



EUROPEAN CENTRAL BANK

MONTHLY BULLETIN I | 2004

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MONTHLY BULLETIN  
NOVEMBER



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## MONTHLY BULLETIN NOVEMBER 2004

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**Address**

Kaiserstrasse 29  
60311 Frankfurt am Main  
Germany

**Postal address**

Postfach 16 03 19  
60066 Frankfurt am Main  
Germany

**Telephone**

+49 69 1344 0

**Website**

<http://www.ecb.int>

**Fax**

+49 69 1344 6000

**Telex**

411 144 ecb d

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## ABBREVIATIONS

### COUNTRIES

BE	Belgium	HU	Hungary
CZ	Czech Republic	MT	Malta
DK	Denmark	NL	Netherlands
DE	Germany	AT	Austria
EE	Estonia	PL	Poland
GR	Greece	PT	Portugal
ES	Spain	SI	Slovenia
FR	France	SK	Slovakia
IE	Ireland	FI	Finland
IT	Italy	SE	Sweden
CY	Cyprus	UK	United Kingdom
LV	Latvia	JP	Japan
LT	Lithuania	US	United States
LU	Luxembourg		

### OTHERS

BIS	Bank for International Settlements
b.o.p.	balance of payments
BPM5	IMF Balance of Payments Manual (5th edition)
CD	certificate of deposit
c.i.f.	cost, insurance and freight at the importer's border
CPI	Consumer Price Index
ECB	European Central Bank
EER	effective exchange rate
EMI	European Monetary Institute
EMU	Economic and Monetary Union
ESA 95	European System of Accounts 1995
ESCB	European System of Central Banks
EU	European Union
EUR	euro
f.o.b.	free on board at the exporter's border
GDP	gross domestic product
HICP	Harmonised Index of Consumer Prices
HWWA	Hamburg Institute of International Economics
ILO	International Labour Organization
IMF	International Monetary Fund
MFI	monetary financial institution
NACE Rev. 1	Statistical classification of economic activities in the European Community
NCB	national central bank
PPI	Producer Price Index
SITC Rev. 3	Standard International Trade Classification (revision 3)
ULCM	unit labour costs in manufacturing
ULCT	unit labour costs in the total economy

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

## EDITORIAL

At its meeting on 4 November 2004, the Governing Council of the ECB decided to leave the minimum bid rate on the main refinancing operations of the Eurosystem unchanged at 2.0%. The interest rates on the marginal lending facility and the deposit facility were also left unchanged at 3.0% and 1.0% respectively.

On the basis of the regular economic and monetary analyses, the Governing Council concluded that despite persistently high and rising oil prices, there is no strong indication as yet that medium-term inflationary pressures are building up in the euro area. In particular, wage growth appears to remain limited, in the context of ongoing moderate real GDP growth and weak labour markets. Against this background, the Governing Council decided to leave the key ECB interest rates unchanged at their present levels, which are very low by historical standards. However, oil price increases have had a visible direct impact on consumer prices this year, and inflation is likely to remain significantly above 2% in the coming months. This is a worrisome development. Given the prevailing upside risks to price stability over the medium term, strong vigilance is warranted with regard to all developments which could increase such risks.

Starting with the economic analysis underlying the Governing Council's assessment, the economic recovery began in the second half of 2003, and positive developments were observed in the first half of 2004. Although short-term indicators have become more mixed, the basic determinants of economic activity remain consistent with continuing economic growth in 2005. On the external side, some moderation is taking place following a period in which the world economy has experienced its strongest dynamism in many years. Nevertheless, euro area exports should continue to benefit from favourable global demand conditions in 2005. On the domestic side, investment should be supported by the global environment, the very favourable financing conditions in the euro area, improved earnings and greater corporate efficiency gained through business

restructuring. Furthermore, scope exists in the euro area as a whole for private consumption to strengthen, particularly once labour market prospects improve more visibly.

However, this outlook is surrounded by continuing uncertainty, in particular stemming from recent developments in oil markets. On the one hand, the magnitude and nature of this shock differ from earlier experiences, when oil price rises were much stronger and mainly due to supply constraints. In addition, the oil intensity of production is significantly lower in the euro area. On the other hand, recent oil price increases constitute a nonetheless significant adverse shock to the euro area economy. If oil prices were to remain at current levels, or even increase further, they would dampen the strength of the recovery both inside and outside the euro area. However, under certain conditions, a smoother absorption of the oil price shock can be ensured: in particular, second-round effects in wage and price-setting must continue to be avoided, and fiscal authorities should refrain from taking measures which would prolong the necessary adjustment process.

With regard to consumer prices, annual HICP inflation increased to 2.5% in October, according to Eurostat's flash estimate. This is a strong increase, after the decline to 2.1% in September from 2.3% in August, and reflects the sizeable direct impact of oil price developments on the euro area HICP in recent weeks. Moreover, the oil price shock may feed through the economy and generate further indirect effects, as indicated by developments in producer prices.

Looking further ahead, however, the information available so far does not suggest that stronger underlying inflationary pressures are building up in the euro area. Wage increases have remained limited since the last quarter of 2003, and this trend is expected to persist in the context of ongoing moderate growth and weak labour markets.

Nevertheless, a number of upward risks to the outlook for price stability have emerged over recent months. Risks are mainly associated with oil price developments, possible renewed increases in indirect taxes and administered prices, and potential second-round effects stemming from wage and price-setting behaviour.

Further indications for the medium-term outlook are provided by the monetary analysis. The downward trend in annual M3 growth in the first half of this year appears to have come to a halt in recent months. The shorter-term dynamics of M3 have strengthened and annual M3 growth rates are rising. These developments reflect the stimulative effect of the historically low level of interest rates in the euro area on monetary expansion. Demand for the most liquid components of M3 contained in the narrow aggregate M1 is particularly strong. The low level of interest rates is also fuelling private sector demand for credit. In particular, the growth rate of loans for house purchase continues to rise and is now approaching double digits. Yet loan demand is becoming more broadly based, and the annual growth of loans to non-financial corporations is also picking up.

Given the continued strength of M3 growth over the past few years, there remains substantially more liquidity in the euro area than is needed to finance non-inflationary growth. This could pose inflationary risks in the future if the excess liquidity is not progressively reduced as a result of reverse portfolio shifts. Moreover, persistently high excess liquidity and strong credit growth could become a source of unsustainable asset price increases, particularly in property markets.

To sum up, the economic analysis suggests that underlying inflationary pressures are still contained, but a number of medium-term upside risks to price stability need to be monitored closely. It is particularly important that these do not affect long-term inflation expectations. Cross-checking with the monetary analysis continues to support the case for strong

vigilance with regard to the materialisation of risks to price stability.

Turning to fiscal policies, most countries have presented their budget plans for 2005. In some cases there are encouraging signs that Member States are planning to correct excessive deficits or make progress towards close-to-balance or in-surplus budgetary positions. However, there are other cases where there are significant risks that commitments under the Stability and Growth Pact will not be met, or where imbalances are on the rise and new breaches of the 3% reference value might occur. It is therefore imperative that 2005 budgets prioritise consolidation where this is necessary. Moreover, it is of vital importance that the reliable compilation and timely reporting of government finance statistics are ensured. Appropriate budgetary targets and compliance with fiscal commitments and reporting requirements will help to build confidence, support the economic upswing and prepare for the impact of population ageing.

As regards the European fiscal framework, the Governing Council remains convinced that improvements in the implementation of the Stability and Growth Pact are possible and would be beneficial. In this regard, the European Commission's proposals for improving the implementation of the preventive arm of the Pact, which deals with the surveillance of budgetary positions, are welcome. At the same time, the Governing Council warns against changes to the Pact and, in particular, the excessive deficit procedure. It considers the credibility of the 3% deficit limit essential to anchoring expectations of fiscal discipline. Moreover, strict surveillance and effective peer pressure on national budget policies are indispensable to preserving sound fiscal policies.

Fiscal consolidation plans should be part of a structural reform agenda that favours growth, competitiveness and employment. As regards labour and product markets, the mid-term review of the Lisbon agenda – now being

prepared for the European Council meeting in March 2005 – is a major opportunity to increase momentum in these fields. Structural reforms are crucial to a better performing EU economy, i.e. an economy with higher potential growth, more employment opportunities and greater resilience to shocks. Efforts to accelerate key economic reforms are now more important than ever.

This issue of the Monthly Bulletin contains three articles. The first article analyses the impact of oil price changes on prices and economic activity in the euro area. The second describes a number of tools that central banks can use to extract market expectations for key economic variables, notably inflation and economic activity, from asset prices. Finally, the third article analyses recent developments in the EU framework for financial regulation, supervision and stability.





# ECONOMIC AND MONETARY DEVELOPMENTS

## I THE EXTERNAL ENVIRONMENT OF THE EURO AREA

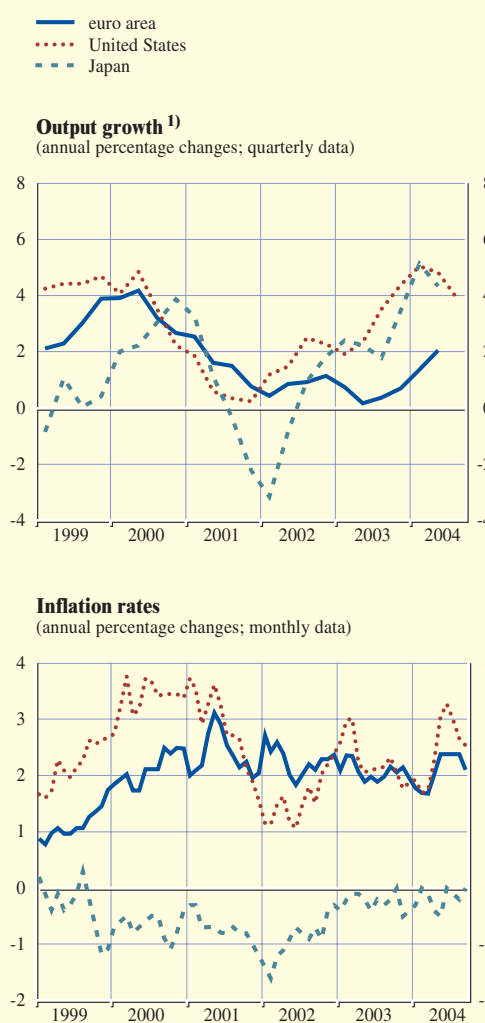
*Following a period of rather unprecedented expansion, the global economy is gradually returning to lower growth levels. One of the factors behind the declining growth is high oil prices, which markets expect to persist for some time. Inflationary pressures generally remain low, as second-round effects of the oil price increases have not materialised.*

### DEVELOPMENTS IN THE WORLD ECONOMY

Following a period of rather unprecedented economic expansion in 2003 and in early 2004, growth in the global economy has started to gradually return to lower levels but remains robust overall despite high oil prices. World trade has been a major factor supporting growth and contributing to the relative robustness of the world economy. The volume of world trade is estimated to have grown by 8.5% in 2004 according to the World Trade Organization, a significant improvement over 2003. Factors supporting growth include low borrowing rates and strong investment activity, in particular in emerging countries. However, high oil prices, the persistence and partial worsening of global current account imbalances as well as concerns about fiscal developments in some countries together with mixed signals from major economies have increased the uncertainty surrounding developments in the global economy. Inflationary pressures generally remain low, as second-round effects of commodity price increases have not materialised against a background of strong competition in goods markets and subdued developments in labour markets.

In the United States, according to advance estimates, real GDP grew at a quarterly annualised rate of 3.7% in the third quarter of 2004, after 3.3% in the second quarter. This increase in GDP growth in the third quarter stemmed primarily from a significant rebound in personal consumption expenditure and a marked deceleration in imports. At the same time, investment in equipment and software kept on growing at a steady pace. Concerning the labour market, the unemployment rate remained unchanged at 5.4% in September following a slight decline in the labour force participation rate, which, at 66% of the civilian population, remains low by historical standards. Inflation rates eased in September for the third consecutive month as the annual growth rate of the Consumer Price Index declined to 2.5%, from 2.7% in August.

**Chart I Main developments in major industrialised economies**



Sources: National data, BIS, Eurostat and ECB calculations.  
1) Eurostat data are used for the euro area; for the United States and Japan national data are used. For all countries, GDP figures have been seasonally adjusted.

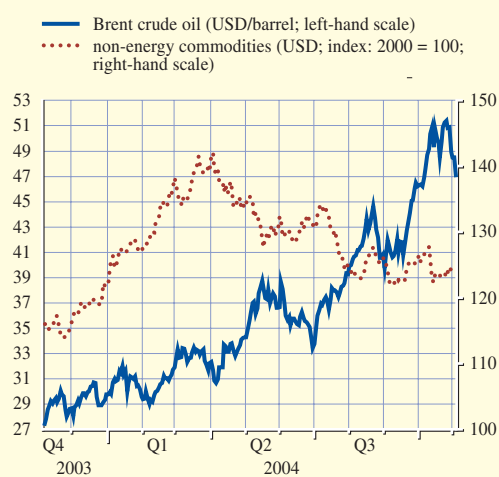
In Japan, real GDP growth has slowed down from the fast growth rates observed around the turn of the year. In the second quarter, real GDP growth (quarter on quarter) was 0.3%, against 1.6% in the first quarter. Nevertheless, export demand remained relatively strong. In spite of the recent weak performance of the manufacturing sector, employment increased and the unemployment rate fell to 4.6% in September from 4.8% in August. Recent confidence indicators seem to support the view that a moderate deceleration in economic activity is occurring, although the outlook remains positive. As regards price developments, the overall picture remains mixed. While corporate goods prices have been increasing since the beginning of the year, reaching 1.8% (year on year) in September, consumer prices were unchanged year on year in September.

In the United Kingdom, real GDP rose by a quarterly rate of 0.9% in the second quarter of this year, compared with 0.7% in the first quarter. Growth continued to be led by domestic demand, although revisions to historical data suggest that the composition of GDP growth was somewhat different to previous estimates, with stronger investment and slightly weaker consumption. Although output and demand were above trend in the second quarter of 2004, preliminary figures suggest that growth moderated noticeably in the third quarter of this year, with real GDP increasing by a quarterly rate of 0.4%. Annual HICP fell from 1.3% in August to 1.1% in September, moving further below the 2% target based on the HICP.

In Sweden, real GDP expanded by 1.0% (quarter on quarter) in the second quarter of 2004. The European Commission survey suggests that, in the third quarter, industrial confidence strengthened, while consumer confidence slightly weakened. Regarding prices, annual HICP inflation remained at 1.2% in September, the same rate as in the previous three months. In Denmark, quarter-on-quarter GDP growth was 0.2% in the second quarter, while annual HICP inflation stood at 0.9% in September, unchanged from August. In the third quarter, both industrial and consumer confidence improved according to the European Commission survey. In most other EU Member States outside the euro area, GDP growth remained strong. In September, the noticeable increase in HICP inflation seen earlier this year did not continue in most of these countries, although higher energy and food prices still exerted inflationary pressures.

In non-Japan Asia (NJA), the latest information indicates that growth is likely to decline in the coming quarters. Exports from the region have shown signs of easing. However, except for South Korea, domestic demand has remained strong in most NJA economies. In China, economic activity continues to be robust. GDP grew by 9.1% (year on year) in the third quarter of this year. CPI inflation declined slightly to 5.2% (year on year) in September, from 5.3% in the previous month. On 28 October, the Chinese central bank raised its benchmark interest rates, the one-year bank deposit and lending rates, by 27 basis points, the first increase in over nine years.

Chart 2 Main developments in commodity markets



Sources: Bloomberg and HWWA.

In Latin America, according to the latest data releases, economic activity continues to strengthen, led by export growth but also supported by domestic demand. Inflationary risks related to higher oil prices and improved domestic demand, however, point to a mild deterioration in the region's overall short-term outlook.

### **COMMODITY MARKETS**

Oil prices increased further in October, e.g. the price of Brent crude reached an all-time high of USD 51.4 on 26 October, pushed upwards by a combination of strong demand, weather-related supply disruptions, and limited spare capacity. World demand for oil continues to exceed expectations. According to the International Energy Agency, global oil demand is estimated to increase by 3.4% on average in 2004, the highest annual rate of growth in almost three decades. Rising global oil supplies have not been able to prevent the recent price increases as limited and declining spare capacity has left only a very thin cushion in the event of oil market disruptions. Consequently, oil prices reacted rather strongly when supply-side concerns re-emerged from several oil-producing countries. Market participants expect oil prices to remain near current levels for the rest of the year and decline only gradually thereafter.

The prices of non-energy commodities have continued to ease from the peak levels of April 2004. This development was driven by a rather strong decline in food prices, while both metals and non-food agricultural raw materials increased slightly. Nevertheless, in US dollar terms, overall non-energy commodity prices in October 2004 were 10.8% higher than a year earlier.

### **OUTLOOK FOR THE EXTERNAL ENVIRONMENT**

The overall outlook for the world economy remains rather favourable, as growth becomes more broad-based both in terms of regions and sectors. At the same time, however, there are more indications that the current cycle, while likely to remain robust, has passed its peak. Both the OECD Composite Leading Indicator and the Purchasing Managers' Index signal a continuation of expansion, but also suggest a slowdown in growth rates from their very high levels observed in late 2003 and early 2004.



## 2 MONETARY AND FINANCIAL DEVELOPMENTS

### 2.1 MONEY AND MFI CREDIT

The data for September 2004 provide further evidence that, after moderating in the first half of the year, monetary dynamics have strengthened again in the past few months. The normalisation of portfolio allocation behaviour is continuing, albeit still at a slow pace. However, the dampening effect of this phenomenon on annual M3 growth is being more than offset by the stimulative impact of low interest rates on the most liquid components of M3. The low level of interest rates has also supported a further strengthening of loans to the private sector, which is becoming more broadly based across the main non-financial sectors. Overall, significantly more liquidity remains available in the euro area than is needed to finance non-inflationary growth. The current monetary dynamics increase the risk of persistence of this excess liquidity.

#### THE BROAD MONETARY AGGREGATE M3

The annual growth rate of the broad monetary aggregate M3 increased to 6.0% in September 2004, from 5.6% in the previous month (see Chart 3), reflecting a strong month-on-month increase of 0.6%. The three-month average of the annual growth rates of M3 rose to 5.7% in the period between July and September, from 5.4% in the period between June and August 2004.

Monetary developments continue to be influenced by two factors. On the one hand, the MFI balance sheet data for September 2004 suggest that the process of normalisation of the asset allocation behaviour of euro area residents is continuing, albeit still at a slow pace. This is reflected in portfolio shifts out of liquid monetary assets into longer-term instruments. On the other hand, the prevailing low level of interest rates is stimulating the demand for the most liquid components of M3 and, on the counterparts side, for MFI loans to the private sector. In recent months, these latter stimulative effects on M3 growth have more than outweighed the impact of the former, dampening factor.

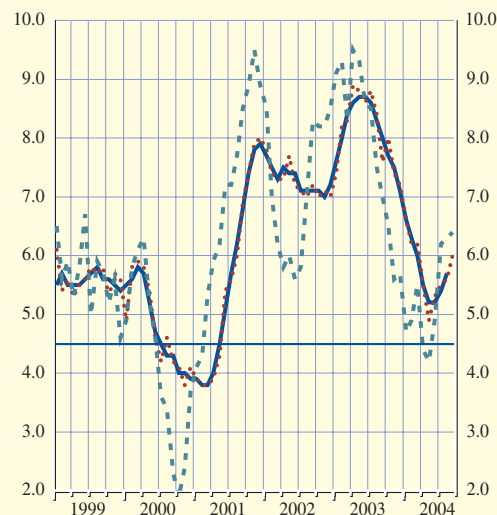
#### MAIN COMPONENTS OF M3

The annual growth rate of the narrow monetary aggregate M1 increased to 9.7% in September 2004, from 9.2% in August (see Table 1), reflecting a rise in the already relatively high annual rate of growth in overnight deposits from 7.5% in August to 8.0% in September. The annual rate of growth in currency in circulation remained very high at 19.9%. The sustained demand for the most liquid components of M3 reflects, to a large extent, the low level of interest rates and hence the low opportunity cost of holding these assets. In addition, there continues to be strong demand for euro banknotes, particularly the high denominations, both inside and outside the euro area.

Chart 3 M3 growth and the reference value

(annual percentage changes; adjusted for seasonal and calendar effects)

— M3 (three-month centred moving average of the annual growth rate)  
••• M3 (annual growth rate)  
- - - M3 (annualised six-month growth rate)  
— reference value (4½%)



Source: ECB.

Table I Summary table of monetary variables

(quarterly figures are averages; adjusted for seasonal and calendar effects)

	Outstanding amount as a percentage of M3 <sup>1)</sup>	Annual growth rates							
		2003 Q3	2003 Q4	2004 Q1	2004 Q2	2004 Q3	2004 Aug.	2004 Sep.	
<b>M1</b>	<b>44.7</b>	<b>11.4</b>	<b>11.0</b>	<b>11.1</b>	<b>10.3</b>	<b>9.6</b>	<b>9.2</b>	<b>9.7</b>	
Currency in circulation	6.9	29.6	26.5	24.0	21.6	20.3	20.3	19.9	
Overnight deposits	37.8	8.9	8.8	9.1	8.5	7.9	7.5	8.0	
<b>M2 - M1 (= other short-term deposits)</b>	<b>40.9</b>	<b>5.8</b>	<b>4.9</b>	<b>3.3</b>	<b>1.7</b>	<b>2.0</b>	<b>2.0</b>	<b>2.8</b>	
Deposits with an agreed maturity of up to and including two years	15.6	-1.3	-2.9	-4.4	-7.0	-5.8	-5.7	-4.2	
Deposits redeemable at notice of up to and including three months	25.2	11.6	11.1	9.2	8.1	7.6	7.5	7.6	
<b>M2</b>	<b>85.5</b>	<b>8.6</b>	<b>7.9</b>	<b>7.2</b>	<b>6.0</b>	<b>5.8</b>	<b>5.7</b>	<b>6.3</b>	
<b>M3 - M2 (= marketable instruments)</b>	<b>14.5</b>	<b>7.7</b>	<b>5.8</b>	<b>2.5</b>	<b>2.0</b>	<b>3.9</b>	<b>5.0</b>	<b>4.1</b>	
<b>M3</b>	<b>100.0</b>	<b>8.4</b>	<b>7.6</b>	<b>6.5</b>	<b>5.4</b>	<b>5.6</b>	<b>5.6</b>	<b>6.0</b>	
<b>Credit to euro area residents</b>	<b>169.1</b>	<b>5.3</b>	<b>5.9</b>	<b>5.8</b>	<b>6.0</b>	<b>6.2</b>	<b>6.1</b>	<b>6.1</b>	
Credit to general government	36.4	4.8	6.6	6.1	6.5	6.5	6.6	5.5	
Loans to general government	13.1	1.0	1.5	1.2	2.3	2.3	2.5	1.5	
Credit to the private sector	132.8	5.5	5.7	5.7	5.9	6.1	6.0	6.3	
Loans to the private sector	115.6	4.9	5.3	5.4	5.6	6.2	6.1	6.5	
<b>Longer-term financial liabilities (excluding capital and reserves)</b>	<b>52.4</b>	<b>5.8</b>	<b>6.7</b>	<b>7.4</b>	<b>8.4</b>	<b>8.7</b>	<b>8.7</b>	<b>9.2</b>	

Source: ECB.

1) As at the end of the last month available. Figures may not add up due to rounding.

The annual rate of growth of short-term deposits other than overnight deposits increased in September to 2.8%, from 2.0% in August. This mainly reflected a moderation in the annual rate of decline of short-term time deposits (deposits with an agreed maturity of up to and including two years), while the relatively high positive annual rate of growth of short-term savings deposits (deposits redeemable at a period of notice of up to and including three months) remained practically unchanged. The subdued demand for the former type of deposits is likely to reflect the fact that, especially compared with overnight deposits, the slightly higher rate of return that they offer does not compensate for their relatively lower liquidity.

The annual growth rate of marketable instruments included in M3 fell in September to 4.1%, from 5.0% in August. This decline reflected negative contributions from all sub-components (money market fund shares and units, repurchase agreements, and debt securities issued with a maturity of up to two years). Month-on-month volatility in the annual growth rate of marketable instruments is high and thus monthly developments should be interpreted with caution. Nonetheless, these data suggest a continuation, albeit still at a slow pace, of the normalisation of portfolio allocation behaviour, whereby euro area residents have been shifting their wealth holdings into longer-term, non-monetary assets as the exceptional preference for liquidity seen between 2001 and mid-2003 unwinds.

### MAIN COUNTERPARTS OF M3

The already robust annual growth rate of MFI loans to the private sector rose further in September to 6.5%, from 6.1% in August. Increased borrowing by all the main non-financial sectors contributed to this higher growth rate, although considerable heterogeneity remained in the level of the growth rates across sectors (see Table 2). The annual rate of growth of MFI loans to households increased to 7.8% in September, from 7.5% in August, supported in particular by the buoyant growth of loans for house purchase (which reached 9.8% at an annual rate). Strong mortgage borrowing is associated with low mortgage lending rates across the euro area and strong

**Table 2 MFI loans to the private sector**

(end of period; not adjusted for seasonal and calendar effects)

	Outstanding amount as a percentage of total <sup>1)</sup>	Annual growth rates					
		2003 Q3	2003 Q4	2004 Q1	2004 Q2	2004 Aug.	2004 Sep.
<b>Non-financial corporations</b>	<b>42.0</b>	<b>3.6</b>	<b>3.5</b>	<b>3.3</b>	<b>4.0</b>	<b>4.1</b>	<b>4.6</b>
Up to one year	30.7	-1.0	-0.8	-2.4	-2.1	-1.7	-0.6
Over one and up to five years	17.6	4.6	3.1	3.6	6.4	5.6	5.9
Over five years	51.8	6.5	6.6	6.9	7.2	7.3	7.4
<b>Households <sup>2)</sup></b>	<b>50.5</b>	<b>5.8</b>	<b>6.4</b>	<b>6.6</b>	<b>7.3</b>	<b>7.5</b>	<b>7.8</b>
Consumer credit <sup>3)</sup>	13.6	3.0	2.9	4.4	5.7	6.4	6.2
Lending for house purchase <sup>3)</sup>	67.8	7.4	8.1	8.4	9.0	9.3	9.8
Other lending	18.6	2.5	3.3	2.3	2.4	2.1	1.8
<b>Insurance corporations and pension funds</b>	<b>0.7</b>	<b>9.7</b>	<b>11.9</b>	<b>8.7</b>	<b>18.9</b>	<b>21.7</b>	<b>18.3</b>
<b>Other non-monetary financial intermediaries</b>	<b>6.9</b>	<b>6.0</b>	<b>11.8</b>	<b>8.9</b>	<b>8.5</b>	<b>6.9</b>	<b>8.4</b>

Source: ECB.

Notes: MFI sector including Eurosystem; sectoral classification based on the ESA 95. For further details, see footnote 2 to Table 2.4 in the "Euro area statistics" section and the relevant Technical notes.

1) As at the end of the last month available. Sector loans as a percentage of total MFI loans to the private sector; maturity breakdown and breakdown by purpose as a percentage of MFI loans to the respective sector. Figures may not add up due to rounding.

2) As defined in the ESA 95.

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

housing market dynamics in several euro area countries. In addition, it implies a rising sensitivity of households to changes in interest rates (see Box 1 entitled "Features of mortgage contracts in the euro area"). At the same time, the annual growth rate of MFI loans to non-financial corporations, while remaining lower than that of household borrowing, rose to 4.6% in September, well above the pace observed on average over the past few years.

The results of the October 2004 bank lending survey indicate that improvements in lending conditions also contributed to the stronger growth of MFI loans to the private sector in recent months (see Box 2 entitled "The results of the October 2004 bank lending survey for the euro area").

The annual rate of growth in the broader aggregate MFI credit to euro area residents remained unchanged in September at 6.1%. In the same month, the annual growth rate of MFI credit extended to general government declined to 5.5%, from 6.6% in the previous month (see Table 1).

**Box 1****FEATURES OF MORTGAGE CONTRACTS IN THE EURO AREA**

Due to the current low interest rate environment, the total debt service burden of euro area households (i.e. the ratio of the sum of interest payments on the debt and the reimbursement of the principal to disposable income) has remained relatively stable over recent years, despite continuously rising levels of household indebtedness. This notwithstanding, the rise in debt has made households more sensitive to changes in interest rates. In this respect, it is often reported that the low level of interest rates has increased the popularity of variable rate loans for house purchase in several countries, implying that households' interest payments are more sensitive to future moves in interest rates. Against this background, this box looks at features of mortgage contracts in the euro area in order to assess the sensitivity of outstanding household debt to changes in interest rate conditions.

The share of existing mortgage debt exposed to changes in prevailing interest rate conditions – a crucial determinant of the interest rate sensitivity of households' debt payments – depends on the structure of the underlying mortgage contract. In this regard, a key factor is whether the interest rate paid on mortgage borrowing is “fixed” for a long period of time or “variable”. A fixed rate contract implies that the interest rate is set at the time the mortgage is taken out and does not change over the life of the mortgage. Such a contract insulates households from the impact of changes in interest rate conditions, since the schedule of interest payments is determined at the outset. By contrast, with a variable rate contract, changes in interest rate conditions over the life of the mortgage will have implications for the interest payments made by households. Other things being equal, a higher proportion of variable rate mortgages implies a greater sensitivity of household interest payments to changes in interest rate conditions. The degree of sensitivity rises with the frequency at which adjustments to the interest rate can be made over the life of the contract.

While conceptually the structure of mortgage borrowing can be characterised in a straightforward manner, in practice considerable care is required in interpreting the data because definitions and the structure of mortgage contracts vary considerably across countries.<sup>1</sup> While in some countries the term “variable rate” is applied only to contracts in which the interest rate paid adjusts almost instantaneously to changes in short-term money market rates, in others the term refers to any contract for which the relevant interest rate will change at least once over the maturity period of the loan, even if the interest rate is initially fixed for a long period.

The available information for the euro area does not permit a comprehensive picture of the structure of outstanding mortgage debt to be developed. Nonetheless, on the basis of the official data available, complemented by national sources and other evidence, estimates of the maturity and interest rate structure can be constructed. From this exercise, it is apparent that the category of loans with a maturity greater than ten years and an initial fixed rate period of ten years appears to be of particular importance at the euro area level, reflecting the existence of this type of contract in many countries and its prominence in Belgium, Germany, France and the Netherlands.

The available estimates for 2004 suggest that the share of mortgages where the interest rate is fixed for at least ten years is around 50% of the total outstanding mortgage debt in the euro area. By contrast, the share of mortgages which are exposed to a change in interest rates in the year ahead is estimated to be around one-third of the outstanding stock. However, it should be borne in mind that, due to the underlying caveats regarding the data, these euro area-wide estimates can only be considered as benchmark indicators and should be interpreted with caution.

With regard to variable rate lending, it is also useful to understand how interest rates on variable mortgage contracts are adjusted. In this regard, the contracted mortgage interest rates can take three main forms. First, there are *referenced rates*, i.e. rates which follow an official and contractually predetermined interest rate indicator, without any intervention by the lender

<sup>1</sup> Features of mortgage contracts are generally linked to the national mortgage market structure (including factors such as the nature of the lending institution and the source of funding of the lending activity, the competitive conditions and marketing practices, and the share of subsidised loans), as well as to cultural habits and historical factors (e.g. whether there was low or high inflation in the past), regulations and fiscal issues. For a more detailed discussion, see the publication entitled “Structural factors in the EU housing markets”, ECB, March 2003.



or the borrower. Second, there are *renegotiable rates* where the interest rate can be changed following bilateral negotiations between the lender and the borrower, with these negotiations taking place at predetermined points in time. Finally, there are *reviewable rates*, i.e. rates that can be changed on the initiative of the lender (for instance, in order to match the cost of funding).

It should also be mentioned that other, more qualitative, characteristics of mortgage contracts can play an important role in dampening the overall sensitivity of household debt to interest rates. For instance, variable rate contracts may include a *cap on the mortgage rate*, defining an upper limit for the variation of the rate, which could be 1, 2 or 5 percentage points above the initial rate. This option exists in Belgium, France and, to some extent, the Netherlands. Also, the existence of an *early repayment option with a low penalty* provides households with further flexibility to handle interest rate changes. Some variable rate contracts also permit *the size of monthly repayments and/or the duration of the loan to be modified* in order to smoothen out the effects of an interest rate increase. This option could be used by some households to build up a prepayment buffer, allowing them to be ahead of their mortgage payments if they perceive a low interest rate environment as being temporary.

Overall, this box shows that the sensitivity of household mortgage debt to interest rates cannot be gauged in a straightforward way, partly because the structure of mortgage contracts still varies widely across the euro area. Quantitative estimates are surrounded by considerable uncertainty and complementary qualitative information on the features of mortgage contracts needs to be taken into account in order to gain a broader picture of the exposure of mortgage debt to interest rate risk. This notwithstanding, the interest rate sensitivity of households in the euro area has probably risen over recent years. Households which have been tempted to finance mortgages under the currently low interest rate conditions at variable rates with low initial interest payments should be aware of the risks they bear in the event that interest rates were to rise to levels more in line with historical standards.<sup>2</sup>

<sup>2</sup> See for instance D. Miles (2004), "The UK mortgage market: taking a longer-term view". This study underlines a certain myopia on the part of many UK households, mostly first-time buyers, borrowing at variable rates and behaving as if the interest rate prevailing at the beginning of the mortgage was to be fixed for the entire duration of the contract, regardless of the current position in the interest rate cycle.

Among the other counterparts of M3, the annual rate of growth of MFI longer-term financial liabilities (excluding capital and reserves) increased further in September, to 9.2% (after 8.7% in August). This is the highest growth rate seen for this counterpart in seven years. Together with the rather subdued growth of the marketable instruments in M3, these data suggest ongoing shifts from monetary assets into longer-term assets, thereby providing additional evidence of the normalisation of euro area residents' portfolio allocation behaviour.

At the same time, the annual flow in the net external asset position of the euro area MFI sector rose to €121 billion in September, from an increase of €102 billion over the twelve months up to August. Although short-term movements in this volatile indicator should not be overemphasised, the September data showed the third consecutive monthly rise, suggesting that the previous downward trend in the annual flow of net external assets has been interrupted, thereby mitigating in part the dampening impact on M3 growth of the unwinding of past portfolio shifts.

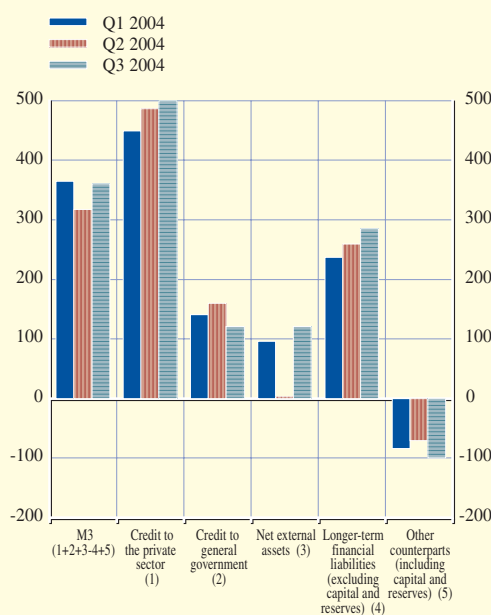
Summing up the information from the counterparts of M3, the continued strong expansion of MFI longer-term financial liabilities (excluding capital and reserves) associated with the unwinding of the earlier exceptional portfolio shifts into monetary assets contributed to a dampening of M3 growth. By contrast, the brisk expansion of MFI credit to euro area residents driven by the low level of interest rates continues to have a strong positive impact on growth in the broad monetary aggregate.

#### OVERALL ASSESSMENT

There is significantly more liquidity in the euro area than is needed to finance non-inflationary economic growth. Should a significant share of these liquid holdings be transformed into transaction balances, particularly at a time when confidence and real economic activity are strengthening, inflationary risks would rise. The ample liquidity conditions may also be supporting strong asset price increases, particularly in housing markets.

**Chart 4 Movements in M3 and its counterparts**

(annual flows; end of period; EUR billions; adjusted for seasonal and calendar effects)



Source: ECB.

#### Box 2

#### THE RESULTS OF THE OCTOBER 2004 BANK LENDING SURVEY FOR THE EURO AREA

This box describes the main results of the October 2004 bank lending survey for the euro area carried out by the Eurosystem.<sup>1</sup> Overall, the survey showed a further slight relaxation in credit standards for enterprises and households in the third quarter of 2004, as compared with the second quarter. In the fourth quarter of 2004, most credit standards are expected to remain broadly unchanged from the previous quarter.

#### Loans or credit lines to enterprises

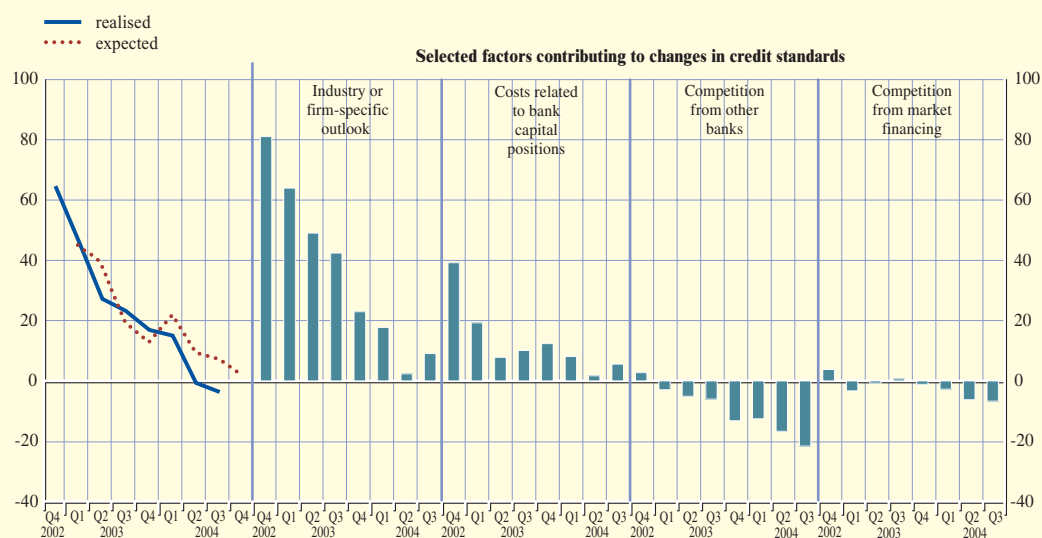
**Credit standards:** For the third quarter of 2004, banks reported a further slight net easing of credit standards. This continued a downward movement in the net percentage<sup>2</sup> of credit standards for loans or credit lines to enterprises (see Chart A, first panel). The factors contributing to the further net easing of credit standards included increased competition both from other banks and, to a lesser extent, from market financing sources (see Chart A, fourth and

1 A comprehensive assessment of the results of the October 2004 bank lending survey for the euro area can be found on the ECB's website ([www.ecb.int/stats/money/lend/html/index.en.html](http://www.ecb.int/stats/money/lend/html/index.en.html)).

2 The "net percentage" refers to the difference between the proportion of banks reporting that credit standards have been tightened and that of those reporting that they have eased. A positive net percentage would indicate that banks have tended to tighten credit standards ("net tightening"), whereas a negative net percentage would indicate that banks have tended to ease credit standards ("net easing").

## Chart A Changes in credit standards applied to the approval of loans or credit lines to enterprises

(net percentages)



Notes: The net percentages refer to the difference between the sum of the percentages for “tightened considerably” and “tightened somewhat” and the sum of the percentages for “eased somewhat” and “eased considerably”. The net percentages for the questions related to the factors are defined as the difference between the percentage of banks reporting that the given factor contributed to tightening and to easing. “Realised” values refer to the period in which the survey was conducted. “Expected” values are the net percentages calculated from the responses given by the banks in the previous survey. For instance, “expected” values for the fourth quarter of 2004 were reported by banks in the October 2004 survey.

fifth panels). By contrast, more negative perceptions regarding the industry or firm-specific outlook as well as a slight increase in the cost relating to banks’ capital positions contributed slightly towards tighter credit standards (see Chart A, second and third panels). Regarding the terms and conditions of credit, the slight easing of credit standards was effected mainly through the size and maturity conditions of loans as well as through a decline in margins.

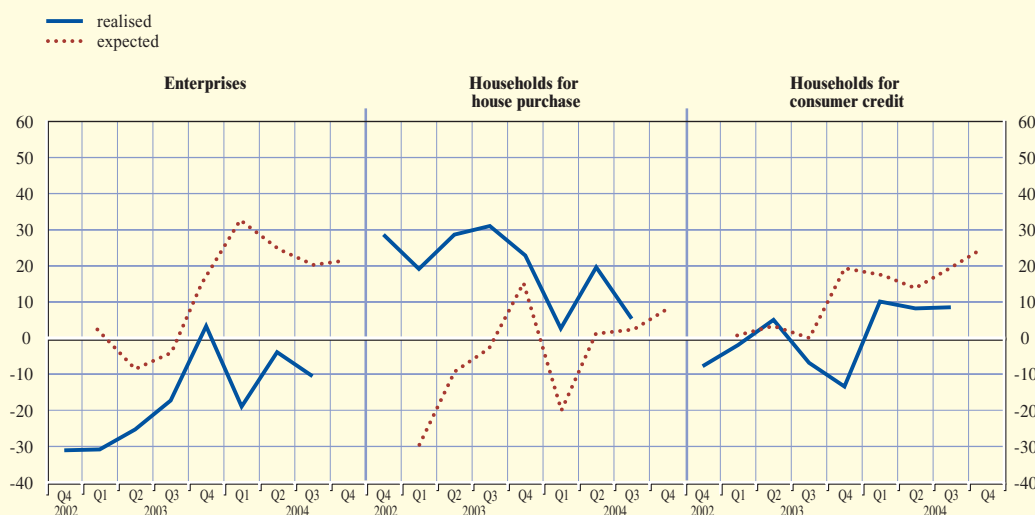
**Loan demand:** There was a slight decline in net demand<sup>3</sup> for loans to enterprises between the second and third quarters of 2004 (see Chart B, first panel), so that enterprises’ net demand for loans was negative and below banks’ expectations for the third successive quarter. In terms of the size of the borrower, this decline affected both loans to small and medium-sized enterprises and loans to large enterprises. The major factors contributing to the decline in net demand were, according to banks, weak fixed investment, as well as the increased use of non-bank sources of external financing (such as corporate bonds or trade credit) and the enhanced availability of internal finance by enterprises (i.e. lower external financing needs).

**Expectations:** For the fourth quarter of 2004, banks expect broadly unchanged credit standards for loans or credit lines to enterprises as compared with the previous quarter (see Chart A, first panel). At the same time, banks expect a substantially higher net demand for corporate loans than in the previous quarter (see Chart B, first panel). This increase in net demand for loans is predicted to be stronger in the case of small and medium-sized enterprises than in that of large enterprises.

<sup>3</sup> The term “net demand” refers to the difference between the proportion of banks reporting an increase in loan demand and that of those reporting a decline.

Chart B Changes in the demand for loans or credit lines to enterprises and households

(net percentages)



Notes: The net percentage refers to the difference between the sum of the percentages for “increased considerably” and “increased somewhat” and the sum of the percentages for “decreased somewhat” and “decreased considerably”. “Realised” values refer to the period in which the survey was conducted. “Expected” values are the net percentages calculated from the responses given by the banks in the previous survey. For instance, “expected” values for the fourth quarter of 2004 were reported by banks in the October 2004 survey.

### Loans to households for house purchase

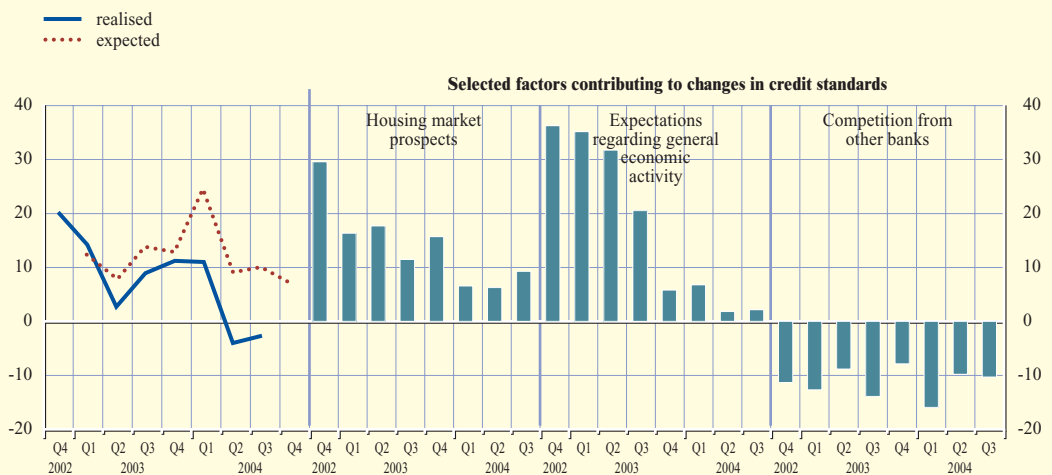
**Credit standards:** Between the second and third quarters of 2004, there continued to be a slight net easing in credit standards applied to the approval of loans to households for house purchase (see Chart C, first panel). The contribution to credit standards from competition among banks (see Chart C, fourth panel) and expectations of general economic activity (see Chart C, third panel) were regarded by banks as broadly unchanged. At the same time, banks reported that housing market prospects contributed somewhat more than in the second quarter to slightly tighter standards (see Chart C, second panel). As regards the terms and conditions of credit, the net percentage of banks that tightened their credit standards by widening their margins on riskier loans increased slightly from the previous quarter. By contrast, there was an increase in the net percentage of banks that eased the conditions on housing loans to households via the maturity of loans.

**Loan demand:** The net demand for housing loans to households declined considerably between the second and third quarters of 2004 (see Chart B, second panel). The main factors that were mentioned as contributing to this decline were consumer confidence, non-housing-related expenditure and housing market prospects.

**Expectations:** For the fourth quarter of 2004, respondent banks expect a net tightening in the credit conditions for housing loans to households compared with the net easing recorded in the third quarter (see Chart C, first panel). Banks also expect the net demand for housing loans to households to increase slightly over the next three months, as compared with the previous quarter (see Chart B, second panel).

## Chart C Changes in credit standards applied to the approval of loans to households for house purchase

(net percentages)



Notes: The net percentages refer to the difference between the sum of the percentages for “tightened considerably” and “tightened somewhat” and the sum of the percentages for “eased somewhat” and “eased considerably”. The net percentages for the questions related to the factors are defined as the difference between the percentage of banks reporting that the given factor contributed to tightening and to easing. “Realised” values refer to the period in which the survey was conducted. “Expected” values are the net percentages calculated from the responses given by the banks in the previous survey. For instance, “expected” values for the fourth quarter of 2004 were reported by banks in the October 2004 survey.

### Loans to households for consumer credit and other lending

**Credit standards** on loans to households for consumer credit shifted from a slight net tightening in the second quarter of 2004 to a net easing in the third quarter (see Chart D, first panel). This is the first time since the first bank lending survey of January 2003 that a net easing of credit standards for consumer credit and other lending to households has been reported. Better expectations regarding general economic activity as well as increased competition from other banks were the main factors contributing to a net easing of credit standards in the third quarter of 2004 (see Chart D, fourth and fifth panels). There was also a more positive assessment from reporting banks regarding the creditworthiness of consumers.

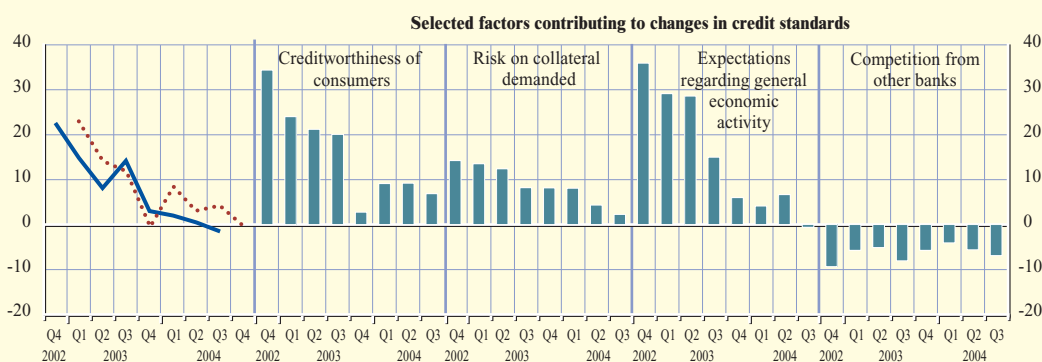
**Loan demand:** Net demand for consumer credit and other lending to households remained broadly unchanged from the two preceding quarters (see Chart B, third panel). Banks reported that consumer confidence and net spending on durable consumer goods contributed negatively to net demand for consumer credit.

**Expectations:** For the fourth quarter of 2004, banks expect credit standards similar to those in the previous quarter (see Chart D, first panel). The reporting banks also predict a significant increase in net demand for consumer credit over the next three months (see Chart B, third panel).

**Chart D Changes in credit standards applied to the approval of loans to households for consumer credit and other lending**

(net percentages)

— realised  
•••• expected



Notes: The net percentages refer to the difference between the sum of the percentages for “tightened considerably” and “tightened somewhat” and the sum of the percentages for “eased somewhat” and “eased considerably”. The net percentages for the questions related to the factors are defined as the difference between the percentage of banks reporting that the given factor contributed to tightening and to easing. “Realised” values refer to the period in which the survey was conducted. “Expected” values are the net percentages calculated from the responses given by the banks in the previous survey. For instance, “expected” values for the fourth quarter of 2004 were reported by banks in the October 2004 survey.

## 2.2 SECURITIES ISSUANCE

The annual rate of growth of debt securities issued by euro area residents increased slightly between July and August 2004. The increase in overall net issuance was driven mainly by the MFIs and by the government sector. In the same period, the annual growth rate of quoted shares issued by euro area residents remained at the subdued level observed over the past two years.

### DEBT SECURITIES

The annual rate of growth of debt securities issued by euro area residents increased slightly to 7.6% in August 2004 (see Chart 5), from 7.4% in July. The annual growth of short-term debt securities issuance continued to be moderate, although it was slightly higher than in July, standing at 4.8% in August. At the same time, the annual rate of growth of long-term debt securities issuance remained robust at 7.9%.

Turning to the sectoral breakdown, the annual growth rate of debt securities issued by MFIs increased slightly to 8.9% in August 2004 (see Table 3). MFIs’ debt securities issuance thus continued at a robust pace, which may reflect the improved financing conditions for MFIs, as illustrated by indicators pointing to low credit risk in this sector, for example, as well as an increasing need to fund the higher growth of loans observed in recent months.

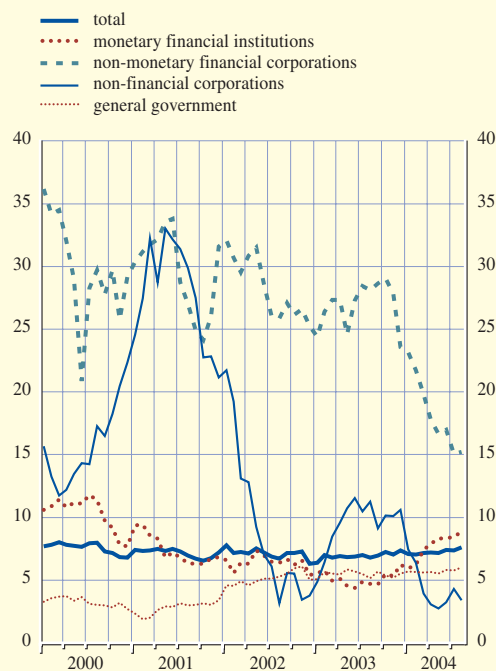
The annual growth rate of debt securities issued by the non-MFI corporate sector, which includes non-monetary financial corporations and non-financial corporations, decreased slightly by 0.4 percentage point to 9.6% in August 2004. Underlying this decline was a decrease in the annual growth of debt securities issued by non-financial corporations to 3.4% in August, from 4.3% in the month before. This decline was probably due to a stronger than normal seasonal decline of

securities issuance in August. The continued low rate of growth of debt securities issued by non-financial corporations most likely also reflects increased internal financing and low overall financing needs because of relatively weak fixed investment. These results were confirmed by the October 2004 bank lending survey for the euro area (see Box 2).

Regarding the government sector, the annual growth rate of debt securities issued by the general government increased to 6.0% in August 2004, from 5.7% in July. Underlying this increase was a stronger net issuance of debt securities by both the central government and other general government. The annual growth rate of debt securities issued by the central government sector stood at 5.5% in August, slightly higher than in July. As seen in the months before, net issuance of long-term securities by the central government was higher than its net issuance of short-term securities. The annual growth rate of debt securities issued by other parts of general government increased to 16.9% in August, compared with 16.0% in the previous month.

**Chart 5 Sectoral breakdown of debt securities issued by euro area residents**

(annual growth rates)



Source: ECB.  
Note: Growth rates are calculated on the basis of financial transactions.

**Table 3 Securities issued by euro area residents**

Issuing sector	Amount outstanding, (EUR billions) 2004 Q2	Annual growth rates <sup>1)</sup>					
		2003 Q3	2003 Q4	2004 Q1	2004 Q2	2004 July	2004 Aug.
<b>Debt securities:</b>	<b>9,161</b>	<b>6.9</b>	<b>7.1</b>	<b>7.1</b>	<b>7.2</b>	<b>7.4</b>	<b>7.6</b>
MFIs	3,477	4.7	5.4	6.3	8.0	8.4	8.9
Non-monetary financial corporations	721	28.2	27.6	22.2	17.6	15.1	15.2
Non-financial corporations	589	10.7	10.0	7.0	3.1	4.3	3.4
General government	4,373	5.4	5.4	5.6	5.6	5.7	6.0
<i>of which:</i>							
Central government	4,135	4.7	4.6	4.9	5.0	5.2	5.5
Other general government	238	22.8	22.4	21.4	18.4	16.0	16.9
<b>Quoted shares:</b>	<b>3,790</b>	<b>1.1</b>	<b>1.1</b>	<b>1.3</b>	<b>1.1</b>	<b>0.9</b>	<b>0.9</b>
MFIs	582	0.8	1.3	1.9	2.3	1.8	1.4
Non-monetary financial corporations	362	2.1	2.4	3.1	1.7	1.9	1.6
Non-financial corporations	2,846	1.0	0.9	0.9	0.8	0.6	0.7

Source: ECB.

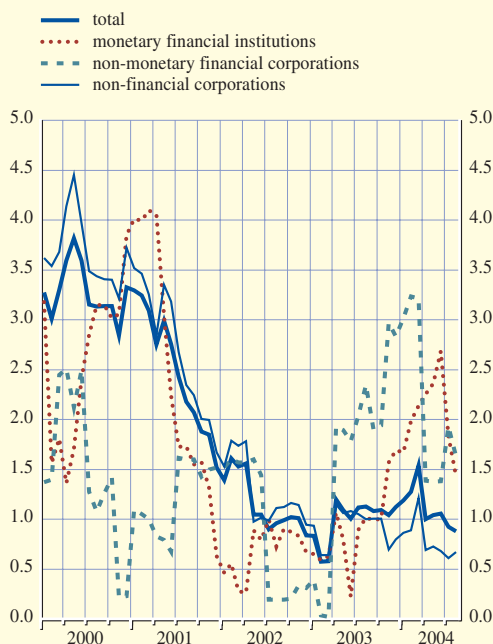
1) For details, see the Technical notes for Tables 4.3 and 4.4 of the "Euro area statistics" section.

## QUOTED SHARES

The annual growth rate of quoted shares issued by euro area residents remained unchanged at 0.9% in August 2004 (see Chart 6 and Table 3). Underlying this development was a slight increase in net quoted shares issued by non-financial corporations and a decline in net issuance by MFIs. The annual growth rate of quoted shares issued by non-financial corporations stood at 0.7% in August, compared with 0.6% in the month before, whereas the annual growth rate of quoted shares issued by MFIs decreased by 0.4 percentage point to 1.4% in August. Finally, the annual growth rate of quoted shares issued by non-monetary financial corporations (including insurance corporations) declined somewhat to 1.6% in August. The subdued overall activity in the primary equity market in recent quarters may reflect both perceived weak investor demand and the currently limited financing needs of the corporate sector in an environment where the cost of equity may still be seen by issuing companies as being relatively high.

