	-1.7	Aug.
-3.0	5.3	5.4	-2.7	2.2	2.7	20.0	-7.1	77.9	71.5	10.0	-23.5	Sep.
12.4	5.1	5.1	0.0	0.8	11.4	5.4	-13.5	47.5	38.8	9.8	-10.2	Oct.
41.2	5.0	5.1	-5.9	2.7	-5.4	-11.3	5.8	42.8	42.1	9.3	1.2	Nov.
88.5	5.1	4.9	8.9	2.5	-4.2	-21.8	-6.0	58.9	51.4	9.5	17.7	Dec.
					Euro area enlargement							
-12.5	4.7	4.8	-1.8	0.2	21.1	-3.1	-2.9	43.4	28.4	9.3	-49.7	2001 Jan.
24.8	4.7	4.8	-0.4	0.1	10.1	1.7	-2.2	36.1	20.2	8.9	8.9	Feb.
52.4	5.0	-	1.2	-0.4	5.9	11.9	13.0	83.1	58.1	8.6	-31.4	Mar. [p]

3) 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.

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

Table 2.4 (cont'd)

Monetary aggregates [1] and counterparts

(EUR billions and percentage changes, unless otherwise indicated)

3. Seasonally adjusted levels

	M1		Other short-term deposits [3]		M2		Marketable instruments [4]		M3		Loans to other euro area residents (excluding government)	
									Total	Index [2]		
	Total	Index [2]	Total	Index [2]	Total	Index [2]	Total	Index [2]			Total	Index [2]
	1	2	3	4	5	6	7	8	9	10	11	12
1999 Sep.	1,888.0	105.91	2,138.0	100.07	4,026.0	102.73	640.8	111.48	4,666.8	103.82	5,403.9	106.93
Oct.	1,900.0	106.53	2,147.6	100.39	4,047.6	103.19	647.5	112.48	4,695.1	104.35	5,448.1	107.78
Nov.	1,914.3	107.24	2,148.2	100.33	4,062.5	103.47	663.5	115.02	4,726.0	104.92	5,508.3	108.90
Dec.	1,920.4	107.56	2,151.6	100.47	4,071.9	103.69	684.6	116.64	4,756.5	105.34	5,520.4	109.19
2000 Jan.	1,958.0	109.61	2,132.9	99.56	4,090.9	104.13	689.5	116.73	4,780.4	105.73	5,573.4	110.16
Feb.	1,980.8	110.88	2,145.1	100.19	4,126.0	105.06	696.5	117.89	4,822.4	106.69	5,626.4	111.22
Mar.	1,993.7	111.53	2,144.8	100.12	4,138.5	105.31	719.4	121.55	4,857.9	107.38	5,687.9	112.36
Apr.	2,008.2	112.23	2,151.3	100.30	4,159.5	105.73	763.3	121.43	4,922.8	107.72	5,751.0	113.47
May	2,001.2	112.02	2,160.4	100.74	4,161.6	105.87	766.8	122.55	4,928.3	108.00	5,792.0	114.25
June	1,985.8	111.23	2,164.6	101.01	4,150.4	105.66	769.2	122.62	4,919.6	107.83	5,825.9	114.80
July	1,997.2	111.80	2,172.0	101.29	4,169.2	106.07	780.6	124.26	4,949.8	108.40	5,851.9	115.22
Aug.	2,015.5	112.71	2,183.3	101.73	4,198.7	106.72	788.2	125.10	4,986.9	109.08	5,913.7	116.38
Sep.	2,015.2	112.64	2,191.4	102.06	4,206.7	106.87	791.1	125.52	4,997.8	109.26	5,990.4	117.61
Oct.	2,020.9	112.84	2,200.5	102.37	4,221.4	107.13	807.5	127.76	5,028.9	109.80	6,029.2	118.29
Nov.	2,023.2	113.07	2,206.4	102.73	4,229.6	107.44	813.5	129.08	5,043.1	110.24	6,058.5	119.00
Dec.	2,023.3	113.30	2,196.6	102.55	4,220.0	107.44	822.4	132.40	5,042.3	110.69	6,075.7	119.67
					Euro area enlargement							
2001 1 Jan.	*2,045.2*	-	*2,283.1*	-	*4,328.2*	-	*843.6*	-	*5,171.8*	-	*6,138.8*	-
2001 Jan.	2,014.9	111.63	2,292.5	102.99	4,307.4	106.94	873.3	137.59	5,180.7	110.97	6,176.1	120.41
Feb.	2,047.2	113.40	2,306.1	103.58	4,353.3	108.07	867.2	136.59	5,220.5	111.81	6,213.1	121.14
Mar. [p]	2,048.6	113.38	2,323.3	104.25	4,372.0	108.43	886.5	139.33	5,258.4	112.49	6,265.2	122.04

4. Seasonally adjusted flows [5]

	M1		Other short-term deposits [3]		M2		Marketable instruments [4]		M3		Loans to other euro area residents (excluding government)	
									Total	Change on previous month (%)		
	Total	Change on previous month (%)	Total	Change on previous month (%)	Total	Change on previous month (%)	Total	Change on previous month (%)			Total	Change on previous month (%)
	1	2	3	4	5	6	7	8	9	10	11	12
1999 Oct.	11.1	0.6	6.9	0.3	18.0	0.4	5.7	0.9	23.7	0.5	42.9	0.8
Nov.	12.6	0.7	-1.4	-0.1	11.2	0.3	14.6	2.3	25.8	0.5	56.9	1.0
Dec.	5.6	0.3	3.1	0.1	8.8	0.2	9.4	1.4	18.1	0.4	14.6	0.3
2000 Jan.	36.7	1.9	-19.6	-0.9	17.0	0.4	0.5	0.1	17.5	0.4	48.9	0.9
Feb.	22.8	1.2	13.7	0.6	36.4	0.9	6.9	1.0	43.3	0.9	53.6	1.0
Mar.	11.5	0.6	-1.6	-0.1	9.9	0.2	21.6	3.1	31.5	0.7	57.7	1.0
Apr.	12.6	0.6	4.0	0.2	16.5	0.4	-0.7	-0.1	15.8	0.3	56.2	1.0
May	-3.7	-0.2	9.3	0.4	5.6	0.1	7.0	0.9	12.6	0.3	39.7	0.7
June	-14.1	-0.7	5.9	0.3	-8.2	-0.2	0.4	0.1	-7.8	-0.2	27.7	0.5
July	10.0	0.5	5.9	0.3	15.9	0.4	10.3	1.3	26.2	0.5	21.2	0.4
Aug.	16.3	0.8	9.6	0.4	25.9	0.6	5.3	0.7	31.2	0.6	59.1	1.0
Sep.	-1.3	-0.1	6.9	0.3	5.7	0.1	2.7	0.3	8.3	0.2	62.7	1.1
Oct.	3.6	0.2	6.7	0.3	10.3	0.2	14.1	1.8	24.4	0.5	34.6	0.6
Nov.	4.1	0.2	7.9	0.4	12.0	0.3	8.4	1.0	20.4	0.4	36.1	0.6
Dec.	4.1	0.2	-4.0	-0.2	0.1	0.0	20.9	2.6	21.1	0.4	34.1	0.6
					Euro area enlargement							
2001 Jan.	-30.6	-1.5	10.1	0.4	-20.6	-0.5	33.3	3.9	12.7	0.3	37.8	0.6
Feb.	32.0	1.6	13.3	0.6	45.4	1.1	-6.3	-0.7	39.1	0.8	37.5	0.6
Mar. [p]	-0.5	0.0	14.8	0.6	14.3	0.3	17.3	2.0	31.7	0.6	45.9	0.7

Source: ECB.

1) *See page 16*, footnote 1.*
2) *See page 16*, footnote 2. For the calculation of growth rates, see the technical notes.*
3) *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.*
4) *Marketable instruments comprise repurchase agreements, money market fund shares/units and money market paper together with debt securities issued with an original maturity of up to two years.*
5) *See page 17*, footnote 4.*

Table 2.5

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

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

1. Loans to non-financial sectors other than government

	Non-financial corporations [2] [3]				Households [2] [3]	Consumer credit [4]			Lending for house purchase [4]			Other lending			Non-profit institutions serving households [2]
		Up to 1 year	Over 1 and up to 5 years	Over 5 years		Up to 1 year	Over 1 and up to 5 years	Over 5 years	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Up to 1 year	Over 1 and up to 5 years	Over 5 years [3]	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1999 Q1	2,265.6	819.0	338.8	1,107.7	2,534.1	86.2	149.1	188.4	15.5	67.0	1,469.3	135.2	98.1	325.3	35.8
Q2	2,337.5	845.1	352.0	1,140.3	2,602.6	83.7	155.4	194.1	18.8	63.8	1,520.2	138.7	98.5	329.4	35.8
Q3	2,353.5	832.2	362.8	1,158.4	2,661.7	85.9	157.3	196.6	19.6	64.4	1,568.6	136.0	96.2	337.1	36.2
Q4	2,427.5	859.1	372.9	1,195.5	2,726.7	88.4	156.4	195.6	20.0	60.4	1,626.3	141.8	98.5	339.3	37.4
2000 Q1	2,501.3	902.3	392.3	1,206.7	2,775.0	89.1	162.5	200.5	20.3	58.9	1,659.6	141.0	100.4	342.8	39.0
Q2	2,561.8	919.4	406.0	1,236.4	2,826.0	93.6	161.7	201.8	21.4	60.7	1,698.4	145.0	102.2	341.3	37.6
Q3	2,633.9	954.6	422.5	1,256.8	2,888.1	96.5	165.1	208.2	22.8	63.1	1,747.0	142.5	100.9	342.1	37.5
Q4 (p)	2,686.3	974.1	427.3	1,284.9	2,937.4	96.9	165.1	211.7	22.8	62.2	1,785.7	146.9	101.8	344.3	38.3

2. Loans to non-monetary financial corporations

	Non-monetary financial intermediaries except insurance corporations and pension funds [2]				Insurance corporations and pension funds [2]			
		Up to 1 year	Over 1 and up to 5 years	Over 5 years		Up to 1 year	Over 1 and up to 5 years	Over 5 years
	16	17	18	19	20	21	22	23
1999 Q1	300.3	184.1	55.1	61.1	36.1	27.1	3.0	5.9
Q2	306.8	192.9	52.2	61.7	40.4	28.9	2.7	8.8
Q3	299.4	181.9	53.8	63.7	41.9	33.1	2.8	6.0
Q4	315.7	191.4	55.1	69.2	29.4	20.7	2.7	5.9
2000 Q1	335.7	207.1	56.2	72.4	37.1	25.7	4.0	7.4
Q2	381.7	246.0	60.8	74.9	38.8	29.1	3.8	5.8
Q3	385.6	247.0	64.8	73.8	33.0	25.3	2.9	4.8
Q4 (p)	394.7	255.2	67.5	72.0	31.6	23.2	3.5	5.0

3. Loans to government

	General government [2]										
		Central government [5]	Other general government								
			State government				Local government				Social security funds
				Up to 1 year	Over 1 and up to 5 years	Over 5 years		Up to 1 year	Over 1 and up to 5 years	Over 5 years	
	24	25	26	27	28	29	30	31	32	33	34
1999 Q1	838.3	220.8	276.7	12.1	20.9	243.7	328.5	19.7	12.6	296.2	12.4
Q2	838.2	212.0	279.2	11.5	20.5	247.1	329.4	20.2	10.9	298.3	17.5
Q3	831.1	206.4	278.4	10.1	21.3	247.0	329.5	19.9	10.5	299.1	16.8
Q4	847.9	199.5	292.9	15.0	25.1	252.7	339.9	20.6	11.7	307.7	15.6
2000 Q1	839.7	193.8	291.9	13.2	27.4	251.3	338.1	21.3	10.8	306.0	16.0
Q2	835.6	186.8	290.0	9.9	28.1	252.1	339.0	21.6	11.5	305.9	19.7
Q3	818.0	173.3	288.4	8.9	27.2	252.4	337.8	21.5	11.1	305.2	18.5
Q4 (p)	834.7	169.7	297.3	13.7	28.1	255.4	352.3	24.2	12.2	315.9	15.5

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) *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.*
3) *As a result of the implementation of a new reporting scheme in January 1999, data prior to the first quarter of 1999 are not directly comparable with those referring to later periods.*
4) *The definitions of consumer credit and lending for house purchase are not fully consistent across the euro area.*
5) *A maturity breakdown is not available for loans to central government.*

Table 2.6

Outstanding deposits held with MFIs, by counterpart and instrument [1)]

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

1. Deposits held by non-financial sectors other than government

	Non-financial corporations [2) 3)]					Households [2) 3)]				
		Overnight	With agreed maturity	Redeemable at notice	Repos		Overnight	With agreed maturity	Redeemable at notice	Repos
	1	2	3	4	5	6	7	8	9	10
1999 Q1	729.2	394.9	287.2	23.7	23.5	3,228.0	798.4	1,111.3	1,278.8	39.5
Q2	741.0	427.9	263.8	25.5	23.9	3,245.9	841.8	1,085.3	1,286.1	32.7
Q3	747.4	429.6	270.0	25.7	22.1	3,239.2	845.0	1,076.8	1,283.5	33.9
Q4	772.7	446.0	281.2	24.0	21.5	3,306.4	871.6	1,099.7	1,295.8	39.4
2000 Q1	787.9	440.2	292.1	24.5	31.1	3,297.7	887.2	1,093.1	1,275.1	42.4
Q2	818.6	459.7	307.8	24.2	26.9	3,287.2	888.3	1,097.4	1,255.0	46.6
Q3	843.7	464.2	329.8	24.8	25.0	3,273.6	874.4	1,112.0	1,235.6	51.6
Q4 [p]	871.8	496.8	324.8	23.9	26.3	3,338.3	904.6	1,134.9	1,241.7	57.1

2. Deposits held by non-monetary financial corporations

	Non-monetary financial intermediaries except insurance corporations and pension funds [2) 3)]					Insurance corporations and pension funds [2)]				
		Overnight	With agreed maturity	Redeemable at notice	Repos		Overnight	With agreed maturity	Redeemable at notice	Repos
	1	2	3	4	5	6	7	8	9	10
1999 Q1	376.4	127.9	142.3	4.7	101.5	426.1	32.1	380.1	3.0	10.8
Q2	402.3	134.9	165.2	4.7	97.4	430.8	36.4	380.5	3.3	10.7
Q3	391.2	122.5	173.0	5.2	90.5	436.6	32.0	389.8	3.3	11.5
Q4	398.9	143.1	181.7	4.7	69.3	447.7	32.2	400.4	3.3	11.9
2000 Q1	435.3	162.2	180.1	5.6	87.4	458.8	35.4	407.0	3.2	13.1
Q2	425.3	164.5	178.7	5.3	76.8	460.7	34.6	411.0	3.5	11.6
Q3	425.1	158.6	184.8	5.1	76.6	464.4	34.1	413.7	3.7	12.9
Q4 [p]	433.3	157.0	195.3	5.9	75.2	477.0	41.0	418.1	3.2	14.7

3. Deposits held by government

	General government [2)]																
		Central government	Other general government														
			State government					Local government					Social security funds				
				Overnight	With agreed maturity	Redeemable at notice	Repos		Overnight	With agreed maturity	Redeemable at notice	Repos		Overnight	With agreed maturity	Redeemable at notice	Repos
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1999 Q1	254.1	133.4	25.6	7.4	17.9	0.1	0.2	53.1	24.2	24.0	3.2	1.7	42.0	14.3	25.7	1.0	1.0
Q2	254.9	125.0	27.3	8.1	18.9	0.2	0.1	54.6	26.2	24.2	3.4	0.7	48.0	18.2	27.7	1.1	1.0
Q3	262.3	133.3	27.8	8.7	18.7	0.1	0.2	54.6	24.5	25.6	3.4	1.1	46.7	17.1	27.3	0.9	1.5
Q4	281.0	142.0	31.6	10.2	21.1	0.1	0.2	59.2	27.1	27.4	3.4	1.2	48.2	16.0	30.6	0.7	0.7
2000 Q1	270.2	130.2	28.7	8.3	20.2	0.1	0.1	58.6	25.8	27.7	3.3	1.8	52.7	18.7	31.9	0.7	1.4
Q2	300.2	146.0	32.2	10.5	21.5	0.1	0.1	62.7	28.7	28.6	3.1	2.3	59.3	23.0	32.7	0.5	3.0
Q3	311.1	159.3	30.8	10.0	20.6	0.1	0.1	63.2	27.4	30.8	2.9	2.1	57.8	21.5	32.8	0.5	3.1
Q4 [p]	316.3	164.6	30.6	10.6	19.8	0.1	0.1	68.1	30.7	33.0	3.0	1.5	53.0	18.5	33.4	0.5	0.7

Source: ECB.

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

2) 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.

3) As a result of the implementation of a new reporting scheme in January 1999, data prior to the first quarter of 1999 are not directly comparable with those referring to later periods.

Table 2.7

Main outstanding MFI claims on and liabilities to non-residents of the euro area [1)]

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

1. Eurosystem [2)]

	Loans to non-residents				Holdings of securities other than shares issued by non-residents				Holdings of shares and other equity issued by non-residents			Deposits held by non-residents			
		Banks [3) 4)]	Non-banks			Banks [3)]	Non-banks			Banks [3)]	Other		Banks [3)]	Non-banks	
			General government	Other			General government	Other						General government	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1999 Q1	111.0	99.7	8.4	2.9	182.8	3.9	176.1	2.9	0.4	0.1	0.3	91.9	89.6	0.4	1.8
Q2	191.4	174.7	13.1	3.7	175.2	4.5	166.9	3.8	0.4	0.1	0.3	165.2	162.8	0.2	2.2
Q3	108.1	99.0	6.8	2.3	176.2	4.0	168.1	4.1	0.4	0.1	0.3	82.6	80.6	0.4	1.5
Q4	59.6	45.6	10.5	3.5	193.9	5.7	184.4	3.8	0.6	0.1	0.5	43.2	39.8	0.3	3.2
2000 Q1	89.9	78.8	8.9	2.2	202.7	4.8	192.2	5.7	0.5	0.1	0.4	68.3	66.7	0.2	1.4
Q2	104.6	91.5	10.3	2.7	201.9	4.5	193.4	4.0	0.4	0.1	0.3	85.3	82.8	0.5	2.0
Q3	83.7	72.7	8.2	2.7	221.9	5.3	211.2	5.5	1.0	0.1	0.9	67.9	64.6	1.0	2.4
Q4 [(p)]	32.7	23.3	7.0	2.3	203.4	5.2	193.3	4.9	1.0	0.1	0.9	23.2	19.9	1.1	2.2

2. MFIs excluding the Eurosystem

	Loans to non-residents				Holdings of securities other than shares issued by non-residents				Holdings of shares and other equity issued by non-residents			Deposits held by non-residents			
		Banks [3) 4)]	Non-banks			Banks [3)]	Non-banks			Banks [3)]	Other		Banks [3)]	Non-banks	
			General govern-ment	Other			General govern-ment	Other						General govern-ment	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1999 Q1	1,271.6	899.1	64.0	308.5	300.4	79.3	104.3	116.8	58.4	22.3	36.1	1,623.9	1,208.9	70.8	344.3
Q2	1,253.4	851.6	66.9	334.9	321.3	86.7	100.1	134.5	75.6	32.7	42.8	1,674.2	1,220.7	62.3	391.1
Q3	1,259.5	854.3	67.3	337.9	320.2	88.2	89.1	142.9	78.0	39.2	38.8	1,696.1	1,237.4	62.2	396.4
Q4	1,287.2	867.7	68.3	351.2	339.4	94.0	88.8	156.6	81.9	37.6	44.3	1,782.6	1,285.8	72.1	424.7
2000 Q1	1,339.4	894.0	70.5	374.9	370.5	109.0	99.5	162.0	99.9	46.2	53.7	2,000.8	1,449.8	71.2	479.8
Q2	1,353.3	919.0	70.6	363.7	415.1	134.0	109.6	171.6	106.2	49.9	56.4	1,967.1	1,412.6	74.3	480.1
Q3	1,416.1	943.6	71.0	401.5	443.2	146.8	110.3	186.0	122.9	56.1	66.8	2,117.1	1,499.5	80.7	536.9
Q4 [(p)]	1,434.5	951.1	74.1	409.4	439.4	147.5	94.9	197.0	126.7	60.9	65.9	2,114.2	1,507.2	83.8	523.2

3. MFIs including the Eurosystem

	Loans to non-residents				Holdings of securities other than shares issued by non-residents				Holdings of shares and other equity issued by non-residents			Deposits held by non-residents			
		Banks [3) 4)]	Non-banks			Banks [3)]	Non-banks			Banks [3)]	Other		Banks [3)]	Non-banks	
			General govern-ment	Other			General govern-ment	Other						General govern-ment	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1999 Q1	1,382.5	998.8	72.4	311.4	483.2	83.2	280.4	119.6	58.8	22.4	36.4	1,715.8	1,298.5	71.2	346.1
Q2	1,444.8	1,026.3	80.0	338.5	496.5	91.2	266.9	138.4	76.0	32.8	43.1	1,839.4	1,383.5	62.5	393.4
Q3	1,367.5	953.3	74.0	340.2	496.4	92.2	257.2	147.0	78.4	39.3	39.1	1,778.7	1,318.1	62.7	397.9
Q4	1,346.8	913.3	78.8	354.7	533.3	99.7	273.1	160.4	82.4	37.7	44.8	1,825.8	1,325.6	72.4	427.8
2000 Q1	1,429.3	972.8	79.4	377.1	573.2	113.8	291.7	167.7	100.4	46.3	54.1	2,069.1	1,516.5	71.4	481.2
Q2	1,457.9	1,010.5	81.0	366.4	617.1	138.6	302.9	175.6	106.6	49.9	56.7	2,052.4	1,495.4	74.8	482.1
Q3	1,499.7	1,016.2	79.2	404.2	665.1	152.1	321.5	191.5	123.9	56.2	67.7	2,185.1	1,564.1	81.7	539.3
Q4 [(p)]	1,467.2	974.4	81.1	411.8	642.8	152.7	288.2	201.9	127.7	61.0	66.8	2,137.4	1,527.1	84.9	525.4

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) *New reporting rules as from January 1999 caused significant breaks in the first quarter of 1999.*
3) *The term "banks" is used in this table to indicate institutions of a similar type to MFIs resident outside the euro area.*
4) *Deposits placed by MFIs with banks located outside the euro area are included.*

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 Q1	3,882.0	3,457.6	54.0	370.4	266.9	23.0	56.4	24.1	5,013.7	4,861.3	25.2	127.2	90.0	13.8	14.9	8.5
Q2	4,116.1	3,716.0	50.9	349.2	252.5	20.2	53.0	23.4	5,073.9	4,912.3	27.8	133.8	97.4	14.8	12.9	8.6
Q3	3,843.3	3,435.9	53.0	354.3	251.2	24.4	57.9	20.9	5,075.7	4,914.5	27.5	133.7	96.7	16.3	12.2	8.5
Q4	3,868.4	3,456.8	46.6	364.9	261.7	29.5	54.7	19.0	5,205.7	5,040.6	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	5,248.7	5,074.1	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	5,290.8	5,110.6	27.9	152.2	113.0	17.1	13.2	9.0
Q3	3,946.1	3,485.3	58.1	402.7	279.6	38.3	64.9	20.0	5,316.7	5,127.0	29.1	160.7	121.7	16.5	12.5	10.1
Q4 [p]	3,931.5	3,515.1	50.7	365.6	255.8	33.9	60.0	15.9	5,436.3	5,257.7	27.3	151.4	115.8	14.8	10.8	10.0

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 Q1	1,298.5	560.8	128.3	609.3	483.3	47.2	52.9	26.0	417.3	184.6	39.2	193.5	155.4	15.0	13.5	9.5
Q2	1,383.5	616.9	127.4	639.2	517.3	38.1	52.5	31.3	455.9	199.5	42.3	214.1	176.2	15.2	11.9	10.8
Q3	1,318.1	563.6	129.4	625.1	503.4	38.8	53.6	29.3	460.6	207.2	43.7	209.7	167.2	19.6	11.4	11.4
Q4	1,325.6	531.6	114.5	679.5	557.1	44.2	50.5	27.8	500.2	217.8	46.1	236.2	193.4	18.4	13.0	11.3
2000 Q1	1,516.5	599.3	155.6	761.6	602.6	64.0	65.1	29.8	552.6	243.1	53.3	256.2	209.0	22.3	12.2	12.6
Q2	1,495.4	595.9	137.1	762.4	605.6	59.8	62.7	34.2	556.9	241.6	54.4	260.9	211.4	22.4	15.7	11.4
Q3	1,564.1	608.3	146.3	809.4	652.8	61.9	63.0	31.8	621.0	253.5	62.5	305.0	254.7	23.4	14.3	12.6
Q4 [p]	1,527.1	586.9	138.0	802.1	661.0	49.0	62.4	29.7	610.4	256.1	66.5	287.7	240.1	21.2	13.0	13.5

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 Q1	2,203.4	1,970.1	30.9	202.4	119.0	37.1	30.6	15.7	185.4	169.8	0.7	14.9	12.5	0.8	1.4	0.2
Q2	2,279.8	2,030.3	36.2	213.3	125.5	38.0	32.2	17.4	188.1	170.3	1.5	16.3	12.8	1.5	1.7	0.4
Q3	2,340.4	2,083.7	38.7	218.1	126.7	43.3	31.1	16.9	207.5	187.8	1.8	17.8	11.6	3.2	2.4	0.6
Q4	2,375.2	2,112.8	39.9	222.6	126.9	47.8	30.6	17.2	245.4	220.5	1.8	23.1	15.4	4.2	2.3	1.2
2000 Q1	2,434.6	2,151.2	42.9	240.4	134.5	53.4	33.7	18.8	250.5	226.0	1.8	22.7	14.5	4.6	2.0	1.7
Q2	2,491.3	2,196.6	40.3	254.3	143.8	58.4	33.7	18.4	262.8	234.9	1.4	26.4	17.2	5.4	2.5	1.4
Q3	2,563.2	2,237.7	47.5	278.0	156.2	64.9	37.4	19.6	272.2	233.6	2.2	36.4	26.6	5.7	2.8	1.3
Q4 [p]	2,573.7	2,255.1	46.1	272.6	158.8	58.1	35.5	20.2	261.5	215.2	2.1	44.2	34.4	5.3	2.9	1.6

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.

