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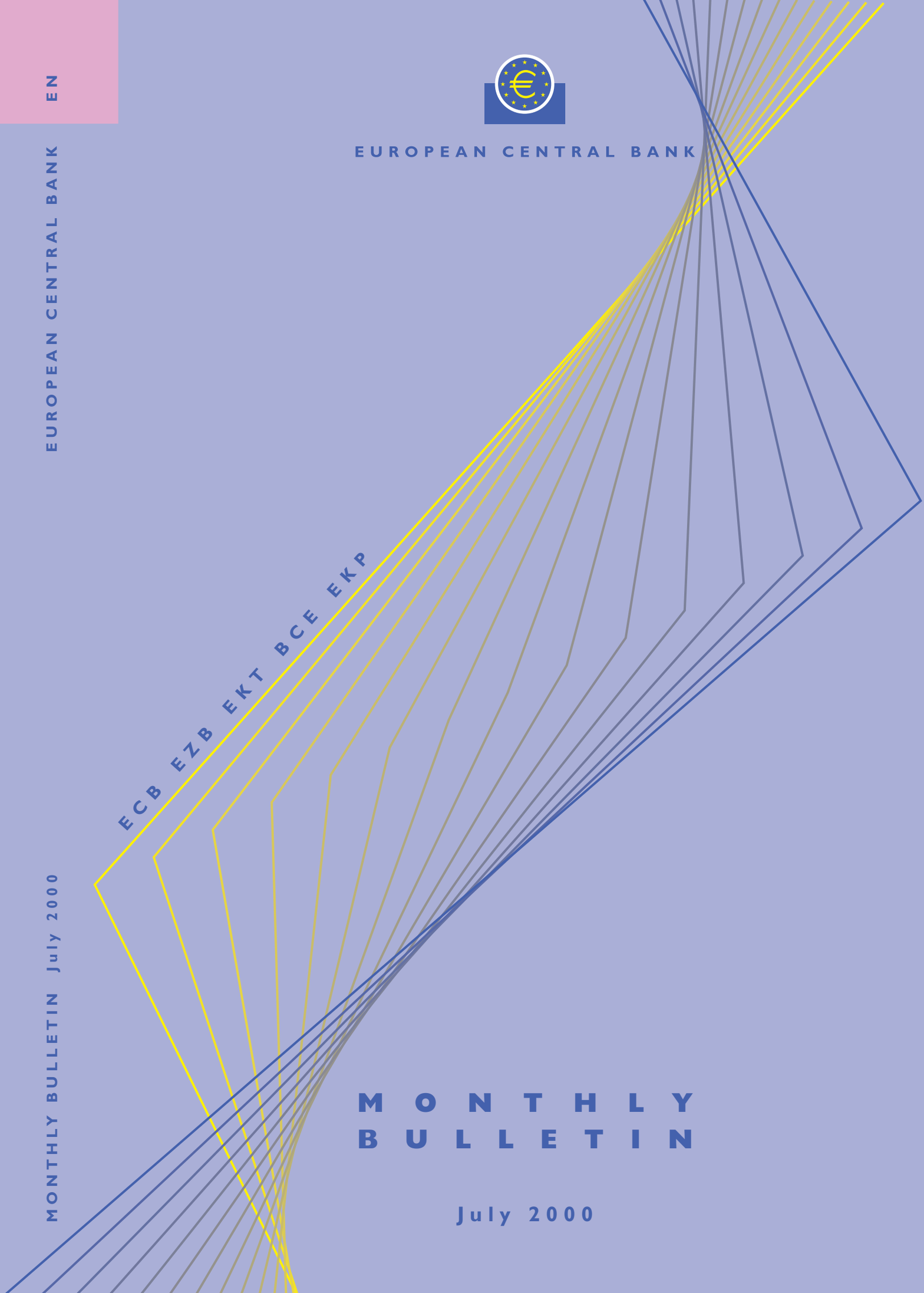
EUROPEAN CENTRAL BANK



MONTHLY BULLETIN

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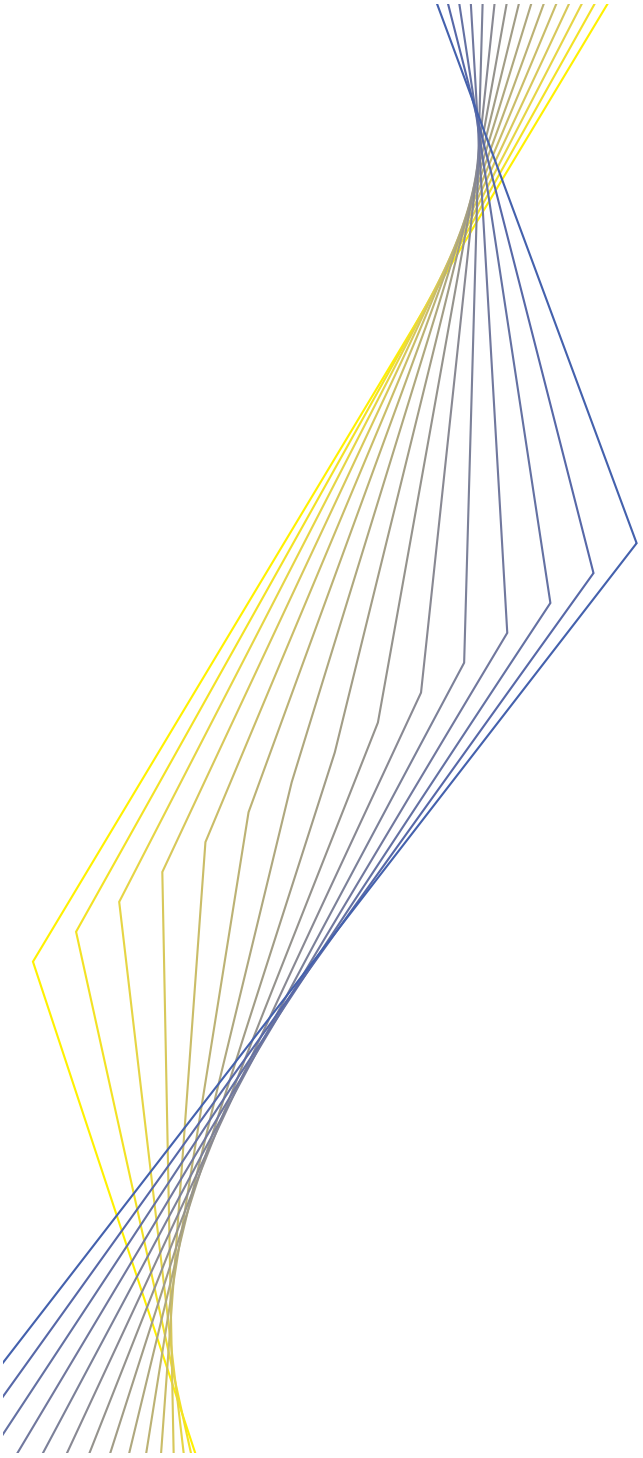

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Address	**Kaiserstrasse 29**
	D-60311 Frankfurt am Main
	Germany
Postal address	**Postfach 16 03 19**
	D-60066 Frankfurt am Main
	Germany
Telephone	**+49 69 1344 0**
Internet	**http://www.ecb.int**
Fax	**+49 69 1344 6000**
Telex	**411 144 ecb d**

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

The cut-off date for the statistics included in this issue was 5 July 2000.

ISSN 1561-0136

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
BPM4	IMF Balance of Payments Manual (4th edition)
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 meetings on 21 June and 6 July 2000 the Governing Council of the ECB decided to leave the main ECB interest rates unchanged. Thus, the minimum bid rate in the main refinancing operations of the Eurosystem was left at 4.25%, and the interest rates on the marginal lending facility and the deposit facility were kept at 5.25% and 3.25% respectively.

After the increase in ECB interest rates on 8 June 2000, the new information which became available did not, in principle, change the outlook for the maintenance of price stability in the medium term. Starting with the first pillar of the strategy, the three-month average of the annual growth rates of M3, covering the period from March to May 2000, stood at 6.3%, which was unchanged from the period from February to April 2000. The continuing substantial deviation of M3 growth from the reference value of 4½%, combined with the strong growth of both M1 and credit to the private sector, indicates that liquidity conditions remained ample in the euro area through to May.

Turning to the second pillar of the strategy, recent data on economic developments indicate that the euro area economy has continued to grow at a robust pace in early 2000. The first estimate by Eurostat of real GDP growth in the first quarter of this year was 0.7%. Although this preliminary estimate of the quarter-on-quarter rate of growth is slightly below the average observed in the second half of 1999, other indicators all point towards continuing strong growth of the domestic economy. The rate of growth of industrial production not only increased in April, but also incorporated an upward revision for the first quarter. Industrial confidence reached in June the maximum since the series began in 1985 while consumer confidence remained close to record high levels. Data at the national level indicate strong employment growth in the first quarter of 2000. At the same time, external developments are continuing to support economic growth in the euro area. Reflecting favourable domestic and external conditions for growth, the outlook for euro area growth continues to be positive.

There have not been any major changes in bond yields in the euro area and in the exchange rate of the euro in June and early July. Over this period the differential between bond yields in the euro area and the United States declined significantly. Bond markets currently reflect market expectations of sustained economic growth in the euro area and of a strengthening of the relative growth prospects of the euro area vis-à-vis the United States. At the same time, the accumulated depreciation of the exchange rate of the euro in effective terms since early 1999 remains a concern and has to be taken into account in the assessment of risks to price stability as it could result in further upward pressures on consumer prices in the period ahead.

Over recent months movements in oil prices have been the main factor shaping price developments in the euro area. As regards consumer price developments, inflation, as measured by the Harmonised Index of Consumer Prices (HICP), remained at 1.9% in May 2000. The unchanged rate of increase in the overall index reflected the fact that a lower year-on-year rate of change in a volatile component of services prices counteracted the rise in the rate of increase in energy prices. In respect of producer prices, developments in imported energy goods prices have accounted for most of the recent increases in the overall Producer Price Index (PPI). The annual rate of change in the consumer goods component of the PPI has also increased recently, signalling that the effect of past increases in import prices is gradually being passed on to consumer goods. With regard to labour costs, Eurostat data for the euro area as a whole indicate a significantly stronger increase in the first quarter of 2000 than in 1999. However, this can be partially related to one-off factors.

Over the summer months the rate of increase in consumer prices in the euro area is likely

to continue to be affected by the gradual pass-through of increases in import prices, which mainly relate to the rise in energy costs and the previous depreciation of the euro exchange rate.

Given the lags in the effects of monetary policy, the influence of monetary policy on price developments over a shorter-term horizon is very limited. Therefore, monetary policy must be forward-looking, focusing on the risks to price stability in the medium term. In this respect, a number of factors will need to be carefully monitored at the current juncture. First, strong monetary growth and ample liquidity conditions call for continuous assessment. In addition, developments in import prices, which are influenced by the evolution of the exchange rate of the euro and the prices of raw materials, will affect the outlook for prices in the euro area. In the current phase of strengthening economic growth and of upward pressure stemming from import prices, it is important that wages continue, on average, to grow at rates compatible with the objective of price stability. Wage moderation, together with structural reform in the labour markets as well as in products and services markets, will be important to sustain the process of non-inflationary growth and to reduce unemployment in the euro area. In this respect, the reforms proposed in the Broad Economic Policy Guidelines for the year 2000, adopted by the ECOFIN Council in June 2000, need to be implemented urgently. Finally, looking at the euro area as a whole, a pro-cyclical loosening of the fiscal policy stance adds to the upward risks to price stability. In this respect, currently known budget plans in most countries are not sufficiently ambitious in view of the favourable economic prospects.

Three articles are contained in this issue of the ECB Monthly Bulletin. The first article (entitled "The switch to variable rate tenders in the main refinancing operations") provides background information about the introduction of variable rate tenders in the main refinancing operations of the Eurosystem as from the reserve maintenance period starting on 24 June 2000. The article shows that the transition to the new auction procedure has been managed successfully. The second article discusses features of the monetary policy transmission process in the euro area. Knowledge of the transmission process is crucial for a central bank in order to assess the effects of its measures on the maintenance of price stability. Finally, the article entitled "Population ageing and fiscal policy in the euro area" considers the potential implications for fiscal policy of demographic changes in the euro area.

Economic developments in the euro area

1 Monetary and financial developments

Monetary policy decisions of the Governing Council of the ECB

At its meetings on 21 June and 6 July 2000 the Governing Council of the ECB decided to leave the minimum bid rate on the main refinancing operations (conducted as variable rate tenders applying the multiple rate auction procedure) at 4.25%. The interest rates on the deposit facility and on the marginal lending facility were also kept unchanged, at 3.25% and 5.25% respectively (see Chart 1).

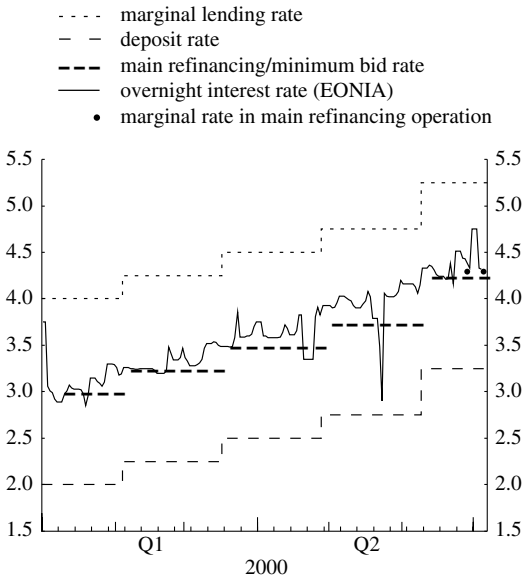
Continued strong M3 growth in May

In May 2000 the annual rate of growth of the broad monetary aggregate M3 declined to 5.9%, from 6.5% in April 2000. The three-month average of the annual growth rates of M3 covering the period from March to May 2000 remained unchanged at 6.3%. As a consequence, M3 growth continued to stand almost 2 percentage points above the reference value of 4½% (see Chart 2).

Chart 1

ECB interest rates and money market rates

(percentages per annum; daily data)

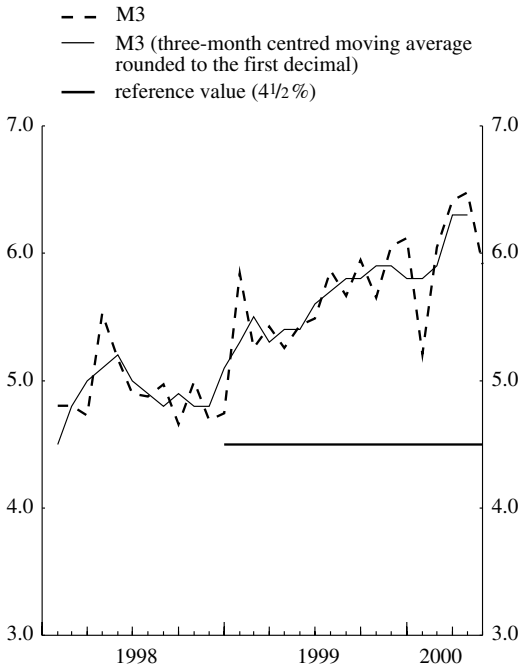


Sources: ECB and Reuters.

Chart 2

M3 growth and the reference value

(annual percentage changes)



Source: ECB.

The seasonally adjusted month-on-month changes in M3 in the period from March to May 2000 were on average 0.5% (see Table 1). This confirms that until May the short-term dynamics of M3 growth continued to be rather strong. The seasonally adjusted and annualised six-month growth rate of M3 stood at 6.5% in May, compared with 6.6% in the previous month. The sustained strength of M3 growth in early 2000 seemed to be mainly related to the increase in nominal and real GDP growth and to the flattening of the yield curve since January 2000.

As for the components of M3, the annual rate of growth of currency in circulation declined to 4.9% in May 2000, from 5.5% in the previous month (see Chart 3). Moreover, the annual growth rate of overnight deposits fell from 12.6% in April 2000 to 9.4% in May. With regard to overnight deposits, the continued rise in short-term interest rates since Autumn 1999 may have induced some

Table 1

M3 and its main components

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

	May 2000 levels	Mar. 2000 change		Apr. 2000 change		May 2000 change		Mar. 2000 to May 2000 average change	
	EUR billions	EUR billions	%	EUR billions	%	EUR billions	%	EUR billions	%
M3	4,931.4	36.8	0.8	14.6	0.3	23.0	0.5	24.8	0.5
Currency in circulation and overnight deposits (= M1)	1,994.0	16.7	0.8	13.5	0.7	0.1	0.0	10.1	0.5
Other short-term deposits (= M2 - M1)	2,156.3	3.9	0.2	1.6	0.1	13.1	0.6	6.2	0.3
Marketable instruments (= M3 - M2)	781.0	16.2	2.3	-0.5	-0.1	9.8	1.3	8.5	1.2

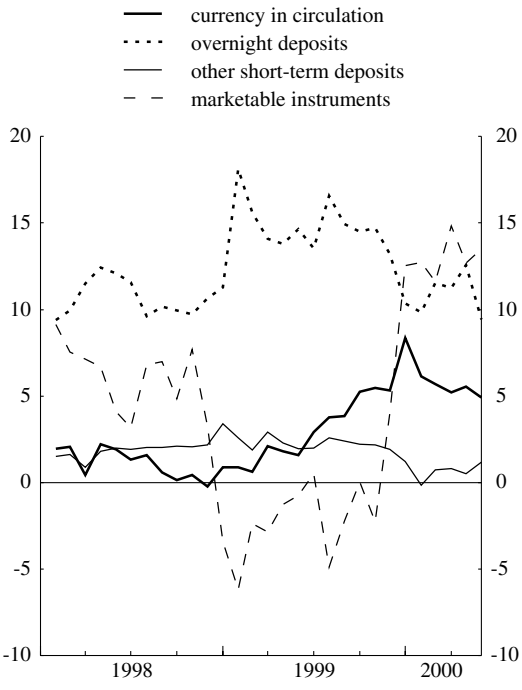
Source: ECB.
Note: Due to rounding, the sum of the components of M3 in euro (billions) may not add up to the total reported for M3.

shifts towards other short-term deposits and marketable instruments included in M3. Nevertheless, reflecting the dynamism of economic activity, the annual growth rate of overnight deposits remained strong. In this respect, the relatively high degree of uncertainty in euro area stock markets during the first five months of 2000 may have stimulated the demand for overnight deposits for precautionary purposes. As a result of the aforementioned developments in currency in circulation and overnight deposits, the annual growth rate of M1 declined to 8.6% in May 2000, compared with 11.3% in the previous month.

Chart 3

Components of M3

(annual percentage changes)



Source: ECB.

The annual growth rate of short-term deposits other than overnight deposits increased to 1.2%, from 0.5% in April. This reflected divergent developments in the components of this item. The annual rate of growth of deposits with an agreed maturity of up to two years rose significantly in May, to 4.7%, from 1.3% in the previous month. This increase presumably mirrored the gradual rise in short-term retail interest rates in the euro area and the flattening of the yield curve seen over recent months. At the same time, the annual rate of decline in deposits redeemable at a period of notice of up to three months was 1.2%, compared with 0.1% in April. This continued a downward trend in the demand for these instruments, which started in the summer of 1999 and has probably been a result of the rise in short-term interest rates in the euro area vis-à-vis the retail rates on these deposits, which reduced the relative attractiveness of the latter in terms of yield.

As a consequence of the significant decline in the annual growth rate of M1, which more than offset the increase in the annual growth rate of short-term deposits other than overnight deposits, the annual rate of increase in the monetary aggregate M2 declined from 5.5% in April to 4.6% in May 2000.

The annual rate of growth of the marketable instruments included in M3 rose in May 2000 to 13.5%, from 12.7% in the previous month. This reflected contrasting developments in the individual instruments. On the one hand, the annual rate of increase in debt securities issued with a maturity of up to two years (which account for less than 2% of M3) declined to 25.5% in May 2000, from 37.3% in the previous month. On the other hand, the annual growth rate of repurchase agreements rose from 2.8% in April to 4.7% in May, and that of money market fund shares and money market paper increased from 13.6% in April to 15.6% in May. Overall, the rapid pace of increase in marketable instruments is likely to have continued to reflect the flattening of the yield curve, mainly due to the rise in short-term interest rates in recent months. However, it should be borne in mind that, within the current statistical framework of the Eurosystem, the amount of marketable instruments issued by MFIs and held by non-residents cannot be measured, although, in principle, it should be excluded from M3.

Growth of credit to the private sector remained high

The annual growth rate of total credit granted to euro area residents declined from 8.1% in April 2000 to 7.6% in May. This decrease reflected a further decline in the annual rate of change in credit extended to general government, to -2.6%, from -1.2% in the previous month. By contrast, the annual rate of increase in credit extended to the private sector was practically unchanged at 11.3%, thus remaining high.

As regards credit to the private sector, the annual growth rate of loans to the private sector stood at 10.1% in May. The seasonally adjusted and annualised six-month rate of change in loans to the private sector was also 10.1% in May, compared with 10.8% in April. The fact that the growth of loans to the private sector remained high reflects the strength of current economic activity and the favourable prospects for euro area economic growth. In addition, the substantial merger and acquisition activity in the euro area and the interplay of mortgage loans and significant rises in real estate prices in some euro area countries constitute additional factors underlying this evolution. Finally, it should be noted that bank lending rates are still relatively low by historical standards. As for the other components of credit to the private sector, the annual growth rates of MFI holdings of securities other than shares and of holdings of shares and other equity were little changed in May, at 17.0% and 24.0% respectively.

The further decline in the annual rate of change in credit to general government reflected both a lower growth of loans, with an annual growth rate of 0.3% in May, compared with 1.0% in April, and a stronger annual rate of decline in MFIs' holdings of securities other than shares issued by general government, of 4.6%, compared with 2.8% in the previous month.

Regarding the other counterparts of M3, the annual rate of increase in longer-term financial liabilities of the MFI sector increased slightly in May, to 7.1%, from 6.9% in the previous month. Among these liabilities, the annual growth rate of deposits with an agreed maturity of over two years and of debt securities issued with a maturity of over two years increased slightly, to 4.4% and 5.8% respectively, from 4.0% and 5.6% in April. The annual rate of decline in deposits redeemable at notice of over three months fell to 0.6%, from 4.6% in the previous month. The annual growth rate of capital and reserves declined to 14.4%, compared with 14.8% in April.

Table 2

M3 and its main counterparts

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

	Amounts outstanding	12-month flows					
	2000 May	1999 Dec.	2000 Jan.	2000 Feb.	2000 Mar.	2000 Apr.	2000 May
1. Credit to the private sector	6,474.5	584.2	538.1	592.5	623.1	655.1	652.7
2. Credit to general government	2,008.5	34.7	29.0	17.8	-16.5	-25.5	-54.6
3. Net external assets	189.3	-171.3	-180.8	-120.2	-184.9	-194.5	-167.2
4. Longer-term financial liabilities	3,680.2	260.8	244.4	249.5	236.5	234.5	243.1
5. Other counterparts (net liabilities)	60.7	-86.6	-93.0	-31.5	-104.6	-94.5	-83.8
M3 (=1+2+3-4-5)	4,931.4	273.8	235.4	272.4	290.2	295.6	272.0

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

In May 2000 the net external asset position of the euro area MFI sector decreased by €13 billion, in absolute and non-seasonally adjusted terms, following a decrease of €23 billion in the previous month.

Overall, in the 12 months up to May 2000 credit to the private sector rose by €653 billion, while credit to general government declined by €55 billion (see Table 2). During the same period, the net external assets of the MFI sector declined by €167 billion. These developments were mirrored on the liabilities side of the MFI sector consolidated balance sheet by increases in M3 and in longer-term financial liabilities of €272 billion and €243 billion respectively. Finally, the other counterparts of M3 (net liabilities) declined by €84 billion.

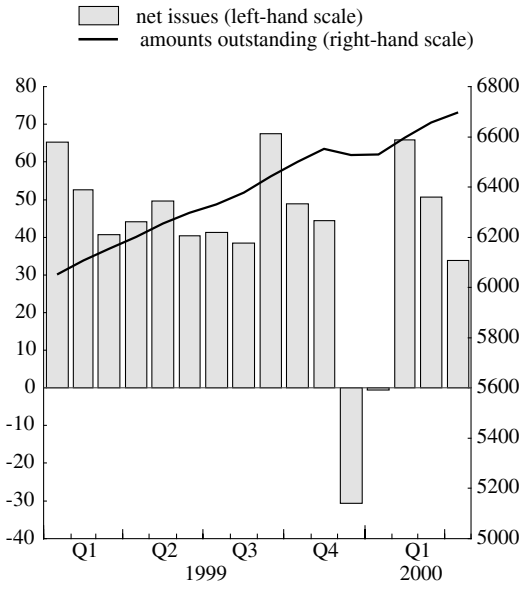
Relatively low net issuance of debt securities in April

In April 2000 the gross issuance of debt securities by euro area residents totalled EUR 357.6 billion, compared with an amount of EUR 343.3 billion in April 1999 and an average monthly gross issuance of EUR 320.7 billion over the previous 12 months. Redemptions in April 2000 amounted to EUR 323.7 billion. Therefore, net issues in April were EUR 33.8 billion (see Chart 4). This was lower than the net issuance of EUR 44.1 billion in April 1999 and the average monthly net issuance of EUR 38.3 billion over the previous 12 months. Reflecting these developments, the amount outstanding of debt securities issued by euro area residents was EUR 6,698.2 billion at the end of April 2000. This was 8.0% higher than a year earlier and compared with an annual rate of increase of 8.2% in March 2000.

Chart 4

Debt securities issued by euro area residents

(EUR billions)



Source: ECB.
Note: Net issues differ from the change in amounts outstanding owing to valuation changes, reclassifications and other adjustments.

The relatively low net issuance of total debt securities by euro area residents in April 2000 was largely concentrated in the short-term segment of the market. The annual growth rate in the amount outstanding of short-term debt securities issued by euro area residents decreased from 12.6% in March 2000 to 9.7% in April. By contrast, the annual growth rate in the amount outstanding of long-term debt securities issued by euro area residents remained broadly unchanged in April 2000, at slightly below 8%.

The sectoral breakdown reveals that the lower issuance of debt securities by euro area residents in April 2000 was mainly due to subdued issuance activity by MFIs. Reflecting the lower level of issuance activity by MFIs, the annual rate of increase in the amount outstanding of euro-denominated securities issued by the MFI sector in April 2000 fell to 10.3%, from 11.1% in March. At the same time, lower issuance activity by non-monetary financial corporations also contributed to the slower annual growth in amounts outstanding of debt securities issued by euro area residents. The annual rate of increase in the amount outstanding of debt securities in this sector decreased from 42.2% in March 2000 to 39.3% in April. By contrast, the annual growth rate in the amount outstanding of debt securities issued by non-financial corporations increased from 8.2% in March 2000 to 9.8% in April. With regard to debt securities issued by the public sector, the annual growth rate in the amount outstanding of debt securities issued by central government was 3.7% in April 2000, which was slightly higher than the annual growth rate of 3.5% for March 2000. The annual growth rate of the amount outstanding of debt securities issued by other parts of general government decreased slightly, from 3.4% in March 2000 to 3.3% in April.

Retail bank interest rates continued to increase in May

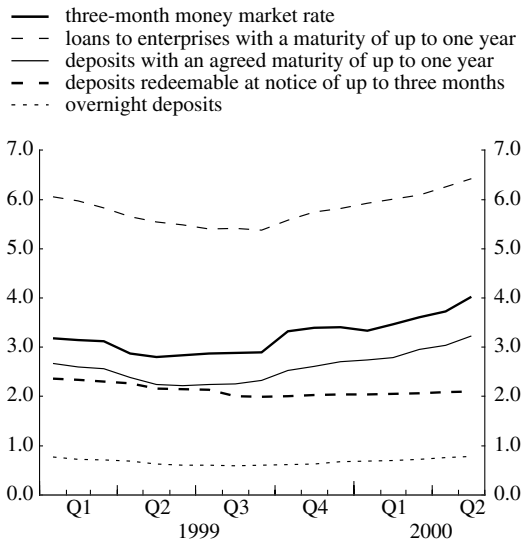
Short-term retail bank interest rates in the euro area continued to rise in May 2000 (see Chart 5), reflecting the increases in money market interest rates during the same period as well as the increase in ECB interest rates on 27 April. The average interest rates on overnight deposits and deposits redeemable at a period of notice of up to three months edged slightly higher in May, to stand at 0.8% and 2.1%, respectively. The average rates on deposits with an agreed maturity of up to one year increased by 19 basis points, to over 3.2%, while the average rate on loans to enterprises with a maturity of up to one year increased by 16 basis points to reach 6.4% in May. Since September 1999, when money market interest rates started to increase noticeably, short-term retail bank interest rates have increased by significantly less than comparable market interest rates. Nevertheless, with the exception of the average interest rate on deposits redeemable at a period of notice of up to three months, short-term retail bank interest rates in May 2000 were all well above the levels that prevailed one year earlier.

At longer maturities, average retail bank interest rates also increased in May. The

Chart 5

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

(percentages per annum; monthly averages)

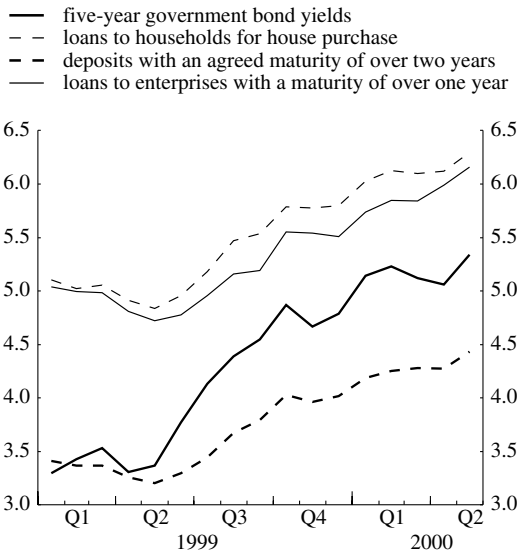


Sources: ECB aggregation of individual country data and Reuters.

Chart 6

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

(percentages per annum; monthly averages)



Sources: ECB aggregation of individual country data and Reuters.

average interest rate on deposits with an agreed maturity of more than two years rose by 16 basis points to over 4.4%. Similarly, the average interest rate on loans to households for house purchase increased by 18 basis points to 6.3% and the average rate on loans to enterprises edged 17 basis points higher to reach almost 6.2% in May. Overall, since May 1999, when capital market interest rates started to rise, longer-term retail bank interest rates have increased substantially. For example, the average rate on loans to households for house purchase in May 2000 stood almost 150 basis above the level which prevailed one year earlier (see Chart 6).

Money market interest rates stabilised following the increase in ECB interest rates on 8 June

After having risen at the end of May in anticipation of a monetary policy move by the Governing Council of the ECB, the overnight interest rate, as measured by the EONIA, rose further by around 15 basis points upon the announcement of the decision to increase ECB rates by 50 basis points on 8 June. This indicates that the size of the interest rate increase by the ECB was only partially expected by the market. After adjusting to the new level of the main refinancing rate of 4.25%, the EONIA fluctuated between 4.1% and 4.5% over the last few days of the reserve maintenance period which ended on 23 June 2000. This variability reflected some unforeseen tightening of liquidity conditions which was offset in part by the conduct by the Eurosystem of a liquidity-providing fine-tuning operation on 21 June 2000 (see Box 1).

As from the reserve maintenance period starting on 24 June 2000, the main refinancing operations were conducted by the Eurosystem as variable rate tenders using the multiple rate allotment procedure, with a minimum bid rate of 4.25%. The marginal interest rates of allotment for the two operations which were settled on 28 June and 5 July were both equal to 4.29% (see the article entitled "The switch to variable rate tenders in the main refinancing operations" in this issue of the Monthly Bulletin). For most of the first two weeks of this reserve maintenance period the EONIA traded at around 4.30%. Only on 30 June did the EONIA rise temporarily to 4.75%, reflecting the desire on the part of financial market participants to adjust their balance sheets at the end of the second quarter, as had also occurred at the end of June 1999.

Following the announcement of the decision by the Governing Council of the ECB to increase interest rates on 8 June, other money market rates also rose. The one-month and three-month EURIBOR rose by 19 and 13 basis points respectively between 8 and 9 June 2000. After this upward adjustment, the one-month and three-month EURIBOR remained almost unchanged between 9 June and 5 July 2000 (see Chart 7).

Financial market interest rate expectations, as reflected in the three-month EURIBOR

Box 1

Monetary policy operations and liquidity conditions in the reserve maintenance period ending on 23 June 2000

Allotments in monetary policy operations

During the reserve maintenance period which ran from 24 May to 23 June 2000, the Eurosystem settled four main refinancing operations, one fine-tuning operation and one longer-term refinancing operation. The first two main refinancing operations were carried out at a fixed interest rate of 3.75%, while the other two were carried out at a fixed interest rate of 4.25%. The allotted volumes ranged between €62.0 billion and €78.3 billion. The amounts of bids submitted for the main refinancing operations varied between €1,868 billion and €8,491 billion, with an average of €5,258 billion, compared with an average bid amount of €5,761 billion in the previous maintenance period. The allotment ratios in the main refinancing operations varied between 0.87% and 3.96%, compared with a range of between 1.00% and 1.62% in the preceding maintenance period. The new record high in terms of total bids submitted and the new record low in the allotment ratio, of 0.87%, can be explained by expectations of a rise in ECB interest rates in the first two weeks of the period under review.

On 21 June 2000 the ECB conducted a liquidity-providing fine-tuning operation, specified as a reverse operation with overnight maturity and conducted as a variable rate tender. The bids amounted to €18.8 billion, while the amount allotted was €7.0 billion. 38 counterparties participated in this operation. The marginal rate was 4.26% and the weighted average rate was 4.28%. Around 83% of the bids were allotted at the marginal rate. The operation aimed at restoring appropriate liquidity conditions after unexpected heavy recourse to the deposit facility of €11.2 billion on 20 June.

The Eurosystem conducted a longer-term refinancing operation on 31 May 2000 through a variable rate tender with a pre-announced allotment volume of €20.0 billion. A total number of 301 bidders participated in this operation and the total amount of bids was €64.3 billion. The marginal rate of the operation was 4.40%, while the weighted average rate was 2 basis points higher, i.e. 4.42%.

Contributions to the banking system's liquidity

(EUR billions)

Daily average during the reserve maintenance period from 24 May to 23 June 2000

	Liquidity providing	*Liquidity absorbing*	*Net contribution*
(a) Monetary policy operations of the Eurosystem	**201.3**	**0.8**	**+ 200.5**
Main refinancing operations	140.9	-	+ 140.9
Longer-term refinancing operations	59.9	-	+ 59.9
Standing facilities	0.3	0.8	- 0.5
Other operations	0.2	0.0	+ 0.2
(b) Other factors affecting the banking system's liquidity	**378.1**	**464.5**	**- 86.4**
Banknotes in circulation	-	354.1	- 354.1
Government deposits with the Eurosystem	-	38.3	- 38.3
Net foreign assets (including gold)	378.1	-	+ 378.1
Other factors (net)	-	72.1	- 72.1
(c) Credit institutions' holdings on current accounts with the Eurosystem (a) + (b)			**114.1**
(d) Required reserves			**113.4**

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

The evolution of EONIA in the first two weeks of the period under review was determined by, first, expectations of and, subsequently, the actual increase in ECB rates. Although liquidity conditions were quite comfortable, a substantive spread between the EONIA and the rate on the main refinancing operation prevailed. After the decision of the Governing Council of 8 June to increase ECB rates by 50 basis points, the EONIA rose from 4.06% on Wednesday 7 June to 4.33% on Friday 9 June. From 13 June onwards, the EONIA started to decline steadily to reach a level of 4.21% on Monday 19 June, as a result of increased expectations that the ECB would aim at a smooth ending to the maintenance period. However, the aforementioned liquidity absorption through the large recourse to the deposit facility on 20 June again pushed the EONIA upwards to 4.38% on 21 June. The liquidity injection through the ECB's fine-tuning operation on 21 June allowed rates to come down again in the afternoon, and on the following day (22 June). On Friday 23 June, the last day of the maintenance period, relatively active interbank trading, especially in the afternoon, and the anticipated slight net recourse to the marginal lending facility at the end of the day once again resulted in a higher EONIA of 4.51%.

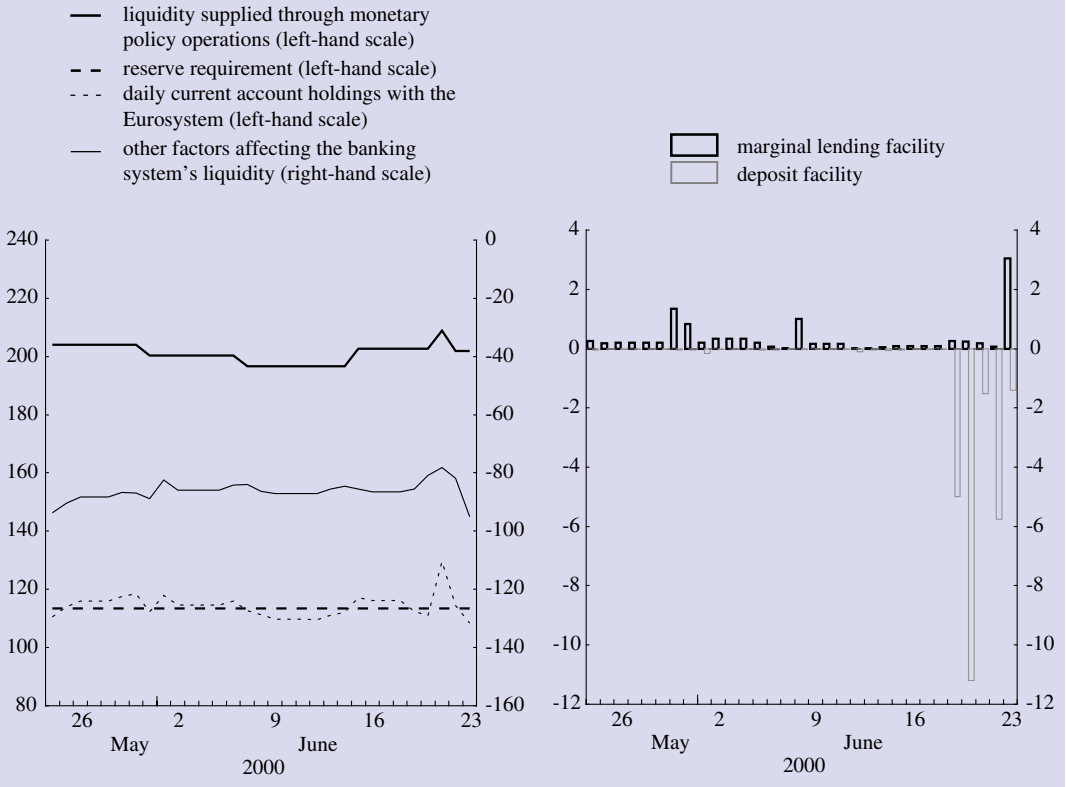
Compared with the previous reserve maintenance period, the average daily use of the marginal lending facility decreased slightly, from €0.4 billion to €0.3 billion, while the average use of the deposit facility decreased from €2.3 billion to €0.8 billion. This latter average was the result of recourse to the deposit facility of close to zero on most days, combined with the exceptionally high recourse on three days.

Liquidity factors not related to monetary policy

The net liquidity-absorbing impact of the autonomous factors (i.e. the factors not related to monetary policy) on the banking system's liquidity (item (b) in the table above) was €86.4 billion on average, i.e. €2.3 billion

Factors contributing to the banking system's liquidity during the maintenance period ending on 23 June 2000

(EUR billions; daily data)



Source: ECB.

less than in the previous maintenance period. This was mainly the result of a decrease in net government deposits. This liquidity-providing effect was partly offset by lower net foreign assets and a slightly higher level of banknotes in circulation. On a day-to-day basis, the sum of autonomous factors fluctuated between €71.1 billion and €95.1 billion.

Current account holdings of counterparties

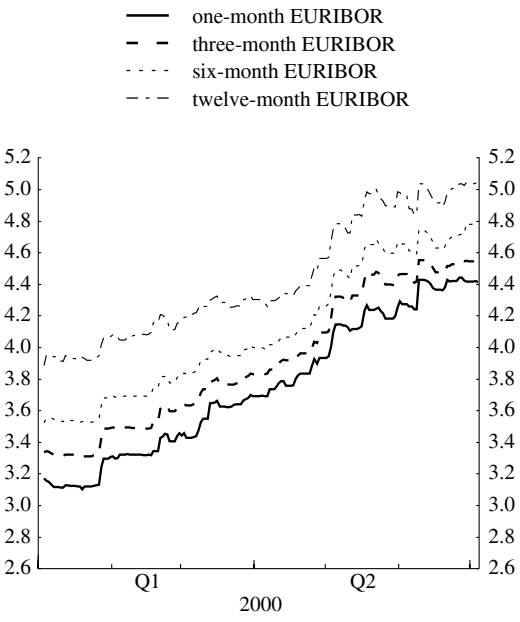
The average current account holdings amounted to €114.1 billion, and reserve requirements to €113.4 billion. The difference between the two therefore amounted to €0.7 billion. Around €0.2 billion of this amount was related to current account holdings not contributing to the fulfilment of reserve requirements, and €0.5 billion to excess reserves.

implied in futures rates, were little changed between the end of May and 5 July 2000. The three-month EURIBOR implied in futures contracts for delivery in September and December 2000 and March 2001, after moving upwards immediately after the announcement of the interest rate increase on 8 June, declined slightly in the remainder of June. On 5 July these rates were equal to 4.77%, 5.10% and 5.17% respectively, which was 11, 4 and 3 basis points lower respectively than at the end of May 2000.

Chart 7

Short-term interest rates in the euro area

(percentages per annum; daily data)



Source: Reuters.

The six-month and 12-month EURIBOR rose by 11 and 5 basis points between the end of May and 5 July, to stand at 4.78% and 5.04% respectively.

In the longer-term refinancing operation of the Eurosystem, settled on 29 June 2000, the marginal and average interest rates of allotment were equal to 4.49% and 4.52% respectively. This was 6 and 3 basis points respectively below the three-month EURIBOR rate prevailing on the day the operation was conducted.

Long-term bond yields were broadly stable in June

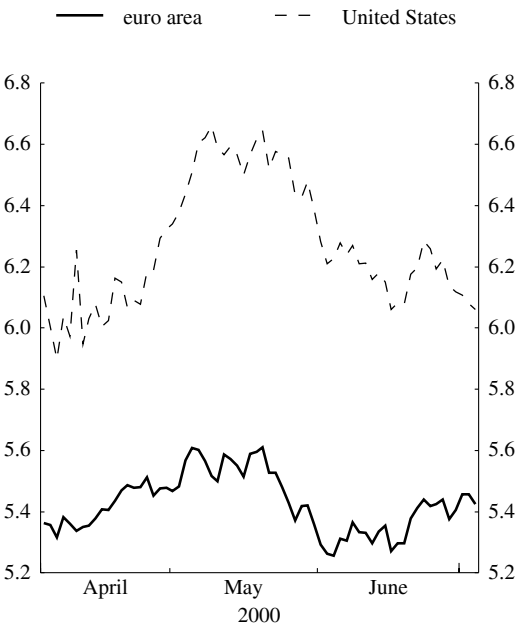
Following the brief period of declining long-term interest rates in May, euro area long-term government bond yields displayed no clear trend during June and early July 2000 (see Chart 8). The average level of ten-year bond yields in the euro area stood at around 5.40% on 5 July 2000, which was slightly higher than the level observed at the end of May 2000. By contrast, long-term bond yields in the United States declined between the end of May and 5 July. The spread between US and euro area ten-year bond yields narrowed by approximately 40 basis points during this period, to reach a level of around 65 basis points on 5 July.

Between the end of May and 5 July US ten-year bond yields declined by approximately 30 basis points, to around 6.05%, which

Chart 8

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

(percentages per annum; daily data)



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

brought the cumulative decline in US bond yields since the peak in late January 2000 to around 90 basis points. As had been the case in May, developments in US bond markets in June appeared to have been largely driven by reassessments by investors who may have revised downwards both their growth and their inflation expectations and, in connection with this, their expectations of future short-term interest rates in the United States.

In Japan ten-year bond yields increased by around 10 basis points between the end of May 2000 and 5 July, to around 1.75%. Renewed optimism regarding the pace of recovery of the Japanese economy, following recent official reports, seemed to contribute to this increase in bond yields. Furthermore, a significant increase in Japanese stock prices in June may have placed additional upward pressure on Japanese long-term bond yields, as investors reversed some of their earlier "safe haven" positions. In addition, concerns among some market participants regarding the possible consequences of anticipated increases in government spending may have added to the upward pressure on Japanese bond yields.

The drop in US long-term interest rates in the course of June and early July had little influence on euro area bond markets, as evidenced by the broad stability of bond yields in the euro area. Similarly, the decision on 8 June to raise ECB interest rates had limited immediate impact on euro area bond markets. In the second half of June euro area bond yields increased somewhat, at a time when oil prices rose and when data releases showed higher than expected inflation outcomes for individual countries in the euro area, as well as continued indications of positive growth prospects.

The euro area yield curve continued to flatten in the course of June, albeit at a slower pace than in previous months. Between the end of May 2000 and 5 July, the slope of the yield curve, as measured by the difference between ten-year euro area bond yields and the three-month EURIBOR interest rate, declined by approximately 5 basis points, to below 90 basis points. This levelling-off of the slope of the yield curve was due to the aforementioned increases in short-term money market rates during this period. The implied forward euro area overnight interest rate curve displayed only relatively minor changes between the end of May and early July 2000 (see Chart 9).

The evidence from the French index-linked bond market suggests that the market's long-term growth and inflation expectations for the euro area were broadly stable in June and early July. Specifically, the real yield available on the French 10-year index-linked bond declined only marginally between the end of May and 5 July, while the 10-year break-even inflation rate obtained from the difference between French nominal and index-linked bonds increased by around 5 basis points over the same period. The small overall change in the break-even inflation rate in June masked the fact that this measure of

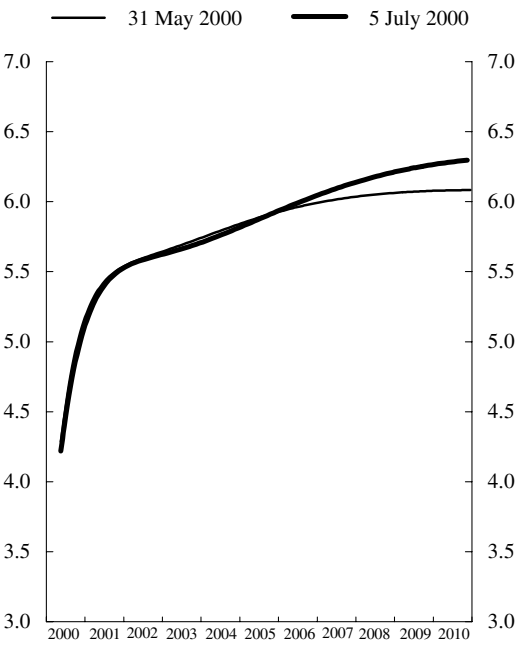
long-term inflation expectations declined by around 10 basis points in the days immediately following the ECB interest rate announcement on 8 June, and subsequently rose again in the last two weeks of June and in early July. This development would be consistent with a slight increase in the market's long-term inflation expectations during the latter period, which largely offset any dampening effect on inflation expectations induced by the interest rate decision. However, as always, changes in the break-even inflation rate, and in particular relatively small movements, should be interpreted with caution, as a number of caveats apply.

Stock market volatility declined somewhat in June

Following the pronounced degree of volatility that had been observed in global stock markets between March and May 2000, stock markets were somewhat calmer in June. Over the period from the end of May to 5 July in the euro area the Dow Jones EURO STOXX index was little changed. By contrast in the United States the Standard and Poor's 500 index increased by approximately 2%, and in Japan the Nikkei 225 index increased by around 4% (see Chart 10). Compared with the levels that had prevailed at the end of 1999, by 5 July stock prices had increased by around 2.5% in the euro area while, by contrast, they had declined by 1% in the United States and by 7% in Japan.

Chart 9

Implied forward euro area overnight interest rates



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.

Considering, first, the international environment for stock markets, following the recovery at the end of May stock prices in the United States continued to move upwards at the beginning of June and remained broadly unchanged thereafter. As economic data releases were seen by market participants as pointing towards a slowdown in the pace of economic activity in the United States, there seemed to be some decline in expected future corporate earnings. Nevertheless, any corresponding downward pressures on US stock prices seemed to be outweighed by the influence of declining long-term interest rates in the United States in June.

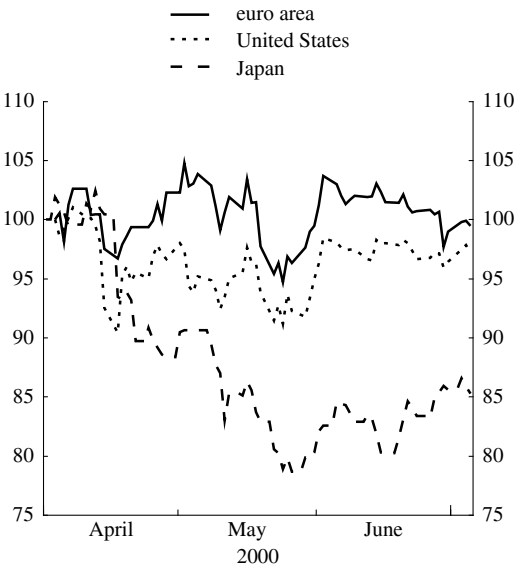
There was a decline in US stock market volatility in June. This pattern of declining volatility and increasing stock prices was particularly pronounced in the US technology sector. Between the end of May and 5 July, the Nasdaq Composite index, which comprises a large proportion of technology stocks, increased by around 14%. Implied volatility on the Nasdaq 100 index declined from 63% per annum at the end of May to 48% per annum on 5 July. This level of volatility, however, remained much higher than the average levels observed over recent years.

In Japan stock prices recovered markedly in June. This increase in June seemed to reflect rising optimism about the economic prospects for Japan. However, as noted

Chart 10

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

(index: 1 April 2000 = 100; daily data)



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

above, by 5 July Japanese stock prices still remained well below the levels seen at the end of 1999.

In the euro area stock prices as measured by the Dow Jones EURO STOXX index were little changed on 5 July, compared with the level at the end of May, thereby remaining at a level that was 2.5% above end-1999 levels. The stock market was stable despite the release in June of a series of economic indicators which all pointed towards stronger than expected economic activity in the euro area in the coming months.

As in the United States, stock market volatility declined markedly in the euro area in June. Implied volatility on the Dow Jones EURO STOXX 50 index dropped from around 26% per annum at the end of May to around 22% per annum on 5 July. This was the lowest level seen since December 1999.

2 Price developments

HICP inflation remained unchanged in May 2000

In May 2000 the year-on-year increase in the overall Harmonised Index of Consumer Prices (HICP) in the euro area stood at 1.9%, the same rate of increase as in the previous month. However, behind this unchanged rate of increase was an upward movement in the annual change for a number of the HICP sub-components, most notably energy and unprocessed food prices. By contrast, as the effects of developments in one volatile component subsided, the year-on-year rate of change in services prices declined in May 2000 (see Table 3).

As expected, reflecting the strong rebound in the price of oil from an average of €24.6 per barrel in April 2000 to €30.4 in May, the year-on-year increase in energy prices rose to 12.2% in May 2000, compared with an increase of 10.5% in April (see Chart 11). These developments in the price of oil in turn reflected both strong world market prices and the depreciation in the euro exchange rate in the period up to mid-May 2000. Since then, although the euro exchange rate has appreciated somewhat, world market prices have continued to rise, pushing up the price of oil to €31.5 per barrel in June. This is expected to have resulted in further upward pressure on the energy component of the

Table 3

Price and cost developments in the euro area

(annual percentage changes, unless otherwise indicated)

	1997	1998	1999	1999 Q3	1999 Q4	2000 Q1	2000 Q2	2000 Jan.	2000 Feb.	2000 Mar.	2000 Apr.	2000 May	2000 June
Harmonised Index of Consumer Prices (HICP) and its components													
Overall index	1.6	1.1	1.1	1.1	1.5	2.0	.	1.9	2.0	2.1	1.9	1.9	.
of which:													
Goods	1.2	0.6	0.8	0.9	1.5	2.3	.	2.2	2.3	2.6	2.0	2.3	.
Food	1.4	1.6	0.5	-0.2	0.4	0.4	.	0.4	0.6	0.4	0.6	0.8	.
Processed food	1.4	1.4	0.9	0.6	0.9	1.0	.	1.0	1.0	1.0	0.9	1.0	.
Unprocessed food	1.4	1.9	0.0	-1.4	-0.3	-0.3	.	-0.5	0.0	-0.5	0.2	0.6	.
Industrial goods	1.0	0.1	1.0	1.5	2.1	3.4	.	3.1	3.2	3.7	2.7	3.1	.
Non-energy industrial goods	0.5	0.9	0.7	0.6	0.6	0.6	.	0.7	0.5	0.6	0.5	0.6	.
Energy	2.8	-2.6	2.2	4.6	7.8	13.6	.	12.0	13.5	15.3	10.5	12.2	.
Services	2.4	2.0	1.5	1.5	1.4	1.6	.	1.7	1.6	1.6	1.9	1.6	.
Other price and cost indicators													
Industrial producer prices [1]	1.1	-0.8	0.0	0.7	3.1	5.7	.	5.1	5.8	6.3	5.7	.	.
Unit labour costs [2]	0.7	0.0	1.1	0.9	0.4	.	.	-	-	-	-	-	-
Labour productivity [2]	1.7	1.4	0.8	1.1	1.7	.	.	-	-	-	-	-	-
Compensation per employee [2]	2.4	1.4	1.9	2.0	2.1	.	.	-	-	-	-	-	-
Total hourly labour costs [3]	2.5	1.6	2.1	2.2	2.4	3.5	.	-	-	-	-	-	-
Oil prices (EUR per barrel) [4]	17.1	12.0	17.1	19.7	23.0	27.1	29.1	24.9	27.6	28.4	24.6	30.4	31.5
Commodity prices [5]	12.9	-12.5	-3.1	1.1	14.0	19.9	18.3	19.4	20.0	20.2	19.4	22.8	12.9

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

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.

