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MONTHLY BULLETIN

May 2000

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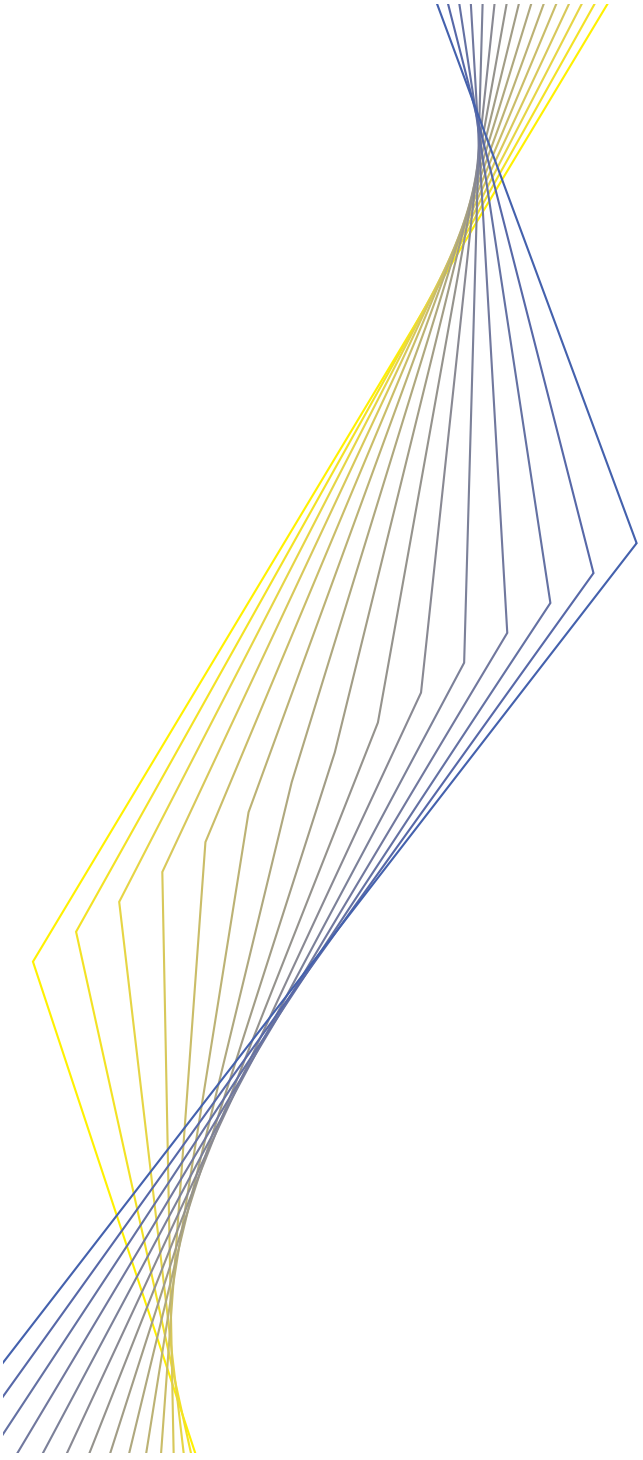

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Abbreviations

Countries

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

Others

BIS	Bank for International Settlements
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

The Governing Council of the ECB has held two meetings since the last issue of the ECB Monthly Bulletin was finalised. At the first meeting, which was held on 27 April 2000, the Governing Council decided to raise the interest rate on the Eurosystem's main refinancing operations, which continue to be conducted as fixed rate tenders, by 25 basis points, to 3.75%, starting with the operation settled on 4 May 2000. The interest rates on the marginal lending facility and on the deposit facility were also increased by 25 basis points, to 4.75% and 2.75% respectively, both with effect from 28 April 2000. At the subsequent meeting, which was held on 11 May 2000, the Governing Council decided to leave the ECB interest rates unchanged.

The decision taken on 27 April 2000 by the Governing Council was in line with the policy of counteracting upside risks to price stability in the medium term in a pre-emptive manner. Such upside risks were seen as stemming from the strong growth in monetary and credit aggregates, as well as from the low level of the exchange rate of the euro, in a context of rapid economic expansion.

At its meeting on 11 May 2000, the Governing Council noted that the three-month average of the annual growth rates of M3 – covering the period from January to March 2000 – rose to 6.0% from 5.9% in the period from December 1999 to February 2000, reflecting strong M3 growth in seasonally adjusted terms in March 2000. Consequently, M3 growth remained around 1½ percentage points above the reference value of 4½%. The general picture of an ample liquidity situation in the euro area was further supported as the annual rate of increase in credit to the private sector rose to 10.9% in March 2000, compared with 10.4% in the previous month.

As regards economic developments in the euro area, recent information confirms the very positive outlook for high growth in the euro area. All available indicators point to a phase of continued economic growth, following the upturn observed in the second half of 1999. Industrial production, measured on a seasonally adjusted basis, rebounded in February 2000, confirming the further strengthening of growth in industrial activity. Capacity utilisation rose in April 2000, along with industrial confidence, which increased for the eighth consecutive month and almost reached the high seen in the first half of 1989. In addition, with consumer confidence remaining at record levels and unemployment continuing to decline, it is to be expected that the recent strength of private consumption will be sustained. With regard to the external environment of the euro area, the upturn in growth in the world economy has become more broadly based over recent months, pertaining to both industrial and emerging economies. Supported by the positive outlook for growth in both domestic and external demand, forecasts for the growth of economic activity in the euro area in 2000 and 2001 have been revised upwards over the past few months.

Bond yields in the euro area rose slightly in April and early May, reaching levels just above 5.5%. This partly reflected a global trend, as yields in the United States also rose. In the euro area the yield curve flattened slightly in the same period, reflecting the recent rise in short-term interest rates. It nevertheless remained relatively steep, consistent with expectations of a continuation of economic growth in the euro area at the current or a higher pace.

Notwithstanding the general expectation of a narrowing of international growth differentials between major economic areas, the nominal effective exchange rate of the euro depreciated further in April 2000. Hence, the level of the exchange rate of the euro has moved further out of line with the increasingly positive economic fundamentals of the euro area, as well as international balance of payments positions. Until they are reversed, deviations of exchange rates from the fundamentals could lead to undesirable misallocations in global trade flows and global financing patterns.

The depreciation of the exchange rate of the euro, until it is reversed, will heighten the risks to price stability in the medium term on account of its impact on import prices. The ECB will closely monitor this development.

In March 2000 consumer price inflation, as measured by increases in the Harmonised Index of Consumer Prices (HICP), rose to 2.1%, up from 2.0% in the previous month. This was due to the combined effect of developments in oil prices and the exchange rate of the euro. A similar development was observed in the Producer Price Index, the annual rate of change of which rose to 6.2% in March 2000, up from 5.8% in February. The rise was mainly a result of the increase in the rate of change in intermediate goods prices, which are those most directly affected by the increase in oil prices and, more generally, by that in import prices. In addition, some upward movements have also been observed in capital and consumer goods prices, the annual rates of change of which have followed an upward trend since the first half of 1999. Over the coming months, on the one hand, some moderating effects on 12-month HICP inflation rates can be expected, mainly owing to base effects dampening the increase in inflation rates compared with the same month a year earlier. On the other hand, the lagged effects of the depreciation of the euro may work in the opposite direction.

However, these short-term movements in inflation rates should not distract attention from the fact that what matters for monetary policy is the outlook for price stability in the medium term. In this respect, both pillars of the monetary policy strategy of the Eurosystem indicate that upward risks to price stability persist, as reflected in the latest monetary and credit developments and the depreciation of the exchange rate of the euro. These risks need to be taken seriously in the light of the current strong upswing in the euro area.

Monetary policy will remain vigilant in addressing these upside risks to price stability in a forward-looking manner, ensuring that price stability is maintained over the medium term. Sustained price stability and low inflation expectations will help to turn the current upswing into a long period of high economic growth and falling unemployment and provide the foundations for a strong euro.

There are currently good reasons to believe that the euro area will enjoy a long-lasting period of robust, non-inflationary, economic growth. A continuation of current wage moderation, further progress in fiscal consolidation and the implementation of structural reforms in product and labour markets will lend crucial support to this process.

This Monthly Bulletin contains two articles. The first article, entitled "The information content of interest rates and their derivatives for monetary policy", evaluates how the term structure of interest rates and prices of interest rate derivatives can be analysed by a central bank in order to extract valuable information on market expectations for future macroeconomic developments. The second article is entitled "Developments in and structural features of the euro area labour markets". It analyses structural factors underlying the current high level of unemployment in the euro area and discusses a wide range of policy measures which could address the existing problems.

Economic developments in the euro area

1 Monetary and financial developments

Monetary policy decisions of the Governing Council of the ECB

At its meeting on 27 April 2000 the Governing Council of the ECB decided to raise the interest rate on the main refinancing operations (which will continue to be conducted as fixed rate tenders) by 25 basis points, to 3.75%, starting with the operation to be settled on 4 May 2000. The interest rates on the deposit facility and on the marginal lending facility were also increased by 25 basis points, to 2.75% and 4.75% respectively, both with effect from 28 April 2000. At the subsequent Governing Council meeting, which was held on 11 May, ECB interest rates were left unchanged (see Chart 1).

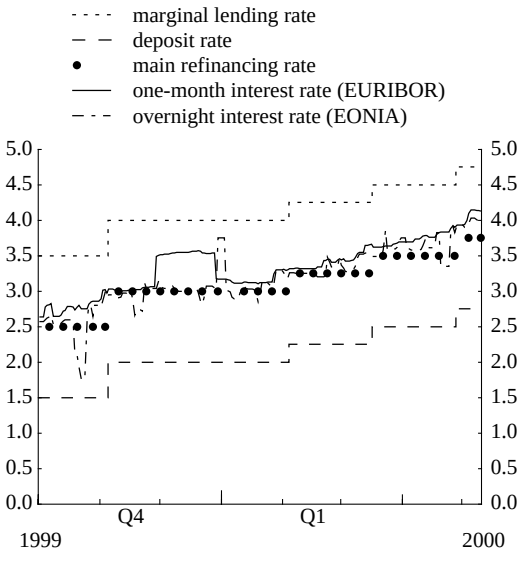
Strong M3 growth in March 2000

In March 2000 the annual rate of increase in the broad monetary aggregate M3 rose to 6.5%, from 6.1% in February 2000 (the latter figure was revised downwards from 6.2%).

Chart 1

ECB interest rates and money market rates

(percentages per annum; daily data)

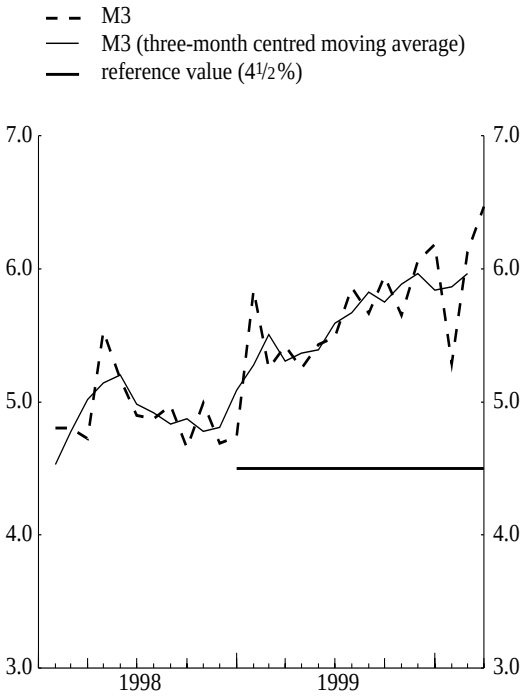


Sources: ECB and Reuters.

Chart 2

M3 growth and the reference value

(annual percentage changes)



Source: ECB.

The three-month average of the annual growth rates of M3, covering the first quarter of 2000, increased slightly, to 6.0%, from 5.9% in the previous three-month period. As a consequence, M3 growth remained around 1½ percentage points above the reference value of 4½% (see Chart 2).

Recent developments in M3 confirm that the provision of liquidity in the euro area remains generous. The monthly increase in M3 was very pronounced in March 2000, as it was in the previous month. The seasonally adjusted and annualised six-month growth rate of M3 rose in March 2000 to 7.4%, compared with 6.3% in the six-month period up to February 2000.

The month-on-month rise in M3 in March 2000 was €32 billion. Corrected for seasonal factors, in March 2000 M3 grew by €46 billion, or 1.0% (see Table 1). This monthly increase reflected a rise in all the main

Table 1

M3 and its main components

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

	Mar. 2000 levels	Jan. 2000 change		Feb. 2000 change		Mar. 2000 change		Jan. 2000 to Mar. 2000 average change	
	EUR billions	EUR billions	%	EUR billions	%	EUR billions	%	EUR billions	%
M3	4,841.8	24.5	0.5	39.0	0.8	45.7	1.0	36.4	0.8
Currency in circulation and overnight deposits (= M1)	1,970.1	41.3	2.2	25.6	1.3	19.6	1.0	28.8	1.5
Other short-term deposits (= M2 - M1)	2,151.3	-17.9	-0.8	8.1	0.4	11.1	0.5	0.4	0.0
Marketable instruments (= M3 - M2)	720.4	1.2	0.2	5.4	0.8	15.0	2.1	7.2	1.0

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.

components of M3. In seasonally adjusted terms the narrow monetary aggregate M1 (which includes currency in circulation and overnight deposits) rose by €20 billion, or 1.0%, short-term deposits other than overnight deposits increased by €11 billion, or 0.5%, and marketable instruments grew by €15 billion, or 2.1%.

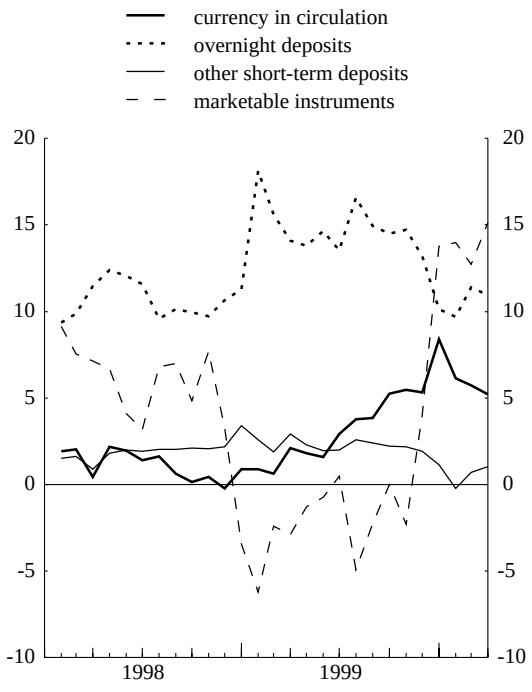
The annual rate of growth of currency in circulation declined to 5.2% in March 2000 from 5.7% in the previous month. Moreover, the annual growth rate of overnight deposits remained high (at 11.0%, compared with 11.4% in February 2000). In the first quarter of 2000 the pace of increase in overnight deposits was very pronounced, interrupting the slowdown observed in the second part of 1999. As the rise in short-term market interest rates in the euro area in the first quarter of 2000 should have started to contribute to dampening the demand for these instruments, the strong demand for overnight deposits in the first quarter of 2000 may have mainly reflected robust economic growth in the euro area. In addition, the heightened preference for liquidity may in part have reflected a precautionary motive, given the relatively high degree of uncertainty in the euro area stock markets in the first quarter of 2000 (see Box 2). As a result of the aforementioned developments in currency in circulation and overnight deposits, the annual growth rate of M1 declined to 9.9% in March 2000, compared with 10.4% in the previous month.

The annual growth rate of short-term deposits other than overnight deposits increased slightly in March 2000, to 1.0%,

Chart 3

Components of M3

(annual percentage changes)



Source: ECB.

from 0.7% in February. 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 turned positive in March 2000 (to 1.1%, from -0.5% in the previous month). This presumably reflected the gradual rise in short-term retail interest rates in the euro area and the associated flattening of the yield curve seen in the first quarter of 2000 (see Charts 5 and 6). At the same time, the annual growth rate of deposits redeemable at a period of notice of up to three months continued to decrease (to 1.0%, from 1.6% in February). This continued a downward trend in the demand for these instruments which started in the last few months of 1999, presumably owing to the rise in short-term interest rates in the euro area compared with the retail rates on these deposits, which reduced the relative attractiveness of the latter in terms of yield. As a consequence of the decline in the annual growth rate of M1 and of the increase in that of short-term deposits other than overnight deposits, the annual rate of increase in the intermediate aggregate M2 remained stable, at 5.1%, in March 2000.

The annual rate of growth of the marketable instruments included in M3 rose significantly in March 2000, to 15.1%, from 12.7% in the previous month. This mainly reflected the fact that the annual rate of decline of repurchase agreements became less pronounced (the rate of decline was 5.4% in March 2000, following 12.9% in the previous month). At the same time, the annual growth rate of debt securities issued with maturity of up to two years remained very strong (34.8%, compared with 36.8% in February). The annual rate of increase in money market fund shares and money market paper remained high at slightly above 22%. Overall, the rapid pace of increase in marketable instruments is likely to reflect the combined effect of the rise in short-term interest rates, the flattening of the yield curve, and the high volatility in the euro area stock markets in the first quarter of 2000. However, these data should be treated with some caution as, according to the information available, a significant proportion of money market paper issued by euro area MFIs in 1999 and 2000 has been purchased by non-residents, and should therefore not be included in M3.

Enhanced growth of credit to the private sector

Turning to the counterparts of M3, the annual rate of increase in longer-term financial liabilities of MFIs decreased from 7.3% in February 2000 to 6.8% in March. Among the sub-components of longer-term financial liabilities, the annual rate of growth of deposits with an agreed maturity of over two years declined to 4.4%, from 5.1% in the previous month. The annual growth rate of debt securities issued with a maturity of over two years also declined, from 6.0% to 5.4%. Both these developments may be linked to the narrowing of the spread between short-term and long-term market interest rates in March 2000. As in previous months, deposits redeemable at a period of notice of over three months continued to decline, yet at a slower annual pace (6.0%, compared with 7.3% in February). The annual growth rate of capital and reserves fell to 14.6%, from 15.1% in the previous month.

The annual growth rate of central government deposits decreased to 0.4% in March 2000, from 3.3% in February 2000.

On the assets side of the consolidated balance sheet of the MFI sector, the annual growth rate of total credit granted to euro area residents was 7.7% in March 2000, down from 7.9% in February. This slight decrease was caused by a significant decline in credit to general government (to -1.3% after an increase of 0.9% in February), whereas the growth in credit to the private sector increased further, to 10.9%, from 10.4% in the previous month.

The decline in the annual growth rate of credit to general government resulted from the decrease in the annual rate of change of

Table 2

M3 and its main counterparts

(EUR billions)

	Amounts outstanding	12-month flows					
	2000 Mar.	1999 Oct.	1999 Nov.	1999 Dec.	2000 Jan.	2000 Feb.	2000 Mar.
1. Credit to the private sector	6,342.4	576.1	601.1	580.7	535.0	588.6	622.3
2. Credit to general government	2,040.4	30.8	39.3	35.9	30.2	18.9	-26.3
3. Net external assets	181.0	-208.7	-202.6	-172.6	-183.5	-122.9	-187.8
4. Longer-term financial liabilities	3,635.5	223.7	236.1	257.5	240.2	245.4	229.2
5. Other counterparts (net liabilities)	86.5	-72.1	-64.5	-90.1	-97.6	-37.0	-113.6
M3 (=1+2+3-4-5)	4,841.8	246.5	266.2	276.7	239.0	276.2	292.6

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.

securities other than shares (to -1.6%, from 2.7% in February), while the annual rate of decline in loans to general government weakened slightly (-0.8% in March and -1.6% in February).

The rise in credit to the private sector concerned all its components. The annual growth rate of loans extended to the private sector rose to 9.7% in March (from 9.4% in February). The seasonally adjusted and annualised three-month growth rate reached 12.8% in March, whereas the six-month seasonally adjusted and annualised growth rate was 10.1%. The dynamic growth of loans to the private sector in the first quarter of 2000 occurred despite the rising trend in retail lending interest rates over the past few months. Strong consumer and industrial confidence is likely to have contributed to sustaining the demand for loans from the private sector in recent months. In addition, the expectation of rising short-term interest rates in the euro area may have encouraged households and firms to frontload borrowing. The intense merger and acquisition activity in the euro area and rising property prices in some euro area countries constitute additional factors underlying this evolution. The annual growth in holdings of securities issued by the private sector held by MFIs also increased in March 2000. Holdings of debt securities grew at an annual rate of 17.8% in March, up from 16.1% in February, while the growth rate of shares and other equity held by MFIs amounted to 25.2%, compared with 22.6% in February 2000.

In March 2000 the net external asset position of the euro area MFI sector decreased by €68 billion in absolute and non-seasonally adjusted terms. In the 12 months up to March 2000 the net external assets of the MFI sector declined by €188 billion.

Overall, credit to the private sector rose by €622 billion over the 12 months up to March 2000, whereas credit to the public sector declined by €26 billion. This total increase in credit on the assets side of the consolidated balance sheet of the MFI sector did not, however, lead to an increase on the liabilities side of the same amount, owing to the decline in net external assets of €188 billion. On the liabilities side, the 12-month change in M3 amounted to €293 billion, whereas longer-term MFI liabilities increased by €229 billion. In the other items of the MFI balance sheet, there was a decline in net liabilities of €114 billion.

High level of debt securities issuance in February

In February 2000 the total gross issuance of debt securities by euro area residents totalled €377.9 billion, compared with €308.0 billion in February 1999 and an average monthly issuance of €311.3 billion over the previous

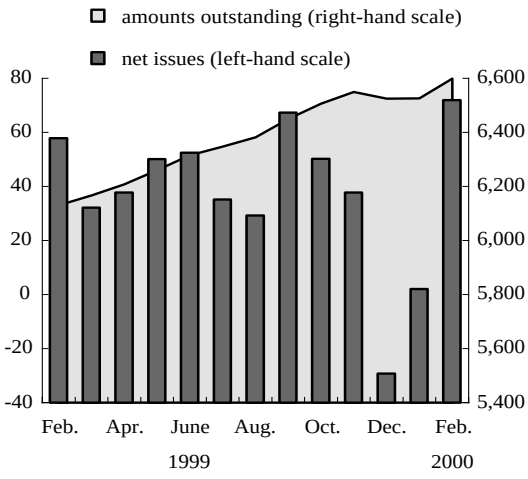
12 months. Almost 67% of the total gross issuance of debt securities by euro area residents in February was at short-term maturities, which was somewhat more than the average monthly share of 62% observed over the previous 12 months. Redemptions of debt securities by euro area residents in February 2000 amounted to €306.0 billion. As a result, net issuance in February reached €71.9 billion (see Chart 4), which was the highest monthly level of net issuance of debt securities seen since the start of Stage Three of EMU. Reflecting this, the amount outstanding of debt securities issued by euro area residents resumed the upward trend which, with the exception of those months around the century date change, was apparent throughout 1999. As a result, the amount outstanding of debt securities issued by euro area residents was €6,599.0 billion at the end of February 2000, compared with €6,129.9 billion a year earlier, corresponding to a 12-month increase of 7.6%.

The sectoral breakdown reveals that issuance activity by MFIs continued at a high level in February 2000. In sum, MFIs accounted for 59% of the total gross issuance of euro-denominated debt securities by euro area residents in that month, compared with an average monthly share of gross issuance by MFIs of 52% over the previous 12 months. Issuance activity in this sector has been rising steadily since August 1999, which might reflect increasing recourse by MFIs to market sources of finance in the face of the continued strength of credit demand. At the same time, the share of central government in total euro-denominated gross issuance of debt securities was lower in February than it was on average over the previous 12 months. Reflecting this, the outstanding amounts of debt securities issued by the various sectors increased by 10.1% in the case of MFIs, by 3.5% for central government and by 40.6% in the case of non-monetary financial corporations over the period from February 1999 to February 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.

Short-term retail bank interest rates continued to rise in March

Short-term retail bank interest rates in the euro area rose further in March 2000, following the increases in money market interest rates associated with the increases in ECB interest rates on 3 February and 16 March. However, reflecting the usual lags in the adjustment of retail bank interest rates to comparable market interest rates, the increases in average short-term retail interest rates in February and March were smaller than those in money market rates during the same period (see Chart 5). The average interest rate on deposits with an agreed maturity of up to one year increased by 17 basis points to 3.0%. By contrast, the average rates on overnight deposits and deposits redeemable at a period of notice of up to three months, which are typically less sensitive to movements in money market interest rates, rose by only 1 to 2 basis points to stand at 0.7% and 2.1% respectively. The average rate on loans to enterprises with a maturity of up to one year increased by

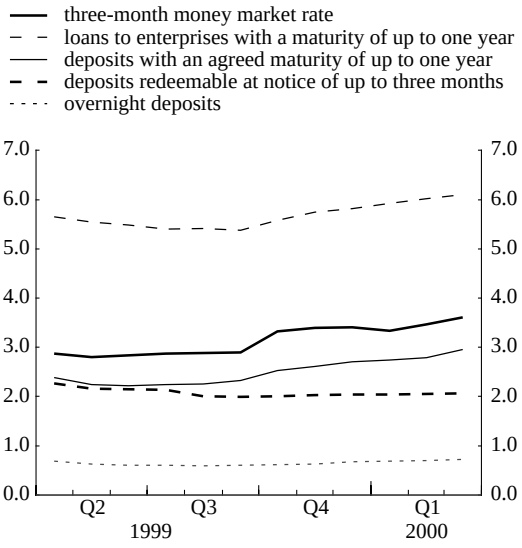
9 basis points to reach 6.1% in March, bringing the cumulative increase in this interest rate to more than 70 basis points compared with the average level which prevailed in September 1999. Overall, most short-term retail bank interest rates in March 2000 were well above the levels observed a year earlier owing to the substantial increases recorded after the summer months of 1999.

At longer maturities average retail bank interest rates changed little in March following the fall in long-term capital market rates in February and March 2000. A somewhat contrasting development could be observed between interest rates on deposits, which continued to increase slightly in March, and rates on longer-term loans, which showed some small declines (see Chart 6). The average interest rate on deposits with an agreed maturity of more than two years rose by 3 basis points in March to reach 4.3%. The average interest rate on loans to households for house purchase declined by 3 basis points to 6.1%. In addition, the average rate on loans to enterprises declined slightly, to 5.8%, in March. Overall, however, all long-term retail bank interest rates have increased substantially since May 1999, and by March 2000 they stood at levels which were well above those prevailing in March 1999.

Chart 5

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

(percentages per annum; monthly averages)

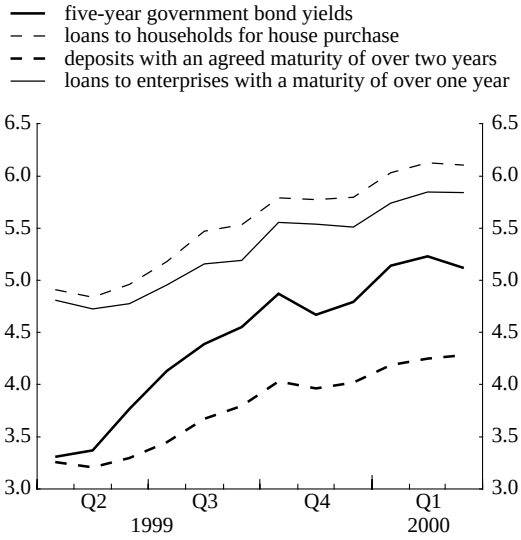


Sources: ECB aggregation of individual country data and Reuters.

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.

Money market interest rates continued to rise in April

Money market interest rates continued to follow an upward trend in April and early May. In the first weeks of April the overnight interest rate, as measured by the EONIA, fluctuated for the most part between 3.6% and 3.7%, i.e. above the then prevailing main refinancing rate of 3.50%. This pattern presumably reflected to a large extent the banks' preference for fulfilling their reserve requirements ahead of the long Easter weekend falling at the end of the reserve maintenance period, which started on 24 March and ended on 23 April (see Box 1). It was also driven by some market expectations of an increase in ECB interest rates in the course of that reserve maintenance period. These expectations were renewed at the start of the new reserve

Box 1

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

Allotments in monetary policy operations

During the fourth reserve maintenance period, which lasted from 24 March to 23 April 2000, the Eurosystem conducted four main refinancing operations and one longer-term refinancing operation. All the main refinancing operations were carried out at a fixed interest rate of 3.50%. The allotted volumes ranged between €48 billion and €89 billion. The amounts of bids submitted for the main refinancing operations varied between €2,869 billion and €4,290 billion, with an average of €3,615 billion, compared with an average amount bid of €2,589 billion in the previous reserve maintenance period. The high bid amounts submitted, especially in the last two operations, can be explained by two factors: first, the end of the reserve maintenance period coincided with the long Easter weekend and credit institutions preferred to fulfil their reserve requirements earlier than usual (i.e. before the end of the reserve maintenance period) and, second, renewed interest rate expectations. The allotment ratios in the main refinancing operations varied between 1.36% and 2.94%, compared with a range of between 2.04% and 3.13% in the preceding reserve maintenance period.

The Eurosystem conducted a longer-term refinancing operation on 29 March through a variable rate tender with a pre-announced allotment volume of €20 billion. A total number of 325 bidders participated in this operation and the total amount of bids was €75 billion. The marginal rate was calculated to be 3.78%, while the average rate was 3.80%.

Throughout the reserve maintenance period the EONIA remained above the main refinancing rate, with the exception of the last day of the period. The EONIA reached 3.75% on 31 March, owing to the usual end-of-quarter effects. Throughout the reserve maintenance period the liquidity situation was rather comfortable; even at the beginning of the period the usual liquidity deficit was comparatively small. The persistent positive spread between the EONIA and the main refinancing rate can, therefore, mainly be explained by the above-mentioned frontloading of reserve fulfilment by some counterparties owing to the long Easter weekend at the

Contributions to the banking system's liquidity

(EUR billions)

Daily average during the reserve maintenance period from 24 March to 23 April 2000

	Liquidity providing	*Liquidity absorbing*	*Net contribution*
(a) Monetary policy operations of the Eurosystem	**197.9**	**0.9**	**+ 197.0**
Main refinancing operations	136.7	-	+ 136.7
Longer-term refinancing operations	61.0	-	+ 61.0
Standing facilities	0.2	0.9	- 0.7
Other operations	0.0	0.0	0.0
(b) Other factors affecting the banking system's liquidity	**377.1**	**464.4**	**- 87.3**
Banknotes in circulation	-	349.7	- 349.7
Government deposits with the Eurosystem	-	45.6	- 45.6
Net foreign assets (including gold)	377.1	-	+ 377.1
Other factors (net)	-	69.1	- 69.1
(c) Credit institutions' holdings on current accounts with the Eurosystem (a) + (b)			**109.7**
(d) Required reserves			**108.7**

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

end of the reserve maintenance period and by renewed expectation of an interest rate hike. On the last day of the reserve maintenance period the EONIA dropped to 3.35%, owing to the comfortable liquidity situation prevailing after the last tender allotment, which aimed at ending the reserve maintenance period in a smooth manner.

Use of standing facilities

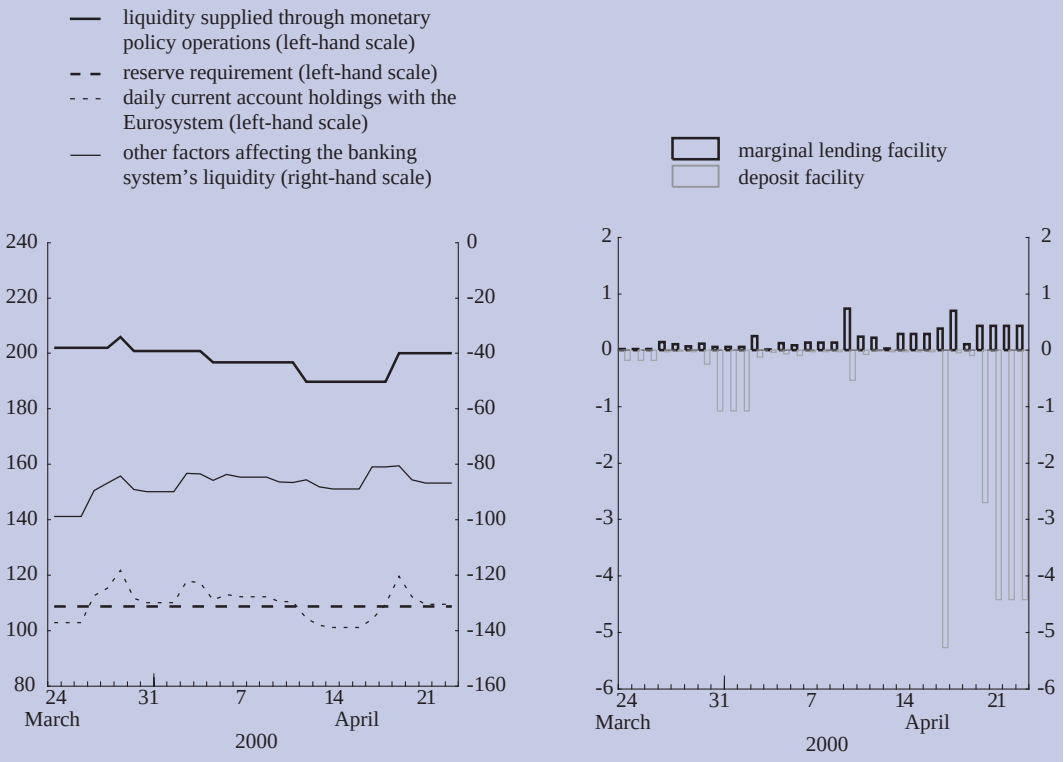
Compared with the previous reserve maintenance period, the average use of the marginal lending facility remained unchanged at €0.2 billion, while the average use of the deposit facility increased from €0.3 billion to €0.9 billion. The recourse to the marginal lending facility at the end of the reserve maintenance period amounted to €0.4 billion. The use of the deposit facility was €2.7 billion on 20 April, the last TARGET day of the maintenance period, and it increased to €4.4 billion from 21 to 23 April. As Good Friday, 21 April, was a business day in part of the euro area and some national central banks kept their real-time gross settlement (RTGS) systems open, in such cases access to the standing facilities was also possible on that day.

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 €87.3 billion on average, i.e. €6.3 billion less than in the previous reserve maintenance period. This was mainly a result of decreased government deposits and increased net foreign assets. The sum of autonomous factors fluctuated between €80.4 billion and €98.9 billion.

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

(EUR billions; daily data)



Source: ECB.

Current account holdings of counterparties

The average current account holdings amounted to €109.7 billion and the reserve requirements to €108.7 billion. The difference between the average current account holdings and the reserve requirements therefore amounted to €1.0 billion. Around €0.2 billion of this amount consisted in current account holdings not contributing to the fulfilment of reserve requirements, and €0.8 billion was related to excess reserves, the higher than usual figure probably being caused by the long Easter weekend at the end of the reserve maintenance period.

maintenance period, when the EONIA stood above 3.8%, signalling market anticipation of the decision taken by the Governing Council of the ECB to raise the main refinancing rate by 25 basis points to 3.75% on 27 April 2000. After the announcement of that decision, the EONIA fluctuated broadly between 3.9% and 4%.

The money market yield curve shifted upwards at all maturities between the end of March and 10 May (see Chart 7). Both the one-month and the three-month EURIBOR rose by approximately 20 basis points between the end of March and the Governing Council meeting of 27 April, in anticipation of the increase in ECB interest rates. By the time the interest rate decision was announced, the financial markets were fully expecting the increase of 25 basis points, as evidenced by the fact that money market rates remained broadly unchanged immediately after the announcement of the hike in ECB interest rates. However, during the subsequent days there was a further rise in both the one-month and the three-month EURIBOR. Between 27 April and 10 May both rates rose by approximately 25 basis points. On 10 May the one-month and three-month EURIBOR stood at 4.13% and 4.30% respectively, i.e. 44 and 47 basis points higher than at the end of March 2000.

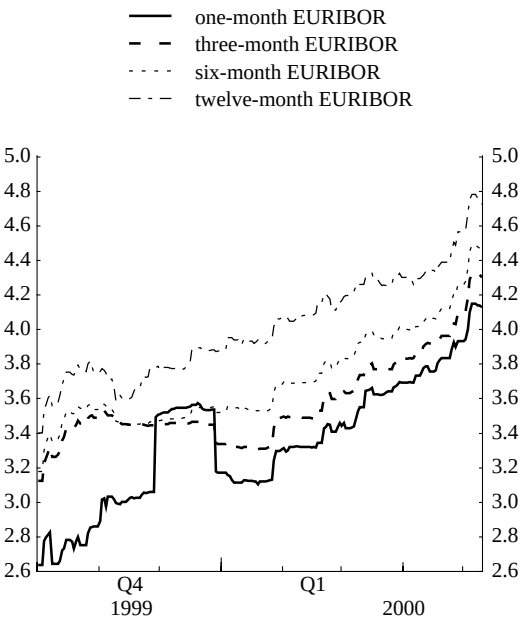
A similar pattern was observed for the EURIBOR implied in futures contracts maturing in the second half of 2000, which indicates that market expectations of further increases in ECB interest rates in the second part of the year strengthened in April and early May. On 10 May the six-month and twelve-month EURIBOR were equal to 4.45% and 4.73%, which was 45 and 43 basis points higher respectively than at the end of March 2000.

In the longer-term refinancing operation of the Eurosystem settled on 27 April 2000, the marginal and average rates of allotment were equal to 4.00% and 4.01% respectively. This was few basis points below the three-month EURIBOR prevailing on the day on which the operation was conducted.

Chart 7

Short-term interest rates in the euro area

(percentages per annum; daily data)



Source: Reuters.

Long-term bond yields rose in April

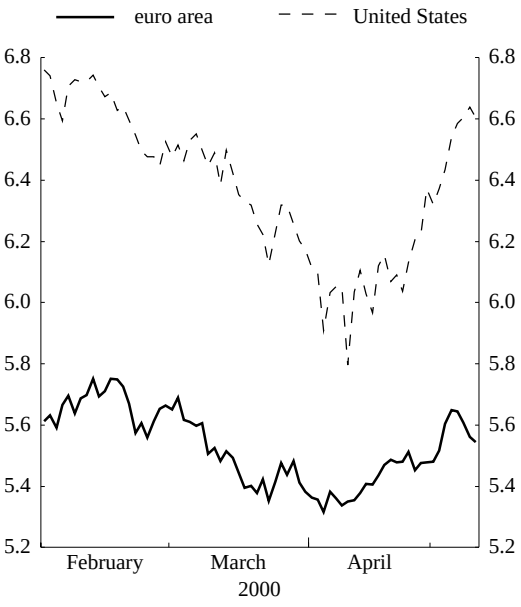
Following the significant declines in long-term interest rates observed between mid-February and end-March 2000, euro area bond yields changed direction in early April (see Chart 8). Between end-March and 10 May 2000 the average level of ten-year bond yields in the euro area rose by around 15 basis points, to 5.55%. To some extent, this seemed to have been the result of significant increases in US bond yields during this period, although domestic influences reinforced the upward tendency of euro area bond yields. In the United States government bond yields increased by more than in the euro area, which translated into a widening of the spread between US and euro area ten-year bond yields of about 25 basis points between end-March and 10 May, to almost 110 basis points.

With regard to the influence of developments in international bond markets on domestic bond markets, in relatively volatile market conditions ten-year government bond yields in the United States rose by more than 40 basis points between end-March and 10 May 2000, to stand at 6.6%. This development followed a period of sharp declines in long-term government bond yields in the United States between late January and early April, when ten-year bond yields fell by around 100 basis points, largely as a result of the US Treasury's plans to buy back outstanding US government bonds prior to maturity. The reversal of this downward tendency in bond yields appears to have been primarily linked to rising concerns about inflationary risks in the United States in an environment where the pace of economic activity continued to be robust and conditions in the labour market tightened further. In Japan ten-year government bond yields declined by around 5 basis points between end-March and 10 May, to just above 1.7%, despite further indications that a recovery of the Japanese economy is under way.

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.

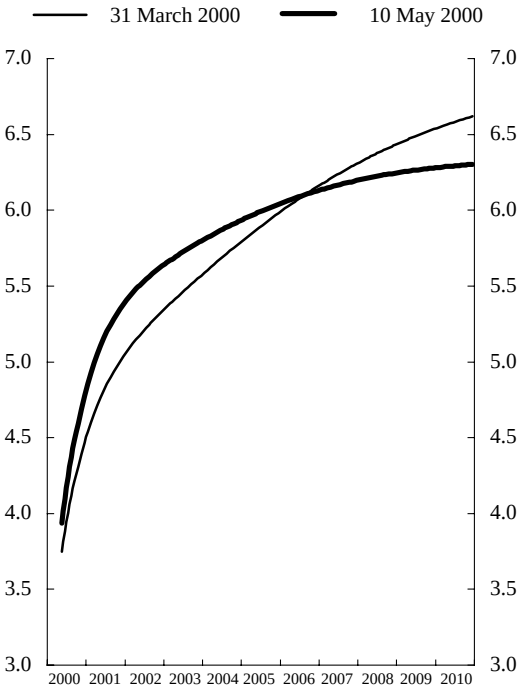
In addition to spillovers from US bond markets in April and early May 2000, other factors also seem to have played a role in explaining developments in euro area bond yields during this period. In particular, concerns among market participants regarding the likelihood of upward pressures on euro area prices in the medium term seem to have increased somewhat recently. Factors which may have contributed to this change in expectations include higher than expected M3 growth data for March, as well as possibly higher inflationary expectations related to the recent significant depreciation of the exchange rate of the euro. Yet the euro area forward yield curve flattened markedly in the course of April and early May (see Chart 9). This happened despite the rise in long-term bond yields and reflected the rise in short-term interest rates linked to the Governing Council decision on 27 April to raise ECB interest rates.

In the French index-linked bond market the ten-year real yield was little changed between

Chart 9

Implied forward euro area overnight interest rates

(percentages per annum; daily data)



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

end-March and 10 May 2000. At the same time, the ten-year "break-even" inflation rate, i.e. the differential between nominal and real ten-year bond yields, increased by around 10 basis points over the same period. Based on this indicator, the recent increase in nominal euro area bond yields appears to have been primarily linked to somewhat higher long-term inflation expectations, rather than to higher real interest rates. However, as mentioned in previous issues of the ECB Monthly Bulletin, any inference regarding inflation expectations based on developments in French index-linked bond yields warrants some degree of caution, since a number of caveats apply.

High stock market volatility in April

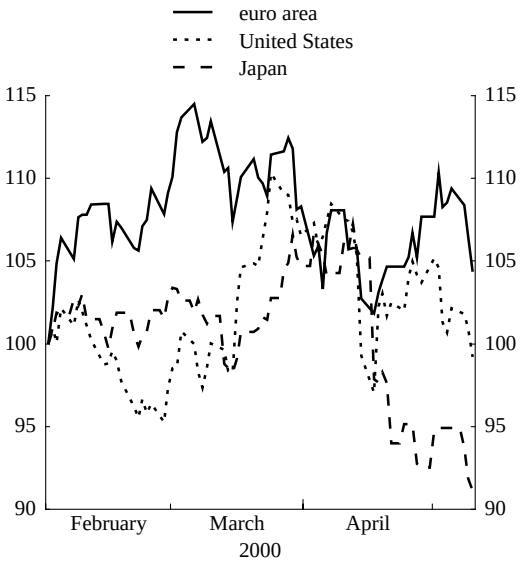
In April and at the beginning of May 2000 stock prices both within and outside the euro area were subject to a high degree of volatility, which appeared to spread from the technology sector to other sectors of the stock market. Overall, when measured according to the broad Dow Jones EURO STOXX index, euro area stock prices declined by close to 4% between the end of March and 10 May, bringing them to a level which was approximately 2% above end-1999 levels. Over the same period stock prices declined markedly in both the United States and Japan (see Chart 10).

Considering the global stock market environment first, in the United States the Standard and Poor's 500 index declined by close to 8% between end-March and 10 May, which offset the small increase recorded in the first quarter of 2000 and left the index at around 6% below end-1999 levels. The high

Chart 10

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

(index: 1 February 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.

degree of stock market volatility which, until early April, had been concentrated primarily in the technology sector spread to other stock market sectors, resulting in sometimes sharp and generally broadly based declines. In particular, between the end of March and 10 May very broad stock price indices as well as indices of small capitalisation stocks in the United States declined markedly, indicating that downward pressures were affecting a wide variety of US firms, including smaller firms. Over this period the degree of stock market volatility was especially high for Nasdaq indices, which comprise a high proportion of technology stocks (see Box 2). In particular, between end-March and 10 May, the Nasdaq Composite index declined by 26%, reaching a level which was 17% below end-1999 levels. In the second half of April, a factor which added to the downward tendency of stock prices was the release of higher than expected rates of increase in US consumer price indices and US employment costs.