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 Q1	3,870.6	-	-	-	-	-	-	-	6,010.2	5,813.1	21.3	175.8	98.6	17.9	52.8	6.6
Q2	4,103.7	-	-	-	-	-	-	-	6,161.4	5,949.8	23.2	188.3	106.9	19.1	56.3	6.0
Q3	3,827.3	-	-	-	-	-	-	-	6,223.9	6,003.4	24.5	196.0	105.7	23.8	60.4	6.2
Q4	3,851.3	-	-	-	-	-	-	-	6,385.1	6,151.9	23.4	209.9	115.8	28.3	62.0	3.8
2000 Q1	3,948.9	-	-	-	-	-	-	-	6,528.3	6,261.2	34.0	233.1	128.3	35.1	65.9	3.7
Q2	4,039.5	-	-	-	-	-	-	-	6,681.9	6,388.3	35.4	258.1	144.9	38.4	70.5	4.3
Q3	3,949.5	-	-	-	-	-	-	-	6,796.5	6,485.4	34.8	276.3	155.8	44.4	72.2	4.0
Q4 [p]	3,929.0	-	-	-	-	-	-	-	6,923.0	6,619.8	32.0	271.1	151.9	41.6	73.0	4.7

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 Q1	763.3	727.6	8.3	27.4	18.2	5.6	1.8	1.8	1,421.4	1,388.9	3.6	28.9	15.6	10.5	1.6	1.2
Q2	802.6	768.4	6.5	27.7	18.9	5.3	1.6	1.9	1,432.3	1,402.1	3.0	27.2	14.5	10.3	1.3	1.1
Q3	830.2	796.1	7.5	26.6	17.1	5.4	2.0	2.2	1,446.0	1,415.7	3.1	27.2	13.5	11.0	1.6	1.2
Q4	830.3	795.7	8.1	26.5	17.4	5.0	2.5	1.6	1,438.6	1,406.0	5.6	27.0	13.5	11.0	1.2	1.3
2000 Q1	871.8	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	858.1	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 [p]	932.1	891.9	11.0	29.2	20.5	4.7	2.3	1.7	1,352.5	1,318.8	3.9	29.9	17.5	10.5	1.0	0.9

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 Q1	998.8	475.3	77.6	445.8	323.0	50.7	27.1	44.9	383.8	137.5	28.6	217.7	189.3	7.3	13.0	8.1
Q2	1,026.3	527.3	76.4	422.5	310.1	41.3	26.4	44.8	418.5	142.6	35.7	240.2	208.5	7.5	15.0	9.2
Q3	953.3	447.9	82.2	423.2	304.3	44.9	29.2	44.8	414.2	147.5	36.5	230.2	194.4	10.4	16.8	8.6
Q4	913.3	389.6	77.8	445.9	330.2	52.1	30.6	32.9	433.5	140.5	40.2	252.8	217.4	10.8	18.6	6.0
2000 Q1	972.8	430.9	98.5	443.4	321.2	51.9	33.5	36.8	456.5	147.3	39.9	269.4	230.3	13.5	19.6	5.9
Q2	1,010.5	471.0	94.8	444.7	325.9	47.0	34.2	37.6	447.4	141.5	40.3	265.6	225.1	13.7	20.4	6.4
Q3	1,016.2	453.5	94.0	468.8	353.1	44.7	34.9	36.0	483.5	148.3	43.6	291.5	249.0	14.0	22.1	6.5
Q4 [p]	974.4	413.3	93.5	467.6	354.6	45.1	34.2	33.7	492.9	155.9	43.3	293.7	251.2	11.2	24.3	7.0

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 Q1	83.2	29.5	7.1	46.6	35.0	5.8	2.0	3.7	400.0	76.6	22.1	301.3	256.0	22.0	6.1	17.1
Q2	91.2	33.6	7.3	50.3	39.1	5.8	2.2	3.3	405.3	93.1	23.9	288.3	251.1	21.5	6.5	9.2
Q3	92.2	36.3	7.0	48.9	38.4	5.9	1.8	2.8	404.2	96.9	25.6	281.6	245.3	24.6	4.1	7.5
Q4	99.7	40.4	7.7	51.6	39.7	6.9	1.9	3.2	433.5	108.5	24.3	300.7	263.8	24.1	4.2	8.6
2000 Q1	113.8	44.4	8.1	61.4	47.9	6.9	2.2	4.5	459.4	103.3	28.9	327.2	283.9	28.2	5.7	9.5
Q2	138.6	50.0	13.2	75.4	61.1	7.0	2.2	5.1	478.5	105.0	29.2	344.3	302.4	27.8	4.5	9.5
Q3	152.1	50.5	16.5	85.2	72.0	7.1	2.2	3.9	513.0	119.3	33.2	360.5	315.5	31.5	4.2	9.2
Q4 [p]	152.7	49.5	18.8	84.3	72.3	6.4	1.7	3.9	490.1	122.8	35.9	331.4	291.4	27.6	3.6	8.9

3 Financial markets and interest rates in the euro area

Table 3.1

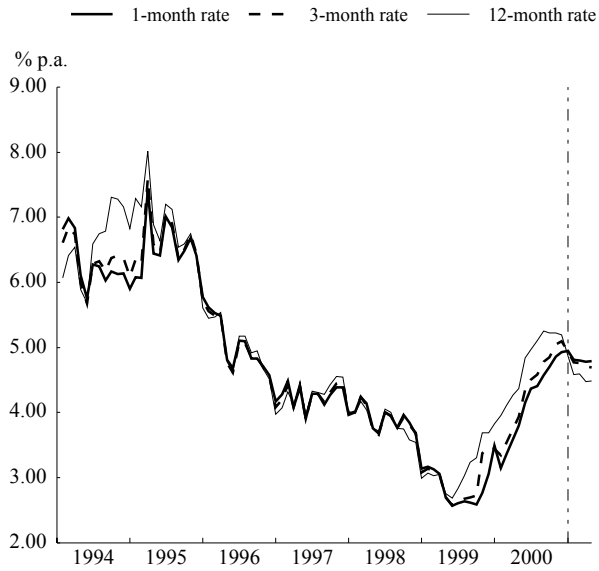
Money market interest rates [1]

(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 Apr.	3.69	3.80	3.93	4.09	4.37	6.31	0.12
May	3.92	4.15	4.35	4.53	4.84	6.75	0.10
June	4.29	4.37	4.50	4.68	4.96	6.79	0.13
July	4.31	4.41	4.58	4.84	5.11	6.73	0.22
Aug.	4.42	4.57	4.78	5.01	5.25	6.69	0.32
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
2001 6 Apr.	4.75	4.70	4.57	4.45	4.35	4.81	0.12
13 [7]	5.73	4.88	4.74	4.61	4.54	4.78	0.10
20	5.50	4.82	4.76	4.65	4.59	4.42	0.09
27	4.81	4.82	4.77	4.67	4.58	4.31	0.08
4 May	4.81	4.83	4.81	4.74	4.69	4.27	0.08

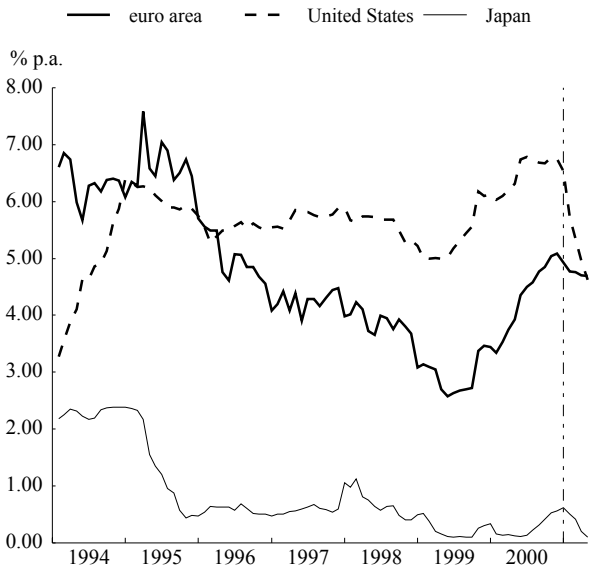
Euro area money market rates

(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).
7) Data relate to 12 April 2001.

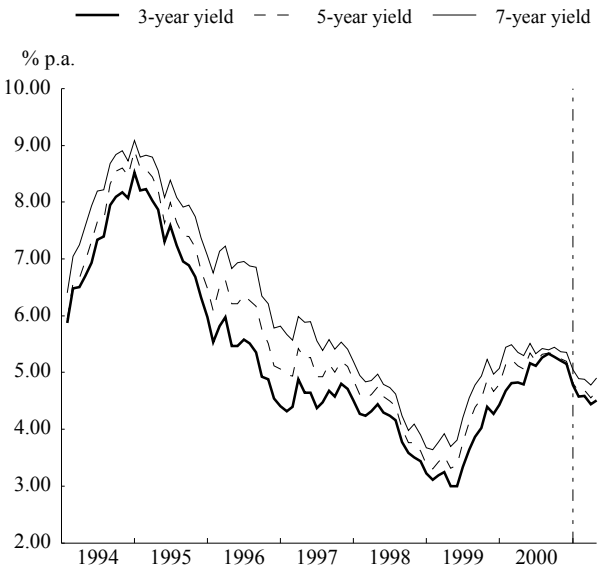
Table 3.2

Government bond yields [1)]

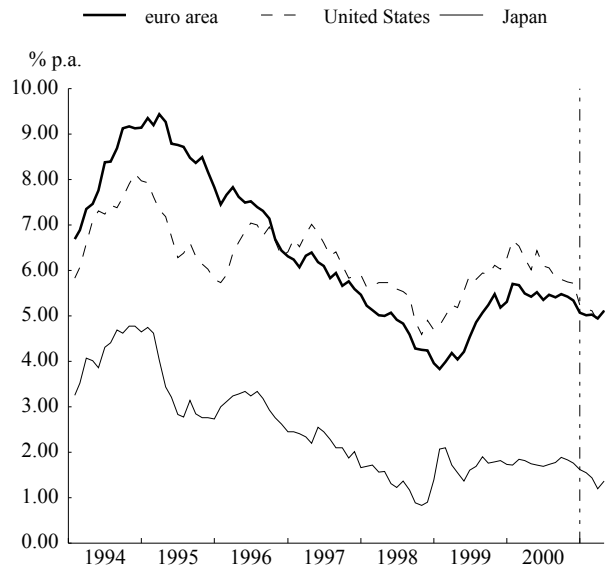
(percentages per annum)

	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 Apr.	4.58	4.79	5.06	5.30	5.41	6.00	1.75
May	5.00	5.16	5.34	5.51	5.52	6.42	1.71
June	5.02	5.12	5.19	5.33	5.35	6.10	1.69
July	5.19	5.27	5.32	5.43	5.45	6.04	1.72
Aug.	5.28	5.34	5.35	5.40	5.40	5.83	1.77
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
2001 6 Apr.	4.26	4.31	4.49	4.73	4.96	4.88	1.27
13	4.56	4.57	4.72	4.93	5.11	5.18	1.43
20	4.58	4.60	4.75	4.99	5.19	5.25	1.46
27	4.64	4.65	4.79	5.03	5.21	5.28	1.28
4 May	4.64	4.66	4.77	5.01	5.19	5.18	1.34

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

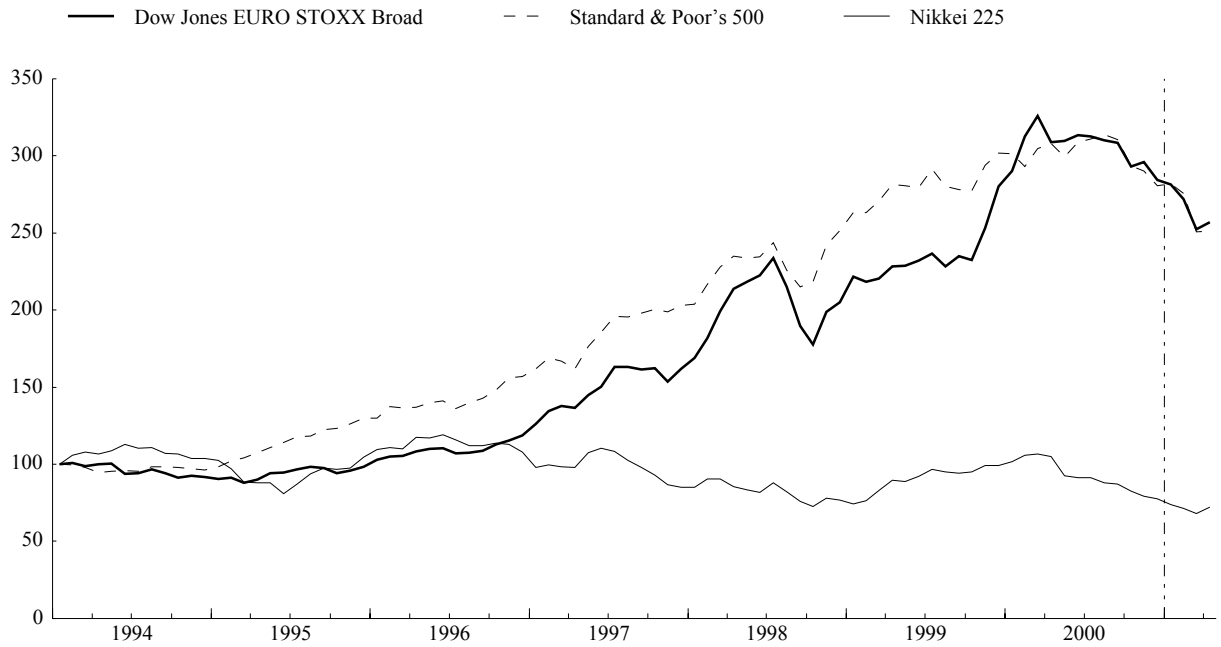
Stock market indices

(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 Apr.	428.6	5,149.1	306.8	293.7	313.3	329.1	339.0	382.2	957.4	353.9	1,236.7	411.1	1,459.7	19,517.7
May	429.4	5,174.7	304.2	294.5	322.3	353.1	340.0	388.0	1,004.4	356.4	1,135.1	435.5	1,416.7	17,222.5
June	434.7	5,274.2	274.6	294.8	326.1	349.8	350.0	385.4	1,052.1	349.7	1,149.7	456.4	1,462.0	16,969.3
July	433.8	5,227.8	283.1	297.8	328.2	345.7	360.4	384.3	1,044.6	333.9	1,083.0	502.2	1,472.1	16,961.1
Aug.	429.9	5,152.0	290.0	301.3	331.1	363.1	375.9	380.3	982.6	334.1	951.6	545.8	1,485.5	16,329.9
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
2001 6 Apr.	343.9	4,145.9	294.1	231.3	299.7	342.9	333.4	318.5	529.5	307.0	608.5	539.7	1,128.4	13,383.8
13 [2]	358.4	4,338.1	311.0	243.3	306.4	353.7	341.1	329.6	592.3	314.3	644.4	537.6	1,179.7	13,385.7
20	363.2	4,383.6	316.8	249.4	303.8	350.4	341.0	340.1	641.0	310.1	658.9	520.7	1,243.0	13,765.7
27	369.5	4,474.0	314.9	254.8	313.0	369.6	348.3	342.7	642.1	311.1	647.3	534.8	1,253.1	13,934.3
4 May	365.8	4,416.8	309.9	256.1	310.4	353.0	341.3	338.7	663.8	308.7	637.5	529.1	1,266.6	14,421.6

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

(base month: January 1994 = 100; monthly)



Source: Reuters.

1) Monthly and yearly values are period averages.

2) Data relate to 12 April 2001, with the exception of Nikkei 225.

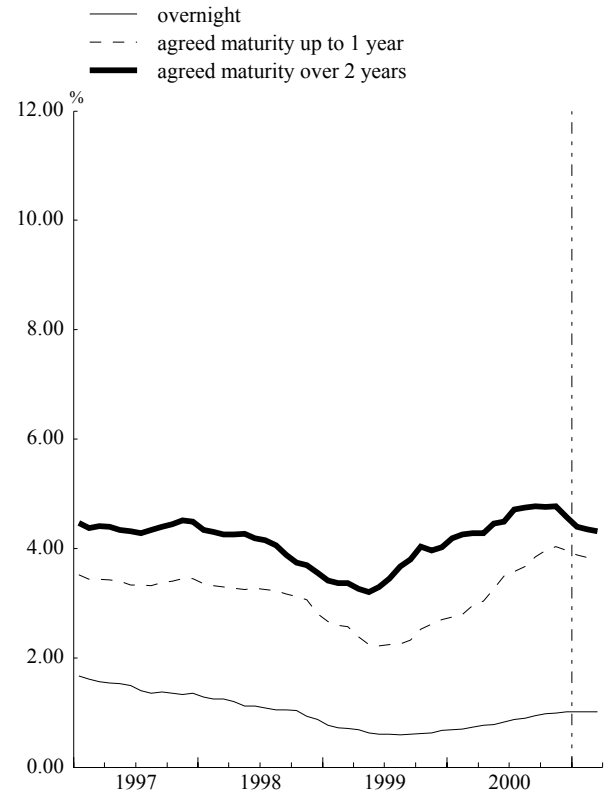
Table 3.4

Retail bank interest rates

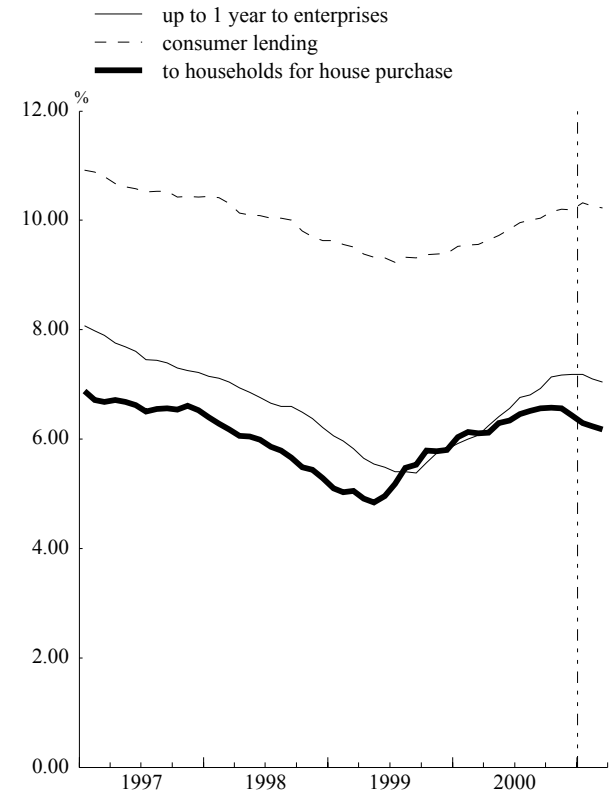
(percentages per annum; period averages)

	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	10.06	5.87
1999	0.65	2.44	2.45	3.57	2.15	2.76	5.65	5.10	9.40	5.29
2000	0.85	3.45	3.44	4.52	2.25	3.79	6.60	6.23	9.86	6.34
2000 Mar.	0.73	2.96	2.96	4.28	2.07	3.33	6.07	5.85	9.56	6.10
Apr.	0.76	3.04	3.05	4.28	2.09	3.44	6.24	6.00	9.64	6.12
May	0.78	3.26	3.26	4.45	2.13	3.65	6.40	6.16	9.72	6.30
June	0.83	3.49	3.49	4.48	2.16	3.87	6.56	6.23	9.84	6.34
July	0.87	3.58	3.58	4.71	2.33	3.94	6.77	6.37	9.95	6.46
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	7.14	6.60	10.15	6.57
Nov.	0.99	4.04	4.03	4.77	2.47	4.25	7.17	6.63	10.20	6.56
Dec.	1.01	3.96	3.95	4.58	2.49	4.21	7.18	6.45	10.19	6.43
				Euro area enlargement						
2001 Jan.	1.01	3.88	3.87	4.39	2.52	4.01	7.18	6.40	10.32	6.29
Feb.	1.01	3.84	3.83	4.35	2.50	3.99	7.10	6.45	10.26	6.24
Mar.	1.02	3.81	3.81	4.32	2.50	3.99	7.04	6.31	10.22	6.17

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 period 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 Feb.	253.9	240.8	13.1	616.2	240.9	231.1	9.9	572.6	13.0	9.8
Mar.	271.0	250.4	20.5	635.9	258.3	240.3	18.0	591.4	12.6	10.2
Apr.	253.0	251.6	1.4	637.4	240.4	239.8	0.7	591.0	12.5	11.9
May	278.6	261.8	16.8	660.0	267.0	251.3	15.6	613.4	11.6	10.5
June	262.0	260.3	1.8	662.1	245.3	249.4	-4.1	608.6	16.7	10.8
July	287.2	282.5	4.7	669.7	269.6	266.3	3.3	613.3	17.5	16.2
Aug.	276.7	276.2	0.5	673.2	261.0	258.6	2.4	616.1	15.7	17.6
Sep.	311.5	315.1	-3.6	672.0	293.4	298.7	-5.3	611.5	18.1	16.4
Oct.	355.2	342.4	12.8	687.2	338.2	330.3	7.9	618.9	17.0	12.1
Nov.	301.6	302.5	-0.9	687.1	283.7	290.1	-6.3	612.8	17.9	12.4
Dec.	245.7	278.5	-32.8	653.9	229.3	264.4	-35.1	578.6	16.4	14.1
				Euro area enlargement						
2001 Jan.	376.3	345.5	30.9	689.1	358.1	325.6	32.6	616.0	18.2	19.9
Feb.	404.2	391.9	12.3	702.7	383.8	373.6	10.2	625.8	20.4	18.3

2. Long-term

	By euro area residents									
					In euro [1]				In other	
	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions	Net issues	Amounts outstanding	Issues	Redemptions
	1	2	3	4	5	6	7	8	9	10
2000 Feb.	125.9	69.4	56.6	6,069.4	112.5	61.0	51.4	5,601.8	13.4	8.3
Mar.	131.7	92.3	39.5	6,119.4	116.9	82.5	34.3	5,637.5	14.9	9.8
Apr.	115.5	75.6	39.9	6,168.1	102.7	66.1	36.7	5,673.7	12.7	9.5
May	127.2	90.3	36.8	6,200.5	115.0	78.6	36.4	5,712.3	12.2	11.7
June	102.1	66.2	35.9	6,234.3	87.9	52.9	34.9	5,749.6	14.2	13.3
July	129.1	77.8	51.3	6,290.5	103.5	69.5	33.9	5,782.6	25.6	8.3
Aug.	105.4	59.6	45.8	6,349.1	82.8	52.3	30.6	5,814.5	22.6	7.4
Sep.	111.8	76.5	34.9	6,389.0	91.3	66.7	24.6	5,839.9	20.5	9.8
Oct.	119.4	84.5	34.8	6,436.8	101.8	75.9	25.9	5,866.9	17.6	8.6
Nov.	105.3	76.3	28.9	6,454.0	92.5	65.2	27.2	5,893.4	12.8	11.0
Dec.	95.1	96.6	0.8	6,433.0	86.0	82.7	3.3	5,899.5	9.1	14.0
				Euro area enlargement						
2001 Jan.	146.8	139.5	8.2	6,531.8	133.6	129.7	4.0	5,994.7	13.2	9.8
Feb.	125.7	72.9	52.7	6,585.4	110.9	66.5	44.4	6,040.6	14.8	6.4

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 Feb.	379.8	310.2	69.7	6,685.6	353.4	292.1	61.3	6,174.4	26.5	18.1
Mar.	402.7	342.8	60.0	6,755.3	375.2	322.8	52.4	6,228.9	27.5	19.9
Apr.	368.5	327.3	41.2	6,805.5	343.2	305.8	37.3	6,264.7	25.3	21.4
May	405.7	352.1	53.6	6,860.6	382.0	329.9	52.0	6,325.7	23.8	22.2
June	364.2	326.5	37.7	6,896.4	333.2	302.4	30.8	6,358.2	30.9	24.1
July	416.2	360.3	56.0	6,960.3	373.1	335.8	37.3	6,395.9	43.1	24.5
Aug.	382.1	335.9	46.4	7,022.3	343.9	310.9	33.0	6,430.6	38.3	25.0
Sep.	423.3	391.6	31.3	7,061.1	384.7	365.4	19.3	6,451.3	38.7	26.2
Oct.	474.7	427.0	47.7	7,124.0	440.0	406.3	33.7	6,485.8	34.7	20.7
Nov.	406.9	378.8	28.0	7,141.2	376.2	355.3	20.9	6,506.2	30.7	23.5
Dec.	340.8	375.2	-32.0	7,086.9	315.3	347.1	-31.8	6,478.0	25.5	28.1
				Euro area enlargement						
2001 Jan.	523.2	484.9	39.1	7,220.9	491.8	455.2	36.5	6,610.7	31.4	29.7
Feb.	529.9	464.8	64.9	7,288.1	494.7	440.0	54.7	6,666.5	35.2	24.7

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 (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	
11	12	13	14	15	16	17	18	19	20	
3.2	43.6	.	.	.	.	.	.	.	.	2000 Feb.
2.5	44.5	32.6	32.0	0.6	36.8	772.1	760.4	11.6	628.2	Mar.
0.7	46.5	.	.	.	.	.	.	.	.	Apr.
1.1	46.7	.	.	.	.	.	.	.	.	May
5.9	53.5	37.5	31.0	6.5	43.2	790.2	771.6	18.6	651.9	June
1.3	56.4	.	.	.	.	.	.	.	.	July
-1.9	57.1	.	.	.	.	.	.	.	.	Aug.
1.7	60.6	38.2	39.5	-1.3	45.2	862.2	863.1	-0.9	656.6	Sep.
4.9	68.3	.	.	.	.	.	.	.	.	Oct.
5.5	74.3	.	.	.	.	.	.	.	.	Nov.
2.3	75.3	43.4	27.2	16.2	59.7	894.6	912.0	-17.4	638.3	Dec.
				Euro area enlargement						
-1.7	73.1	.	.	.	.	.	.	.	.	2001 Jan.
2.1	76.9	.	.	.	.	.	.	.	.	Feb.