Chart 6 Sectoral breakdown of quoted shares issued by euro area residents

(annual growth rates)



Source: ECB.

Note: Growth rates are calculated on the basis of financial transactions.

## 2.3 MONEY MARKET INTEREST RATES

*In October long-term money market interest rates decreased slightly while short-term rates remained broadly stable. As a result, the money market yield curve has flattened since the end of September.*

After increasing at the beginning of September, long-term money market interest rates decreased slightly in October (see Chart 7). On 3 November twelve-month money market rates were 8 basis points lower than at the end of September 2004. By contrast, interest rates at the very short end of the money market yield curve remained stable, in line with key ECB interest rates (see Chart 8). Consequently, the slope of the money market yield curve has flattened significantly since the end of September. The spread between the twelve-month and the one-month EURIBOR was 22 basis points on 3 November.

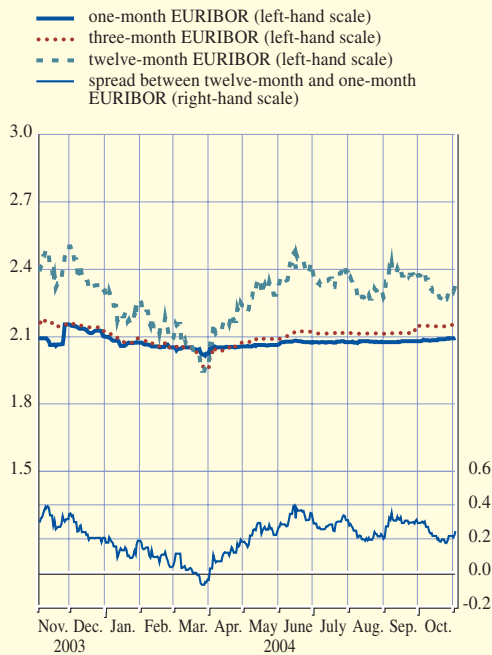
In October market participants' expectations of short-term interest rates for the coming months decreased. The rates implied by the prices of three-month EURIBOR futures contracts maturing in December 2004 and March and June 2005 fell by between 5 and 15 basis points between the end of September and 3 November.

Liquidity conditions and interest rates at the shortest maturity were relatively stable between the end of September and 3 November. The marginal and weighted average rates in the Eurosystem's main refinancing operations in October both remained just above the minimum bid rate of 2.00%



**Chart 7 Short-term market interest rates**

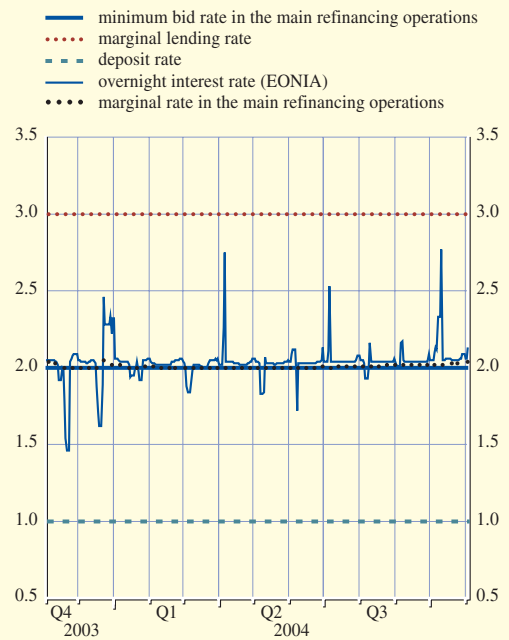
(percentages per annum; percentage points; daily data)



Source: Reuters.

**Chart 8 ECB interest rates and the overnight interest rate**

(percentages per annum; daily data)



Sources: ECB and Reuters.

throughout the month. The EONIA stood at around 2.04% for most of the month, except during the last week of the reserve maintenance period ending on 11 October. It rose during this week, standing at 2.77% on 11 October. This took place in a context of tight liquidity conditions at the end of the reserve maintenance period on account of changes in autonomous liquidity factors, which could not be foreseen by the Eurosystem at the time of its last main refinancing allotment decision in the reserve maintenance period. In the Eurosystem's longer-term refinancing operation settled on 28 October, the marginal and weighted average interest rates stood at 2.10% and 2.11%, respectively 5 and 4 basis points below the three-month EURIBOR prevailing at that time.

## 2.4 BOND MARKETS

*In October 2004 long-term government bond yields decreased slightly in both the euro area and the United States. This seems partly to reflect less optimistic expectations among market participants concerning the outlook for economic growth. Implied bond market volatility, an indicator of market participants' uncertainty regarding the future development of bond yields, remained broadly unchanged in both the euro area and the United States.*

### UNITED STATES

In the United States, long-term nominal bond yields decreased by around 5 basis points between the end of September and 3 November 2004, to stand at close to 4.1% (see Chart 9).

While US real GDP data for the second quarter of 2004 were better than expected by the market, thereby giving some support to bond yields, increasing oil prices made investors reconsider their views on the future growth of the US economy to some extent and this had a countervailing effect on bond yields. Real bond yields, as measured by the yield on ten-year index-linked government bonds, decreased by around 30 basis points, confirming that revised growth expectations of investors were the main driver of the market in October. At the same time, the break-even inflation rate, measured as the difference between the yields on nominal and index-linked bonds, increased by 25 basis points between end-September and 3 November, suggesting that some market concerns about increasing inflationary pressures in the future may have emerged.

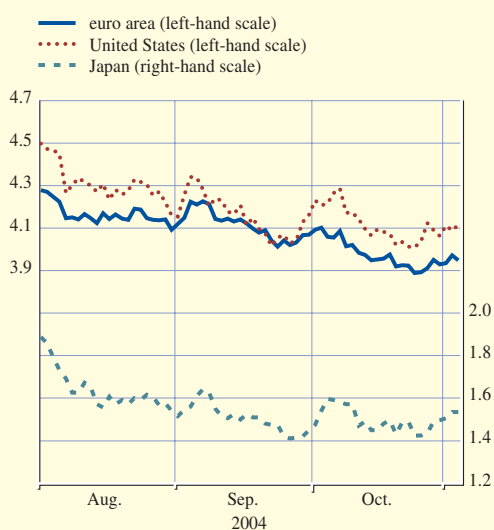
Market participants' uncertainty regarding future developments in long-term bond yields in the United States, as measured by implied bond market volatility, remained almost unchanged in October, to stand at a level somewhat below its average since 1999 (see Chart 10).

## JAPAN

Long-term government bond yields in Japan increased by around 10 basis points between end-September and 3 November 2004, standing at 1.5% on the latter date. On the one hand, bond yields were supported by a number of economic data releases that were better than expected by the

Chart 9 Long-term government bond yields

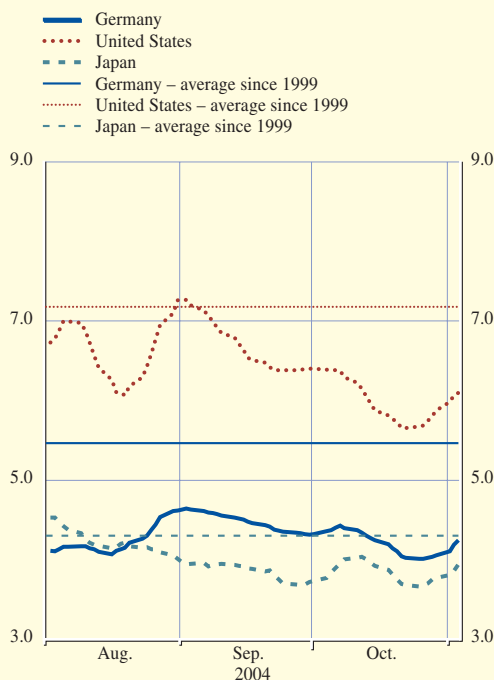
(percentages per annum; daily data)



Sources: Reuters and Thomson Financial Datastream.  
Note: Long-term government bond yields refer to ten-year bonds or to the closest available bond maturity.

Chart 10 Implied bond market volatility

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



Source: Bloomberg.  
Note: The implied volatility series represents the nearby implied volatility 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 contracts used to obtain the implied volatility is made, from the contract closest to maturity to the next contract.

market. In addition, bond yields increased against the background of public statements by the Bank of Japan stressing that “there is a possibility that core consumer prices will show a stable gain in the next fiscal year or a bit later.” On the other hand, the fact that the high level of oil prices was perceived by market participants to affect Japanese exporters, and thus economic activity, had a countervailing effect on bond yields.

Market participants’ uncertainty about the future development of bond yields, as measured by implied bond market volatility, remained broadly unchanged at a level in October which was close to its historical average since 1999.

### EURO AREA

In the euro area, long-term government bond yields declined slightly by around 10 basis points between end-September and 3 November 2004. On the latter date they stood at around 3.9%, bringing the differential between yields in the United States and in the euro area to around 20 basis points.

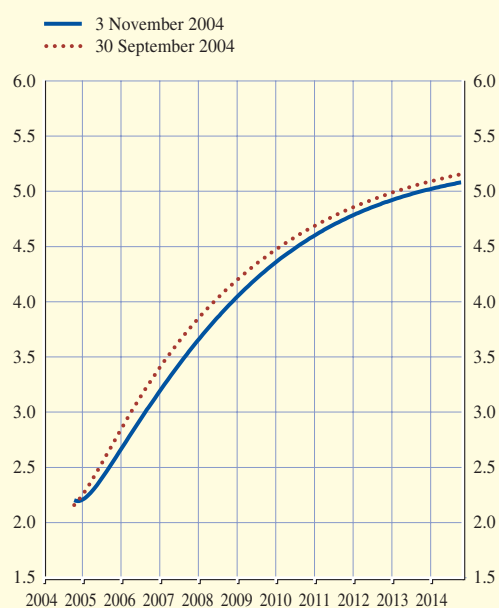
The decline in government bond yields in the euro area seemed to result from a slight readjustment of market participants’ expectations regarding the global growth outlook amid persistently high oil prices. The decline in yields occurred across the entire maturity spectrum of the implied forward overnight interest rate curve (see Chart 11).

As in the United States, the reduction in nominal long-term bond yields in the euro area was accompanied by a decrease in real bond yields. The yield on ten-year index-linked government bonds declined by around 15 basis points between end-September and 3 November 2004. At the same time, and in contrast to the United States, the ten-year break-even inflation rate derived from the difference between the yields on ten-year nominal and index-linked government bonds (indexed to the euro area HICP excluding tobacco) – which reflects, among other things, market participants’ long-term inflation expectations – remained almost unchanged over the same period. On 3 November the break-even inflation rate in the euro area stood at 2.2%. Although the level of this indicator should be interpreted with some caution, given that various risk premia may distort it, it should be noted that it is relatively high when compared with the average of the last few years.

The degree of uncertainty prevailing in the euro area bond markets, as measured by the implied bond market volatility, remained broadly unchanged in October 2004, at a level somewhat below its average since 1999.

**Chart 11 Implied forward euro area overnight interest rates**

(percentages per annum; daily data)



Source: ECB estimate.

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

## 2.5 INTEREST RATES ON LOANS AND DEPOSITS

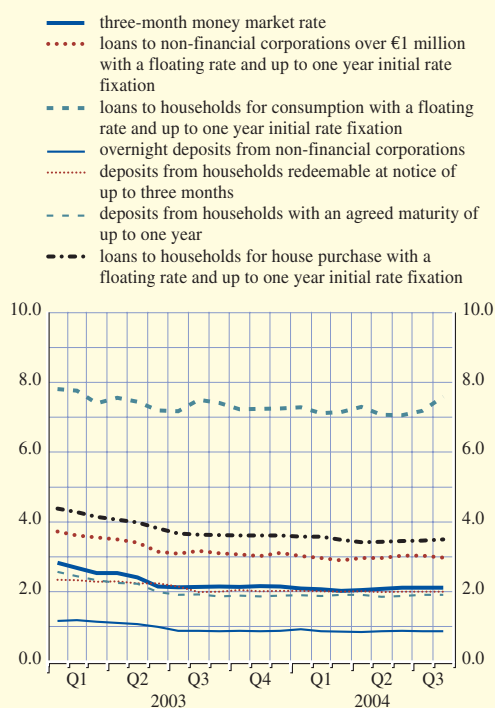
Most MFI interest rates on new business remained broadly unchanged in August 2004.

Most short-term MFI interest rates on new business remained broadly unchanged in August 2004 (see Charts 12 and 13 and Table 4). An exception was the short-term rate on loans to households for consumption, which increased by some 40 basis points. This increase seemed to be due mainly to a shift of new business towards the relatively expensive credit card financing of consumption in a few countries.

Taking a somewhat longer perspective, short-term MFI interest rates on deposits remained virtually unchanged in the first eight months of 2004, whereas most comparable rates on loans declined slightly. Between December 2003 and August 2004, for example, short-term rates on deposits from households and short-term rates on time deposits from non-financial corporations were basically unchanged. In the same period, short-term rates on loans to households for house

**Chart 12 Short-term MFI interest rates and a short-term market rate**

(percentages per annum; rates on new business; weight-adjusted<sup>1)</sup>)

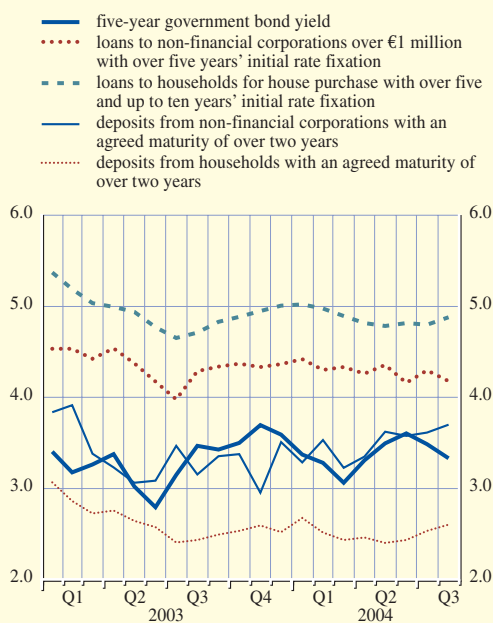


Source: ECB.

1) For the period from December 2003 onwards, the weight-adjusted MFI interest rates are calculated using country weights constructed from a 12-month moving average of new business volumes. For the preceding period, from January to November 2003, the weight-adjusted MFI interest rates are calculated using country weights constructed from the average of new business volumes in 2003. For further information, see the box entitled "Analysing MFI interest rates at the euro area level" on pages 28-30 in the August 2004 issue of the Monthly Bulletin.

**Chart 13 Long-term MFI interest rates and a long-term market rate**

(percentages per annum; rates on new business; weight-adjusted<sup>1)</sup>)



Source: ECB.

1) For the period from December 2003 onwards, the weight-adjusted MFI interest rates are calculated using country weights constructed from a 12-month moving average of new business volumes. For the preceding period, from January to November 2003, the weight-adjusted MFI interest rates are calculated using country weights constructed from the average of new business volumes in 2003. For further information, see the box entitled "Analysing MFI interest rates at the euro area level" on pages 28-30 in the August 2004 issue of the Monthly Bulletin.

purchase declined by around 10 basis points. While short-term interest rates on small loans (up to €1 million) to non-financial corporations have remained unchanged since December 2003, short-term rates on large loans (over €1 million) also declined by around 10 basis points. By comparison, the three-month money market rate declined by, all in all, 4 basis points in the current year up to August.

Most long-term MFI interest rates remained broadly unchanged in August 2004. Only the long-term rates on large loans (over €1 million) to non-financial corporations declined by more than 10 basis points. Looking at a longer time horizon, most long-term rates declined somewhat between December 2003 and August 2004, which was in line with comparable market rates (e.g. the five-year government bond yield declined by 26 basis points). Long-term MFI interest rates on large loans (over €1 million) declined by about 20 basis points in the same period, while MFI interest rates on small loans (up to €1 million) declined considerable less, by about 5 basis points. The pass-through

**Table 4 MFI interest rates on new business**

(percentages per annum; basis points; weight-adjusted<sup>1)</sup>)

							Change in basis points up to Aug. 2004			
	2004 Mar.	2004 Apr.	2004 May	2004 June	2004 July	2004 Aug.	2003 Jan.	2003 Dec.	2004 May	2004 July
<b>MFI interest rates on deposits</b>										
Deposits from households										
with an agreed maturity of up to one year	1.91	1.91	1.86	1.88	1.91	1.92	-65	3	6	1
with an agreed maturity of over two years	2.44	2.46	2.40	2.43	2.53	2.60	-47	8	20	7
redeemable at notice of up to three months	2.00	2.01	2.00	2.00	2.00	2.00	-34	-2	0	0
redeemable at notice of over three months	2.59	2.57	2.55	2.54	2.54	2.53	-75	-15	-2	-1
Overnight deposits from non-financial corporations										
with an agreed maturity of up to one year	1.96	1.97	1.96	1.99	1.99	1.98	-73	-2	2	-1
with an agreed maturity of over two years	3.23	3.35	3.62	3.58	3.61	3.70	-14	19	8	9
<b>MFI interest rates on loans</b>										
Loans to households for consumption										
with a floating rate and an initial rate fixation of up to one year	7.15	7.29	7.07	7.06	7.18	7.60	-20	34	53	42
Loans to households for house purchase										
with a floating rate and an initial rate fixation of up to one year	3.49	3.42	3.43	3.45	3.46	3.49	-89	-12	6	3
with an initial rate fixation of over five and up to ten years	4.89	4.82	4.78	4.81	4.80	4.88	-49	-13	10	8
Bank overdrafts to non-financial corporations										
	5.56	5.52	5.46	5.44	5.37	5.39	-81	-19	-7	2
Loans up to €1 million to non-financial corporations										
with a floating rate and an initial rate fixation of up to one year	3.98	3.94	3.96	3.96	4.02	4.03	-86	0	7	1
with an initial rate fixation of over five years	4.80	4.70	4.63	4.72	4.68	4.71	-46	-6	8	3
Loans over €1 million to non-financial corporations										
with a floating rate and an initial rate fixation of up to one year	2.90	2.97	2.96	3.03	3.03	2.98	-74	-13	2	-5
with an initial rate fixation of over five years	4.33	4.26	4.36	4.16	4.30	4.18	-36	-18	-18	-12
<b>Memo items</b>										
Three-month money market interest rate	2.03	2.05	2.09	2.11	2.12	2.11	-72	-4	2	-1
Two-year government bond yield	2.16	2.39	2.55	2.74	2.70	2.53	-11	-5	-2	-17
Five-year government bond yield	3.06	3.31	3.50	3.60	3.49	3.33	-7	-26	-17	-16

Source: ECB.

1) For the period from December 2003 onwards, the weight-adjusted MFI interest rates are calculated using country weights constructed from a 12-month moving average of new business volumes. For the preceding period, from January to November 2003, the weight-adjusted MFI interest rates are calculated using country weights constructed from the average of new business volumes in 2003. For further information, see the box entitled "Analysing MFI interest rates at the euro area level" on pages 28-30 in the August 2004 issue of the Monthly Bulletin.

from market rates to comparable bank rates thus far this year seems to have been stronger for larger loans than for smaller ones, even though it has generally remained relatively sluggish, as observed in the past.

## 2.6 EQUITY MARKETS

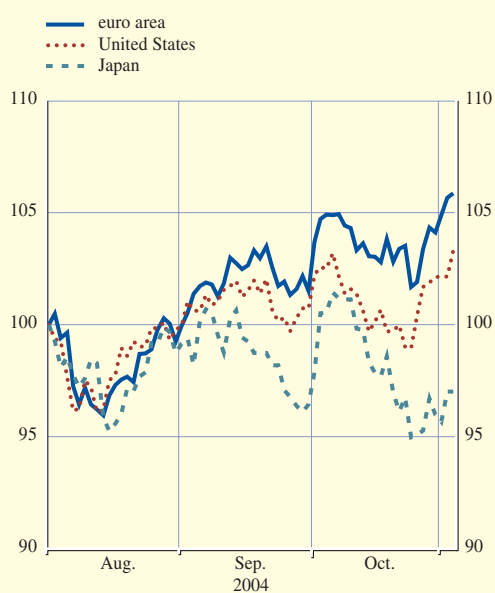
Stock prices in both the euro area and the United States increased slightly in October 2004. Stock prices were supported by positive data releases concerning corporate profitability and by the fall in long-term interest rates, while the increase in oil prices weighed negatively on stock markets. At the same time, implied stock market volatility increased slightly, but nevertheless remained at a low level.

### UNITED STATES

Between the end of September and 3 November 2004 the broad-based Standard & Poor's 500 index increased by around 2% (see Chart 14). Several countervailing factors seem to have played a role in determining these developments in stock prices. On the one hand, persistently high oil prices exerted downward pressure on stock prices. On the other hand, positive corporate earnings releases supported stock prices. The low and declining levels of government bond yields also had

Chart 14 Stock price indices

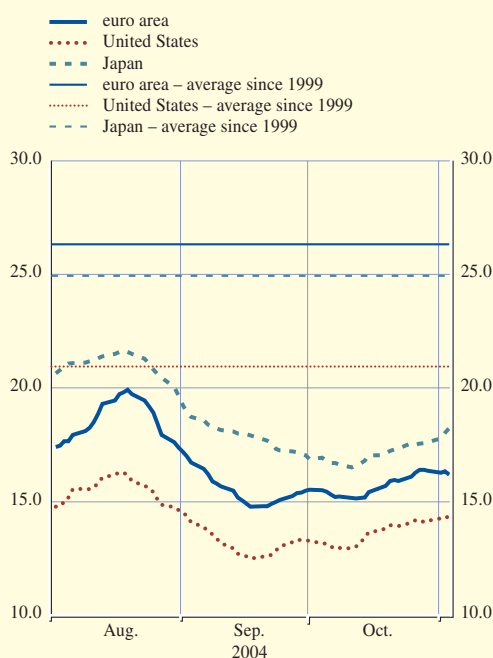
(index: 1 August 2004 = 100; daily data)



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

Chart 15 Implied stock market volatility

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



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

a positive impact on stock prices. The sector showing the most significant overall increase in October was the technology sector, which benefited from favourable corporate earnings announcements.

Uncertainty in the US stock market, as measured by the implied volatility derived from options on the Standard & Poor's 500 index, increased slightly between the end of September and 3 November 2004, but remained at levels well below its average since 1999 (see Chart 15 and Box 3 entitled "Recent trends in implied stock market volatility").

### **JAPAN**

In Japan stock prices, as measured by the Nikkei 225 index, underwent some fluctuations in October, but – all in all – increased slightly by around 1% between end-September and 3 November 2004. On the one hand, stock prices were supported by a number of indications of an improved medium-term economic outlook as perceived by market participants. On the other hand, the continued high level of oil prices raised investors' concerns about the global economic outlook and the possible adverse effects on Japanese exports, which had thus far been the main contributor to the economic recovery there.

The implied volatility extracted from options on the Nikkei 225 index, a measure of uncertainty in the Japanese stock market, increased slightly between end-September and 3 November, but remained at a level on the latter date that was well below its historical average since 1999.

### **EURO AREA**

In the euro area stock prices increased by around 4% between the end of September and 3 November 2004. The upward revision of corporate earnings expectations for the forthcoming quarters as well as positive actual earnings releases supported stock prices. This seemed to offset the negative impact that rising oil prices had, via their perceived effects, on input costs, business profits and, more generally, market participants' perception of the economic outlook.

The increase in stock prices in the euro area was broadly based as stock prices increased in almost all sectors of the Dow Jones EURO STOXX index. At the same time, the technology sector recorded the most significant gains. Stocks in this sector, which tend to be highly volatile and had performed relatively poorly in the previous month, were affected positively by better than expected corporate earnings releases.

Stock market uncertainty in the euro area, as indicated by the implied stock market volatility extracted from options on the Dow Jones EURO STOXX 50 index, increased slightly between end-September and 3 November, but remained well below its historical average since 1999.

## Box 3

## RECENT TRENDS IN IMPLIED STOCK MARKET VOLATILITY

Implied volatility in the stock markets, which is a measure of market participants' expected near-term stock price volatility extracted from option prices, has fallen steadily across the globe over the past one-and-a-half years, to levels significantly below those recorded in recent years. Some concerns have been raised that current levels may even have become too low. This box investigates this issue based on data for the US stock market, but the conclusions drawn are likely to be broadly similar for stock markets in other major economies as well.

Chart A shows the implied volatility of the Standard & Poor's 500 index, as measured by the VIX index (the Chicago Board Options Exchange Volatility Index),<sup>1</sup> at the end of each month since January 1990, together with the realised stock price volatility for the following month calculated as the monthly standard deviation of daily percentage stock price changes. The monthly window for the calculation of realised volatility is in line with the time to expiration of the options used to calculate implied volatility. Comparing the two series may therefore provide indications as to whether and to what extent market participants' expected volatility deviated from the actual outcome in each month.

As can be seen from Chart A, implied and realised volatility show a rather high degree of co-movement. In particular, in periods when implied volatility is high, realised volatility tends to be high as well, and vice versa.<sup>2</sup>

If implied volatility is an efficient or rational expectation of the realised volatility over the coming month, then the difference between the two should be purely random. This would mean that the ex post expectation errors made by market participants are not systematic. Conversely, any systematic pattern in the deviations of expected volatility from realised volatility, e.g. a relatively long series of expectation errors of the same sign, could indicate a pricing anomaly. The difference between implied and realised volatility for the Standard & Poor's 500 index is also shown in Chart A. As is evident from the chart, the only period where expected and realised volatility differed substantially over an extended period of time is from March to October 2002. During this period, implied volatility under-predicted realised volatility quite significantly owing to some unexpected major market events such as the revelation of a series of corporate accounting scandals in the United States.

With respect to the present situation, however, there are no signs that implied volatility has systematically under-predicted realised volatility, as should happen if implied volatility were to be driven down by factors other than market participants' expected volatility. Instead, it appears that implied volatility has declined mainly because market participants observed a decline in realised volatility over previous months.

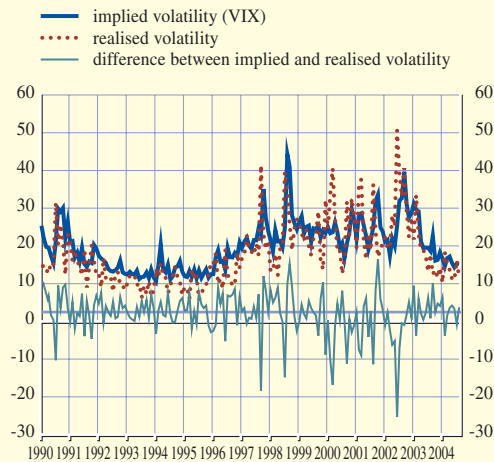
1 For a description of this index and the recently implemented methodological changes, see the corresponding White Paper by the Chicago Board Options Exchange (<http://www.cboe.com/micro/vix/vixwhite.pdf>).

2 The VIX tends, on average, to be slightly higher than realised volatility, probably reflecting several measurement biases in the two series. For a discussion of these biases, see B. J. Christensen and N. R. Prabhala (1998), "The relation between implied and realized volatility", *Journal of Financial Economics*, 50, pp. 125-50.



**Chart A Implied and realised volatility for the Standard & Poor's 500 index**

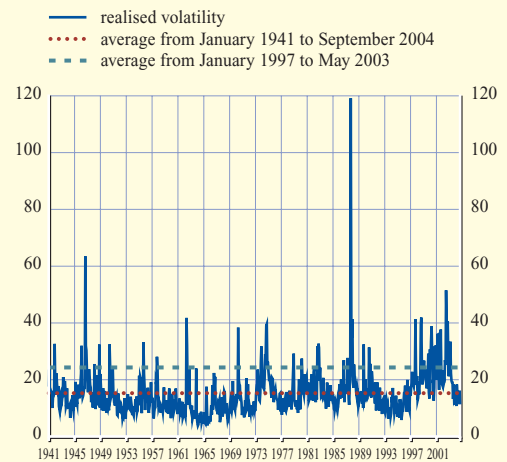
(percentages per annum)



Sources: Chicago Board Options Exchange, Bloomberg and ECB calculations.  
 Note: The straight line shows the average spread in the difference between implied and realised volatility.

**Chart B Realised volatility for the Standard & Poor's 500 index**

(percentages per annum)



Sources: Bloomberg and ECB calculations.  
 Note: The realised volatility is calculated as the annualised standard deviation of daily percentage stock price changes in each month.

Chart B puts the present situation in a historical context by showing realised volatility in the US stock market since 1941. The chart clearly indicates that in a longer-term perspective, today's level of stock market uncertainty is not historically low. Also evident from the chart is that the period from 1997 to mid-2003 was very volatile. This was quite a long episode of market turbulence starting with the financial turmoil resulting from the Asian and Russian crises in 1997-98, and fuelled further by the bursting of the presumed IT stock market bubble, a number of corporate accounting scandals and increased geopolitical tensions, amongst other things.

Hence, the uncertainties of market participants related to the past crisis-like events may at last have abated. The absence of any further major market disruptions over the past year or so has apparently made market participants confident of more stable stock market conditions, bringing expected and realised volatility back to levels more in line with historical averages.

## 3 PRICES AND COSTS

According to Eurostat's flash estimate, euro area HICP inflation increased in October 2004, to 2.5%, after having declined by 0.2 percentage point between August and September. The decline in September was mainly due to food price developments, while the increase in October appears to reflect higher energy price inflation. At an earlier stage of the production chain, some upward pressure on producer prices is expected to continue on account of higher commodity prices. The latest data on labour cost developments confirm the view that annual wage growth in the euro area remained moderate in the first half of 2004. Looking ahead, although it is likely that annual inflation rates will remain at levels significantly above 2% in the coming months, there is little indication as yet that medium-term inflationary pressures are building up.

### 3.1 CONSUMER PRICES

#### FLASH ESTIMATE FOR OCTOBER 2004

According to Eurostat's flash estimate, euro area HICP inflation increased to 2.5% in October 2004, from 2.1% in the previous month (see Table 5). Although no detailed breakdown is currently available, it appears that the annual rate of change in energy prices has risen significantly again after having shown a slight decline in September. There is some uncertainty surrounding this estimate, given the preliminary nature of the data.

#### HICP INFLATION IN SEPTEMBER 2004

HICP inflation in the euro area declined to 2.1% in September 2004, i.e. 0.2 percentage point lower than in August. This outcome was 0.1 percentage point lower than Eurostat's flash estimate. Most of the components, and in particular food, contributed to the decline in inflation. The year-on-year rate of change in the HICP excluding unprocessed food and energy declined by 0.1 percentage point to stand at 2.1% in September 2004.

The year-on-year rate of change in unprocessed food prices declined to -1.5% in September 2004 from -0.2% in August (see Chart 16). This mainly reflected a strong base effect from last year's fresh food price increases triggered by the unusually hot summer weather and droughts in the euro area. By contrast, ample supply conditions in the wake of this summer's favourable weather

Table 5 Price developments

(annual percentage changes, unless otherwise indicated)

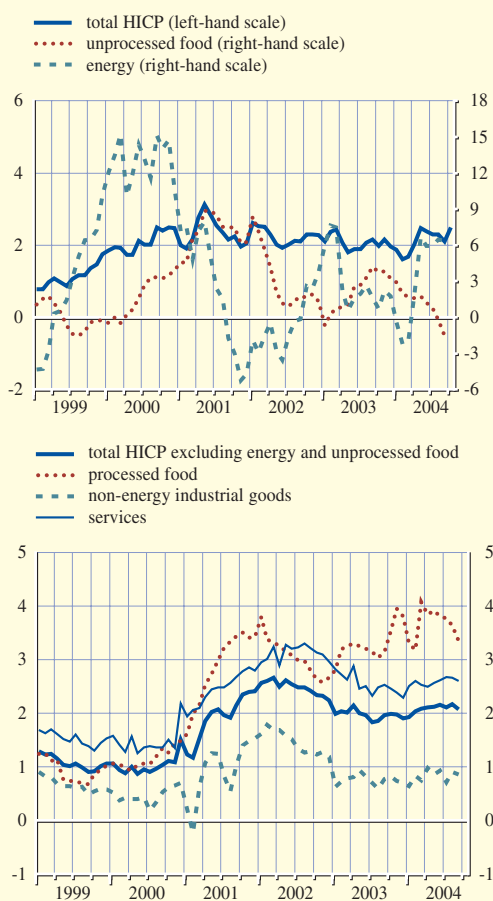
	2002	2003	2004 May	2004 June	2004 July	2004 Aug.	2004 Sep.	2004 Oct.
<b>HICP and its components</b>								
Overall index <sup>1)</sup>	2.3	2.1	2.5	2.4	2.3	2.3	2.1	2.5
Energy	-0.6	3.0	6.7	5.9	5.9	6.5	6.4	.
Unprocessed food	3.1	2.1	1.7	1.2	0.7	-0.2	-1.5	.
Processed food	3.1	3.3	3.9	3.8	3.8	3.6	3.4	.
Non-energy industrial goods	1.5	0.8	0.9	0.9	0.7	0.9	0.9	.
Services	3.1	2.5	2.6	2.6	2.7	2.7	2.6	.
<b>Other price indicators</b>								
Industrial producer prices	-0.1	1.4	2.4	2.4	2.9	3.1	.	.
Oil prices (EUR per barrel)	26.5	25.1	30.9	29.3	30.7	34.1	35.0	39.4
Non-energy commodity prices	-0.9	-4.5	21.1	21.9	18.0	11.0	6.9	3.7

Sources: Eurostat, Thomson Financial Datastream and HWWA.

1) HICP inflation in October 2004 refers to Eurostat's flash estimate.

**Chart 16 Breakdown of HICP inflation: main sub-components**

(annual percentage changes; monthly data)



Source: Eurostat.

conditions lowered prices in September – notably for vegetables. The year-on-year rate of change in energy prices edged down by 0.1 percentage point to 6.4% between August and September. The main factor behind this slight moderation was a decline in the price of fuels for personal transportation.

The decline in annual HICP inflation excluding unprocessed food and energy reflected lower year-on-year rates of change for processed food and services prices. At the same time, the year-on-year rate of change for non-energy industrial goods remained unchanged at 0.9%, masking the fact that higher annual price increases for motor cars were offset by lower price increases for garments. The year-on-year rate of change in processed food prices declined to 3.4% in September from 3.6% in August. If tobacco were excluded, the year-on-year rate of increase in this component would be significantly lower – at around 1%. The year-on-year rate of change in services prices also declined in September, to 2.6%, from 2.7% in the previous month. This decline was mainly explained by a drop in the annual rate of change in prices of package holidays.

### 3.2 PRODUCER PRICES

Overall, the data on price developments at earlier stages of the production chain point to some pipeline pressures. The yearly change in

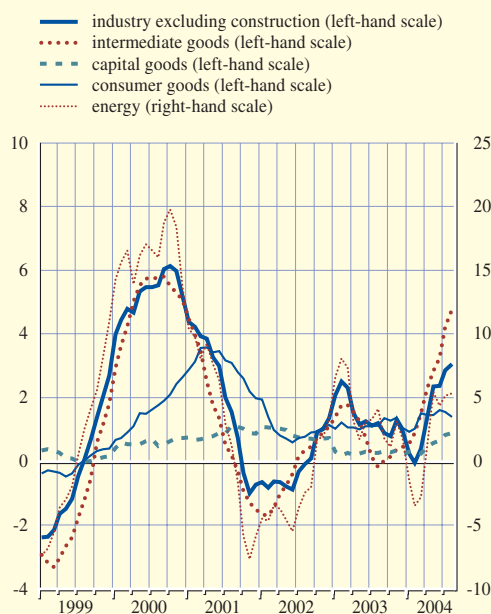
the overall PPI excluding construction was 3.1 percentage points higher in August 2004 than in February this year, when the latest upward movement started (see Chart 17). Over this period, energy prices contributed most to the increase in PPI inflation, with approximately 1.6 percentage points. The contribution from intermediate goods prices was 1.3 percentage points over the same period. Hence, the increase in PPI inflation in the course of this year is almost entirely explained by developments in these two components.

In August 2004 the year-on-year rate of change in the overall PPI excluding construction increased to 3.1%, from 2.9% in July, thereby reaching its highest level since May 2001. The rise in PPI inflation reflected further increases in the year-on-year rates of change in intermediate, energy and – to a lesser extent – capital goods prices. At the same time, the year-on-year rate of change in consumer goods prices declined. The annual rate of change in the PPI excluding construction and energy stood at 2.3% in August, up from 2.2% in July.

Survey data on input prices suggest that further increases in producer prices can be expected for September and October 2004. The manufacturing sector Eurozone Input Price Index from the Purchasing Managers' Survey increased further in October, reaching its highest level since early 2000. In addition to higher energy prices, respondents reported upward price pressures on many other inputs, notably steel products. Meanwhile, the index for prices charged by manufacturers also rose in October, to its highest level since the data were first collected in 2002. In the services sector, the Eurozone Input Price Index rose between September and October 2004 mainly on account of rising energy prices, although some upward pressures from wages were also mentioned by respondents. At the same time, average prices charged by service providers declined marginally in October, suggesting that firms may not have passed on the higher input costs further along the production chain.

**Chart 17 Breakdown of industrial producer prices**

(annual percentage changes; monthly data)



Sources: Eurostat and ECB calculations.

### 3.3 LABOUR COST INDICATORS

Available indicators of labour cost developments support the view that annual wage growth in the euro area remained moderate in the second quarter of 2004 (see Chart 18). The annual rate of change of both compensation per employee and the hourly labour cost index was 2.1% in the second quarter of 2004, which is unchanged and 0.6 percentage point lower, respectively, when compared with the previous quarter. At the same time, the year-on-year rate of change in the index of negotiated wages stood at 2.2%, down by 0.1 percentage point from the first quarter (see Table 6).

A sectoral breakdown of compensation per employee shows that decreases in annual wage growth in the industry and construction sectors were counterbalanced by an increase in the annual rate of

**Table 6 Labour cost indicators**

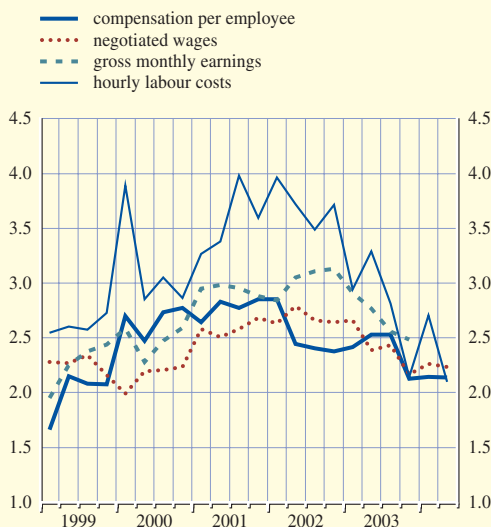
(annual percentage changes, unless otherwise indicated)

	2002	2003	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2
Negotiated wages	2.7	2.4	2.4	2.4	2.2	2.3	2.2
Total hourly labour costs	3.7	2.8	3.3	2.8	2.1	2.7	2.1
Gross monthly earnings	3.0	2.7	2.8	2.6	2.5	.	.
Compensation per employee	2.5	2.4	2.5	2.5	2.1	2.1	2.1
<i>Memo items:</i>							
Labour productivity	0.3	0.4	0.1	0.2	0.5	1.2	1.9
Unit labour costs	2.2	2.0	2.5	2.3	1.6	1.0	0.3

Sources: Eurostat, national data and ECB calculations.

**Chart 18 Selected labour cost indicators**

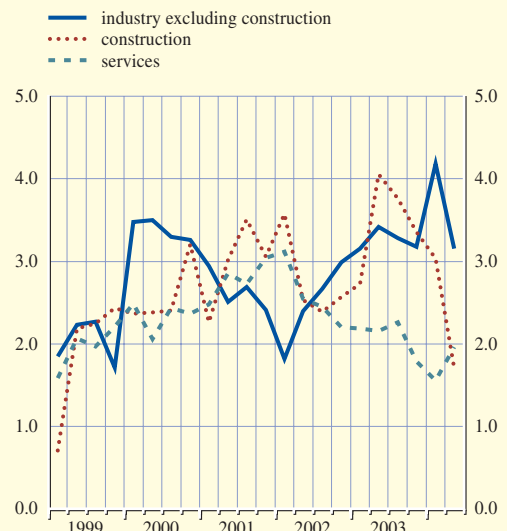
(annual percentage changes)



Sources: Eurostat, national data and ECB calculations.

**Chart 19 Sectoral compensation per employee**

(annual percentage changes; quarterly data)



Sources: Eurostat and ECB calculations.

change in the services sector (accounting for approximately 70% of total compensation) between the first and second quarters of 2004 (see Chart 19). These latest developments contrast with those since the beginning of 2002, which saw wage growth in the industry sector moving upwards while wage growth in the services sector followed a downward path. The latest increase in annual wage growth for the services sector was, however, entirely due to the non-market (public) services component, since the annual growth of wages in market-related services has declined.

Reflecting the latest developments in compensation per employee and an increase in productivity growth, the annual rate of change in unit labour costs continued to slow in the second quarter of 2004, to 0.3%, down from 1.0% in the first quarter. This represents the lowest growth rate in unit labour costs since 1999. In real terms (deflated by the HICP), annual unit labour cost growth has been negative for the last three quarters. Looking ahead, the continued existence of slack in the labour market should lead to ongoing moderate wage growth. Unit labour costs are also expected to remain subdued over the coming quarters, reflecting not only moderate wage growth but also favourable labour productivity developments.

### 3.4 THE OUTLOOK FOR INFLATION

HICP inflation is anticipated to remain significantly above 2% in the coming months as the recent increase in oil prices is expected to exert upward pressure on consumer prices. Beyond the short term, however, there is little indication as yet that medium-term inflationary pressures are building up in the euro area, a view which is supported by the latest indications from the ECB's 2004 Q4 Survey of Professional Forecasters (see Box 4). In particular, wage growth appears to remain limited, in part reflecting the lack of pressures arising from the labour market. Importantly, however, the outlook for inflation is conditional on the assumption that oil prices

will decline in line with current market expectations and that no second-round effects stemming from wage and price-setting behaviour will arise. Moreover, the impact on inflation from fiscal measures could be higher than currently assumed as renewed increases in indirect taxes and administrative prices cannot be ruled out.

**Box 4****PRIVATE SECTOR EXPECTATIONS FOR INFLATION AND ECONOMIC ACTIVITY IN THE EURO AREA: RESULTS OF THE 2004 Q4 SURVEY OF PROFESSIONAL FORECASTERS (SPF) AND OTHER AVAILABLE INDICATORS**

Between 18 and 21 October 2004 the ECB conducted its 25th Survey of Professional Forecasters (SPF). Expectations for euro area inflation, GDP growth and unemployment were gathered from a panel of experts affiliated to financial and non-financial organisations based in the EU. When considering the results reported in this box, it is important to bear in mind that, given the diversity of the panel participants, aggregate SPF results can reflect a heterogeneous set of subjective views and assumptions. Whenever possible, SPF results are compared with other available indicators of private sector expectations for the same horizons.

**Outlook for inflation remained unchanged compared with the previous SPF round**

In terms of the outlook for HICP inflation, there was little change between the latest SPF round and the one carried out in the summer. Expectations for 2004 were unchanged at 2.1% and, with the year coming to an end, the uncertainty surrounding this figure narrowed. In 2005, inflation is expected to stand at 1.9% and remain at this level in 2006. The same profile was anticipated in the previous SPF round. According to SPF participants, oil prices will be an important factor shaping the overall inflation outlook. Higher oil prices are expected to feed through to consumer prices in 2005 but to be counterbalanced by an appreciation of the euro exchange rate, a downward base effect on tobacco and health care prices, and the gradual nature of the pick-up in GDP growth. Risks of increased wage pressures via second-round effects are judged to be limited, notably in view of the ongoing subdued developments in the labour market.

Overall, SPF expectations for 2004, 2005 and 2006 are broadly in line with the figures reported in the October 2004 issues of Consensus Economics and the Euro Zone Barometer (see the table below).

SPF participants are also asked to assign a probability distribution to their forecasts. This distribution provides information on the probability, expressed as a percentage, that the actual future outcome will fall within a specific interval. The probability distribution resulting from the aggregation of responses also helps to assess how, on average, survey participants gauge the risk of the actual outcome being above or below the most likely range. Chart A shows the aggregate probability distributions assigned to average annual rates of change in the HICP in 2005 in the last three survey rounds. The distribution of probabilities points to a further upward shift in the balance of risks, with SPF respondents now seeing a 39% chance of inflation standing between 2.0% and 2.4% in 2005. The probability distribution for 2006, however, has changed little compared with the previous SPF, with only a minor rise in the risk of inflation

## Results from the SPF, Consensus Economics and Euro Zone Barometer

(annual percentage changes, unless otherwise indicated)

HICP inflation	Survey horizon					
	2004	Sep. 2005	2005	Sep. 2006	2006	Longer term <sup>2)</sup>
2004 Q4 SPF	2.1	1.8	1.9	1.8	1.9	1.9
Previous SPF (2004 Q3)	2.1	-	1.9	-	1.9	1.9
Consensus Economics (Oct. 2004)	2.1	-	1.8	-	1.9	2.0
Euro Zone Barometer (Oct. 2004)	2.1	-	1.9	-	1.9	1.9
Real GDP growth	2004	2005 Q2	2005	2006 Q2	2006	Longer term <sup>2)</sup>
2004 Q4 SPF	1.9	2.0	2.0	2.2	2.2	2.2
Previous SPF (2004 Q3)	1.8	-	2.1	-	2.3	2.3
Consensus Economics (Oct. 2004)	1.9	-	2.0	-	2.0	2.1
Euro Zone Barometer (Oct. 2004)	1.9	-	2.1	-	2.2	2.2
Unemployment rate <sup>1)</sup>	2004	Aug. 2005	2005	Aug. 2006	2006	Longer term <sup>2)</sup>
2004 Q4 SPF	9.0	8.7	8.8	8.4	8.5	7.5
Previous SPF (2004 Q3)	8.9	-	8.6	-	8.3	7.5
Consensus Economics (Oct. 2004)	9.0	-	8.8	-	-	-
Euro Zone Barometer (Oct. 2004)	9.0	-	8.8	-	8.5	7.9

1) As a percentage of the labour force.

2) In the current and the previous SPF round longer-term expectations refer to 2009. In the Euro Zone Barometer these refer to 2008. The Consensus Economics forecast refers to the period 2010-14.

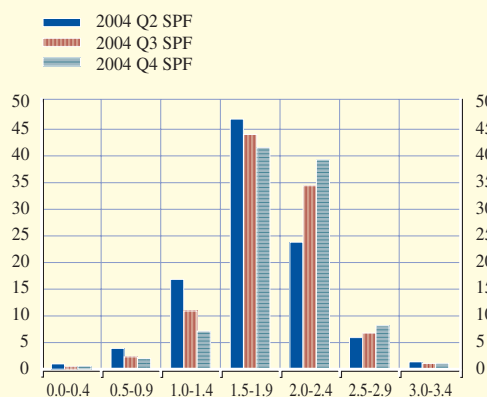
lying between 2.0% and 2.4%. The impact of geopolitical uncertainty on the inflation outlook, via oil price developments, was cited by many SPF participants as the major risk.

### Unchanged longer-term inflation expectations and no further increase in the risk assessment

Longer-term inflation expectations (i.e. five years ahead) reported by SPF participants remained at 1.9% for the 12th consecutive SPF (see Chart B). This is in line with long-term

**Chart A Probability distribution for average inflation in 2005 in the last three SPF rounds**

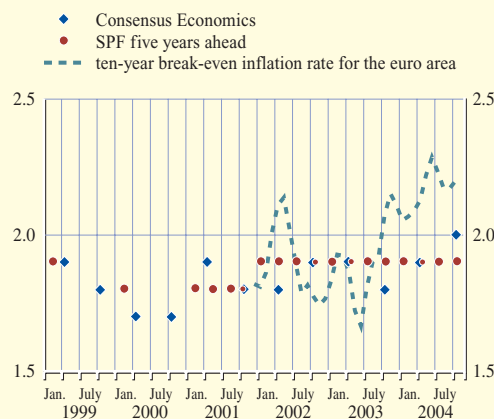
(percentages)



Sources: Eurostat, national data and ECB calculations.

**Chart B Indicators of long-term inflation expectations**

(average annual percentage changes)



Sources: French Treasury, Reuters, Consensus Economics and ECB.

inflation expectations reported in the October issue of the Euro Zone Barometer and slightly below those published in the same month by Consensus Economics, which edged up between April and October (from 1.9% to 2.0%).

Regarding indicators of inflation expectations extracted from financial instruments, the ten-year break-even inflation rate derived from French government bonds linked to the euro area HICP (excluding tobacco) remains at a relatively high level.<sup>1</sup> It should be noted, however, that break-even inflation rates are also affected by a variety of risk premia (including liquidity and inflation uncertainty premia). The hypothesis that the current level of the break-even inflation rate may partly reflect inflation uncertainty is supported by the fact that the probability that SPF participants attached to inflation being equal to or above 2% in the long term has also been at a relatively high level over the past year compared with earlier SPF rounds. It has, however, also declined since the previous round conducted in the summer.<sup>2</sup>

### **Expectations for real GDP growth and unemployment in the euro area**

In 2004 GDP growth in the euro area is expected to be 1.9%, i.e. 0.1 percentage point higher than in the previous SPF. However, the forecasts for 2005 and 2006 have been revised downwards by 0.1 percentage point each, to 2.0% and 2.2%. With GDP growth seen as being driven mainly by external demand, a deceleration in world economic expansion is thought to be a major downward risk for the years ahead and explains a large part of the downward revision to the growth outlook. On the domestic side, favourable financing conditions are expected to support an upswing in investment. However, survey participants consider that low levels of confidence and weak demand due to a lack of improvement in the labour market are clouding the prospects for growth.

The SPF growth forecasts for 2004, 2005 and 2006 are broadly similar to those published in the October issues of Euro Zone Barometer, which are 1.9% for 2004, 2.1% for 2005 and 2.2% for 2006, and Consensus Economics, which are 1.9% for 2004 and 2.0% for both 2005 and 2006 (see the table above). As for longer-term growth rates, expectations five years ahead (i.e. 2009) stand at 2.2%, 0.1 percentage point lower than in the previous SPF.

The forecasts for the unemployment rate in the euro area have been revised slightly upwards compared with the previous SPF. This reflects current developments in the unemployment rate, which has not improved as expected by forecasters in the previous round, and the downward revisions to GDP growth over the next few years. The slower decline in unemployment expected in 2005 and 2006 (from 8.8% to 8.5%) reflects the fact that GDP growth is forecast to be just in line with potential. Structural reforms and population ageing are cited as factors behind the expectation of an unemployment rate of 7.5% five years ahead, unchanged from the previous SPF.

1 It should be noted that the break-even inflation rate reflects average expected inflation over the (residual) maturity of the bonds used in its construction and is not a point estimate for a precise year (as is the case for some of the survey indicators of long-term inflation expectations). For a thorough description of the conceptual nature of the break-even inflation rate, refer to the box entitled "Deriving long-term euro area inflation expectations from index-linked bonds issued by the French Treasury" in the February 2002 issue of the ECB's Monthly Bulletin.

2 Additional data are available on the ECB's website, at [www.ecb.int/stats/prices/indic/forecast/html/index.en.html](http://www.ecb.int/stats/prices/indic/forecast/html/index.en.html)



## 4 OUTPUT, DEMAND AND THE LABOUR MARKET

The latest information on economic activity in the euro area has confirmed that the recovery continued in the first half of this year. At the sectoral level, available information points to ongoing expansion in the third quarter, although growth in the industrial sector may have moderated compared with the second quarter. Survey data also point to ongoing growth in the second half of the year, although mixed indications give rise to some uncertainty as regards its pace. On the expenditure side, household spending indicators for the third quarter suggest that private consumption is unlikely to have strengthened compared with the second quarter. Labour market conditions remain broadly unchanged. Looking ahead, while some risks to the outlook for real GDP growth exist, the basic determinants for continuing growth in 2005 remain favourable.

### 4.1 OUTPUT AND DEMAND DEVELOPMENTS

#### REAL GDP AND EXPENDITURE COMPONENTS

The second estimate of national accounts data for the second quarter of 2004 was unchanged compared with the first estimate, showing real GDP growth at 0.5% quarter on quarter and confirming that the recovery continued throughout the first half of the year. Real GDP growth in the first quarter was revised up, to 0.7% quarter on quarter (see Chart 20).

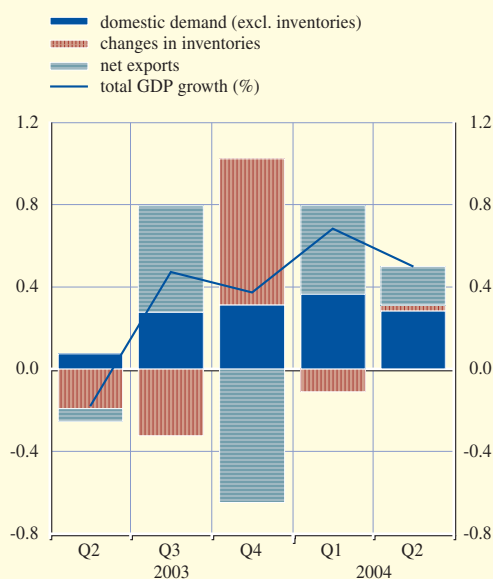
The composition of demand in the second quarter was also revised. Compared with the first estimate, the contribution of net trade was smaller, mainly due to lower export growth. This was compensated by an upward revision of the contribution of inventory changes. By contrast, domestic demand (excluding inventories) was still estimated to have provided a relatively small contribution to growth, largely on account of weak private consumption growth. The breakdown of investment data, which has now become available for the second quarter, shows that construction investment continued to decline while there was a pick-up in the growth of non-construction investment (for more details see the box below entitled “Latest developments in investment by type of product”).

#### SECTORAL OUTPUT AND INDUSTRIAL PRODUCTION

The latest data for the industrial sector suggest that production growth is likely to have continued in the third quarter of 2004 but at a more moderate level than in the second quarter. Euro area industrial production (excluding construction) decreased in August compared with the previous month. Although exacerbated by special factors in some countries, the decline was broadly based both across countries and across sectors. As a result, the three-month moving average of production growth was still positive in August but fell for the third consecutive month (see Chart 21).

Chart 20 Contributions to real GDP growth

(quarterly percentage point contributions; seasonally adjusted)



Sources: Eurostat and ECB calculations.

Box 5

**LATEST DEVELOPMENTS IN INVESTMENT BY TYPE OF PRODUCT**

In the course of 2003, a broadly based increase in investment was observed, following a decline in the previous two years. Since the beginning of 2004, the level of total investment has been almost unchanged (see Chart A). This stabilisation, however, reflects opposite developments in construction investment and non-construction investment, which each account for approximately half of total investment. While construction investment declined over the first half of 2004, this was offset by an increase in non-construction investment, which is mainly comprised of equipment investment but also includes agricultural and other products. This box summarises the most recent developments in investment by type of product, up to the end of the second quarter of 2004.

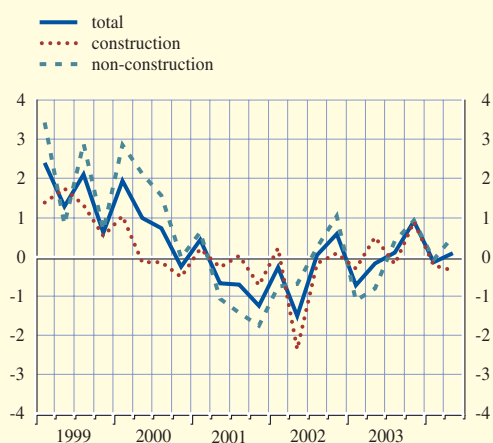
**Investment in metal products and machinery remained the main factor behind the increase in equipment investment**

On average, non-construction investment in the euro area continued to grow during the first half of this year, but at a somewhat slower pace than in the second half of last year. After stabilising in the first quarter of 2004, euro area non-construction investment increased by 0.5% in the second quarter. This follows an increase of 0.9% in the fourth quarter of last year. These developments could partly reflect a further improvement in industrial confidence in the second quarter of 2004 after a stabilisation in the first quarter.