In Japan stock prices, as measured by the Nikkei 225 index, declined by around 13% between the end of March and 10 May, which offset earlier increases and left Japanese stock prices at a level 6.5% below end-1999 levels. Despite the release of some data pointing to a recent improvement in the pace of economic activity and general economic sentiment, over this period Japanese stock prices appeared to be vulnerable in the short term to spillovers from the sharp stock price declines seen in the United States. In particular, between end-March and 10 May stock price declines affected the technology and telecommunications sectors of the Japanese stock market. However, it seemed that, particularly at the end of April, the Nikkei 225 index was distorted downwards by technical factors in the run-up to changes in the composition of the index. Hence developments in this index during the course of April may not be fully representative of the expectations of stock market participants.

In the context of marked stock price declines in the United States and Japan, between the end of March and 10 May there was a high degree of stock price volatility in the euro area and stock prices declined by close to 4%. Similarly to the pattern observed in the United States and Japan, in the first half of April there seemed to be a spreading of stock price volatility from the technology sector and the telecommunications sector to other sectors of the euro area stock market. In the latter part of April, following the release of a number of indicators which showed the pace of economic activity in the euro area continuing to pick up, euro area stock prices recovered somewhat. At the same time, euro area stock price volatility remained high, particularly in the technology sector and the telecommunications sector. Overall, between end-March and 10 May, the only sizeable negative contribution to euro area stock price changes arose in the telecommunications sector, where stock prices declined considerably, by 19%.

Box 2

Recent trends in the volatility of stock price indices

Stock prices can provide useful information in the context of the analysis of economic developments within the second pillar of the monetary policy strategy of the Eurosystem. For example, movements in stock prices can affect economic wealth as well as economic sentiment and, via these channels, domestic spending decisions. In addition, stock price movements are indicative of changes in the expectations of the private sector regarding economic prospects. In recent weeks stock price developments have been characterised by a relatively high degree of volatility, which has been concentrated in the technology sector, but which has also seemed to affect stock prices more broadly at times.

In recent years historical volatility has been high in the technology sector

Before considering more current developments, it should be pointed out that, over recent years, the average volatility of developments in technology stock prices has been consistently higher than general stock market volatility. Between end-1991 and 10 May 2000 the historical volatility of the US technology sector was 26% per annum, which compared with 14% for the Dow Jones US broad market index and a median of 16% across the ten principal economic sectors defined by Dow Jones (see the table below). In the euro area, corresponding figures were 24% for the technology sector, 16% for the Dow Jones EURO STOXX index and 17% for the median. This general pattern of high volatility in technology stocks seems to reflect the higher proportion of new firms with uncertain business prospects in the technology sector, which results in higher upward and downward risks to their stock prices.

Historical volatility of stock price indices

(percentages per annum)

	Euro area			United States		
	end-Dec. 1991 to 10 May 2000	end-Oct. 1999 to 10 May 2000	end-Mar. 2000 to 10 May 2000	end-Dec. 1991 to 10 May 2000	end-Oct. 1999 to 10 May 2000	end-Mar. 2000 to 10 May 2000
Basic materials	17.0	23.3	20.8	15.5	25.6	24.6
Consumer cyclical	17.1	23.3	29.6	15.1	21.3	25.3
Consumer non-cyclical	15.8	18.6	15.3	14.7	20.2	21.0
Energy	18.5	26.2	23.8	17.6	26.8	23.2
Financial	17.2	17.3	22.1	17.5	27.0	32.2
Healthcare	19.3	28.6	26.7	18.4	26.0	22.2
Industrial	15.7	23.2	23.1	13.8	22.0	30.0
Technology	24.1	46.3	64.0	26.2	37.1	60.3
Telecommunications	26.1	47.1	59.9	17.0	24.7	31.3
Utility	15.6	19.3	19.8	11.0	17.6	18.2
Broad index [a]	15.8	22.0	27.2	13.7	19.9	28.3
Median [b]	17.1	23.3	23.4	16.3	25.1	24.9

Sources: STOXX, Dow Jones Indexes and ECB calculations.
Note: Historical volatility, in annualised terms, is calculated as the standard deviation of daily changes in index levels multiplied by the square root of 250 (the approximate number of business days in a year).
a) For the euro area, the Dow Jones EURO STOXX index; for the United States, the Dow Jones US broad market index.
b) Median of the ten sectors.

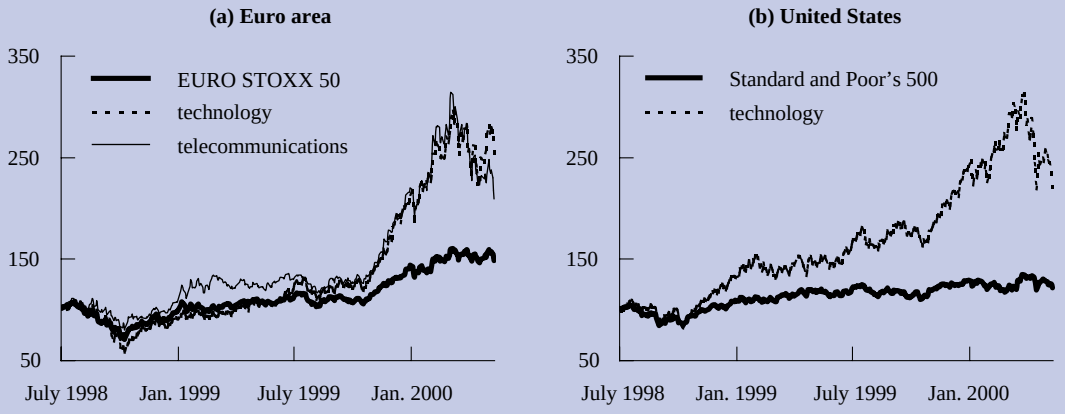
In recent weeks technology stock prices have been subject to particularly large swings

The table also demonstrates that the volatility of stock market developments has been exceptionally high in recent weeks, far higher than over the longer term, and exceptionally pronounced in the technology sector. In April and at the beginning of May these large swings seemed to reflect growing uncertainty on the part of market participants about the ability of firms in the technology sector to deliver the high level of earnings

implicit in their stock price levels following the considerable increases in technology stock prices over previous months. In the United States the Nasdaq Composite index, which comprises a number of technology stocks, increased by 67% between the end of October 1999 and the peak level recorded on 27 March 2000, and then declined by 32% in the period up to 10 May. Over the same periods the technology sub-index of the Dow Jones US broad market index first increased by 76% and then declined by 30% (see Chart A (b) below). In the euro area, technology stock indices followed a pattern similar to that seen in the United States. The Dow Jones EURO STOXX technology index increased by a considerable 104% between the end of October 1999 and 27 March 2000, and then declined by 10% between 27 March and 10 May 2000. The Dow Jones EURO STOXX telecommunications index, which comprises firms with substantial communications technology activities, increased by 101% and then declined by 25% (see Chart A (a) below).

Chart A: Recent developments in stock indices

(index: end-June 1998 = 100, daily data)



Sources: Reuters, STOXX and Chicago Board Options Exchange.

As can be seen from the chart above, the volatility of developments in broad stock price indices increased somewhat between end-October 1999 and 10 May 2000, but was considerably less than the volatility of developments in technology stocks. When measured on the basis of the standard deviation of daily changes in index levels, the historical volatility of the Standard and Poor's 500 index was 23% per annum during the period from the end of October 1999 to 10 May 2000. Over the same period the historical volatility of the US technology sector index was as high as 37% per annum. In the euro area, the historical volatility of the Dow Jones EURO STOXX index was 22% per annum, which was also considerably smaller than the historical volatility of the technology sector index, which reached 46% per annum (see the table on page 19).

Implied stock price volatility has recently increased, especially in the technology sector

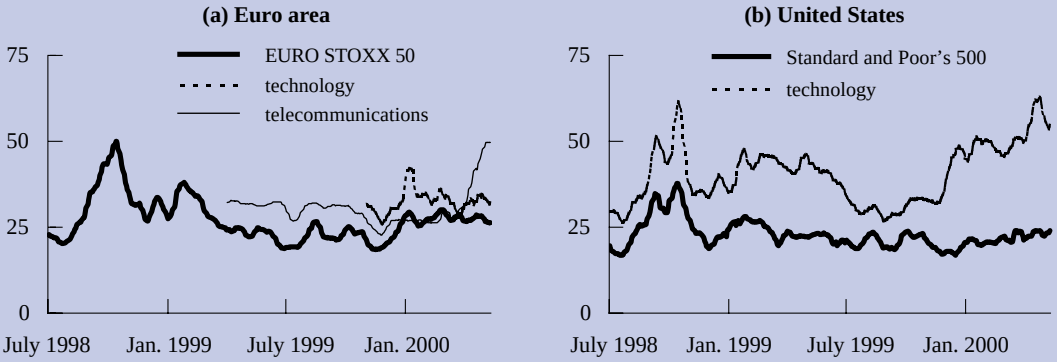
In order to assess the expectations of stock market participants, the implied volatility of stock price indices can also provide information of interest. Measures of implied volatility derived from stock index options prices provide indications of market perceptions of the degree of uncertainty associated with the future path of stock prices (see the article in this issue of the ECB Monthly Bulletin entitled "The information content of interest rates and their derivatives for monetary policy").

Over the past few months implied volatility has been particularly high in the US technology sector. Implied volatility on the technology index of the Chicago Board Options Exchange increased steadily, from 33% per annum at the end of October 1999 to 55% on 10 May 2000, reaching a level close to the peak levels recorded during the period of financial market turbulence in the autumn of 1998 (see Chart B (b)). Over the same period

implied volatility on the Standard and Poor's 500 index increased from 22% to 24% per annum. By contrast, and despite the wide fluctuations seen over recent weeks, implied volatility on the European Dow Jones STOXX technology index remained broadly unchanged between the end of October 1999 and 10 May 2000, at 32% per annum (see Chart B (a)). However, implied volatility on the Dow Jones STOXX telecommunications index increased significantly, from 28% per annum at the end of October 1999 to 50% per annum on 10 May 2000, with most of this increase taking place in the course of April. Possibly reflecting the heightened uncertainty which may be connected with the general rise in stock prices in the euro area, implied volatility on the Dow Jones EURO STOXX index increased from 22% per annum at the end of October 1999 to 26% per annum on 10 May 2000.

Chart B: Recent developments in stock index implied volatility

(percentages per annum, two-weekly averages)



Sources: Bloomberg, Reuters, STOXX, Chicago Board Options Exchange and ECB calculations.
Note: For the technology and telecommunications sectors, owing to the lack of options on pure euro area stock price sub-indices, implied volatilities correspond to indices including firms located outside the euro area but within the European Union.

Overall, the increases in stock market volatility seen in recent months do affect the assessment of the indications of stock price developments for future economic activity and inflation. In principle, higher stock prices can, if they are permanent, lead to positive wealth and confidence effects, which in turn can have a positive impact on aggregate spending. However, if there is a high degree of uncertainty about future stock prices, as indicated by stock price volatility, it is reasonable to assume that investors are expecting, on average, that gains may also be followed by losses, and will not therefore base their spending decisions on the wealth effects arising from stock price developments to the same extent as they would in periods of low stock price volatility. Similarly, other effects arising from higher stock prices, such as declines in the cost of equity capital, will also have a weaker impact when stock price volatility is high than when it is low.

2 Price developments

Consumer price inflation rose to 2.1% in March 2000, mainly reflecting energy price developments

In March 2000 there was a further upward movement in consumer price inflation with the year-on-year increase in the euro area Harmonised Index of Consumer Prices (HICP) rising to 2.1%, up from 2.0% in the previous month (see Table 3). Overall HICP inflation has been heavily influenced by a very high year-on-year rate of increase in energy prices. The annual increase in the HICP excluding energy prices and seasonal food remained more subdued at 1.1% in March 2000, i.e. unchanged compared with the increase observed in February 2000.

The increase in headline inflation in March 2000 mainly reflected a higher rate of increase in energy prices, which, in turn, was largely related to the impact of the significant rise in world market prices for oil up to mid-March 2000 and also to the depreciation in the euro exchange rate. The year-on-year increase in overall energy prices rose to 15.3% in March 2000, i.e. 1.8 percentage points higher than in February 2000 (see Chart 11). The higher rate of increase in energy prices was mainly concentrated in liquid fuel prices for households and for transportation, although the annual increase in gas prices for consumers also edged upwards. By contrast, reflecting downward pressure on prices as a result of deregulation in the electricity sector in some euro area countries, electricity prices were down 0.2% year-on-year in March 2000. Looking ahead, as earlier price increases gradually drop out of the year-on-year changes, the annual rate of change in energy prices is expected to moderate significantly from March 2000 onwards. In addition, more recent developments in oil prices, in particular the decline in the average price of oil from €28.4 per barrel in March 2000 to €24.5 per barrel in April 2000, are also expected to contribute towards a downward momentum in the year-on-year change in energy prices.

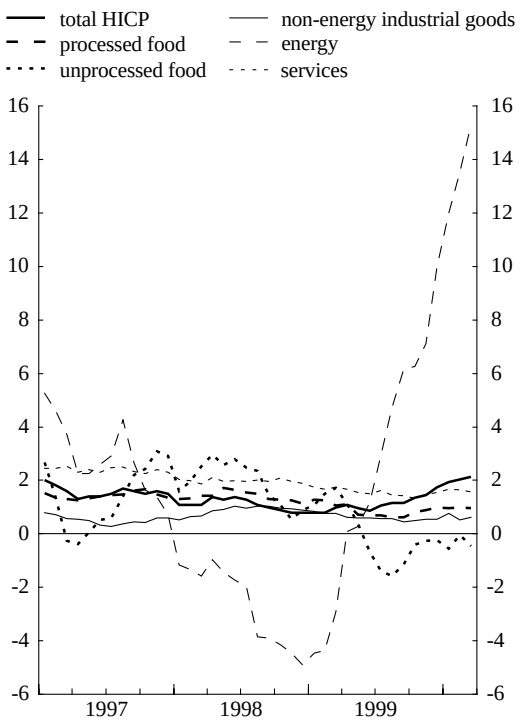
By contrast with the significant upward effect on inflation arising from the latest energy price developments, unprocessed food prices declined by 0.5% in the year up to March 2000. This development was somewhat out of line with the gradual upward movement in the year-on-year change in unprocessed food prices which has been evident since mid-1999. The latest decline was mainly the result of downward pressure on fruit and vegetable prices, reflecting seasonal factors which have given rise to quite buoyant supply conditions. However, meat prices – the other main item in the unprocessed food component – continued to recover from the low point reached in the first half of 1999.

In March 2000 the year-on-year rate of increase in the HICP excluding energy prices and seasonal food was unchanged compared

Chart 11

Breakdown of HICP inflation in the euro area by components

(annual percentage changes; monthly data)



Source: Eurostat.

Table 3

Price and cost developments in the euro area

(annual percentage changes, unless otherwise indicated)

	1997	1998	1999	1999 Q2	1999 Q3	1999 Q4	2000 Q1	1999 Nov.	1999 Dec.	2000 Jan.	2000 Feb.	2000 Mar.	2000 Apr.
Harmonised Index of Consumer Prices (HICP) and its components													
Overall index	1.6	1.1	1.1	1.0	1.1	1.5	2.0	1.5	1.7	1.9	2.0	2.1	.
of which:													
Goods	1.2	0.6	0.8	0.6	0.9	1.5	2.4	1.5	1.9	2.2	2.3	2.6	.
Food	1.4	1.6	0.5	0.6	-0.2	0.4	0.4	0.4	0.5	0.4	0.6	0.4	.
Processed food	1.4	1.4	0.9	0.8	0.6	0.9	1.0	0.9	1.0	1.0	1.0	1.0	.
Unprocessed food	1.4	1.9	0.0	0.3	-1.4	-0.3	-0.3	-0.3	-0.2	-0.5	0.0	-0.5	.
Industrial goods	1.0	0.1	1.0	0.6	1.4	2.1	3.4	2.0	2.6	3.2	3.3	3.8	.
Non-energy industrial goods	0.5	0.9	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.8	0.5	0.6	.
Energy	2.8	-2.6	2.2	0.5	4.6	7.8	13.6	7.1	10.0	12.0	13.5	15.3	.
Services	2.4	2.0	1.6	1.6	1.5	1.5	1.6	1.5	1.6	1.7	1.6	1.6	.
Other price and cost indicators													
Industrial producer prices [1]	1.1	-0.8	0.0	-1.3	0.7	3.2	5.7	3.1	4.1	5.1	5.8	6.2	.
Unit labour costs [2]	0.7	0.0	1.1	1.6	0.8	0.4	.	-	-	-	-	-	-
Labour productivity [2]	1.7	1.4	0.8	0.5	1.1	1.7	.	-	-	-	-	-	-
Compensation per employee [2]	2.4	1.4	1.9	2.1	2.0	2.1	.	-	-	-	-	-	-
Total hourly labour costs [3]	2.5	1.7	2.1	1.9	2.2	2.2	.	-	-	-	-	-	-
Oil prices (EUR per barrel) [4]	17.1	12.0	17.1	15.0	19.7	23.0	27.1	23.5	24.8	24.9	27.6	28.4	24.5
Commodity prices [5]	12.9	-12.5	-3.1	-8.2	1.1	14.0	19.9	11.9	19.3	19.4	20.0	20.2	19.4

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.

with February 2000 at 1.1%. This reflected a 1.0% increase in processed food prices in the year up to March 2000, the fourth consecutive month for which the annual change has stood at this level. Similarly, the year-on-year increase in non-energy industrial goods prices stood at 0.6% in March 2000, up from 0.5% in February. Based on these developments, there is no evidence as yet of a significant impact of higher producer prices in the industrial sector on consumer prices for non-energy industrial goods in the HICP. The unchanged rate of increase in the HICP excluding energy prices and seasonal food also reflected developments in services prices which grew by 1.6% year-on-year in March 2000, representing an unchanged rate of increase compared with February and in line with the average increase in services prices over the course of 1999. Overall, the continuation of relatively subdued increases in the HICP excluding energy prices and seasonal food up to March 2000 suggests that the upward impact of oil price and exchange rate developments on consumer prices other than energy prices has so far remained limited. However, it is most likely that the complete impact of these developments has not yet been observed in the HICP, while further upward pressure may result from the more recent depreciation in the euro exchange rate, if it is not reversed.

Intermediate goods price developments pushed overall producer price increases up further in March 2000

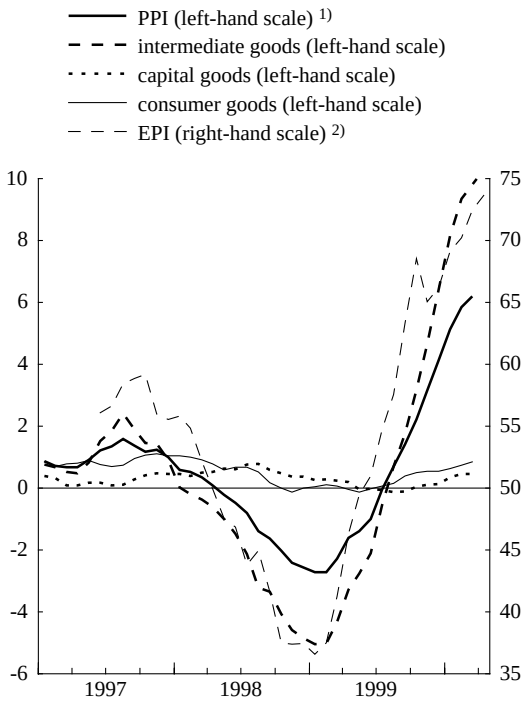
In March 2000 the annual percentage change in overall producer prices in the euro area increased further to 6.2%, compared with 5.8% in February 2000 (see Table 3). As in previous months, this mainly resulted from a stronger rate of increase in intermediate goods prices which, in turn, reflected the impact of past oil and non-oil commodity price increases on input costs, as well as the significant depreciation of the euro's nominal effective exchange rate. With regard to developments in the other components of the Producer Price Index, the annual increase in consumer goods prices edged up further in March 2000 to 0.8% year-on-year, while the rate of increase in capital goods prices remained unchanged at 0.4% in the same month (see Chart 12). While the rates of increase in both consumer and capital goods prices remained quite moderate in March, they have exhibited a gradual upward movement since the first half of 1999. This suggests that the rise in intermediate goods prices is having a moderate upward impact on producer prices further along the production chain. In addition to these developments in producer prices, in April 2000 the Reuters Eurozone Price Index increased further to reach its highest level yet (see also Chart 12). Since this indicator has exhibited a high correlation with developments in overall producer prices in recent years, it suggests that there may have been further upward pressure on euro area producer prices as a result of rising input costs in April 2000.

The available data on labour costs indicate that the upward pressure on prices arising from wage developments remained subdued up to the fourth quarter of 1999. The annual change in total hourly labour costs stood at 2.2% in the fourth quarter of 1999, i.e. unchanged from the previous quarter (see Table 3). In addition, the most up-to-date

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.

estimate for unit labour cost growth of 0.4% in the year up to the fourth quarter of 1999 represents a decrease of 0.4 percentage point compared with the rate of growth in the third quarter. This reflects a further cyclical increase in labour productivity growth to 1.7% year-on-year in the fourth quarter, together with the continuation of relatively subdued nominal wage growth. At this juncture, the available information on wage settlements in the euro area indicates that negotiated wage increases for 2000 have remained quite moderate.

3 Output, demand and labour market developments

Revised GDP estimates point to only a moderate slowdown in growth for 1999

According to the latest estimate by Eurostat for the fourth quarter of 1999, euro area real GDP is now estimated to have grown by 0.8% compared with the previous quarter, revised downwards slightly from the earlier estimate of 0.9%. While the estimate for real GDP growth in the third quarter of the year remained unchanged at 1.0%, the estimates for the first and second quarters of 1999 were revised upwards by 0.1 percentage point to 0.7% and 0.6% respectively (see Table 4). Overall, this slight revision of the pattern of growth leaves the picture of a noticeable upturn in the second half of last year unchanged. At the same time, overall growth in 1999 is now estimated to have been 2.4%, down from 2.7% in 1998. In retrospect, the slowdown in growth for 1999 thus appears to have been rather limited compared with that implied by previous estimates.

The downward revision of real GDP growth in the fourth quarter of 1999 essentially reflects a lower contribution to growth from changes in inventories compared with the previous estimate, which is partly offset by a slightly higher and now positive contribution to growth from net exports. The contribution from final domestic demand (i.e. domestic demand excluding changes in inventories) remained unchanged. Taken together, the revised estimates for the fourth quarter of 1999 accentuate the picture of overall GDP growth being supported, in particular, by strong growth in exports and private consumption.

Rebound of growth in industrial production in February 2000

Measured on the basis of seasonally adjusted data, euro area industrial production as estimated by Eurostat saw a particularly strong increase in February 2000, following a slight decline in the previous two months

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	1998 Q4	1999 Q1	1999 Q2	1999 Q3	1999 Q4	1998 Q4	1999 Q1	1999 Q2	1999 Q3	1999 Q4
Real gross domestic product	2.3	2.7	2.4	2.0	1.9	2.0	2.5	3.1	0.3	0.7	0.6	1.0	0.8
of which:													
Domestic demand	1.7	3.4	2.9	3.3	2.9	2.9	3.0	2.6	1.0	0.8	0.4	0.6	0.7
Private consumption	1.5	3.0	2.5	3.1	2.8	2.4	2.4	2.5	0.6	0.8	0.3	0.7	0.7
Government consumption	0.8	0.9	1.4	1.0	1.5	1.3	1.6	1.4	0.3	1.1	-0.1	0.3	0.2
Gross fixed capital formation	2.1	4.5	4.9	3.9	4.0	5.5	5.1	4.9	0.7	1.8	0.9	1.6	0.5
Changes in inventories [3] [4]	0.2	0.5	0.1	0.4	0.2	0.1	0.1	-0.2	0.5	-0.2	0.1	-0.2	0.2
Net exports [3]	0.6	-0.6	-0.4	-1.1	-1.0	-0.9	-0.4	0.5	-0.7	-0.2	0.1	0.4	0.1
Exports [5]	10.3	6.9	4.4	2.2	0.6	2.3	5.5	9.1	-1.3	0.6	2.6	3.5	2.1
Imports [5]	8.8	9.4	6.0	6.1	3.8	5.2	7.0	8.0	0.9	1.1	2.4	2.4	1.8

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.

Table 5

Industrial production in the euro area

(annual percentage changes, unless otherwise indicated)

	1998	1999	1999 Dec.	2000 Jan.	2000 Feb.	1999 Dec.	2000 Jan.	2000 Feb.	1999 Sep.	1999 Oct.	1999 Nov.	1999 Dec.	2000 Jan.
						month-on-month			three-month moving averages				
Total industry excl. construct.	4.3	1.8	5.0	3.4	5.4	-0.1	-0.2	1.2	1.3	1.4	1.5	1.2	0.9
Manufacturing	4.8	1.8	5.6	3.3	6.4	0.2	-0.4	1.5	1.7	1.2	1.3	1.0	1.1
by main industrial groupings:													
Intermediate goods	4.0	2.1	7.1	4.6	6.6	0.3	-0.2	1.3	1.5	1.7	1.7	1.7	1.4
Capital goods	7.0	1.6	4.1	6.2	6.9	0.6	0.8	0.4	1.7	1.5	1.4	1.7	1.9
Consumer goods	3.3	2.2	4.4	1.0	4.4	-0.5	-1.4	2.3	1.3	0.8	0.9	0.2	0.2
Durable consumer goods	6.2	3.4	7.5	7.2	10.8	1.1	1.1	2.4	2.7	0.6	0.9	1.2	3.4
Non-durable consumer goods	1.8	1.7	3.5	-1.4	1.1	0.0	-0.3	0.2	0.6	0.5	0.4	0.2	0.0

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.

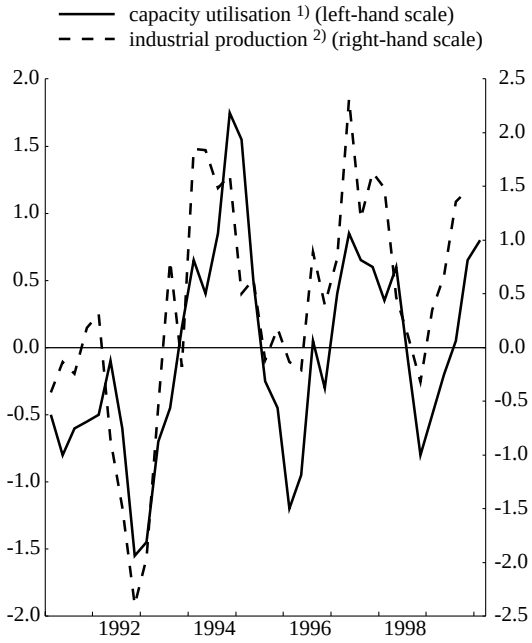
(see Table 5). In the three-month period from December 1999 to February 2000 industrial production excluding construction grew by 0.9% compared with the preceding three-month period, somewhat below the corresponding growth rates of between 1.2% and 1.5% recorded in the second half of 1999. However, as this reflects the temporary weakness in December 1999 and January 2000, the results remain consistent with continued underlying strong production growth, as observed in recent months. The strength of industrial activity is also visible in the growth of value added in industry (excluding construction), which in volume terms was 1.1% in the fourth quarter of 1999 compared with the previous quarter (see Box 3 for more details on value added data for the euro area).

With regard to the manufacturing sector, growth in production in the three-month period up to February 2000 was 1.1% compared with the three months leading up to November 1999, i.e. broadly unchanged from the rates of growth recorded in the previous three-month periods. In the intermediate and capital goods industries, production continued to increase at average three-month on three-month growth rates of around 1½%, while the growth performance in consumer goods industries was more diverse. In the three-month period up to February 2000 the results point to a strong rebound of growth in the durable consumer goods industries, contrasting with

Chart 13

Capacity utilisation and industrial production in the euro area

(in manufacturing; seasonally adjusted data; quarterly averages)



Sources: Eurostat and European Commission Business and Consumer Surveys.
1) Change compared with the previous period in percentage points.
2) Percentage change compared with the previous period.

Box 3

The structure and development of value added in the euro area

Gross domestic product (GDP) covers the goods and services produced by the individual sectors of the economy. Measured on a value added basis, it counts only the values which are added at each stage of production. In this issue of the ECB Monthly Bulletin value added data for the euro area are, for the first time, presented in terms of total gross value added and a breakdown into six major categories. In the table below these categories are referred to as agriculture and fishing, industry (excluding construction), construction, trade and transport, financial and business services, and public administration (see also Table 5.1 in the "Euro area statistics" section of the ECB Monthly Bulletin). In particular, this breakdown provides valuable information on output developments in the euro area services sectors for which only a few short-term indicators are otherwise available at the euro area level. The value added data are own ECB estimates based on national data, covering 97% of the euro area in terms of GDP weights, as Ireland, Luxembourg and Portugal do not yet release a quarterly breakdown of value added. The coverage is lower for periods prior to 1995 and in cases where some countries have not yet released data for the latest available quarter of the euro area estimate. In order to characterise the estimates as the ECB's own calculations, they are presented as indices, but these will be replaced by the corresponding values and volumes, expressed in euro, which Eurostat intends to compile in the future.

Composition of growth in real value added in the euro area

(percentage changes; seasonally adjusted)

	W [3]	Annual rates [1]							Quarterly rates [2]				
		1998	1999	1998 Q4	1999 Q1	1999 Q2	1999 Q3	1999 Q4	1998 Q4	1999 Q1	1999 Q2	1999 Q3	1999 Q4
Real gross value added	100.0	2.8	2.3	2.0	1.8	1.9	2.5	2.9	0.3	0.6	0.6	1.0	0.7
of which:													
Agriculture and fishing [4]	2.6	2.3	2.2	1.0	1.5	1.2	3.3	2.8	0.6	1.0	0.2	1.5	0.0
Industry	29.7	2.3	1.8	0.4	0.2	1.0	2.2	3.7	-0.4	0.5	0.8	1.3	1.1
Excluding construction [5]	23.7	3.1	1.7	0.8	0.2	0.7	2.0	3.8	-0.6	0.3	0.9	1.4	1.1
Construction	6.0	-1.1	2.1	-1.4	0.0	2.5	2.9	3.3	0.3	1.4	0.3	0.9	0.7
Services	67.7	3.0	2.5	2.8	2.5	2.3	2.6	2.6	0.6	0.6	0.5	0.9	0.6
Trade and transport [6]	20.7	4.2	3.3	3.5	3.1	3.1	3.6	3.6	0.6	1.2	0.5	1.3	0.5
Financial and business services [7]	25.4	3.5	3.0	3.2	3.0	2.7	3.0	3.1	0.8	0.5	0.8	0.9	0.8
Public administration [8]	21.6	1.4	1.2	1.6	1.4	1.1	1.1	1.1	0.3	0.1	0.2	0.4	0.3

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) Weights. Referring to 1995.
4) Also includes hunting and forestry.
5) Includes mining, quarrying, manufacturing, electricity, gas and water supply.
6) Also includes repairs, hotels and restaurants, communication.
7) Also includes real estate and renting services.
8) Also includes education, health and other services.

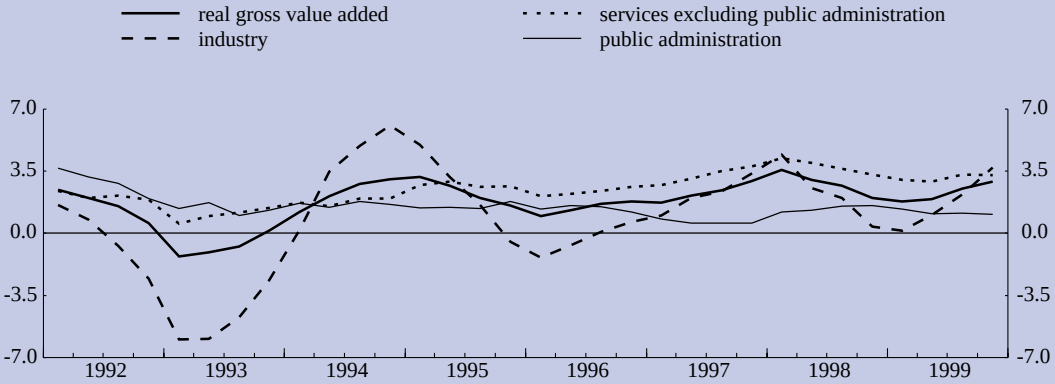
The estimates of area-wide value added confirm that, with regard to the structure and the development of sectoral output growth, the euro area displays those characteristics which are commonly associated with mature industrialised economies. In terms of the relative importance of the individual sectors, only slightly less than one-third of total gross value added is produced by industry, while the services sectors account for two-thirds. Agriculture and fishing make only a small contribution of less than 3% to total value added (see the table above). Services comprise a variety of activities and the three categories available under the current breakdown each have a weight of between 20% and 25% in terms of total gross value added.

On the basis of developments in growth of value added in the 1990s, the cyclical movements have been largest in industry, while growth in services has clearly been more stable (see the chart below). This relative stability of growth in services activities is essentially a result of the robustness of growth in value added in relation to financial and business services, including the real estate and rental services. The activities in this category tend

to have a lower cyclical sensitivity and in the period under review they dampened the somewhat more pronounced cyclical movements in the trade and transport category. Growth in value added in the category covering services relating to public administration and, inter alia, education and health also exhibited a relatively smooth path, as would be expected from the nature of the services provided. Value added in this category to a large extent reflects non-market activities and thus mainly the compensation of employees in the respective sectors. Growth of value added in this category was relatively subdued in the second half of the 1990s, partly as a result of efforts in euro area Member States to consolidate public finances.

Sectoral output growth in the euro area

(annual percentage changes; quarterly data)

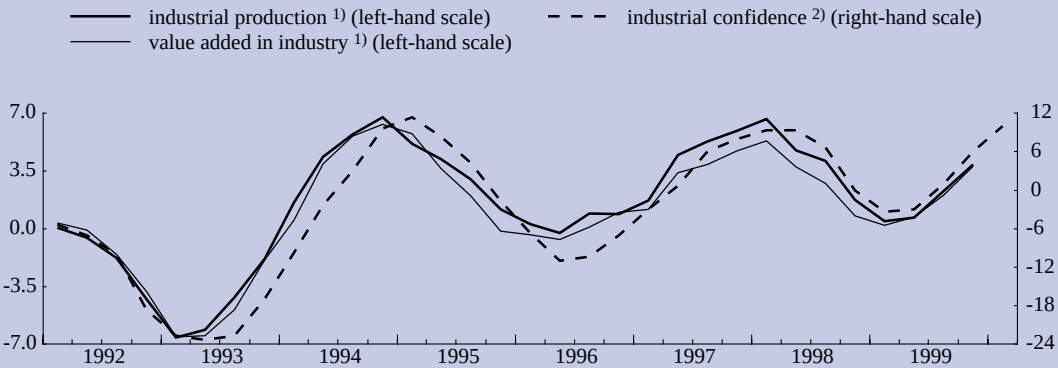


Sources: Eurostat and ECB calculations.
Note: For further information on the data used, please refer to the table in this box.

Looking at recent developments, the estimates for value added are consistent with the information provided by other indicators, namely that the strengthening of economic growth in the course of last year is mainly explained by a strong pick-up in industrial output growth. More generally, growth of value added in industry (excluding construction) is a reflection of industrial production growth, albeit with some small differences (see the chart below). For instance, by contrast with previous periods of cyclical downturn in the 1990s, it appears that the downturn in industrial production growth in 1998/99 was slightly stronger than that of industrial confidence and of growth in value added in industry excluding construction. Owing to a lack of suitable short-term indicators at the area-wide level, no such consistency comparisons can be made with regard to the estimates of value added in the services sectors.

Industrial output growth and industrial confidence in the euro area

(quarterly data)



Sources: Eurostat, European Commission Business and Consumer Surveys and ECB calculations.
1) Annual percentage changes; excluding construction.
2) Percentage balances, deviations from the average since the first quarter of 1985.

a further weakening of growth in industries producing non-durable consumer goods.

Developments in capacity utilisation in the manufacturing sector are consistent with ongoing strong growth in industrial production in the first few months of this year (see Chart 13). In April 2000 capacity utilisation stood at 83.5%, up from a rate of 82.9% in January 2000. On average, in the first quarter of 2000 capacity utilisation stood at 83.2%, i.e. 0.8 percentage point higher than in the fourth quarter of 1999, when it had risen by 0.6 percentage point compared with the previous quarter.

Survey data in April point to continued positive developments

The results of the European Commission's Business and Consumer Surveys in April 2000 point to a continuation of recent developments, with industrial confidence increasing further and consumer confidence remaining unchanged at record high levels. This underpins expectations of continued strong growth in output and demand in the first few months of this year. The economic sentiment indicator did not increase any further from the high level reached in March 2000, reflecting a substantial fall in the share price index, which offset the improvements in industrial and construction confidence (see Table 6).

In April 2000 industrial confidence increased for the eighth consecutive month, almost reaching the record high seen in the first half of 1989. As regards the components of industrial confidence, the increase in April 2000 reflects more positive assessments of order books and stocks of finished products, while production expectations remained unchanged at a high level. The picture of favourable conditions for growth in manufacturing production is also supported by the euro area Purchasing Managers' Index (PMI). In April 2000 the PMI saw a further sizeable increase, reaching a new high since the beginning of the series in mid-1997 (see Chart 14). Considering the individual components of the PMI, the rise in the overall index in April was mainly the result of a further significant increase in output and a further considerable lengthening of suppliers' delivery times, consistent with stronger activity and increased demand pressures on suppliers. The PMI also benefited from increases in new orders and in employment,

Table 6

Results from EC Business and Consumer Surveys for the euro area

(seasonally adjusted data)

	1997	1998	1999	1999 Q2	1999 Q3	1999 Q4	2000 Q1	1999 Nov.	1999 Dec.	2000 Jan.	2000 Feb.	2000 Mar.	2000 Apr.
Economic sentiment index [1]	2.4	2.7	-0.2	-0.6	0.1	0.9	1.0	0.6	0.2	0.4	0.4	0.1	0.0
Consumer confidence indicator [2]	-4	6	9	7	7	10	11	10	10	10	11	11	11
Industrial confidence indicator [2]	3	6	0	-3	1	6	10	6	7	8	10	11	12
Construction confidence indicator [2]	-11	3	15	15	15	19	22	22	18	24	20	22	24
Retail confidence indicator [2]	-3	3	1	2	-1	-1	6	-3	4	4	3	11	3
Capacity utilisation (%) [3]	81.4	82.9	81.9	81.7	81.8	82.4	83.2	-	-	82.9	-	-	83.5

Source: European Commission Business and Consumer Surveys.

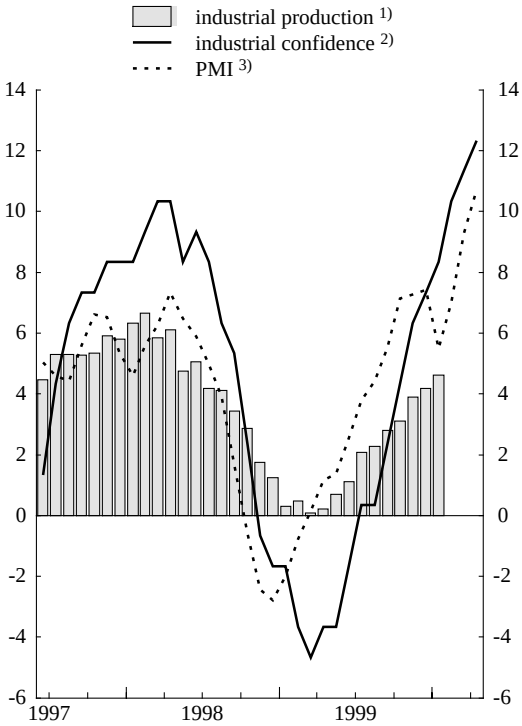
1) *Percentage changes compared with the previous period.*
2) *Percentage balances; data shown are calculated as deviations from the average over the period since January 1985.*
3) *Data are collected in January, April, July and October of each year. The quarterly figures shown are the average of two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

while stocks of purchased materials were reported to have remained essentially unchanged.

Consumer confidence remained unchanged in April 2000 at a level corresponding to the all-time high reached in February of this year and, prior to this, in the first quarter of 1999. Overall, consumer confidence only underwent a modest decline in 1999, caused mainly by a temporary deterioration in the assessment of the general economic situation, and it has now been back at historically high levels for six consecutive months. While overall consumer confidence remained unchanged in April 2000, there were offsetting movements in terms of the individual components. Specifically, a more positive assessment by households of the general economic situation was counterbalanced by a slightly less positive assessment of their financial situation in future months and less willingness to make major purchases at present.

Chart 14

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.

The continued high level of consumer confidence would be consistent with ongoing strong growth in private consumption in the first few months of this year. Since the publication of the April issue of the ECB Monthly Bulletin, there have been no releases of euro area data on retail sales. Developments up to January 2000 point to broadly unchanged growth in retail sales volumes at around the turn of 1999/2000. Following declines in the second half of last year, the number of new passenger car registrations increased by 3.5% in the first quarter of this year compared with the previous quarter.

Overall, with indications of continued strong growth in industrial activity on the one hand and in private consumption on the other, the likelihood of quarter-on-quarter real GDP growth in the first quarter of 2000 reaching a similar magnitude to that observed in the second half of 1999 remains good.

Unemployment continued to fall in March

In March 2000 the standardised rate of unemployment in the euro area stood at 9.4%, i.e. 0.1 percentage point down from the rate recorded in February 2000 (see Table 7). The results for March confirm the expectation of a continuing decline in the unemployment rate in line with the details reported in the April issue of the ECB Monthly Bulletin. Indeed, the fall in the unemployment rate in March 2000 was twice that which had been observed in February. In the first quarter of 2000 the unemployment rate remained on the downward trend observed in the latter part of 1999 (see Chart 15).

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 Oct.	1999 Nov.	1999 Dec.	2000 Jan.	2000 Feb.	2000 Mar.
Total	11.5	10.9	10.0	10.0	9.9	9.7	9.5	9.7	9.7	9.6	9.5	9.5	9.4
Under 25 years [1]	23.2	21.3	19.0	19.2	18.8	18.1	17.8	18.3	18.2	18.0	17.9	17.9	17.6
25 years and over [2]	9.9	9.4	8.7	8.8	8.7	8.5	8.3	8.5	8.5	8.5	8.4	8.3	8.3

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.

The breakdown by age shows that the unemployment rates of both those under 25 years of age and those over 25 years of age fell during the course of the first quarter of 2000. The decline recorded in the youth unemployment rate for this period is below that recorded in the last quarter of 1999. However, the fall in the rate in March 2000 was clearly larger than it had been in the previous two months. It was also larger than the month-on-month decline observed on average in 1999. As regards those over 25 years of age, their unemployment rate continued to decline in the first quarter of 2000 compared with the latter part of 1999, when it had remained broadly stable. Finally, at the national level, a broadly based downward trend in unemployment continued to be the general pattern for the first quarter of 2000, together with a reduction in the dispersion of unemployment rates.

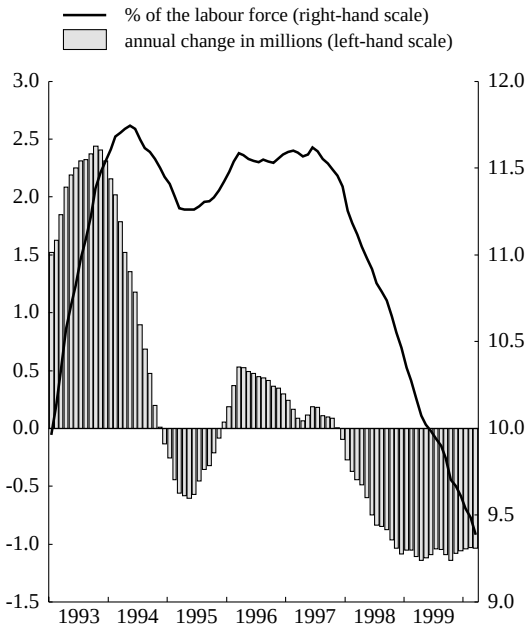
Employment growth benefited from a positive contribution from industry in the last quarter of 1999

As regards employment, no new data have been received since the April issue of the ECB Monthly Bulletin was published. According to available national data, total employment is estimated to have increased at a quarter-on-quarter rate of 0.3% in the fourth quarter of 1999, i.e. at a rate identical to that recorded in the previous two quarters (see Table 8). Net job creation in the fourth quarter of 1999 benefited from a positive contribution from employment growth in the industrial sector, which showed signs of recovery in the latter part of the year. Employment in industry grew by 0.1% in the fourth quarter of 1999, after having fallen for two consecutive quarters, according to data recently released by Eurostat. This increase was mainly a result of the positive developments in manufacturing, while the construction sector maintained its momentum. Results from different sources suggest that conditions for job creation in

Chart 15

Unemployment in the euro area

(monthly data; seasonally adjusted)



Source: Eurostat.