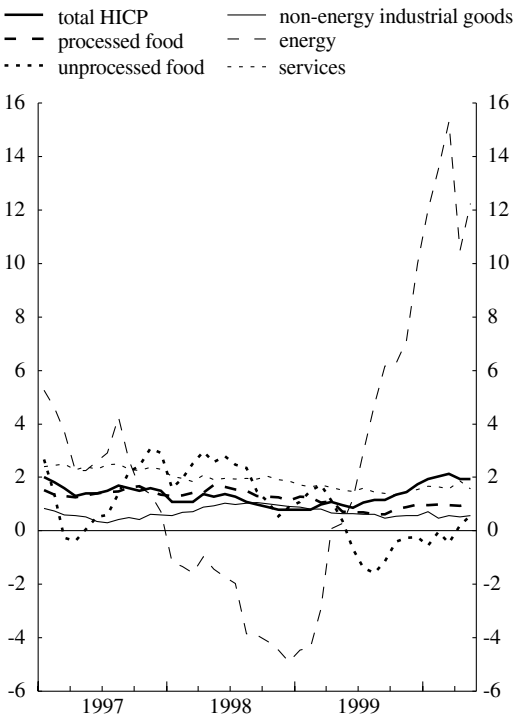
HICP in June. Moreover, if sustained, there is a risk that such developments will have a more delayed upward impact on prices for non-energy goods and services in the HICP.

In addition to stronger energy price increases, the annual changes in both unprocessed and – to a lesser extent – processed food prices also rose in May 2000, to 0.6% and 1.0% respectively. Similarly, the annual percentage change in non-energy industrial goods prices edged upwards by 0.1 percentage point, to 0.6%, in May 2000. With this small increase, the current rate of increase in non-energy industrial goods prices remains below its average level in either 1998 or 1999. At this juncture, one might have expected to observe a more significant upward impact on non-energy industrial goods prices as a result of a pass-through from price increases at earlier stages in the production process, as reflected in industrial producer price developments. Meanwhile, as the effects of an increase in the relatively volatile prices of package holidays subsided, the year-on-year change in services prices in the euro area fell back 0.3 percentage point to 1.6% in May.

Chart 11

Breakdown of HICP inflation in the euro area by components

(annual percentage changes; monthly data)



Source: Eurostat.

Producer price inflation declined slightly in April 2000

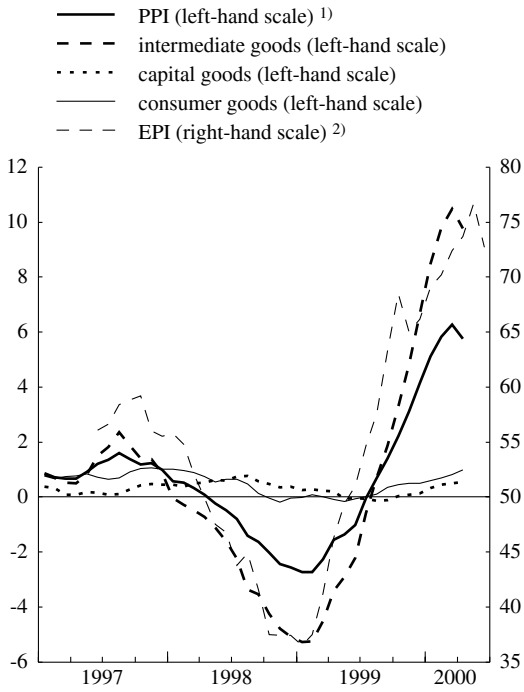
In April 2000 the annual rate of increase in total industrial producer prices in the euro area declined to 5.7%, compared with an increase of 6.3% in March (see Chart 12). Although this was the first decline in the year-on-year rate of increase in industrial producer prices since February 1999, it was largely anticipated, given the decline in oil prices in April 2000 and the negative base effect associated with rising producer prices between March and April 1999. In terms of the components of the Producer Price Index (PPI), this decline in oil prices was most clearly reflected in intermediate goods prices, for which the year-on-year change fell to 9.8% in April 2000, down from 10.5% in March. By contrast, continuing the trend observed since mid to late 1999, the year-on-year increase in prices for industrial consumer goods rose to 1.0% in April 2000, up from 0.8% in March. Overall, although still quite moderate, the latest developments in consumer goods prices in the PPI are consistent with the expected pass-through of higher raw material and intermediate input prices into final goods prices further along the chain of production. By contrast with consumer goods prices, however, the year-on-year rate of increase in capital goods prices was stable at 0.5% in April, unchanged from its level in March.

Looking to likely short-term developments in producer prices since April 2000, the significant increase in oil prices in May is likely to have given rise to renewed upward pressure on the PPI. In line with this picture, the Eurozone Price Index (EPI), which measures prices paid by manufacturers for their inputs, also rose significantly in May 2000. However, this increase was subsequently reversed in June (see Chart 12), perhaps reflecting the most recent

Chart 12

Producer prices and manufacturing input prices for the euro area

(monthly data)



Sources: Eurostat and Reuters.

1) Industrial producer prices; 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.

appreciation in the exchange rate of the euro, as well as lower non-energy commodity prices. Overall, however, developments in the EPI continue to suggest upward pressure on input costs in the manufacturing sector in the euro area.

Nominal labour cost growth rose in the first quarter of 2000

A first estimate for the growth in total hourly labour costs in the first quarter of 2000 shows a significant rise to 3.5% year-on-year, up by 1.1 percentage points compared with the growth rate in the last quarter of 1999 (see Table 3). This pick-up in nominal wage growth was somewhat out of line with expectations based on earlier information on negotiated wages, although it can be explained – at least partially – by bonus and other one-off payments in a major euro area economy which are not expected to persist over the remainder of 2000. Reflecting the cyclical rebound in labour productivity growth, unit labour costs grew by only 0.4% in the last quarter of 1999. In the first quarter of 2000 compensation per employee is expected to have increased in line with the above developments in hourly labour costs. Thus – although productivity growth is likely to have remained robust – the annual increase in unit labour costs is expected to have risen in the first quarter of 2000.

3 Output, demand and labour market developments

Sustained output growth in early 2000

According to a first estimate released by Eurostat, real GDP in the euro area grew by 3.2% in the first quarter of 2000 compared with a year earlier, slightly up from the annual growth of 3.1% recorded in the fourth quarter of 1999 (see Table 4). Quarter-on-quarter growth was 0.7% in the first quarter of 2000. Growth was primarily accounted for by domestic demand, which contributed close to 0.7 percentage point, while the contribution of net exports was only slightly positive. Other indicators all point towards strong growth of the domestic economy, and GDP growth in the first quarter of this year may subsequently be revised upwards.

Consumer demand showed no growth in the first quarter of 2000 and annual growth fell to 1.5%, from 2.4% in the last quarter of 1999, although this may partly be explained by the fact that Easter fell relatively late this year, at the end of April. Low growth in

Table 4

Composition of real GDP growth in the euro area

(percentage changes, unless otherwise indicated; seasonally adjusted)

	Annual rates [1]								Quarterly rates [2]				
	1997	1998	1999	1999 Q1	1999 Q2	1999 Q3	1999 Q4	2000 Q1	1999 Q1	1999 Q2	1999 Q3	1999 Q4	2000 Q1
Real gross domestic product	2.3	2.7	2.3	1.8	2.0	2.5	3.1	3.2	0.7	0.6	1.0	0.8	0.7
of which:													
Domestic demand	1.7	3.4	2.8	2.9	2.9	2.9	2.6	2.4	0.9	0.5	0.6	0.6	0.7
Private consumption	1.5	3.0	2.5	2.7	2.4	2.4	2.4	1.5	0.8	0.3	0.8	0.5	0.0
Government consumption	0.8	0.9	1.4	1.4	1.3	1.6	1.5	1.6	0.9	0.1	0.3	0.2	1.0
Gross fixed capital formation	2.2	4.3	4.8	3.9	5.4	5.1	4.9	5.3	1.8	1.0	1.7	0.4	2.1
Changes in inventories [3] [4]	0.2	0.5	0.1	0.2	0.1	0.1	-0.1	0.0	-0.1	0.1	-0.3	0.2	0.0
Net exports [3]	0.6	-0.5	-0.4	-1.0	-0.9	-0.4	0.5	0.8	-0.2	0.1	0.4	0.2	0.1
Exports [5]	10.3	6.9	4.4	0.5	2.2	5.5	9.3	12.6	0.1	2.7	3.5	2.6	3.2
Imports [5]	8.8	9.3	6.0	3.7	5.2	7.0	8.2	10.7	0.9	2.5	2.5	2.1	3.2

Sources: Eurostat and ECB calculations.

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.*

consumer demand was partly offset by a strong rise in gross fixed capital formation. After a slight slowdown towards the end of last year, growth in fixed capital formation recovered and reached 2.1% quarter-on-quarter in the first quarter of this year. Growth in government consumption was also robust and changes in inventories made a zero contribution to quarter-on-quarter and annual growth in the first quarter of 2000. Finally, imports and exports, including intra-area trade, grew at similar rates in the first quarter, 3.2% higher than in the last quarter of 1999. The contribution of net trade to growth in the first quarter of 2000 was less than 0.1 percentage point.

Real gross value added in the euro area, which was described in the May 2000 issue of the ECB Monthly Bulletin (Box 3 on "The structure and developments of value added in the euro area") is estimated to have risen by 0.9% in the first quarter of this year, with services and industry contributing 0.6 and 0.3 percentage point respectively (see Table 5.1 in the "Euro area statistics" section of the ECB Monthly Bulletin).

Industrial production growth accelerated in April 2000

Industrial production growth rose sharply in the euro area in April 2000. Excluding construction, it rose to an annual rate of 6.5%, compared with 5.3% in March (see Table 5). In the three months to April, industrial production excluding construction is estimated to have risen by 1.9% compared with the previous three months. Moreover, data for the first quarter of 2000 were revised upwards slightly: the rate of growth is now estimated to have reached 1.3% in the first quarter. Growth in manufacturing production was 1.8% in the three months to April compared with the previous three months. All industrial sectors contributed to the higher rate of growth. In particular, growth in capital goods and durable consumer goods production rose further, while production of non-durable consumer goods rose slightly after the fall observed at the beginning of this year. The sustained rise in production in the intermediate goods sectors bodes well for future output in other branches of industry. Developments in the construction sector are considered in Box 2.

Box 2

The construction sector in the euro area

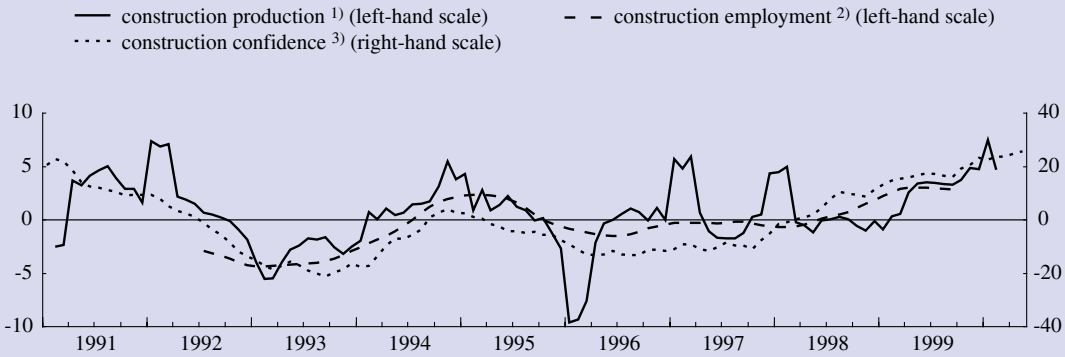
The construction sector constitutes an important element of the euro area economy. Although it accounts for only around 6% of overall economic activity (according to the evidence available from gross value added; see Table 5.1 of the "Euro area statistics" section of the ECB Monthly Bulletin), it is estimated to account for just under 15% of total industrial production in the euro area. In terms of employment, the weight of construction is slightly higher; just over 8% of total employment and around 26½% of industrial employment, according to the results of the 1999 Labour Force Survey.

The construction sector has shown signs of recovery since 1999

Looking at recent developments in production, there have been signs of a gradual recovery in the construction sector of the euro area (see the chart below). Following a period of strong growth in the late 1980s and at the start of the 1990s, which led to substantial excess capacity, production in the construction sector fell sharply in 1993, by over 3%, and again in 1996, by more than 1½%. Indeed, the average annual rate of growth of construction output for the six-year period from 1993 to 1998 was slightly negative, at -0.2%. This sector has thus been subject to a protracted period of weakness, which has only recently given way to a gradual upturn. The rate of growth of construction output observed in 1999, at around 3%, was the highest since at least 1991. In fact, construction activity rose more strongly than manufacturing production in 1999. There has been a continued increase in activity in early 2000. This strengthening in construction activity also appears to have been reflected in the data for employment in the construction sector, which began to rise from spring 1998 onwards and which also rose by 3% in 1999, compared with 1.5% for the economy as a whole. As a result, both production and employment in the construction sector have returned to levels seen in the early 1990s.

Construction production, employment and confidence in the euro area

(annual percentage changes; percentage balances; monthly data)



Sources: Eurostat, European Commission Business and Consumer Surveys and ECB calculations.
1) Annual percentage changes of three-month centred moving averages, working day adjusted data.
2) Annual percentage changes of three-month centred moving averages.
3) Percentage balances, deviations from the average since January 1991, three-month centred moving averages.

Relationship between construction confidence and activity

With regard to the manufacturing sector, some evidence on short-term developments in the construction sector may be derived from the monthly Business Surveys made available by the European Commission. The construction confidence indicator, which is based on questions relating to an assessment of order books and employment expectations in the construction sector for the months ahead, has been broadly

consistent with the improvement in activity, having risen sharply since late 1997. However, while a relationship between production in the construction sector and construction confidence can be observed over the period since 1990, this has been significantly lower than in the case of industrial confidence and manufacturing sector production, the correlation being less than 0.6 for construction, compared with 0.9 for manufacturing. The correlation of confidence with construction employment is somewhat higher, at 0.7.

One reason for the lower correlation between construction confidence and production may be the greater volatility of output in the construction sector, which is more dependent on "irregular" factors such as the weather. Another may relate to the fact that the assessment of order books refers to the stock of orders, rather than the flow of new orders, and may therefore include work already in progress. Furthermore, the correlation may be affected by the generally long time it takes to complete work begun in the construction sector, which leads to production being spread out over a large number of months rather than concentrated in the period closely following the orders. Despite the inclusion of the assessment of orders in the confidence data and the experience of the period since 1997, when confidence rose prior to the upturn in production, as an indicator for production in the construction sector confidence appears to be a broadly coincident, rather than leading, signal of developments in the sector. The latest evidence from the construction confidence indicator may therefore be taken to imply that in the first half of 2000 there has been a continued increase in both activity and employment in the construction sector.

Further improvements in the data are needed

Monthly data on production in the construction sector are regularly reported in Table 5.2 of the "Euro area statistics" section of the ECB Monthly Bulletin. Construction data with at least a quarterly frequency for all EU Member States are covered by Council Regulation (EC) No. 1165/98 concerning short-term statistics (which also covers short-term statistics for the industry, retail trade and services sectors). They are adjusted for variations in the number of working days and, according to the Council Regulation, should be available no more than two months after the reference period. When considering the monthly production data released by Eurostat for the euro area, which are available for 1990 onwards, it should be borne in mind that some countries have not yet released data (Ireland and Portugal), while others provide data on a quarterly basis (Spain, Italy and Finland). There are also considerable delays in releasing results in some countries, which means that the area-wide figures for more recent months contain a significant amount of estimation by Eurostat. Further improvements in the data for this sector are expected when the Council Regulation is fully implemented. It specifies a breakdown for production between building construction and civil engineering. It also requires data for the construction sector on new orders, employment, hours worked, gross wages and salaries, construction costs (for both material and labour costs) and building permits (the number of dwellings and square metres). Most of these variables are not, however, currently available at the euro area level.

Table 5

Industrial production in the euro area

(annual percentage changes, unless otherwise indicated)

	1998	1999	2000 Feb.	2000 Mar.	2000 Apr.	2000 Feb.	2000 Mar.	2000 Apr.	1999 Nov.	1999 Dec.	2000 Jan.	2000 Feb.	2000 Mar.
						month-on-month			three-month moving averages				
Total industry excl. construct.	4.2	1.8	5.6	5.3	6.5	1.0	0.8	0.7	1.5	1.2	1.1	1.3	1.9
Manufacturing	4.8	1.8	6.5	5.5	6.8	1.7	0.2	0.6	1.4	1.1	1.3	1.2	1.8
by main industrial groupings:													
Intermediate goods	4.0	2.1	6.5	5.5	5.9	1.3	0.3	0.2	1.8	1.6	1.3	1.1	1.4
Capital goods	6.5	2.1	8.1	8.2	9.3	0.9	1.0	1.3	1.5	1.8	2.3	2.6	2.9
Consumer goods	2.4	1.8	3.4	2.2	5.4	3.0	-0.1	1.5	0.8	-0.3	-0.7	-0.9	1.4
Durable consumer goods	5.6	2.6	12.1	11.4	13.2	3.1	0.4	1.4	1.9	2.0	3.3	3.5	4.4
Non-durable consumer goods	2.1	1.8	1.8	0.7	2.9	1.7	1.2	1.1	1.1	-0.3	-1.4	-2.1	0.3

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 by using seasonally and working day adjusted data.

Further increase in industrial confidence

Industrial confidence increased in June 2000 to its highest level since the series began in 1985 (see Table 6). The rise in June 2000 was the strongest month-on-month increase since mid-1997, reflecting, in particular, more positive assessments of order books and more positive production expectations, while the assessment of stocks of finished products improved only slightly.

In June 2000 the Purchasing Managers' Index (PMI) for the euro area manufacturing sector stood at 59.5, almost unchanged from 59.7 in May (see Chart 13). The slight decline in the overall index in June 2000 essentially reflects some shortening of suppliers' delivery times, following a pronounced and protracted lengthening since the beginning of this year. The employment component also saw a slight decrease, while all other components (output, new orders and stocks of purchased products) improved slightly compared with

Table 6

Results from EC Business and Consumer Surveys for the euro area

(seasonally adjusted data)

	1997	1998	1999	1999 Q3	1999 Q4	2000 Q1	2000 Q2	2000 Jan.	2000 Feb.	2000 Mar.	2000 Apr.	2000 May	2000 June
Economic sentiment index [1]	2.4	2.7	-0.2	0.1	1.0	1.0	0.2	0.4	0.3	0.2	0.0	0.0	0.0
Consumer confidence indicator [2]	-4	6	9	7	10	11	11	10	11	11	11	12	10
Industrial confidence indicator [2]	3	6	0	1	6	10	13	8	10	11	12	12	15
Construction confidence indicator [2]	-12	2	14	14	18	21	23	23	19	21	23	22	24
Retail confidence indicator [2]	-4	2	0	-2	-2	5	8	3	2	10	2	9	12
Capacity utilisation (%) [3]	81.4	82.9	82.0	81.8	82.5	83.4	.	83.0	-	-	83.7	-	-

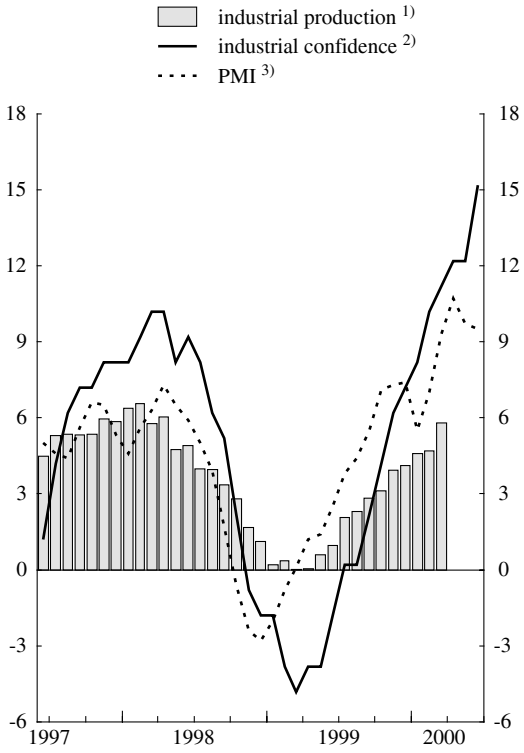
European Commission Business and Consumer Surveys.
1) Percentage changes compared with the previous period.
2) Percentage balances; data shown are calculated as deviations from the average over the period since January 1985.
3) Data are collected in January, April, July and October of each year. The 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.

the levels attained in May 2000. On average in the second quarter of 2000 the PMI stood at 60.0, compared with 57.3 in the first quarter of the year. The more or less continuous upward movement of area-wide industrial confidence in the past few months suggests that the declines in the PMI recorded in May and June 2000 are more likely to reflect a partial correction of the substantial increases in the previous two months, rather than an end to the upward movement in business confidence. Overall, the developments up to June 2000 thus point to continued strong growth of industrial activity in the first half of this year.

Consumer confidence decreased somewhat in June 2000, after having increased to a new record high in the previous month. However, the level of consumer confidence remains at a high level, corresponding to the cyclical peak in mid-1990 and clearly exceeding the cyclical peak reached at the end of 1994. With regard to the components of consumer confidence, the decline in June 2000 was broadly based, reflecting less positive assessments by households of the general economic situation and of their own financial situation, as well as a lower willingness to make major purchases at present.

Chart 13

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



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

1) *Annual percentage changes of 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.*

Stronger rate of growth in retail sales

According to Eurostat's latest estimate, retail trade turnover in the euro area increased by 2.6% in the three months to April 2000 compared with the same three months a year earlier (see Chart 14). Compared with the 1.9% recorded in the first quarter of this year, this higher growth rate is consistent with sharp improvements in retail trade confidence shown by the European Commission's survey in May and June 2000.

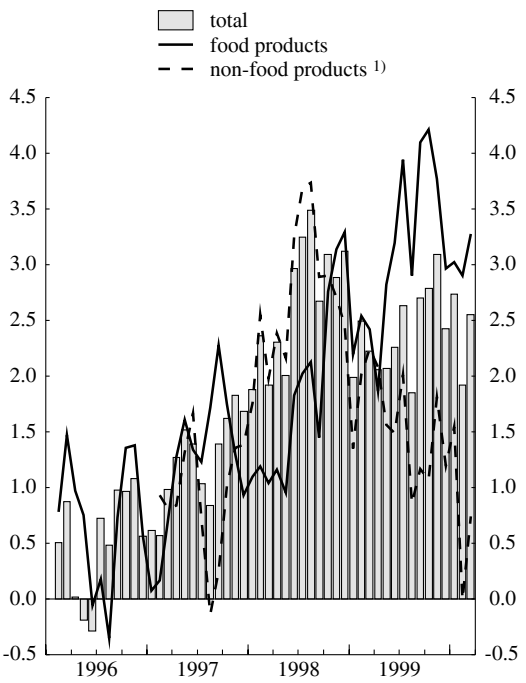
All the main components of retail trade contributed to stronger growth. Sales of household equipment remained the fastest growing category, rising by 1.5% in the three months to April 2000, compared with the previous three months. This supports the view that household confidence remains strong in the euro area. Retail sales of food, beverages and tobacco remained strong, rising by 1% in the three months to April 2000 and were 4.5% higher than a year ago.

Strong underlying consumer demand is also confirmed by the latest data on passenger car registrations (see the data set out in Table 5.2 of the "Euro area statistics" section of the ECB Monthly Bulletin). After a slowdown at the end of 1999, sales recovered at the beginning of this year and annual growth in car registrations was positive again in May 2000, at 1.9%. In the three months to May 2000 new passenger car registrations increased by 1.6%.

Chart 14

Retail sales in the euro area

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



Source: Eurostat.
Note: Total retail trade turnover at constant prices; excluding motor vehicles, motorcycles and the repair of personal and household goods. Annual percentage changes are calculated by using data adjusted for variations in the number of working days.
1) Owing to the unavailability of some national components, the series only starts from January 1996.

Overall, recent data confirm that steady growth prevailed in the euro area in the first half of this year, underpinned by strong demand, both foreign and domestic, while available indicators also point to a positive short-term outlook.

Unemployment rate unchanged in May 2000

In May 2000 the standardised rate of unemployment in the euro area stood at 9.2%, unchanged from the level recorded in April. A slight revision of data from February 2000 onwards shows the decrease in unemployment between February and March to be more pronounced, with a fall from 9.5% to 9.3%. Following this revision, the data continue to confirm the general downward trend of unemployment, with a fall of 0.3 percentage point since the beginning of the year. This trend remains similar to that observed in the latter part of 1999 (see Chart 15).

With regard to composition by age groups, the data also show that the decline in the unemployment rate has been greater for the young than for those above 25 years of age (see Table 7). Having remained virtually unchanged from November 1999 to February 2000, the unemployment rate for those below 25 years of age fell by 0.3 percentage point between April and May following declines of 0.2 percentage point in both March and April. This relatively large month-on-month decline lowered the youth unemployment rate to 17.2% in May 2000, 2 percentage points below the level in May 1999. Over the same period, the rate of unemployment among those over 25 declined by 0.7 percentage point and stood at 8.1% in May, unchanged from the slightly revised April level.

Table 7

Unemployment in the euro area

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

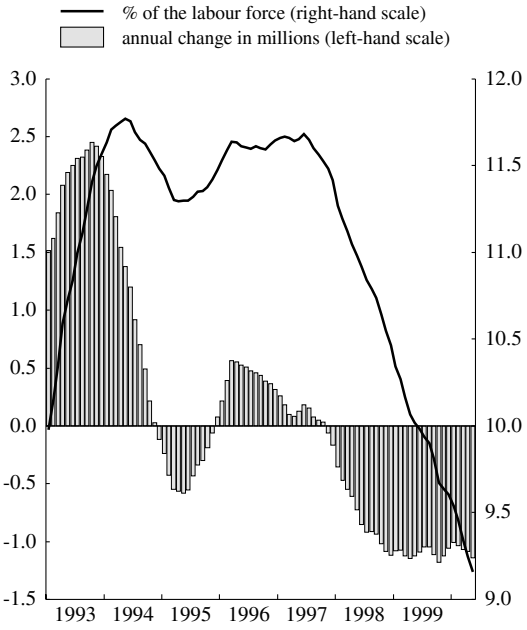
	1997	1998	1999	1999 Q2	1999 Q3	1999 Q4	2000 Q1	1999 Dec.	2000 Jan.	2000 Feb.	2000 Mar.	2000 Apr.	2000 May
Total	11.6	10.9	10.0	10.0	9.9	9.6	9.4	9.6	9.5	9.5	9.3	9.2	9.2
Under 25 years [1]	23.2	21.3	19.0	19.2	18.8	18.0	17.9	17.9	18.0	17.9	17.7	17.5	17.2
25 years and over [2]	9.9	9.4	8.7	8.8	8.7	8.5	8.3	8.5	8.4	8.3	8.2	8.1	8.1

Source: Eurostat.
Note: According to ILO recommendations.
1) In 1999 this category represented 23.1% of total unemployment.
2) In 1999 this category represented 76.9% of total unemployment.

Chart 15

Unemployment in the euro area

(monthly data; seasonally adjusted)



Source: Eurostat.

Further employment growth in the first quarter of 2000

On the basis of available national data, total employment in the euro area is estimated to have increased at a quarter-on-quarter growth rate of 0.5% in the first quarter of 2000, i.e. 0.1 percentage point above the rate registered for the previous quarter (see Table 8). This increase in employment (a year-on-year growth rate of 1.4%) is similar to the average yearly growth rate recorded in 1999 and is in line with the strengthening in economic activity.

The improvement in total employment growth is partly attributable to the increased positive contribution of the industrial sector. Net job creation in industry as a whole rose by 0.2% in the first quarter of 2000 compared with the previous quarter, supported by a substantial rise in the growth rate of employment in the construction sector. Indeed, the quarter-on-quarter growth rate of employment in construction rose by 0.5 percentage point, from 0.3% in the last quarter of 1999 to 0.8% in the first quarter of the year. In addition, employment in industry excluding construction also displayed a slight improvement. After falling in four consecutive quarters, it stabilised in the fourth quarter of 1999 and turned positive in the first quarter of 2000, with a quarter-on-quarter growth rate of 0.1%. This can largely be explained by the substantial pick-up in job creation in the manufacturing sector. In the first quarter of 2000 it is estimated to have increased by 0.3%, compared with 0.1% in the last quarter of 1999, thus returning to the positive growth rates also observed in the second half of 1997 and most of 1998.

Table 8

Employment growth in the euro area

(annual percentage changes, unless otherwise indicated)

	1998	1999	1999 Q2	1999 Q3	1999 Q4	2000 Q1	1999 Q2	1999 Q3	1999 Q4	2000 Q1	2000 Jan.	2000 Feb.	2000 Mar.
							Quarterly rates [1]						
Whole economy [2]	1.4	1.5	1.5	1.4	1.3	1.4	0.3	0.3	0.4	0.5	-	-	-
Total industry	0.3	0.2	0.3	0.1	0.0	0.3	0.0	0.0	0.1	0.2	0.2	0.4	0.3
Construction	0.3	3.0	3.4	3.6	2.1	2.0	0.3	0.6	0.3	0.8	2.2	2.4	1.6
Total industry excl. construct.	0.4	-0.5	-0.5	-0.7	-0.5	-0.2	-0.2	-0.1	0.0	0.1	-0.3	-0.1	-0.1
Manufacturing	0.8	-0.2	-0.4	-0.5	-0.3	0.1	-0.2	0.0	0.1	0.3	0.1	0.2	0.2

Sources: National data and Eurostat (Short-term Business Statistics).

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

2) Excluding Belgium and Ireland; seasonally adjusted.

Developments in total employment suggest that employment in services has also accelerated in the first quarter of 2000, in line with the expectations of the European Commission Business Survey for the retail sector in the first quarter and the Purchasing Managers' Survey up to June 2000.

Box 3

The Broad Economic Policy Guidelines 2000

The Treaty establishing the European Community requires Member States to conduct their economic policies with a view to contributing to the achievement of the objectives of the European Union. They also have to regard their economic policies as a matter of common concern and to co-ordinate them within the EU Council. To this end, since the start of Stage Two of Economic and Monetary Union (EMU) the ECOFIN Council – upon a recommendation from the European Commission – has adopted annual Broad Economic Policy Guidelines (BEPGs). These provide the framework for the definition of the overall policy objectives and orientations of the Member States and the European Union. With regard to monetary policy, the BEPGs refer to the Treaty requirement that monetary policy shall remain committed to maintaining price stability. Insofar as all EU countries face broadly the same challenges and policy needs, the BEPGs set out a number of general orientations which apply to all Member States. At the same time, reflecting diversity among Member States in terms of economic performance and prospects as well as structures and institutions, the BEPGs also contain country-specific recommendations.

The BEPGs for 2000 operationalise the key objectives of economic policy-making in the EU (relating to economic growth, employment, innovation and social cohesion), as established at the Lisbon Special European Council of March 2000, with four central priorities: to maintain growth and stability-oriented macroeconomic policies; to promote the development of a knowledge-driven economy; to press ahead with far-reaching, comprehensive reforms of product, capital and labour markets; and to modernise social protection systems. In turn, the BEPGs for 2000 translate these priorities into the main recommendations set out below.

Ensuring growth and stability-oriented macroeconomic policies

In the euro area the key policy challenge consists in ensuring that the ongoing recovery develops into a lasting period of vigorous growth and rising employment. While monetary policy makes its contribution by being committed to maintaining price stability, Member States are requested to speed up the ongoing fiscal consolidation, both to achieve, as rapidly as possible, and to maintain, over the medium term, budgetary positions close to balance or in surplus, and also to lower public debt. Furthermore, social partners are expected to continue to support wage developments that are consistent with price stability and job creation. The Member States outside the euro area are also called upon to maintain sound monetary and budgetary policies.

Speeding up the ongoing process of fiscal consolidation

Member States are also urged to avoid a pro-cyclical budgetary policy stance, to take advantage of fiscal improvements resulting from the better than expected economic growth to achieve budgetary positions in 2000 which go beyond the objectives set in the updated stability and convergence programmes, to reach a budgetary position close to balance or in surplus earlier than envisaged in these programmes and, where appropriate, to pursue further fiscal consolidation beyond the minimum, creating additional room for manoeuvre, and to prepare for the budgetary challenges associated with population ageing.

Improving the quality and sustainability of public finances

The composition of budgetary consolidation is seen as instrumental in supporting investment and enhancing employment. Among other recommendations, deficit reduction is expected to take place through expenditure restraint rather than through tax increases; welfare systems need to be adapted to ensure that it pays to work and that disincentives to work are removed; and pension and healthcare systems need to be promptly reviewed in light of the challenges posed by ageing populations.

Promoting appropriate wage developments

Social partners are called upon to ensure that nominal wage increases are consistent with price stability, that wage levels reflect labour productivity differences according to skills, qualifications or geographical area, and that real wage developments take into account the need to strengthen the profitability of capacity-enhancing and employment-creating investment. Governments can therefore create the appropriate institutional conditions to facilitate the negotiations of social partners.

Fostering a knowledge-driven economy

The BEPGs for 2000 also call for the establishment or improvement of the conditions necessary to increase private sector involvement in the financing of research and development expenditure and partnerships. At the same time, adequate public support for the funding of basic research, the creation of centres of excellence, and the provision of incentives to establish better links between research institutes and business also need to be ensured. Education and training initiatives, both private and public, need to be strengthened in order to increase the adaptability of the labour force.

Ensuring efficient goods and services markets

Greater competition in product markets is regarded as essential in order to take full advantage of the opportunities provided by the introduction of the euro, globalisation and new technologies. Among other recommendations, the BEPGs for 2000 state that internal market legislation should be implemented fully and effectively in the areas of public procurement and technical standards. The independence of competition authorities has to be ensured, and their policies should be enforced with transparent and effective instruments. The liberalisation of the telecommunications sector needs to be completed by the end of 2001, while that in the electricity, gas, postal services and transport sectors is expected to be accelerated. The Community Directives that open up markets for public utilities need to be implemented fully. Barriers to trade in services, particularly in financial services, the distribution sector and business services, must be removed by the end of 2000.

Promoting capital markets through further integration and deepening

In the area of capital markets, in addition to fully implementing the action plans for Financial Services and Risk Capital by 2005 and 2003 respectively, further efforts need to be aimed at facilitating the greatest possible access to investment capital on an EU-wide basis (including small and medium-sized enterprises), eliminating barriers to investment in and by pension funds, promoting further integration of government bond markets through greater consultation and transparency, improving the efficiency of cross-border retail payment services, speeding up fiscal measures to promote the development of new firms and investment in venture capital, and amending bankruptcy legislation to give entrepreneurs a second chance.

Invigorating labour markets

A significant and sustained reduction in EU unemployment will require substantial structural improvements in the functioning of labour markets. The Employment Guidelines 2000 already set out an integrated strategy for achieving this objective. In this regard, the BEPGs for 2000 place particular emphasis on improving skills and employability in order to keep people in touch with labour markets, on improving work incentives and reducing labour costs through reforms of tax and benefit systems, on enhancing labour mobility across sectors and regions, inter alia through mutual recognition of qualifications and improving the transferability of pension entitlements, as well as modernising work organisation, on introducing flexible working time arrangements and on assessing tight job protection legislation and high severance payments.

Enhancing sustainable development

Finally, according to the BEPGs for 2000, sound environmental policy will reap benefits in terms of more efficient economic structures, thus contributing to higher growth and employment. Member States are therefore to place emphasis on introducing or strengthening market-based policies which put a price on scarce resources, on reassessing tax incentives and subsidies which have a negative environmental impact and on agreeing an appropriate framework for energy taxation at the European level.

The BEPGs for 2000 need to be implemented

Overall, the ECB welcomes the thrust, the richness and the specificity of the BEPGs for 2000. The ECB also applauds the recent initiatives to strengthen these guidelines even further, in particular by providing an ambitious and thorough follow-up and by developing structural performance indicators. The success of the recommendations now crucially depends on Member States' commitment to improving their performance with regard to public finances and structural reforms. Indeed, the current favourable outlook for economic growth provides an excellent opportunity to implement the necessary measures with vigour.

4 Exchange rate and balance of payments developments

Euro fluctuated in the absence of a clear trend in June

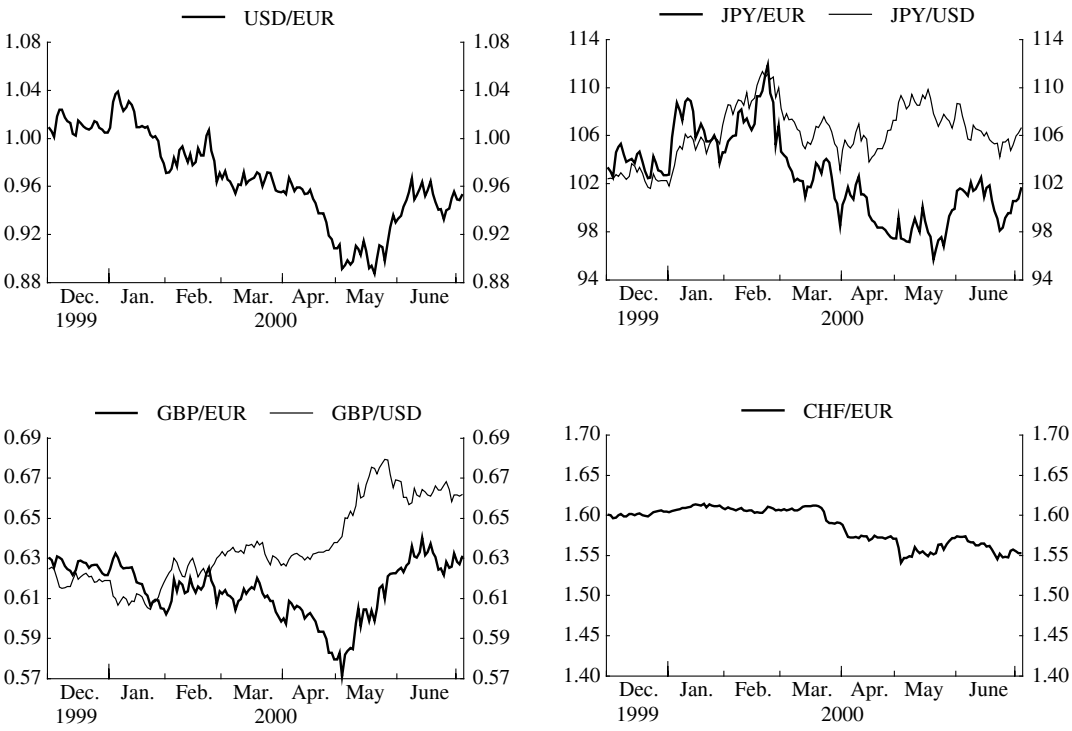
In the course of June 2000 developments in exchange rate markets were characterised by a significant fluctuation of the euro against most major currencies in the absence of a clear trend. In nominal effective terms against the currencies of the euro area's 13 major trading partners, the euro stood in early July at around the same level as that recorded at the beginning of June.

Against the US dollar the euro fluctuated around an average rate of USD 0.95 during June and up to 5 July 2000, without exhibiting any strong upward or downward trend over this period. Against the background of an upswing in the euro area taking hold, this trendless movement appeared to be largely associated with a general uncertainty in financial markets in respect of the medium-term outlook for the US economy and the associated policy responses. Data releases – including the second consecutive monthly decline in retail sales growth, lower housing starts and weakened consumer confidence – provided tentative signs that a moderate slowdown in US economic activity could be forthcoming. At the same time, however, rising oil prices contributed to a rise in US bond yields amid increased inflationary expectations. Following the decision by the Federal Open Market Committee (FOMC) to leave policy rates unchanged at its meeting on 28 June 2000, the euro appreciated moderately against the US dollar and on 5 July it was quoted at USD 0.95 (see Chart 16).

Chart 16

Patterns in exchange rates

(daily data)



Source: ECB.

Following a period of relative stability, the euro declined moderately against the Japanese yen in the third week of June, before recovering between late June and early July. The initial strength of the yen was mostly linked to an official upward revision of the Japanese economic outlook, as well as to data releases which supported the view that the Japanese recovery could be firming and thereby strengthened market perceptions that the 16-month-old zero interest rate monetary policy in Japan could be abandoned in the foreseeable future. On 5 July the euro was quoted at JPY 101.7.

In June and early July 2000 developments in the euro/pound sterling exchange rate were similar to those in the euro/US dollar exchange rate. On 5 July the euro was quoted at GBP 0.63.

The currencies in ERM II remained broadly unchanged (see Chart 17). The Greek drachma remained stable vis-à-vis the euro, following the decision of the Bank of Greece to reduce its main policy rates by 50 basis points on 28 June 2000. The decision to cut rates was widely anticipated in the light of the formal endorsement by the European Council on 19 June 2000 of Greece's application to adopt the euro on 1 January 2001. On 5 July 2000 the drachma was quoted 1.2% above its central parity of GRD 341 vis-à-vis the euro. The Danish krone also remained stable and was quoted on 5 July 2000 at DKK 7.46 against the euro.

As regards the Swedish krona, it fluctuated around an average rate of SEK 8.3 vis-à-vis the euro between early June and 5 July without establishing any trend, amid some volatility in the Swedish stock market. Against the Swiss franc, the euro weakened slightly in the second half of June – following the decision by the Swiss National Bank to raise its target range for three-month interest rates by 50 basis points

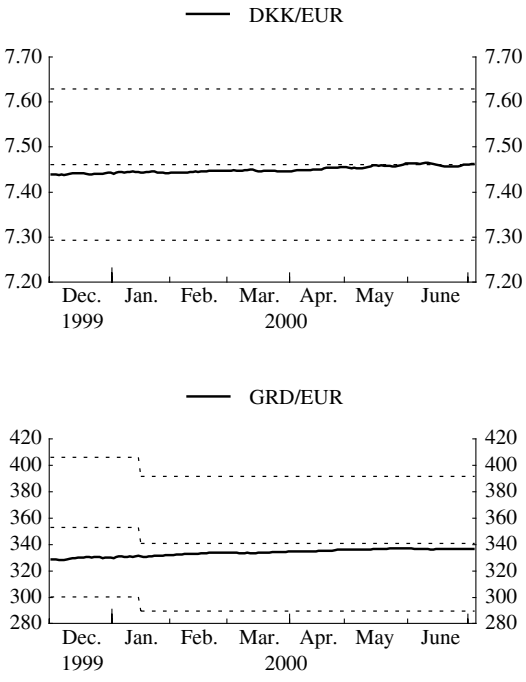
on 15 June 2000 – but recovered partially thereafter, returning in early July to levels seen in late May.

In nominal effective terms – that is in trade-weighted terms against the narrow group of 13 important trading partners of the euro area – the euro stood on 5 July 2000 at around the same level as that prevailing at the beginning of June. In terms of monthly averages, however, the nominal effective exchange rate index appreciated by approximately 3.4% in June compared with the previous month, mainly on account of the appreciation of the euro against all major currencies at the beginning of that month. In June 2000 the euro's effective depreciation since its launch in the first quarter of 1999 amounted to around 12.6% in nominal terms, while its real effective depreciation – that is using the CPI, PPI and ULCM as deflators – was also of approximately the same magnitude over that period (see Chart 18).

Chart 17

Patterns of exchange rates within ERM II

(daily data)



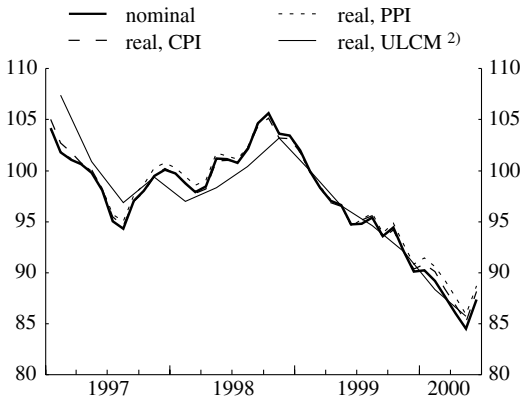
Source: ECB.

Note: The horizontal lines indicate the central parities (DKK 7.46; GRD 340.75, with the latter effective from 17 January 2000) and the respective fluctuation bands (±2.25% for DKK and ±15% for GRD).

Chart 18

Nominal and real effective exchange rates [1)]

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



Source: ECB.

1) Data are ECB calculations (see the relevant article in the April 2000 issue of the Monthly Bulletin). An upward movement of the index represents an appreciation of the euro. The latest observations are for June 2000 and for the ULCM-based REER for Q2 2000.

2) Unit Labour Costs in Manufacturing.

Current account deficit for the first four months of 2000

The current account of the euro area recorded a deficit of €3.2 billion in April 2000, compared with a surplus of €4.8 billion for the same month last year. This was mostly the result of a decline in the income account balance (from a surplus of €0.1 billion, to a deficit of €3.9 billion), combined with a lower goods surplus and higher deficits for services and current transfers.

Over the first four months of 2000 the current account of the euro area recorded a cumulated deficit of €4.4 billion, compared with a surplus of €11.1 billion for the same period last year. A lower goods surplus (€21.3 billion, down from €29.5 billion) – owing to a rise of 27% in the value of imports, compared with an increase of 20% in the value of exports – explains most of this development, with higher deficits for the other current account items acting as additional contributory factors (see Table 9).

Table 9

Balance of payments of the euro area

(EUR billions; not seasonally adjusted)

	1999 Jan. - Apr.	1999 Apr.	2000 Jan. - Apr.	2000 Feb.	2000 Mar.	2000 Apr.
Current account balance	11.1	4.8	-4.4	2.4	3.0	-3.2
Credits	406.5	105.8	471.1	114.4	130.0	115.9
Debits	395.4	101.0	475.5	112.0	127.1	119.1
Goods balance	29.5	8.0	21.3	6.3	8.1	6.0
Exports	242.9	63.3	291.3	71.8	83.5	72.3
Imports	213.4	55.3	270.0	65.6	75.4	66.3
Services balance	-3.6	-0.4	-6.0	-2.0	-0.9	-1.2
Exports	69.2	18.5	76.4	17.9	20.7	20.0
Imports	72.8	18.9	82.4	19.9	21.6	21.2
Income balance [1]	-6.3	0.1	-9.6	-0.8	-0.6	-3.9
Current transfers balance	-8.4	-2.9	-10.0	-1.0	-3.7	-4.0
Capital account balance	3.3	0.5	4.6	0.2	1.4	1.5
Financial account balance	-38.2	-5.1	65.2	9.7	33.3	5.0
Direct investment	-30.1	-14.6	142.9	144.7	2.4	-6.2
Abroad	-59.6	-23.3	-76.3	-19.4	-33.0	-18.6
In the euro area	29.5	8.7	219.3	164.2	35.4	12.4
Portfolio investment	-41.1	13.6	-188.8	-138.7	-24.7	-7.9
Assets	-87.6	-22.2	-156.7	-68.1	-37.6	-25.8
Liabilities	46.5	35.8	-32.1	-70.6	12.9	17.9
Financial derivatives	2.0	3.5	0.2	2.6	-3.2	2.1
Other investment	23.7	-9.3	110.8	0.2	58.2	16.8
Reserve assets	7.3	1.8	0.0	0.8	0.6	0.2
Errors and omissions	23.8	-0.2	-65.4	-12.3	-37.8	-3.4

Source: ECB.
Note: 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 more detailed set of tables can be found in Section 8 of the "Euro area statistics" section of this Monthly Bulletin.
1) Monthly figures for 1999 are not closely comparable with later observations.

Seasonally adjusted trade volume data are now available up to February of this year and provide further insight into recent trade developments. While import volumes grew by only 4% during the 12-month period up to February 2000, import prices, proxied by unit value indices, rose by almost 22%, reflecting both the decline in the euro and higher oil prices. On the exports side, volumes increased by almost 11%, largely on account of improvements in price competitiveness arising from the depreciation of the euro. At the same time, however, export prices grew by more than 7%, suggesting that exporters have increased their profit margins.

Net outflows in equities partially offset by net inflows in debt instruments in April

In April 2000 direct and portfolio investment transactions were considerably smaller than the flows in the previous two months, as the latter included a major merger between two firms – one euro area resident and one

non-euro area resident – settled through an exchange of shares. Direct and portfolio investment recorded a combined net outflow of €14.1 billion in April 2000.

In more detail, direct investment registered a net outflow of €6.2 billion in April 2000 – reflecting direct investment abroad of €18.6 billion and direct investment in the euro area of €12.4 billion – while portfolio investment recorded net outflows of €7.9 billion. The main factor behind the net outflows in portfolio investment was strong investment by euro area residents in foreign equities (€18.2 billion), reinforced by a net disinvestment of euro area equities by non-residents (€4.7 billion), resulting in total equity net outflows of €22.9 billion (see Table 8.4 of the "Euro area statistics" section).

As for the rest of portfolio investment, in April 2000 debt instruments registered net inflows which partially offset the net outflows in equities, in line with the pattern of recent months. Over the first four months of 2000, net inflows for euro area debt instruments amounted to €42.7 billion, as compared with net outflows of €10.5 billion in the same period of the previous year. This swing from net outflows to net inflows was due to both a decline in investment in foreign debt instruments, in particular foreign bonds and notes, by euro area residents and a strong increase in purchases by non-residents of euro area debt instruments, in particular money market instruments.

The switch to variable rate tenders in the main refinancing operations

At its meeting on 8 June 2000 the Governing Council of the ECB decided 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, using the multiple rate auction technique. Furthermore, the Governing Council also decided to set a minimum bid rate for these operations. The background to this decision was the severe overbidding problem which had occurred under the fixed rate tender procedure. In the new procedure the minimum bid rate signals the monetary policy stance, which previously used to be indicated by the rate applied to fixed rate tenders. Furthermore, an indication of the expected liquidity needs of the banking system will be published at the time of the announcement of the weekly auction. The Governing Council also emphasised that it will retain the option of reverting to fixed rate tenders, if and when this is deemed appropriate.

1 Introduction

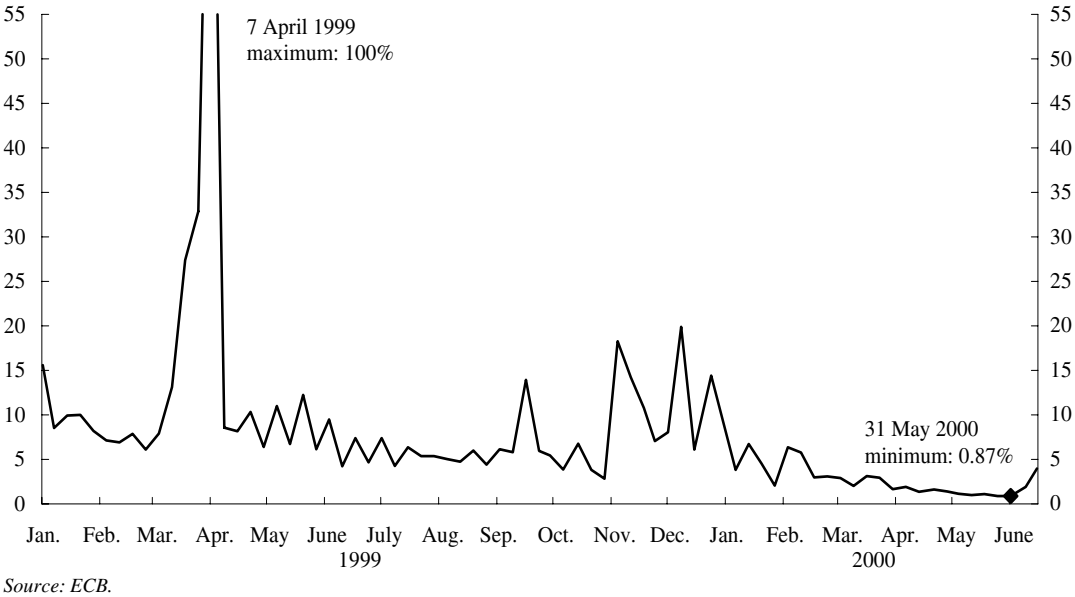
At its meeting on 8 June 2000 the Governing Council of the ECB decided that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders, using the multiple rate auction technique. The Governing Council also decided to set a minimum bid rate for these operations. This minimum bid rate was initially set at 4.25%, the same level applied for the previous fixed rate tender operations.

As highlighted in the press release published after the meeting of the Governing Council on 8 June 2000, the switch to variable rate tenders was a response to the severe overbidding which had developed in the context of the fixed rate tender procedure. While the allotment ratio (i.e. the ratio between the amount allotted in the tender and the total amount of bids) averaged around 10% during 1999, it averaged only 2.7% in the period from 1 January to 7 June 2000. In the last two main refinancing operations executed prior to the announcement of the switch to the variable rate tender, the allotment ratio was below 1% (see the chart below). The strong rise in bids in the first half of 2000 was due to the fact that, during most of that period, there were market expectations of

Chart

The development of the allotment ratio under the fixed rate tender procedure

(percentage of bids)



Source: ECB.

interest rate hikes and short-term money market rates were significantly above the main refinancing rate. This made it attractive for banks to bid for large amounts of liquidity from the central bank.

The new tender procedure introduces a price incentive which ensures that eligible counterparties submit bids which are more closely correlated to their needs.

The change of tender procedure is not intended as a change in the monetary policy stance. The minimum bid rate announced signals the monetary policy stance, which previously used to be indicated by the rate applied to fixed rate tenders. The decision to set the minimum bid rate at a level of 4.25% underscores the continuity of the monetary policy stance.

The Governing Council also emphasised that it would retain the option of reverting to fixed rate tenders, if and when this was deemed appropriate.

2 The tender procedure

The new tender procedure has the following main characteristics. Eligible counterparties may submit bids for up to ten different interest rate levels. In each bid they state the amount they are willing to transact with the Eurosystem and the respective interest rate. Bids at a rate below the minimum bid rate are discarded. In the allotment the ECB lists bids from the highest to the lowest offered rate. The bids with the highest interest rates are accepted first and bids with successively lower rates are then accepted until the total liquidity to be allotted is exhausted. If, at the lowest interest rate level accepted (i.e. the marginal interest rate), the aggregate amount bid exceeds the amount still to be allotted, this will be allocated pro rata among the bids.

A detailed description of the variable rate tender procedure can be found in Chapter 5 of the ECB document entitled "The single monetary policy in Stage Three: General documentation on ESCB monetary policy instruments and procedures", September 1998.

3 The publication of the estimated liquidity needs

As noted above, the switch to the new tender procedure was accompanied by the decision to publish an estimate of the aggregate liquidity needs of the banking system. This measure should facilitate the task of eligible counterparties in preparing their bids.