By non-residents of the euro area in euro [1]						Total in euro [1]				
currencies										
Net issues	Amounts outstanding	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	
11	12	13	14	15	16	17	18	19	20	
5.2	467.6	.	.	.	.	.	.	.	.	2000 Feb.
5.2	482.0	65.8	21.5	44.3	638.2	397.1	252.6	144.5	6,275.6	Mar.
3.2	494.4	.	.	.	.	.	.	.	.	Apr.
0.4	488.2	.	.	.	.	.	.	.	.	May
0.9	484.7	46.6	23.7	22.9	661.2	352.2	221.3	130.9	6,410.8	June
17.4	507.9	.	.	.	.	.	.	.	.	July
15.3	534.6	.	.	.	.	.	.	.	.	Aug.
10.4	549.2	64.2	34.4	29.9	693.3	341.8	222.9	118.9	6,533.2	Sep.
9.0	569.8	.	.	.	.	.	.	.	.	Oct.
1.6	560.7	.	.	.	.	.	.	.	.	Nov.
-2.5	533.5	58.6	17.7	40.9	734.0	338.9	241.5	97.4	6,633.5	Dec.
				Euro area enlargement						
4.3	537.1	.	.	.	.	.	.	.	.	2001 Jan.
8.2	544.7	.	.	.	.	.	.	.	.	Feb.

By non-residents of the euro area in euro [1]						Total in euro [1]				
currencies										
Net issues	Amounts outstanding	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	Issues (during quarter)	Redemptions (during quarter)	Net issues (during quarter)	Amounts outstanding (end-quarter)	
11	12	13	14	15	16	17	18	19	20	
8.4	511.2	.	.	.	.	.	.	.	.	2000 Feb.
7.6	526.5	98.4	53.5	44.9	675.0	1,169.2	1,013.0	156.2	6,903.8	Mar.
3.9	540.9	.	.	.	.	.	.	.	.	Apr.
1.6	534.9	.	.	.	.	.	.	.	.	May
6.8	538.2	84.1	54.7	29.4	704.4	1,142.5	992.9	149.5	7,062.6	June
18.7	564.3	.	.	.	.	.	.	.	.	July
13.4	591.8	.	.	.	.	.	.	.	.	Aug.
12.1	609.7	102.4	73.9	28.5	738.5	1,204.0	1,086.0	118.0	7,189.8	Sep.
13.9	638.2	.	.	.	.	.	.	.	.	Oct.
7.1	634.9	.	.	.	.	.	.	.	.	Nov.
-0.3	608.8	102.0	44.9	57.1	793.7	1,233.5	1,153.5	80.0	7,271.8	Dec.
				Euro area enlargement						
2.6	610.3	.	.	.	.	.	.	.	.	2001 Jan.
10.3	621.6	.	.	.	.	.	.	.	.	Feb.

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 Feb.	572.6	240.5	6.6	65.8	256.7	3.0	.	.	.	.
Mar.	591.4	251.1	6.5	66.6	264.6	2.6	36.8	15.5	11.9	8.1
Apr.	591.0	245.6	6.3	72.1	264.1	2.8	.	.	.	.
May	613.4	259.5	5.5	76.0	270.1	2.2	.	.	.	.
June	608.6	258.9	4.2	76.1	267.2	2.2	43.2	18.9	11.7	10.9
July	613.3	264.7	4.6	77.3	263.7	2.9	.	.	.	.
Aug.	616.1	263.7	4.3	79.5	266.3	2.3	.	.	.	.
Sep.	611.5	256.4	4.1	81.2	267.1	2.8	45.2	15.0	13.0	15.7
Oct.	618.9	259.7	4.5	86.5	265.6	2.7	.	.	.	.
Nov.	612.8	254.3	4.6	87.2	263.8	3.0	.	.	.	.
Dec.	578.6	243.9	4.5	86.3	241.0	2.9	59.7	22.3	16.7	19.2
					Euro area enlargement					
2001 Jan.	616.0	257.1	5.0	89.8	261.2	2.9	.	.	.	.
Feb.	625.8	260.3	4.9	93.4	265.0	2.2	.	.	.	.

2. Long-term

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2000 Feb.	5,601.8	2,042.4	197.3	248.4	3,017.0	96.7	.	.	.	.
Mar.	5,637.5	2,062.7	198.9	251.8	3,026.4	97.6	638.2	176.2	89.1	128.2
Apr.	5,673.7	2,084.6	201.6	258.5	3,030.4	98.5	.	.	.	.
May	5,712.3	2,108.6	206.2	259.0	3,038.7	99.8	.	.	.	.
June	5,749.6	2,115.6	213.4	265.9	3,055.2	99.4	661.2	186.7	93.0	136.5
July	5,782.6	2,133.5	223.8	271.9	3,052.8	100.6	.	.	.	.
Aug.	5,814.5	2,147.2	229.0	275.4	3,060.9	102.0	.	.	.	.
Sep.	5,839.9	2,162.6	228.6	275.8	3,070.6	102.2	693.3	192.6	101.9	151.6
Oct.	5,866.9	2,173.5	234.2	280.1	3,074.8	104.3	.	.	.	.
Nov.	5,893.4	2,175.5	238.7	284.7	3,088.5	105.9	.	.	.	.
Dec.	5,899.5	2,175.9	254.3	287.7	3,074.7	106.9	734.0	213.5	107.9	159.2
					Euro area enlargement					
2001 Jan.	5,994.7	2,200.0	253.3	284.5	3,149.5	107.5	.	.	.	.
Feb.	6,040.6	2,229.8	258.5	286.8	3,156.4	109.1	.	.	.	.

3. Total

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2000 Feb.	6,174.4	2,282.9	203.9	314.2	3,273.7	99.7	.	.	.	.
Mar.	6,228.9	2,313.8	205.4	318.4	3,291.0	100.2	675.0	191.7	101.0	136.3
Apr.	6,264.7	2,330.2	208.0	330.6	3,294.6	101.3	.	.	.	.
May	6,325.7	2,368.2	211.8	335.0	3,308.8	102.0	.	.	.	.
June	6,358.2	2,374.6	217.6	342.0	3,322.3	101.7	704.4	205.6	104.7	147.4
July	6,395.9	2,398.2	228.4	349.3	3,316.5	103.6	.	.	.	.
Aug.	6,430.6	2,410.9	233.4	354.8	3,327.2	104.3	.	.	.	.
Sep.	6,451.3	2,419.0	232.7	357.0	3,337.7	105.0	738.5	207.6	114.8	167.3
Oct.	6,485.8	2,433.2	238.7	366.6	3,340.4	107.0	.	.	.	.
Nov.	6,506.2	2,429.8	243.3	371.9	3,352.3	108.9	.	.	.	.
Dec.	6,478.0	2,419.8	258.7	374.0	3,315.7	109.8	793.7	235.8	124.7	178.4
					Euro area enlargement					
2001 Jan.	6,610.7	2,457.1	258.3	374.2	3,410.7	110.3	.	.	.	.
Feb.	6,666.5	2,490.1	263.4	380.2	3,421.4	111.4	.	.	.	.

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	
.	.	.	.	.	.	.	.	.	.	2000 Feb.
0.2	0.3	0.7	628.2	266.6	18.4	74.8	264.8	3.0	0.7	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
0.2	0.3	1.2	651.9	277.9	15.9	86.9	267.3	2.6	1.2	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
0.2	0.5	0.8	656.6	271.4	17.0	96.9	267.3	3.2	0.8	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
0.2	0.5	0.8	638.3	266.2	21.2	105.5	241.2	3.4	0.8	Dec.
Euro area enlargement										
.	.	.	.	.	.	.	.	.	.	2001 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	2000 Feb.
93.5	29.8	121.3	6,275.6	2,238.9	288.0	380.0	3,119.9	127.4	121.3	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
96.6	29.7	118.7	6,410.8	2,302.3	306.4	402.4	3,151.8	129.1	118.7	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
97.4	33.4	116.6	6,533.2	2,355.2	330.5	427.4	3,168.0	135.6	116.6	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
98.2	38.7	116.5	6,633.5	2,389.4	362.2	446.9	3,172.9	145.6	116.5	Dec.
Euro area enlargement										
.	.	.	.	.	.	.	.	.	.	2001 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	2000 Feb.
93.7	30.2	122.0	6,903.8	2,505.5	306.4	454.7	3,384.7	130.4	122.0	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
96.8	30.1	119.9	7,062.6	2,580.2	322.3	489.4	3,419.1	131.7	119.9	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
97.6	33.8	117.3	7,189.8	2,626.6	347.6	524.3	3,435.2	138.8	117.3	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
98.4	39.2	117.3	7,271.8	2,655.6	383.4	552.4	3,414.1	149.0	117.3	Dec.
Euro area enlargement										
.	.	.	.	.	.	.	.	.	.	2001 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

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 or quarter; 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 Feb.	240.9	155.6	2.7	44.3	37.0	1.5	.	.	.	.
Mar.	258.3	170.1	2.2	45.1	40.0	0.9	32.6	14.0	10.2	7.5
Apr.	240.4	141.5	2.8	51.4	43.4	1.4	.	.	.	.
May	267.0	175.9	2.1	53.0	34.7	1.4	.	.	.	.
June	245.3	159.7	3.2	46.6	34.9	1.0	37.5	16.6	9.3	10.0
July	269.6	167.6	2.6	56.1	41.5	1.8	.	.	.	.
Aug.	261.0	168.2	2.0	51.2	38.1	1.6	.	.	.	.
Sep.	293.4	196.7	2.8	55.6	36.3	2.0	38.2	12.1	10.6	14.5
Oct.	338.2	237.8	2.6	60.3	35.5	1.9	.	.	.	.
Nov.	283.7	189.6	3.0	56.0	33.6	1.5	.	.	.	.
Dec.	229.3	162.1	2.1	45.9	17.7	1.6	43.4	16.1	11.5	14.7
					Euro area enlargement					
2001 Jan.	358.1	238.6	3.4	66.9	47.3	1.9	.	.	.	.
Feb.	383.8	275.9	2.1	63.1	41.2	1.5	.	.	.	.

2. Long-term

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2000 Feb.	112.5	49.2	5.2	4.4	51.7	2.0	.	.	.	.
Mar.	116.9	52.2	4.6	4.6	53.7	1.8	65.8	24.2	9.7	17.9
Apr.	102.7	45.6	5.6	8.0	41.6	1.9	.	.	.	.
May	115.0	54.2	7.1	4.5	47.6	1.5	.	.	.	.
June	87.9	34.1	10.5	8.5	34.4	0.4	46.6	17.8	6.3	15.1
July	103.5	44.9	12.7	8.7	35.0	2.1	.	.	.	.
Aug.	82.8	38.1	7.5	4.0	31.5	1.8	.	.	.	.
Sep.	91.3	40.8	5.0	3.6	40.8	1.0	64.2	20.0	11.2	22.9
Oct.	101.8	43.3	7.0	5.7	43.3	2.5	.	.	.	.
Nov.	92.5	33.6	8.7	8.1	39.0	3.0	.	.	.	.
Dec.	86.0	38.7	17.5	4.5	23.2	2.0	58.6	26.7	7.3	11.7
					Euro area enlargement					
2001 Jan.	133.6	56.2	1.7	0.8	72.1	2.8	.	.	.	.
Feb.	110.9	57.3	5.8	3.5	41.9	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 Feb.	353.4	204.7	7.9	48.7	88.6	3.4	.	.	.	.
Mar.	375.2	222.3	6.8	49.7	93.7	2.7	98.4	38.2	19.9	25.4
Apr.	343.2	187.1	8.4	59.4	85.0	3.4	.	.	.	.
May	382.0	230.1	9.3	57.5	82.3	2.9	.	.	.	.
June	333.2	193.8	13.7	55.1	69.3	1.4	84.1	34.4	15.6	25.2
July	373.1	212.6	15.3	64.9	76.5	3.9	.	.	.	.
Aug.	343.9	206.2	9.4	55.2	69.6	3.4	.	.	.	.
Sep.	384.7	237.6	7.8	59.2	77.0	3.1	102.4	32.0	21.8	37.5
Oct.	440.0	281.1	9.5	66.0	78.8	4.5	.	.	.	.
Nov.	376.2	223.3	11.7	64.1	72.6	4.5	.	.	.	.
Dec.	315.3	200.8	19.5	50.4	40.9	3.7	102.0	42.8	18.7	26.3
					Euro area enlargement					
2001 Jan.	491.8	294.9	5.1	67.7	119.4	4.7	.	.	.	.
Feb.	494.7	333.1	7.9	66.6	83.2	3.9	.	.	.	.

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	
.	.	.	.	.	.	.	.	.	.	2000 Feb.
0.2	0.2	0.6	772.1	494.9	17.4	136.9	118.3	3.9	0.6	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
0.1	0.3	1.1	790.2	493.6	17.4	161.0	113.0	4.1	1.1	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
0.2	0.4	0.4	862.2	544.7	17.9	177.5	116.0	5.8	0.4	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
0.1	0.3	0.7	894.6	605.7	19.1	176.9	86.8	5.4	0.7	Dec.
Euro area enlargement										
.	.	.	.	.	.	.	.	.	.	2001 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	2000 Feb.
9.5	1.9	2.6	397.1	167.0	21.4	27.6	172.1	6.4	2.6	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
4.5	1.5	1.4	352.2	151.7	29.6	36.1	128.2	5.3	1.4	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
3.0	5.8	1.3	341.8	143.7	36.4	39.3	110.3	10.8	1.3	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
3.0	6.0	4.0	338.9	142.3	40.4	29.9	108.6	13.6	4.0	Dec.
Euro area enlargement										
.	.	.	.	.	.	.	.	.	.	2001 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	2000 Feb.
9.7	2.1	3.1	1,169.2	661.9	38.8	164.5	290.4	10.4	3.1	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
4.7	1.7	2.5	1,142.5	645.3	46.9	197.1	241.2	9.4	2.5	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
3.2	6.2	1.7	1,204.0	688.4	54.3	216.8	226.3	16.5	1.7	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
3.1	6.3	4.7	1,233.5	748.0	59.5	206.8	195.5	19.0	4.7	Dec.
Euro area enlargement										
.	.	.	.	.	.	.	.	.	.	2001 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

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 or quarter; 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 Feb.	9.9	10.8	0.3	-0.4	-0.5	-0.4	.	.	.	.
Mar.	18.0	9.8	-0.1	0.8	7.9	-0.4	0.6	0.5	-0.7	1.5
Apr.	0.7	-4.5	0.0	5.4	-0.4	0.1	.	.	.	.
May	15.6	12.6	-0.7	3.8	0.5	-0.6	.	.	.	.
June	-4.1	-3.2	0.6	0.1	-1.7	0.0	6.5	3.4	-0.2	2.7
July	3.3	4.5	0.4	1.2	-3.5	0.7	.	.	.	.
Aug.	2.4	-1.4	-0.3	2.1	2.6	-0.6	.	.	.	.
Sep.	-5.3	-8.0	-0.3	1.7	0.7	0.4	-1.3	-5.4	0.4	4.0
Oct.	7.9	3.8	0.4	5.2	-1.5	-0.1	.	.	.	.
Nov.	-6.3	-5.7	0.1	0.7	-1.8	0.3	.	.	.	.
Dec.	-35.1	-11.1	-0.1	-1.0	-22.8	0.0	16.2	7.8	4.2	4.1
					Euro area enlargement					
2001 Jan.	32.6	13.1	0.6	3.4	15.1	0.5	.	.	.	.
Feb.	10.2	3.6	-0.2	3.6	3.8	-0.6	.	.	.	.

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 Feb.	51.4	18.7	3.4	1.5	27.0	0.8	.	.	.	.
Mar.	34.3	19.0	1.6	3.3	9.5	0.9	44.3	17.8	7.3	14.3
Apr.	36.7	21.7	2.7	6.8	4.6	0.9	.	.	.	.
May	36.4	23.0	4.6	0.4	7.2	1.3	.	.	.	.
June	34.9	4.9	7.2	6.7	16.5	-0.3	22.9	10.4	3.8	8.3
July	33.9	19.0	10.4	5.8	-2.4	1.2	.	.	.	.
Aug.	30.6	12.6	4.9	3.5	8.1	1.4	.	.	.	.
Sep.	24.6	11.4	2.9	0.4	9.7	0.3	29.9	4.8	8.8	14.6
Oct.	25.9	9.5	5.8	4.4	4.2	2.0	.	.	.	.
Nov.	27.2	2.8	4.6	4.6	13.6	1.6	.	.	.	.
Dec.	3.3	-2.4	15.6	2.9	-13.8	1.0	40.9	20.9	5.8	7.7
					Euro area enlargement					
2001 Jan.	4.0	22.2	-1.0	-3.2	-14.8	0.7	.	.	.	.
Feb.	44.4	28.3	5.3	2.3	6.9	1.7	.	.	.	.

3. Total

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
2000 Feb.	61.3	29.5	3.8	1.1	26.6	0.4	.	.	.	.
Mar.	52.4	28.8	1.5	4.1	17.4	0.5	44.9	18.2	6.6	15.8
Apr.	37.3	17.2	2.7	12.2	4.2	1.0	.	.	.	.
May	52.0	35.6	3.9	4.2	7.6	0.7	.	.	.	.
June	30.8	1.7	7.8	6.7	14.8	-0.3	29.4	13.9	3.6	11.0
July	37.3	23.5	10.8	7.0	-5.9	1.9	.	.	.	.
Aug.	33.0	11.2	4.7	5.6	10.8	0.7	.	.	.	.
Sep.	19.3	3.4	2.6	2.1	10.5	0.7	28.5	-0.6	9.2	18.6
Oct.	33.7	13.3	6.1	9.6	2.7	2.0	.	.	.	.
Nov.	20.9	-2.9	4.7	5.3	11.9	1.9	.	.	.	.
Dec.	-31.8	-13.5	15.4	1.9	-36.6	1.0	57.1	28.7	10.0	11.8
					Euro area enlargement					
2001 Jan.	36.5	35.3	-0.4	0.2	0.3	1.2	.	.	.	.
Feb.	54.7	32.0	5.1	5.9	10.7	1.0	.	.	.	.

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	
.	.	.	.	.	.	.	.	.	.	2000 Feb.
-0.1	-0.3	-0.2	11.6	2.8	-0.2	1.3	9.3	-1.4	-0.2	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
0.0	0.0	0.5	18.6	8.4	-0.3	12.1	-1.7	-0.4	0.5	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
0.0	0.1	-0.5	-0.9	-10.2	0.3	9.0	-0.1	0.6	-0.5	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
0.0	0.0	0.0	-17.4	-5.2	4.6	9.0	-26.0	0.2	0.0	Dec.
Euro area enlargement										
.	.	.	.	.	.	.	.	.	.	2001 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	2000 Feb.
7.0	0.9	-2.9	144.5	63.5	11.4	14.0	55.7	2.7	-2.9	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
3.1	-0.1	-2.6	130.9	60.0	18.3	22.1	31.4	1.7	-2.6	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
0.6	3.4	-2.3	118.9	47.7	27.0	24.2	16.1	6.3	-2.3	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
0.8	5.4	0.3	97.4	30.8	31.7	19.6	4.9	10.1	0.3	Dec.
Euro area enlargement										
.	.	.	.	.	.	.	.	.	.	2001 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

of the euro area			Total							
Central government	Other general government	International organisations	Total	Banks (including central banks)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	2000 Feb.
6.9	0.6	-3.1	156.2	66.3	11.2	15.3	65.0	1.3	-3.1	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
3.1	-0.1	-2.1	149.5	68.4	18.0	34.2	29.7	1.3	-2.1	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
0.7	3.5	-2.9	118.0	37.5	27.2	33.2	16.0	6.9	-2.9	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
0.8	5.4	0.3	80.0	25.6	36.3	28.7	-21.1	10.2	0.3	Dec.
Euro area enlargement										
.	.	.	.	.	.	.	.	.	.	2001 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

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	62.0	62.0	38.0	38.0	100.0	100.0	62.0	38.0
	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 Q1	105.2	2.0	104.2	2.3	106.9	1.6	105.2	0.6	104.2	107.0
Q2	105.9	2.1	105.1	2.3	107.4	1.7	105.7	0.6	104.9	107.5
Q3	106.6	2.5	105.7	2.9	108.5	1.8	106.6	0.8	105.9	108.0
Q4	107.2	2.7	106.7	3.2	108.2	1.8	107.3	0.7	106.8	108.5
2000 Mar.	105.6	2.1	104.7	2.5	107.1	1.6	105.4	0.3	104.6	107.1
Apr.	105.7	1.9	104.8	1.9	107.4	1.8	105.5	0.1	104.5	107.6
May	105.8	1.9	105.1	2.2	107.3	1.5	105.6	0.1	104.8	107.4
June	106.3	2.4	105.5	2.8	107.7	1.7	106.1	0.4	105.3	107.6
July	106.4	2.3	105.2	2.7	108.5	1.7	106.2	0.1	105.4	107.9
Aug.	106.5	2.3	105.4	2.7	108.6	1.8	106.4	0.2	105.7	108.0
Sep.	107.0	2.8	106.4	3.4	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	106.9	3.4	108.2	1.8	107.4	0.3	106.9	108.5
Dec.	107.4	2.6	106.8	3.0	108.4	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	107.8	0.5	107.1	109.3
2001 Jan.	107.3	2.4	106.5	2.6	109.0	2.2	107.5	0.1	106.7	109.2
Feb.	107.9	2.6	107.1	2.8	109.5	2.2	107.8	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

2. Breakdown of goods and services

	Goods						Services				
	Food [3)]			Industrial goods			Housing	Transport	Communi-cation	Recreation and personal	Miscellan-eous
		Processed food [3)]	Unprocessed food		Non-energy industrial goods	Energy					
Weight in the total (%) [2)]	20.4	12.4	8.0	41.6	32.1	9.5	9.9	6.2	2.3	14.0	5.6
	11	12	13	14	15	16	17	18	19	20	21
1998	1.6	1.4	1.9	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 Q1	0.4	1.0	-0.4	3.2	0.5	13.7	1.4	2.5	-3.2	2.0	2.5
Q2	0.9	1.0	0.7	3.1	0.6	12.3	1.5	2.5	-4.9	2.5	2.5
Q3	1.9	1.1	3.1	3.4	0.6	13.6	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 Mar.	0.4	1.0	-0.5	3.6	0.6	15.3	1.5	2.5	-4.3	2.0	2.5
Apr.	0.6	0.9	0.1	2.6	0.6	10.2	1.4	2.6	-5.0	2.8	2.5
May	0.8	1.0	0.5	3.0	0.6	12.0	1.4	2.4	-5.0	2.1	2.5
June	1.2	1.0	1.5	3.6	0.7	14.5	1.5	2.4	-4.6	2.5	2.6
July	1.6	1.0	2.6	3.2	0.5	13.4	1.5	2.5	-4.3	2.5	2.6
Aug.	2.0	1.1	3.3	3.0	0.6	11.9	1.6	2.5	-4.0	2.6	2.6
Sep.	2.1	1.3	3.3	4.0	0.8	15.5	1.6	2.7	-4.3	2.4	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	2.8	-4.6	2.2	2.1
					Euro area enlargement						
2001 Q1	3.3	1.9	5.3	2.5	1.2	7.2	1.9	3.2	-4.3	3.1	2.3
2001 Jan.	2.7	1.6	4.5	2.6	1.1	7.9	1.9	3.3	-4.6	3.0	2.3
Feb.	3.1	2.0	4.7	2.7	1.1	8.2	1.9	3.2	-4.2	3.1	2.3
Mar.	3.9	2.2	6.7	2.3	1.3	5.6	1.8	3.1	-4.0	3.1	2.4

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

(annual percentage changes, unless otherwise indicated)

1. Industry and commodity prices

	Industrial producer prices									World market prices of raw materials [2]		Oil prices [3] (EUR per barrel)
	Total excluding construction		Manufacturing						Construction [1]	Total	Total excluding energy	
	Index, 1995 = 100			Intermediate goods	Capital goods	Consumer goods						
							Durable consumer goods	Non-durable consumer goods				
	1	2	3	4	5	6	7	8	9	10	11	12
1996	100.3	0.3	0.9	-0.5	1.3	2.2	2.1	2.2	1.2	6.5	-6.9	16.0
1997	101.4	1.1	0.8	1.4	0.3	1.1	0.4	1.4	1.0	10.0	12.9	17.0
1998	100.6	-0.7	-0.6	-2.6	0.6	0.6	0.3	0.7	0.2	-21.2	-12.5	12.0
1999	100.2	-0.4	0.2	-0.4	0.2	0.1	0.3	0.1	0.6	17.8	-3.1	17.1
2000	105.6	5.4	5.1	11.6	0.7	1.5	1.2	1.6	.	51.7	18.1	31.0
2000 Q1	103.3	4.3	4.6	10.5	0.5	0.9	1.0	0.9	1.7	78.3	19.9	26.9
Q2	104.8	5.2	5.2	11.6	0.6	1.4	1.1	1.5	1.9	53.7	18.3	28.8
Q3	106.4	5.8	5.4	12.3	0.7	1.7	1.3	1.8	.	46.7	18.0	33.7
Q4	107.9	6.1	5.3	12.1	0.8	2.2	1.5	2.4	.	37.7	16.4	34.5
2000 Apr.	104.1	4.6	4.7	10.4	0.6	1.2	1.0	1.3	-	43.9	19.4	24.6
May	104.9	5.3	5.3	11.8	0.6	1.5	1.0	1.7	-	61.9	22.8	30.3
June	105.3	5.6	5.6	12.5	0.7	1.4	1.2	1.5	-	55.2	12.9	31.3
July	105.8	5.6	5.3	11.9	0.8	1.6	1.3	1.7	-	42.0	14.3	30.5
Aug.	106.2	5.6	5.1	11.6	0.7	1.7	1.3	1.8	-	47.5	18.3	33.3
Sep.	107.3	6.2	5.8	13.3	0.7	1.8	1.4	1.9	-	50.3	21.4	37.2
Oct.	108.0	6.6	6.0	13.9	0.8	2.0	1.5	2.1	-	56.6	23.1	36.8
Nov.	108.2	6.3	5.6	12.8	0.8	2.2	1.5	2.4	-	45.6	18.2	37.7
Dec.	107.7	5.4	4.5	9.7	0.9	2.4	1.6	2.7	-	13.7	8.6	28.8
					Euro area enlargement							
2001 Q1	108.1	4.5	3.1	6.7	0.9	3.0	1.9	3.3	.	4.8	1.4	28.4
2001 Jan.	107.9	4.8	3.6	7.8	0.9	2.7	1.8	3.0	-	8.4	3.3	27.5
Feb.	108.2	4.5	3.2	6.8	0.9	2.9	1.9	3.3	-	6.5	1.7	29.9
Mar.	108.3	4.1	2.7	5.5	0.9	3.3	2.1	3.7	-	-0.2	-0.8	28.1
Apr.	.	.	.	.	.	.	.	.	-	11.1	-1.1	29.8

2. Deflators of gross domestic product

	Deflators of GDP [4] (s.a.)							
	GDP		Domestic demand	Private consumption	Government consumption	Gross fixed capital formation	Exports [5]	Imports [5]
	Index, 1995 = 100							
	13	14	15	16	17	18	19	20
1996	102.0	2.0	2.1	2.4	2.2	0.9	0.9	0.8
1997	103.6	1.5	1.8	2.0	1.7	1.0	1.7	2.5
1998	105.4	1.7	1.3	1.4	1.6	0.9	-0.1	-1.4
1999	106.6	1.2	1.3	1.1	2.2	1.0	-0.5	-0.3
2000	108.1	1.3	2.5	2.2	1.8	2.4	4.5	8.1
1998 Q4	105.9	1.5	0.8	0.9	1.4	0.5	-1.8	-4.0
1999 Q1	106.3	1.5	0.9	0.8	1.9	0.5	-2.1	-4.2
Q2	106.6	1.2	1.1	1.0	2.2	0.7	-1.4	-1.9
Q3	106.8	1.1	1.5	1.1	2.4	1.1	-0.2	0.8
Q4	107.0	1.0	1.8	1.5	2.4	1.5	1.8	4.1
2000 Q1	107.5	1.2	2.4	2.1	1.9	2.1	3.6	7.7
Q2	107.9	1.2	2.4	2.0	1.6	2.3	4.4	8.1
Q3	108.3	1.4	2.5	2.4	1.8	2.5	4.9	8.3
Q4	108.6	1.5	2.7	2.4	1.8	2.8	5.1	8.4

Sources: Eurostat, except columns 10 and 11 (HWWA, Institut für Wirtschaftsforschung, Hamburg), column 12 (Thomson Financial Datastream) and columns 13 to 20 (ECB calculations based on Eurostat data).