Table 8

Employment growth in the euro area

(annual percentage changes, unless otherwise indicated)

	1998	1999	1999 Q1	1999 Q2	1999 Q3	1999 Q4	1999 Q1	1999 Q2	1999 Q3	1999 Q4	1999 Oct.	1999 Nov.	1999 Dec.
							Quarterly rates [1]						
Whole economy [2]	1.4	1.5	1.7	1.6	1.4	1.3	0.4	0.3	0.3	0.3	-	-	-
Total industry	0.3	0.2	0.3	0.3	0.1	0.0	0.0	-0.1	-0.1	0.1	-0.1	0.1	0.1
Construction	0.2	3.0	2.9	3.5	3.7	2.1	0.9	0.2	0.6	0.4	2.1	2.1	2.0
Total industry excl. construct.	0.4	-0.4	0.0	-0.5	-0.7	-0.5	0.0	-0.3	-0.2	-0.1	-0.7	-0.5	-0.4
Manufacturing	0.8	-0.2	0.2	-0.4	-0.5	-0.3	-0.1	-0.3	0.0	0.1	-0.4	-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.

the manufacturing sector will continue to improve in the euro area, including the latest data on industrial production, which point to continued strength in the industrial sector. Employment in the services sector is estimated to have grown at a broadly stable rate in the fourth quarter of 1999, in line with the results of the Purchasing Managers' Index (PMI) for services and in line with employment expectations in retail trade recorded in the European Commission Business and Consumer Surveys.

4 Exchange rate and balance of payments developments

Downward pressure on the euro increasingly inconsistent with underlying economic developments

In April and early May the euro faced significant downward pressure in foreign exchange markets against a number of currencies, especially the US dollar. This movement appeared to be increasingly inconsistent with underlying economic developments and prospects which would have suggested a strengthening of the euro. The euro also continued to face downward pressure against the Japanese yen, the pound sterling and a number of currencies of emerging market economies. In nominal effective terms, the euro weakened by around 3% between 12 April and 10 May 2000.

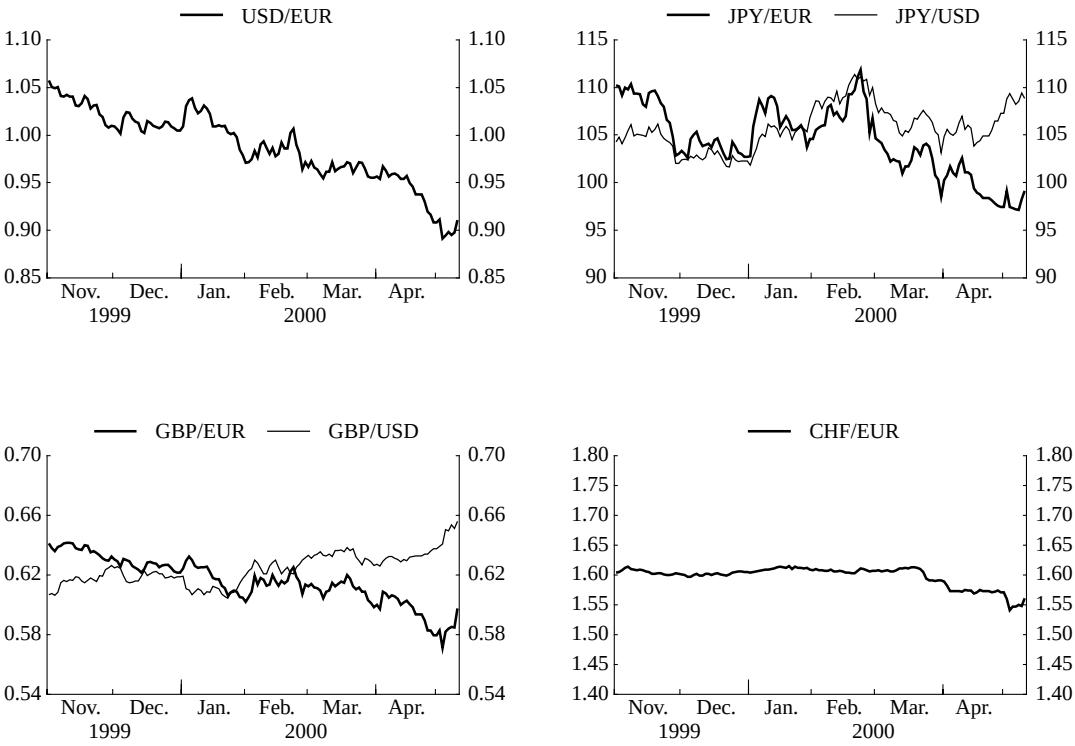
Against the US dollar, the euro depreciated by around 5% between mid-April and 10 May, notwithstanding economic data pointing towards a strengthening of the euro area economy and increasing signs of imbalances in the US economy. In the euro area economic activity continued to be on a rising and well-balanced path, as reflected in both a strengthening of domestic demand and a strong net trade performance, and also signalled by consumer and industrial confidence indicators which were at, or close to, record levels. As a result, the growth differential with the United States could be regarded as narrowing. At the same time, data releases in the United States highlighted imbalances in the US expansion; this was reflected in a rise in annual inflation to 3.7% in March 2000, record levels in the trade deficit and significant increases in financial market volatility. On 10 May the euro was quoted at USD 0.911 (see Chart 16).

The Japanese yen showed somewhat lower fluctuations in late April and early May than earlier this year. It appreciated against the euro, but weakened against the US dollar. Data releases largely confirmed a more broadly based recovery of the Japanese

Chart 16

Patterns in exchange rates

(daily data)



Source: ECB.

economy, with signs that private consumption is rebounding. Data on industrial production and corporate profitability had already improved. The Bank of Japan stressed the recent improvements in Japan's economic outlook, but decided at its meeting in early May to leave policy rates near zero levels for the time being. On 10 May 2000 the euro was quoted at JPY 99.13, around 2% below its level in mid-April.

The pound sterling rose somewhat against the euro from mid-April to mid-May 2000, although the first-quarter GDP growth figures for the United Kingdom released at the end of April were slightly lower than expected. As recent trade data indicated, however, the strength of the pound sterling – which currently stands at a 15-year high in trade-weighted terms – is adversely affecting export performance. On 10 May the euro was quoted at GBP 0.598.

The currencies in ERM II remained mostly stable (see Chart 17). The Greek drachma depreciated somewhat within the context of volatility and some corrections in the Greek stock market, partly as a result of profit-taking. On 10 May the drachma was quoted 1.3% above its central parity of GRD 341 per euro. The Danish krone remained virtually stable at around DKK 7.45 per euro.

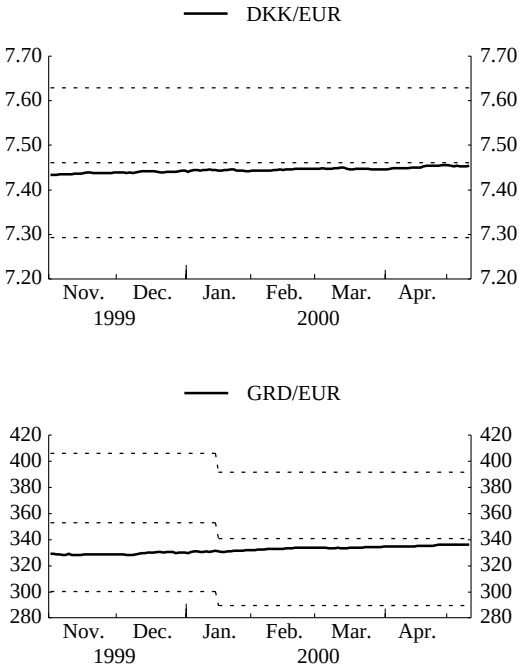
The Swiss franc continued to strengthen slightly against the euro and its level of CHF 1.56 per euro on 10 May was some 3% above its average in the first quarter of this year. The strengthening of the Swiss franc against the euro may be associated with a tightening of monetary policy of 75 basis points in Switzerland in March.

Foreign exchange markets in emerging market economies were mostly unaffected by the significant volatility and corrections in global stock markets. An exception has been Brazil,

Chart 17

Patterns of exchange rates within ERM II

(daily data)



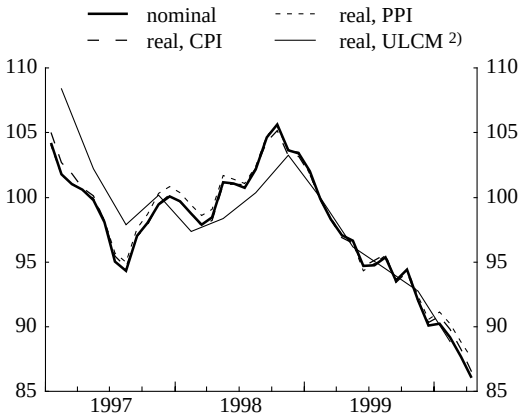
Source: ECB.

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 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 April 2000 and for the ULCM-based REER for Q1 2000.*

2) *Unit Labour Costs in Manufacturing.*

the currency of which has recently come under renewed pressure following a sharp drop in its stock market.

In mid-May the euro stood, in nominal effective terms, around 15% below the level in the first quarter of 1999 (see Chart 18). Given that, since the launch of the euro, relative price differentials between the euro area and its main trading partners have been negligible, the real effective exchange rates of the euro on the basis of CPI, PPI and ULC deflators – a proxy for the price and cost competitiveness of the euro area – is exhibiting a pattern similar to that of the nominal exchange rate.

Strong growth in export volumes

In February 2000 the current account surplus of the euro area increased marginally, to €2.4 billion, from €2.3 billion in the corresponding month in 1999. This was due to lower deficits on both income and current transfers, which more than offset a lower goods surplus and a shift of €2 billion from balance to deficit for services (see Table 9).

As in recent months, the value of both exports and imports of goods grew very rapidly in February 2000 compared with the same month last year. Exports rose by €14.4 billion (or around 25%) over this period, primarily reflecting strong underlying growth in export volumes as a result of robust foreign demand and improvements in euro area price competitiveness. At the same time, imports rose by €15.1 billion (or approximately 30%), which was largely attributable to the sharp rise in import prices during 1999 resulting from higher oil prices and the depreciation of the euro.

Table 9 in the "Euro area statistics" section of this issue shows that euro area export volumes increased by almost 9% in the 12-month period up to December 1999, while export prices rose by around 6.5%. The latter suggests that exporters have increased their profit margins, as euro area producer prices

Table 9

Balance of payments of the euro area

(EUR billions; not seasonally adjusted)

	1999 Jan. - Feb.	1999 Feb.	2000 Jan. - Feb.	1999 Dec.	2000 Jan.	2000 Feb.
Current account balance	-0.1	2.3	-4.2	-0.5	-6.6	2.4
Credits	190.4	95.1	225.2	121.3	110.8	114.4
Debits	190.5	92.8	229.4	121.8	117.4	112.0
Goods balance	11.7	6.9	7.2	7.7	0.9	6.3
Exports	110.9	57.4	135.5	74.1	63.7	71.8
Imports	99.2	50.5	128.3	66.4	62.8	65.6
Services balance	-2.9	0.0	-3.9	-1.3	-1.9	-2.0
Exports	32.1	17.2	35.6	22.2	17.8	17.9
Imports	34.9	17.2	39.6	23.4	19.7	19.9
Income balance [1]	-4.8	-2.5	-5.1	-1.9	-4.3	-0.8
Current transfers balance	-4.2	-2.2	-2.3	-5.0	-1.3	-1.0
Capital account balance	2.6	-0.1	1.6	2.8	1.4	0.2
Financial account balance	7.2	6.8	26.8	-6.4	17.1	9.7
Direct investment	-10.9	-6.2	146.8	-20.6	2.0	144.7
Abroad	-23.8	-12.0	-24.8	-35.2	-5.4	-19.4
In the euro area	12.9	5.8	171.5	14.5	7.4	164.2
Portfolio investment	-17.5	-26.4	-156.2	2.9	-17.5	-138.7
Assets	-35.3	-16.2	-93.2	-41.5	-25.1	-68.1
Liabilities	17.8	-10.2	-63.0	44.4	7.6	-70.6
Financial derivatives	-2.3	-0.4	1.3	-0.3	-1.3	2.6
Other investment	35.2	34.8	35.8	12.2	35.5	0.2
Reserve assets	2.8	5.0	-0.8	-0.5	-1.6	0.8
Errors and omissions	-9.7	-9.0	-24.3	4.0	-11.9	-12.3

Source: ECB.
Note: 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. Figures may not add up due to rounding.
1) Monthly figures for 1999 are not closely comparable with later observations.

increased by only around 4% during this period. At the same time, total import volumes grew by less than 3%, largely reflecting a considerable slowdown in non-energy import volumes owing to the improved competitiveness of euro area suppliers resulting from the decline of the euro. However, energy imports seem to be somewhat less price-elastic, particularly over the shorter term.

In the first two months of this year the current account recorded a cumulative deficit of €4.2 billion, compared with a deficit of €0.1 billion in the same period in 1999. The increase in the deficit was mainly due to a €4.5 billion decline in the goods surplus.

Large single direct investment transaction dominated the financial account in February

Financial flows in February were greatly influenced by a single transaction involving the acquisition of a euro area company by a non-resident firm, which was settled through an exchange of shares. In the euro area

balance of payments, this operation resulted in a direct investment inflow, offset by an equity outflow within portfolio investment.

Primarily as a result of the above transaction, direct investment recorded a net inflow of €144.7 billion in February, more than double the direct investment in the euro area for 1999 as a whole. At the same time, portfolio investment equities showed net outflows of €144.6 billion, compared with €56 billion for 1999 as a whole (see Table 8.4 in the "Euro area statistics" section). The settlement of the transaction through an exchange of shares affected both equity assets and liabilities: an investment in foreign equities, i.e. an equity asset outflow, was reported insofar as euro area residents exchanged their shares in the resident company for shares in the foreign company. Most of the shares in the euro area company which was taken over were, however, already owned by non-residents. The exchange of these shares for shares in the foreign company reduced the investment of non-residents in euro area equities through an equity liability outflow.

With regard to the other accounts, debt instruments registered a net inflow of €5.9 billion, which was mainly related to substantial investment by non-residents in euro area money market instruments.

The information content of interest rates and their derivatives for monetary policy

The term structure of interest rates and prices of interest rate derivatives provide central banks with a rich source of information on market expectations concerning a number of fundamental macroeconomic variables. This article describes how financial asset prices based on interest-bearing securities can be used to extract information about market expectations for future economic activity and inflation, as well as future changes in short-term interest rates. In addition to providing information on market expectations concerning these factors, the prices of such assets also provide valuable information on the degree of uncertainty which the market attaches to future developments. While such financial indicators are not a substitute for the central bank's own independent assessments and forecasts, the information conveyed by these indicators is important for monetary policy since it provides a means of cross-checking the central bank's own evaluation of risks to price stability and thereby contributes to determining the appropriate monetary policy reactions to counteract such risks.

1 Introduction

Information embedded in the market prices of various financial assets provides central banks with timely forward-looking information on market expectations regarding a number of fundamental factors, such as future economic activity, inflation and the path of short-term interest rates. The analysis of such expectations is important for the conduct of a forward-looking monetary policy that focuses on maintaining price stability in the medium term. In particular, in the context of the two-pillar monetary policy strategy pursued by the Eurosystem in order to maintain its primary objective of price stability, financial asset prices play an important role as indicators in the second pillar (see the article entitled "The stability-oriented monetary policy strategy of the Eurosystem" in the January 1999 issue of the ECB Monthly Bulletin).

An essential characteristic of the monetary policy strategy of the Eurosystem is that it does not foresee mechanistic monetary policy reactions to any indicators or forecasts. This also applies to market expectations extracted from financial asset prices. Moreover, such market expectations can never be a substitute for the central bank's own independent assessment of the economic situation and of future economic developments. Rather, these market indicators should be viewed as providing separate and complementary information which can be used to cross-check the central bank's own internal assessment and forecasts. Although market expectations can be extracted, in principle, from a wide range of financial asset prices, this article focuses solely on those asset prices which are based on fixed income securities, such as bonds, money market instruments and associated derivatives.

Financial asset prices reflect market expectations because they are inherently forward-looking in nature. Specifically, the current price of an asset is determined by the discounted expected value of its stream of future pay-offs. In general, the discount rates used to price financial assets are driven by two factors: the compensation for postponing consumption to a future date, and the compensation for bearing the risk associated with the uncertainty linked to the future stream of pay-offs. Hence, generally speaking, in order to price a financial asset, investors need to form expectations of future pay-offs from the asset and determine which discount rates – including risk premia – they should apply.

In a liquid and efficient market the price of an asset should therefore reflect both the market view of the expected future cash flows and the discount rates that determine this price. For a bond which is free of default risk and has known maturity and coupon payments, the problem of pricing the bond is merely one of determining the interest rates, including risk premia, that are needed to discount back each of the remaining coupon payments and the principal. These interest

rates, in turn, are determined by expectations of underlying fundamental variables, such as future inflation and real interest rates, as well as compensation for the risk associated with the uncertainty surrounding these expectations. Hence, by studying variations in prices of financial assets such as bonds, it should be possible to extract information on how market participants' expectations change over time.

In addition to traditional financial assets, derivatives prices incorporate information on a number of other characteristics associated with market expectations (see Box 1). For example, derivative instruments such as options contracts make it possible to estimate the expected future volatility of an asset's return, which provides a measure of the uncertainty that the market attaches to future developments. Furthermore, options can be used to infer whether the uncertainty is perceived by the market to be symmetric or concentrated mainly in a specific direction. In fact, given a sufficient number of options prices, a measure of the market's perceived probability distribution for the future price of an asset can be obtained.

Before turning to the interpretation of indicators based on financial asset prices, it is important to emphasise certain caveats. While it is generally accepted that asset prices reflect the market view regarding future developments in the economy, the practical implications and, in particular, the methods of extracting expectations have not been conclusively established. As a consequence, the information contained in financial prices must be interpreted by using a variety of

Box 1

An overview of common derivatives contracts

Forwards, futures and options

Derivatives contracts are instruments with a pay-off which depends on the future price of an underlying asset, e.g. a bond. The two main types of derivatives contracts that are actively traded on exchanges around the world are futures and options, although there are a variety of other derivative instruments that are mainly traded over the counter, such as forwards and swaps. This box briefly describes the main features of the most common derivative instruments and the models used to price them.

A *forward* contract is an agreement to buy or sell a specific underlying asset at a predetermined price (the delivery price) at a certain future date (the delivery or maturity date). The buyer of the forward contract agrees to buy the underlying asset, while the seller of the forward agrees to sell the underlying asset at the maturity date for the delivery price. The delivery price is set so that the value of the forward contract is zero at inception. This delivery price is referred to as the forward price.

A similar instrument is the *futures* contract. By contrast with forwards, futures are standardised in terms of maturity, notional amounts, etc. and are traded on exchanges. Furthermore, in the case of futures contracts, payment into a margin account is required, against which gains and losses are settled on a daily basis (so-called "marking to market"), while forward contracts are settled only at delivery. As in the case of forwards, the initially agreed delivery price is set such that the initial value of the futures contract is zero, and the corresponding delivery price is known as the futures price.

An *option* is an instrument that gives the owner the right, but not the obligation, to buy or sell the underlying asset at a predetermined price (the strike price or exercise price) at a certain future date (the exercise or maturity date). A call option gives the holder the right to acquire the underlying asset, whereas a put option gives the holder the right to sell it. The seller of the option has therefore agreed to sell the underlying asset (in the case of a call option) or to buy it (in the case of a put option) at the strike price if the owner of the option decides to exercise it. There are two main types of options: "American" options, which the owner can decide

to exercise at any time up to and including the maturity date, and "European" options, which may only be exercised at expiration. An option is said to be "at-the-money" if the current forward price of the underlying asset is equal to the exercise price of the option. If the exercise price of a call (put) option is higher (lower) than the forward price, the option is "out-of-the-money", whereas it is said to be "in-the-money" when the reverse is true.

Another important type of derivative instrument is the *swap* contract, in which two parties agree to exchange periodic payments for a predefined period of time. Interest rate swaps are discussed further in Box 2.

Derivatives pricing

Before discussing the indicators extracted from derivatives prices, a brief overview of how derivatives are priced may be useful. Starting with forwards, since the initial price is zero, the interesting aspect is the determination of the forward price. Assuming that the underlying asset is a traded financial security which does not make pay-offs during the period to maturity, the forward price is given by the current value of the underlying asset plus the interest rate earned on this value during the period to the maturity of the contract. The rationale behind this is that the cash flow of a forward contract settled at maturity can be completely replicated by a two-step strategy that involves (1) buying the underlying asset today and financing this purchase by borrowing at the available interest rate and (2) selling the underlying asset on the delivery date at the prevailing market price and repaying the loan. The amount that has to be repaid is the current value of the underlying asset plus the interest on this amount until maturity, which must also correspond to the forward price in order to exclude arbitrage opportunities. The futures price is generally similar to the forward price, and under some circumstances they may be identical.

Turning to options, the most commonly used formula for pricing European options was developed by Black and Scholes (1973).[1] According to their model, the value of an option is determined by five factors: the current price of the underlying asset, the strike price, the time to expiration of the option, the risk-free interest rate during the life of the option, and the volatility of the return on the underlying asset. The main assumption behind this result is that the price of the underlying asset follows a process which implies that returns are normally distributed with constant mean and volatility. All factors except for volatility are directly observable, which means that the latter must be estimated to allow the price of an option to be calculated.

This calculation can also be reversed, in the sense that given an observed option price, a value for volatility can be found that, by means of an option pricing model like the Black-Scholes formula, produces an option price which corresponds to the observed market price. This value for the volatility is referred to as the implied volatility. Given appropriate assumptions, the implied volatility can be interpreted as the market's best estimate of the expected volatility of the underlying asset's price during the remaining life of the option and therefore provides a measure of the uncertainty surrounding the evolution of the price of the underlying asset over the life of the option.

A notable feature of the Black-Scholes model, and of option pricing models in general (given a few assumptions), is that the expected return on the underlying asset is not relevant for pricing an option. Since the expected return, which should reflect investors' risk preferences by incorporating a risk premium, is not included in the calculation of option prices, it may be concluded that the price of an option does not depend on the risk preferences of investors. The rationale is, loosely speaking, that option pricing is based on an arbitrage argument, whereby the pay-off of an option can be perfectly replicated through a portfolio of other traded securities. The absence of arbitrage opportunities requires that the value of the option be equal to the value of the portfolio that replicates the pay-off from the option, a condition which holds irrespective of individual

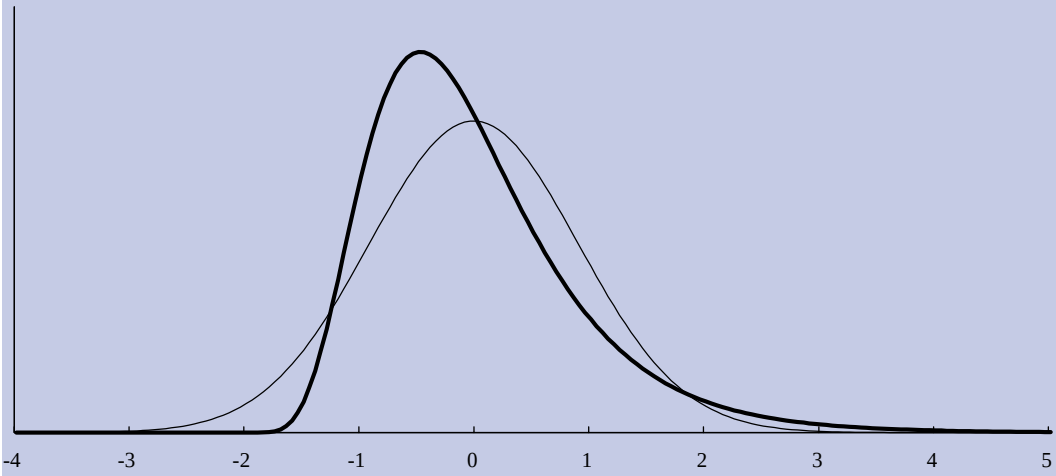
1 *Black, F. and Scholes, M. S. (1973), "The pricing of options and corporate liabilities,"* Journal of Political Economy, *81, 637-654.*

investors' preferences. Since preferences do not matter when pricing option contracts, it may be assumed, for example, that investors are risk neutral, which turns out to facilitate the pricing of options. This method is sometimes referred to as risk-neutral pricing.

Although the Black-Scholes model is widely used to price options and to calculate implied volatilities, it is commonly known that many of its underlying assumptions do not hold in the real world. In particular, the assumption that asset returns are normally distributed with constant volatility can be rejected for the vast majority of existing assets. In fact, volatility tends to vary over time and return distributions tend to have fatter tails than a normal distribution would imply (i.e. extreme price movements are more frequent than a normal distribution would predict). In many cases, the distribution is also skewed, implying that large price changes occur more frequently in one direction than in the other, as illustrated in the chart below. This chart shows two hypothetical return distributions with identical means and variances, but where one distribution is symmetric and the other is positively skewed. The positive skewness in this distribution is evident from the fact that the right-hand tail of the distribution is longer and wider than the left-hand tail, implying that outcomes far out in the right-hand tail (i.e. large positive outcomes) are more likely to occur than outcomes that are far out in the left-hand tail. For the symmetric distribution, however, the probabilities of positive and negative deviations of equal magnitude from the mean are identical.

Clearly, these departures from the assumptions do influence options prices, and it is therefore necessary to keep these caveats in mind when extracting information from observed option prices. In particular, by estimating the entire implied distribution of the underlying asset price at the time of expiration, rather than only the implied volatility, many of the aspects associated with departures from standard assumptions can be incorporated (see the appendix at the end of this article for further details).

Symmetric and positively skewed distribution



Note: The means and variances of the distributions are identical.

models, often in combination with a priori beliefs concerning the links between financial variables and economic developments. In addition, asset prices can be temporarily influenced by non-fundamental factors emanating from, for example, institutional features of the market or temporary imbalances between different types of agents in the market. For this reason, such factors must also always be taken into consideration in order to enable an appropriate assessment of market expectations to be conducted.

2 Indicators based on long-term fixed-income securities

The prices of long-term fixed-income securities such as government bonds can be used to infer market expectations regarding future economic activity and inflation. Furthermore, prices of derivatives on such securities can, to some extent, provide information on the degree of uncertainty associated with these expectations. The following sub-sections focus on these two aspects.

Inferring expectations concerning economic activity and inflation

In general, the nominal yield on a government bond can be decomposed into three elements: the expected real interest rate required by investors for holding the bond until it matures, compensation for the expected inflation rate during the life of the bond, and a component associated with various risk premia. The long-term real interest rate, in turn, is generally regarded as being linked to expectations of future economic growth. Variations in long-term bond yields over time could therefore, in principle, be interpreted in terms of changes in expected economic activity, expected inflation, risk premia, or a combination of these factors. Since bond prices are updated continuously, they can offer timely information on market expectations which reflect the latest information available to the market.

With regard to expectations of future economic activity, the slope of the yield curve is traditionally viewed as a useful indicator. A steepening of the yield curve is normally seen as signalling expectations of accelerating economic activity, whereas a flattening or even an inversion of the yield curve is taken as an indication of an expected slowdown in growth. There are a number of possible reasons why such a link may exist between the slope of the yield curve and expectations of future real growth. For example, if private agents believe there will be a weakening of real economic activity in the future, they will tend to increase their demand for long-term bonds with the expectation that the pay-offs from these bonds will compensate for losses in income when economic conditions have weakened. This will tend to drive up the price of long-term bonds relative to short-term bonds, which means that there would be a decline in long-term bond yields relative to short-term bond yields, resulting in a flatter yield curve. Similarly, when private agents expect economic conditions to improve in the future, they may consume more and save less, hence lowering their demand for long-term bonds such that the yield curve would tend to become steeper when economic growth is expected to pick up.

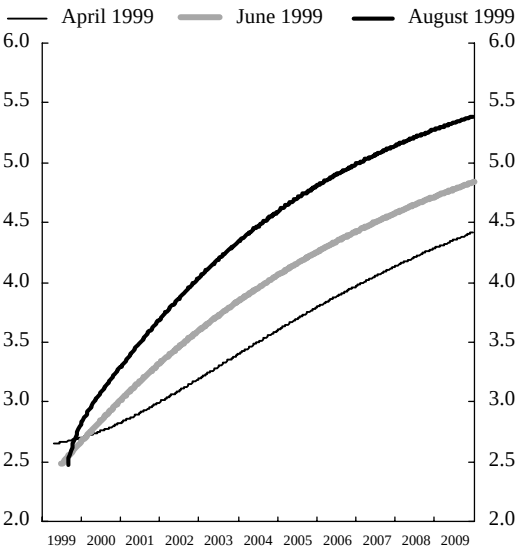
An alternative explanation is that when markets expect higher nominal growth, the central bank may be expected to react by increasing short-term interest rates in the future in order to contain inflationary tendencies. This would then be reflected in higher long-term interest rates today, since long-term rates can be viewed as averages of expected future short-term rates plus risk premia. As a result, the slope of the yield curve would tend to be positively related to expected future changes in real output.

In order to illustrate how the slope of the yield curve can change relatively rapidly as expectations regarding future economic activity are revised, Chart 1 displays the estimated euro area zero-coupon yield curves at three evenly spaced points in time during the spring and summer of 1999. The relative flatness of the yield curve in April, particularly at shorter maturities, reflected the then prevailing expectations that the recovery from the economic slowdown which had begun in late 1998 could take a relatively long time to materialise. However, this perception was subsequently quickly revised in the direction of a stronger and more rapid pickup in euro area economic activity, as indicated by the significant steepening of the yield curve in the following months.

Chart 1

Zero-coupon euro area yield curve

(percentages per annum)



Sources: Reuters and ECB estimation.
Note: The zero-coupon interest rates are estimated using Svensson's (1994) extension of the Nelson and Siegel (1987) method, applied to euro area money market and swap data. See Nelson, C. R. and Siegel, A. F. (1987), "Parsimonious modeling of yield curves," Journal of Business, 60, 473-489, and Svensson, L. E. O. (1994), "Estimating and interpreting forward interest rates: Sweden 1992-94," IMF WP/94/114, Washington D.C.

Besides possibly signalling expectations of accelerating economic activity, an increase in the steepness of the yield curve may also be consistent with market expectations of upward price pressures. It is therefore conceivable that part of the yield curve steepening observed in Chart 1 could have been associated with market expectations of somewhat higher inflation. In fact, this does not appear unreasonable, as inflation expectations embodied in the yield curve in early 1999 may have been overly depressed owing to an overreaction to the financial turbulence that had been triggered by the emerging markets crises in the second half of 1998. This overreaction may have temporarily depressed the level of long-term bond yields.

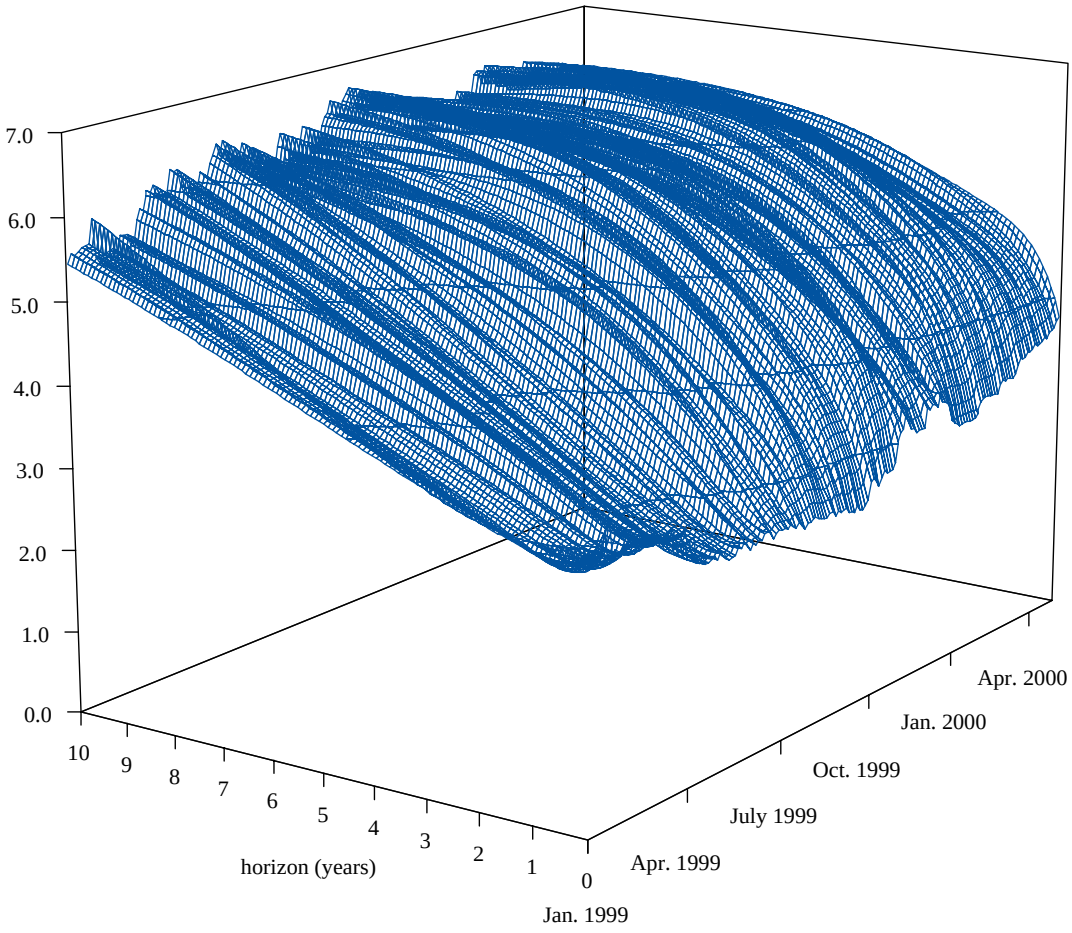
The relative influence of growth expectations and inflation expectations on the yield curve can be disentangled to some extent by employing additional indicators. A frequently used indicator is the implied instantaneous forward interest rate curve, which is sometimes referred to as the "implied forward overnight interest rate curve". This displays very short-term (i.e. approximately overnight) interest rates at various future horizons implied by the observed term structure of interest rates (see Box 4 in the January 1999 issue of the ECB Monthly Bulletin). Implied forward overnight rates can be interpreted as indicating the market's expectations regarding short-term interest rates at different future points in time, although it should be borne in mind that implied forward interest rates would be equal to expected future interest rates only in the absence of term premia. In other words, whereas the zero-coupon yield curve could be viewed as measuring expected averages of future short-term interest rates, the implied forward overnight interest rate curve can be seen as measuring the path of expected future short-term interest rates over time.

Chart 2 displays the estimated daily implied forward overnight interest rate curves from the beginning of 1999 until end-April 2000 for the euro area. In the chart, the estimation date together with the horizon of the forward rate and the level of the implied forward overnight rate are shown on three separate axes. It is evident that the shape of the forward yield curve has undergone significant changes since the beginning of 1999. In particular, the chart shows that the steepness of the implied forward overnight curve tended to increase at short and medium maturities, while at the long end of the curve the implied forward rates remained stable. These changes indicate that market expectations concerning the evolution of future short-term interest rates in the euro area over both short and medium horizons have been significantly revised during this period. From this perspective, it seems that the significant increase in long-term bond yields that occurred after the early months of 1999 (see Chart 3) to a large extent could be explained by expectations of higher short-term interest rates in the short to medium term.

Chart 2

Implied forward overnight interest rates for the euro area since the start of 1999

(percentages per annum; daily data)



Sources: Reuters and ECB estimation. The implied forward interest rates are estimated using Svensson's extension of the Nelson and Siegel (1987) method, applied to euro area money market and swap data.

Implied forward rates over short horizons are useful primarily for examining market expectations of short-term interest rate changes, and thereby provide information on expectations regarding monetary policy (see Section 3). Long-horizon implied overnight forward rates, by contrast, convey information about long-term expectations for real interest rates and expected inflation at distant future dates. Under the assumption that expected real interest rates and risk premia far ahead in the future are broadly stable, long-horizon implied forward rates can be seen as mainly reflecting expectations for inflation several years from now, i.e. after short-term shocks to inflation have abated. For this reason, implied forward overnight rates for very long horizons are often seen as an indicator of a central bank's credibility, as perceived by the market, in terms of maintaining price stability in the long run. In this respect, it is notable that in the case of the euro area the estimated implied forward overnight interest rate for the ten-year horizon has remained relatively stable since early 1999 (see Chart 3). This would seem to suggest that market confidence concerning the maintenance of price stability in the euro area over the medium to long term has remained quite stable since the launch of the single currency.

Another useful indicator that can assist in disentangling long-term expectations of real activity and inflation can be obtained by comparing nominal bond yields with yields on

bonds that are linked to a price index. In particular, the yield differential between an index-linked bond and a nominal bond of the same maturity is referred to as the "break-even" inflation rate (see Box 2 on pages 12 and 13 of the February 1999 issue of the Monthly Bulletin). In the absence of risk premia, the break-even inflation rate is equal to the expected average inflation rate during the life of the bonds from which it is constructed. However, since it is likely that the bond yields include various premia, notably liquidity premia and risk premia related to inflation uncertainty, some caution should be exercised when interpreting the level of the break-even inflation rate. For this reason, it may be more sensible to focus on changes in the break-even inflation rate rather than on the level itself, although it should be borne in mind that this presupposes that premia are constant over time.

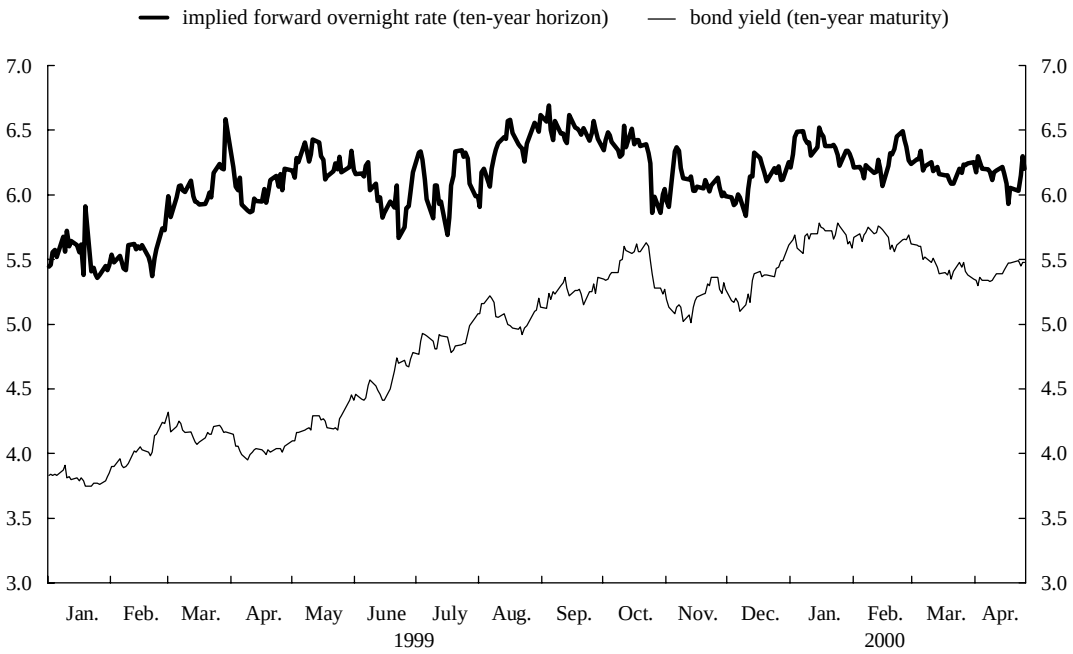
Within the euro area, only the French Treasury has issued index-linked government bonds with maturities of 10 and 30 years. The break-even inflation rate of these bonds refers to a specific measure of the French CPI (namely the Consumer Price Index excluding tobacco), and does not refer to the euro area Harmonised Index of Consumer Prices (HICP), which is used by the Eurosystem when defining price stability. Nonetheless, in the absence of similar instruments based on the entire euro area HICP, developments in the break-even inflation rate obtained from French index-linked and nominal bonds are frequently used as a proxy for changes in long-term inflation expectations of financial markets for the euro area as a whole. As such, the break-even inflation rate provides a useful indicator of market expectations, in particular as a complement to information coming from other measures of expected inflation.

The increase in nominal yields that took place in the euro area during much of the spring of 1999 coincided with an increase in the French

Chart 3

Implied forward overnight interest rate at the 10-year horizon, and 10-year government bond yield for the euro area

(percentages per annum; daily data)

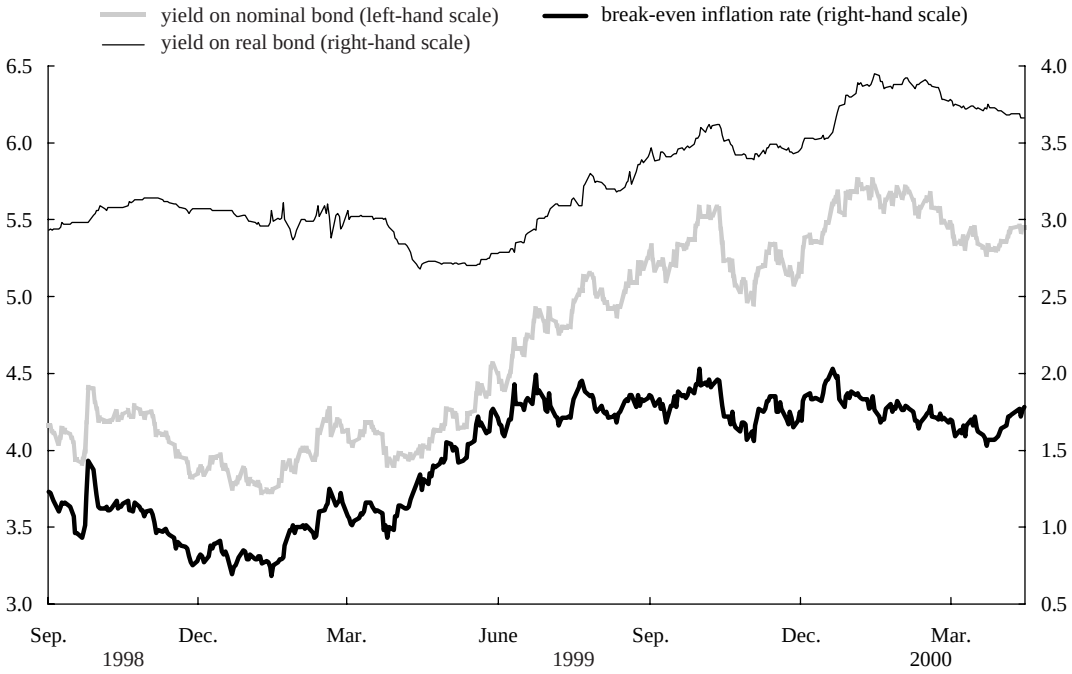


Sources: Reuters and ECB estimation. The implied forward interest rates are estimated using Svensson's extension of the Nelson and Siegel (1987) method, applied to euro area money market and swap data.

Chart 4

Break-even inflation rate calculated from the French CPI

(percentages per annum; daily data)



Sources: French Treasury, ISMA and Reuters.
Note: The real bond yields are derived from the market prices of French bonds which are indexed to the French CPI (excluding tobacco prices) and which mature in 2009. The nominal bond yields are derived from the market prices of French fixed income bonds which also mature in 2009.

break-even inflation rate (see Chart 4). This may have been the result of an increase in inflation expectations from the very low levels observed in early 1999, owing to the aforementioned possible overreaction to the financial turbulence associated with the emerging markets crises in 1998. It is notable that from around mid-1999, the break-even inflation rate remained confined to a relatively narrow range. Instead, the increase in nominal bond yields during this period was apparently the result of a substantial increase in the real yield. This suggests that after the first half of 1999 the observed increases in nominal bond yields were caused by improvements in market expectations regarding future economic activity, rather than increasing long-term inflation expectations. In this sense, developments in the break-even inflation rate are consistent with those of long-horizon implied instantaneous forward interest rates, suggesting that the ECB's credibility with regard to maintaining price stability in the long run has remained firm and stable.

Extracting and interpreting indicators of uncertainty

The indicators that have been discussed thus far in the preceding sub-section provide information on the average market expectations regarding economic activity and inflation or changes in these expectations over time. They do not, however, provide indications of the degree of uncertainty the market attaches to these expectations. Given that economic conditions change over time, it seems likely that the perceived uncertainty surrounding the market's assessment of future inflation and economic activity also varies. Furthermore, it is conceivable that other aspects of uncertainty can change, such as whether market participants perceive uncertainty to be evenly balanced or skewed in any particular direction.

As discussed in Box 1, derivative instruments contain information relating to various aspects of uncertainty. Swap spreads, for

Box 2

Swap spreads as indicators

A swap is a contract in which two parties agree to exchange periodic payments for a predefined period of time. An ordinary interest rate swap, for example, involves exchanging a series of payments corresponding to a certain fixed (long-term) interest rate on a notional principal against a series of payments corresponding to a short-term floating rate on the same notional principal. The principal itself, however, is not exchanged, which means that the principal is not lost if the counterpart to the swap agreement defaults. Swaps are non-standardised contracts and are generally traded over the counter, normally through a bank or through other financial institutions which act as dealers.