The different components of non-construction investment recorded contrasting developments (see Chart B). While investment in metal products and machinery (which is the largest component, accounting for around 30% of total investment) decreased in the first quarter of

**Chart A Total, construction and non-construction investment**

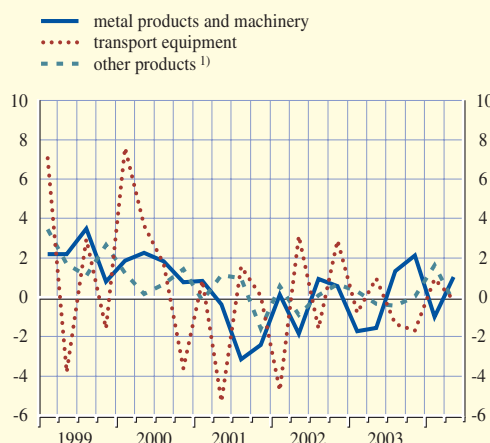
(quarter-on-quarter changes; seasonally adjusted)



Source: Eurostat.

**Chart B Breakdown of non-construction investment**

(quarter-on-quarter changes; seasonally adjusted)



Source: Eurostat.  
1) Includes agricultural products.

2004 and increased in the second, the opposite pattern of growth was observed in the other two components. On average over the first half of 2004, both investment in metal products and machinery and investment in other products (the latter accounting for 10% of total investment) increased compared with the second half of 2003. Investment in transport equipment (which represents a further 10% of total investment) was broadly unchanged, following a decline in the second half of 2003.

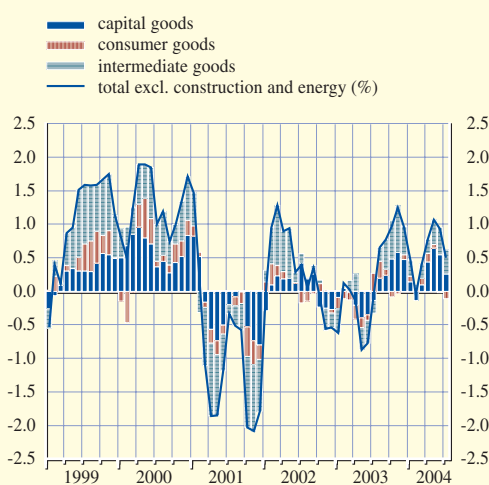
### Investment in construction declined in the first half of 2004

Euro area construction investment declined in both the first and the second quarter of 2004, by around 0.2-0.3% in each quarter, in contrast to the improvements observed at the end of last year. This decline is mainly accounted for by the non-housing component, while housing investment continued to increase, although at a somewhat slower pace than at the end of last year. Both components have been strongly affected by negative developments in Germany. Excluding Germany, both housing and non-housing construction investment increased during the first half of 2004 compared with the second half of last year.

Despite the decline in production in all of the main industrial sectors in August compared with the previous month, on the basis of the less volatile three-month moving averages, developments point to a stabilisation of intermediate goods production growth at positive levels. Growth in the capital goods sector moderated further from the still relatively high levels observed in the second quarter. By contrast, consumer goods production growth declined further and is likely to have been negative for the third quarter as a whole.

**Chart 21 Contributions to growth in industrial production**

(percentage point contributions; seasonally adjusted)



Sources: Eurostat and ECB calculations.  
Note: Data shown are calculated as three-month centred moving averages against the corresponding average three months earlier.

**Chart 22 Industrial production, industrial confidence and the PMI**

(monthly data; seasonally adjusted)



Sources: Eurostat, European Commission Business and Consumer Surveys, Reuters and ECB calculations.  
1) Manufacturing; three-month on three-month percentage changes.  
2) Percentage balances; changes compared with three months earlier.  
3) Purchasing Managers' Index; deviations from an index value of 50.

## SURVEY DATA FOR THE MANUFACTURING AND SERVICES SECTORS

Survey data for the manufacturing sector suggest that industrial production is likely to have continued to grow at the beginning of the fourth quarter of 2004. For the services sector indications are more mixed, but seem to be broadly consistent with a continued expansion of output in this sector also.

Industrial confidence according to the European Commission Business Surveys increased slightly in October, for the second consecutive month (see Chart 22). The increase suggests that industrial confidence continues to improve gradually, following a pause in the summer months. The assessment of both order books and stocks contributed positively to the increase in the overall confidence indicator in October, whereas production expectations were stable. By contrast, the Purchasing Managers' Index (PMI) for the manufacturing sector decreased in October, for the third consecutive month. The decline was relatively broadly based across components. As in September, the deterioration was mainly driven by developments in the output and new orders components. The recent evolution of the PMI would point to ongoing but moderating growth in manufacturing at the beginning of the fourth quarter of 2004. Overall, survey data indicate that industrial confidence has not been affected significantly by the recent increase in oil prices, suggesting ongoing growth in industrial production.

As regards the services sector, European Commission Surveys still point to broadly unchanged confidence over the first ten months of 2004. The PMI for business activity in the services sector increased slightly in October, after having declined on average in the first three quarters of 2004. While the level of the PMI is consistent with ongoing growth in market services, the fact that it is markedly below the latest peak reached in January 2004 suggests that growth in recent months may have been more moderate than earlier this year.

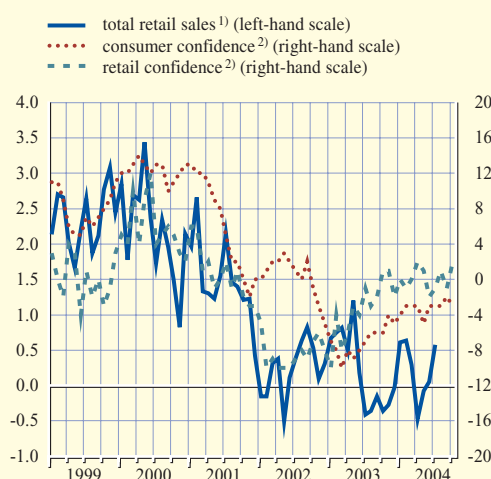
## INDICATORS OF HOUSEHOLD SPENDING

Available monthly indicators of household spending in the third quarter of 2004 suggest that private consumption growth is unlikely to have strengthened compared with the second quarter.

Euro area retail sales volumes declined in August by 1.5% month on month. The decrease was shared equally between food and non-food products. On the basis of a three-month moving average, retail sales growth turned positive for the first time since April 2004 (see Chart 23), mainly due to a strong increase in June. However, unless retail sales improve markedly in September, they are unlikely to contribute significantly to private consumption growth in the third quarter. New passenger car

**Chart 23 Retail sales and confidence in the retail trade and household sectors**

(monthly data)



Sources: European Commission Business and Consumer Surveys and Eurostat.

1) Annual percentage changes; three-month centred moving averages; working-day adjusted.  
2) Percentage balances; seasonally and mean adjusted. For consumer confidence, euro area results from January 2004 onwards are not fully comparable with previous figures due to changes in the questionnaire used for the French survey.

registrations in the euro area increased in September compared with August, but with significant decreases in previous months, this translates into a quarter-on-quarter contraction of 2.5% for the third quarter as a whole. Consumer confidence declined slightly in October, reversing the improvement observed in September. All components contributed to the decline. Consumer confidence has been largely unchanged in the course of this year, following an improvement in the initial stages of the economic recovery in mid-2003. Low consumer confidence thus remains a factor weighing on growth in private consumption.

## 4.2 LABOUR MARKET

### UNEMPLOYMENT

Unemployment remains broadly unchanged in the euro area. The euro area unemployment rate remained at 9.0% in August 2004, unchanged since April this year (see Chart 24). The number of unemployed persons increased further in August, and available country information suggests that it is likely to have also increased in September. However, the average increase in the number of unemployed is expected to have been lower in the third quarter of 2004 than in both the second quarter and the first half of 2004 as a whole.

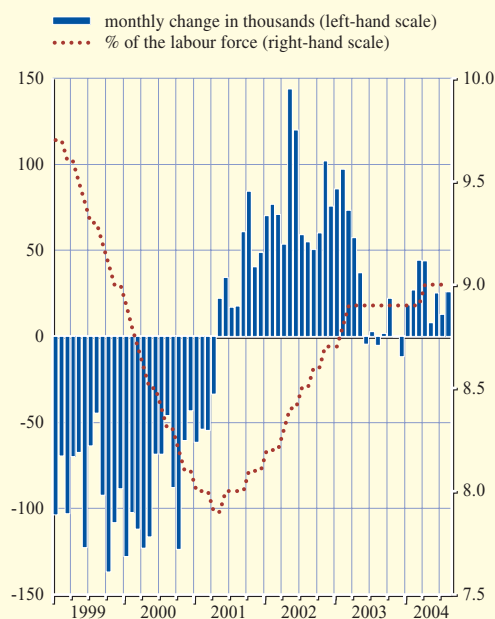
### EMPLOYMENT

Employment growth turned positive in the second quarter of 2004, at 0.1% quarter on quarter, compared with zero growth in the first quarter (see Table 7). This improvement reflects both a smaller decline in industrial employment and higher employment growth in services.

Short-term indicators point to ongoing employment growth in the second half of 2004, but no significant improvement in the pace of growth is suggested. According to the latest European Commission Surveys, employment expectations in the euro area improved in October in all sectors except services, where they were unchanged. Overall, from mid-2004 onwards employment expectations improved slightly in the manufacturing sector, but worsened in the services sector. The PMI for manufacturing employment decreased slightly in October, and its level does not point to an expansion in employment at the beginning of the fourth quarter. By contrast, the PMI for employment in services increased slightly in October and signals an expansion in services employment growth for the third consecutive month. All in all, available information points to broadly stable or slightly improving labour market conditions in the second half of the year.

Chart 24 Unemployment

(monthly data; seasonally adjusted)



Source: Eurostat.

**Table 7 Employment growth**

(percentage changes compared with the previous period; seasonally adjusted)

	Annual rates		Quarterly rates				
	2002	2003	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2
Whole economy	0.5	0.1	0.1	0.0	0.0	0.0	0.1
<i>of which:</i>							
Agriculture and fishing	-2.1	-1.9	-0.2	0.1	0.1	-0.9	-0.5
Industry	-1.2	-1.5	-0.3	-0.5	-0.5	-0.3	-0.2
Excluding construction	-1.4	-2.0	-0.5	-0.5	-0.6	-0.4	-0.3
Construction	-0.6	-0.2	0.4	-0.4	-0.2	0.1	0.1
Services	1.4	0.9	0.3	0.2	0.2	0.2	0.3
Trade and transport	0.4	0.5	0.3	0.4	0.2	0.1	0.2
Finance and business	2.4	1.2	0.1	0.4	0.6	0.4	0.4
Public administration	1.8	1.0	0.3	-0.1	0.1	0.1	0.2

Sources: Eurostat and ECB calculations.

### 4.3 THE OUTLOOK FOR ECONOMIC ACTIVITY

While short-term indicators have become more mixed, the basic determinants for continuing growth in 2005 remain favourable. On the external side, euro area exports should continue to benefit from positive global demand conditions, despite some moderation taking place. On the domestic side, investment should benefit from the supportive global environment, the very favourable financing conditions in the euro area, improvements in profits and higher corporate efficiency stemming from business restructuring. Moreover, scope exists in the euro area as a whole for a strengthening of private consumption, in particular once employment prospects improve more visibly. Uncertainties surrounding this outlook remain. In particular, risks stem from recent developments in oil markets. If oil prices were to remain at their current high levels, or even increase further, they could dampen the strength of the recovery, both inside and outside the euro area.

## 5 EXCHANGE RATE AND BALANCE OF PAYMENTS DEVELOPMENTS

### 5.1 EXCHANGE RATES

*In the first part of October the euro remained broadly within the trading ranges observed since May 2004. Towards the end of the month, however, the US dollar experienced a broad-based depreciation which translated into a moderate appreciation of the euro in effective terms. Increased market concerns about the global growth outlook in view of high oil prices and indications of lower capital flows to the United States seem to have contributed to these developments. In contrast to the relatively strong movements among the major exchange rates, the euro was relatively stable against the currencies of most new EU Member States.*

#### US DOLLAR/EURO

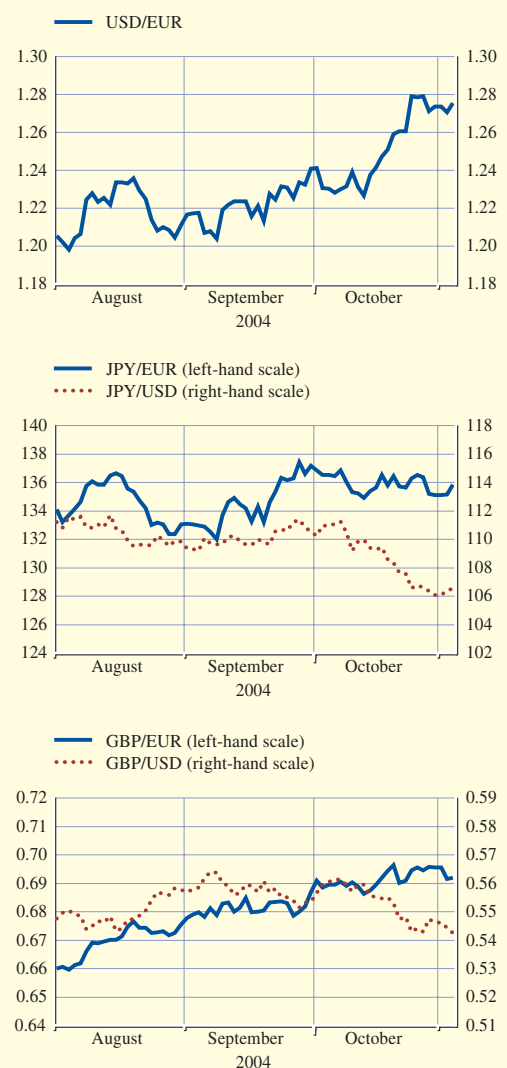
The euro appreciated significantly against the US dollar in October, particularly towards the end of the month, and stabilised at the beginning of November (see Chart 25). The broad-based depreciation of the US dollar in the second half of October followed the release of data suggesting a moderation of economic activity in the United States (as evidenced by lower than expected US industrial production), subdued labour market developments and a fall in consumer sentiment. The release of data confirming a slowdown in capital inflows into the United States in August could also have played a role. Moreover, in view of the sustained high oil prices, market participants appear to have revised downward their expectations with regard to the future path of US interest rates. On 3 November the euro stood at USD 1.28, 2.8% stronger than its end-September level and 12.8% higher than its 2003 average.

#### JAPANESE YEN/EURO

In October the euro experienced a moderate depreciation against the Japanese yen (see Chart 25). At the same time, the Japanese currency appreciated notably vis-à-vis the US dollar, especially towards the end of October. The Japanese currency may have been supported by data releases indicating relatively strong exports and by consumer and business sentiment indicators suggesting only a moderate deceleration of economic activity in Japan. On 3 November the euro was quoted at JPY 135.9, 1.0% weaker than its end-September level and 3.7% higher than its 2003 average.

Chart 25 Patterns in exchange rates

(daily data)



Source: ECB.

### EU MEMBER STATES' CURRENCIES

In ERM II, the Danish krone and the Slovenian tolar continued to move within narrow ranges close to their respective central parities (see Chart 26). The Estonian kroon and the Lithuanian litas remained unchanged relative to their ERM II central parities, in line with the unilateral commitments made by Estonia and Lithuania to maintain currency board arrangements within the standard ERM II fluctuation bands.

The euro also continued to appreciate moderately against the pound sterling in October (see Chart 25). The weakening of the pound against the euro over this period continued to be associated primarily with signs of moderating house price inflation over the past few months. On 3 November the euro traded against the pound sterling at GBP 0.69, 0.7% higher than its level at the end of September and at the same level as its 2003 average. In the period under review the euro appreciated somewhat relative to the Latvian lats, which is partially linked through its exchange rate regime to the US dollar, but continued to depreciate against the Polish zloty and, more modestly, against the Hungarian forint and the Czech koruna. The euro remained broadly stable vis-à-vis the Cyprus pound, the Maltese lira, the Slovak koruna and the Swedish krona.

### OTHER CURRENCIES

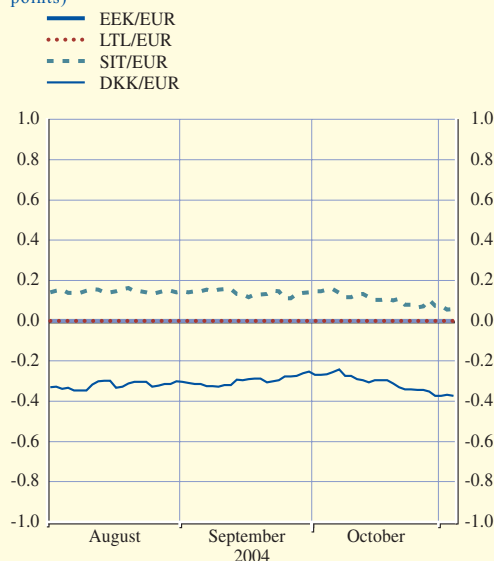
Turning to other currencies, in October the euro depreciated by more than 1% vis-à-vis the Swiss franc. Other notable developments in October were the continued appreciation of the Norwegian krone, the Canadian dollar and the Australian dollar, which all benefited from the continued rise in oil prices and the relatively high level of non-oil commodity prices. At the same time, the euro continued to appreciate against a number of Asian currencies.

### EFFECTIVE EXCHANGE RATE OF THE EURO

On 3 November the nominal effective exchange rate of the euro – as measured against the currencies of 23 of the euro area's most important trading partners – was 0.8% higher than its end-September level and 5.0% higher than its average level in 2003 (see Chart 27). The overall appreciation of the euro in effective terms was mainly a reflection of its strengthening against the US dollar, the Chinese renminbi and the pound sterling – currencies with considerable relative weight in the trade-weighted effective exchange rate basket – which was only partly counterbalanced by its moderate depreciation against the Japanese yen, the Swiss franc, the Polish zloty and the currencies of commodity exporting countries.

Chart 26 Patterns in exchange rates within ERM II

(daily data; deviation from central parity in percentage points)



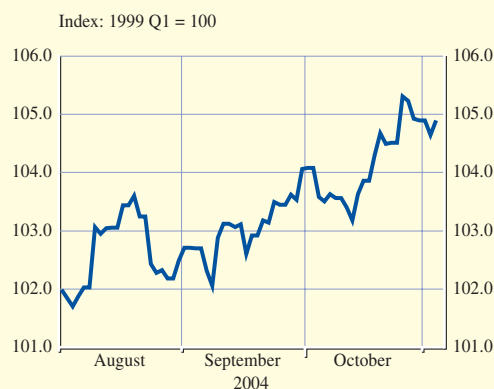
Source: ECB.

Note: A positive/negative deviation from the central parity implies that the currency is at the weak/strong side of the band. For the Danish krone the fluctuation band is  $\pm 2.25\%$ ; for all other currencies the standard fluctuation band of  $\pm 15\%$  applies.



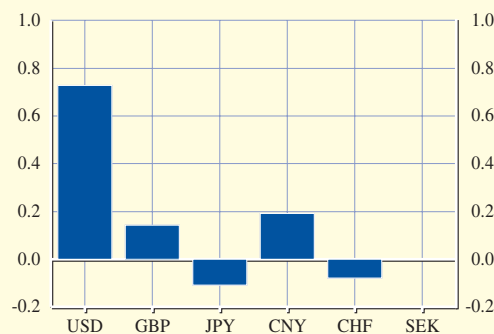
**Chart 27 Euro effective exchange rate and its decomposition<sup>1)</sup>**

(daily data)



**Contributions to EER changes<sup>2)</sup>**

From 30 September to 3 November 2004  
(in percentage points)



Source: ECB.

1) An upward movement of the index represents an appreciation of the euro against the currencies of 23 major trading partners of the euro area.

2) Contributions to EER-23 changes are displayed only for the currencies of the six main trading partners of the euro area. Changes are calculated using the corresponding overall trade weights in the EER-23 index.

## 5.2 BALANCE OF PAYMENTS

*In August the value of exports of goods remained almost unchanged compared with the previous month, while imports of goods rose, partially on account of rising oil prices. Nevertheless, the 12-month cumulated current account surplus of the euro area was above the level reached a year earlier. In the financial account, 12-month cumulated net outflows in combined direct and portfolio investment declined in August.*

### CURRENT ACCOUNT AND TRADE

In August the seasonally adjusted current account of the euro area was close to balance (registering a deficit of €0.4 billion, which corresponded to a €2.1 billion surplus in non-seasonally adjusted terms). This mainly reflected a surplus in goods, which was offset by a deficit in current transfers (see Section 7.1 of the “Euro area statistics” section). In comparison with the previous month, the current account surplus fell by €1.4 billion, primarily on account of a decrease (of €3.7 billion) in the surplus in goods, which was only partly offset by a rise (of €1.1 billion) in the services surplus and reductions (of €0.4 billion and €0.8 billion respectively) in the deficits in both income and current transfers.

In August the value of exports of goods remained unchanged compared with the previous month, while imports rose by 4.2%, boosted by rising oil prices and supported by the ongoing growth in euro area domestic

demand. By contrast, over the same period exports of services grew by 3.7%, while imports of services fell by 0.4%. The three-month moving average for the value of exports of goods and services declined in August, while imports of goods and services continued to grow strongly (see Chart 28).

Taking a longer-term perspective, the 12-month cumulated current account surplus of the euro area stood at €48.9 billion in August 2004 (around 0.7% of GDP), compared with €29.3 billion a year earlier (see Chart 29). Developments in the goods and income balances were the main factors behind this increase. Specifically, the 12-month cumulated goods surplus increased by €6.8 billion and the income deficit decreased by €14.1 billion. The decline in the income deficit was primarily due to a decrease in income payments.

**Chart 28 Euro area exports and imports of goods and services**

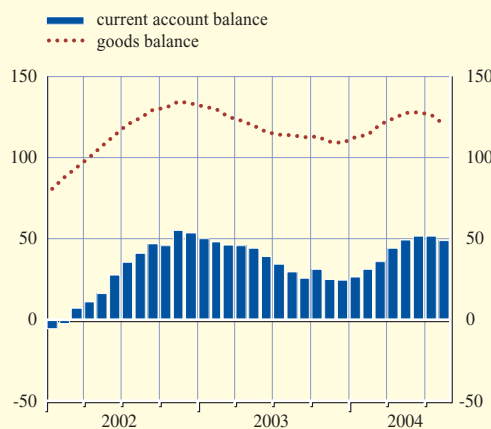
(EUR billions; three-month moving averages; seasonally adjusted)



Source: ECB.

**Chart 29 The euro area current account and goods balances**

(EUR billions; seasonally adjusted; 12-month cumulated data)



Source: ECB.

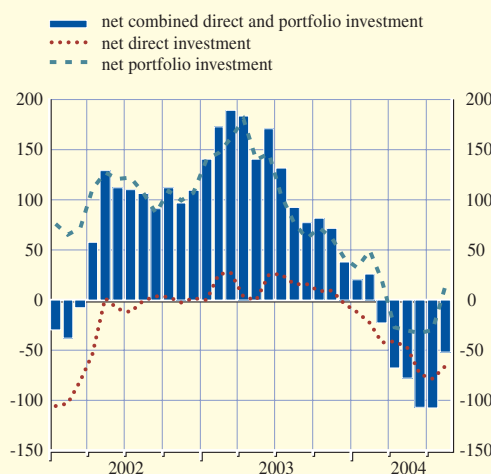
## FINANCIAL ACCOUNT

Euro area combined direct and portfolio investment recorded net inflows of €9.6 billion in August, reflecting net inflows (of €4.4 billion and €5.1 billion respectively) in both direct investment and portfolio investment. The developments in direct investment were accounted for largely by net inflows in other capital – primarily the repayment of inter-company loans by foreign affiliates of euro area companies. These were partially compensated for by net outflows in equity capital and reinvested earnings. Net inflows in portfolio investment resulted principally from net purchases of euro area equities by non-residents, which were only partly offset by net purchases of foreign equities by euro area residents. The relative improvement of the economic outlook for the euro area might have contributed to the net purchases of euro area equities by non-residents.

In the 12-month period to August 2004 combined direct and portfolio investment showed net cumulated outflows of €52.5 billion, compared with net inflows of €63.8 billion a year earlier (see Chart 30). This reflects a switch from net inflows to net outflows in direct investment and lower net inflows in portfolio investment. The shift in net direct investment stemmed mainly from a sizeable decline in foreign direct investment inflows into the euro area (from €135.4 billion

**Chart 30 Net direct and portfolio investment flows**

(EUR billions; 12-month cumulated data)



Source: ECB.

Note: A positive (negative) number indicates a net inflow (outflow) into (out of) the euro area.

to €42.4 billion), while euro area direct investment abroad remained relatively stable above €100 billion. The decline in net portfolio investment inflows was mainly the result of an increase in net purchases of foreign equity securities and money market instruments by euro area residents (from €66.7 billion to €156.9 billion).

Compared with the previous month, in August 2004 cumulated net outflows in combined direct and portfolio investment declined. This was primarily due to a switch in net portfolio investment over this period from net outflows to net inflows, and to lower net outflows in foreign direct investment. However, the shift in net cumulated portfolio investment flows can be partially attributed to base effects as debt instruments recorded considerable net sales by non-residents in July and August 2003 and those sales are no longer taken into consideration in the latest 12-month cumulated figures, i.e. the 12-month period to August 2004.

## ARTICLES

### OIL PRICES AND THE EURO AREA ECONOMY

*Oil plays an important role in the economy owing to its widespread use both as an input factor in the production process and as a final consumption good. As a result, any major change in oil prices affects the economy in various ways. On the price side, direct price effects via energy items in the consumer basket are unavoidable following an oil price shock, and indirect effects may emerge on account of higher input costs being passed on to consumer prices via the domestic production chain. Of particular importance is the avoidance of second-round effects through appropriate wage reactions to oil price increases. With regard to real economic activity, output is negatively affected by an oil price increase as a result of higher production costs and a decline in real purchasing power. Empirical estimates from large-scale macroeconomic models generally suggest that strong oil price changes have a noticeable effect on euro area inflation and, albeit to a somewhat lesser extent, on activity. It is important to bear in mind that these results are surrounded by uncertainty, as standard models cannot take into account all the ways in which oil prices affect the economy. Moreover, the full impact of oil price changes on prices and economic activity largely depends on the actual reaction of wages as well as fiscal and monetary policy. As for the containment of price pressures, a high degree of credibility and the appropriate monetary policy reaction are essential.*

*As regards recent oil price increases, when compared with the dramatic oil price shocks of the 1970s, they appear to be of a more limited magnitude, particularly in real terms. Moreover, structural changes, such as a decline in oil dependency and increased labour and product market flexibility, point to an oil price shock having a smaller impact on the euro area economy now compared with the past. Nevertheless, while euro area growth seems not to have been significantly affected so far by the recent oil price increase, persistently high levels of oil prices or even further increases would be a reason for concern. With regard to price developments, the oil price increase has already had a significant direct impact on euro area inflation. Against this background, monetary policy has to ensure that this direct effect does not fuel inflationary expectations and has to remain vigilant against the emergence of second-round effects.*

#### I INTRODUCTION

Recent oil price developments have raised the question of whether they would cause effects similar to the large oil price shocks in 1973-74 and 1979-80, which led to both an economic downturn and rising inflation. However, the characteristics of recent oil price increases may be somewhat different to those observed in the past. Moreover, a number of factors may have changed the way oil prices affect the economy. For example, differences in the structure of the economy and in policy reactions could have changed the functioning of the various channels by which oil price shocks are transmitted to economic developments. This article discusses the above-mentioned issues, focusing in particular on the euro area economy.

Section 2 gives an overview of oil price developments since the 1970s and looks at the current oil price increase against the background of previous episodes of rising oil prices. Section 3 describes the various channels through which, in principle, oil prices are transmitted to economic growth and inflation. Empirical evidence from macroeconomic models on the impact of an oil price shock on the euro area economy is also presented. Additionally, this section discusses certain characteristics of oil price shocks which influence the impact on prices and activity. As the transmission can also be affected by structural factors, Section 4 analyses to what extent such factors are relevant for the euro area economy. Section 5 discusses the role of macroeconomic policy and its implications for the transmission of oil prices to the economy, while Section 6 gives some concluding remarks.

## 2 DEVELOPMENTS IN OIL PRICES SINCE THE 1970s

This section reviews developments in oil prices over the last 30 years and compares recent developments with the major oil price movements of the past.

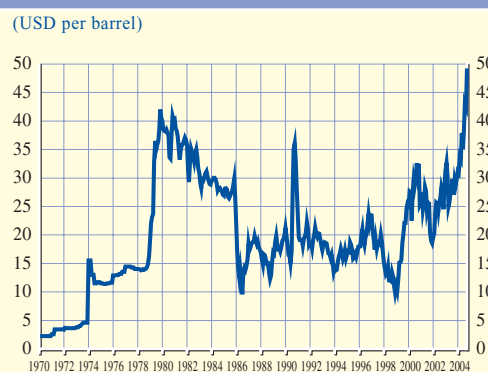
### HISTORICAL OIL PRICE DEVELOPMENTS

After decades of relatively stable oil prices, the first oil price shock occurred in the wake of political and military tensions in the Middle East, resulting in an increase in oil prices from USD 4.6 in October 1973 to USD 15.5 in March 1974 (see Chart 1).

The second oil price shock, also brought about by political and military conflict in the Middle East, pushed oil prices from USD 14.4 in October 1978 to USD 42.0 at the height of the crisis in November 1979. Oil prices declined steadily in the first half of the 1980s, but remained well above pre-1978 levels.

The oil price shocks of the 1970s led to energy saving and energy product substitution (see Section 4). Combined with a global recession in the early 1980s, this depressed demand for oil and put downward pressure on oil prices. The price of oil remained relatively low until August 1990. Oil prices rose sharply to USD 36.1 after Iraq's invasion of Kuwait but returned to pre-invasion levels when the war ended in February 1991. Between 1991 and 1997 the price of oil averaged USD 18.3. In 1998 oil prices plummeted in the aftermath of the economic crisis in Asia, falling to USD 9.8 by December 1998. Thereafter, oil prices

Chart 1 Brent crude oil prices in USD



Sources: IMF and Bloomberg.

tripled between January 1999 and September 2000, which more than reversed the fall in prices witnessed in previous years. Despite the economic slowdown of 2001-02, political and geopolitical tensions kept upward pressure on oil prices throughout 2001-03.

### RECENT DEVELOPMENTS IN PERSPECTIVE

While the price of oil has surged over the last year, the situation differs from previous oil price shocks in several respects. First of all, the recent increase has been considerably smaller than those observed during other major oil price shocks. Oil prices in October 2004 stood 67% higher than one year previously in USD terms, compared, for example, with a rise of 237% during the first oil price shock (see Table 1). As a result of the overall appreciation of the euro against the US dollar, oil prices in euro terms have risen less than dollar prices over the last 12 months.

Table 1 Increases in oil prices over specific periods

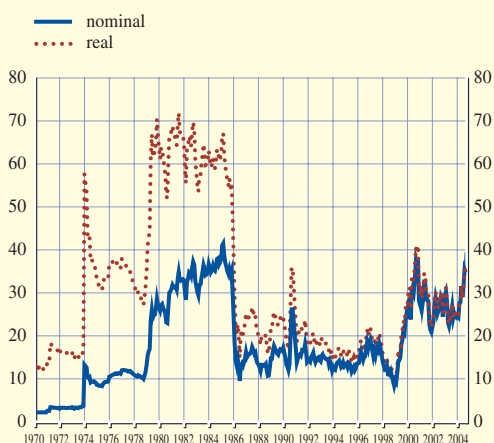
(percentage changes)

	Oct. 1973 - Mar. 1974	Oct. 1978 - Nov. 1979	July 1990 - Oct. 1990	Jan. 1999 - Sep. 2000	Oct. 2003 - Oct. 2004
in USD	237	193	111	198	67
in EUR	270	187	97	297	56

Sources: IMF and ECB calculations.

Chart 2 Brent crude oil prices in euro

(EUR per barrel)



Sources: IMF and ECB calculations.

Note: Real oil prices allow a comparison of the impact of oil price developments on purchasing power over time. They are computed by deflating nominal oil prices with the euro area HICP. Price data before 1990 refer to national CPI data.

Second, after taking inflation into account, oil prices are currently significantly lower than the levels reached during earlier periods of high prices. For example, expressed in September 2004 prices, the real price of oil stood at €58 during the first oil price shock and €72 during the second oil price shock (see Chart 2). This compares with €39 in October 2004.

Third, the factors driving the price increase over the last year also differ from earlier oil price shocks. The oil price increases of 1973, 1979, 1990 and 1999 were mainly caused by sizeable disruptions to the supply of oil. By contrast, a variety of factors have had an impact on the current increase. Demand for oil has been buoyant on the back of improving global economic conditions, led by the United States and China, and has systematically surpassed expectations. In addition, dwindling global spare capacity has left only a very limited cushion to cater for unexpected oil market disruptions. Consequently, oil prices reacted strongly when, despite rising supplies of oil, supply-side concerns emerged from several oil producing countries.

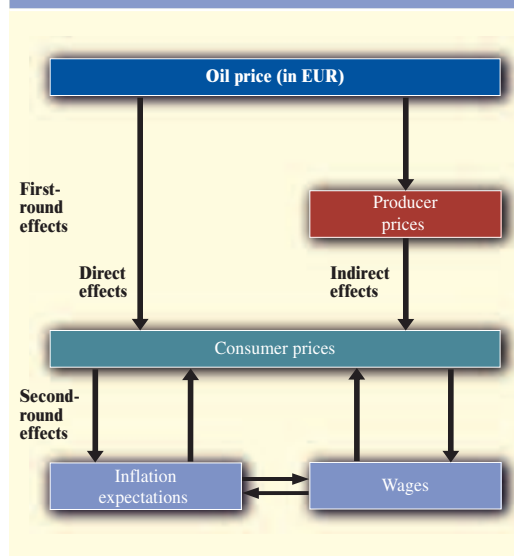
### 3 IMPACT OF OIL PRICE SHOCKS ON PRICES AND ECONOMIC ACTIVITY

Oil plays an important role in the economy, on account of the widespread use of oil and refined oil products both as an input factor in the production process and as a final consumption good. As a result, any major change in its price affects the economy in various ways. All of these transmission channels are closely linked and interdependent. It is important to bear these interrelationships in mind when the different channels are discussed separately for presentation purposes, as is the case below. The perspective taken in describing the transmission channels through which an oil price shock affects prices and output is that of a net oil-importing economy like the euro area. On the price side, direct, indirect and second-round effects of oil price shocks can be distinguished. Regarding real economic activity, oil price shocks work via traditional supply and demand channels, although additional channels can also play a role. The discussion on the transmission channels is followed by empirical evidence on the impact of oil price shocks on inflation and output from various large-scale macroeconomic models. The impact on the economy generally depends also on the characteristics of the oil price shock. In this respect, the supply or demand-side nature of the shock and its duration, for instance, appear to be relevant.

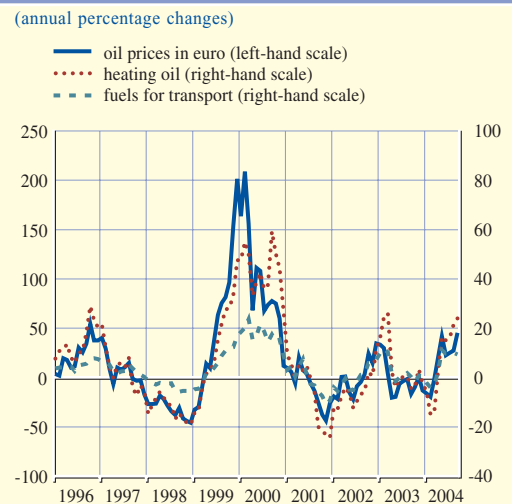
#### IMPACT ON PRICES

A stylised overview of the main possible transmission channels through which an oil price shock influences prices is provided by Chart 3. Oil price increases directly affect consumer prices, as energy is part of the households' consumer basket. Furthermore, they may have an indirect effect on consumer prices via higher producer prices. Moreover, there may be further repercussions for consumer prices if the price increases owing to higher oil prices are reflected in higher wages or, more generally, in inflation expectations.

**Chart 3 Main transmission channels of an oil price shock to prices**



**Chart 4 Oil prices and selected HICP energy items**



Sources: Eurostat and Thomson Financial Datastream.

With regard to direct effects, Chart 4 illustrates the close link between movements in oil prices and the oil-related items – heating oil and fuels for transport – that are included in the energy component of the euro area HICP. Prices of these two items react almost immediately to oil price increases, i.e. during the month of the shock or in the following month, which could be partly related to the price collection period. Prices of other energy products which are oil substitutes, such as gas, also follow oil price developments, but are usually affected with some delay. Looking at the total energy component of the HICP, a commonly used rule of thumb suggests that a 10% increase in oil prices in euro terms leads to a rise of 1½ percentage points in the annual rate of change in consumer prices of energy within about half a year. As energy has a weight of roughly 8-9% in the overall HICP, this translates into a direct increase in total consumer price inflation of 0.1-0.2 percentage point.

As indicated above, consumer prices may also be indirectly affected, as firms facing higher input prices for oil will attempt to pass these cost increases on to their selling prices (i.e. producer prices) in order to maintain or restore their profit margins. Eventually, these more

general price increases may also feed through to prices of other (non-energy) goods and services included in the consumer price index. The degree to which the cost increases are passed on to subsequent price stages is affected by factors such as the competitive pressures in the market and the business cycle situation. As the transmission of a cost increase to prices along the supply chain is not immediate, the indirect impact of an oil price shock on consumer prices is more delayed and takes longer than the direct effect. Both the direct and indirect effects of a permanent oil price increase have a lasting impact on the level of the consumer price index, while the inflation rate is, in the first place, only temporarily affected. However, while the impact on the annual inflation rate resulting from the direct effect is relatively short-lived, the impact from the indirect effect is more protracted on account of its slower and more gradual transmission.

In addition to direct and indirect effects, usually summarised as first-round effects, there is a risk of so-called second-round effects, which may put further upward pressure on consumer prices. Second-round effects typically refer to a situation in which the first-

round price increases are taken into account in the subsequent wage-bargaining process, so as to compensate for the decline in real income. This might in turn increase inflation expectations and further influence price-setting behaviour. Should employees manage to obtain stronger wage increases as a result of the oil price shock, a wage-price spiral may occur. Firms facing higher wage claims may be forced to further increase their prices, which would again fuel inflation expectations, spilling over to the next round of wage negotiations. Hence, in the presence of second-round effects, a shock to oil prices not only permanently affects the price level but could also trigger more persistent effects on inflation.

The likelihood of second-round effects varies according to the general macroeconomic situation and depends on the credibility and reaction of the central bank. In an economic downturn, indirect and second-round effects should be less likely to occur than in boom conditions, where the labour market is tight and price pressures are high. Likewise, while the “mechanical” direct impact of higher oil prices on the energy component of consumer price indices is unavoidable, possible price pressures related in particular to second-round effects depend crucially on the credibility of the central bank as well as on the actual monetary policy response. With a credible monetary policy directed towards maintaining price stability over the medium term, employees are more likely to accept the reduction in real income and inflation expectations are more likely to be unaffected by the temporary increase in inflation brought about by the oil price rise. However, should inflation expectations rise, monetary policy has to raise interest rates so as to contain inflationary pressures resulting from indirect and second-round effects over the medium term. Obviously, an appropriate wage reaction, i.e. acceptance of the effects of an oil price increase on real income, is most conducive to avoiding an inflationary spiral and losses in output.

## IMPACT ON ECONOMIC ACTIVITY

One of the most important explanations of the impact of an oil price shock on real economic activity comes from the supply-side channel. Oil represents an important input factor in the production process. A rise in the price of oil entails an increase in the costs of production, as the ability to substitute oil is limited. This is particularly the case in the short term. As a result of the increased cost of oil, the level of output may be reduced, which may also lead to lower demand for other production factors such as labour.

On the demand side of the economy, an increase in oil prices entails a deterioration of the terms-of-trade of net oil-importing economies like the euro area. As a consequence, income will be redistributed from net oil-importing to net oil-exporting economies. The decline in real income in net oil-importing countries associated with the oil price shock translates into lower domestic demand to the extent that it is not compensated for by reduced saving or increased borrowing. Moreover, if a country’s trading partners are predominantly net oil-importing countries, the decline in domestic demand is likely to be accompanied by lower export demand. From the perspective of the world economy, the net impact on demand is also likely to be negative if many net oil-exporting countries, benefiting from an oil price shock, have a lower propensity to consume than net oil-importing countries and are likely to adjust their demand only gradually.

The negative impact of an oil price shock on activity resulting from the basic “cost-push” and demand-side effects may be exacerbated through a number of additional channels. For example, an oil price shock may have a further impact on activity via its effect on confidence. A rise in oil prices increases uncertainty about future oil price developments and hence the economic outlook in general. In view of the increased uncertainty, consumers may refrain from making major purchases and firms may



decide to postpone or extend irreversible investment projects. Similarly, an oil price shock may negatively affect consumption and investment via its impact on stock markets or, more generally, by making financing conditions worse. The upward shift in the price level on account of an oil price shock, other things being equal, reduces real balances. In order to restore portfolio equilibrium, people tend to shift their portfolios toward liquid assets. As a result, long-term interest rates may rise.

However, the impact on output is mitigated by the credibility and the appropriate reaction of monetary policy. By stabilising inflation expectations, a credible monetary policy geared to price stability reduces the output losses. Moreover, while in the short run the possibility of substituting oil with other inputs in the production process is limited, this represents a viable option beyond that horizon. Hence, if an oil price increase is perceived to be permanent, firms may decide to switch to a less oil-intensive production plan. Likewise, a persistent oil price shock is likely to cause a reallocation between more and less oil-intensive sectors, making the economy more resilient to future oil price shocks.

#### **EMPIRICAL RESULTS FOR THE EURO AREA ECONOMY**

This section presents, for illustration purposes, empirical evidence of the impact of a permanent 50% increase in the level of oil prices on euro area inflation and real GDP growth as estimated by several large-scale macroeconomic models. These estimates are surrounded by a high degree of uncertainty related to model calculations; this should be borne in mind when interpreting the results.

Looking first at the impact on inflation, the estimates suggest that a permanent 50% rise in oil prices adds to overall inflation by 0.3 to 0.6 percentage point within the first year (see Table 2) when excluding the IMF Multimod, which is described below. This first-year impact should, to a large extent, reflect direct

effects. In the second year, overall inflation would be 0.1 to 0.4 percentage point and in the third year 0.0 to 0.1 percentage point higher compared with a situation of unchanged oil prices. While most macroeconomic models do not disentangle indirect and second-round effects, their combined impact could be approximated by the second and third-year results. This impact is largely in line with results of models estimating the impact on non-energy consumer prices, thereby excluding direct effects. For example, using the HICP excluding energy, the area-wide model (AWM) of the ECB points to a combined second and third-year effect of 0.4 percentage point, which reflects the sum of indirect and second-round effects.

The IMF Multimod is not included in the above ranges, as it is a model geared more towards longer-term relationships and is based on annual data, which is difficult to compare with the models using quarterly data. It yields much stronger effects than the other models. This is due to a high first-year impact, reflecting a relatively high estimated direct effect. Moreover, expected inflation, which plays an important role in the determination of inflation in this model, is estimated to be significantly affected by oil price changes in the euro area.<sup>1</sup> The Multimod results are also based on the assumption of real wage resistance, implying strong second-round effects. However, in reality these effects should be dampened by a credible monetary policy.

Regarding economic activity, the various macroeconomic models (including the IMF model) suggest that a 50% increase in oil prices would lead to real GDP growth declining by 0.1 to 0.8 percentage point in the first year. Likewise, these models predict an impact of between -0.3 and 0.2 percentage point in the second year and of between -0.1 and 0.4 percentage point in the third year. The

<sup>1</sup> See Hunt, B., P. Isard and D. Laxton (2001), "The macroeconomic effects of higher oil prices", IMF Working Paper WP/01/14.

**Table 2 Impact of a 50% increase in oil prices on euro area inflation and real GDP growth**

(percentage points)

	Inflation <sup>1)</sup>			Real GDP growth		
	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Quarterly models						
ECB AWM	0.5	0.4	0.1	-0.1	-0.2	-0.1
EC QUEST <sup>2)</sup>	0.4	0.1	0.1	-0.6	-0.2	-0.1
NiGEM <sup>2)</sup>	0.3	0.2	0.0	-0.8	0.0	0.1
OECD Interlink	0.6	0.2	0.1	-0.4	0.2	0.4
Annual model						
IMF Multimod	1.6	1.1	0.5	-0.1	-0.3	0.1

Sources: ECB AWM: Dieppe, A. and J. Henry (2004), "The euro area viewed as a single economy: how does it respond to shocks?", *Economic Modelling* 21, pp. 833-875. EC QUEST: European Commission (2004), "How vulnerable is the euro area economy to higher oil prices?", *Quarterly Report on the Euro Area*, 3(2), pp. 15-20. NiGEM: Barrell, R. and O. Pomerantz (2004), "Oil prices and the world economy", NIESR Discussion Paper No. 242. OECD Interlink: Dalsgaard, T., C. André and P. Richardson (2001), "Standard shocks in the OECD Interlink Model", OECD, Economics Department Working Papers No. 306. IMF Multimod: Hunt, B., P. Isard and D. Laxton (2001), "The macroeconomic effects of higher oil prices", IMF Working Paper WP/01/14.

1) HICP inflation for the ECB AWM; CPI inflation for the other models.

2) The original results for the EC QUEST and for the NiGEM are based on simulations of a 25% and 20% oil price increase respectively. These results have been adjusted in this article, assuming linearity.

positive impact from the second year onwards suggested by some models may be related to the assumption that net oil-exporting countries, linked to the euro area economy via third country effects, have a relatively high propensity to consume. That means that the higher income owing to the rise in oil prices in these countries translates into stronger euro area export demand in these models.

The model results for both inflation and real GDP growth should not be taken at face value. In fact, several caveats should certainly be borne in mind, as these could affect the strength of the impact. First, the assumptions made by the various models about exchange rate and interest rate reactions are not identical, and this can have a significant impact on the results.<sup>2</sup> Second, most models use an aggregation of the impact on the individual euro area countries, while the ECB AWM and the IMF Multimod are based directly on euro area-wide data. Third, such models typically show the average historical impact of oil prices. However, several studies claim that the impact of oil prices on the economy has changed over time (see Section 4). It can also be argued that second-round effects should be smaller now than in the past, reflecting a low inflation environment and credible monetary policy.

Fourth, the models do not include all possible transmission channels. For example, most macroeconomic models do not use different sectors to represent the supply side, so any reallocation of resources following strong oil price shocks is not fully reflected in the simulation results. The impact through confidence and equity markets is also absent. Moreover, some models, such as the IMF Multimod, place more emphasis on the expectations channel than do other models. Fifth, third country effects are included in all models except the ECB AWM. Finally, the shock in these models is usually defined as a percentage change in oil prices and the models generally assume a linear relationship between oil prices and the economy. A number of problems related to this approach are explained below. Overall, the model results are of an illustrative nature, and any real time analysis would need to take into account all relevant factors, many of which cannot be captured by such models.

<sup>2</sup> For example, the results for the ECB AWM and the OECD Interlink are based on the assumption of constant real interest rates. The EC QUEST, the IMF Multimod and the NiGEM include a Taylor rule type of monetary policy reaction. Different assumptions about monetary policy reactions lead in particular to different indirect and second-round effects, as they should be embedded in expectations.

## THE IMPACT ON THE ECONOMY DEPENDS ON THE NATURE OF THE OIL PRICE SHOCK

In any discussion on how oil prices affect the economy it is important to bear in mind that the impact also depends on the nature of the oil price shock. In particular, a number of arguments suggest that the overall impact may not be proportional to the size (in percentage terms) of the change in oil prices, i.e. the impact may be non-linear. Several factors, such as the direction, duration and cause of the shock and the absolute level and variability of oil prices, are likely to play a role.<sup>3</sup>

The effect of increases and decreases in oil prices on the economy may be asymmetric on account of factors like rigidities or adjustment costs. The box below describes the possible reasons for asymmetries in more detail. It could also be that the level of oil prices (whatever the change leading to it) plays a role in terms of the impact on activity, giving rise to so-called threshold effects. For instance, if oil prices reach a high level, some investment projects may be judged unviable. Moreover, the absolute level change in oil prices could be more relevant than the percentage change. If oil consumption is relatively price-inelastic and the total budget is fixed, the absolute rise in oil prices would determine the amount of additional money which households and

companies would need to spend on energy bills. The duration of the period over which oil prices increase or remain high could also influence the economy's response to the shock. The more persistent the increase, the less likely companies and households are to absorb the shock by reducing profit margins and savings. It is also more likely that a permanent oil price shock will affect the structure of production in the economy, as firms may replace their capital stock with less oil-intensive equipment or seek to diversify their energy consumption (see Section 4). The variability in oil prices may also have a role to play, as increases which reverse earlier declines in oil prices may not have a significant impact on the economy. Moreover, in an environment of volatile oil prices, consumers and firms may be more likely to regard a change as temporary. Finally, the cause of an oil price shock plays an important role in terms of the overall impact. Oil price shocks related to supply disruptions usually lead to a fall in output and to higher inflation. However, oil prices can also increase in response to a strong pick-up in world demand. Then, the negative output effect would be mitigated by accelerating world demand while inflationary pressures would increase more than in the case of a supply-driven shock.

<sup>3</sup> See for instance Hamilton, J. D. (2003), "What is an oil shock?", *Journal of Econometrics* 113, pp. 363-398.

### Box

#### HOW COULD OIL PRICE INCREASES HAVE A STRONGER IMPACT ON THE ECONOMY THAN OIL PRICE DECLINES?

Many empirical studies find that inflation and output react more strongly to oil price increases than to oil price declines.<sup>1</sup> Various explanations for this asymmetric response have been proposed in the literature.<sup>2</sup>

One frequently suggested explanation for this asymmetric impact is that *prices for fuel and other petroleum products* change more on account of oil price increases than as a result of

<sup>1</sup> See for example Jiménez-Rodríguez, R. and M. Sánchez (2004), "Oil price shocks and real GDP growth: empirical evidence for some OECD countries", ECB Working Paper No. 362, May 2004.

<sup>2</sup> For a recent summary of the literature see Brown, S. P. A., M. K. Yücel and J. Thompson (2003), "Business cycles: the role of energy prices", Federal Reserve Bank of Dallas Working Paper 0304.

declines. More specifically, the literature finds that fuel prices are adjusted more quickly and, partly as a result of this, more strongly following oil price increases than after oil price declines. Thus, if an oil price increase translates into a larger change in fuel prices in the period following the shock than an oil price decline, it would also have a quicker and stronger impact on inflation and output.

Furthermore, the asymmetric impact of oil prices on inflation and output may be related to *downward rigidities in wages*. This refers to a situation where workers would push for higher nominal wages to compensate for the decrease in their real purchasing power resulting from oil price increases, while they would not accept declining nominal wages in the case of oil price decreases.

*Adjustment costs* may also help to explain asymmetries in the output reaction. Any change in oil prices, whether a rise or fall, always implies some adjustment costs. In the case of oil price increases, the adjustment costs would be an additional burden for firms and consumers and would thus amplify the direct dampening effects on output via the increase in production costs. When oil prices fall, however, adjustment costs would partly offset the direct beneficial effect via other channels. Therefore, the impact of a rise in oil prices on the economy would be stronger than that of a comparable fall in oil prices.

Asymmetric reactions in output can also be attributed to *uncertainty and financial stress*. Oil price changes, regardless of their direction, are likely to cause uncertainty concerning future oil prices and, more generally, future economic developments. Moreover, adverse shocks usually make it more difficult for firms to obtain external finance. Like adjustment costs, uncertainty and financial stress would make the negative impact on activity caused by rising oil prices even worse, while reducing the positive impact of decreasing oil prices on activity. As a result, aggregate economic activity reacts asymmetrically to oil price shocks.

#### 4 DO STRUCTURAL FACTORS INFLUENCE THE IMPACT OF OIL PRICE SHOCKS?

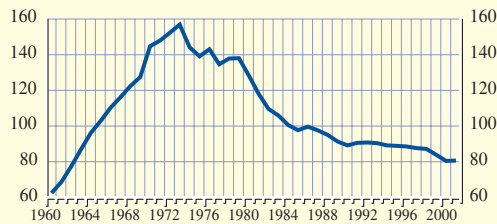
A number of structural factors may influence the impact of oil price shocks on economic activity and inflation. First, long-term trends regarding the oil dependency of the euro area and the degree of substitutability between oil and other primary energy sources are relevant. Second, the overall impact is influenced by the sectoral composition of the euro area economy. Third, the impact of oil price shocks depends on the way in which product and labour markets function.

Regarding long-term changes in oil dependency, the euro area has become considerably less dependent on oil since the 1970s because of inter-industry shifts and the

substitution of oil by other energy sources. This is a trend which is shared with other industrialised economies, such as the United States and the United Kingdom. In 2001 the oil intensity of the euro area, measured as oil consumption in relation to real GDP, was almost 50% lower than the peak recorded in 1973 (see Chart 5). This reflects inter-industry shifts from more oil-intensive sectors, such as manufacturing, to less oil-intensive sectors, such as services (excluding transport), as well as the utilisation of less oil-intensive technologies. The euro area has also reduced its non-oil energy intensity since the 1970s, albeit to a lesser extent than its oil intensity. This is due to the substitution of oil by other primary energy sources (see Chart 6). Oil accounted for 42% of total euro area primary energy demand in 2000, compared with 59% in 1971. The use

**Chart 5 Oil consumption relative to real GDP in the euro area**

(Tonnes of oil per one million of GDP at 1995 prices)



Sources: International Energy Agency and European Commission.

of renewable sources of energy has increased over the last 30 years, and this trend is likely to continue in the future with the advance of new technologies. Increased substitution of oil by other energy sources, together with reduced overall oil dependency, is helping to make the euro area economy less vulnerable to an oil price shock than it was in the early 1970s.

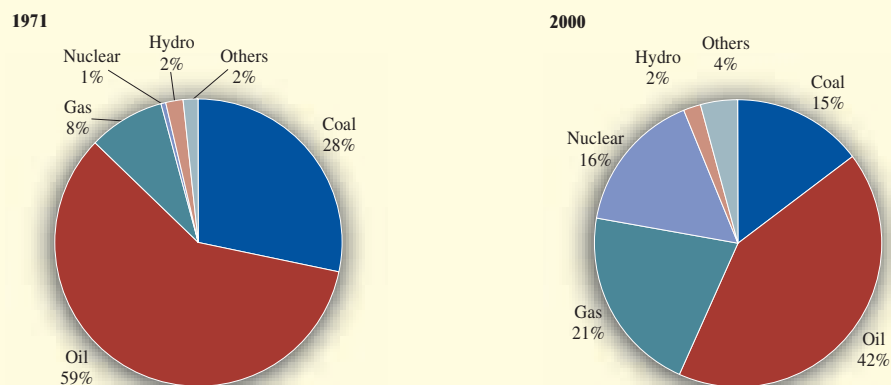
The sectoral composition of the economy is of relevance in terms of the impact of an oil price shock on the overall economy, as economic sectors can react differently to an oil price shock. Therefore, resources need to be reallocated from one sector to another in order to restore equilibrium. This is not a short-term

process, and output is hence likely to fall below potential for some time before a new long-term equilibrium is reached.

While most sectors have decreased their share of oil consumption over the past 30 years, that of the transportation sector has increased greatly. For example, the oil consumption of the euro area industrial sector accounted for 9.8% of total final energy consumption in 2000, down from 21.6% in 1971 (see Table 3). The consumption of oil by the transportation sector, however, increased strongly over the same period, mainly on account of an increase in air passenger transportation and more widespread car ownership. In 2000 the total final consumption of oil by the transportation sector was roughly three times greater than oil consumption by other sectors, indicating that a negative oil price shock would have a much stronger direct effect on this sector than on the rest of the economy.

The negative effects of an oil price shock on output and inflation tend to be less pronounced the more flexible the economy, as this allows for a faster and smoother adjustment of resources towards a new post-shock equilibrium. The impact of oil price shocks depends in particular on the functioning of

**Chart 6 Composition of total primary energy demand in the euro area**



Source: International Energy Agency.