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

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

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

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

5) 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	Domestic demand					External balance [3]		
			Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories [2]		Exports [3]	Imports [3]
	1	2	3	4	5	6	7	8	9
1996	5,534.0	5,408.4	3,142.9	1,142.4	1,121.7	1.4	125.7	1,658.0	1,532.3
1997	5,650.1	5,501.1	3,199.6	1,150.8	1,138.0	12.7	149.0	1,828.5	1,679.6
1998	5,884.1	5,742.6	3,331.3	1,176.8	1,201.4	33.1	141.5	1,946.0	1,804.6
1999	6,142.3	6,034.9	3,488.5	1,228.5	1,282.4	35.5	107.3	2,042.2	1,934.8
2000	6,432.8	6,359.1	3,657.9	1,274.7	1,372.3	54.2	73.7	2,387.9	2,314.2
1999 Q3	1,543.2	1,516.6	876.4	308.7	324.6	6.9	26.6	519.1	492.5
Q4	1,562.0	1,537.3	887.0	311.4	328.1	10.8	24.6	540.5	515.9
2000 Q1	1,583.8	1,562.2	899.9	314.8	336.2	11.3	21.6	562.5	540.9
Q2	1,600.7	1,582.6	911.6	317.3	340.5	13.2	18.1	582.8	564.7
Q3	1,616.5	1,598.8	919.3	319.7	345.7	14.0	17.7	608.3	590.5
Q4	1,631.9	1,615.6	927.2	322.8	349.8	15.8	16.4	634.3	618.0

2. Constant prices

(ECU billions at 1995 prices, seasonally adjusted)

	GDP	Domestic demand					External balance [3]		
			Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories [2]		Exports [3]	Imports [3]
	10	11	12	13	14	15	16	17	18
1996	5,383.3	5,262.9	3,045.0	1,112.0	1,106.0	-0.1	120.5	1,637.7	1,517.2
1997	5,506.9	5,352.7	3,092.7	1,121.4	1,131.4	7.3	154.2	1,807.2	1,653.0
1998	5,664.6	5,540.0	3,189.3	1,132.3	1,188.8	29.5	124.6	1,935.6	1,811.0
1999	5,806.9	5,713.9	3,284.3	1,149.5	1,249.6	30.5	93.0	2,028.5	1,935.5
2000	6,002.6	5,874.0	3,369.0	1,171.9	1,305.5	27.6	128.6	2,269.5	2,140.9
1999 Q3	1,457.3	1,431.9	823.8	287.9	315.7	4.4	25.4	514.4	489.0
Q4	1,471.7	1,445.1	829.7	289.3	317.8	8.3	26.6	530.4	503.7
2000 Q1	1,485.4	1,455.6	835.4	291.6	322.9	5.7	29.7	544.7	514.9
Q2	1,496.8	1,467.0	842.7	292.6	324.9	6.8	29.8	557.9	528.1
Q3	1,505.2	1,472.0	844.1	292.9	328.1	6.8	33.2	574.7	541.4
Q4	1,515.2	1,479.4	846.7	294.7	329.7	8.3	35.8	592.3	556.4
(annual percentage changes)									
1996	1.4	1.0	1.6	1.7	1.2	-	-	4.3	3.1
1997	2.3	1.7	1.6	0.8	2.3	-	-	10.4	9.0
1998	2.9	3.5	3.1	1.0	5.1	-	-	7.1	9.6
1999	2.5	3.1	3.0	1.5	5.1	-	-	4.8	6.9
2000	3.4	2.8	2.6	1.9	4.5	-	-	11.9	10.6
1999 Q3	2.6	3.0	2.9	1.7	5.4	-	-	5.8	7.4
Q4	3.4	3.2	2.9	1.7	5.4	-	-	10.1	9.8
2000 Q1	3.5	2.7	2.6	2.0	5.5	-	-	12.4	10.4
Q2	3.7	3.3	3.2	2.2	4.8	-	-	11.8	10.8
Q3	3.3	2.8	2.5	1.7	3.9	-	-	11.7	10.7
Q4	3.0	2.4	2.1	1.9	3.7	-	-	11.7	10.5

Source: Eurostat.

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

2) Including acquisitions less disposals of valuables.

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

Value added by activity

3. Current prices

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

	Gross value added							Intermediate consumption of FISIM [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	562.2
1997	5,266.5	138.1	1,227.7	292.1	1,086.6	1,377.7	1,144.3	199.6	583.1
1998	5,466.1	137.5	1,273.8	295.0	1,137.0	1,443.5	1,179.3	200.3	615.5
1999	5,678.9	135.0	1,296.7	308.5	1,175.4	1,539.3	1,223.9	203.6	663.2
2000	5,943.5	136.0	1,367.3	319.9	1,223.5	1,631.9	1,264.9	211.6	690.7
1999 Q3	1,425.7	33.4	325.6	77.5	294.9	387.3	307.0	51.0	167.1
Q4	1,442.5	33.7	329.0	78.5	298.0	393.8	309.5	52.0	169.9
2000 Q1	1,464.3	33.6	336.5	80.0	301.2	400.0	313.0	52.5	171.0
Q2	1,478.7	33.6	341.1	79.6	304.7	404.7	315.0	53.1	173.1
Q3	1,494.5	34.4	344.6	79.6	306.9	411.4	317.6	52.9	172.2
Q4	1,505.9	34.4	345.1	80.6	310.8	415.8	319.3	53.0	174.5

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	5,040.2	139.5	1,178.0	295.5	1,039.5	1,288.2	1,099.4	200.1	543.2
1997	5,158.4	140.2	1,216.1	290.4	1,071.7	1,330.1	1,109.8	207.5	556.0
1998	5,308.3	142.3	1,252.3	291.8	1,111.8	1,384.7	1,125.4	214.1	570.3
1999	5,437.4	145.8	1,268.7	296.9	1,146.7	1,442.5	1,136.9	221.8	591.3
2000	5,629.2	146.1	1,323.0	300.0	1,192.2	1,513.0	1,154.8	231.6	605.0
1999 Q3	1,364.7	36.6	318.5	74.4	287.8	362.7	284.7	56.0	148.6
Q4	1,376.7	36.8	321.3	74.9	290.7	367.1	285.9	56.6	151.5
2000 Q1	1,392.6	36.4	326.9	75.7	294.2	372.2	287.2	56.9	149.6
Q2	1,402.1	36.2	329.9	74.9	297.1	375.7	288.3	57.6	152.3
Q3	1,412.1	36.8	332.2	74.7	298.5	380.7	289.1	58.2	151.3
Q4	1,422.4	36.7	334.0	74.8	302.3	384.4	290.1	58.9	151.7
(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	3.2	-1.7	3.1	3.3	0.9	3.7	2.3
1998	2.9	1.5	3.0	0.5	3.7	4.1	1.4	3.2	2.6
1999	2.4	2.4	1.3	1.7	3.1	4.2	1.0	3.6	3.7
2000	3.5	0.2	4.3	1.1	4.0	4.9	1.6	4.4	2.3
1999 Q3	2.5	3.6	1.2	2.0	3.1	4.4	0.9	4.1	4.0
Q4	3.1	2.9	3.0	2.5	3.8	4.6	1.0	3.4	5.5
2000 Q1	3.6	0.7	4.3	2.9	3.8	5.1	1.5	4.7	2.7
Q2	3.7	-0.2	4.6	1.3	4.4	4.8	1.8	4.8	4.6
Q3	3.5	0.7	4.3	0.3	3.7	5.0	1.6	4.0	1.9
Q4	3.3	-0.3	4.0	-0.1	4.0	4.7	1.5	4.2	0.1

Source: Eurostat.

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

Table 5.2

Selected other real economy indicators [1)]

1. Industrial production

(annual percentage changes, unless otherwise indicated)

	Total including construction		Total excluding construction		Manufacturing						Construction
						Intermediate goods	Capital goods	Consumer goods			
	Index (s.a.) 1995 = 100		Index (s.a.) 1995 = 100						Durable consumer goods	Non-durable consumer goods	
	1	2	3	4	5	6	7	8	9	10	11
1997	103.8	3.7	104.7	4.2	4.8	5.3	4.9	2.6	3.3	2.5	0.0
1998	107.8	3.8	109.2	4.3	4.8	4.1	6.6	2.6	6.2	1.8	0.3
1999	110.1	2.1	111.4	2.0	2.0	2.5	1.5	1.7	3.1	1.4	2.7
2000	115.9	5.3	117.6	5.6	6.0	5.6	9.0	2.6	7.4	1.5	2.3
2000 Q1	113.7	5.0	115.0	4.9	5.1	5.7	7.0	1.3	7.7	-0.1	4.9
Q2	115.0	5.7	117.1	6.1	6.5	6.4	8.6	3.7	8.5	2.6	1.9
Q3	116.6	5.2	118.2	5.8	6.2	5.4	9.7	2.8	7.5	1.9	0.6
Q4	118.3	5.2	120.1	5.5	6.2	4.9	10.5	2.4	6.0	1.6	2.2
2000 Mar.	114.5	5.6	115.8	5.8	5.9	6.2	8.2	1.9	8.2	0.5	2.7
Apr.	114.3	5.6	116.6	6.0	6.5	6.3	8.1	4.6	9.9	3.5	1.1
May	116.5	7.6	117.9	7.8	8.1	8.7	11.6	4.7	11.1	3.3	4.9
June	114.4	4.1	116.8	4.6	4.9	4.1	6.4	1.9	4.9	1.2	-0.4
July	115.7	5.1	117.6	5.6	5.9	5.0	8.5	2.6	7.1	1.6	0.3
Aug.	117.9	6.2	118.2	6.9	7.5	6.9	11.4	2.8	10.5	1.6	1.9
Sep.	116.4	4.6	118.7	5.2	5.6	4.6	9.7	3.1	6.2	2.3	-0.4
Oct.	116.1	3.5	118.6	4.0	4.2	3.9	7.6	0.4	2.3	0.0	-0.7
Nov.	117.6	4.2	119.8	4.5	5.1	4.4	8.9	1.6	4.8	0.9	0.5
Dec.	121.1	8.3	121.9	8.2	9.6	6.5	15.0	5.7	11.9	4.4	7.6
Euro area enlargement											
2001 Q1	.	.	.	.	.	.	.	.	.	.	.
2001 Jan.	118.6	5.7	119.8	5.5	6.6	4.4	11.5	3.5	6.6	2.8	5.1
Feb.	119.7	4.5	120.5	4.2	4.8	3.9	8.3	2.9	2.7	2.9	2.4
Mar.	.	.	.	.	.	.	.	.	.	.	.

2. Retail sales and car registrations

(annual percentage changes, unless otherwise indicated)

	Retail sales (s.a.)								New passenger car registrations	
	Current prices		Constant prices							
	Total		Total		Food, beverages, tobacco	Non-food			Thousands [2)] (s.a.)	
	Index 1995 = 100		Index 1995 = 100				Textiles, clothing, footwear	Household equipment		
	12	13	14	15	16	17	18	19	20	21
1997	104.2	2.2	101.6	1.2	1.1	1.4	0.6	1.5	861	4.2
1998	108.0	3.7	104.6	2.9	2.1	3.6	2.1	4.5	923	7.2
1999	111.7	3.4	107.3	2.6	3.1	2.5	1.5	3.0	973	5.4
2000	116.2	4.1	109.8	2.3	2.0	2.3	1.5	4.4	951	-2.2
2000 Q1	114.3	3.8	108.8	2.3	2.4	2.1	1.4	5.4	981	1.3
Q2	115.9	4.8	109.9	3.2	2.9	3.3	1.5	4.9	977	0.2
Q3	116.8	4.3	110.1	2.3	1.4	2.4	3.1	4.0	922	-7.9
Q4	117.8	3.3	110.6	1.6	1.2	1.6	0.1	3.3	925	-3.2
2000 Mar.	113.8	1.8	108.2	0.7	1.5	0.0	-2.8	4.6	973	-1.0
Apr.	115.1	4.8	109.9	3.7	3.7	3.9	1.8	5.8	970	-1.8
May	116.9	6.2	110.5	4.5	4.9	4.6	3.4	5.6	976	1.4
June	115.8	3.5	109.1	1.4	0.1	1.4	-0.6	3.2	985	1.1
July	116.2	3.4	109.7	1.8	1.0	1.6	0.7	5.0	884	-14.5
Aug.	116.9	4.1	109.9	1.8	1.4	2.2	1.3	2.4	937	-4.3
Sep.	117.4	5.6	110.5	3.1	2.0	3.5	7.5	4.7	946	-1.6
Oct.	117.1	2.7	110.5	1.6	1.4	1.3	-0.2	2.4	912	-7.0
Nov.	118.4	3.5	110.5	1.4	0.9	1.6	-0.1	3.7	928	-3.3
Dec.	117.8	3.6	110.7	1.9	1.4	1.7	0.6	3.6	934	2.0
Euro area enlargement										
2001 Q1	.	.	.	.	.	.	.	.	946	-5.2
2001 Jan.	119.2	4.6	111.1	2.7	2.0	3.0	2.2	2.5	941	-5.6
Feb.	119.4	3.0	111.2	1.2	1.0	1.2	-0.5	0.2	950	-6.0
Mar.	.	.	.	.	.	.	.	.	946	-4.2

Sources: Eurostat, except columns 20 and 21 (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) Monthly averages.

Table 5.3

Business and consumer surveys

(percentage balances, seasonally adjusted, unless otherwise indicated)

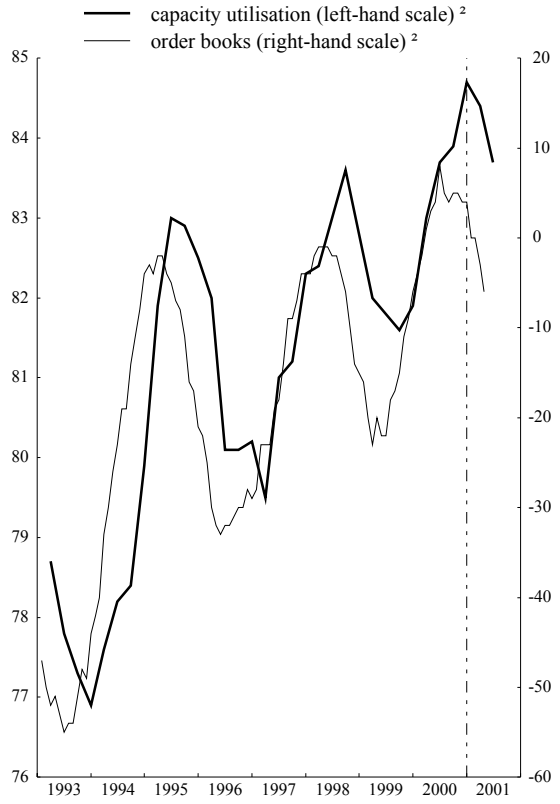
	Manufacturing industry				Construction confidence indicator	Retail trade confidence indicator	Consumer confidence indicator
	Confidence indicator	Production expectations	Assessment of order books	Capacity utilisation [1] (percentages)			
	1	2	3	4	5	6	7
1997	-4	11	-15	81.0	-33	-9	-15
1998	-1	11	-5	83.0	-19	-3	-5
1999	-7	7	-17	81.8	-7	-5	-3
2000	5	17	3	83.8	1	-1	-1
2000 Q2	6	17	5	83.7	2	3	0
Q3	6	18	5	83.9	2	-2	-1
Q4	5	18	4	84.7	0	-3	-2
2000 Apr.	5	15	3	-	3	-3	0
May	5	16	4	-	1	4	1
June	8	19	8	-	3	7	-1
July	7	19	5	-	2	-3	0
Aug.	6	18	4	-	5	-3	1
Sep.	6	18	5	-	-1	-1	-3
Oct.	6	19	5	-	2	-1	-3
Nov.	5	17	4	-	-1	-3	-3
Dec.	5	18	4	-	-2	-4	-1
			Euro area enlargement				
2001 Q1	1	12	-1	84.4	-1	-2	-2
Q2	.	.	.	83.7	.	.	.
2001 Jan.	3	14	0	-	1	0	-1
Feb.	1	12	0	-	-2	0	-2
Mar.	-1	9	-3	-	-2	-6	-2
Apr.	-4	6	-6	-	-2	-2	-2

Consumer and industrial confidence indicators

(percentage balances; monthly, seasonally adjusted)

Capacity utilisation and order books

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



Source: European Commission Business and Consumer Surveys.

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

2) Manufacturing.

Table 5.4
Labour market indicators

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

	Employment						Unemployment (s.a.)			
	Whole economy				Industry (excluding construction)	Services	Total		Adult [2]	Youth [2]
	Index, 1995 = 100		Employees	Self-employed			Millions	% of labour force	% of labour force	% of labour force
	1	2	3	4	5	6	7	8	9	10
1996	100.5	0.5	0.5	0.5	-1.0	1.6	14.741	11.6	9.8	23.9
1997	101.4	0.8	0.9	0.1	-0.3	1.4	14.828	11.5	9.9	23.2
1998	103.0	1.6	1.8	0.6	1.2	2.1	14.072	10.9	9.4	21.3
1999	104.7	1.6	2.1	-0.4	0.3	2.5	12.958	9.9	8.6	19.1
2000	106.8	2.0	2.3	0.4	0.7	2.7	11.660	8.8	7.7	17.1
2000 Q1	105.9	1.8	2.2	-0.3	0.1	2.5	12.184	9.3	8.1	17.8
Q2	106.5	2.0	2.4	0.0	0.7	2.8	11.743	8.9	7.8	17.2
Q3	107.0	2.0	2.3	0.5	0.9	2.7	11.501	8.7	7.6	16.9
Q4	107.7	2.1	2.3	1.4	1.0	2.8	11.210	8.5	7.4	16.3
2000 Mar.	-	-	-	-	-	-	12.037	9.2	8.0	17.7
Apr.	-	-	-	-	-	-	11.888	9.0	7.9	17.4
May	-	-	-	-	-	-	11.739	8.9	7.8	17.2
June	-	-	-	-	-	-	11.603	8.8	7.7	17.0
July	-	-	-	-	-	-	11.539	8.8	7.6	17.0
Aug.	-	-	-	-	-	-	11.549	8.8	7.6	17.0
Sep.	-	-	-	-	-	-	11.415	8.7	7.5	16.8
Oct.	-	-	-	-	-	-	11.264	8.5	7.4	16.5
Nov.	-	-	-	-	-	-	11.198	8.5	7.4	16.3
Dec.	-	-	-	-	-	-	11.168	8.5	7.4	16.2
				Euro area enlargement						
2001 Q1	.	.	.	.	.	.	11.574	8.5	7.4	16.7
2001 Jan.	-	-	-	-	-	-	11.641	8.5	7.4	16.7
Feb.	-	-	-	-	-	-	11.582	8.5	7.4	16.8
Mar.	-	-	-	-	-	-	11.499	8.4	7.3	16.7

2. Labour costs and productivity
(annual percentage changes)

	Unit labour cost in the whole economy, and components (s.a.)			Labour cost indices [3] and components					Earnings per employee in manufacturing
	Unit labour cost	Compensation per employee	Labour productivity	Total	Wages and salaries	Other	Industry excluding construction	Services	
							Total	Total	
	11	12	13	14	15	16	17	18	19
1996	1.9	3.0	1.1	3.4	3.0	4.4	3.5	4.0	3.7
1997	0.7	2.2	1.6	2.6	2.6	2.7	2.3	2.7	2.4
1998	0.1	1.4	1.3	1.8	2.2	1.1	1.8	1.4	2.1
1999	1.3	2.2	0.9	2.2	2.5	1.7	2.3	1.9	2.7
2000	1.0	2.3	1.2	3.7	4.1	2.9	3.6	3.0	2.5
1998 Q4	0.9	1.3	0.4	1.7	2.1	1.2	1.9	1.4	2.6
1999 Q1	1.7	1.7	0.1	1.9	2.3	1.3	2.2	1.5	2.7
Q2	1.6	2.3	0.7	2.1	2.4	1.5	2.1	2.0	2.9
Q3	1.2	2.1	0.9	2.3	2.6	1.9	2.4	2.2	2.9
Q4	0.3	2.0	1.7	2.6	2.8	2.1	2.6	2.0	2.5
2000 Q1	0.6	2.5	2.0	4.0	4.3	2.9	3.8	3.0	2.9
Q2	0.6	2.1	1.5	3.8	4.1	3.1	3.7	2.9	2.7
Q3	1.3	2.4	1.0	3.6	4.1	3.0	3.6	3.0	2.3
Q4	1.6	2.1	0.5	3.5	3.9	2.7	3.4	3.2	2.2

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)

Levels outstanding at the end of the period

1. Main financial assets [2]

	Currency and deposits									Memo: deposits of euro area 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	4,696.2	320.5	4,083.2	1,159.0	1,469.5	1,329.1	125.5	153.9	138.7	208.8
1998 Q1	4,651.8	311.7	4,060.4	1,134.2	1,459.9	1,348.2	118.2	139.4	140.2	239.0
Q2	4,707.0	315.4	4,108.1	1,205.3	1,455.0	1,346.7	101.1	147.4	136.1	231.2
Q3	4,683.9	311.7	4,080.0	1,184.3	1,452.5	1,345.6	97.7	156.4	135.7	227.3
Q4	4,829.6	323.3	4,214.2	1,281.1	1,465.1	1,389.1	78.8	149.8	142.3	207.2
1999 Q1	4,678.6	317.7	4,077.8	1,239.1	1,466.0	1,306.8	66.0	133.4	149.7	233.6
Q2	4,704.9	323.9	4,116.3	1,321.8	1,419.9	1,316.2	58.4	125.0	139.7	259.3
Q3	4,716.2	327.3	4,115.1	1,324.5	1,418.4	1,313.5	58.7	133.3	140.4	250.3
Q4	4,863.0	349.9	4,217.6	1,370.5	1,460.1	1,324.0	63.0	142.0	153.5	246.2
2000 Q1	4,841.6	334.6	4,225.0	1,379.6	1,465.0	1,303.7	76.8	130.2	151.7	271.5
Q2	4,896.9	341.2	4,259.4	1,409.6	1,488.0	1,283.0	78.9	146.0	150.3	257.5
Q3	.	338.9	4,268.6	1,396.8	1,525.9	1,263.9	81.9	159.3	.	264.2
Q4	.	347.5	4,362.1	1,461.3	1,545.9	1,269.2	85.7	164.6	.	.