The "swap spread" is an indicator which has the potential to convey useful information on, among other things, the likelihood of default. The swap spread is defined as the differential between the fixed rate on an interest rate swap contract (henceforth referred to as the "swap rate") and the yield on a government bond with a comparable time to maturity. Assuming that financial market agents entering into a swap contract are risk neutral and have the same degree of creditworthiness, the fixed swap rate is determined as the rate that equates the present value of the expected series of floating-rate payments with the present value of the future fixed-rate payments. As a result, it can be shown that factors such as the steepness of the yield curve and expected changes in the future differential between the short-term reference money market rate used in the swap agreement and the corresponding default-free interest rate will influence the swap rate and hence the swap spread.

Factors associated with the default risk of the agents in the swap market are likely to affect the swap rate, and thereby the swap spread, once the assumptions of risk neutrality and identical creditworthiness are dropped. In principle, the observed swap spread can be expected to vary according to, inter alia, changes in the aggregate likelihood of default, as perceived by the market. In other words, when the probability that any given firm will default is seen by the market as having increased, the swap spread will tend to widen, other things being equal. Since the likelihood of default typically increases in anticipation of or during a recession, the swap spread may also convey information with regard to changes in expectations of future economic activity. In addition, it is possible that perceived changes in liquidity risk may influence the swap spread from time to time, while

Ten-year euro area swap spread

(basis points; daily data)

Source: Bloomberg.

Note: The swap spread is defined as the differential between the fixed rate of a ten-year interest rate swap contract and the yield on a government bond with a comparable time to maturity.

variations in supply and demand of corporate and government bonds may induce temporary changes in the swap spread as well.

The effect of the emerging markets crises in the summer of 1998 and the ensuing financial turbulence is clearly displayed by a sharp increase in the euro area swap spread, which subsequently gradually dissipated towards the end of the year and in early 1999 (see the chart above). During the second half of 1999 the swap spread again tended to increase, as concerns related to the century date change began to influence the market. This was, nevertheless, only a short-lived phenomenon.

example, are considered to be informative indicators in this respect (see Box 2). Furthermore, options on long-term bonds may be useful in obtaining an indication of the degree of uncertainty associated with future developments in bond yields. Since bond yields can be decomposed into an ex ante real interest rate, a long-term inflation expectation and a component related to various premia, any measure of uncertainty extracted from bond options should also reflect uncertainty regarding all these components. However, no consensus exists on how to disentangle uncertainty linked to inflation expectations from uncertainty associated with changes in the real interest rate or with variations in risk premia. The fact that expectations regarding all these components affect the pricing of derivatives on long-term bonds makes it particularly challenging to extract and interpret the relevant forward-looking information from long-term bond options.

For the euro area the most liquid (and hence presumably the most informative) derivatives contracts on long-term bonds are the ten-year German Bund futures and the options associated with these contracts. A valuable measure of the overall uncertainty associated with future price movements in the ten-year Bund is the implied volatility which, given appropriate assumptions, provides a measure of the expected volatility in the underlying Bund contract during the life of the option (see Box 1). Chart 5 shows developments in the implied volatility derived from options on ten-year Bund futures, together with the volatility implied by options on the ten-year US Treasury note for comparison.

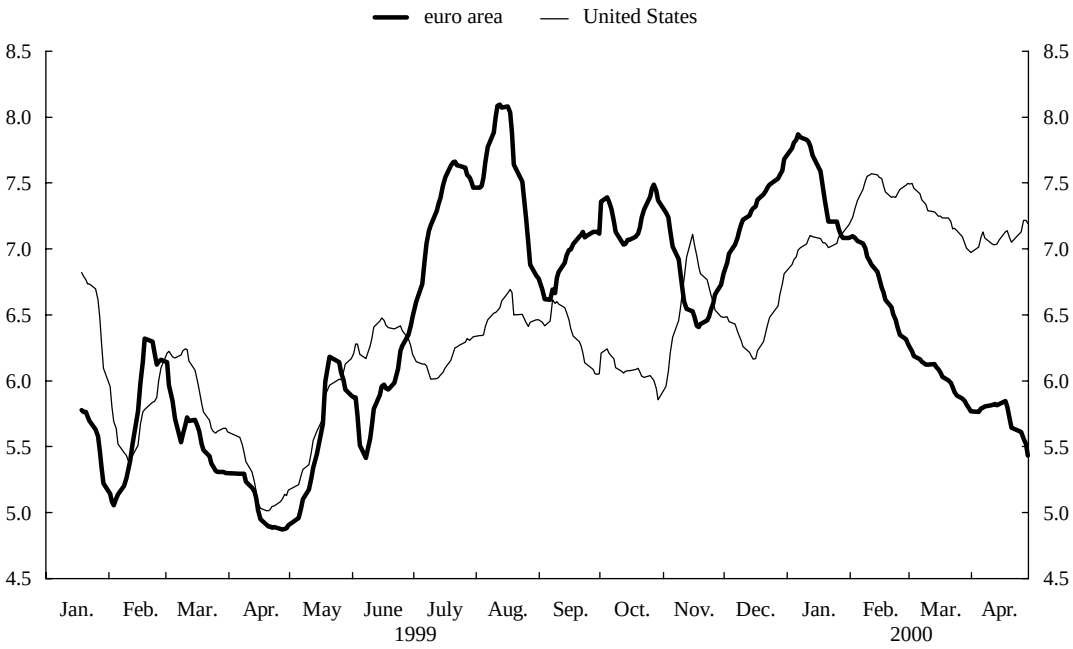
The implied volatility derived from options on German Bund futures contracts has tended to vary substantially since the start of 1999. While it mirrored developments in the corresponding measure of US implied volatility during the first few months of 1999, the volatility implied by options on the Bund futures contract decoupled from its US counterpart and began edging upwards in the early part of the summer. This heightening of uncertainty coincided with rising nominal bond yields in the euro area, which, as mentioned above, appeared to be linked to rising long-term real interest rates as a result of improving economic prospects. It therefore seems plausible that a substantial part of the increase in uncertainty surrounding future bond yield developments observed at this time was attributable to heightened uncertainty with regard to future real yields, as the strength and sustainability of the economic recovery may have been particularly uncertain around the turning point. However, part of the increase in implied volatility may also have been linked to somewhat higher uncertainty regarding future inflation and/or risk premia, as market participants may have become more uncertain about the impact of increasing economic activity on price pressures.

A notable decline in expected volatility occurred around the time of the increase in ECB interest rates on 4 November 1999. This decline in implied volatility may be seen as an indication of a reduction in uncertainty surrounding both future price pressures as well as inflation risk premia, as a consequence of the monetary policy tightening. However, as can be seen in Chart 5, the decline in expected volatility proved to be relatively short-lived as implied volatility derived

Chart 5

Implied volatility derived from options on futures contracts on the ten-year German Bund and the ten-year US Treasury note

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



Source: Bloomberg.

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

from options on Bund futures again started to increase in mid-November. This trend persisted until the end of 1999, at which time implied volatility set out on a declining path. Among the factors that appeared to contribute to the decline in implied volatility in early 2000 were the disappearance of the uncertainty related to the century date change and, more importantly, heightened expectations of a further interest rate increase by the ECB, and the actual decisions to raise rates on 3 February, 16 March and 27 April 2000.

As mentioned in Box 1, the information extracted from options prices can be enhanced by estimating the entire probability distribution of financial prices. In particular, observed prices for options on the same underlying asset, and with identical expiration dates, but over a range of strike prices can be used to obtain a measure of the "implied risk-neutral density". This reflects what the market would perceive as the probability distribution of the price of the underlying security at the future date when the option expires, if market participants were risk neutral. In fact, since the implied density is risk neutral, the mean of the distribution corresponds to the forward price for the relevant horizon. Given that investors are generally risk averse, the implied risk-neutral density is, however, likely to differ somewhat from the market's "true" perception of the probability distribution.

Nevertheless, assuming that risk premia mainly influence the mean of the distribution, the risk-neutral density should provide useful indications of other aspects of the distribution, such as the dispersion of uncertainty, and any asymmetries in the shape of the distribution. As previously mentioned, it is quite conceivable that market participants may from time to time view uncertainty as

Box 3

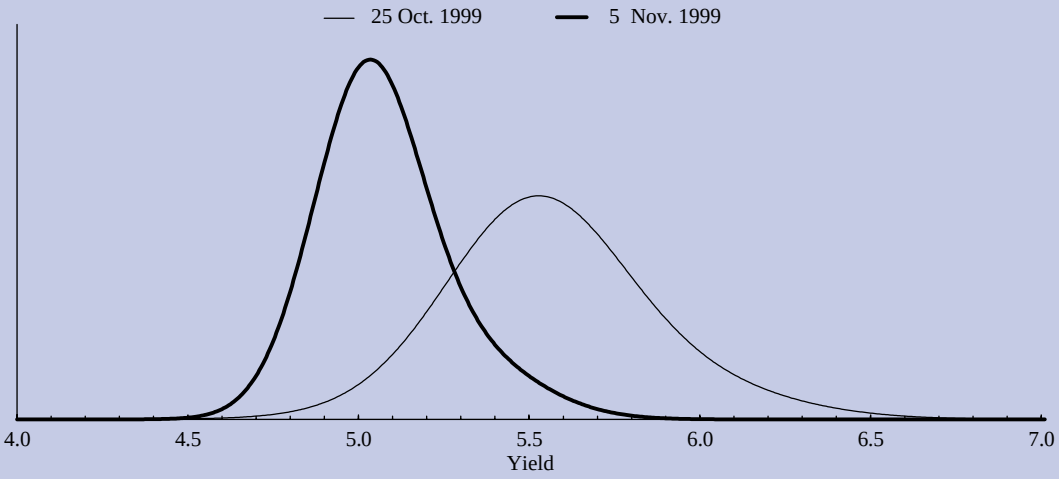
Risk-neutral densities implied by options on Bund futures around the time of the ECB interest rate increase in November 1999

An interesting episode of rapidly changing market perceptions took place in the period surrounding the ECB interest rate increase in early November 1999. As can be seen in Chart 3, long-term bond yields had been on a rising trend from the spring of 1999 until the end of October. The implied risk-neutral densities of the December 1999 ten-year Bund futures contract, according to options prices that prevailed on 25 October 1999, i.e. one and a half weeks before the interest rate decision was announced, exhibited a relatively high degree of dispersion (see the chart below), indicating that uncertainty was perceived to be high at that time.

On 4 November 1999 the Governing Council of the ECB announced the decision to increase interest rates by 50 basis points. As demonstrated by the implied risk-neutral density for 5 November, market uncertainty regarding future bond price developments was considerably reduced thereafter, while bond yields had fallen significantly. The decline in bond yields may have reflected lower inflation expectations and a reduction in inflation risk premia as a result of the monetary policy tightening. Furthermore, the reduced uncertainty regarding the future course of long-term bond yields may have pointed towards lower uncertainty with regard to future changes in inflation expectations, if the decision by the Governing Council of the ECB was seen as stabilising these expectations. In this case, the likelihood of large variations in inflation risk premia in the period ahead should also have been reduced, hence further contributing to the decline in uncertainty regarding future bond yields.

Another interesting aspect of the implied risk-neutral density for 5 November is that it was considerably more skewed to the right than the distribution for 25 October, implying that the perceived likelihood of large bond yield increases was higher than that of yield decreases of the same magnitude. One explanation for this could be that following the substantial declines in long-term bond yields over a few days, the potential for further large declines in long-term bond yields may have been perceived as being relatively limited. In other words, the more pronounced positive skewness of the implied distribution suggests that market participants saw it as more probable that they would be surprised by higher than expected bond yields in the future, than by lower than expected yields.

Implied risk-neutral densities for ten-year Bund futures (December 1999 contracts)



Sources: Bloomberg and ECB calculations.
Note: The implied risk-neutral densities are originally estimated for the Bund futures prices rather than the yields. These results are subsequently transformed into risk-neutral densities for the Bund yield to maturity, using an approximation which accounts for the duration and the convexity of the bond that is cheapest to deliver on the day of estimation (i.e. when the option prices are observed).

being skewed in one direction or the other, rather than being evenly balanced. In the case of the bond markets, estimates of implied risk-neutral densities extracted from options on Bund futures can be used to investigate these aspects of the perceived market uncertainty. As an illustration, Box 3 demonstrates how the implied risk-neutral density of the Bund futures contract changed around the time of the ECB interest rate increase in November 1999.

3 Indicators based on short-term money market rates

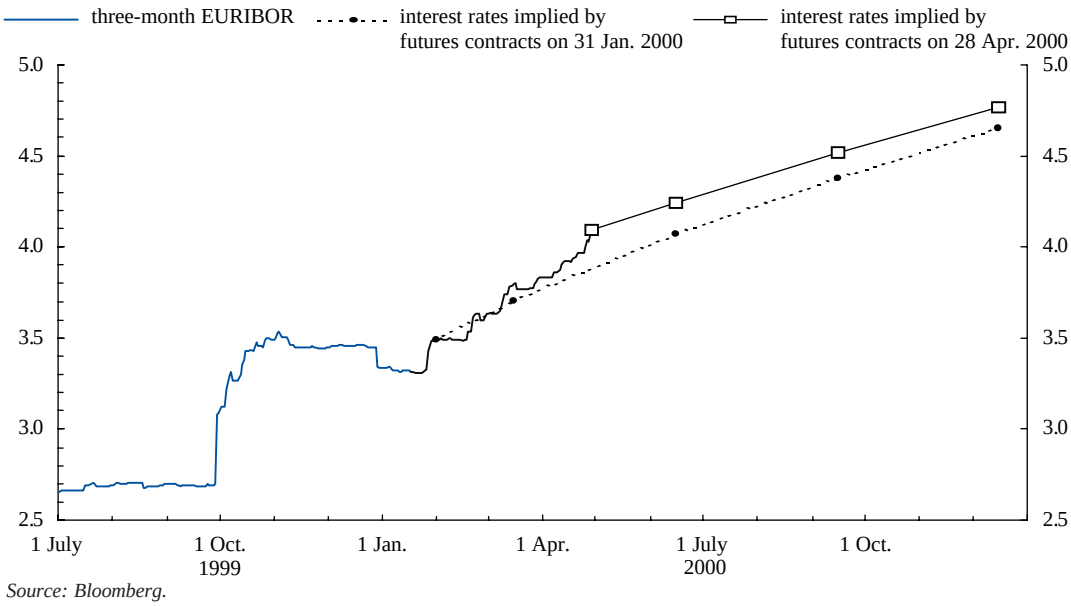
As mentioned above, financial market prices can also provide useful information regarding market expectations of short-term interest rates in the future, and the uncertainty surrounding these expectations. Since the central bank to a large extent influences interest rates over very short horizons, financial market prices also indirectly provide indications regarding the market's perception of future policy changes by the central bank.

Market expectations of future short-term interest rates

Information on market expectations regarding the evolution of short-term interest rates may be extracted from the money market yield curve or from futures contracts on short-term interest rates. For the euro area, measures of the EURIBOR (Euro Interbank Offered Rate) provide good indicators of developments in short-term interest rates. These rates are computed daily, for maturities ranging from one week to twelve months, as the average of the offer rates of a panel of banks actively engaged in the euro interbank market. The term structure of EURIBOR interest rates can be used to extract information regarding market expectations of the future evolution of short-term interest rates. Similar indications can be gauged from futures contracts on three-month EURIBOR rates, which are traded on several exchanges for a wide range of maturities. The high liquidity of some of these markets means that the prices of these instruments should reflect reasonably accurately the information available to financial markets. In Chart 6 the line depicting

Chart 6

Three-month EURIBOR interest rates and interest rates implied by futures contracts



Source: Bloomberg.

the evolution of the three-month EURIBOR interest rate since mid-1999 has been joined up with the interest rates that were implied in futures contracts with maturities at the end of March, June, September and December 2000, as at market closing on 31 January and 28 April 2000.

As always, some caution needs to be exercised when interpreting such indicators, since expectations derived from interest rates implied in futures contracts are likely to be biased by interest rate risk premia prevailing in financial markets. In particular, the effects of risk premia could be relatively large in the case of expectations over longer horizons. For this reason, interest rates implied by long-horizon futures are likely to overestimate future spot interest rates to a larger extent than short-maturity futures.

Indicators of market uncertainty

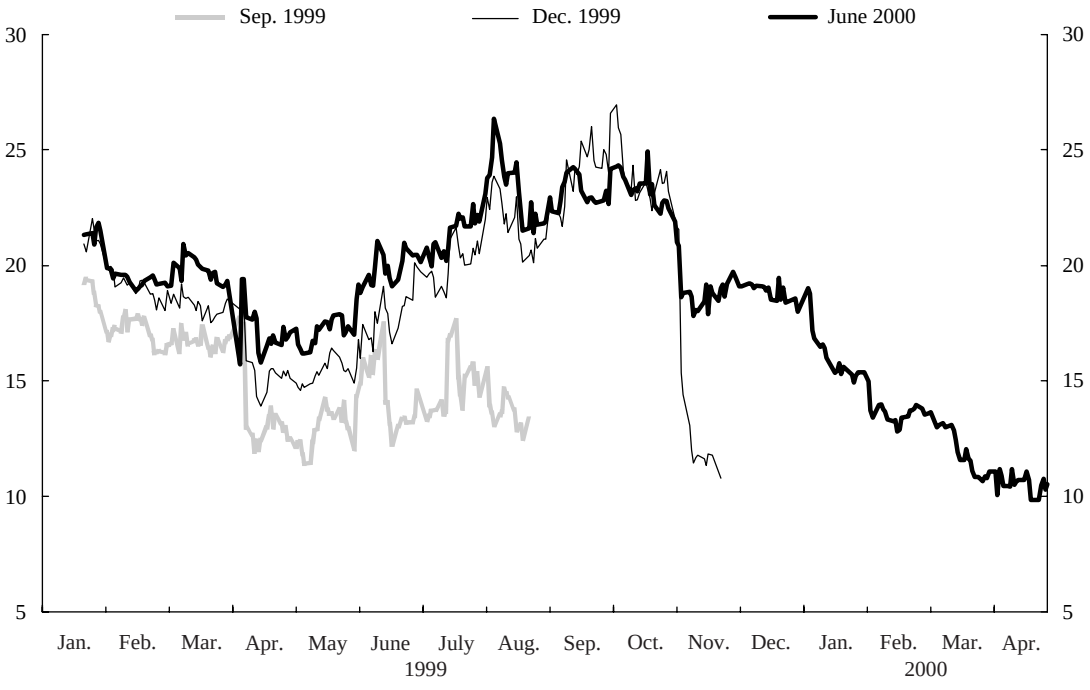
Measures of the expected volatility of future short-term and long-term interest rates can provide a central bank with valuable information about the dispersion of market expectations or uncertainty regarding future interest rate developments. A useful measure of expected volatility is implied volatility, which, as previously discussed, can be extracted from observed options prices. In the case of options on short-term interest rates, the most liquid market for interest rates in the euro area is that for options on three-month EURIBOR futures, where contracts for several maturities are actively traded and daily prices are available.

Chart 7 illustrates the evolution of expected volatility as measured by the implied volatility of futures contracts maturing in September 1999, December 1999 and June 2000 over the period from January 1999 to end-April 2000. As can be seen, implied volatility displayed a declining trend in early 1999 and then fell significantly following the announcement of the decision to lower ECB interest rates in April 1999. While uncertainty concerning short-term interest rates began to increase as from the summer of 1999, it

Chart 7

Implied volatility from options on three-month EURIBOR futures

(traded on LIFFE)



Source: Bloomberg.

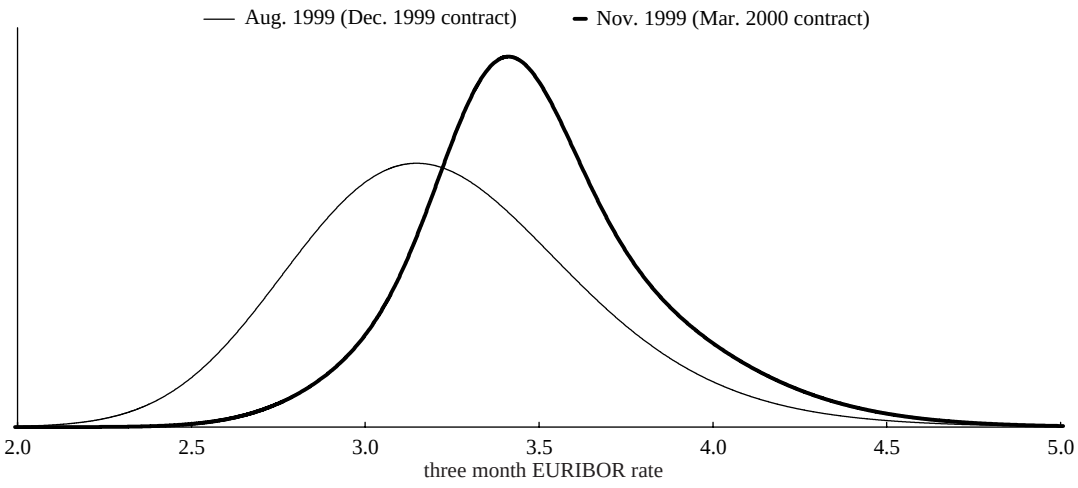
was again significantly reduced following the November 1999 decision to raise ECB interest rates. Since then, implied volatility has been on a declining path, indicating gradually reduced uncertainty regarding the course of future short-term interest rates.

As previously noted, implied volatilities are generally not constant across contracts with different expiration dates. In particular, the volatility implied by options on short-term interest rates in the euro area generally tends to be higher the longer the time to maturity of the option. However, while the volatility implied in contracts expiring in June 2000 remained above that of the December 1999 contract for most of last year, at the end of the third quarter of 1999 the December 1999 implied volatility increased above the volatility implied in options expiring in June 2000. This was probably a result of heightened market concerns over the transition to the year 2000 and the fact that the December 1999 maturity was that most affected by the uncertainty regarding the timing of a change in the monetary policy stance of the ECB. The increase in ECB interest rates on 4 November 1999 led to a pronounced fall in the volatility implied in the December 1999 contracts, which dropped well below the level of volatility implied in options expiring in June 2000.

As in the case of bond markets, implied risk-neutral densities can enhance the information which comes from financial markets, by allowing several aspects of the market's perceived uncertainty to be examined. As an illustration, Chart 8 compares two implied risk-neutral densities obtained using options on futures on the three-month EURIBOR rate with similar times to expiration. One density was estimated using options prices for the December 1999 contract observed around mid-August 1999, and the second density corresponds to March 2000 options prices traded a few days after the decision to raise ECB interest rates on 4 November 1999. The chart shows that the degree of uncertainty surrounding financial market expectations was less dispersed after the interest rate increase, while the mean of the distribution had moved to the right compared with three months earlier. These changes in the estimated risk-neutral density suggest that following the interest rate decision market uncertainty regarding the course of future short-term interest rates declined, while the expected level of the three-month EURIBOR rate around four months ahead, as measured by the forward rate, had increased. However, the somewhat less pronounced positive skew in November compared with August 1999 indicated that the perceived likelihood of higher than expected interest rates by the

Chart 8

Implied risk-neutral densities for the three-month EURIBOR interest rate



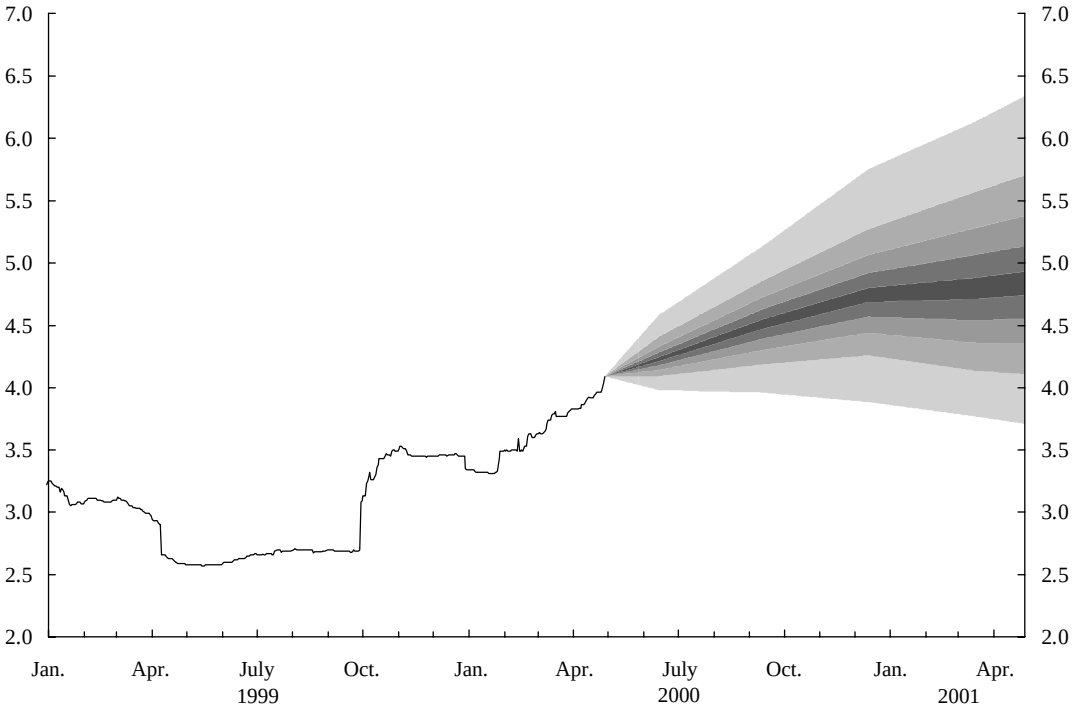
Sources: Reuters and ECB estimation.

expiration of the options, relative to the likelihood of lower than expected rates, was seen as having declined following the interest rate decision.

The information conveyed by implied risk-neutral densities for contracts with different maturities can be illustrated in a simple and intuitive way by plotting the historical three-month EURIBOR rate and a "fan chart", which indicates different percentiles of the future EURIBOR rate. This is illustrated in Chart 9, which shows a time-series of the three-month EURIBOR rate from early 1999 to end-April 2000, and confidence bands corresponding to the 10, 30, 50, 70, and 90 per cent implied probabilities estimated using options prices observed on 28 April. The widest band includes a total of 90% of the implied risk-neutral probability mass for the future EURIBOR rate. In other words, according to the prevailing option prices, the market attached a 90% probability to the future three-month EURIBOR rate ending up within this confidence band at various future points in time. The chart displays an upward trend in expected EURIBOR interest rates, corresponding to the market's pricing of futures contracts on 28 April. In addition, the confidence bands become wider as the horizon increases, indicating greater uncertainty about future rates at more distant points in time. Furthermore, the fact that the implied risk-neutral densities are slightly positively skewed can be seen from the confidence bands above the central band, which are somewhat wider than the bands below it.

Chart 9

Three-month EURIBOR interest rate and confidence bands of the implied risk-neutral densities on 28 April 2000



Sources: Reuters and ECB estimation.
Note: The solid line shows the development of the three-month EURIBOR rate from the start of 1999 until 28 April 2000, while the confidence bands represent percentiles of the future three-month EURIBOR rate, based on risk-neutral densities implied by options and futures prices on 28 April 2000. The darkest central band corresponds to 10% of the implied risk-neutral probability mass. Each successive band covers an additional 20 percentage points, so that the widest band includes 90% of the implied probability mass.

4 Concluding remarks

Financial market indicators have the potential to provide central banks with timely forward-looking information in the form of market expectations regarding a number of fundamental factors such as future inflation and economic growth that are important for the conduct of monetary policy. In this respect, it is important to note that financial markets anticipate and "price in" expected changes in official interest rates when determining prices of financial assets. It is therefore always useful for monetary policy-makers to analyse these market expectations of changes in short-term interest rates as well, in order to assess which monetary policy expectations underlie financial market expectations for economic growth and inflation.

The monetary policy strategy of the Eurosystem ensures that the information from financial market variables is appropriately taken into account in the conduct of monetary policy. Specifically, the Eurosystem has chosen a two-pillar monetary policy strategy, in which the analysis of the information content of monetary aggregates is given a prominent role, and a broad range of other indicators are taken into account in the evaluation of risks to price stability. Financial asset prices play an important role, as timely forward-looking indicators of market expectations and perceived uncertainties in the second pillar of the monetary policy strategy.

Market expectations of economic activity and inflation extracted from financial asset prices cannot, however, be a substitute for a central bank's own assessment of future economic developments. Rather, these indicators can only be considered as providing complementary information that can be used to cross-check the central bank's assessment.

Appendix

Estimating implied risk-neutral densities

This annex explains briefly how implied risk-neutral densities (RNDs) can be estimated using observable market prices of options and futures contracts. While a number of different techniques exist for estimating RNDs, this annex concentrates on the method used to obtain the densities presented in this article.[1] As mentioned in Box 1, options can be priced using the principle of risk-neutral valuation. According to this method, the price of a "European" option can be expressed as the present value of the option's expected future pay-offs, where expectations are taken with regard to the "risk-neutral probability measure", and where the discount rate is the risk-free interest rate prevailing during the life of the option.

Consider a European call option with price c at time t, written on an underlying asset with price S. Let the exercise price of the option be X, and the expiration date of the option be the future time T. The price of the call option at time t can then be written as

$$c = e^{-r(T-t)} \int_{X}^{\infty} f^{*}(S_T)(S_T - X)\, dS_T,$$

where r is the risk-free interest rate, and $f^{*}(S_T)$ denotes the risk-neutral density function for the price of the underlying asset at the expiration date. European put options can be priced in a similar manner. Since the price of an option according to the formula given above is a function of the risk-neutral density function, option prices observable in the market should convey information regarding this density. In fact, provided that a

1 *For a discussion of other techniques for estimating implied RNDs, see for example Jackwerth, J. C. (1999), "Option-implied risk-neutral distributions and implied binomial trees: A literature review", Journal of Derivatives, Vol. 7, No. 2, pages 66-82.*

sufficiently large number of simultaneously quoted options with different strike prices are available, an estimate of the RND $f^*(S_T)$ can be obtained.

One way of proceeding to obtain an estimate of the RND is to assume some specific structural form for the density and then estimate the particular shape of the density that produces option prices which are as close as possible to the observed market prices. Following Melick and Thomas (1997)[2], assuming that a mixture of two lognormal distributions is flexible enough to describe the underlying distribution for the future price of the underlying asset, S_T, the following result is obtained:

$$f^*(S_T) = \theta g_1(\alpha_1, \beta_1, S_T) + (1-\theta) g_2(\alpha_2, \beta_2, S_T),$$

where

$$g_i(\alpha_i, \beta_i, S_T) = \frac{1}{S_T \beta_i \sqrt{2\pi}} exp\left(-\frac{(\ln S_T - \alpha_i)^2}{2\beta_i^2} \right), \qquad i = 1,2$$

and where α_i and β_i are location and dispersion parameters, respectively, for the lognormal distributions, which determine the mean and the variance of the distributions. The parameter θ is a weighting parameter, which determines the relative weights of the two lognormals in the terminal distribution.

Provided that a sufficiently large number of simultaneously observed call and put option prices exist with identical times to expiration but different exercise prices, the parameters of the distribution, $\Theta = \{\alpha_1, \alpha_2, \beta_1, \beta_2, \theta\}$, can be determined by choosing them in such a way that the differences between the observed and the theoretical option prices is minimised. Let c_j denote one of the m observable call prices, and p_j one of the n available put prices, and let $c_j^*(\Theta)$ and $p_j^*(\Theta)$ denote the corresponding option prices produced by the assumed RND, then the five parameters of the mixture of lognormals can be estimated by minimising the sum of squared deviations between observed prices and the equivalent theoretical prices:

$$\Theta = \underset{\Theta}{arg\,min} \sum_{j=1}^{m} \left(c_j - c_j^*(\Theta)\right)^2 + \sum_{j=1}^{n} \left(p_j - p_j^*(\Theta)\right)^2.$$

Additional information can be exploited by including the forward price and the corresponding theoretical forward price obtained from the assumed distribution as an additional input in the minimisation problem. In practice, the minimisation problem is substantially simplified, since closed-form expressions exist for options and forward prices when the distribution of the price of the underlying asset is assumed to be a mixture of lognormals.

2 *Melick, W. R. and Thomas, C. P. (1997), "Recovering an asset's implied PDF from option prices: An application to crude oil during the Gulf crisis", Journal of Financial and Quantitative Analysis, Vol. 32, pages 91-115.*

Developments in and structural features of the euro area labour markets

The rate of unemployment remains high in the euro area, at around three times the level recorded in the early 1960s. The analysis of patterns of employment, non-participation in the labour force and unemployment summarised in this article reveals significant differences between the euro area and the United States. There has been a trend decline in the employment rate and a rise in the unemployment rate in the euro area over the past 40 years. Labour market problems appear to be concentrated among certain groups in society, such as women, younger and older workers and the low skilled, while the position of prime-age men (those aged between 30 and 59 years) appears to be broadly comparable between the euro area and the United States. There is a significant regional dimension to unemployment within some euro area countries and a serious problem of long-term unemployment across the euro area.

The problems of the euro area labour markets may be linked to a number of structural factors relating to work incentives, excessive labour costs, skills-based and geographical mismatches, government regulations and long-term exclusion from the labour market. A wide range of policy measures, which are also touched upon in this article, exists for dealing with such problems. Over the past few years, the European Union (EU) has redoubled its efforts to promote decisive structural reforms aimed at improving the functioning of labour markets. However, the implementation of such reforms is primarily a matter for national governments and the social partners, and the reforms needed depend on the specific nature of the labour market problem in each country. A significant and sustained reduction in euro area unemployment will require further substantial structural improvements in the functioning of the labour market.

1 Introduction

Despite recent falls, unemployment in the euro area remains around three times as high as the level observed in the early 1960s. To understand the causes of the secular rise in unemployment and the measures that could be taken to ensure that the recent decline is sustained, it is important to examine the performance of the euro area labour markets in detail, focusing in particular on patterns of employment and non-participation. In this context, it is worthwhile breaking down the working age population into three component parts: employed, non-participating and unemployed (as outlined in Box 1). Selected comparisons with the United States are also used as a point of reference.

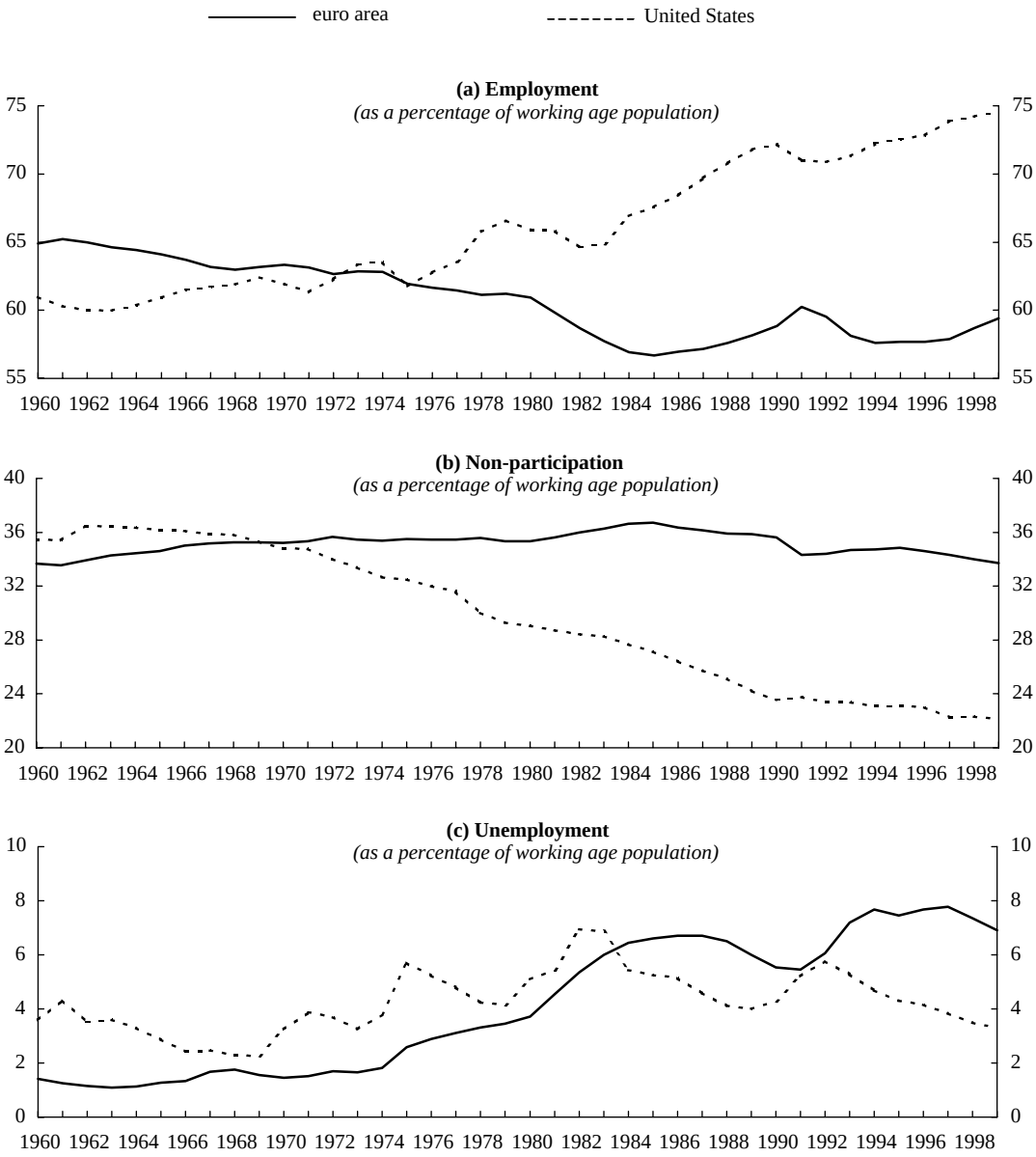
Employment, as indicated in Chart 1(a), accounted for 64.6% of the total working age population in the euro area in 1960, i.e. 3.6 percentage points above the level in the United States. Subsequently, the employment rate in the euro area fell to 59.4% in 1999, while it steadily increased in the United States, with a significant acceleration from 1984 onwards, reaching 74.6% in 1999. In the United States, the rise in employment was associated with a marked increase in labour force participation (see Chart 1(b)).

A similar pattern can also be seen for unemployment, as shown in Chart 1(c). In 1960 a mere 1.4% of the population of working age in the euro area was unemployed. The proportion of the working age population that was unemployed then increased steadily, most markedly after 1975, but remained below the corresponding US figure until 1984. Since then, unemployment as a share of working age population has been consistently higher in the euro area than in the United States and reached 6.9% in 1999. By contrast, on the other side of the Atlantic, in 1999 only 3.3% of the working age population was unemployed, little changed from 1960, despite a temporary peak of 7.0% in 1983.

By contrast with previous upturns, during the two periods of economic expansion, from 1985 to 1991 and from 1996 to the present, the employment rate in the euro area

Chart 1

Breakdown of working age population in the euro area and the United States: 1960-99



Source: OECD.

Note: The euro area employment rate and non-participation rate do not include Austria and France from 1960 to 1964 and the Netherlands from 1960 to 1968. The euro area unemployment rate does not include Austria from 1960 to 1964 and Luxembourg from 1960 to 1973. The 1999 euro area aggregate does not include Finland, Luxembourg, Ireland and Portugal. See Box 1 for further details.

increased and this was associated with some decline in unemployment. Indeed, the further increase in unemployment in the 1990s was matched by a modest rise in labour force participation from the mid-1980s, rather than a further decline in the employment rate, which was the dominant factor in the earlier period. To the extent that data are available, these trends are analysed in more depth in the remainder of this article.

Box 1

Analysing labour market developments

There is no single framework for analysing developments and features in the labour market. In recent years an increasingly popular approach in the relevant literature has been to consider labour market changes in terms of flows. In this context, unemployment can be seen as a combination of the duration of unemployment and the probability of being unemployed, which is linked to the flow of workers in and out of the labour market. Within such a framework, the longer the duration and the lower the flows, the higher the level of unemployment. A number of studies comparing national labour markets in euro area countries with the US labour market suggest that worker flows are much higher in the United States. These studies also argue that this result relates to greater job security in the euro area labour markets. However, owing to the unavailability of comparable data on flows at the area-wide level, it was not possible to adopt such a framework for analysis in this article.

Instead, this article focuses on the analysis of the working age population (i.e. people between 15 and 64 years of age) which is broken down into its three broad components – employed, non-participating and unemployed. The simple framework used in the introductory part of this article, with data from the OECD, is informative as it removes the effects of rising populations, which is important when comparing developments in the euro area with those in the United States. Moreover, this makes it possible to pinpoint clearly the role played by changing employment and labour force participation in the development of unemployment in the euro area. Undertaking such an exercise over a longer period also removes the possibility that cyclical macroeconomic developments might be the dominant cause of the observed developments. In the main body of the article, employment, non-participation and unemployment are analysed in more depth, using data from the labour force surveys for the euro area as outlined below.

Definitions and data used

Standard ILO definitions are utilised in this article with the exception of the introductory part, the latter being based on OECD data which are not fully consistent with ILO definitions.

- Employed persons include all persons who performed any work at all during the reference period, whether for pay or for profits, or were temporarily absent from a job, for such reasons as illness, holidays or industrial dispute.

- Unemployment comprises all persons without work, seeking work during the reference period and actually available for work.

- The labour force is the sum of the number of persons employed and the number of persons unemployed, while non-participants are those working age people not included in the labour force.

With regard to the data, three sources are used: the labour force survey compiled by Eurostat, the OECD Labour Force Statistics and the US Bureau of Labor Statistics.

- Every year since 1983 labour force surveys have been carried out in the spring in the Member States of the EU and have been compiled by Eurostat. There is no information available for euro area countries before they joined the EU (i.e. for Spain and Portugal prior to 1986, Austria and Finland prior to 1995). Therefore, euro area data prior to 1995 have been estimated excluding these missing countries where necessary. The Eurostat labour force survey has evolved since 1983, with the introduction of more detailed questionnaires and, most notably, the major changes which occurred in 1991. Therefore some series are only available after 1991 (types of contracts, sectoral breakdown, age group breakdown, etc.). At the cut-off date for this issue of the ECB Monthly Bulletin some detailed data were not yet available from the 1999 labour force survey. Unless otherwise stated, the euro area figures mentioned in Sections 2, 3 and 4 of this article are labour force survey data.

- The OECD has been maintaining a database of labour market data collected from national surveys. This database is useful for carrying out long-term analysis, as the data go back to the early 1960s, as illustrated in the first part of the article.

- With regard to the United States, when OECD data were not available, data from the US Bureau of Labor Statistics were compiled on the most comparable basis possible.

Constraints on data availability mean that it is not always possible to adopt the same time horizon for the series analysed in this article. Finally, the tables and charts do not contain all the data referred to in the article. Those which do not appear can be found in the data sources indicated above and are available upon request.

2 Employment developments in the euro area

Employment in the euro area stood at around 117 million persons in the second quarter of 1999. As discussed in the previous section, the employment rate has remained broadly stable, at around 60% of the working age population since the middle of the 1980s, by marked contrast with the United States where there has been a prolonged upward trend in employment. However, the employment situation varies significantly within the countries of the euro area. In the Netherlands, Austria, Portugal, Germany and Finland, employment rates are between 60% and 70%. In Luxembourg, Ireland, France and Belgium, employment rates are close to 60%. In the remaining two countries, Italy and Spain, the employment rate is around 50%. Moreover, these aggregate statistics mask significant differences in developments in the various sub-categories of employment.

Employment rates are low among females, the young and the unskilled

In 1999 the female employment to population ratio was 18 percentage points lower in the euro area than it was in the United States, while the difference between the male employment rates was 12 percentage points. However, since the end of the 1980s the female employment rate has been increasing in the euro area, while the male employment rate has been falling gradually. As a result, the difference between US and euro area gender employment rates has tended to widen for men but has remained broadly stable for women. At the level of individual euro area countries, although there are differences between the employment rates for both men and women, there is more variability in the female employment rates.

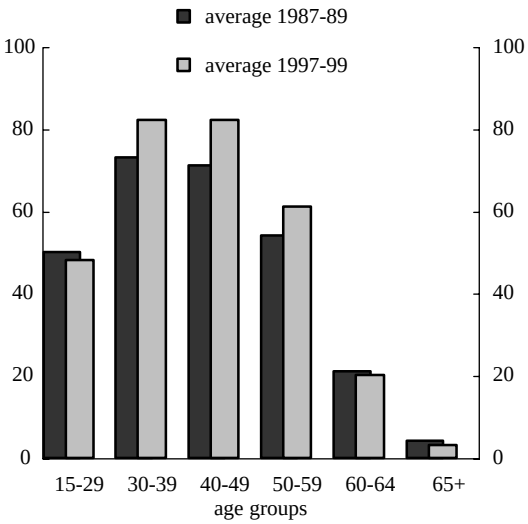
Disaggregating employment rates by age for the euro area, reveals an increase for prime-age workers (those aged between 30 and 59 years), and a fall among the young (15 to 29 years) and the old (over 60 years) in the past 15 years. These developments are shown in Chart 2, which presents a comparison of employment rates by age groups between the end of the 1980s and the end of the 1990s. The reduction in employment rates among the young may be, in part, the result of an increase in the length of formal education. Among older workers, it may be linked to the implementation of early retirement programmes in many countries. It is noteworthy that early retirement schemes have frequently been used as a short-term solution to job destruction in declining industries. However, more recently some of these schemes have been used to encourage the transfer of work from older to younger workers, based on the assumption that this would improve the employment prospects of young people.