Table 3 Total final consumption of energy by sector in the euro area

	1971	2000	1971	2000
	Millions of tonnes		Share (%)	
Industry	235,709	266,754	42.0	32.7
<i>of which oil</i>	121,039	80,195	21.6	9.8
Transportation	109,004	251,631	19.4	30.9
<i>of which oil</i>	104,079	246,642	18.5	30.3
Other Sectors	216,673	296,632	38.6	36.4
<i>of which oil</i>	121,550	82,281	21.7	10.1
Total	561,386	815,017	100.0	100.0

Source: International Energy Agency.

product and labour markets, as the effects on economic activity and inflation vary with the degree of price and wage flexibility in the economy. This in turn is affected by the level of product market competition and by the extent of labour market flexibility.

The degree of labour market flexibility must be taken into account when considering the transmission of an oil price shock to the economy, because it determines both the ability to adjust to such shocks and the efficiency in the allocation of labour and other resources. Labour market flexibility is defined as the labour market's ability to adapt and respond to changing economic conditions through changes in prices, i.e. wages, and/or through changes in quantities, i.e. employment or hours worked. The responsiveness of wages to changes in the price level is of particular relevance (see the box), given that, following an oil price shock, workers may demand higher nominal wages to maintain their real purchasing power but are unlikely to accept a cut in nominal wages as a result of a decrease in oil prices. In other words, wages may be flexible upwards but sticky downwards (nominal rigidity), thus exacerbating potential output losses and increases in inflation resulting from an oil price shock. The responsiveness of wages to the rate of unemployment also plays an important role because real rigidities are likely to exacerbate the negative effects of an oil price shock. The necessary sectoral shifts may be hampered by employment protection legislation or other forms of job protection shielding part of the

workforce from shocks. Likewise, insufficient wage differentiation – across sectors and firms – can make the necessary reallocation more difficult.

Given the importance of labour market flexibility, since the second half of the 1990s euro area countries have increased their efforts to promote structural reforms aimed at improving the functioning and flexibility of labour markets.<sup>4</sup> In addition, wage indexation appears to be less widespread at present compared with the 1970s, thus pointing to an increased resilience of the euro area economy to adverse shocks.<sup>5</sup>

The transmission of oil price shocks to the economy is also influenced by the flexibility of product markets, as the output loss and price increase following an oil price shock tend to be smaller in competitive markets than in markets with significant rigidities. In a very competitive market, a rapid reallocation of resources should guarantee that a new equilibrium in terms of output, employment and price level is reached swiftly when the economy is hit by an oil price shock. The existence of competitive energy markets is particularly important in this context to enhance energy price transparency and to absorb oil price shocks. The European Commission has

4 See the article entitled "The composition of employment growth in the euro area in recent years" in the November 2002 issue of the ECB's Monthly Bulletin.

5 See for example Checchi, D. and J. Visser (2002), "Pattern persistence in European trade union density", Univeristà degli Studi di Milano, Working Paper No. 1, January.

launched a number of initiatives to improve the functioning of the Internal Market. Several product market indicators point to increased flexibility in the product markets of euro area countries,<sup>6</sup> including energy markets, which are currently subject to a significant regulatory reform process. The introduction of the euro is also likely to have contributed to this process by further increasing the degree of competition and price comparability between domestic and foreign firms.

## 5 OIL PRICE SHOCKS AND POLICY REACTIONS

Past experience shows that macroeconomic policies play an important role in shaping the aggregate effects of an oil price shock on the economy. Taking the first oil price shock in the early 1970s as an example, wages increased strongly and governments generally tried to cushion the negative effects on activity via expansionary fiscal policies, leading to significant and long-lasting budget deficits.<sup>7</sup> In many countries, monetary policy also took a relatively accommodative stance: this was reflected, for example, in generally negative real interest rates in the period following the surge in oil prices. The reaction of fiscal and monetary policies in most countries was largely inadequate, considering the rapid increases in consumer prices following the first oil price shock and the strong wage rises resulting from the prevalence of wage indexation and more general attempts of workers to recoup the associated real income losses. The policy responses at that time not only postponed the fall in real income necessitated by the rise in oil prices, but in fact added inflationary pressures, thereby increasing the eventual costs of disinflation. As a result of the experience with the first oil price shock, fiscal and monetary authorities generally adopted a much less accommodative stance thereafter. For example, after the second oil price shock in 1979, monetary policy was tightened more decisively in order to hold inflation down, and fiscal policy was less expansionary in many countries.

What lessons can be drawn from the past? The most important lesson is that a net oil-importing economy such as the euro area cannot escape the terms-of-trade loss associated with an oil price increase. An oil price increase is generally associated with a transfer of wealth from net oil-importing countries to those exporting oil. This burden has to be absorbed within the economy in a way which minimises output losses and avoids the acceleration of inflation expectations. In particular, wage-setting in line with price stability over the medium term is important in helping to facilitate the necessary adjustment and limiting its associated costs.

The role of monetary policy geared to price stability is to ensure that the temporary and unavoidable direct effects of oil price increases on inflation do not fuel inflationary expectations and lead to the emergence of second-round effects. The credibility of monetary policy is pivotal in that context. As long as all economic agents are certain that monetary policy will act vigorously against the emergence of general inflationary pressures, forward-looking wage-setters are likely to behave accordingly. By anchoring inflation expectations, this strategy helps to reduce the output losses. Nevertheless, if there are indications that general inflationary pressures are increasing, central banks need to be ready to take action. In that respect, it is extremely important that monetary policy is vigilant against the emergence of second-round effects after an oil price increase, including a close monitoring of inflation expectations and developments in the wage-bargaining process. Central banks also have to assess the causes and nature of the oil price shock in combination with the current cyclical position of the economy and the likely developments in aggregate demand and supply. Moreover,

6 See for example Alesina, A., S. Ardagna, G. Nicoletti and F. Schiantarelli (2003), "Regulation and investment", OECD Economics Department Working Papers No. 352, which shows that product market regulation in 1975 was higher than in 1998 for a large number of countries.

7 See also the box entitled "Lessons to be drawn from the oil price shocks of the 1970s and early 1980s" in the November 2000 issue of the ECB's Monthly Bulletin.

monetary policy has to take into consideration the behaviour of other policy actors.

Fiscal policies can support the conduct of monetary policy geared to price stability by not trying to accommodate negative economic effects associated with oil price shocks and thereby prolonging the unavoidable real effects associated with such shocks. Generally, the underlying fiscal stance should remain broadly unchanged, although automatic stabilisers should be allowed to operate. However, if there are already significant imbalances and fiscal consolidation efforts are falling short of commitments, it is important that governments return to consolidation policies, particularly if the increase in oil prices is expected to remain for some time. In such a situation, an accommodative budgetary policy stance could have a destabilising effect, as it could delay structural adjustment and prolong inflationary pressures. Finally, structural policy also has to play its part in increasing the flexibility in euro area labour and product markets. Further structural reforms, particularly those related to the labour market, will facilitate the adjustment after an oil price shock and better shield the euro area against future shocks.

## 6 CONCLUSION

Given the intrinsic volatility of the oil market, as well as the importance of oil as a production factor and consumption good, oil price movements are likely to remain a significant factor for inflation and economic activity in the euro area. Standard macroeconomic models suggest that a strong rise in oil prices can have a non-negligible impact on the euro area economy by lifting inflation and, albeit to a somewhat lesser extent, dampening real GDP growth. Such estimates are, however, surrounded by considerable uncertainty and can only serve illustrative purposes.

Against this background, the oil price increase observed over the last year and, in particular, the fact that oil prices have remained at a higher than

expected level for quite some time could entail risks to price stability and growth. However, when assessing the impact of this oil price shock, it should be noted that the recent rise in oil prices has been significantly smaller than in previous episodes, when such increases had a major impact on the world economy. This is not only true when looking at developments in oil prices in USD terms, but particularly when developments are expressed in euro terms, as the past appreciation of the euro has had some dampening effects. In addition, in real terms, oil prices are significantly below the peaks they have reached in the past. Moreover, while previous oil price increases have been driven mainly by supply factors, the recent increase is also due to a higher demand for oil as a result of the strong global expansion. All in all, the current rise should have a more limited impact on the euro area economy than the large oil price shocks of the past. Nevertheless, persistently high levels of oil prices or even further increases would be a reason for concern.

From a structural perspective, several factors suggest that the euro area economy is now more resilient to oil price shocks. When compared with the 1970s, the oil intensity of production and the share of oil consumption in total energy consumption have fallen significantly in the euro area. In addition, labour and product markets appear to have become somewhat more flexible, allowing for a smoother and faster reallocation of resources. However, further structural reforms are clearly needed to increase the ability of the euro area economy to adjust more smoothly and faster to future shocks.

The recent rise in oil prices has already had a visible direct impact on euro area inflation. It is important that monetary policy prevents the emergence of general inflationary pressures by anchoring inflation expectations. A credible monetary policy geared to price stability thereby reduces output losses. Vigilance is nevertheless needed to ensure that second-round effects do not materialise. Such effects would be prevented by wage-setting in line with price stability over the medium term.





# EXTRACTING INFORMATION FROM FINANCIAL ASSET PRICES

## ARTICLES

Extracting information from financial asset prices

*Asset prices are an important and very timely source of information for central banks about market expectations concerning a number of fundamental macroeconomic variables. This article describes a number of tools that can be used to extract market expectations for key economic variables, mainly inflation and future economic activity, from asset prices. This list of tools is far from exhaustive, but it should provide an idea of how a central bank can use in practice the information contained in financial asset prices as an input for pursuing its goal of price stability.*

*Regarding the bond market, the yield spread between comparable conventional bonds and inflation-linked bonds –often referred to as the ‘break-even inflation rate’–provides a timely indicator of market participants’ inflation expectations for the euro area. Long-term index-linked bond yields can provide information about long-term economic growth expectations and option prices can be used to obtain the distribution of market participants’ expectations of bond yields over the very short term. Finally, comparing long-term nominal bond yields with alternative measures of long-term nominal growth expectations may provide some insights into developments in bond market risk premia.*

*With regard to the stock market, as expected aggregate dividends tend to be closely linked to the expected growth in economic activity, stock prices can provide useful additional information for assessing market participants’ expectations for overall economic activity. Furthermore, options on stock prices can provide indications about the perceived fragility of overall stock market conditions.*

*In general terms, while the information derived from all the presented indicators could in principle be very useful for monetary policy purposes, it is important to bear in mind that their information content is generally based on rather strong assumptions about the link between asset prices and key economic variables, and should therefore be interpreted with caution.*

## I INTRODUCTION

For a central bank, the prices of financial assets and their derivatives are an important source of information about the expectations of market participants for a number of fundamental macroeconomic variables, such as inflation and economic activity. This information content rests on the fact that financial asset prices are inherently forward-looking and thus incorporate market participants’ expectations about financial and economic developments. Regular monitoring of financial market developments may therefore provide useful information for central banks and in a more timely fashion than most business cycle and inflation indicators, which are usually published with relatively long lags.

Despite these advantages, the interpretation of indicators based on financial asset prices is

often not straightforward, and it is important to bear in mind some caveats. Although the general information content of asset prices regarding market expectations is rarely questioned on theoretical grounds, from a more practical point of view the methods for extracting those expectations are critical. In particular, the information extracted from financial asset prices often rests on rather restrictive but nonetheless necessary assumptions about the links between the asset price concerned and macroeconomic fundamentals. In addition, asset prices can also be influenced by factors other than macroeconomic ones such as institutional features of the market or temporary shifts in supply and demand for the underlying asset not related to macroeconomic fundamentals. For this reason, it is important to carefully assess all potential factors in order to conduct a rigorous analysis of market expectations.

This article presents a number of tools and indicators to extract information from financial instruments and to monitor developments in financial markets in the euro area. The structure of the article is as follows. Section 2 focuses on the bond market. Indicators of inflation expectations extracted from government bonds, the information content of government bond yields regarding market expectations for economic activity and some measures of uncertainty are analysed. Section 3 shows how developments in stock prices can be used to extract expectations of macroeconomic fundamentals and investors' risk appetite and risk perceptions. Conclusions are drawn in Section 4.

## 2 ANALYSIS OF BOND MARKET DEVELOPMENTS

Long-term government bond yields reflect investors' expectations about inflation and economic activity, mainly over medium to long-term horizons, as well as expectations of monetary policy rates over shorter horizons. In addition, investors require risk premia to hold those long-term bonds which are also reflected in the levels of bond yields. These risk premia can be thought of as a compensation for bearing the uncertainty related to those expectations and consequently can be expected to vary over time.

Although extracting all that information is not straightforward, some tools are available which allow plausible conclusions to be drawn. For instance, monitoring bond yields over long periods can help identify how expectations about fundamental variables have evolved over time. Equally importantly, the comparison of conventional nominal and inflation-linked bond yields provides measures of market participants' inflation expectations, and making such comparisons at different horizons can provide a time profile of inflation expectations at a given point in time. Finally, measures of how market expectations are distributed can also be useful for monetary policy purposes.

### 2.1 DETERMINANTS OF LONG-TERM BOND YIELDS

Long-term nominal bond yields can be thought of as comprising three key elements: the expected real interest rate, which is often regarded as being closely linked to expectations about economic activity, the expected rate of inflation, and risk premia. Some indication of the impact of these three elements on long-term bond yields can be obtained by comparing those yields with available survey data on long-term inflation and growth expectations.

Chart 1 plots ten-year government bond yields in the euro area and comparable nominal GDP growth expectations (constructed by summing consumer price inflation expectations and real GDP growth expectations from Consensus Economics) over long horizons. Two notable features emerge from the chart. First, over the sample under consideration, bond yields and nominal growth expectations generally displayed similar movements, which suggests that long-term expectations about macroeconomic fundamentals have played an important role in the determination of bond yields.<sup>1</sup> Second, the gap between long-term nominal bond yields and long-term nominal growth expectations narrowed considerably in the last decade. Long-term bond yields in the euro area stood well above long-term nominal growth expectations during the first half of the 1990s. This may be partly related to the relatively high uncertainty at that time about future developments in inflation, economic growth and real interest rates. Since the late 1990s, however, the gap between the two has narrowed mirroring the reduction in risk premia requested by investors as a result of a more stable macroeconomic environment, including progressive exchange rate stability. This

<sup>1</sup> Structural factors such as lower productivity and population growth may have also contributed to the decline in bond yields over the 1990s. For a further discussion, see the article entitled "The natural real interest rate in the euro area" in the May 2004 issue of the Monthly Bulletin.

**Chart 1 Long-term nominal bond yields and long-term nominal GDP growth expectations in the euro area**

(percentages per annum)



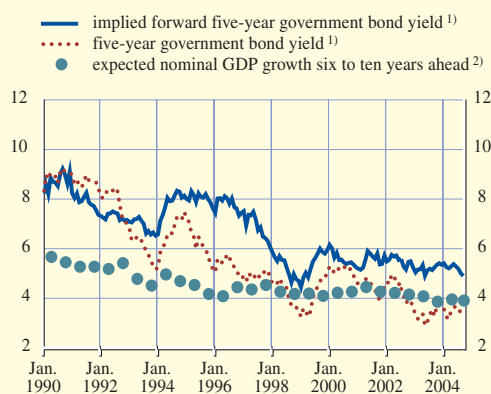
Sources: Consensus Economics and Reuters.

1) Euro area bond yields prior to 1999 are computed as a weighted average of yields in all euro area countries using country GDP weights and PPP-based exchange rates. Thereafter outstanding amounts of bonds are used as weights for the calculation.

2) Up to October 2002, euro area expectations are computed as a GDP-weighted average of those for France, Germany, Italy, the Netherlands and Spain.

**Chart 2 Five-year spot and implied forward bond yields and long-term nominal GDP growth expectations in the euro area**

(percentages per annum)



Sources: Deutsche Bundesbank and Consensus Economics.

1) German (zero coupon) bond yields.

2) Expectations refer to German data prior to 1999 and to euro area data afterwards. Euro area data are computed as a GDP-weighted average of those for France, Italy, the Netherlands and Spain between April 1999 and October 2002.

narrowing may have also been a beneficial effect of a monetary policy firmly committed to maintaining price stability in the euro area as a whole.<sup>2</sup>

Apart from fundamental factors such as long-term growth and inflation expectations, the stance of monetary policy often also plays a role in determining long-term bond yields via the impact of this stance on short-term interest rates. This is most easily understood by thinking in terms of the expectations hypothesis of the term structure of interest rates, which states that long-term interest rates should reflect an average of current and expected short-term interest rates over the life of the long-term bond. The future path of short-term interest rates, in turn, is mainly determined by market participants' expectations about the future course of monetary policy. Abstracting from term premia, this implies that when the economy has stabilised around the expected long-run levels of economic growth and inflation, short-term and long-term interest rates should both stay at levels relatively close to nominal growth

expectations. Yet, at business cycle frequencies, the economy may be hit by shocks which require monetary policy actions in order to maintain price stability over the medium term. In such circumstances, short-term interest rates may deviate for some time from "neutral" levels in line with long-term macroeconomic fundamentals reflecting the monetary policy stance, and this can also affect, via the expectations channel, longer-term bond yields.

However, monetary policy may also have an impact on long-term bond yields through other channels. In particular, the credibility of monetary policy should be reflected in low and stable long-term inflation expectations, thereby contributing to a more stable macroeconomic environment and low variability in output growth which, in turn, would tend to support a lower level of bond yields through lower risk premia. For this reason, a relatively high level of short-term

2 See the box entitled "The information content of euro area long-term forward interest rates" in the August 2004 issue of the Monthly Bulletin.

interest rates may sometimes be associated with low interest rates at the long end of the maturity spectrum.

A useful way to abstract from the short-term monetary policy influences on long-term bond yields is, for example, to decompose the ten-year bond yield into a five-year spot rate and a five-year implied forward rate five years ahead (see Chart 2). The reason for this is that shorter-term bond yields are more affected by monetary policy expectations over the short term. At the same time, the forward yield five years ahead should be much more affected by monetary policy credibility (and the related factors mentioned above).

Forward rates for the euro area are not available over a long time period, but a decomposition of long-term bond yields can instead be conducted on German bond data. Given the rather small and relatively stable spreads between government bond yields within the euro area since 1999, German bond yields can be regarded as representing interest rate developments in the euro area as a whole sufficiently well over the last few years.

Chart 2 shows that the five-year implied forward rate always stood above long-term nominal growth expectations over the period from 1990 to 2004. The two measures declined overall during the sample period, with the gap between those two measures narrowing over time probably reflecting a reduction in risk premia. However, the gap between forward bond yields and nominal growth expectations over the past couple of years has remained larger than the gap between ten-year bond yields and nominal growth expectations shown in Chart 1. This is due to the fact that the five-year spot yield fell somewhat below nominal growth expectations on several occasions including the past two years, partly reflecting a relatively accommodative monetary policy stance over these periods. Conversely, at the beginning of the 1990s, due to monetary policy responses, both the five-year spot yield and the

five-year forward rate stood well above long-term growth expectations.

## **2.2 EXTRACTING INFORMATION ABOUT MARKET PARTICIPANTS' INFLATION EXPECTATIONS**

One of the main components of long-term nominal interest rates is investors' inflation expectations. Such expectations are a fundamental piece of information for a central bank. Indeed, long-term inflation expectations are often used as a measure of the credibility of monetary policy: if the central bank's commitment to maintain price stability is credible, the private sector's long-term inflation expectations should be firmly anchored at levels consistent with the definition of price stability.

### **BREAK-EVEN INFLATION RATES IN THE EURO AREA**

In the last few years a number of countries in the euro area have issued government bonds whose coupon and principal at redemption are indexed to the euro area HICP excluding tobacco (see Box 1). The yield spread between comparable conventional bonds and index-linked bonds should reflect, among other things, market participants' inflation expectations for the euro area over the residual maturity of the bond. This yield spread is therefore often referred to as the "break-even inflation rate" because it provides an estimate of the level of expected inflation at which, under certain assumptions, an investor would be indifferent as to which of the two types of bond to hold.

Break-even inflation rates offer several important advantages as a source of information on the private sector's long-term inflation expectations. First, in terms of timeliness, they are available at very high frequency. This makes them particularly useful for detecting changes in long-term inflation expectations as they occur, which is something more difficult to detect in survey data given that surveys are only conducted a few times

per year. Second, in terms of reliability, they provide information about inflation expectations, which form the basis for market trades. Finally, as conventional and index-linked bonds are usually issued over a variety of original maturities, they in principle allow for the extraction of information about inflation expectations at a larger number of horizons than usually reported in surveys.

It should, however, be borne in mind that break-even inflation rates are only an imperfect indicator of market participants' long-term inflation expectations because the difference between comparable nominal and index-linked bond yields may be affected by purely technical and institutional market factors and may incorporate several premia, including an inflation uncertainty premium and a liquidity premium. More specifically:

- break-even inflation rates are likely to incorporate an inflation risk premium required by investors to be compensated for inflation uncertainty when holding long-maturity nominal bonds. The rationale is as follows. Future inflation erodes the payments on a nominal security but not those on an index-linked bond. Investors are therefore likely to demand a premium as compensation for holding long-term nominal securities, and, as they are typically risk-averse, such a premium is likely to vary over time with the uncertainty about future inflation. Moreover, it is natural for this inflation risk premium to rise with the maturity of the bond. This premium tends to bias the break-even inflation rate upwards. At the same time, inflation uncertainty over long horizons may also indicate the extent to which inflation expectations are anchored, which is important information for a central bank.
- as the liquidity of the index-linked bond is typically lower than that of the comparable nominal bond, this may lead to the presence of a higher liquidity premium embedded in the yields on index-linked bonds. This

liquidity premium would therefore tend to bias the break-even inflation rate downwards.

- in the euro area, the break-even inflation rates refer to the HICP excluding tobacco.<sup>3</sup> The inflation rate measured by the overall HICP (i.e. including tobacco) has been slightly higher than for the HICP excluding tobacco over recent years. If this were to continue in the future, it would imply a negative bias in the break-even inflation rates as an indicator of expectations for (overall) HICP inflation.
- break-even inflation rates may sometimes be biased as a result of technical and institutional market factors, such as tax distortions and regulation affecting investors' tax liabilities or incentives affecting the prevailing demand for index-linked instruments, which may have little to do with changes in inflation expectations. Unfortunately, the distortionary effect of changes in legislation and market practices on break-even inflation rates is difficult to isolate and quantify, even in the case of more mature index-linked bond markets (e.g. that of the United Kingdom).<sup>4</sup>

Given those caveats, it is advisable to focus on changes in rather than the level of the break-even inflation rates when interpreting these rates in terms of long-term inflation expectations. However, index-linked bonds remain a very valuable source of information on inflation expectations for a central bank, and their importance is likely to grow over time with the increase in available maturities and liquidity in the market (see Box 1). In addition, as a cross-check, it is useful to compare break-even inflation rates with

<sup>3</sup> See Box 1 for an explanation.

<sup>4</sup> For an illustration in the case of the UK market, see the article "On market-based measures of inflation expectations" by C. Scholtes in the Spring 2002 Quarterly Bulletin of the Bank of England.

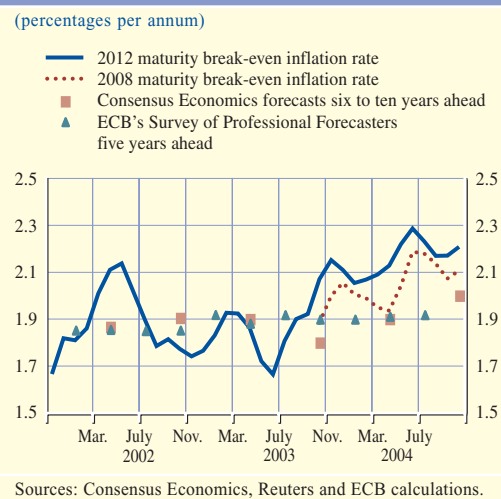
survey measures of long-term inflation expectations.

Chart 3 depicts the break-even inflation rates calculated from inflation-linked bonds of two different maturities, 2008 and 2012, issued by the Italian and the French Treasury respectively. As both bonds are indexed to the euro area HICP excluding tobacco, these break-even inflation rates can be used to gauge investors' long-term inflation expectations for the euro area. Given the still relatively limited range of maturities at which index-linked bonds are issued in the euro area, the index-linked bonds maturing in 2008 and 2012 remain the reference bonds for the calculation of the five-year and ten-year break-even inflation rates, despite the fact that their residual maturities have declined in the meantime to around four and eight years respectively.

Since the issuance of the 2012 maturity bond in November 2001, the break-even inflation rate extracted from this bond has fluctuated between 1.6% and 2.4%, and has averaged approximately 1.9%. The break-even inflation rate extracted from the 2008 maturity bond, issued in September 2003, has remained below the ten-year break-even inflation rate in the same period. This partly suggests that the inflation risk premium increases with maturity.

The growing range of maturities for which bonds indexed to the euro area HICP are available allows a comparison of average inflation expectations over different horizons. For instance, break-even inflation rates seemed to rise significantly over the second quarter of 2004. Oil price developments over that period might have not only increased short-term inflation expectations but also the uncertainty about future price developments, also possibly influenced by the ongoing recovery in global economic activity. In that context, it was important to monitor closely over which horizons inflation expectations were most affected. The break-even inflation rates over shorter horizons increased more than the ones over longer terms, with the five-year break-

**Chart 3 Break-even inflation rates and survey measures of long-term inflation expectations in the euro area**



even inflation rate reaching the level of the ten-year break-even inflation rate by early June 2004 (see Chart 4). This indicates that inflation expectations during that period were mainly affected over shorter horizons, whereas they remained more stable over longer ones.

The calculation of the implied forward break-even inflation rate embodied in those spot break-even inflation rates may offer more precise information in this regard. The spot break-even inflation rates shown in Chart 3 should reflect the average inflation compensation required by investors over the residual maturity of the bond. This average expected inflation can be decomposed into the average expected inflation between 2004 and 2008 (as measured by the spot break-even inflation rate from the 2008 index-linked bond) and the average expected inflation between 2009 and 2012 (as measured by the implied forward break-even inflation rate). The implied forward break-even inflation rate should be higher than the five-year break-even inflation rate because the inflation risk premium should increase with maturity, reflecting higher inflation uncertainty at longer horizons.

The implied forward break-even inflation rate for the period 2009-2012 displays similar

## Box I

## DEVELOPMENTS IN THE INDEX-LINKED BOND MARKET IN THE EURO AREA IN RECENT YEARS

The first bond with coupon payments indexed to euro area inflation was issued by the French Treasury in November 2001, with a maturity of July 2012. Although the ECB's definition of price stability in the euro area is based on the overall HICP, i.e. including tobacco, compliance with French regulations on the issuance of index-linked instruments has led to the choice of the euro area HICP index excluding tobacco. The latter reference index has become the market benchmark in the euro area since then, and all the inflation-linked bonds issued so far have been indexed to the euro area HICP excluding tobacco.

Following a relatively slow start, the market for index-linked bonds in the euro area has experienced significant growth since 2003, as two additional euro area countries, namely Greece and Italy, have decided to issue index-linked bonds (see table).<sup>1</sup> Moreover, a few other euro area governments have announced that they are considering the issuance of index-linked debt in 2005. The Italian and Greek bonds share most of the technical characteristics of the existing French index-linked bonds, namely they are linked to the euro area HICP excluding tobacco and also offer guaranteed redemption at par, implying deflation protection, but the bonds are not perceived by rating agencies as bearing the same credit risk.

Liquidity in the euro area index-linked bond market has been enhanced by the higher number of issuers and maturities available, and the turnover seems to have increased substantially in the last two years (see chart). In addition, over the most recent period, investors' interest in index-linked securities has increased significantly. Some changes in regulations seem to have played a major role in boosting demand for such instruments, mainly from insurance companies and pension funds, which may have led to some shortages in the market despite the growing issuance volume.<sup>2</sup>

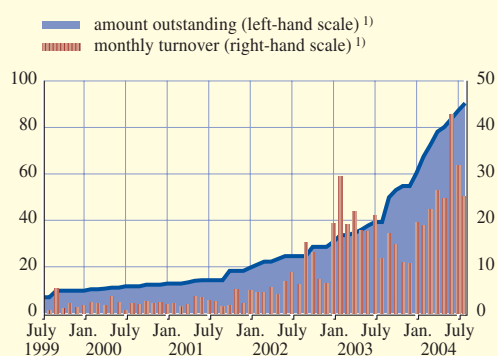
## Characteristics of existing bonds linked to the euro area HICP excluding tobacco

Issuer	Maturity	Issuance date	Amount outstanding (EUR billions)
Italy	Sep. 2008	Sep. 2003	7.00
France	July 2012	Nov. 2001	11.00
France	July 2020	Jan. 2004	5.08
Italy	Sep. 2014	Feb. 2004	8.50
Greece	July 2025	Mar. 2003	1.25
France	July 2032	Oct. 2002	5.00

Sources: French, Italian and Greek Treasuries.

## Monthly turnover and amount outstanding of inflation-linked bonds issued by the French Treasury

(EUR billions)



Sources: French Treasury and BNP Paribas.

1) These data refer to both debt linked to the euro area HICP excluding tobacco and to the French CPI excluding tobacco.

1 For additional details, see the box entitled "Recent developments in the market for index-linked bonds in the euro area" in the December 2003 issue of the Monthly Bulletin.

2 For instance, anecdotal evidence suggests the changes in French regulation towards an indexation of the interest rate paid on certain deposits led to a need for inflation hedging by financial institutions offering such products.



fluctuations to those of the ten-year break-even inflation rate (see Chart 4). However, it exhibits somewhat higher stability. This suggests that inflation expectations over long horizons have remained more stable, whereas those over shorter horizons have been more volatile. In addition, it is likely that the inflation risk premium is less volatile at long horizons than over shorter ones.

#### THE INFLATION-LINKED SWAP CURVE AND IMPLIED FORWARD INFLATION-LINKED SWAP RATES

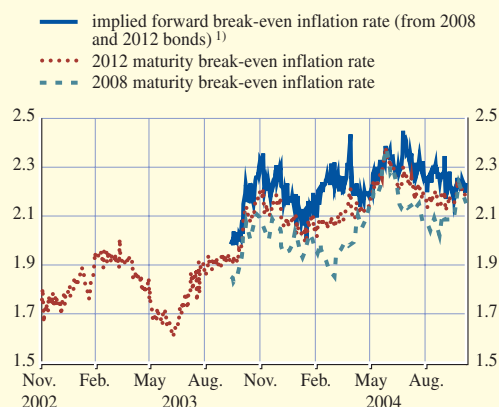
Inflation-linked swaps (I/L swaps) are an alternative source of information about the private sector's inflation expectations for the euro area. In an I/L swap agreement, an investor commits to pay to another investor a stream of payments on the basis of a fixed rate in exchange for a stream of payments linked to realised inflation over the life of the contract.<sup>5</sup>

The I/L swap market has grown rapidly since 2002, reflecting the increasing demand for inflation-linked instruments and the relatively limited supply of index-linked bonds in the euro area. In fact, corporations with revenues linked to inflation (e.g. utilities and retailers) can use this market to hedge against the impact of low inflation on their revenues, while corporations with liabilities linked to inflation (e.g. pension funds and life insurance corporations) can use it to hedge against the impact of high inflation on their liabilities.

I/L swap rates provide a much wider range of maturities than index-linked bonds, in particular for short and medium-term horizons, making it possible to obtain a proper term structure of inflation swap rates. As in the case of the term structure of interest rates, the I/L swap rate curve also tends to be upward sloping, which may reflect the presence of term premia, probably closely linked to inflation uncertainty and rising with maturity. Therefore, as with break-even inflation rates, I/L swap rates are likely to be a biased and therefore imperfect indicator of inflation expectations.

**Chart 4 Decomposition of ten-year break-even inflation rates into spot and forward rates**

(percentages per annum)



Sources: Reuters and ECB calculations.

1) Given the limited availability of maturities for index-linked bonds in the euro area, this decomposition uses bonds issued by different Treasuries with approximately five and ten-year maturities.

There are, however, two main reasons why I/L swap quotations are likely to differ from break-even inflation rates of similar maturity. First, the most common type of I/L swaps in the euro area are zero coupon swaps, i.e. with payments taking place only once on the date of maturity of the swap, while index-linked bonds are coupon-bearing bonds with an annual payment, which may help to explain the higher I/L swap rate quotations compared with similar break-even inflation rates.<sup>6</sup> In addition, a counterparty risk may also be included in the measure of inflation expectations extracted from I/L swaps. This risk is usually mitigated through collateral and therefore should not be substantial but it does bias I/L swap rates upwards with respect to break-even inflation rates.

5 This section focuses on information extracted from zero coupon swaps.

6 An alternative way of comparing break-even inflation rates with I/L swap rates would be to match the duration of both financial instruments. See the box entitled "Deriving euro area inflation expectations from inflation-linked swaps" in the September 2003 issue of the Monthly Bulletin for an illustration of that approach.

Changes in inflation expectations can be analysed by monitoring shifts in the I/L swap rate curve over time. For instance, the rise in inflationary concerns in the second quarter of 2004 led to a significant upward shift of this curve in May and June 2004, followed by a gradual reversal over the summer months. As for break-even inflation rates, implied forward inflation rates can also be computed from I/L swap rates. Indeed, the wider spectrum of maturities for which I/L swap spot rates are available permits the calculation of implied forward rates for many different horizons.

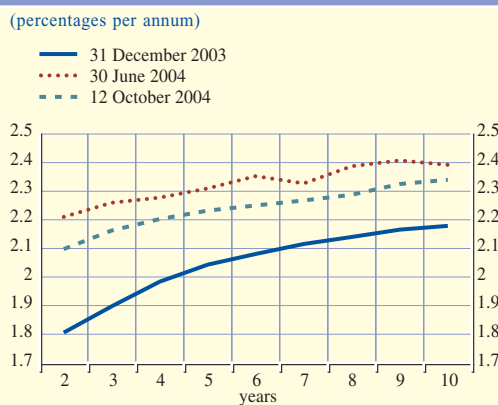
### 2.3 MARKET EXPECTATIONS FOR ECONOMIC ACTIVITY

Future economic growth expectations are another fundamental determinant of long-term bond yields through their impact on the real interest rate component. The link between long-term growth prospects for the economy and the level of real interest rates goes back at least as far as Irving Fisher.<sup>7</sup>

In this respect, a comparison of real yields may provide useful information for central banks on how market participants perceive the long-term growth prospects of the economy. One option is to look at the yields from indexed bonds linked to the euro area HICP, but they are only available from November 2001 onwards. An alternative method is to compute ex ante real bond yields by discounting long-term nominal bond yields by measures of inflation expectations, for example from Consensus Economics, one to ten years ahead. Such a measure of ex ante real bond yields should however be treated with some caution as it also contains inflation uncertainty premia, while yields on index-linked bonds should only incorporate a premium related to real interest rate risk.

Chart 6 reveals some notable features. First, the trend is similar for the measures of long-term real yields and market participants' long-term real GDP growth expectations. This confirms that investors' long-term economic expectations play a role in the dynamics of

Chart 5 Inflation curve derived from inflation-linked swaps in the euro area



Source: Bloomberg.

long-term real interest rates in the euro area. Second, the ex ante measure of ten-year real bond yields (i.e. nominal bond yields discounted by inflation forecasts) and the one based on index-linked bonds moved very much in parallel. However, the level of the measure of survey-based ex ante real bond yields has decoupled somewhat from the yields offered on euro area inflation-linked bonds since around mid-2003. This deviation between the two measures might indicate an overall increase in the inflation uncertainty premium embedded in nominal bond yields, as was also reflected in the simultaneous increase observed in the ten-year break-even inflation rate.

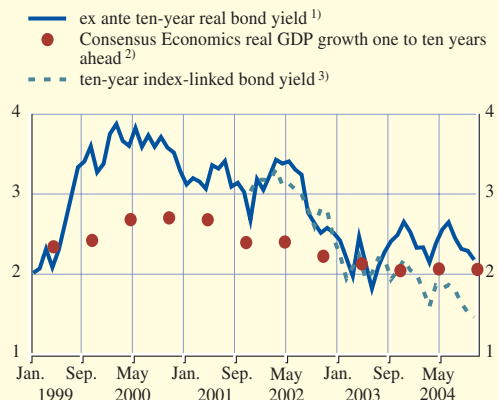
### 2.4 THE INFORMATION CONTENT OF BOND PRICE OPTIONS

In addition to monitoring central expectations about the future path of fundamental macroeconomic variables, it is useful to assess how widely and evenly expectations are distributed around their mean. In this respect, information contained in option prices is particularly suitable as they allow for the inference of a complete distribution of market expectations and consequently a variety of

<sup>7</sup> See I. Fisher (1907), "The Rate of Interest", New York, Macmillan.

**Chart 6 Ex ante ten-year real bond yields, long-term index-linked bond yields and long-term real GDP growth expectations in the euro area**

(percentages per annum)



Sources: Consensus Economics, Reuters and ECB calculations.

1) Euro area ten-year nominal government bond yields discounted by inflation expectations one to ten years ahead provided by Consensus Economics.

2) GDP-weighted average of the expectations for France, Germany, Italy, the Netherlands and Spain.

3) Refers to French government bonds indexed to the euro area HICP excluding tobacco.

higher moments. One popular measure derived from option prices is the implied volatility which, in theory, reveals the dispersion of expectations about the future price of the underlying asset.<sup>8</sup>

However, option prices can reveal information beyond that contained in the implied volatility. In fact, since the price of an option depends on the perceived probability that the price of the underlying asset will exceed the strike price of the option on the day of maturity, a set of option prices with the same maturity but with different strike prices can be used to infer the entire probability distribution of market participants' price expectations. Estimation of the complete implied option probability density function thus provides the full set of probabilities that market participants attach to the different price levels of the underlying asset at the maturity of the options. It should however be borne in mind that any effects coming from risk premia, which may potentially be large and could vary significantly over time, are not taken into account when interpreting these distributions in terms of actual expectations.

One interesting measure derived from such an implied probability density function is the degree of asymmetry measured by the skewness coefficient, which can be used to assess relative upward and downward risks affecting the underlying asset price as perceived by market participants. When this coefficient is calculated for the probability density function extracted from options on German Bund futures contracts, a positive skewness indicates that market participants attach a greater likelihood to strong increases in bond yields than to declines of the same magnitude. Chart 7 displays the monthly average skewness measure based on those options with 30 days until maturity.<sup>9</sup> This indicator has been positive throughout 2003 and 2004, suggesting the anticipation among market participants of net upward risks with regard to future levels of bond yields in the euro area.

### 3 ASSESSING DEVELOPMENTS IN STOCK MARKETS

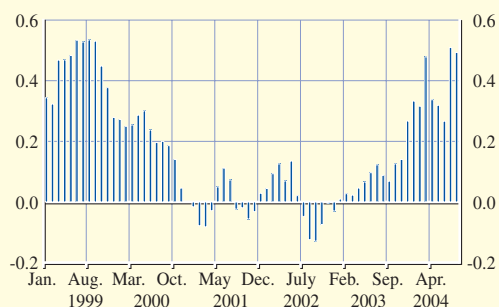
Aggregate stock prices may contain information on expectations about the future course of the economy which goes beyond that contained in bond prices. Since expected aggregate dividends tend to be closely linked to the expected growth in corporate earnings, stock market data can provide useful additional information for assessing market participants' expectations for economic activity in the economy as a whole. In addition, measures of stock market risks as perceived by investors may help in assessing the uncertainty surrounding their macroeconomic expectations and may also provide indications about the perceived fragility of overall stock market conditions.

<sup>8</sup> See the article entitled "The information content of interest rates and their derivatives for monetary policy" in the May 2000 issue of the Monthly Bulletin.

<sup>9</sup> As results in terms of yield to maturity may be more informative and intuitive, the estimated bond futures price distribution is transformed in Chart 7 into a bond yield distribution.

**Chart 7 Option-implied skewness coefficient for long-term bond yields in the euro area**

(monthly averages of daily data)



Sources: Eurex and ECB calculations.

Note: The option-implied skewness coefficient is calculated using prices of options on German government bond futures (with 30 days to maturity).

### 3.1 EXPLAINING STOCK PRICE DEVELOPMENTS: A MODEL-BASED DECOMPOSITION EXERCISE

In order to explain stock prices empirically, a model that relates stock prices to other observable variables which can be regarded as “fundamental” for the valuation of stocks is needed. The standard theoretical approach to valuing stocks is the dividend discount model. Assuming efficient markets, in equilibrium stock prices should just equal the present value of expected future dividends. The discount rate used to calculate the present value of future expected dividends can be broken down into a real interest rate measuring opportunity costs (i.e. the real rate of return on an alternative investment in government bonds, for example) and a corresponding equity risk premium. This equity risk premium compensates investors for bearing the typically higher risks of equities, owing to the uncertainty of future dividends, compared with interest-bearing securities. Hence, the dividend discount model identifies current and expected dividends (or corporate earnings), real interest rates and the equity risk premium as the fundamental stock price factors. This sub-section will illustrate the use of a dividend discount model to explain actual developments in euro area stock prices in terms of these fundamental macroeconomic factors

(see Box 2 for details of the underlying empirical application of the model).

The equity risk premium estimated for the Dow Jones EURO STOXX index on the basis of the three-stage dividend discount model seems to be a useful indicator of market participants’ perceptions of stock market risk and their degree of risk aversion. For example, as shown in Chart 8, the estimated equity risk premium co-moved quite closely with a survey-based indicator of stock market investors’ risk appetite. The risk appetite indicator is shown on an inverted scale, such that a decline in this series means a higher risk appetite of investors which indeed tended to coincide with a decline in the estimated equity risk premium, for example. Moreover, the average level of the implicit equity risk premium of around 4% over the period covered appears consistent with the usual estimates of the equity risk premium.

Having calculated the equity risk premium in this way, an (approximate) decomposition of a given percentage change in stock prices into the individual contributions coming from changes in dividends, from analysts’ expected real earnings growth, as well as from the real long-term interest rate and the equity risk premium can be accomplished. This is shown in Chart 9 for quarterly percentage changes in the Dow Jones EURO STOXX index from the second quarter of 2002 to the second quarter of 2004.

The chart suggests that over the past two years stock prices in the euro area have been mainly driven by changes in the equity risk premium and the real long-term interest rate. Developments in current dividends and expected earnings, by contrast, contributed much less to the explanation of stock prices on average.

While such an explanatory pattern appears highly plausible over this particular period, some of the caveats applying to the three-stage dividend discount model have to be stressed again. In particular, the equity risk premium is calculated as the residual term of the model, therefore picking up the influence of all the

**Box 2****A THREE-STAGE DIVIDEND DISCOUNT MODEL FOR THE EURO AREA**

This model postulates that stocks can be priced according to the present value of the expected stream of dividends over a principally infinite future. The real stock price,  $P$ , can then be expressed as:

$$P_t = \frac{D_t(1+g)}{h-g}$$

where  $D$  denotes the current level of real dividends, and  $g$  and  $h$  are respectively the expected real dividend growth rate and the discount rate, both of which are, in the simplest version, assumed constant.<sup>1</sup> Furthermore, assuming that dividends are a constant proportion of earnings, the expected dividend growth rate can be replaced by the expected future growth rate of earnings.

To apply the model to the Dow Jones EURO STOXX prices, we follow Fuller and Hsia (1984) and assume that real corporate earnings growth is expected to develop in three stages.<sup>2</sup> In the first stage (the first four years), earnings are expected to grow at a real rate  $g_t^{IBES}$ , which is set equal to I/B/E/S (Institutional Brokers Estimate System) analysts' "long-term" (three to five years ahead) earnings-per-share growth forecasts for firms in the Dow Jones EURO STOXX index,<sup>3</sup> less five-year-ahead Consensus Economics inflation forecasts. The second stage is an interim period (assumed to last for eight years) when real earnings growth is expected to adjust in a linear fashion to a constant long-term growth rate of real corporate earnings,  $g$ , which is assumed to prevail throughout the third infinite stage.

The equilibrium price of the Dow Jones EURO STOXX index can then be expressed as:

$$P_t = \frac{D_t[(1+g) + 8(g_t^{IBES} - g)]}{h_t - g}$$

$P_t$ ,  $D_t$  and  $g_t^{IBES}$  are observable variables, and  $g$  is assumed to be constant and equal to 2.5%.<sup>4</sup>

The discount rate  $h_t$  can be calculated implicitly as the residual term, and broken down into a real interest rate and an equity risk premium. Hence, an estimate of the equity risk premium for the Dow Jones EURO STOXX index can be obtained by subtracting the yield on a ten-year French index-linked government bond indexed to the euro area HICP as a measure of real interest rates from the implicitly calculated discount rate. The implied equity risk premium should be interpreted with caution because there are several factors that are not properly captured by this simplistic framework.

1 For a derivation of the model, see the annex to the article entitled "The stock market and monetary policy" in the February 2002 issue of the Monthly Bulletin.

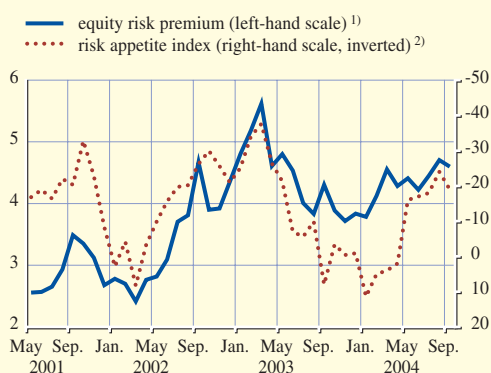
2 See R. J. Fuller and C.-C. Hsia (1984), "A simplified common stock valuation model", *Financial Analysts Journal*, September-October, pp. 49-56, and N. Panigirtzoglou and R. Scammell (2002), "Analysts' earnings forecasts and equity valuations", *Bank of England Quarterly Bulletin*, Spring, pp. 59-66.

3 Such earnings growth expectations should in any case be treated with some caution since they may not be unbiased and may not be fully representative of the market expectations. See the box entitled "What is the information content of stock market earnings expectations held by analysts?" in the March 2004 issue of the Monthly Bulletin.

4 This long-term rate of growth of real corporate earnings is chosen to be broadly consistent with private sector expectations of potential growth in the euro area.

**Chart 8 Equity risk premium in the euro area and risk appetite of global investors**

(left-hand scale in percentages per annum; right-hand scale in percentage points)



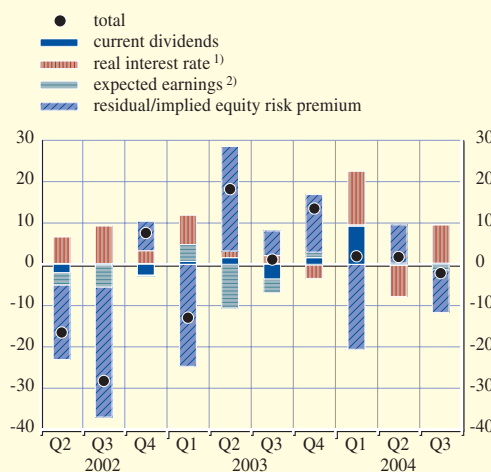
Sources: Thomson Financial Datastream, Consensus Economics, STOXX, Merrill Lynch Global Fund Manager Survey and ECB calculations.

1) Estimated on the basis of the three-stage dividend discount model described in Box 2.

2) Net percentage balance of respondents to the Merrill Lynch Global Fund Manager Survey saying that they are currently taking higher, normal or lower than normal risk in their investment strategy relative to their benchmark, where a negative number denotes net lower than normal risk-taking.

**Chart 9 Decomposition of changes in the Dow Jones EURO STOXX index based on the three-stage dividend discount model**

(contributions to quarterly percentage changes)



Sources: Thomson Financial Datastream, Consensus Economics and ECB calculations.

1) The real rate is the yield on ten-year French government bonds linked to the euro area HICP.

2) Analysts' long-term earnings growth expectations for the Dow Jones EURO STOXX index provided by the Institutional Brokers Estimate System.

other factors driving stock prices, which are not properly captured by the framework. Hence, the estimated equity risk premium might be more volatile than justified by investors' "true" changes in risk aversion and risk perception, implying that the decomposition tends to overstate the impact of the equity risk premium on stock prices. The influence of earnings growth expectations and real interest rates may not be properly captured either, since they are both represented by just a single indicator and not by the whole term structure of earnings growth expectations and real interest rates.

In addition, the model does not explicitly account for changes in inflation as a potential driver of stock prices: the dividend discount model uses real earnings growth discounted by a real government bond yield and should therefore be principally neutral to changes in inflation expectations, apart from the impact of inflation on the level of nominal dividends. The fact that dividend yields seem to revert back to some long-term equilibrium value over time

implies that nominal stock prices and nominal dividends tend to grow at the same rate in the long run. This, in turn, may suggest that, assuming that any change in the rate of inflation leads to a proportional increase in the rate of growth of nominal earnings and dividends, stocks could be used to hedge against inflation over long horizons. However, empirical evidence overall suggests that inflation tends to have a negative impact on real stock prices in general. Some explanations of this feature have been put forward. First, high and variable rates of inflation may damage the real economy and in particular the corporate sector. In this case, future expected real earnings growth may be subject to downward revisions, thereby justifying lower real stock prices in accordance with the dividend discount model. Second, the greater economic uncertainty associated with a high-inflation environment also tends to make stock market investments more risky and may put upward pressure on the equity risk premium, which, in turn, depresses real stock prices.

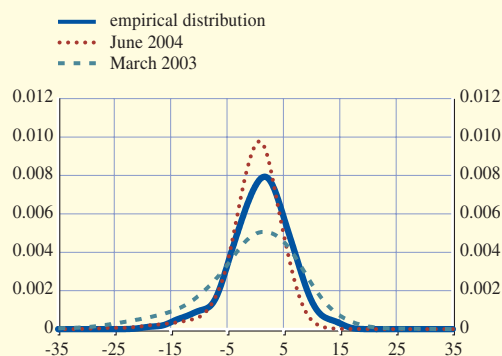
### 3.2 ANALYSING MARKET PARTICIPANTS' PERCEPTION OF STOCK MARKET RISK

As in the case of the bond market, information contained in option prices can also be used to gauge the whole distribution of market participants' expectations about future stock price developments. By extracting implied probability density functions from stock index options, it is possible to examine the development of market participants' perceptions of stock market uncertainty and, for example, the balances of risks they perceive with regard to future stock market returns. It should however be borne in mind that the impact of changes in risk premia, which may potentially be large and could vary significantly over time, are not taken into account when interpreting these distributions in terms of actual expectations.

The usefulness of these option-implied distributions can be illustrated on the basis of euro area data for the last two years in which the global stock market recovered strongly following three consecutive years of negative annual returns. Chart 10 displays two implied probability density functions from options on the Dow Jones EURO STOXX 50 index, each with 30 days until maturity, with the first density function extracted in March 2003 and the second one in June 2004. As the chart shows, the implied probability density function extracted in March 2003, at the height of the Iraq conflict, suggests relatively large probabilities of nearby strong downward corrections of stock prices, indicating that uncertainty regarding an imminent stock market correction was perceived to be relatively high at that time. For instance, investors perceived a likelihood of around 15% of a decline in the Dow Jones EURO STOXX 50 index of 10% or more at the time of the maturity of the options. By June 2004, this likelihood had declined to about 5%.

The empirical return distribution is based on observed monthly returns on the Dow Jones EURO STOXX 50 index from 1988 onwards. It

Chart 10 Option-based and empirical stock market return distributions for the euro area



Sources: Eurex and ECB calculations.  
Note: The distributions shown for March 2003 and June 2004 are risk-neutral probability density functions calculated using the prices of options with 30 days to maturity on the Dow Jones EURO STOXX 50 index.

is important to bear in mind that option-implied distributions and the empirical distribution are derived under different assumptions. The implied distribution is derived using the principle of risk-neutral valuation, according to which the price of an option can be expressed as the present value of the option's expected future pay-offs, expectations are based on the "risk-neutral probability measure", and the discount rate is the risk-free interest rate prevailing during the life of the option.<sup>10</sup> The empirical distribution is instead calculated using the observed stock prices and is therefore affected by changes in risk premia. The chart suggests that by June 2004 market participants perceived future stock market returns to be distributed more similarly to historical returns than in March 2003.

## 4 CONCLUSION

Financial asset prices can generally provide information which helps in assessing the

<sup>10</sup>For a more detail description on how option-implied distributions are derived, see the box entitled "Estimating implied risk-neutral densities" in the article "The information content of interest rates and their derivatives for monetary policy" in the May 2000 issue of the Monthly Bulletin.

outlook for economic activity and inflation. This article has provided an illustration of how such information can be extracted from several types of financial instruments. Specifically, long-term inflation expectations for the euro area as measured by break-even inflation rates have been shown to be relatively stable over medium to long-term horizons in the last few years, although they have been much more volatile over shorter horizons. Stock market developments in the euro area appear to have mainly reflected changes in the real interest rate and the equity risk premium. In terms of investor uncertainty, short-term expectations concerning future bond yields seem to have been dominated by higher upward risks over recent years, while uncertainty regarding future stock prices appears much lower at present than about a year ago.

The overall conclusion is that financial asset prices are a very valuable source of information and provide a useful input into the monetary policy decision-making process. Despite this general usefulness, several problems arise in interpreting financial asset price movements, in particular in real time, and therefore due caution seems warranted. First of all, asset prices seem to fluctuate far more strongly than can be justified by actual and expected movements in macroeconomic fundamentals alone. This is due to the fact that many other factors – such as temporary changes in investors' risk appetite, for example – also tend to drive asset prices, at least over the short term. In addition, the methods applied to extract relevant information usually require rather restrictive assumptions about how the asset price is linked to the economic variables of interest. These caveats mean that the information extracted from asset prices has to always be put into a broader context, with cross-checking against alternative sources of information.





# DEVELOPMENTS IN THE EU FRAMEWORK FOR FINANCIAL REGULATION, SUPERVISION AND STABILITY

## ARTICLES

Developments in the EU framework for financial regulation, supervision and stability

*The completion of the Financial Services Action Plan (FSAP) is expected to provide the realisation of the single market for financial services with a strong impetus. The implementation of the main FSAP measures will contribute to removing the residual legislative and regulatory obstacles to full financial integration, while at the same time promoting financial stability. In addition to the FSAP, other public initiatives with the potential to contribute significantly to the pursuit of the objectives of financial integration and financial stability are being implemented at the EU level. First, the adoption of the ‘Lamfalussy approach’, which was initially devised for the securities field and has now been extended to banking and insurance, represents a unique opportunity to enhance the effectiveness of the regulatory and supervisory processes in the financial sector. Second, the strengthening of specific arrangements for financial stability, which is being promoted under the aegis of the Economic and Financial Committee (EFC), should contribute significantly to enhancing cooperation and information exchange among the relevant authorities both in normal times and in crisis situations. The effective implementation of these initiatives will be a key feature of the ‘post-FSAP’ period.*

## INTRODUCTION

The adoption of the single currency at the beginning of 1999 provided a powerful stimulus to the integration of European financial markets *inter alia* by making it easier to take advantage of borrowing and investment opportunities, thus reducing the cost of financing and improving the allocation of financial resources throughout the euro area. In order to reap the full range of potential benefits stemming from the euro and increased financial integration, the construction of the single financial market must be underpinned by an effective public policy framework that aims to remove remaining obstacles to financial integration, while at the same time promoting and maintaining the stability of the financial system. The main elements of this framework are regulation, supervision and specific financial stability arrangements. In all these areas, important developments are under way.

In the field of financial regulation, the FSAP, which was launched by the European Commission in May 1999,<sup>1</sup> aimed to complete the necessary legislative regime to enable the effective exercise of market freedoms throughout the EU in financial services. The completion of the FSAP at the end of the term of the European Parliament in mid-2004 was an important achievement. The adoption of 39 of the 42 Community measures that were

planned in the context of the FSAP has led to a substantive improvement in EU financial sector regulation. However, it is likely that the impact of the FSAP on financial markets will take some time to fully manifest itself, as a significant number of FSAP measures have only been adopted recently and most still require implementation at the national level, both in regulatory and supervisory terms. This is a crucial period because the extent to which the FSAP will contribute to the effective establishment of a single financial market will hinge on the consistent implementation and enforcement of its measures by Member States.