	Securities other than shares			Shares [5]				Insurance technical reserves		
	Total	Short-term	Long-term	Total	Quoted shares	Mutual fund shares	Of which 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	1,577.7	205.4	1,372.3	2,733.7	1,577.2	1,156.6	179.7	2,373.9	2,112.6	261.3
1998 Q1	1,593.5	196.5	1,397.0	3,251.7	1,934.6	1,317.0	181.3	2,451.3	2,180.6	270.7
Q2	1,540.4	173.1	1,367.4	3,449.0	2,026.7	1,422.4	181.8	2,510.7	2,238.0	272.7
Q3	1,535.5	160.6	1,374.9	3,161.1	1,726.3	1,434.9	183.5	2,557.1	2,281.9	275.2
Q4	1,522.4	157.4	1,364.9	3,487.5	1,974.4	1,513.2	172.6	2,622.4	2,347.3	275.1
1999 Q1	1,524.2	148.0	1,376.1	3,770.2	2,147.7	1,622.5	204.9	2,698.3	2,414.0	284.3
Q2	1,477.9	140.2	1,337.7	4,022.5	2,311.5	1,711.1	209.9	2,768.8	2,482.8	286.0
Q3	1,482.0	126.6	1,355.5	4,106.5	2,371.4	1,735.1	221.0	2,835.1	2,546.7	288.4
Q4	1,509.4	154.8	1,354.7	4,756.5	2,899.0	1,857.5	215.3	2,952.4	2,660.2	292.2
2000 Q1	1,552.2	158.7	1,393.5	5,049.9	3,077.5	1,972.4	230.6	3,084.7	2,778.4	306.3
Q2	1,592.1	160.6	1,431.6	4,908.0	2,951.9	1,956.1	220.6	3,138.4	2,828.9	309.5
Q3	.	.	.	.	.	.	.	.	.	.
Q4	.	.	.	.	.	.	.	.	.	.

Source: ECB.

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

Levels outstanding at the end of the period

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 euro area 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	
	21	22	23	24	25	26	27	28	29	30	31	32
1997 Q4	5,837.7	5,320.1	920.3	52.2	868.1	2,406.9	837.9	1,569.0	2,510.5	225.0	2,285.6	134.8
1998 Q1	5,892.3	5,358.7	903.1	33.4	869.7	2,450.6	853.7	1,596.9	2,538.7	223.9	2,314.7	138.0
Q2	6,004.5	5,453.7	902.6	31.7	870.8	2,502.6	877.1	1,625.5	2,599.3	233.3	2,366.0	142.6
Q3	6,078.4	5,524.9	903.9	33.2	870.8	2,525.9	864.1	1,661.8	2,648.5	233.8	2,414.7	139.4
Q4	6,217.6	5,657.9	911.5	36.0	875.5	2,595.7	901.4	1,694.3	2,710.4	240.2	2,470.3	143.1
1999 Q1	6,249.1	5,673.9	903.3	36.1	867.2	2,584.7	917.4	1,667.3	2,761.0	251.2	2,509.8	149.3
Q2	6,417.6	5,814.2	901.2	38.7	862.5	2,683.2	959.2	1,724.0	2,833.2	255.2	2,578.0	173.5
Q3	6,482.8	5,882.6	886.9	37.7	849.2	2,697.6	938.2	1,759.5	2,898.2	255.0	2,643.2	183.4
Q4	6,662.7	6,040.0	901.7	42.0	859.7	2,794.6	979.5	1,815.1	2,966.4	264.2	2,702.2	192.5
2000 Q1	6,804.6	6,155.5	891.8	41.0	850.8	2,893.5	1,037.7	1,855.8	3,019.3	265.5	2,753.8	208.5
Q2	6,951.4	6,261.4	885.4	41.8	843.6	2,993.7	1,088.2	1,905.5	3,072.3	274.0	2,798.3	209.4
Q3	.	6,378.0	.	.	.	.	.	.	.	.	.	240.1
Q4	.	6,497.2	.	.	.	.	.	.	.	.	.	.

	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			
	33	34	35	36	37	38	39	40	41	42
1997 Q4	3,632.8	3,327.7	499.0	2,828.7	305.1	48.0	257.1	1,976.0	135.2	236.2
1998 Q1	3,756.6	3,435.2	492.5	2,942.7	321.4	58.0	263.4	2,434.7	136.3	239.1
Q2	3,821.4	3,497.5	491.7	3,005.8	323.8	56.7	267.1	2,649.2	134.2	242.1
Q3	3,914.5	3,580.4	494.5	3,085.9	334.2	58.3	275.9	2,282.6	133.8	245.1
Q4	3,921.9	3,587.0	466.5	3,120.4	334.9	57.6	277.3	2,606.8	140.3	248.2
1999 Q1	3,967.6	3,622.9	462.3	3,160.6	344.6	68.0	276.6	2,721.8	146.9	251.2
Q2	3,949.5	3,598.0	451.8	3,146.2	351.5	68.9	282.5	2,965.3	136.6	254.3
Q3	3,932.8	3,567.7	444.9	3,122.8	365.0	77.0	288.0	3,037.3	137.6	257.4
Q4	3,895.5	3,519.4	420.0	3,099.5	376.1	80.1	296.0	3,978.9	149.8	260.8
2000 Q1	3,956.8	3,573.7	425.3	3,148.4	383.1	81.4	301.7	4,415.8	147.6	263.9
Q2	4,002.9	3,599.8	425.2	3,174.6	403.1	90.9	312.2	4,157.3	147.6	267.0
Q3	.	.	.	.	.	.	.	.	.	.
Q4	.	.	.	.	.	.	.	.	.	.

Source: ECB.

1) *Non-financial sectors comprise general government (S.13), non-financial corporations (S.11), and households (S.14) including non-profit institutions serving households (S.15).*
2) *Most of the financial asset and liability categories defined in the ESA 95 are covered. These are currency and deposits, securities other than shares, loans (except those granted by general government and non-financial corporations), quoted shares, mutual fund shares and insurance technical reserves. Other financial instruments (financial derivatives, unquoted shares, other (than share) equity and other receivables and payables) are not included.*
3) *BIS international banking statistics. The BIS definition of banks is close to that of MFIs in the euro area.*
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 euro area 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 [4]					Deposits of central government with euro area MFIs	Deposits with non-MFIs [5]	
			Total	Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements			
	1	2	3	4	5	6	7	8	9	10
1997 Q4	147.7	9.3	128.9	76.3	14.9	39.1	-1.4	3.2	6.2	-14.6
1998 Q1	-19.9	-8.8	2.0	-19.1	-3.0	20.1	4.0	-14.5	1.3	28.2
Q2	77.6	3.6	70.0	74.4	-0.4	0.3	-4.3	8.0	-4.0	-5.4
Q3	-6.1	-3.7	-11.0	-19.8	5.0	-0.9	4.7	9.0	-0.4	1.9
Q4	162.5	11.6	151.0	103.9	19.4	44.0	-16.3	-6.6	6.5	-22.2
1999 Q1	7.4	-4.7	9.3	5.6	-10.4	11.3	2.9	-4.2	7.0	18.8
Q2	57.7	6.2	70.1	82.4	-17.0	9.5	-4.8	-8.4	-10.2	8.5
Q3	8.7	3.4	-3.7	-12.0	11.8	-2.0	-1.5	8.3	0.7	-6.8
Q4	144.6	22.3	101.1	56.9	42.3	9.3	-7.4	8.7	12.5	-9.2
2000 Q1	-4.1	-15.3	25.1	25.1	4.8	-19.4	14.6	-11.9	-1.9	20.0
Q2	46.3	6.7	23.9	30.9	18.1	-21.7	-3.4	15.8	-0.1	-13.9
Q3	.	-2.2	-12.1	-21.0	25.5	-18.4	1.8	13.3	.	-2.3
Q4	.	8.6	101.4	64.5	30.5	6.2	0.2	5.3	.	.

	Securities other than shares			Shares [6]				Insurance technical reserves		
	Total	Short-term	Long-term	Total	Quoted shares	Mutual fund shares	Of which 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	-0.3	-8.5	8.3	66.0	49.4	16.6	-11.0	60.5	58.1	2.4
1998 Q1	-25.2	-8.9	-16.3	82.9	-15.5	98.4	5.8	68.8	56.4	12.4
Q2	-71.8	-23.9	-47.8	112.9	20.3	92.6	-1.3	52.7	50.7	2.0
Q3	-3.0	-12.3	9.3	102.7	21.3	81.4	2.6	48.7	46.1	2.6
Q4	-12.2	-2.7	-9.5	81.7	60.2	21.5	-11.1	58.5	56.5	2.0
1999 Q1	26.4	-8.9	35.4	110.6	12.5	98.1	16.9	72.1	60.0	12.1
Q2	-1.0	-9.7	8.7	92.6	31.5	61.2	2.4	56.0	53.7	2.3
Q3	-3.9	-13.4	9.6	87.7	43.2	44.5	9.0	56.6	53.8	2.8
Q4	24.9	17.0	7.9	19.4	23.5	-4.1	-12.2	74.9	72.3	2.6
2000 Q1	33.9	5.7	28.3	29.3	-36.1	65.4	15.2	90.7	77.4	13.4
Q2	40.1	2.9	37.2	55.2	31.2	24.0	-8.2	59.3	56.9	2.4
Q3	.	.	.	.	.	.	.	.	.	.
Q4	.	.	.	.	.	.	.	.	.	.

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 in the euro area.*
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) *Transaction amounts are derived from the corresponding quarterly levels outstanding.*
5) *Covering deposits of non-financial sectors with central government (S.1311) in the euro area, other financial intermediaries (S.123) and insurance corporations and pension funds (S.125).*
6) *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 [3] and other financial corporations by											Memo: loans taken from banks outside the euro area by euro area non-banks [4]
	Total		General government			Non-financial corporations			Households [5]			
		Taken from euro area MFIs	Total	Short-term	Long-term [6]	Total	Short-term	Long-term	Total	Short-term	Long-term	
	21	22	23	24	25	26	27	28	29	30	31	32
1997 Q4	159.9	145.4	21.5	1.0	20.6	65.9	24.5	41.4	72.5	6.8	65.7	-17.6
1998 Q1	80.6	55.8	-16.1	-0.5	-15.6	58.0	31.1	26.8	38.7	3.4	35.3	2.0
Q2	120.9	112.6	-0.7	0.1	-0.8	60.2	24.4	35.9	61.3	5.6	55.7	6.5
Q3	87.6	89.1	2.8	0.0	2.8	37.2	6.4	30.8	47.6	4.0	43.6	-0.5
Q4	158.7	151.7	8.8	0.4	8.4	70.1	21.6	48.5	79.8	6.9	72.9	3.5
1999 Q1	113.6	103.7	-6.9	-0.1	-6.8	60.3	26.8	33.5	60.2	5.5	54.7	1.5
Q2	166.1	140.0	-4.3	-0.1	-4.3	91.3	39.3	51.9	79.1	7.3	71.9	24.1
Q3	56.7	61.3	-14.7	-0.3	-14.4	27.3	2.7	24.5	44.1	3.4	40.7	5.9
Q4	167.8	149.6	14.4	0.8	13.6	82.7	36.2	46.5	70.7	6.9	63.7	-7.3
2000 Q1	153.8	127.2	-9.0	-0.2	-8.8	88.7	37.7	51.0	74.2	6.6	67.6	11.8
Q2	172.7	128.5	-6.8	-0.3	-6.5	105.7	56.2	49.6	73.7	6.7	67.0	1.2
Q3	.	89.1	.	.	.	.	.	.	.	.	.	21.2
Q4	.	144.7	.	.	.	.	.	.	.	.	.	.

	Securities other than shares issued by							Quoted shares issued by non-financial corporations	Deposit liabilities of central government	Pension fund reserves of non-financial corporations
	Total	General government			Non-financial corporations					
		Total	Short-term	Long-term	Total	Short-term	Long-term			
	33	34	35	36	37	38	39	40	41	42
1997 Q4	-8.2	-4.3	-32.4	28.1	-3.8	-7.1	3.3	44.6	6.9	3.4
1998 Q1	68.9	58.2	-6.4	64.6	10.7	9.9	0.8	11.4	1.1	2.9
Q2	53.5	50.7	-0.9	51.6	2.9	-1.9	4.7	36.8	-2.1	2.9
Q3	61.6	54.2	2.5	51.6	7.5	1.6	5.9	10.9	-0.4	3.1
Q4	-8.5	-13.9	-28.8	14.9	5.4	0.8	4.6	41.0	6.4	3.1
1999 Q1	69.8	54.3	-2.0	56.2	15.5	10.0	5.6	10.8	6.6	3.0
Q2	39.5	31.2	-10.0	41.2	8.2	0.5	7.7	22.9	-10.3	3.1
Q3	53.1	36.0	-6.3	42.3	17.2	6.7	10.4	31.3	1.0	3.1
Q4	-5.5	-11.8	-24.3	12.5	6.3	3.3	3.0	16.0	12.1	3.4
2000 Q1	51.6	51.2	2.1	49.1	0.4	1.0	-0.6	23.4	-2.2	3.0
Q2	60.7	38.0	5.4	32.6	22.7	8.8	13.9	31.4	0.0	3.2
Q3	.	.	.	.	.	.	.	.	.	.
Q4	.	.	.	.	.	.	.	.	.	.

Source: ECB.

1) *Non-financial sectors comprise general government (S.13), non-financial corporations (S.11), and households (S.14) including non-profit institutions serving households (S.15).*
2) *Most of the financial asset and liability categories defined in the ESA 95 are covered. These are currency and deposits, securities other than shares, loans (except those granted by general government and non-financial corporations), quoted shares, mutual fund shares and insurance technical reserves. Other financial instruments (financial derivatives, unquoted shares, other (than share) equity and other receivables and payables) are not included.*
3) *Transaction amounts are derived from the corresponding quarterly levels outstanding.*
4) *BIS international banking statistics. The BIS definition of banks is close to that of MFIs in the euro area.*
5) *Including non-profit institutions serving households.*
6) *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)

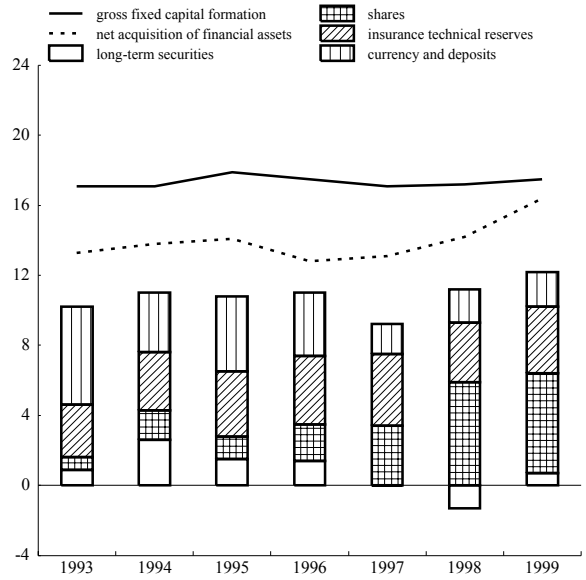
	Euro area saving and investment [1]			Investment of private non-financial sectors [1] [2]								
	Gross saving	Gross fixed capital formation	Net lending to the rest of the world	Gross fixed capital formation	Non-financial corporations	Net acquisition of financial assets	Currency and deposits	Securities other than shares	Long-term securities	Shares	Insurance technical reserves
	1	2	3	4	5	6	7	8	9	10	11
1992	20.9	21.8	-0.9	18.1	11.8	13.5	4.0	1.7	0.4	1.4	2.9
1993	20.5	20.6	0.5	17.1	10.7	13.3	5.6	0.5	0.9	0.7	3.0
1994	20.9	20.4	0.3	17.1	10.5	13.8	3.4	2.5	2.6	1.7	3.3
1995	22.5	21.2	0.5	17.9	11.1	14.1	4.3	1.8	1.5	1.3	3.7
1996	22.0	20.7	1.0	17.5	11.0	12.8	3.6	0.3	1.4	2.1	3.9
1997	22.1	20.1	1.6	17.1	10.7	13.1	1.7	-0.6	0.0	3.4	4.1
1998	22.1	20.1	1.1	17.2	11.0	14.2	1.9	-2.2	-1.3	5.9	3.4
1999	21.6	20.5	0.2	17.5	11.3	16.4	2.0	0.3	0.7	5.7	3.8

	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
1992	20.6	12.6	10.2	0.7	0.6	1.4	6.7	4.7	3.3	42.7	33.1
1993	21.1	12.9	7.9	1.3	1.4	1.5	3.6	4.4	5.4	43.8	27.2
1994	21.0	12.0	9.6	1.0	1.1	1.8	3.9	4.0	4.2	44.7	31.4
1995	22.3	12.4	7.5	-1.8	-1.8	1.3	4.9	3.7	6.6	44.1	25.2
1996	21.7	12.1	8.9	0.2	0.0	1.7	5.8	4.9	3.9	42.2	29.1
1997	20.5	11.3	9.1	0.1	0.1	1.2	5.7	4.6	4.0	43.4	30.7
1998	19.3	10.5	11.6	0.3	0.2	2.3	6.9	5.4	2.6	45.2	37.5
1999	18.1	9.9	14.1	0.7	0.4	2.1	8.7	7.0	2.3	48.4	43.8

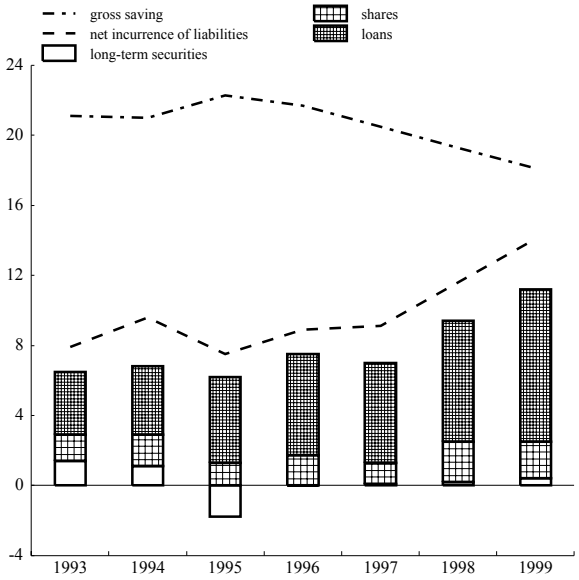
Investment and financing of private non-financial sectors [1] [2]

(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	46.1	11.8	9.5	2.2	13.0	0.9	16.7	8.5	5.1	2.3	0.3	0.2	41.8
1992	47.5	46.8	11.9	9.8	2.0	13.0	0.9	17.1	8.6	5.2	2.5	0.7	0.6	42.6
1993	48.1	47.7	12.1	10.0	2.1	13.3	0.8	17.5	8.6	5.3	2.5	0.5	0.3	43.2
1994	47.7	47.2	11.6	9.6	2.0	13.5	0.8	17.5	8.5	5.4	2.5	0.4	0.2	42.9
1995	47.2	46.6	11.6	9.5	2.0	13.3	0.9	17.3	8.4	5.4	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	5.4	2.5	0.5	0.3	43.3
1997	48.2	47.6	12.2	9.6	2.6	13.6	0.7	17.6	8.7	5.3	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	4.8	2.5	0.5	0.3	43.3
1999	48.3	47.7	12.8	10.1	2.7	14.4	0.6	16.4	8.5	4.8	2.4	0.6	0.3	43.9
2000	48.0	47.4	13.0	10.1	2.7	14.2	0.6	16.3	8.5	4.7	2.4	0.5	0.3	43.7

2. Euro area – expenditure

	Total	Current expenditure								Capital expenditure	Capital			Memo: primary expenditure [4]
		Total	Compensation of employees	Intermediate consumption	Interest	Current transfers	Social payments [3]	Subsidies	Paid by EU institutions		Investment	Capital transfers	Paid by EU institutions	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1991	51.1	46.3	11.2	4.9	5.3	24.9	21.1	2.4	0.6	4.9	3.2	1.6	0.0	45.9
1992	52.3	47.6	11.4	5.0	5.7	25.5	22.0	2.3	0.5	4.7	3.2	1.5	0.0	46.7
1993	53.8	49.2	11.6	5.2	5.9	26.5	22.9	2.4	0.6	4.6	3.1	1.6	0.1	47.9
1994	52.7	48.4	11.3	5.0	5.5	26.5	22.9	2.3	0.6	4.4	2.9	1.5	0.1	47.2
1995	52.2	47.7	11.2	4.8	5.7	26.1	22.8	2.2	0.6	4.5	2.7	1.8	0.1	46.5
1996	52.2	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	4.8	5.1	26.2	23.1	2.1	0.5	3.7	2.4	1.3	0.1	45.7
1998	49.8	46.0	10.7	4.6	4.7	25.9	22.6	2.0	0.5	3.9	2.4	1.5	0.1	45.2
1999	49.5	45.5	10.7	4.7	4.2	25.8	22.6	2.0	0.5	4.1	2.5	1.6	0.1	45.3
2000	48.6	44.7	10.5	4.7	4.0	25.5	22.2	2.0	0.5	3.9	2.5	1.5	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	-0.1	0.3	0.6	20.4	11.2	4.9	4.8	1.8	-2.3	8.7	11.7
1992	-4.8	-4.2	-0.3	-0.2	0.0	0.8	20.8	11.4	5.0	5.0	1.8	-2.5	8.8	12.0
1993	-5.7	-5.0	-0.5	-0.2	-0.1	0.2	21.2	11.6	5.2	5.0	1.8	-2.5	9.0	12.3
1994	-5.0	-4.3	-0.5	-0.2	0.0	0.5	20.8	11.3	5.0	5.1	1.8	-2.5	8.7	12.2
1995	-5.0	-4.2	-0.5	-0.1	-0.3	0.7	20.5	11.2	4.8	5.1	1.8	-2.5	8.4	12.0
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	4.8	5.1	1.8	-2.5	8.4	12.0
1998	-2.1	-2.1	-0.3	0.2	0.1	2.5	20.0	10.7	4.6	5.1	1.7	-2.5	8.1	11.8
1999	-1.2	-1.6	-0.1	0.1	0.4	3.0	20.0	10.7	4.7	5.1	1.7	-2.4	8.2	11.8
2000	-0.7	-1.2	-0.1	0.2	0.5	3.3	19.8	10.5	4.7	5.1	1.7	-2.4	8.0	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	-1.9	-2.7	-4.6	-3.2	-3.0	0.7	-2.7	3.6	-1.1	-1.7	-2.7	-1.5
1998	-0.9	-2.1	-3.2	-2.6	-2.7	2.1	-2.8	3.2	-0.7	-2.3	-2.2	1.3
1999	-0.7	-1.4	-1.8	-1.2	-1.6	2.1	-1.8	4.7	1.0	-2.1	-2.0	1.8
2000	0.0	1.3	-0.9	-0.3	-1.3	4.5	-0.3	5.3	2.0	-1.1	-1.4	6.7

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	57.5	2.7	16.0	9.6	29.2	48.2	24.7	7.0	16.4	9.4
1992	61.0	2.6	16.8	10.1	31.5	50.3	26.4	7.4	16.6	10.7
1993	67.4	2.7	17.6	10.0	37.1	52.6	27.7	8.5	16.5	14.8
1994	70.2	2.9	16.8	10.4	40.1	56.3	29.9	9.7	16.6	13.9
1995	74.2	2.9	18.2	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	74.8	2.9	17.0	8.9	46.1	57.1	29.1	14.4	13.7	17.7
1998	73.1	2.8	15.8	7.9	46.6	53.5	27.0	16.2	10.4	19.6
1999	72.0	2.9	14.8	6.8	47.4	50.1	25.3	15.0	9.8	21.9
2000	69.6	2.7	13.7	6.2	46.9	46.6	23.5	13.6	9.5	23.0

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	57.5	46.4	4.5	6.3	0.3	11.8	45.7	4.8	17.6	18.6	21.3	56.4	1.7	1.1
1992	61.0	49.6	4.7	6.3	0.4	12.2	48.8	6.4	17.9	21.1	22.0	59.7	2.1	1.3
1993	67.4	55.0	5.2	6.6	0.6	12.0	55.4	6.7	18.6	24.4	24.4	65.6	2.7	1.8
1994	70.2	57.7	5.4	6.4	0.7	11.2	58.9	7.4	16.6	26.7	26.9	68.2	2.7	2.0
1995	74.2	61.3	5.7	6.3	0.8	10.6	63.5	6.9	17.6	26.2	30.3	72.1	2.7	2.0
1996	75.4	62.6	6.1	6.2	0.5	10.2	65.2	6.3	19.2	25.3	30.9	73.3	2.5	2.0
1997	74.8	62.0	6.3	5.9	0.6	8.8	66.0	6.0	18.6	25.2	31.0	72.7	2.5	2.1
1998	73.1	60.7	6.3	5.7	0.4	7.7	65.4	5.5	16.3	25.9	30.8	71.2	2.8	1.8
1999	72.0	59.8	6.2	5.6	0.3	6.9	65.1	5.0	14.4	26.7	30.8	70.1	-	1.8
2000	69.6	57.8	6.1	5.3	0.3	5.5	64.1	4.5	.	.	.	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	60.9	108.3	66.7	59.3	65.1	120.1	6.0	70.0	64.7	59.1	54.1
1998	119.8	60.7	105.5	64.7	59.7	55.0	116.2	6.4	66.8	63.9	55.3	48.8
1999	116.4	61.1	104.6	63.4	58.7	50.1	114.5	6.0	63.2	64.7	55.0	46.9
2000	110.9	60.2	103.9	60.6	58.0	39.1	110.2	5.3	56.3	62.8	53.8	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	0.3	0.7	0.1	0.1	1.6	1.0	4.0	4.9	3.1	0.7	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	1.3	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	1.7	-0.2
1995	7.7	5.5	0.2	2.2	-0.2	0.2	2.3	0.0	5.2	5.3	2.2	1.7	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	-0.4	-0.8	2.6	-1.4	-0.6	-0.6	3.0
2000	0.8	0.8	0.0	0.0	0.0	-0.1	-0.4	-0.3	1.6	-1.2	-0.7	-0.7	2.1