The liquidity needs of the banking system relate to two items. The first is the reserve requirements, which are to be fulfilled on average over a one-month reserve maintenance period. The second item is the net result of all other factors affecting the consolidated balance sheet of the Eurosystem. This item, on aggregate, represents an absorption of liquidity. The most important of these factors, which are called "autonomous factors", are net government deposits with the Eurosystem, banknotes and items in course of settlement (net float) (see the box below). The ECB publishes the estimates for the reserve requirements and autonomous factors separately via wire services.

The ECB derives its estimate of the autonomous factors from information provided by national central banks. The estimate is published regularly, coinciding with the announcement of the main

refinancing operations, i.e. normally every Monday at 3.30 p.m. The estimate of this element of the liquidity needs is published as the average of the autonomous factors from the day of announcement of the main refinancing operation up to and including the day before the settlement of the next main refinancing operation. If this time interval extends beyond the end of a reserve maintenance period, two estimates are given: one for the days up to the end of the reserve maintenance period and another for the days following the end of the reserve maintenance period.

Of the two components of liquidity needs, the reserve requirements are generally known with a high degree of accuracy. However, as the reserve base used to calculate the level of reserve requirements overlaps to a large extent with the monetary aggregate M3, the estimate for the reserve requirements is not available until the time of the publication of M3, which is usually a few days after the start of the reserve maintenance period.

By contrast, the estimate of autonomous factors is less certain. In the first six months of 2000 the standard deviation of the difference between the estimated value of the autonomous factors one week ahead and the corresponding outcome proved to be €1.4 billion. The table shows the weekly data used in this exercise.

Table

Weekly estimates of average autonomous factors, actual value and resulting error in 2000

(EUR billions)

Estimation date	Estimated value	Actual value	Error
10 Jan.	88.3	90.0	1.7
17 Jan.	89.6	91.1	1.5
24 Jan.	99.9	100.7	0.8
31 Jan.	93.2	93.6	0.4
7 Feb.	91.2	90.2	-1.0
14 Feb.	87.8	86.0	-1.8
21 Feb.	92.9	94.5	1.6
28 Feb.	95.7	94.9	-0.8
3 Mar.	93.9	95.0	1.0
13 Mar.	88.9	89.5	0.6
20 Mar.	93.3	92.5	-0.9
27 Mar.	88.9	87.3	-1.6
3 Apr.	83.6	84.8	1.1
10 Apr.	85.3	86.2	0.9
17 Apr.	83.0	84.8	1.8
25 Apr.	91.6	92.0	0.4
2 May	89.4	90.0	0.6
8 May	87.5	89.8	2.3
15 May	82.4	83.1	0.7
22 May	90.4	88.6	-1.8
29 May	84.3	85.9	1.6
5 June	83.1	85.9	2.8
13 June	84.0	85.2	1.2
19 June	87.6	85.8	-1.9
Standard deviation	4.5	4.3	1.4
Mean	89.0	89.5	0.5

Source: ECB.

Eligible counterparties need to be aware that the ECB also has to look at other factors in order to make an allotment decision. First of all, the ECB has to consider the liquidity provided by outstanding open market operations. Second, it has to assess the reserve deficit or surplus that has accumulated at any point in time in comparison with the average reserve requirements of counterparties. Third, the ECB has to take into account the fact that counterparties normally hold some excess reserves (in the past these have amounted to around €0.7 billion per day on average). Further considerations in the final allotment decision by the ECB relate to the smoothness of the reserve fulfilment path and the level of the interest rates, for instance.

Box

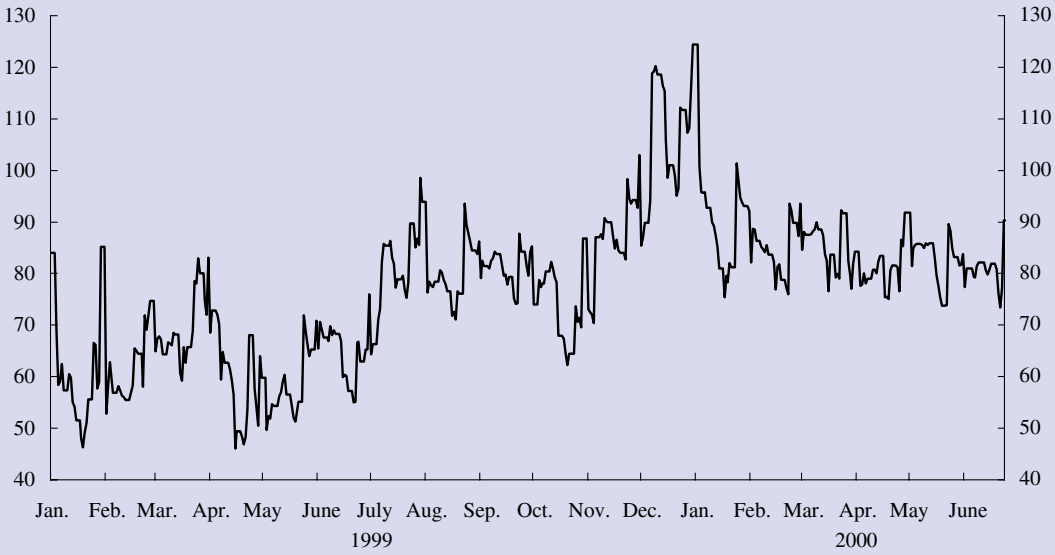
Autonomous factors

Autonomous factors represent by far the largest source of uncertainty in the assessment of the future liquidity needs of the banking system. This box offers an overview of relevant developments.

Autonomous factors can be classified in four categories: net government deposits with the Eurosystem, banknotes, items in course of settlement (net float) and a miscellaneous category, which includes various balance sheet items such as foreign exchange reserves, domestic securities, revaluation accounts, and capital and reserves.

In the first 18 months of Monetary Union the sum of the autonomous factors ranged from €45 billion to €125 billion, with an average of €78 billion (the series of daily figures for autonomous factors, which is published ex post by the ECB, is set out in the chart below). Over this period the average day-to-day change in the autonomous factors was approximately nil (€0.03 billion). The standard deviation of these changes was €5.1 billion. Assuming a normal distribution of the changes, this means that statistically on around five days out of 100 there will be a change in total autonomous factors with an absolute value of over €10 billion.

Total autonomous factors [1)]
(daily data; EUR billions)



Source: ECB.

1) Autonomous factors are defined as the sum of all items of the central bank's balance sheet that are neither monetary policy operations nor current account holdings of counterparties with the central bank.

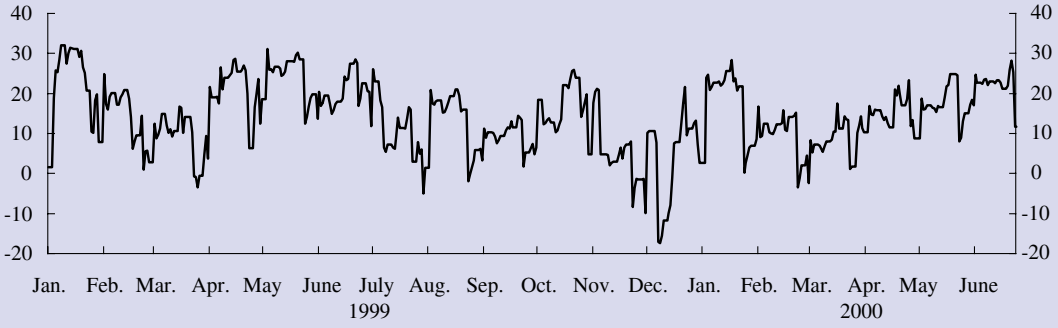
The volatility of certain items makes it difficult to forecast correctly the developments in autonomous factors. The single most volatile autonomous factor was net government deposits, followed by banknotes and items in course of settlement (net float). The standard deviations of these three items were €5.0 billion, €1.0 billion and €0.8 billion respectively.

Treasury flows affect the liquidity situation only if the government keeps its main deposit account with the central bank. Conversely, there is no influence if the deposit account is held with commercial banks. Which of the two models prevails in individual countries (main deposit account with the central bank or with commercial banks) depends on institutional arrangements and on the type of remuneration of the deposits offered by the central bank. Detailed descriptions of the models applied throughout the euro area can be found on the ECB's

website (www.ecb.int) and in the July 1999 issue of the ECB Monthly Bulletin (pages 16 and 17). Reforms have been introduced in Ireland and Portugal in the first half of 2000, leading to a considerable decline in the volatility of government deposits in these two Member States. The chart below shows the development of the amount outstanding of net government deposits held with the Eurosystem in the first 18 months of Monetary Union.

Net government deposits

(daily data; EUR billions)

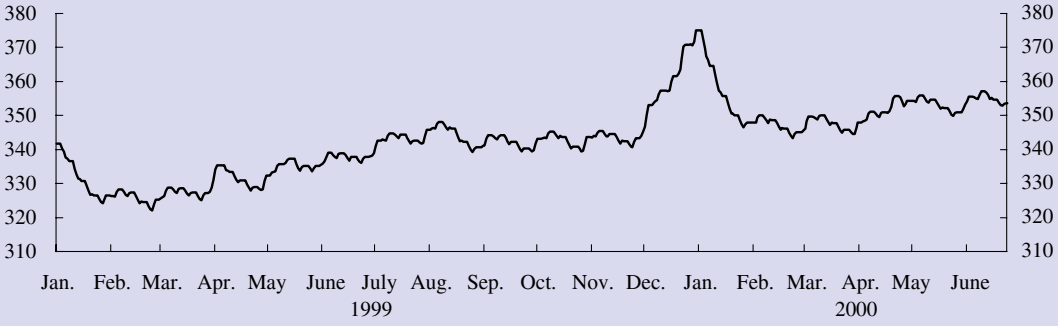


Source: ECB.

The outstanding amount of banknotes in circulation shows a rather regular weekly, monthly and yearly pattern around an increasing trend (see the chart below). These regularities reflect patterns in the use of banknotes, such as consumption behaviour, holidays and, in particular, the Christmas shopping season. A jump in the series could be observed in the run-up to the transition to the year 2000, when the demand for banknotes increased more sharply than in previous Christmas shopping seasons, before falling again in January 2000.

Banknotes

(daily data; EUR billions)



Source: ECB.

Finally, the volatility of items in course of settlement depends on the specification of the payment system. In the euro area only a few of the national payment systems, namely those of Germany, Spain and France, make a substantial contribution to the volatility of this factor.

4 The outcome of the first two main refinancing operations conducted under the variable rate tender procedure

The first two main refinancing operations conducted under the new tender procedure, which were settled on 28 June and 5 July 2000, went smoothly. The total amount of bids was around twice the volume allotted. This bidding behaviour marked a clear break with the fixed rate tender procedure. In these two operations between 700 and 800 credit institutions submitted bids. This level of participation was similar to that recorded previously, suggesting that the novelty of the tender procedure did not affect participation by counterparties.

In both of the main refinancing operations conducted with the variable rate tender procedure the marginal interest rate was calculated at 4.29%, i.e. 4 basis points above the minimum bid rate of 4.25%.

A more detailed assessment of the new procedure will become possible in due course, once more experience has been gained. However, initial indications are that the banking system has promptly adapted its bidding behaviour to the new tender procedure.

Monetary policy transmission in the euro area

The monetary transmission mechanism consists of the various channels through which monetary policy actions affect the economy and the price level in particular. A good understanding of the transmission mechanism is an important prerequisite for implementing a sound policy, as it allows a judgement to be formed as to the extent and the timing of monetary policy decisions which are appropriate in order to maintain price stability.

This article reviews the main aspects of the monetary policy transmission mechanism in the euro area. Knowledge of the various transmission channels is in all circumstances necessarily limited, as the simultaneous occurrence of shocks, technological and structural change and the effects of policy changes makes a precise assessment of the effects of monetary policy very difficult. In addition, in the euro area, the establishment of a new policy regime may have changed, and may continue to change, some economic relationships, and in many areas a statistical and econometric framework for analysing the euro area economy as a whole is still being developed. In such a context, it is important not to rely too heavily on a single paradigm, but to have an open and flexible analytical approach. The Eurosystem's monetary policy strategy, with its prominent role for money and a broadly based assessment of the outlook for price developments and risks to price stability, is designed with this in mind. Moreover, the considerable degree of uncertainty surrounding the strength and the timing of the effects of monetary policy actions suggests that an overly activist approach to monetary policy, aiming at fine-tuning price developments, should be avoided.

Typically, two broad stages are considered in the transmission mechanism. In the first stage, changes in money market conditions affect financial markets, as reflected in asset prices and general liquidity and credit conditions. In the second stage, those changes in financial market conditions affect spending and prices. This article describes how the timing and the strength of the various channels in each of these two stages depend on the economic and financial structure of the euro area economy. It also emphasises the important role of inflation expectations in determining the timing and size of monetary policy effects.

1 Introduction

The primary goal of the Eurosystem's monetary policy is to maintain price stability. Monetary policy decisions are transmitted through the economy in a variety of ways, all of which have an indirect effect on the evolution of prices of goods and services. The monetary transmission mechanism is the term used to denote the combination of different channels through which, often after long, variable and not fully predictable lags, monetary policy affects output and prices.

The transmission mechanism primarily works in two broad stages. In the first stage, changes in the policy interest rate or in base money lead to changes in financial market conditions, as reflected in market interest rates, asset prices, the exchange rate and general liquidity and credit conditions in the economy. In the second stage, the changes in financial market conditions lead to changes in nominal spending on goods and services by households and firms. In the long run, such nominal changes will not affect the real sector of the economy, but only the general price level. In the short run, however, changes in nominal spending may have an impact on real economic activity. The extent to which this happens depends on the degree of nominal price rigidities and on the flexibility of the economy more generally. In addition, there are more direct channels of transmission, the most important being the effect of policy actions on inflation expectations which may directly influence pricing decisions.

The analysis and the monitoring of the various transmission channels of monetary policy impulses are complicated by two factors. First, the patterns of monetary policy

transmission are continuously evolving in response to changes in economic behaviour and institutional structure. At present, this may be particularly applicable to the euro area on account of the structural change occurring – notably in the financial sector – in part as a result of the introduction of the euro and the adoption of the single monetary policy. In addition, other forces, such as technological change or demographic shifts, can significantly alter the way in which the economy functions. The transmission mechanism is thus surrounded by a high degree of uncertainty.

Second, it should be borne in mind that monetary policy does not work in isolation. Short-term price developments in the euro area are affected by a number of domestic and external influences other than monetary policy. For example, the rapid rise in oil prices in the second half of 1999 and in the first few months of 2000 had a significant influence on inflation, as measured by the Harmonised Index of Consumer Prices (HICP). The central bank needs to disentangle the effects of such shocks from other influences and the impact of its own policy. The simultaneous occurrence of external shocks, technological and structural change and the transmission of monetary policy changes entails considerable uncertainty for the central bank in discerning the effects of monetary policy changes.

A better understanding of the various transmission processes can help to improve the conduct of monetary policy in a number of ways. First, owing to the lags in the monetary transmission mechanism, monetary policy needs to be forward-looking. This forward-looking orientation is emphasised in the Eurosystem's monetary policy strategy (see, for example, the article entitled "The stability-oriented monetary policy strategy of the Eurosystem" in the January 1999 issue of the ECB Monthly Bulletin). Knowledge of the lag structure and the strength of the transmission mechanism allows a judgement to be formed as to the timing and the extent of interest rate decisions which are called for in order to keep future inflation in check. Such knowledge is also necessary to assess the extent to which previous policy decisions still have to produce their full effect.

Furthermore, a better understanding, even if necessarily incomplete, of the different transmission channels facilitates a sound assessment of which indicators are most useful in examining the monetary policy stance. For example, the fact that the euro area economy is a large, relatively closed economy implies that the exchange rate channel is likely to be of less importance in the monetary transmission mechanism than in smaller economies with a high share of foreign trade. By contrast, findings that developments in broad money aggregates have significant predictive content for future inflation suggest a role for money in the transmission of monetary impulses in the euro area. Such findings have been important in shaping the Eurosystem's monetary policy strategy.

2 Inflation as a monetary phenomenon: the role of money and credit

There is widespread agreement that, ultimately, inflation is a monetary phenomenon. A sustained rise or fall in inflation cannot occur without being either caused or accommodated by changes in the growth rate of money. The long-run relationship between money and prices characterises virtually all theoretical models and is empirically robust over a number of dimensions: across countries, over time, across monetary regimes and for various monetary aggregates.

The relationship between money, the price level and output can be most easily seen through the so-called quantity equation. This

relationship relates the quantity of money to prices, output and the velocity of money (the inverse ratio of money to nominal income). In the long run, trends in both velocity and output are independent from the growth rate of money. As a result, excessive and persistent monetary growth tends to be associated with persistent inflation. The quantity relationship forms the basis of the calculation of the Eurosystem's reference value for the growth of M3 (for further information see the article entitled "Euro area monetary aggregates and their role in the Eurosystem's monetary policy strategy" in the February 1999 issue of the ECB Monthly Bulletin). Chart 1 provides an illustration of the close relationship between the smoothed growth rate of M3 and the rate of inflation in the euro area.

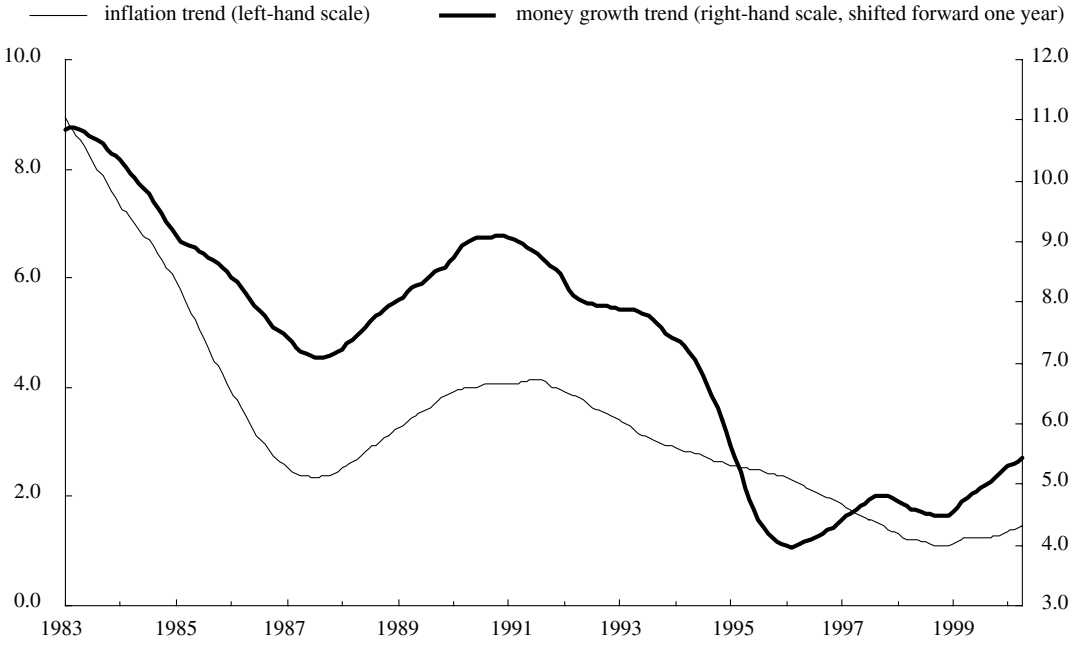
Clearly, in the short to medium term, the usefulness of money as a gauge of inflationary pressures depends on the predictability of the velocity of money, or, in different terms, on the stability of estimated money demand functions. Standard formulations of money demand relate monetary aggregates to output, the price level and other macroeconomic variables, such as nominal interest rates. Although one should be aware of the uncertainties implied by the change in the monetary regime, the available evidence suggests that such a stable money demand relationship exists in the euro area. Moreover, deviations of actual money holdings from the levels which such relationships would predict appear to lead future inflation, sometimes outperforming more traditional indicators such as various measures of the gap between actual and potential output, in particular with regard to longer horizons.

As mentioned above, the transmission of monetary policy impulses to the economy consists of a complex combination of various, often intertwined, channels, whereby both prices and quantities are subject to adjustment. The exact role of money and credit in these transmission processes is

Chart 1

Money growth and inflation trends in the euro area

(monthly data)



Note: The money growth trend is the 24-month moving average of the annual percentage change of M3. The inflation trend is the 24-month moving average of the annual percentage change in consumer prices (the CPI until January 1996, the HICP thereafter).

still subject to considerable debate. Some economists dismiss an active role for money: in their view, the transmission of monetary impulses runs primarily through interest rates and other financial prices and their effect on spending and inflation. Money and credit would then only play a passive role, as banks expand and contract their assets and liabilities to match changes in their demand. According to this view, money and credit indicators are only useful as information variables, i.e. to the extent that they give advance information regarding changes in nominal spending, for example, because they become available sooner. Other economists believe that the process of money and credit creation, which starts with base money (including currency in circulation and the deposit base of financial institutions at the central bank), plays an active causal role in the transmission of monetary impulses. According to this view, excess money creation is not immediately cleared through changes in financial prices and may affect spending directly as banks, consumers and firms gradually adjust their balance sheets to achieve desired money holdings.

In the light of the existing empirical evidence, the view that money creation plays an active role in the transmission process can neither be confirmed with certainty nor be easily dismissed. On the other hand, a structural role for money is difficult to incorporate into more traditional macroeconometric models in which price and wage pressures arise primarily from imbalances in goods and labour markets. The Eurosystem's monetary policy strategy, incorporating a prominent role for money and a broadly based assessment of the outlook for future price developments, ensures that both paradigms are taken into account, while dealing with some of the fundamental uncertainties regarding the transmission of monetary policy.

3 The importance of expectations and the stability-oriented strategy

When analysing the monetary transmission mechanism, the importance of the formation of expectations on the part of the various actors in the economy cannot be overemphasised. The role of expectations is derived from the influence which they have on the actual behaviour of economic agents. Households and firms generally have to make decisions which will have consequences in the future. For instance, households decide how much to consume and how much to save, thereby deciding on their future consumption possibilities. Firms have to make investment decisions, thereby deciding on future production capacity. Workers or their representatives negotiate with firms on future wages, thereby deciding on future income and future costs. As a result, economic agents will in general decide on the direction and magnitude of their actions in a forward-looking manner, taking into account their expectations of future inflation and general economic developments.

The key role of expectations in the working of the economy has a number of significant implications for the monetary transmission mechanism and the conduct of monetary policy in general. First, the Eurosystem's monetary policy strategy, with its emphasis on price stability in the medium term, has an important role in anchoring inflation expectations at low levels. This is because changes in inflation expectations can have a strong impact on future inflation outcomes through their direct influence on pricing decisions. For example, they play an important role in labour markets in which wages are negotiated in a forward-looking manner, as is quite common in the euro area. In the Eurosystem's monetary policy strategy, the precise definition of price stability is a key element, since it guides economic agents in taking forward-looking decisions on expectations of price stability.

Second, the effects on financial markets and the economy as a whole of a change in ECB interest rates will depend on whether such a move was anticipated and, more generally, on how it affects expectations of future interest rate decisions and future output and inflation. As it is generally difficult to measure expectations or – even more so – to predict how they will respond to news, this adds a further layer of uncertainty to the assessment of the transmission mechanism.

Third, the key role which expectations play implies that, together with the size or the timing of a policy move, the policy context in which this move occurs is important in explaining its effects. Here again, the role of the Eurosystem's monetary policy strategy, and its credibility, in guiding expectations can be seen as part of the broader transmission of monetary policy. When financial markets and, more generally, agents in the economy understand the goals of monetary policy and how interest rates are set to achieve these goals, they will broadly anticipate policy moves and thereby facilitate the task of the central bank. For example, bond markets will automatically anticipate a rise in policy rates, in nominal and in real terms, when there are signs of inflationary pressures. The resulting increase in short-term to medium-term market interest rates will have a tightening impact on the economy and will thereby help the central bank to maintain price stability.

4 From changes in the main refinancing rate to changes in financial and asset market conditions

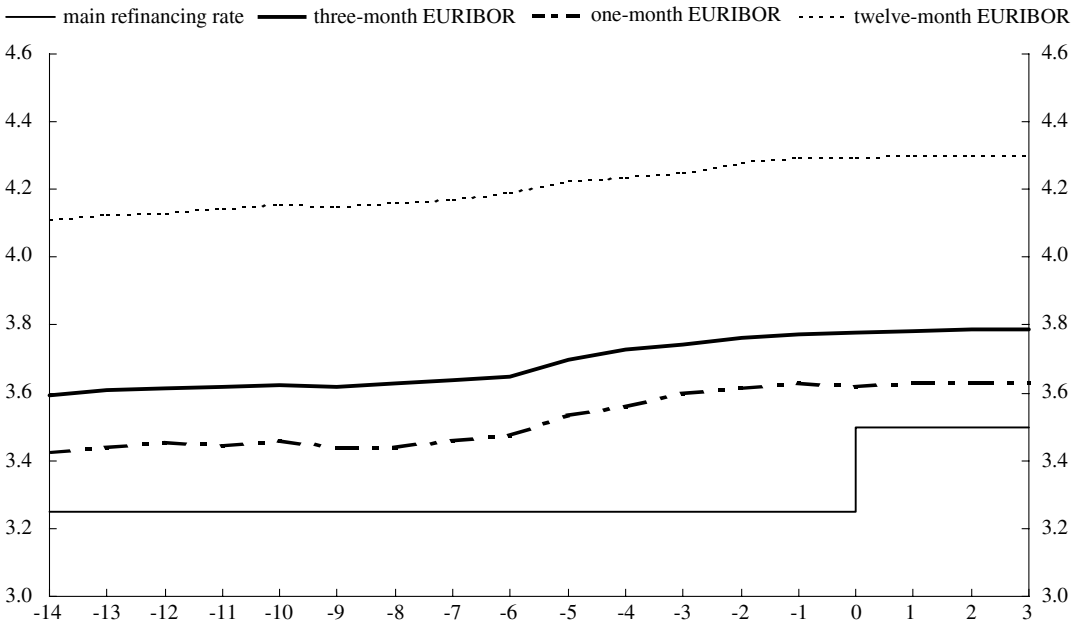
The chain of cause and effect in the euro area monetary transmission mechanism starts with changes in ECB interest rates – the interest rates on the main refinancing operations and on the standing facilities – and with the ensuing changes in money market conditions. Other interest rates, the exchange rate and asset prices will adjust to the new money market conditions with variable lags. In addition, adjustments of non-price terms, such as credit availability in credit markets, may occur. The magnitude, direction and timing of these changes will generally depend on the structure of financial markets and on the economic characteristics of market participants. In particular, the degree of competition, the liquidity of markets and the scope for arbitrage across different financial instruments will have a direct effect on financial and asset market linkages.

Before discussing these policy-induced changes in financial market conditions in more detail, it is worth re-emphasising two challenges which any empirical analysis of these transmission channels will face. First, the changes in financial market conditions will partially lead, rather than lag, the policy decisions when the latter are broadly anticipated. As an illustration, Chart 2 shows the average evolution of short-term market interest rates before the policy interest rate moves decided by the Governing Council of the ECB on 3 February, 16 March and 27 April 2000, in which the main refinancing rate was increased by 25 basis points each time. It can be observed that market rates started to move towards their new level several days before the day of the policy interest rate change and hardly adjusted further when the rate change occurred. This indicates that markets broadly anticipated the policy interest rate moves and that, as a consequence, market rates increased in advance of rather than after the move. Second, within a stability-oriented monetary policy strategy, policy actions will normally be taken in response to economic developments which entail risks to price stability. Of course, financial markets will also be affected by these economic shocks. It is often extremely difficult to separate the effects of a policy action from the direct effects of those economic shocks on financial markets and on the economy in general.

Chart 2

Average rate evolution around ECB interest rate moves

(daily data)



Source: ECB.
Note: Day 0 is the day of the increase of 25 basis points in the main refinancing rate. Interest rates are average rates 14 days before and 3 days after the increases of 25 basis points on 3 February, 16 March and 27 April 2000.

Following a change in money market conditions, arbitrage opportunities usually cause rapid adjustments of other financial and asset market prices. However, owing to the important role of expectations, the magnitude and even the sign of those effects after the interest rate move are not unambiguous.

For example, the expectations' theory of the term structure of interest rates posits that longer-term nominal interest rates should be approximately equal to an average of the current and expected future short-term rates over the maturity of the longer-term investment. How an unexpected change in current short-term rates affects longer-term rates thus depends on how it affects the expected future path of the nominal short-term rate. When the change is expected to persist, longer-term rates will, in general, change in the same direction as well. By contrast, when the change is expected to be quickly reversed, longer-term rates may not be affected very substantially, or may even decline if the policy move leads to a fall in inflation expectations. The shape of the euro area yield curve since the beginning of 1999 has undergone significant changes as a consequence of revisions to the expected future evolution of short-term interest rates (see the article entitled "The information content of interest rates and their derivatives for monetary policy" in the May 2000 issue of the ECB Monthly Bulletin).

One factor behind the revisions in expectations following monetary policy moves is the credibility of monetary policy itself. If the central bank is perceived as acting in a timely manner in order to maintain price stability, inflation expectations and thus expected future nominal interest rates may not be affected very much. As a result, long-term interest rates will remain relatively stable. Indeed, in countries with low and stable inflation, the sensitivity of changes in long-term rates to an unexpected change in the policy rate has generally been lower than in countries with high and variable inflation. In addition, longer-term interest rates can

also incorporate other factors, such as liquidity or inflation-risk premia, which can change over time and in response to policy changes.

Another arbitrage condition, the so-called uncovered interest parity condition, posits a link between nominal interest rate differentials in different currencies and their nominal exchange rate. This condition implies that the domestic-foreign interest rate differential is approximately equal to the expected depreciation of the exchange rate over the holding period, i.e. an investor should expect to obtain the same return on his or her investments in various currencies. Again, this relationship can only be expected to hold approximately, since exchange risk, liquidity and other premia can drive a wedge between the expected returns. In practice, the empirical evidence does not provide strong support in favour of the uncovered interest parity hypothesis when tested in conjunction with the hypothesis of rational expectations in the exchange market. Typically, the actual impact of changes in short-term interest rates on the exchange rate depend on how expectations of future interest rate changes and other economic variables are affected.

Finally, changes in market interest rates may also have an effect on the market value of securities and real assets such as equities, bonds and real estate. Arbitrage conditions equate the value of securities and real assets with their discounted future revenue streams. For example, the value of equity can be understood as the present discounted value of future dividends which themselves depend on future profits of the firm. As a result, an interest rate rise might have an effect on asset prices through two different channels. The first channel works through the intertemporal discount rate. When interest rates rise, the discounting of future money flows occurs at a higher rate, which diminishes the present discounted value. A second channel works through the effect of the interest rate rise on the future revenue stream. This is especially relevant for equities: an interest rate rise increases the financial costs of firms and may have a negative impact on the demand for their products, which normally leads to decreased profits. The decreased profits will also have a negative effect on stock prices. If decreased profits are associated with a higher risk of non-payment, risk premia on bonds might also increase. However, as explained above, an increase in policy rates can also contribute to a decline in inflation risk premia and longer-term interest rates, which could have a positive effect on the market value of securities and assets.

Transmission through the banking sector

Market interest rates eventually also influence the whole spectrum of retail interest rates in credit and deposit markets. These rates represent the prices for the intertemporal allocation of resources for many agents in the economy. Borrowing and lending in the euro area still predominantly take place through the intermediation of the MFI sector. The amount outstanding of MFI credit to enterprises of the euro area was 45.2% of GDP at the end of 1999. The outstanding values of corporate debt securities was 7.4% of GDP, whereas the debt securities issued by the corporate sector in the United States amounted to 29% of GDP at the end of 1999. The ratio of total bank assets to GDP in 1999 was 175.4% in the euro area, as compared with 98.8% in the United States.

The pass-through from market interest rates to retail bank interest rates depends on the interplay of supply and demand for credit and deposits and on the structure of banking markets. A number of structural factors – such as competition in the financial services industry, preferences regarding the maturity of credit or deposit contracts or the adjustability of interest rates, various risk premia and the administrative cost of effectively changing interest rates – influence the adjustment in retail bank markets. As can be seen from Chart 3, retail bank interest rates in the euro area tend to follow money

Table 1

Key characteristics of the euro area and the United States

(percentage of GDP in 1999)

GDP components	Euro area	United States
Private consumption	56.8	67.6
Government consumption	20.1	14.4
Gross fixed capital formation	20.7	20.3
Exports	16.9	10.8
Imports	15.4	13.5
Financial markets		
Stock market capitalisation	90.2	179.8
Debt securities	98.8	166.2 [1]
of which, issued by:		
Government	54.9	48.4
Banks [2]	36.4	46.8
Corporate sector	7.4	29.0
Bank assets [3]	175.4	98.8
of which:		
Loans to government	13.5	…
Loans to the corporate sector	45.2	12.6
Loans for house purchase	27.8	24.6
Other loans to households	16.7	8.6

Sources: ECB, BIS, Eurostat and Federal Reserve flow of funds.

1) This figure includes debt securities issued by government-sponsored enterprises and federally related mortgage pools (42% of GDP).

2) MFIs excluding the Eurosystem for the euro area. All financial institutions for the United States.

3) MFIs excluding the Eurosystem for the euro area. Commercial banks, savings institutions, credit unions and money market funds for the United States.

Owing to differences in reporting, numbers are not fully comparable between the euro area and the United States.

market rates quite closely, while being smoother.

The pass-through from money market interest rates to bank credit or deposit interest rates is a gradual process. In many cases, the pass-through to bank credit and deposit interest rates is interdependent. A bank which faces low competition in the collection of time deposits can afford to take more time in passing through increases in money market interest rates into the yield it offers on time deposits. In addition, such a bank is under less pressure to increase the interest rate on credit than a bank whose funding costs have increased in proportion to the changes in the money market interest rates. Historical experience, in European economies and elsewhere, has often shown that bank rate adjustments are not only slow, but that the speed differs for upward and downward changes. When markets are not fully competitive, this rate-setting behaviour may allow banks to benefit from changes in the general level of interest rates.

Some economists emphasise the role played by credit supply in the transmission process. An increase in short-term interest rates is usually accompanied by a reduction in the growth of overnight deposits. This can lead banks to reduce their supply of loans, in particular if the banks cannot easily replace those deposits with other liabilities. Bank-dependent borrowers such as small and medium-sized enterprises and households could then face a squeeze in their borrowing possibilities. However, from an empirical point of view, the simultaneous movements in loan demand and supply make identification of the different channels a non-trivial task. It thus remains uncertain whether monetary policy can significantly affect the supply of loans stemming from banks.

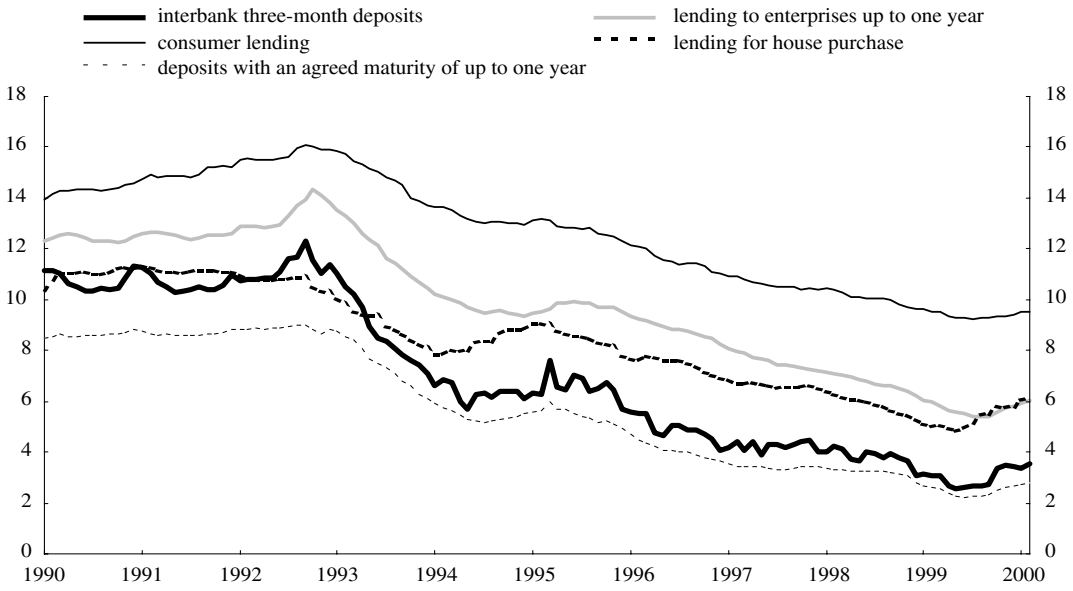
As the financial sector of the euro area is currently undergoing profound restructuring processes, the adjustments in retail bank markets which follow a change in policy rates are also likely to evolve. In certain areas, the disintermediation of banks, a process in which financing intermediated by the banking sector is being replaced by direct financing, particularly through financial markets, is already well advanced. For example, savings are increasingly being invested in mutual funds. In particular, the development of money market mutual funds is inducing banks to offer better yields on traditional deposits and to bring rates on deposits more quickly into line with those on the money market.

More generally, the growing competition in every segment of the financial services industry is inducing banks in the euro area to be more efficient in the pricing of all of their products. Interest rate margins on bank deposits have been eroding since the 1990s. The supply of credit to firms is now confronted with an expansion of the market for corporate debt securities. However, competition is also increasing in segments where banks compete mostly among themselves, such as the mortgage market. Both the disintermediation and the rationalisation of the European banking sector are likely to induce banks to transmit changes in market conditions to their customers faster than has been the case in the past.

Chart 3

Money market and retail bank interest rates in the euro area

(annual percentages rates; monthly data)



Source: ECB.

5 From changes in financial and asset markets to changes in spending

The changes in financial market conditions discussed above will, with lags, lead to changes in nominal spending. If prices were fully flexible, no changes in real spending would be expected. In general, however, prices adjust only gradually. As inflation expectations take this slow adjustment into account, nominal changes in financial market conditions will in the short run translate into real changes. In particular, under constant short-term inflation expectations, a change in the nominal interest rate will imply a change in the short-term real interest rate.

Not all spending components are affected equally, and the effects might be spread over time. The strength and timing of the changes in spending will largely depend on the financial and economic structure of the economy. In addition, other factors, such as shifts in foreign demand, government spending and changes in expected profits and wages, will also have an impact on aggregate demand, making any inference about the importance of the different factors' strength and magnitude difficult.

Cost of capital effects

Real interest rates are an important factor in determining the cost of capital. For instance, when the real interest rate on bank loans or bonds increases, the cost for firms of holding inventories or investing in equipment, machinery and real estate financed through bank loans or bonds will increase. This makes investment less profitable. It also makes waiting to invest until real interest rates decline more attractive. Business investment is thus usually negatively affected by real interest rate increases, ceteris paribus. Empirically, however, it has proven to be difficult to show this relationship owing to pro-cyclical movements of real interest rates. The impact and the lag structure of the effects of the interest rate changes will differ across industries. For example, capital intensive industries, which have a need for large investments, are likely to be affected more strongly than less capital-intensive services industries.

Such cost-of-capital effects can also be an important determinant of spending by households on consumer durables such as cars and on houses. Often such items are partially financed by consumer loans or mortgages. In addition, changes in the real interest rate affect the return on savings. For instance, a decline in interest rates makes saving less attractive and may lead households to increase consumption. Generally, such intertemporal substitution effects between consumption and saving are, however, found to be quite small.

A lack of consistent data series across the euro area on various categories of consumption and investment spending prevents a systematic assessment of how different spending categories respond to monetary policy impulses. Econometric evidence for a wide range of countries suggests that investment, which is likely to be much more sensitive to changes in the cost of capital, responds more strongly than consumption to a change in interest rates.

Income effects

A change in interest rates also has a bearing on the flows of interest income received by creditors and of interest payments paid by debtors. Like most economies, the euro area is characterised by net creditor households, while the public and corporate sectors are net debtors. An increase in interest rates will therefore increase the aggregate disposable income of households, but reduce the profits of the corporate sector and increase the deficit of the public sector. The magnitude of these income effects depends on the size and the composition of the balance sheets of non-financial agents and especially on the

maturity of their assets and liabilities. In addition, the lags with which income effects occur will be influenced by whether interest payments vary with short-term interest rates or are fixed.

The financial accounts of the household and corporate sectors in the euro area as a whole are still not completely finalised. However, available evidence from the balance sheets of households and enterprises in the large countries of the euro area shows that, at an economy-wide level, the response of the net interest income/payments to changes in the short-term interest rate is likely to be rather small. The financial costs of the corporate sector, the debt of which consists in part (one-third) of maturities of below one year, are likely to rise somewhat after an increase in interest rates, in particular as the short-term debt is rolled over and financed at higher rates. The reduced cash flow may reinforce the cost-of-capital effect on investment spending by weakening the financial position of enterprises and increasing the required risk premium on their debt.

In the case of the household sector, a large proportion of interest-bearing assets and liabilities are at longer-term fixed rates, although practices regarding fixed versus variable rate financing vary across countries. As a result, flows of interest income will generally adjust only gradually to changes in interest rates. The redistribution of income among firms or households will only have an impact on aggregate demand if net debtors have a higher propensity to spend out of changes in income than net lenders. This is likely to be the case if borrowers are credit-constrained.

Wealth effects

Finally, as noted above, changes in interest rates may affect the value of financial assets, such as equities and bonds, and of real assets, such as property, and therefore have a direct effect on the value of the wealth of households which have these assets in their portfolios. The extent to which such changes in the value of wealth affect spending will depend on the propensity to use such wealth to finance consumption, as well as on the size and the composition of the wealth and the perceived persistence of the changes in those asset prices. As the response of consumption to changes in wealth is generally estimated to be small, changes in asset prices will only have a significant macroeconomic effect on spending if they are sizeable and occur on assets which are widely held by a significant proportion of the population.

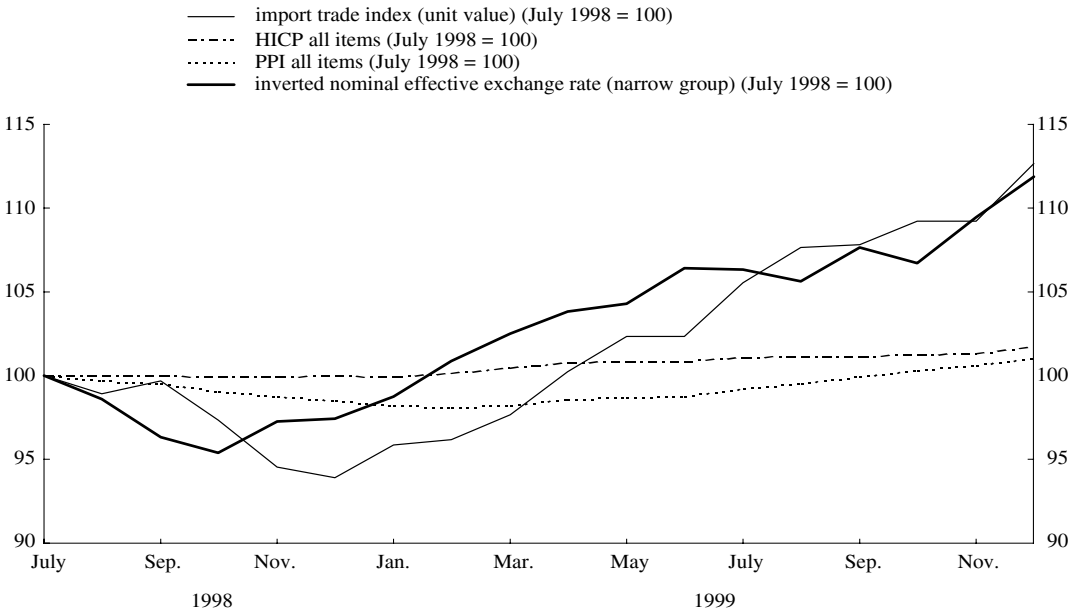
Although growing in importance, stock market capitalisation in the euro area, which amounted to 90.2% of GDP at the end of 1999, is about half that in the United States (see Table 1) and stock ownership is not as widespread. As a result, large movements in stock prices are less likely to have significant direct effects on consumer spending. Moreover, in the light of the volatility of stock prices, economic agents may discount some of the recent upward and downward movements as temporary, in which case spending would not be significantly affected (see Box 2 entitled "Recent trends in the volatility of stock price indices" in the May 2000 issue of the ECB Monthly Bulletin).

In the euro area, wealth effects on households are likely to take place more significantly through other asset prices. Bonds, which are usually held by households either directly or indirectly, represent about 100% of GDP. However, to the extent that most of the corresponding debt is held by domestic residents, such effects are mainly distributional. Even more important among households' assets is real estate. On average, the owner occupancy ratio, i.e. the proportion of households which own their homes, is close to 50% in the countries of the euro area. Such wealth effects through the housing market could become more significant to the extent that borrowing using the private home as collateral becomes more widespread, as appears to be the case in a number of euro area countries with booming housing markets.

Chart 4

Effective exchange rates and price indices

(monthly data)



Source: ECB.

Finally, changes in interest rates may also affect the value of a firm's portfolio of fixed assets, such as machinery and business real estate. To the extent that those assets are used as collateral in credit contracts, changes in the value of this portfolio may affect credit terms and, indirectly, firm spending.

Exchange rate effects

Changes in the exchange rate have a direct effect on consumer price inflation through their effect on import prices. Changes in import prices of goods which are used as input in the production process have an effect on firm costs and, therefore, tend to lead to changes in producer prices. Chart 4 illustrates the close relationship between the nominal effective exchange rate and import prices. Owing to the relatively limited share of imported goods, the response of the HICP is, however, much more subdued.

A change in the exchange rate also has an impact on trade. For example, a real depreciation in the exchange rate of the euro makes export products and services less expensive in foreign currency terms. In general this leads to a higher foreign demand for goods and services from the euro area and an increase in the volume of exports. In a similar vein, a real depreciation will make imported products which are priced in foreign currency more expensive in euro terms and, therefore, will generally dampen imports. An appreciation has the opposite effect. However, the impact of small changes in net exports on total aggregate demand in the euro area should not be overstated. The euro area as a whole is a relatively closed economy which is comparable with the United States (see Table 1); its exports to countries outside the euro area amount to around 16.8% of GDP, while the figure for imports is around 15.2%.

Box

The interest rate transmission mechanism in the euro area: methodologies and an illustration

There is a large body of academic and central bank literature which attempts to estimate the strength and the timing of the effects of a change in policy interest rates on economic activity and prices. In this literature, various econometric methodologies are used, including so-called Vector Autoregressive (VAR) models, small structural models and large macroeconometric models.

Each methodology has its strengths and weaknesses. VAR models and small structural models have the advantage of being tractable and not so data-intensive, as they are usually estimated with few variables. However, this also forms one of their weaknesses, since important variables might be excluded from influencing results. The lack of economic structure and the difficulty in identifying the chain of causation among the key variables of interest has left VAR models open to criticism. Moreover, these models are only able to produce estimates of an unexpected shock to monetary policy and are not designed to analyse changes in the systematic component of monetary policy, which is likely to be more important. Small structural models allow such an analysis to be carried out, but often at the cost of oversimplifying the dynamic relationships between economic variables. Finally, large macroeconometric models have the advantage of incorporating the most important variables and relationships, but are usually highly data-intensive and require strong identifying assumptions. Specification errors in one part of the model may induce errors in the rest of the model owing to the many linkages which these models usually contain.

Given the above considerations, no single methodology can be considered as providing all the necessary answers. Instead, the various methodologies should be seen as being complementary. Given the importance of understanding the transmission mechanism for monetary policy, the Eurosystem is engaged in intensive research of the various transmission channels in the euro area. Three lines of research are being pursued in parallel. First, structural econometric models, both area-wide and multi-country, are being constructed. This work is being conducted within the framework of active co-operation between the research areas of the ECB and the NCBs. Second, small simulation models and VARs of the euro area are being estimated and analysed using macroeconomic data. These models provide, inter alia, alternative benchmarks for examining the transmission process. Third, microeconomic data (specifically at the individual bank and firm level) are being used to examine, in a more focused manner, the patterns of monetary transmission in the euro area. For the latter purpose, a Eurosystem Monetary Transmission Network has been created, bringing together researchers at the ECB and at the NCBs engaged in empirical research in this area.

Most of the existing macroeconomic literature focusing on individual countries finds that unexpected temporary shocks to the short-term interest rate have a relatively swift, but often limited, effect on real output and a much slower, but longer-lasting, effect on prices. While this overall pattern is relatively consistent across countries and time periods, there is much less certainty about the exact size and timing of these effects. Attempts at using these macroeconometric techniques to identify cross-country differences, for example, have generally not yielded robust results. This lack of robustness should not be surprising given, first, the difficulties involved in distinguishing the effects of a policy move from the effects of other shocks, second, the important role of expectations (which cannot be observed) in the transmission process and, third, the changing nature of the transmission mechanism on account of structural and policy regime shifts.

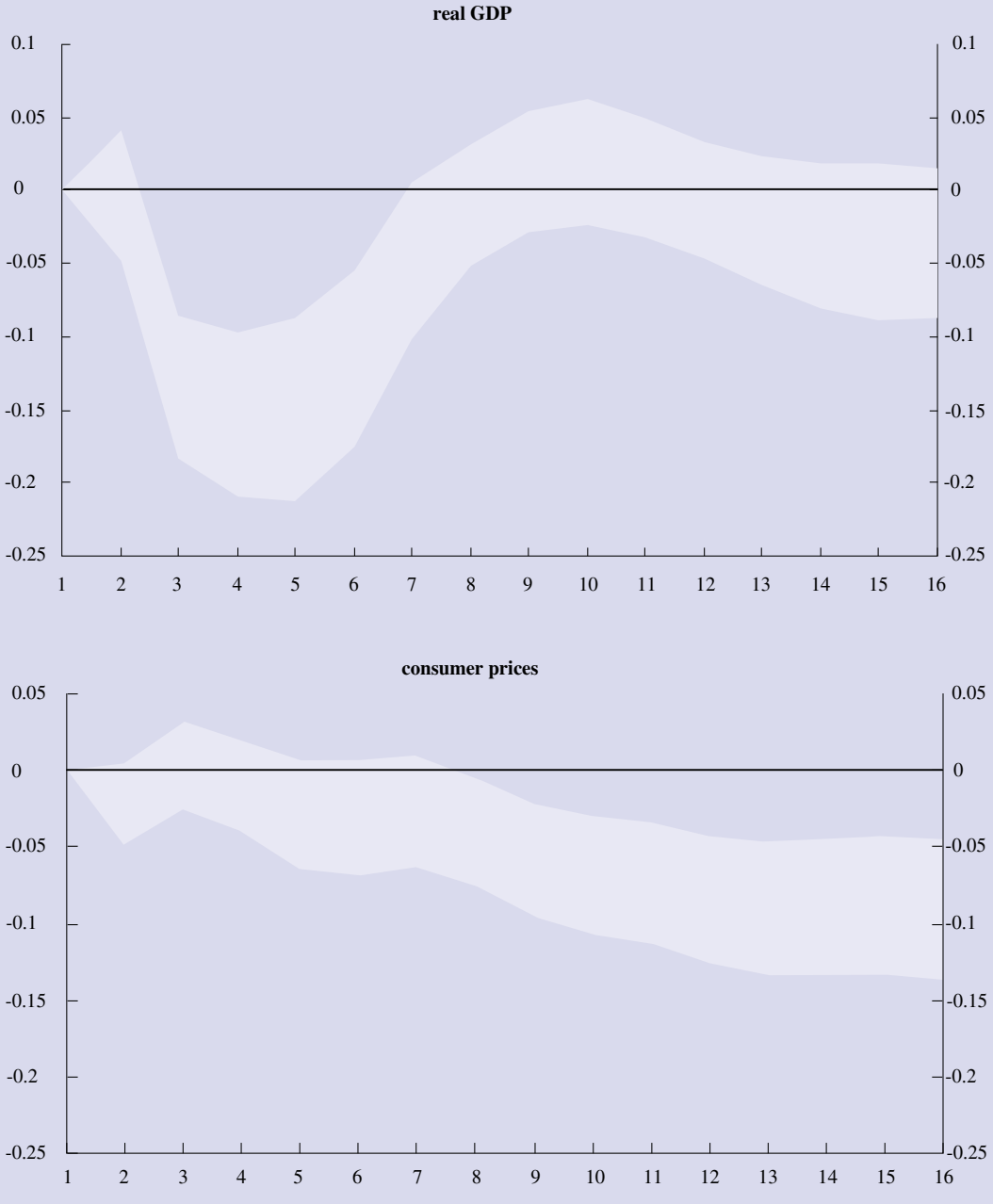
The lack of firm evidence of significant cross-country differences in the transmission mechanism adds to the validity of analyses focused on the euro area as a whole. At the same time, however, given these existing analytical uncertainties, any estimates of the effects of a policy move should be considered with caution. This is particularly true in the light of the fact that, at present, euro area models need to be estimated over a sample period for most of which the 11-country euro area did not yet constitute a single currency area. In the charts below the results of a simple VAR impulse response simulation, which represents and summarises the results existing in the relevant literature, are reported for purely illustrative purposes. The model is estimated over the period from 1980 to 1998 using quarterly data of real GDP, consumer prices, M3, a short-term nominal

interest rate and a real effective exchange rate. In addition, the VAR incorporates a constant, a linear trend, an index of commodity prices, the US short-term nominal interest rate and US real GDP as exogenous variables. The monetary policy shocks are identified by applying the standard Choleski decomposition to the VAR residuals, with the variables ordered as mentioned above.

The results reported in the charts below are broadly in line with the relevant literature and the description of the monetary transmission mechanism discussed in this article. An unexpected, temporary rise in the short-term interest rate of about 25 basis points tends to be followed by a temporary fall in output after two quarters. Prices are far more sluggish and only start to fall significantly below zero after six quarters. The confidence bands around these estimates are large, pointing to the considerable degree of uncertainty which surrounds estimates of the effects of monetary impulses.

Responses to a temporary interest rate shock

(percentage deviations, quarters, estimation period: 1980-98, 90% confidence band)



6 Changes in spending and inflation

The speed with which changes in spending translate into price pressures depends on the degree of nominal price rigidities and the flexibility of the economy more generally. In the long run, the level of output tends to be determined by supply-side factors such as technology, the capital stock and the size of the labour force. This long-run level of output (or potential output) may vary over time on account of many factors, such as changes in labour participation rates, investment in capital, the invention of new technologies or changes in the tax regime. Moreover, in the short run, the labour force can be employed more or less intensively by using overtime and additional shifts, etc. In addition, the capital stock might be used more or less intensively by adjusting the utilisation of the available capacity. However, in normal circumstances increases in aggregate demand beyond potential output tend to create bottlenecks in the economy, which fuel inflationary pressures.