In recent years job creation has led to an increase in the share of highly skilled workers and a decline in the share of low skilled workers. In 1997, the most recent year for which the data are available, around 23% of

Chart 2

Employment rates by age groups in the euro area

(as a percentage of the total population in each age group)



Source: Eurostat.
Note: Data prior to 1994 are ECB estimates.

the employed between 25 and 59 years of age underwent tertiary education, compared with around 20% in 1992. At the same time the proportion of people undergoing lower secondary education or less fell from 43% in 1992 to 33% in 1997. These developments are partly explained by the increase in the average level of education of the total population, but at the same time they also reflect differences in employment prospects for these workers. In 1997 more than 80% of highly skilled people had a job, compared with less than 60% of the low skilled. Employment developments by occupation have moved in the same direction, showing an increasing proportion of, for instance, "managers and highly skilled professionals" compared with a smaller proportion of low skilled job categories such as "elementary operators".

Sectoral composition of employment moving towards services

In common with the United States, there has been a secular trend in the euro area towards a more service-based economy (see Table 1), but there are important differences. First, despite a continued reduction, the proportion of employment in the agricultural sector in the euro area is around twice as high as it is in the United States (5.1% and 2.7% respectively in 1998). Second, the industrial sector has a larger employment share in the euro area than in the United States (30% and 24% respectively). Finally, while employment in the services sector has increased by around 15 percentage points in the euro area since 1978, it remains well below that of the United States (64% and 74% respectively). This difference could be partly a result of the slower, albeit accelerating, pace of liberalisation in the euro area economy, together with the larger administrative burden associated with the creation of new firms, which may have held back the development of the services sector. In addition, rigid wage structures in the euro area may have hampered the creation of jobs with low productivity, which represent a large share of employment potential in services. The difference in employment shares in services between the euro area and the United States is reflected in the shares of output, indicating that lower employment in services in the euro area is not a consequence of higher productivity but rather of the smaller size of the services sector.

Table 1

Employment distribution by sector of activity

(as a percentage of total civilian employment)

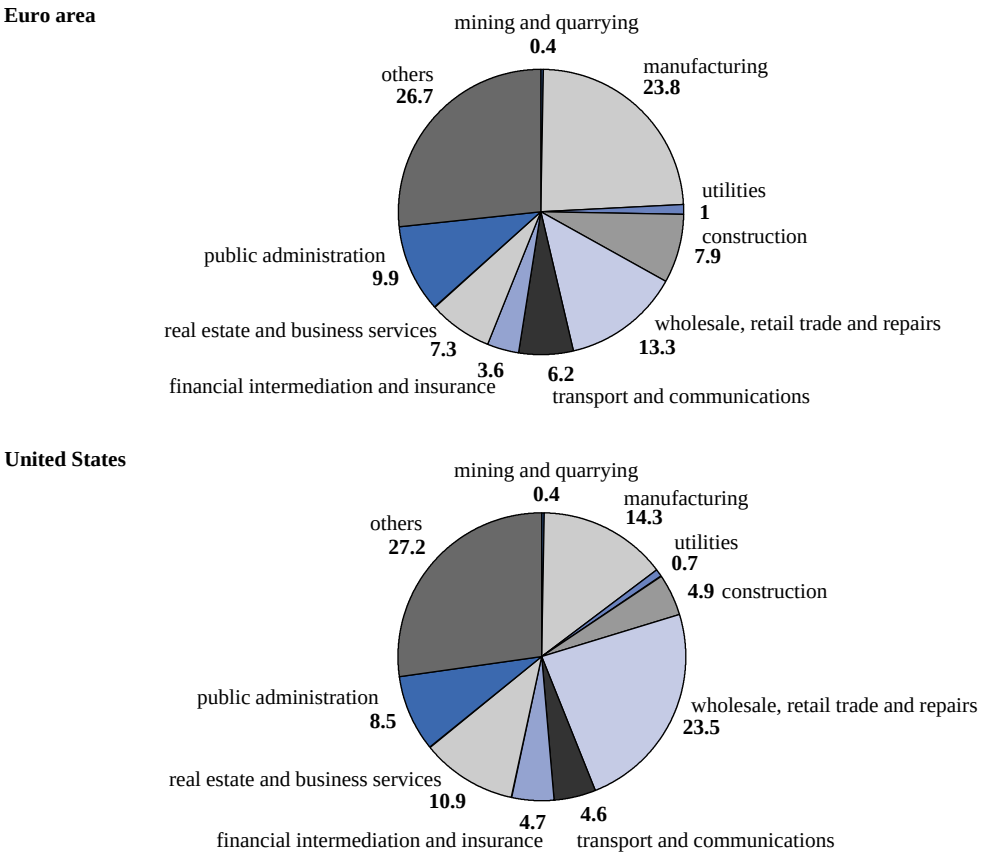
	1978	1998
Euro area		
Agriculture	11.8	5.1
Industry	38.8	30.4
Services	49.4	64.5
United States		
Agriculture	3.7	2.7
Industry	31.1	23.6
Services	65.2	73.7

Source: OECD.

Chart 3

Sectoral distribution of employees in 1999

(as a percentage of total employees on non-farm payrolls)



Sources: Eurostat and the US Bureau of Labor Statistics.

A more detailed examination of the sectoral distribution of total employees on non-farm payrolls, presented in Chart 3, shows that the difference in the respective size of the industrial sector is largely attributable to manufacturing, which amounted in 1999 to 23.8% in the euro area compared with 14.3% in the United States. However, it is important to emphasise that this may be partly related to the larger outsourcing process that has taken place in the United States by comparison with the euro area. In the employment statistics, outsourcing has shifted some types of employment from manufacturing to services. It affects both the highly skilled, for example those employed in IT-related work, and low skilled workers, for example in cleaning services. Within the services sector, it is notable that the share of employment in wholesale, retail trade and repairs is higher in the United States. This may be partly linked to restrictions on opening hours in Europe and also to difficulties in employing low skilled workers owing to high labour costs and inappropriate wage structures. Against this background, gains in employment from further liberalisation appear possible in the euro area, in particular in services.

Increasing part-time employment

An important element of job creation in the euro area in recent years has been the growth of part-time employment. Indeed, from 1995 to 1999 part-time employment rose from 14.2% to 16.7% of total employment and this

increase was equivalent to more than half of overall net job creation. In recent years there have been several initiatives in euro area countries aimed at promoting this type of contract. These include the introduction of less rigid regulations on working time arrangements and specific incentives provided by means of reductions in social security contributions.

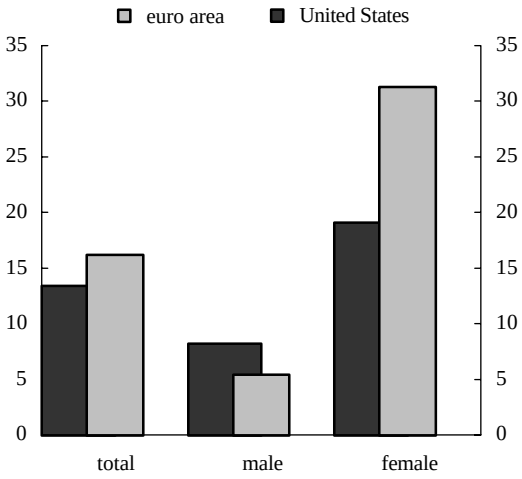
In the euro area three groups of countries can be distinguished according to the importance of part-time employment. The Netherlands, where around 40% of people in employment and 70% of women have part-time contracts, is clearly in a league of its own. The second group includes Germany, France, Belgium, Austria and Ireland, where the part-time employment rate is around 15%. Finland, Portugal, Spain, Italy and Luxembourg form the third group, with a rate around or below 10%. In general, with the exception of the Netherlands, the differences between countries mainly reflect differences in the part-time employment rate for women. At the sectoral level, services have the highest part-time ratio (20%), followed by agriculture (16%) and industry (6.5%).

The proportions of part-time employment in the euro area and the United States are quite similar, although in the United States it has remained stable at this level for some years. Furthermore, it is noteworthy that although more women than men work part time in both the United States and the euro area, the difference is greater in the euro area (see Chart 4).

Chart 4

Part-time employment in 1999

(as a percentage of total employment)



Sources: Eurostat and the OECD.
Note: US data refer to 1998.

Rising proportion of temporary contracts

Temporary employment has increased in recent years in the euro area, reaching 14.9% of total employees in 1999 compared with 13.2% in 1995. Although the ratio is broadly the same for both men and women, there are big differences across countries. Spain has the highest temporary employment rate, at over 30%, although in the past few years this figure has fallen slightly. Italy, Belgium and Austria – with a temporary employment rate of around 8% – are at the lower end of the spectrum, while the remaining countries have rates close to 15%. Although the use of temporary contracts undoubtedly has benefits for firms in terms of flexibility, it should be recognised that a substantial use of temporary employment could be an indicator of rigid job protection regulations, which make firms reluctant to hire on a permanent basis. It is noteworthy that the use of forms of temporary employment tends to be much lower in countries with less stringent job protection laws, such as the United States and the United Kingdom, although it has also risen in these countries in recent years.

3 High levels of labour force inactivity in the euro area

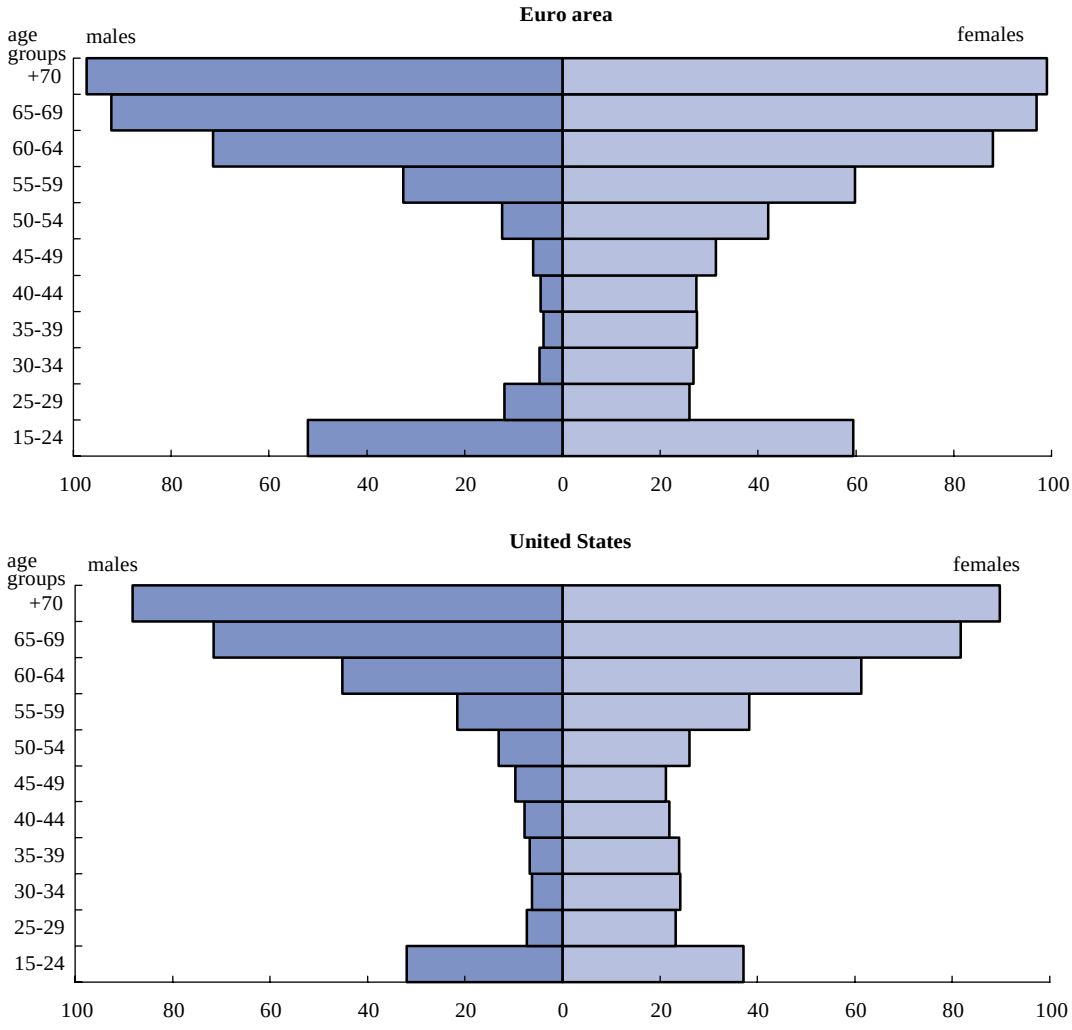
As highlighted in Section I, since the 1960s non-participation rates, or labour force "inactivity" rates, within the euro area have changed very little compared with the continuous and rapid decline in inactivity in the United States. An analysis of the various sub-categories of inactivity reveals that prime-age male workers display broadly similar rates of labour force inactivity on both sides of the Atlantic, although the rates are slightly higher in the United States (see Chart 5). However, substantial differences exist for young people, prime-age women and older people, where the level of non-participation is much higher in the euro area.

Comparisons of the structure and evolution of non-participation across countries tend to suggest that, over the long run, labour force participation is influenced by labour market conditions as well as institutional incentives and cultural factors. High levels of unemployment can discourage the inflow of workers, notably women, into the labour force. Institutional incentives that encourage inactivity, especially among younger and older

Chart 5

Non-participation in the labour force in 1999 in the euro area and in the United States

(as a percentage of total population)



Sources: Eurostat and the US Bureau of Labor Statistics.

workers, have sometimes been seen as a way in which to reduce recorded unemployment.

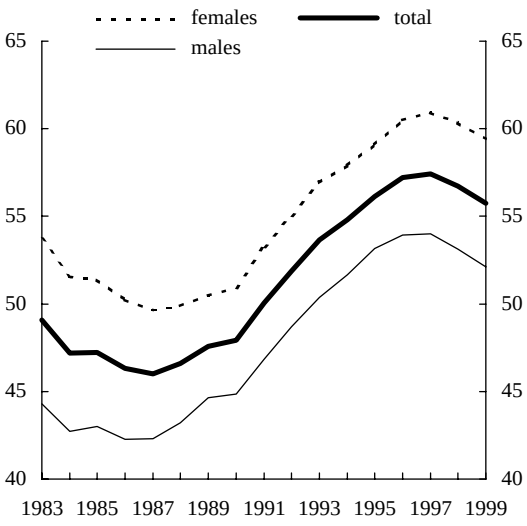
Young people take longer to enter the labour force

Since the beginning of the 1980s the euro area has witnessed a substantial rise in inactivity among young people, affecting males and females equally. In 1999, while a little more than a third of young Americans were inactive, over half of young Europeans had delayed their entry into the workforce. The non-participation rate for those aged 15 to 24 years rose from 49.0% in 1983 to 55.7% in 1999 (see Chart 6). Each euro area country recorded a similar trend, with the exception of the Netherlands, where the participation rate of young people is higher than it was in 1983. This might be partly a result of a significant cut in the youth minimum wage in the early 1980s, which enhanced youngsters' employability. Recently the Netherlands has also embarked on far-reaching reforms of labour market policies, notably favouring early and compulsory activation of the young unemployed. The other member countries, in particular Portugal, France and Luxembourg, have registered a rapid rise in inactivity among the young.

Chart 6

Inactivity rates in the euro area: population aged 15 to 24

(as a percentage of the total population aged 15 to 24)



Source: Eurostat.
Note: Data prior to 1994 are ECB estimates.

This trend has to be seen against the background of significant increases in enrolments in education and training. Young people tend to delay their entry into the workforce in order to gain further qualifications and thereby improve their future job prospects. However, recent studies have drawn attention to the concentration of economic and social problems among a "core" disadvantaged group of youth. In 1999 around a fifth of all young people aged between 18 and 24 in the euro area were without work, not in education and with limited educational achievements. This group, mostly consisting of young males, accounted for more than 30% of the population aged 18 to 24 years in Portugal, Italy, Luxembourg and Spain.

Marked increase in female participation in the labour force

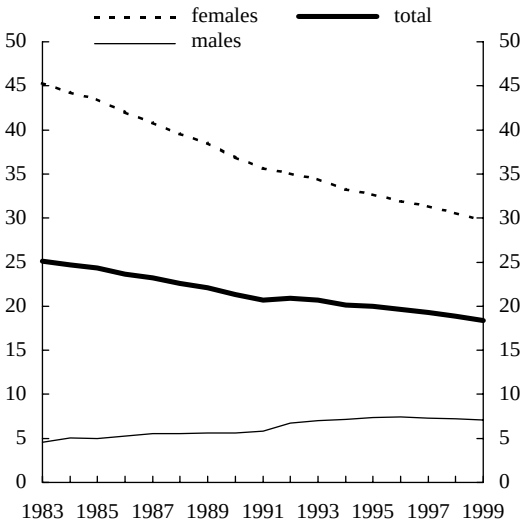
There has been a secular rise in female participation in the labour force in both the euro area and the United States since World War II. This reflects long-run economic and social forces leading to more women participating in the labour force. This tendency has markedly reduced the average non-participation rate for European women aged 25 to 54 years old, from more than 45% in 1983 to 29.7% in 1999 (see Chart 7). Over the same period, the equivalent US inactivity rate also declined from 38.0% to 23.2%. Therefore, European women between 25 and 54 years of age still tend to participate in the labour market less than their American counterparts, although the gap is diminishing rapidly.

In Europe the greatest increases have clearly been recorded in countries where female employment has traditionally been low, such as Spain, the Netherlands and Ireland, where female inactivity has fallen by more than 40 percentage points since 1983. Greater flexibility in working time arrangements, such as the development of part-time work, is

Chart 7

Inactivity rates in the euro area: population aged 25 to 54

(as a percentage of the total population aged 25 to 54)



Source: Eurostat.
Note: Data prior to 1994 are ECB estimates.

likely to have played a role, most notably in the Netherlands.

By comparison, prime-age male inactivity steadily increased over the same period. The average inactivity rate for prime-age males in the euro area labour force rose from 4.6% in 1983 to 7.1% in 1999. This development conceals significant national differences. In Italy the non-participation rate of prime-age men virtually doubled between 1983 and 1999 (from 4.3% to almost 10%), while inactivity among Dutch men remained broadly constant at around 7%.

Older workers still retire early

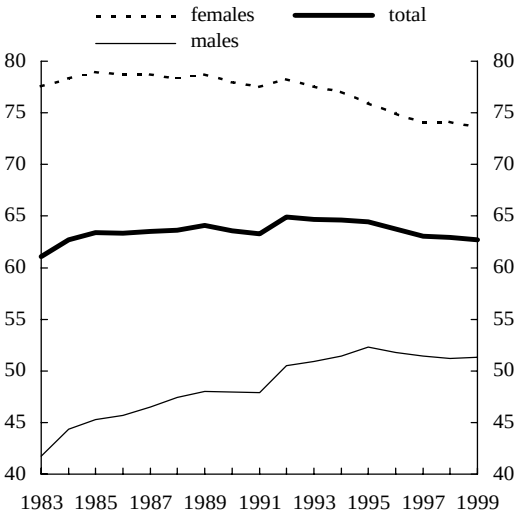
Over the past two decades inactivity rates for older male workers have substantially increased in the euro area. Despite a standard age of retirement set at 65 in the vast majority of euro area countries, inactivity rates for male workers aged 55 to 64 rose from 42% in 1983 to 51% in 1999 (see Chart 8). By comparison, over the same period the equivalent rate of non-participation in the US labour force rose by 2 percentage points to stand at nearly 32% in 1999.

Older workers in the euro area withdraw from the labour force sooner than they do in the United States. By the age of 60, half of European workers have already withdrawn from the labour force while only around a third of American workers have ceased to be active. The gap is even wider for the 60 to 64 age group (26.7 percentage points). This trend reflects a clear tendency towards earlier withdrawal from the labour force, supported by increased institutional incentives to retire early. Most euro area countries have implemented early retirement schemes, from as early as the age of 56 or 57 in Portugal and France under specific circumstances. Inactivity rates for older women tell a different story, as they remained broadly stable or even declined in most countries over the same period, so that a growing proportion of women aged 55 to 64 have remained in the labour force since the beginning of the 1980s.

Chart 8

Inactivity rates in the euro area: population aged 55 to 64

(as a percentage of the total population aged 55 to 64)



Source: Eurostat.
Note: Data prior to 1994 are ECB estimates.

Although rising inactivity rates among older male workers partly reflect institutional incentives, such as relatively generous pension benefits, they are also indicative of an employability problem faced specifically by older workers. There is evidence that early retirement is mainly concentrated among those previously employed in slow-growing sectors, such as manufacturing, mining or construction and among those with low levels of qualifications. Those in the latter group are also less likely to receive training than more educated workers and are likely to have greater difficulty in adapting to changing job requirements. This might contribute to their early withdrawal from the labour force.

4 High unemployment in the euro area

As discussed in Section I, unemployment has increased over time in the euro area by contrast with the United States where it has shown no upward trend. However, it is useful to examine various sub-categories of unemployment, which can exhibit quite different patterns.

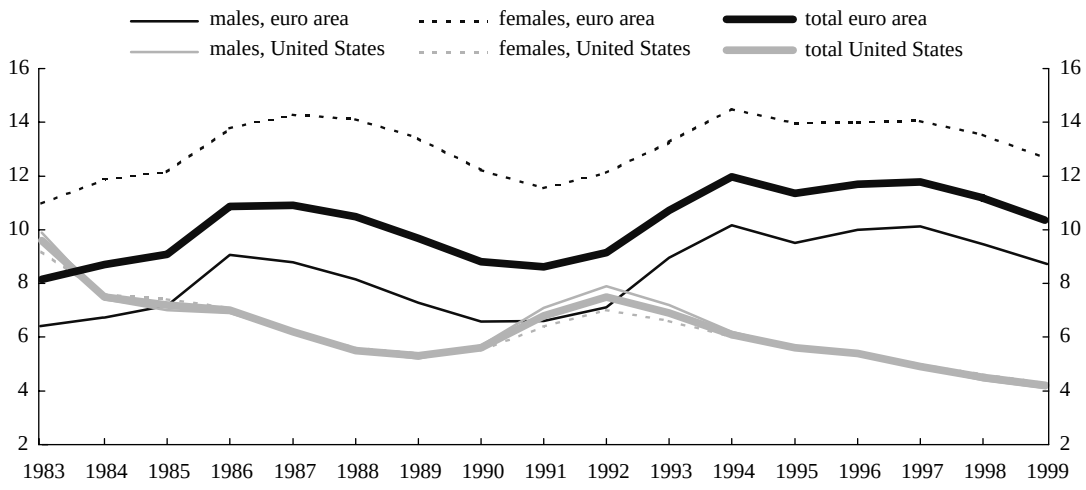
High unemployment mostly concentrated among women, the young and the low skilled

The unemployment rate for females has consistently exceeded that for males (see Chart 9). Since the early 1980s the female unemployment rate has been on average 4.9 percentage points above the male unemployment rate. By contrast, in the United States, the female unemployment rate has been on average slightly below that of males over the past three decades and the gap has never exceeded 1 percentage point. The high and persistent gap between male and female unemployment rates in the euro area points to structural impediments to employment growth which are specifically detrimental to women, including a lower level of education, the lack of affordable childcare and the tax and benefits systems. The latter (for instance, through maternity subsidies) may create disincentives for married women

Chart 9

Unemployment rates by gender in the euro area and in the United States

(as a percentage of labour force)



Sources: Eurostat and the OECD.
Note: Data prior to 1994 are ECB estimates.

to look for work if their husbands work or for young mothers receiving social security benefits. This may lead to a reduction in their human capital and therefore their employability, by keeping them away from the labour market for some time.

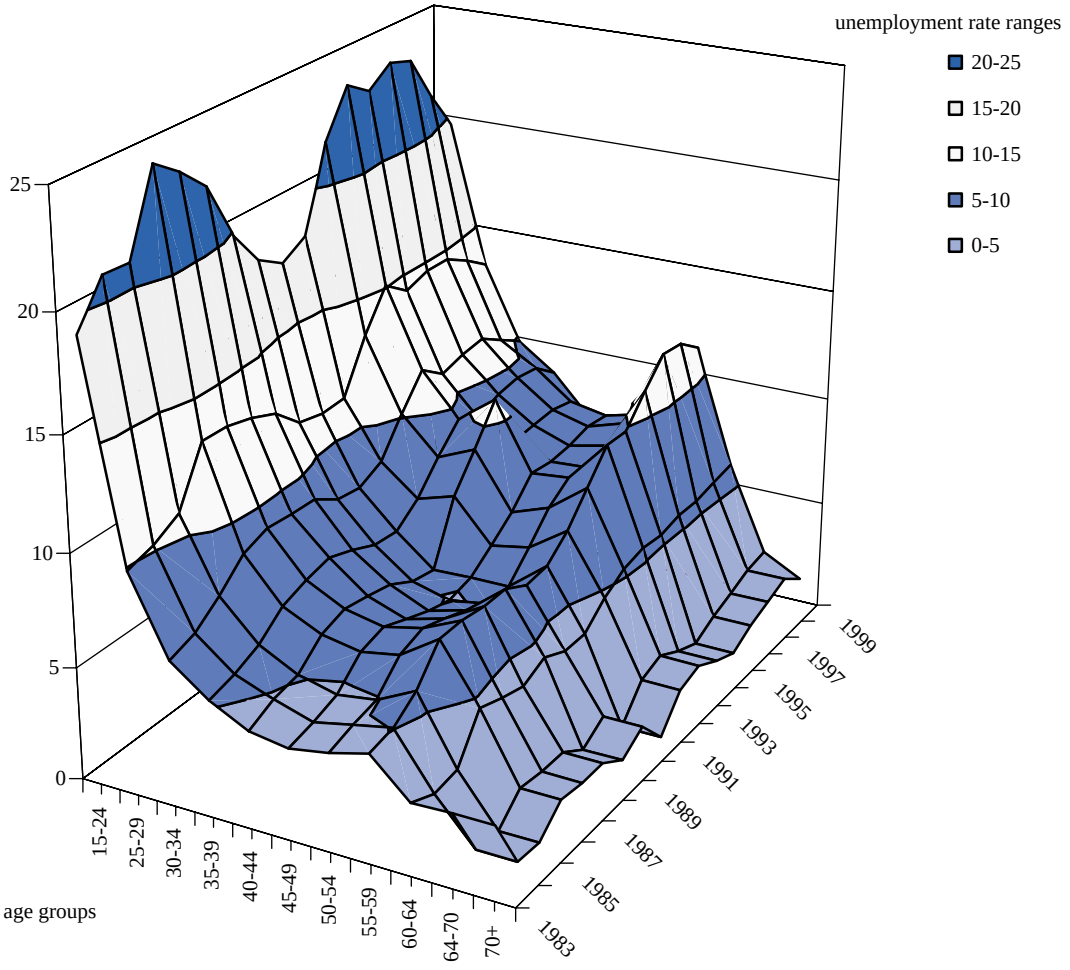
It is worth noting that there is a tendency for countries that have a wide dispersion of unemployment rates among various sub-categories of the labour market – in particular with regard to gender and age groups – to have high overall unemployment rates. Therefore, the breakdown of unemployment into these sub-categories is an important element in the analysis of the euro area labour markets (see Chart 10). Youth unemployment has tended to be around twice as high as the overall unemployment rate in the euro area. The same is true for the United States but in this case the problems are mostly concentrated among labour force participants under 20, who are more likely to be poorly educated relative to this group in the euro area. In the euro area, the unemployment rate for young people between 20 and 24 years of age is also very high.

Another feature of the euro area labour market, which once again contrasts with the situation in the United States, is the inexorable rise in the unemployment rate of those between 55 and 59. The unemployment rate for this group reached more than 10% at

Chart 10

Unemployment rates by age group in the euro area

(as a percentage of the labour force in each age group)



Source: Eurostat.
Note: Data prior to 1994 are ECB estimates.

Table 2

Unemployment rates by level of educational attainment in the euro area

(as a percentage of the labour force with a corresponding level of education)

	1995	1996	1997
Tertiary education	6.1	6.2	6.3
Upper secondary education	7.8	8.2	8.5
Lower secondary education or less	11.9	12.1	12.2

Source: Eurostat.
Note: Data refer to the population aged 25 to 59.

the end of the 1990s, i.e. twice as high as the level recorded at the beginning of the 1980s. Such a development, mostly due to a rise in male unemployment within this age group, partly stems from large-scale restructuring in some sectors of industry such as the mining sector, which employed an old and mostly male labour force. The skills of older workers in the declining industrial sector have not matched skills required by the expanding sectors.

As already seen in the employment section, labour market developments in the past two decades have not been favourable to low skilled workers. This translates into a higher unemployment rate for this category of people. According to available information, the lower the educational attainment level, the higher the unemployment rate (see Tables 2 and 3). More than 22% of the unemployed were in the lower skill category (i.e. unemployed persons whose previous occupation was "elementary operator"), while this category represented only 9.3% of total employment. Conversely, the likelihood of becoming unemployed appears to be smaller for highly skilled people.

Strong regional dispersion

Unemployment rates are also not evenly distributed at the national and regional levels. It appears that a high national unemployment rate is also associated with a high dispersion

Table 3

Unemployment and employment by occupation in 1997 in the euro area

(as a percentage of total unemployment or employment)

	Previous occupation of unemployed	Employment by occupation
Legislators and managers	2.5	6.4
Professionals	4.9	11.9
Technicians	9.7	15.6
Clerks	10.5	13.1
Services and sales workers	15.6	12.8
Agriculture/fishery workers	2.5	4.1
Craft/related trades workers	22.4	16.6
Plant and machine operators	9.6	8.8
Elementary operators	22.2	9.3
Armed forces	0.2	0.6
No response	-	0.9
Total unemployment or employment	100.0	100.0

Source: Eurostat.

of regional unemployment rates. In 1998 the gap between regional unemployment rates exceeded 20 percentage points in Italy and Spain, 18 in Germany, and reached 15.7 in France, although in the latter country the standard deviation in the unemployment rates was significantly lower than in the three others. High and persistent unemployment gaps between regions may be a sign that the wage formation process is too rigid and does not allow for wages to reflect the local labour market and productivity conditions. As regards the unemployment gap between countries, it partly reflects a low level of cross-country labour mobility within the euro area.

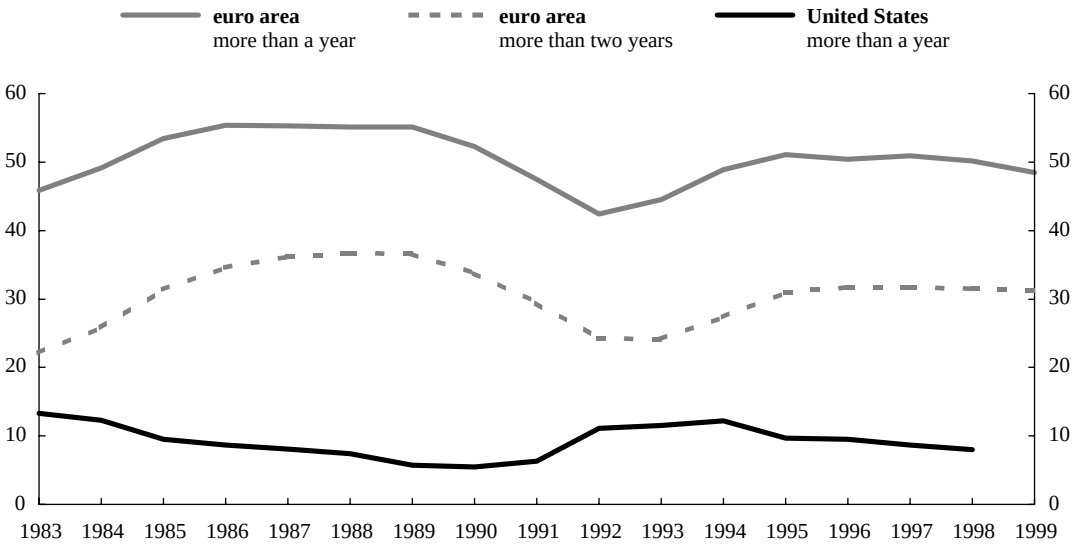
High unemployment duration

Finally, another important feature of euro area labour markets is the large share of long-term unemployment. In this respect, the situation in the euro area can be sharply contrasted with that in the United States (see Chart 11). In 1998 only 8% of the United States' unemployed were looking for a job for more than a year, while 42.2% were unemployed for less than a month. At the same time, in the euro area the proportion unemployed for more than a year was more than half of total unemployment and the proportion unemployed for more than two years was nearly one-third of total unemployment. Long-term unemployment is a general problem of the euro area labour markets as its incidence is high in all Member States, including those where overall unemployment is low. A possible explanation of this feature is that structural features in the euro area labour markets increased the persistence of rises in unemployment, which resulted from adverse economic shocks. In other words, people who became unemployed in a period of recession remained unemployed thereafter for structural reasons, including generous unemployment benefits, which could have lowered their willingness to find a new job quickly.

Chart 11

Duration of unemployment in the euro area and in the United States

(as a percentage of unemployment)



Sources: Eurostat and the OECD.
Note: Data prior to 1994 are ECB estimates.

5 Structural factors affecting the labour market

The preceding analysis has identified a number of deep-seated problems in euro area labour markets affecting employment, labour force participation and unemployment. The key findings of this analysis are:

- There has been a trend decline in the employment rate and a rise in the unemployment rate in the euro area over the past 40 years. By contrast, in the United States the employment rate has risen and the unemployment rate has remained broadly stable.

- There is a relative underdevelopment of the services sector in the euro area, while this sector has instead been the source of much of the recent employment growth in the United States.

- In the euro area, labour market problems appear to be concentrated among certain groups in society, such as women, younger and older workers and the low skilled. This is revealed by the lower employment rates and higher unemployment and non-participation rates for these groups. The labour market position for skilled prime-age men appears to be broadly comparable between the euro area and the United States.

- There is a significant regional dimension to unemployment within some euro area countries.

- There is a serious problem of long-term unemployment in the euro area. Rates of short-term unemployment are, however, broadly comparable with those recorded in the United States.

These features have been linked, for example in the OECD Jobs Strategy, to a number of structural factors relating to work incentives, labour costs, mismatch, government regulations and long-term exclusion from the labour market, which are considered in more detail below. However, it is often argued that negative macroeconomic shocks, interacting with labour market institutions, may also have contributed to the rise in European unemployment. Overly rigid institutional settings may have prevented the necessary adjustment to changes in the economic environment, thus leading to higher unemployment persistence.

Inadequate work incentives

There are a range of factors affecting the labour market which can serve to reduce the incentive to work. Lower take-home pay owing to high rates of taxation or social security contributions can make work less attractive. The same is true of generous, or open-ended, unemployment or other social security benefits, which may reduce the incentive for the unemployed or the inactive to search for work. Early retirement provisions may also reduce the incentives for older people to continue to work. However, there can be other factors, such as a lack of affordable childcare, which reduce the attractiveness of work. All of these may limit incentives to work and thereby lower employment, leading to higher unemployment and non-participation.

Excessive labour costs

If pay is too high, firms may reduce their demand for labour, and employment will consequently be lower. Labour costs may be increased not only by higher wages but also by non-wage labour costs such as payroll taxes and social security contributions. Within the euro area the harmful effects of high labour costs may be concentrated among certain groups in the labour market or within certain regions. High labour costs are likely to be a particular problem for those whose productivity may be below average, particularly the young and the low skilled. Excessive wage levels, as well as a low wage dispersion, may be a symptom of bargaining

arrangements that give too much power to those currently employed at the expense of the unemployed and do not allow for enough regional flexibility. The effect of a minimum wage on the employment of younger workers and the low skilled may also be particularly significant if these workers have lower productivity levels.

Mismatch

High unemployment may be due to mismatches in the economy, which can occur at a number of levels. Despite the existence of job vacancies, workers may not have the appropriate skills and may hence remain unemployed. As discussed, the unemployed in the euro area tend to have below average skills and therefore may be unsuitable for the vacancies available for more skilled workers. Furthermore, as indicated by the regional concentration of unemployment, there may be a geographical mismatch if there are obstacles to people moving between areas of high and low unemployment. This applies to potential job moves between and within euro area countries. A wide range of obstacles, such as language and cultural barriers and the lack of transferability of pension rights, may discourage moves between countries. Within countries there can be obstacles created by housing markets, particularly a lack of affordable rented accommodation. In addition, an inadequate transport infrastructure may discourage commuting even relatively short distances to find work.

Government regulations

Government regulations in a number of areas can have an impact on the labour market and have unintended adverse consequences. In many areas, such as health and safety, it is widely accepted that it is appropriate for government to intervene, even if this reduces flexibility or increases labour costs. However, in other areas – such as employment protection regulations – the role of government intervention is more controversial. While there is little empirical support for the notion that such regulations lead to higher structural unemployment, there is more support for the view that such regulations may raise the average duration of unemployment, reduce labour force participation and slow the adjustment of employment to changing economic circumstances. As the preceding analysis has shown, many of these problems currently seem to afflict the euro area. However, government measures not directly related to the labour market may also affect its functioning, such as government regulations which make it more difficult to set up new businesses or, more generally, the existence of "red tape" that discourages entrepreneurship. There are also restrictions affecting some areas of the product market, such as strict limitations on shop opening hours, which may have served to slow the development of the services sector in the euro area.

Long-term exclusion from the labour market

The very high levels of long-term unemployment in the euro area mean that there are large numbers of people who cannot be easily reintegrated into the labour market. A long period of time spent without work is likely to erode people's human capital and may make firms reluctant to hire them. Over time it may also discourage them from actively seeking work and lead to their effective withdrawal from the labour market, even though they may still be classified as "unemployed".

Box 2

European labour market initiatives

In the past three years there has been a marked increase in initiatives at the Community level aimed at addressing the issue of the high level of unemployment and the low rate of employment in Europe, as reflected in the conclusions of recent European Council meetings. The major steps which have been taken are summarised in this box.

At the Luxembourg European Council meeting (12 to 13 December 1997) on the co-ordination of economic policy in Economic and Monetary Union, it was agreed to set up a co-ordinated employment strategy within the framework of the Broad Economic Policy Guidelines, the Employment Guidelines and the National Action Plans. While the National Action Plans, which are prepared by the Member States, determine specific areas of action for each country, the Employment Guidelines define general principles for improving labour market performance. These principles cover four areas for action: (1) improving employability in particular for young people and the long-term unemployed; (2) developing entrepreneurship, by making it easier to start up and run businesses; (3) encouraging adaptability of businesses and their employees, notably through more flexible working arrangements; and (4) strengthening equal opportunity policies for women and men, which should permit a higher participation rate for women.

Acknowledging that positive employment effects can be expected from better functioning markets and the further development of new technologies, the Cardiff European Council (15 to 16 June 1998) launched a process aimed at initiating reforms to improve competitiveness and the functioning of the markets for goods, services and capital. The Cardiff process also provides an important opportunity to ensure that structural reforms are as conducive as possible to employment.

At its Vienna meeting (11 to 12 December 1998) the European Council decided that a policy for more employment encompassing macroeconomic policy directed towards growth and stability and the implementation of structural reforms needed to be enhanced by a broad strategy. The European Employment Pact, adopted at the Cologne Summit (3 to 4 June 1999) complements the two pillars stemming from the Luxembourg and the Cardiff processes with a third, which is a regular macroeconomic dialogue at the EU level involving all the economic actors, i.e. the governments, the European Commission, the European Central Bank and the social partners.

Finally, the extraordinary European Council meeting in Lisbon (23 to 24 March 2000) defined an open method of co-ordination with regard to facing the new challenges resulting from globalisation and the emergence of a new knowledge-based economy. It consists in regular meetings aimed at monitoring and assessing progress made within the framework of the Cardiff and Luxembourg processes.

6 Concluding remarks

The deep-seated problems of the euro area labour markets summarised above are predominantly structural in nature. A wide range of policy measures exist for dealing with these problems. Clearly, such issues are a matter for national governments and the social partners, and the structural reforms needed will depend on the specific nature of the problem in each country. Nevertheless, over the past few years, the EU has redoubled its efforts to promote structural reforms aimed at improving the functioning of labour markets (see Box 2). In this regard, the process which started at the EU Council meeting in Luxembourg in 1997 aims to co-ordinate and improve Member States' policies in the field of employment and labour market reforms. As part of this process, Member States adopt annual Employment Guidelines which are implemented by National Action Plans.

The progress made so far in addressing these issues through implementing structural reforms has been patchy, with some countries adopting a wide range of measures while others have been rather less ambitious. Further steps have been taken to improve the functioning of product markets, while less progress has been made in the sphere of labour market reform. Within the euro area most countries are currently pursuing active labour market measures to bring the unemployed (particularly the long-term, the low skilled and the young) back into the labour market. There have also been some reforms of tax and benefit systems aimed at improving work incentives and reducing labour costs for firms, although these have been rather limited thus far. In some countries that are encountering labour shortages there have been measures to stimulate labour force participation. In other countries there have been measures to reform the regulation of fixed-term or short-term contracts and part-time work.

Although a further fall in unemployment is likely by virtue of the ongoing cyclical upswing, a significant and sustained reduction in euro area unemployment will require further substantial structural improvements in the functioning of the labour market.

Euro area statistics

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I Monetary policy statistics

Table 1.1

Consolidated financial statement of the Eurosystem [1)]

(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
1999 10 Dec.	114,955	240,344	13,728	4,395	230,117	164,018	64,999	0
17	114,745	242,368	13,795	4,998	225,423	148,972	74,996	0
24	114,745	242,368	13,795	4,998	225,423	148,972	74,996	0
31	116,612	254,880	14,383	4,822	250,079	161,988	74,996	0
2000 7 Jan.	116,612	255,118	14,739	4,834	238,670	161,988	74,996	0
14	116,512	255,640	14,086	4,993	181,388	105,036	74,996	0
21	116,304	256,607	13,091	5,101	191,454	112,009	74,998	0
28	116,295	256,333	14,754	4,772	216,714	146,035	69,996	0
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

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
1999 10 Dec.	357,245	103,584	101,621	1,815	0	0	148	7,876
17	370,789	105,444	105,317	111	0	0	16	7,876
24	370,789	105,127	105,000	111	0	0	16	7,876
31	374,953	117,427	114,799	2,618	0	0	10	7,876
2000 7 Jan.	364,659	137,689	123,060	135	14,420	0	74	7,876
14	355,655	92,476	92,272	137	0	0	67	7,876
21	349,981	102,388	101,964	406	0	0	18	7,876
28	347,953	115,650	115,525	105	0	0	20	7,876
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

Source: ECB.

1) Data have been revised in the light of new information.

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	78	224	798	24,055	60,153	76,990	764,737	1999 10 Dec.
0	96	401	958	23,991	59,649	76,019	760,988	17
0	96	401	958	23,991	59,649	75,700	760,669	24
0	11,429	404	1,262	23,521	59,180	80,150	803,627	31
0	105	400	1,181	23,701	59,236	79,070	791,980	2000 7 Jan.
0	102	63	1,191	23,797	59,236	80,833	736,485	14
0	3,526	44	877	23,993	59,236	79,505	745,291	21
0	27	82	574	24,037	59,251	80,593	772,749	28
0	18	110	1,053	24,363	59,255	83,072	762,476	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

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	
76,886	6,053	1,261	9,794	6,229	52,733	89,835	53,241	764,737	1999 10 Dec.
52,373	7,343	1,027	12,008	6,229	54,821	89,835	53,243	760,988	17
52,373	7,343	1,027	12,008	6,229	54,819	89,835	53,243	760,669	24
60,614	7,834	926	11,901	6,531	54,714	107,477	53,374	803,627	31
40,227	7,674	927	11,822	6,531	53,689	107,477	53,409	791,980	2000 7 Jan.
38,341	6,922	1,028	11,689	6,531	55,084	107,470	53,413	736,485	14
42,016	7,306	820	11,767	6,531	55,730	107,469	53,407	745,291	21
56,784	7,043	1,177	13,279	6,531	55,583	107,469	53,404	772,749	28
50,717	7,030	999	14,477	6,531	55,919	107,483	53,440	762,476	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

Table 1.2

ECB interest rates

(levels in percentages per annum; changes in percentage points)

With effect from	Deposit facility		Main refinancing operations [1]		Marginal lending facility	
	Level 1	Change 2	Level 3	Change 4	Level 5	Change 6
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

Source: ECB.