With regard to financial supervision, an increasing emphasis is being placed on it as a major tool to promote both financial integration and stability. In this respect, the introduction of the Lamfalussy approach<sup>2</sup> and its recent extension from the securities to the banking and insurance sectors will enhance the mechanisms for cooperation and enable closer coordination among the responsible authorities.

1 Commission Communication of 11 May 1999 entitled “Implementing the framework for financial markets: action plan” (COM(1999) 232).

2 The Lamfalussy approach was set out by the Committee of Wise Men on the Regulation of European Securities Markets, chaired by Baron Alexandre Lamfalussy, in its “Final Report” of 15 February 2001.

Lastly, increasingly integrated financial markets call for enhanced arrangements for monitoring and preserving financial stability. This latter objective is being pursued on the basis of the structures stemming from the Lamfalussy approach and of the recommendations of the Economic and Financial Committee.

This article aims to provide an overview of the most recent developments in the process of setting up an EU framework for financial regulation, supervision and stability, and considers possible future developments in these areas. The first section, on regulation, discusses the main legislative measures adopted under the FSAP, as well as the organisational structure supporting the more flexible regulatory process under the Lamfalussy approach for implementing such measures. The second section, on supervision (i.e. the implementation and enforcement of legislation and regulations), focuses on the enhancement of cooperation among the responsible authorities, notably on the basis of the newly established EU supervisory committees. The third section discusses the strengthening of the arrangements for financial stability, with regard to both the regular monitoring of vulnerabilities and the institutional setting for the management of crises. The article concludes by looking at possible future developments in these policy fields.

## I FINANCIAL REGULATION

A main feature of the Lamfalussy approach is to recognise the distinction between legislative principles and technical rules.<sup>3</sup> On the one hand, basic policy choices should be translated into Community law in the form of framework principles. In terms of procedure, these framework principles should be adopted in accordance with the normal EU legislative procedures, which consist of a Commission proposal submitted to the Council and the European Parliament for adoption by co-decision. This layer of legislation corresponds

to Level 1 in the Lamfalussy terminology. On the other hand, there are the more detailed technical measures that are needed to implement the policy objectives of legislation. They should be adopted through a more flexible regulatory procedure. In particular, the Commission, with the support of sectoral committees made up of the competent authorities, is entitled to prepare draft legislation which is subject to voting by regulatory committees comprising representatives of the Member States. This layer of legislation, which draws on “comitology”<sup>4</sup> procedures, corresponds to Level 2.

Many of the FSAP measures adopted more recently have already followed the Lamfalussy approach. They confine themselves to the definition of framework principles and entitle the Commission to adopt implementing measures in accordance with the procedures foreseen under Level 2.

### LEVEL I: THE KEY MEASURES OF THE FSAP

The FSAP measures represent both an overhaul of the existing regulatory regime for many financial services activities and an extension of the harmonisation at the EU level to new areas. They also close certain gaps in the EU framework of financial legislation (see Box 1). Most of the effort has been devoted to the improvement of securities regulation, where

<sup>3</sup> The Lamfalussy approach is a four-level process for approving legislation on securities, banking and insurance regulation. Level 1 consists of framework principles, namely in the form of Directives or Regulations, to be decided by normal EU legislative procedures. Level 2 arranges for the implementation of detailed measures following the Level 1 framework principles. Level 3 consists in enhanced cooperation and networking among EU supervisors to ensure consistent and equivalent transposition of Level 1 and Level 2 legislation. Level 4 consists in strengthened enforcement, notably with action by the Commission to enforce Community law, underpinned by enhanced cooperation between Member States, their regulatory bodies and the private sector.

<sup>4</sup> The term “comitology” refers to the procedure according to which the Commission is assisted by a committee comprising Member States’ representatives in the adoption of implementing measures for Community legislation. Under Article 202 of the Treaty, it is the Commission’s responsibility to implement legislation at the Community level. Council Decision 1999/468/EC of 28 June 1999 specifies the types of comitology procedures to which the adoption of implementing measures may be subject.

## Box I

**KEY MEASURES OF THE FINANCIAL SERVICES ACTION PLAN****Banking supervision**

- Amendment of the Directives governing the **capital framework** for banks and investment firms (to be implemented by 31 December 2006);
- Directive on the **reorganisation and winding-up of credit institutions** (2001/24/EC of 4 April 2001); and
- Directive on the taking up, pursuit of and prudential supervision of the business of **electronic money institutions** (2000/46/EC of 18 September 2000).

**Insurance and occupational pensions supervision**

- Review of the **solvency system in insurance** (expected in 2005);
- Directive on **reinsurance supervision** (expected in 2005);
- Directive on **insurance mediation** (2002/92/EC of 9 December 2002);
- Directive on the **reorganisation and winding-up of insurance undertakings** (2001/17/EC of 19 March 2001); and
- Directive on the **activities and supervision of institutions for occupational retirement provision** (2003/41/EC of 3 June 2003).

**Securities and investment funds**

- Directive on **transparency obligations for securities** (scheduled for autumn 2004);
- Directive on **markets in financial instruments** (2004/39/EC of 21 April 2004);
- Directive on the **prospectus** to be published when securities are offered to the public or admitted to trading (2003/71/EC of 4 November 2003);
- Directive on **insider dealing and market manipulation** (2003/6/EC of 28 January 2003);
- Directive on the **distance marketing of consumer financial services** (2002/65/EC of 23 September 2002); and
- Directives on the **coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)** (2001/107/EC and 2001/108/EC of 21 January 2002).

**Cross-sector supervision**

- Directive on the **supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate** (2002/87/EC of 16 December 2002).

**Payments, clearing and settlement**

- Commission Communication on **clearing and settlement** (COM(2004) 312 of 28 April 2004);
- Directive on **financial collateral arrangements** (2002/47/EC of 6 June 2002); and

- Commission Communication on a **single market for payments** (COM(2000) 36 of 31 January 2000).

### Accounting rules

- Regulation on the **application of international accounting standards** (1606/2002/EC of 19 July 2002, effective from 1 January 2005).

### Company law

- Proposals for a **10th Company Law Directive on cross-border mergers** and a **14th on the cross-border transfer of the registered office of limited companies** (to be adopted in 2005);
- Directive on **takeover bids** (2004/25/EC of 21 April 2004);
- Commission Communication on **modernising company law and enhancing corporate governance in the EU** (COM(2003) 284 of 21 May 2003);
- **European Company Statute** (Directive 2001/86/EC and Regulation 2001/2157/EC of 8 October 2001 – entry into force on 8 October 2004); and
- Proposal for a Directive **on statutory audit of annual accounts and consolidated accounts** (COM(2004) 177 of 16 March 2004).

### Market integrity

- Proposal for a Directive on the prevention of the use of the financial system for the purpose of **money laundering**, including **terrorist financing** (third Money Laundering Directive); and
- Directive on the prevention of the use of the financial system for the purpose of **money laundering** (2001/97/EC of 4 December 2001, second Money Laundering Directive).

### Taxation

- Directive on the **taxation of savings income in the form of interest payments** (2003/48/EC of 3 June 2003).

the Lamfalussy framework was first implemented. In this sector, the regulatory intervention concerned the intermediaries, the trading facilities and other areas.

The new Markets in Financial Instruments Directive (MiFID) is one of the most important measures of the FSAP. It has been adopted after four years of intense negotiation and has replaced the regime set up by the 1993 Investment Services Directive (93/22/EEC). The MiFID concerns both trading infrastructures and intermediaries. It deals with new issues arising from the increased

competition among stock exchanges and new order execution platforms, laying down a comprehensive set of rules concerning all trading venues, namely regulated markets, multilateral trading facilities and intermediaries that execute client orders internally. As regards intermediaries, the main implication of the MiFID is that it widens the scope of the investor-oriented activities benefiting from the single passport, while enhancing investor protection. It therefore also reinforces the cooperation among securities regulators, for the purpose of achieving an effective supervisory framework across the

EU. The ECB, in its Opinion given according to Article 105 (4) of the Treaty establishing the European Community (the Treaty), has welcomed and supported the main provisions of the Directive.<sup>5</sup>

Other important measures have been adopted in the securities regulation field to improve the harmonisation of significant aspects of the securities business and to modernise securities market legislation in Europe. First, the Prospectuses Directive introduced a new single passport for issuers, enabling the approval of a prospectus for the issuance of securities by the relevant authority in one Member State to be accepted by those in all Member States. In order to attain this objective, the Directive introduces the necessary harmonisation of the rules applicable to public offerings and of the information contained in a prospectus, thus ensuring equivalent protection for investors at the Community level.

Second, the Market Abuse Directive has introduced harmonised rules against market abuse, thus strengthening investor confidence in the European financial markets.

The ECB has supported both regulatory initiatives, which should further promote the integrity of European financial markets, strengthen investor confidence and ensure the smooth functioning of the markets.<sup>6</sup>

Third, regulatory action has been taken to further harmonise disclosure rules applicable to companies with securities listed on European financial markets, in the form of the Transparency Directive, and accounting rules, in the form of the Regulation on the application of international accounting standards. The introduction of harmonised and enhanced disclosure standards will have beneficial effects on the European economy, as it will improve market efficiency, further the integration of European financial markets and contribute to financial stability.

Fourth, the Financial Collateral Directive has improved legal certainty in the cross-border use of collateral in wholesale financial markets. These measures are of special relevance for the Eurosystem since they will support the smooth functioning of the single monetary policy.<sup>7</sup>

In the area of banking, the major and most recent initiative concerns the amendments proposed by the Commission on 14 July 2004 to the Codified Banking Directive (2000/12/EC) and the Capital Adequacy Directive (93/6/EEC) regarding the new capital requirements framework for banks and investment firms. The objective of this review is to modernise the existing EU framework on the basis of the work by the Basel Committee on Banking Supervision (BCBS). On 26 June 2004, the central bank governors and the heads of the banking supervisory authorities of the G10 countries endorsed the BCBS report entitled “Basel II: International Convergence of Capital Measurement and Capital Standards: a Revised Framework”. The Commission’s proposal for the re-casting of the aforementioned Directives is also broadly in line with the Lamfalussy approach and provides for a flexible procedure to adapt their technical rules, which may be modified through Level 2 procedures.

In the insurance field, a major review of the prudential framework for insurance undertakings is also under way. The “Solvency II” project aims to establish a regulatory regime that better reflects the risk profile of an insurance undertaking. Like the Basel II framework for banks, the Solvency II initiative aims to reform capital requirements for insurers by introducing a three-pillar structure. The Commission’s proposal for a Directive is expected in 2005. The Commission also

5 See ECB Opinion of 12 June 2003, OJ C144, 20.6.2003.

6 See ECB Opinion of 16 November 2001, OJ C344, 6.12.2001 and ECB Opinion of 22 November 2001, OJ C24, 26.1.2002.

7 See ECB Opinion of 30 September 2003, OJ C242, 9.10.2003.

intends to propose the new prudential regime in accordance with the Lamfalussy approach. The related field of occupational pensions, encompassing institutions such as pension funds, also benefited from the improvements in the supervisory framework introduced by the 2003 Occupational Pension Provision Directive.

The FSAP also includes measures aimed at addressing cross-sectoral activities. The 2002 Directive on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate, which Member States had to implement by August 2004, sets out prudential requirements targeted at the particular features of large financial groups active in insurance and at least one other financial sector (e.g. banking, securities). This Directive covers solvency requirements, risk concentration rules, suitability of managers, risk management and internal control systems within the conglomerate. It also promotes supervisory cooperation and, in that context, provides for the appointment of a coordinating supervisor from among the authorities involved in supervising financial conglomerates. The Financial Conglomerates Committee, which is a Level 2 committee set up under the Lamfalussy approach, will assist the Commission in the adoption of technical rules and the provision of other guidance for the regulation of financial conglomerates.

Important additional measures stemming from the FSAP are the following. The Commission Communication on clearing and settlement of April 2004 proposes a Directive aimed at increasing competition and efficiency through comprehensive rights of access for clearing and settlement providers throughout the EU. Furthermore, in the area of company law, the establishment of the European Company Statute, which entered into force in October 2004, represents a major breakthrough and the starting-point for a more ambitious project: an Action Plan for modernising company law and enhancing corporate governance.<sup>8</sup> It aims to set out the priorities at the EU level for the regulatory framework in this field. It includes initiatives to strengthen shareholder rights, reinforce protection of employees and creditors, and increase the efficiency and competitiveness of business from a cross-border perspective. Lastly, it is also worth mentioning the recent Commission proposal for a third Directive widening the scope of measures for preventing the use of the financial system for terrorist financing.

<sup>8</sup> Communication from the Commission to the Council and the European Parliament on "Modernising company law and enhancing corporate governance in the EU – A plan to move forward" (COM(2003) 284 final of 21 May 2003).

## Box 2

### THE LAMFALUSSY APPROACH: THE NEW ORGANISATIONAL STRUCTURE

	Regulatory committees	Supervisory committees
<b>Banking</b>	European Banking Committee	Committee of European Banking Supervisors
<b>Insurance and pension funds</b>	European Insurance and Occupational Pensions Committee	Committee of European Insurance and Occupational Pensions Supervisors
<b>Securities and investment funds</b>	European Securities Committee	Committee of European Securities Regulators
<b>Financial conglomerates</b>	European Financial Conglomerates Committee	No supervisory committee envisaged

## LEVEL 2 OF THE LAMFALUSSY APPROACH

As noted earlier, many FSAP measures already enable the Commission to issue Level 2 legislation. Following the October 2002 report by the EFC on financial regulation, supervision and stability, the Lamfalussy approach has been extended from the securities sector to the banking, insurance and investment fund sectors. The committee structures necessary to support the Commission in its regulatory role have been established.<sup>9</sup> The process for achieving more efficient and flexible legislative and regulatory processes at the EU level has therefore been set in motion.

The new regulatory committees (see Box 2) will assist the Commission in the adoption of technical measures at Level 2 in accordance with the comitology framework. These committees are composed of high-level representatives from Member States and are chaired by a representative of the Commission. In the banking field, the European Banking Committee (EBC) will replace the Banking Advisory Committee. In the insurance field, the European Insurance and Occupational Pensions Committee (EIOPC) will replace the Insurance Committee. In the securities field, the European Securities Committee (ESC) has been in existence since 2001<sup>10</sup> but will take over the regulatory responsibilities of the UCITS Contact Committee.<sup>11</sup> The European Financial Conglomerates Committee was established in 2002.<sup>12</sup> The ECB has observer status in these banking, securities and financial conglomerates committees.

The new supervisory committees (see Section 2) have the function, with regard to Level 2 legislation, of providing technical advice to the Commission on the content of the implementing measures.

## 2 FINANCIAL SUPERVISION

The conduct of financial supervision relates to the day-to-day implementation and enforcement of legislation and regulations. In accordance with the Lamfalussy approach, the transposition of Level 1 and Level 2 legislation into national laws and practices should take place on the basis of a framework for enhanced cooperation among supervisory authorities. This is designated as Level 3, and its objective is to ensure consistent and equivalent transposition among Member States of Level 1 and Level 2 legislation.

The development of Level 3 activities has been entrusted to the recently established supervisory committees (see Box 2). They are composed of high-level representatives from the competent national supervisory authorities. In the banking sector, the Committee of European Banking Supervisors (CEBS) also includes representatives of the central banks not directly involved in the supervision of individual credit institutions, including the ECB. This stems from the recognition of the contribution that central banking tasks can make to the conduct of banking supervision, as also reflected in Article 105 (5) of the Treaty. The banking supervisory authorities hold the voting rights, however. In the securities field, the Committee of European Securities

9 On the basis of the following Decisions by the Commission: Decision 2004/5/EC establishing the Committee of European Banking Supervisors; Decision 2004/6/EC establishing the Committee of European Insurance and Occupational Pensions Supervisors; Decision 2004/9/EC establishing the European Insurance and Occupational Pensions Committee; and Decision 2004/10/EC establishing the European Banking Committee, all of 5 November 2003.

10 Commission Decision 2001/528/EC of 6 June 2001 establishing the European Securities Committee.

11 Commission Decision 2004/8/EC of 5 November 2003 amending Decision 2001/528/EC.

12 Directive 2002/87/EC of 16 December 2002.



Regulators (CESR)<sup>13</sup> succeeded the Forum of European Securities Commissions (which was established in 1997), while in the insurance sector, the Committee of European Insurance and Occupational Pension Supervisors (CEIOPS) builds on the former Conference of European Insurance Supervisors, which was created more than 40 years ago.

The introduction of Level 3 activities in the EU framework for financial supervision is aimed also at addressing the supervisory challenges stemming from increasingly integrated financial markets. First, the enhanced regulatory framework enabled by Level 1 and Level 2 legislation may only be effective when a consistent application of the common rules at the national level has been achieved. Furthering financial integration within the framework of the FSAP implies that market players operating throughout the single market should face broadly similar enforcement practices and procedures. If this were the case, the compliance costs for cross-border activities, as well as potential competitive distortions, arising from different procedures among Member States would probably be reduced substantially. Regulatory convergence therefore needs to be complemented by supervisory convergence, which would allow the fulfilment of the objectives of the FSAP. Second, enhanced cooperation and exchange of information among authorities would allow more effective supervision of financial institutions with significant cross-border business. This applies in particular to major financial groups which have an EU-wide relevance due to their cross-border activities or to their role in key financial markets or market infrastructures.

### **LEVEL 3 ACTIVITIES OF THE NEW SUPERVISORY COMMITTEES**

In accordance with the proposals of the Lamfalussy Committee and the October 2002 EFC report on financial regulation, supervision and stability, the supervisory committees have the following specific Level 3 tasks. First, they

should promote consistent implementation of EU Directives and develop best supervisory practices in this regard. Second, they should set up an effective operational network mechanism for the purpose of supervisory convergence and exchange of information on specific institutions, both in normal times and during periods of stress. In the performance of these tasks, the committees should enjoy institutional and operational independence. As a means of ensuring accountability, the committees should present an annual report to the Commission, which will be sent to the European Parliament and the Council. Their respective chairpersons should report to the European Parliament periodically and/or upon request. An important requirement is that the committees should operate in an open and transparent manner, with appropriate consultation and public disclosure practices.

The supervisory committees may employ a variety of instruments to perform their tasks. For example, they may produce guidelines for the regulations to be adopted at the national level, issue interpretative recommendations and set standards or best practices for matters not covered by either Level 1 or Level 2 legislation. As these acts are not legally binding, their implementation by the members of the committees remains voluntary. In addition, the committees may perform peer reviews of national practices.

The three supervisory committees, despite their recent establishment, have drawn up demanding agendas to fulfil the needs arising from the FSAP measures in particular and those of integrated markets in general.

CESR, located in Paris, was the first supervisory committee to be established as a result of the Lamfalussy recommendations. It has already concentrated much of its activities on the provision of technical advice to the Commission regarding the content of Level 2

13 Commission Decision 2001/527/EC of 6 June 2001 establishing the Committee of European Securities Regulators.

rules implementing the Directives in the securities field adopted under the FSAP. This has included advice on the implementing measures for the Market Abuse, Transparency, Prospectuses and MiFID Directives. At Level 3, CESR is working on the development of standards on matters not yet covered by EU legislation, notably coordination among securities regulators with regard to the control of financial information, and on securities clearing and settlement systems. The latter work is being carried out through a joint working group of the European System of Central Banks (ESCB) and CESR. With a view to enhancing its Level 3 role, CESR launched a public consultation on the definition and organisation of work at this level in April 2004. In its consultation paper, CESR sets out some proposals to improve its functioning with regard to regulatory and supervisory convergence. For example, it suggests that more authority could be given to its guidelines, recommendations and standards. In addition, CESR members could increase the scope of joint initiatives, e.g. to include joint supervisory visits, joint training and the development of databases in the areas of regulatory interpretations and judicial cases.

In the banking sector, the recently established CEBS, located in London, is expected to play a major role in ensuring the consistent implementation of Basel II. It has already identified a number of priorities, which include efforts to reduce the scope for national discretion in the forthcoming legislation, the practical enhancement of cross-border banking supervision, the development of common principles for the implementation of the supervisory review process (Pillar 2 of the Basel II framework) and the validation of banks' internal ratings-based (IRB) approaches for credit risk and advanced measurement approaches for operational risk.<sup>14</sup> The enhancement of cooperation in crisis management situations is another task of this Committee, to be undertaken with the ESCB's Banking Supervision Committee (BSC). CEBS will also set up an operational network for the

exchange of information on specific institutions and, in particular, major EU banking groups.

CEIOPS, located in Frankfurt, is the forum for cooperation and information exchange among insurance and occupational pension supervisors. CEIOPS has the main task of furthering supervisory convergence in the insurance sector, in order to ensure more efficient supervision of insurance companies, insurance groups and financial conglomerates. In August 2004 it launched a consultation on the guidelines for coordination committees in the context of supplementary supervision as defined by the Insurance Groups Directive (98/78/EC). The purpose was to ensure consistency in the supplementary supervision of insurance groups, as well as to increase the efficiency and effectiveness of the work of the coordination committees established for each group. In addition to complementing the existing legislation, CEIOPS will also devote efforts towards revising and updating the EU solvency regime for insurance companies (Solvency II). This regime is expected to deliver a more harmonised framework for both capital requirements and supervisory action.

### 3 ARRANGEMENTS FOR FINANCIAL STABILITY

The arrangements for financial stability encompass both the framework for the analysis of vulnerabilities in the financial sector and the institutional setting for the management of financial crises. With the introduction of the single currency, cross-border risks to financial stability have grown in importance. While the greater degree of financial integration strengthens the ability of the EU financial system to withstand shocks by increasing the depth and liquidity of financial markets, it may also give rise to new sources of potential vulnerabilities. Notably, owing to closer cross-

<sup>14</sup> IRB approaches and advanced approaches are to be used by banks in the context of Basel II and the EU regulatory framework for capital requirements.

border linkages between both financial markets and institutions, domestic financial systems may be more frequently exposed to common shocks, and the risk of financial contagion may be increased. The concentration of financial risk, which is associated with the increasing prominence of systemically relevant, large and highly complex financial institutions operating in several jurisdictions, may present an additional challenge to financial stability which needs to be addressed on a cross-border basis.

As financial integration reduces the likelihood of financial disorders remaining confined to one Member State, the pursuit and maintenance of financial stability also assumes a European dimension. A smooth interplay among national authorities is required to identify possible risks to financial stability and to prevent systemic disturbances or manage them effectively.

#### THE EFC RECOMMENDATIONS

The arrangements for financial stability and crisis management in the EU have been strengthened considerably as a result of the implementation of the recommendations of the EFC in this field. On the basis of the work by high-level groups chaired by Henk Brouwer, Vice-Governor of De Nederlandsche Bank, the EFC adopted a first report on financial stability (April 2000) and a second one on financial crisis management (April 2001), which were subsequently endorsed by the ECOFIN Council. While considering that the current institutional arrangements are adequate, the reports recommended a number of enhancements aimed at improving their practical functioning. In particular, three areas for improvement were identified. First, the exchange of information among supervisory authorities and between supervisory authorities and central banks should be enhanced significantly. This would be necessary not only on a cross-border, but also on a cross-sectoral basis, owing to the greater degree of integration of financial products, markets and intermediaries across the traditional boundaries

of the banking, securities and insurance sectors. Second, the convergence of supervisory practices at the EU level should be increased in order to enhance the efficiency of authorities involved in monitoring cross-border financial institutions. Third, crisis management arrangements could also be enhanced, particularly in terms of coordination among the different authorities.

More specifically, the recommendations in the area of *financial stability monitoring* concern an enhanced exchange of information on major financial groups and market developments, which would enable the competent authorities to arrive at a better understanding of the ability of financial markets, intermediaries and infrastructures to withstand shocks. Central banks are expected to be involved in this dialogue irrespective of their role in financial supervision at the national level, given their special expertise and interest in the area of financial stability stemming from the conduct of their basic tasks. A more intensive exchange of information between supervisory authorities and central banks would also serve to close possible gaps between micro- and macro-prudential monitoring. Another priority for fostering financial stability would be to strengthen supervisory convergence and cooperation, especially with respect to the supervision of large and complex financial institutions operating across jurisdictions.

In the area of *crisis management*, the EFC highlighted that the first line of defence should remain within financial institutions themselves. Supervisory authorities should take measures to ensure that large financial groups are able to produce accurate financial information at short notice, have adequate contingency procedures in place and perform stress-testing exercises on a regular basis. To ensure effective cooperation in crisis situations, Member States should ensure that no legal or practical obstacles could prevent the timely exchange of necessary information among supervisors, central banks, overseers of payment systems and bodies administering

deposit guarantee schemes. Moreover, clear ex ante agreements for the sharing of information and the assignment of responsibilities among authorities in the event of a crisis should be developed, especially for the major financial groups, and preferably on a multilateral basis.

### IMPLEMENTATION OF THE EFC RECOMMENDATIONS

The main addressees of the EFC recommendations are the EU supervisory authorities and central banks (see Box 3). In particular, both the supervisory committee structures established as a result of the Lamfalussy approach and the BSC report regularly on the progress made in the implementation of these recommendations. The ongoing progress in implementation is being monitored by the Financial Services Committee (FSC) on behalf of the EFC.

As a result of the EFC recommendations, in the area of *financial stability monitoring*, the exchange of information among supervisory authorities and between them and central banks has been stepped up significantly. The BSC has developed a comprehensive framework for the regular analysis of structural developments and potential vulnerabilities in the EU banking

sector. In collaboration with the ECB, this framework has been extended to the entire financial system, encompassing also non-bank financial intermediaries, financial markets and market infrastructures. The new supervisory committees also provide the institutional setting for enhanced information-sharing, including micro-prudential information on specific institutions. A number of arrangements and agreements, such as Memoranda of Understanding, are in place to support such processes.

In the area of *crisis management*, the Memorandum of Understanding (MoU) on cooperation between the EU banking supervisors and central banks in crisis situations, signed under the auspices of the BSC in March 2003, is one of the main achievements. The authorities of the new Member States which joined the EU on 1 May 2004 signed the MoU in June 2004. The MoU sets out specific principles and procedures for the identification of the authorities responsible for crisis management in the EU, the required flows of information between banking supervisors and central banks, and the practical conditions for sharing information at the cross-border level. It could also serve as a building-block for further cooperative arrangements.

#### Box 3

### EU COMMITTEE ARCHITECTURE FOR FINANCIAL STABILITY

	Mandate
<b>Economic and Financial Committee (EFC) – composed of Ministries of Finance; Commission; national central banks; ECB.</b>	<ul style="list-style-type: none"> <li>– High-level assessment of developments in financial markets and services</li> <li>– Provides advice to the ECOFIN Council and to the Commission</li> </ul>
<b>Financial Services Committee (FSC) – composed of Ministries of Finance; Commission.</b>	<ul style="list-style-type: none"> <li>– Strategic discussion and guidance on financial services policy issues, mainly from a cross-sectoral perspective</li> <li>– Bridging function between political and technical bodies</li> <li>– Assists the EFC in preparing advice to the ECOFIN Council</li> </ul>
<b>ESCB Banking Supervision Committee (BSC) composed of national central banks; banking supervisory authorities; ECB.</b>	<ul style="list-style-type: none"> <li>– Macro-prudential and structural monitoring of the EU financial system</li> <li>– Cooperation and exchange of information between banking supervisors and central banks on issues of common interest</li> <li>– Analysis of the impact of regulatory and supervisory requirements on financial stability</li> </ul>
<b>Supervisory committees (CEBS, CESR and CEIOPS)</b>	<ul style="list-style-type: none"> <li>– Exchange of information on developments in the banking, securities and insurance sectors</li> </ul>

This has been the case in the Nordic region, where central banks and supervisory authorities have established a specific MoU on crisis management complementing the wider MoU agreed at the EU level. Work on crisis management arrangements will continue to be developed jointly by the BSC and CEBS.

*Cross-sectoral coordination* is also being reinforced. To ensure enhanced dialogue and coordination on a cross-sectoral basis, the supervisory committees have established regular ties. In addition, it should be noted that the FSC, which replaced the Financial Services Policy Group in 2003,<sup>15</sup> has the mandate to provide strategic guidance on financial sector policies, especially from a cross-sectoral perspective. It acts as a bridge between high-level policy fora, such as the ECOFIN Council and the EFC, and technical bodies, such as the new supervisory committees.

#### 4 FUTURE DEVELOPMENTS

With the completion of the FSAP, the extension of the Lamfalussy approach to all financial sectors and the ongoing implementation of the EFC recommendations on financial stability and crisis management, the EU framework to foster further the single financial market is largely in place. A future challenge for the parties involved in financial integration will be to take advantage of the opportunities offered by the enhanced processes for financial regulation, supervision and stability. Although financial integration has advanced significantly since the introduction of the euro, particularly with regard to wholesale markets, numerous market segments remain insufficiently integrated.<sup>16</sup> The ECB, for its part, has a keen interest in a fully integrated European financial system and it intends to actively contribute in accordance with its capabilities and competencies. The potential gains from Monetary Union will only be fully realised if the remaining barriers to the integration of EU financial markets are effectively removed.

The definition and implementation of the post-FSAP strategy will involve both public authorities and market participants. The public policy framework should be conducive to further integration by removing existing obstacles while preserving financial stability. Ultimately, however, the financial integration process is driven by market forces. In particular, the definition of the concrete boundaries of market-places and of new products remains the initiative of market participants.

With regard to public action, the Commission started the post-FSAP process with a wide-ranging stocktaking exercise in order to obtain the views of all interested parties, notably market participants. In October 2003, the Commission established four expert groups comprising representatives of market participants in the fields of banking, insurance, securities and asset management. The expert groups' reports were released in May 2004 and provide a first analysis of the possible priorities for the post-FSAP period. They provide a comprehensive assessment of the extent to which different aspects of financial business can be undertaken on a pan-European basis, outline the main expectations and concerns regarding the implementation and enforcement of FSAP legislation, and identify specific areas for enhancing the combination of self-regulation and supervisory cooperation. These reports were opened to public consultation in order to assess the extent to which the views expressed met the overall consensus of market participants. Following this consultation and debates among public authorities, the Commission is expected to issue a Communication setting out the priorities for the post-FSAP period in the first quarter of 2005.

<sup>15</sup> This was a result of the recommendations of the EFC report on financial regulation, supervision and stability.

<sup>16</sup> See the article entitled "The integration of Europe's financial markets" in the October 2003 issue of the ECB's Monthly Bulletin.

Although this wide-ranging policy debate is ongoing, a number of priorities already stem from the objectives underlying the FSAP, the Lamfalussy approach and the EFC recommendations on financial stability and crisis management. First, the effective and consistent implementation of both Level 1 and Level 2 legislation in national laws and regulations is crucial for the effective implementation of the FSAP measures. Effective supervisory convergence will be instrumental in pursuing this objective. All this should ultimately lead to genuinely common financial legislation and regulations for market players, enforced coherently across Member States, while respecting the principle of subsidiarity enshrined in the Treaty. Second, a robust supervisory and financial stability framework for integrated financial markets should continue to be promoted. As integration proceeds, financial institutions will increasingly engage in cross-border business, leading to changes in the transmission channels for systemic risk. Consequently, it is important that the relevant authorities – namely supervisors and central banks – continue to enhance cooperation and information exchange in order to monitor such developments and take coordinated action if required.

In addition to these specific objectives, there is a shared understanding that the effects of the FSAP framework should be allowed to materialise before the launch of another wide ranging legislative programme is contemplated. Future initiatives should undergo a careful ex ante analysis and non-legislative alternatives to regulation as well as market-based solutions should be taken into due consideration. Legislative action in the coming period is expected only in the areas already planned, such as clearing and settlement, company law and corporate governance, and money laundering and terrorist financing, or in a few other areas where a specific need may arise.

One of the key elements for the successful completion of the FSAP was the setting of

specific deadlines for initiatives and the implementation of a rigorous monitoring framework. This allowed a clear overview of the progress being made and of the bottlenecks arising in time for them to be adequately tackled. Therefore, as for the FSAP itself, the pursuance of a post-FSAP strategy would require a monitoring and review process ensuring that progress keeps up with the agreed schedule. Certain components of this process are already in place. The Inter-Institutional Monitoring Group, established in 2003 and comprising a group of independent experts, is mandated to assess progress in implementing the Lamfalussy approach in the securities field. The FSC also monitors the implementation of the recommendations on financial stability and crisis management on behalf of the EFC. An independent monitoring structure should therefore be put in place to take account of and regularly review the progress made on the various fronts, while ensuring the full accountability and transparency of the process. This would ensure that the post-FSAP strategy proceeds in the right direction and at the right speed.



# EURO AREA STATISTICS









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1) For further information, please contact us at: [statistics@ecb.int](mailto:statistics@ecb.int). See the ECB's website ([www.ecb.int](http://www.ecb.int)) for longer runs and more detailed data.

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**Conventions used in the tables**

“-”	data do not exist/data are not applicable
“.”	data are not yet available
“..”	nil or negligible
“billion”	10 <sup>9</sup>
(p)	provisional
s.a.	seasonally adjusted
n.s.a.	non-seasonally adjusted

# EURO AREA OVERVIEW

## Summary of economic indicators for the euro area

(annual percentage changes, unless otherwise indicated)

### 1. Monetary developments and interest rates

	M1 <sup>1)</sup>	M2 <sup>1)</sup>	M3 <sup>1),2)</sup>	M3 <sup>1),2)</sup> 3-month moving average (centred)	MFI loans to euro area residents excluding MFIs and general government <sup>1)</sup>	Securities other than shares issued in euro by non- financial and non- monetary financial corporations <sup>1)</sup>	3-month interest rate (EURIBOR, % per annum, period averages)	10-year government bond yield (% per annum, period averages)
	1	2	3	4	5	6	7	8
2002	7.7	6.6	7.3	-	5.4	21.5	3.32	4.92
2003	11.0	8.0	8.1	-	5.0	20.8	2.33	4.16
2003 Q4	11.0	7.9	7.6	-	5.3	22.1	2.15	4.36
2004 Q1	11.1	7.2	6.5	-	5.4	16.8	2.06	4.15
Q2	10.3	6.0	5.4	-	5.6	12.0	2.08	4.36
Q3	9.6	5.8	5.6	-	6.2	.	2.12	4.21
2004 May	9.4	5.5	4.9	5.2	5.7	11.4	2.09	4.39
June	9.5	5.6	5.3	5.2	6.0	11.7	2.11	4.44
July	10.1	5.9	5.5	5.4	6.2	11.4	2.12	4.34
Aug.	9.2	5.7	5.6	5.7	6.1	11.0	2.11	4.17
Sep.	9.7	6.3	6.0	.	6.5	.	2.12	4.11
Oct.	.	.	.	.	.	.	2.15	3.98

### 2. Prices, output, demand and labour markets

	HICP	Industrial producer prices	Hourly labour costs	Real GDP	Industrial production excluding construction	Capacity utilisation in manufacturing (percentages)	Employment	Unemployment (% of labour force)
	1	2	3	4	5	6	7	8
2002	2.3	-0.1	3.7	0.8	-0.5	81.5	0.5	8.4
2003	2.1	1.4	2.8	0.5	0.3	81.0	0.1	8.9
2003 Q4	2.0	1.0	2.1	0.7	1.4	81.1	0.2	8.9
2004 Q1	1.7	0.2	2.7	1.4	1.0	80.7	0.1	8.9
Q2	2.3	2.0	2.1	2.0	2.9	81.1	0.1	9.0
Q3	2.2	.	.	.	.	81.6	.	.
2004 May	2.5	2.4	-	-	3.7	-	-	9.0
June	2.4	2.4	-	-	3.3	-	-	9.0
July	2.3	2.9	-	-	2.2	81.6	-	9.0
Aug.	2.3	3.1	-	-	1.6	-	-	9.0
Sep.	2.1	.	-	-	.	-	-	.
Oct.	2.5	.	-	-	.	81.7	-	.

### 3. Balance of payments, reserve assets and exchange rates

(EUR billions, unless otherwise indicated)

	Balance of payments (net transactions)				Reserve assets (end-of-period positions)	Effective exchange rate of the euro: EER-23 <sup>3)</sup> (index, 1999 Q1 = 100)		USD/EUR exchange rate
	Current and capital accounts	Goods	Direct investment	Portfolio investment		Nominal	Real (CPI)	
2002	65.4	133.6	-4.7	114.6	366.1	89.2	90.3	0.9456
2003	38.3	108.5	-13.1	17.6	306.5	99.9	101.7	1.1312
2003 Q4	24.7	30.7	-9.6	10.5	306.5	102.2	104.3	1.1890
2004 Q1	17.2	28.6	-23.6	-3.1	308.4	104.7	106.7	1.2497
Q2	12.7	32.7	-19.2	20.9	301.4	102.1	104.1	1.2046
Q3	.	.	.	.	298.2	102.8	104.9	1.2220
2004 May	4.8	10.5	-0.7	-0.8	298.9	102.4	104.4	1.2007
June	7.0	12.0	-13.8	31.7	301.4	102.3	104.2	1.2138
July	3.9	13.9	-8.5	-30.7	301.3	102.8	104.7	1.2266
Aug.	3.7	5.5	4.4	5.1	301.7	102.7	104.8	1.2176
Sep.	.	.	.	.	298.2	103.0	105.1	1.2218
Oct.	.	.	.	.	.	104.2	106.4	1.2490

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

Note: For more information on the data, see the relevant tables later in this section.

- 1) Annual percentage changes of monthly data refer to the end of the month, whereas those of quarterly and yearly data refer to the annual change in the period average of the series. See the Technical notes for details.
- 2) M3 and its components exclude holdings by non-euro area residents of money market fund shares/units and debt securities with a maturity of up to two years.
- 3) For the definition of the trading partner groups and other information, please refer to the General notes.



# MONETARY POLICY STATISTICS

## 1.1 Consolidated financial statement of the Eurosystem

(EUR millions)

### 1. Assets

	2004 8 Oct.	2004 15 Oct.	2004 22 Oct.	2004 29 Oct.
<b>Gold and gold receivables</b>	130,641	130,614	130,598	130,581
<b>Claims on non-euro area residents in foreign currency</b>	166,372	163,440	162,252	164,878
<b>Claims on euro area residents in foreign currency</b>	17,387	19,163	18,451	17,589
<b>Claims on non-euro area residents in euro</b>	6,883	7,497	7,539	7,698
<b>Lending to euro area credit institutions in euro</b>	330,512	319,531	328,006	343,015
Main refinancing operations	255,498	244,500	252,999	268,001
Longer-term refinancing operations	75,001	75,001	75,001	75,000
Fine-tuning reverse operations	0	0	0	0
Structural reverse operations	0	0	0	0
Marginal lending facility	10	3	1	0
Credits related to margin calls	3	27	5	14
<b>Other claims on euro area credit institutions in euro</b>	1,979	1,824	1,797	1,850
<b>Securities of euro area residents in euro</b>	68,020	67,465	67,643	68,471
<b>General government debt in euro</b>	42,060	42,061	42,062	42,062
<b>Other assets</b>	116,720	116,811	117,070	117,634
<b>Total assets</b>	880,574	868,406	875,418	893,778

### 2. Liabilities

	2004 8 Oct.	2004 15 Oct.	2004 22 Oct.	2004 29 Oct.
<b>Banknotes in circulation</b>	469,936	469,142	467,316	471,255
<b>Liabilities to euro area credit institutions in euro</b>	137,481	138,842	137,774	121,991
Current accounts (covering the minimum reserve system)	137,318	138,804	137,756	121,965
Deposit facility	163	37	18	26
Fixed-term deposits	0	0	0	0
Fine-tuning reverse operations	0	0	0	0
Deposits related to margin calls	0	1	0	0
<b>Other liabilities to euro area credit institutions in euro</b>	125	125	125	125
<b>Debt certificates issued</b>	1,054	1,054	1,054	1,054
<b>Liabilities to other euro area residents in euro</b>	59,759	47,612	58,694	84,345
<b>Liabilities to non-euro area residents in euro</b>	9,180	9,138	9,049	9,388
<b>Liabilities to euro area residents in foreign currency</b>	304	280	248	257
<b>Liabilities to non-euro area residents in foreign currency</b>	9,592	8,565	6,907	8,809
<b>Counterpart of special drawing rights allocated by the IMF</b>	5,807	5,807	5,807	5,807
<b>Other liabilities</b>	56,778	57,283	57,884	60,186
<b>Revaluation accounts</b>	70,696	70,696	70,696	70,696
<b>Capital and reserves</b>	59,862	59,862	59,864	59,865
<b>Total liabilities</b>	880,574	868,406	875,418	893,778

Source: ECB.

## 1.2 Key ECB interest rates

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

With effect from <sup>1)</sup>	Deposit facility		Main refinancing operations			Marginal lending facility	
	Level	Change	Fixed rate tenders	Variable rate tenders	Change	Level	Change
			Fixed rate	Minimum bid rate			
	1	2	3	4	5	6	7
1999 1 Jan.	2.00	-	3.00	-	-	4.50	-
4 <sup>2)</sup>	2.75	0.75	3.00	-	...	3.25	-1.25
22	2.00	-0.75	3.00	-	...	4.50	1.25
9 Apr.	1.50	-0.50	2.50	-	-0.50	3.50	-1.00
5 Nov.	2.00	0.50	3.00	-	0.50	4.00	0.50
2000 4 Feb.	2.25	0.25	3.25	-	0.25	4.25	0.25
17 Mar.	2.50	0.25	3.50	-	0.25	4.50	0.25
28 Apr.	2.75	0.25	3.75	-	0.25	4.75	0.25
9 June	3.25	0.50	4.25	-	0.50	5.25	0.50
28 <sup>3)</sup>	3.25	...	-	4.25	...	5.25	...
1 Sep.	3.50	0.25	-	4.50	0.25	5.50	0.25
6 Oct.	3.75	0.25	-	4.75	0.25	5.75	0.25
2001 11 May	3.50	-0.25	-	4.50	-0.25	5.50	-0.25
31 Aug.	3.25	-0.25	-	4.25	-0.25	5.25	-0.25
18 Sep.	2.75	-0.50	-	3.75	-0.50	4.75	-0.50
9 Nov.	2.25	-0.50	-	3.25	-0.50	4.25	-0.50
2002 6 Dec.	1.75	-0.50	-	2.75	-0.50	3.75	-0.50
2003 7 Mar.	1.50	-0.25	-	2.50	-0.25	3.50	-0.25
6 June	1.00	-0.50	-	2.00	-0.50	3.00	-0.50

Source: ECB.

- 1) From 1 January 1999 to 9 March 2004, the date refers to the deposit and marginal lending facilities. For main refinancing operations, changes in the rate are effective from the first operation following the date indicated. The change on 18 September 2001 was effective on that same day. From 10 March 2004 onwards, the date refers to the deposit and marginal lending facilities and to the main refinancing operations (changes effective from the first main refinancing operation following the Governing Council discussion), unless otherwise indicated.
- 2) On 22 December 1998 the ECB announced that, as an exceptional measure between 4 and 21 January 1999, a narrow corridor of 50 basis points would be applied between the interest rates for the marginal lending facility and the deposit facility, aimed at facilitating the transition to the new monetary regime by market participants.
- 3) On 8 June 2000 the ECB announced that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders. The minimum bid rate refers to the minimum interest rate at which counterparties may place their bids.

### 1.3 Eurosystem monetary policy operations allotted through tenders <sup>1), 2)</sup>

(EUR millions; interest rates in percentages per annum)

#### 1. Main and longer-term refinancing operations <sup>3)</sup>

Date of settlement	Bids (amount)	Number of participants	Allotment (amount)	Variable rate tenders			Running for (...) days
				Minimum bid rate	Marginal rate <sup>4)</sup>	Weighted average rate	
1	2	3	4	5	6	7	
<b>Main refinancing operations</b>							
2004 7 July	315,956	383	253,000	2.00	2.00	2.01	7
14	328,840	390	242,500	2.00	2.01	2.01	7
21	322,945	416	259,500	2.00	2.01	2.01	7
28	321,937	403	258,000	2.00	2.01	2.02	7
4 Aug.	342,842	359	255,000	2.00	2.01	2.02	7
11	336,449	348	247,500	2.00	2.01	2.02	7
18	332,633	368	246,000	2.00	2.01	2.02	7
25	339,539	366	259,000	2.00	2.02	2.02	7
1 Sep.	343,768	333	254,000	2.00	2.02	2.02	7
8	326,708	339	252,500	2.00	2.02	2.02	7
15	332,636	357	253,000	2.00	2.02	2.02	7
22	331,112	380	262,500	2.00	2.02	2.02	7
29	327,330	353	259,000	2.00	2.02	2.03	6
5 Oct.	325,420	298	255,500	2.00	2.02	2.03	7
12	338,406	345	244,500	2.00	2.02	2.03	8
20	380,224	382	253,000	2.00	2.03	2.03	5
25	355,097	356	268,000	2.00	2.03	2.04	9
3 Nov.	381,182	331	264,500	2.00	2.04	2.04	6
<b>Longer-term refinancing operations</b>							
2003 30 Oct.	32,384	150	15,000	-	2.13	2.14	91
27 Nov.	25,402	128	15,000	-	2.12	2.13	91
18 Dec.	24,988	114	15,000	-	2.12	2.14	105
2004 29 Jan.	47,117	145	25,000	-	2.03	2.04	91
26 Feb.	34,597	139	25,000	-	2.01	2.03	91
1 Apr.	44,153	141	25,000	-	1.85	1.90	91
29	54,243	180	25,000	-	2.01	2.03	91
27 May	45,594	178	25,000	-	2.04	2.05	91
1 July	37,698	147	25,000	-	2.06	2.08	91
29	40,354	167	25,000	-	2.07	2.08	91
26 Aug.	37,957	152	25,000	-	2.06	2.08	91
30 Sep.	37,414	138	25,000	-	2.06	2.08	84
28 Oct.	46,646	187	25,000	-	2.10	2.11	91

#### 2. Other tender operations

Date of settlement	Type of operation	Bids (amount)	Number of participants	Allotment (amount)	Variable rate tenders			Running for (...) days	
					Fixed rate	Minimum bid rate	Marginal rate <sup>4)</sup>		Weighted average rate
1	2	3	4	5	6	7	8	9	
2000 5 Jan. <sup>5)</sup>	Collection of fixed-term deposits	14,420	43	14,420	-	-	3.00	3.00	7
21 June	Reverse transaction	18,845	38	7,000	-	-	4.26	4.28	7
2001 30 Apr.	Reverse transaction	105,377	329	73,000	-	4.75	4.77	4.79	7
12 Sep.	Reverse transaction	69,281	63	69,281	4.25	-	-	-	1
13	Reverse transaction	40,495	45	40,495	4.25	-	-	-	1
28 Nov.	Reverse transaction	73,096	166	53,000	-	3.25	3.28	3.29	7
2002 4 Jan.	Reverse transaction	57,644	61	25,000	-	3.25	3.30	3.32	3
10	Reverse transaction	59,377	63	40,000	-	3.25	3.28	3.30	1
18 Dec.	Reverse transaction	28,480	50	10,000	-	2.75	2.80	2.82	6
2003 23 May	Collection of fixed-term deposits	3,850	12	3,850	2.50	-	-	-	3
2004 11 May	Collection of fixed-term deposits	16,200	24	13,000	2.00	-	-	-	1

Source: ECB.

- 1) The amounts shown may differ slightly from those in Section 1.1 due to operations allotted but not settled.
- 2) With effect from April 2002, split tender operations, i.e. operations with one-week maturity conducted as standard tenders in parallel with a main refinancing operation, are classified as main refinancing operations. For split tender operations conducted before this month, see Table 1.3.2.
- 3) On 8 June 2000 the ECB announced that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders. The minimum bid rate refers to the minimum interest rate at which counterparties may place their bids.
- 4) In liquidity-providing (absorbing) operations, the marginal rate refers to the lowest (highest) rate at which bids were accepted.
- 5) This operation was conducted with a maximum rate of 3.00%.

## 1.4 Minimum reserve and liquidity statistics

(EUR billions; period averages of daily positions, unless otherwise indicated; interest rates as percentages per annum)

## 1. Reserve base of credit institutions subject to reserve requirements

Reserve base as at <sup>1)</sup> :	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	Deposits (over 2 years' agreed maturity and notice period)	Repos	Debt securities over 2 years' agreed maturity
	1	2	3	4	5	6
2002	11,116.8	6,139.9	409.2	1,381.9	725.5	2,460.3
2003	11,538.7	6,283.8	412.9	1,459.1	759.5	2,623.5
2004 Q1	11,926.7	6,404.7	442.5	1,483.2	867.7	2,728.6
2004 Apr.	12,088.2	6,474.0	451.3	1,492.1	911.8	2,759.0
May	12,141.3	6,506.8	442.3	1,499.1	898.2	2,794.9
June	12,148.5	6,524.1	439.1	1,515.1	859.0	2,811.2
July	12,182.0	6,517.4	442.6	1,527.7	857.0	2,837.3
Aug.	12,167.6	6,470.3	446.4	1,531.1	884.2	2,835.5

## 2. Reserve maintenance

Maintenance period ending on:	Required reserves	Credit institutions current accounts	Excess reserves	Deficiencies	Interest rate on minimum reserves
	1	2	3	4	5
2002	128.8	129.5	0.8	0.0	3.06
2003	131.8	132.6	0.8	0.0	2.00
2004 Q1	133.4	134.1	0.7	0.0	2.00
Q2	136.4	137.1	0.7	0.0	2.00
2004 6 July	138.0	138.8	0.8	0.0	2.00
10 Aug.	138.5	139.1	0.6	0.0	2.01
7 Sep.	138.7	139.3	0.6	0.0	2.02
11 Oct.	138.7	139.3	0.6	0.0	2.02
8 Nov.	137.8	.	.	.	.

## 3. Liquidity

Maintenance period ending on:	Liquidity-providing factors					Liquidity-absorbing factors					Credit institutions current accounts	Base money			
	Eurosystem's net assets in gold and foreign currency	Monetary policy operations of the Eurosystem				Deposit facility	Other liquidity-absorbing operations	Banknotes in circulation	Central government deposits with the Eurosystem	Other factors (net)					
1		Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations						2	3	4	5	6
2002	371.5	168.1	45.0	1.1	2.0	0.2	0.0	350.7	51.7	55.5	129.5	480.5			
2003	320.1	235.5	45.0	0.6	0.0	0.1	0.0	416.1	57.0	-4.5	132.6	548.7			
2004 Q1	303.3	219.4	56.7	0.4	0.0	0.2	0.0	418.0	48.6	-21.1	134.1	552.3			
Q2	311.3	224.7	75.0	0.1	0.0	0.5	0.0	442.5	52.2	-21.1	137.1	580.1			
2004 6 July	308.2	245.4	75.0	0.3	0.0	0.1	0.0	449.1	65.0	-24.1	138.8	588.1			
10 Aug.	300.8	253.6	75.0	0.0	0.0	0.2	0.0	460.9	61.1	-31.8	139.1	600.1			
7 Sep.	299.4	251.6	75.0	0.1	0.0	0.2	0.0	462.8	56.3	-32.4	139.3	602.3			
11 Oct.	298.8	256.4	75.0	0.3	0.0	0.0	0.0	465.1	58.2	-32.1	139.3	604.4			

Source: ECB.

1) End of period.



# 2

## MONEY, BANKING AND INVESTMENT FUNDS

### 2.1 Aggregated balance sheet of euro area MFIs

(EUR billions; outstanding amounts at end of period)

#### 1. Assets

	Total	Loans to euro area residents				Holdings of securities other than shares issued by euro area residents				Money market fund shares/units <sup>1)</sup>	Holdings of shares/other equity issued by euro area residents	External assets	Fixed assets	Remaining assets
		Total	General government	Other euro area residents	MFIs	Total	General government	Other euro area residents	MFIs					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Eurosysteem														
2002	1,042.8	416.2	24.2	0.6	391.3	94.6	86.0	1.0	7.6	-	13.2	374.0	11.9	132.9
2003	1,086.8	471.3	22.6	0.6	448.0	133.6	121.5	1.3	10.8	-	12.8	317.9	12.4	138.8
2004 Q1	1,102.7	467.6	22.6	0.7	444.3	143.4	128.9	1.5	13.0	-	13.1	320.7	14.0	143.9
2004 Apr.	1,130.8	493.6	22.6	0.6	470.3	146.0	131.4	1.8	12.7	-	13.3	314.6	13.9	149.4
May	1,128.2	493.4	22.6	0.6	470.1	147.0	132.9	1.8	12.3	-	13.0	310.1	14.0	150.8
June	1,200.0	560.9	22.2	0.6	538.0	147.8	133.5	1.9	12.3	-	13.3	311.3	14.1	152.7
July	1,192.2	548.7	22.2	0.6	525.8	148.5	134.0	1.8	12.7	-	13.2	312.6	14.2	154.9
Aug.	1,175.0	527.1	22.2	0.6	504.3	151.1	135.6	1.8	13.7	-	13.2	313.3	14.3	156.1
Sep. <sup>(p)</sup>	1,193.3	544.3	22.2	0.6	521.5	150.5	135.0	1.9	13.6	-	13.5	308.8	14.2	162.1
MFIs excluding the Eurosysteem														
2002	18,857.9	11,611.4	813.0	6,780.6	4,017.8	2,671.5	1,135.0	366.2	1,170.4	62.4	827.6	2,465.5	167.6	1,051.8
2003	19,799.8	12,114.4	819.0	7,101.8	4,193.5	2,947.6	1,246.0	425.7	1,275.9	67.3	895.1	2,566.8	161.8	1,046.9
2004 Q1	20,395.0	12,217.9	823.3	7,170.1	4,224.5	3,081.2	1,305.6	431.6	1,344.0	78.0	926.4	2,832.0	160.0	1,099.5
2004 Apr.	20,688.3	12,385.3	817.6	7,228.2	4,339.4	3,104.4	1,313.8	435.8	1,354.8	79.8	954.0	2,914.9	160.6	1,089.4
May	20,660.8	12,347.2	811.7	7,268.1	4,267.4	3,146.2	1,340.5	440.1	1,365.6	77.4	955.6	2,886.7	159.1	1,088.5
June	20,757.4	12,434.0	818.3	7,319.8	4,296.0	3,158.3	1,351.7	444.5	1,362.1	76.8	948.3	2,869.9	159.7	1,110.4
July	20,855.1	12,540.8	824.6	7,355.8	4,360.4	3,171.2	1,347.8	446.6	1,376.7	78.4	936.3	2,870.4	160.4	1,097.5
Aug.	20,869.6	12,511.3	819.2	7,347.5	4,344.6	3,177.0	1,349.0	446.1	1,381.9	77.2	925.6	2,909.7	160.4	1,108.4
Sep. <sup>(p)</sup>	20,981.9	12,568.9	812.0	7,403.0	4,353.9	3,186.0	1,355.7	442.9	1,387.4	77.6	919.9	2,903.9	161.0	1,164.6

#### 2. Liabilities

	Total	Currency in circulation	Deposits of euro area residents				Money market fund shares/units <sup>2)</sup>	Debt securities issued <sup>3)</sup>	Capital and reserves	External liabilities	Remaining liabilities
			Total	Central government	Other general government/other euro area residents	MFIs					
	1	2	3	4	5	6	7	8	9	10	11
Eurosysteem											
2002	1,042.8	392.9	328.4	29.5	15.6	283.3	-	3.6	165.9	32.9	119.1
2003	1,086.8	450.5	324.0	21.3	16.9	285.8	-	1.6	143.8	27.5	139.4
2004 Q1	1,102.7	439.9	336.6	43.1	15.8	277.7	-	1.6	155.5	23.6	145.3
2004 Apr.	1,130.8	450.2	358.3	43.6	16.7	297.9	-	1.6	149.4	25.1	146.2
May	1,128.2	459.3	350.2	46.0	18.3	285.8	-	1.6	146.5	22.2	148.3
June	1,200.0	465.1	413.2	67.1	18.4	327.6	-	1.6	145.5	23.5	151.1
July	1,192.2	478.5	388.2	58.5	16.5	313.2	-	1.6	146.8	24.2	152.8
Aug.	1,175.0	475.7	367.4	58.2	15.9	293.2	-	1.6	151.5	23.3	155.5
Sep. <sup>(p)</sup>	1,193.3	480.7	380.4	57.8	16.3	306.3	-	1.6	148.2	23.6	158.9
MFIs excluding the Eurosysteem											
2002	18,857.9	0.0	10,197.8	106.9	5,954.3	4,136.6	532.8	2,992.5	1,108.7	2,594.2	1,431.7
2003	19,799.8	0.0	10,773.3	132.3	6,277.6	4,363.5	649.3	3,160.3	1,151.0	2,607.6	1,458.4
2004 Q1	20,395.0	0.0	10,863.5	140.7	6,310.3	4,412.5	680.0	3,303.5	1,160.4	2,833.7	1,553.8
2004 Apr.	20,688.3	0.0	11,015.3	136.0	6,351.3	4,528.1	690.6	3,338.5	1,167.6	2,912.8	1,563.4
May	20,660.8	0.0	10,993.4	149.1	6,375.2	4,469.1	687.2	3,359.2	1,171.6	2,909.7	1,539.8
June	20,757.4	0.0	11,087.8	156.6	6,408.5	4,522.8	686.2	3,369.3	1,177.7	2,871.4	1,565.0
July	20,855.1	0.0	11,158.1	143.0	6,422.1	4,592.9	691.5	3,401.6	1,181.6	2,874.7	1,547.5
Aug.	20,869.6	0.0	11,113.1	134.8	6,401.4	4,576.8	701.3	3,417.8	1,182.3	2,880.7	1,574.3
Sep. <sup>(p)</sup>	20,981.9	0.0	11,170.2	146.2	6,441.5	4,582.4	687.4	3,444.5	1,182.4	2,842.7	1,654.7

Source: ECB.