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	1.0	0.3	0.1	0.5	0.2	-0.1	0.2	0.0	0.1	0.2	-0.8
1992	6.8	-4.8	1.9	0.8	0.2	0.1	0.3	0.1	-0.1	0.2	0.3	0.3	0.7	0.1
1993	8.1	-5.7	2.4	1.4	1.0	0.2	0.4	-0.2	-0.3	0.2	0.3	0.3	0.1	0.6
1994	6.1	-5.0	1.1	0.2	0.0	0.1	0.3	-0.1	-0.4	0.2	0.2	0.0	0.7	0.0
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	0.0	-0.3	0.2	-0.2	-0.1	0.1	-0.3
1997	2.3	-2.6	-0.3	-0.5	0.1	-0.1	-0.1	-0.4	-0.8	0.3	0.2	0.2	-0.2	0.2
1998	1.6	-2.1	-0.5	-0.6	0.2	0.0	-0.2	-0.5	-0.9	0.2	-0.2	0.0	0.0	0.3
1999	1.6	-1.2	0.4	0.2	0.5	0.1	0.1	-0.5	-0.8	0.2	0.3	0.2	0.0	-0.1
2000	0.8	0.4	1.2	0.8	0.7	0.2	0.1	-0.2	-0.4	0.1	0.0	0.0	0.0	0.4

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

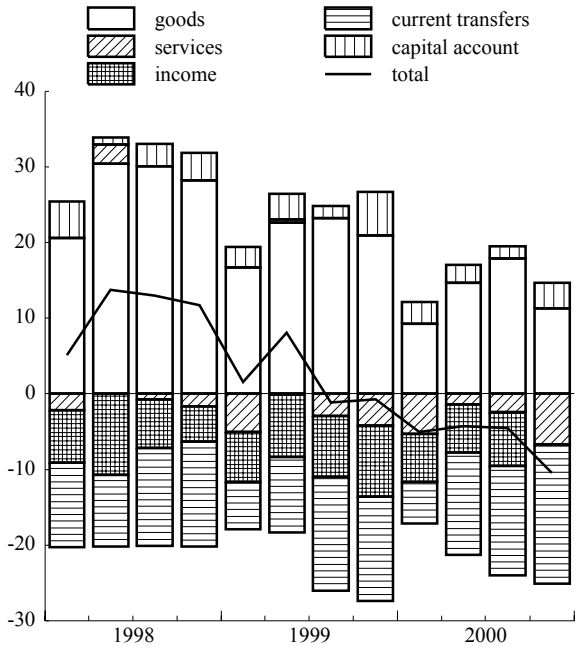
Summary balance of payments [1) 2)]

(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	-34.4	53.0	-15.9	-19.7	-51.8	10.2	1.3	-21.5	-136.4	-2.0	143.5	17.5	22.9
1999 Q4	-6.5	20.9	-4.2	-9.4	-13.8	5.7	2.6	-46.6	-2.7	-0.4	52.8	-0.5	-1.9
2000 Q1	-7.9	9.3	-5.3	-6.3	-5.5	2.8	47.8	148.0	-192.6	2.5	91.3	-1.4	-42.7
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	-13.8	11.2	-6.7	-0.1	-18.3	3.4	-29.5	-57.0	0.9	-9.7	25.6	10.7	40.0
1999 Dec.	-3.9	5.5	-1.5	-2.7	-5.2	3.0	-7.3	-20.3	0.7	-0.2	13.3	-0.8	8.2
2000 Jan.	-9.0	-0.5	-2.1	-5.0	-1.3	1.4	19.2	0.8	-5.3	-0.8	26.7	-2.2	-11.6
Feb.	0.0	4.2	-2.1	-1.0	-1.2	0.1	-1.9	146.0	-152.9	1.9	2.8	0.3	1.8
Mar.	1.2	5.6	-1.1	-0.3	-3.0	1.3	30.5	1.1	-34.4	1.4	61.8	0.5	-32.9
Apr.	-5.9	4.3	-1.3	-3.8	-5.1	1.5	2.7	1.1	-5.9	2.1	5.1	0.2	1.6
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.	-2.2	6.0	-1.8	0.1	-6.5	0.2	-9.9	-16.4	-4.4	-2.3	12.4	0.7	11.8
Nov.	-2.9	3.9	-1.0	-0.1	-5.7	1.5	-11.6	-10.0	-3.9	-3.2	-2.1	7.7	13.0
Dec.	-8.8	1.4	-3.9	-0.1	-6.1	1.7	-8.1	-30.7	9.2	-4.2	15.3	2.3	15.2
						Euro area enlargement							
2001 Jan.	-8.5	-1.9	-2.5	-6.7	2.5	1.4	-4.7	-4.5	-45.5	-5.1	47.9	2.4	11.9
Feb.	2.1	3.3	-1.1	0.5	-0.6	1.6	2.1	-0.8	0.9	-1.0	-3.2	6.1	-5.7

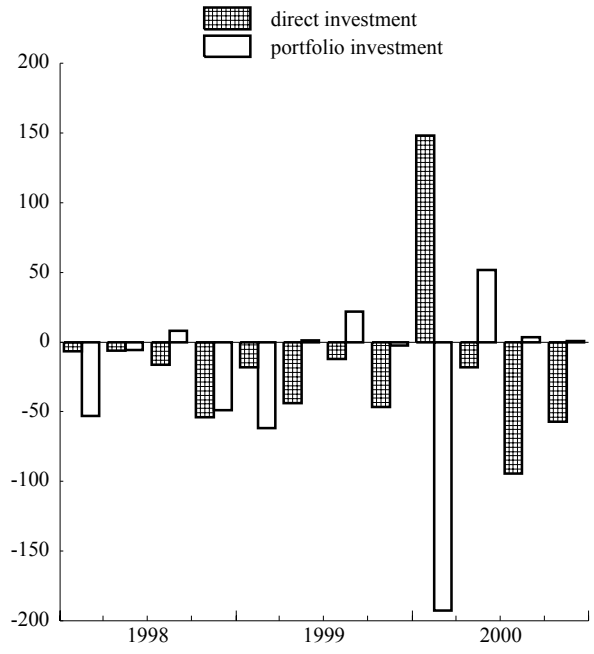
Current and capital accounts

(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); gross flows)

	Current account										Capital account	
	Total		Goods		Services		Income		Current transfers			
	Credit 1	Debit 2	Credit 3	Debit 4	Credit 5	Debit 6	Credit 7	Debit 8	Credit 9	Debit 10	Credit 11	Debit 12
1997	1,212.9	1,151.4	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	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	814.5	731.1	241.5	253.3	213.2	245.6	66.4	111.5	19.7	6.2
2000	1,573.9	1,608.4	978.1	925.1	269.4	285.4	259.9	279.6	66.5	118.3	19.1	8.9
1999 Q4	357.7	364.1	227.1	206.2	63.0	67.3	52.5	61.9	15.0	28.8	7.8	2.0
2000 Q1	359.5	367.4	221.2	211.9	58.5	63.8	54.7	61.0	25.2	30.7	4.3	1.4
Q2	387.7	394.3	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	244.6	226.7	70.7	73.2	64.2	71.3	11.9	26.4	4.3	2.7
Q4	435.2	449.1	273.4	262.1	73.4	80.1	74.0	74.1	14.5	32.8	5.8	2.3
1999 Dec.	123.2	127.0	75.7	70.2	22.1	23.6	19.8	22.5	5.6	10.8	3.8	0.9
2000 Jan.	111.9	121.0	64.5	65.0	18.2	20.4	16.4	21.4	12.9	14.2	1.9	0.5
Feb.	115.8	115.8	72.9	68.7	18.6	20.7	17.4	18.4	6.8	8.0	0.5	0.4
Mar.	131.8	130.6	83.8	78.2	21.7	22.8	20.9	21.1	5.5	8.5	1.8	0.5
Apr.	116.1	121.9	72.2	67.9	20.4	21.7	18.9	22.7	4.5	9.6	2.1	0.5
May	137.7	137.8	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	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	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	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	85.2	79.4	22.6	24.5	23.9	24.8	4.4	7.3	1.7	0.8
Oct.	145.0	147.2	93.2	87.2	24.7	26.6	23.5	23.4	3.6	10.0	0.8	0.6
Nov.	144.8	147.7	93.3	89.4	23.7	24.7	23.0	23.1	4.8	10.5	2.1	0.6
Dec.	145.4	154.2	86.9	85.6	24.9	28.8	27.5	27.6	6.1	12.2	2.8	1.1
Euro area enlargement												
2001 Jan.	138.2	146.8	79.4	81.3	21.2	23.7	22.5	29.2	15.0	12.6	1.9	0.5
Feb.	133.0	130.9	81.5	78.3	20.9	22.0	23.0	22.5	7.5	8.1	2.0	0.4

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	259.9	279.6	12.6	5.2	247.2	274.4	65.8	57.5	67.4	103.1	114.0	113.7
1999 Q4	52.5	61.9	3.3	1.4	49.1	60.5	11.7	13.0	15.1	23.8	22.4	23.7
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	74.0	74.1	3.4	1.3	70.6	72.7	18.0	15.2	19.1	24.1	33.5	33.4

	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	56.0	50.2	9.8	7.4	11.6	37.7	55.9	65.4	.	.	.	.
1999 Q4	9.7	11.9	2.0	1.1	2.3	5.9	12.8	17.9	12.1	17.9	0.7	0.0
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	14.9	12.9	3.0	2.3	3.1	6.8	16.0	17.3	.	.	.	.

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	-335.8	-266.8	-69.0	314.3	192.6	121.7
1999 Q4	-139.6	-124.7	-14.9	93.0	90.1	2.9
2000 Q1	-63.3	-33.2	-30.1	211.3	191.3	20.0
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	-82.7	-77.2	-5.5	25.6	-33.3	59.0
1999 Dec.	-96.6	-94.0	-2.6	76.3	80.5	-4.2
2000 Jan.	-7.0	-6.4	-0.5	7.8	7.4	0.4
Feb.	-20.1	-13.6	-6.5	166.1	159.1	7.1
Mar.	-36.2	-13.1	-23.1	37.3	24.8	12.6
Apr.	-16.0	-7.4	-8.6	17.1	5.1	12.0
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.	-33.0	-31.9	-1.2	16.7	10.1	6.6
Nov.	-30.3	-26.1	-4.3	20.3	8.2	12.1
Dec.	-19.3	-19.3	0.0	-11.4	-51.7	40.3
			Euro area enlargement			
2001 Jan.	-13.0	-9.0	-4.0	8.5	6.2	2.3
Feb.	-17.1	-7.7	-9.5	16.4	13.9	2.5

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	-403.9	267.5	-285.1	4.9	-118.8	-111.6	-7.2	262.7	227.8	34.9
1999 Q4	-86.4	83.7	-55.4	44.3	-31.0	-15.4	-15.5	39.5	17.4	22.1
2000 Q1	-153.9	-38.8	-116.9	-105.7	-37.0	-38.6	1.6	67.0	46.8	20.2
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	-73.1	74.0	-57.8	28.5	-15.3	-17.6	2.3	45.5	56.6	-11.1
1999 Dec.	-33.7	34.5	-23.5	18.7	-10.2	-5.0	-5.2	15.7	-2.6	18.4
2000 Jan.	-23.5	18.2	-21.8	7.2	-1.7	-8.8	7.1	11.0	11.8	-0.9
Feb.	-87.2	-65.7	-68.7	-92.5	-18.6	-15.7	-2.8	26.9	12.8	14.1
Mar.	-43.2	8.7	-26.5	-20.4	-16.7	-14.1	-2.6	29.1	22.2	6.9
Apr.	-28.0	22.2	-17.5	-2.9	-10.5	-9.1	-1.4	25.1	13.0	12.1
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.	-17.9	13.5	-9.2	-2.4	-8.7	-10.9	2.2	15.9	23.1	-7.2
Nov.	-28.7	24.8	-16.0	6.0	-12.8	-11.7	-1.1	18.8	23.9	-5.1
Dec.	-26.5	35.7	-32.7	24.9	6.2	5.0	1.2	10.8	9.6	1.2
				Euro area enlargement						
2001 Jan.	-34.3	-11.2	-17.8	-2.1	-16.5	-6.6	-10.0	-9.1	-9.6	0.5
Feb.	-29.3	30.2	-11.0	13.5	-18.3	-16.7	-1.6	16.8	17.3	-0.5

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	-278.0	-1.9	-1.2	-45.9	-62.6	2.1	-0.3	3.3	-12.3
1999 Q4	0.0	-0.9	-1.0	-53.5	-0.4	-0.3	-4.3	-10.4	-0.4	0.1	-4.7	-10.6
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	-52.2	0.9	0.0	-3.2	-15.3	0.6	0.9	-0.2	1.1

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	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8	9	10	11	12	13	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	-184.9	328.4	0.0	-1.8	-4.0	2.5	-128.6	276.3	-47.3	46.6	-81.3	229.7	-52.3	51.4
1999 Q4	11.5	41.4	0.0	2.3	0.5	-3.9	-0.2	39.0	-5.0	7.6	4.7	31.3	11.2	4.0
2000 Q1	-78.9	170.2	0.0	-5.1	-6.0	-2.7	-30.0	163.1	-11.2	20.0	-18.8	143.1	-42.8	14.9
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	-47.5	73.1	0.0	2.0	5.0	4.1	-63.3	61.6	-21.7	10.0	-41.6	51.5	10.7	5.5
1999 Dec.	92.1	-78.8	0.0	3.2	0.4	-0.8	78.3	-76.0	-3.0	2.6	81.3	-78.7	13.4	-5.2
2000 Jan.	-21.1	47.8	0.0	0.1	-2.9	-1.0	-2.6	43.4	-3.9	6.2	1.4	37.2	-15.6	5.3
Feb.	-30.1	33.0	0.0	-1.8	-2.7	-0.3	-17.4	26.4	-4.9	7.7	-12.5	18.7	-10.0	8.6
Mar.	-27.6	89.4	0.0	-3.5	-0.4	-1.4	-10.0	93.3	-2.3	6.1	-7.7	87.2	-17.2	1.0
Apr.	-34.9	40.1	0.0	3.1	0.4	-0.5	-30.8	37.1	-5.4	5.7	-25.5	31.4	-4.5	0.4
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.	-8.5	20.9	0.0	0.3	8.2	1.6	-16.5	18.5	-3.1	6.4	-13.4	12.1	-0.1	0.5
Nov.	-49.4	47.2	0.0	0.7	-3.2	0.9	-48.5	49.1	-6.5	7.5	-42.0	41.6	2.4	-3.5
Dec.	10.3	5.0	0.0	1.0	0.1	1.6	1.8	-6.0	-12.1	-3.8	13.8	-2.2	8.5	8.4
						Euro area enlargement								
2001 Jan.	-50.4	98.3	0.6	1.4	3.7	-6.1	-53.7	103.1	-4.2	-1.1	-49.5	104.2	-1.0	-0.1
Feb.	-6.9	3.7	0.4	-2.1	0.3	-4.2	-0.8	9.8	-3.5	4.7	2.7	5.1	-6.7	0.2

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

2.1. Eurosystem

	Loans/currency and deposits			Other assets/liabilities		
	Assets	Liabilities	Balance	Assets	Liabilities	Balance
	1	2	3	4	5	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
1999 Q4	0.0	2.4	2.4	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

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	-5.4	-0.3	4.3	3.9
1999 Q4	0.0	0.0	0.0	0.0	-3.9	-3.9	0.4	0.0	0.4
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	5.5	-0.1	3.7	3.6

2.3. MFIs (excluding the Eurosystem)

	Loans/currency and deposits			Other assets/liabilities		
	Assets 16	Liabilities 17	Balance 18	Assets 19	Liabilities 20	Balance 21
1999	17.7	158.9	176.6	0.5	0.7	1.2
2000	-123.9	267.7	143.7	-4.7	8.6	4.0
1999 Q4	0.5	37.5	37.9	-0.7	1.5	0.8
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	-61.1	53.9	-7.2	-2.2	7.7	5.5

2.4. Other sectors

	Trade credits			Loans/currency and deposits			Other assets/liabilities		
	Assets 22	Liabilities 23	Balance 24	Assets 25	Liabilities 26	Balance 27	Assets 28	Liabilities 29	Balance 30
1999	-6.4	3.4	-3.0	-13.2	17.5	4.3	-22.4	11.4	-11.0
2000	-13.6	6.5	-7.1	-34.5	53.5	19.0	-4.2	-8.6	-12.8
1999 Q4	-1.3	2.1	0.8	16.6	0.2	16.8	-4.0	1.7	-2.3
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	-3.3	1.2	-2.1	16.9	5.2	22.1	-2.9	-1.0	-3.8

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	4.2	0.0	-5.7	10.4	-0.2	0.5
1999 Q4	-0.5	0.3	-0.7	0.2	-0.3	1.0	3.0	0.0	-1.9	-2.3	-0.1	-0.1
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	0.9	4.7	0.0	0.5

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 [1) 2)] and of the European Central Bank [1) 3)]

(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	Claims on euro area residents denominated in foreign currency
			In fine troy ounces (millions)			Total	Currency and deposits		Securities						
							With monetary authorities and the BIS	With banks	Total	Equities	Bonds and notes	Money market instruments			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Eurosystem															
1998 Dec. [4]	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. [5]	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. [5]	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 [5]	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. [5]	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. [5]	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	18.0
Feb.	384.3	116.5	404.119	4.8	21.3	241.0	10.4	21.7	208.4	-	-	-	0.5	0.6	18.3
Mar. [5]	393.4	117.6	403.153	4.9	21.4	247.5	9.8	27.3	210.0	-	-	-	0.5	2.0	18.6
European Central Bank															
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

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) Part of the Eurosystem's reserves.

4) Position as at 1 January 1999.

5) 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.

9 External trade in goods of the euro area

Table 9

1. Exports [1)]

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

	Total	Food, drink, tobacco	Raw materials	Energy	Chemicals	Other manu-factured articles	Machinery, transport equipment	Other	Export trade indices 1995 = 100		
									Value [2)]	Volume [2)]	Unit value
	1	2	3	4	5	6	7	8	9	10	11
1997	762.8	57.0	16.5	14.4	99.6	217.6	343.8	13.8	122.5	115.9	105.7
1998	797.1	56.2	15.8	12.6	104.4	222.1	371.3	14.7	128.1	120.1	106.6
1999	831.8	55.7	16.4	13.6	114.1	225.9	384.9	21.1	133.6	122.6	109.0
2000	1,004.0	61.2	19.6	23.3	136.5	266.8	467.9	28.8	161.3	136.6	118.1
1997 Q1	170.7	13.0	3.9	3.7	22.7	49.1	74.9	3.5	109.7	104.2	105.3
Q2	191.8	14.4	4.1	3.6	25.3	54.1	86.7	3.6	123.3	117.3	105.1
Q3	193.5	14.1	4.2	3.4	25.8	55.9	86.8	3.3	124.3	116.6	106.6
Q4	206.8	15.5	4.3	3.7	25.8	58.5	95.5	3.5	132.9	125.7	105.7
1998 Q1	194.8	13.9	4.2	3.4	26.7	54.9	88.1	3.7	125.2	116.1	107.8
Q2	204.6	14.6	3.9	3.3	26.9	56.6	95.5	3.7	131.5	123.1	106.8
Q3	196.0	13.4	3.9	3.0	25.8	55.4	90.9	3.6	125.9	118.2	106.5
Q4	201.7	14.2	3.8	2.9	25.0	55.2	96.8	3.7	129.6	123.0	105.4
1999 Q1	187.8	12.4	3.8	2.6	25.9	51.5	86.9	4.7	120.7	112.6	107.2
Q2	203.2	13.5	4.0	3.1	27.9	55.1	94.4	5.2	130.6	119.9	108.9
Q3	209.5	14.0	4.1	3.9	29.6	56.9	95.4	5.7	134.6	123.0	109.5
Q4	231.3	15.8	4.5	4.1	30.7	62.4	108.3	5.5	148.6	135.0	110.1
2000 Q1	229.9	13.7	4.7	5.1	32.0	62.1	105.2	7.0	147.7	128.6	114.9
Q2	247.5	15.1	5.0	5.3	33.2	64.9	116.5	7.4	159.0	136.6	116.4
Q3	250.1	15.2	4.7	6.1	34.9	66.9	115.1	7.2	160.7	134.5	119.5
Q4	276.5	17.2	5.1	6.8	36.3	72.8	131.1	7.2	177.7	146.9	121.0
1998 Jan.	58.8	4.3	1.3	1.2	8.5	16.4	26.1	1.2	113.4	105.3	107.7
Feb.	63.8	4.6	1.4	1.0	8.6	18.2	28.9	1.2	123.0	114.1	107.8
Mar.	72.2	5.0	1.5	1.2	9.6	20.3	33.1	1.3	139.2	128.8	108.0
Apr.	68.2	4.9	1.3	1.1	9.2	19.0	31.3	1.3	131.4	123.0	106.9
May	65.9	4.8	1.3	1.1	8.7	18.2	30.7	1.2	127.0	118.8	106.9
June	70.5	4.9	1.3	1.1	9.1	19.3	33.5	1.2	136.0	127.4	106.7
July	73.0	4.8	1.3	1.1	9.3	21.2	34.2	1.2	140.8	131.7	106.9
Aug.	56.6	4.2	1.2	1.0	7.7	15.6	25.8	1.1	109.1	103.1	105.9
Sep.	66.3	4.5	1.3	0.9	8.8	18.6	30.9	1.3	127.9	120.0	106.6
Oct.	69.1	4.8	1.3	1.0	8.7	19.6	32.5	1.2	133.2	125.9	105.8
Nov.	67.2	4.8	1.3	1.0	8.1	18.2	32.6	1.3	129.6	123.6	104.8
Dec.	65.4	4.6	1.2	0.9	8.2	17.4	31.7	1.2	126.0	119.5	105.5
1999 Jan.	54.3	3.7	1.1	0.8	7.8	14.8	25.0	1.1	104.8	98.1	106.8
Feb.	60.2	4.0	1.2	0.8	8.3	16.6	27.5	1.7	116.1	108.6	106.9
Mar.	73.2	4.7	1.5	1.0	9.8	20.1	34.4	1.8	141.2	130.9	107.9
Apr.	65.9	4.4	1.3	1.0	9.2	17.8	30.7	1.5	127.0	116.6	108.9
May	63.7	4.5	1.3	1.0	9.0	17.4	29.0	1.7	122.8	113.2	108.5
June	73.6	4.7	1.3	1.1	9.8	19.9	34.7	2.0	141.9	129.8	109.3
July	76.2	4.6	1.4	1.2	10.3	20.9	35.6	2.2	146.8	132.8	110.6
Aug.	61.1	4.3	1.3	1.2	9.2	16.1	27.4	1.7	117.7	107.0	110.0
Sep.	72.3	5.1	1.4	1.5	10.1	19.8	32.4	1.9	139.4	129.0	108.0
Oct.	77.5	5.3	1.5	1.4	10.2	21.0	36.3	1.9	149.5	136.0	109.9
Nov.	77.6	5.4	1.5	1.2	10.7	21.0	36.0	1.7	149.6	137.3	108.9
Dec.	76.2	5.1	1.6	1.5	9.8	20.4	36.0	1.8	146.9	131.8	111.4
2000 Jan.	66.1	4.1	1.4	1.5	9.3	17.6	30.1	2.2	127.4	111.6	114.1
Feb.	75.4	4.5	1.6	1.7	10.6	20.8	33.9	2.2	145.3	125.5	115.8
Mar.	88.5	5.2	1.8	1.8	12.1	23.7	41.3	2.6	170.6	148.6	114.8
Apr.	73.4	4.5	1.6	1.6	10.0	19.5	34.1	2.1	141.5	122.1	115.9
May	89.2	5.5	1.8	1.9	11.8	23.2	42.3	2.6	171.9	147.7	116.4
June	84.9	5.1	1.6	1.8	11.4	22.3	40.1	2.6	163.7	139.9	117.0
July	84.9	4.9	1.5	2.0	11.4	23.3	39.5	2.4	163.6	137.5	119.0
Aug.	78.0	5.0	1.6	2.0	11.3	20.6	35.2	2.4	150.3	126.5	118.8
Sep.	87.3	5.3	1.7	2.2	12.3	23.0	40.4	2.4	168.3	139.6	120.6
Oct.	95.7	5.9	1.8	2.4	13.0	25.5	44.5	2.6	184.4	152.2	121.2
Nov.	95.0	6.0	1.8	2.3	12.6	25.1	44.9	2.3	183.1	151.9	120.5
Dec.	85.9	5.3	1.6	2.1	10.7	22.3	41.7	2.3	165.6	136.6	121.2
				Euro area enlargement							
2001 Jan.	80.3	4.6	1.5	2.0	11.3	20.5	38.1	2.3	156.8	.	.
Feb.	82.8	.	.	.	.	.	.	.	161.6	.	.

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

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

2) ECB calculations based on Eurostat data.