These inflationary pressures may arise through different channels. As firms are producing above capacity, they will increase employment and demand additional labour and/or overtime. When labour markets are already tight, this will lead to increasing wage pressure. As wages increase over and above productivity levels, unit labour costs rise and the cost of production increases. In addition, input shortages and production above capacity at inefficient levels lead to unit cost pressures. Ultimately these cost pressures will be reflected in price inflation, as firms attempt to maintain their profitability.

Slow adjustments of real wages and other relative prices will, in general, lead to more protracted effects on the real economy. Existing econometric evidence for the euro area suggests that while nominal price rigidities have been comparable with, for example, the United States, on average the speed of adjustment of real wages to changes in unemployment and productivity changes has been much slower. This is documented, for example, in a recent study by the OECD entitled "EMU one year on". There is also widespread agreement that a large proportion of the unemployment in the euro area is structural. In the absence of structural reform, this entails the danger that any fall in unemployment caused by increased demand might lead relatively rapidly to pay pressures, which, in the absence of countervailing productivity increases, would lead to price pressures and risks to price stability. Further structural reform to enhance the flexibility of labour and goods markets in the euro area would make a contribution towards solving the structural unemployment problem and attaining higher levels of non-inflationary growth, while also taking fuller advantage of the benefits of new information and communication technologies. At the same time, such reforms will also facilitate the Eurosystem's primary task of maintaining price stability.

7 Concluding remarks

Changes in monetary policy ultimately affect prices through a multitude of complex and often intertwined channels. This article has provided a broad overview of the existing knowledge with regard to the transmission mechanism in the euro area. In conclusion, in the light of their policy implications, three aspects need to be given particular emphasis. First, there are considerable lags in the transmission of monetary impulses to the economy. This implies that attempts at controlling short-term shocks to the price level would face considerable difficulty and could have destabilising effects in the longer run. Instead, monetary policy-makers need to be forward-looking and continuously to

assess how current economic conditions affect the medium-term outlook for price stability.

Second, there is considerable uncertainty surrounding the strength and the timing of the link between monetary policy actions and changes in the price level. This applies in particular to the euro area, in which structural change may have occurred as a consequence of the adoption of a single monetary policy. Moreover, in many areas a statistical framework for analysing the euro area as a whole is still being developed. Given this uncertainty, ambitious attempts at fine-tuning the economy or relying on a single model or indicator would be unwise. Finally, the formation of inflation expectations by households, firms, wage-setters and financial market participants forms an essential element in the transmission and effectiveness of monetary policy. The Eurosystem's stability-oriented monetary policy strategy is designed with a view to meeting the above-mentioned challenges successfully. It provides a forward-looking policy framework, which is intended to anchor inflation expectations at levels consistent with price stability.

Population ageing and fiscal policy in the euro area

Declining birth rates and longer life expectancy will put growing pressure on the public finances of euro area countries in the decades to come. The size of the anticipated burdens and the need for structural fiscal adjustments differ across the euro area on account of differing demographic trends and public pension system structures. In some countries implicit liabilities in terms of unfunded future pension payments are very large and are even turning out to exceed the current explicit public debt. The potential fiscal and broader economic consequences of population ageing are a serious cause for concern. In many euro area countries current fiscal policies and, in particular, public transfer systems are unlikely to be sustainable from a long-term perspective. Increasing government deficits and debt levels in relation to the growing financing needs of pension systems are having a negative impact on the medium-term prospects for stability and growth. As regards possible solutions for the financing problem of public transfers, the imposition of a strong increase in tax and social security burdens on euro area economies would clearly not be an appropriate remedy. Instead, current systems for providing old-age pensions should be scaled back to more affordable levels and supplemented by other forms of pension schemes, including, in particular, stronger funding of future obligations and certain elements of private pensions. In general, pension reforms should aim at making pension systems sustainable from a long-term perspective, instead of merely accommodating short-term financing needs.

1 The implications of population ageing

Demographic trends

The ageing of populations is a general phenomenon across the euro area and in most of the industrialised world. Declining birth rates and longer life expectancy are the main factors contributing to this process. As a result, the ratio of elderly people to those of working age (often referred to as the "elderly dependency ratio") is forecast to increase substantially in the euro area in the medium to long term, with a particularly steep increase foreseen after 2020, at which point the largest cohorts of the population will start to reach retirement age.

Birth rates in industrialised economies have been declining substantially over recent decades. Current rates – an average of around 1½ children per woman – are too low to allow for a natural replacement of the population and a stabilisation of its structure. Longevity is another important determinant of population ageing. Largely on account of improved medical standards and health care, life expectancy at birth of men in euro area countries has, according to Eurostat data, increased from around 67 years in 1960 to 75 years in 1997. For women, the increase was from 73 to 81 years. While the size and structure of populations can also be influenced by net immigration, this influence is generally seen to be limited in European Union (EU) Member States. Although it has frequently been argued that immigration might help to alleviate the financial problems of public pension systems in relation to population ageing, the inflow of workers to EU countries is often restricted by labour market regulations or other structural factors. Moreover, the magnitude of net inflows of immigrants required to effect a significant slowdown in the population ageing process would need to be far higher than the inflows historically experienced in Europe.

The aforementioned evidence is sufficiently robust to allow the conclusion to be drawn that medium-term demographic trends are posing a serious challenge to the sustainability of current pension systems. The growth of generations of working age is largely determined by past fertility rates, and the number of future pensioners depends on the life expectancy of generations currently alive, the evolution of which is relatively stable over time. Medium-term projections of population developments are therefore seen as broadly reliable. According to Eurostat projections, dependency ratios will, on average, more than

double in euro area countries between 1995 and 2040, from around 23% to 48% (see Table 1). While these figures describe a general trend, differences across countries with regard to the starting position as well as the expected time path of the demographic shift are noticeable. It would appear that the largest euro area economies, in particular, will be confronted with a severe change in the demographic structure in the decades to come.

Pension systems in the euro area

Virtually all euro area countries have based the largest share of old-age pension benefits on a compulsory, defined-benefit public pension system of the pay-as-you-go (PAYG) type. In some countries these arrangements are supplemented by some funded pension schemes of differing size and with different characteristics. A main traditional argument in favour of a large-scale publicly regulated system of providing for old-age pensions is that individuals of working age should be safeguarded against the consequences of taking insufficient care of their future needs and should be prevented from free-riding on public welfare benefits during their old age. Moreover, public pension schemes in most euro area countries also comprise redistributive elements, e.g. providing pensions for the disabled, widows or orphans. The importance of funded public or private pension plans, i.e. systems in which the accrual of liabilities for future pensions is matched by a continuous accumulation of financial assets, is generally small in the euro area, although it is becoming more significant in some individual Member States. Hence pensions for the elderly in the euro area are to a large extent financed from contributions paid by current workers and their employers. Given this link between current contributions and current pension payments, the structure of the population is an important determinant in the financing of a PAYG pension system.

Apart from the issue of the public provision of old-age pensions, which is dominating the current debate, other public sector policies can also be influenced by a change in the age structure of the population. In particular, it has been argued that health care expenditure and expenditure on education will be affected by the anticipated consequences of longer life expectancy and lower fertility. However, the theoretical basis and empirical evidence underlying this line of argument are less clear than in the case of pension systems. With regard to future trends in health care, the question arises as to the extent to which longer life expectancy and costly technical innovations will increase per capita spending,

Table 1

Projected dependency ratios in the euro area

(population aged 65 and over as a percentage of the population aged between 15 and 64)

	1995	2000	2020	2040
Belgium	23.8	25.4	32.6	45.5
Germany	22.5	23.3	31.9	48.2
Spain	22.2	24.4	29.8	49.2
France	22.9	24.3	32.6	45.6
Ireland	18.0	17.4	24.5	34.6
Italy	24.0	26.5	35.5	54.9
Luxembourg	20.6	21.5	27.9	39.9
Netherlands	19.3	20.1	29.8	44.0
Austria	22.4	22.6	28.5	45.3
Portugal	21.4	22.5	27.3	39.2
Finland	21.1	21.9	35.0	42.1
Euro area	**22.6**	**24.0**	**32.0**	**47.8**

Source: Eurostat.

and whether productivity gains and cost saving incentives might compensate for such an upward drift. It is generally assumed that the effects of population ageing on these areas of public spending would be more easily manageable than the costs accruing to public pension schemes over the medium term. With regard to education spending, the size of the young cohorts will shrink significantly over the coming decades. However, stronger investment in human capital might increase per capita spending, thereby potentially compensating savings related to population ageing. All in all, public and academic debate has thus far concentrated largely on the effects of population ageing on public pension systems.

A further aspect requires emphasis. Past expenditure trends in public transfer systems – in particular a very steep increase in public pension expenditure since the 1960s – have been dominated by factors unrelated to changing demographic structures. This has included wider coverage of public pensions, the extension of generous benefits, additional redistributive tasks allocated to transfer schemes and the rising cost of providing health care, etc. Whether or not these factors will continue to influence future expenditure trends or the extent to which it will be possible for them to be contained more effectively than in the past is as yet uncertain. A continuation of such intrinsic cost pressure in transfer systems would obviously add to the large financial burdens resulting from the impending population ageing problem.

A distinction can generally be drawn between two systems of PAYG-financed pensions, elements of which are often combined in existing public pension plans. Some countries operate systems providing a relatively low level of individual pension benefits, which are largely independent of a pensioner's work history and only cover basic needs during old age. Such minimum pensions are normally supplemented by additional compulsory or voluntary arrangements, often in the form of funded pensions. Other countries rely more strongly on insurance-related systems which

Table 2

Characteristics of public pension plans in euro area countries [1)]

	Statutory retirement age [2) 3)]		Average retirement age (1998) [3)]		Indexation scheme [3)]	Public expenditure on pensions in relation to GDP (1995) [4)]
	Men	Women	Old age	Early retirement [5)]		
Belgium	65	61	62.6	55.6	Prices	12.0
Germany	65	60	62.6 [6)]	-	Net wages	12.0
Spain	65	65	65.3	60.9	Prices	10.6
France	60	60	58.8	.	Prices	13.3
Ireland	65/66	65/66	62.0	.	Discretionary	5.4
Italy	65	60	61.4	55.6	Prices	15.0
Luxembourg	65	65	.	.	Wages/prices	12.6
Netherlands	65	65	65.0	60.0	Wages/prices	11.9
Austria	65	60	64.1	57.9	Net wages	14.9
Portugal	65	65	65.8	.	Discretionary	9.5
Finland	65	65	64.5 [7)]	60.4	Wages/prices	12.8
Euro area	.	.	.	.	.	**12.7**

1) All data refer to the private sector.
2) Old age.
3) National sources.
4) Sources: OECD Social Expenditure Database 1980 - 1996; ECB calculations for euro area average.
5) Excluding disability pensions.
6) Including early retirement.
7) Earnings-related pension scheme.

link pensions to past earnings and are aimed at largely replacing labour income during retirement age. In both systems the financial situation depends on the following four sets of variables: (1) contribution rates on wages, (2) replacement rates, i.e. average pensions in relation to average incomes, (3) the support ratio, i.e. the number of contributors to the pension scheme in relation to the number of recipients of public pensions – which largely depends on effective retirement ages, labour force participation and employment rates – and (4) budgetary transfers. In fact, contribution rates have to be higher, the more generous the pension system (i.e. the higher the replacement rates), the lower the support ratio and the lower the transfers from other budgetary areas.

Contribution rates to public PAYG pension systems are normally adjusted on a periodic basis, in order to align the annual flows of revenue and expenditure. While contribution rates differ, in all countries part of the contribution is paid by employers, normally amounting to around half or more. Given the differing scope and coverage of public pensions, the replacement ratios, too, differ widely across euro area countries. Statutory retirement ages are normally between 60 and 65 years in the euro area, while generous early retirement provisions have lowered the average effective retirement age (see Table 2). Defined-benefit PAYG pension systems typically base individual pension entitlements on a measure of past labour income, be it the average, final or near-final income. Indexation rules for benefits paid to current pensioners are typically based on either an inflation index or the growth rate of wages or both.

Budgetary consequences of population ageing

The discussion on the financial burdens resting upon public finances and on the economy as a whole is traditionally concentrated on standard fiscal indicators, notably the government's budget balance and level of indebtedness. These indicators have gained additional prominence in the institutional framework of Economic and Monetary Union because they are used as references for evaluating whether a Member State is in a budgetary position of excessive deficit. While budgetary positions have been improving since the middle of the 1990s and government debt-to-GDP ratios have been brought down over the past couple of years, a number of Member States are still recording significant budget deficits and very high debt levels.

Given their short-term – normally annual – definition, headline budget figures are by their very nature unsuitable for the purpose of fully assessing the long-term financial consequences of population ageing in an unfunded pension scheme. In the case of an ageing population, current pension expenditure and revenue trends in a PAYG pension system underestimate the accrual of future obligations. Moreover, the usefulness of short-term budgetary indicators for capturing long-term burdens is limited owing to conceptual difficulties in recording certain fiscal transactions and, hence, in including them in the calculation of the budget balance. For example, social security contributions are usually treated in the same way as taxes, i.e. as flows which reduce the annual government deficit. However, such payments are made by contributors in order for them to be entitled to receive a pension upon retirement and are thus similar economically to governments' accruing a liability. In the same vein, transfer payments to current pensioners could be considered as the redemption of such liability instead of being treated as current expenditure. Changing the accounting framework of the flows associated with the aforementioned transactions would inevitably alter not only the level of government receipts and spending, but also the budget balance or its accumulation over time in the form of government debt. Thus, only limited conclusions as to the long-term economic or redistributive effects of current fiscal policies can be drawn from the budgetary indicators commonly available.

A number of attempts have been made recently to quantify in a comprehensive manner the fiscal and economic costs associated with the demographic shift. In general, these approaches rely on long-term projections of future pension expenditure and contributions on the basis of more or less refined forecasts of demographic and economic developments. In addition, a number of summary indicators have been developed. These transform the projected time paths of pension expenditure and contributions into measures of overall net implicit liabilities of the pension system or quantitative indicators of the policy adjustment required to restore long-term fiscal solvency. As a further step, the "generational accounting" approach uses the economic framework of life cycle theories to draw particular attention to the aspects of overall fiscal sustainability and intergenerational redistribution.

The most basic method for calculating potential future trends in pension expenditure assumes that per capita public pension transfers will grow in line with per capita real income and applies this assumption to demographic forecasts. However, this method does not take into account future structural or institutional changes, or potential adjustments in individual behaviour, and can only be taken as a rough indicator of future financial burdens. More refined methods simulate future budgetary trends on the basis of legislated reforms phased in over a number of years. This requires a modelling of individual countries' specificities in terms of the level and structure of public pensions and contribution rates. These simulations are finding that pension expenditure in relation to GDP will increase very substantially in most euro area countries in the period from 2000 to 2030. This increase could be in the order of magnitude of 5 percentage points of GDP or even more. Under current arrangements, the net present value of the balance between pensions and contributions would be up to twice the level of GDP in some countries. This compares with – and effectively adds to – outstanding general government gross debt levels, which, on average, are still very high within the euro area.

The aforementioned results imply that policy adjustments are urgently needed. As a consequence of the forthcoming demographic shift, a very significant worsening of the general government primary balance-to-GDP ratios will be inevitable in the absence of large-scale adjustments. This would further aggravate currently existing fiscal imbalances and render the high level of government indebtedness in some Member States an even greater cause for concern. The improvements in current primary balances required to prevent an unsustainable build-up of public pension liabilities have been estimated to be substantial. Postponing the implementation of the required policy response would, over time, further increase the extent of necessary adjustments.

Moreover, it is claimed that public transfer systems result in strong intergenerational redistribution at the expense of unborn generations. The generational accounting approach, which quantifies financial burdens placed on different age groups by public finances, assumes that current generations are subject to current fiscal policies and public transfer arrangements and that future generations will bear the full financial burden of safeguarding long-term fiscal solvency. This assumption has a mainly illustrative purpose, and the results show the magnitude of policy adjustments required in order to honour current promises. The required net tax burden over the lifetime of future generations would be one-half or even more above the projected net tax burden of current generations in some euro area economies. In addition, these calculations indicate that a difficult choice will have to be made by policy-makers as to which generation will eventually pay for the financial burdens related to population ageing.

Long-term projections of fiscal trends naturally rely on a number of often rather uncertain and disputable assumptions with regard to future developments and, therefore,

have to be interpreted with due caution. However, most results appear to reveal consistently that fiscal policies and, in particular, public transfer systems in many euro area countries are hardly sustainable from a long-term perspective. Hence large-scale fiscal adjustments are indeed warranted as a matter of great urgency. In particular, anticipated fiscal problems related to population ageing could be significantly alleviated by means of appropriate policies geared towards bringing down government deficit and debt levels, as well as public spending and taxes.

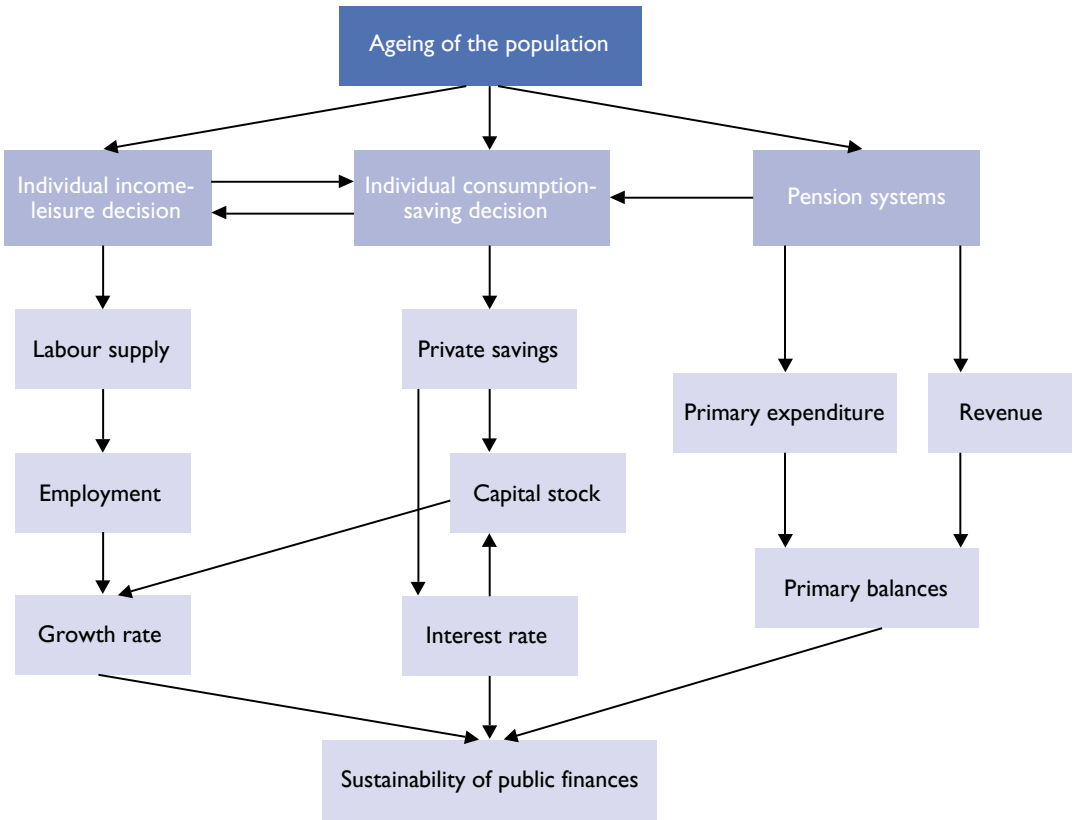
Economic consequences of population ageing for the sustainability of public finances

Apart from direct consequences for public finances and the sustainability of current fiscal policies, a change in the demographic structure as described above raises questions with regard to broader economic effects, in particular those on economic growth, employment, labour productivity, private saving behaviour and living standards. All these changes might have important consequences for the operation of markets, their efficiency, the transmission mechanism and effectiveness of monetary policy, and the prospects for price stability. It should be emphasised that fiscal sustainability will be a key condition for monetary stability in the future. Hence the economic consequences of ageing populations will, in the course of time, also influence the monetary policy of the Eurosystem.

It is difficult to disentangle the influence of population ageing on individual economic variables, as they are all interdependent. The most basic and relevant interdependencies

Chart 1

Economic and fiscal effects of population ageing



are depicted in Chart 1. One central variable in the population ageing-sustainability nexus is private savings. Private savings are a major source of individual old-age income as well as of an economy's overall capital supply. If population ageing influences individual consumption-saving decisions, it might also have important overall economic consequences, especially for the future growth potential of GDP and the level of per capita income. Correspondingly, research on the effects of population ageing on saving figures prominently in more recent economic literature on the subject. In this context, the most important aspects are the potential response of individual saving decisions and the extent to which public dissaving owing to rising pension expenditure can be compensated by additional private saving.

According to basic life cycle models of consumption, individuals save part of their income during working age and dissave during retirement age in order to distribute consumption more evenly over their lifetime. In an ageing population the private aggregate saving rate should therefore fall, given that an increasing proportion of the population will dissave rather than accumulate wealth. It is often argued that the operation of large-scale public PAYG pension systems contributes unfavourably to an economy's saving rate. If current workers perceive pension entitlements as a close enough substitute for their personal savings, they will save less than in the case of non-existent or less comprehensive public pension arrangements. Nevertheless, pension entitlements only materialise once workers reach the required retirement age and therefore represent a rather illiquid form of saving. For that reason, paying social security contributions does not serve the purpose of the precautionary savings which individuals may wish to make in order to give themselves some form of security against future uncertainty and the risk of unexpected income variations. Hence a full substitution of enforced old age saving for private saving is not a plausible assumption, nor is it confirmed by empirical evidence.

In an ageing society private savings may also be lowered on account of intergenerational redistribution. The aforementioned results of generational accounting calculations indicate that a PAYG pension system may lead to a shift in financial burdens to future generations, given that future contribution rates ultimately have to be raised or else benefits to future recipients have to be curtailed in order to respect the long-term conditions of government solvency. This would further lower the inclination of current generations of taxpayers to put aside part of their income given the relatively high return they can expect from the social contributions they are paying.

Opposite effects may also come into play, implying a rise in private saving in view of the population ageing problem. In particular, workers may cut back on their current consumption if they foresee substantial future tax increases or cuts in benefits and wish to safeguard themselves or their dependants against the income losses associated with these additional burdens. Such a reaction may be spurred by growing uncertainty among current generations of taxpayers with regard to the sustainability of pension plans and the effectiveness of pension reform, especially in highly indebted countries. In addition, the intergenerational redistribution of resources may be conditioned by the magnitude of private transfers across generations, in the form of bequests or inter vivos transfers. These may partly offset the redistribution effects inherent in public pension schemes. However, it is seriously questionable as to whether or not these positive effects on private savings can outweigh the aforementioned negative effects. Moreover, within a PAYG pension scheme the impact that population ageing may have on private saving will also depend on capital market imperfections and the degree of myopia characterising individuals' behaviour. If individuals face liquidity constraints or are short-sighted when taking saving decisions, it is less likely that contributions to a PAYG scheme will be a substitute for voluntary private saving.

While private saving decisions are a key determinant of an economy's capital supply, national saving also depends on the government sector's financing and investment policy. As such, an assessment of the potential future course of capital accumulation in an economy has to take due account of the interplay between private and public saving. In particular, the issue to be addressed is whether or not, over time, additional private saving can at least partly offset a decline in public saving resulting from a surge in pension expenditure. Moreover, the relative weight a government gives to public capital expenditure versus current primary expenditure will also affect an economy's overall capital stock.

The existing empirical evidence on the effects of population ageing on private and national saving is not conclusive. However, there is widespread concern among economists about the possibility of substantial capital supply shortages in industrialised countries resulting from anticipated medium-term demographic developments. This would imply an under-accumulation of physical capital and, therefore, a decline in living standards unless an ageing-related fall in the labour force were to increase labour productivity sufficiently to stabilise per capita incomes even with lower rates of investment. Moreover, a fall in national saving may have major effects on current account balances, international capital flows and, thereby, real interest and exchange rates.

The effect that population ageing is expected to have on existing pension systems will also affect the willingness of individuals to supply labour and will therefore influence future labour market conditions in the euro area (see also the article entitled "Developments in and structural features of the euro area labour markets" in the May 2000 issue of the ECB Monthly Bulletin). Both existing incentives to retire early and increasing social contributions have contributed to labour market imbalances in euro area countries in the past. The rising social security contribution rates needed to restore fiscal sustainability would impinge heavily on labour market conditions, as they would tend to widen the wedge between labour costs and net wages, thereby creating disincentives to participate in the labour market and hire workers. Hence the level of contributions are in themselves key factors influencing the financial soundness of a public pension arrangement and, more generally, the international competitiveness of the euro area. On account of the high rates of unemployment prevailing in most Member States, lifting contributions above the currently high levels is not a feasible way of meeting pension systems' medium and long-term financing needs.

In addition, it is frequently argued that population ageing will result in declining labour productivity given the reduced mobility and flexibility of older workers. This would have an adverse effect on economic growth conditions in addition to the potential loss of economic output resulting from a declining labour force in an ageing society. On the other hand, this effect could at least partly be outweighed by the experience older workers have acquired during their working life.

All in all, complex and potentially undesirable economic effects may result from the ageing of the population, in particular against the background of comprehensive PAYG pension systems. According to simulations of future fiscal and economic trends in a general equilibrium setting, taking into account various effects of population ageing and the respective links between economic variables, a continuation of current policies would result in a substantial loss of output in the EU as a whole over the next 50 years. Population ageing would lead to a noticeable lowering of the annual GDP growth rate and would be detrimental to the international competitiveness of the EU, as well as to the living standards of its inhabitants. Such developments would add considerably to the direct financial burdens which population ageing is already imposing on public finances and the sustainability of fiscal policies.

Declining economic growth rates and a long-term increase in real interest rates would substantially worsen the foreseeable financing problems of public pension schemes. Accordingly, appropriate government action would consist in directly addressing the budgetary consequences of an increase in pension outlays, as well as providing incentives for stronger capital formation and higher employment.

2 Pension reform

Forthcoming population ageing problems will be unprecedented in terms of their quantitative impact. Awareness of the fiscal and economic risks implied by these developments has motivated debates about the structure of public transfer schemes and has led to the gradual implementation of pension reforms in many countries. Some individual Member States had already set their systems on a sounder financial footing in the past. Nevertheless, it has become clear that substantial further adjustments in pension systems, coupled with reform in other areas of public finances, are now needed. Without such changes, sizeable future increases in contribution rates or in government debt or substantial cuts in benefits will endanger economic efficiency and threaten intergenerational equity. Postponing the necessary policy changes will ultimately lead to the need for even more painful measures. In general, two variants of pension reform have been extensively discussed: (1) the adjustment of existing public pension schemes with regard to the structure of benefits and contributions (often referred to as "parametric reforms"); and (2) more fundamental changes in pension schemes towards funded systems which base future benefits on accumulated assets ("systemic reforms"). In practical policy-making, combinations of the two variants have often been proposed.

Before turning to a discussion of these two variants of pension reform, it is worth re-emphasising the point that general structural reform of the public sector and overall fiscal retrenchment will help to finance sharp medium-term increases in pensions. The state of public finances at the point in time when the demographic shift becomes most visible is crucial for a government's ability to react to the challenges ahead. Once age-related spending starts on the dramatically increasing path which is being forecast, it will be difficult for countries to comply with the fiscal norms established among EU Member States, while maintaining sufficient flexibility to react to cyclical or other unforeseen changes. Hence governments would be well advised at present to pursue a pre-emptive policy of more rapid debt and deficit reduction. Extending budgetary safety margins so as also to cover demographic risks is a matter of growing urgency in many countries. The current favourable economic trends should be seen as the best opportunity to take the necessary steps sooner rather than later.

Moreover, medium-term developments in labour markets are a key aspect in the context of fiscal and overall economic burdens related to population ageing. As mentioned above, it is not the "demographic" dependency ratio, but rather the support ratio (i.e. the number of contributors in relation to the number of beneficiaries in a pension system) that will determine future increases in financial burdens in the context of a PAYG public transfer system. Hence increasing the employed labour force as a proportion of the population by improving the functioning of labour markets and lowering existing disincentives to supply labour and hire workers are essential preconditions to be able to address the forthcoming challenges.

Parametric reforms

Inertia of existing pension arrangements has often made parametric changes within the

existing systems appear to be more feasible to policy-makers. In addition, relatively small increases in contribution rates or budgetary transfers to the pension scheme were normally sufficient in the past to restore the solvency of pension schemes in the event of increasing financial imbalances. Given the magnitude of the forthcoming population ageing problems, more substantial changes in pension arrangements are needed and are currently under discussion in many euro area countries. This debate takes place in an environment of rapid globalisation of economies. Growing resistance on the part of current taxpayers and international competition between tax systems are increasingly placing a constraint on governments with regard to financing future increases in pension benefits by raising taxes. Hence discussion about effective parametric pension reform largely concentrates on different variants of lowering benefits, normally implemented gradually and mainly affecting future recipients. Basic options for lowering benefits are (1) an increase in the effective average retirement age, (2) a reduction in replacement rates and (3) a change in the indexation rules for pensions. It is generally deemed necessary to allow for a relatively long period before the new arrangements take full effect. This will enable workers to adjust their consumption and saving plans gradually, so that they can replace the loss of expected old-age pensions by saving more while still of working age.

It is often argued that increasing the age at which an employee becomes eligible to receive a pension can be justified given the longer life expectancy and improved health conditions of average workers at an age traditionally considered to be suitable for retirement. In particular, standard retirement ages were specified at a time when life expectancy was significantly lower than is currently the case or is forecast for the future. Furthermore, average workers have tended to retire well before reaching mandatory retirement ages in recent decades as a consequence of strong incentives to opt out of the labour market. From a budgetary point of view, higher standard retirement ages are beneficial because they increase the number of years during which an average worker contributes to the pension system, while they also reduce the number of years during which an average pensioner receives transfers. A number of euro area countries have recently introduced or have announced a phased-in rise in statutory retirement ages. According to various estimates, a five-year increase in the effective retirement age would substantially alleviate the future financial burdens on pension systems in some countries.

Another reform proposal frequently discussed relates to an adjustment of average replacement ratios. The number of years taken as an assessment period for an individual's work history, as well as the factor determining the accrual of pension rights in relation to annual assessed income (the "accrual factor"), are key elements in characterising the generosity of a PAYG pension plan. Therefore, average replacement ratios could be adjusted by changing the accrual factors, or by extending the number of years of income taken into account in order to calculate pension entitlements. Such reforms would lower the generosity of public pension schemes, which is often argued to be excessive in a number of euro area countries, and would introduce stronger elements of actuarial fairness, i.e. a closer proportionality between contributions paid and the accruing pension entitlements.

The evolution of replacement ratios would also be altered by changing the indexation rules for pensions. When pensions are linked to prices rather than to wages, significant budgetary savings are made. However, assuming that real wages increase over time, the relative income position of pensioners compared with that of workers is eroded over time under such an indexation rule. By contrast, when pensions are indexed to the growth of nominal gross wages, pensioners do better than workers in the event of increasing tax or social security contribution rates. A number of countries in which wage

growth is used as an index for pensions have therefore linked pensions to net wages rather than gross wages. Budgetary savings and a more equal distribution of financial burdens among generations were the main arguments presented by advocates of this measure. Positive financial effects can also be expected from a temporary suspension of wage indexation, which would result in a permanent lowering of replacement ratios for current pensioners. Some countries have recently implemented or announced measures changing the indexation of pensions for a limited period of time.

Parametric reforms initiated or discussed in the past were often suspected of being – and many of them have in fact proved to be – temporary in nature. Hence they were not considered to put social security on a permanently stable footing, given the possibility of further changes in contributions and benefits if the financial or political situation were to call for such an intervention. Advocates of more fundamental changes to pension systems therefore argue that resistance to parametric reforms often stems from this credibility problem. Moreover, given the assertion that the financing of a comprehensive PAYG pension scheme is unsustainable under current demographic trends, there has been widespread support in past decades for greater funding of future pensions. Such changes would represent a systemic rather than a parametric reform.

Systemic reforms

Funded pensions provide those currently making social security contributions with individual benefits accounts, which represent private property rights similar to holdings of other assets. In a defined-contribution scheme, contributions are predetermined, normally as a proportion of wage income, while pension benefits equal an annuity paid on the assets plus interest accumulated on individual accounts. In an actuarially balanced system, contribution rates to a funded system are fixed at a level which balances the present value of all future receipts and the present value of future benefits, making assumptions about, inter alia, the number of future retirees and contributors and wage growth. This has an important advantage compared with PAYG systems in that the contribution rate in a funded system signals the actual current and future costs of pension provision, while these costs may be severely underestimated by current PAYG contribution rates. In the euro area, the Netherlands and Finland have based a significant share of old-age pensions on funded systems, as is the case for other EU Member States and industrial economies around the world.

Two general types of funded pensions can be distinguished which, again, are normally combined in existing schemes: those with partial funding and those with full funding. Moreover, funded systems can be operated by the public sector or by private companies, and membership can be compulsory or voluntary. Partial funding of social security is typically applied in the framework of compulsory public systems and has been introduced in some euro area countries in the past. In addition, some countries operate notionally funded systems. In such cases, contribution rates are fixed in line with the requirements of a funded system, i.e. above the level needed to finance current pension payments. At the same time, contributions are not actually invested in assets, but they accrue to the government, which may use positive balances in the pension system's budget to lower outstanding debt. The aforementioned signalling function of contribution rates in a funded system is thereby preserved.

Funded systems offer a more direct link than PAYG schemes between the contributions workers pay and the benefits they can expect to receive once they retire. This link is often blurred in PAYG systems, mainly owing to the fact that these systems fulfil a number of distributional tasks – often also tasks unrelated to the provision of old-age pensions, e.g. the substitution of transfers to unemployed persons through early retirement

benefits – and cannot normally offer rates of return on contributions paid that are similar to market rates. Hence stronger funding is seen to lessen distortions on labour markets by creating an actuarially fair connection between contributions and benefits. It has also been argued that an accumulation of financial reserves covering pension promises would involve lower costs than PAYG financing. This can be shown to hold true in general in a situation in which the real rate of interest is above the rate of productivity growth plus population growth, i.e. if the economy operates on a dynamically efficient growth path. Funding pensions would, hence, largely avoid further hikes in social contribution rates or substantial reductions in pension benefits needed to maintain existing PAYG systems. By shifting towards more substantial funding of pensions, labour markets could therefore be cushioned against further unfavourable effects of increasing pension costs and the associated financing needs. Efficiency gains and cost savings could also be attained by means of greater involvement on the part of private companies in the management of pension funds. Moreover, this would help to isolate social security from political pressures and would, hence, make it less subject to electoral cycles and more certain from the point of view of the population.

In addition, a more efficient allocation of resources would be facilitated in a funded system since the accumulation of large pension assets would require and actually accelerate favourable capital market developments. Establishing large pension funds would create substantial demand for capital market instruments and it is claimed that it would make markets more liquid and deeper. It has also been argued that funded pensions would enable greater worker participation in the economic gains from globalisation and would, therefore, enhance the acceptance of capital markets and returns on financial assets by the population. Finally, it is frequently argued that the transition to funding increases national saving, thereby contributing to a higher longer-term economic growth potential, and it is supposed to be fairer than a PAYG system from the point of view of intergenerational cost sharing.

However, important questions have been raised with regard to a move to funded pension schemes. First and foremost, the transition from a PAYG system to a funded system poses serious problems. If current workers were to join a defined-contribution pension plan, their contributions would be invested in their pension-related individual savings accounts. Hence the government would have to serve the benefit claims of current pensioners on the PAYG system without having recourse to current workers' payroll taxes. The size of the emerging deficits would reveal the implicit liabilities accumulated in the PAYG system and make them explicit.

Moreover, the amount of pension savings typically affordable to low-income workers may not always finance a pension sufficient to maintain an appropriate standard of living after retirement. More generally, a key drawback of funded defined-contribution systems is seen in the investment risk they impose on pensioners, given that pension benefits largely relate to the real return on the accumulated assets, which are uncertain. Accumulated pension funds might not therefore compensate sufficiently for the loss in labour income once retirement age has been reached. Additional tax-financed fiscal instruments would in such cases need to fulfil redistributive tasks.

Some other supposed advantages of funded systems have also been challenged. It is normally argued that the financial basis of a PAYG system gradually erodes with a decline in the number of contributors. However, in principle, a funded system also depends on the age structure of the population. In a funded defined-contribution system the elderly following retirement will try to sell their accumulated pension assets to those of working age. Given the expected decline in the number of workers, the demand for the

pensioners' assets as well as the value of the assets themselves and the annuity paid out of them may be correspondingly lower. An additional problem related to the introduction of funded pension systems arises from the need to invest higher private savings in capital markets, possibly reducing the yield of financial assets. This argument can be countered, however, by mentioning that pension funds could also be invested in countries in which capital needs and financial asset yields are relatively high, notably in transition, emerging market or developing economies. In general, funded systems should have the possibility of choosing investment strategies which appear to offer the highest return without incurring unbearable risks, e.g. by means of an international diversification of portfolios. In existing systems, this possibility is often restricted by national legislation.

In synthesising a range of viewpoints, there is some preference in the ongoing debate for a combination of elements of funded and unfunded pension provisions, benefiting from the respective advantages of the different systems, while largely diversifying risks. More specifically, it is often claimed that public PAYG systems should provide for a basic lump-sum pension only, while this basic pension would be supplemented by additional payments related to past earnings. These supplementary pension benefits should be paid out of a compulsory private or public funded pension pillar, as well as out of a voluntary private funded pillar. This three-pillar approach – with different specifications of details – has been successfully adopted by some countries in the past and is under discussion in many others.

3 Conclusions

The ageing of populations is likely to be the greatest foreseeable challenge for fiscal policies in the euro area in the decades to come. Given the magnitude of the expected break in the demographic structure of populations and the large share of pension spending in government budgets, pension reform and broader adjustments of the public sector are urgently needed in order to meet future financing needs. The long-term sustainability of pension systems, rather than short-term financing needs, should be the governments' leitmotif in pursuing pension reforms. Most euro area countries have postponed implementing the necessary measures and, therefore, appear to be ill-prepared to deal with the projected surge in public transfer payments. In addition, a number of countries still show excessively high explicit government indebtedness or have yet to achieve overall budgetary positions consistent with the provisions of the Stability and Growth Pact. At the very least, these provisions require Member States to achieve budgetary positions allowing a full operation of automatic stabilisers over the cycle without breaching the deficit limit of 3% of GDP. Additional safety margins are warranted, however, in order also to address budgetary risks unrelated to cyclical fluctuations. In the near future, governments should create such safety margins by speeding up deficit and debt reduction so that public finances will be in a sufficiently sound state once the most rapid phase of population ageing has taken place. The solid economic growth currently forecast for the next few years should be seen as the best opportunity to introduce the required policy measures.

While sound overall public finances would alleviate the financial burdens resulting from population ageing, more specific reforms of public transfer systems also appear to be warranted. In this context, existing distortions of EU labour markets caused by high tax burdens and disincentives to supply and demand labour need to be reversed. In general, reforms should provide a clear signal that the policy response acknowledges the urgency of the matter and is well designed to address the issue of long-term fiscal

sustainability, rather than merely filling short-term financial imbalances. Within the existing systems, the adjustment of standard retirement ages and replacement ratios, potentially linking these parameters to life expectancy, are effective reform elements. In addition to a tightening of pension entitlements financed by the public PAYG schemes, gradually supplementing these schemes by funded arrangements with private sector involvement would be a positive contribution to the sustainability of public finances. Some Member States have already successfully embarked on this policy path.

Euro area statistics

Contents

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 financial sector counterparties in the euro area in euro			
						Main refinancing operations	Longer-term refinancing operations	Fine-tuning reverse operations
	1	2	3	4	5	6	7	8
2000 4 Feb.	116,248	257,465	15,278	4,505	202,290	131,113	69,996	0
11	116,071	257,133	15,969	4,602	199,257	128,096	69,996	0
18	116,000	256,516	15,419	4,801	196,077	125,052	69,996	0
25	115,946	255,627	15,454	4,716	193,309	121,956	69,996	0
3 Mar.	115,945	254,584	16,076	4,658	218,321	152,003	64,998	0
10	115,945	254,985	15,547	4,466	201,929	136,101	64,998	0
17	115,945	256,714	15,276	4,632	197,820	132,022	64,996	0
24	115,945	255,508	15,455	4,149	202,874	137,008	64,996	0
31	115,676	267,136	16,938	4,131	201,733	140,871	60,000	0
7 Apr.	115,677	267,192	16,746	4,616	197,546	136,770	60,000	0
14	115,677	267,972	16,706	4,564	190,999	129,864	60,000	0
21	115,677	267,366	17,335	4,829	201,782	140,115	60,000	0
28	115,677	267,406	17,349	4,833	209,911	147,156	59,999	0
5 May	115,677	266,475	17,500	4,834	214,169	152,812	59,999	0
12	115,677	264,161	18,202	4,680	196,865	135,608	59,999	0
19	115,677	270,555	17,825	4,988	198,601	137,533	59,999	0
26	115,677	267,485	17,556	4,988	205,413	144,080	59,995	0
2 June	115,677	265,353	19,344	4,850	201,957	140,340	59,905	0
9	115,677	264,791	18,333	4,722	198,214	136,728	59,905	0
16	115,677	264,177	18,138	4,717	204,375	142,783	59,905	0
23	115,677	263,531	18,262	4,529	206,453	142,020	59,905	0
30	121,188	263,926	18,325	4,130	234,528	172,961	59,907	0

2. Liabilities

	Banknotes in circulation	Liabilities to financial sector counterparties in the euro area 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
2000 4 Feb.	349,983	108,021	107,970	32	0	0	19	7,876
11	348,690	107,672	107,624	29	0	0	19	7,876
18	346,113	109,479	109,386	68	0	0	25	7,876
25	345,046	95,549	95,429	97	0	0	23	7,876
3 Mar.	349,733	122,882	122,828	39	0	0	15	7,876
10	349,984	105,429	105,367	46	0	0	16	7,876
17	347,725	106,159	105,799	343	0	0	17	7,876
24	345,861	103,195	102,997	182	0	0	16	7,876
31	347,917	111,151	110,076	1,075	0	0	0	6,265
7 Apr.	351,026	112,258	112,229	29	0	0	0	6,265
14	351,012	101,179	101,157	22	0	0	0	6,265
21	355,714	113,857	109,440	4,416	0	0	1	6,265
28	354,266	111,871	101,478	10,371	0	0	22	6,265
5 May	355,893	122,195	122,129	41	0	0	25	6,265
12	354,655	104,640	104,335	291	0	0	14	6,265
19	352,117	118,570	118,401	150	0	0	19	6,265
26	350,858	115,949	115,908	26	0	0	15	6,265
2 June	355,498	114,669	114,637	25	0	0	7	6,265
9	357,130	109,696	109,665	25	0	0	6	6,265
16	354,702	116,117	116,072	33	0	0	12	6,265
23	353,587	109,841	108,429	1,400	0	0	12	6,265
30	355,726	120,417	120,316	91	0	0	10	6,265

Source: ECB.

Structural reverse operations	Marginal lending facility	Credits related to margin calls	Other claims	Securities of euro area residents in euro	General government debt in euro	Other assets	Total	
9	10	11	12	13	14	15	16	
0	18	110	1,053	24,363	59,255	83,072	762,476	2000 4 Feb.
0	135	76	954	24,205	59,255	82,933	759,425	11
0	48	30	951	24,071	59,255	83,715	755,854	18
0	21	84	1,252	24,576	59,255	83,324	752,207	25
0	402	96	822	24,850	59,021	84,194	777,649	3 Mar.
0	67	97	666	24,916	59,021	83,180	759,989	10
0	30	92	680	24,695	59,021	83,085	757,188	17
0	24	114	732	25,208	59,021	83,018	761,178	24
0	62	69	731	25,309	59,021	84,477	774,421	31
0	132	67	577	24,954	59,021	84,676	770,428	7 Apr.
0	289	76	770	25,034	59,021	85,629	765,602	14
0	430	60	1,177	24,944	59,021	86,251	777,205	21
0	1,573	29	1,154	24,937	59,021	83,828	782,962	28
0	144	32	1,182	25,347	59,032	83,446	786,480	5 May
0	92	35	1,131	25,225	59,032	84,232	768,074	12
0	135	30	904	25,103	59,026	84,128	775,903	19
0	193	41	1,104	25,191	59,026	83,886	779,222	26
0	330	81	1,301	25,030	59,026	83,657	774,894	2 June
0	163	56	1,362	25,163	59,026	84,056	769,982	9
0	80	49	1,558	24,852	58,986	83,897	774,819	16
0	3,050	53	1,425	25,171	58,986	84,159	776,768	23
0	145	89	1,426	25,086	58,986	86,299	812,468	30

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	
9	10	11	12	13	14	15	16	17	
50,717	7,030	999	14,477	6,531	55,919	107,483	53,440	762,476	2000 4 Feb.
50,813	6,912	1,046	13,138	6,531	55,150	107,379	54,218	759,425	11
48,627	7,062	823	11,923	6,531	55,822	107,379	54,219	755,854	18
60,837	7,792	770	10,520	6,531	55,663	107,379	54,244	752,207	25
55,238	6,998	807	10,082	6,531	55,879	107,379	54,244	777,649	3 Mar.
54,599	7,076	805	9,877	6,531	56,159	107,379	54,274	759,989	10
51,599	6,899	882	11,340	6,531	56,554	107,357	54,266	757,188	17
61,001	7,135	884	9,624	6,532	57,476	107,357	54,237	761,178	24
52,334	7,001	933	9,924	6,762	59,864	118,011	54,259	774,421	31
46,811	7,545	900	11,285	6,762	54,965	118,008	54,603	770,428	7 Apr.
51,133	7,086	884	13,039	6,763	55,630	118,007	54,604	765,602	14
45,684	7,323	958	13,035	6,763	54,995	118,007	54,604	777,205	21
53,831	7,694	816	13,523	6,763	55,321	118,007	54,605	782,962	28
45,523	7,357	805	13,271	6,763	55,739	118,007	54,662	786,480	5 May
46,144	7,120	915	12,361	6,763	56,541	118,007	54,663	768,074	12
37,673	7,158	921	17,910	6,763	55,540	118,007	54,979	775,903	19
47,699	7,269	840	14,723	6,763	55,869	118,007	54,980	779,222	26
40,153	7,242	842	14,362	6,763	56,112	118,007	54,981	774,894	2 June
39,480	7,842	817	13,204	6,763	55,664	118,007	55,114	769,982	9
41,339	7,081	815	12,578	6,763	56,037	118,007	55,115	774,819	16
50,836	7,131	819	12,281	6,763	56,123	118,007	55,115	776,768	23
65,224	7,305	814	13,272	6,691	60,749	120,893	55,112	812,468	30

Table 1.2

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	...

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

Date of settlement	Bids (amount)	Allotment (amount)	Fixed rate tenders	Variable rate tenders			
			Fixed rate	Minimum bid rate	Marginal rate	Weighted average rate	Running for (...) days
	1	2	3	4	5	6	7
2000 12 Jan.	914,566	35,000	3.00	-	-	-	14
19	1,145,548	77,000	3.00	-	-	-	14
26	1,520,993	69,000	3.00	-	-	-	14
2 Feb.	3,012,630	62,000	3.00	-	-	-	14
9	1,036,648	66,000	3.25	-	-	-	14
16	1,022,832	59,000	3.25	-	-	-	14
23	2,126,309	63,000	3.25	-	-	-	14
1 Mar.	2,901,133	89,000	3.25	-	-	-	14
8	1,627,522	47,000	3.25	-	-	-	14
15	4,165,993	85,000	3.25	-	-	-	14
22	1,661,995	52,000	3.50	-	-	-	14
29	3,022,435	89,000	3.50	-	-	-	14
5 Apr.	2,869,408	48,000	3.50	-	-	-	14
12	4,290,278	82,000	3.50	-	-	-	15
19	4,277,306	58,000	3.50	-	-	-	15
27	5,492,939	89,000	3.50	-	-	-	13
4 May	4,624,944	64,000	3.75	-	-	-	13
10	6,352,776	72,000	3.75	-	-	-	14
17	6,574,441	66,000	3.75	-	-	-	14
24	7,057,234	78,000	3.75	-	-	-	14
31	7,127,001	62,000	3.75	-	-	-	15
7 June	8,491,195	75,000	3.75	-	-	-	14
15	3,544,808	68,000	4.25	-	-	-	13
21	1,867,673	74,000	4.25	-	-	-	14
28 [2]	201,612	99,000	-	4.25	4.29	4.32	14
5 July	171,848	58,000	-	4.25	4.29	4.30	14

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) See footnote 3 to Table 1.2. The marginal rate refers to the lowest rate at which funds were allotted.

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

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

3) See footnote 2.

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
1999 May	8,797.6	4,867.1	101.1	158.7	1,130.8	541.0	1,999.0
June	8,857.3	4,916.6	106.3	152.0	1,145.5	517.6	2,019.3
July	8,848.9	4,895.7	109.2	155.5	1,153.5	513.8	2,021.2
Aug.	8,856.3	4,893.0	113.2	165.4	1,164.9	484.8	2,035.0
Sep.	8,969.1	4,912.7	120.6	170.0	1,166.5	537.2	2,062.1
Oct.	9,083.7	4,967.3	129.0	178.5	1,180.3	554.2	2,074.5
Nov.	9,295.2	5,079.6	135.9	202.9	1,193.3	562.6	2,121.0
Dec.	9,187.4	5,123.4	113.5	169.3	1,204.9	503.5	2,072.8
2000 Jan.	9,265.7	5,164.6	108.0	156.8	1,210.3	547.9	2,078.2
Feb.	9,338.9	5,189.6	114.5	164.5	1,220.7	553.1	2,096.4
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 [(p)]	9,636.9	5,386.6	118.4	188.4	1,242.0	540.0	2,161.6

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.

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
1999 July	102.0	102.7	0.8	0.0	2.50
Aug.	102.8	103.5	0.6	0.0	2.50
Sep.	102.6	103.0	0.5	0.0	2.50
Oct.	102.8	103.3	0.6	0.0	2.50
Nov.	103.4	104.0	0.5	0.0	2.73
Dec.	104.9	105.4	0.5	0.0	3.00
2000 Jan.	107.7	108.5	0.8	0.0	3.00
Feb.	107.5	107.9	0.4	0.0	3.12
Mar.	108.0	108.4	0.5	0.0	3.27
Apr.	108.7	109.5	0.8	0.0	3.50
May	111.3	111.8	0.5	0.0	3.67
June	113.4	113.9	0.5	0.0	3.90
July [(p)]	113.3	-	-	-	-

Source: ECB.

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

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

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

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

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

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

Table 1.5

Banking system's liquidity position [1)]

(EUR billions; period averages of daily positions)

Maintenance period ending in:	Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions' current accounts [4)]	Base money [5)]
		Monetary policy operations of the Eurosystem										
	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 Feb.	328.2	104.6	34.2	3.8	30.2	1.3	0.2	329.3	41.0	28.9	100.3	430.9
Mar.	323.6	136.4	45.0	0.4	0.0	1.4	0.0	326.9	49.8	25.0	102.2	430.5
Apr.	338.4	130.1	45.0	0.7	0.0	0.3	0.0	331.0	42.9	39.0	101.1	432.3
May	342.5	121.6	45.0	0.8	0.0	0.4	0.0	333.9	36.3	38.0	101.2	435.5
June	339.8	132.0	45.0	0.4	0.0	0.6	0.0	337.0	40.4	37.2	101.9	439.6
July	342.4	143.1	45.0	0.4	0.0	0.5	0.0	342.1	45.7	39.5	102.9	445.6
Aug.	343.2	150.1	45.0	0.5	0.0	1.0	0.0	344.8	47.3	42.1	103.6	449.4
Sep.	343.5	150.4	45.0	0.2	0.0	0.7	0.0	342.1	51.4	41.6	103.2	446.0
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

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	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
1997	237.2	215.5	21.1	0.6	114.0	0.7	111.8	1.5	2.9	0.5	2.4	324.1	7.0	51.6	736.7
1998 Q2	293.4	272.1	21.1	0.2	105.4	4.8	99.7	0.8	3.2	0.6	2.6	337.2	7.8	47.9	794.9
Q3	302.8	281.5	21.1	0.2	82.7	1.0	81.0	0.7	4.8	2.0	2.8	329.4	8.0	50.0	777.6
Q4	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	608.5	587.9	20.4	0.2	94.0	1.5	91.9	0.6	8.1	4.0	4.1	426.0	9.3	52.2	1,198.3
1999 May	481.1	460.5	20.4	0.2	93.1	1.6	90.8	0.7	8.2	4.0	4.2	387.6	9.6	51.1	1,030.9
June	788.8	768.3	20.4	0.2	92.4	1.5	90.0	0.9	8.7	4.4	4.3	499.4	9.7	47.1	1,446.1
July	755.2	734.7	20.4	0.2	92.3	1.5	89.9	0.9	8.7	4.4	4.3	452.0	9.8	51.6	1,369.8
Aug.	530.8	510.2	20.4	0.2	91.9	1.1	90.0	0.7	8.8	4.4	4.4	423.0	9.9	52.8	1,117.1
Sep.	456.9	436.3	20.4	0.2	92.4	1.4	89.9	1.1	8.7	4.3	4.4	427.9	9.8	47.9	1,043.7
Oct.	567.0	546.4	20.4	0.2	92.4	1.9	89.4	1.2	8.6	4.3	4.3	432.6	9.9	53.9	1,164.3
Nov.	508.4	487.8	20.4	0.2	92.6	2.1	89.4	1.1	8.8	4.2	4.6	410.3	9.9	56.0	1,086.1
Dec.	442.3	422.1	19.7	0.5	89.1	1.9	86.1	1.1	14.1	4.3	9.8	400.6	9.9	55.8	1,011.9
2000 Jan.	463.6	443.3	19.8	0.6	90.3	1.7	87.6	1.0	14.2	4.4	9.8	424.3	9.9	52.1	1,054.4
Feb.	382.2	361.8	19.8	0.6	93.2	1.8	90.4	1.0	14.2	4.3	9.8	417.5	9.8	52.2	969.0
Mar.	443.2	424.3	18.4	0.5	96.2	2.4	92.7	1.1	14.4	4.3	10.1	439.1	9.8	48.6	1,051.3
Apr.	465.5	446.6	18.4	0.5	96.7	2.6	93.0	1.1	14.4	4.3	10.1	438.0	9.9	51.1	1,075.5
May [p)]	469.2	450.3	18.4	0.5	97.2	2.8	93.2	1.2	14.4	4.4	10.1	441.8	10.0	51.6	1,084.2

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	Central government	Other general government/ other euro area residents						
	1	2	3	4	5	6	7	8	9	10	11
1997	354.9	147.0	91.9	51.7	3.4	13.4	14.8	106.0	33.4	67.2	736.7
1998 Q2	345.5	217.8	159.1	53.4	5.3	14.4	13.3	114.3	27.2	62.5	794.9
Q3	341.5	211.8	140.2	66.4	5.2	11.9	12.0	109.6	23.2	67.6	777.6
Q4	359.1	152.0	94.2	54.4	3.5	8.5	5.3	97.1	18.6	57.4	698.0
1999 Q1	348.3	549.5	486.6	54.4	8.5	4.9	5.3	138.0	97.9	54.5	1,198.3
1999 May	353.0	419.7	369.5	41.8	8.3	4.9	5.3	137.4	61.5	49.2	1,030.9
June	355.8	724.3	672.3	43.1	8.9	4.9	5.3	140.7	171.4	43.8	1,446.1
July	363.6	682.7	620.6	55.5	6.6	4.9	5.3	139.9	124.3	49.2	1,369.8
Aug.	358.6	463.7	403.2	53.8	6.6	4.9	5.3	139.9	93.9	50.9	1,117.1
Sep.	359.4	390.5	332.9	50.1	7.6	3.3	5.3	146.3	88.8	50.1	1,043.7
Oct.	361.2	500.6	440.8	50.2	9.5	3.3	5.3	150.6	93.8	49.4	1,164.3
Nov.	362.9	443.0	368.3	64.1	10.6	3.3	4.6	150.3	69.5	52.4	1,086.1
Dec.	393.0	339.3	277.1	53.4	8.8	3.3	4.6	175.1	49.8	46.9	1,011.9
2000 Jan.	365.9	387.5	332.0	47.1	8.4	3.3	4.6	174.6	72.6	45.9	1,054.4
Feb.	363.5	311.8	246.7	56.7	8.4	3.3	4.6	173.9	64.4	47.5	969.0
Mar.	365.9	372.0	319.6	43.3	9.1	1.7	4.6	185.7	75.1	46.5	1,051.3
Apr.	372.3	388.3	334.5	43.4	10.3	1.7	4.6	188.4	75.2	45.0	1,075.5
May [p)]	371.4	390.7	345.1	34.1	11.5	1.7	4.6	187.6	82.4	45.8	1,084.2

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) From January 1999 including temporary gross positions of the Eurosystem with the national central banks of Member States not participating in the euro area related to the operation of the TARGET system. These positions amounted to approximately EUR 46 billion at end-January 2000, EUR 40 billion at end-February, EUR 51 billion at end-March, EUR 47 billion at end-April and EUR 53 billion at end-May. For positions at end-months in 1999 see the corresponding footnote in the February 2000 issue.