- 1) Amounts issued by euro area residents. Amounts issued by non-euro area residents are included in external assets.
- 2) Amounts held by euro area residents.
- 3) Amounts issued with maturity up to two years held by non-euro area residents are included in external liabilities.

## 2.2 Consolidated balance sheet of euro area MFIs

(EUR billions; outstanding amounts at end of period; transactions during period)

### 1. Assets

	Total	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 <sup>1)</sup>	Fixed assets	Remaining assets
		Total	General government	Other euro area residents	Total	General government	Other euro area residents				
	1	2	3	4	5	6	7	8	9	10	11
Outstanding amounts											
2002	13,931.2	7,618.5	837.2	6,781.2	1,588.1	1,221.0	367.1	572.7	2,839.5	179.5	1,132.9
2003	14,554.4	7,944.2	841.7	7,102.5	1,794.5	1,367.4	427.0	623.8	2,884.8	174.1	1,133.0
2004 Q1	15,063.6	8,016.8	846.0	7,170.8	1,867.6	1,434.5	433.1	649.4	3,152.7	173.9	1,203.1
2004 Apr.	15,226.1	8,069.1	840.2	7,228.9	1,882.8	1,445.3	437.6	672.1	3,229.5	174.5	1,198.0
May	15,251.5	8,103.1	834.4	7,268.8	1,915.3	1,473.5	441.9	666.6	3,196.8	173.1	1,196.6
June	15,331.0	8,161.0	840.5	7,320.5	1,931.6	1,485.2	446.4	662.5	3,181.2	173.8	1,221.1
July	15,351.7	8,203.3	846.8	7,356.5	1,930.2	1,481.8	448.4	650.4	3,183.0	174.7	1,210.2
Aug.	15,385.2	8,189.6	841.5	7,348.1	1,932.6	1,484.6	448.0	643.3	3,223.0	174.6	1,222.2
Sep. <sup>(p)</sup>	15,487.4	8,237.9	834.2	7,403.6	1,935.4	1,490.7	444.7	642.1	3,212.7	175.2	1,284.1
Transactions											
2002	605.9	301.9	-9.3	311.2	72.6	43.6	29.1	7.7	245.1	-1.3	-19.9
2003	794.0	388.5	13.7	374.9	172.3	118.0	54.3	19.4	224.4	-3.8	-6.9
2004 Q1	428.0	83.2	5.7	77.4	56.4	53.4	3.0	24.6	212.0	-0.4	52.3
2004 Apr.	149.8	51.6	-6.9	58.5	16.7	11.7	5.0	21.6	69.2	0.6	-9.9
May	56.7	37.9	-5.9	43.8	35.1	30.7	4.3	-3.1	-10.4	0.3	-3.1
June	62.5	60.2	5.7	54.5	13.6	8.6	5.0	-10.6	-25.8	0.7	24.4
July	8.5	43.0	6.4	36.6	-5.0	-4.5	-0.6	-11.0	-7.9	0.9	-11.5
Aug.	40.3	-8.5	-5.3	-3.2	-0.5	-0.1	-0.4	-6.8	45.3	0.0	10.7
Sep. <sup>(p)</sup>	144.1	55.3	-7.0	62.3	4.9	7.9	-3.0	-2.1	24.2	0.6	61.3

### 2. Liabilities

	Total	Currency in circulation	Deposits of central government	Deposits of other general government/ other euro area residents	Money market fund shares/ units <sup>2)</sup>	Debt securities issued <sup>3)</sup>	Capital and reserves	External liabilities <sup>1)</sup>	Remaining liabilities	Excess of inter-MFI liabilities	
											1
Outstanding amounts											
2002	13,931.2	341.2	136.4	5,969.9	470.5	1,818.1	1,006.4	2,627.1	1,550.9	10.8	
2003	14,554.4	397.9	153.6	6,294.4	582.0	1,875.1	1,010.7	2,635.1	1,597.8	7.8	
2004 Q1	15,063.6	399.6	183.8	6,326.1	602.0	1,948.2	1,025.9	2,857.3	1,699.1	21.5	
2004 Apr.	15,226.1	409.4	179.6	6,368.1	610.8	1,972.7	1,021.8	2,937.9	1,709.7	16.2	
May	15,251.5	416.6	195.1	6,393.6	609.7	1,983.0	1,016.1	2,931.9	1,688.1	17.4	
June	15,331.0	423.0	223.7	6,426.9	609.4	1,996.5	1,024.2	2,894.9	1,716.1	16.4	
July	15,351.7	436.2	201.5	6,438.7	613.1	2,013.8	1,029.3	2,898.9	1,700.3	19.9	
Aug.	15,385.2	433.4	193.0	6,417.4	624.1	2,023.9	1,038.4	2,904.1	1,729.8	21.2	
Sep. <sup>(p)</sup>	15,487.4	438.0	204.0	6,457.8	609.8	2,045.1	1,039.4	2,866.3	1,813.6	13.4	
Transactions											
2002	605.9	101.4	-5.8	225.3	70.0	114.7	39.7	76.6	-107.4	91.3	
2003	794.0	79.0	12.9	319.2	58.0	141.7	37.3	131.1	-50.0	64.7	
2004 Q1	428.0	1.7	30.2	24.1	21.3	59.0	7.6	174.6	120.5	-11.0	
2004 Apr.	149.8	9.8	-4.7	40.2	8.4	21.2	2.3	62.9	18.4	-8.6	
May	56.7	7.3	15.5	29.2	-1.1	14.4	-0.9	10.0	-22.8	5.1	
June	62.5	6.4	28.7	33.1	-4.3	12.6	7.4	-40.6	17.9	1.4	
July	8.5	13.2	-22.2	10.6	3.7	12.3	4.1	-6.7	-7.2	0.7	
Aug.	40.3	-2.8	-8.5	-19.0	11.0	12.3	5.0	15.5	20.0	6.9	
Sep. <sup>(p)</sup>	144.1	4.7	11.0	45.1	-12.9	29.6	4.8	-8.3	68.5	1.6	

Source: ECB.

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

2) Amounts held by euro area residents.

3) Amounts issued with maturity up to two years held by non-euro area residents are included in external liabilities.

## 2.3 Monetary statistics

(EUR billions and annual growth rates; seasonally adjusted; outstanding amounts and growth rates at end of period, transactions during period)

### 1. Monetary aggregates<sup>1)</sup> and counterparts

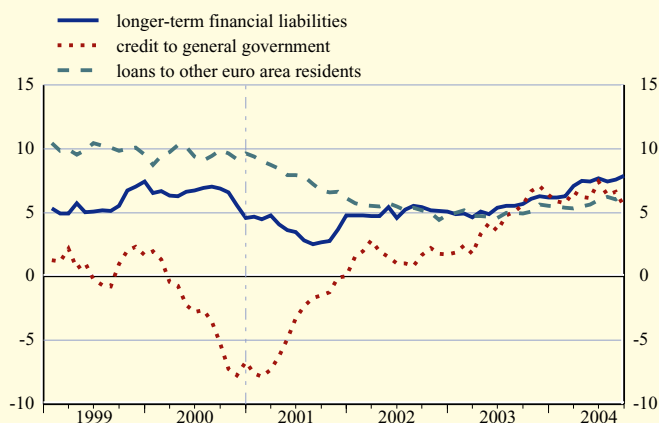
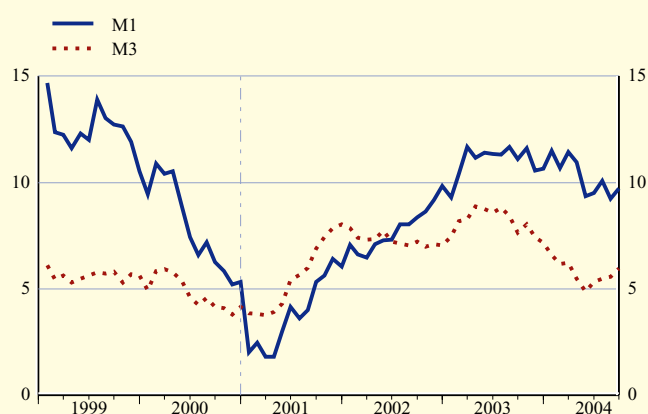
	M1		M2	M3-M2	M3	M3 3-month moving average (centred)	Longer-term financial liabilities	Credit to general government	Credit to other euro area residents		Net external assets <sup>2)</sup>
	1	2	3	4	5	6	7	8	Loans		11
									9	10	
Outstanding amounts											
2002	2,441.7	2,475.9	4,917.6	852.7	5,770.3	-	3,989.2	2,072.2	7,723.3	6,778.9	184.3
2003	2,676.1	2,559.6	5,235.7	908.5	6,144.2	-	4,143.5	2,225.7	8,156.0	7,100.9	222.5
2004 Q1	2,769.2	2,552.2	5,321.4	901.4	6,222.7	-	4,242.2	2,263.5	8,239.1	7,165.0	320.8
2004 Apr.	2,782.0	2,556.2	5,338.2	911.1	6,249.3	-	4,280.2	2,278.7	8,297.8	7,209.3	332.3
May	2,768.1	2,578.1	5,346.1	906.3	6,252.4	-	4,289.3	2,292.4	8,336.3	7,254.4	289.4
June	2,790.3	2,581.9	5,372.2	926.7	6,298.9	-	4,308.5	2,311.5	8,400.1	7,293.3	273.0
July	2,831.2	2,592.8	5,424.1	934.7	6,358.7	-	4,341.6	2,329.2	8,453.5	7,348.8	283.4
Aug.	2,837.5	2,604.1	5,441.6	941.8	6,383.4	-	4,370.3	2,340.9	8,473.1	7,371.1	316.6
Sep. <sup>(p)</sup>	2,867.8	2,621.7	5,489.5	927.3	6,416.8	-	4,395.9	2,334.4	8,519.5	7,417.0	335.5
Transactions											
2002	218.5	90.8	309.3	70.0	379.3	-	197.0	35.4	350.0	314.4	170.2
2003	259.3	116.2	375.5	35.3	410.8	-	244.9	134.0	449.0	375.7	94.3
2004 Q1	92.0	-14.0	78.0	-3.0	75.0	-	74.2	25.5	88.0	73.1	90.0
2004 Apr.	11.9	3.8	15.7	9.4	25.1	-	40.4	15.0	58.6	44.7	21.7
May	-13.0	24.0	11.0	-4.0	7.0	-	17.9	16.2	44.8	49.1	-36.6
June	21.7	4.2	25.8	16.8	42.6	-	17.5	15.5	60.7	41.7	-23.0
July	40.8	10.0	50.8	7.9	58.7	-	27.1	16.7	52.5	56.2	11.5
Aug.	6.8	11.8	18.6	7.3	25.9	-	27.7	8.9	25.2	27.4	28.1
Sep. <sup>(p)</sup>	32.3	19.8	52.1	-14.2	37.9	-	39.5	-4.5	52.5	52.7	24.0
Growth rates											
2002 Dec.	9.8	3.8	6.7	8.9	7.0	7.2	5.1	1.7	4.7	4.8	170.2
2003 Dec.	10.7	4.7	7.7	4.1	7.2	7.1	6.2	6.4	5.8	5.6	94.3
2004 Mar.	11.4	2.1	6.8	3.1	6.2	6.0	7.1	6.6	5.8	5.3	96.2
2004 Apr.	10.9	1.5	6.2	1.1	5.5	5.5	7.5	6.3	5.9	5.5	107.2
May	9.4	1.5	5.5	1.6	4.9	5.2	7.4	6.2	5.8	5.7	45.8
June	9.5	1.7	5.6	3.5	5.3	5.2	7.7	7.4	6.1	6.0	1.3
July	10.1	1.7	5.9	3.0	5.5	5.4	7.5	6.4	6.3	6.2	39.6
Aug.	9.2	2.0	5.7	5.0	5.6	5.7	7.6	6.6	6.0	6.1	102.0
Sep. <sup>(p)</sup>	9.7	2.8	6.3	4.1	6.0	.	7.9	5.5	6.3	6.5	121.1

### C1 Monetary aggregates

(annual growth rates; seasonally adjusted)

### C2 Counterparts

(annual growth rates; seasonally adjusted)



Source: ECB.

- 1) Monetary liabilities of MFIs and central government (post office, treasury) vis-à-vis non-MFI euro area residents excluding central government (M1, M2, M3: see glossary).
- 2) Values in section 'growth rates' are sums of the transactions during the 12 months ending in the period indicated.

### 2.3 Monetary statistics

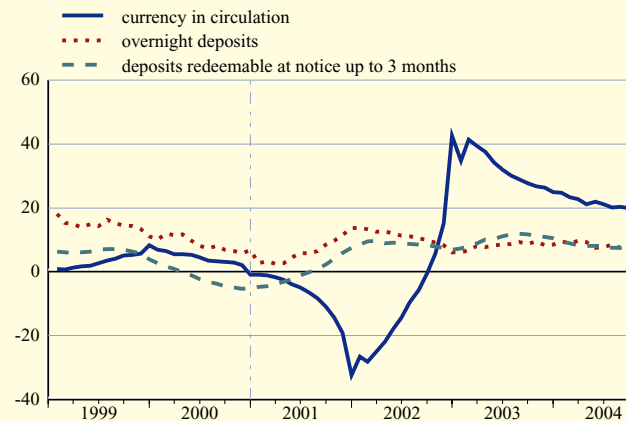
(EUR billions and annual growth rates; seasonally adjusted; outstanding amounts and growth rates at end of period, transactions during period)

#### 2. Components of monetary aggregates and longer-term financial liabilities

	Currency in circulation	Overnight deposits	Deposits with agreed maturity up to 2 years	Deposits redeemable at notice up to 3 months	Repos	Money market fund shares/units	Debt securities up to 2 years	Debt securities over 2 years	Deposits redeemable at notice over 3 months	Deposits with agreed maturity over 2 years	Capital and reserves
	1	2	3	4	5	6	7	8	9	10	11
<b>Outstanding amounts</b>											
2002	332.3	2,109.4	1,077.0	1,399.0	240.6	484.5	127.6	1,694.0	103.8	1,186.6	1,004.8
2003	387.6	2,288.6	1,037.0	1,522.6	222.4	597.7	88.4	1,791.2	90.6	1,253.1	1,008.7
2004 Q1	406.2	2,363.1	1,003.9	1,548.3	215.1	596.5	89.8	1,857.2	90.1	1,268.3	1,026.6
2004 Apr.	409.6	2,372.4	995.9	1,560.3	215.2	601.1	94.8	1,879.6	90.0	1,284.1	1,026.5
May	416.4	2,351.7	1,006.0	1,572.1	214.0	601.3	91.0	1,889.1	89.4	1,287.7	1,023.0
June	420.5	2,369.7	995.2	1,586.7	220.0	611.7	95.0	1,900.2	89.1	1,298.5	1,020.7
July	425.2	2,406.0	998.3	1,594.5	230.8	611.2	92.7	1,916.7	89.4	1,307.4	1,028.1
Aug.	433.2	2,404.3	996.3	1,607.8	229.5	618.5	93.8	1,932.1	89.3	1,311.4	1,037.5
Sep. <sup>(p)</sup>	439.9	2,428.0	1,003.3	1,618.4	222.4	615.8	89.1	1,953.7	88.4	1,318.3	1,035.5
<b>Transactions</b>											
2002	99.3	119.2	0.4	90.4	10.7	70.6	-11.3	126.0	-10.0	41.6	39.4
2003	77.8	181.5	-27.3	143.5	-9.0	59.5	-15.2	157.9	-13.2	63.2	37.0
2004 Q1	18.6	73.4	-39.5	25.5	-6.4	0.1	3.3	50.1	-0.5	14.3	10.3
2004 Apr.	3.4	8.5	-8.3	12.0	-0.2	4.2	5.4	18.7	-0.1	15.6	6.2
May	6.8	-19.8	12.1	11.9	-1.2	0.1	-2.9	12.8	-0.6	4.3	1.4
June	4.2	17.5	-10.4	14.6	6.0	6.4	4.4	9.8	-0.3	10.9	-2.9
July	4.7	36.1	2.2	7.8	10.8	-0.5	-2.4	11.7	0.3	8.7	6.3
Aug.	8.0	-1.2	-1.5	13.3	-1.4	7.3	1.3	17.5	-0.1	5.1	5.2
Sep. <sup>(p)</sup>	6.7	25.7	9.1	10.7	-7.0	-1.2	-6.0	31.2	-0.9	7.4	1.8
<b>Growth rates</b>											
2002 Dec.	42.6	6.0	0.0	6.9	4.6	17.1	-8.2	7.9	-8.8	3.6	4.0
2003 Dec.	24.9	8.6	-2.6	10.4	-3.9	11.4	-15.4	9.5	-12.7	5.3	3.7
2004 Mar.	22.7	9.7	-6.1	8.2	-1.2	7.0	-8.7	10.8	-9.9	5.5	4.4
2004 Apr.	21.2	9.3	-7.3	8.1	-2.0	6.7	-18.5	10.9	-8.6	6.6	4.4
May	21.8	7.4	-7.2	8.1	-3.5	5.4	-8.0	10.5	-8.3	6.5	4.9
June	21.1	7.7	-6.9	8.0	1.9	4.7	-0.3	10.5	-7.1	7.0	4.9
July	20.0	8.5	-6.3	7.4	2.1	3.5	2.0	10.1	-4.9	7.2	4.3
Aug.	20.3	7.5	-5.7	7.5	4.6	5.0	5.7	10.6	-3.3	7.0	4.0
Sep. <sup>(p)</sup>	19.9	8.0	-4.2	7.6	3.2	4.3	4.7	11.3	-3.0	7.2	3.8

#### C3 Components of monetary aggregates

(annual growth rates; seasonally adjusted)



#### C4 Components of longer-term financial liabilities

(annual growth rates; seasonally adjusted)



Source: ECB.

## 2.4 MFI loans, breakdown <sup>1)</sup>

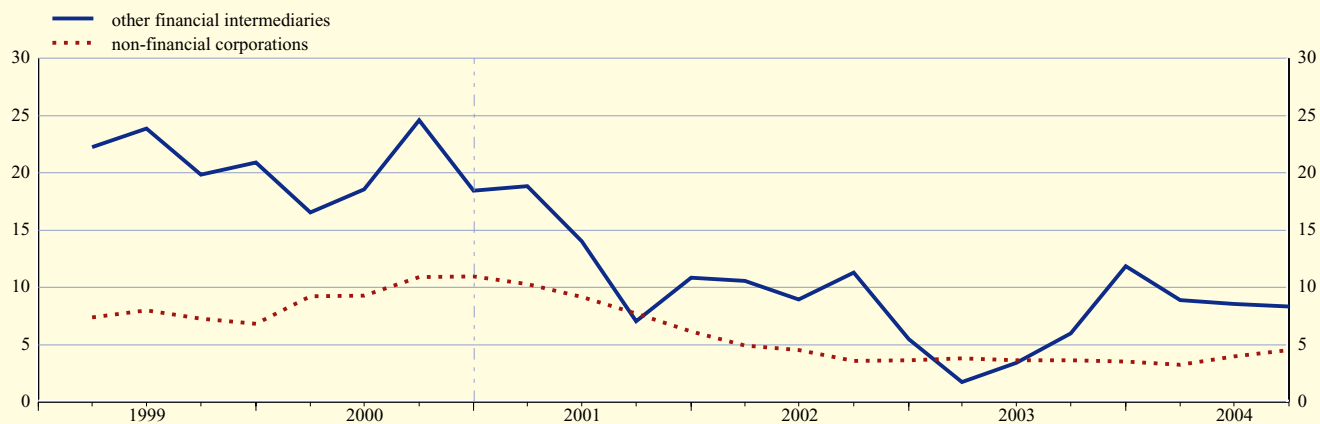
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

### 1. Loans to financial intermediaries and non-financial corporations

	Insurance corporations and pension funds		Other financial intermediaries <sup>2)</sup>		Non-financial corporations			
	Total		Total		Total	Up to 1 year	Over 1 year and up to 5 years	Over 5 years
	1	Up to 1 year 2	3	Up to 1 year 4	5	6	7	8
Outstanding amounts								
2002	32.9	19.6	455.5	289.3	2,965.1	980.2	514.8	1,470.1
2003	35.4	22.1	511.6	321.9	3,034.2	958.7	527.0	1,548.5
2004 Q1	46.3	32.2	503.8	303.8	3,055.3	955.1	526.2	1,574.0
2004 Apr.	51.4	37.7	510.8	313.3	3,076.5	958.1	531.6	1,586.8
May	56.5	42.6	515.3	317.1	3,085.7	952.2	537.1	1,596.4
June	53.7	39.8	509.7	305.7	3,093.3	966.4	537.2	1,589.7
July	56.7	41.9	506.0	302.7	3,101.7	963.4	540.7	1,597.5
Aug.	53.9	39.1	490.4	287.1	3,095.3	946.7	544.9	1,603.7
Sep. <sup>(p)</sup>	52.8	37.9	507.4	301.4	3,106.7	952.3	545.3	1,609.1
Transactions								
2002	-4.1	-7.3	24.0	16.2	106.1	-23.6	32.4	97.3
2003	4.2	2.2	54.6	26.6	103.9	-7.5	15.8	95.6
2004 Q1	10.7	10.0	-3.1	-11.8	21.6	-4.0	3.9	21.7
2004 Apr.	4.7	5.1	8.6	11.5	21.4	3.4	5.8	12.2
May	5.1	4.9	5.5	4.5	11.5	-4.4	5.3	10.5
June	-2.8	-2.7	-5.7	-11.5	26.6	16.8	0.5	9.2
July	2.9	2.0	-4.4	-3.2	9.4	-2.7	3.9	8.2
Aug.	-2.7	-2.8	-12.3	-12.5	-5.3	-16.4	4.3	6.8
Sep. <sup>(p)</sup>	-1.0	-1.1	18.5	15.2	14.9	6.9	0.8	7.2
Growth rates								
2002 Dec.	-10.3	-26.4	5.5	5.9	3.7	-2.3	6.6	7.0
2003 Dec.	11.9	11.7	11.8	8.9	3.5	-0.8	3.1	6.6
2004 Mar.	8.7	6.4	8.9	3.0	3.3	-2.4	3.6	6.9
2004 Apr.	9.5	10.2	8.3	4.4	3.5	-2.4	4.3	7.1
May	21.2	26.0	7.9	4.6	3.7	-2.3	5.8	7.0
June	18.9	25.7	8.5	3.0	4.0	-2.1	6.4	7.2
July	15.3	26.2	8.8	5.5	4.4	-1.0	6.0	7.4
Aug.	21.7	37.1	6.9	3.1	4.1	-1.7	5.6	7.3
Sep. <sup>(p)</sup>	18.3	32.6	8.4	5.7	4.6	-0.6	5.9	7.4

### C5 Loans to financial intermediaries and non-financial corporations

(annual growth rates)



Source: ECB.

1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.

2) This category includes investment funds.

**2.4 MFI loans, breakdown <sup>1)</sup>**

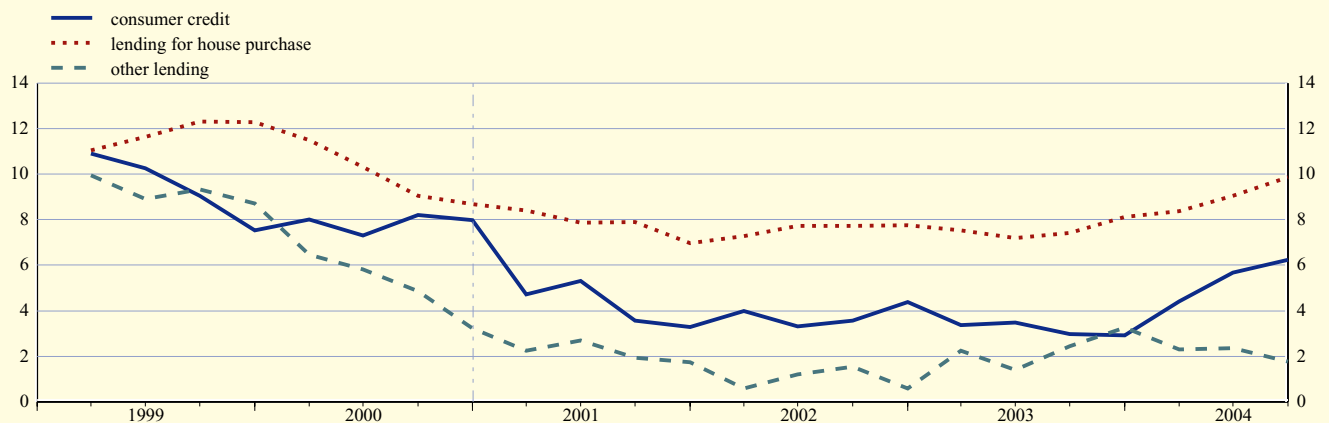
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

**2. Loans to households <sup>2)</sup>**

	2. Loans to households <sup>2)</sup>												
	Total	Consumer credit				Lending for house purchase				Other lending			
	Total	Up to 1 year	Over 1 year and up to 5 years	Over 5 years	Total	Up to 1 year	Over 1 year and up to 5 years	Over 5 years	Total	Up to 1 year	Over 1 year and up to 5 years	Over 5 years	
	1	2	3	4	5	6	7	8	9	10	11	12	13
Outstanding amounts													
2002	3,327.0	518.9	105.9	178.3	234.7	2,188.5	22.3	65.1	2,101.1	619.6	153.9	99.7	366.0
2003	3,520.6	484.4	112.0	181.0	191.5	2,360.4	14.3	63.3	2,282.7	675.7	145.1	95.5	435.2
2004 Q1	3,564.7	484.5	109.9	182.3	192.3	2,400.2	14.2	61.6	2,324.4	680.0	141.8	95.2	443.1
2004 Apr.	3,589.5	489.3	110.7	184.0	194.6	2,419.2	14.1	62.0	2,343.0	681.1	141.1	96.1	443.9
May	3,610.7	489.7	110.2	183.9	195.6	2,439.5	14.2	62.4	2,362.9	681.5	139.8	96.1	445.6
June	3,663.2	502.2	114.9	187.2	200.0	2,463.7	15.2	64.7	2,383.7	697.4	147.7	99.2	450.4
July	3,691.5	503.9	113.7	188.6	201.6	2,491.6	14.9	65.2	2,411.6	696.0	144.0	99.5	452.6
Aug.	3,707.8	504.8	114.6	188.2	202.0	2,508.6	14.8	65.5	2,428.4	694.4	142.4	99.2	452.8
Sep. <sup>(p)</sup>	3,736.2	507.8	115.8	188.6	203.4	2,534.3	15.0	65.9	2,453.4	694.1	144.7	98.6	450.7
Transactions													
2002	182.3	21.9	7.1	5.4	9.4	156.8	-0.3	2.3	154.9	3.6	-3.0	2.2	4.4
2003	212.1	13.7	8.7	6.4	-1.4	177.6	-5.9	1.7	181.8	20.8	-6.4	-5.0	32.3
2004 Q1	48.1	2.0	-1.7	1.8	1.9	44.8	0.0	-0.8	45.6	1.3	-2.3	0.5	3.2
2004 Apr.	23.8	3.9	0.8	1.5	1.6	18.9	0.0	0.4	18.6	1.0	-0.7	0.8	0.9
May	21.7	0.8	-0.5	0.1	1.2	20.4	0.1	0.3	20.0	0.5	-1.2	0.0	1.7
June	36.3	8.7	4.3	2.1	2.3	20.6	0.9	1.8	17.9	7.0	5.1	0.2	1.7
July	28.7	1.9	-1.2	1.5	1.6	28.0	-0.4	0.5	27.9	-1.1	-3.6	-0.1	2.5
Aug.	17.1	1.1	0.9	-0.5	0.8	17.2	-0.1	0.3	16.9	-1.2	-1.6	-0.2	0.6
Sep. <sup>(p)</sup>	29.9	2.7	1.3	0.4	0.9	26.2	0.2	0.5	25.5	1.0	2.5	-0.4	-1.1
Growth rates													
2002 Dec.	5.8	4.4	6.9	3.1	4.2	7.8	-1.4	3.7	8.0	0.6	-1.9	2.1	1.2
2003 Dec.	6.4	2.9	8.3	3.6	-0.2	8.1	-26.3	2.6	8.7	3.3	-4.3	-5.1	8.5
2004 Mar.	6.6	4.4	0.1	6.3	5.2	8.4	4.7	-3.3	8.8	2.3	-1.1	-1.8	4.4
2004 Apr.	6.8	4.9	0.4	6.4	6.2	8.7	6.1	-3.4	9.1	2.1	-1.0	-1.3	3.9
May	6.9	4.8	0.8	5.4	6.5	8.8	5.6	-3.4	9.2	1.9	-0.8	-1.2	3.5
June	7.3	5.7	3.1	5.9	6.9	9.0	9.1	1.0	9.3	2.4	-1.2	1.8	3.8
July	7.3	5.4	3.5	5.9	6.2	9.2	7.7	0.6	9.5	2.4	-0.8	1.5	3.7
Aug.	7.5	6.4	6.1	6.2	6.9	9.3	5.8	0.6	9.6	2.1	-0.4	1.6	3.1
Sep. <sup>(p)</sup>	7.8	6.2	4.9	5.5	7.7	9.8	4.5	0.7	10.2	1.8	0.1	-0.4	2.8

**C6 Loans to households**

(annual growth rates)



Source: ECB.

1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.

2) Including non-profit institutions serving households.

## 2.4 MFI loans, breakdown <sup>1)</sup>

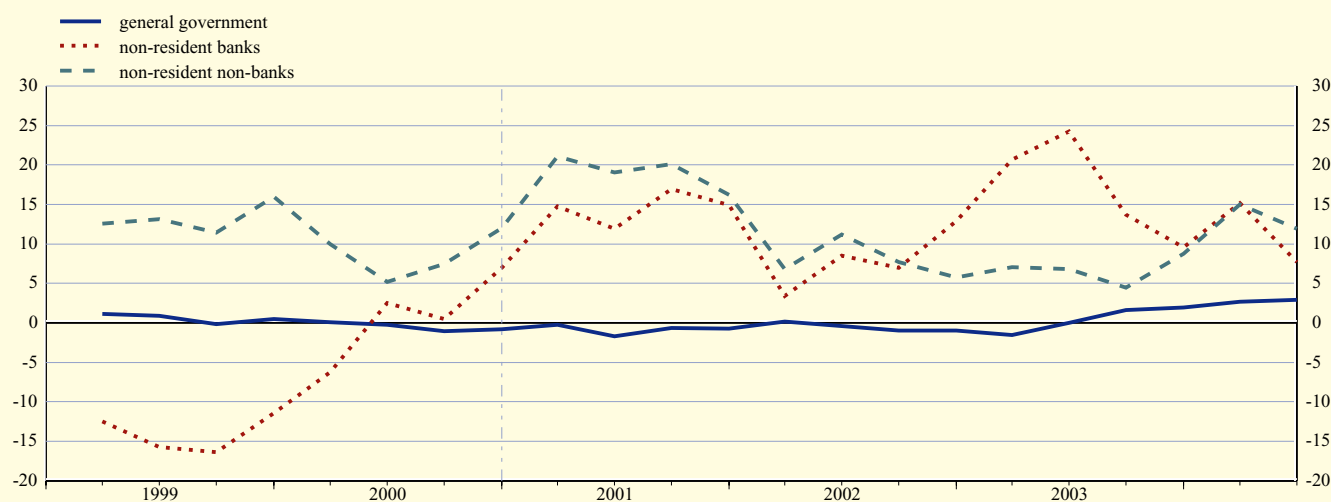
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

### 3. Loans to government and non-euro area residents

	General government					Non-euro area residents				
	Total	Central government	Other general government			Total	Banks <sup>2)</sup>	Non-banks		
			State government	Local government	Social security funds			Total	General government	Other
	1	2	3	4	5	6	7	8	9	10
Outstanding amounts										
2002	813.0	132.7	277.7	382.8	19.7	1,730.1	1,146.2	583.9	64.6	519.3
2003	819.0	130.0	265.1	388.9	35.0	1,762.7	1,182.2	580.6	59.3	521.2
2004 Q1	823.3	134.6	261.3	388.5	38.9	1,955.5	1,308.6	646.9	61.1	585.8
Q2 <sup>(p)</sup>	818.3	129.3	253.4	395.0	40.7	1,965.4	1,323.4	642.6	61.0	581.5
Transactions										
2002	-7.8	-11.2	-21.1	19.9	4.6	169.1	135.2	34.5	-1.2	35.7
2003	15.3	-4.3	-12.3	16.6	15.3	159.8	109.5	50.0	-4.9	54.8
2004 Q1	5.7	5.7	-3.9	-0.3	3.9	163.9	107.9	57.0	1.7	55.3
Q2 <sup>(p)</sup>	-6.7	-6.3	-8.5	6.4	1.8	5.5	11.9	-5.7	-0.3	-5.4
Growth rates										
2002 Dec.	-1.0	-7.7	-7.1	5.5	30.0	10.3	12.9	5.7	-1.9	6.7
2003 Dec.	1.9	-3.2	-4.4	4.4	77.5	9.3	9.6	8.7	-7.5	10.8
2004 Mar.	2.7	0.9	-2.2	2.9	63.1	15.1	15.2	15.0	4.1	16.3
June <sup>(p)</sup>	2.9	1.6	-4.0	5.0	43.7	8.9	7.7	11.9	3.2	12.9

### C7 Loans to government and non-euro area residents

(annual growth rates)



Source: ECB.

1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.

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

**2.5 Deposits held with MFIs, breakdown <sup>1)</sup>**

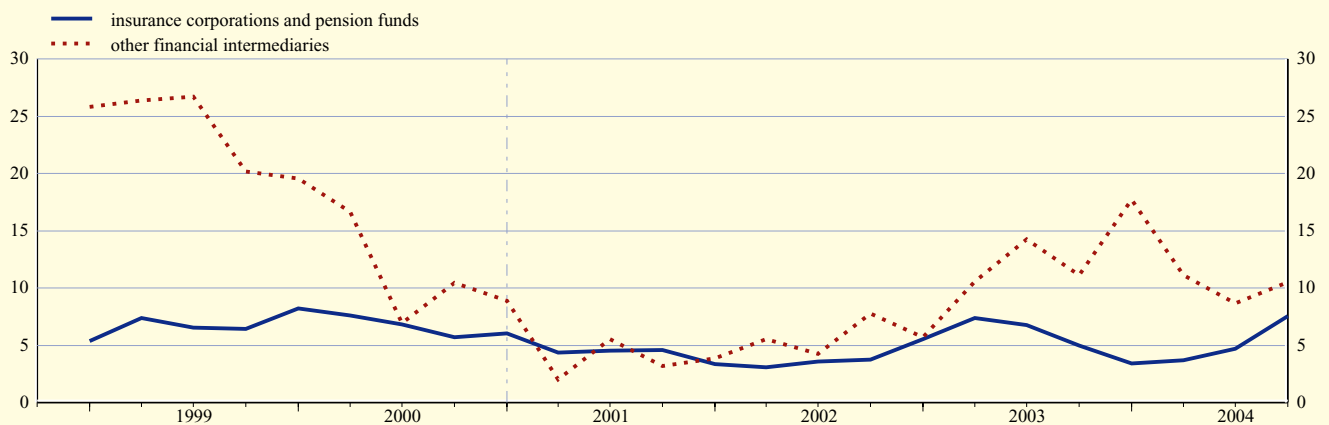
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

**1. Deposits by financial intermediaries**

	Insurance corporations and pension funds							Other financial intermediaries <sup>2)</sup>						
	Total	Overnight	With agreed maturity		Redeemable at notice		Repos	Total	Overnight	With agreed maturity		Redeemable at notice		Repos
			Up to 2 years	Over 2 years	Up to 3 months	Over 3 months				Up to 2 years	Over 2 years	Up to 3 months	Over 3 months	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>Outstanding amounts</b>														
2002	523.1	55.8	-	-	-	-	17.8	493.6	152.7	-	-	-	-	97.1
2003	541.9	58.9	41.7	420.5	1.3	0.3	19.1	568.9	183.1	130.6	144.6	6.1	0.1	104.4
2004 Q1	556.6	64.7	42.2	426.1	1.3	0.3	22.0	587.8	197.0	119.7	147.1	7.8	0.1	116.1
2004 Apr.	562.3	62.3	41.7	431.3	1.4	0.4	25.2	601.3	195.2	129.0	150.0	8.3	0.1	118.6
May	563.1	57.2	45.7	435.7	1.5	0.4	22.7	596.0	192.1	127.4	149.1	7.9	0.1	119.3
June	565.4	59.9	42.1	439.8	1.3	1.0	21.2	597.2	194.3	122.3	155.1	8.3	0.1	117.2
July	567.0	55.8	46.2	440.8	1.3	1.0	21.9	595.0	186.7	123.2	158.0	8.4	0.1	118.6
Aug.	566.4	53.7	46.9	441.2	1.3	1.0	22.3	590.8	176.5	128.0	161.8	8.2	0.1	116.1
Sep. <sup>(p)</sup>	573.7	61.6	47.4	442.4	1.2	1.0	20.0	598.9	189.6	120.2	164.9	8.1	0.1	115.9
<b>Transactions</b>														
2002	27.6	7.8	-	-	-	-	1.4	26.7	-4.7	-	-	-	-	12.8
2003	17.9	1.7	-3.8	18.8	0.3	-0.1	1.1	86.1	27.9	-0.4	39.3	3.2	0.0	16.0
2004 Q1	14.4	5.7	0.3	5.6	0.0	0.0	2.8	14.9	13.9	-14.7	1.4	1.6	0.0	12.7
2004 Apr.	5.5	-2.4	-0.5	5.2	0.1	0.0	3.1	12.5	-2.1	9.2	2.7	0.5	0.0	2.2
May	0.7	-5.2	4.0	4.4	0.0	0.0	-2.5	-3.0	-2.8	-0.2	-0.4	-0.4	0.0	0.8
June	1.7	2.7	-3.6	4.2	-0.1	0.0	-1.5	2.6	3.5	-5.1	5.9	0.4	0.0	-2.2
July	1.6	-4.1	4.0	1.0	0.0	0.0	0.7	-2.6	-7.7	0.8	2.9	0.0	0.0	1.4
Aug.	-0.3	-2.1	0.8	0.5	0.0	0.0	0.4	-4.6	-10.2	4.3	3.9	-0.1	0.0	-2.4
Sep. <sup>(p)</sup>	7.2	8.0	0.5	1.0	-0.1	0.0	-2.3	9.6	13.8	-7.3	3.3	-0.1	0.0	-0.2
<b>Growth rates</b>														
2002 Dec.	5.6	16.3	-	-	-	-	8.5	5.7	-3.0	-	-	-	-	14.9
2003 Dec.	3.4	2.9	-8.1	4.7	40.9	-12.5	6.0	17.7	18.1	-0.4	37.2	71.4	-	17.1
2004 Mar.	3.7	5.1	8.1	2.4	40.8	1.8	18.6	11.1	17.2	-13.1	22.6	47.9	-	17.9
2004 Apr.	4.4	8.4	-3.8	3.9	49.2	6.2	17.0	10.3	15.5	-13.3	25.0	64.7	-	15.1
May	4.0	-0.8	0.1	5.2	10.0	6.6	1.8	5.4	7.2	-14.9	15.9	39.0	-	16.6
June	4.7	-6.4	10.8	6.4	40.0	3.8	-6.3	8.6	7.8	-10.1	18.6	44.6	-	20.5
July	5.5	0.3	16.9	5.1	32.5	3.1	3.6	9.2	9.1	-9.3	22.6	51.7	-	14.1
Aug.	5.8	4.5	17.6	4.3	18.7	7.1	16.6	9.3	6.3	-5.8	25.0	67.5	-	11.3
Sep. <sup>(p)</sup>	7.5	7.1	44.1	4.8	13.6	6.7	6.8	10.5	7.4	-6.1	27.3	63.8	-	12.8

**C8 Deposits by financial intermediaries**

(annual growth rates)



Source: ECB.

- 1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.
- 2) This category includes investment funds.



## 2.5 Deposits held with MFIs, breakdown <sup>1)</sup>

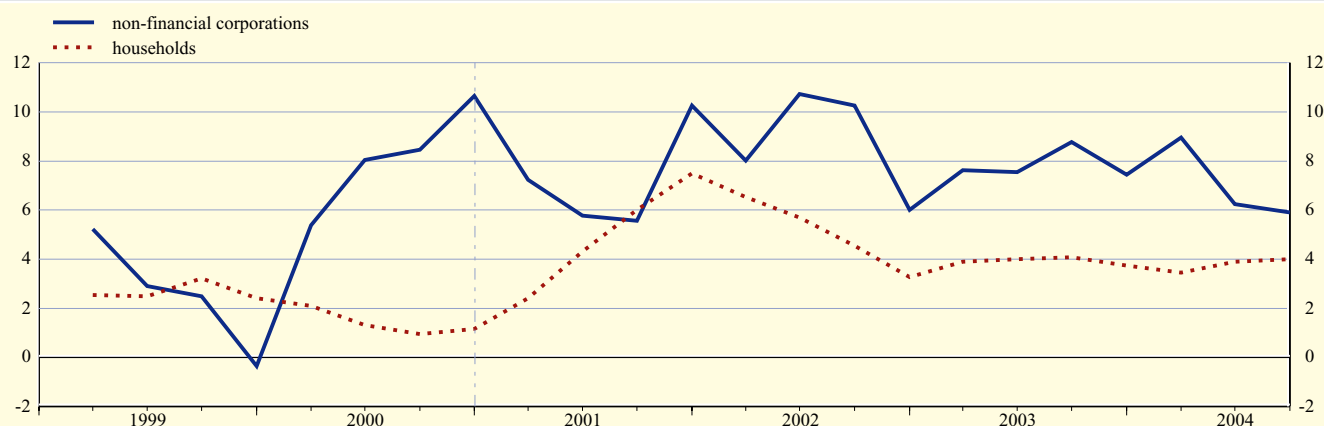
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

### 2. Deposits by non-financial corporations and households

	Non-financial corporations							Households <sup>2)</sup>						
	Total	Overnight	With agreed maturity		Redeemable at notice		Repos	Total	Overnight	With agreed maturity		Redeemable at notice		Repos
			Up to 2 years	Over 2 years	Up to 3 months	Over 3 months				Up to 2 years	Over 2 years	Up to 3 months	Over 3 months	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Outstanding amounts														
2002	990.0	595.6	-	-	-	-	34.7	3,806.3	1,173.0	-	-	-	-	74.7
2003	1,049.3	633.3	280.2	66.2	38.1	1.5	30.0	3,978.5	1,311.8	544.0	600.8	1,379.2	89.9	52.9
2004 Q1	1,035.9	624.2	275.9	68.5	39.9	1.7	25.8	3,997.9	1,320.7	527.4	608.6	1,401.2	88.2	51.9
2004 Apr.	1,037.9	628.0	271.7	69.7	40.5	1.7	26.4	4,014.9	1,335.9	523.1	610.1	1,406.5	87.1	52.3
May	1,051.4	633.0	279.4	70.4	40.9	1.7	26.0	4,027.4	1,349.5	518.9	610.9	1,411.4	86.2	50.5
June	1,052.6	650.6	265.6	68.9	41.0	1.0	25.5	4,055.5	1,367.5	517.0	612.4	1,422.3	85.8	50.4
July	1,053.5	642.0	271.0	71.4	41.6	1.0	26.5	4,069.2	1,372.1	517.0	613.3	1,428.3	85.9	52.6
Aug.	1,052.9	639.2	271.0	70.7	42.2	1.0	28.8	4,053.7	1,351.0	515.2	615.8	1,431.3	85.8	54.6
Sep. <sup>(p)</sup>	1,066.5	656.7	269.6	71.0	42.5	1.1	25.6	4,060.5	1,363.2	512.2	614.2	1,431.7	85.5	53.7
Transactions														
2002	57.5	30.1	-	-	-	-	-1.2	120.6	65.3	-	-	-	-	-1.9
2003	73.0	41.5	54.9	-29.8	10.2	0.4	-4.2	142.6	95.4	-70.8	36.0	117.4	-13.7	-21.8
2004 Q1	-14.9	-9.6	-5.6	2.6	1.9	0.2	-4.2	17.7	8.5	-17.7	7.7	21.9	-1.7	-1.0
2004 Apr.	1.6	3.4	-4.1	1.1	0.6	0.0	0.7	16.8	15.1	-4.4	1.5	5.3	-1.1	0.4
May	14.5	5.7	7.9	0.8	0.4	0.0	-0.4	12.8	13.6	-3.9	0.8	4.9	-0.9	-1.8
June	4.5	18.7	-12.7	-1.0	0.0	0.0	-0.5	23.9	15.1	-2.7	1.0	10.9	-0.4	-0.1
July	0.3	-8.9	5.1	2.4	0.6	0.0	1.0	13.5	4.9	-0.4	0.9	5.9	0.1	2.1
Aug.	0.9	-2.3	0.9	-0.7	0.6	0.0	2.3	-15.5	-21.0	-1.7	2.2	3.1	-0.1	2.0
Sep. <sup>(p)</sup>	15.5	18.4	-0.6	0.5	0.4	0.0	-3.2	7.8	12.4	-2.4	-1.5	0.5	-0.3	-0.9
Growth rates														
2002 Dec.	6.0	5.3	-	-	-	-	-3.5	3.3	6.0	-	-	-	-	-2.5
2003 Dec.	7.4	6.8	23.7	-30.7	41.5	49.6	-12.4	3.7	7.9	-11.4	6.4	9.3	-13.2	-29.2
2004 Mar.	9.0	11.9	3.4	13.3	23.1	20.6	-19.1	3.5	7.7	-8.7	3.7	7.4	-10.5	-26.5
2004 Apr.	8.0	10.9	1.1	15.9	22.2	20.3	-15.9	3.5	7.7	-8.8	4.1	7.2	-9.3	-25.5
May	7.1	10.4	-0.3	19.1	20.4	22.2	-23.4	3.6	8.0	-9.2	4.3	7.1	-8.8	-26.5
June	6.2	10.1	-3.2	14.9	17.1	20.6	-13.5	3.9	7.6	-8.0	4.5	7.0	-7.7	-18.6
July	6.9	10.6	-2.9	16.7	17.8	21.5	-6.2	4.0	7.8	-7.8	4.7	6.6	-5.5	-15.9
Aug.	6.3	10.9	-4.9	10.8	18.0	22.0	-1.1	3.6	6.2	-7.7	5.0	6.3	-4.0	-10.4
Sep. <sup>(p)</sup>	5.9	9.7	-2.5	10.1	18.7	17.3	-16.1	4.0	7.1	-7.5	4.7	6.4	-3.5	-4.5

### C9 Deposits by non-financial corporations and households

(annual growth rates)



Source: ECB.

- 1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.  
 2) Including non-profit institutions serving households.

## 2.5 Deposits held with MFIs, breakdown <sup>1)</sup>

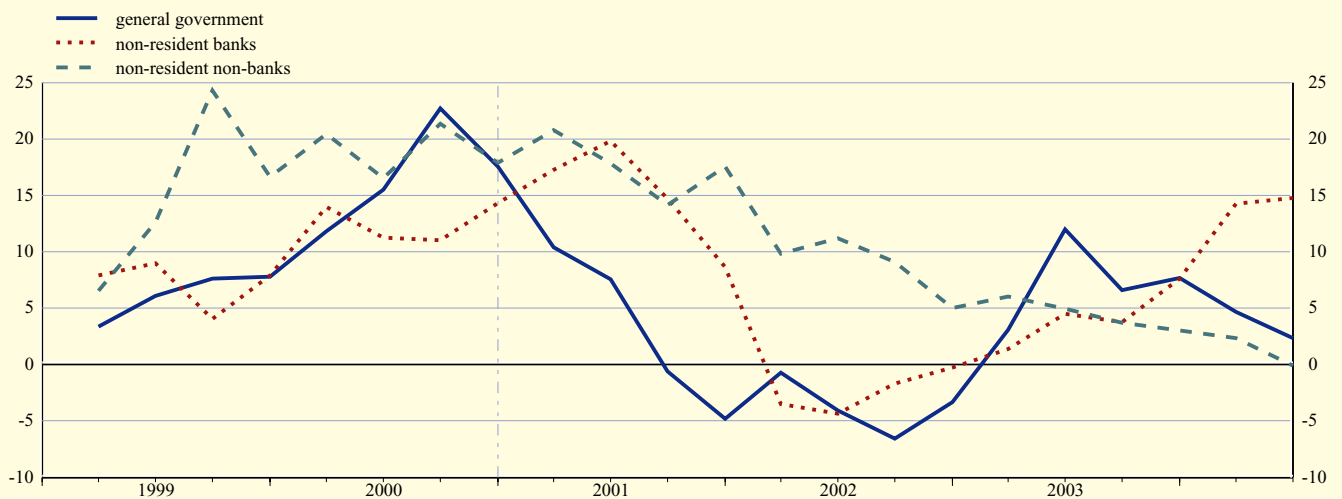
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

### 3. Deposits by government and non-euro area residents

	General government					Non-euro area residents				
	Total	Central government	Other general government			Total	Banks <sup>2)</sup>	Non-banks		
			State government	Local government	Social security funds			Total	General government	Other
	1	2	3	4	5	6	7	8	9	10
Outstanding amounts										
2002	248.4	106.9	31.6	69.2	40.7	2,271.0	1,585.3	685.7	97.4	588.3
2003	271.2	132.3	31.1	66.9	40.9	2,245.1	1,580.9	664.3	96.1	568.2
2004 Q1	272.7	140.7	30.0	62.4	39.6	2,444.2	1,742.7	701.5	100.8	600.7
Q2 <sup>(p)</sup>	294.4	156.6	31.6	64.4	41.8	2,471.6	1,785.1	688.1	102.5	585.6
Transactions										
2002	-8.3	-0.2	1.8	0.4	-10.3	30.2	-4.9	35.2	3.6	31.6
2003	19.3	21.1	-0.5	-2.3	1.0	138.5	117.5	21.1	-1.3	22.4
2004 Q1	1.5	8.4	-1.1	-4.5	-1.3	155.3	129.6	25.7	4.8	21.0
Q2 <sup>(p)</sup>	21.1	15.4	1.6	2.0	2.2	21.3	37.5	-13.8	1.7	-15.5
Growth rates										
2002 Dec.	-3.3	-0.2	5.9	0.5	-20.2	1.3	-0.2	5.0	3.9	5.1
2003 Dec.	7.7	19.3	-1.5	-3.4	2.6	6.2	7.6	3.0	-1.3	3.7
2004 Mar.	4.7	14.4	-6.2	-4.7	-1.4	10.6	14.3	2.3	3.1	2.2
June <sup>(p)</sup>	2.4	7.9	-7.7	-0.2	-4.2	10.1	14.8	-0.1	8.4	-1.5

### C10 Deposits by government and non-euro area residents

(annual growth rates)



Source: ECB.

1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.

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

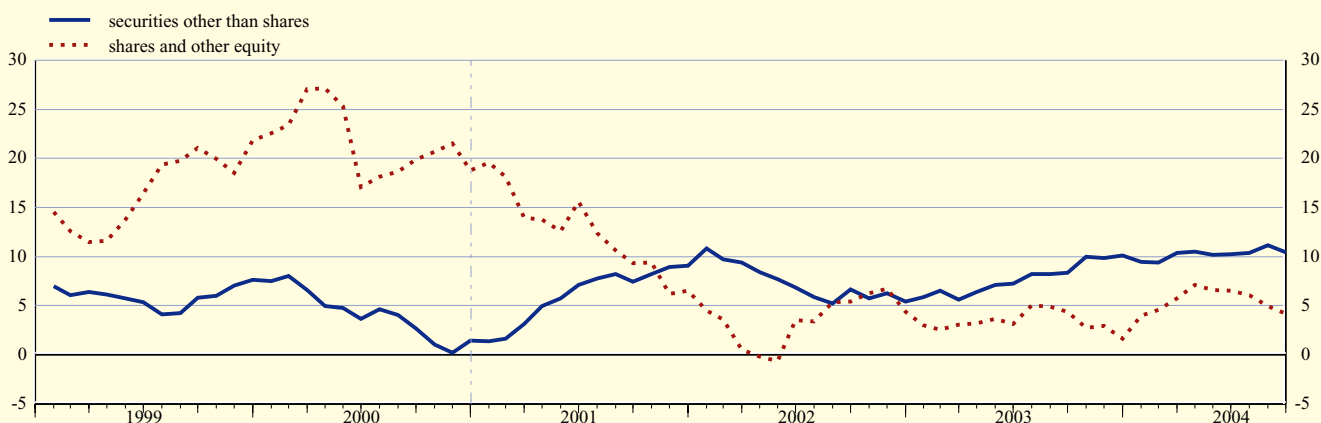
## 2.6 MFI holdings of securities, breakdown <sup>1)</sup>

(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

	Securities other than shares								Shares and other equity			
	Total	MFIs		General government		Other euro area residents		Non-euro area residents	Total	MFIs	Non-MFIs	Non-euro area residents
		Euro	Non-euro	Euro	Non-euro	Euro	Non-euro					
	1	2	3	4	5	6	7	8	9	10	11	12
<b>Outstanding amounts</b>												
2002	3,228.2	1,122.2	48.2	1,119.5	15.5	349.5	16.7	556.6	1,004.9	263.3	564.3	177.3
2003	3,576.9	1,218.5	57.4	1,230.4	15.6	407.2	18.6	629.3	1,068.7	279.7	615.4	173.7
2004 Q1	3,767.1	1,283.1	60.9	1,287.9	17.8	413.5	18.0	685.9	1,115.8	285.7	640.7	189.5
2004 Apr.	3,811.8	1,292.7	62.0	1,296.5	17.3	417.2	18.6	707.4	1,145.4	290.8	663.2	191.4
May	3,849.7	1,304.2	61.5	1,323.4	17.2	422.4	17.6	703.5	1,148.9	297.6	658.0	193.3
June	3,855.3	1,298.9	63.2	1,334.2	17.6	426.3	18.1	697.0	1,154.3	294.7	653.6	206.0
July	3,900.4	1,313.8	62.9	1,330.4	17.4	429.4	17.3	729.2	1,150.8	294.8	641.6	214.5
Aug.	3,918.5	1,318.6	63.3	1,332.1	16.9	429.1	17.0	741.5	1,143.8	291.0	634.5	218.2
Sep. <sup>(p)</sup>	3,915.7	1,324.9	62.5	1,339.8	15.9	425.5	17.4	729.7	1,126.8	286.8	633.0	207.0
<b>Transactions</b>												
2002	168.1	47.2	0.2	38.6	-0.6	25.9	3.5	53.4	42.7	14.0	7.0	21.8
2003	331.4	91.6	6.2	80.3	1.1	51.9	2.3	98.0	16.0	7.2	19.5	-10.7
2004 Q1	153.1	61.3	0.1	45.8	1.3	4.1	-1.3	41.8	44.7	6.1	24.6	14.0
2004 Apr.	41.9	9.7	0.9	8.7	-0.4	4.3	0.4	18.2	29.0	5.6	21.6	1.8
May	46.4	11.3	-0.4	28.6	0.1	5.0	-0.7	2.4	6.1	6.7	-2.9	2.4
June	3.1	-5.8	1.9	7.5	0.3	4.5	0.4	-5.7	-9.4	-6.1	-10.7	7.3
July	41.2	17.9	-0.9	-4.3	-0.2	0.5	-0.9	29.1	-1.3	0.3	-11.0	9.4
Aug.	19.6	4.7	1.3	-0.5	-0.5	-0.3	-0.2	15.1	-6.0	-3.6	-6.8	4.4
Sep. <sup>(p)</sup>	10.3	7.8	1.0	8.9	-0.5	-3.9	0.9	-3.8	-19.1	-4.8	-2.1	-12.1
<b>Growth rates</b>												
2002 Dec.	5.5	4.4	-0.6	3.7	-3.3	8.1	23.6	10.1	4.4	5.5	1.3	13.6
2003 Dec.	10.1	8.1	12.6	7.0	7.0	14.7	11.5	17.6	1.6	2.7	3.5	-5.8
2004 Mar.	10.4	9.6	6.1	7.3	6.1	10.7	5.2	19.1	5.8	6.2	7.5	-0.3
2004 Apr.	10.5	10.6	11.6	6.6	3.6	8.0	8.2	20.4	7.1	8.7	8.3	0.9
May	10.2	10.3	8.5	6.6	6.6	9.0	-7.4	19.0	6.6	9.4	5.9	4.6
June	10.3	9.4	7.4	8.6	10.3	10.3	2.5	15.7	6.5	6.3	5.2	11.1
July	10.4	9.5	5.1	7.2	6.1	11.3	-6.9	19.1	6.1	5.2	3.9	14.4
Aug.	11.2	10.0	12.8	7.6	5.1	10.2	-5.7	21.7	5.0	3.6	2.6	14.6
Sep. <sup>(p)</sup>	10.4	10.6	12.7	6.6	0.3	7.6	-3.9	20.0	4.2	2.6	3.1	10.0

## C11 MFI holdings of securities

(annual growth rates)



Source: ECB.