1) The rate for main refinancing operations is the rate applicable to fixed rate tenders. Changes in the rate are effective from the date of settlement of the first main refinancing operation following announcement of the change. Dates of settlement and amounts are shown below in Table 1.3.

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.

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	Marginal rate	Weighted average rate	Running for (...) days
	1	2	3	4	5	6
1999 3 Nov.	2,344,082	66,000	2.50	-	-	14
10	404,857	74,000	3.00	-	-	14
17	484,348	69,000	3.00	-	-	14
24	687,973	74,000	3.00	-	-	14
1 Dec.	1,018,950	72,000	3.00	-	-	14
8	1,141,163	92,000	3.00	-	-	14
15	286,824	57,000	3.00	-	-	15
22	1,505,405	92,000	3.00	-	-	21
30	485,825	70,000	3.00	-	-	20
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

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 executed.

2. Longer-term refinancing operations

Date of settlement	Bids (amount)	Allotment (amount)	Fixed rate tenders	Variable rate tenders		
			Fixed rate	Marginal rate	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

3. Other tender operations

Date of settlement	Type of operation	Bids (amount)	Allotment (amount)	Fixed rate tenders	Variable rate tenders		
				Fixed rate	Marginal rate	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

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 Mar.	8,684.9	4,803.1	88.8	151.2	1,125.6	549.8	1,966.4
Apr.	8,741.1	4,827.6	93.3	160.3	1,129.3	542.0	1,988.6
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.	9,338.4	5,189.6	114.5	164.5	1,220.7	553.1	2,096.0
Mar. (p)	9,490.8	5,308.7	116.9	174.8	1,231.5	543.2	2,115.7

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 May	100.2	101.0	0.8	0.0	2.50
June	100.9	101.5	0.6	0.0	2.50
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 (p)	111.4	-	-	-	-

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 which 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 which 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

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 of EMU and outstanding at the start of Stage Three of EMU (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 Q1	230.2	208.8	21.2	0.2	106.6	1.2	104.2	1.3	3.0	0.4	2.6	323.5	7.5	39.5	710.3
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 Mar.	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
Apr.	540.7	520.1	20.4	0.2	93.2	1.2	91.3	0.7	8.1	4.0	4.1	435.7	9.6	52.8	1,140.2
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. [(p)]	443.2	424.2	18.4	0.6	96.2	2.4	92.7	1.1	14.4	4.3	10.1	439.1	9.8	48.6	1,051.3

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 Q1	340.5	137.9	88.4	46.5	3.0	14.0	14.5	107.4	31.7	64.3	710.3
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 Mar.	348.3	549.5	486.6	54.4	8.5	4.9	5.3	138.0	97.9	54.5	1,198.3
Apr.	349.6	486.1	440.9	38.0	7.1	4.9	5.3	139.0	105.0	50.4	1,140.2
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. [(p)]	365.9	372.0	319.6	43.3	9.1	1.7	4.6	185.7	75.1	46.5	1,051.3

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. Data have been revised in the light of new information.

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 and EUR 47 billion at end-April. 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 [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				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 Q1	8,561.6	2,979.8	806.0	4,775.8	1,954.5	652.3	1,103.7	198.6	107.8	384.4	110.9	273.5	1,676.7	238.0	811.3	13,734.3
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 Mar.	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
Apr.	9,293.7	3,304.8	809.6	5,179.3	2,103.6	773.7	1,128.1	201.8	104.8	482.3	126.5	355.8	1,622.7	246.4	841.7	14,695.2
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.	9,791.3	3,447.3	822.4	5,521.5	2,180.7	831.8	1,128.0	220.9	129.9	520.7	138.7	382.0	1,702.9	283.0	937.5	15,546.1
2000 Jan.	9,859.0	3,477.8	814.4	5,566.8	2,198.7	839.7	1,137.4	221.6	121.3	527.4	141.7	385.7	1,723.9	284.4	952.0	15,666.7
Feb.	9,863.1	3,452.4	809.7	5,600.9	2,221.5	850.3	1,143.4	227.8	132.0	544.0	144.8	399.2	1,768.6	283.9	968.1	15,781.4
Mar. [p]	10,009.3	3,532.6	813.3	5,663.4	2,224.1	874.8	1,116.0	233.2	133.5	588.9	154.9	434.0	1,804.6	287.5	974.8	16,022.6

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 Q1	0.4	7,845.7	3,086.2	92.8	4,666.7	1,210.8	1,897.2	1,346.4	212.2	255.5	1,987.2	149.5	710.3	1,512.0	1,273.7	13,734.3
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 Mar.	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
Apr.	0.5	8,338.8	3,384.6	77.8	4,876.4	1,404.0	1,986.8	1,314.0	171.7	297.5	2,223.0	190.1	769.5	1,626.0	1,249.7	14,695.2
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	8,733.4	3,603.8	89.8	5,039.8	1,529.7	2,037.8	1,327.0	145.3	308.9	2,364.0	252.5	832.9	1,776.7	1,277.0	15,546.1
2000 Jan.	0.7	8,732.6	3,579.9	87.8	5,064.9	1,558.7	2,023.4	1,326.9	156.0	325.9	2,370.0	232.0	853.1	1,839.4	1,313.0	15,666.7
Feb.	0.7	8,730.7	3,572.3	89.0	5,069.5	1,551.6	2,040.7	1,316.7	160.5	343.6	2,395.8	243.4	860.6	1,877.1	1,329.5	15,781.4
Mar. [p]	0.7	8,808.2	3,627.1	90.7	5,090.4	1,560.9	2,053.5	1,307.2	168.9	343.2	2,420.1	255.1	868.2	1,987.7	1,339.6	16,022.6

Source: ECB.

1) Data have been revised in the light of new information.

Table 2.3

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

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

1. Assets: levels outstanding

	Loans to euro area residents			Holdings of securities other than shares issued by euro area residents			Holdings of shares/ other equity issued by other euro area residents	External assets [3)]	Fixed assets	Remaining assets	Total
		General government	Other euro area residents		General government	Other euro area residents					
	1	2	3	4	5	6	7	8	9	10	11
1998 Aug.	5,747.3	826.4	4,920.9	1,422.4	1,226.9	195.6	271.7	1,973.9	244.3	794.3	10,453.9
Sep.	5,791.6	830.9	4,960.7	1,416.1	1,218.1	198.0	274.2	1,980.1	244.9	805.6	10,512.7
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.	6,364.2	842.1	5,522.1	1,436.1	1,214.1	222.0	391.8	2,103.5	293.0	949.4	11,538.0
2000 Jan.	6,401.6	834.2	5,567.4	1,447.6	1,225.0	222.6	395.5	2,148.2	294.2	970.3	11,657.4
Feb.	6,431.1	829.5	5,601.5	1,462.7	1,233.8	228.8	409.0	2,186.2	293.7	987.0	11,769.7
Mar. (p)	6,495.7	831.7	5,664.1	1,443.0	1,208.7	234.3	444.1	2,243.7	297.3	991.1	11,915.0

2. Liabilities: levels outstanding

	Currency in circulation	Deposits of central government	Deposits of other general government/ other euro area residents					Money market fund shares/ units and money market paper	Debt securities issued	Capital and reserves	External liabilities [3)]	Remaining liabilities	Excess of inter-MFI liabilities	Total
				Overnight	With agreed maturity	Redeemable at notice	Repurchase agreements							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1998 Aug.	315.0	164.5	4,717.6	1,248.2	1,915.8	1,346.4	207.2	326.4	1,385.4	716.6	1,490.2	1,336.2	2.1	10,453.9
Sep.	311.8	156.4	4,731.3	1,274.0	1,901.0	1,345.4	211.0	320.7	1,398.8	723.7	1,505.9	1,351.6	12.4	10,512.7
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.	349.7	143.2	5,048.6	1,538.5	2,037.8	1,327.0	145.3	434.8	1,534.8	865.1	1,826.4	1,323.9	11.5	11,538.0
2000 Jan.	332.7	134.9	5,073.3	1,567.1	2,023.4	1,326.9	156.0	439.9	1,533.2	881.6	1,912.0	1,358.9	-9.1	11,657.4
Feb.	330.9	145.7	5,077.9	1,560.0	2,040.7	1,316.7	160.5	458.3	1,548.3	885.4	1,941.5	1,377.1	4.7	11,769.7
Mar. (p)	334.3	134.0	5,099.5	1,570.0	2,053.5	1,307.2	168.9	466.4	1,547.5	894.6	2,062.7	1,386.1	-10.1	11,915.0

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. Data have been revised in the light of new information.

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 Sep.	50.3	4.8	45.6	-6.1	-8.9	2.8	2.7	47.6	0.6	-2.7	92.4
Oct.	37.3	4.2	33.1	12.2	7.5	4.7	0.1	-18.1	2.3	-6.1	27.7
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	-102.5	2.7	-30.1	-89.7
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	52.9	1.2	-91.5	47.1
Apr.	12.5	-8.7	21.2	3.7	-1.6	5.3	12.9	-6.8	2.0	-33.9	-9.6
May	31.5	0.1	31.3	22.9	16.6	6.2	13.3	-59.3	1.2	-14.1	-4.6
June	101.3	6.6	94.8	-17.0	-21.4	4.4	-9.4	127.0	2.4	29.8	234.2
July	29.7	-8.0	37.6	-7.6	-11.2	3.6	-2.9	-35.3	4.7	-12.0	-23.3
Aug.	-9.9	-4.1	-5.8	11.6	3.8	7.8	-1.4	-42.1	0.8	-19.8	-60.9
Sep.	46.4	5.1	41.3	9.2	15.8	-6.5	-4.1	23.1	3.6	-9.6	68.7
Oct.	52.1	9.1	43.0	9.5	11.7	-2.2	1.5	19.0	2.0	32.1	116.2
Nov.	73.6	12.7	60.9	3.9	-3.2	7.1	14.8	20.6	4.3	60.8	178.0
Dec.	30.1	-10.2	40.4	-27.6	-25.1	-2.6	14.0	-76.8	17.9	21.0	-21.5
2000 Jan.	32.8	-8.1	40.9	14.7	13.7	1.0	3.4	21.4	1.4	20.9	94.5
Feb.	30.1	-4.6	34.7	15.4	9.1	6.3	12.0	32.9	-0.5	16.7	106.5
Mar. (p)	61.7	3.1	58.6	-22.9	-27.4	4.5	34.1	33.4	3.6	4.4	114.2

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 Sep.	-3.3	-8.1	19.2	27.6	-11.4	-0.9	3.9	-5.1	5.2	8.2	46.9	19.3	10.2	92.4
Oct.	1.5	-1.3	18.9	1.7	3.0	3.5	10.8	4.7	-10.7	-3.3	43.8	-9.4	-16.6	27.7
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	-24.8	-4.5	-3.5	-81.6	-88.9	-3.1	-89.7
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	5.0	12.5	55.6	-41.7	12.8	47.1
Apr.	2.1	-17.6	13.1	15.1	1.1	3.4	-6.6	20.9	15.4	11.2	6.6	-50.5	-10.8	-9.6
May	1.7	4.9	19.7	31.2	-12.9	0.6	0.8	1.3	8.8	5.9	-19.4	-42.3	14.8	-4.6
June	2.4	4.2	29.2	45.2	-14.4	4.5	-6.0	1.3	7.1	13.1	109.0	71.5	-3.8	234.2
July	8.0	10.0	6.8	-12.6	20.0	2.2	-2.8	-7.8	7.4	4.9	-45.5	-7.8	0.6	-23.3
Aug.	-5.5	2.9	-24.3	-29.8	7.7	-1.1	-1.1	13.1	5.0	-0.4	-5.0	-34.6	-12.2	-60.9
Sep.	0.9	-4.7	13.0	29.2	-11.6	-2.7	-2.0	6.5	20.4	5.2	4.3	7.8	15.3	68.7
Oct.	2.2	1.8	13.8	1.6	19.0	-3.6	-3.2	6.6	10.8	7.0	54.5	15.5	4.1	116.2
Nov.	0.5	11.0	34.5	33.1	5.7	-5.3	1.1	17.8	7.0	4.1	32.2	74.2	-3.3	178.0
Dec.	19.6	-2.8	64.5	26.8	32.8	18.3	-13.4	-5.1	5.7	27.1	-85.9	-41.7	-2.8	-21.5
2000 Jan.	-16.9	-8.4	22.4	27.6	-15.7	-0.2	10.7	1.0	-3.2	18.9	68.1	36.1	-23.4	94.5
Feb.	-1.8	10.8	4.1	-7.2	17.0	-10.2	4.5	18.4	14.9	5.4	25.0	15.9	13.8	106.5
Mar. (p)	3.4	-11.8	18.5	8.7	11.0	-9.6	8.4	9.1	-5.0	10.3	100.9	3.8	-14.8	114.2

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
							Total	Index Dec. 98=100 [2]			
	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					
	1	2	3	4	5	6	7	8	9	10	11
1998 Aug.	315.0	1,315.5	1,630.5	91.70	886.1	1,191.6	3,708.2	94.85	207.2	326.4	90.4
Sep.	311.8	1,339.9	1,651.6	92.99	871.4	1,191.5	3,714.6	95.13	211.0	320.7	82.0
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.	349.7	1,606.4	1,956.1	109.83	876.3	1,282.8	4,115.1	105.10	145.3	434.8	84.4
2000 Jan.	332.7	1,634.0	1,966.7	110.37	859.6	1,283.6	4,109.9	104.91	156.0	439.9	82.5
Feb.	330.9	1,624.5	1,955.4	109.73	874.9	1,272.4	4,102.7	104.77	160.5	458.3	86.2
Mar. [p]	334.3	1,635.9	1,970.1	110.48	889.0	1,262.3	4,121.5	105.18	168.9	466.4	85.1

2. Flows [4]

	M1				M2				Repurchase agreements	Money market fund shares/ units and money market paper	Debt securities up to 2 years
							Total	Annual percentage change [4]			
	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					
	1	2	3	4	5	6	7	8	9	10	11
1998 Sep.	-3.3	26.2	22.9	8.0	-12.1	0.1	10.9	4.6	3.9	-5.1	-7.7
Oct.	1.5	0.5	2.0	7.8	7.1	3.8	12.8	4.5	10.8	4.7	0.5
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	-24.8	-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	1.1
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	-1.8
Nov.	0.5	32.2	32.7	11.8	-2.5	-5.2	25.1	6.3	1.1	17.8	0.8
Dec.	19.6	30.4	50.0	9.8	19.6	22.4	92.0	5.1	-13.4	-5.1	9.1
2000 Jan.	-16.9	26.6	9.7	9.1	-17.7	0.8	-7.2	4.0	10.7	1.0	-2.1
Feb.	-1.8	-9.6	-11.4	10.4	16.8	-11.2	-5.8	5.1	4.5	18.4	3.6
Mar. [p]	3.4	10.0	13.4	9.9	12.9	-10.2	16.1	5.1	8.4	9.1	-1.8

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. Data have been revised in the light of new information.

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	
4,332.2	97.13		1,030.1	210.1	1,295.0	716.6	2,053.3	5,388.1	4,920.9	96.23	483.7	1998 Aug.
4,328.2	97.17		1,030.0	209.5	1,316.8	723.7	2,049.1	5,432.9	4,960.7	97.12	474.2	Sep.
4,357.9	97.82		1,026.1	209.3	1,308.7	720.0	2,061.9	5,471.1	4,993.8	97.77	416.4	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.
4,779.6	106.18		1,162.0	112.8	1,450.4	865.1	2,056.2	6,135.9	5,522.1	109.56	277.1	Dec.
4,788.2	106.23		1,164.3	111.8	1,450.7	881.6	2,059.2	6,185.5	5,567.4	110.37	236.2	2000 Jan.
4,807.6	106.69		1,166.7	112.8	1,462.1	885.4	2,063.4	6,239.4	5,601.5	111.06	244.7	Feb.
4,841.8	107.40		1,164.9	113.6	1,462.4	894.6	2,040.4	6,342.4	5,664.1	112.22	181.0	Mar. [p]

M3			Main counterparts of M3									
Total	Annual percentage change [4]	3-month moving average (centred)	Longer-term MFI liabilities				Credit [3]				Net external assets	
			Deposits with agreed maturity over 2 years	Deposits redeemable at notice over 3 months	Debt securities over 2 years	Capital and reserves	Credit to government	Credit to other euro area residents	Of which loans	Annual percentage change [4]		
12	13	14	15	16	17	18	19	20	21	22	23	
2.0	4.7	-	0.7	-0.6	12.9	8.2	-4.1	51.0	45.6	9.0	0.7	1998 Sep.
28.8	5.0	4.8	-4.1	-0.2	-11.1	-3.3	11.7	37.9	33.1	8.9	-61.9	Oct.
25.1	4.7	4.8	-5.8	0.4	13.4	-1.9	1.0	57.9	49.7	9.3	-17.8	Nov.
72.1	4.7	5.1	9.9	5.5	5.7	-3.5	-31.9	72.1	64.1	9.0	-20.9	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	-52.7	Feb.
15.4	5.4	5.3	4.7	-0.8	5.3	12.5	20.9	63.5	42.4	10.0	-2.6	Mar.
34.0	5.3	5.4	1.7	-2.2	14.3	11.2	-10.3	39.4	21.2	9.6	-13.3	Apr.
31.4	5.4	5.4	-2.7	-3.6	4.4	5.9	16.7	50.9	31.3	9.9	-39.9	May
21.3	5.5	5.6	9.3	-1.0	5.7	13.1	-14.8	89.8	94.8	10.4	18.0	June
13.1	5.9	5.7	5.2	-2.3	4.5	4.9	-19.2	38.4	37.6	10.2	10.2	July
-21.4	5.7	5.8	5.7	-0.9	4.0	-0.4	-0.3	0.6	-5.8	10.0	-37.1	Aug.
14.3	5.9	5.8	2.3	0.2	19.6	5.2	20.9	30.7	41.3	9.9	18.8	Sep.
17.7	5.6	5.9	6.1	-0.6	12.6	7.0	20.8	42.3	43.0	10.0	-35.5	Oct.
44.8	6.1	6.0	8.1	0.1	6.2	4.1	9.5	82.8	60.9	10.1	-11.7	Nov.
82.6	6.2	5.8	13.2	2.1	-3.4	27.1	-35.3	51.8	40.4	9.6	9.1	Dec.
2.3	5.3	5.9	2.0	-0.9	-1.1	18.9	5.6	45.3	40.9	8.7	-46.7	2000 Jan.
20.6	6.1	6.0	0.7	1.0	11.3	5.4	4.5	53.0	34.7	9.4	7.9	Feb.
31.8	6.5	-	-2.4	0.8	-3.2	10.3	-24.3	97.2	58.6	9.7	-67.5	Mar. [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 Aug.	1,655.7	93.11	2,085.7	97.85	3,741.4	95.70	617.9	112.21	4,359.3	97.74	4,938.9	96.58
Sep.	1,667.0	93.85	2,082.3	97.82	3,749.3	96.02	613.1	111.58	4,362.4	97.94	4,973.3	97.37
Oct.	1,676.6	94.37	2,088.6	98.10	3,765.2	96.41	634.2	115.37	4,399.4	98.75	5,006.8	98.02
Nov.	1,694.9	95.36	2,099.2	98.55	3,794.1	97.10	610.6	110.99	4,404.7	98.81	5,048.9	98.89
Dec.	1,719.9	96.79	2,110.7	99.15	3,830.6	98.07	572.9	104.20	4,403.5	98.83	5,066.2	99.42
1999 Jan.	1,784.9	100.55	2,110.1	99.27	3,895.1	99.85	578.0	103.42	4,473.1	100.30	5,090.3	101.11
Feb.	1,782.2	100.33	2,102.7	98.85	3,885.0	99.52	591.4	105.67	4,476.4	100.29	5,114.2	101.54
Mar.	1,803.3	101.43	2,114.2	99.32	3,917.5	100.28	588.8	105.62	4,506.4	100.95	5,161.5	102.39
Apr.	1,816.1	102.13	2,118.3	99.48	3,934.4	100.69	602.1	107.41	4,536.5	101.53	5,190.0	102.95
May	1,829.9	102.88	2,122.7	99.66	3,952.6	101.13	605.6	107.96	4,558.3	101.98	5,230.8	103.74
June	1,843.8	103.63	2,117.3	99.38	3,961.1	101.31	614.4	109.29	4,575.4	102.31	5,285.0	104.85
July	1,864.2	104.84	2,129.7	100.03	3,993.9	102.22	609.2	108.53	4,603.1	103.01	5,321.2	105.62
Aug.	1,870.7	105.16	2,132.6	100.12	4,003.3	102.42	616.3	109.70	4,619.7	103.33	5,355.1	106.27
Sep.	1,880.9	105.77	2,132.5	100.12	4,013.4	102.69	638.5	111.51	4,651.8	103.79	5,390.2	107.00
Oct.	1,890.5	106.26	2,139.2	100.31	4,029.7	103.02	647.5	112.94	4,677.3	104.26	5,435.4	107.83
Nov.	1,902.6	106.84	2,141.5	100.33	4,044.1	103.29	663.2	115.42	4,707.3	104.81	5,492.6	108.89
Dec.	1,904.4	106.92	2,138.3	100.18	4,042.7	103.25	689.2	118.01	4,731.9	105.12	5,491.3	108.95
2000 Jan.	1,946.6	109.24	2,121.3	99.34	4,067.9	103.84	694.9	118.21	4,762.8	105.67	5,542.5	109.88
Feb.	1,972.3	110.67	2,128.0	99.72	4,100.2	104.70	700.3	119.12	4,800.6	106.53	5,605.2	111.13
Mar. (p)	1,993.2	111.77	2,140.3	100.24	4,133.5	105.49	715.1	121.67	4,848.6	107.55	5,667.3	112.28

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 Aug.	12.4	0.8	7.9	0.4	20.3	0.5	-9.3	-1.5	11.0	0.3	36.5	0.7
Sep.	13.2	0.8	-0.7	0.0	12.5	0.3	-3.5	-0.6	9.0	0.2	40.2	0.8
Oct.	9.2	0.6	6.0	0.3	15.2	0.4	20.9	3.4	36.1	0.8	33.4	0.7
Nov.	17.5	1.0	9.5	0.5	27.0	0.7	-24.1	-3.8	2.9	0.1	44.4	0.9
Dec.	25.4	1.5	12.7	0.6	38.1	1.0	-37.4	-6.1	0.8	0.0	26.8	0.5
1999 Jan.	66.7	3.9	2.7	0.1	69.4	1.8	-4.3	-0.8	65.1	1.5	86.3	1.7
Feb.	-3.9	-0.2	-9.0	-0.4	-12.8	-0.3	12.6	2.2	-0.3	0.0	21.5	0.4
Mar.	19.7	1.1	10.0	0.5	29.7	0.8	-0.2	0.0	29.5	0.7	42.8	0.8
Apr.	12.4	0.7	3.5	0.2	15.8	0.4	9.9	1.7	25.8	0.6	28.6	0.6
May	13.3	0.7	3.8	0.2	17.2	0.4	3.1	0.5	20.3	0.4	39.8	0.8
June	13.4	0.7	-6.1	-0.3	7.3	0.2	7.5	1.2	14.8	0.3	55.6	1.1
July	21.5	1.2	13.8	0.7	35.3	0.9	-4.3	-0.7	31.1	0.7	38.8	0.7
Aug.	5.8	0.3	2.0	0.1	7.7	0.2	6.6	1.1	14.3	0.3	33.1	0.6
Sep.	10.7	0.6	0.0	0.0	10.7	0.3	10.2	1.6	20.9	0.5	36.6	0.7
Oct.	8.7	0.5	4.0	0.2	12.7	0.3	8.2	1.3	20.9	0.4	42.0	0.8
Nov.	10.4	0.5	0.3	0.0	10.7	0.3	14.2	2.2	25.0	0.5	53.4	1.0
Dec.	1.5	0.1	-3.1	-0.1	-1.6	0.0	14.9	2.2	13.3	0.3	3.0	0.1
2000 Jan.	41.3	2.2	-17.9	-0.8	23.3	0.6	1.2	0.2	24.5	0.5	46.7	0.9
Feb.	25.6	1.3	8.1	0.4	33.6	0.8	5.4	0.8	39.0	0.8	63.4	1.1
Mar. (p)	19.6	1.0	11.1	0.5	30.7	0.7	15.0	2.1	45.7	1.0	58.1	1.0

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 Q1	2,163.1	770.9	319.8	1,072.5	2,318.2	75.0	119.0	185.9	28.0	49.0	1,320.7	108.2	76.6	355.8	37.7
Q2	2,200.5	785.1	320.8	1,094.6	2,373.6	78.2	121.8	190.2	28.4	49.3	1,345.1	113.9	79.2	367.6	37.5
Q3	2,223.8	775.0	324.4	1,124.4	2,420.3	80.2	126.0	195.1	28.9	48.6	1,379.2	111.8	86.6	364.0	36.8
Q4	2,287.1	813.0	316.3	1,157.8	2,479.4	84.7	128.2	199.8	28.2	42.0	1,419.6	114.2	82.0	380.6	36.8
1999 Q1	2,257.5	818.2	338.1	1,101.3	2,525.9	86.4	147.3	187.2	15.4	66.9	1,463.1	135.4	99.2	324.9	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 (p)	2,416.6	860.8	372.6	1,183.2	2,713.4	87.4	153.0	192.8	19.9	61.4	1,616.2	141.8	98.9	342.0	37.2

2. Loans to non-monetary financial corporations

	Other financial intermediaries [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 Q1	240.4	146.1	50.0	44.3	23.5	17.5	2.0	4.0
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	263.9	157.9	52.9	53.0	27.9	19.1	2.5	6.3
1999 Q1	302.0	185.3	54.9	61.9	37.0	28.0	3.1	6.0
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 (p)	316.0	191.4	54.5	70.0	38.4	29.8	2.8	5.8

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 Q1	828.0	221.2	269.2	9.9	14.6	244.6	327.0	19.9	52.4	254.7	10.6
Q2	830.1	219.1	271.8	8.6	15.6	247.6	333.5	19.8	55.6	258.1	5.6
Q3	831.5	216.5	273.7	7.8	14.2	251.7	326.1	17.7	50.7	257.7	15.3
Q4	841.7	201.7	291.2	11.4	13.5	266.3	334.9	19.1	51.0	264.8	14.0
1999 Q1	837.2	221.2	276.7	12.1	20.9	243.7	325.8	19.3	12.5	294.0	13.6
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 (p)	838.9	197.6	289.9	15.0	22.1	252.7	335.1	21.0	10.9	303.3	16.2

Source: ECB.

1) Data have been revised in the light of new information. Outstanding amounts are not adjusted for reclassifications, other revaluations or exchange rate variations. Data are partially estimated.

2) Correponding ESA 95 sector codes: non-financial corporations, S11; households, S14; non-profit institutions serving households, S15; other financial intermediaries, 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 Q1	684.6	363.7	243.3	27.1	50.5	3,233.2	726.5	1,128.6	1,312.9	65.2
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	743.0	435.4	252.5	25.6	29.5	3,313.3	794.2	1,116.5	1,355.0	47.7
1999 Q1	726.4	393.2	286.0	23.5	23.7	3,222.4	797.3	1,110.5	1,275.0	39.5
Q2	739.0	425.9	263.6	25.7	23.7	3,237.2	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 [p)]	769.3	442.1	280.5	24.1	22.7	3,293.4	866.1	1,097.2	1,290.7	39.4

2. Deposits held by non-monetary financial corporations

	Other financial intermediaries [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 Q1	229.8	60.2	77.7	10.2	81.8	395.4	24.1	354.7	4.6	12.0
Q2	248.8	70.3	79.5	10.7	88.2	402.7	26.6	358.8	4.7	12.6
Q3	254.2	68.6	77.8	10.3	97.4	408.2	24.8	363.0	4.4	16.0
Q4	259.4	79.1	83.5	9.3	87.5	410.6	28.7	367.4	4.6	10.0
1999 Q1	375.5	127.4	142.1	4.7	101.3	424.7	32.0	378.9	3.0	10.8
Q2	400.0	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 [p)]	398.9	142.6	182.5	4.7	69.1	448.2	34.2	398.7	3.3	12.0

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 Q1	273.3	139.3	51.9	8.2	43.4	0.1	0.2	45.4	21.7	18.8	3.4	1.4	36.8	11.3	23.5	1.1	0.9
Q2	284.7	147.3	51.1	7.4	43.5	0.1	0.1	45.7	21.8	19.3	3.4	1.2	40.6	14.2	23.8	1.3	1.2
Q3	296.4	156.4	52.7	7.8	44.6	0.1	0.2	47.2	21.7	20.3	3.5	1.6	40.1	13.7	23.7	1.3	1.5
Q4	298.8	149.7	53.7	10.1	43.5	0.1	0.1	52.8	25.7	22.3	3.5	1.2	42.6	12.3	28.3	1.1	0.8
1999 Q1	253.2	133.4	25.6	7.4	17.9	0.1	0.2	53.0	24.1	23.9	3.2	1.8	41.2	13.7	25.6	1.0	1.0
Q2	253.5	124.9	27.3	8.1	18.9	0.2	0.1	54.3	26.1	24.1	3.4	0.7	46.8	17.2	27.6	1.1	1.0
Q3	261.3	133.2	27.8	8.7	18.7	0.1	0.2	54.4	24.5	25.4	3.3	1.1	46.0	16.4	27.2	0.9	1.5
Q4 [p)]	281.6	143.2	31.6	10.2	21.1	0.1	0.2	58.6	26.9	27.3	3.4	1.0	48.1	15.8	30.6	0.7	1.0

Source: ECB.

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

2) Correponding ESA 95 sector codes: non-financial corporations, S11; households, S14 (including non-profit institutions serving households, S15); other financial intermediaries, 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 Q1	139.4	81.1	54.1	4.3	77.6	8.4	65.0	4.2	1.3	0.2	1.0	25.7	8.9	16.4	0.4
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 [(p)]	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

2. MFIs excluding the Eurosystem

	Loans to non-residents				Holdings of securities other than shares issued by non-residents				Holdings of shares and other equity issued by non-residents			Deposits held by non-residents			
		Banks [3) 4)]	Non-banks			Banks [3)]	Non-banks			Banks [3)]	Other		Banks [3)]	Non-banks	
			General govern-ment	Other			General govern-ment	Other						General govern-ment	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1998 Q1	1,365.8	1,000.1	68.2	297.5	262.0	63.1	95.2	103.7	58.7	18.6	40.0	1,521.5	1,153.0	49.4	319.0
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	81.8	292.0	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	89.5	118.4	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	310.0	300.1	71.5	108.4	120.2	58.5	22.4	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 [(p)]	1,277.8	863.3	64.0	350.5	340.2	94.0	89.8	156.4	79.3	37.4	41.9	1,775.5	1,280.0	72.3	423.2

3. MFIs including the Eurosystem

	Loans to non-residents				Holdings of securities other than shares issued by non-residents				Holdings of shares and other equity issued by non-residents			Deposits held by non-residents			
		Banks [3) 4)]	Non-banks			Banks [3)]	Non-banks			Banks [3)]	Other		Banks [3)]	Non-banks	
			General govern-ment	Other			General govern-ment	Other						General govern-ment	Other
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1998 Q1	1,505.2	1,081.2	122.3	301.8	339.6	71.5	160.2	107.9	59.9	18.8	41.1	1,547.1	1,161.9	65.8	319.4
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	86.2	295.9	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	205.7	120.7	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	287.0	123.1	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 [(p)]	1,337.4	908.9	71.4	357.1	534.1	99.7	274.2	160.2	79.9	37.5	42.4	1,818.7	1,319.8	72.6	426.3

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 Q1	3,178.4	2,807.2	43.5	327.7	234.5	27.0	44.9	21.3	4,816.8	4,658.3	21.1	137.3	103.3	15.1	10.3	8.6
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 [p]	3,880.9	3,467.3	42.4	371.2	262.5	34.2	54.1	20.4	5,191.3	5,027.2	24.0	140.1	100.8	17.3	11.5	10.5

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 Q1	1,161.9	470.3	121.0	570.6	448.6	44.0	52.5	25.6	388.7	150.1	39.0	199.6	145.7	22.4	13.9	17.7
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 [p]	1,319.8	539.5	121.1	659.2	526.7	49.0	50.7	32.8	498.9	214.1	46.7	238.1	183.5	27.3	13.0	14.2

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 Q1	2,001.2	1,784.0	20.7	196.6	110.7	38.9	31.2	15.8	163.5	151.0	0.3	12.2	10.6	0.9	0.4	0.4
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	25.3	206.7	111.5	32.8	31.7	30.7	185.4	169.8	0.8	14.9	12.6	0.8	1.3	0.2
Q2	2,274.3	2,026.8	30.1	217.3	114.4	31.8	32.2	39.0	188.1	170.3	1.4	16.5	13.8	1.1	1.5	0.2
Q3	2,334.5	2,079.9	31.2	223.5	113.4	33.8	31.2	45.0	207.4	187.8	1.2	18.4	13.3	2.7	2.2	0.2
Q4 [p]	2,368.3	2,107.9	32.5	228.0	113.2	37.6	30.8	46.5	255.8	230.5	1.5	23.8	17.5	3.6	2.3	0.4

Source: ECB.

1) Data have been revised in the light of new information. 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 Q1	3,188.6	-	-	-	-	-	-	-	5,604.5	5,437.2	26.5	140.8	86.0	15.3	36.9	2.6
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 [p]	3,869.4	-	-	-	-	-	-	-	6,364.2	6,131.1	22.4	210.7	115.5	28.4	62.6	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 Q1	654.7	625.7	6.7	22.2	14.6	2.7	1.2	3.8	1,407.7	1,366.7	8.2	32.8	16.8	6.9	2.6	6.5
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 [p]	833.7	799.4	7.3	27.1	18.2	4.8	2.3	1.8	1,436.1	1,403.2	5.4	27.5	14.3	10.1	2.0	1.1

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 Q1	1,081.2	441.5	83.8	555.9	426.6	63.7	29.8	35.8	420.7	190.9	25.5	204.3	171.7	5.7	11.0	15.9
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	993.5	458.2	76.3	459.0	325.1	62.3	27.2	44.4	384.0	133.7	29.0	221.4	193.7	7.7	14.4	5.6
Q2	1,024.8	474.7	80.5	469.6	349.1	52.9	26.2	41.4	416.9	139.6	35.0	242.3	211.7	8.0	16.3	6.3
Q3	949.8	428.5	78.4	442.9	320.3	54.1	28.3	40.2	413.2	143.0	36.9	233.3	198.7	10.8	18.0	5.8
Q4 [p]	909.0	389.1	75.0	444.9	323.6	53.9	30.0	37.4	431.9	138.6	39.6	253.6	217.1	11.1	18.8	6.7

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

	Issued by banks [3]								Issued by non-banks							
	All currencies	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 Q1	71.5	15.9	4.5	51.1	38.2	3.7	0.6	8.6	262.9	38.8	29.6	194.6	148.1	23.9	3.9	18.8
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	78.2	20.3	4.2	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	41.6	28.1	4.9	0.8	7.7	321.2	48.1	31.0	242.2	182.1	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	29.8
Q2	82.7	21.7	6.4	54.7	39.2	5.6	1.2	8.8	412.9	66.7	33.8	312.4	247.8	37.1	4.9	22.6
Q3	91.6	33.9	6.1	51.5	38.1	5.9	1.0	6.5	403.6	80.5	30.9	292.3	237.4	33.5	4.5	16.9
Q4 [p]	99.7	37.9	7.2	54.6	39.6	6.9	1.0	7.1	433.2	91.2	31.5	310.6	253.3	34.5	4.7	18.1

3 Financial markets and interest rates in the euro area

Table 3.1

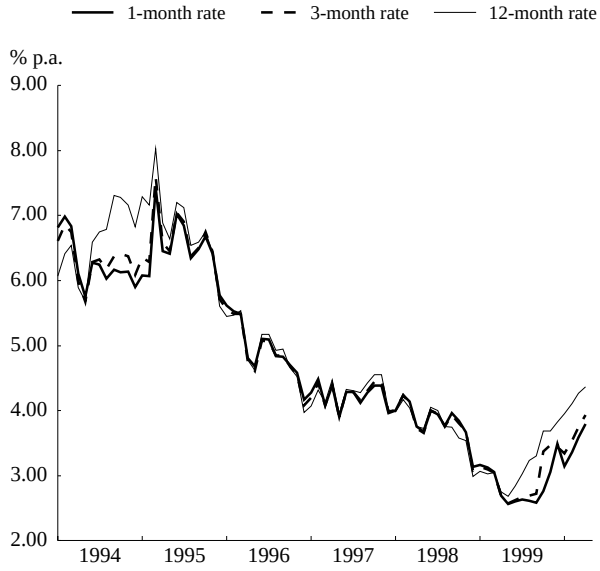
Money market interest rates [1]

(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 Apr.	2.71	2.69	2.70	2.70	2.76	5.00	0.15
May	2.55	2.57	2.58	2.60	2.68	5.02	0.11
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
2000 7 Apr.	3.58	3.73	3.86	4.02	4.30	6.28	0.12
14	3.61	3.76	3.92	4.07	4.34	6.28	0.12
21 [7]	3.35	3.83	3.96	4.12	4.39	6.32	0.11
28	3.93	3.93	4.09	4.26	4.57	6.50	0.11
5 May	4.03	4.15	4.32	4.49	4.78	6.67	0.10

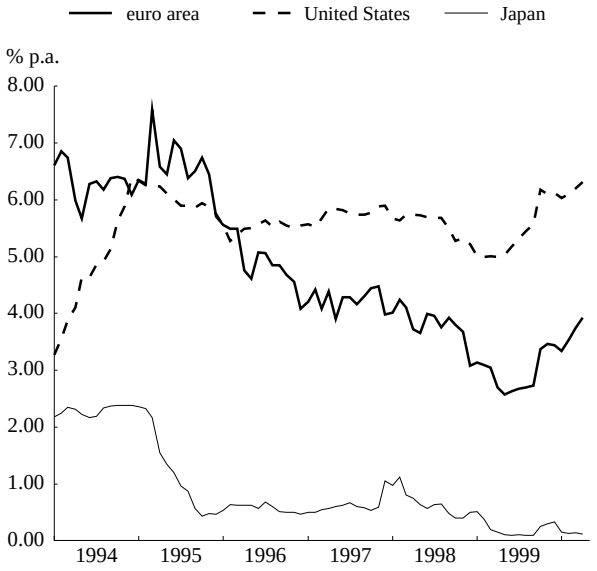
Euro area money market rates

(monthly)



3-month money market rates

(monthly)



Sources: Reuters and ECB.

1) *With the exception of the overnight rate to December 1998, monthly and yearly values are period averages.*
2) *Interbank deposit bid rates to December 1998. From January 1999 column 1 shows the euro overnight index average (EONIA).*
3) *End-of-period rates to December 1998; period averages thereafter.*
4) *Before January 1999 synthetic euro area rates were calculated on the basis of national rates weighted by GDP.*
5) *From January 1999, euro interbank offered rates (EURIBOR). Up to December 1998, London interbank offered rates (LIBOR) where available.*
6) *London interbank offered rates (LIBOR).*
7) *Data relate to 20 April 2000.*

Table 3.2

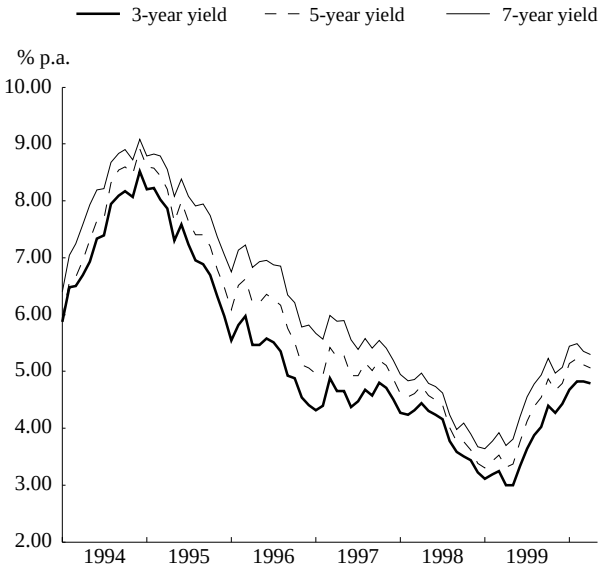
Government bond yields [1)]

(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	3.39	3.63	4.01	4.38	4.66	5.64	1.75
1999 Apr.	2.83	3.00	3.31	3.70	4.04	5.18	1.55
May	2.82	3.00	3.37	3.81	4.21	5.54	1.36
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.	3.68	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
2000 7 Apr.	4.50	4.72	4.99	5.24	5.36	5.89	1.72
14	4.56	4.79	5.06	5.29	5.41	5.92	1.78
21	4.65	4.85	5.14	5.35	5.48	6.00	1.75
28	4.73	4.92	5.16	5.37	5.48	6.23	1.76
5 May	4.96	5.16	5.39	5.55	5.64	6.50	1.73

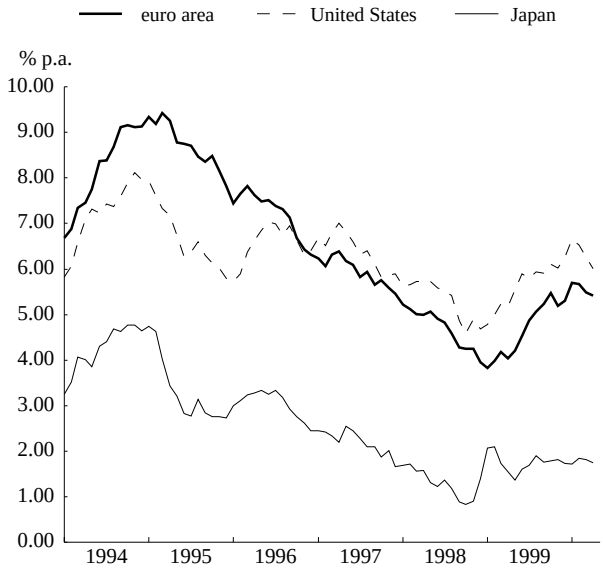
Euro area government bond yields

(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

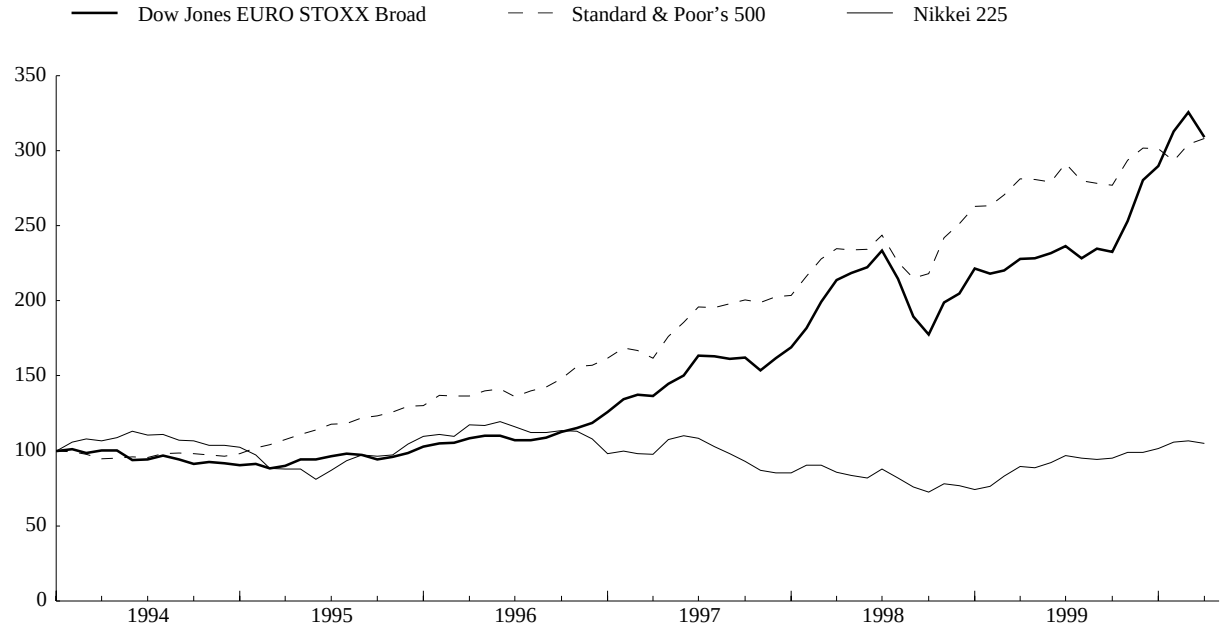
Stock market indices

(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 [2]	Standard & Poor's 500	Nikkei 225
	1	2	3	4	5	6	7	8	9	10	11	12
1995	130.54	1,388.06	150.65	127.86	141.06	131.15	116.97	124.51	145.99	132.29	542.18	17,363.36
1996	151.62	1,657.48	181.08	146.78	180.62	159.49	129.89	134.66	150.01	166.32	671.22	21,061.69
1997	207.62	2,319.61	233.35	191.87	231.88	227.26	184.42	167.97	227.74	205.51	873.86	18,373.41
1998	280.49	3,076.25	257.88	244.99	295.52	249.33	281.31	218.43	333.64	282.11	1,085.34	15,338.37
1999	325.78	3,787.35	279.23	262.90	327.73	286.05	295.66	285.07	470.38	306.03	1,327.79	16,829.89
1999 Apr.	316.39	3,671.80	272.40	266.31	326.99	276.69	299.91	264.26	404.01	305.94	1,332.56	16,689.65
May	317.05	3,669.07	275.94	267.89	323.27	291.29	293.23	271.64	413.34	300.03	1,329.66	16,533.26
June	321.66	3,749.45	279.81	265.94	327.34	299.00	288.48	284.44	440.22	300.26	1,322.55	17,135.96
July	328.07	3,846.24	294.65	265.52	330.38	316.01	289.64	294.47	481.62	302.28	1,380.99	18,008.63
Aug.	316.78	3,691.33	302.07	251.22	319.26	314.74	279.25	288.77	455.23	289.80	1,327.49	17,670.31
Sep.	325.88	3,772.79	294.33	257.51	328.66	312.33	289.78	297.78	480.77	296.06	1,318.21	17,532.78
Oct.	322.44	3,742.62	282.74	253.19	321.54	295.41	290.89	294.41	488.96	281.85	1,312.60	17,697.85
Nov.	351.17	4,159.97	294.91	264.98	333.23	305.69	310.34	314.73	589.93	297.38	1,391.61	18,440.35
Dec.	389.11	4,590.11	334.55	288.43	327.66	307.40	318.64	366.04	755.74	311.68	1,428.96	18,430.57
2000 Jan.	402.38	4,714.71	338.22	296.88	319.81	300.57	318.93	379.82	836.44	310.07	1,427.47	18,905.63
Feb.	433.82	5,090.59	309.26	308.15	307.57	299.65	313.58	396.45	989.39	346.36	1,388.44	19,700.88
Mar.	452.09	5,317.08	302.45	316.14	305.44	310.53	325.43	402.65	1,070.10	374.61	1,442.21	19,823.05
Apr.	428.62	5,149.15	306.80	293.68	313.26	329.05	339.03	382.21	957.40	353.92	1,459.65	19,517.67
2000 7 Apr.	440.06	5,259.52	306.26	302.21	313.08	327.86	339.30	388.67	1,019.48	360.60	1,516.35	20,252.81
14	418.33	5,034.25	307.09	287.84	309.18	325.98	342.26	373.05	868.89	351.34	1,356.56	20,434.68
21 [3]	426.25	5,117.78	298.66	293.08	312.69	325.68	334.25	383.24	964.86	352.18	1,434.40	18,252.68
28	438.58	5,303.95	307.05	300.82	315.89	345.76	340.18	391.00	1,061.46	354.42	1,452.43	17,973.70
5 May [4]	445.46	5,351.71	311.47	307.05	320.28	345.97	340.27	403.29	1,085.34	361.28	1,432.63	18,439.36

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

(base month: January 1994 = 100; monthly)



Source: Reuters.