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
1997	8,436.1	2,905.6	821.4	4,709.1	1,868.4	635.5	1,050.6	182.3	99.7	329.8	94.2	235.6	1,594.8	238.9	796.9	13,364.7
1998 Q2	8,750.4	3,064.6	808.4	4,877.4	2,007.8	678.1	1,139.4	190.3	104.9	401.5	118.5	283.0	1,668.4	240.3	737.5	13,910.8
Q3	8,844.1	3,073.7	809.8	4,960.5	2,040.0	705.5	1,137.2	197.3	105.8	381.2	109.8	271.4	1,650.8	237.0	785.8	14,044.4
Q4	9,098.4	3,181.5	821.2	5,095.8	2,012.3	721.3	1,102.3	188.7	107.1	424.2	123.3	300.8	1,579.9	243.9	777.4	14,243.2
1999 Q1	9,252.2	3,277.3	816.8	5,158.1	2,087.4	760.8	1,130.0	196.6	99.1	469.0	126.1	342.9	1,627.6	244.6	877.0	14,656.9
1999 May	9,312.1	3,290.6	809.8	5,211.7	2,140.8	787.4	1,145.2	208.2	102.8	497.2	128.1	369.1	1,621.8	247.5	831.1	14,753.1
June	9,452.1	3,330.5	816.5	5,305.1	2,138.3	800.3	1,125.4	212.6	101.9	484.7	124.4	360.3	1,646.0	250.0	865.8	14,938.7
July	9,461.6	3,313.2	808.4	5,340.0	2,131.8	801.7	1,114.1	216.0	108.2	483.3	125.9	357.3	1,630.2	254.5	849.0	14,918.5
Aug.	9,489.5	3,350.1	804.4	5,335.1	2,152.8	810.4	1,118.2	224.3	110.5	482.7	126.7	356.1	1,632.9	255.3	828.6	14,952.4
Sep.	9,568.5	3,384.2	809.4	5,374.9	2,179.9	828.0	1,134.5	217.4	111.1	481.5	129.6	351.9	1,653.3	258.9	816.9	15,070.2
Oct.	9,697.4	3,457.5	818.7	5,421.2	2,202.9	840.3	1,147.2	215.4	115.1	484.4	130.9	353.5	1,686.5	261.1	842.6	15,290.0
Nov.	9,859.3	3,541.9	831.7	5,485.8	2,217.7	850.0	1,144.6	223.1	128.1	497.9	129.7	368.1	1,764.9	265.3	902.5	15,635.7
Dec.	9,764.7	3,420.0	827.5	5,517.1	2,175.5	826.6	1,121.7	227.2	129.9	520.9	137.5	383.4	1,703.0	281.2	922.6	15,497.8
2000 Jan.	9,832.8	3,450.8	819.5	5,562.5	2,193.2	834.5	1,131.1	227.6	121.1	526.6	139.4	387.1	1,723.9	282.5	938.0	15,618.1
Feb.	9,836.7	3,425.3	814.9	5,596.5	2,215.9	845.1	1,137.2	233.7	130.8	544.1	142.6	401.5	1,768.5	282.1	954.2	15,732.4
Mar.	9,979.5	3,499.6	818.2	5,661.7	2,218.4	870.2	1,115.7	232.6	131.8	589.3	152.6	436.7	1,805.8	285.7	960.9	15,971.5
Apr.	10,030.0	3,487.1	820.5	5,722.5	2,213.2	879.0	1,093.5	240.7	149.0	604.7	154.7	450.0	1,907.2	287.1	1,002.7	16,193.9
May (p)	10,105.4	3,541.0	814.2	5,750.3	2,226.3	895.3	1,082.8	248.2	157.0	624.0	159.7	464.3	1,891.8	287.0	1,004.9	16,296.4

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
1997	0.4	7,773.9	3,009.3	102.1	4,662.5	1,229.6	1,901.2	1,326.3	205.4	252.0	1,924.8	138.8	687.5	1,373.5	1,213.9	13,364.7
1998 Q2	0.4	8,010.8	3,176.1	93.9	4,740.8	1,292.8	1,899.7	1,346.4	201.9	259.8	2,041.2	145.9	723.4	1,480.1	1,249.1	13,910.8
Q3	0.4	8,043.6	3,227.5	90.0	4,726.2	1,268.8	1,901.0	1,345.4	211.0	260.4	2,093.2	154.1	725.9	1,482.8	1,284.0	14,044.4
Q4	0.4	8,279.3	3,311.7	95.3	4,872.3	1,382.7	1,924.1	1,388.8	176.7	241.2	2,116.0	160.8	742.4	1,500.4	1,202.7	14,243.2
1999 Q1	0.5	8,330.1	3,390.4	78.9	4,860.8	1,387.1	1,984.9	1,310.5	178.3	279.8	2,193.9	180.5	759.3	1,618.1	1,294.7	14,656.9
1999 May	0.5	8,372.2	3,397.1	78.9	4,896.3	1,434.5	1,974.7	1,314.7	172.4	296.8	2,247.5	190.3	777.6	1,659.2	1,209.0	14,753.1
June	0.5	8,447.1	3,438.9	81.9	4,926.3	1,479.6	1,961.1	1,319.1	166.4	305.3	2,269.0	183.2	781.9	1,666.6	1,285.0	14,938.7
July	0.5	8,452.7	3,441.0	79.5	4,932.3	1,468.2	1,979.2	1,321.3	163.6	302.3	2,274.8	184.3	788.2	1,646.1	1,269.5	14,918.5
Aug.	0.6	8,452.0	3,458.0	84.0	4,910.0	1,439.1	1,988.1	1,320.2	162.6	307.3	2,291.0	195.0	787.9	1,683.1	1,235.5	14,952.4
Sep.	0.6	8,508.2	3,503.8	83.1	4,921.3	1,466.9	1,976.3	1,317.5	160.6	307.1	2,329.3	204.1	795.0	1,688.5	1,237.4	15,070.2
Oct.	0.6	8,605.0	3,584.7	84.8	4,935.5	1,467.4	1,996.7	1,314.0	157.4	307.6	2,355.7	214.6	801.2	1,753.8	1,251.4	15,290.0
Nov.	0.7	8,735.1	3,679.8	81.9	4,973.5	1,501.1	2,005.0	1,308.7	158.6	310.2	2,376.9	243.5	805.2	1,839.5	1,324.6	15,635.7
Dec.	0.7	8,709.4	3,579.8	88.6	5,041.0	1,532.3	2,037.4	1,327.1	144.2	309.8	2,364.2	242.1	836.4	1,774.7	1,260.5	15,497.8
2000 Jan.	0.7	8,709.0	3,555.9	86.5	5,066.6	1,561.7	2,023.0	1,327.1	154.9	326.3	2,370.2	221.6	856.6	1,837.0	1,296.6	15,618.1
Feb.	0.7	8,707.1	3,548.2	87.7	5,071.1	1,554.6	2,040.3	1,316.9	159.4	343.6	2,396.1	233.0	864.1	1,874.7	1,313.1	15,732.4
Mar.	0.7	8,774.3	3,596.0	85.4	5,092.9	1,564.6	2,047.0	1,307.1	174.3	343.0	2,421.7	244.6	871.3	1,987.5	1,328.5	15,971.5
Apr.	0.7	8,790.4	3,573.4	86.7	5,130.3	1,598.9	2,055.2	1,299.5	176.7	409.7	2,450.6	244.0	880.5	2,066.2	1,352.0	16,193.9
May (p)	0.6	8,844.2	3,636.9	78.3	5,129.0	1,582.5	2,074.3	1,291.4	180.8	413.2	2,469.6	255.9	888.1	2,061.9	1,362.9	16,296.4

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
	1	General government 2	Other euro area residents 3	4	General government 5	Other euro area residents 6	7	8	9	10	11
1998 Oct.	5,829.0	835.2	4,993.8	1,429.7	1,226.7	203.0	274.3	1,968.6	247.1	799.5	10,548.1
Nov.	5,882.8	841.5	5,041.3	1,418.3	1,221.6	196.7	288.8	2,008.4	249.3	821.1	10,668.7
Dec.	5,937.5	841.6	5,095.9	1,377.8	1,188.5	189.2	304.5	1,902.2	251.8	790.6	10,564.4
1999 Jan.	5,949.6	839.4	5,110.1	1,400.2	1,190.4	209.8	320.0	2,047.8	254.1	962.3	10,933.9
Feb.	5,950.9	839.6	5,111.3	1,410.1	1,206.2	203.9	326.8	1,958.8	252.7	979.1	10,878.4
Mar.	5,995.5	837.2	5,158.3	1,419.1	1,221.9	197.2	347.0	2,053.6	253.9	897.9	10,967.0
Apr.	6,009.5	830.0	5,179.5	1,421.9	1,219.4	202.6	359.9	2,058.4	255.9	864.0	10,969.7
May	6,042.1	830.2	5,211.8	1,444.9	1,236.0	208.9	373.3	2,009.4	257.1	850.0	10,976.7
June	6,142.1	836.9	5,305.2	1,429.0	1,215.5	213.5	364.5	2,145.4	259.6	880.2	11,220.8
July	6,168.9	828.8	5,340.2	1,421.0	1,204.0	216.9	361.7	2,082.2	264.4	868.2	11,166.3
Aug.	6,160.0	824.8	5,335.2	1,433.2	1,208.2	225.0	360.4	2,056.0	265.2	848.4	11,123.1
Sep.	6,204.9	829.8	5,375.1	1,442.9	1,224.4	218.5	356.3	2,081.2	268.7	832.0	11,186.1
Oct.	6,260.4	839.1	5,421.3	1,453.1	1,236.5	216.6	357.8	2,119.1	271.0	864.0	11,325.4
Nov.	6,338.0	852.1	5,486.0	1,458.2	1,234.0	224.2	372.7	2,175.2	275.3	924.8	11,544.2
Dec.	6,364.9	847.3	5,517.7	1,436.1	1,207.8	228.3	393.3	2,103.6	291.2	934.4	11,523.4
2000 Jan.	6,402.4	839.3	5,563.1	1,447.3	1,218.7	228.6	396.9	2,148.2	292.4	956.2	11,643.4
Feb.	6,431.8	834.7	5,597.1	1,462.2	1,227.5	234.7	411.3	2,186.1	291.9	973.1	11,756.4
Mar.	6,498.8	836.6	5,662.2	1,442.0	1,208.4	233.6	446.8	2,244.9	295.5	977.3	11,905.3
Apr.	6,561.8	838.9	5,723.0	1,428.2	1,186.5	241.8	460.1	2,345.2	297.0	1,018.2	12,110.6
May [p)]	6,583.4	832.6	5,750.8	1,425.3	1,175.9	249.4	474.4	2,333.6	296.9	1,021.6	12,135.1

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
	1	2	3	Overnight 4	With agreed maturity 5	Redeemable at notice 6	Repurchase agreements 7	8	9	10	11	12	13	14
1998 Oct.	313.3	155.1	4,751.0	1,276.0	1,904.4	1,348.9	221.8	325.4	1,391.4	720.0	1,552.2	1,343.8	-4.0	10,548.1
Nov.	314.2	148.2	4,772.1	1,323.4	1,897.2	1,349.8	201.8	328.8	1,402.8	717.3	1,606.9	1,355.0	23.4	10,668.7
Dec.	323.4	149.7	4,875.8	1,386.2	1,924.1	1,388.8	176.7	303.5	1,398.9	714.3	1,518.9	1,260.1	19.7	10,564.4
1999 Jan.	313.2	132.3	4,882.6	1,415.3	1,983.5	1,312.6	171.2	340.0	1,417.8	755.2	1,682.6	1,429.7	-19.7	10,933.9
Feb.	312.8	141.1	4,866.6	1,388.9	1,980.2	1,313.6	183.9	355.4	1,433.9	753.5	1,642.9	1,379.5	-7.3	10,878.4
Mar.	317.4	133.4	4,869.3	1,395.6	1,984.9	1,310.5	178.3	366.1	1,436.9	767.1	1,716.0	1,349.2	11.7	10,967.0
Apr.	319.5	115.8	4,883.6	1,411.1	1,986.8	1,314.0	171.7	387.6	1,453.5	778.0	1,731.0	1,300.2	0.6	10,969.7
May	321.2	120.7	4,904.6	1,442.8	1,974.7	1,314.7	172.4	389.1	1,463.8	783.0	1,720.7	1,258.1	15.4	10,976.7
June	323.7	124.9	4,935.2	1,488.5	1,961.1	1,319.1	166.4	391.5	1,472.5	793.6	1,838.0	1,328.8	12.5	11,220.8
July	331.7	134.9	4,938.9	1,474.8	1,979.2	1,321.3	163.6	383.3	1,477.0	797.8	1,770.4	1,318.6	13.7	11,166.3
Aug.	326.2	137.8	4,916.7	1,445.7	1,988.1	1,320.2	162.6	396.6	1,484.8	796.7	1,776.9	1,286.5	0.9	11,123.1
Sep.	327.1	133.2	4,928.8	1,474.4	1,976.3	1,317.5	160.6	403.5	1,505.2	807.3	1,777.3	1,287.4	16.2	11,186.1
Oct.	329.4	135.0	4,945.1	1,476.9	1,996.7	1,314.0	157.4	410.5	1,518.8	816.6	1,847.6	1,300.8	21.6	11,325.4
Nov.	329.9	146.0	4,984.1	1,511.7	2,005.0	1,308.7	158.6	428.9	1,529.3	821.6	1,909.0	1,377.1	18.4	11,544.2
Dec.	349.6	142.0	5,049.8	1,541.1	2,037.4	1,327.1	144.2	425.2	1,540.3	869.8	1,824.5	1,307.4	14.7	11,523.4
2000 Jan.	332.7	133.6	5,075.0	1,570.1	2,023.0	1,327.1	154.9	430.1	1,538.6	887.3	1,909.6	1,342.5	-6.1	11,643.4
Feb.	330.9	144.4	5,079.5	1,563.0	2,040.3	1,316.9	159.4	449.1	1,553.7	891.2	1,939.1	1,360.6	7.8	11,756.4
Mar.	334.2	128.7	5,102.0	1,573.7	2,047.0	1,307.1	174.3	457.5	1,553.7	900.1	2,062.5	1,375.0	-8.3	11,905.3
Apr.	337.4	130.1	5,140.7	1,609.3	2,055.2	1,299.5	176.7	506.4	1,573.5	909.9	2,141.4	1,397.0	-25.8	12,110.6
May [p)]	337.2	112.4	5,140.5	1,594.1	2,074.3	1,291.4	180.8	513.8	1,576.0	911.6	2,144.3	1,408.6	-9.3	12,135.1

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
1998 Nov.	56.0	6.2	49.7	-11.6	-5.2	-6.4	14.5	22.3	2.3	21.4	104.9
Dec.	64.3	0.2	64.1	-39.7	-32.1	-7.6	15.6	-102.6	2.7	-29.9	-89.5
1999 Jan.	75.4	-1.3	76.7	17.7	12.6	5.1	9.4	120.7	-0.1	158.5	381.6
Feb.	-1.1	0.0	-1.2	9.5	15.7	-6.2	6.7	-114.2	-1.3	16.8	-83.7
Mar.	39.3	-3.2	42.4	25.2	24.1	1.1	19.9	52.2	1.2	-91.5	46.3
Apr.	12.5	-8.7	21.2	3.7	-1.6	5.3	12.9	-6.3	2.0	-33.9	-9.1
May	31.5	0.1	31.3	22.9	16.6	6.2	13.3	-59.0	1.2	-14.1	-4.2
June	101.3	6.6	94.8	-17.0	-21.4	4.4	-9.4	128.0	2.4	29.8	235.2
July	29.7	-8.0	37.6	-7.6	-11.2	3.6	-2.9	-36.5	4.7	-12.0	-24.5
Aug.	-9.9	-4.1	-5.8	11.5	3.7	7.8	-1.4	-41.6	0.8	-19.8	-60.3
Sep.	46.4	5.1	41.3	9.2	15.8	-6.5	-4.1	20.3	3.6	-9.6	65.8
Oct.	52.1	9.1	43.0	9.5	11.7	-2.2	1.5	19.9	2.0	32.1	117.1
Nov.	73.6	12.7	60.9	3.9	-3.2	7.1	14.8	22.0	4.3	60.8	179.5
Dec.	31.0	-5.1	36.0	-27.6	-31.4	3.8	15.4	-77.0	16.1	6.0	-36.2
2000 Jan.	32.9	-8.1	41.0	14.4	13.7	0.7	3.4	22.5	1.4	21.8	96.4
Feb.	30.0	-4.6	34.7	15.3	9.1	6.2	12.9	32.9	-0.5	16.8	107.4
Mar.	64.8	2.8	61.9	-18.2	-16.2	-1.9	34.1	34.6	3.7	4.5	123.5
Apr.	55.7	1.9	53.8	-16.2	-21.2	5.0	12.6	14.3	1.5	34.0	101.9
May [p]	20.3	-6.1	26.4	1.5	-6.3	7.9	14.3	11.5	-0.1	3.4	50.9

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
1998 Nov.	0.9	-6.8	18.9	46.5	-8.5	0.9	-20.0	3.1	10.2	-1.9	40.1	13.1	27.4	104.9
Dec.	9.2	1.5	105.9	63.3	28.7	39.0	-25.1	-24.6	-4.5	-3.5	-81.6	-88.9	-3.1	-89.5
1999 Jan.	-9.2	-5.4	40.5	29.8	-2.2	14.2	-1.4	13.6	20.3	10.3	156.5	178.7	-23.6	381.6
Feb.	-0.4	8.8	-26.2	-27.6	-12.2	0.9	12.6	15.1	12.2	-0.8	-61.5	-50.1	19.2	-83.7
Mar.	4.7	-7.6	-0.5	5.3	3.0	-3.1	-5.6	6.4	4.8	12.5	55.6	-42.2	12.8	46.3
Apr.	2.1	-17.6	13.1	15.1	1.1	3.4	-6.6	20.9	15.3	11.2	6.6	-50.0	-10.8	-9.1
May	1.7	4.9	19.7	31.2	-12.9	0.6	0.8	1.3	8.6	5.9	-19.3	-41.8	14.8	-4.2
June	2.4	4.2	29.2	45.2	-14.4	4.5	-6.0	1.3	7.0	13.1	109.1	72.7	-3.8	235.2
July	8.0	10.0	6.8	-12.6	20.0	2.2	-2.8	-7.8	7.7	4.9	-45.7	-9.2	0.6	-24.5
Aug.	-5.5	2.9	-24.3	-29.8	7.7	-1.1	-1.1	13.1	4.7	-0.4	-4.9	-33.7	-12.2	-60.3
Sep.	0.9	-4.7	13.0	29.2	-11.6	-2.7	-2.0	6.5	20.4	5.2	4.2	4.9	15.3	65.8
Oct.	2.2	1.8	13.8	1.6	19.0	-3.6	-3.2	6.6	10.4	7.0	54.6	16.7	4.1	117.1
Nov.	0.5	11.0	34.5	33.1	5.7	-5.3	1.1	17.8	6.2	4.1	32.3	76.4	-3.3	179.5
Dec.	19.5	-4.0	65.7	29.4	32.3	18.5	-14.4	-14.7	11.1	31.9	-87.8	-58.3	0.4	-36.2
2000 Jan.	-16.9	-8.4	22.8	28.1	-15.7	-0.2	10.7	0.8	-3.6	20.0	67.8	37.4	-23.6	96.4
Feb.	-1.8	10.8	4.1	-7.2	17.0	-10.2	4.5	19.0	14.9	5.4	25.1	16.1	13.9	107.4
Mar.	3.4	-15.8	19.3	9.4	4.9	-9.9	14.9	7.8	-1.5	10.0	102.7	13.9	-16.2	123.5
Apr.	3.3	1.4	32.9	33.4	4.9	-7.7	2.3	2.5	14.7	9.6	36.8	15.6	-14.8	101.9
May [p]	-0.2	-17.7	2.9	-11.8	19.7	-9.2	4.1	10.5	5.9	3.5	23.8	13.6	8.6	50.9

Table 2.4

Monetary aggregates [1]

(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
1998 Oct.	313.3	1,340.8	1,654.0	93.11	878.8	1,195.3	3,728.1	95.46	221.8	325.4	82.7
Nov.	314.2	1,387.9	1,702.0	95.76	877.1	1,196.1	3,775.2	96.62	201.8	328.8	79.7
Dec.	323.4	1,453.5	1,776.9	100.00	894.5	1,234.4	3,905.8	100.00	176.7	303.5	69.7
1999 Jan.	313.2	1,483.1	1,796.3	101.19	887.9	1,249.8	3,934.1	100.85	171.2	340.0	54.5
Feb.	312.8	1,453.1	1,765.9	99.41	873.1	1,252.5	3,891.5	99.69	183.9	355.4	56.1
Mar.	317.4	1,469.1	1,786.5	100.49	872.7	1,250.1	3,909.3	100.07	178.3	366.1	49.1
Apr.	319.5	1,481.4	1,800.9	101.28	872.9	1,255.1	3,929.0	100.55	171.7	387.6	53.0
May	321.2	1,510.6	1,831.9	102.99	863.3	1,259.9	3,955.0	101.19	172.4	389.1	57.6
June	323.7	1,551.2	1,874.8	105.38	840.2	1,265.7	3,980.7	101.82	166.4	391.5	59.2
July	331.7	1,543.6	1,875.3	105.47	853.3	1,270.4	3,999.0	102.35	163.6	383.3	61.7
Aug.	326.2	1,513.6	1,839.8	103.43	856.1	1,270.3	3,966.2	101.47	162.6	396.6	63.0
Sep.	327.1	1,537.5	1,864.6	104.85	842.1	1,267.8	3,974.5	101.70	160.6	403.5	75.5
Oct.	329.4	1,542.0	1,871.4	105.18	857.4	1,265.5	3,994.3	102.11	157.4	410.5	74.0
Nov.	329.9	1,575.9	1,905.8	107.02	856.8	1,260.4	4,023.0	102.75	158.6	428.9	75.6
Dec.	349.6	1,609.4	1,959.0	109.99	877.5	1,282.9	4,119.5	105.21	144.2	425.2	88.0
2000 Jan.	332.7	1,636.4	1,969.1	110.51	860.7	1,283.8	4,113.7	105.01	154.9	430.1	86.2
Feb.	330.9	1,626.6	1,957.5	109.84	875.6	1,272.5	4,105.7	104.84	159.4	449.1	89.9
Mar.	334.2	1,639.8	1,974.1	110.70	884.5	1,262.2	4,120.7	105.16	174.3	457.5	88.6
Apr.	337.4	1,675.2	2,012.6	112.75	892.5	1,254.7	4,159.8	106.04	176.7	506.4	87.9
May [p]	337.2	1,656.8	1,994.0	111.89	910.0	1,246.3	4,150.3	105.89	180.8	513.8	86.5

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
1998 Nov.	0.9	46.3	47.2	8.5	-2.7	0.7	45.2	4.9	-20.0	3.1	-3.2
Dec.	9.2	66.1	75.3	9.2	18.9	38.0	132.2	6.0	-25.1	-24.6	-10.3
1999 Jan.	-9.2	30.3	21.1	14.7	-3.2	15.3	33.2	7.8	-1.4	13.6	-5.5
Feb.	-0.4	-31.2	-31.6	12.6	-16.3	2.6	-45.3	6.5	12.6	15.1	1.1
Mar.	4.7	14.6	19.3	11.7	-1.7	-2.6	15.0	6.8	-5.6	6.4	-0.4
Apr.	2.1	11.9	14.0	11.5	-0.4	5.0	18.6	6.3	-6.6	20.9	1.0
May	1.7	28.8	30.5	12.1	-10.2	4.7	24.9	6.4	0.8	1.3	4.4
June	2.4	40.0	42.5	11.5	-23.7	5.8	24.6	6.3	-6.0	1.3	1.4
July	8.0	-6.4	1.6	14.1	14.4	4.8	20.8	7.7	-2.8	-7.8	2.9
Aug.	-5.5	-30.8	-36.3	12.8	2.0	-0.1	-34.5	7.0	-1.1	13.1	1.0
Sep.	0.9	24.5	25.4	12.8	-13.9	-2.5	9.0	6.9	-2.0	6.5	0.8
Oct.	2.2	3.6	5.8	13.0	12.7	-2.4	16.1	7.0	-3.2	6.6	-1.9
Nov.	0.5	32.2	32.7	11.8	-2.5	-5.2	25.1	6.3	1.1	17.8	0.7
Dec.	19.5	33.4	52.9	10.0	20.8	22.6	96.3	5.2	-14.4	-14.7	12.8
2000 Jan.	-16.9	26.1	9.2	9.2	-17.7	0.8	-7.7	4.1	10.7	0.8	-2.2
Feb.	-1.8	-10.0	-11.8	10.5	16.4	-11.3	-6.7	5.2	4.5	19.0	3.7
Mar.	3.4	11.9	15.3	10.2	7.6	-10.4	12.5	5.1	14.9	7.8	-2.0
Apr.	3.3	33.2	36.5	11.3	5.6	-7.6	34.5	5.5	2.3	2.5	0.1
May [p]	-0.2	-15.0	-15.2	8.6	18.8	-9.5	-5.9	4.6	4.1	10.5	-0.9

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	
4,357.9	97.81		1,026.1	209.3	1,308.7	720.0	2,061.9	5,471.1	4,993.8	97.77	416.4	1998 Oct.
4,385.5	98.38		1,020.5	209.6	1,323.1	717.3	2,063.1	5,526.9	5,041.3	98.74	401.5	Nov.
4,455.6	100.00		1,030.2	214.8	1,329.2	714.3	2,030.1	5,589.6	5,095.9	100.00	383.3	Dec.
4,499.8	100.90		1,096.3	123.1	1,363.3	755.2	2,029.8	5,640.0	5,110.1	101.50	365.1	1999 Jan.
4,486.9	100.53		1,107.8	121.8	1,377.7	753.5	2,045.8	5,641.9	5,111.3	101.48	315.9	Feb.
4,502.8	100.87		1,112.9	120.9	1,387.8	767.1	2,059.1	5,702.5	5,158.3	102.32	337.6	Mar.
4,541.3	101.63		1,114.8	118.7	1,400.4	778.0	2,049.4	5,741.9	5,179.5	102.74	327.4	Apr.
4,574.2	102.34		1,112.3	115.1	1,406.3	783.0	2,066.2	5,794.0	5,211.8	103.37	288.7	May
4,597.9	102.81		1,121.9	114.2	1,413.3	793.6	2,052.3	5,883.3	5,305.2	105.25	307.4	June
4,607.6	103.11		1,126.6	111.9	1,415.3	797.8	2,032.8	5,918.8	5,340.2	105.99	311.8	July
4,588.5	102.63		1,132.6	111.0	1,421.8	796.7	2,033.0	5,920.7	5,335.2	105.88	279.0	Aug.
4,614.1	102.95		1,134.9	111.2	1,429.7	807.3	2,054.2	5,949.9	5,375.1	106.70	304.0	Sep.
4,636.2	103.34		1,139.7	110.6	1,444.7	816.6	2,075.6	5,995.7	5,421.3	107.55	271.5	Oct.
4,686.1	104.34		1,148.7	110.6	1,453.8	821.6	2,086.1	6,082.8	5,486.0	108.76	266.2	Nov.
4,776.9	106.12		1,160.3	112.8	1,452.3	869.8	2,055.0	6,139.2	5,517.7	109.47	279.1	Dec.
4,784.8	106.15		1,162.6	111.8	1,452.5	887.3	2,058.0	6,188.5	5,563.1	110.29	238.6	2000 Jan.
4,804.1	106.61		1,165.1	112.8	1,463.9	891.2	2,062.2	6,243.1	5,597.1	110.97	247.0	Feb.
4,841.1	107.34		1,162.9	113.6	1,465.0	900.1	2,045.0	6,342.7	5,662.2	112.20	182.3	Mar.
4,930.8	108.22		1,163.1	113.2	1,485.6	909.9	2,025.3	6,424.9	5,723.0	113.27	203.8	Apr.
4,931.4	108.39		1,164.7	114.4	1,489.5	911.6	2,008.5	6,474.5	5,750.8	113.79	189.3	May [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	
25.1	4.7	4.8	-5.8	0.4	13.4	-1.9	1.0	57.9	49.7	9.3	-17.8	1998 Nov.
72.3	4.7	5.1	9.9	5.5	5.7	-3.5	-31.9	72.1	64.1	9.0	-21.0	Dec.
40.0	5.8	5.3	1.3	-1.1	25.7	10.3	11.3	91.1	76.7	10.4	-35.8	1999 Jan.
-16.5	5.3	5.5	4.1	-1.3	11.0	-0.8	15.7	-0.6	-1.2	9.8	-52.8	Feb.
15.4	5.4	5.3	4.7	-0.8	5.2	12.5	20.9	63.5	42.4	10.0	-3.4	Mar.
34.0	5.3	5.4	1.7	-2.2	14.2	11.2	-10.3	39.4	21.2	9.6	-12.9	Apr.
31.4	5.4	5.4	-2.7	-3.6	4.3	5.9	16.7	50.9	31.3	9.9	-39.6	May
21.3	5.5	5.6	9.3	-1.0	5.6	13.1	-14.8	89.8	94.8	10.4	18.9	June
13.2	5.9	5.7	5.2	-2.3	4.8	4.9	-19.2	38.4	37.6	10.2	9.2	July
-21.4	5.7	5.8	5.7	-0.9	3.7	-0.4	-0.3	0.6	-5.8	10.0	-36.6	Aug.
14.3	5.9	5.8	2.3	0.2	19.6	5.2	20.8	30.7	41.3	9.9	16.0	Sep.
17.6	5.7	5.9	6.1	-0.6	12.2	7.0	20.8	42.3	43.0	10.0	-34.7	Oct.
44.7	6.1	5.9	8.1	0.1	5.4	4.1	9.5	82.8	60.9	10.1	-10.3	Nov.
79.9	6.1	5.8	11.5	2.1	-1.7	31.9	-36.5	55.3	36.0	9.5	10.8	Dec.
1.5	5.2	5.8	2.0	-0.9	-1.4	20.0	5.7	45.0	41.0	8.7	-45.4	2000 Jan.
20.5	6.0	5.9	0.7	1.0	11.2	5.4	4.5	53.8	34.7	9.4	7.8	Feb.
33.2	6.4	6.3	-2.8	0.8	0.4	10.0	-13.4	94.1	61.9	9.7	-68.1	Mar.
39.5	6.5	6.3	-0.8	-0.4	14.5	9.6	-19.3	71.4	53.8	10.2	-22.5	Apr.
7.8	5.9	-	1.0	1.2	6.8	3.5	-12.4	48.5	26.4	10.1	-12.3	May [p]

3) Credit comprises loans and holdings of securities other than shares issued by euro area residents.

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]

(EUR billions and percentage changes, unless otherwise indicated)

3. Seasonally adjusted levels

	M3										Loans to other euro area residents (excluding government)	
	M2						Marketable instruments [4]		Total	Index [2]		
	M1		Other short-term deposits [3]		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
1998 Oct.	1,678.4	94.48	2,087.9	98.07	3,766.4	96.44	633.4	115.20	4,399.8	98.75	5,006.8	98.02
Nov.	1,695.8	95.41	2,098.4	98.51	3,794.2	97.10	609.9	110.82	4,404.1	98.80	5,048.9	98.89
Dec.	1,719.6	96.78	2,110.2	99.12	3,829.9	98.06	574.6	104.51	4,404.5	98.85	5,066.2	99.42
1999 Jan.	1,783.6	100.47	2,110.6	99.29	3,894.1	99.83	579.6	103.70	4,473.7	100.31	5,090.3	101.11
Feb.	1,780.7	100.24	2,104.7	98.94	3,885.4	99.53	593.0	105.94	4,478.3	100.33	5,114.2	101.54
Mar.	1,800.5	101.28	2,114.6	99.34	3,915.1	100.22	587.8	105.44	4,503.0	100.87	5,161.5	102.39
Apr.	1,812.0	101.90	2,118.7	99.50	3,930.7	100.59	602.1	107.40	4,532.9	101.44	5,190.0	102.95
May	1,831.6	102.97	2,122.8	99.66	3,954.3	101.17	605.7	107.97	4,560.1	102.02	5,230.8	103.74
June	1,844.9	103.70	2,117.4	99.38	3,962.4	101.35	613.8	109.18	4,576.2	102.33	5,285.0	104.85
July	1,864.6	104.86	2,129.8	100.03	3,994.4	102.23	608.3	108.37	4,602.7	103.00	5,321.2	105.62
Aug.	1,872.1	105.24	2,132.4	100.11	4,004.5	102.45	615.5	109.55	4,620.0	103.33	5,355.1	106.27
Sep.	1,882.7	105.87	2,131.5	100.08	4,014.2	102.71	637.7	111.36	4,651.9	103.79	5,390.2	107.00
Oct.	1,891.6	106.31	2,139.4	100.32	4,031.0	103.05	646.5	112.75	4,677.5	104.26	5,435.4	107.83
Nov.	1,904.9	106.97	2,141.3	100.32	4,046.2	103.34	662.2	115.22	4,708.3	104.83	5,492.6	108.89
Dec.	1,906.8	107.06	2,139.0	100.21	4,045.8	103.33	684.7	117.19	4,730.5	105.09	5,486.9	108.86
2000 Jan.	1,948.7	109.36	2,122.2	99.38	4,070.9	103.92	690.0	117.32	4,760.9	105.62	5,538.1	109.79
Feb.	1,974.7	110.81	2,130.4	99.84	4,105.2	104.83	696.0	118.32	4,801.1	106.54	5,600.8	111.05
Mar.	1,992.7	111.75	2,135.6	100.02	4,128.4	105.36	713.5	121.07	4,841.8	107.36	5,665.4	112.27
Apr.	2,008.3	112.51	2,139.7	100.09	4,148.1	105.74	757.8	120.98	4,905.9	107.67	5,735.1	113.51
May [p]	2,005.0	112.51	2,152.7	100.71	4,157.7	106.08	764.0	122.55	4,921.8	108.18	5,773.5	114.24

4. Seasonally adjusted flows [5]

	M3										Loans to other euro area residents (excluding government)	
	M2						Marketable instruments [4]		Total	Change on previous month (%)		
	M1		Other short-term deposits [3]		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
1998 Oct.	9.9	0.6	5.4	0.3	15.3	0.4	20.7	3.4	36.0	0.8	33.4	0.7
Nov.	16.6	1.0	9.3	0.4	25.9	0.7	-24.1	-3.8	1.8	0.0	44.4	0.9
Dec.	24.2	1.4	13.1	0.6	37.3	1.0	-34.7	-5.7	2.6	0.1	26.8	0.5
1999 Jan.	65.6	3.8	3.5	0.2	69.1	1.8	-4.4	-0.8	64.7	1.5	86.3	1.7
Feb.	-4.0	-0.2	-7.5	-0.4	-11.5	-0.3	12.5	2.2	1.0	0.0	21.5	0.4
Mar.	18.5	1.0	8.4	0.4	26.9	0.7	-2.8	-0.5	24.1	0.5	42.8	0.8
Apr.	11.0	0.6	3.5	0.2	14.5	0.4	10.9	1.9	25.5	0.6	28.6	0.6
May	19.1	1.1	3.5	0.2	22.5	0.6	3.2	0.5	25.7	0.6	39.8	0.8
June	12.9	0.7	-6.0	-0.3	6.9	0.2	6.8	1.1	13.7	0.3	55.6	1.1
July	20.8	1.1	13.7	0.6	34.5	0.9	-4.6	-0.7	30.0	0.7	38.8	0.7
Aug.	6.7	0.4	1.7	0.1	8.4	0.2	6.6	1.1	15.0	0.3	33.1	0.6
Sep.	11.1	0.6	-0.7	0.0	10.4	0.3	10.2	1.7	20.6	0.4	36.6	0.7
Oct.	7.9	0.4	5.2	0.2	13.2	0.3	7.9	1.2	21.1	0.5	42.0	0.8
Nov.	11.6	0.6	-0.1	0.0	11.5	0.3	14.2	2.2	25.7	0.5	53.4	1.0
Dec.	1.7	0.1	-2.2	-0.1	-0.5	0.0	11.3	1.7	10.8	0.2	-1.3	0.0
2000 Jan.	40.9	2.1	-17.8	-0.8	23.2	0.6	0.8	0.1	24.0	0.5	46.8	0.9
Feb.	25.9	1.3	9.7	0.5	35.6	0.9	5.9	0.8	41.4	0.9	63.3	1.1
Mar.	16.7	0.8	3.9	0.2	20.6	0.5	16.2	2.3	36.8	0.8	61.4	1.1
Apr.	13.5	0.7	1.6	0.1	15.2	0.4	-0.5	-0.1	14.6	0.3	62.7	1.1
May [p]	0.1	0.0	13.1	0.6	13.2	0.3	9.8	1.3	23.0	0.5	37.1	0.6

Source: ECB.

1) See page 14, footnote 1.*

2) See page 14, 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 15, 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]				Households [2]	Consumer credit [3]			Lending for house purchase [3]			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	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1998 Q2	2,200.5	785.1	320.8	1,094.6	2,373.6	78.2	121.8	190.2	28.4	49.7	1,344.7	113.9	79.2	367.6	37.5
Q3	2,223.6	775.1	324.3	1,124.3	2,420.4	80.2	126.0	195.1	28.9	48.6	1,379.3	111.8	86.6	364.0	36.8
Q4	2,286.8	813.3	316.2	1,157.3	2,479.6	84.6	128.4	199.8	28.2	42.0	1,419.6	114.3	82.0	380.7	36.9
1999 Q1	2,258.7	818.7	338.5	1,101.4	2,527.5	86.5	147.6	187.3	15.4	66.9	1,464.0	135.5	99.3	325.1	35.8
Q2	2,330.1	844.0	352.6	1,133.5	2,593.0	84.6	152.8	192.9	18.7	63.7	1,513.6	138.3	99.2	329.1	35.8
Q3	2,344.9	831.5	362.3	1,151.2	2,653.5	86.2	155.6	195.3	19.5	64.3	1,561.4	136.2	97.8	337.3	36.2
Q4	2,417.7	857.9	372.8	1,186.9	2,718.2	88.7	154.5	194.2	19.9	60.4	1,619.2	142.1	100.2	339.0	37.4
2000 Q1 (p)	2,491.1	892.3	389.6	1,209.2	2,768.0	90.2	160.9	197.9	20.2	59.5	1,654.0	140.6	100.8	344.0	39.1

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
1998 Q2	246.3	148.1	51.4	46.8	23.4	16.4	2.1	4.8
Q3	247.5	143.3	54.2	50.0	35.2	27.2	2.4	5.6
Q4	264.0	158.0	52.9	53.0	27.8	19.0	2.5	6.3
1999 Q1	300.3	183.6	54.8	61.8	35.9	27.0	3.0	5.9
Q2	306.0	192.0	52.3	61.7	40.3	28.8	2.7	8.8
Q3	298.7	181.1	53.3	64.3	41.7	32.9	2.8	6.0
Q4	314.8	190.4	54.6	69.7	29.2	20.6	2.7	5.9
2000 Q1 (p)	331.8	203.3	55.9	72.7	32.8	21.6	3.9	7.3

3. Loans to government

	General government [2]										
		Central government [4]	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
1998 Q2	830.1	219.1	271.8	8.6	15.6	247.6	333.5	19.9	13.0	300.6	5.6
Q3	831.5	216.5	273.7	7.8	14.2	251.7	326.1	18.3	11.2	296.7	15.3
Q4	841.7	201.6	291.2	11.4	13.5	266.3	334.9	18.9	10.9	305.2	14.0
1999 Q1	837.2	220.7	276.7	12.1	20.9	243.7	327.4	19.4	12.5	295.5	12.4
Q2	836.9	212.0	279.2	11.5	20.5	247.1	328.4	20.0	10.9	297.5	17.3
Q3	829.8	206.2	278.4	10.1	21.3	247.0	328.4	19.8	10.4	298.2	16.8
Q4	844.0	199.9	289.9	15.0	22.1	252.7	338.7	20.5	11.8	306.4	15.6
2000 Q1 (p)	833.0	197.0	288.5	13.2	24.0	251.3	332.1	19.9	10.7	301.5	15.5

Source: ECB.

1) Outstanding amounts are not adjusted for reclassifications, other revaluations or exchange rate variations. Data are partially estimated.

2) Corresponding ESA 95 sector codes: non-financial corporations, S11; households, S14; non-profit institutions serving households, S15; non-monetary financial intermediaries except insurance corporations and pension funds (corresponding to other financial intermediaries in the ESA 95), S123 (including financial auxiliaries, S124); insurance corporations and pension funds, S125; general government, S13.

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

4) 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)]					Households [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
1998 Q2	704.9	390.1	245.4	26.5	42.9	3,256.4	768.4	1,120.7	1,311.8	55.6
Q3	705.6	392.2	250.5	25.4	37.5	3,225.1	745.6	1,111.0	1,311.6	56.8
Q4	743.2	435.6	252.4	25.6	29.5	3,313.1	794.1	1,116.4	1,355.0	47.7
1999 Q1	726.1	393.2	285.9	23.5	23.5	3,222.5	797.3	1,110.7	1,275.0	39.5
Q2	739.0	425.9	263.7	25.7	23.7	3,237.1	841.3	1,082.5	1,280.7	32.6
Q3	743.3	427.3	268.4	25.4	22.1	3,232.1	843.5	1,075.4	1,279.2	33.9
Q4	768.2	443.6	279.3	23.8	21.5	3,299.3	870.1	1,098.7	1,291.1	39.4
2000 Q1 [p]	781.0	444.0	288.9	24.5	23.6	3,292.3	886.3	1,093.9	1,269.6	42.5

2. Deposits held by non-monetary financial corporations

	Non-monetary financial intermediaries except insurance corporations and pension funds [2)]					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
1998 Q2	248.8	70.3	79.5	10.7	88.2	402.7	26.6	358.8	4.7	12.6
Q3	254.1	68.6	77.8	10.3	97.4	408.3	24.8	363.1	4.4	16.0
Q4	259.2	79.1	83.4	9.3	87.3	410.9	28.6	367.5	4.6	10.2
1999 Q1	375.5	127.4	141.9	4.7	101.5	424.9	32.0	379.1	3.0	10.8
Q2	400.1	132.9	164.9	4.7	97.6	429.9	36.4	379.5	3.3	10.7
Q3	390.1	122.0	172.4	5.2	90.4	435.2	31.8	388.6	3.3	11.5
Q4	397.8	142.6	181.2	4.7	69.3	446.3	32.0	399.2	3.3	11.9
2000 Q1 [p]	433.7	157.6	178.7	5.6	91.8	456.5	34.2	405.9	3.2	13.1

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
1998 Q2	285.5	147.3	51.1	7.4	43.5	0.1	0.1	45.7	21.8	19.3	3.4	1.2	41.3	15.0	23.8	1.3	1.2
Q3	297.0	156.4	52.7	7.8	44.6	0.1	0.2	47.2	21.7	20.3	3.5	1.6	40.8	14.3	23.7	1.3	1.5
Q4	299.4	149.7	53.7	10.1	43.5	0.1	0.1	52.8	25.7	22.3	3.5	1.2	43.1	12.9	28.3	1.1	0.8
1999 Q1	253.8	133.4	25.6	7.4	17.9	0.1	0.2	52.9	24.1	23.9	3.2	1.7	41.9	14.3	25.6	1.0	1.0
Q2	254.5	124.9	27.3	8.1	18.9	0.2	0.1	54.3	26.1	24.1	3.4	0.7	47.9	18.2	27.6	1.1	1.0
Q3	262.0	133.2	27.8	8.7	18.7	0.1	0.2	54.4	24.5	25.4	3.3	1.1	46.6	17.1	27.2	0.9	1.5
Q4	280.7	142.0	31.6	10.2	21.1	0.1	0.2	59.0	27.1	27.2	3.4	1.2	48.1	16.0	30.6	0.7	0.7
2000 Q1 [p]	267.8	128.7	28.7	8.3	20.2	0.1	0.1	58.5	25.6	27.5	3.3	2.1	51.9	18.3	31.9	0.7	1.1

Source: ECB.

1) Outstanding amounts are not adjusted for reclassifications, other revaluations or exchange rate variations. Data are partially estimated.

2) Corresponding ESA 95 sector codes: non-financial corporations, S11; households, S14; non-profit institutions serving households, S15; non-monetary financial intermediaries except insurance corporations and pension funds (corresponding to other financial intermediaries in the ESA 95), S123 (including financial auxiliaries, S124); insurance corporations and pension funds, S125; general government, S13.

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
1998 Q2	93.7	77.3	12.9	3.4	91.6	9.3	80.9	1.5	1.0	0.3	0.8	14.4	9.1	5.0	0.3
Q3	78.7	70.4	4.4	3.9	94.0	3.0	89.8	1.2	0.6	0.1	0.5	10.3	9.5	0.4	0.4
Q4	84.4	71.6	11.6	1.1	120.8	2.3	116.2	2.3	0.6	0.1	0.5	12.8	12.1	0.4	0.4
1999 Q1	108.4	97.1	8.4	2.9	185.4	3.9	178.7	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	7.4	6.6	193.9	5.7	184.4	3.8	0.6	0.1	0.5	43.2	39.8	0.3	3.2
2000 Q1 [p]	92.9	81.8	8.9	2.2	199.7	4.8	189.2	5.7	0.5	0.1	0.4	68.3	66.7	0.2	1.4

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 government	Other			General government	Other						General government	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1998 Q2	1,336.5	963.3	65.9	307.4	282.0	81.2	92.0	108.8	56.6	16.9	39.7	1,487.2	1,123.2	61.6	302.4
Q3	1,323.6	949.8	68.7	305.1	271.1	66.6	84.1	120.4	57.6	23.0	34.7	1,485.9	1,159.3	34.0	292.7
Q4	1,253.0	889.8	70.7	292.5	272.4	64.5	89.4	118.5	55.2	21.9	33.3	1,501.9	1,139.6	39.2	323.0
1999 Q1	1,267.2	896.0	61.1	310.1	300.1	71.5	105.6	123.0	58.5	22.3	36.1	1,618.1	1,204.4	70.8	342.9
Q2	1,248.2	849.8	63.9	334.4	320.7	78.3	104.1	138.3	75.2	32.5	42.7	1,666.6	1,215.6	63.1	387.9
Q3	1,254.4	850.5	64.5	339.4	319.6	87.6	90.0	142.0	77.6	37.7	39.9	1,688.5	1,230.2	62.6	395.7
Q4	1,277.2	862.8	64.8	349.6	340.1	94.0	89.6	156.5	80.1	37.4	42.7	1,773.5	1,278.4	72.0	423.1
2000 Q1 [p]	1,330.7	890.2	66.2	374.2	370.6	103.4	98.9	168.3	99.1	45.4	53.7	1,986.1	1,437.9	71.1	477.1

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 government	Other			General government	Other						General government	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1998 Q2	1,430.2	1,040.6	78.8	310.8	373.6	90.4	172.9	110.3	57.7	17.2	40.5	1,501.6	1,132.3	66.5	302.8
Q3	1,402.3	1,020.2	73.1	309.0	365.1	69.7	173.8	121.6	58.2	23.0	35.1	1,496.2	1,168.8	34.3	293.1
Q4	1,337.4	961.5	82.3	293.6	393.2	66.8	205.6	120.8	55.8	22.0	33.8	1,514.7	1,151.7	39.6	323.4
1999 Q1	1,375.6	993.1	69.5	313.0	485.5	75.4	284.3	125.9	58.8	22.4	36.4	1,710.0	1,294.0	71.3	344.7
Q2	1,439.6	1,024.5	77.0	338.1	495.9	82.7	271.0	142.1	75.6	32.5	43.0	1,831.8	1,378.4	63.3	390.1
Q3	1,362.5	949.5	71.3	341.7	495.8	91.6	258.1	146.1	78.0	37.8	40.2	1,771.0	1,310.8	63.0	397.2
Q4	1,336.9	908.5	72.2	356.2	534.0	99.7	273.9	160.3	80.7	37.5	43.2	1,816.8	1,318.2	72.3	426.3
2000 Q1 [p]	1,423.5	972.0	75.1	376.4	570.3	108.2	288.1	174.0	99.6	45.5	54.1	2,054.4	1,504.6	71.3	478.5

Source: ECB.

1) Outstanding amounts are not adjusted for reclassifications, other revaluations or exchange rate variations. Data are partially estimated.

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
1998 Q2	3,280.8	2,937.1	39.2	304.5	213.9	20.9	42.9	26.9	4,897.6	4,742.9	18.7	135.9	99.5	15.8	10.2	10.5
Q3	3,310.6	2,932.0	41.1	337.4	234.1	27.1	44.2	32.0	4,889.2	4,736.7	19.7	132.7	95.2	12.7	13.7	11.2
Q4	3,405.4	3,024.3	41.3	339.8	237.7	27.3	50.3	24.5	5,025.5	4,878.3	19.9	127.2	91.2	13.2	13.2	9.7
1999 Q1	3,877.0	3,453.2	49.1	374.6	263.6	27.1	54.5	29.4	5,002.5	4,850.6	23.7	128.1	89.2	14.2	14.5	10.2
Q2	4,111.3	3,712.2	44.0	355.0	252.8	27.0	51.5	23.6	5,059.6	4,899.3	25.7	134.6	96.6	15.0	12.5	10.5
Q3	3,836.7	3,430.1	46.0	360.6	253.4	30.0	56.1	21.0	5,061.5	4,901.1	25.8	134.6	95.9	16.3	11.9	10.4
Q4	3,856.9	3,448.1	42.4	366.4	258.1	33.9	54.1	20.2	5,191.3	5,027.2	24.0	140.1	100.8	17.3	11.5	10.5
2000 Q1 [p]	3,915.6	3,482.9	51.3	381.4	263.1	38.8	59.6	19.8	5,230.1	5,056.7	28.4	145.1	105.5	17.2	11.7	10.6

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
1998 Q2	1,132.3	460.7	121.4	550.3	425.7	40.9	49.9	33.7	372.7	147.8	32.6	192.3	140.3	18.9	11.6	21.5
Q3	1,168.8	464.3	127.3	577.2	443.6	47.5	54.1	32.0	330.8	143.1	28.8	158.9	122.3	13.8	11.2	11.6
Q4	1,151.7	455.3	123.5	572.9	438.1	56.1	52.6	26.1	366.4	154.5	33.2	178.6	131.3	22.8	12.1	12.5
1999 Q1	1,294.0	556.5	128.4	609.2	470.4	52.9	53.1	32.7	415.2	178.1	36.8	200.3	149.2	24.2	12.9	13.9
Q2	1,378.4	613.9	135.3	629.2	501.2	39.2	52.3	36.5	453.2	193.3	40.9	219.0	168.0	24.5	11.7	14.8
Q3	1,310.8	553.8	130.1	626.9	495.6	43.9	53.5	33.9	458.8	199.8	43.4	215.7	161.9	27.5	11.4	14.8
Q4	1,318.2	539.0	120.9	658.3	526.0	48.8	50.7	32.8	498.5	214.0	46.7	237.9	183.4	27.3	13.0	14.2
2000 Q1 [p]	1,504.6	597.4	155.5	751.6	588.7	63.9	64.4	34.7	549.8	236.8	54.3	258.7	198.3	32.6	12.5	15.3

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
1998 Q2	2,053.9	1,833.8	22.5	197.6	112.7	37.6	30.6	16.7	160.2	144.2	0.7	15.3	10.9	1.8	1.2	1.3
Q3	2,105.7	1,891.4	26.0	188.3	105.3	33.9	33.4	15.8	166.1	147.9	0.6	17.6	15.5	1.0	0.7	0.3
Q4	2,121.3	1,903.5	27.7	190.1	106.6	35.4	33.2	15.0	169.4	155.4	0.6	13.4	11.3	0.9	1.1	0.1
1999 Q1	2,199.2	1,967.3	26.7	205.3	119.5	35.4	35.2	15.1	185.4	169.8	0.8	14.9	12.6	0.8	1.3	0.2
Q2	2,274.3	2,026.8	32.2	215.3	125.7	35.4	37.1	17.0	188.1	170.3	1.4	16.5	13.8	1.1	1.5	0.2
Q3	2,334.5	2,079.9	33.8	220.9	127.7	38.5	37.2	17.4	207.4	187.8	1.2	18.4	13.3	2.7	2.2	0.2
Q4	2,368.6	2,108.4	35.2	225.0	128.0	42.4	36.9	17.6	245.4	220.5	1.5	23.4	17.2	3.6	2.3	0.4
2000 Q1 [p]	2,426.2	2,144.6	37.5	244.1	136.1	49.2	36.7	22.2	246.2	221.8	1.7	22.7	15.8	4.2	2.0	0.7

Source: ECB.