1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.

2.7 Revaluation of selected MFI balance sheet items <sup>1)</sup>  
(EUR billions)

1. Write-offs/write-downs of loans to households <sup>2)</sup>

	Consumer credit				Lending for house purchase				Other lending			
	Total	Up to 1 year	Over 1 year and up to 5 years	Over 5 years	Total	Up to 1 year	Over 1 year and up to 5 years	Over 5 years	Total	Up to 1 year	Over 1 year and up to 5 years	Over 5 years
	1	2	3	4	5	6	7	8	9	10	11	12
2002	-0.9	-	-	-	-1.3	-	-	-	-5.3	-	-	-
2003	-2.7	-1.1	-0.5	-1.0	-3.2	-0.3	-0.1	-2.8	-7.4	-2.8	-0.3	-4.3
2004 Q1	-1.2	-0.5	-0.2	-0.5	-1.3	-0.1	0.0	-1.1	-2.5	-1.0	-0.1	-1.4
2004 Apr.	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	-0.2	-0.1	0.0	-0.1
May	-0.1	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.1	-0.3	-0.1	0.0	-0.2
June	-0.2	-0.1	0.0	-0.1	-0.4	0.0	0.0	-0.3	-0.5	-0.1	0.0	-0.3
July	-0.1	0.0	0.0	-0.1	-0.1	0.0	0.0	-0.1	-0.2	0.0	0.0	-0.2
Aug.	-0.1	0.0	0.0	-0.1	-0.2	0.0	0.0	-0.2	-0.2	-0.1	0.0	-0.2
Sep. <sup>(p)</sup>	-0.2	-0.1	0.0	0.0	-0.1	0.0	0.0	-0.1	-0.4	-0.1	0.0	-0.2

2. Write-offs/write-downs of loans to non-financial corporations and non-euro area residents

	Non-financial corporations				Non-euro area residents		
	Total	Up to 1 year	Over 1 year and up to 5 years	Over 5 years	Total	Up to 1 year	Over 1 year
	1	2	3	4	5	6	7
2002	-9.7	-2.1	-2.7	-4.9	-7.2	-	-
2003	-17.6	-8.8	-1.3	-7.6	-1.0	-0.4	-0.6
2004 Q1	-5.7	-3.0	-0.6	-2.2	-0.9	-0.3	-0.5
2004 Apr.	-0.3	-0.2	0.0	-0.1	0.3	0.1	0.2
May	-0.7	-0.7	0.3	-0.3	0.2	0.0	0.2
June	-1.6	-0.9	-0.1	-0.6	0.2	0.1	0.2
July	-0.5	-0.3	-0.1	-0.1	-0.1	0.0	-0.1
Aug.	-0.4	-0.1	0.0	-0.2	0.0	0.0	0.0
Sep. <sup>(p)</sup>	-0.9	-0.5	-0.1	-0.4	0.0	0.0	0.0

3. Revaluation of securities held by MFIs

	Securities other than shares								Shares and other equity			
	Total	MFIs		General government		Other euro area residents		Non-euro area residents	Total	MFIs	Non-MFIs	Non-euro area residents
		Euro	Non-euro	Euro	Non-euro	Euro	Non-euro					
	1	2	3	4	5	6	7	8	9	10	11	12
2002	39.6	9.9	0.6	13.2	-0.1	5.8	0.2	9.9	-12.3	-5.0	-1.5	-5.8
2003	-1.2	-0.7	-0.4	3.1	-0.1	-1.2	-0.1	-2.0	19.2	7.9	5.0	6.4
2004 Q1	16.6	2.5	0.3	11.1	0.1	1.5	0.0	1.0	2.3	-0.3	1.0	1.7
2004 Apr.	-5.1	-0.3	0.0	-4.1	0.0	-0.4	0.0	-0.3	0.6	-0.5	0.9	0.1
May	-3.7	0.1	-0.1	-1.9	0.0	0.2	0.0	-2.1	-2.1	0.3	-1.9	-0.5
June	0.2	-0.5	0.0	1.0	0.0	-0.6	0.0	0.3	1.6	-0.3	1.0	1.0
July	0.3	-0.6	0.0	0.5	0.0	0.3	0.0	0.1	-2.2	-0.3	-1.0	-1.0
Aug.	2.3	0.0	0.0	2.2	0.0	0.0	0.0	0.0	-1.0	-0.1	-0.3	-0.6
Sep. <sup>(p)</sup>	-0.5	0.0	-0.1	-1.2	0.0	0.4	0.0	0.5	2.2	0.7	0.6	0.9

Source: ECB.

1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.

2) Including non-profit institutions serving households.

## 2.8 Currency breakdown of selected MFI balance sheet items <sup>1)</sup>

(percentages of total; outstanding amounts in EUR billions; end of period)

### 1. Deposits

	MFIs <sup>2)</sup>							Non-MFIs						
	All currencies outstanding amount	Euro <sup>3)</sup>	Non-euro currencies				All currencies outstanding amount	Euro <sup>3)</sup>	Non-euro currencies					
			Total	USD	JPY	CHF			GBP	Total	USD	JPY	CHF	GBP
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
By euro area residents														
2002	4,136.6	90.2	9.8	6.1	0.8	1.5	0.7	6,061.2	97.1	2.9	1.8	0.3	0.2	0.3
2003	4,363.5	91.2	8.8	5.4	0.5	1.5	0.9	6,409.8	97.3	2.7	1.7	0.3	0.1	0.3
2004 Q1	4,412.5	90.4	9.6	5.7	0.5	1.5	1.2	6,451.0	97.1	2.9	1.7	0.3	0.1	0.4
Q2 <sup>(p)</sup>	4,522.8	90.3	9.7	5.8	0.5	1.5	1.4	6,565.1	97.2	2.8	1.7	0.3	0.1	0.4
By non-euro area residents														
2002	1,585.3	43.7	56.3	39.2	2.1	4.3	7.8	685.7	48.3	51.7	35.0	2.3	1.9	9.8
2003	1,580.9	46.9	53.1	35.6	1.8	3.6	9.4	664.3	51.0	49.0	32.1	2.1	2.2	9.6
2004 Q1	1,742.7	46.3	53.7	35.1	2.0	3.3	10.4	701.5	53.2	46.8	30.0	2.1	1.8	9.7
Q2 <sup>(p)</sup>	1,785.1	45.2	54.8	36.6	1.8	3.2	10.2	688.1	52.1	47.9	31.0	1.9	1.9	9.8

### 2. Debt securities issued by euro area MFIs

	All currencies outstanding amount	Euro <sup>3)</sup>	Non-euro currencies				
			Total				
			USD	JPY	CHF	GBP	
1	2	3	4	5	6	7	
2002	3,138.7	85.4	14.6	7.7	1.8	1.6	2.3
2003	3,304.0	85.4	14.6	7.9	1.5	1.7	2.3
2004 Q1	3,458.0	84.6	15.4	7.7	1.7	2.0	2.6
Q2 <sup>(p)</sup>	3,533.8	84.0	16.0	8.2	1.7	2.0	2.7

Source: ECB.

- 1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.
- 2) For non-euro area residents, the term "MFIs" refers to institutions of a similar type to euro area MFIs.
- 3) Including items expressed in the national denominations of the euro.

**2.8 Currency breakdown of selected MFI balance sheet items <sup>1)</sup>**

(percentages of total; outstanding amounts in EUR billions; end of period)

**3. Loans**

	MFIs <sup>2)</sup>							Non-MFIs						
	All currencies outstanding amount	Euro <sup>3)</sup>	Non-euro currencies				All currencies outstanding amount	Euro <sup>3)</sup>	Non-euro currencies					
			Total						Total					
			USD	JPY	CHF	GBP			USD	JPY	CHF	GBP		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	To euro area residents													
2002	4,017.8	-	-	-	-	-	7,593.6	96.2	3.8	1.8	0.5	1.1	0.3	
2003	4,193.5	-	-	-	-	-	7,920.9	96.5	3.5	1.6	0.3	1.2	0.3	
2004 Q1	4,224.5	-	-	-	-	-	7,993.4	96.4	3.6	1.6	0.3	1.2	0.4	
Q2 <sup>(p)</sup>	4,296.0	-	-	-	-	-	8,138.1	96.4	3.6	1.6	0.2	1.3	0.4	
	To non-euro area residents													
2002	1,146.2	48.3	51.7	32.4	4.5	2.6	9.1	583.9	36.2	63.8	47.6	2.3	4.7	5.6
2003	1,182.2	50.2	49.8	29.5	4.7	2.3	9.3	580.6	38.7	61.3	43.9	2.4	4.6	7.0
2004 Q1	1,308.6	49.1	50.9	30.6	4.7	2.5	9.4	646.9	40.0	60.0	41.9	2.5	4.4	8.0
Q2 <sup>(p)</sup>	1,323.4	49.3	50.7	30.2	5.0	2.6	9.1	642.6	38.3	61.7	42.8	2.4	4.5	8.8

**4. Holdings of securities other than shares**

	Issued by MFIs <sup>2)</sup>							Issued by non-MFIs						
	All currencies outstanding amount	Euro <sup>3)</sup>	Non-euro currencies				All currencies outstanding amount	Euro <sup>3)</sup>	Non-euro currencies					
			Total						Total					
			USD	JPY	CHF	GBP			USD	JPY	CHF	GBP		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	Issued by euro area residents													
2002	1,170.4	95.9	4.1	1.7	0.4	0.2	0.9	1,501.2	97.9	2.1	1.0	0.7	0.1	0.4
2003	1,275.9	95.5	4.5	2.1	0.3	0.5	1.4	1,671.7	98.0	2.0	1.1	0.5	0.1	0.2
2004 Q1	1,344.0	95.5	4.5	2.1	0.3	0.4	1.5	1,737.2	97.9	2.1	1.1	0.5	0.1	0.2
Q2 <sup>(p)</sup>	1,362.1	95.4	4.6	2.2	0.4	0.4	1.4	1,796.2	98.0	2.0	1.1	0.5	0.1	0.2
	Issued by non-euro area residents													
2002	239.6	36.9	63.1	45.5	1.7	0.6	13.2	317.1	41.5	58.5	42.0	5.8	0.9	5.6
2003	275.5	44.9	55.1	35.1	1.2	0.6	16.2	353.8	45.8	54.2	36.0	5.9	1.1	6.4
2004 Q1	307.1	44.4	55.6	34.2	1.2	0.6	17.3	378.8	44.3	55.7	35.9	6.2	0.8	7.2
Q2 <sup>(p)</sup>	313.3	46.4	53.6	32.7	1.2	0.6	16.8	384.6	44.7	55.3	34.4	6.7	0.9	7.2

Source: ECB.

1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.

2) For non-euro area residents, the term "MFIs" refers to institutions of a similar type to euro area MFIs.

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

## 2.9 Aggregated balance sheet of euro area investment funds <sup>1)</sup>

(EUR billions; outstanding amounts at end of period)

### 1. Assets

	Total 1	Deposits 2	Holdings of securities other than shares			Holdings of shares/ other equity 6	Holdings of investment fund shares 7	Fixed assets 8	Other assets 9
			Total 3	Up to 1 year 4	Over 1 year 5				
2003 Q1	2,746.9	217.2	1,331.8	70.6	1,261.2	767.3	205.8	116.7	108.1
Q2	2,959.5	232.6	1,382.7	67.1	1,315.6	880.9	224.5	120.7	118.1
Q3	3,085.6	248.3	1,405.3	65.3	1,340.0	932.3	234.6	126.3	138.8
Q4	3,175.0	235.2	1,389.4	67.4	1,322.0	1,033.7	243.9	133.7	139.1
2004 Q1	3,353.6	266.5	1,433.9	70.3	1,363.6	1,102.8	262.6	136.7	151.2
Q2 <sup>(p)</sup>	3,365.8	245.1	1,428.5	69.2	1,359.3	1,117.3	277.5	139.7	157.8

### 2. Liabilities

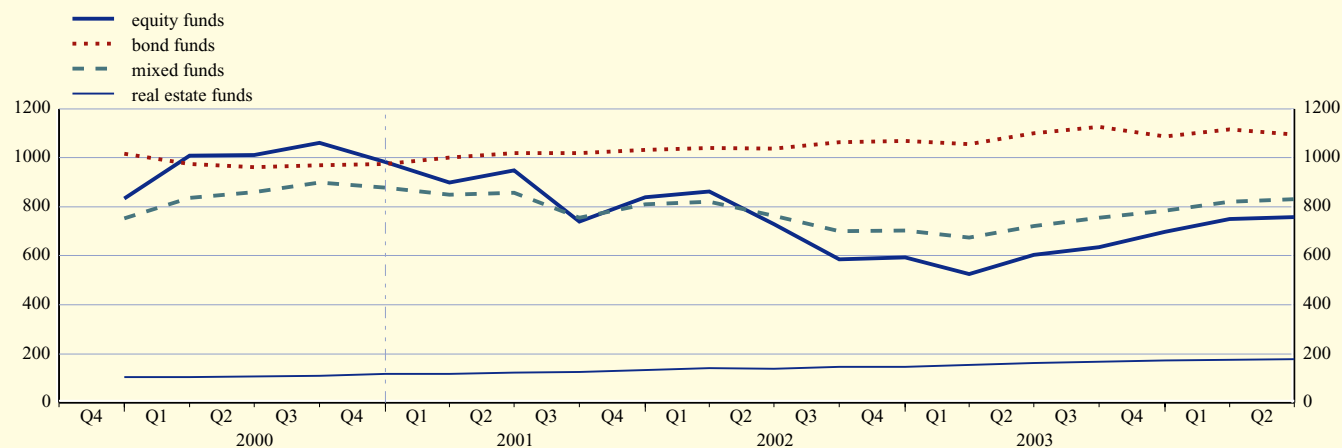
	Total 1	Deposits and loans taken 2	Investment fund shares 3	Other liabilities 4
2003 Q1	2,746.9	40.2	2,628.3	78.4
Q2	2,959.5	41.8	2,825.8	91.9
Q3	3,085.6	43.2	2,917.7	124.8
Q4	3,175.0	44.2	3,011.7	119.1
2004 Q1	3,353.6	49.6	3,171.2	132.8
Q2 <sup>(p)</sup>	3,365.8	50.2	3,188.6	127.1

### 3. Total assets/liabilities broken down by investment policy and type of investor

	Total 1	Funds by investment policy					Funds by type of investor	
		Equity funds 2	Bond funds 3	Mixed funds 4	Real estate funds 5	Other funds 6	General public funds 7	Special investors' funds 8
2003 Q1	2,746.9	525.9	1,054.1	675.3	153.9	337.7	1,975.5	771.4
Q2	2,959.5	603.3	1,099.5	720.8	161.4	374.4	2,140.4	819.1
Q3	3,085.6	635.4	1,127.0	754.2	167.7	401.4	2,249.0	836.6
Q4	3,175.0	697.8	1,086.6	783.4	171.7	435.6	2,318.2	856.8
2004 Q1	3,353.6	750.5	1,116.6	821.2	175.9	489.5	2,470.6	883.1
Q2 <sup>(p)</sup>	3,365.8	756.5	1,094.5	830.4	179.0	505.4	2,478.8	887.0

## C12 Total assets of investment funds

(EUR billions)



Source: ECB.

1) Other than money market funds. Data refer to euro area countries excluding Ireland. For further details, see the General notes.

## 2.10 Assets of euro area investment funds broken down by investment policy and type of investor

(EUR billions; outstanding amounts at end of period)

## 1. Funds by investment policy

	Total 1	Deposits 2	Holdings of securities other than shares			Holdings of shares/ other equity 6	Holdings of investment fund shares 7	Fixed assets 8	Other assets 9
			Total 3	Up to 1 year 4	Over 1 year 5				
Equity funds									
2003 Q1	525.9	24.5	30.2	2.8	27.5	438.5	16.5	-	16.1
Q2	603.3	27.9	31.6	2.9	28.7	506.5	18.5	-	18.8
Q3	635.4	29.5	27.8	2.4	25.4	536.4	19.5	-	22.1
Q4	697.8	29.3	31.3	2.9	28.4	593.6	21.1	-	22.5
2004 Q1	750.5	32.8	32.2	3.0	29.2	635.7	23.4	-	26.5
Q2 <sup>(p)</sup>	756.5	31.4	31.8	3.3	28.5	642.8	25.2	-	25.3
Bond funds									
2003 Q1	1,054.1	77.5	899.8	35.8	864.0	26.6	18.6	-	31.5
Q2	1,099.5	82.4	927.8	33.0	894.8	31.1	20.9	-	37.3
Q3	1,127.0	93.6	934.7	30.7	904.1	29.1	21.7	-	47.9
Q4	1,086.6	82.5	905.9	31.6	874.3	31.0	21.6	-	45.5
2004 Q1	1,116.6	97.3	918.4	35.3	883.1	32.9	21.4	-	46.6
Q2 <sup>(p)</sup>	1,094.5	79.3	909.8	36.3	873.5	33.0	21.9	-	50.5
Mixed funds									
2003 Q1	675.3	50.4	300.8	21.8	278.9	209.9	83.7	0.7	29.9
Q2	720.8	49.4	311.9	20.9	291.0	237.0	91.9	0.3	30.3
Q3	754.2	50.5	324.0	22.2	301.8	248.4	95.4	0.3	35.6
Q4	783.4	49.5	324.0	22.1	301.9	272.5	100.5	0.3	36.7
2004 Q1	821.2	52.9	333.9	21.2	312.6	287.0	107.2	0.3	39.9
Q2 <sup>(p)</sup>	830.4	52.3	340.1	22.3	317.8	279.1	115.0	0.3	43.6
Real estate funds									
2003 Q1	153.9	14.7	8.3	0.5	7.7	0.7	8.6	115.1	6.5
Q2	161.4	16.5	9.0	0.6	8.5	0.7	9.1	119.8	6.3
Q3	167.7	16.1	9.0	0.6	8.4	0.8	9.5	125.3	6.9
Q4	171.7	13.2	9.3	0.6	8.7	0.8	8.5	132.7	7.4
2004 Q1	175.9	14.7	9.1	0.6	8.5	0.8	7.7	135.6	8.0
Q2 <sup>(p)</sup>	179.0	15.0	8.5	0.6	7.9	0.6	7.7	138.6	8.6

## 2. Funds by type of investor

	Total 1	Deposits 2	Holdings of securities other than shares 3	Holdings of shares/ other equity 4	Holdings of investment fund shares 5	Fixed assets 6	Other assets 7
2003 Q1	1,975.5	165.6	882.6	599.9	155.1	101.3	71.0
Q2	2,140.4	181.6	912.3	691.7	168.3	104.2	82.2
Q3	2,249.0	199.0	927.6	736.5	176.6	108.9	100.4
Q4	2,318.2	191.7	913.6	815.8	183.8	115.4	98.0
2004 Q1	2,470.6	219.3	948.9	878.2	198.8	117.5	107.8
Q2 <sup>(p)</sup>	2,478.8	202.3	944.9	890.4	211.3	119.9	109.9
Special investors' funds							
2003 Q1	771.4	51.6	449.2	167.4	50.7	15.4	37.1
Q2	819.1	51.0	470.4	189.2	56.1	16.5	36.0
Q3	836.6	49.3	477.7	195.8	58.0	17.4	38.4
Q4	856.8	43.4	475.9	217.9	60.1	18.3	41.2
2004 Q1	883.1	47.2	485.0	224.6	63.8	19.1	43.3
Q2 <sup>(p)</sup>	887.0	42.7	483.6	226.9	66.2	19.8	47.8

Source: ECB.





## FINANCIAL AND NON-FINANCIAL ACCOUNTS

### 3.1 Main financial assets of non-financial sectors

(EUR billions and annual growth rates; outstanding amounts at end of period, transactions during the period)

	Currency and deposits											Memo: deposits of non-banks with banks outside the euro area	
	Total	Currency	Deposits of non-financial sectors other than central government with euro area MFIs					Deposits of central government with euro area MFIs	Deposits with non-MFIs <sup>1)</sup>				
			Total	Overnight	With agreed maturity	Redeemable at notice	Repos						
1	2	3	4	5	6	7	8	9	10	11			
Outstanding amounts													
2002 Q4	14,587.1	5,610.9	309.2	4,952.2	1,846.7	1,581.9	1,411.7	111.9	136.4	213.1	293.2		
2003 Q1	14,542.9	5,635.8	288.9	4,948.2	1,836.2	1,571.9	1,434.1	106.1	176.2	222.5	323.9		
Q2	15,003.5	5,749.7	310.1	5,029.7	1,918.4	1,560.2	1,456.4	94.7	200.3	209.6	329.8		
Q3	15,110.6	5,754.4	320.9	5,071.2	1,956.6	1,555.8	1,469.5	89.3	183.9	178.4	345.4		
Q4	15,400.8	5,871.9	350.7	5,182.4	2,027.5	1,557.8	1,511.9	85.2	153.6	185.2	348.4		
2004 Q1	15,597.9	5,907.7	350.8	5,180.4	2,021.0	1,543.6	1,534.5	81.2	183.8	192.8	394.9		
Transactions													
2002 Q4	171.7	171.1	30.8	135.7	83.0	13.2	46.4	-6.9	-9.9	14.5	10.1		
2003 Q1	154.7	40.2	1.3	-3.3	-29.3	-11.3	43.0	-5.7	32.8	9.4	32.2		
Q2	212.9	132.1	21.2	86.4	84.0	-8.4	22.2	-11.4	24.1	0.3	11.4		
Q3	131.9	12.6	11.4	12.4	6.9	-3.7	13.0	-3.9	-13.7	2.5	17.2		
Q4	154.6	125.9	29.8	119.6	79.3	9.1	36.4	-5.2	-30.3	6.8	10.9		
2004 Q1	148.6	32.6	0.1	-5.3	-7.4	-16.5	22.5	-3.9	30.2	7.6	40.6		
Growth rates													
2002 Q4	3.9	5.0	33.8	3.6	5.8	0.2	5.3	-3.9	-4.2	12.2	4.0		
2003 Q1	4.3	5.9	31.2	4.4	7.4	-0.2	7.3	-10.6	5.1	14.5	13.7		
Q2	4.6	6.4	27.0	4.5	7.6	-0.9	8.9	-19.0	22.3	13.7	22.6		
Q3	4.7	6.5	23.3	4.8	8.2	-0.6	9.1	-23.5	22.8	13.4	24.5		
Q4	4.5	5.5	20.6	4.3	7.6	-0.9	8.1	-23.4	9.5	8.9	24.5		
2004 Q1	4.5	5.4	21.7	4.3	8.9	-1.2	6.6	-23.0	5.9	7.7	24.8		
Securities other than shares													
Total			Short-term		Long-term		Shares <sup>2)</sup>			Insurance technical reserves			
Total			Short-term		Long-term		Total	Quoted shares	Mutual fund shares	Money market fund shares	Total	Net equity of households in life insurance reserves and pension fund reserves	Prepayments of insurance premiums and reserves for outstanding claims
12			13		14		15	16	17	18	19	20	21
Outstanding amounts													
2002 Q4	1,955.3	208.7	1,746.6	3,490.9	1,778.1	1,712.8	310.0	3,530.0	3,185.7	344.3			
2003 Q1	1,946.5	190.0	1,756.5	3,350.9	1,610.0	1,740.9	396.6	3,609.8	3,259.9	349.8			
Q2	1,915.4	172.6	1,742.7	3,652.9	1,815.6	1,837.3	402.7	3,685.5	3,332.4	353.1			
Q3	1,918.0	172.4	1,745.6	3,687.3	1,825.8	1,861.5	406.7	3,750.9	3,395.8	355.1			
Q4	1,921.5	178.0	1,743.4	3,828.3	1,952.7	1,875.6	404.5	3,779.1	3,422.3	356.8			
2004 Q1	1,944.6	185.0	1,759.6	3,912.7	1,985.4	1,927.3	414.1	3,832.9	3,468.9	364.0			
Transactions													
2002 Q4	-13.6	-10.3	-3.3	-23.9	-23.7	-0.2	-7.4	38.2	40.1	-1.9			
2003 Q1	-21.8	-21.8	-0.1	65.3	3.0	62.2	29.9	71.0	64.6	6.5			
Q2	-41.5	-17.1	-24.4	63.1	25.1	38.0	3.7	59.3	55.1	4.2			
Q3	11.0	0.1	10.9	50.3	33.0	17.3	2.6	57.9	54.9	3.0			
Q4	7.1	4.4	2.7	-24.6	-24.7	0.2	-10.3	46.2	43.6	2.6			
2004 Q1	19.9	3.4	16.5	27.0	1.5	25.5	10.4	69.1	61.3	7.9			
Growth rates													
2002 Q4	0.9	-14.0	3.0	2.0	0.1	4.7	12.1	6.4	6.6	4.5			
2003 Q1	-0.6	-16.1	1.3	2.8	0.8	5.6	11.9	6.3	6.6	3.7			
Q2	-2.4	-14.6	-1.1	3.8	1.3	7.1	13.5	6.4	6.7	3.7			
Q3	-3.4	-23.7	-1.0	4.6	2.2	6.9	9.2	6.5	6.9	3.4			
Q4	-2.3	-16.4	-0.6	4.4	2.0	6.9	8.3	6.6	6.8	4.7			
2004 Q1	-0.2	-4.8	0.3	3.5	2.2	4.6	1.6	6.4	6.6	5.0			

Source: ECB.

1) Covering deposits with euro area central government (S.1311 in ESA 95), other financial intermediaries (S.123 in ESA 95) and insurance corporations and pension funds (S.125 in ESA 95).

2) Excluding unquoted shares.

### 3.2 Main liabilities of non-financial sectors

(EUR billions and annual growth rates; outstanding amounts at end of period, transactions during the period)

	Loans taken from euro area MFIs and other financial corporations by												Memo: loans taken from banks outside the euro area by non-banks
	Total			General government			Non-financial corporations			Households <sup>1)</sup>			
	Total	Taken from euro area MFIs		Total	Short-term	Long-term	Total	Short-term	Long-term	Total	Short-term	Long-term	
1	2	3	4	5	6	7	8	9	10	11	12	13	
<b>Outstanding amounts</b>													
2002 Q4	15,613.9	8,080.9	7,130.0	886.3	60.9	825.5	3,581.0	1,175.4	2,405.6	3,613.6	296.8	3,316.7	241.6
2003 Q1	15,580.4	8,138.5	7,168.8	884.8	68.5	816.3	3,603.9	1,188.4	2,415.5	3,649.8	286.8	3,363.0	256.4
Q2	16,139.2	8,244.2	7,236.3	876.9	69.7	807.3	3,652.1	1,213.2	2,438.9	3,715.2	291.4	3,423.8	253.8
Q3	16,233.3	8,326.8	7,293.7	884.2	70.8	813.4	3,657.5	1,184.7	2,472.8	3,785.0	285.9	3,499.1	275.6
Q4	16,561.4	8,462.9	7,397.1	952.6	80.7	871.9	3,660.0	1,164.3	2,495.7	3,850.3	287.3	3,563.1	266.5
2004 Q1	16,899.6	8,513.2	7,466.6	956.4	84.7	871.7	3,654.9	1,161.1	2,493.8	3,901.9	281.8	3,620.1	304.1
<b>Transactions</b>													
2002 Q4	165.9	141.6	96.9	14.9	6.0	9.0	58.4	-5.0	63.4	68.3	2.8	65.5	6.4
2003 Q1	265.7	94.7	66.9	6.1	7.9	-1.8	45.4	18.6	26.8	43.2	-7.6	50.8	7.1
Q2	234.2	116.2	84.9	-5.4	3.2	-8.6	52.0	24.3	27.7	69.6	5.3	64.3	2.6
Q3	136.1	79.8	58.7	7.3	1.1	6.2	1.5	-25.9	27.5	71.0	-4.7	75.7	22.9
Q4	111.0	110.6	119.2	20.3	9.9	10.4	17.2	-16.3	33.6	73.1	4.5	68.5	-1.3
2004 Q1	192.9	45.9	75.1	4.9	4.1	0.8	-14.4	-6.5	-7.9	55.5	-4.0	59.5	32.6
<b>Growth rates</b>													
2002 Q4	3.9	4.4	4.0	-1.9	21.8	-3.3	3.9	-2.9	7.6	6.5	0.8	7.1	-3.3
2003 Q1	4.4	4.8	4.1	-1.4	28.4	-3.3	4.6	-0.8	7.5	6.7	-0.3	7.4	-4.1
Q2	4.8	4.9	4.0	0.8	34.3	-1.3	4.3	1.5	5.8	6.5	-1.5	7.3	3.6
Q3	5.2	5.4	4.4	2.6	33.1	0.6	4.4	1.0	6.2	7.1	-1.4	7.9	16.1
Q4	4.8	5.0	4.6	3.2	36.2	0.8	3.2	0.1	4.8	7.1	-0.8	7.8	12.9
2004 Q1	4.3	4.3	4.7	3.1	26.7	1.1	1.6	-2.1	3.3	7.4	0.4	8.0	22.1
<b>Securities other than shares issued by</b>													
	General government						Non-financial corporations			Quoted shares issued by non-financial corporations	Deposit liabilities of central government	Pension fund reserves of non- financial corporations	
Total	Total	Short-term	Long-term	Total	Short-term	Long-term							
14	15	16	17	18	19	20	21	22	23				
<b>Outstanding amounts</b>													
2002 Q4	4,670.0	4,137.0	480.1	3,656.9	533.0	144.7	388.3	2,383.9	209.9	269.1			
2003 Q1	4,835.7	4,272.5	529.9	3,742.7	563.1	167.1	396.1	2,114.2	219.4	272.6			
Q2	4,962.0	4,377.7	563.6	3,814.1	584.3	165.6	418.7	2,451.3	205.7	276.1			
Q3	4,977.5	4,395.4	557.7	3,837.8	582.1	164.4	417.6	2,474.6	174.3	280.1			
Q4	4,904.9	4,316.2	538.9	3,777.2	588.8	163.5	425.2	2,729.2	181.7	282.7			
2004 Q1	5,071.2	4,477.8	576.1	3,901.7	593.5	179.9	413.5	2,839.5	189.0	286.7			
<b>Transactions</b>													
2002 Q4	4.2	-0.2	-8.3	8.0	4.4	6.9	-2.5	2.5	14.4	3.2			
2003 Q1	157.5	128.8	49.9	78.9	28.7	22.3	6.4	-0.2	9.5	4.2			
Q2	98.9	84.3	33.9	50.4	14.6	-1.4	16.0	15.5	-0.6	4.2			
Q3	45.8	43.7	-5.6	49.3	2.1	-1.1	3.2	4.0	2.4	4.2			
Q4	-11.5	-19.4	-18.4	-1.0	7.9	-0.9	8.8	0.4	7.4	4.1			
2004 Q1	134.0	134.6	35.8	98.9	-0.7	16.2	-16.9	1.6	7.3	4.0			
<b>Growth rates</b>													
2002 Q4	5.1	5.2	10.6	4.5	4.1	3.7	4.3	0.7	12.3	5.3			
2003 Q1	6.3	6.1	16.7	4.7	8.0	15.2	5.3	0.4	14.7	5.6			
Q2	7.0	6.5	15.5	5.2	11.3	27.0	5.9	0.8	13.4	5.9			
Q3	6.6	6.2	14.6	5.1	9.4	19.4	5.9	0.9	13.2	6.0			
Q4	6.2	5.7	12.5	4.9	10.0	13.0	8.9	0.8	8.9	6.2			
2004 Q1	5.5	5.7	8.6	5.3	4.2	7.6	2.8	1.0	7.5	6.1			

Source: ECB.

1) Including non-profit institutions serving households.

### 3.3 Main financial assets and liabilities of insurance corporations and pension funds

(EUR billions and annual growth rates; outstanding amounts at end of period, transactions during the period)

Main financial assets												
Total	Deposits with euro area MFIs					Loans			Securities other than shares			
	Total	Overnight	With agreed maturity	Redeemable at notice	Repos	Total	Short-term	Long-term	Total	Short-term	Long-term	
1	2	3	4	5	6	7	8	9	10	11	12	
Outstanding amounts												
2002 Q4	3,328.7	523.1	55.9	445.9	3.5	17.8	341.6	69.9	271.7	1,334.1	50.0	1,284.1
2003 Q1	3,343.2	535.8	61.7	454.2	1.6	18.3	332.9	63.6	269.3	1,382.6	55.9	1,326.7
Q2	3,472.8	537.8	63.8	450.5	1.3	22.3	337.1	64.8	272.3	1,411.8	53.7	1,358.0
Q3	3,522.5	532.9	57.5	455.3	1.4	18.7	338.8	65.2	273.6	1,433.3	56.6	1,376.7
Q4	3,629.6	541.9	58.9	462.3	1.6	19.1	327.3	65.8	261.5	1,461.2	58.3	1,403.0
2004 Q1	3,778.1	556.6	64.7	468.3	1.7	22.0	338.0	68.8	269.3	1,532.9	56.1	1,476.8
Transactions												
2002 Q4	68.7	16.8	5.8	8.0	-0.4	3.5	5.0	-4.6	9.6	36.5	2.4	34.1
2003 Q1	67.1	12.4	4.3	7.8	-0.2	0.5	-8.7	-6.4	-2.4	53.8	6.7	47.1
Q2	42.3	2.3	2.3	-3.9	0.0	3.9	4.2	1.2	3.0	18.7	-2.3	21.1
Q3	33.7	-6.3	-6.4	3.8	0.1	-3.8	1.7	0.4	1.3	22.6	2.9	19.7
Q4	59.3	9.5	1.6	7.2	0.2	0.5	-11.5	0.7	-12.2	37.6	1.7	35.9
2004 Q1	95.4	14.4	5.7	5.8	0.0	2.8	10.5	2.9	7.6	44.5	-2.4	47.0
Growth rates												
2002 Q4	6.3	5.6	16.3	4.3	1.9	8.5	-0.2	-3.2	0.7	9.4	8.3	9.5
2003 Q1	5.8	7.4	37.1	4.8	-17.5	3.3	-1.4	-11.6	1.4	10.0	17.5	9.7
Q2	6.8	6.7	28.9	3.9	-9.5	17.4	-0.6	-12.3	2.6	12.0	41.1	11.1
Q3	6.5	5.0	11.8	3.6	-12.4	28.2	0.6	-12.6	4.4	10.1	20.7	9.7
Q4	6.1	3.4	3.0	3.4	4.7	6.1	-4.2	-5.9	-3.8	10.0	18.0	9.6
2004 Q1	6.9	3.7	5.0	2.9	24.7	18.7	1.5	8.1	-0.1	8.9	-0.4	9.3

Main financial assets						Main liabilities							
Shares <sup>1)</sup>				Prepayments of insurance premiums and reserves for outstanding claims	Total	Loans taken from euro area MFIs and other financial corporations		Securities other than shares	Quoted shares	Insurance technical reserves			
Total	Quoted shares	Mutual fund shares	Money market fund shares			Total	Taken from euro area MFIs			Total	Net equity of households in life insurance reserves and pension fund reserves	Prepayments of insurance premiums and reserves for outstanding claims	
													13
Outstanding amounts													
2002 Q4	1,020.6	455.5	565.0	56.4	109.4	3,521.2	47.3	32.9	10.7	111.4	3,351.8	2,847.0	504.8
2003 Q1	979.9	422.9	557.1	60.1	111.9	3,586.5	61.0	42.7	10.9	101.5	3,413.2	2,898.8	514.4
Q2	1,072.2	482.2	590.0	64.4	113.9	3,692.8	60.6	44.8	11.2	134.3	3,486.8	2,965.9	521.0
Q3	1,102.2	497.5	604.7	60.7	115.3	3,757.7	62.6	44.3	11.7	133.5	3,549.8	3,024.2	525.6
Q4	1,182.6	546.2	636.4	64.4	116.6	3,811.8	51.9	35.4	12.1	153.8	3,594.0	3,064.2	529.8
2004 Q1	1,230.8	563.5	667.3	68.6	119.7	3,878.0	61.7	46.3	12.3	153.7	3,650.5	3,110.1	540.4
Transactions													
2002 Q4	11.3	-3.9	15.2	6.7	-0.8	20.8	-12.9	-9.1	0.1	0.4	33.1	35.6	-2.4
2003 Q1	7.0	-3.6	10.6	2.0	2.6	83.3	15.2	11.3	0.0	-0.9	69.0	59.4	9.6
Q2	15.0	4.2	10.7	4.6	2.0	61.3	-0.3	2.3	0.2	4.5	57.0	50.4	6.6
Q3	14.3	5.2	9.1	-4.2	1.5	57.4	2.0	-0.5	0.5	0.0	54.8	50.1	4.7
Q4	22.3	7.1	15.2	4.3	1.4	34.7	-10.8	-8.9	0.5	3.9	41.1	36.9	4.2
2004 Q1	22.8	2.7	20.0	4.2	3.2	77.6	9.7	10.7	0.0	0.8	67.2	55.7	11.4
Growth rates													
2002 Q4	5.0	3.2	6.7	18.2	9.0	5.8	-13.1	-11.6	0.4	0.3	6.5	6.7	5.3
2003 Q1	3.0	0.0	5.8	19.5	6.3	5.9	7.5	8.5	0.2	-0.2	6.3	6.8	4.0
Q2	3.4	-0.1	6.5	23.0	6.0	6.0	0.8	4.6	0.9	1.8	6.4	6.8	4.0
Q3	4.8	0.4	8.2	18.2	4.8	6.4	6.7	9.5	7.7	3.2	6.5	7.0	3.6
Q4	5.7	2.8	8.1	11.8	6.9	6.7	13.0	12.9	11.1	6.7	6.6	6.9	5.0
2004 Q1	7.6	4.6	9.9	14.7	7.3	6.4	1.0	8.6	11.4	9.0	6.4	6.7	5.2

Source: ECB.

1) Excluding unquoted shares.

### 3.4 Annual saving, investment and financing

(EUR billions, unless otherwise indicated)

#### 1. All sectors in the euro area

	Net acquisition of non-financial assets					Net acquisition of financial assets							
	Total	Gross fixed capital formation	Consumption of fixed capital (-)	Changes in inventories <sup>1)</sup>	Non-produced assets	Total	Monetary gold and SDRs	Currency and deposits	Securities other than shares <sup>2)</sup>	Loans	Shares and other equity	Insurance technical reserves	Other investment (net) <sup>3)</sup>
	1	2	3	4	5	6	7	8	9	10	11	12	13
1996	339.5	1,121.1	-783.9	1.9	0.4	1,736.0	-3.0	396.3	397.7	383.4	313.8	195.4	52.5
1997	350.6	1,137.7	-797.1	10.1	0.0	1,916.0	-0.2	392.4	332.2	449.9	485.0	223.9	32.8
1998	411.4	1,201.7	-823.6	33.2	0.2	2,426.7	11.0	419.7	357.1	537.6	844.8	215.3	41.2
1999	448.8	1,290.5	-863.7	21.8	0.2	3,106.4	1.3	554.9	427.0	895.0	936.7	261.2	30.4
2000	485.6	1,389.8	-913.1	25.6	-16.7	2,917.1	1.3	352.4	263.1	848.3	1,191.7	253.0	7.3
2001	459.7	1,441.9	-973.6	-10.5	1.9	2,600.1	-0.5	576.6	433.0	745.5	620.3	250.0	-24.7
2002	391.8	1,428.4	-1,020.6	-17.3	1.4	2,303.5	0.9	648.1	258.7	663.6	478.6	221.8	31.8

	Changes in net worth <sup>4)</sup>				Net incurrence of liabilities					
	Total	Gross saving	Consumption of fixed capital (-)	Net capital transfers receivable	Total	Currency and deposits	Securities other than shares <sup>2)</sup>	Loans	Shares and other equity	Insurance technical reserves
	14	15	16	17	18	19	20	21	22	23
1996	410.7	1,190.0	-783.9	4.6	1,664.8	473.5	383.4	334.7	277.0	196.2
1997	455.7	1,241.8	-797.1	11.0	1,811.0	509.6	317.7	378.5	375.0	230.1
1998	486.5	1,299.1	-823.6	11.1	2,351.6	648.5	323.2	499.2	659.7	221.0
1999	498.0	1,352.0	-863.7	9.7	3,057.2	930.5	503.7	767.9	591.6	263.5
2000	514.9	1,419.4	-913.1	8.6	2,887.8	541.5	417.3	884.5	791.0	253.4
2001	485.4	1,449.4	-973.6	9.6	2,574.4	673.6	490.1	622.7	537.6	250.4
2002	468.4	1,477.6	-1,020.6	11.4	2,227.0	562.3	443.3	607.0	397.8	216.5

#### 2. Non-financial corporations

	Net acquisition of non-financial assets			Net acquisition of financial assets					Changes in net worth <sup>4)</sup>		Net incurrence of liabilities			
	Total	Gross fixed capital formation	Consumption of fixed capital (-)	Total	Currency and deposits	Securities other than shares <sup>2)</sup>	Loans	Shares and other equity	Total	Gross saving	Total	Securities other than shares <sup>2)</sup>	Loans	Shares and other equity
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1996	131.5	567.4	-438.0	262.5	54.1	-13.7	55.1	89.1	119.5	514.5	274.5	7.0	143.3	116.5
1997	150.4	592.0	-453.3	242.6	25.3	-11.8	46.3	97.7	105.1	521.5	287.9	12.1	153.8	112.4
1998	193.8	635.2	-470.6	450.0	42.7	-11.5	110.9	205.2	147.9	569.2	496.0	22.8	267.4	194.7
1999	212.2	684.6	-490.9	652.1	24.7	93.6	186.0	331.2	107.8	548.8	756.5	47.5	436.7	255.6
2000	309.7	750.5	-523.1	925.5	74.6	87.4	230.4	514.2	84.4	560.7	1,150.7	60.9	597.7	483.7
2001	218.8	774.4	-555.2	637.1	100.9	44.6	164.5	242.5	88.3	584.1	767.6	99.7	352.7	303.7
2002	172.8	758.4	-579.7	523.5	39.1	-57.8	189.8	258.6	115.6	635.2	580.7	21.2	343.1	201.2

#### 3. Households<sup>5)</sup>

	Net acquisition of non-financial assets			Net acquisition of financial assets					Changes in net worth <sup>4)</sup>		Net incurrence of liabilities		Memo:	
	Total	Gross fixed capital formation	Consumption of fixed capital (-)	Total	Currency and deposits	Securities other than shares <sup>2)</sup>	Shares and other equity	Insurance technical reserves	Total	Gross saving	Total	Loans	Disposable income	Gross saving ratio <sup>6)</sup>
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1996	167.8	383.3	-216.6	439.0	146.2	24.8	90.9	190.8	445.5	645.9	161.3	160.0	3,792.7	17.0
1997	165.0	375.8	-211.5	427.8	70.4	-19.8	192.1	217.7	424.4	615.5	168.4	167.0	3,818.2	16.1
1998	176.6	387.8	-216.2	446.8	96.4	-119.2	286.6	210.5	408.1	593.4	215.2	213.9	3,924.5	15.1
1999	188.6	416.5	-231.3	473.3	118.7	-28.5	195.7	246.8	394.8	579.9	267.1	265.6	4,085.9	14.2
2000	194.2	439.4	-240.8	426.5	65.4	34.5	121.4	247.5	396.6	597.0	224.0	222.3	4,279.5	14.0
2001	182.2	450.9	-262.9	416.1	174.6	82.2	58.7	230.1	428.0	654.4	170.3	168.4	4,580.9	14.3
2002	166.4	456.4	-279.5	488.5	223.8	77.8	-1.4	212.2	443.4	686.7	211.6	209.4	4,726.4	14.5

Source: ECB.

- 1) Including net acquisition of valuables.
- 2) Excluding financial derivatives.
- 3) Financial derivatives, other accounts receivable/payable and statistical discrepancies.
- 4) Arising from saving and net capital transfers receivable, after allowance for consumption of fixed capital (-).
- 5) Including non-profit institutions serving households.
- 6) Gross saving as a percentage of disposable income.



## FINANCIAL MARKETS

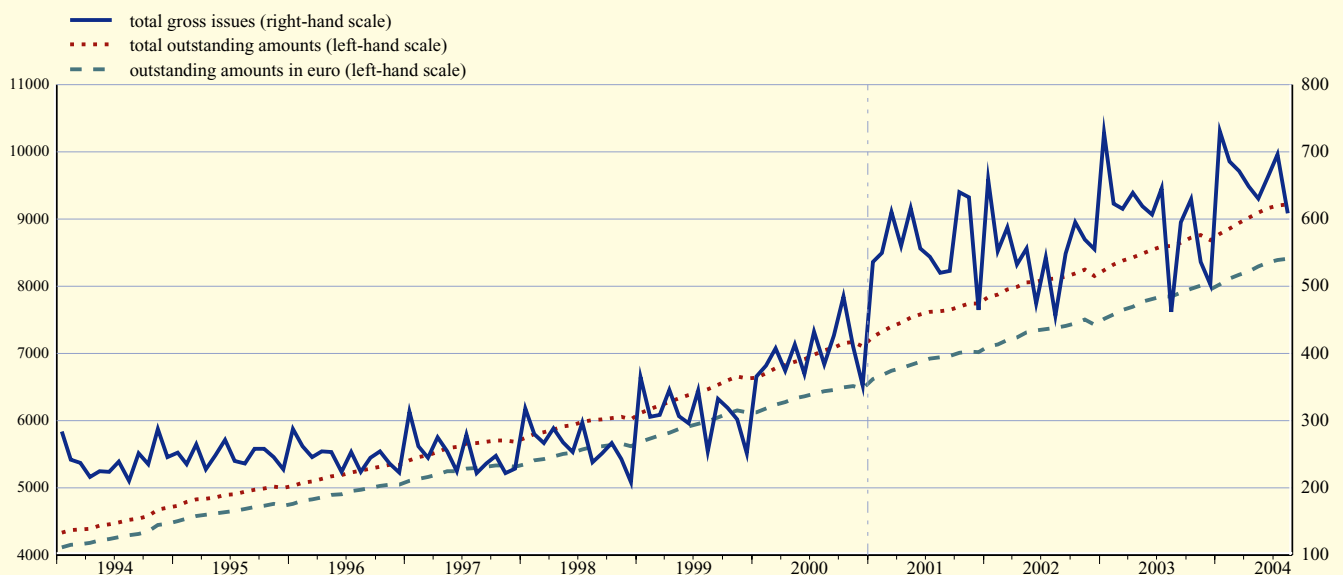
## 4.1 Securities issues other than shares by original maturity, residency of the issuer and currency

(EUR billions, unless otherwise indicated; transactions during the month and end-of-period outstanding amounts; nominal values)

	Total in euro <sup>1)</sup>				By euro area residents							
	Outstanding amounts	Gross issues	Redemptions	Net issues	Total				Of which in euro			
					Outstanding amounts	Gross issues	Redemptions	Net issues	Outstanding amounts (%)	Gross issues (%)	Redemptions (%)	Net issues
	1	2	3	4	5	6	7	8	9	10	11	12
Total												
2003 Aug.	9,011.9	470.3	465.5	4.8	8,601.3	461.6	463.8	-2.2	91.3	93.9	92.6	3.8
Sep.	9,102.0	615.6	524.5	91.1	8,646.1	594.9	530.9	64.0	91.4	93.4	94.3	55.1
Oct.	9,159.6	635.5	578.8	56.7	8,720.0	629.7	561.6	68.1	91.3	93.7	94.7	58.1
Nov.	9,227.1	556.0	491.2	64.8	8,758.2	536.4	490.1	46.3	91.5	93.2	92.4	46.8
Dec.	9,191.9	520.5	551.9	-31.5	8,683.9	502.5	555.6	-53.0	91.6	93.7	94.6	-54.4
2004 Jan.	9,263.9	738.2	664.1	74.1	8,776.3	730.5	643.5	87.0	91.5	94.2	94.7	78.6
Feb.	9,340.9	698.9	622.2	76.8	8,853.5	686.0	605.1	80.8	91.6	94.6	94.2	78.6
Mar.	9,457.6	716.8	599.6	117.1	8,947.3	671.8	587.7	84.1	91.3	92.7	95.3	63.3
Apr.	9,483.7	648.6	624.3	24.2	9,015.0	648.5	586.9	61.6	91.2	93.2	95.0	47.0
May	9,583.3	648.9	549.5	99.4	9,097.7	630.7	543.5	87.3	91.2	93.9	94.9	76.5
June	9,688.2	709.2	603.2	106.0	9,161.2	662.7	599.2	63.5	91.2	94.3	94.7	57.2
July	.	.	.	.	9,204.5	695.9	653.1	42.8	91.1	93.9	94.6	36.2
Aug.	.	.	.	.	9,221.4	608.2	588.5	19.6	91.2	94.7	94.8	18.1
Long-term												
2003 Aug.	8,154.8	86.4	75.8	10.7	7,734.4	79.0	69.9	9.1	91.2	88.0	90.4	6.4
Sep.	8,231.3	179.8	102.5	77.3	7,786.3	173.4	102.6	70.8	91.4	91.6	90.3	66.2
Oct.	8,286.2	179.2	125.5	53.7	7,839.0	168.3	120.4	47.8	91.3	91.7	94.0	41.1
Nov.	8,337.6	143.4	93.3	50.1	7,875.3	136.5	90.3	46.2	91.5	89.6	88.0	42.7
Dec.	8,332.4	119.3	119.5	-0.2	7,851.9	112.1	113.6	-1.5	91.6	90.4	93.0	-4.4
2004 Jan.	8,391.1	195.5	136.4	59.2	7,900.6	178.1	137.9	40.3	91.6	92.8	90.9	40.1
Feb.	8,477.4	193.9	108.6	85.3	7,984.3	183.1	98.3	84.9	91.7	92.2	87.9	82.5
Mar.	8,547.6	213.1	142.0	71.1	8,058.2	189.1	123.7	65.4	91.4	86.7	93.7	48.1
Apr.	8,589.0	163.4	123.8	39.6	8,109.0	155.4	110.2	45.3	91.3	88.5	94.6	33.3
May	8,690.7	174.4	72.1	102.4	8,193.3	156.5	67.7	88.8	91.3	89.3	90.8	78.2
June	8,773.5	202.7	122.0	80.8	8,262.3	179.8	114.4	65.4	91.3	92.9	92.4	61.4
July	.	.	.	.	8,299.4	174.4	138.3	36.1	91.2	91.3	93.7	29.7
Aug.	.	.	.	.	8,319.0	79.6	58.4	21.2	91.2	86.7	91.5	15.6

## C13 Total outstanding amounts and gross issues of securities other than shares issued by euro area residents

(EUR billions)



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

1) Total euro-denominated securities other than shares issued by euro area residents and non-euro area residents.

## 4.2 Securities other than shares issued by euro area residents by original maturity and sector of the issuer

(EUR billions, unless otherwise indicated; nominal values)

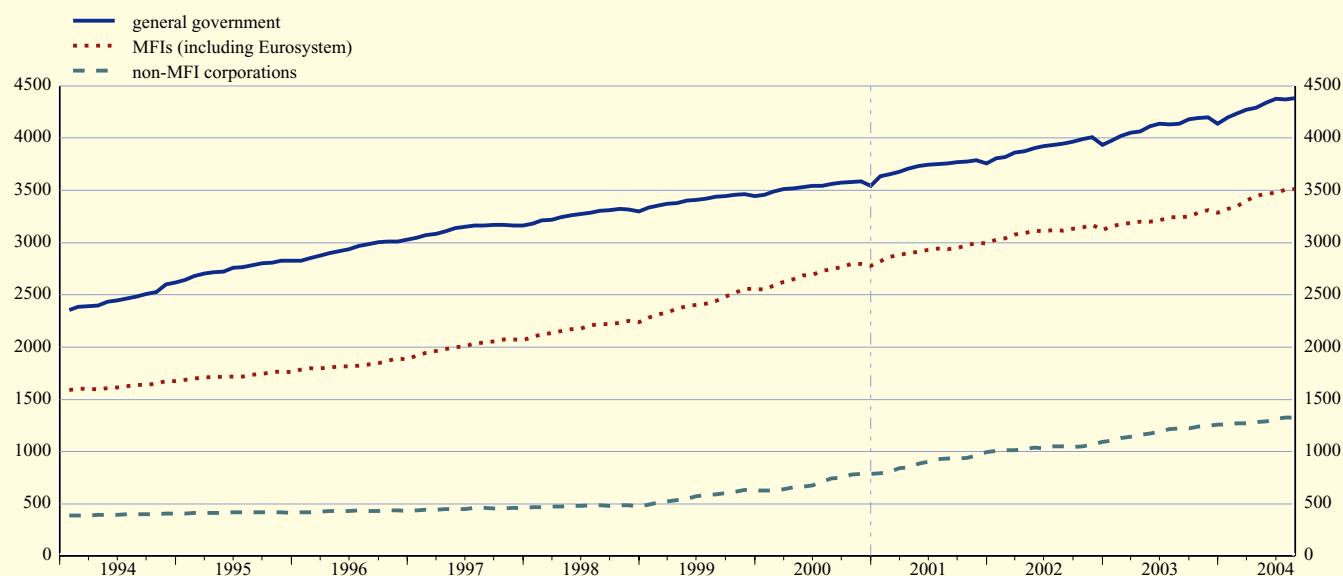
### 1. Outstanding amounts

(end of period)

	Total						Of which in euro (%)					
	Total	MFIs (including Eurosystem)	Non-MFI corporations		General government		Total	MFIs (including Eurosystem)	Non-MFI corporations		General government	
			Non-monetary financial corporations	Non-financial corporations	Central government	Other general government			Non-monetary financial corporations	Non-financial corporations	Central government	Other general government
1	2	3	4	5	6	7	8	9	10	11	12	
	Total											
2003 Aug.	8,601.3	3,241.0	641.9	579.0	3,935.2	204.3	91.3	85.6	85.2	87.6	97.2	95.4
Sep.	8,646.1	3,247.0	650.1	570.4	3,969.5	209.0	91.4	85.5	86.2	87.8	97.4	95.5
Oct.	8,720.0	3,288.7	661.4	576.0	3,981.3	212.6	91.3	85.3	86.6	87.6	97.4	95.5
Nov.	8,758.2	3,310.8	669.2	577.2	3,983.9	217.1	91.5	85.5	86.9	87.9	97.5	95.6
Dec.	8,683.9	3,287.5	683.7	575.8	3,918.8	218.1	91.6	85.5	87.8	88.0	97.7	95.4
2004 Jan.	8,776.3	3,319.6	684.9	575.1	3,975.0	221.8	91.5	85.4	87.7	87.6	97.6	95.5
Feb.	8,853.5	3,347.2	693.6	578.4	4,006.5	227.9	91.6	85.6	88.0	87.6	97.6	95.6
Mar.	8,947.3	3,403.0	695.9	575.9	4,041.7	230.8	91.3	85.2	87.9	87.4	97.4	95.5
Apr.	9,015.0	3,443.0	702.1	578.1	4,059.8	232.0	91.2	84.9	87.9	87.3	97.4	95.4
May	9,097.7	3,469.4	701.8	586.4	4,106.5	233.6	91.2	84.8	88.2	87.3	97.5	95.6
June	9,161.2	3,477.0	721.3	589.4	4,135.3	238.1	91.2	84.7	88.7	87.1	97.4	95.5
July	9,204.5	3,507.9	731.5	596.8	4,131.3	237.0	91.1	84.6	88.7	86.8	97.5	95.5
Aug.	9,221.4	3,515.2	733.1	592.7	4,142.1	238.3	91.2	84.6	88.9	86.9	97.5	95.5
	Long-term											
2003 Aug.	7,734.4	2,878.9	633.1	477.2	3,544.8	200.4	91.2	85.9	85.0	86.1	97.1	95.5
Sep.	7,786.3	2,890.3	641.9	472.5	3,576.1	205.5	91.4	85.9	86.1	86.4	97.2	95.7
Oct.	7,839.0	2,922.8	653.3	475.9	3,577.8	209.2	91.3	85.7	86.4	86.2	97.3	95.6
Nov.	7,875.3	2,937.3	660.8	479.7	3,583.8	213.7	91.5	85.8	86.8	86.6	97.4	95.8
Dec.	7,851.9	2,927.4	674.7	483.4	3,551.9	214.6	91.6	86.0	87.6	86.9	97.5	95.5
2004 Jan.	7,900.6	2,941.8	676.2	478.7	3,586.3	217.7	91.6	85.9	87.5	86.3	97.5	95.6
Feb.	7,984.3	2,977.2	685.4	481.5	3,616.7	223.5	91.7	86.0	87.9	86.3	97.5	95.7
Mar.	8,058.2	3,028.9	688.0	475.4	3,639.0	226.8	91.4	85.7	87.7	85.8	97.3	95.7
Apr.	8,109.0	3,059.4	693.8	471.0	3,657.3	227.5	91.3	85.4	87.8	85.5	97.3	95.6
May	8,193.3	3,091.4	693.6	478.2	3,701.2	228.8	91.3	85.2	88.1	85.6	97.4	95.7
June	8,262.3	3,098.9	713.1	483.3	3,733.8	233.2	91.3	85.2	88.5	85.4	97.3	95.8
July	8,299.4	3,122.9	723.2	491.7	3,729.9	231.8	91.2	85.0	88.7	85.1	97.4	95.8
Aug.	8,319.0	3,132.7	724.2	488.9	3,740.1	233.1	91.2	84.9	88.8	85.1	97.4	95.8

### C14 Outstanding amounts of securities other than shares by sector

(EUR billions; end-of-period outstanding amounts; nominal values)



Source: ECB.