Table 9

2. Imports [1]

(EUR billions (ECU billions to end-1998); c.i.f. value)

	Total	Food, drink, tobacco	Raw materials	Energy	Chemicals	Other manufactured articles	Machinery, transport equipment	Other	Import trade indices 1995 = 100		
									Value [2]	Volume [2]	Unit value
	1	2	3	4	5	6	7	8	9	10	11
1997	674.2	55.5	41.5	81.3	62.5	189.3	230.0	14.0	119.8	110.3	108.6
1998	711.4	55.1	41.3	58.5	68.0	202.1	270.2	16.1	126.4	123.1	102.7
1999	780.7	52.5	39.4	77.8	71.4	211.4	307.8	20.4	138.7	130.5	106.3
2000	993.8	55.1	48.0	142.9	84.8	252.9	376.7	33.5	176.6	136.5	129.4
1997 Q1	159.1	12.8	9.7	21.2	14.8	44.8	52.1	3.7	113.1	106.0	106.7
Q2	168.0	14.1	11.1	18.6	16.1	46.7	57.8	3.6	119.4	111.4	107.2
Q3	166.6	13.6	10.1	20.0	15.3	49.1	55.9	2.6	118.5	106.9	110.8
Q4	180.4	15.1	10.7	21.4	16.2	48.6	64.3	4.1	128.2	117.0	109.6
1998 Q1	180.1	13.7	10.9	16.4	17.7	51.7	65.4	4.3	128.0	119.3	107.3
Q2	179.2	13.7	11.1	15.1	17.3	50.4	67.3	4.3	127.4	121.7	104.7
Q3	171.0	13.4	9.7	13.8	16.4	50.7	63.4	3.6	121.6	119.4	101.8
Q4	181.0	14.3	9.6	13.2	16.5	49.3	74.2	3.9	128.7	132.1	97.4
1999 Q1	179.2	12.4	9.3	13.8	17.0	50.4	71.7	4.7	127.4	128.8	98.9
Q2	189.5	12.9	10.2	16.8	17.7	50.8	76.1	5.0	134.7	129.8	103.8
Q3	193.9	12.9	9.5	21.3	17.3	54.3	73.6	5.1	137.9	126.0	109.4
Q4	218.0	14.3	10.5	26.0	19.4	55.8	86.4	5.6	154.9	137.7	112.5
2000 Q1	231.8	12.7	11.3	31.6	20.1	60.7	87.8	7.7	164.8	136.1	121.1
Q2	243.6	14.0	12.4	32.2	21.3	62.3	93.5	8.0	173.1	137.3	126.1
Q3	245.5	13.3	11.8	37.6	21.1	64.5	89.1	8.1	174.5	132.9	131.3
Q4	273.0	15.1	12.6	41.6	22.4	65.5	106.3	9.6	194.0	139.6	139.0
1998 Jan.	57.9	4.5	3.5	5.7	5.6	16.7	20.4	1.4	123.4	114.7	107.6
Feb.	57.9	4.3	3.5	5.4	5.6	16.7	20.8	1.6	123.4	114.4	107.9
Mar.	64.3	4.9	3.8	5.3	6.5	18.3	24.2	1.3	137.2	128.7	106.6
Apr.	60.1	4.7	3.7	5.2	5.8	16.8	22.6	1.3	128.2	121.5	105.5
May	56.9	4.4	3.5	5.2	5.6	15.8	21.2	1.2	121.4	115.8	104.9
June	62.2	4.6	3.9	4.7	6.0	17.8	23.4	1.8	132.6	127.9	103.7
July	59.2	4.7	3.6	4.7	6.0	17.8	21.2	1.3	126.3	123.5	102.2
Aug.	50.1	4.1	2.8	4.4	4.7	15.0	18.1	1.0	106.8	105.6	101.1
Sep.	61.8	4.6	3.3	4.7	5.8	17.9	24.1	1.4	131.7	129.3	101.9
Oct.	62.5	4.8	3.3	4.7	5.8	17.4	25.1	1.4	133.3	133.9	99.5
Nov.	59.8	4.6	3.2	4.2	5.4	16.2	24.9	1.3	127.6	132.1	96.6
Dec.	58.7	5.0	3.1	4.3	5.3	15.7	24.2	1.2	125.1	130.4	96.0
1999 Jan.	55.0	3.9	3.0	4.6	5.2	15.5	21.5	1.4	117.4	119.5	98.2
Feb.	56.4	3.9	2.9	4.2	5.4	16.2	22.2	1.6	120.3	122.1	98.5
Mar.	67.8	4.7	3.3	5.0	6.4	18.7	28.0	1.7	144.6	144.7	99.9
Apr.	61.6	4.2	3.3	5.6	5.8	16.0	25.0	1.7	131.4	128.3	102.4
May	62.4	4.3	3.3	5.7	5.8	16.5	25.2	1.6	133.1	127.2	104.6
June	65.5	4.4	3.5	5.4	6.2	18.2	26.0	1.7	139.7	133.5	104.6
July	64.5	4.4	3.4	6.7	5.7	18.4	24.3	1.6	137.4	127.3	108.0
Aug.	58.5	4.1	2.7	7.0	5.2	16.3	21.8	1.6	124.8	113.5	110.0
Sep.	70.9	4.4	3.5	7.6	6.4	19.6	27.6	1.9	151.3	137.3	110.2
Oct.	70.6	4.5	3.4	7.9	6.5	18.9	27.4	2.1	150.5	135.2	111.3
Nov.	74.4	4.8	3.6	8.5	6.8	18.8	30.0	1.9	158.6	143.1	110.8
Dec.	73.0	4.9	3.5	9.6	6.2	18.1	29.1	1.7	155.7	134.9	115.4
2000 Jan.	71.3	4.0	3.5	10.4	5.8	18.5	26.6	2.5	152.0	128.0	118.7
Feb.	75.7	4.0	3.6	10.2	6.8	20.1	28.4	2.5	161.3	133.3	121.0
Mar.	84.9	4.6	4.2	11.0	7.5	22.0	32.8	2.7	181.0	146.9	123.2
Apr.	73.2	4.2	3.7	9.6	6.5	18.4	28.4	2.4	156.1	127.3	122.7
May	88.1	5.1	4.7	11.3	7.5	22.8	33.9	2.9	187.9	148.1	126.9
June	82.2	4.6	4.1	11.3	7.3	21.1	31.1	2.7	175.3	136.6	128.4
July	79.3	4.5	4.0	11.9	6.7	21.0	28.3	3.0	169.2	131.9	128.3
Aug.	78.6	4.4	3.6	12.5	6.8	20.6	28.5	2.4	167.7	128.4	130.6
Sep.	87.5	4.5	4.2	13.2	7.6	22.9	32.3	2.8	186.5	138.4	134.8
Oct.	92.3	5.2	4.2	13.2	7.8	22.9	35.3	3.7	196.9	142.1	138.6
Nov.	95.0	5.1	4.4	14.8	7.9	22.6	36.5	3.7	202.7	145.6	139.2
Dec.	85.6	4.8	3.9	13.6	6.8	20.0	34.4	2.1	182.6	131.1	139.2
					Euro area enlargement						
2001 Jan.	86.5	4.5	4.1	12.5	7.6	22.5	32.1	3.2	183.3	.	.
Feb.	83.8	.	.	.	.	.	.	.	177.6	.	.

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

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

2) ECB calculations based on Eurostat data.

Table 9

3. Trade balance [1)]

(EUR billions (ECU billions to end-1998); exports (f.o.b.) - imports (c.i.f.))

	Total 1	Food, drink, tobacco 2	Raw materials 3	Energy 4	Chemicals 5	Other manufactured articles 6	Machinery, transport equipment 7	Other 8
1997	88.6	1.5	-25.1	-66.8	37.1	28.3	113.8	-0.1
1998	85.7	1.0	-25.5	-45.9	36.4	20.0	101.1	-1.4
1999	51.1	3.2	-23.0	-64.1	42.7	14.5	77.1	0.7
2000	10.2	6.1	-28.4	-119.6	51.6	13.9	91.2	-4.7
1997 Q1	11.6	0.2	-5.8	-17.5	8.0	4.3	22.8	-0.2
Q2	23.8	0.3	-7.0	-15.0	9.1	7.4	28.8	0.0
Q3	26.8	0.4	-5.9	-16.6	10.5	6.7	30.9	0.8
Q4	26.3	0.5	-6.4	-17.7	9.6	9.8	31.3	-0.7
1998 Q1	14.7	0.2	-6.7	-13.0	9.0	3.3	22.7	-0.7
Q2	25.4	0.9	-7.2	-11.7	9.6	6.1	28.3	-0.6
Q3	24.9	0.1	-5.8	-10.8	9.3	4.6	27.5	0.0
Q4	20.7	-0.1	-5.8	-10.3	8.5	5.9	22.6	-0.1
1999 Q1	8.5	0.0	-5.5	-11.2	8.8	1.2	15.2	0.0
Q2	13.7	0.6	-6.2	-13.7	10.2	4.3	18.2	0.2
Q3	15.6	1.1	-5.4	-17.4	12.4	2.5	21.7	0.7
Q4	13.3	1.5	-5.9	-21.9	11.3	6.5	21.9	-0.1
2000 Q1	-1.9	1.1	-6.5	-26.5	11.9	1.5	17.4	-0.7
Q2	3.9	1.1	-7.4	-26.8	11.9	2.6	23.1	-0.7
Q3	4.7	1.9	-7.1	-31.4	13.9	2.4	26.0	-1.0
Q4	3.5	2.1	-7.4	-34.8	13.9	7.3	24.8	-2.4
1998 Jan.	0.9	-0.2	-2.3	-4.6	2.8	-0.2	5.6	-0.2
Feb.	5.9	0.3	-2.2	-4.3	3.1	1.4	8.1	-0.4
Mar.	7.9	0.1	-2.3	-4.1	3.1	2.1	9.0	0.0
Apr.	8.1	0.1	-2.4	-4.0	3.4	2.3	8.7	0.0
May	9.0	0.4	-2.3	-4.1	3.1	2.4	9.5	-0.1
June	8.3	0.3	-2.6	-3.5	3.1	1.5	10.1	-0.5
July	13.8	0.1	-2.2	-3.6	3.3	3.3	13.0	0.0
Aug.	6.5	0.1	-1.6	-3.5	3.0	0.6	7.7	0.1
Sep.	4.6	-0.1	-2.0	-3.8	3.0	0.7	6.8	-0.1
Oct.	6.6	0.0	-2.0	-3.7	2.8	2.2	7.4	-0.2
Nov.	7.4	0.2	-1.9	-3.3	2.7	2.0	7.6	0.0
Dec.	6.7	-0.3	-1.9	-3.3	2.9	1.7	7.6	0.1
1999 Jan.	-0.7	-0.1	-1.9	-3.8	2.6	-0.7	3.5	-0.3
Feb.	3.8	0.1	-1.7	-3.3	2.9	0.5	5.3	0.1
Mar.	5.4	0.0	-1.9	-4.0	3.4	1.4	6.4	0.1
Apr.	4.2	0.2	-2.0	-4.6	3.4	1.8	5.7	-0.2
May	1.3	0.2	-2.1	-4.8	3.2	0.9	3.8	0.1
June	8.1	0.2	-2.2	-4.3	3.6	1.6	8.8	0.3
July	11.7	0.2	-2.0	-5.5	4.6	2.5	11.3	0.5
Aug.	2.5	0.2	-1.4	-5.8	4.0	-0.2	5.6	0.1
Sep.	1.3	0.6	-2.1	-6.1	3.7	0.2	4.9	0.0
Oct.	7.0	0.8	-1.9	-6.5	3.7	2.1	8.9	-0.1
Nov.	3.2	0.6	-2.1	-7.3	4.0	2.1	6.1	-0.2
Dec.	3.2	0.2	-1.9	-8.1	3.6	2.3	7.0	0.2
2000 Jan.	-5.2	0.0	-2.2	-8.8	3.5	-0.9	3.5	-0.3
Feb.	-0.3	0.4	-2.0	-8.5	3.9	0.7	5.5	-0.3
Mar.	3.6	0.6	-2.3	-9.2	4.6	1.7	8.4	-0.1
Apr.	0.2	0.2	-2.1	-7.9	3.5	1.1	5.7	-0.3
May	1.1	0.4	-2.8	-9.4	4.3	0.4	8.4	-0.2
June	2.7	0.5	-2.5	-9.5	4.1	1.1	9.0	-0.1
July	5.5	0.4	-2.5	-9.9	4.7	2.3	11.2	-0.6
Aug.	-0.7	0.6	-2.0	-10.5	4.5	0.0	6.7	0.1
Sep.	-0.2	0.9	-2.5	-11.0	4.7	0.1	8.1	-0.4
Oct.	3.3	0.7	-2.5	-10.8	5.3	2.6	9.2	-1.1
Nov.	-0.1	1.0	-2.6	-12.5	4.7	2.5	8.3	-1.4
Dec.	0.3	0.4	-2.3	-11.5	3.9	2.3	7.2	0.2
			Euro area enlargement					
2001 Jan.	-6.2	0.1	-2.6	-10.5	3.7	-2.0	6.0	-0.8
Feb.	-1.0	.	.	.	.	.	.	.

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

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

10 Exchange rates

Table 10

Exchange rates

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

	Effective exchange rate of the euro [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	107.4	111.1	95.4	105.9	1.270	138.1	1.568	0.814
1997	99.1	99.4	99.1	99.7	90.4	96.6	1.134	137.1	1.644	0.692
1998	101.5	101.3	101.5	99.7	96.6	99.1	1.121	146.4	1.622	0.676
1999	95.7	95.7	95.7	96.2	96.6	95.8	1.066	121.3	1.600	0.659
2000	85.7	86.5	86.9	86.8	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	96.6	96.5	96.0	1.057	127.7	1.600	0.658
Q3	94.6	94.7	94.5	94.9	95.5	94.6	1.049	118.7	1.602	0.655
Q4	92.2	92.2	92.2	93.2	94.2	92.6	1.038	108.4	1.600	0.636
2000 Q1	89.0	89.6	89.7	89.4	91.1	89.5	0.986	105.5	1.607	0.614
Q2	86.0	86.6	87.0	87.1	88.4	86.6	0.933	99.6	1.563	0.610
Q3	84.7	85.7	86.2	86.2	87.3	85.3	0.905	97.4	1.544	0.612
Q4	83.0	84.0	84.8	84.4	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	100.0	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	94.4	1.038	125.3	1.595	0.650
July	94.8	95.2	94.8	-	95.0	94.5	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	90.8	1.014	106.5	1.610	0.618
Feb.	89.2	89.8	89.9	-	91.2	89.5	0.983	107.6	1.607	0.615
Mar.	87.7	88.3	88.4	-	89.7	88.1	0.964	102.6	1.604	0.611
Apr.	86.1	86.6	86.9	-	88.4	86.7	0.947	99.9	1.574	0.598
May	84.5	85.0	85.6	-	86.9	85.1	0.906	98.1	1.556	0.602
June	87.4	88.1	88.4	-	89.9	88.1	0.949	100.7	1.561	0.629
July	86.9	87.9	88.1	-	89.4	87.5	0.940	101.4	1.551	0.623
Aug.	84.6	85.5	86.0	-	87.0	85.2	0.904	97.8	1.551	0.607
Sep.	82.8	83.6	84.6	-	85.3	83.3	0.872	93.1	1.531	0.608
Oct.	81.6	82.4	83.4	-	84.4	82.2	0.855	92.7	1.513	0.589
Nov.	82.3	83.3	84.1	-	85.1	82.9	0.856	93.3	1.522	0.600
Dec.	85.4	86.4	87.0	-	88.1	85.8	0.897	100.6	1.514	0.613
				Euro area enlargement						
2001 Q1	88.6	89.9	90.3	90.3	91.4	88.9	0.923	109.1	1.533	0.633
2001 Jan.	89.2	90.3	90.6	-	91.7	89.1	0.938	109.6	1.529	0.635
Feb.	88.3	89.6	90.0	-	91.0	88.5	0.922	107.1	1.536	0.634
Mar.	88.4	89.9	90.3	-	91.4	89.0	0.910	110.3	1.535	0.629
Apr.	87.6	89.1	89.5	-	91.0	88.5	0.892	110.4	1.529	0.622
% ch. vs. [4] prev. month										
2001 Apr.	-0.9	-0.9	-0.8	-	-0.4	-0.5	-1.9	0.0	-0.4	-1.2
% ch. vs. [4] prev. year										
2001 Apr.	-	-	-	-	-	-	-5.8	10.4	-2.9	4.0

Source: ECB.

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

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

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

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.

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
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.
								% ch. vs. [4] prev. month
-0.2	0.0	-0.6	-1.9	-1.2	-1.9	0.9	0.3	2001 Apr.
								% ch. vs. [4] prev. year
10.2	0.2	-0.5	0.1	12.4	-5.7	12.6	-0.2	2001 Apr.

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	2.1	5.2	4.6	4.27
1999	2.1	3.1	52.0	4.91	7.44	1.7	3.0	2.1	1.9	5.2	4.2	3.44
2000	2.7	2.4	46.3	5.64	7.45	1.5	1.8	2.9	6.1	4.7	1.9	5.00
1999 Q4	2.8	-	-	5.57	7.44	0.4	-0.6	3.3	4.6	4.9	4.1	3.78
2000 Q1	2.8	-	-	5.79	7.45	1.0	1.9	2.6	3.2	4.8	2.2	3.95
Q2	2.9	-	-	5.67	7.46	1.3	2.1	3.6	7.8	4.6	1.3	4.73
Q3	2.6	-	-	5.69	7.46	3.2	1.1	3.2	7.6	4.7	2.3	5.84
Q4	2.6	-	-	5.42	7.45	0.6	1.9	2.4	5.9	4.8	1.8	5.48
2001 Q1	2.3	-	-	5.03	7.46	.	.	.	.	.	.	5.26
2000 Nov.	2.7	-	-	5.49	7.46	-	-	-	2.5	4.8	0.7	5.50
Dec.	2.3	-	-	5.20	7.46	-	-	-	11.0	4.7	2.0	5.38
2001 Jan.	2.3	-	-	5.09	7.46	-	-	-	2.9	4.6	.	5.34
Feb.	2.3	-	-	5.06	7.46	-	-	-	3.6	4.7	.	5.27
Mar.	2.2	-	-	4.95	7.46	-	-	-	.	.	.	5.16
Apr.	.	-	-	5.10	7.46	-	-	-	.	.	.	5.11
						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	3.2	0.9	3.6	3.8	8.3	3.5	4.36
1999	0.6	1.8	65.2	4.98	8.81	2.6	-0.4	4.1	2.0	7.2	6.8	3.32
2000	1.3	4.1	55.6	5.37	8.45	2.8	5.6	3.6	8.6	5.9	6.2	4.07
1999 Q4	1.0	-	-	5.69	8.65	1.2	-1.1	4.2	3.6	6.8	9.1	3.69
2000 Q1	1.2	-	-	5.79	8.50	3.4	5.7	4.2	5.9	6.5	8.7	3.99
Q2	1.2	-	-	5.30	8.28	1.4	4.5	4.1	10.2	6.0	8.9	4.09
Q3	1.3	-	-	5.30	8.40	2.4	5.3	3.7	9.1	5.7	5.1	4.14
Q4	1.5	-	-	5.09	8.60	4.2	6.7	2.3	8.9	5.4	2.2	4.06
2001 Q1	1.6	-	-	4.83	9.00	.	.	.	.	5.4	0.2	4.10
2000 Nov.	1.8	-	-	5.13	8.63	-	-	-	9.2	5.6	3.4	4.02
Dec.	1.3	-	-	4.92	8.66	-	-	-	10.1	5.1	2.1	4.13
2001 Jan.	1.6	-	-	4.89	8.91	-	-	-	9.4	5.4	0.4	4.14
Feb.	1.5	-	-	4.86	8.98	-	-	-	6.2	5.3	-1.2	4.10
Mar.	1.7	-	-	4.75	9.13	-	-	-	.	5.4	1.4	4.06
Apr.	.	-	-	4.93	9.11	-	-	-	.	.	.	4.04
						United Kingdom						
1997	1.8	-2.0	51.1	7.13	0.692	0.9	2.9	3.5	1.3	7.0	11.2	6.92
1998	1.6	0.4	48.1	5.60	0.676	0.0	3.1	2.6	0.8	6.3	9.7	7.42
1999	1.3	1.3	45.7	5.01	0.659	-1.0	3.4	2.3	0.6	6.1	5.3	5.54
2000	0.8	1.9	42.9	5.33	0.609	-1.5	1.9	3.0	1.5	5.5	6.6	6.19
1999 Q4	1.2	1.9	45.4	5.46	0.636	0.0	2.8	3.2	2.2	5.9	3.6	5.98
2000 Q1	0.8	6.3	43.6	5.60	0.614	-1.5	3.0	3.2	1.9	5.9	3.8	6.20
Q2	0.6	-0.4	43.7	5.31	0.610	-1.4	1.4	3.4	2.6	5.6	5.8	6.28
Q3	0.8	2.1	42.3	5.31	0.612	-1.8	1.7	3.0	0.7	5.4	8.4	6.21
Q4	0.9	-0.1	42.6	5.09	0.600	-1.4	1.7	2.6	0.9	5.4	8.5	6.07
2001 Q1	0.9	5.5	40.3	4.90	0.633	.	.	2.5	.	.	.	5.72
2000 Nov.	1.0	-3.8	42.6	5.11	0.600	-	-	-	0.1	5.4	8.4	6.09
Dec.	0.9	-3.7	42.6	4.95	0.613	-	-	-	2.0	5.2	8.1	5.96
2001 Jan.	0.9	14.1	41.2	4.94	0.635	-	-	-	1.2	5.2	9.8	5.84
Feb.	0.8	4.3	40.4	4.95	0.634	-	-	-	0.6	.	9.4	5.76
Mar.	1.0	-1.9	40.3	4.82	0.629	-	-	-	.	.	.	5.55
Apr.	.	.	.	5.03	0.622	-	-	-	.	.	.	5.40

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

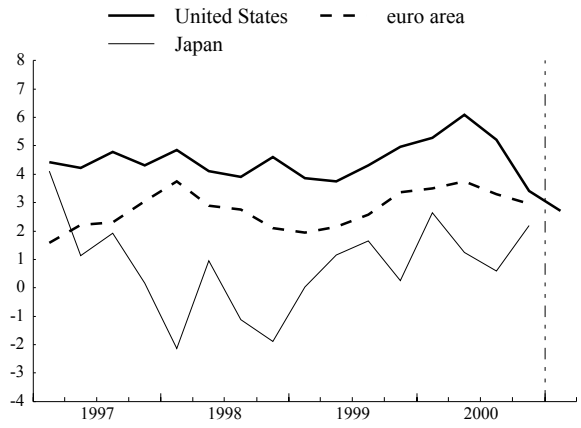
Economic and financial developments

(annual percentage changes, unless otherwise indicated)

	Consumer price index 1	Unit labour costs [1] 2	Real GDP 3	Industrial production index [1] 4	Unemployment rate as a % of labour force (s.a.) 5	M2 [2] 6	3-month interbank deposit rate [3] as a % per annum 7	10-year government bond yield [3] as a % per annum 8	Exchange rate [4] as national currency per ECU or euro 9	Fiscal deficit (-)/ surplus (+) [5] as a % of GDP 10	Gross public debt [6] as a % of GDP 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	4.4	5.5	4.5	7.3	5.57	5.33	1.121	0.3	53.4
1999	2.2	-1.7	4.2	4.8	4.2	7.6	5.42	5.64	1.066	1.0	50.3
2000	3.4	-3.8	5.0	6.0	4.0	6.1	6.53	6.03	0.924	2.2	44.5
1999 Q4	2.6	-3.1	5.0	5.6	4.1	6.3	6.14	6.13	1.038	1.3	50.3
2000 Q1	3.2	-3.7	5.3	6.3	4.0	6.0	6.11	6.48	0.986	2.0	49.3
Q2	3.3	-4.4	6.1	7.0	4.0	6.1	6.63	6.18	0.933	2.1	46.5
Q3	3.5	-5.4	5.2	6.4	4.0	6.0	6.70	5.89	0.905	2.3	45.2
Q4	3.4	-1.5	3.4	4.3	4.0	6.2	6.69	5.56	0.868	2.4	44.5
2001 Q1	3.4	.	2.7	1.0	4.2	7.6	5.35	5.04	0.923	.	.
2000 Nov.	3.4	-	-	4.5	4.0	6.1	6.75	5.72	0.856	-	-
Dec.	3.4	-	-	2.8	4.0	6.4	6.54	5.23	0.897	-	-
2001 Jan.	3.7	-	-	1.7	4.2	6.9	5.73	5.14	0.938	-	-
Feb.	3.5	-	-	0.9	4.2	7.6	5.35	5.10	0.922	-	-
Mar.	2.9	-	-	0.3	4.3	8.2	4.96	4.89	0.910	-	-
Apr.	.	-	-	.	4.5	.	4.63	5.13	0.892	-	-
					Japan						
1997	1.7	-2.2	1.8	3.6	3.4	3.1	0.62	2.15	137.1	-2.7	.
1998	0.6	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	-0.6	-6.3	1.7	5.9	4.7	2.1	0.28	1.76	99.5	.	.
1999 Q4	-1.0	-6.0	0.3	4.8	4.7	3.0	0.29	1.77	108.4	.	.
2000 Q1	-0.7	-7.0	2.6	6.3	4.8	2.2	0.14	1.79	105.5	.	.
Q2	-0.7	-7.3	1.3	7.1	4.7	2.3	0.12	1.72	99.6	.	.
Q3	-0.7	-6.0	0.6	5.5	4.6	1.9	0.32	1.79	97.4	.	.
Q4	-0.5	-5.0	2.2	4.9	4.8	2.1	0.56	1.73	95.3	.	.
2001 Q1	-0.1	.	.	-1.2	4.8	2.6	0.37	1.38	109.1	.	.
2000 Nov.	-0.5	-4.0	-	3.8	4.8	2.1	0.55	1.75	93.3	-	-
Dec.	-0.2	-4.5	-	4.1	4.9	2.2	0.62	1.62	100.6	-	-
2001 Jan.	0.1	-2.9	-	2.0	4.9	2.4	0.50	1.54	109.6	-	-
Feb.	-0.1	.	-	-2.0	4.7	2.7	0.41	1.43	107.1	-	-
Mar.	-0.4	.	-	-3.0	4.7	2.6	0.19	1.19	110.3	-	-
Apr.	.	.	-	.	.	.	0.10	1.36	110.4	-	-