1) Outstanding amounts are not adjusted for reclassifications, other revaluations or exchange rate variations. Data are partially estimated.

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
1998 Q2	3,336.7	-	-	-	-	-	-	-	5,707.9	5,545.5	25.3	137.0	80.8	13.5	38.4	4.4
Q3	3,355.3	-	-	-	-	-	-	-	5,792.7	5,630.4	26.3	136.0	77.7	12.7	42.8	2.9
Q4	3,386.1	-	-	-	-	-	-	-	5,937.5	5,764.0	26.6	147.0	79.0	15.4	48.8	3.8
1999 Q1	3,865.2	-	-	-	-	-	-	-	5,995.5	5,798.9	20.2	176.4	99.9	18.3	53.7	4.5
Q2	4,098.8	-	-	-	-	-	-	-	6,142.1	5,931.2	21.3	189.6	108.9	19.5	57.9	3.2
Q3	3,820.5	-	-	-	-	-	-	-	6,204.9	5,985.0	23.3	196.6	106.9	23.9	61.6	4.2
Q4	3,842.1	-	-	-	-	-	-	-	6,364.9	6,132.6	22.3	210.0	114.7	28.3	62.4	4.6
2000 Q1 [p]	3,923.9	-	-	-	-	-	-	-	6,498.8	6,232.9	32.0	234.0	128.1	34.7	67.0	4.2

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
1998 Q2	683.9	656.0	5.9	22.0	13.8	2.5	1.1	4.6	1,430.3	1,389.7	8.6	32.0	15.6	6.4	2.5	7.6
Q3	706.8	679.7	7.2	20.0	12.9	2.9	1.4	2.9	1,416.1	1,380.3	10.2	25.6	14.0	7.0	2.3	2.3
Q4	722.4	680.9	17.8	23.6	15.8	3.6	1.8	2.5	1,377.8	1,340.9	10.6	26.3	14.7	8.2	2.3	1.1
1999 Q1	762.3	726.7	7.8	27.9	18.3	5.6	1.3	2.7	1,419.1	1,386.6	3.9	28.5	15.4	10.2	2.0	0.9
Q2	801.7	767.6	6.5	27.6	18.3	5.2	1.1	3.0	1,429.0	1,398.8	3.2	26.9	13.6	10.2	2.1	1.1
Q3	829.4	795.4	6.8	27.2	17.8	5.1	1.7	2.6	1,442.9	1,412.7	3.1	27.1	13.0	10.4	2.2	1.6
Q4	828.5	793.9	7.3	27.3	18.2	4.8	2.3	2.0	1,436.1	1,403.6	5.4	27.1	12.7	10.3	1.9	2.2
2000 Q1 [p]	872.6	835.0	10.7	26.9	17.4	4.9	2.0	2.7	1,442.0	1,410.1	4.7	27.2	13.3	10.9	2.0	1.0

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
1998 Q2	1,040.6	417.6	84.9	538.1	409.3	62.8	28.7	37.3	386.3	181.5	20.9	183.9	162.9	4.6	11.1	5.3
Q3	1,020.2	419.3	98.3	502.6	365.2	67.5	26.7	43.2	378.8	174.7	24.5	179.6	156.5	5.3	11.9	5.9
Q4	961.5	371.7	74.1	515.7	375.8	74.7	27.0	38.1	372.6	148.1	26.8	197.8	171.6	8.3	13.3	4.5
1999 Q1	993.1	457.8	76.3	459.0	325.1	62.3	27.2	44.4	384.4	134.1	29.0	221.4	193.7	7.7	14.4	5.6
Q2	1,024.5	474.4	80.5	469.6	349.1	52.9	26.2	41.4	417.2	139.9	35.0	242.3	211.7	8.0	16.3	6.3
Q3	949.5	428.1	78.4	442.9	320.3	54.1	28.3	40.2	413.6	143.4	36.9	233.3	198.7	10.8	18.0	5.8
Q4	908.5	388.9	74.9	444.6	323.4	53.9	30.0	37.4	431.8	138.6	39.6	253.5	217.0	11.1	18.8	6.7
2000 Q1 [p]	972.0	426.8	90.5	454.7	322.7	58.1	33.2	40.7	455.4	145.7	40.0	269.7	229.7	13.7	20.0	6.3

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
1998 Q2	90.4	18.1	5.3	67.1	38.6	4.5	0.7	23.3	278.0	49.3	25.9	202.7	141.3	20.4	3.8	37.3
Q3	69.7	20.3	-4.3	53.7	39.7	5.2	1.0	7.8	290.2	41.5	31.5	217.2	161.1	30.1	4.4	21.6
Q4	66.8	19.6	5.6	41.5	28.1	4.9	0.8	7.6	321.2	48.1	31.0	242.1	182.2	35.7	4.2	19.8
1999 Q1	75.4	19.5	5.6	50.3	35.0	5.3	0.9	9.1	409.8	52.4	31.0	326.4	255.1	37.2	4.3	29.7
Q2	82.7	21.7	6.4	54.7	39.2	5.6	1.2	8.8	412.9	66.7	33.8	312.3	247.8	37.1	4.9	22.5
Q3	91.6	33.9	6.1	51.5	38.1	5.9	1.0	6.5	403.6	80.5	30.9	292.2	237.4	33.5	4.5	16.8
Q4	99.7	38.0	7.2	54.5	39.5	6.9	1.0	7.1	433.0	91.3	31.4	310.4	253.2	34.4	4.7	18.1
2000 Q1 [p]	108.2	39.7	7.0	61.6	45.8	6.5	1.0	8.2	460.2	85.7	34.5	340.0	274.0	39.2	6.1	20.7

3 Financial markets and interest rates in the euro area

Table 3.1

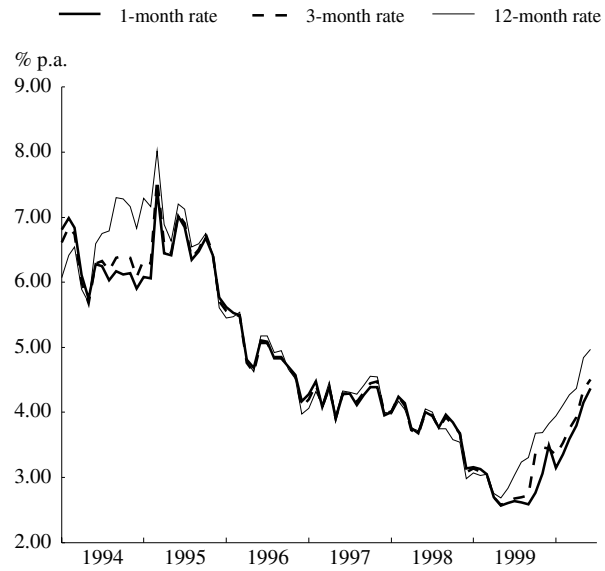
Money market interest rates [1]

(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
1995	5.62	6.51	6.59	6.68	6.86	6.04	1.23
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
1999 June	2.56	2.61	2.63	2.68	2.84	5.18	0.10
July	2.52	2.63	2.68	2.90	3.03	5.31	0.11
Aug.	2.44	2.61	2.70	3.05	3.24	5.45	0.09
Sep.	2.43	2.58	2.73	3.11	3.30	5.57	0.10
Oct.	2.50	2.76	3.38	3.46	3.68	6.18	0.25
Nov.	2.94	3.06	3.47	3.48	3.69	6.10	0.30
Dec.	3.04	3.49	3.44	3.51	3.83	6.13	0.33
2000 Jan.	3.04	3.15	3.34	3.56	3.95	6.04	0.15
Feb.	3.28	3.36	3.54	3.73	4.11	6.10	0.13
Mar.	3.51	3.59	3.75	3.94	4.27	6.20	0.14
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
2000 2 June	4.16	4.28	4.47	4.65	4.96	6.85	0.10
9	4.33	4.43	4.55	4.75	5.04	6.81	0.11
16	4.24	4.36	4.48	4.63	4.91	6.78	0.11
23	4.51	4.42	4.53	4.70	5.01	6.77	0.14
30	4.75	4.42	4.55	4.78	5.04	6.77	0.23

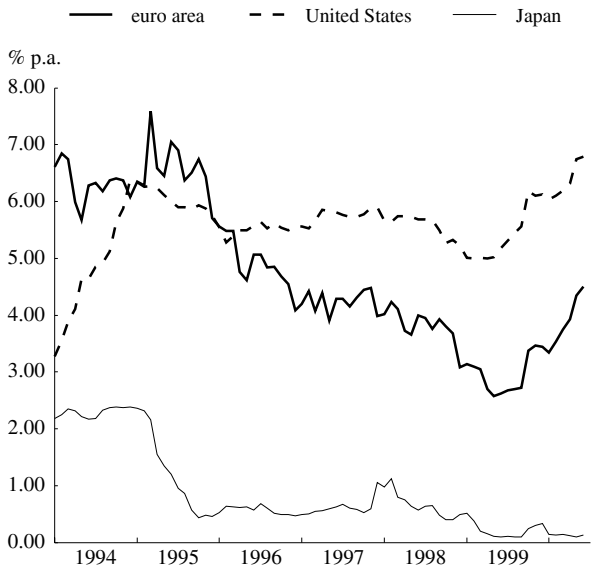
Euro area money market rates

(monthly)



3-month money market rates

(monthly)



Sources: Reuters and ECB.

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

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

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

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

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

6) London interbank offered rates (LIBOR).

Table 3.2

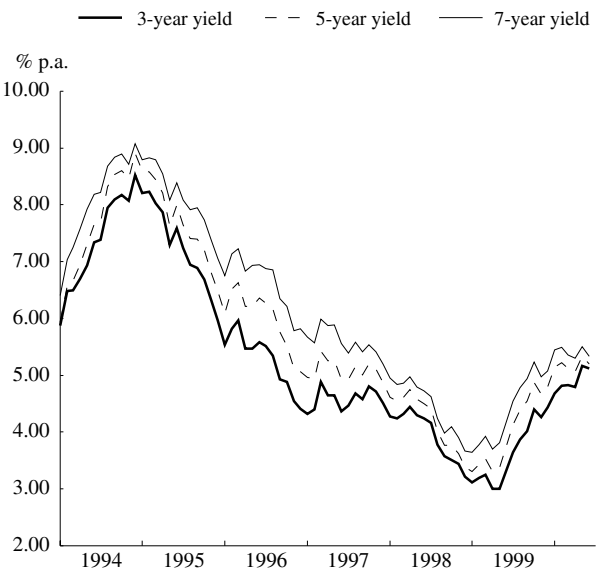
Government bond yields [1)]

(percentages per annum)

	Euro area [2)]					United States	Japan
	2 years 1	3 years 2	5 years 3	7 years 4	10 years 5	10 years 6	10 years 7
1995	5.69	5.97	6.48	7.06	8.73	6.69	3.32
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
1999 June	3.09	3.34	3.77	4.20	4.53	5.90	1.60
July	3.30	3.64	4.13	4.55	4.86	5.80	1.69
Aug.	3.56	3.87	4.39	4.78	5.06	5.94	1.89
Sep.	3.66	4.02	4.55	4.94	5.24	5.91	1.75
Oct.	4.07	4.40	4.87	5.23	5.47	6.10	1.78
Nov.	3.99	4.27	4.67	4.97	5.18	6.03	1.81
Dec.	4.18	4.43	4.79	5.07	5.30	6.26	1.73
2000 Jan.	4.38	4.68	5.14	5.44	5.70	6.66	1.71
Feb.	4.55	4.82	5.23	5.49	5.66	6.52	1.83
Mar.	4.59	4.83	5.12	5.35	5.49	6.26	1.81
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
2000 2 June	4.93	5.04	5.10	5.25	5.26	6.12	1.68
9	5.12	5.18	5.22	5.33	5.33	6.12	1.66
16	4.91	5.02	5.10	5.26	5.27	5.97	1.63
23	5.10	5.22	5.30	5.43	5.44	6.19	1.69
30	5.07	5.16	5.23	5.39	5.41	6.03	1.75

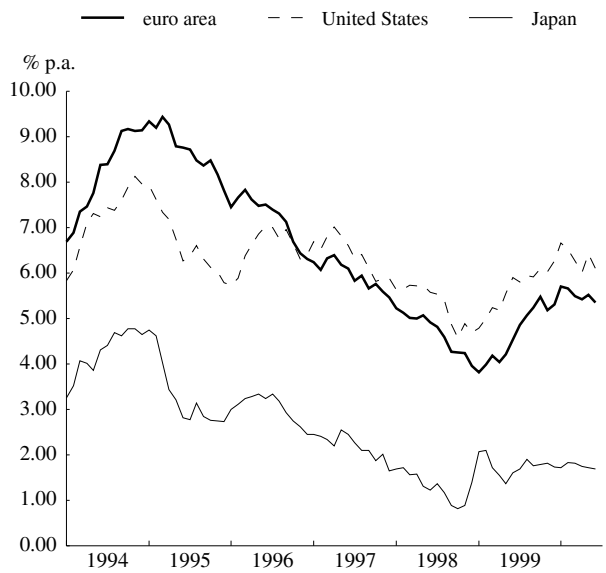
Euro area government bond yields

(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

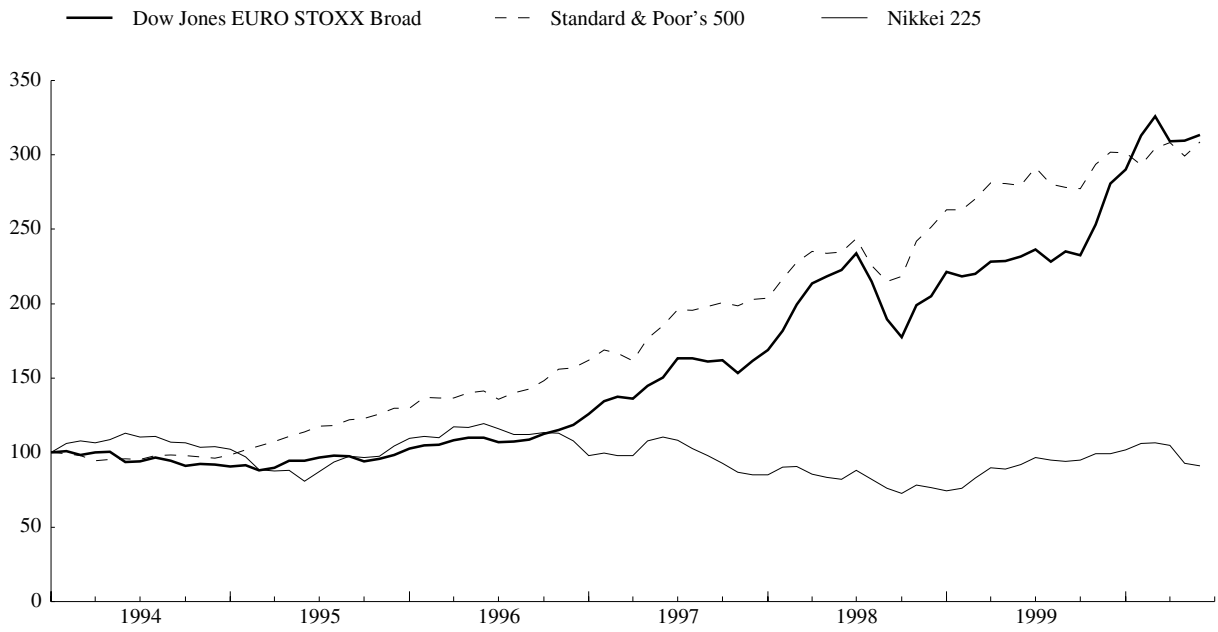
Stock market indices

(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
1995	130.5	1,388.1	150.6	127.9	141.1	131.2	117.0	124.5	146.0	132.3	161.9	166.4	542.2	17,363.4
1996	151.6	1,657.5	181.1	146.8	180.6	159.5	129.9	134.7	150.0	166.3	202.4	230.2	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	324.4	301.8	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	282.1	487.7	348.6	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	306.0	718.8	392.8	1,327.8	16,829.9
1999 June	321.7	3,749.5	279.8	265.9	327.3	299.0	288.5	284.4	440.2	300.3	694.1	377.6	1,322.6	17,136.0
July	328.1	3,846.2	294.7	265.5	330.4	316.0	289.6	294.5	481.6	302.3	687.0	392.9	1,381.0	18,008.6
Aug.	316.8	3,691.3	302.1	251.2	319.3	314.7	279.2	288.8	455.2	289.8	649.7	380.3	1,327.5	17,670.3
Sep.	325.9	3,772.8	294.3	257.5	328.7	312.3	289.8	297.8	480.8	296.1	683.3	383.3	1,318.2	17,532.8
Oct.	322.4	3,742.6	282.7	253.2	321.5	295.4	290.9	294.4	489.0	281.9	695.7	395.5	1,312.6	17,697.9
Nov.	351.2	4,160.0	294.9	265.0	333.2	305.7	310.3	314.7	589.9	297.4	836.2	427.1	1,391.6	18,440.3
Dec.	389.1	4,590.1	334.6	288.4	327.7	307.4	318.6	366.0	755.7	311.7	1,051.7	398.2	1,429.0	18,430.6
2000 Jan.	402.4	4,714.7	338.2	296.9	319.8	300.6	318.9	379.8	836.4	310.1	1,143.2	366.6	1,427.5	18,905.6
Feb.	433.8	5,090.6	309.3	308.1	307.6	299.7	313.6	396.4	989.4	346.4	1,423.7	371.3	1,388.4	19,700.9
Mar.	452.1	5,317.1	302.5	316.1	305.4	310.5	325.4	402.7	1,070.1	374.6	1,496.0	377.8	1,442.2	19,823.0
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
2000 2 June	444.7	5,428.3	285.1	301.8	320.3	352.8	349.3	395.1	1,082.5	369.8	1,223.4	450.3	1,477.3	16,800.1
9	437.4	5,293.0	282.8	296.1	322.7	347.6	348.5	392.8	1,070.2	359.4	1,168.7	435.2	1,456.9	16,861.9
16	435.1	5,281.6	268.0	293.3	329.0	348.1	352.5	387.6	1,055.1	348.0	1,152.3	452.4	1,464.5	16,318.3
23	432.0	5,240.6	261.9	292.5	328.1	353.3	346.6	381.1	1,076.3	340.3	1,115.0	472.6	1,441.5	16,963.2
30	424.6	5,145.4	273.3	286.2	331.4	348.0	354.1	368.5	993.5	337.5	1,075.1	484.9	1,454.6	17,411.1

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

(base month: January 1994 = 100; monthly)



Source: Reuters.

1) Monthly and yearly values are period averages.

Table 3.4

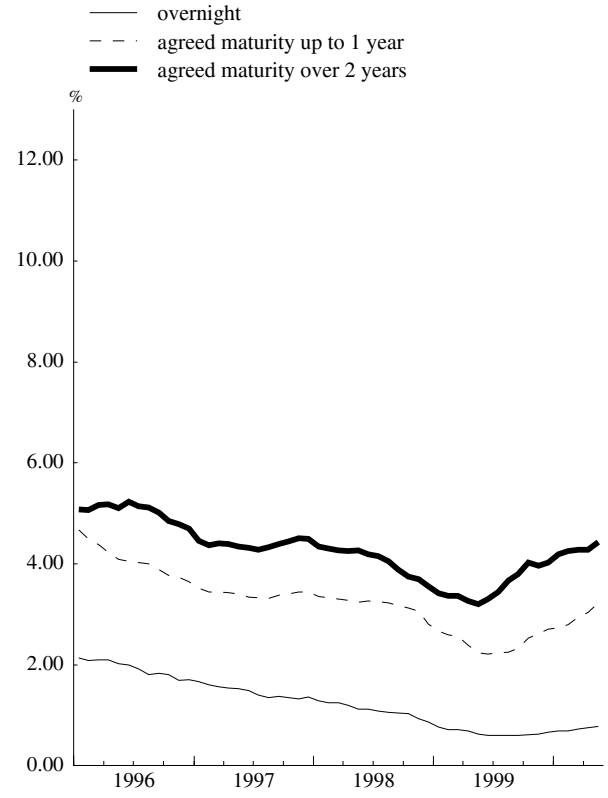
Retail bank interest rates

(percentages per annum; period averages)

	Deposit interest rates						Lending interest rates			
	Overnight	With agreed maturity			Redeemable at notice		To enterprises		To households	
		Up to 1 year	Up to 2 years	Over 2 years	Up to 3 months	Over 3 months	Up to 1 year	Over 1 year	Consumer lending	For house purchase
	1	2	3	4	5	6	7	8	9	10
1997	1.46	3.41	3.63	4.40	2.80	3.09	7.58	6.64	10.61	6.63
1998	1.10	3.20	3.22	4.06	2.61	3.25	6.74	5.80	10.05	5.87
1999	0.65	2.44	2.45	3.57	2.15	2.76	5.66	5.10	9.38	5.29
1999 May	0.63	2.24	2.24	3.21	2.16	2.48	5.55	4.72	9.31	4.84
June	0.60	2.22	2.22	3.30	2.15	2.45	5.49	4.78	9.29	4.96
July	0.60	2.24	2.24	3.45	2.14	2.63	5.40	4.96	9.21	5.18
Aug.	0.60	2.25	2.26	3.67	2.00	2.73	5.42	5.16	9.31	5.47
Sep.	0.60	2.32	2.32	3.79	1.99	2.80	5.38	5.19	9.29	5.53
Oct.	0.61	2.52	2.52	4.03	2.00	2.93	5.58	5.55	9.36	5.79
Nov.	0.63	2.62	2.62	3.96	2.02	3.01	5.74	5.54	9.36	5.77
Dec.	0.67	2.70	2.71	4.02	2.04	3.05	5.82	5.51	9.37	5.80
2000 Jan.	0.69	2.74	2.74	4.19	2.05	3.18	5.92	5.74	9.51	6.03
Feb.	0.70	2.79	2.80	4.25	2.06	3.18	6.01	5.84	9.52	6.13
Mar.	0.72	2.95	2.95	4.28	2.07	3.33	6.09	5.84	9.54	6.10
Apr.	0.76	3.04	3.04	4.27	2.09	3.44	6.26	5.99	9.62	6.12
May	0.78	3.22	3.22	4.43	2.10	3.65	6.42	6.16	9.70	6.30

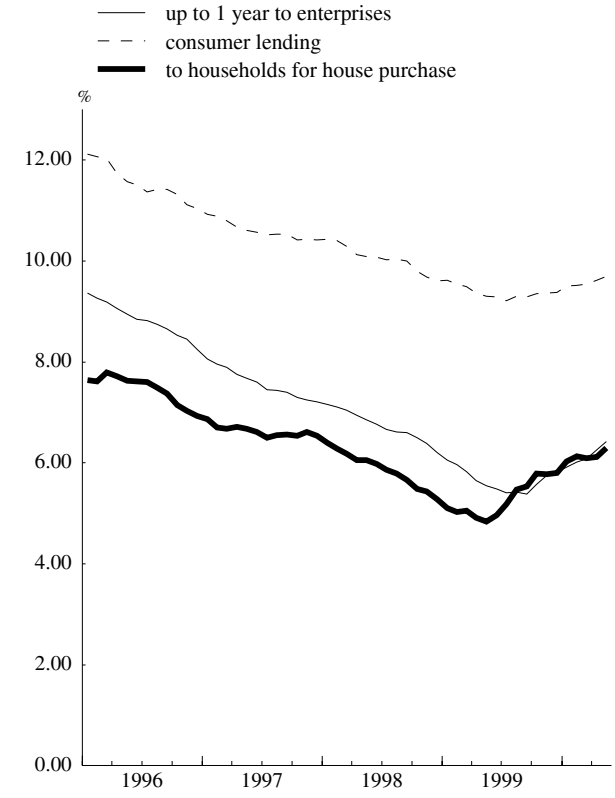
Deposit interest rates

(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[1) 2)]

(EUR billions; transactions during the period and end-of-period stocks; nominal values)

1. Short-term [3)]

	By euro area residents									
					In euro [4)]				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
1999 Apr.	217.0	200.1	16.8	579.0	212.0	196.0	16.0	554.8	5.0	4.1
May	172.0	172.5	-0.5	579.0	165.4	167.7	-2.2	552.6	6.6	4.8
June	175.7	187.1	-11.4	567.4	169.8	182.4	-12.7	540.3	5.9	4.7
July	209.8	212.1	-2.3	563.5	203.3	205.9	-2.6	536.0	6.5	6.2
Aug.	181.8	164.7	17.2	581.7	175.0	159.0	16.0	552.1	6.8	5.6
Sep.	192.1	188.2	4.0	585.5	185.0	183.3	1.7	553.2	7.1	4.8
Oct.	198.3	189.9	8.4	596.1	192.3	182.9	9.4	563.1	6.0	7.0
Nov.	195.0	176.6	18.4	615.1	187.6	169.9	17.7	580.7	7.5	6.7
Dec.	171.4	169.2	2.2	618.2	162.6	163.5	-0.8	580.0	8.7	5.7
2000 Jan.	250.7	266.0	-15.3	599.4	239.3	255.7	-16.4	562.1	11.4	10.3
Feb.	252.5	239.1	13.5	613.8	239.9	230.0	9.9	572.1	12.6	9.0
Mar.	269.6	249.2	20.4	633.1	257.4	240.0	17.3	590.3	12.2	9.2
Apr.	251.6	249.7	1.9	635.4	239.5	238.5	1.0	590.7	12.1	11.1

2. Long-term [3)]

	By euro area residents									
					In euro [4)]				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
1999 Apr.	126.3	99.1	27.3	5,623.3	116.6	94.4	22.2	5,207.6	9.7	4.7
May	129.0	78.9	50.1	5,675.9	119.7	72.0	47.7	5,256.0	9.3	6.9
June	117.4	65.5	51.8	5,729.6	107.2	59.5	47.6	5,303.5	10.2	6.0
July	130.7	87.2	43.5	5,768.7	121.6	77.0	44.6	5,349.2	9.1	10.1
Aug.	70.7	49.4	21.3	5,795.9	62.3	43.7	18.6	5,368.5	8.4	5.7
Sep.	138.3	74.8	63.5	5,857.9	123.3	66.9	56.4	5,425.1	15.0	7.8
Oct.	115.5	75.0	40.5	5,904.1	106.9	69.4	37.6	5,463.8	8.5	5.6
Nov.	104.4	78.4	26.0	5,936.4	94.8	71.9	22.8	5,486.7	9.6	6.4
Dec.	76.7	109.5	-32.8	5,910.0	70.3	96.3	-26.0	5,458.6	6.4	13.2
2000 Jan.	109.5	94.7	14.8	5,930.2	100.9	87.2	13.7	5,474.2	8.6	7.5
Feb.	122.5	70.0	52.5	5,983.1	111.4	62.1	49.3	5,524.1	11.1	7.9
Mar.	123.7	93.4	30.3	6,023.8	113.9	83.2	30.8	5,556.9	9.8	10.3
Apr.	106.0	74.1	31.9	6,062.9	98.7	68.2	30.5	5,587.2	7.3	5.9

3. Total

	By euro area residents									
					In euro [4)]				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
1999 Apr.	343.3	299.2	44.1	6,202.3	328.6	290.4	38.3	5,762.4	14.7	8.8
May	301.0	251.4	49.6	6,254.9	285.2	239.7	45.5	5,808.6	15.9	11.7
June	293.1	252.6	40.4	6,297.0	276.9	241.9	35.0	5,843.8	16.1	10.7
July	340.5	299.3	41.3	6,332.2	325.0	282.9	42.0	5,885.2	15.6	16.3
Aug.	252.5	214.1	38.4	6,377.6	237.3	202.7	34.5	5,920.7	15.3	11.4
Sep.	330.4	262.9	67.5	6,443.4	308.3	250.2	58.1	5,978.3	22.1	12.7
Oct.	313.8	265.0	48.9	6,500.2	299.3	252.3	47.0	6,027.0	14.6	12.7
Nov.	299.4	255.0	44.4	6,551.5	282.3	241.8	40.5	6,067.4	17.1	13.1
Dec.	248.1	278.7	-30.7	6,528.2	232.9	259.8	-26.9	6,038.6	15.1	18.9
2000 Jan.	360.2	360.7	-0.5	6,529.6	340.1	342.8	-2.7	6,036.4	20.0	17.9
Feb.	375.0	309.1	65.9	6,596.9	351.3	292.1	59.2	6,096.3	23.7	17.0
Mar.	393.3	342.7	50.7	6,656.9	371.3	323.2	48.1	6,147.2	22.0	19.5
Apr.	357.6	323.7	33.8	6,698.2	338.2	306.7	31.4	6,177.9	19.4	17.0

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

1) Data coverage for euro area residents is estimated at around 95% of total issues.

2) Net issues differ from the change in amounts outstanding because of valuation changes, reclassifications and other adjustments.

	By non-residents of the euro area in euro [4]				Total in euro [4]				
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	
0.8	24.2	.	.	.	.	.	.	.	.	1999 Apr.
1.7	26.4	.	.	.	.	.	.	.	.	May
1.2	27.1	19.2	22.7	-3.5	22.8	566.4	568.8	-2.3	563.1	June
0.3	27.5	.	.	.	.	.	.	.	.	July
1.2	29.6	.	.	.	.	.	.	.	.	Aug.
2.3	32.3	28.0	18.6	9.4	31.7	591.3	566.8	24.5	584.8	Sep.
-1.0	33.0	.	.	.	.	.	.	.	.	Oct.
0.8	34.4	.	.	.	.	.	.	.	.	Nov.
3.0	38.2	21.8	20.0	1.8	34.6	564.4	536.3	28.0	614.6	Dec.
1.1	37.3	.	.	.	.	.	.	.	.	2000 Jan.
3.6	41.6	.	.	.	.	.	.	.	.	Feb.
3.0	42.8	34.3	32.0	2.3	38.7	770.9	757.7	13.1	629.0	Mar.
0.9	44.7	.	.	.	.	.	.	.	.	Apr.

	By non-residents of the euro area in euro [4]				Total in euro [4]				
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	
5.0	415.7	.	.	.	.	.	.	.	.	1999 Apr.
2.4	419.9	.	.	.	.	.	.	.	.	May
4.2	426.1	55.4	11.8	43.6	514.9	398.9	237.8	161.2	5,818.4	June
-1.1	419.5	.	.	.	.	.	.	.	.	July
2.7	427.3	.	.	.	.	.	.	.	.	Aug.
7.2	432.8	63.5	12.4	51.1	566.3	370.7	200.1	170.7	5,991.4	Sep.
2.9	440.2	.	.	.	.	.	.	.	.	Oct.
3.2	449.7	.	.	.	.	.	.	.	.	Nov.
-6.8	451.4	49.2	21.3	27.9	594.5	321.2	258.9	62.3	6,053.1	Dec.
1.1	455.9	.	.	.	.	.	.	.	.	2000 Jan.
3.2	459.0	.	.	.	.	.	.	.	.	Feb.
-0.5	466.9	67.7	21.0	46.7	657.0	393.8	253.4	140.4	6,213.9	Mar.
1.5	475.7	.	.	.	.	.	.	.	.	Apr.

	By non-residents of the euro area in euro [4]				Total in euro [4]				
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	
5.9	439.9	.	.	.	.	.	.	.	.	1999 Apr.
4.2	446.3	.	.	.	.	.	.	.	.	May
5.4	453.2	74.6	34.5	40.1	537.8	965.4	806.5	158.8	6,381.5	June
-0.8	447.0	.	.	.	.	.	.	.	.	July
3.9	456.9	.	.	.	.	.	.	.	.	Aug.
9.5	465.2	91.5	31.0	60.5	597.9	962.1	766.9	195.2	6,576.2	Sep.
1.9	473.3	.	.	.	.	.	.	.	.	Oct.
3.9	484.1	.	.	.	.	.	.	.	.	Nov.
-3.8	489.7	71.0	41.3	29.7	629.1	885.6	795.3	90.3	6,667.7	Dec.
2.2	493.2	.	.	.	.	.	.	.	.	2000 Jan.
6.8	500.6	.	.	.	.	.	.	.	.	Feb.
2.6	509.7	102.0	53.0	49.0	695.7	1,164.7	1,011.2	153.6	6,842.9	Mar.
2.4	520.3	.	.	.	.	.	.	.	.	Apr.

3) "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 longer original 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.

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

Table 3.6

Euro-denominated securities other than shares by original maturity, residency and sector of the issuer [1) 2) 3)]

(EUR billions; end of period; nominal values)

Amounts outstanding

1. Short-term [4)]

	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) [5)]	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
1999 Apr.	554.8	181.4	8.7	61.0	300.7	3.0	.	.	.	.
May	552.6	179.8	8.5	59.7	301.7	2.9	.	.	.	.
June	540.3	174.0	8.3	58.6	296.5	2.9	22.8	8.3	8.7	5.0
July	536.0	178.8	6.8	60.9	286.5	3.0	.	.	.	.
Aug.	552.1	191.3	7.0	62.3	288.7	2.8	.	.	.	.
Sep.	553.2	200.6	6.8	64.6	278.6	2.5	31.7	11.2	12.0	7.3
Oct.	563.1	213.9	6.6	66.1	273.6	3.0	.	.	.	.
Nov.	580.7	237.3	6.4	67.5	266.0	3.5	.	.	.	.
Dec.	580.0	248.7	5.7	66.5	254.4	4.8	34.6	14.4	12.1	6.3
2000 Jan.	562.1	229.2	6.2	66.1	257.1	3.5	.	.	.	.
Feb.	572.1	240.4	6.2	65.8	256.7	3.0	.	.	.	.
Mar.	590.3	250.9	6.0	66.7	264.1	2.6	38.7	16.3	12.5	8.6
Apr.	590.7	245.7	5.8	72.3	264.1	2.8	.	.	.	.

2. Long-term [4)]

	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) [5)]	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
1999 Apr.	5,207.6	1,892.4	135.2	187.0	2,899.8	93.2	.	.	.	.
May	5,256.0	1,916.2	141.0	185.1	2,920.0	93.6	.	.	.	.
June	5,303.5	1,927.7	160.3	187.6	2,934.2	93.7	514.9	136.0	68.8	80.8
July	5,349.2	1,932.4	167.3	194.1	2,961.2	94.1	.	.	.	.
Aug.	5,368.5	1,938.2	168.8	194.2	2,973.3	94.0	.	.	.	.
Sep.	5,425.1	1,964.1	176.7	195.3	2,994.1	94.9	566.3	153.2	75.9	101.0
Oct.	5,463.8	1,983.5	179.1	198.6	3,008.9	93.7	.	.	.	.
Nov.	5,486.7	1,993.8	186.6	197.9	3,014.2	94.2	.	.	.	.
Dec.	5,458.6	1,976.6	189.0	196.6	3,002.2	94.1	594.5	159.1	81.8	113.7
2000 Jan.	5,474.2	1,984.1	189.5	191.4	3,015.0	94.3	.	.	.	.
Feb.	5,524.1	2,004.0	191.7	191.3	3,042.1	95.0	.	.	.	.
Mar.	5,556.9	2,022.9	193.0	194.7	3,050.3	95.9	657.0	182.1	91.9	133.1
Apr.	5,587.2	2,041.4	194.6	200.0	3,054.4	96.7	.	.	.	.

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) [5)]	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
1999 Apr.	5,762.4	2,073.8	143.9	247.9	3,200.5	96.3	.	.	.	.
May	5,808.6	2,096.0	149.5	244.9	3,221.7	96.5	.	.	.	.
June	5,843.8	2,101.6	168.6	246.2	3,230.7	96.6	537.8	144.3	77.5	85.8
July	5,885.2	2,111.2	174.1	255.0	3,247.6	97.2	.	.	.	.
Aug.	5,920.7	2,129.5	175.8	256.5	3,262.0	96.8	.	.	.	.
Sep.	5,978.3	2,164.7	183.5	260.0	3,272.7	97.4	597.9	164.4	87.9	108.2
Oct.	6,027.0	2,197.4	185.7	264.7	3,282.5	96.6	.	.	.	.
Nov.	6,067.4	2,231.1	193.0	265.4	3,280.2	97.7	.	.	.	.
Dec.	6,038.6	2,225.3	194.7	263.1	3,256.6	99.0	629.1	173.5	93.9	120.0
2000 Jan.	6,036.4	2,213.2	195.7	257.6	3,272.2	97.7	.	.	.	.
Feb.	6,096.3	2,244.4	198.0	257.1	3,298.7	98.1	.	.	.	.
Mar.	6,147.2	2,273.9	199.0	261.4	3,314.4	98.5	695.7	198.4	104.4	141.6
Apr.	6,177.9	2,287.1	200.4	272.3	3,318.5	99.5	.	.	.	.

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

1) Data coverage for euro area residents is estimated at around 95% of total issues.

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

3) Corresponding ESA 95 sector codes: MFIs (including Eurosystem) comprises the ECB and the national central banks of Member States in the euro area (S121) and other monetary financial institutions (S122); non-monetary financial corporations comprises other financial intermediaries (S123), financial auxiliaries (S124) and insurance corporations and pension funds (S125); non-financial corporations (S11); central government (S1311); other general government comprises state government (S1312), local government (S1313) and social security funds (S1314).

of the euro area			Total							
Central government	Other general government	International organisations [6]	Total	Banks (including central banks) [5]	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations [6]	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	1999 Apr.
.	.	.	.	.	.	.	.	.	.	May
0.3	0.3	0.1	563.1	182.3	17.0	63.6	296.9	3.2	0.1	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
0.3	0.6	0.3	584.8	211.8	18.8	71.9	279.0	3.1	0.3	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
0.3	0.6	0.8	614.6	263.0	17.8	72.8	254.7	5.5	0.8	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.
0.2	0.3	0.7	629.0	267.2	18.5	75.3	264.3	3.0	0.7	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

of the euro area			Total							
Central government	Other general government	International organisations [6]	Total	Banks (including central banks) [5]	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations [6]	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	1999 Apr.
.	.	.	.	.	.	.	.	.	.	May
78.1	27.5	123.7	5,818.4	2,063.7	229.1	268.4	3,012.3	121.2	123.7	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
82.7	29.4	124.1	5,991.4	2,117.3	252.6	296.3	3,076.8	124.3	124.1	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
86.6	29.3	124.0	6,053.1	2,135.7	270.8	310.3	3,088.8	123.4	124.0	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.
96.0	30.6	123.4	6,213.9	2,205.0	284.9	327.7	3,146.3	126.5	123.4	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

of the euro area			Total							
Central government	Other general government	International organisations [6]	Total	Banks (including central banks) [5]	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations [6]	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	1999 Apr.
.	.	.	.	.	.	.	.	.	.	May
78.5	27.9	123.8	6,381.5	2,246.0	246.1	332.0	3,309.2	124.4	123.8	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
83.1	30.0	124.3	6,576.2	2,329.1	271.3	368.2	3,355.8	127.4	124.3	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
86.9	29.9	124.8	6,667.7	2,398.8	288.6	383.1	3,343.6	128.9	124.8	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.
96.2	31.0	124.1	6,842.9	2,472.3	303.4	403.0	3,410.6	129.5	124.1	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

4) "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 original 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.

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

6) Including the European Investment Bank. The ECB is included in the Eurosystem.

Table 3.6 (cont'd)

Euro-denominated securities other than shares by original maturity, residency and sector of the issuer [1) 2) 3)]

(EUR billions; transactions during the month or quarter; nominal values)

Gross issues

1. Short-term [4)]

	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) [5)]	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
1999 Apr.	212.0	112.4	1.5	40.8	56.0	1.3	.	.	.	.
May	165.4	87.6	1.5	34.1	40.4	1.8	.	.	.	.
June	169.8	95.7	1.9	34.8	36.4	0.9	19.2	6.8	7.2	4.5
July	203.3	110.9	1.7	42.5	46.9	1.4	.	.	.	.
Aug.	175.0	92.3	2.0	35.8	43.8	1.1	.	.	.	.
Sep.	185.0	105.1	1.2	37.8	40.0	0.8	28.0	9.7	10.6	6.7
Oct.	192.3	107.3	1.5	41.3	40.7	1.5	.	.	.	.
Nov.	187.6	117.7	1.2	33.7	33.0	2.0	.	.	.	.
Dec.	162.6	117.9	0.9	23.0	18.5	2.3	21.8	9.6	6.9	4.2
2000 Jan.	239.3	154.7	2.1	40.0	41.2	1.3	.	.	.	.
Feb.	239.9	155.4	1.9	44.2	37.0	1.4	.	.	.	.
Mar.	257.4	169.8	1.7	45.0	40.0	0.9	34.3	14.7	10.7	7.9
Apr.	239.5	141.4	2.0	51.3	43.3	1.4	.	.	.	.

2. Long-term [4)]

	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) [5)]	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
1999 Apr.	116.6	50.4	6.1	6.5	51.4	2.2	.	.	.	.
May	119.7	46.5	7.5	0.9	63.7	1.1	.	.	.	.
June	107.2	39.9	20.1	5.3	40.9	0.9	55.4	15.4	11.9	16.4
July	121.6	35.5	9.1	8.8	67.2	1.0	.	.	.	.
Aug.	62.3	27.6	2.2	1.7	30.5	0.2	.	.	.	.
Sep.	123.3	55.7	9.5	3.7	53.0	1.4	63.5	21.2	9.8	22.2
Oct.	106.9	49.8	4.0	5.5	46.5	1.0	.	.	.	.
Nov.	94.8	45.3	9.1	2.9	36.1	1.3	.	.	.	.
Dec.	70.3	39.3	4.4	1.6	23.5	1.5	49.2	13.7	7.8	15.9
2000 Jan.	100.9	40.7	2.0	0.1	57.3	0.7	.	.	.	.
Feb.	111.4	50.5	3.9	3.4	51.7	2.0	.	.	.	.
Mar.	113.9	52.4	2.6	4.6	52.5	1.7	67.7	24.9	10.1	18.6
Apr.	98.7	45.6	3.1	6.6	41.6	1.8	.	.	.	.

3. Total

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks) [5)]	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
1999 Apr.	328.6	162.8	7.6	47.3	107.4	3.5	.	.	.	.
May	285.2	134.1	9.0	35.0	104.1	2.9	.	.	.	.
June	276.9	135.6	22.1	40.2	77.2	1.9	74.6	22.3	19.1	20.9
July	325.0	146.4	10.8	51.3	114.1	2.4	.	.	.	.
Aug.	237.3	119.9	4.2	37.5	74.3	1.4	.	.	.	.
Sep.	308.3	160.9	10.7	41.6	93.0	2.2	91.5	30.9	20.4	28.9
Oct.	299.3	157.1	5.6	46.9	87.2	2.5	.	.	.	.
Nov.	282.3	163.0	10.3	36.6	69.2	3.3	.	.	.	.
Dec.	232.9	157.2	5.3	24.6	42.1	3.8	71.0	23.3	14.8	20.1
2000 Jan.	340.1	195.4	4.1	40.1	98.4	2.1	.	.	.	.
Feb.	351.3	205.9	5.8	47.6	88.6	3.4	.	.	.	.
Mar.	371.3	222.1	4.3	49.7	92.5	2.7	102.0	39.6	20.8	26.6
Apr.	338.2	187.0	5.0	57.9	84.9	3.3	.	.	.	.

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

1) Data coverage for euro area residents is estimated at around 95% of total issues.

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

3) Corresponding ESA 95 sector codes: MFIs (including Eurosystem) comprises the ECB and the national central banks of Member States in the euro area (S121) and other monetary financial institutions (S122); non-monetary financial corporations comprises other financial intermediaries (S123), financial auxiliaries (S124) and insurance corporations and pension funds (S125); non-financial corporations (S11); central government (S1311); other general government comprises state government (S1312), local government (S1313) and social security funds (S1314).

of the euro area			Total							
Central government	Other general government	International organisations [6]	Total	Banks (including central banks) [5]	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations [6]	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	1999 Apr.
.	.	.	.	.	.	.	.	.	.	May
0.3	0.2	0.1	566.4	302.5	12.1	114.2	133.1	4.3	0.1	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
0.3	0.5	0.2	591.3	318.0	15.4	122.9	131.0	3.8	0.2	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
0.2	0.2	0.7	564.4	352.6	10.6	102.2	92.4	5.8	0.7	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.
0.2	0.2	0.6	770.9	494.6	16.3	137.1	118.3	3.9	0.6	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

of the euro area			Total							
Central government	Other general government	International organisations [6]	Total	Banks (including central banks) [5]	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations [6]	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	1999 Apr.
.	.	.	.	.	.	.	.	.	.	May
6.4	2.1	3.3	398.9	152.2	45.7	29.1	162.4	6.3	3.3	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
5.0	2.1	3.2	370.7	140.0	30.6	36.5	155.7	4.7	3.2	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
6.6	1.0	4.2	321.2	148.1	25.4	26.0	112.7	4.8	4.2	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.
9.6	1.9	2.6	393.8	168.4	18.6	26.8	171.1	6.4	2.6	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

of the euro area			Total							
Central government	Other general government	International organisations [6]	Total	Banks (including central banks) [5]	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations [6]	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	1999 Apr.
.	.	.	.	.	.	.	.	.	.	May
6.7	2.3	3.4	965.4	454.8	57.8	143.3	295.5	10.6	3.4	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
5.3	2.6	3.5	962.1	458.0	46.0	159.3	286.7	8.5	3.5	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
6.8	1.1	5.0	885.6	500.7	36.0	128.2	205.1	10.7	5.0	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.
9.8	2.1	3.2	1,164.7	663.1	34.9	163.9	289.4	10.2	3.2	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

4) "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 original 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.

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

6) Including the European Investment Bank. The ECB is included in the Eurosystem.

Table 3.6 (cont'd)

Euro-denominated securities other than shares by original maturity, residency and sector of the issuer [1) 2) 3)]

(EUR billions; transactions during the month or quarter; nominal values)

Net issues

1. Short-term [4)]

	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) [5)]	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
1999 Apr.	16.0	9.2	-0.1	3.0	4.0	-0.1	.	.	.	.
May	-2.2	-1.7	-0.2	-1.2	1.0	-0.1	.	.	.	.
June	-12.7	-6.2	-0.1	-1.2	-5.2	0.0	-3.5	-4.6	0.8	0.7
July	-2.6	5.2	-0.1	2.3	-10.1	0.1	.	.	.	.
Aug.	16.0	12.3	0.2	1.4	2.3	-0.3	.	.	.	.
Sep.	1.7	9.9	-0.1	2.3	-10.1	-0.3	9.4	3.1	3.5	2.4
Oct.	9.4	12.7	-0.2	1.5	-5.0	0.4	.	.	.	.
Nov.	17.7	23.5	-0.3	1.4	-7.6	0.6	.	.	.	.
Dec.	-0.8	10.9	-0.4	-0.9	-11.6	1.3	1.8	2.8	-0.3	-1.3
2000 Jan.	-16.4	-18.0	0.6	-0.4	2.7	-1.4	.	.	.	.
Feb.	9.9	11.0	0.0	-0.3	-0.5	-0.4	.	.	.	.
Mar.	17.3	9.8	-0.3	0.8	7.4	-0.4	2.3	1.2	-0.2	1.9
Apr.	1.0	-4.2	-0.1	5.5	-0.4	0.1	.	.	.	.

2. Long-term [4)]

	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) [5)]	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
1999 Apr.	22.2	18.2	4.1	3.5	-4.6	1.0	.	.	.	.
May	47.7	23.2	5.8	-1.8	20.1	0.4	.	.	.	.
June	47.6	11.7	19.2	2.5	14.2	0.0	43.6	10.7	10.9	15.2
July	44.6	5.0	5.7	6.6	26.9	0.5	.	.	.	.
Aug.	18.6	5.2	1.4	0.0	12.0	-0.1	.	.	.	.
Sep.	56.4	25.9	7.7	1.1	20.7	0.9	51.1	17.1	7.1	20.1
Oct.	37.6	18.3	2.4	3.4	14.8	-1.3	.	.	.	.
Nov.	22.8	9.6	7.6	-0.1	5.3	0.5	.	.	.	.
Dec.	-26.0	-15.4	2.4	-1.1	-11.9	0.0	27.9	5.6	6.0	12.8
2000 Jan.	13.7	5.3	0.5	-5.4	13.2	0.1	.	.	.	.
Feb.	49.3	19.3	2.2	-0.1	27.0	0.8	.	.	.	.
Mar.	30.8	17.6	1.0	3.0	8.3	0.9	46.7	18.5	7.6	15.4
Apr.	30.5	18.3	1.5	5.3	4.6	0.8	.	.	.	.

3. Total

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks) [5)]	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
1999 Apr.	38.3	27.5	4.0	6.5	-0.6	0.9	.	.	.	.
May	45.5	21.5	5.6	-3.0	21.1	0.3	.	.	.	.
June	35.0	5.4	19.2	1.4	9.0	0.0	40.1	6.1	11.7	15.8
July	42.0	10.2	5.5	8.8	16.9	0.6	.	.	.	.
Aug.	34.5	17.5	1.7	1.4	14.3	-0.4	.	.	.	.
Sep.	58.1	35.8	7.6	3.4	10.6	0.6	60.5	20.2	10.6	22.5
Oct.	47.0	31.0	2.2	4.8	9.8	-0.8	.	.	.	.
Nov.	40.5	33.1	7.3	1.3	-2.3	1.1	.	.	.	.
Dec.	-26.9	-4.5	2.0	-2.0	-23.6	1.2	29.7	8.4	5.7	11.5
2000 Jan.	-2.7	-12.7	1.1	-5.8	16.0	-1.2	.	.	.	.
Feb.	59.2	30.4	2.3	-0.4	26.6	0.4	.	.	.	.
Mar.	48.1	27.4	0.7	3.8	15.7	0.5	49.0	19.6	7.5	17.3
Apr.	31.4	14.1	1.4	10.8	4.1	1.0	.	.	.	.

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

1) Data coverage for euro area residents is estimated at around 95% of total issues.

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

3) Corresponding ESA 95 sector codes: MFIs (including Eurosystem) comprises the ECB and the national central banks of Member States in the euro area (S121) and other monetary financial institutions (S122); non-monetary financial corporations comprises other financial intermediaries (S123), financial auxiliaries (S124) and insurance corporations and pension funds (S125); non-financial corporations (S11); central government (S1311); other general government comprises state government (S1312), local government (S1313) and social security funds (S1314).

of the euro area			Total							
Central government	Other general government	International organisations [6]	Total	Banks (including central banks) [5]	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations [6]	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	1999 Apr.
.	.	.	.	.	.	.	.	.	.	May
-0.1	-0.1	-0.1	-2.3	-3.3	0.4	1.3	-0.3	-0.3	-0.1	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
0.0	0.3	0.1	24.5	30.5	3.4	8.4	-17.9	-0.1	0.1	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
0.0	0.0	0.6	28.0	49.9	-1.2	0.6	-24.2	2.3	0.6	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.
-0.1	-0.3	-0.2	13.1	3.9	0.2	2.1	9.5	-2.5	-0.2	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

of the euro area			Total							
Central government	Other general government	International organisations [6]	Total	Banks (including central banks) [5]	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations [6]	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	1999 Apr.
.	.	.	.	.	.	.	.	.	.	May
4.7	1.5	0.5	161.2	63.8	40.1	19.4	34.5	3.0	0.5	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
4.6	1.8	0.4	170.7	53.2	22.0	27.8	64.2	3.1	0.4	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
3.9	-0.1	-0.3	62.3	18.1	18.4	15.0	12.0	-0.9	-0.3	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.
7.1	0.9	-2.8	140.4	60.7	11.4	12.8	55.7	2.7	-2.8	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

of the euro area			Total							
Central government	Other general government	International organisations [6]	Total	Banks (including central banks) [5]	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	International organisations [6]	
11	12	13	14	15	16	17	18	19	20	
.	.	.	.	.	.	.	.	.	.	1999 Apr.
.	.	.	.	.	.	.	.	.	.	May
4.6	1.4	0.4	158.8	60.5	40.4	20.6	34.2	2.7	0.4	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
4.6	2.1	0.6	195.2	83.7	25.4	36.2	46.3	3.0	0.6	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
3.9	-0.1	0.2	90.3	68.0	17.2	15.7	-12.2	1.4	0.2	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.
7.0	0.5	-3.0	153.6	64.7	11.6	14.9	65.2	0.2	-3.0	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.

4) "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 original 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.

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

6) Including the European Investment Bank. The ECB is included in the Eurosystem.