1) *Monthly and yearly values are period averages.*
2) *Redesigned in order to reflect recent trends in the European equity markets, in line with changes to the Dow Jones Global Indices. Data have been revised.*
3) *Data relate to 20 April 2000, with the exception of Nikkei 225.*
4) *Data in column 12 relate to 2 May 2000.*

Table 3.4

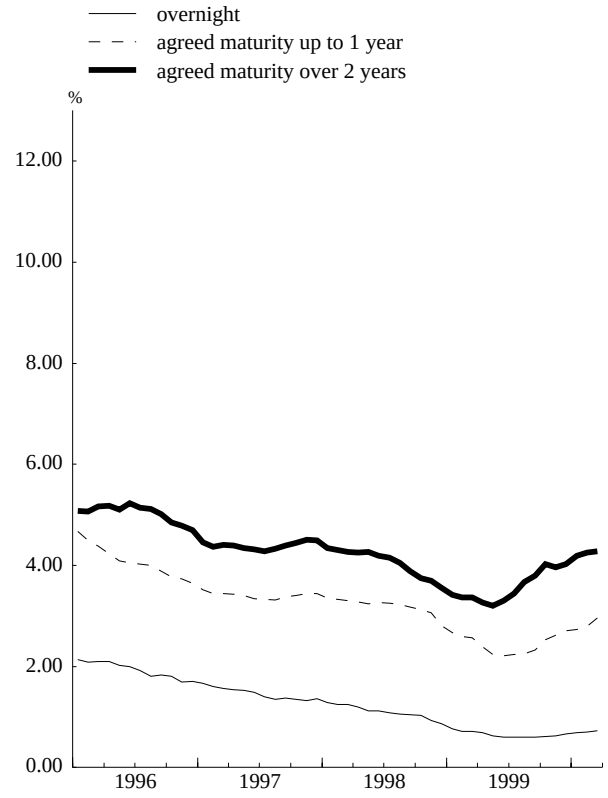
Retail bank interest rates

(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 Mar.	0.71	2.57	2.56	3.37	2.31	2.79	5.83	4.98	9.50	5.05
Apr.	0.68	2.38	2.39	3.26	2.27	2.61	5.66	4.81	9.37	4.91
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	5.75	5.54	9.36	5.77
Dec.	0.67	2.70	2.70	4.02	2.04	3.05	5.81	5.51	9.38	5.79
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	5.85	9.52	6.13
Mar.	0.72	2.96	2.96	4.28	2.07	3.33	6.10	5.84	9.54	6.10

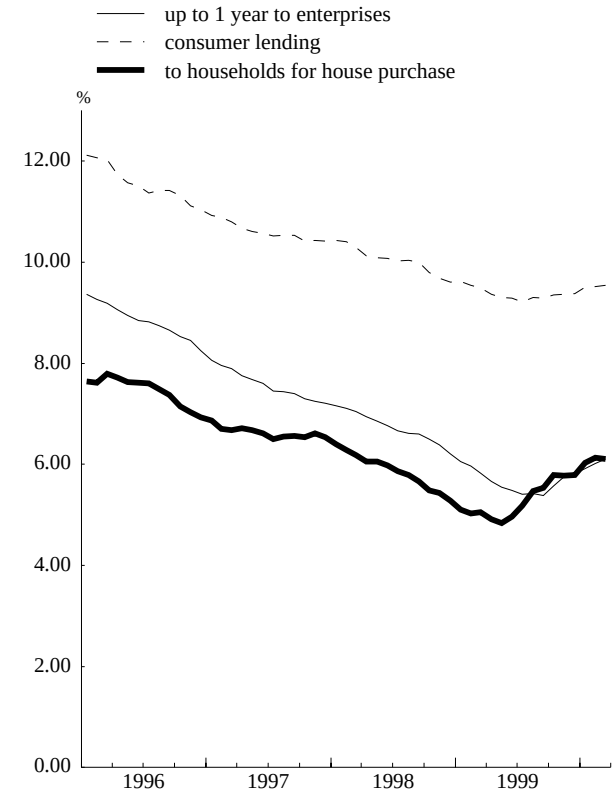
Deposit interest rates

(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 Feb.	175.0	175.6	-0.6	559.2	170.4	172.7	-2.3	536.6	4.5	2.9
Mar.	184.3	180.6	3.8	562.4	179.6	177.1	2.5	539.7	4.7	3.5
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	-11.5	567.3	169.7	182.4	-12.7	540.2	5.9	4.7
July	209.8	212.1	-2.3	563.5	203.3	205.9	-2.5	536.0	6.4	6.2
Aug.	181.7	164.7	17.1	581.6	175.0	159.0	16.0	552.1	6.7	5.6
Sep.	192.1	188.2	4.0	585.4	185.0	183.3	1.7	553.2	7.1	4.9
Oct.	198.3	189.9	8.4	596.0	192.3	182.9	9.4	563.1	6.0	7.0
Nov.	195.0	176.6	18.4	614.9	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.	250.9	266.1	-15.2	599.4	239.4	255.8	-16.4	562.1	11.5	10.4
Feb.	252.7	239.3	13.4	613.7	240.1	230.2	9.9	572.1	12.6	9.1

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 Feb.	133.1	74.5	58.6	5,570.6	120.4	71.9	48.5	5,191.7	12.7	2.6
Mar.	123.4	94.9	28.5	5,604.5	115.5	86.1	29.4	5,221.9	7.9	8.8
Apr.	123.4	102.6	20.8	5,628.4	116.0	97.1	18.9	5,241.6	7.4	5.5
May	136.9	86.2	50.6	5,681.3	118.7	70.5	48.2	5,290.4	18.2	15.7
June	129.2	65.3	63.9	5,747.5	118.4	60.1	58.3	5,348.8	10.8	5.1
July	128.2	90.7	37.5	5,783.4	119.4	80.7	38.8	5,389.1	8.7	10.0
Aug.	71.2	59.0	12.2	5,800.1	60.7	51.6	9.1	5,399.1	10.5	7.4
Sep.	165.6	102.3	63.3	5,864.5	129.0	69.1	60.0	5,459.6	36.5	33.2
Oct.	115.8	74.0	41.8	5,910.2	107.3	70.4	36.9	5,497.2	8.5	3.6
Nov.	101.5	82.3	19.3	5,935.0	93.5	73.1	20.4	5,518.4	8.0	9.1
Dec.	74.5	105.9	-31.4	5,907.0	69.4	95.9	-26.4	5,489.7	5.0	10.1
2000 Jan.	109.6	92.3	17.3	5,925.9	102.8	86.4	16.3	5,505.5	6.8	5.9
Feb.	125.2	66.7	58.5	5,985.3	113.3	62.6	50.7	5,556.7	11.9	4.2

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 Feb.	308.0	250.1	57.9	6,129.9	290.8	244.6	46.2	5,728.3	17.2	5.5
Mar.	307.7	275.5	32.2	6,166.9	295.1	263.3	31.9	5,761.6	12.6	12.2
Apr.	340.4	302.7	37.7	6,207.4	328.0	293.1	34.9	5,796.4	12.4	9.6
May	308.9	258.8	50.1	6,260.3	284.2	238.2	46.0	5,843.1	24.7	20.5
June	304.9	252.4	52.5	6,314.8	288.2	242.5	45.6	5,889.0	16.7	9.8
July	337.9	302.7	35.2	6,346.8	322.8	286.6	36.2	5,925.1	15.2	16.2
Aug.	252.9	223.7	29.2	6,381.7	235.7	210.7	25.1	5,951.2	17.2	13.0
Sep.	357.7	290.4	67.3	6,449.9	314.0	252.4	61.7	6,012.8	43.7	38.1
Oct.	314.1	263.9	50.2	6,506.2	299.6	253.3	46.4	6,060.3	14.5	10.7
Nov.	296.6	258.9	37.7	6,549.9	281.1	243.1	38.0	6,099.0	15.5	15.9
Dec.	245.9	275.1	-29.3	6,525.2	232.1	259.4	-27.3	6,069.7	13.8	15.8
2000 Jan.	360.4	358.4	2.0	6,525.3	342.2	342.2	0.0	6,067.6	18.3	16.2
Feb.	377.9	306.0	71.9	6,599.0	353.3	292.8	60.6	6,128.8	24.6	13.3

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. Data will be revised as new information becomes available.

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	
1.6	22.6	.	.	.	.	.	.	.	.	1999 Feb.
1.2	22.7	23.3	11.1	12.2	25.4	571.6	550.9	20.7	565.1	Mar.
0.8	24.2	.	.	.	.	.	.	.	.	Apr.
1.7	26.4	.	.	.	.	.	.	.	.	May
1.2	27.1	19.2	22.7	-3.5	22.8	566.4	568.7	-2.4	563.1	June
0.3	27.5	.	.	.	.	.	.	.	.	July
1.1	29.5	.	.	.	.	.	.	.	.	Aug.
2.3	32.2	27.8	18.4	9.4	31.7	591.1	566.6	24.5	584.8	Sep.
-1.0	32.9	.	.	.	.	.	.	.	.	Oct.
0.8	34.3	.	.	.	.	.	.	.	.	Nov.
3.0	38.2	21.7	19.9	1.8	34.6	564.2	536.2	28.0	614.6	Dec.
1.1	37.3	.	.	.	.	.	.	.	.	2000 Jan.
3.6	41.6	.	.	.	.	.	.	.	.	Feb.

	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	
10.1	378.9	.	.	.	.	.	.	.	.	1999 Feb.
-0.9	382.6	53.4	16.8	36.5	462.6	431.1	265.3	165.8	5,684.5	Mar.
2.0	386.8	.	.	.	.	.	.	.	.	Apr.
2.5	390.9	.	.	.	.	.	.	.	.	May
5.6	398.6	56.1	11.4	44.7	506.9	409.2	239.2	170.0	5,855.7	June
-1.2	394.2	.	.	.	.	.	.	.	.	July
3.1	401.0	.	.	.	.	.	.	.	.	Aug.
3.3	404.9	62.5	8.3	54.2	561.5	371.7	209.7	162.0	6,021.2	Sep.
4.8	413.1	.	.	.	.	.	.	.	.	Oct.
-1.1	416.6	.	.	.	.	.	.	.	.	Nov.
-5.0	417.3	51.7	19.0	32.7	594.7	321.9	258.4	63.6	6,084.4	Dec.
0.9	420.4	.	.	.	.	.	.	.	.	2000 Jan.
7.8	428.6	.	.	.	.	.	.	.	.	Feb.

	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	
11.7	401.5	.	.	.	.	.	.	.	.	1999 Feb.
0.4	405.2	76.7	27.9	48.7	488.0	1,002.8	816.2	186.5	6,249.6	Mar.
2.8	411.0	.	.	.	.	.	.	.	.	Apr.
4.2	417.2	.	.	.	.	.	.	.	.	May
6.9	425.8	75.2	34.0	41.2	529.7	975.6	807.9	167.6	6,418.8	June
-1.0	421.7	.	.	.	.	.	.	.	.	July
4.2	430.5	.	.	.	.	.	.	.	.	Aug.
5.6	437.1	90.3	26.7	63.6	593.2	962.8	776.3	186.5	6,606.0	Sep.
3.8	445.9	.	.	.	.	.	.	.	.	Oct.
-0.4	450.9	.	.	.	.	.	.	.	.	Nov.
-2.0	455.5	73.4	38.9	34.4	629.3	886.2	794.6	91.6	6,699.0	Dec.
2.0	457.7	.	.	.	.	.	.	.	.	2000 Jan.
11.3	470.2	.	.	.	.	.	.	.	.	Feb.

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 Feb.	536.6	173.9	8.9	54.4	295.9	3.5	.	.	.	.
Mar.	539.7	173.1	8.8	58.0	296.7	3.1	25.4	12.5	7.7	4.2
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	540.2	173.9	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	248.6	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	3.4	.	.	.	.
Feb.	572.1	240.3	6.2	65.9	256.7	3.0	.	.	.	.

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 Feb.	5,191.7	1,890.6	128.6	193.4	2,874.3	104.8	.	.	.	.
Mar.	5,221.9	1,896.0	129.5	199.9	2,890.3	106.2	462.6	123.7	55.4	65.8
Apr.	5,241.6	1,911.4	133.1	204.2	2,884.2	108.8	.	.	.	.
May	5,290.4	1,934.9	138.5	203.5	2,904.3	109.2	.	.	.	.
June	5,348.8	1,957.1	157.8	206.1	2,918.6	109.2	506.9	134.6	66.2	82.3
July	5,389.1	1,960.6	163.9	209.4	2,945.5	109.7	.	.	.	.
Aug.	5,399.1	1,959.9	165.3	206.7	2,957.6	109.6	.	.	.	.
Sep.	5,459.6	1,992.6	173.0	205.1	2,978.4	110.5	561.5	153.0	75.1	102.6
Oct.	5,497.2	2,011.1	175.7	207.9	2,993.3	109.3	.	.	.	.
Nov.	5,518.4	2,020.2	182.6	207.3	2,998.0	110.3	.	.	.	.
Dec.	5,489.7	2,002.3	185.0	206.1	2,986.0	110.3	594.7	160.4	81.2	117.7
2000 Jan.	5,505.5	2,010.9	185.2	200.4	2,998.6	110.4	.	.	.	.
Feb.	5,556.7	2,032.7	187.0	200.3	3,025.0	111.7	.	.	.	.

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 Feb.	5,728.3	2,064.5	137.5	247.8	3,170.2	108.3	.	.	.	.
Mar.	5,761.6	2,069.1	138.3	257.9	3,187.0	109.4	488.0	136.2	63.2	70.0
Apr.	5,796.4	2,092.8	141.8	265.2	3,184.9	111.8	.	.	.	.
May	5,843.1	2,114.7	147.0	263.3	3,206.1	112.1	.	.	.	.
June	5,889.0	2,131.0	166.1	264.7	3,215.1	112.1	529.7	143.0	74.9	87.3
July	5,925.1	2,139.4	170.7	270.3	3,232.0	112.7	.	.	.	.
Aug.	5,951.2	2,151.2	172.3	269.0	3,246.4	112.3	.	.	.	.
Sep.	6,012.8	2,193.2	179.7	269.7	3,257.0	113.0	593.2	164.2	87.1	109.9
Oct.	6,060.3	2,224.9	182.3	273.9	3,266.9	112.2	.	.	.	.
Nov.	6,099.0	2,257.5	188.9	274.8	3,264.0	113.8	.	.	.	.
Dec.	6,069.7	2,251.0	190.7	272.6	3,240.4	115.1	629.3	174.8	93.3	124.0
2000 Jan.	6,067.6	2,240.1	191.5	266.5	3,255.7	113.8	.	.	.	.
Feb.	6,128.8	2,273.0	193.3	266.2	3,281.7	114.7	.	.	.	.

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. Data will be revised as new information becomes available.

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 Feb.
0.4	0.4	0.2	565.1	185.5	16.6	62.2	297.1	3.5	0.2	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
0.3	0.3	0.1	563.1	182.2	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.

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 Feb.
69.7	25.8	122.2	5,684.5	2,019.7	184.9	265.7	2,960.0	132.0	122.2	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
73.9	27.3	122.6	5,855.7	2,091.8	224.0	288.4	2,992.4	136.5	122.6	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
78.6	29.1	123.1	6,021.2	2,145.6	248.1	307.8	3,057.0	139.6	123.1	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
82.6	29.1	123.7	6,084.4	2,162.7	266.2	323.8	3,068.6	139.3	123.7	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

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 Feb.
70.1	26.1	122.5	6,249.6	2,205.2	201.5	327.8	3,257.1	135.5	122.5	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
74.2	27.6	122.8	6,418.8	2,274.0	241.1	352.0	3,289.3	139.7	122.8	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
78.9	29.7	123.4	6,606.0	2,357.4	266.8	379.7	3,336.0	142.8	123.4	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
82.9	29.7	124.6	6,699.0	2,425.8	284.0	396.6	3,323.4	144.8	124.6	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

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 Feb.	170.4	96.5	1.3	31.5	39.8	1.3	.	.	.	.
Mar.	179.6	92.2	1.4	38.7	46.2	1.1	23.3	12.2	6.6	3.7
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	169.7	95.6	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	27.8	9.5	10.5	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	21.7	9.6	6.8	4.2
2000 Jan.	239.4	154.8	2.1	40.0	41.2	1.3	.	.	.	.
Feb.	240.1	155.6	1.9	44.2	37.0	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 Feb.	120.4	47.1	4.0	9.9	57.1	2.3	.	.	.	.
Mar.	115.5	49.1	2.6	9.1	52.6	2.1	53.4	16.3	9.9	14.3
Apr.	116.0	50.3	5.1	7.3	49.7	3.7	.	.	.	.
May	118.7	45.9	7.0	1.9	62.8	1.1	.	.	.	.
June	118.4	50.7	20.1	6.1	40.6	0.9	56.1	15.5	11.9	17.7
July	119.4	34.8	7.6	8.9	67.1	1.0	.	.	.	.
Aug.	60.7	27.4	1.7	0.9	30.5	0.2	.	.	.	.
Sep.	129.0	61.8	9.1	3.7	53.0	1.4	62.5	21.0	11.2	21.2
Oct.	107.3	50.7	3.7	5.4	46.5	1.0	.	.	.	.
Nov.	93.5	46.0	8.1	2.3	35.3	1.8	.	.	.	.
Dec.	69.4	39.4	4.0	1.6	23.0	1.5	51.7	14.3	7.9	17.2
2000 Jan.	102.8	43.4	1.3	0.1	57.3	0.7	.	.	.	.
Feb.	113.3	53.7	2.8	3.3	51.0	2.5	.	.	.	.

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 Feb.	290.8	143.6	5.3	41.4	96.9	3.6	.	.	.	.
Mar.	295.1	141.3	4.0	47.8	98.9	3.2	76.7	28.6	16.5	18.0
Apr.	328.0	162.7	6.5	48.1	105.7	5.0	.	.	.	.
May	284.2	133.5	8.5	36.0	103.2	2.9	.	.	.	.
June	288.2	146.4	22.1	40.9	77.0	1.9	75.2	22.3	19.1	22.3
July	322.8	145.7	9.3	51.4	114.0	2.4	.	.	.	.
Aug.	235.7	119.7	3.7	36.7	74.3	1.4	.	.	.	.
Sep.	314.0	167.0	10.4	41.5	92.9	2.2	90.3	30.6	21.8	27.9
Oct.	299.6	158.1	5.2	46.7	87.1	2.5	.	.	.	.
Nov.	281.1	163.7	9.3	36.0	68.4	3.8	.	.	.	.
Dec.	232.1	157.3	4.9	24.6	41.6	3.8	73.4	23.9	14.7	21.4
2000 Jan.	342.2	198.2	3.4	40.1	98.4	2.1	.	.	.	.
Feb.	353.3	209.3	4.7	47.6	88.0	3.9	.	.	.	.

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. Data will be revised as new information becomes available.

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 Feb.
0.3	0.3	0.2	571.6	306.4	11.0	109.1	141.0	4.0	0.2	Mar.
.	.	.	.	.	.	.	.	.	.	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	591.1	317.8	15.4	122.9	131.0	3.8	0.2	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
0.2	0.2	0.7	564.2	352.6	10.5	102.2	92.4	5.8	0.7	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

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 Feb.
5.3	1.6	5.9	431.1	169.8	21.3	38.3	189.4	6.4	5.9	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
5.9	2.1	3.1	409.2	162.4	44.0	33.0	158.9	7.8	3.1	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
4.1	2.1	2.9	371.7	145.1	29.7	34.7	154.6	4.7	2.9	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
6.5	1.0	4.8	321.9	150.4	23.6	26.5	111.3	5.3	4.8	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

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 Feb.
5.6	1.9	6.1	1,002.8	476.2	32.3	147.4	330.4	10.4	6.1	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
6.2	2.2	3.2	975.6	464.9	56.2	147.3	292.0	12.0	3.2	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
4.4	2.5	3.2	962.8	463.0	45.1	157.5	285.6	8.5	3.2	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
6.7	1.1	5.6	886.2	502.9	34.1	128.7	203.7	11.2	5.6	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

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 Feb.	-2.3	3.9	0.1	2.9	-9.4	0.3	.	.	.	.
Mar.	2.5	-1.4	0.0	3.6	0.8	-0.4	12.2	9.5	1.1	1.5
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	-6.3	-0.1	-1.2	-5.2	0.0	-3.5	-4.6	0.8	0.7
July	-2.5	5.3	-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	.	.	.	.

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 Feb.	48.5	12.3	2.8	5.0	27.2	1.2	.	.	.	.
Mar.	29.4	4.3	0.9	6.5	16.2	1.5	36.5	8.7	8.5	12.4
Apr.	18.9	14.5	3.6	4.3	-6.1	2.5	.	.	.	.
May	48.2	22.9	5.4	-0.7	20.1	0.4	.	.	.	.
June	58.3	22.3	19.2	2.6	14.2	0.0	44.7	10.9	10.9	16.7
July	38.8	3.2	4.8	3.4	26.9	0.5	.	.	.	.
Aug.	9.1	-1.3	1.3	-2.8	12.0	-0.1	.	.	.	.
Sep.	60.0	32.7	7.7	-2.2	20.7	1.0	54.2	18.1	8.9	20.2
Oct.	36.9	17.2	2.7	3.5	14.8	-1.3	.	.	.	.
Nov.	20.4	8.4	6.9	-0.6	4.7	1.0	.	.	.	.
Dec.	-26.4	-16.1	2.5	-0.8	-11.9	0.0	32.7	7.1	6.2	15.1
2000 Jan.	16.3	8.2	0.2	-5.4	13.2	0.1	.	.	.	.
Feb.	50.7	21.2	1.8	-0.1	26.5	1.3	.	.	.	.

3. Total

	By euro area residents						By non-residents			
	Total	MFIs (including Eurosystem)	Non-monetary financial corporations	Non-financial corporations	Central government	Other general government	Total	Banks (including central banks) [5)]	Non-monetary financial corporations	Non-financial corporations
	1	2	3	4	5	6	7	8	9	10
1999 Feb.	46.2	16.2	2.8	7.9	17.8	1.5	.	.	.	.
Mar.	31.9	2.9	0.8	10.1	17.0	1.1	48.7	18.3	9.6	13.9
Apr.	34.9	23.8	3.5	7.3	-2.1	2.4	.	.	.	.
May	46.0	21.2	5.2	-1.9	21.2	0.3	.	.	.	.
June	45.6	16.0	19.2	1.4	9.0	0.0	41.2	6.3	11.7	17.3
July	36.2	8.5	4.6	5.6	16.9	0.6	.	.	.	.
Aug.	25.1	11.0	1.5	-1.4	14.3	-0.4	.	.	.	.
Sep.	61.7	42.7	7.6	0.1	10.6	0.7	63.6	21.2	12.3	22.6
Oct.	46.4	29.9	2.6	4.9	9.8	-0.8	.	.	.	.
Nov.	38.0	31.9	6.6	0.8	-2.9	1.6	.	.	.	.
Dec.	-27.3	-5.2	2.0	-1.8	-23.6	1.2	34.4	9.9	5.9	13.8
2000 Jan.	0.0	-9.8	0.9	-5.8	16.0	-1.3	.	.	.	.
Feb.	60.6	32.2	1.8	-0.4	26.0	0.9	.	.	.	.

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. Data will be revised as new information becomes available.

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 Feb.
0.0	-0.2	0.2	20.7	19.0	1.2	13.2	-12.2	-0.6	0.2	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
-0.1	-0.1	-0.1	-2.4	-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.

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 Feb.
4.3	0.9	1.7	165.8	51.6	15.6	23.5	70.0	3.4	1.7	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
4.2	1.5	0.4	170.0	70.6	39.1	22.9	32.5	4.5	0.4	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
4.6	1.8	0.5	162.0	52.8	22.7	18.6	64.3	3.1	0.5	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
4.1	-0.1	0.3	63.6	16.6	18.3	17.1	11.6	-0.4	0.3	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

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 Feb.
4.3	0.7	1.9	186.5	70.6	16.8	36.7	57.8	2.8	1.9	Mar.
.	.	.	.	.	.	.	.	.	.	Apr.
.	.	.	.	.	.	.	.	.	.	May
4.1	1.4	0.3	167.6	67.3	39.5	24.2	32.2	4.2	0.3	June
.	.	.	.	.	.	.	.	.	.	July
.	.	.	.	.	.	.	.	.	.	Aug.
4.6	2.1	0.6	186.5	83.3	26.1	27.0	46.4	3.0	0.6	Sep.
.	.	.	.	.	.	.	.	.	.	Oct.
.	.	.	.	.	.	.	.	.	.	Nov.
4.0	-0.1	0.9	91.6	66.5	17.1	17.8	-12.6	1.9	0.9	Dec.
.	.	.	.	.	.	.	.	.	.	2000 Jan.
.	.	.	.	.	.	.	.	.	.	Feb.

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.

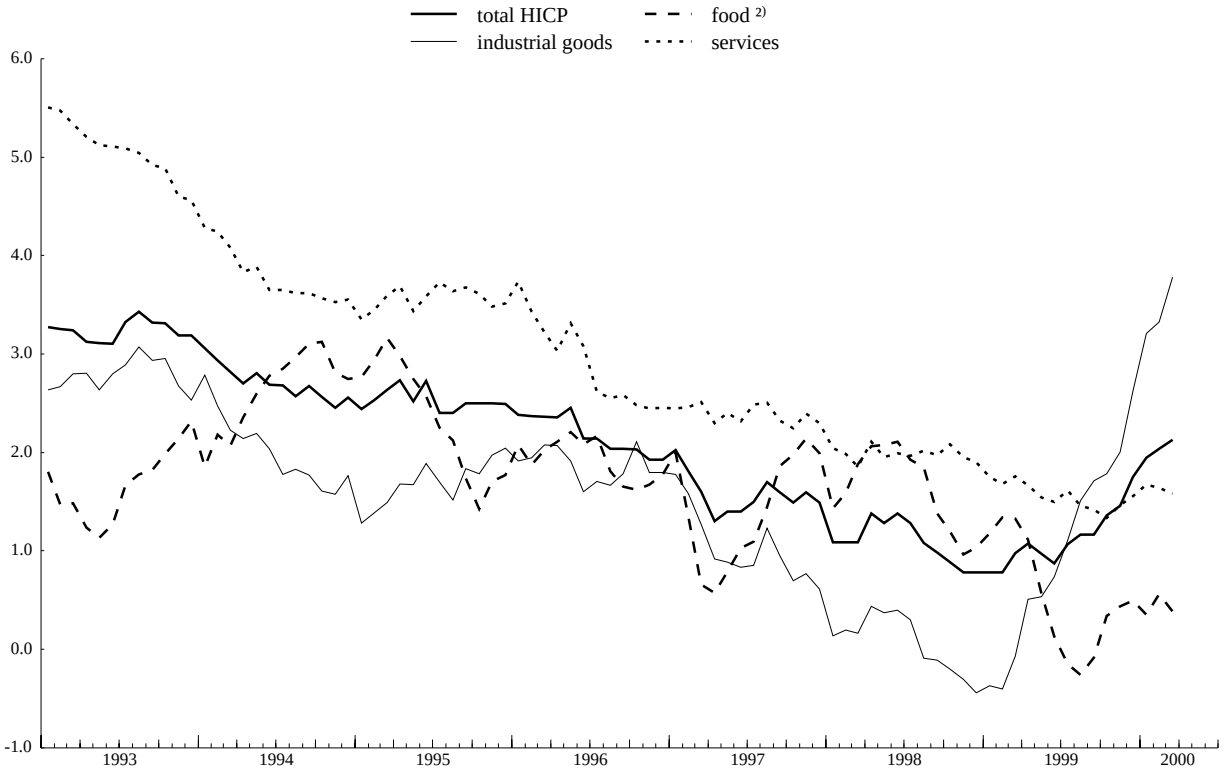
4 HICP and other prices in the euro area

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	63.2	20.9	12.6	8.2	42.4	33.4	9.0	36.8
	1	2	3	4	5	6	7	8	9	10
1995	97.9	2.5	2.0	2.3	2.5	2.1	1.7	1.6	1.9	3.6
1996	100.0	2.2	1.9	1.9	2.0	1.9	1.9	1.7	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	0.6	2.2	1.6
1999 Q1	103.1	0.8	0.3	1.3	1.2	1.4	-0.3	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	1.6
Q3	104.1	1.1	0.9	-0.2	0.6	-1.4	1.4	0.5	4.6	1.5
Q4	104.4	1.5	1.5	0.4	0.9	-0.3	2.1	0.5	7.8	1.5
2000 Q1	105.2	2.0	2.4	0.4	1.0	-0.3	3.4	0.6	13.6	1.6
1999 Mar.	103.4	1.0	0.4	1.3	1.1	1.7	-0.1	0.8	-2.9	1.8
Apr.	103.7	1.1	0.7	1.1	1.1	1.1	0.5	0.6	0.1	1.7
May	103.8	1.0	0.5	0.6	0.7	0.4	0.5	0.6	0.3	1.5
June	103.8	0.9	0.5	0.1	0.7	-0.7	0.7	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	1.5
Sep.	104.1	1.2	1.1	-0.1	0.6	-1.1	1.7	0.4	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	0.5	7.1	1.5
Dec.	104.7	1.7	1.9	0.5	1.0	-0.2	2.6	0.5	10.0	1.6
2000 Jan.	104.8	1.9	2.2	0.4	1.0	-0.5	3.2	0.8	12.0	1.7
Feb.	105.2	2.0	2.3	0.6	1.0	0.0	3.3	0.5	13.5	1.6
Mar.	105.6	2.1	2.6	0.4	1.0	-0.5	3.8	0.6	15.3	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	-	-	3.0	-	0.2	2.1	13.0
1996	100.4	0.4	1.0	-1.2	1.2	1.9	1.7	2.1	1.3	6.5	-6.9	15.9
1997	101.4	1.1	0.6	1.2	0.3	0.9	0.1	1.2	1.3	10.0	12.9	17.1
1998	100.6	-0.8	-0.6	-2.2	0.5	0.5	0.1	0.7	0.2	-21.2	-12.5	12.0
1999	100.5	0.0	0.1	-0.6	0.1	0.2	0.2	0.2	0.9	17.8	-3.1	17.1
1999 Q1	98.8	-2.6	-2.1	-4.8	0.3	0.1	0.2	0.0	0.8	-17.6	-16.0	10.3
Q2	99.7	-1.3	-1.1	-2.7	0.0	-0.1	0.1	-0.1	0.8	5.9	-8.2	15.0
Q3	101.1	0.7	0.8	0.6	-0.1	0.2	0.2	0.2	1.2	31.0	1.1	19.7
Q4	102.6	3.2	2.8	4.7	0.1	0.5	0.4	0.6	0.9	61.5	14.0	23.0
2000 Q1	104.5	5.7	5.0	9.1	0.4	0.7	0.7	0.8	.	78.3	19.9	27.1
1999 Apr.	99.6	-1.6	-1.2	-3.3	0.2	0.0	0.2	-0.1	-	0.3	-12.5	14.4
May	99.7	-1.4	-1.0	-2.8	-0.1	-0.1	0.1	-0.2	-	5.1	-7.8	14.9
June	99.8	-1.0	-1.0	-2.1	0.0	0.0	0.0	-0.1	-	12.8	-4.2	15.6
July	100.6	0.0	0.1	-0.5	-0.1	0.1	0.1	0.1	-	22.7	-2.3	18.1
Aug.	101.0	0.7	0.9	0.7	-0.1	0.1	0.1	0.2	-	29.2	-0.5	19.2
Sep.	101.6	1.4	1.5	1.8	-0.1	0.4	0.4	0.4	-	41.4	6.6	21.8
Oct.	102.0	2.2	2.0	3.2	0.0	0.5	0.4	0.5	-	44.3	10.7	20.8
Nov.	102.6	3.1	2.8	4.7	0.1	0.5	0.4	0.6	-	60.4	11.9	23.5
Dec.	103.2	4.1	3.5	6.4	0.1	0.5	0.5	0.6	-	81.3	19.3	24.8
2000 Jan.	103.9	5.1	4.4	8.1	0.3	0.6	0.6	0.6	-	76.2	19.4	24.9
Feb.	104.5	5.8	5.1	9.3	0.4	0.7	0.7	0.8	-	87.6	20.0	27.6
Mar.	105.1	6.2	5.4	9.8	0.4	0.8	0.8	0.9	-	72.0	20.2	28.4
Apr.	.	.	.	.	.	.	.	.	-	43.9	19.4	24.5

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	2.6	2.5	2.7	2.9	1.5	2.8	2.5
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	1.3	1.4	2.2	0.7	-0.4	0.1
1997 Q4	104.3	1.6	1.6	1.8	1.8	1.0	2.4	2.4
1998 Q1	104.6	1.7	1.4	1.5	1.2	0.9	1.4	0.7
Q2	105.0	1.6	1.3	1.5	1.3	1.0	0.8	-0.4
Q3	105.5	1.6	1.0	1.2	1.7	0.8	-0.5	-2.5
Q4	105.8	1.4	0.8	1.0	1.4	0.4	-1.9	-3.9
1999 Q1	106.2	1.5	0.9	1.1	1.8	0.3	-2.0	-3.8
Q2	106.3	1.2	1.1	1.4	2.2	0.4	-1.4	-1.6
Q3	106.6	1.1	1.5	1.4	2.4	0.9	-0.1	1.3
Q4	106.7	0.9	1.8	1.7	2.4	1.2	1.8	4.7

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	2,995.9	1,093.6	1,094.1	25.8	98.5	1,568.0	1,469.6
1996	5,530.9	5,405.0	3,140.3	1,143.3	1,122.3	-0.9	126.0	1,656.8	1,530.8
1997	5,643.7	5,493.4	3,192.1	1,151.1	1,135.7	14.6	150.3	1,825.7	1,675.4
1998	5,865.4	5,720.9	3,317.2	1,174.3	1,191.8	37.5	144.6	1,939.6	1,795.0
1999	6,110.0	5,999.5	3,469.1	1,225.2	1,266.5	38.7	110.5	2,025.3	1,914.7
1998 Q3	1,473.3	1,434.2	833.8	294.0	300.3	6.2	39.1	488.3	449.1
Q4	1,489.8	1,458.7	844.7	297.8	303.7	12.6	31.1	479.2	448.2
1999 Q1	1,506.6	1,476.6	854.4	303.1	309.9	9.3	30.0	480.9	451.0
Q2	1,516.4	1,489.0	862.2	305.1	313.3	8.4	27.4	495.6	468.2
Q3	1,536.2	1,508.5	871.6	307.7	320.5	8.7	27.7	516.9	489.2
Q4	1,550.8	1,525.3	880.9	309.3	322.8	12.3	25.5	531.9	506.4

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	2,995.9	1,093.6	1,094.1	25.8	98.5	1,568.0	1,469.6
1996	5,380.9	5,261.3	3,040.5	1,113.0	1,106.3	1.6	119.7	1,636.1	1,516.4
1997	5,503.1	5,349.1	3,085.1	1,122.3	1,129.0	12.6	154.0	1,804.2	1,650.2
1998	5,654.3	5,530.6	3,178.3	1,133.0	1,180.0	39.4	123.6	1,928.3	1,804.7
1999	5,787.7	5,688.6	3,259.2	1,149.2	1,237.3	43.0	99.0	2,012.6	1,913.6
1998 Q3	1,417.2	1,384.6	797.5	283.1	297.0	6.9	32.7	485.7	453.1
Q4	1,421.3	1,398.9	802.4	283.9	299.0	13.6	22.4	479.4	457.0
1999 Q1	1,430.8	1,410.6	808.6	286.9	304.4	10.6	20.2	482.3	462.1
Q2	1,438.7	1,416.9	811.0	286.7	307.1	12.0	21.8	495.0	473.2
Q3	1,453.2	1,425.6	817.0	287.5	312.1	8.9	27.6	512.3	484.7
Q4	1,465.0	1,435.5	822.5	288.0	313.6	11.4	29.4	523.0	493.6
(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	2.1	_	_	10.3	8.8
1998	2.7	3.4	3.0	0.9	4.5	_	_	6.9	9.4
1999	2.4	2.9	2.5	1.4	4.9	_	_	4.4	6.0
1998 Q3	2.6	3.5	3.4	0.7	4.7	_	_	5.2	8.2
Q4	2.0	3.3	3.1	1.0	3.9	_	_	2.2	6.1
1999 Q1	1.9	2.9	2.8	1.5	4.0	_	_	0.6	3.8
Q2	2.0	2.9	2.4	1.3	5.5	_	_	2.3	5.2
Q3	2.5	3.0	2.4	1.6	5.1	_	_	5.5	7.0
Q4	3.1	2.6	2.5	1.4	4.9	_	_	9.1	8.0

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	105.6	102.2	99.7	102.9	106.9	104.7	101.4	104.9
1997	105.8	104.9	104.0	96.2	105.4	110.3	105.6	99.3	108.7
1998	109.6	105.7	107.6	96.1	110.2	115.2	108.8	99.1	115.0
1999	113.6	104.8	109.4	100.4	114.7	121.2	113.0	100.4	123.7
1998 Q3	110.0	105.9	108.0	95.8	110.8	115.7	109.2	98.4	115.7
Q4	111.1	105.1	107.6	97.4	112.2	117.9	110.6	100.0	118.3
1999 Q1	112.3	105.5	107.9	99.2	113.4	119.6	111.7	100.4	120.6
Q2	112.9	104.3	108.2	99.5	113.9	120.4	112.9	100.5	122.3
Q3	114.2	104.3	110.0	101.0	115.3	121.9	113.5	100.2	124.8
Q4	115.1	105.2	111.5	102.1	116.1	123.0	113.8	100.3	126.9

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	98.3	100.6	103.7	101.4	102.9	101.4
1997	103.8	107.1	103.3	96.0	104.1	107.0	102.0	106.3	103.6
1998	106.7	109.5	106.6	94.9	108.5	110.7	103.5	110.9	106.5
1999	109.2	111.9	108.4	97.0	112.1	113.9	104.7	115.6	110.5
1998 Q3	107.0	109.2	106.8	94.6	108.9	111.1	103.7	111.6	107.0
Q4	107.3	109.8	106.2	94.9	109.5	112.0	104.1	113.3	107.8
1999 Q1	107.9	110.9	106.6	96.1	110.8	112.5	104.2	113.2	108.8
Q2	108.6	111.2	107.6	96.4	111.4	113.4	104.5	114.5	109.2
Q3	109.7	112.8	109.0	97.3	112.8	114.4	104.9	116.7	110.7
Q4	110.4	112.8	110.3	98.0	113.4	115.4	105.2	118.0	113.0
(annual percentage changes)									
1995	2.3	3.4	2.8	0.4	3.3	2.3	1.5	1.3	0.4
1996	1.4	6.1	0.0	-1.7	0.6	3.7	1.4	2.9	1.4
1997	2.3	1.0	3.3	-2.3	3.5	3.1	0.6	3.3	2.2
1998	2.8	2.3	3.1	-1.1	4.2	3.5	1.4	4.4	2.8
1999	2.3	2.2	1.7	2.1	3.3	3.0	1.2	4.2	3.7
1998 Q3	2.7	2.6	2.8	-1.3	4.1	3.3	1.5	4.4	2.3
Q4	2.0	1.0	0.8	-1.4	3.5	3.2	1.6	5.0	3.4
1999 Q1	1.8	1.5	0.2	0.0	3.1	3.0	1.4	3.9	3.2
Q2	1.9	1.2	0.7	2.5	3.1	2.7	1.1	4.2	3.2
Q3	2.5	3.3	2.0	2.9	3.6	3.0	1.1	4.6	3.5
Q4	2.9	2.8	3.8	3.3	3.6	3.1	1.1	4.2	4.9

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	3.4	3.5	2.6	7.3	.	-1.2	1.8	-0.4
1996	100.2	0.1	100.6	0.5	0.1	-0.1	1.9	-0.1	0.1	-0.4	-1.5
1997	104.0	3.8	104.9	4.3	5.0	5.5	4.5	2.8	3.3	2.5	0.4
1998	107.9	3.8	109.4	4.3	4.8	4.0	7.0	3.3	6.2	1.8	0.6
1999	110.1	2.0	111.4	1.8	1.8	2.1	1.6	2.2	3.4	1.7	3.1
1998 Q4	107.8	1.3	109.3	1.7	1.6	0.6	4.6	1.8	4.7	0.4	-1.1
1999 Q1	108.5	0.4	109.7	0.5	0.1	0.0	0.8	1.4	2.5	0.9	0.5
Q2	108.9	1.1	110.4	0.7	0.6	0.6	0.5	1.0	2.3	0.1	3.4
Q3	110.9	2.4	111.9	2.3	2.2	3.0	1.5	2.4	3.9	2.1	3.3
Q4	112.2	4.1	113.6	3.9	4.4	5.0	3.3	3.8	4.6	3.5	4.9
1999 Mar.	109.0	0.5	110.3	0.5	0.3	0.4	-0.1	1.7	1.6	2.1	1.4
Apr.	107.8	0.4	109.7	-0.1	-0.1	0.0	0.8	-0.5	0.7	-1.0	3.3
May	109.1	0.6	110.3	0.2	0.0	0.1	-0.8	1.3	2.9	0.0	2.9
June	109.7	2.2	111.3	1.9	1.7	1.7	1.5	2.2	3.5	1.3	4.0
July	110.2	1.5	111.4	1.2	1.0	2.0	-0.3	1.1	1.2	1.3	3.5
Aug.	111.6	3.4	111.9	3.4	3.3	3.7	2.7	4.6	10.1	3.6	3.0
Sep.	110.9	2.6	112.4	2.5	2.5	3.4	2.4	2.0	3.1	1.8	3.3
Oct.	111.4	3.0	112.9	2.7	3.0	3.3	2.1	2.6	2.3	2.7	3.3
Nov.	112.6	4.2	113.9	4.1	4.7	4.9	3.8	4.5	4.6	4.3	3.7
Dec.	112.7	5.2	113.8	5.0	5.6	7.1	4.1	4.4	7.5	3.5	8.4
2000 Jan.	112.4	3.1	113.6	3.4	3.3	4.6	6.2	1.0	7.2	-1.4	3.6
Feb.	.	.	114.9	5.4	6.4	6.6	6.9	4.4	10.8	1.1	.
Mar.	.	.	.	.	.	.	.	.	.	.	.