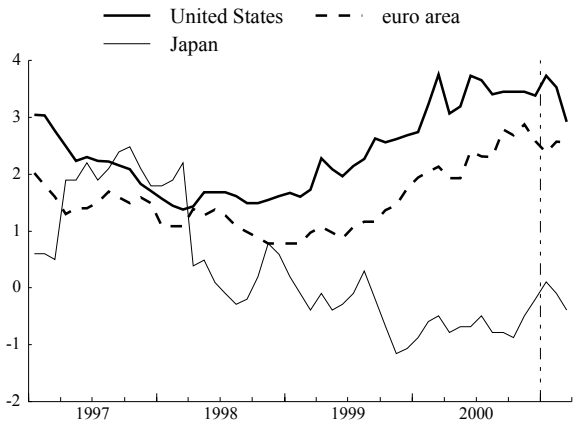
Real gross domestic product

(annual percentage changes; quarterly)



Consumer price indices

(annual percentage changes; monthly)



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

1) *Manufacturing.*
2) *Average-of-period values; M2 and CDs for Japan.*
3) *For more information, see Tables 3.1 and 3.2.*
4) *For more information, see Table 10.*
5) *Japan: the 1998 deficit includes a large debt assumption; financial accounts sources for 1999.*
6) *Gross consolidated debt for the general government (end of period).*

Table 12.2

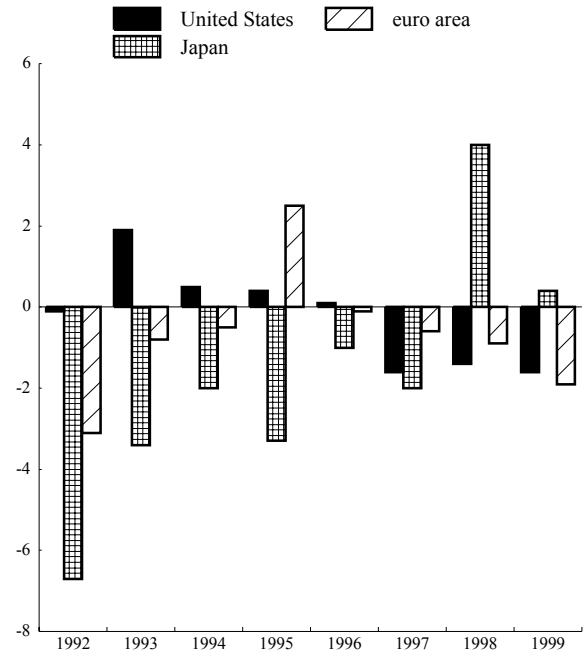
Saving, investment and financing

(as a percentage of GDP)

	National saving and investment			Investment and financing of non-financial corporations						Investment and financing of households [1]			
	Gross saving	Gross capital formation	Net lending to the rest of the world	Gross capital formation	Gross fixed capital formation	Net acquisition of financial assets	Gross saving	Net incurrence of liabilities	Securities and shares	Capital expenditure	Net acquisition of financial assets	Gross saving	Net incurrence of liabilities
	1	2	3	4	5	6	7	8	9	10	11	12	13
						United States							
1997	18.1	19.9	-1.5	9.4	8.6	1.8	8.7	3.4	1.8	11.7	3.8	12.1	4.6
1998	18.8	20.8	-2.3	9.6	8.8	3.9	8.5	5.4	1.7	12.3	5.8	12.4	5.8
1999	18.5	21.1	-3.4	9.8	9.3	7.4	8.7	9.0	3.6	12.6	5.2	11.0	6.7
2000	18.3	21.8	-4.4	10.2	9.7	5.2	8.9	6.8	2.9	12.5	3.1	9.4	5.9
1999 Q1	18.8	21.0	-2.7	9.6	9.1	8.3	8.7	9.7	6.3	12.4	4.6	11.5	6.6
Q2	18.4	20.8	-3.2	9.6	9.5	8.2	8.7	9.6	0.4	12.7	5.1	11.2	6.7
Q3	18.4	21.1	-3.6	9.8	9.3	7.7	8.6	8.9	3.7	12.6	4.7	10.8	6.3
Q4	18.3	21.4	-3.9	10.0	9.3	6.2	8.7	7.8	4.2	12.6	6.6	10.5	7.1
2000 Q1	18.2	21.4	-4.0	9.9	9.6	5.8	8.8	7.2	5.6	12.8	4.3	9.8	7.8
Q2	18.5	22.0	-4.1	10.3	9.6	6.0	9.0	7.6	3.5	12.5	4.4	9.6	5.8
Q3	18.5	21.9	-4.5	10.5	9.9	5.7	9.1	7.4	2.3	12.5	2.8	9.3	5.7
Q4	17.8	21.8	-4.8	10.3	9.7	3.2	8.6	5.2	0.5	12.3	0.9	8.8	4.1
						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	-6.4	13.3	-9.1	-1.4	5.3	5.4	11.7	-0.5
1999	27.8	26.0	2.2	14.5	14.7	2.5	13.7	-2.8	1.2	5.3	6.6	11.3	-0.5
2000	.	26.0	.	.	.	1.3	.	0.1	-0.3	.	4.7	.	-0.3
1999 Q1	.	26.9	.	.	.	0.8	.	-15.2	-2.2	.	-3.6	.	6.2
Q2	.	24.2	.	.	.	-16.9	.	-17.1	1.7	.	14.6	.	-7.2
Q3	.	26.4	.	.	.	9.7	.	-1.3	1.3	.	4.4	.	1.3
Q4	.	26.9	.	.	.	15.3	.	19.9	3.9	.	11.6	.	-2.2
2000 Q1	.	26.3	.	.	.	7.7	.	-3.4	-3.4	.	3.9	.	9.7
Q2	.	24.8	.	.	.	-26.9	.	-19.6	0.4	.	5.2	.	-9.2
Q3	.	27.1	.	.	.	18.6	.	5.0	-0.6	.	-0.7	.	2.3
Q4	.	27.1	.	.	.	4.7	.	16.6	2.2	.	10.4	.	0.5

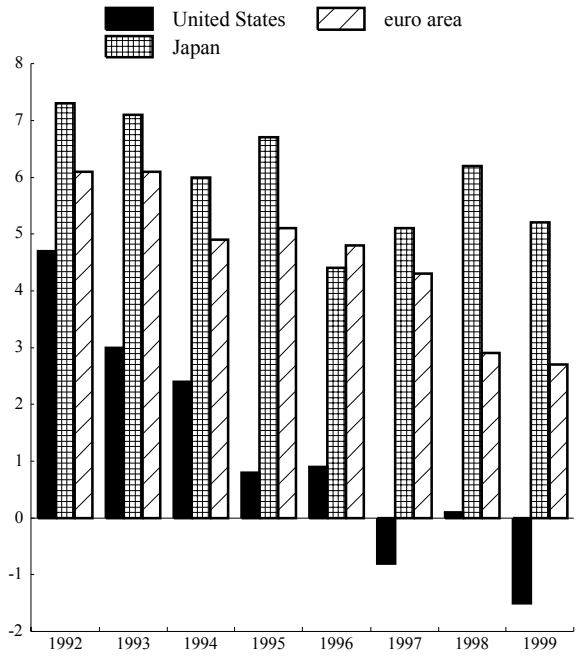
Net lending of non-financial corporations

(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		Credit [2]		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	.	4,046.4	.	4,618.6	.	7,856.8	.	5,169.0	.
Feb.	1,787.3	.	4,005.1	.	4,605.4	.	7,876.9	.	5,171.3	.
Mar.	1,809.4	.	4,023.7	.	4,622.3	.	7,952.1	.	5,219.0	.
Apr.	1,823.9	.	4,044.2	.	4,662.5	.	7,985.0	.	5,240.7	.
May	1,856.1	.	4,073.0	.	4,698.8	.	8,062.0	.	5,278.0	.
June	1,900.1	.	4,100.3	.	4,724.3	.	8,141.3	.	5,371.5	.
July	1,901.0	.	4,117.7	.	4,733.9	.	8,161.4	.	5,407.9	.
Aug.	1,865.8	.	4,084.5	.	4,715.0	.	8,164.3	.	5,402.9	.
Sep.	1,892.0	.	4,093.8	.	4,742.1	.	8,215.5	.	5,442.7	.
Oct.	1,897.4	.	4,110.5	.	4,762.1	.	8,286.6	.	5,490.4	.
Nov.	1,933.6	.	4,140.5	.	4,815.1	.	8,387.8	.	5,556.3	.
Dec.	1,988.5	.	4,239.6	.	4,909.5	.	8,410.2	.	5,589.0	.
2000 Jan.	1,997.1	9.4	4,233.6	4.2	4,917.9	5.3	8,467.5	8.1	5,633.8	8.8
Feb.	1,986.7	10.8	4,226.9	5.2	4,939.2	6.2	8,529.1	8.6	5,670.0	9.5
Mar.	1,998.1	10.1	4,236.7	4.9	4,979.3	6.6	8,627.2	8.5	5,741.4	9.9
Apr.	2,039.8	11.4	4,280.5	5.4	5,074.8	6.7	8,693.1	8.7	5,803.8	10.5
May	2,021.0	8.7	4,271.8	4.6	5,071.9	6.1	8,728.6	8.2	5,834.5	10.3
June	2,038.0	7.1	4,282.0	4.2	5,069.8	5.5	8,745.2	7.3	5,902.4	9.5
July	2,037.8	6.9	4,281.0	3.6	5,077.7	5.3	8,760.1	7.2	5,931.9	9.2
Aug.	2,002.5	7.0	4,268.4	4.1	5,083.2	5.8	8,763.2	7.1	5,951.9	9.6
Sep.	2,014.5	6.1	4,274.5	3.9	5,084.3	5.4	8,852.2	7.3	6,038.9	10.1
Oct.	2,013.7	5.7	4,281.7	3.7	5,104.7	5.3	8,892.8	6.7	6,082.9	9.9
Nov.	2,032.4	4.9	4,303.9	3.7	5,140.4	5.1	8,934.3	6.0	6,119.0	9.4
Dec.	2,098.7	5.5	4,396.4	3.7	5,208.3	5.2	8,962.2	6.5	6,154.5	9.7

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 [3] 16	By general government [3] 17	By non-financial and non-monetary financial corporations [3] 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	5,786.6
Feb.	3.27	3.19	3.17	4.02	292.0	49.1	35.6	15.3	49.5	5,835.2
Mar.	3.21	3.19	3.19	4.22	297.2	47.8	35.4	16.8	43.7	5,879.4
Apr.	2.87	2.91	2.93	4.09	333.5	48.8	34.3	16.9	42.0	5,921.2
May	2.75	2.83	2.89	4.24	289.7	46.6	37.9	15.5	49.9	5,972.1
June	2.80	2.98	3.16	4.56	279.3	48.6	28.7	22.7	38.2	6,010.6
July	2.84	3.17	3.38	4.89	328.0	44.5	36.4	19.1	42.1	6,051.2
Aug.	2.86	3.37	3.65	5.10	239.1	50.2	32.3	17.5	35.8	6,087.6
Sep.	2.89	3.43	3.75	5.27	311.6	51.7	31.2	17.1	59.8	6,145.9
Oct.	3.53	3.81	4.16	5.51	305.1	51.6	30.2	18.2	52.6	6,199.7
Nov.	3.64	3.82	4.07	5.22	285.1	57.1	26.2	16.7	41.8	6,242.7
Dec.	3.58	3.94	4.24	5.32	236.0	66.7	20.1	13.2	-32.7	6,215.0
2000 Jan.	3.47	4.04	4.43	5.72	347.8	56.6	30.5	12.9	1.1	6,210.2
Feb.	3.65	4.18	4.59	5.68	355.0	57.7	26.4	15.9	61.5	6,270.5
Mar.	3.86	4.33	4.62	5.51	378.7	58.7	26.4	14.9	53.7	6,326.1
Apr.	4.03	4.42	4.61	5.43	345.7	54.1	26.3	19.6	38.2	6,362.3
May	4.44	4.88	5.04	5.53	383.9	59.9	22.7	17.4	51.9	6,423.0
June	4.59	5.01	5.05	5.36	335.4	57.8	21.7	20.5	32.2	6,456.9
July	4.66	5.14	5.21	5.47	374.8	56.7	21.9	21.4	37.2	6,494.4
Aug.	4.85	5.28	5.30	5.41	345.5	59.7	21.6	18.7	34.0	6,530.0
Sep.	4.91	5.24	5.24	5.48	386.9	61.4	21.3	17.3	20.1	6,551.2
Oct.	5.08	5.23	5.19	5.42	442.1	63.6	19.3	17.1	34.8	6,586.6
Nov.	5.12	5.20	5.14	5.34	378.1	59.1	20.9	20.1	21.8	6,607.7
Dec.	4.94	4.87	4.80	5.07	317.1	63.3	14.6	22.1	-37.6	6,573.6

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) *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.*
3) *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	Private consumption	Government consumption	Gross fixed capital formation
			Food	Non-energy industrial goods	Energy						
	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	2.0	1.8	1.1
1998	1.2	0.7	1.7	1.0	-2.6	2.0	-0.7	1.7	1.5	1.7	1.0
1999	1.1	0.9	0.6	0.7	2.3	1.6	-0.4	1.3	1.1	2.2	1.0
2000	2.4	2.7	1.4	0.7	13.4	1.7	5.4	1.3	2.2	1.9	2.4
1999 Q4	1.5	1.5	0.5	0.5	8.0	1.5	2.2	1.1	1.5	2.5	1.5
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	5.2	1.2	2.0	1.7	2.4
Q3	2.5	2.9	1.9	0.6	13.7	1.8	5.8	1.4	2.4	1.9	2.5
Q4	2.7	3.2	2.2	1.1	13.8	1.8	6.1	1.5	2.5	1.8	2.8
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	3.8	-	-	-	-
Feb.	2.1	2.3	0.6	0.5	13.6	1.6	4.4	-	-	-	-
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	12.0	1.6	5.3	-	-	-	-
June	2.4	2.7	1.2	0.7	14.6	1.7	5.6	-	-	-	-
July	2.4	2.7	1.7	0.5	13.5	1.7	5.6	-	-	-	-
Aug.	2.4	2.7	2.0	0.6	12.0	1.8	5.6	-	-	-	-
Sep.	2.8	3.4	2.1	0.9	15.6	1.8	6.3	-	-	-	-
Oct.	2.7	3.3	2.0	1.0	14.7	1.9	6.6	-	-	-	-
Nov.	2.9	3.5	2.2	1.1	15.3	1.9	6.4	-	-	-	-
Dec.	2.6	3.0	2.3	1.1	11.3	1.8	5.4	-	-	-	-

B.2 Real economy and fiscal developments

(annual percentage changes, unless otherwise indicated)

	Real GDP and expenditure components				Industrial production (excluding construction)	Retail sales (constant prices)	Employment (whole economy)	Unemployment (% of labour force)	Trade balance (EUR billions; (ECU billions to end-1998))	Fiscal developments	
	GDP	Private consumption	Government consumption	Gross fixed capital formation						Deficit (-) / surplus (+) (% of GDP)	Government debt (% of GDP)
	12	13	14	15	16	17	18	19	20	21	22
1996	1.4	1.6	1.7	1.3	0.3	0.5	0.5	11.5	62.4	-4.3	76.0
1997	2.3	1.6	0.9	2.5	4.2	1.2	0.9	11.5	74.5	-2.6	75.4
1998	2.9	3.1	1.0	5.1	4.4	3.0	1.8	10.9	68.7	-2.1	73.6
1999	2.5	3.0	1.5	5.2	2.0	2.6	2.1	10.0	33.8	-1.2	72.6
2000	3.4	2.6	1.9	4.6	5.6	2.4	2.3	8.9	-11.6	-0.7	70.1
1999 Q4	3.4	2.9	1.7	5.5	4.4	3.2	2.2	9.6	8.5	-	-
2000 Q1	3.5	2.6	2.0	5.6	4.9	2.1	2.2	9.3	-6.8	-	-
Q2	3.8	3.2	2.1	4.9	6.1	3.4	2.4	9.0	-2.6	-	-
Q3	3.3	2.5	1.7	4.0	5.8	2.3	2.3	8.8	-0.6	-	-
Q4	3.0	2.1	1.9	3.8	5.5	1.6	2.3	8.6	-1.6	-	-
1999 Dec.	-	-	-	-	5.3	2.7	-	9.5	1.5	-	-
2000 Jan.	-	-	-	-	2.8	2.2	-	9.4	-6.5	-	-
Feb.	-	-	-	-	6.0	4.0	-	9.3	-1.8	-	-
Mar.	-	-	-	-	5.9	0.2	-	9.2	1.5	-	-
Apr.	-	-	-	-	6.1	4.1	-	9.1	-1.3	-	-
May	-	-	-	-	7.8	5.1	-	9.0	-1.0	-	-
June	-	-	-	-	4.6	1.1	-	8.9	-0.4	-	-
July	-	-	-	-	5.5	1.8	-	8.8	3.7	-	-
Aug.	-	-	-	-	6.8	1.8	-	8.8	-2.2	-	-
Sep.	-	-	-	-	5.1	3.3	-	8.7	-2.1	-	-
Oct.	-	-	-	-	4.0	1.7	-	8.6	1.5	-	-
Nov.	-	-	-	-	4.6	1.4	-	8.6	-1.8	-	-
Dec.	-	-	-	-	8.2	1.8	-	8.5	-1.3	-	-

Sources: European Commission (Eurostat) and ECB calculations.

C. Summary balance of payments [1)]

(EUR billions; net flows)

	Current account					Capital account	Direct investment	Portfolio investment	Financial derivatives	Other investment
	Total	Goods	Services	Income	Current transfers					
	1	2	3	4	5	6	7	8	9	10
2000	-44.6	30.0	-5.5	-20.9	-48.3	12.5	-24.0	-127.6	-1.6	146.2
2000 Q1	-11.5	3.1	-3.9	-6.6	-4.2	3.9	147.5	-190.4	2.7	91.6
Q2	-9.4	8.9	1.3	-6.8	-12.7	3.2	-18.0	52.9	4.8	-45.6
Q3	-6.2	12.7	2.1	-7.4	-13.5	1.6	-95.9	7.6	0.5	70.7
Q4	-17.4	5.4	-4.9	-0.2	-17.8	3.8	-57.6	2.2	-9.6	29.4
2000 Jan.	-10.4	-2.4	-1.8	-5.2	-1.1	1.5	0.5	-4.2	-0.8	28.6
Feb.	-1.1	2.2	-1.8	-1.0	-0.4	0.9	145.9	-151.7	1.9	1.4
Mar.	0.0	3.3	-0.3	-0.4	-2.7	1.5	1.1	-34.4	1.6	61.6
Apr.	-7.0	2.5	-0.7	-4.0	-4.8	2.3	1.1	-5.6	2.1	6.1
May	-1.1	2.3	0.7	-1.2	-2.9	0.6	-8.5	1.1	0.4	16.8
June	-1.3	4.0	1.3	-1.6	-5.1	0.3	-10.5	57.4	2.3	-68.4
July	-2.6	6.3	1.5	-4.8	-5.5	0.5	-24.6	-13.1	-0.4	27.8
Aug.	-3.6	2.4	1.0	-1.7	-5.3	0.2	-42.8	17.1	-0.9	25.4
Sep.	0.0	4.0	-0.4	-0.9	-2.7	0.9	-28.5	3.7	1.8	17.5
Oct.	-3.2	3.9	-0.9	0.1	-6.3	0.3	-16.4	-3.9	-2.3	13.9
Nov.	-4.3	1.8	-0.4	-0.1	-5.6	1.6	-9.9	-2.8	-3.2	-2.8
Dec.	-9.9	-0.4	-3.5	-0.1	-6.0	1.8	-31.3	8.9	-4.2	18.3

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	107.4	111.2	95.4	105.8
1997	99.1	99.4	99.1	99.7	90.3	96.5
1998	101.5	101.3	101.5	99.7	96.5	99.1
1999	95.6	95.7	95.7	96.2	96.5	95.8
2000	85.4	86.3	86.8	86.6	88.0	86.1
1999 Q4	92.0	92.1	92.2	93.1	94.1	92.5
2000 Q1	88.8	89.5	89.6	89.3	90.9	89.4
Q2	85.7	86.4	86.8	87.0	88.2	86.5
Q3	84.5	85.4	86.0	86.0	87.1	85.1
Q4	82.7	83.8	84.6	84.2	85.7	83.4
1999 Dec.	89.9	90.3	90.2	-	92.1	90.6
2000 Jan.	90.1	90.7	90.8	-	92.3	90.7
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	88.0	88.2	-	89.8	88.0
July	86.7	87.7	87.9	-	89.2	87.4
Aug.	84.3	85.3	85.8	-	86.8	85.0
Sep.	82.5	83.4	84.3	-	85.1	83.1
Oct.	81.3	82.1	83.1	-	84.2	82.0
Nov.	82.0	83.0	83.8	-	84.9	82.7
Dec.	85.1	86.2	86.8	-	87.9	85.7

Source: ECB.

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

Technical notes[1]

Relating to Table 2.4

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 and when required.

Calculation of growth rates

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

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

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

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

Roundings may give rise to differences from the annual percentage changes shown in Table 2.4. The index of adjusted stocks is available with a higher level of precision on the ECB's website (www.ecb.int) on "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 are harmonised and comparable. Nevertheless, as a result of the implementation of a new reporting scheme in January 1999, data 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 addition, quarterly flows cannot be calculated for any of the periods as, for the time being, reclassification and revaluation adjustments are not compiled. Tables 2.5 to 2.8 can be used for a structural analysis, while it is not advisable to perform a detailed analysis of the growth rates.

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.

Relating to Table 4.1

Seasonal adjustment of the HICP

The approach used relies on multiplicative decomposition through X-12-ARIMA (version 0.2.2)[2]. The seasonal adjustment of the total HICP for the euro area is carried out indirectly by aggregating the seasonally adjusted euro area series of processed food, unprocessed food, industrial goods excluding energy and services. Energy is added as a raw component since there is no statistical evidence of seasonality. Seasonal factors are revised at annual intervals or as and when required.

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.

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 8 May 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. 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

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).*

liabilities to non-residents of the euro area. Table 2.8 shows a quarterly currency analysis of certain MFI balance sheet items. 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.

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

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).*

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.

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

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

Financial accounts statistics

Table 6.1, which appears for the first time in this issue, 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 Euroystem'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 gives data on euro area external trade in goods, and indices – value, volume and unit value – for total exports and imports. The value index is calculated by the ECB. The volume index is derived from the unit value index provided by Eurostat and the value index. Owing to differences in definitions, classification, coverage and time of recording, external trade data, in particular imports, are not fully comparable with the goods item in the balance of payments statistics (Tables 8.1 and 8.2).

Table 10 shows ECB calculations of nominal and real effective exchange rate indices for the euro based on weighted averages of

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

Other statistics

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

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 footnote 1 to Table 10 on "Exchange rates" in the "Euro area statistics" section of this issue). 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.

Documents published by the European Central Bank (ECB)

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

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Annual Report

"Annual Report 1998", April 1999.

"Annual Report 1999", April 2000.

"Annual Report 2000", May 2001.

Convergence Report

"Convergence Report 2000", May 2000.

Monthly Bulletin

Articles published from January 1999 onwards:

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

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

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

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Occasional Paper Series

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Other publications

"The TARGET service level", July 1998.

"Report on electronic money", August 1998.

"Assessment of EU securities settlement systems against the standards for their use in ESCB credit operations", September 1998.

"Money and banking statistics compilation guide", September 1998.

"The single monetary policy in Stage Three: General documentation on ESCB monetary policy instruments and procedures", September 1998.

"Third progress report on the TARGET project", November 1998.

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"Possible effects of EMU on the EU banking systems in the medium to long term", February 1999.

"Euro area monetary aggregates: conceptual reconciliation exercise", July 1999.

"The effects of technology on the EU banking systems", July 1999.

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

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

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

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

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

"Correspondent central banking model (CCBM)", November 1999.

"Cross-border payments in TARGET: A users' survey", November 1999.

"Money and Banking Statistics: Series keys for the exchange of balance sheet items time series", November 1999.

"Money and Banking Statistics: Handbook for the compilation of flow statistics", December 1999.

"Payment systems in the European Union: Addendum incorporating 1998 figures", February 2000.

"Interlinking: Data dictionary", Version 2.02, March 2000.

"Asset prices and banking stability", April 2000.

"EU banks' income structure", April 2000.

"Statistical information collected and compiled by the ESCB", May 2000.

"Correspondent central banking model (CCBM)", July 2000.

"Statistical requirements of the European Central Bank in the field of general economic statistics", August 2000.

"Seasonal adjustment of monetary aggregates and HICP for the euro area", August 2000.

"Improving cross-border retail payment services", September 2000.

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"The role of central banks in prudential supervision", March 2001.

"Money and banking statistics in the accession countries: Methodological manual", April 2001.

"TARGET: Annual Report", May 2001.

Information brochures

"TARGET: facts, figures, future", September 1999.

"The ECB payment mechanism", August 2000.

"The euro: integrating financial services", August 2000.

"TARGET", August 2000.

"The European Central Bank", April 2001.

"The euro banknotes and coins", May 2001.