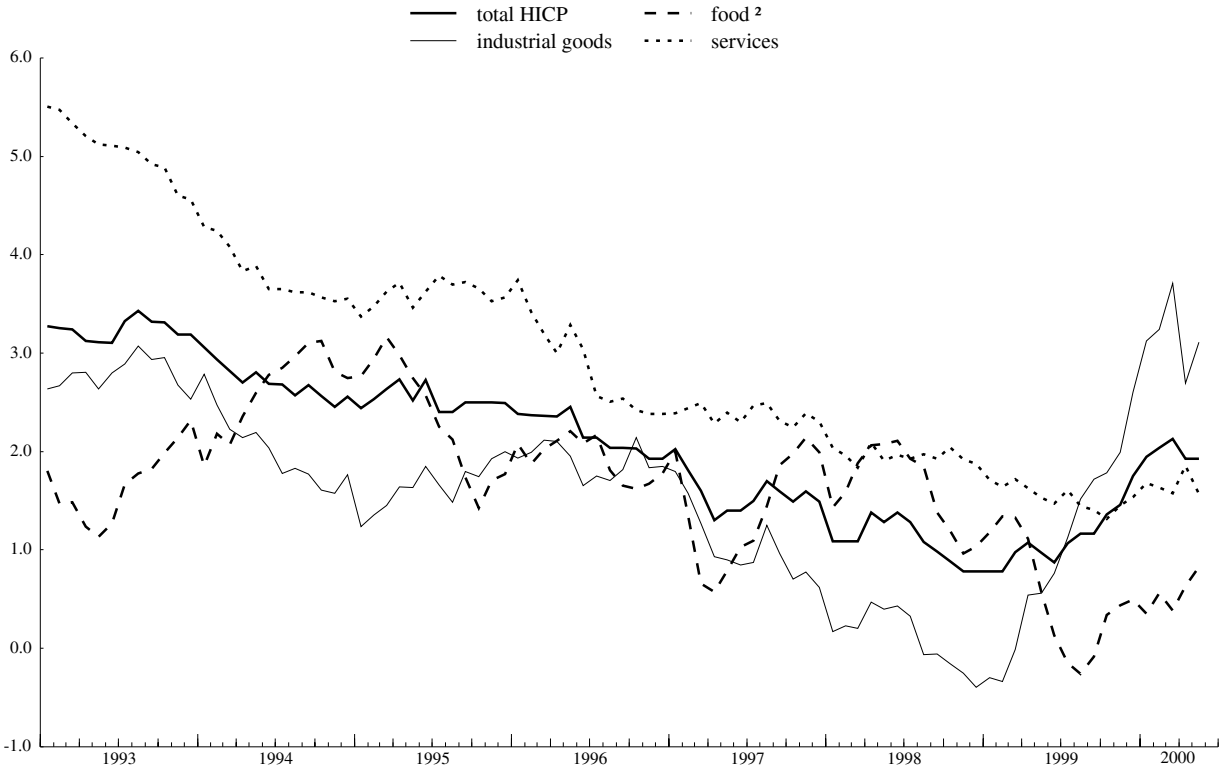
4 HICP and other prices in the euro area

Table 4.1

Harmonised Index of Consumer Prices [1)]

(annual percentage changes, unless otherwise indicated)

	Total (index, 1996 = 100)	Total	Goods							Services
				Food [2)]			Industrial goods			
					Processed food [2)]	Unprocessed food		Non-energy industrial goods	Energy	
Weight in the total (%) [3)]	100.0	100.0	62.7	20.9	12.6	8.2	41.8	32.8	9.0	37.3
	1	2	3	4	5	6	7	8	9	10
1995	97.9	2.5	2.0	2.3	2.5	2.1	1.6	1.6	1.9	3.6
1996	100.0	2.2	1.9	1.9	2.0	1.9	1.9	1.8	2.4	2.9
1997	101.6	1.6	1.2	1.4	1.4	1.4	1.0	0.5	2.8	2.4
1998	102.7	1.1	0.6	1.6	1.4	1.9	0.1	0.9	-2.6	2.0
1999	103.8	1.1	0.8	0.5	0.9	0.0	1.0	0.7	2.2	1.5
1999 Q1	103.1	0.8	0.3	1.3	1.2	1.4	-0.2	0.8	-3.9	1.7
Q2	103.8	1.0	0.6	0.6	0.8	0.3	0.6	0.6	0.5	1.5
Q3	104.1	1.1	0.9	-0.2	0.6	-1.4	1.5	0.6	4.6	1.5
Q4	104.4	1.5	1.5	0.4	0.9	-0.3	2.1	0.6	7.8	1.4
2000 Q1	105.2	2.0	2.3	0.4	1.0	-0.3	3.4	0.6	13.6	1.6
1999 May	103.8	1.0	0.6	0.6	0.7	0.4	0.6	0.6	0.3	1.5
June	103.8	0.9	0.5	0.1	0.7	-0.7	0.8	0.6	1.2	1.5
July	104.0	1.1	0.7	-0.1	0.7	-1.4	1.1	0.6	2.9	1.6
Aug.	104.1	1.2	0.9	-0.3	0.6	-1.6	1.5	0.6	4.7	1.4
Sep.	104.1	1.2	1.1	-0.1	0.6	-1.1	1.7	0.5	6.2	1.4
Oct.	104.2	1.4	1.3	0.3	0.8	-0.4	1.8	0.5	6.3	1.3
Nov.	104.3	1.5	1.5	0.4	0.9	-0.3	2.0	0.6	7.1	1.5
Dec.	104.7	1.7	1.9	0.5	1.0	-0.2	2.6	0.6	10.0	1.5
2000 Jan.	104.8	1.9	2.2	0.4	1.0	-0.5	3.1	0.7	12.0	1.7
Feb.	105.2	2.0	2.3	0.6	1.0	0.0	3.2	0.5	13.5	1.6
Mar.	105.6	2.1	2.6	0.4	1.0	-0.5	3.7	0.6	15.3	1.6
Apr.	105.7	1.9	2.0	0.6	0.9	0.2	2.7	0.5	10.5	1.9
May	105.8	1.9	2.3	0.8	1.0	0.6	3.1	0.6	12.2	1.6



Source: Eurostat. Data before 1995 are estimates based on national definitions and are not fully comparable with HICPs starting in 1995.

1) Extended coverage from January 2000. The change affects annual percentage changes during 2000. See the general notes for a brief explanation.

2) Including alcoholic beverages and tobacco.

3) Referring to the index period 2000.

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
1995	100.0	3.6	3.9	5.0	1.8	-	-	2.9	-	0.2	2.1	13.0
1996	100.4	0.4	0.8	-1.2	1.2	1.9	1.7	2.0	1.3	6.5	-6.9	15.9
1997	101.4	1.1	0.8	1.2	0.3	0.8	0.1	1.2	1.3	10.0	12.9	17.1
1998	100.6	-0.8	-0.6	-2.3	0.5	0.5	0.1	0.7	0.2	-21.2	-12.5	12.0
1999	100.5	0.0	0.3	-0.6	0.1	0.1	0.2	0.1	0.9	17.8	-3.1	17.1
1999 Q2	99.7	-1.3	-0.9	-2.8	0.0	-0.1	0.1	-0.2	0.8	5.9	-8.2	15.0
Q3	101.1	0.7	1.1	0.7	-0.1	0.2	0.2	0.2	1.2	31.0	1.1	19.7
Q4	102.6	3.1	3.2	4.9	0.1	0.5	0.4	0.5	0.9	61.5	14.0	23.0
2000 Q1	104.5	5.7	5.6	9.6	0.4	0.7	0.7	0.7	.	78.3	19.9	27.1
Q2	.	.	.	.	.	.	.	.	.	53.7	18.3	29.1
1999 June	99.8	-1.0	-0.8	-2.2	0.0	-0.1	0.0	-0.1	-	12.8	-4.2	15.6
July	100.6	0.0	0.3	-0.6	-0.1	0.0	0.1	0.0	-	22.7	-2.3	18.1
Aug.	101.0	0.7	1.2	0.7	-0.1	0.1	0.1	0.1	-	29.2	-0.5	19.2
Sep.	101.6	1.4	1.8	1.9	-0.1	0.3	0.4	0.3	-	41.4	6.6	21.8
Oct.	102.0	2.2	2.4	3.3	0.0	0.5	0.4	0.5	-	44.3	10.7	20.8
Nov.	102.5	3.1	3.2	4.8	0.1	0.5	0.4	0.6	-	60.4	11.9	23.5
Dec.	103.2	4.1	4.1	6.7	0.1	0.5	0.5	0.5	-	81.3	19.3	24.8
2000 Jan.	103.9	5.1	5.0	8.5	0.3	0.6	0.6	0.6	-	76.2	19.4	24.9
Feb.	104.5	5.8	5.7	9.8	0.5	0.7	0.7	0.7	-	87.6	20.0	27.6
Mar.	105.2	6.3	6.1	10.5	0.5	0.8	0.8	0.8	-	72.0	20.2	28.4
Apr.	105.3	5.7	5.4	9.8	0.5	1.0	0.8	1.1	-	43.9	19.4	24.6
May	.	.	.	.	.	.	.	.	-	61.9	22.8	30.4
June	.	.	.	.	.	.	.	.	-	55.2	12.9	31.5

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
1995	100.0	2.7	2.7	2.9	2.9	1.7	2.9	2.7
1996	102.0	2.0	2.0	2.5	2.2	0.9	0.9	0.8
1997	103.6	1.5	1.7	1.8	1.6	0.9	1.8	2.5
1998	105.2	1.6	1.1	1.3	1.4	0.8	-0.1	-1.5
1999	106.4	1.2	1.4	1.4	2.2	0.7	-0.5	0.2
1997 Q4	104.3	1.6	1.6	1.8	1.8	1.0	2.4	2.5
1998 Q1	104.6	1.7	1.5	1.5	1.2	0.9	1.4	0.8
Q2	105.0	1.6	1.3	1.5	1.2	1.0	0.8	-0.4
Q3	105.4	1.6	1.0	1.2	1.6	0.8	-0.5	-2.6
Q4	105.8	1.5	0.8	1.0	1.6	0.4	-1.8	-4.0
1999 Q1	106.1	1.4	0.9	1.1	1.9	0.3	-1.9	-3.8
Q2	106.3	1.3	1.2	1.3	2.2	0.4	-1.5	-1.5
Q3	106.6	1.1	1.6	1.4	2.4	1.0	-0.2	1.4
Q4	106.7	0.9	1.8	1.7	2.3	1.3	1.7	4.8

Sources: Eurostat, except columns 10 and 11 (HWWA, Institut für Wirtschaftsforschung, Hamburg), column 12 (International Petroleum Exchange), 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) Based mainly on the ESA 95; data to end-1998 are based on national deflators 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
1995	5,307.9	5,209.4	2,995.8	1,093.6	1,094.1	25.9	98.5	1,568.0	1,469.6
1996	5,530.9	5,404.9	3,140.3	1,143.3	1,122.3	-0.9	126.0	1,656.8	1,530.8
1997	5,643.6	5,493.3	3,191.6	1,151.1	1,137.7	12.9	150.3	1,825.7	1,675.4
1998	5,865.4	5,720.9	3,315.7	1,174.3	1,193.4	37.4	144.6	1,939.6	1,795.0
1999	6,111.4	6,000.8	3,465.7	1,225.2	1,267.2	42.8	110.5	2,025.3	1,914.7
1998 Q4	1,489.4	1,457.6	843.9	297.8	303.8	12.1	31.8	480.7	448.9
1999 Q1	1,506.5	1,476.7	854.2	302.7	309.8	10.0	29.8	479.9	450.1
Q2	1,517.6	1,490.5	861.4	305.1	313.6	10.4	27.1	494.8	467.7
Q3	1,536.0	1,508.7	871.1	307.8	320.9	8.9	27.3	516.3	489.0
Q4	1,551.3	1,525.0	878.9	309.6	322.9	13.6	26.3	534.2	507.9
2000 Q1	.	.	.	.	.	.	.	.	.

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
1995	5,307.9	5,209.4	2,995.8	1,093.6	1,094.1	25.9	98.5	1,568.0	1,469.6
1996	5,380.9	5,261.3	3,040.4	1,112.9	1,106.3	1.6	119.7	1,636.1	1,516.4
1997	5,502.6	5,348.6	3,084.9	1,122.3	1,130.1	11.3	154.0	1,804.2	1,650.2
1998	5,652.0	5,528.1	3,176.3	1,132.6	1,179.2	39.9	123.9	1,928.1	1,804.2
1999	5,784.4	5,685.3	3,255.6	1,148.8	1,236.0	44.8	99.1	2,012.1	1,913.0
1998 Q4	1,420.4	1,397.2	801.3	283.9	298.6	13.4	23.2	480.4	457.2
1999 Q1	1,429.9	1,410.0	808.1	286.4	303.9	11.7	19.9	481.0	461.1
Q2	1,438.1	1,416.7	810.4	286.8	306.8	12.6	21.5	494.2	472.8
Q3	1,452.1	1,424.7	816.5	287.5	312.0	8.6	27.3	511.8	484.5
Q4	1,464.3	1,433.8	820.6	288.1	313.3	11.8	30.4	525.1	494.6
2000 Q1	1,475.2	1,443.8	820.4	291.1	319.9	12.4	31.5	541.8	510.3
(annual percentage changes)									
1995	2.2	2.0	1.8	0.6	2.5	_	_	7.8	7.4
1996	1.4	1.0	1.5	1.8	1.1	_	_	4.3	3.2
1997	2.3	1.7	1.5	0.8	2.2	_	_	10.3	8.8
1998	2.7	3.4	3.0	0.9	4.3	_	_	6.9	9.3
1999	2.3	2.8	2.5	1.4	4.8	_	_	4.4	6.0
1998 Q4	2.0	3.2	3.1	1.0	3.7	_	_	2.1	6.0
1999 Q1	1.8	2.9	2.7	1.4	3.9	_	_	0.5	3.7
Q2	2.0	2.9	2.4	1.3	5.4	_	_	2.2	5.2
Q3	2.5	2.9	2.4	1.6	5.1	_	_	5.5	7.0
Q4	3.1	2.6	2.4	1.5	4.9	_	_	9.3	8.2
2000 Q1	3.2	2.4	1.5	1.6	5.3	_	_	12.6	10.7

Source: Eurostat.

1) Based mainly on the ESA 95. 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 [1]

3. Current prices

(index: 1995 = 100, seasonally adjusted)

	Gross value added							Intermediate consumption of FISIM [2]	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		
Share in the total (%) [3]	100	2.6	23.7	6.0	20.7	25.4	21.6		
	1	2	3	4	5	6	7	8	9
1995	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1996	104.0	105.7	102.2	99.7	102.9	106.9	104.7	101.3	104.9
1997	105.8	104.8	104.0	96.4	105.4	110.2	105.6	99.3	108.7
1998	109.6	105.7	107.6	96.1	110.2	115.2	108.7	99.1	115.0
1999	113.6	104.8	109.4	100.5	114.7	121.3	113.0	100.4	123.6
1998 Q4	111.1	105.2	107.6	97.4	112.1	117.9	110.7	99.9	117.9
1999 Q1	112.2	105.5	107.7	99.3	113.4	119.4	111.8	100.2	121.3
Q2	112.9	104.1	108.2	99.8	113.9	120.4	112.9	100.5	123.1
Q3	114.2	104.3	110.1	100.9	115.3	122.0	113.5	100.2	124.1
Q4	115.3	105.2	111.7	102.0	116.3	123.3	113.9	100.6	125.8
2000 Q1	.	.	.	.	.	.	.	.	.

4. Constant prices [4]

(index: 1995 = 100, seasonally adjusted)

	Gross value added							Intermediate consumption of FISIM [2]	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		
Share in the total (%) [3]	100	2.6	23.7	6.0	20.7	25.4	21.6		
	10	11	12	13	14	15	16	17	18
1995	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1996	101.4	106.1	100.0	98.2	100.6	103.7	101.4	102.9	101.4
1997	103.8	107.0	103.3	96.1	104.1	106.9	102.0	106.2	103.6
1998	106.7	109.5	106.5	94.9	108.4	110.6	103.4	110.9	106.5
1999	109.1	111.9	108.3	97.0	112.1	113.9	104.6	115.5	110.2
1998 Q4	107.2	109.9	106.2	94.8	109.4	111.9	104.0	113.1	107.6
1999 Q1	107.8	111.0	106.4	96.2	110.7	112.4	104.3	113.1	108.9
Q2	108.5	111.1	107.5	96.6	111.3	113.3	104.4	114.4	109.4
Q3	109.6	112.8	109.1	97.2	112.7	114.4	104.8	116.6	110.3
Q4	110.4	112.7	110.3	97.8	113.5	115.5	105.0	118.0	112.3
2000 Q1	111.4	111.6	111.6	98.3	114.6	116.9	105.5	119.2	111.7
(annual percentage changes)									
1995	2.3	0.9	3.0	-0.3	2.2	3.1	1.5	-0.1	0.6
1996	1.4	6.1	0.0	-1.8	0.6	3.7	1.4	2.9	1.4
1997	2.3	0.9	3.3	-2.1	3.5	3.1	0.6	3.3	2.2
1998	2.8	2.3	3.1	-1.3	4.1	3.4	1.4	4.4	2.8
1999	2.3	2.2	1.7	2.2	3.3	3.0	1.2	4.2	3.5
1998 Q4	1.9	0.7	0.8	-1.7	3.4	3.1	1.6	4.8	3.4
1999 Q1	1.8	1.1	0.1	0.3	3.0	2.9	1.5	3.9	3.2
Q2	1.9	1.6	0.6	2.6	3.1	2.6	1.1	4.1	3.2
Q3	2.5	3.4	2.1	2.8	3.6	3.1	1.1	4.5	3.3
Q4	3.0	2.6	3.9	3.1	3.7	3.3	1.0	4.3	4.4
2000 Q1	3.4	0.5	4.9	2.2	3.5	4.1	1.1	5.4	2.5

Source: ECB calculations based on Eurostat data.

1) Estimates based on incomplete national data and therefore presented as indices.

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

3) Share of each branch of activity in total value added in 1995.

4) Value added at 1995 prices.

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
1995	100.1	2.8	100.1	3.5	3.6	2.6	7.3	.	-1.2	1.8	0.5
1996	100.1	0.0	100.4	0.3	0.1	-0.2	2.4	-0.3	0.1	-0.4	-1.6
1997	103.9	3.8	104.7	4.3	5.0	5.5	4.7	2.8	4.2	2.3	0.4
1998	107.7	3.7	109.1	4.2	4.8	4.0	6.5	2.4	5.6	2.1	0.6
1999	109.9	2.0	111.0	1.8	1.8	2.1	2.1	1.8	2.6	1.8	3.1
1999 Q1	108.2	0.3	109.3	0.3	0.1	-0.1	0.9	0.8	0.6	0.8	0.4
Q2	108.6	1.0	110.0	0.6	0.5	0.5	1.2	0.4	1.5	0.5	3.4
Q3	110.7	2.4	111.6	2.3	2.2	3.0	2.5	2.2	3.0	2.0	3.4
Q4	112.0	4.1	113.3	3.9	4.4	5.2	3.7	3.7	5.3	3.9	4.9
2000 Q1	113.6	5.0	114.7	4.7	5.1	5.5	7.4	1.6	10.1	0.7	4.7
1999 May	108.7	0.3	109.9	-0.1	0.0	-0.3	-0.5	0.4	1.3	1.0	3.0
June	109.4	2.1	110.6	1.8	1.6	1.8	2.8	1.6	3.0	1.6	4.0
July	109.9	1.5	111.1	1.2	1.0	2.0	0.7	1.4	1.9	1.3	3.5
Aug.	111.3	3.4	111.6	3.5	3.3	3.7	4.2	4.2	6.9	2.6	2.9
Sep.	110.7	2.6	112.1	2.4	2.5	3.3	2.9	1.5	2.1	2.0	3.6
Oct.	111.2	2.9	112.8	2.7	3.0	3.5	2.8	2.5	3.0	3.0	3.4
Nov.	112.4	4.4	113.5	4.2	4.7	5.1	3.7	4.7	5.5	4.6	4.3
Dec.	112.5	5.1	113.6	4.9	5.7	7.2	4.5	3.9	8.0	4.2	7.5
2000 Jan.	112.1	3.0	113.7	3.1	3.2	4.4	5.5	-0.8	6.4	-0.3	2.5
Feb.	114.7	7.0	114.8	5.6	6.5	6.5	8.1	3.4	12.1	1.8	12.6
Mar.	114.0	5.0	115.7	5.3	5.5	5.5	8.2	2.2	11.4	0.7	-0.2
Apr.	.	.	116.6	6.5	6.8	5.9	9.3	5.4	13.2	2.9	.
May	.	.	.	.	.	.	.	.	.	.	.

2. Retail sales and car registrations

(annual percentage changes, unless otherwise indicated)

	Retail sales (s.a.)								New passenger car registrations	
	Current prices		Constant prices							
	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
1995	100.0	.	100.0	.	.	.	.	.	777	0.8
1996	102.1	2.1	100.5	0.5	0.6	.	-1.0	-0.1	826	6.2
1997	104.4	2.3	101.7	1.2	1.2	0.9	0.6	1.1	861	4.2
1998	108.1	3.5	104.4	2.7	1.8	2.8	1.8	3.9	923	7.2
1999	111.6	3.3	106.9	2.4	3.1	1.6	1.2	2.6	973	5.4
1999 Q1	110.2	3.3	106.2	2.7	2.8	2.1	1.8	1.3	970	6.4
Q2	110.7	2.8	106.2	2.2	2.9	1.6	1.9	2.5	982	8.5
Q3	111.8	2.8	107.0	1.9	3.0	0.9	-1.4	3.5	990	6.4
Q4	113.6	4.2	108.3	2.8	3.5	1.6	2.5	3.0	951	-0.1
2000 Q1	114.1	3.5	108.7	2.4	3.3	0.3	0.4	3.9	984	1.5
1999 May	110.5	1.9	106.0	1.5	1.8	0.8	-0.2	1.3	969	5.7
June	111.6	3.9	106.9	3.1	4.8	2.1	3.1	2.8	978	7.8
July	111.7	2.7	106.9	1.9	2.6	1.2	-0.1	3.4	1,045	10.4
Aug.	112.1	3.0	107.3	2.1	3.0	1.8	0.3	4.2	962	5.1
Sep.	111.6	2.6	106.9	1.8	3.4	-0.2	-4.3	2.9	965	2.1
Oct.	113.5	4.9	108.4	3.7	4.8	2.1	3.9	3.1	970	2.9
Nov.	113.9	3.7	108.3	2.2	2.8	1.3	1.6	3.0	957	-1.2
Dec.	113.4	3.9	108.1	2.6	2.9	1.5	2.2	3.1	925	-2.6
2000 Jan.	113.8	3.8	108.5	2.6	3.7	0.6	-0.5	3.3	976	0.7
Feb.	114.8	4.9	109.3	3.6	3.7	2.7	5.3	5.1	997	5.4
Mar.	113.7	1.9	108.3	1.1	2.6	-2.2	-3.2	3.4	978	-0.8
Apr.	115.5	4.9	110.0	4.0	4.5	2.2	0.6	4.5	977	-2.1
May	.	.	.	.	.	.	.	.	990	1.9

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

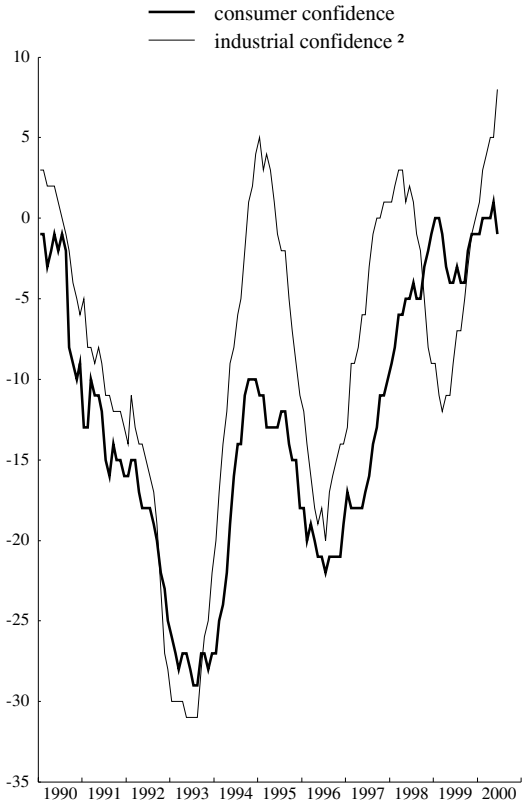
Business and consumer surveys

(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
1995	-2	10	-8	82.6	-27	-12	-13
1996	-16	-1	-30	80.6	-36	-11	-20
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	-2
1999 Q2	-10	3	-21	81.8	-7	-4	-4
Q3	-6	8	-17	81.6	-7	-7	-4
Q4	-1	14	-9	81.9	-3	-7	-1
2000 Q1	3	15	-2	83.0	0	0	0
Q2	6	17	5	83.7	2	3	0
1999 June	-9	5	-22	-	-6	-9	-4
July	-7	7	-18	-	-5	-6	-3
Aug.	-7	7	-17	-	-9	-7	-4
Sep.	-5	10	-15	-	-8	-7	-4
Oct.	-3	13	-11	-	-6	-9	-2
Nov.	-1	15	-9	-	0	-9	-1
Dec.	0	13	-6	-	-4	-2	-1
2000 Jan.	1	13	-4	-	2	-2	-1
Feb.	3	16	-2	-	-2	-3	0
Mar.	4	15	1	-	0	5	0
Apr.	5	15	3	-	2	-3	0
May	5	16	4	-	1	4	1
June	8	20	8	-	3	7	-1

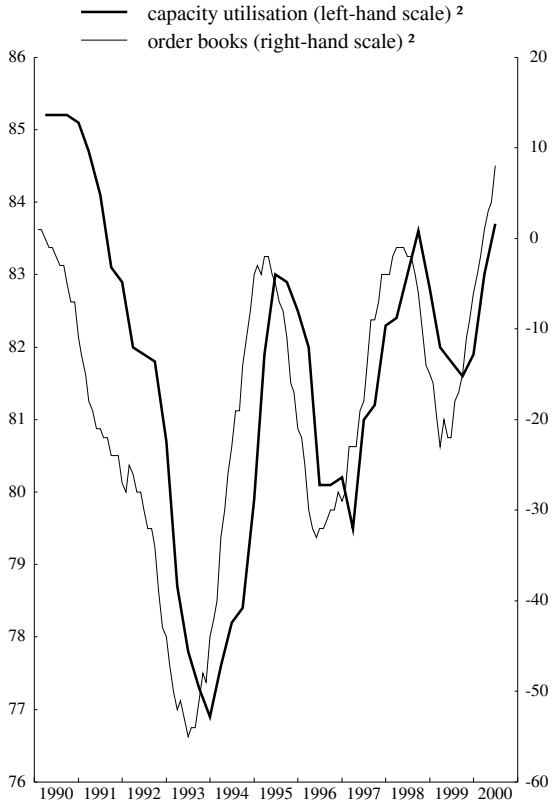
Consumer and industrial confidence indicators

(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
1995	100.0	.	.	.	.	.	14.357	11.4	9.6	23.3
1996	100.3	0.3	0.3	0.5	-1.4	1.4	14.790	11.6	9.8	23.9
1997	100.9	0.6	0.7	0.2	-0.4	1.2	14.875	11.6	9.9	23.2
1998	102.2	1.3	1.5	0.8	1.0	1.8	14.079	10.9	9.4	21.3
1999	103.7	1.4	1.7	-0.1	0.2	2.0	12.979	10.0	8.7	19.0
1999 Q1	102.6	1.5	1.7	0.5	0.7	2.2	13.362	10.3	8.9	19.9
Q2	103.0	1.5	1.8	-0.1	0.1	2.1	13.075	10.0	8.8	19.2
Q3	103.3	1.3	1.6	-0.4	0.0	1.9	12.900	9.9	8.7	18.8
Q4	103.7	1.3	1.6	-0.4	0.1	1.8	12.577	9.6	8.5	18.0
2000 Q1	.	.	.	.	.	.	12.325	9.4	8.3	17.9
1999 May	-	-	-	-	-	-	13.068	10.0	8.8	19.2
June	-	-	-	-	-	-	13.016	10.0	8.7	19.0
July	-	-	-	-	-	-	12.977	9.9	8.7	19.0
Aug.	-	-	-	-	-	-	12.924	9.9	8.7	18.9
Sep.	-	-	-	-	-	-	12.801	9.8	8.6	18.5
Oct.	-	-	-	-	-	-	12.626	9.7	8.5	18.1
Nov.	-	-	-	-	-	-	12.573	9.6	8.5	18.0
Dec.	-	-	-	-	-	-	12.533	9.6	8.5	17.9
2000 Jan.	-	-	-	-	-	-	12.460	9.5	8.4	18.0
Feb.	-	-	-	-	-	-	12.343	9.5	8.3	17.9
Mar.	-	-	-	-	-	-	12.173	9.3	8.2	17.7
Apr.	-	-	-	-	-	-	12.054	9.2	8.1	17.5
May	-	-	-	-	-	-	11.929	9.2	8.1	17.2

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	Services	
							Total	Total	
	11	12	13	14	15	16	17	18	19
1995	1.5	3.4	1.9	-	-	-	-	-	3.9
1996	1.9	3.2	1.2	3.4	3.0	4.3	3.5	3.9	3.7
1997	0.7	2.4	1.7	2.5	2.4	2.8	2.3	2.6	2.6
1998	0.0	1.4	1.4	1.6	1.8	1.1	1.7	1.2	2.9
1999	1.1	1.9	0.8	2.1	2.3	1.6	2.2	1.7	2.4
1998 Q1	-1.6	1.1	2.7	1.7	1.9	0.9	1.4	1.4	2.4
Q2	0.0	1.2	1.2	1.7	1.9	1.0	1.9	1.3	3.2
Q3	0.3	1.2	0.9	1.5	1.6	1.3	1.8	1.1	3.0
Q4	0.7	1.2	0.4	1.7	1.9	1.2	1.9	1.2	3.2
1999 Q1	1.6	1.7	0.1	1.9	2.0	1.5	2.1	1.3	2.8
Q2	1.6	2.1	0.5	2.0	2.1	1.5	1.9	1.9	2.5
Q3	0.9	2.0	1.1	2.2	2.4	1.7	2.3	1.9	2.2
Q4	0.4	2.1	1.7	2.4	2.6	1.7	2.5	1.7	1.9
2000 Q1	.	.	.	3.5	3.6	.	3.5	3.3	.

Sources: ECB calculations based on Eurostat data (columns 1 to 6 and 18), Eurostat (columns 7 to 10, 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

Saving, investment and financing

(as a percentage of GDP, unless otherwise indicated)

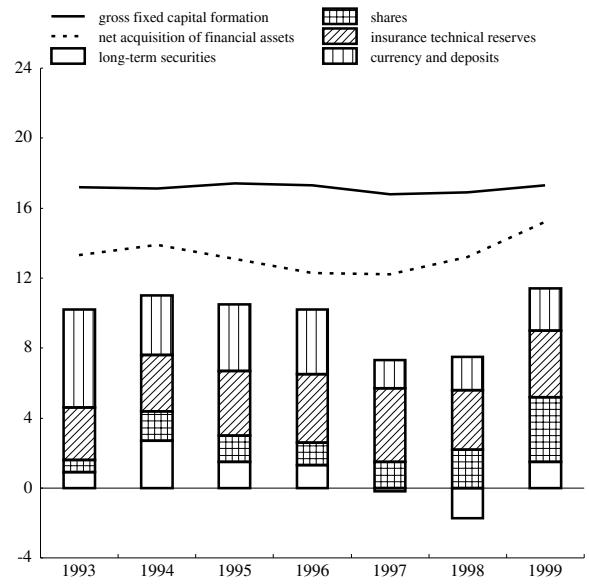
	Euro area saving and investment [1]			Investment of private non-financial sectors [1] [2]							
	Gross saving	Gross fixed capital formation	Net lending to the rest of the world	Gross fixed capital formation	Non-financial corporations	Net acquisition of financial assets	Currency and deposits	Securities other than shares	Long-term securities	Shares	Insurance technical reserves
	1	2	3	4	5	6	7	8	9	10	11
1992	21.3	22.5	-0.9	18.8	11.8	13.5	4.0	1.6	0.4	1.4	2.9
1993	20.4	20.7	0.6	17.2	10.4	13.3	5.6	0.5	0.9	0.7	3.0
1994	20.8	20.3	0.3	17.1	10.2	13.9	3.4	2.5	2.7	1.7	3.2
1995	21.8	20.7	0.5	17.4	10.6	13.1	3.8	1.9	1.5	1.5	3.7
1996	21.5	20.4	1.0	17.3	10.5	12.3	3.7	0.2	1.3	1.3	3.9
1997	21.9	19.9	1.6	16.8	10.4	12.2	1.6	-0.6	-0.2	1.5	4.2
1998	22.0	19.9	1.2	16.9	10.6	13.2	1.9	-2.3	-1.7	2.2	3.4
1999	21.5	20.3	0.4	17.3	10.9	15.2	2.4	1.5	1.5	3.7	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	21.0	13.1	10.2	0.7	0.6	1.4	6.7	4.7	3.3	41.8	32.7
1993	20.7	12.7	7.9	1.3	1.4	1.5	3.6	4.4	5.4	43.6	27.6
1994	20.7	11.9	9.7	1.0	1.1	1.8	3.9	4.0	4.2	44.8	31.9
1995	21.6	12.0	6.7	-1.8	-1.7	1.4	4.8	3.3	6.4	43.0	23.7
1996	21.0	11.6	8.1	0.2	0.0	1.7	5.4	4.4	4.2	41.6	27.8
1997	20.1	10.4	8.6	0.1	0.0	1.4	6.2	4.6	3.6	42.1	30.0
1998	19.0	9.8	10.7	0.4	0.2	2.4	7.0	5.0	2.5	43.9	36.0
1999	18.5	10.4	13.4	1.0	0.6	1.7	9.6	7.1	1.8	46.8	42.0

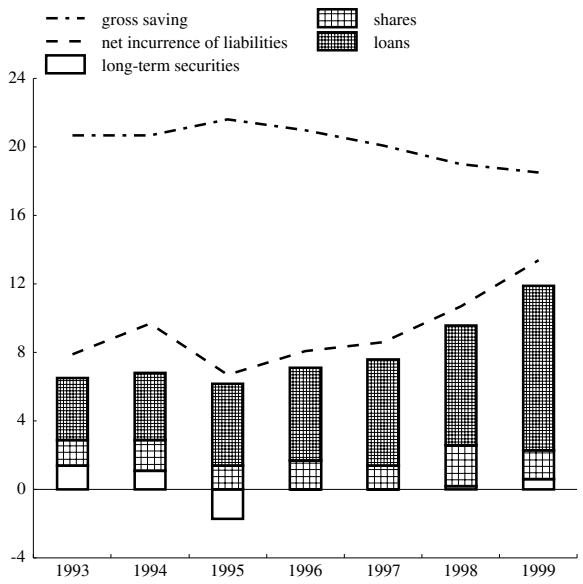
Investment and financing of private non-financial sectors [1] [2]

(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

General government fiscal position

(as a percentage of GDP)

1. Euro area [1] – receipts and expenditure

	Receipts							Expenditure							
	Total	Current receipts					Capital receipts	Total	Current expenditure					Capital expenditure	
			Direct taxes	Indirect taxes	Social contri-butions	Sales				Compen-sation of employees	Inter-mediate consump-tion	Interest	Transfers to households		Investment
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1991	46.4	46.0	11.8	13.0	16.7	2.3	0.3	50.8	45.9	11.2	5.4	5.1	20.4	4.8	3.3
1992	47.5	46.8	11.9	13.0	17.1	2.4	0.7	52.1	47.4	11.4	5.5	5.5	21.4	4.7	3.2
1993	48.3	47.8	12.1	13.3	17.5	2.4	0.5	53.8	49.1	11.6	5.7	5.8	22.3	4.7	3.1
1994	47.7	47.3	11.6	13.5	17.5	2.4	0.4	52.7	48.3	11.3	5.4	5.5	22.3	4.4	2.9
1995	47.2	46.7	11.6	13.3	17.3	2.5	0.5	52.2	47.7	11.2	5.3	5.7	22.3	4.5	2.7
1996	48.0	47.5	12.0	13.4	17.6	2.5	0.5	52.3	48.3	11.2	5.3	5.7	22.8	4.0	2.6
1997	48.3	47.6	12.2	13.6	17.5	2.5	0.7	50.9	47.1	11.0	5.3	5.1	22.6	3.7	2.4
1998	47.8	47.3	12.4	14.2	16.5	2.4	0.5	49.9	46.0	10.7	5.2	4.7	22.1	3.9	2.4
1999	48.5	47.9	12.9	14.4	16.4	2.4	0.5	49.7	45.7	10.7	5.2	4.2	22.1	4.0	2.5

2. Euro area [1] – saving, deficit and debt

	Gross saving	Deficit (-) / surplus (+)				Primary deficit/ surplus	Deficit/ debt adjust-ment [2]	Change in debt [3]				Gross nominal consolidated debt			
		Total	Central govern-ment	State and local govern-ment	Social security			Total	Currency, deposits and loans	Short-term securities	Medium/ long-term securities	Total	Currency, deposits and loans	Short-term securities	Medium/ long-term securities
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1991	0.1	-4.4	-4.2	-0.5	0.3	0.7	0.6	5.0	1.3	0.3	3.3	57.3	18.4	9.5	29.3
1992	-0.6	-4.6	-4.0	-0.5	-0.1	1.0	2.0	6.6	1.7	1.1	3.8	60.8	19.1	10.2	31.5
1993	-1.3	-5.5	-4.9	-0.6	-0.1	0.3	2.4	7.9	1.5	0.0	6.4	67.2	20.1	9.9	37.2
1994	-1.0	-5.0	-4.3	-0.7	0.0	0.5	0.8	5.8	0.2	0.9	4.7	69.8	19.4	10.3	40.1
1995	-1.0	-5.0	-4.1	-0.5	-0.3	0.7	2.7	7.6	2.6	0.0	5.0	74.0	21.0	9.8	43.2
1996	-0.8	-4.3	-3.6	-0.5	-0.2	1.4	-0.6	3.7	0.2	0.4	3.1	75.2	20.5	9.9	44.9
1997	0.5	-2.6	-2.3	-0.3	0.1	2.5	-0.4	2.2	-0.1	-0.6	2.9	74.6	19.6	8.9	46.1
1998	1.3	-2.0	-2.2	0.1	0.1	2.6	-0.5	1.5	-0.4	-0.6	2.5	72.9	18.4	7.9	46.7
1999	2.3	-1.2	-1.6	0.1	0.3	3.1	0.5	1.6	-0.2	-0.8	2.7	72.1	17.5	6.8	47.7

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

	BE	DE	ES	FR	IE	IT	LU	NL	AT	PT	FI
	1	2	3	4	5	6	7	8	9	10	11
1996	-3.7	-3.4	-5.0	-4.2	-0.6	-7.1	2.7	-1.8	-3.8	-3.8	-3.2
1997	-2.0	-2.6	-3.2	-3.0	0.8	-2.7	3.6	-1.2	-1.9	-2.6	-1.5
1998	-1.0	-1.7	-2.6	-2.7	2.1	-2.8	3.2	-0.8	-2.5	-2.1	1.3
1999	-0.9	-1.1	-1.1	-1.8	2.0	-1.9	2.4	0.5	-2.0	-2.0	2.3
2000 [4]	-0.5	-1.0	-0.7	-1.5	1.7	-1.5	2.6	1.0	-1.7	-1.5	4.1

4. Euro area countries – gross nominal consolidated debt

	BE	DE	ES	FR	IE	IT	LU	NL	AT	PT	FI
	12	13	14	15	16	17	18	19	20	21	22
1996	128.3	59.8	68.0	57.1	74.1	122.1	6.2	75.3	68.3	63.6	57.1
1997	123.0	60.9	66.7	59.0	65.3	119.8	6.0	70.3	63.9	60.3	54.1
1998	117.4	60.7	64.9	59.3	55.6	116.3	6.4	67.0	63.5	56.5	49.0
1999	114.4	61.0	63.5	58.6	52.4	114.9	6.2	63.6	64.5	56.7	47.1
2000 [4]	110.0	60.7	62.3	58.2	45.2	110.8	5.8	58.7	64.0	57.0	42.6

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

1) Receipts, expenditure and deficit aggregates based on the ESA 95. Transactions among countries are not consolidated.

2) Difference between the annual change in gross nominal consolidated debt and the deficit as a percentage of GDP.

3) Annual change in gross nominal consolidated debt expressed as a percentage of GDP [debt(t) - debt(t-1)] ÷ GDP(t).

4) European Commission forecasts.

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

Table 8.1

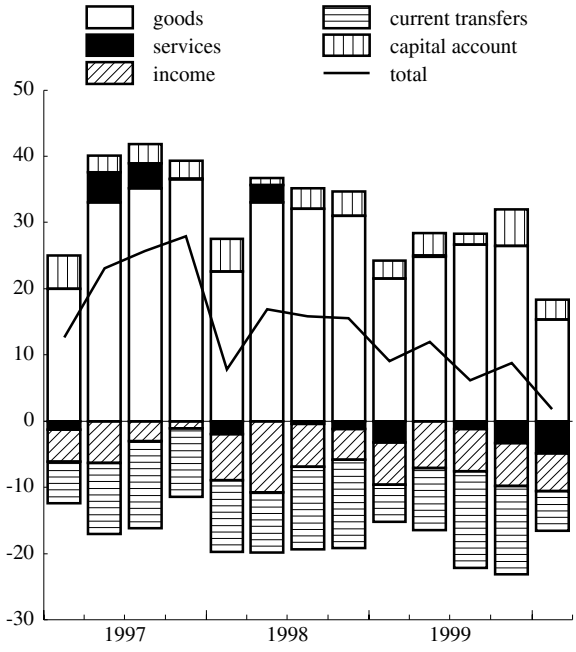
Summary balance of payments [1) 2)]

(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	76.2	124.8	7.1	-15.2	-40.5	13.1	.	-48.1	-22.8	.	.	.	.
1998	43.3	118.8	-0.9	-28.8	-45.8	12.7	-69.1	-102.6	-85.3	-8.2	118.5	8.5	13.1
1999	22.8	99.5	-7.5	-26.4	-42.8	13.3	-64.3	-138.8	-28.9	-1.0	90.8	13.7	28.2
1999 Q1	6.4	21.5	-3.2	-6.4	-5.5	2.8	-33.1	-15.6	-54.7	-1.4	33.0	5.5	24.0
Q2	8.6	24.8	0.2	-7.1	-9.3	3.4	-28.3	-52.6	-7.0	-0.6	25.3	6.6	16.2
Q3	4.5	26.6	-1.1	-6.4	-14.6	1.7	-6.7	-23.3	29.8	1.5	-16.1	1.4	0.5
Q4	3.4	26.5	-3.3	-6.5	-13.4	5.5	3.8	-47.3	3.0	-0.5	48.5	0.2	-12.6
2000 Q1	-1.2	15.3	-4.8	-5.7	-6.0	3.1	60.2	149.2	-180.9	-1.9	94.0	-0.2	-62.0
1999 Feb.	2.3	6.9	0.0	-2.5	-2.2	-0.1	6.8	-6.2	-26.4	-0.4	34.8	5.0	-9.0
Mar.	6.4	9.8	-0.4	-1.6	-1.4	0.2	-40.3	-4.6	-37.1	0.9	-2.1	2.7	33.7
Apr.	4.8	8.0	-0.4	0.1	-2.9	0.5	-5.1	-14.6	13.6	3.5	-9.3	1.8	-0.2
May	-1.5	5.9	0.7	-4.9	-3.2	1.4	-11.0	-19.1	-28.5	-3.9	37.0	3.5	11.1
June	5.4	11.0	-0.1	-2.3	-3.2	1.4	-12.2	-18.9	7.9	-0.1	-2.3	1.3	5.4
July	6.4	14.6	-0.1	-3.6	-4.5	0.7	-24.4	-9.8	-3.2	0.8	-11.5	-0.8	17.3
Aug.	1.3	6.5	-0.5	0.1	-4.8	0.6	27.2	-7.2	12.0	1.9	20.0	0.5	-29.0
Sep.	-3.2	5.6	-0.6	-2.9	-5.2	0.4	-9.5	-6.3	20.9	-1.2	-24.6	1.7	12.3
Oct.	2.2	10.5	-0.2	-3.9	-4.1	1.5	14.7	-7.3	-13.5	-1.8	37.2	0.1	-18.4
Nov.	1.6	8.4	-1.8	-0.7	-4.3	1.1	-4.5	-19.4	13.6	1.6	-1.0	0.6	1.8
Dec.	-0.5	7.7	-1.3	-1.9	-5.0	2.8	-6.4	-20.6	2.9	-0.3	12.2	-0.5	4.0
2000 Jan.	-6.6	0.9	-1.9	-4.3	-1.3	1.4	17.1	2.0	-17.5	-1.3	35.5	-1.6	-11.9
Feb.	2.4	6.3	-2.0	-0.8	-1.0	0.2	9.7	144.7	-138.7	2.6	0.2	0.8	-12.3
Mar.	3.0	8.1	-0.9	-0.6	-3.7	1.4	33.3	2.4	-24.7	-3.2	58.2	0.6	-37.8
Apr.	-3.2	6.0	-1.2	-3.9	-4.0	1.5	5.0	-6.2	-7.9	2.1	16.8	0.2	-3.4

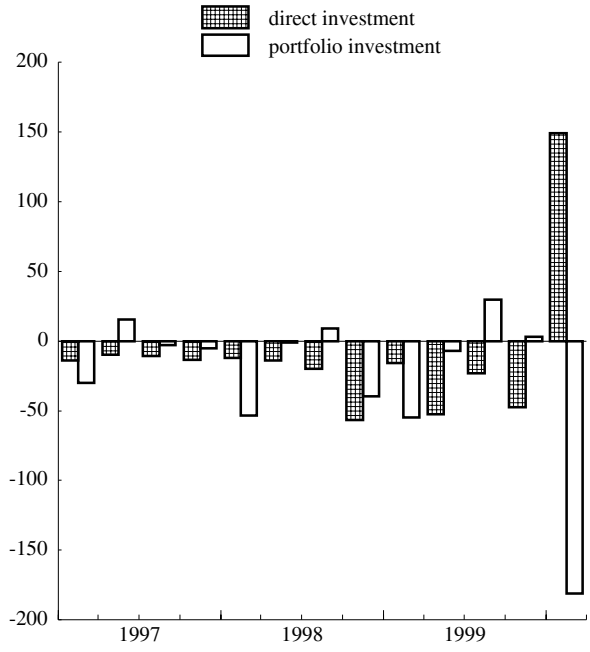
Current and capital accounts

(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	1,212.2	1,136.0	744.1	619.3	217.9	210.8	189.5	204.7	60.7	101.1	18.9	5.8
1998	1,264.0	1,220.6	772.4	653.6	232.0	232.8	198.5	227.3	61.1	106.9	17.8	5.1
1999	1,303.8	1,280.9	796.0	696.5	236.0	243.5	205.0	231.4	66.8	109.6	19.6	6.3
1999 Q1	300.8	294.4	179.7	158.2	50.7	53.9	46.6	53.0	23.8	29.3	4.4	1.7
Q2	325.2	316.6	193.1	168.2	59.3	59.1	58.0	65.1	14.8	24.2	4.6	1.2
Q3	323.2	318.7	199.9	173.2	62.5	63.6	47.9	54.4	12.9	27.5	3.1	1.5
Q4	354.7	351.3	223.4	196.9	63.6	66.8	52.5	59.0	15.3	28.6	7.5	2.0
2000 Q1	355.3	356.5	219.0	203.7	56.3	61.2	54.4	60.2	25.5	31.4	4.3	1.2
1999 Feb.	95.1	92.8	57.4	50.5	17.2	17.2	14.2	16.7	6.2	8.4	0.7	0.8
Mar.	110.4	103.9	68.8	59.0	18.7	19.0	17.7	19.3	5.3	6.6	0.6	0.5
Apr.	105.8	101.0	63.3	55.3	18.5	18.9	19.1	19.1	4.9	7.8	1.0	0.4
May	102.6	104.2	60.7	54.9	19.2	18.5	17.3	22.2	5.4	8.6	1.8	0.3
June	116.8	111.4	69.1	58.1	21.6	21.7	21.6	23.8	4.6	7.8	1.9	0.5
July	115.9	109.4	72.8	58.2	22.7	22.8	15.7	19.3	4.6	9.1	1.3	0.6
Aug.	98.3	97.0	58.8	52.3	19.1	19.6	16.2	16.1	4.2	9.0	1.0	0.4
Sep.	109.0	112.2	68.2	62.7	20.6	21.2	16.1	19.0	4.1	9.4	0.8	0.5
Oct.	115.7	113.5	74.0	63.5	20.9	21.1	15.9	19.8	4.9	9.1	2.0	0.5
Nov.	117.6	116.0	75.3	66.9	20.5	22.3	17.1	17.8	4.7	9.0	1.8	0.7
Dec.	121.3	121.8	74.1	66.4	22.2	23.4	19.5	21.4	5.6	10.6	3.7	0.8
2000 Jan.	110.8	117.4	63.7	62.8	17.8	19.7	16.4	20.6	13.0	14.3	1.8	0.4
Feb.	114.4	112.0	71.8	65.6	17.9	19.9	17.8	18.6	6.9	7.9	0.6	0.4
Mar.	130.0	127.1	83.5	75.4	20.7	21.6	20.3	20.9	5.6	9.2	1.9	0.4
Apr.	115.9	119.1	72.3	66.3	20.0	21.2	18.7	22.6	4.8	8.9	2.1	0.5

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	205.0	231.4	9.6	4.9	195.4	226.5	42.4	38.4	61.9	98.5	91.1	89.7
1999 Q1	46.6	53.0	2.3	0.9	44.4	52.1	7.8	8.8	13.6	21.7	23.0	21.6
Q2	58.0	65.1	2.3	1.3	55.7	63.8	12.7	8.1	17.4	31.4	25.5	24.3
Q3	47.9	54.4	2.3	1.4	45.6	53.0	9.5	9.8	15.7	22.4	20.4	20.7
Q4	52.5	59.0	2.7	1.3	49.7	57.6	12.4	11.6	15.2	23.0	22.2	23.0

	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	37.4	33.8	5.0	4.6	9.7	27.3	52.2	71.2	49.9	70.2	2.3	1.0
1999 Q1	6.9	8.0	0.9	0.9	1.6	3.7	12.0	18.0	11.6	17.3	0.5	0.7
Q2	11.5	7.0	1.2	1.1	3.3	12.8	14.1	18.6	13.5	18.1	0.6	0.5
Q3	8.2	8.6	1.3	1.2	2.4	4.9	13.3	17.5	12.7	17.7	0.6	-0.2
Q4	10.7	10.2	1.7	1.4	2.4	5.8	12.8	17.2	12.1	17.2	0.7	0.0

Source: ECB.

Table 8.4

Balance of payments: direct and portfolio investment accounts [1]

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

1. Direct investment; portfolio investment by instrument [2]

	Direct investment		Portfolio investment									
			Total		Equity		Debt instruments					
							Assets			Liabilities		
	Abroad	In the euro area	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	11	12
1997	-93.4	45.3	.	.	.	.	.	.	.	.	.	.
1998	-183.0	80.4	-302.1	216.8	-98.7	98.3	-203.3	-187.1	-16.3	118.5	102.7	15.8
1999	-212.9	74.1	-316.5	287.5	-153.7	97.7	-162.7	-149.0	-13.8	189.8	119.2	70.6
1999 Q1	-36.3	20.8	-65.3	10.7	-21.7	-5.4	-43.6	-43.8	0.1	16.1	2.9	13.2
Q2	-76.9	24.3	-85.6	78.6	-40.9	31.3	-44.7	-52.5	7.8	47.3	33.7	13.7
Q3	-26.9	3.6	-64.3	94.1	-37.2	27.1	-27.0	-21.0	-6.1	67.0	42.3	24.7
Q4	-72.7	25.4	-101.2	104.2	-53.9	44.8	-47.3	-31.7	-15.7	59.4	40.4	19.1
2000 Q1	-57.7	206.9	-130.8	-50.0	-102.2	-106.4	-28.7	-25.5	-3.1	56.4	30.6	25.8
1999 Feb.	-12.0	5.8	-16.2	-10.2	-4.3	1.9	-11.9	-13.2	1.3	-12.1	-18.0	6.0
Mar.	-12.5	7.9	-30.0	-7.1	-11.0	-16.9	-19.0	-21.2	2.3	9.7	5.2	4.5
Apr.	-23.3	8.7	-22.2	35.8	-11.7	8.2	-10.5	-14.8	4.3	27.6	27.7	-0.1
May	-28.3	9.1	-37.9	9.4	-15.7	10.8	-22.2	-23.3	1.1	-1.4	-9.2	7.8
June	-25.3	6.4	-25.5	33.4	-13.5	12.3	-12.0	-14.4	2.4	21.1	15.2	5.9
July	-3.6	-6.2	-22.0	18.8	-9.8	11.0	-12.2	-11.8	-0.3	7.8	0.4	7.4
Aug.	-12.8	5.6	-22.8	34.8	-14.8	5.5	-8.0	-6.5	-1.5	29.3	21.8	7.5
Sep.	-10.5	4.3	-19.5	40.4	-12.6	10.5	-6.9	-2.7	-4.2	29.9	20.1	9.8
Oct.	-15.2	7.9	-24.2	10.8	-13.2	10.2	-11.1	-5.4	-5.6	0.6	1.5	-0.9
Nov.	-22.4	3.0	-35.4	49.0	-18.3	16.1	-17.1	-12.2	-4.9	32.9	32.7	0.2
Dec.	-35.2	14.5	-41.5	44.4	-22.4	18.5	-19.1	-14.0	-5.1	25.9	6.2	19.7
2000 Jan.	-5.4	7.4	-25.1	7.6	-22.0	4.0	-3.1	-6.1	2.9	3.6	0.1	3.5
Feb.	-19.4	164.2	-68.1	-70.6	-52.6	-92.0	-15.5	-12.6	-2.9	21.4	5.6	15.8
Mar.	-33.0	35.4	-37.6	12.9	-27.6	-18.4	-10.0	-6.9	-3.2	31.4	24.9	6.5
Apr.	-18.6	12.4	-25.8	17.9	-18.2	-4.7	-7.6	-4.7	-2.8	22.6	13.9	8.7

2. Portfolio investment 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	-2.0	3.3	-155.1	0.7	-1.6	-17.7	-130.4	0.6	-0.1	-8.0	-6.2
1999 Q1	0.1	-0.4	1.1	-22.5	0.1	-0.4	5.1	-48.6	1.4	-0.2	-1.1	0.0
Q2	0.0	-0.3	-3.0	-37.7	0.8	-0.3	-10.5	-42.5	0.5	-0.5	1.1	6.6
Q3	0.0	-0.5	6.1	-42.9	0.1	-0.6	-4.4	-16.1	-1.0	0.4	-1.0	-4.4
Q4	-0.1	-0.9	-1.0	-51.9	-0.3	-0.3	-7.8	-23.3	-0.3	0.1	-7.0	-8.4

Source: ECB.