2. Retail sales and car registrations

(annual percentage changes, unless otherwise indicated)

	Retail sales (s.a.)								New passenger car registrations	
	Current prices		Constant prices							
	Total		Total		Food, beverages, tobacco	Non-food				
	Index 1995 = 100		Index 1995 = 100				Textiles, clothing, footwear	Household equipment	Thousands [2)] (s.a.)	
	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	1.1	1.0	0.6	1.1	861	4.2
1998	108.1	3.5	104.4	2.6	1.9	2.7	1.9	3.9	923	7.2
1999	111.6	3.3	107.0	2.5	3.0	1.6	1.2	2.6	974	5.5
1999 Q1	110.2	3.3	106.0	2.6	2.7	2.1	1.7	1.3	973	6.7
Q2	110.9	2.9	106.5	2.4	3.0	1.8	1.8	2.5	979	8.3
Q3	111.8	2.8	107.2	2.1	3.0	0.9	-1.1	3.5	990	6.4
Q4	113.3	3.9	108.2	2.8	3.4	1.5	2.3	3.0	952	-0.1
2000 Q1	.	.	.	.	.	.	.	.	985	1.2
1999 Mar.	110.9	4.1	106.4	3.0	3.2	2.9	4.3	0.9	991	7.5
Apr.	110.4	2.8	106.1	2.3	2.3	2.0	2.5	3.4	991	11.2
May	110.6	2.2	106.3	1.8	2.0	1.1	0.1	1.3	968	5.7
June	111.6	3.8	107.0	3.1	4.7	2.3	2.9	2.9	978	7.9
July	111.6	2.6	107.0	2.1	2.6	1.1	0.1	3.4	1,044	10.4
Aug.	112.1	3.0	107.4	2.2	3.0	1.3	0.2	4.0	962	5.1
Sep.	111.9	2.8	107.2	2.0	3.3	0.2	-3.7	3.0	965	2.1
Oct.	113.2	4.5	108.3	3.5	4.6	2.0	3.5	3.0	970	2.8
Nov.	113.4	3.5	108.2	2.2	2.8	1.1	1.4	2.9	958	-1.1
Dec.	113.4	3.8	108.2	2.6	2.8	1.4	2.0	3.0	928	-2.5
2000 Jan.	113.3	3.1	108.4	2.4	3.4	0.9	-0.7	3.8	978	0.8
Feb.	.	.	.	.	.	.	.	.	998	4.7
Mar.	.	.	.	.	.	.	.	.	978	-1.0

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

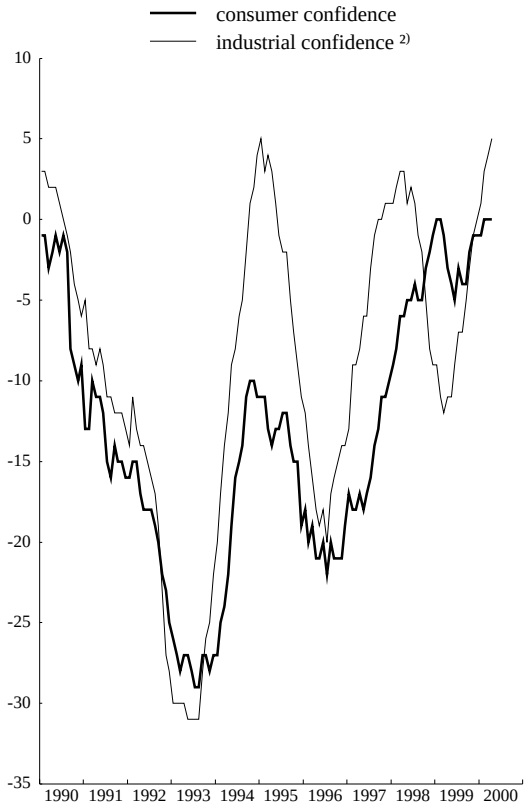
Business and consumer surveys

(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	-14
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	82.9	0	0	0
Q2	.	.	.	83.5	.	.	.
1999 Apr.	-11	2	-20	-	-7	-1	-3
May	-11	3	-22	-	-8	-3	-4
June	-9	5	-22	-	-6	-9	-5
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

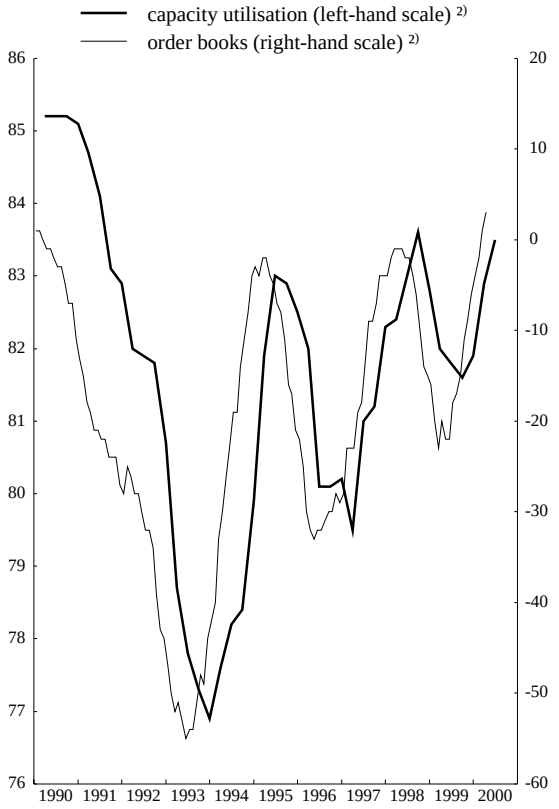
Consumer and industrial confidence indicators

(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	.	.	.	.	.	14.276	11.3	9.5	23.2
1996	100.3	0.3	0.3	0.5	-1.4	1.4	14.683	11.5	9.8	23.9
1997	100.9	0.6	0.7	0.2	-0.4	1.2	14.788	11.5	9.9	23.2
1998	102.2	1.3	1.4	0.8	1.0	1.8	14.074	10.9	9.4	21.3
1999	103.2	1.4	1.7	-0.1	0.2	2.0	12.990	10.0	8.7	19.0
1999 Q1	102.7	1.5	1.7	0.6	0.8	2.2	13.366	10.3	8.9	20.0
Q2	103.1	1.5	1.8	0.0	0.1	2.1	13.079	10.0	8.8	19.2
Q3	103.3	1.3	1.7	-0.6	0.0	1.9	12.906	9.9	8.7	18.8
Q4	103.6	1.3	1.6	-0.4	0.0	1.8	12.607	9.7	8.5	18.1
2000 Q1	-	-	-	-	-	-	12.331	9.5	8.3	17.8
1999 Mar.	-	-	-	-	-	-	13.248	10.2	8.9	19.7
Apr.	-	-	-	-	-	-	13.145	10.1	8.8	19.4
May	-	-	-	-	-	-	13.072	10.0	8.8	19.1
June	-	-	-	-	-	-	13.019	10.0	8.7	19.0
July	-	-	-	-	-	-	12.977	9.9	8.7	19.0
Aug.	-	-	-	-	-	-	12.921	9.9	8.7	18.9
Sep.	-	-	-	-	-	-	12.820	9.8	8.6	18.6
Oct.	-	-	-	-	-	-	12.671	9.7	8.5	18.3
Nov.	-	-	-	-	-	-	12.619	9.7	8.5	18.2
Dec.	-	-	-	-	-	-	12.531	9.6	8.5	18.0
2000 Jan.	-	-	-	-	-	-	12.427	9.5	8.4	17.9
Feb.	-	-	-	-	-	-	12.353	9.5	8.3	17.9
Mar.	-	-	-	-	-	-	12.213	9.4	8.3	17.6

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	2.0	3.1	1.2	3.4	3.1	4.5	3.6	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	1.7	1.8	1.3	1.8	1.2	2.9
1999	1.1	1.9	0.8	2.1	2.2	1.6	2.1	1.7	2.4
1997 Q4	0.0	2.0	2.1	2.4	2.3	2.5	2.4	2.1	2.6
1998 Q1	-1.5	1.2	2.7	1.7	1.9	1.1	1.5	1.3	2.4
Q2	-0.1	1.3	1.3	1.8	1.9	1.3	2.0	1.3	3.2
Q3	0.3	1.3	0.9	1.6	1.6	1.6	1.9	1.1	3.0
Q4	0.7	1.2	0.4	1.8	1.8	1.4	2.0	1.2	3.2
1999 Q1	1.6	1.7	0.1	1.9	2.0	1.6	2.1	1.3	2.8
Q2	1.6	2.1	0.5	1.9	2.1	1.5	1.9	1.8	2.5
Q3	0.8	2.0	1.1	2.2	2.3	1.7	2.2	1.8	2.2
Q4	0.4	2.1	1.7	2.2	2.4	1.7	2.2	1.7	1.9

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)

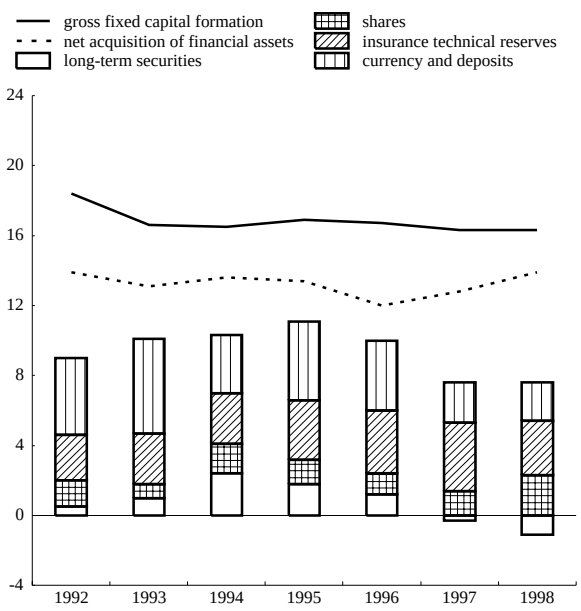
	Euro area saving and investment [1]			Investment of private non-financial sectors [1] [2]							
	Gross saving	Gross fixed capital formation	Net lending to the rest of the world	Gross fixed capital formation	Non-financial corporations	Net acquisition of financial assets	Currency and deposits	Securities other than shares	Long-term securities	Shares	Insurance technical reserves
	1	2	3	4	5	6	7	8	9	10	11
1991	22.0	23.0	-1.3	19.1	14.3	16.6	3.9	3.0	2.5	1.7	2.5
1992	20.9	22.2	-1.0	18.4	13.7	13.9	4.4	1.7	0.5	1.5	2.6
1993	20.0	20.2	0.5	16.6	12.3	13.1	5.4	0.5	1.0	0.8	2.9
1994	20.4	19.8	0.3	16.5	12.3	13.6	3.3	2.2	2.4	1.7	2.9
1995	21.5	20.2	0.5	16.9	12.7	13.4	4.5	2.0	1.8	1.4	3.4
1996	21.0	19.9	0.9	16.7	12.3	12.0	4.0	0.1	1.2	1.2	3.6
1997	21.7	19.4	1.5	16.3	12.1	12.8	2.3	-0.8	-0.3	1.4	3.9
1998	22.0	19.4	1.1	16.3	12.1	13.9	2.2	-1.9	-1.1	2.3	3.1

	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
1991	21.0	12.1	13.2	0.4	0.4	1.6	9.1	5.0	3.4	46.5	38.6
1992	20.7	12.1	10.3	0.7	0.6	1.4	6.8	4.7	3.6	43.0	33.2
1993	20.4	11.5	7.6	1.3	1.4	1.6	3.6	4.3	5.5	44.1	27.1
1994	20.4	10.6	9.5	1.0	1.1	1.8	3.6	3.5	4.1	45.2	31.8
1995	21.2	10.8	7.1	-1.8	-1.8	1.4	5.4	3.6	6.3	44.2	25.1
1996	20.4	10.7	8.2	0.2	0.0	1.7	5.4	4.4	3.8	41.8	28.7
1997	19.8	9.4	9.4	0.1	0.0	1.5	6.6	4.8	3.4	44.0	32.2
1998	18.9	8.8	12.0	0.5	0.2	2.6	7.6	5.6	1.9	46.0	38.8

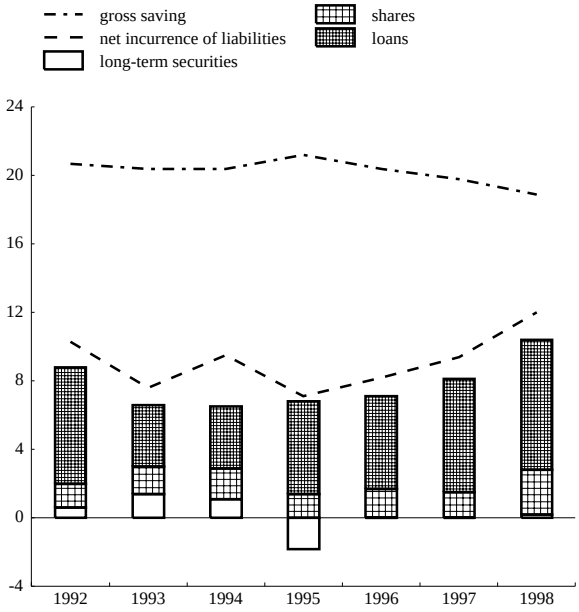
Investment and financing of private non-financial sectors [1] [2]

(as a percentage of GDP)

Investment



Financing



Source: ECB.

1) Selected items of investment and financing.

2) Private non-financial sectors comprise non-financial corporations, households and non-profit institutions serving households.

3) Column 6 - column 14.

4) Column 6 ÷ (column 4 + column 6).

5) Column 14 ÷ (column 12 + column 14).

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

Table 7

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 contributions	Sales				Compensation of employees	Intermediate consumption	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	48.0	12.9	14.4	16.5	2.4	0.6	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 adjustment [2]	Change in debt [3]				Gross nominal consolidated debt			
		Total	Central government	State and local government	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

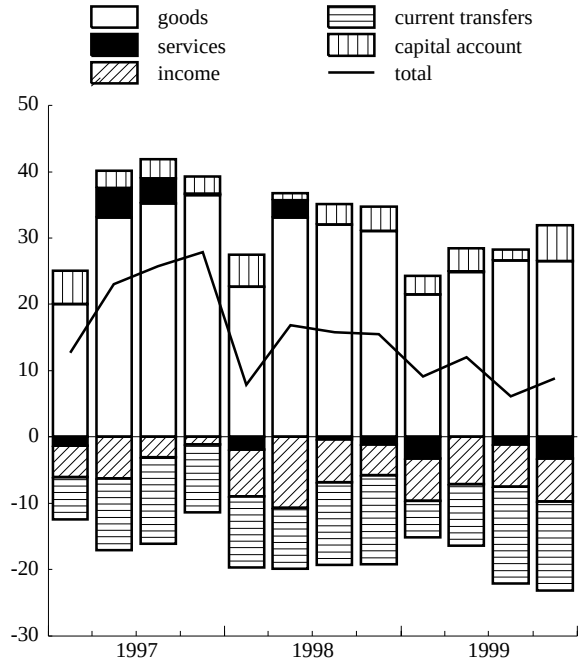
Summary balance of payments [1) 2)]

(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
1998 Q4	11.8	31.0	-1.2	-4.6	-13.4	3.7	-36.2	-56.5	-39.7	-5.3	58.7	6.7	20.7
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
1998 Dec.	5.3	10.3	0.1	-1.1	-3.9	2.0	-33.8	-3.2	-12.0	-0.1	-33.9	15.4	26.4
1999 Jan.	-2.4	4.8	-2.9	-2.3	-2.0	2.7	0.4	-4.7	8.8	-1.9	0.3	-2.1	-0.7
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

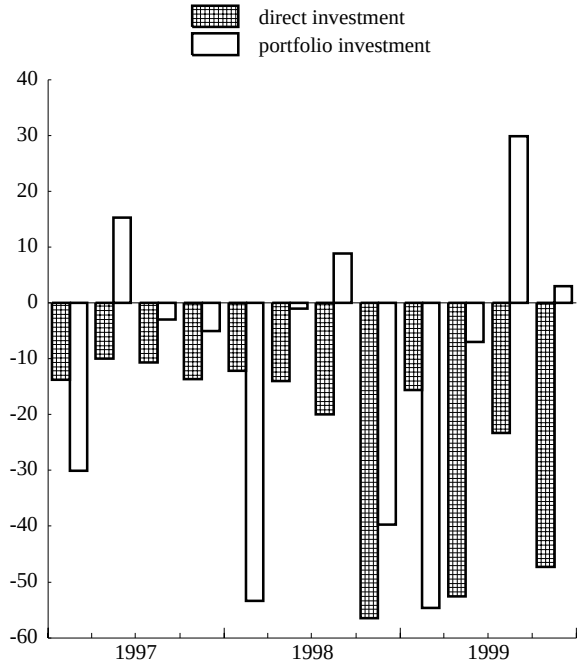
Current and capital accounts

(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
1998 Q4	316.6	304.8	195.7	164.7	58.1	59.3	50.3	54.9	12.4	25.9	5.2	1.6
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
1998 Dec.	109.4	104.1	64.3	54.0	20.8	20.8	19.3	20.4	5.0	9.0	2.7	0.6
1999 Jan.	95.4	97.7	53.5	48.7	14.9	17.8	14.8	17.0	12.3	14.3	3.1	0.4
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

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) 2)]

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

1. Direct investment; portfolio investment by instrument

	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
1998 Q4	-70.0	13.5	-61.4	21.7	-20.1	41.6	-41.2	-29.2	-12.0	-19.9	-18.0	-1.9
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
1998 Dec.	-14.2	11.0	-19.8	7.7	-8.1	7.1	-11.7	-8.8	-2.9	0.6	7.5	-6.9
1999 Jan.	-11.8	7.1	-19.1	27.9	-6.4	9.5	-12.7	-9.3	-3.4	18.4	15.7	2.7
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

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 [1)]

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

1. Other investment by sector [2)]

	Total		Eurosystem		General government		MFIs (excluding the Eurosystem)						Other sectors	
							Total		Long-term		Short-term			
	Assets 1	Liabilities 2	Assets 3	Liabilities 4	Assets 5	Liabilities 6	Assets 7	Liabilities 8	Assets 9	Liabilities 10	Assets 11	Liabilities 12	Assets 13	Liabilities 14
1998	-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
1998 Q4	59.1	-0.4	-0.5	2.9	3.0	-2.5	53.7	-4.1	-3.7	14.2	57.4	-18.3	2.9	3.2
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
1998 Dec.	49.0	-82.8	-0.4	5.2	1.9	-4.9	38.6	-82.4	-1.6	9.6	40.3	-92.0	8.9	-0.7
1999 Jan.	-64.7	65.1	8.4	0.0	0.0	-4.8	-65.0	65.2	-6.2	3.4	-58.8	61.7	-8.2	4.6
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

2. Other investment by sector and instrument

2.1. Eurosystem

	Loans/currency and deposits			Other assets/liabilities		
	Assets 1	Liabilities 2	Balance 3	Assets 4	Liabilities 5	Balance 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.	372.5	116.4	402.754	4.5	24.2	225.2	-	-	-	-	-	0.0	2.0	14.4
2000 Jan. [3]	381.5	116.2	401.635	4.3	24.4	231.4	-	-	-	-	-	0.2	1.9	14.7
Feb. [3]	383.8	121.1	400.499	4.4	23.9	231.9	-	-	-	-	-	0.2	2.0	16.1
Mar.	384.1	116.0	400.499	4.4	24.8	238.9	-	-	-	-	-	0.2	1.2	17.0

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

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	828.4	55.6	16.3	13.4	113.7	223.4	382.9	23.1	133.1	121.9	109.2
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	51.0	86.6	5.7	120.7	112.5	107.3
Q2	202.9	13.4	4.0	3.1	27.9	54.8	93.9	5.8	130.4	119.7	108.9
Q3	209.2	13.8	4.1	3.8	29.6	56.5	95.4	6.0	134.4	122.8	109.5
Q4	228.4	16.0	4.5	3.9	30.4	61.0	107.0	5.6	146.8	132.4	110.9
1998 Jan.	58.6	4.3	1.3	1.2	8.4	16.3	26.0	1.2	112.9	104.8	107.7
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	105.3	98.6	106.8
Feb.	60.2	4.0	1.2	0.8	8.2	16.5	27.4	2.1	116.0	108.5	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.	65.8	4.3	1.3	1.0	9.1	17.7	30.6	1.7	126.9	116.6	108.9
May	63.7	4.5	1.3	1.0	9.0	17.3	28.8	1.8	122.7	113.1	108.5
June	73.3	4.6	1.3	1.1	9.8	19.8	34.4	2.2	141.4	129.4	109.3
July	76.2	4.6	1.4	1.2	10.3	20.8	35.7	2.4	147.0	132.8	110.7
Aug.	61.0	4.2	1.3	1.1	9.2	16.0	27.4	1.8	117.5	106.8	110.0
Sep.	72.0	5.1	1.4	1.5	10.1	19.7	32.4	1.9	138.8	128.5	108.0
Oct.	76.4	5.2	1.5	1.3	10.1	20.6	35.7	2.0	147.4	134.0	110.0
Nov.	76.4	5.3	1.5	1.2	10.6	20.5	35.5	1.9	147.3	133.5	110.3
Dec.	75.6	5.6	1.6	1.4	9.7	19.9	35.8	1.6	145.7	129.6	112.4
2000 Jan.	65.8	3.5	1.4	1.5	9.2	17.5	30.3	2.5	126.9	.	.
Feb.	74.0	.	.	.	.	.	.	.	142.7	.	.

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	771.7	51.0	38.7	77.3	70.8	208.3	302.0	23.5	137.1	129.0	106.3
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	177.2	12.0	9.1	13.4	17.0	49.8	70.5	5.5	126.0	127.5	98.8
Q2	188.1	12.6	10.0	16.8	17.6	50.4	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	214.0	13.8	10.2	25.9	19.1	54.2	84.2	6.6	152.1	135.0	112.7
1998 Jan.	57.7	4.5	3.5	5.7	5.6	16.6	20.4	1.4	123.0	114.3	107.6
Feb.	57.9	4.3	3.5	5.4	5.6	16.7	20.8	1.6	123.4	114.4	107.9
Mar.	64.3	4.9	3.8	5.3	6.5	18.3	24.1	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.	54.5	3.7	2.9	4.5	5.1	15.3	21.2	1.7	116.2	118.6	98.0
Feb.	55.8	3.7	2.9	4.1	5.5	16.0	21.8	1.9	119.1	121.1	98.3
Mar.	66.9	4.5	3.3	4.9	6.4	18.4	27.5	1.9	142.6	142.9	99.8
Apr.	61.0	4.1	3.3	5.6	5.7	15.9	24.5	1.9	130.2	127.1	102.4
May	62.1	4.2	3.3	5.7	5.7	16.4	24.9	1.8	132.4	126.5	104.6
June	65.0	4.4	3.5	5.4	6.1	18.0	25.5	2.0	138.6	132.5	104.6
July	64.1	4.3	3.3	6.7	5.7	18.3	23.9	1.9	136.6	126.6	107.9
Aug.	57.9	4.0	2.6	7.0	5.2	16.2	21.3	1.7	123.5	112.3	110.0
Sep.	70.4	4.4	3.4	7.6	6.3	19.4	27.2	2.1	150.2	136.3	110.2
Oct.	69.0	4.4	3.3	7.7	6.3	18.0	26.9	2.3	147.1	131.8	111.6
Nov.	72.8	4.7	3.5	8.4	6.6	18.5	28.9	2.2	155.3	139.2	111.6
Dec.	72.2	4.7	3.4	9.7	6.1	17.8	28.4	2.1	153.9	133.7	115.1
2000 Jan.	70.4	4.1	3.5	10.4	5.8	18.4	25.9	2.3	150.0	.	.
Feb.	73.7	.	.	.	.	.	.	.	157.2	.	.

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	Food, drink, tobacco	Raw materials	Energy	Chemicals	Other manufactured articles	Machinery, transport equipment	Other
	1	2	3	4	5	6	7	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	56.6	4.6	-22.4	-63.9	42.9	15.0	80.9	-0.5
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	10.7	0.4	-5.3	-10.8	8.9	1.2	16.1	0.2
Q2	14.8	0.8	-6.1	-13.7	10.3	4.5	19.0	0.0
Q3	16.8	1.2	-5.3	-17.4	12.5	2.5	23.0	0.3
Q4	14.4	2.2	-5.7	-21.9	11.3	6.8	22.7	-1.0
1998 Jan.	0.9	-0.2	-2.2	-4.6	2.8	-0.3	5.6	-0.2
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.	0.1	0.0	-1.8	-3.7	2.7	-0.7	3.8	-0.2
Feb.	4.3	0.2	-1.7	-3.2	2.8	0.5	5.6	0.2
Mar.	6.2	0.1	-1.8	-3.9	3.4	1.4	6.8	0.2
Apr.	4.8	0.2	-1.9	-4.6	3.4	1.8	6.2	-0.2
May	1.6	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	8.9	0.2
July	12.2	0.3	-2.0	-5.5	4.7	2.5	11.7	0.5
Aug.	3.0	0.3	-1.3	-5.8	4.0	-0.2	6.1	0.1
Sep.	1.6	0.7	-2.0	-6.1	3.8	0.3	5.1	-0.2
Oct.	7.5	0.7	-1.8	-6.4	3.8	2.7	8.8	-0.2
Nov.	3.6	0.6	-2.1	-7.2	4.0	2.0	6.5	-0.3
Dec.	3.4	0.9	-1.8	-8.3	3.6	2.1	7.4	-0.5
2000 Jan.	-4.5	-0.6	-2.1	-9.0	3.4	-0.9	4.4	0.2
Feb.	0.3	.	.	.	.	.	.	.

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	108.1	114.2	95.4	106.1	1.270	138.1	1.568	0.814
1997	99.1	99.4	99.5	102.2	90.4	96.7	1.134	137.1	1.644	0.692
1998	101.5	101.3	101.8	99.8	96.6	99.3	1.121	146.4	1.622	0.676
1999	95.7	95.7	95.8	95.9	96.6	95.9	1.066	121.3	1.600	0.659
1999 Q1	100.0	100.0	100.0	100.0	100.0	100.0	1.122	130.7	1.599	0.687
Q2	96.1	96.0	96.0	96.2	96.5	96.1	1.057	127.7	1.600	0.658
Q3	94.6	94.7	94.7	94.5	95.5	94.7	1.049	118.7	1.602	0.655
Q4	92.2	92.2	92.5	92.8	94.2	92.7	1.038	108.4	1.600	0.636
2000 Q1	89.0	89.6	90.1	88.9	91.1	89.5	0.986	105.5	1.607	0.614
1999 Jan.	102.0	101.8	101.8	-	101.4	101.3	1.161	131.3	1.605	0.703
Feb.	99.9	99.9	99.8	-	100.0	100.0	1.121	130.8	1.598	0.689
Mar.	98.3	98.3	98.4	-	98.7	98.7	1.088	130.2	1.595	0.671
Apr.	97.1	96.9	97.1	-	97.5	97.2	1.070	128.2	1.602	0.665
May	96.6	96.5	96.5	-	96.9	96.5	1.063	129.7	1.603	0.658
June	94.7	94.6	94.3	-	95.1	94.6	1.038	125.3	1.595	0.650
July	94.8	95.2	94.9	-	95.0	94.6	1.035	123.7	1.604	0.658
Aug.	95.4	95.6	95.5	-	96.3	95.6	1.060	120.1	1.600	0.660
Sep.	93.6	93.4	93.6	-	95.2	94.0	1.050	112.4	1.602	0.647
Oct.	94.4	94.2	94.4	-	96.3	94.8	1.071	113.5	1.594	0.646
Nov.	92.0	92.0	92.4	-	94.0	92.5	1.034	108.2	1.605	0.637
Dec.	90.1	90.3	90.6	-	92.2	90.8	1.011	103.7	1.601	0.627
2000 Jan.	90.2	90.8	91.2	-	92.4	90.8	1.014	106.5	1.610	0.618
Feb.	89.2	89.8	90.2	-	91.2	89.6	0.983	107.6	1.607	0.615
Mar.	87.7	88.3	88.8	-	89.7	88.0	0.964	102.6	1.604	0.611
Apr.	86.1	86.5	87.6	-	88.4	86.5	0.947	99.9	1.574	0.598
% ch. vs. [4] prev. month										
2000 Apr.	-1.8	-2.0	-1.4	-	-1.4	-1.7	-1.8	-2.6	-1.9	-2.1
% ch. vs. [4] prev. year										
2000 Apr.	-11.3	-10.7	-9.8	-	-9.3	-11.1	-11.5	-22.0	-1.7	-10.1

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
8.98	7.44	322.7	8.60	1.696	1.770	8.69	1,342.6	1.911	1999 Q1
8.90	7.43	325.0	8.24	1.557	1.618	8.19	1,258.8	1.810	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
9.08	7.44	323.6	8.65	1.765	1.839	8.99	1,362.4	1.950	1999 Jan.
8.91	7.44	322.0	8.65	1.679	1.751	8.68	1,330.2	1.905	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.
									% ch. vs. [4] prev. month
-1.4	0.0	0.4	0.5	-1.4	0.3	-1.7	-2.3	-2.1	2000 Apr.
									% ch. vs. [4] prev. year
-7.3	0.2	3.0	-2.0	-12.9	-4.8	-11.1	-18.6	-11.7	2000 Apr.

I I 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 [3] as a % of GDP	Unit labour costs [4]	Real GDP	Industrial production index [5]	Standardised unemployment rate as a % of labour force (s.a.)	Broad money [6]	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	6.25	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	2.2	5.2	4.6	4.27
1999	2.1	3.0	52.6	4.91	7.44	1.2	3.5	1.6	2.5	5.2	4.2	3.44
1999 Q1	1.4	-	-	4.22	7.44	1.7	6.2	0.6	-0.6	5.4	4.5	3.65
Q2	1.8	-	-	4.50	7.43	1.5	3.9	2.2	6.0	5.3	4.9	3.13
Q3	2.3	-	-	5.35	7.44	1.7	3.1	1.5	-0.3	5.1	3.4	3.19
Q4	2.8	-	-	5.57	7.44	0.1	0.9	2.0	5.2	4.9	4.1	3.78
2000 Q1	2.8	-	-	5.79	7.45	.	.	.	4.2	4.9	2.2	3.95
1999 Oct.	2.6	-	-	5.76	7.43	-	-	-	1.8	4.9	2.0	3.69
Nov.	2.7	-	-	5.45	7.44	-	-	-	5.4	4.8	6.3	3.85
Dec.	3.1	-	-	5.50	7.44	-	-	-	8.4	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	-	-	-	2.7	4.8	3.9	4.18
Apr.	.	-	-	5.56	7.45	-	-	-	.	.	.	4.32
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	.	2.5	.	0.5	.	7.6	10.08
1999 Q1	3.1	-	-	6.08	322.7	-	-	-	-0.8	.	10.4	10.56
Q2	2.0	-	-	5.87	325.0	-	-	-	0.5	.	7.3	9.80
Q3	1.4	-	-	6.56	326.1	-	-	-	1.5	.	6.8	9.86
Q4	2.0	-	-	6.68	329.2	-	-	-	0.6	.	6.3	10.13
2000 Q1	2.6	-	-	6.44	332.7	-	-	-	.	.	3.2	8.71
1999 Oct.	1.7	-	-	7.03	329.2	-	-	-	1.9	.	5.3	10.11
Nov.	2.0	-	-	6.61	328.7	-	-	-	-1.8	.	8.0	10.71
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	-	-	-	.	.	-1.0	8.69
Apr.	.	-	-	6.09	335.2	-	-	-	.	.	.	8.48
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	1.8	3.0	4.2	8.3	3.5	4.36
1999	0.6	1.9	65.5	4.98	8.81	1.6	.	3.8	1.1	7.2	6.8	3.32
1999 Q1	0.2	-	-	4.21	8.98	2.1	0.4	3.9	0.7	7.7	5.4	3.31
Q2	0.3	-	-	4.54	8.90	0.9	0.1	3.7	0.9	7.2	6.5	3.07
Q3	0.7	-	-	5.48	8.71	2.8	0.0	3.8	-0.7	7.1	6.1	3.22
Q4	1.0	-	-	5.69	8.65	0.9	.	3.8	3.1	6.8	9.1	3.69
2000 Q1	1.2	-	-	5.79	8.50	.	.	.	.	6.5	.	3.99
1999 Oct.	1.0	-	-	5.92	8.73	-	-	-	4.2	6.7	10.0	3.74
Nov.	0.8	-	-	5.56	8.63	-	-	-	4.1	6.8	7.4	3.72
Dec.	1.2	-	-	5.59	8.59	-	-	-	1.1	6.8	9.9	3.63
2000 Jan.	1.0	-	-	5.95	8.60	-	-	-	5.6	6.6	8.6	3.70
Feb.	1.4	-	-	5.90	8.51	-	-	-	5.9	6.6	9.1	4.10
Mar.	1.4	-	-	5.51	8.39	-	-	-	.	6.5	.	4.16
Apr.	.	-	-	5.42	8.27	-	-	-	.	.	.	4.14
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	3.8	2.2	0.3	6.3	9.7	7.42
1999	1.3	1.2	46.0	5.01	0.659	-1.3	.	2.1	0.1	6.1	5.2	5.54
1999 Q1	1.6	3.9	46.6	4.39	0.687	-2.0	4.3	1.5	-1.6	6.2	7.4	5.61
Q2	1.4	-2.4	46.7	4.82	0.658	-0.9	4.0	1.6	-1.8	6.1	6.7	5.30
Q3	1.2	1.5	45.8	5.39	0.655	-1.8	3.4	2.2	1.3	6.0	3.5	5.28
Q4	1.2	1.5	45.6	5.46	0.636	-0.7	.	3.0	2.4	5.9	3.4	5.98
2000 Q1	0.8	6.2	43.4	5.60	0.614	.	.	.	.	.	.	6.20
1999 Oct.	1.2	9.6	44.6	5.78	0.646	-	-	-	1.2	6.0	3.1	6.02
Nov.	1.3	-3.1	44.7	5.23	0.637	-	-	-	2.5	5.9	3.3	5.87
Dec.	1.2	-2.0	45.6	5.36	0.627	-	-	-	3.8	6.0	3.9	6.06
2000 Jan.	0.8	17.2	43.7	5.83	0.618	-	-	-	-1.7	5.9	2.9	6.14
Feb.	1.0	0.9	43.2	5.63	0.615	-	-	-	-1.1	.	2.8	6.24
Mar.	0.7	0.9	43.6	5.34	0.611	-	-	-	.	.	.	6.23
Apr.	.	.	.	5.30	0.598	-	-	-	.	.	.	6.30

Sources: Eurostat (columns 1, 8, 9 (the 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 the 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) *BPM5.*
4) *Whole economy; data for the United Kingdom exclude employers' contribution to social security.*
5) *Manufacturing; adjusted for working days.*
6) *Average of end-month values; M3; M4 for Greece and the United Kingdom.*

12 Economic and financial developments outside the EU

Table 12.1

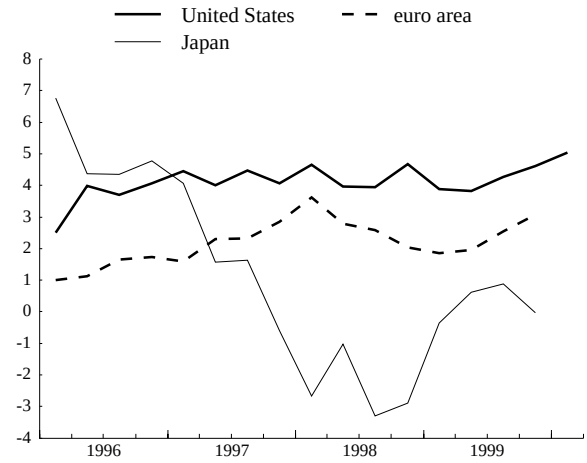
Economic and financial developments

(annual percentage changes, unless otherwise indicated)

	Consumer price index	Unit labour costs [1]	Real GDP	Industrial production index [1]	Unemployment rate as a % of labour force (s.a.)	M2 [2]	3-month interbank deposit rate [3] as a % per annum	10-year government bond yield [3] as a % per annum	Exchange rate [4] as national currency per ECU or euro	Fiscal deficit (-)/ surplus (+) [5] as a % of GDP	Gross public debt [6] as a % of GDP
	1	2	3	4	5	6	7	8	9	10	11
					United States						
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
1998 Q4	1.5	-0.8	4.7	3.7	4.4	8.5	5.27	4.72	1.177	0.7	53.5
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	5.0	5.7	4.1	5.6	6.11	6.48	0.986	.	.
1999 Nov.	2.6	-	-	4.8	4.1	5.9	6.10	6.03	1.034	-	-
Dec.	2.7	-	-	5.2	4.1	5.8	6.13	6.26	1.011	-	-
2000 Jan.	2.7	-	-	5.9	4.0	5.7	6.04	6.66	1.014	-	-
Feb.	3.2	-	-	5.5	4.1	5.4	6.10	6.52	0.983	-	-
Mar.	3.7	-	-	5.7	4.1	5.8	6.20	6.26	0.964	-	-
Apr.	.	-	-	.	3.9	.	6.31	6.00	0.947	-	-
					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	-2.1	0.3	0.4	4.7	3.7	0.22	1.75	121.3	-10.4	-
1998 Q4	0.5	5.1	-2.9	-6.8	4.4	4.5	0.43	1.03	140.6	-	-
1999 Q1	-0.1	3.5	-0.4	-4.2	4.6	4.0	0.36	1.97	130.7	-	-
Q2	-0.3	-1.2	0.6	-1.0	4.7	4.1	0.12	1.53	127.7	-	-
Q3	0.0	-4.6	0.9	2.6	4.7	3.6	0.10	1.78	118.7	-	-
Q4	-1.0	-5.7	0.0	4.4	4.6	3.0	0.29	1.77	108.4	-	-
2000 Q1	-0.7	.	.	6.5	4.8	2.2	0.14	1.79	105.5	-	-
1999 Nov.	-1.2	-7.4	-	6.7	4.6	2.9	0.30	1.81	108.2	-	-
Dec.	-1.1	-6.4	-	5.3	4.7	2.6	0.33	1.73	103.7	-	-
2000 Jan.	-0.9	-6.9	-	6.4	4.7	2.6	0.15	1.71	106.5	-	-
Feb.	-0.6	.	-	8.7	4.9	2.1	0.13	1.83	107.6	-	-
Mar.	-0.5	.	-	4.8	4.9	1.9	0.14	1.81	102.6	-	-
Apr.	.	.	-	.	.	.	0.12	1.75	99.9	-	-

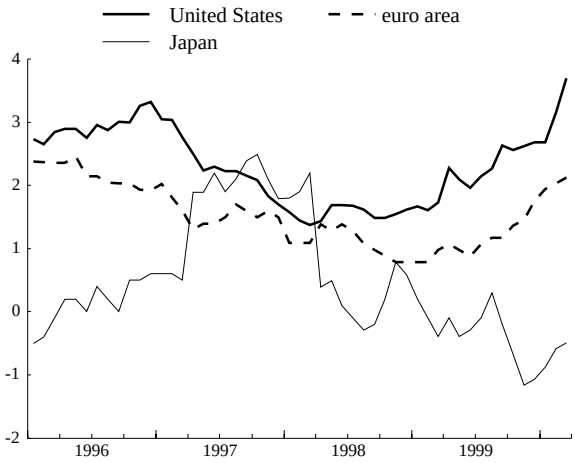
Real gross domestic product

(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

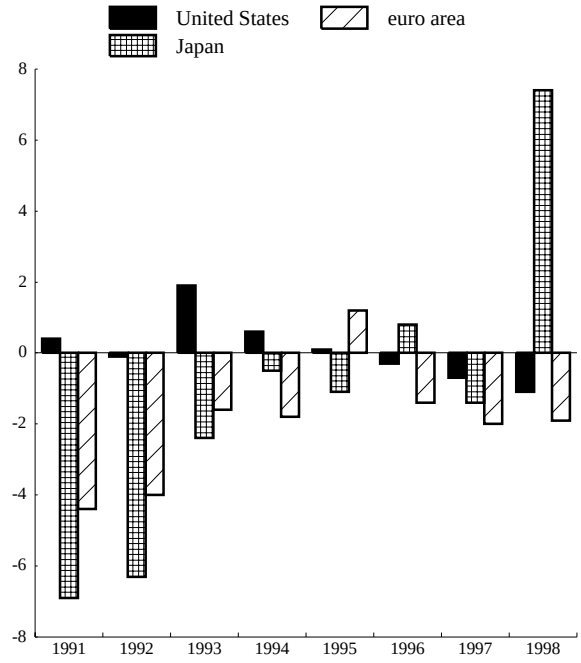
Saving, investment and financing

(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	8.7	8.3	4.8	8.7	5.1	1.1	11.8	5.2	12.9	4.9
1997	18.3	19.8	-1.5	9.1	8.3	3.5	8.8	4.2	2.1	11.6	3.9	12.5	4.5
1998	18.8	20.5	-2.3	9.5	8.7	3.0	8.7	4.0	1.6	12.1	5.2	12.1	5.7
1999	18.7	20.8	-3.4	9.6	9.1	6.6	8.7	7.6	3.3	12.6	5.5	11.4	7.0
1998 Q1	18.9	20.6	-1.8	9.8	8.6	4.1	8.8	5.8	3.2	11.9	3.7	12.3	5.8
Q2	18.6	20.3	-2.2	9.3	8.7	3.3	8.7	4.0	3.8	12.1	8.0	12.1	5.6
Q3	18.9	20.6	-2.6	9.4	8.5	3.8	8.7	4.0	0.5	12.0	4.3	12.0	5.3
Q4	18.8	20.7	-2.6	9.5	8.9	0.8	8.6	2.4	-1.1	12.3	4.6	12.2	6.0
1999 Q1	19.0	20.8	-2.8	9.4	8.9	7.4	8.7	8.1	6.0	12.5	3.4	11.8	6.6
Q2	18.7	20.5	-3.3	9.6	9.4	6.1	8.7	7.1	-0.3	12.8	6.6	11.6	6.8
Q3	18.7	20.8	-3.6	9.6	9.2	6.6	8.6	7.6	3.3	12.6	4.6	11.1	6.7
Q4	18.5	20.9	-3.8	9.8	9.1	6.4	8.8	7.6	3.9	12.6	7.1	10.9	7.3
						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	-7.2	15.1	-8.8	-1.3	5.0	5.9	13.7	-0.2
1999	.	28.1	.	.	.	3.5	.	-4.3	1.6	.	5.4	.	1.9
1998 Q1	33.2	28.4	2.4	.	.	-7.1	.	-14.0	0.0	.	-4.5	.	4.6
Q2	.	24.8	.	.	.	-33.5	.	-13.8	0.4	.	11.7	.	-7.0
Q3	.	26.9	.	.	.	2.6	.	-1.9	1.5	.	3.9	.	1.6
Q4	.	26.9	.	.	.	7.3	.	-5.8	-6.5	.	12.0	.	-0.2
1999 Q1	.	26.9	.	.	.	4.4	.	-19.6	-4.8	.	-3.6	.	16.0
Q2	.	24.2	.	.	.	-18.7	.	-14.5	2.0	.	9.2	.	-7.9
Q3	.	26.4	.	.	.	8.5	.	-2.6	1.4	.	5.1	.	3.4
Q4	.	27.0	.	.	.	18.2	.	17.6	7.3	.	10.4	.	-3.7

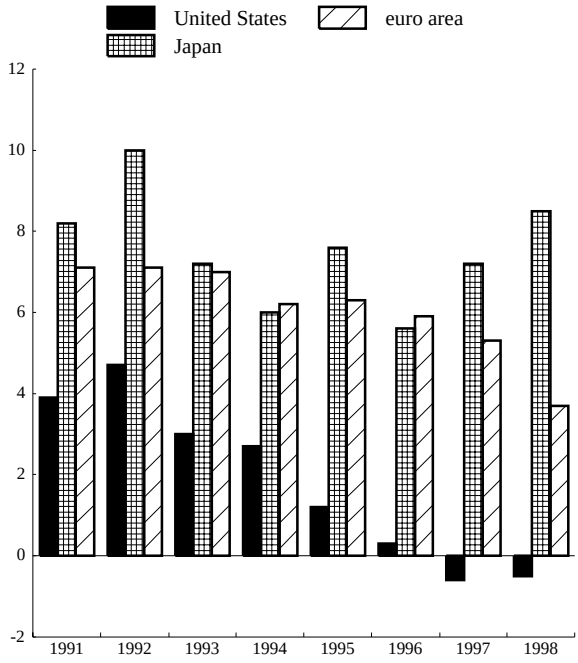
Net lending of non-financial corporations

(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 10 May 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. 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.

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.

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

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“Correspondent central banking model (CCBM)”, December 1998.

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

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

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