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

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

Table 8.5

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	-67.5	186.0	-0.7	3.5	-1.4	-7.7	-22.6	178.1	-34.2	34.8	11.6	143.3	-42.8	12.1
1999	-58.0	148.8	9.4	0.0	-0.7	-13.4	-24.8	137.4	-50.4	39.7	25.6	97.7	-41.9	24.7
1999 Q1	-34.6	67.7	2.9	0.0	-3.3	-4.2	-13.4	58.6	-13.9	7.1	0.6	51.5	-20.9	13.3
Q2	1.0	24.4	4.4	0.0	3.9	-2.9	8.2	19.4	-15.6	13.2	23.9	6.2	-15.6	7.8
Q3	-28.1	12.0	-0.3	0.0	-1.6	-2.4	-8.6	10.3	-14.3	8.1	5.7	2.2	-17.7	4.1
Q4	3.8	44.7	2.3	0.0	0.3	-3.9	-11.1	49.1	-6.5	11.3	-4.5	37.8	12.2	-0.5
2000 Q1	-69.5	163.5	-3.5	0.0	-6.4	-3.2	-29.5	169.1	-11.0	24.7	-18.5	144.4	-30.2	-2.4
1999 Feb.	30.9	3.9	-4.5	0.0	-2.2	-0.6	48.5	1.5	-0.6	-3.2	49.1	4.6	-10.9	3.1
Mar.	-0.8	-1.3	-1.0	0.0	-1.1	1.2	3.2	-8.1	-7.1	6.8	10.3	-14.9	-1.8	5.6
Apr.	10.5	-19.8	0.4	0.0	-0.2	0.3	15.0	-20.8	-4.7	2.7	19.7	-23.5	-4.8	0.7
May	-10.7	47.6	3.1	0.0	1.0	-0.9	-13.4	50.4	-3.9	6.1	-9.5	44.3	-1.4	-1.9
June	1.1	-3.5	0.9	0.0	3.0	-2.3	6.6	-10.1	-7.1	4.5	13.7	-14.6	-9.4	9.0
July	-14.2	2.7	0.8	0.0	-1.7	-1.2	-8.2	0.4	-2.1	3.7	-6.0	-3.2	-5.1	3.5
Aug.	-5.1	25.1	-1.5	0.0	0.2	-0.1	-2.6	26.3	-5.4	0.1	2.8	26.2	-1.2	-1.1
Sep.	-8.8	-15.8	0.5	0.0	-0.1	-1.1	2.2	-16.4	-6.8	4.3	9.0	-20.7	-11.4	1.7
Oct.	-16.8	53.9	0.3	0.0	-1.1	-1.1	-20.8	51.1	-3.1	3.5	-17.7	47.5	4.9	4.0
Nov.	-71.8	70.8	-1.7	0.0	1.1	-1.8	-68.5	71.6	1.0	-0.4	-69.4	72.0	-2.7	1.0
Dec.	92.3	-80.1	3.8	0.0	0.3	-1.0	78.2	-73.6	-4.4	8.2	82.5	-81.8	10.0	-5.5
2000 Jan.	-4.1	39.6	-0.3	0.0	-2.2	-1.2	8.3	41.3	-3.4	7.8	11.7	33.5	-9.9	-0.5
Feb.	-32.6	32.9	-1.8	0.0	-4.1	-0.5	-22.4	30.3	-2.9	8.3	-19.5	22.1	-4.4	3.1
Mar.	-32.8	91.0	-1.3	0.0	-0.1	-1.5	-15.4	97.5	-4.7	8.7	-10.7	88.8	-16.0	-5.0
Apr.	-26.0	42.8	3.1	0.0	0.9	0.5	-27.9	41.8	-5.2	4.9	-22.7	36.9	-2.1	0.5

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	10.0	0.0	10.0	-0.7	0.0	-0.7
1999 Q1	3.6	0.0	3.6	-0.7	0.0	-0.7
Q2	4.3	0.0	4.3	0.1	0.0	0.1
Q3	-0.3	0.0	-0.3	0.0	0.0	0.0
Q4	2.4	0.0	2.4	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	-0.3	0.0	-0.4	1.5	-13.1	-11.6	-1.9	-0.2	-2.1
1999 Q1	-0.2	0.0	-0.2	-2.9	-4.1	-7.0	-0.3	-0.1	-0.4
Q2	-0.1	0.0	-0.1	5.7	-2.7	3.0	-1.8	-0.2	-2.0
Q3	-0.1	0.0	-0.1	-1.2	-2.5	-3.7	-0.3	0.1	-0.2
Q4	-0.1	0.0	-0.1	-0.1	-3.9	-3.9	0.4	0.0	0.4

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	-25.9	137.0	111.2	1.1	0.4	1.5
1999 Q1	-17.1	61.3	44.2	3.7	-2.7	1.0
Q2	9.1	18.4	27.4	-0.8	1.1	0.2
Q3	-6.8	9.8	3.0	-1.8	0.5	-1.3
Q4	-11.1	47.6	36.6	0.0	1.5	1.5

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	-13.4	2.7	-10.8	-5.7	14.5	8.8	-22.8	7.5	-15.3
1999 Q1	-3.5	4.1	0.6	-11.8	3.4	-8.4	-5.5	5.8	0.2
Q2	-6.2	-2.9	-9.1	1.4	9.6	11.1	-10.8	1.0	-9.7
Q3	-2.9	-0.1	-3.0	-11.9	2.7	-9.2	-2.9	1.5	-1.4
Q4	-0.7	1.5	0.8	16.6	-1.2	15.4	-3.7	-0.8	-4.4

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	13.7	0.3	1.0	3.0	9.5	3.2	0.8	0.2	7.8	-2.4	-0.1	0.0
1999 Q1	5.5	0.0	2.5	0.0	3.3	1.5	3.0	0.0	1.3	-2.5	0.0	-0.3
Q2	6.6	0.0	-1.1	0.8	6.8	-4.6	-2.4	0.0	11.0	2.8	0.0	0.1
Q3	1.4	0.0	0.2	1.9	-0.9	5.3	-2.7	0.2	-3.2	-0.5	0.0	0.2
Q4	0.2	0.3	-0.7	0.3	0.4	0.9	3.0	0.0	-1.3	-2.2	-0.1	-0.1

Source: ECB.
1) Increase (-); decrease (+).

Table 8.6

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	42.2	114.4	129.9	-15.5	-599.6	-361.8	-237.8	-210.7	-27.0	-5.7	169.8	80.0	0.4	89.3	363.3
1998	-132.4	164.6	175.4	-10.8	-609.1	-475.5	-133.6	-125.5	-8.2	-3.6	-13.8	86.5	-172.2	71.9	329.4

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]

(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							Other claims	
						Total	Currency and deposits		Securities			Financial derivatives		
			In fine troy ounces (millions)				With monetary authorities and the BIS	With banks	Equity	Bonds and notes	Money market instruments			Claims on euro area residents denominated in foreign currency
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1998 Dec. [2]	329.4	99.6	404.131	5.1	23.4	199.8	12.5	18.3	0.0	116.7	52.4	0.0	1.5	7.6
1999 Dec.	372.4	116.4	402.758	4.5	24.2	225.2	-	-	-	-	-	0.0	2.0	14.4
2000 Jan. [3]	378.1	116.2	401.639	4.3	24.4	231.4	-	-	-	-	-	0.2	1.9	14.7
Feb. [3]	383.2	121.1	400.503	4.4	23.9	231.9	-	-	-	-	-	0.2	2.0	16.1
Mar.	385.4	116.0	400.503	4.4	24.8	238.9	-	-	-	-	-	0.2	1.2	17.0
Apr.	399.6	121.3	400.503	4.3	22.7	249.1	-	-	-	-	-	0.2	2.3	18.1
May	388.6	117.2	400.503	4.5	21.1	243.9	-	-	-	-	-	0.2	1.8	19.2

3. Reserves and related assets of the European Central Bank [4]

(EUR billions; end-of-period positions)

	Reserve assets													Memo: related assets
	Total	Monetary gold		Special drawing rights	Reserve position in the IMF	Foreign exchange							Other claims	
						Total	Currency and deposits		Securities			Financial derivatives		
			In fine troy ounces (millions)				With monetary authorities and the BIS	With banks	Equity	Bonds and notes	Money market instruments			Claims on euro area residents denominated in foreign currency
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1999 Dec.	49.3	6.9	24.030	0.0	0.0	41.0	-	-	-	-	-	0.0	1.4	2.6
2000 Jan.	50.0	7.0	24.030	0.0	0.0	41.7	-	-	-	-	-	0.0	1.3	3.2
Feb.	48.1	7.3	24.030	0.0	0.0	39.5	-	-	-	-	-	0.0	1.3	4.2
Mar.	49.8	7.0	24.030	0.0	0.0	42.0	-	-	-	-	-	0.0	0.9	4.3
Apr.	52.8	7.3	24.030	0.0	0.0	44.3	-	-	-	-	-	0.0	1.2	4.3
May	50.1	7.0	24.030	0.0	0.0	42.1	-	-	-	-	-	0.0	0.9	4.5

Source: ECB.

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

2) Position as at 1 January 1999.

3) 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.

4) Part of the Eurosystem's reserves.

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
1996	669.7	49.2	14.2	13.1	85.5	195.5	295.9	16.3	107.6	104.7	102.8
1997	762.8	52.8	16.3	14.4	99.0	216.6	342.8	20.9	122.5	115.9	105.7
1998	796.3	56.1	15.8	12.6	104.4	221.7	371.1	14.7	127.9	120.0	106.6
1999	829.7	55.2	16.3	13.5	113.7	224.1	383.1	23.8	133.3	122.3	109.0
1997 Q1	170.7	12.0	3.8	3.7	22.6	48.9	74.7	5.0	109.7	104.2	105.3
Q2	191.8	13.4	4.1	3.6	25.1	53.9	86.4	5.3	123.3	117.3	105.1
Q3	193.5	13.0	4.2	3.4	25.6	55.6	86.5	5.1	124.3	116.6	106.6
Q4	206.8	14.4	4.2	3.7	25.6	58.2	95.1	5.5	132.9	125.7	105.7
1998 Q1	194.5	13.8	4.2	3.4	26.7	54.7	88.0	3.7	125.0	115.9	107.8
Q2	204.5	14.6	3.9	3.3	27.0	56.6	95.5	3.7	131.4	123.1	106.8
Q3	195.9	13.5	3.9	3.0	25.8	55.3	91.0	3.6	125.9	118.2	106.5
Q4	201.4	14.2	3.8	2.9	25.0	55.1	96.7	3.7	129.4	122.8	105.4
1999 Q1	187.9	12.3	3.8	2.6	25.8	51.1	86.6	5.7	120.7	112.6	107.2
Q2	203.0	13.4	4.0	3.1	27.9	54.9	94.0	5.8	130.5	119.8	108.9
Q3	209.1	13.9	4.1	3.8	29.6	56.6	95.2	6.0	134.4	122.7	109.5
Q4	229.6	15.5	4.5	4.0	30.4	61.6	107.3	6.3	147.6	134.0	110.1
2000 Q1	227.6	13.2	4.8	4.7	31.8	61.5	103.9	7.8	146.3	.	.
1998 Feb.	63.8	4.5	1.4	1.0	8.6	18.1	28.9	1.2	123.0	114.1	107.8
Mar.	72.1	5.0	1.5	1.2	9.6	20.3	33.1	1.3	139.0	128.7	108.0
Apr.	68.2	4.9	1.3	1.1	9.2	19.0	31.3	1.3	131.4	122.9	106.9
May	65.9	4.8	1.3	1.1	8.7	18.3	30.7	1.2	127.1	118.9	106.9
June	70.5	4.9	1.3	1.1	9.1	19.3	33.5	1.2	135.9	127.3	106.7
July	73.0	4.8	1.3	1.1	9.3	21.1	34.2	1.2	140.8	131.7	106.9
Aug.	56.7	4.2	1.2	1.0	7.7	15.6	25.9	1.1	109.3	103.2	105.9
Sep.	66.2	4.5	1.3	0.9	8.8	18.5	30.9	1.3	127.6	119.7	106.6
Oct.	69.0	4.8	1.3	1.0	8.6	19.6	32.5	1.2	133.1	125.8	105.8
Nov.	67.1	4.8	1.3	1.0	8.1	18.2	32.5	1.3	129.3	123.3	104.8
Dec.	65.3	4.6	1.2	0.9	8.2	17.3	31.7	1.2	125.8	119.3	105.5
1999 Jan.	54.6	3.7	1.1	0.8	7.8	14.7	25.0	1.5	105.2	98.5	106.8
Feb.	60.2	4.0	1.2	0.8	8.2	16.5	27.4	2.1	116.1	108.6	106.9
Mar.	73.1	4.7	1.4	1.0	9.8	19.9	34.2	2.1	140.9	130.6	107.9
Apr.	65.9	4.3	1.3	1.0	9.1	17.7	30.6	1.7	127.0	116.6	108.9
May	63.7	4.5	1.3	1.0	9.0	17.3	28.8	1.8	122.8	113.2	108.5
June	73.5	4.6	1.3	1.1	9.8	19.8	34.5	2.2	141.6	129.6	109.3
July	76.3	4.6	1.4	1.2	10.3	20.8	35.7	2.4	147.0	133.0	110.6
Aug.	60.8	4.2	1.3	1.1	9.2	16.0	27.2	1.8	117.3	106.7	109.9
Sep.	72.0	5.1	1.4	1.5	10.1	19.7	32.4	1.9	138.9	128.6	108.0
Oct.	77.0	5.2	1.4	1.4	10.1	20.8	36.0	2.1	148.4	135.0	109.9
Nov.	77.2	5.3	1.5	1.2	10.6	20.7	35.8	2.0	148.7	136.6	108.9
Dec.	75.5	5.0	1.6	1.4	9.7	20.1	35.5	2.2	145.5	130.6	111.4
2000 Jan.	65.7	4.0	1.4	1.5	9.3	17.5	30.1	2.0	126.6	111.8	113.3
Feb.	75.7	4.4	1.6	1.6	10.7	20.7	34.6	2.0	145.9	127.1	114.8
Mar.	86.3	4.8	1.8	1.6	11.8	23.3	39.2	3.8	166.3	.	.
Apr.	73.9	.	.	.	.	.	.	.	142.4	.	.

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 manu-factured 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
1996	593.9	46.6	36.5	71.6	54.1	167.0	193.6	24.6	105.5	102.9	102.6
1997	674.2	49.7	41.3	81.2	62.0	188.1	228.8	23.1	119.8	110.3	108.6
1998	711.0	55.1	41.3	58.5	68.0	202.0	270.1	16.1	126.3	123.0	102.7
1999	772.4	51.1	38.8	76.5	70.7	209.0	302.7	23.6	137.3	129.2	106.2
1997 Q1	159.1	11.4	9.7	21.2	14.7	44.6	51.8	5.8	113.1	106.0	106.7
Q2	168.0	12.6	11.0	18.6	16.0	46.5	57.5	5.7	119.4	111.4	107.2
Q3	166.6	12.2	10.0	20.0	15.2	48.9	55.6	4.7	118.5	106.9	110.8
Q4	180.4	13.5	10.6	21.4	16.1	48.2	63.8	6.8	128.2	117.0	109.6
1998 Q1	179.9	13.7	10.9	16.4	17.7	51.6	65.3	4.3	127.9	119.2	107.3
Q2	179.2	13.7	11.1	15.1	17.3	50.4	67.2	4.3	127.4	121.6	104.7
Q3	171.1	13.4	9.7	13.8	16.4	50.8	63.4	3.6	121.6	119.5	101.8
Q4	180.8	14.3	9.6	13.2	16.5	49.2	74.1	3.9	128.5	131.9	97.4
1999 Q1	176.2	12.0	9.1	12.4	17.0	49.8	70.5	5.5	125.2	126.8	98.8
Q2	188.1	12.7	10.0	16.8	17.6	50.3	74.9	5.8	133.7	128.8	103.8
Q3	192.4	12.6	9.4	21.2	17.1	54.0	72.4	5.7	136.8	125.0	109.4
Q4	215.7	13.9	10.2	26.1	19.0	54.9	84.9	6.6	153.3	136.3	112.5
2000 Q1	228.7	12.2	11.3	32.1	19.7	59.6	84.7	9.1	162.5	.	.
1998 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	24.1	1.3	137.1	128.6	106.6
Apr.	60.1	4.8	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	115.7	104.9
June	62.1	4.6	3.9	4.7	6.0	17.8	23.4	1.8	132.5	127.8	103.7
July	59.3	4.7	3.6	4.7	6.0	17.8	21.2	1.3	126.4	123.6	102.2
Aug.	50.1	4.1	2.8	4.4	4.7	15.0	18.1	1.0	106.9	105.7	101.1
Sep.	61.8	4.6	3.3	4.7	5.8	17.9	24.1	1.4	131.7	129.2	101.9
Oct.	62.5	4.8	3.3	4.7	5.8	17.4	25.1	1.4	133.2	133.9	99.5
Nov.	59.7	4.6	3.1	4.2	5.4	16.2	24.9	1.3	127.3	131.8	96.6
Dec.	58.6	5.0	3.1	4.3	5.3	15.7	24.2	1.2	125.0	130.2	96.0
1999 Jan.	54.1	3.7	2.9	4.1	5.1	15.3	21.2	1.7	115.4	117.7	98.1
Feb.	55.6	3.7	2.9	3.8	5.5	16.0	21.8	1.9	118.5	120.6	98.3
Mar.	66.5	4.5	3.3	4.5	6.4	18.5	27.5	1.9	141.8	142.1	99.8
Apr.	61.0	4.1	3.3	5.6	5.7	15.9	24.5	1.9	130.1	127.1	102.4
May	62.0	4.2	3.3	5.7	5.7	16.4	24.9	1.8	132.3	126.5	104.6
June	65.0	4.4	3.5	5.4	6.1	18.0	25.6	2.0	138.7	132.6	104.6
July	64.1	4.3	3.3	6.7	5.7	18.3	23.9	1.9	136.7	126.7	107.9
Aug.	57.9	4.0	2.6	7.0	5.2	16.2	21.3	1.7	123.6	112.3	110.0
Sep.	70.4	4.3	3.4	7.6	6.3	19.4	27.2	2.1	150.1	136.2	110.2
Oct.	69.6	4.4	3.3	7.9	6.3	18.5	27.0	2.3	148.4	133.4	111.3
Nov.	73.4	4.7	3.5	8.4	6.6	18.6	29.4	2.3	156.6	141.3	110.8
Dec.	72.6	4.7	3.4	9.8	6.1	17.8	28.6	2.1	154.9	134.2	115.4
2000 Jan.	70.7	4.0	3.5	10.5	5.8	18.4	26.2	2.3	150.7	128.3	117.5
Feb.	74.3	3.9	3.6	10.6	6.7	19.9	27.1	2.4	158.4	132.3	119.7
Mar.	83.7	4.3	4.1	11.0	7.2	21.3	31.4	4.4	178.5	.	.
Apr.	72.8	.	.	.	.	.	.	.	155.2	.	.

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
1996	75.8	2.7	-22.3	-58.5	31.4	28.5	102.3	-8.3
1997	88.6	3.2	-25.0	-66.8	37.0	28.5	114.0	-2.2
1998	85.3	1.0	-25.5	-45.9	36.4	19.7	101.0	-1.4
1999	57.3	4.0	-22.5	-63.1	43.0	15.1	80.4	0.2
1997 Q1	11.6	0.6	-5.8	-17.5	7.9	4.3	22.8	-0.8
Q2	23.8	0.7	-6.9	-15.0	9.1	7.4	28.9	-0.4
Q3	26.8	0.9	-5.9	-16.6	10.4	6.8	30.9	0.3
Q4	26.3	1.0	-6.4	-17.7	9.5	10.0	31.3	-1.3
1998 Q1	14.6	0.1	-6.7	-13.0	9.0	3.2	22.7	-0.7
Q2	25.4	0.9	-7.2	-11.7	9.6	6.1	28.2	-0.6
Q3	24.8	0.1	-5.8	-10.9	9.3	4.5	27.6	0.0
Q4	20.6	-0.1	-5.7	-10.3	8.5	5.9	22.6	-0.2
1999 Q1	11.7	0.4	-5.3	-9.8	8.9	1.3	16.1	0.2
Q2	14.9	0.8	-6.1	-13.7	10.3	4.5	19.1	0.0
Q3	16.7	1.2	-5.3	-17.4	12.5	2.6	22.8	0.3
Q4	14.0	1.7	-5.8	-22.1	11.3	6.8	22.4	-0.3
2000 Q1	-1.0	1.0	-6.5	-27.4	12.1	1.9	19.2	-1.4
1998 Feb.	5.9	0.3	-2.2	-4.3	3.1	1.4	8.1	-0.4
Mar.	7.8	0.1	-2.3	-4.1	3.1	2.0	9.0	0.0
Apr.	8.0	0.1	-2.4	-4.1	3.4	2.2	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	0.0	-2.2	-3.6	3.3	3.3	13.0	0.0
Aug.	6.6	0.1	-1.6	-3.5	3.0	0.6	7.7	0.1
Sep.	4.4	-0.1	-2.0	-3.8	3.0	0.5	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	7.7	0.0
Dec.	6.6	-0.3	-1.9	-3.3	2.9	1.7	7.5	0.1
1999 Jan.	0.4	0.0	-1.8	-3.4	2.7	-0.7	3.8	-0.2
Feb.	4.6	0.2	-1.7	-3.0	2.8	0.5	5.6	0.2
Mar.	6.6	0.1	-1.8	-3.5	3.4	1.5	6.8	0.2
Apr.	4.8	0.2	-1.9	-4.6	3.4	1.8	6.2	-0.2
May	1.7	0.3	-2.0	-4.8	3.2	1.0	3.9	0.0
June	8.4	0.3	-2.1	-4.3	3.7	1.8	9.0	0.2
July	12.2	0.3	-2.0	-5.5	4.7	2.5	11.7	0.5
Aug.	2.9	0.3	-1.3	-5.8	4.0	-0.2	5.9	0.0
Sep.	1.7	0.7	-2.0	-6.1	3.8	0.3	5.1	-0.2
Oct.	7.4	0.7	-1.9	-6.5	3.7	2.3	9.1	-0.2
Nov.	3.7	0.6	-2.1	-7.2	4.1	2.2	6.5	-0.2
Dec.	2.9	0.3	-1.8	-8.4	3.5	2.3	6.8	0.1
2000 Jan.	-5.0	0.0	-2.1	-9.1	3.5	-0.8	3.9	-0.4
Feb.	1.4	0.5	-2.0	-9.0	4.0	0.7	7.5	-0.4
Mar.	2.5	0.5	-2.4	-9.3	4.6	1.9	7.8	-0.6
Apr.	1.1	.	.	.	.	.	.	.

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	107.9	112.8	95.4	105.9	1.270	138.1	1.568	0.814
1997	99.1	99.4	99.5	101.1	90.4	96.6	1.134	137.1	1.644	0.692
1998	101.5	101.3	101.8	99.7	96.6	99.1	1.121	146.4	1.622	0.676
1999	95.7	95.7	96.0	95.8	96.6	95.8	1.066	121.3	1.600	0.659
1999 Q2	96.1	96.0	96.1	96.6	96.5	96.0	1.057	127.7	1.600	0.658
Q3	94.6	94.7	95.0	94.6	95.5	94.6	1.049	118.7	1.602	0.655
Q4	92.2	92.2	92.8	92.1	94.2	92.6	1.038	108.4	1.600	0.636
2000 Q1	89.0	89.8	90.4	88.3	91.1	89.5	0.986	105.5	1.607	0.614
Q2	86.0	86.7	87.4	85.7	88.4	86.6	0.933	99.6	1.563	0.610
1999 Feb.	99.9	99.9	99.8	-	100.0	100.0	1.121	130.8	1.598	0.689
Mar.	98.3	98.3	98.5	-	98.7	98.6	1.088	130.2	1.595	0.671
Apr.	97.1	96.9	97.2	-	97.5	97.2	1.070	128.2	1.602	0.665
May	96.6	96.5	96.6	-	96.9	96.4	1.063	129.7	1.603	0.658
June	94.7	94.6	94.6	-	95.1	94.4	1.038	125.3	1.595	0.650
July	94.8	95.2	95.2	-	95.0	94.5	1.035	123.7	1.604	0.658
Aug.	95.4	95.6	95.8	-	96.3	95.5	1.060	120.1	1.600	0.660
Sep.	93.6	93.4	93.9	-	95.2	93.8	1.050	112.4	1.602	0.647
Oct.	94.4	94.2	94.8	-	96.3	94.7	1.071	113.5	1.594	0.646
Nov.	92.0	92.0	92.8	-	94.0	92.4	1.034	108.2	1.605	0.637
Dec.	90.1	90.3	90.8	-	92.2	90.7	1.011	103.7	1.601	0.627
2000 Jan.	90.2	90.8	91.4	-	92.4	90.7	1.014	106.5	1.610	0.618
Feb.	89.2	90.1	90.6	-	91.2	89.7	0.983	107.6	1.607	0.615
Mar.	87.7	88.4	89.3	-	89.7	88.2	0.964	102.6	1.604	0.611
Apr.	86.1	86.8	87.6	-	88.4	86.8	0.947	99.9	1.574	0.598
May	84.5	85.2	85.9	-	86.9	85.1	0.906	98.1	1.556	0.602
June	87.4	88.2	88.7	-	89.9	87.8	0.949	100.7	1.561	0.629
% ch. vs. [4] prev. month										
2000 June	3.4	3.5	3.3	-	3.5	3.2	4.8	2.7	0.3	4.6
% ch. vs. [4] prev. year										
2000 June	-7.8	-6.9	-6.2	-	-5.4	-7.0	-8.5	-19.6	-2.2	-3.2

Source: ECB.

1) *ECB calculations; 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. The narrow group is composed of the countries whose currencies are shown in the table. 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 Zeland, 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.*

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

3) *As the ECB does not provide official reference rates for these currencies, indicative rates are shown.*

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.*

Bilateral ECU or euro exchange rates [2]										
Swedish krona	Danish krone	Greek drachma	Norwegian krone	Canadian dollar	Australian dollar	Hong Kong dollar [3]	Korean won [3]	Singapore dollar [3]	
11	12	13	14	15	16	17	18	19	
8.51	7.36	305.5	8.20	1.731	1.623	9.68	1,007.9	1.765	1996
8.65	7.48	309.3	8.02	1.569	1.528	8.75	1,069.8	1.678	1997
8.92	7.50	330.7	8.47	1.665	1.787	8.69	1,568.9	1.876	1998
8.81	7.44	325.8	8.31	1.584	1.652	8.27	1,267.3	1.806	1999
8.90	7.43	325.0	8.24	1.557	1.618	8.19	1,258.8	1.810	1999 Q2
8.71	7.44	326.1	8.22	1.558	1.613	8.14	1,252.8	1.772	Q3
8.65	7.44	329.2	8.19	1.528	1.613	8.07	1,217.4	1.737	Q4
8.50	7.45	332.7	8.11	1.434	1.564	7.68	1,109.8	1.674	2000 Q1
8.28	7.46	336.2	8.20	1.381	1.585	7.27	1,042.0	1.608	Q2
8.91	7.44	322.0	8.65	1.679	1.751	8.68	1,330.2	1.905	1999 Feb.
8.94	7.43	322.5	8.51	1.651	1.726	8.43	1,336.2	1.881	Mar.
8.91	7.43	325.5	8.32	1.594	1.668	8.30	1,292.2	1.834	Apr.
8.97	7.43	325.2	8.23	1.553	1.605	8.24	1,272.1	1.820	May
8.83	7.43	324.2	8.17	1.524	1.580	8.05	1,212.6	1.775	June
8.74	7.44	325.0	8.18	1.540	1.576	8.03	1,229.4	1.756	July
8.75	7.44	326.4	8.26	1.583	1.645	8.23	1,269.1	1.779	Aug.
8.63	7.43	327.0	8.23	1.552	1.619	8.15	1,260.1	1.781	Sep.
8.73	7.43	329.2	8.29	1.581	1.641	8.32	1,289.9	1.793	Oct.
8.63	7.44	328.7	8.19	1.516	1.618	8.04	1,215.9	1.727	Nov.
8.59	7.44	329.7	8.10	1.491	1.580	7.86	1,149.6	1.694	Dec.
8.60	7.44	331.1	8.12	1.469	1.542	7.89	1,145.9	1.697	2000 Jan.
8.51	7.45	333.2	8.10	1.427	1.564	7.65	1,110.8	1.674	Feb.
8.39	7.45	333.9	8.11	1.408	1.583	7.51	1,076.1	1.654	Mar.
8.27	7.45	335.2	8.15	1.389	1.588	7.38	1,051.4	1.620	Apr.
8.24	7.46	336.6	8.20	1.355	1.570	7.06	1,015.3	1.566	May
8.32	7.46	336.6	8.25	1.402	1.597	7.40	1,061.1	1.641	June
									% ch. vs. [4] prev. month
0.9	0.0	0.0	0.6	3.5	1.7	4.8	4.5	4.7	2000 June
									% ch. vs. [4] prev. year
-5.8	0.4	3.9	1.0	-8.0	1.0	-8.1	-12.5	-7.6	2000 June

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	0.5	61.3	6.26	7.48	0.6	1.4	3.1	5.6	5.6	4.7	3.73
1998	1.3	1.2	55.6	4.94	7.50	-1.1	2.6	2.5	2.3	5.2	4.6	4.27
1999	2.1	3.0	52.6	4.91	7.44	1.3	3.5	1.7	2.2	5.2	4.2	3.44
1999 Q2	1.8	-	-	4.50	7.43	1.6	3.9	2.3	5.7	5.3	4.9	3.13
Q3	2.3	-	-	5.35	7.44	1.6	3.1	1.4	-0.6	5.1	3.4	3.19
Q4	2.8	-	-	5.57	7.44	0.4	0.9	2.5	5.2	4.9	4.1	3.78
2000 Q1	2.8	-	-	5.79	7.45	0.4	.	1.7	4.5	4.9	2.2	3.95
Q2	.	-	-	.	7.46	.	.	.	.	.	.	4.73
1999 Dec.	3.1	-	-	5.50	7.44	-	-	-	9.3	4.9	4.1	3.80
2000 Jan.	2.8	-	-	5.87	7.44	-	-	-	5.5	5.0	0.8	3.72
Feb.	2.8	-	-	5.85	7.45	-	-	-	4.5	4.8	2.1	3.93
Mar.	3.0	-	-	5.65	7.45	-	-	-	3.6	4.8	3.9	4.18
Apr.	2.9	-	-	5.57	7.45	-	-	-	10.0	4.7	-0.9	4.32
May	2.8	-	-	5.77	7.46	-	-	-	.	4.7	1.5	4.70
June	.	-	-	.	7.46	-	-	-	.	.	.	5.14
Greece												
1997	5.4	-4.6	108.5	9.92	309.3	-4.1	8.4	3.4	1.0	7.9	11.8	12.48
1998	4.5	-3.1	105.4	8.48	330.7	-3.1	5.5	3.7	3.4	10.0	10.2	13.53
1999	2.1	-1.6	104.4	6.30	325.8	-4.1	2.5	3.5	0.5	.	7.6	10.08
1999 Q2	2.0	-	-	5.87	325.0	-	-	-	0.5	.	7.3	9.80
Q3	1.4	-	-	6.56	326.1	-	-	-	1.5	.	6.6	9.86
Q4	2.0	-	-	6.68	329.2	-	-	-	0.6	.	6.4	10.13
2000 Q1	2.6	-	-	6.44	332.7	-	-	-	.	.	5.3	8.71
Q2	.	-	-	6.11	336.2	-	-	-	.	.	.	8.33
1999 Dec.	2.3	-	-	6.39	329.7	-	-	-	1.6	.	5.6	9.57
2000 Jan.	2.4	-	-	6.60	331.1	-	-	-	.	.	5.9	8.92
Feb.	2.6	-	-	6.48	333.2	-	-	-	.	.	4.7	8.51
Mar.	2.8	-	-	6.24	333.9	-	-	-	.	.	5.4	8.69
Apr.	2.1	-	-	6.09	335.2	-	-	-	.	.	9.4	8.48
May	2.6	-	-	6.18	336.6	-	-	-	.	.	.	8.30
June	.	-	-	6.06	336.6	-	-	-	.	.	.	8.22
Sweden												
1997	1.8	-2.0	75.0	6.62	8.65	-	0.4	2.0	7.2	9.9	4.2	4.43
1998	1.0	1.9	72.4	4.99	8.92	3.3	1.6	3.0	4.2	8.3	3.5	4.36
1999	0.6	1.9	65.5	4.98	8.81	1.6	0.1	3.8	1.1	7.2	6.8	3.32
1999 Q2	0.3	-	-	4.54	8.90	0.9	0.3	3.7	0.9	7.2	6.5	3.07
Q3	0.7	-	-	5.48	8.71	2.8	0.3	3.8	-0.7	7.1	6.1	3.22
Q4	1.0	-	-	5.69	8.65	0.8	-0.8	3.8	3.1	6.8	9.1	3.69
2000 Q1	1.2	-	-	5.79	8.50	3.1	7.2	3.9	6.3	6.5	8.7	3.99
Q2	.	-	-	5.30	8.28	.	.	.	.	.	.	4.09
1999 Dec.	1.2	-	-	5.59	8.59	-	-	-	1.1	6.8	9.9	3.63
2000 Jan.	1.0	-	-	5.95	8.60	-	-	-	5.8	6.6	8.6	3.70
Feb.	1.4	-	-	5.90	8.51	-	-	-	5.8	6.6	9.1	4.10
Mar.	1.4	-	-	5.51	8.39	-	-	-	7.3	6.4	8.4	4.16
Apr.	1.0	-	-	5.42	8.27	-	-	-	13.5	6.1	9.9	4.14
May	1.3	-	-	5.34	8.24	-	-	-	.	6.1	.	4.10
June	.	-	-	5.13	8.32	-	-	-	.	.	.	4.05
United Kingdom												
1997	1.8	-2.0	50.8	7.13	0.692	0.9	2.9	3.5	1.6	7.0	11.2	6.92
1998	1.6	0.3	48.4	5.60	0.676	0.0	3.7	2.6	0.3	6.3	9.7	7.42
1999	1.3	1.2	46.0	5.01	0.659	-1.3	4.0	2.1	0.1	6.1	5.2	5.54
1999 Q2	1.4	-2.4	46.7	4.82	0.658	-0.9	4.7	1.7	-1.7	6.1	6.7	5.30
Q3	1.2	1.5	45.8	5.39	0.655	-1.8	3.8	2.3	1.3	6.0	3.5	5.28
Q4	1.2	1.5	45.6	5.46	0.636	-0.7	3.2	2.8	2.4	5.9	3.5	5.98
2000 Q1	0.8	7.0	43.4	5.60	0.614	.	.	3.0	1.8	5.8	3.7	6.20
Q2	.	.	.	5.31	0.610	.	.	.	.	.	.	6.28
1999 Dec.	1.2	-1.5	45.6	5.36	0.627	-	-	-	3.7	6.0	4.0	6.06
2000 Jan.	0.8	18.2	43.7	5.83	0.618	-	-	-	-0.1	5.9	3.0	6.14
Feb.	1.0	1.6	43.2	5.63	0.615	-	-	-	2.4	5.8	2.9	6.24
Mar.	0.7	1.6	43.6	5.34	0.611	-	-	-	2.9	5.7	5.2	6.23
Apr.	0.6	1.7	43.2	5.30	0.598	-	-	-	1.5	.	.	6.30
May	0.5	-2.8	42.8	5.41	0.602	-	-	-	.	.	.	6.30
June	.	.	.	5.21	0.629	-	-	-	.	.	.	6.23

Sources: Eurostat (columns 1, 8, 9 (United Kingdom) and 10 (except Greece)); 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), 9 (except United Kingdom), 10 (Greece) and 11); ECB calculation (column 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' contribution to social security.
4) Manufacturing; adjusted for working days.
5) Average of end-month values; M3; M4 for Greece and United Kingdom.

12 Economic and financial developments outside the EU

Table 12.1

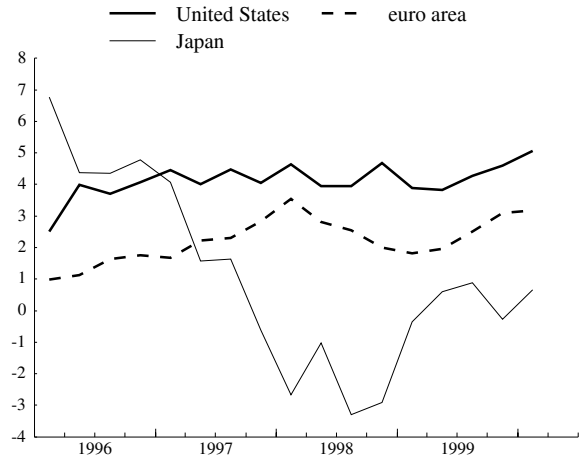
Economic and financial developments

(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						
1996	2.9	-2.3	3.6	4.7	5.4	4.8	5.51	6.54	1.270	-2.2	58.8
1997	2.3	0.0	4.2	7.0	4.9	4.9	5.76	6.45	1.134	-0.9	56.5
1998	1.6	0.7	4.3	4.9	4.5	7.4	5.57	5.33	1.121	0.4	53.5
1999	2.2	-1.7	4.2	4.2	4.2	7.5	5.42	5.64	1.066	1.0	50.5
1999 Q1	1.7	-1.6	3.9	3.5	4.3	8.5	5.00	4.98	1.122	0.8	53.1
Q2	2.1	-1.4	3.8	4.1	4.3	8.0	5.07	5.54	1.057	1.0	51.4
Q3	2.3	-0.8	4.3	4.4	4.2	7.5	5.44	5.88	1.049	1.2	50.6
Q4	2.6	-3.1	4.6	4.8	4.1	6.1	6.14	6.13	1.038	1.0	50.5
2000 Q1	3.2	-3.7	5.1	5.9	4.1	5.8	6.11	6.48	0.986	1.8	49.5
Q2	.	.	.	.	.	.	6.63	6.18	0.933	.	.
2000 Jan.	2.7	-	-	5.8	4.0	5.8	6.04	6.66	1.014	-	-
Feb.	3.2	-	-	5.7	4.1	5.5	6.10	6.52	0.983	-	-
Mar.	3.7	-	-	6.2	4.1	6.0	6.20	6.26	0.964	-	-
Apr.	3.0	-	-	6.5	3.9	6.3	6.31	6.00	0.947	-	-
May	3.1	-	-	6.2	4.1	5.5	6.75	6.42	0.906	-	-
June	.	-	-	.	.	.	6.79	6.10	0.949	-	-
					Japan						
1996	0.1	-1.9	5.1	2.3	3.4	3.3	0.57	3.03	138.1	-2.9	-
1997	1.7	-2.2	1.6	3.6	3.4	3.1	0.62	2.15	137.1	-2.7	-
1998	0.6	6.3	-2.5	-7.1	4.1	4.4	0.66	1.30	146.4	-10.3	-
1999	-0.3	-2.5	0.2	0.8	4.7	3.7	0.22	1.75	121.3	-10.4	-
1999 Q1	-0.1	3.0	-0.4	-3.8	4.6	4.0	0.36	1.97	130.7	-	-
Q2	-0.3	-1.7	0.6	-0.6	4.7	4.1	0.12	1.53	127.7	-	-
Q3	0.0	-5.0	0.9	3.1	4.7	3.6	0.10	1.78	118.7	-	-
Q4	-1.0	-5.9	-0.3	4.8	4.6	3.0	0.29	1.77	108.4	-	-
2000 Q1	-0.7	-7.0	0.7	6.2	4.8	2.2	0.14	1.79	105.5	-	-
Q2	.	.	.	.	.	.	0.12	1.72	99.6	-	-
2000 Jan.	-0.9	-6.7	-	6.1	4.7	2.6	0.15	1.71	106.5	-	-
Feb.	-0.6	-8.6	-	8.2	4.9	2.1	0.13	1.83	107.6	-	-
Mar.	-0.5	-5.5	-	4.6	4.9	1.9	0.14	1.81	102.6	-	-
Apr.	-0.8	.	-	6.4	4.8	2.9	0.12	1.75	99.9	-	-
May	-0.7	.	-	7.4	4.6	2.2	0.10	1.71	98.1	-	-
June	.	.	-	.	.	.	0.13	1.69	100.7	-	-

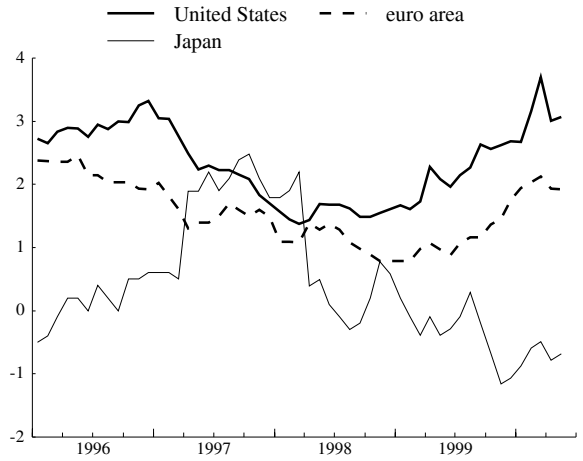
Real gross domestic product

(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

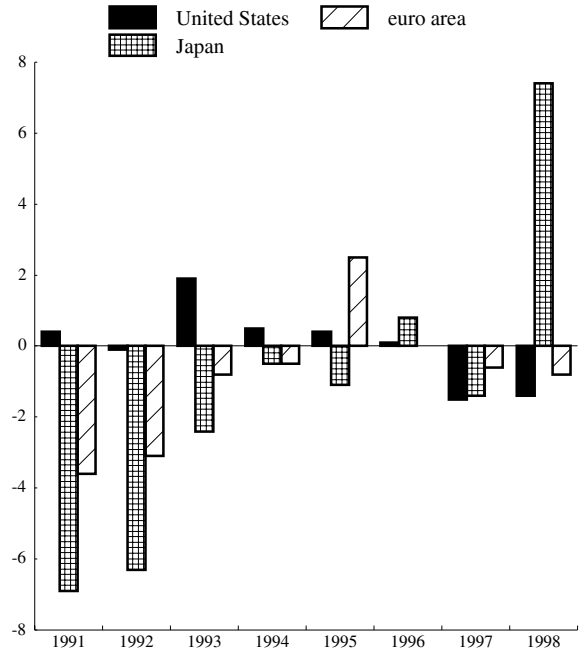
Saving, investment and financing

(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							
1996	17.3	19.1	-1.4	8.8	8.4	5.2	8.7	5.1	1.1	11.8	5.0	13.0	4.8
1997	18.3	19.8	-1.5	9.4	8.5	1.9	8.8	3.4	1.9	11.7	3.2	12.6	4.6
1998	18.8	20.5	-2.3	9.5	8.7	4.0	8.7	5.4	1.7	12.1	5.1	12.2	5.7
1999	18.7	20.7	-3.4	9.5	9.1	6.3	8.6	7.5	3.6	12.7	4.9	11.5	6.7
1998 Q2	18.6	20.3	-2.2	9.3	8.7	3.4	8.7	4.5	3.9	12.1	7.8	12.1	5.6
Q3	18.9	20.6	-2.6	9.6	8.7	4.4	8.6	5.8	0.6	12.1	3.7	12.0	5.3
Q4	18.8	20.7	-2.6	9.5	8.9	1.8	8.6	3.4	-0.9	12.4	4.5	12.2	6.1
1999 Q1	19.0	20.8	-2.8	9.4	8.9	8.2	8.7	9.2	6.4	12.6	3.2	11.9	6.4
Q2	18.7	20.5	-3.3	9.4	9.3	6.1	8.7	7.1	0.2	12.8	5.4	11.7	6.7
Q3	18.7	20.8	-3.6	9.5	9.1	6.6	8.6	7.9	3.7	12.7	4.4	11.3	6.6
Q4	18.3	20.9	-4.0	9.7	8.9	4.3	8.5	5.8	4.3	12.6	6.6	11.1	7.1
2000 Q1	18.1	21.0	-4.3	9.7	9.3	6.2	8.6	7.6	6.0	12.9	4.7	10.4	7.7
						Japan							
1996	31.3	29.8	1.4	16.1	15.6	1.7	15.1	0.3	1.0	6.7	6.4	13.3	1.1
1997	31.2	28.7	2.6	16.6	16.1	3.3	13.7	1.2	0.1	5.4	7.1	13.4	0.7
1998	29.3	26.4	3.1	14.5	14.6	-6.4	15.1	-9.3	-1.3	5.0	6.0	13.7	-0.1
1999	.	25.9	.	.	.	1.6	.	-2.6	1.5	.	6.6	.	0.6
1998 Q2	.	24.8	.	.	.	-32.6	.	-14.2	0.4	.	12.9	.	-6.2
Q3	.	26.9	.	.	.	4.2	.	-2.6	1.5	.	4.2	.	2.0
Q4	.	26.9	.	.	.	12.6	.	-6.5	-6.4	.	12.7	.	-0.6
1999 Q1	.	26.9	.	.	.	0.6	.	-12.4	-2.4	.	-4.4	.	9.8
Q2	.	24.2	.	.	.	-18.2	.	-14.2	1.9	.	15.2	.	-7.2
Q3	.	26.4	.	.	.	7.6	.	-2.7	1.5	.	3.3	.	2.6
Q4	.	26.9	.	.	.	18.2	.	17.6	7.3	.	10.5	.	-3.7
2000 Q1	.	26.2	.	.	.	8.0	.	-5.8	-4.7	.	2.8	.	8.7

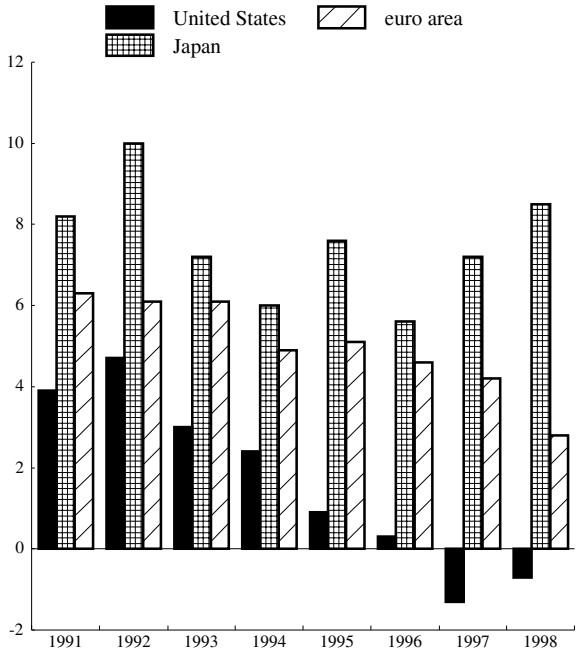
Net lending of non-financial corporations

(as a percentage of GDP)



Net lending of households [1]

(as a percentage of GDP)



Sources: ECB, Federal Reserve Board, Bank of Japan and Economic Planning Agency.

1) Households including non-profit institutions serving households.

Technical notes

Relating to Table 2.4

Seasonal adjustment of the euro area monetary aggregates

Multiplicative versions of X-12-ARIMA (version 0.2.2[1]) and TRAMO/SEATS[2] (beta version, July 1998) are used. For technical reasons, the results of X-12-ARIMA are published as the official figures. 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 (Table 2.4.1). 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.

Calculation of growth rates

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

If F_t represents the flow in month t, L_t the level outstanding at the end of month t, X_t the rate of change in month t defined as $X_t = (F_t \div L_{t-1} + 1)$, and I_t the index of 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) $a_t = (I_t \div I_{t-12} - 1) * 100$

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 (http://www.ecb.int) on the "Euro area statistics – download" page (in csv file format), from which the exact percentage changes shown in Table 2.4 may be calculated.

1 *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.*

2 *For details 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 and published by the European Central Bank (ECB) was laid down in the document entitled the "Statistical requirements for Stage Three of Monetary Union (Implementation package)" which was made available to banking associations and others involved in statistical preparations for Stage Three by the European Monetary Institute (EMI) and the national central banks (NCBs) in July 1996. The "Implementation package" covers money and banking statistics, balance of payments statistics, international investment position statistics, financial accounts statistics, price and cost and other economic statistics.[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 (http://www.ecb.int), and new or expanded data will appear in the ECB Monthly Bulletin as they become available.

Because 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 5 July 2000.

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

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 have been amended to 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 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).

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).*

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, redemptions and amounts outstanding are shown in Table 3.5, with a sectoral breakdown of issuers of euro-denominated securities, whether resident in the euro area or elsewhere, in Table 3.6. 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 the securities issues statistics is at present somewhat narrower. Pages 17-18 of the November 1999 issue of the ECB Monthly Bulletin give more detail on these statistics.

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. Estimates for periods before 1995 based on national consumer price indices are not fully comparable. The index is based on national HICPs that follow the same methodology in all euro area countries. Data from January 2000 include the cost of health and educational services; 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.

With regard to statistics on national accounts (Tables 4.2 and 5.1), the implementation of the European System of Accounts 1995 (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 mainly 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

The "Implementation package" foresaw a need for detailed information covering the financial transactions and balance sheets for the euro area in order to complement monetary analysis and policy research. The aim is to provide a fairly full, though not complete, set of financial accounts for the euro area based on money and banking, balance of payments, capital market,

non-MFI financial corporation and government finance statistics, and drawing also on the ESA 95 national accounts. Table 6 shows euro area aggregates based on national capital and financial accounts.

A more detailed and further harmonised set of statistics presenting financial accounts for the euro area is expected to appear in the ECB Monthly Bulletin later this year.

General government fiscal position

The general government fiscal position in the euro area is presented in Table 7 by reference to general government receipts, expenditure, saving, deficit and debt as a percentage of GDP. These data are aggregated by the ECB from harmonised data provided by the NCBs.

In addition, general government deficit and debt data are shown for individual euro area countries owing to their importance in the framework of the Stability and Growth Pact.

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 8.5) 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 1 December 1998 (ECB/1998/17) on the statistical reporting requirements of the European Central Bank, 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. These data are revised with the publication of the detailed quarterly balance of payments data.

Some earlier data have been partly 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 8.4.2 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 8.6) is compiled on a net basis by aggregating national data. The i.i.p. is valued at current market prices with the exception of direct investment stocks, where book values are used to a large extent.

The outstanding amounts of the Eurosystem's international reserves and related assets are shown in Table 8.6.2. The corresponding reserves and related assets held by the ECB are shown separately in Table 8.6.3. The data in Tables 8.6.2 and 8.6.3 are in line with the recommendations for the IMF/BIS template on international reserves and foreign currency liquidity. Reserve assets data before end-1999 are not fully comparable with later observations.

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 nominal and real effective exchange rate indices for the euro. The bilateral rates shown are those against the 13 currencies used in the ECB's calculation of the "narrow" effective exchange rate of the

euro. For all except the Hong Kong and Singapore dollars and the Korean won the bilateral rates are daily reference rates published by the ECB. Real indices (deflated by producer prices and unit labour costs in manufacturing respectively) for the group of 13 currencies are shown, together with one nominal and one real index (deflated by consumer prices) for a broader group of 39 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.

Conventions used in the tables

"-"	Data do not exist.
"."	Data are not yet available.
"…"	nil or negligible
"billion"	10^9
(p)	provisional
s.a.	seasonally adjusted

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 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.

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.

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

Annual Report

"Annual Report 1998", April 1999.

"Annual Report 1999", April 2000.

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.

"The role of short-term economic indicators in the analysis of price developments in the euro area", April 1999.

"Banking in the euro area: structural features and trends", April 1999.

"The operational framework of the Eurosystem: description and first assessment", May 1999.

"The implementation of the Stability and Growth Pact", May 1999.

"Longer-term developments and cyclical variations in key economic indicators across euro area countries", July 1999.

"The institutional framework of the European System of Central Banks", July 1999.

"The international role of the euro", August 1999.

"The balance sheets of the Monetary Financial Institutions of the euro area in early 1999", August 1999.

"Inflation differentials in a monetary union", October 1999.

"ESCB preparations for the year 2000", October 1999.

"Stability-oriented policies and developments in long-term real interest rates in the 1990s", November 1999.

"TARGET and payments in euro", November 1999.

"Legal instruments of the European Central Bank", November 1999.

"The euro area one year after the introduction of the euro: key characteristics and changes in the financial structure", January 2000.

"Foreign exchange reserves and operations of the Eurosystem", January 2000.

"The Eurosystem and the EU enlargement process", February 2000.

"Consolidation in the securities settlement industry", February 2000.

"The nominal and real effective exchange rates of the euro", April 2000.

"EMU and banking supervision", April 2000.

"The information content of interest rates and their derivatives for monetary policy", May 2000.

"Developments in and structural features of the euro area labour markets", May 2000.

"The switch to variable rate tenders in the main refinancing operations", July 2000.

"Monetary policy transmission in the euro area", July 2000.

"Population ageing and fiscal policy in the euro area", July 2000.

Working Paper Series

1 "A global hazard index for the world foreign exchange markets" by V. Brousseau and F. Scacciavillani, May 1999.

2 "What does the single monetary policy do? A SVAR benchmark for the European Central Bank" by C. Monticelli and O. Tristani, May 1999.

3 "Fiscal policy effectiveness and neutrality results in a non-Ricardian world" by C. Detken, May 1999.

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5 "Core inflation: a review of some conceptual issues" by M. Wynne, May 1999.

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8 "Inflation zone targeting" by A. Orphanides and V. Wieland, October 1999.

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11 "Is the yield curve a useful information variable for the Eurosystem?" by J. M. Berk and P. van Bergeijk, February 2000.

12 "Indicator variables for optimal policy" by L. E. O. Svensson and M. Woodford, February 2000.

13 "Monetary policy with uncertain parameters" by U. Söderström, February 2000.

14 "Assessing nominal income rules for monetary policy with model and data uncertainty" by G. D. Rudebusch, February 2000.

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22 "Regulating access to international large-value payment systems" by C. Holthausen and T. Rønde, June 2000.

23 "Escaping Nash inflation" by In-Koo Cho and T. J. Sargent, June 2000.

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"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.

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"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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"Payment systems in the European Union: Addendum incorporating 1997 figures", January 1999.

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

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"Asset prices and banking stability", April 2000.

"EU banks' income structure", April 2000.

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"TARGET", July 1998.

"The euro banknotes and coins", July 1999.

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

"The European Central Bank", June 2000.