4.2 Securities other than shares issued by euro area residents by original maturity and sector of the issuer

(EUR billions, unless otherwise indicated; nominal values)

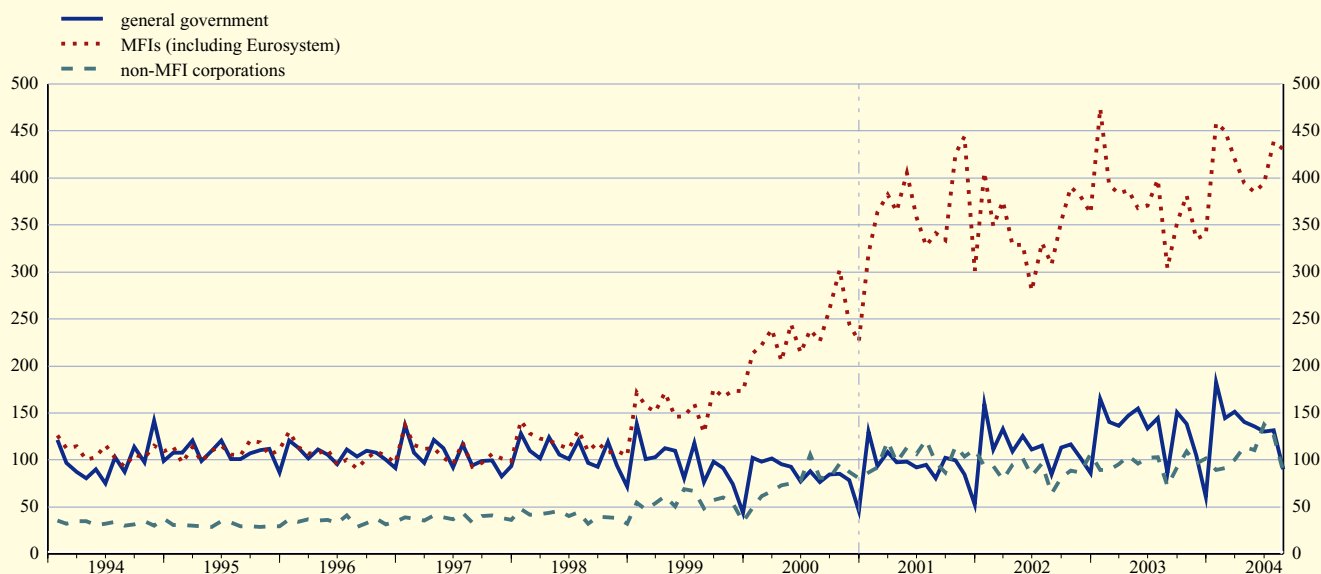
2. Gross issues

(transactions during the month)

	Total						Of which in euro (%)					
	Total	MFIs (including Eurosystem)	Non-MFI corporations		General government		Total	MFIs (including Eurosystem)	Non-MFI corporations		General government	
			Non-monetary financial corporations	Non-financial corporations	Central government	Other general government			Non-monetary financial corporations	Non-financial corporations	Central government	Other general government
1	2	3	4	5	6	7	8	9	10	11	12	
	Total											
2003 Aug.	461.6	303.6	8.7	63.6	82.3	3.4	93.9	92.3	91.8	96.6	97.7	93.1
Sep.	594.9	352.0	22.0	70.3	140.7	9.9	93.4	90.3	98.7	96.5	98.5	96.5
Oct.	629.7	381.6	21.4	87.9	130.7	8.0	93.7	91.5	95.8	96.3	98.1	94.0
Nov.	536.4	335.2	20.2	75.7	97.4	7.8	93.2	92.0	86.7	95.9	96.2	98.2
Dec.	502.5	340.1	28.2	73.2	55.5	5.6	93.7	92.6	97.1	94.6	99.3	79.8
2004 Jan.	730.5	458.5	8.5	80.8	173.6	9.2	94.2	92.9	90.8	95.8	97.1	97.4
Feb.	686.0	449.9	18.3	73.2	136.1	8.5	94.6	93.3	95.8	96.1	97.5	97.8
Mar.	671.8	420.1	10.9	89.5	143.2	8.0	92.7	90.9	89.5	97.1	95.5	94.1
Apr.	648.5	394.3	19.9	94.0	134.9	5.3	93.2	90.8	92.9	96.8	97.6	97.2
May	630.7	384.5	9.9	100.7	130.5	5.2	93.9	91.8	89.3	97.1	98.0	97.9
June	662.7	394.2	33.5	104.4	122.1	8.5	94.3	92.6	98.0	95.7	97.6	94.5
July	695.9	438.6	24.4	101.6	127.5	3.8	93.9	92.6	92.2	94.9	98.0	92.1
Aug.	608.2	430.6	10.7	77.0	85.8	4.0	94.7	93.7	87.5	97.2	97.9	98.4
	Long-term											
2003 Aug.	79.0	44.8	6.1	3.5	23.0	1.6	88.0	82.4	88.4	98.6	97.2	91.3
Sep.	173.4	65.0	18.9	3.6	78.8	7.1	91.6	79.6	98.6	96.6	99.0	98.8
Oct.	168.3	75.7	17.5	10.7	58.9	5.5	91.7	84.4	96.1	89.4	100.0	94.5
Nov.	136.5	62.4	16.6	10.7	40.9	5.8	89.6	86.9	85.2	91.2	93.5	99.6
Dec.	112.1	63.0	24.9	9.6	11.4	3.2	90.4	88.5	97.6	81.5	98.6	68.1
2004 Jan.	178.1	72.4	5.0	7.4	86.9	6.3	92.8	87.4	88.7	80.7	98.2	99.4
Feb.	183.1	85.7	15.0	6.2	70.2	6.0	92.2	86.5	96.0	88.5	98.2	99.0
Mar.	189.1	98.5	8.1	5.0	72.0	5.6	86.7	79.5	88.2	92.3	95.4	95.7
Apr.	155.4	69.3	15.9	4.8	63.0	2.5	88.5	79.3	93.8	78.3	97.5	100.0
May	156.5	68.1	6.7	9.4	69.7	2.7	89.3	79.9	86.4	85.3	98.8	99.6
June	179.8	66.7	29.8	14.4	63.5	5.5	92.9	88.2	98.0	82.0	97.4	99.1
July	174.4	71.4	20.8	17.9	62.9	1.4	91.3	85.9	93.2	85.4	98.3	100.0
Aug.	79.6	40.5	6.9	2.2	28.5	1.5	86.7	79.3	83.5	79.4	98.0	95.8

C15 Gross issues of securities other than shares by sector

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



Source: ECB.



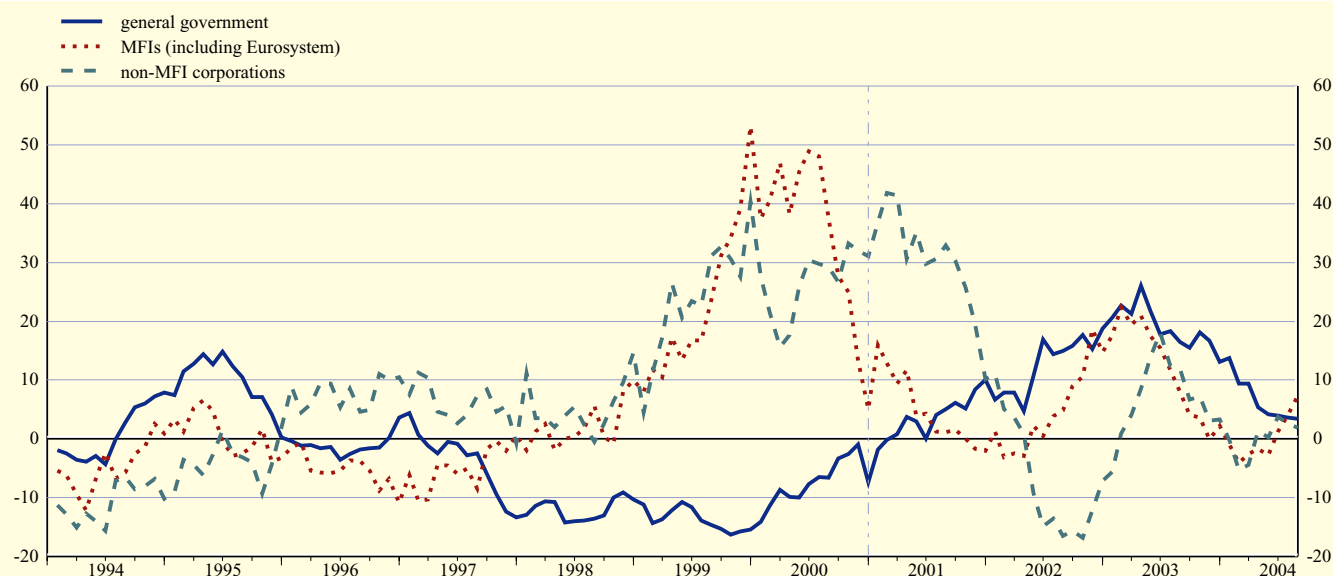
#### 4.3 Annual growth rates of securities other than shares issued by euro area residents <sup>1)</sup>

(percentage changes)

	Total													
	Total		MFIs (including Eurosystem)	Non-MFI corporations			General government			Total		MFIs (including Euro- system)	Non-MFI	
	Total	Index Dec. 01 = 100		Total	Non- monetary financial corporations	Non- financial corporations	Total	Central gov.	Other general gov.	Total	Index Dec. 01 = 100		Total	Non- monetary financial corporations
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
In all currencies combined														
2003 Aug.	6.8	112.5	4.7	19.5	28.1	11.2	5.1	4.4	21.0	12.2	126.3	8.0	11.9	18.3
Sep.	7.0	113.3	4.6	18.7	28.6	9.1	5.7	4.9	23.3	9.4	125.3	4.1	6.7	16.7
Oct.	7.2	114.2	5.5	19.5	29.1	10.2	5.4	4.6	21.4	10.3	128.3	3.6	7.2	13.7
Nov.	7.0	114.8	5.3	19.0	27.8	10.1	5.2	4.4	23.0	7.3	128.3	-0.1	3.1	9.7
Dec.	7.4	114.1	6.2	17.3	23.6	10.6	5.5	4.7	22.2	6.9	120.8	2.2	3.3	20.5
2004 Jan.	7.1	115.3	5.9	15.4	23.2	7.4	5.7	4.9	21.8	5.2	127.6	-0.9	-0.2	16.6
Feb.	7.0	116.3	6.2	14.2	21.7	6.4	5.6	4.9	21.0	1.4	127.0	-4.1	-5.3	-8.0
Mar.	7.2	117.4	7.4	12.1	19.8	3.9	5.6	4.9	20.6	2.3	129.7	-2.6	-4.4	-15.0
Apr.	7.2	118.3	7.9	10.6	17.8	3.1	5.6	5.0	18.7	1.7	132.1	-1.8	1.3	-5.9
May	7.2	119.4	8.3	9.9	16.7	2.7	5.5	4.9	17.6	0.7	131.9	-2.8	0.3	-5.8
June	7.4	120.2	8.4	10.4	17.0	3.2	5.8	5.2	17.4	2.8	131.6	1.3	3.7	-7.1
July	7.4	120.8	8.4	10.0	15.1	4.3	5.7	5.2	16.0	3.6	132.6	4.0	2.7	-6.9
Aug.	7.6	121.1	8.9	9.6	15.2	3.4	6.0	5.5	16.9	4.8	132.4	7.3	1.9	0.6
In euro														
2003 Aug.	6.5	112.0	3.7	22.9	34.5	12.5	4.9	4.2	19.5	14.8	130.5	13.5	11.1	18.4
Sep.	6.7	112.8	3.3	22.2	35.3	10.2	5.5	4.8	21.8	11.5	128.7	8.5	5.9	16.7
Oct.	7.0	113.6	4.2	23.2	36.3	11.0	5.3	4.6	20.8	12.5	131.5	7.7	6.8	14.1
Nov.	6.8	114.3	4.2	22.2	34.2	10.9	5.1	4.3	22.3	9.3	132.2	3.1	2.3	9.4
Dec.	7.1	113.5	5.0	19.7	27.7	11.4	5.5	4.7	21.2	8.8	124.0	5.6	2.9	18.9
2004 Jan.	6.9	114.6	4.9	17.4	27.2	7.5	5.7	5.0	21.1	5.9	130.3	-0.5	-0.9	16.3
Feb.	7.0	115.7	5.4	16.4	26.2	6.4	5.8	5.1	20.4	2.0	129.6	-3.7	-5.7	-8.5
Mar.	6.9	116.6	6.4	13.7	23.9	3.3	5.6	4.9	19.8	2.7	132.1	-2.2	-4.7	-16.0
Apr.	6.8	117.3	6.6	12.1	21.5	2.4	5.6	5.0	18.2	1.4	134.3	-2.9	1.2	-8.2
May	6.7	118.4	6.8	11.4	20.5	2.1	5.5	4.9	17.5	0.6	134.0	-3.5	0.0	-6.6
June	7.0	119.2	6.9	11.7	20.8	2.1	5.8	5.3	17.1	2.3	133.4	-0.1	4.0	-7.2
July	7.0	119.7	6.9	11.4	19.2	3.0	5.9	5.3	15.9	2.7	134.4	1.7	2.4	-9.3
Aug.	7.1	120.0	7.2	11.0	19.2	2.1	6.1	5.6	16.9	3.3	134.8	3.9	2.3	-2.0

#### C16 Annual growth rates of short-term debt securities by sector of the issuer in all currencies combined

(percentage changes)



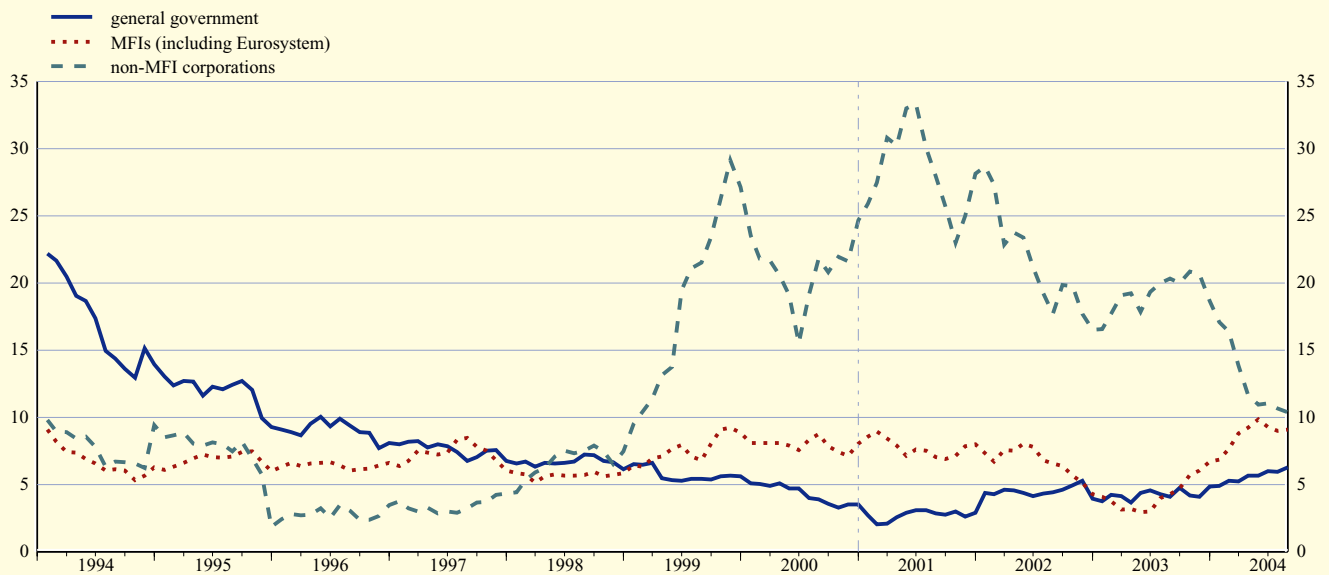
Source: ECB.

1) For the calculation of the index and the growth rates, see the Technical notes.

4.3 Annual growth rates of securities other than shares issued by euro area residents <sup>1)</sup> (cont'd)  
(percentage changes)

Short-term					Long-term									
corporations		General government			Total		MFIs (including Eurosysteem)	Non-MFI corporations			General government			
Non-financial corporations	Total	Central gov.	Other general gov.	Total	Index Dec. 01 = 100	Total		Non-monetary financial corporations	Non-financial corporations	Total	Central gov.	Other general gov.		
15	16	17	18	19	20	21	22	23	24	25	26	27		
In all currencies combined														
11.3	16.5	16.7	2.5	6.2	111.1	4.3	20.3	28.3	11.2	4.1	3.2	21.4	2003 Aug.	
5.9	15.5	15.5	14.5	6.7	112.1	4.7	20.0	28.8	9.8	4.7	3.8	23.4	Sep.	
6.7	18.1	18.3	-2.9	6.9	112.8	5.7	20.8	29.3	10.9	4.2	3.3	21.9	Oct.	
2.5	16.7	17.0	-3.7	7.0	113.5	6.0	20.7	28.1	11.8	4.1	3.2	23.5	Nov.	
1.8	13.1	13.3	-5.6	7.4	113.5	6.7	18.7	23.6	12.4	4.8	3.9	22.8	Dec.	
-1.4	13.8	13.6	31.3	7.3	114.0	6.9	17.1	23.2	9.4	4.9	4.0	21.6	2004 Jan.	
-5.1	9.4	9.2	21.1	7.7	115.3	7.7	16.4	22.2	9.0	5.3	4.4	21.0	Feb.	
-3.5	9.4	9.4	9.6	7.7	116.2	8.8	13.9	20.3	5.7	5.2	4.4	20.8	Mar.	
2.0	5.4	5.2	22.5	7.8	116.9	9.2	11.7	18.1	3.3	5.7	5.0	18.6	Apr.	
0.8	4.2	4.1	18.1	7.9	118.2	9.8	10.9	17.0	3.2	5.6	5.0	17.6	May	
4.7	4.0	3.8	24.1	7.9	119.1	9.3	11.0	17.3	2.9	6.0	5.4	17.2	June	
3.5	3.6	3.4	19.0	7.8	119.6	9.0	10.7	15.4	4.4	6.0	5.4	15.9	July	
2.0	3.4	3.0	37.0	7.9	119.9	9.1	10.4	15.4	3.7	6.3	5.7	16.5	Aug.	
In euro														
10.5	16.8	17.0	1.1	5.7	110.2	2.5	24.4	34.8	12.9	3.7	3.0	19.9	2003 Aug.	
5.0	15.4	15.4	14.5	6.1	111.2	2.7	24.2	35.7	11.4	4.5	3.7	21.9	Sep.	
6.2	18.1	18.3	-5.1	6.4	111.9	3.8	25.2	36.7	12.2	4.0	3.2	21.2	Oct.	
1.7	16.9	17.1	-7.0	6.5	112.5	4.3	24.7	34.6	13.2	4.0	3.1	22.9	Nov.	
1.5	13.3	13.5	-4.7	6.9	112.5	5.0	21.5	27.8	13.7	4.7	3.9	21.7	Dec.	
-2.3	13.9	13.7	40.2	7.0	113.1	5.6	19.6	27.3	10.0	4.9	4.1	20.8	2004 Jan.	
-5.5	9.3	9.2	23.3	7.5	114.4	6.5	19.1	26.8	9.4	5.4	4.6	20.3	Feb.	
-3.7	9.0	9.1	4.1	7.4	115.1	7.5	16.0	24.7	5.1	5.3	4.5	20.0	Mar.	
2.0	5.2	5.0	18.4	7.4	115.7	7.8	13.4	22.0	2.5	5.6	5.0	18.2	Apr.	
0.6	4.1	4.0	20.8	7.5	116.9	8.1	12.8	20.9	2.5	5.7	5.0	17.4	May	
5.0	3.7	3.6	19.8	7.5	117.8	7.8	12.5	21.3	1.4	6.1	5.4	17.1	June	
3.4	3.5	3.4	14.6	7.5	118.3	7.5	12.4	19.6	3.0	6.1	5.6	16.0	July	
2.7	3.1	2.9	33.1	7.6	118.6	7.6	11.9	19.5	1.9	6.4	5.9	16.6	Aug.	

C17 Annual growth rates of long-term debt securities by sector of the issuer in all currencies combined  
(percentage changes)



Source: ECB.

#### 4.4 Quoted shares issued by euro area residents <sup>1)</sup>

(EUR billions, unless otherwise indicated; market values)

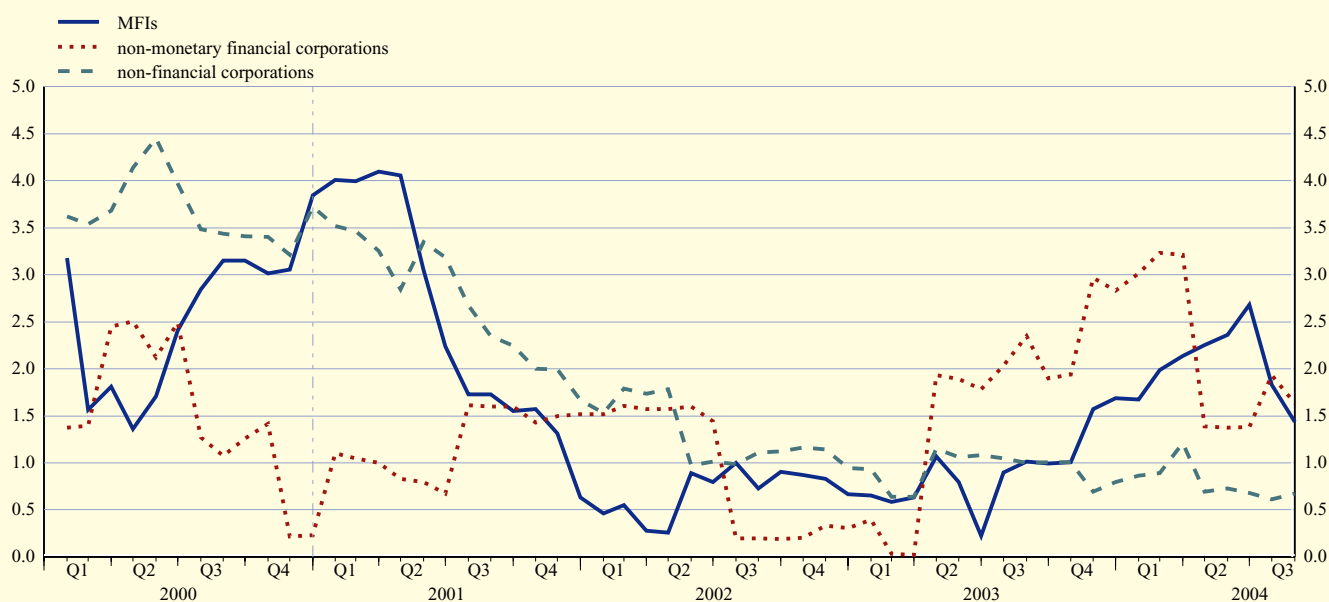
### 1. Outstanding amounts and annual growth rates

(outstanding amounts as end-of-period)

	Total			MFIs		Non-monetary financial corporations		Non-financial corporations	
	Total	Index Dec. 01 = 100 (%)	Annual growth rates (%)	Total	Annual growth rates (%)	Total	Annual growth rates (%)	Total	Annual growth rates (%)
	1	2	3	4	5	6	7	8	9
2002 Aug.	3,521.3	100.6	1.0	521.7	0.7	371.1	0.2	2,628.6	1.1
Sep.	2,982.8	100.6	1.0	412.6	0.9	276.3	0.2	2,293.9	1.1
Oct.	3,252.7	100.7	1.0	446.9	0.9	321.2	0.2	2,484.5	1.2
Nov.	3,436.6	100.8	1.0	487.4	0.8	345.9	0.3	2,603.3	1.1
Dec.	3,118.2	100.8	0.8	450.7	0.7	283.6	0.3	2,383.9	0.9
2003 Jan.	2,978.3	100.8	0.8	425.8	0.6	261.1	0.4	2,291.4	0.9
Feb.	2,884.9	100.8	0.6	425.3	0.6	270.8	0.0	2,188.8	0.6
Mar.	2,763.4	100.8	0.6	413.0	0.6	236.2	0.0	2,114.2	0.6
Apr.	3,112.9	101.5	1.2	471.4	1.1	291.8	1.9	2,349.7	1.1
May	3,145.6	101.5	1.1	476.7	0.8	291.3	1.9	2,377.5	1.1
June	3,256.1	101.5	1.0	504.2	0.2	300.6	1.8	2,451.3	1.1
July	3,366.4	101.7	1.1	528.0	0.9	330.9	2.0	2,507.5	1.0
Aug.	3,413.3	101.7	1.1	506.5	1.0	325.5	2.3	2,581.3	1.0
Sep.	3,276.6	101.7	1.1	494.8	1.0	307.1	1.9	2,474.6	1.0
Oct.	3,483.9	101.8	1.1	535.2	1.0	333.2	1.9	2,615.5	1.0
Nov.	3,546.8	101.8	1.0	549.5	1.6	337.9	3.0	2,659.5	0.7
Dec.	3,647.3	102.0	1.1	569.5	1.7	348.6	2.8	2,729.2	0.8
2004 Jan.	3,788.5	102.0	1.2	584.1	1.7	372.3	3.0	2,832.0	0.9
Feb.	3,851.9	102.1	1.3	587.9	2.0	374.3	3.2	2,889.7	0.9
Mar.	3,766.4	102.4	1.5	571.9	2.1	355.0	3.2	2,839.5	1.2
Apr.	3,748.3	102.5	1.0	579.4	2.3	361.1	1.4	2,807.9	0.7
May	3,687.7	102.5	1.0	568.1	2.4	350.6	1.4	2,769.1	0.7
June	3,790.0	102.6	1.1	582.5	2.7	362.0	1.4	2,845.6	0.7
July	3,679.7	102.6	0.9	562.3	1.8	354.0	1.9	2,763.4	0.6
Aug.	3,673.7	102.6	0.9	562.5	1.4	353.1	1.6	2,758.1	0.7

#### C18 Annual growth rates for quoted shares issued by euro area residents

(annual percentage changes)



Source: ECB.

1) For the calculation of the index and the growth rates, see the Technical notes.

#### 4.4 Quoted shares issued by euro area residents

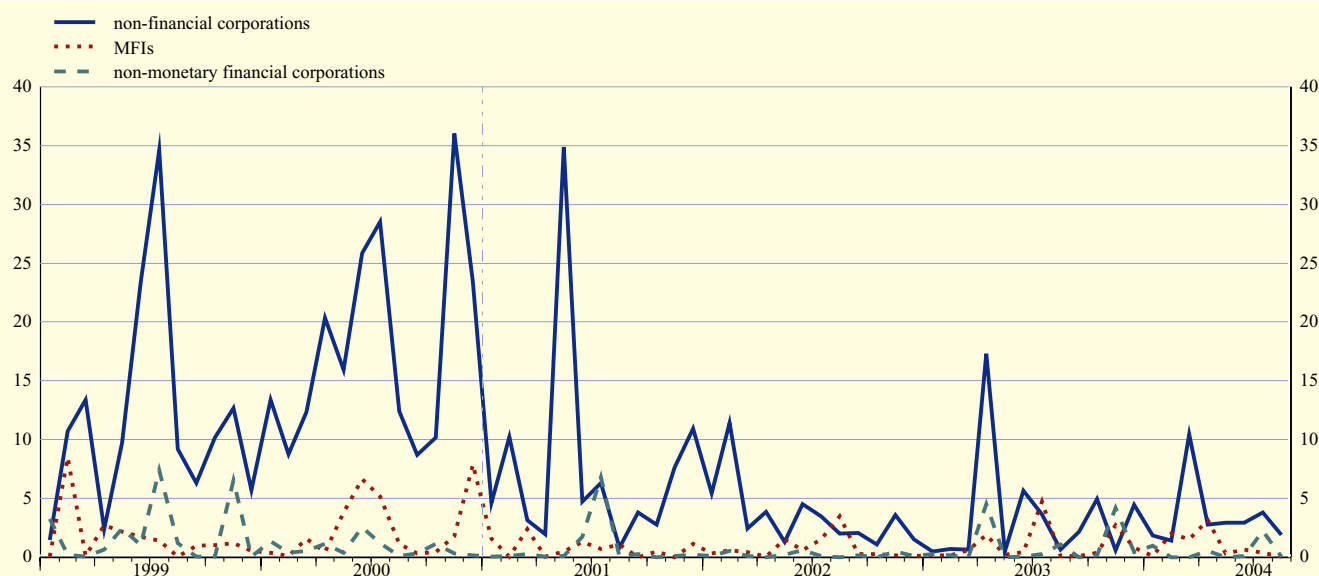
(EUR billions; market values)

##### 2. Transactions during the month

	Total			MFIs			Non-monetary financial corporations			Non-financial corporations		
	Gross issues	Redemptions	Net issues	Gross issues	Redemptions	Net issues	Gross issues	Redemptions	Net issues	Gross issues	Redemptions	Net issues
	1	2	3	4	5	6	7	8	9	10	11	12
2002 Aug.	5.5	5.2	0.3	3.5	4.0	-0.5	0.0	0.0	0.0	2.0	1.2	0.8
Sep.	2.5	0.4	2.0	0.3	0.1	0.1	0.2	0.0	0.2	2.0	0.3	1.8
Oct.	1.3	0.1	1.2	0.3	0.0	0.2	0.0	0.0	0.0	1.1	0.1	1.0
Nov.	4.3	0.7	3.6	0.2	0.4	-0.2	0.5	0.0	0.5	3.6	0.3	3.3
Dec.	1.7	0.5	1.3	0.1	0.0	0.1	0.1	0.1	0.0	1.5	0.4	1.1
2003 Jan.	0.9	1.4	-0.5	0.1	0.0	0.1	0.3	0.0	0.3	0.5	1.4	-0.9
Feb.	1.0	1.3	-0.3	0.1	0.0	0.1	0.1	0.8	-0.7	0.7	0.5	0.2
Mar.	1.2	0.7	0.5	0.6	0.1	0.5	0.0	0.0	0.0	0.6	0.5	0.1
Apr.	23.7	4.8	18.9	1.9	0.1	1.7	4.5	0.0	4.5	17.3	4.6	12.7
May	0.7	2.2	-1.6	0.2	0.4	-0.2	0.0	0.0	0.0	0.5	1.8	-1.3
June	6.1	5.2	0.9	0.4	2.8	-2.3	0.0	0.0	0.0	5.7	2.4	3.2
July	8.6	1.9	6.7	4.7	0.2	4.5	0.2	0.0	0.2	3.6	1.7	1.9
Aug.	1.8	1.2	0.6	0.1	0.0	0.1	1.1	0.1	1.0	0.6	1.1	-0.4
Sep.	2.3	1.8	0.5	0.1	0.1	0.0	0.0	1.3	-1.3	2.2	0.4	1.8
Oct.	5.4	3.9	1.6	0.4	0.0	0.4	0.1	0.0	0.1	4.9	3.8	1.1
Nov.	7.5	5.5	2.1	2.7	0.0	2.7	4.2	0.3	3.9	0.6	5.1	-4.5
Dec.	5.7	1.5	4.2	0.8	0.1	0.8	0.4	0.8	-0.4	4.4	0.6	3.8
2004 Jan.	2.9	1.0	1.9	0.1	0.0	0.1	0.9	0.0	0.9	1.8	1.0	0.8
Feb.	3.5	0.7	2.8	2.0	0.0	2.0	0.0	0.2	-0.2	1.4	0.5	1.0
Mar.	12.0	1.3	10.7	1.5	0.0	1.5	0.0	0.1	-0.1	10.5	1.1	9.3
Apr.	6.4	0.6	5.8	3.1	0.1	3.1	0.5	0.1	0.4	2.8	0.5	2.3
May	3.3	3.6	-0.4	0.3	0.0	0.3	0.0	0.0	0.0	2.9	3.6	-0.6
June	3.7	2.1	1.6	0.7	1.6	-1.0	0.1	0.0	0.1	2.9	0.4	2.5
July	6.4	3.6	2.8	0.4	0.0	0.4	2.2	0.0	2.2	3.8	3.6	0.2
Aug.	2.0	2.9	-0.9	0.1	2.2	-2.1	0.0	0.0	0.0	1.9	0.7	1.2

#### C19 Gross issues of quoted shares by sector of the issuer

(EUR billions; transactions during the month; market values)



Source: ECB.

## 4.5 MFI interest rates on euro-denominated deposits and loans by euro area residents

(percentages per annum; outstanding amounts as end-of-period, new business as period average, unless otherwise indicated)

### 1. Interest rates on deposits (new business)

	Deposits from households						Deposits from non-financial corporations				Repos
	Overnight <sup>1)</sup>	With agreed maturity			Redeemable at notice <sup>1),2)</sup>		Overnight <sup>1)</sup>	With agreed maturity			
		Up to 1 year	Over 1 and up to 2 years	Over 2 years	Up to 3 months	Over 3 months		Up to 1 year	Over 1 and up to 2 years	Over 2 years	
	1	2	3	4	5	6	7	8	9	10	11
2003 Sep.	0.69	1.87	2.12	2.43	2.00	2.85	0.87	2.00	2.29	3.63	2.00
Oct.	0.69	1.89	2.16	2.51	2.05	2.73	0.88	1.98	2.23	3.89	1.99
Nov.	0.70	1.87	2.24	2.61	2.01	2.70	0.87	1.97	2.36	2.70	1.97
Dec.	0.69	1.89	2.40	2.41	2.02	2.68	0.86	2.00	2.42	3.35	1.99
2004 Jan.	0.69	1.91	2.37	2.74	2.03	2.65	0.93	1.99	2.07	3.12	1.95
Feb.	0.69	1.88	2.16	2.45	2.02	2.63	0.86	1.98	2.21	3.59	1.98
Mar.	0.70	1.92	2.15	2.34	2.00	2.59	0.86	1.96	2.11	3.35	1.98
Apr.	0.70	1.92	2.14	2.44	2.02	2.57	0.85	1.97	2.00	3.50	1.95
May	0.70	1.85	2.16	2.41	2.00	2.55	0.86	1.96	2.06	3.75	1.95
June	0.70	1.88	2.23	2.40	2.00	2.55	0.87	1.99	2.27	3.79	1.98
July	0.70	1.91	2.22	2.53	1.99	2.55	0.86	1.99	2.59	4.00	1.99
Aug.	0.71	1.91	2.19	2.66	2.00	2.53	0.87	1.99	2.36	3.99	1.98

### 2. Interest rates on loans to households (new business)

	Bank overdraft <sup>1)</sup>	Consumer credit				Lending for house purchase					Other lending by initial rate fixation		
		By initial rate fixation			Annual percentage rate of charge <sup>3)</sup>	By initial rate fixation				Annual percentage rate of charge <sup>3)</sup>	By initial rate fixation		
		Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 years		Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 and up to 10 years	Over 10 years		Floating rate and 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
2003 Sep.	9.74	7.44	6.89	8.04	8.02	3.63	4.10	4.81	4.75	4.41	3.98	5.00	5.11
Oct.	9.71	7.20	6.74	8.07	7.91	3.62	4.02	4.87	4.78	4.40	4.05	5.09	5.21
Nov.	9.64	7.57	6.59	7.93	7.84	3.59	4.09	4.92	4.84	4.42	4.15	5.25	5.17
Dec.	9.69	7.66	6.43	7.63	7.71	3.63	4.17	5.02	4.95	4.45	3.85	5.00	5.08
2004 Jan.	9.87	7.62	7.04	8.49	8.32	3.63	4.30	5.02	4.92	4.49	4.05	5.12	5.16
Feb.	9.81	7.43	6.91	8.44	8.16	3.55	4.23	4.97	4.84	4.35	4.10	5.07	5.05
Mar.	9.71	7.34	6.80	8.28	8.01	3.47	4.13	4.86	4.78	4.28	3.94	5.06	4.97
Apr.	9.73	7.31	6.60	8.22	7.82	3.42	4.05	4.78	4.68	4.27	3.86	4.89	4.92
May	9.68	7.30	6.69	8.17	7.92	3.40	4.04	4.75	4.61	4.21	4.11	4.81	4.93
June	9.56	7.11	6.66	8.34	7.94	3.42	4.12	4.81	4.69	4.21	3.93	4.94	5.01
July	9.57	7.19	6.86	8.47	8.08	3.47	4.16	4.81	4.69	4.22	4.03	4.92	5.02
Aug.	9.62	7.67	6.89	8.54	8.26	3.50	4.19	4.86	4.65	4.34	3.91	5.07	5.02

### 3. Interest rates on loans to non-financial corporations (new business)

	Bank overdraft <sup>1)</sup>	Other loans up to EUR 1 million by initial rate fixation			Other loans over EUR 1 million by initial rate fixation			
		Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 years	Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 years	
		1	2	3	4	5	6	7
2003 Sep.		5.46	4.08	4.79	4.76	3.11	3.32	4.29
Oct.		5.46	4.14	4.76	4.83	3.08	3.26	4.33
Nov.		5.41	4.10	4.94	4.71	3.02	3.30	4.23
Dec.		5.58	4.04	4.84	4.81	3.12	3.41	4.32
2004 Jan.		5.67	4.06	4.86	4.81	3.01	3.37	4.29
Feb.		5.63	4.02	4.94	4.78	2.97	3.19	4.30
Mar.		5.56	3.94	4.79	4.77	2.91	3.25	4.41
Apr.		5.51	3.87	4.71	4.64	2.96	3.28	4.41
May		5.46	3.98	4.57	4.57	2.94	3.30	4.24
June		5.46	3.96	4.76	4.71	3.02	3.26	4.08
July		5.36	4.02	4.86	4.65	3.02	3.28	4.25
Aug.		5.36	4.06	4.89	4.73	2.99	3.12	4.30

Source: ECB.

- 1) For this instrument category, new business and outstanding amounts coincide. End-of-period.
- 2) For this instrument category, households and non-financial corporations are merged and allocated to the household sector, since the outstanding amounts of non-financial corporations are negligible compared with those of the household sector in all participating Member States combined.
- 3) The annual percentage rate of charge covers the total cost of a loan. The total cost comprises an interest rate component and a component of other (related) charges, such as the cost of inquiries, administration, preparation of documents, guarantees, etc.

4.5 MFI interest rates on euro-denominated deposits and loans by euro area residents

(percentages per annum; outstanding amounts as end-of-period, new business as period average, unless otherwise indicated)

4. Interest rates on deposits (outstanding amounts)

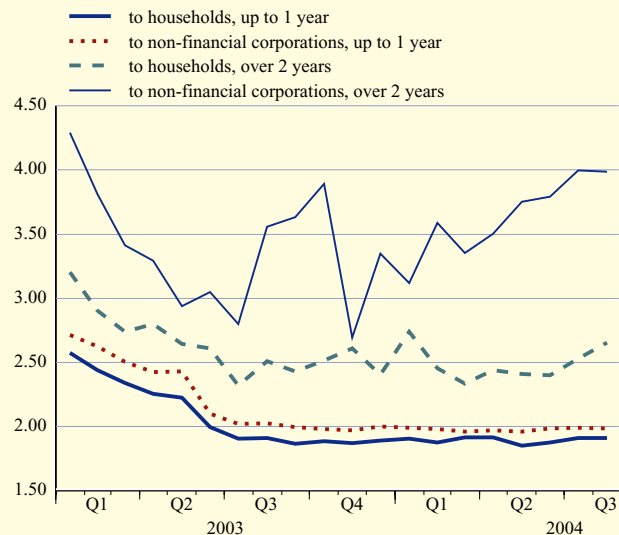
	Deposits from households					Deposits from non-financial corporations			Repos
	Overnight <sup>1)</sup>	With agreed maturity		Redeemable at notice <sup>1),2)</sup>		Overnight <sup>1)</sup>	With agreed maturity		
		Up to 2 years	Over 2 years	Up to 3 months	Over 3 months		Up to 2 years	Over 2 years	
	1	2	3	4	5	6	7	8	9
2003 Sep.	0.69	2.01	3.44	2.00	2.85	0.87	2.23	4.32	2.04
Oct.	0.69	1.97	3.47	2.05	2.73	0.88	2.12	4.33	2.03
Nov.	0.70	1.98	3.44	2.01	2.70	0.87	2.13	4.43	1.98
Dec.	0.69	1.97	3.54	2.02	2.68	0.86	2.14	4.25	1.98
2004 Jan.	0.69	1.94	3.36	2.03	2.65	0.93	2.09	4.28	1.95
Feb.	0.69	1.93	3.42	2.02	2.63	0.86	2.09	4.22	1.97
Mar.	0.70	1.92	3.32	2.00	2.59	0.86	2.08	4.17	1.93
Apr.	0.70	1.90	3.35	2.02	2.57	0.85	2.09	4.17	1.92
May	0.70	1.89	3.28	2.00	2.55	0.86	2.07	4.15	1.93
June	0.70	1.89	3.27	2.00	2.55	0.87	2.09	4.11	1.94
July	0.70	1.89	3.25	1.99	2.55	0.86	2.10	4.10	1.96
Aug.	0.71	1.89	3.22	2.00	2.53	0.87	2.13	4.02	1.97

5. Interest rates on loans (outstanding amounts)

	Loans to households						Loans to non-financial corporations		
	Lending for house purchase, with maturity			Consumer credit and other loans, with maturity			With maturity		
	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
2003 Sep.	5.00	4.95	5.24	8.30	7.27	6.00	4.55	4.20	4.75
Oct.	5.00	4.92	5.20	8.13	7.13	5.84	4.56	4.12	4.71
Nov.	4.97	4.90	5.17	7.98	7.09	5.82	4.52	4.18	4.67
Dec.	5.09	4.88	5.14	8.04	7.05	6.00	4.56	4.23	4.66
2004 Jan.	5.05	4.89	5.11	8.15	7.02	5.92	4.58	4.07	4.56
Feb.	5.01	4.91	5.11	8.13	7.16	5.95	4.62	4.06	4.58
Mar.	4.98	4.82	5.03	8.05	7.17	5.89	4.56	3.96	4.61
Apr.	4.90	4.75	5.01	8.03	7.08	5.85	4.51	3.91	4.59
May	4.89	4.72	4.99	7.99	7.04	5.82	4.50	3.87	4.55
June	4.87	4.69	4.97	7.93	6.99	5.80	4.47	3.89	4.53
July	4.90	4.63	4.94	7.94	6.98	5.76	4.48	3.88	4.50
Aug.	4.88	4.58	4.91	7.94	6.95	5.77	4.46	3.85	4.48

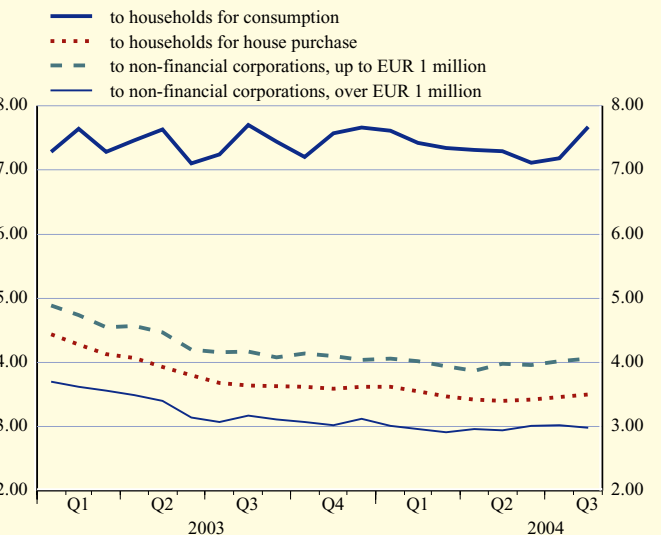
C20 New deposits with agreed maturity

(percentages per annum excluding charges; period averages)



C21 New loans at floating rate and up to 1 year initial rate fixation

(percentages per annum excluding charges; period averages)



Source: ECB.

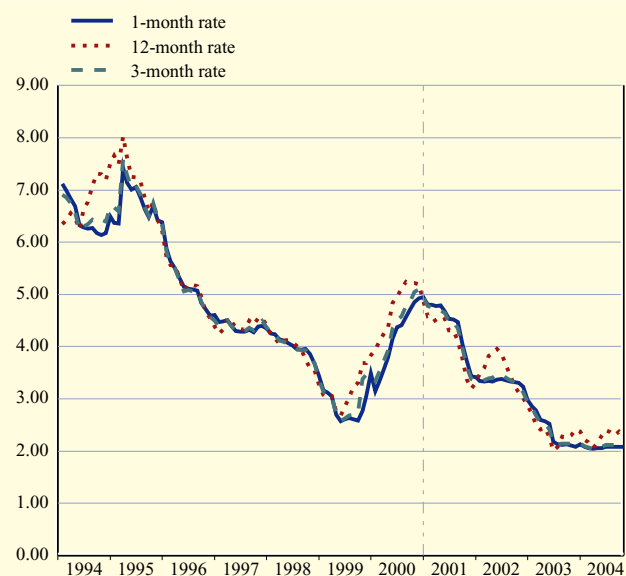
## 4.6 Money market interest rates

(percentages per annum; period averages)

	Euro area <sup>1)</sup>					United States	Japan
	Overnight deposits (EONIA)	1-month deposits (EURIBOR)	3-month deposits (EURIBOR)	6-month deposits (EURIBOR)	12-month deposits (EURIBOR)	3-month deposits (LIBOR)	3-month deposits (LIBOR)
	1	2	3	4	5	6	7
2001	4.39	4.33	4.26	4.15	4.08	3.78	0.15
2002	3.29	3.30	3.32	3.35	3.49	1.80	0.08
2003	2.32	2.35	2.33	2.31	2.34	1.22	0.06
2003 Q3	2.07	2.13	2.14	2.15	2.20	1.13	0.05
Q4	2.02	2.11	2.15	2.20	2.36	1.17	0.06
2004 Q1	2.02	2.06	2.06	2.07	2.15	1.12	0.05
Q2	2.04	2.06	2.08	2.13	2.29	1.30	0.05
Q3	2.05	2.08	2.12	2.19	2.35	1.75	0.05
2003 Oct.	2.01	2.10	2.14	2.17	2.30	1.16	0.06
Nov.	1.97	2.09	2.16	2.22	2.41	1.17	0.06
Dec.	2.06	2.13	2.15	2.20	2.38	1.17	0.06
2004 Jan.	2.02	2.08	2.09	2.12	2.22	1.13	0.06
Feb.	2.03	2.06	2.07	2.09	2.16	1.12	0.05
Mar.	2.01	2.04	2.03	2.02	2.06	1.11	0.05
Apr.	2.08	2.05	2.05	2.06	2.16	1.15	0.05
May	2.02	2.06	2.09	2.14	2.30	1.25	0.05
June	2.03	2.08	2.11	2.19	2.40	1.50	0.05
July	2.07	2.08	2.12	2.19	2.36	1.63	0.05
Aug.	2.04	2.08	2.11	2.17	2.30	1.73	0.05
Sep.	2.05	2.08	2.12	2.20	2.38	1.90	0.05
Oct.	2.11	2.09	2.15	2.19	2.32	2.08	0.05

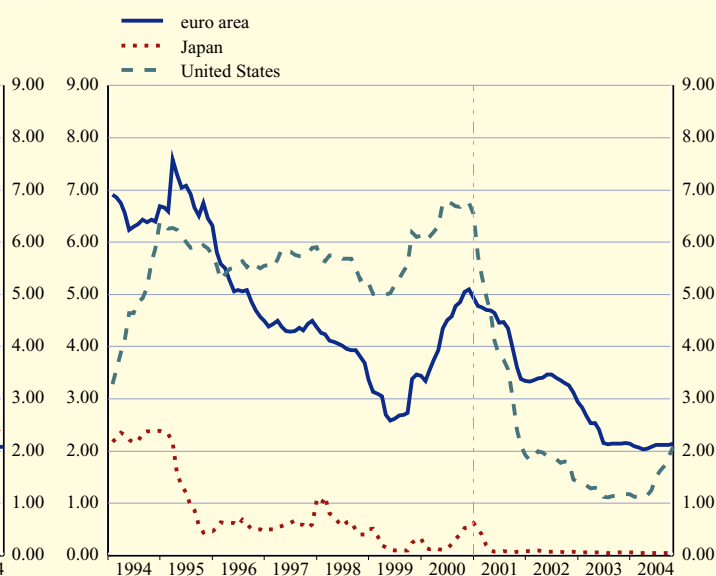
### C22 Euro area money market rates

(monthly; percentages per annum)



### C23 3-month money market rates

(monthly; percentages per annum)



Source: ECB.

1) Before January 1999 synthetic euro area rates were calculated on the basis of national rates weighted by GDP. For further information, see the General notes.

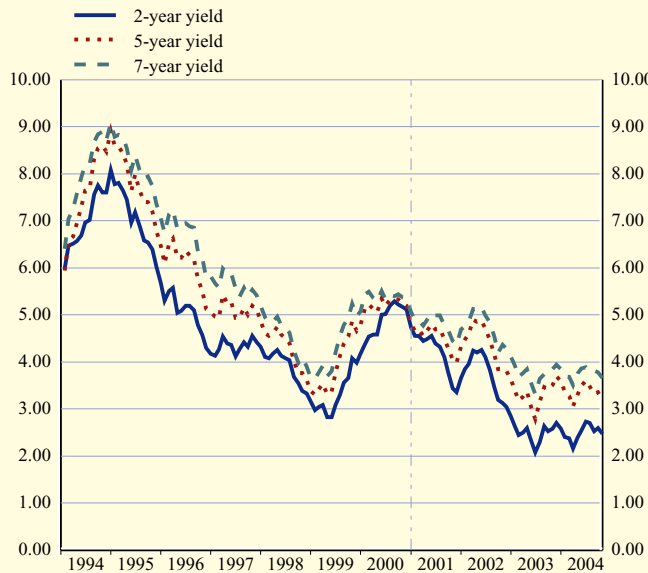
**4.7 Government bond yields**

(percentages per annum; period averages)

	Euro area <sup>1)</sup>					United States	Japan
	2 years 1	3 years 2	5 years 3	7 years 4	10 years 5	10 years 6	10 years 7
2001	4.11	4.23	4.49	4.79	5.03	5.01	1.34
2002	3.68	3.94	4.35	4.70	4.92	4.60	1.27
2003	2.49	2.74	3.32	3.74	4.16	4.00	0.99
2003 Q3	2.48	2.77	3.34	3.70	4.16	4.21	1.19
Q4	2.62	2.91	3.59	3.88	4.36	4.27	1.38
2004 Q1	2.31	2.63	3.23	3.63	4.15	4.00	1.31
Q2	2.56	2.92	3.47	3.84	4.36	4.58	1.59
Q3	2.61	2.89	3.39	3.80	4.21	4.29	1.64
2003 Oct.	2.59	2.88	3.50	3.85	4.31	4.27	1.40
Nov.	2.70	2.99	3.70	3.94	4.44	4.29	1.38
Dec.	2.58	2.88	3.59	3.85	4.36	4.26	1.35
2004 Jan.	2.41	2.71	3.37	3.70	4.26	4.13	1.33
Feb.	2.38	2.71	3.28	3.69	4.18	4.06	1.25
Mar.	2.16	2.48	3.06	3.51	4.02	3.81	1.35
Apr.	2.39	2.75	3.31	3.75	4.24	4.32	1.51
May	2.55	2.94	3.50	3.87	4.39	4.70	1.49
June	2.74	3.06	3.60	3.89	4.44	4.73	1.77
July	2.70	2.97	3.49	3.80	4.34	4.48	1.79
Aug.	2.53	2.83	3.33	3.82	4.17	4.27	1.63
Sep.	2.60	2.87	3.35	3.79	4.11	4.13	1.50
Oct.	2.47	2.71	3.18	3.66	3.98	4.08	1.49

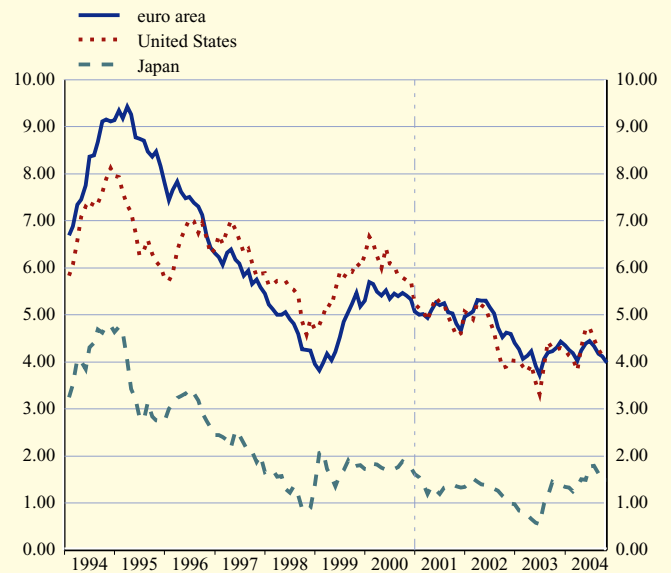
**C24 Euro area government bond yields**

(monthly; percentages per annum)



**C25 10-year government bond yields**

(monthly; percentages per annum)



Source: ECB.

1) 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.



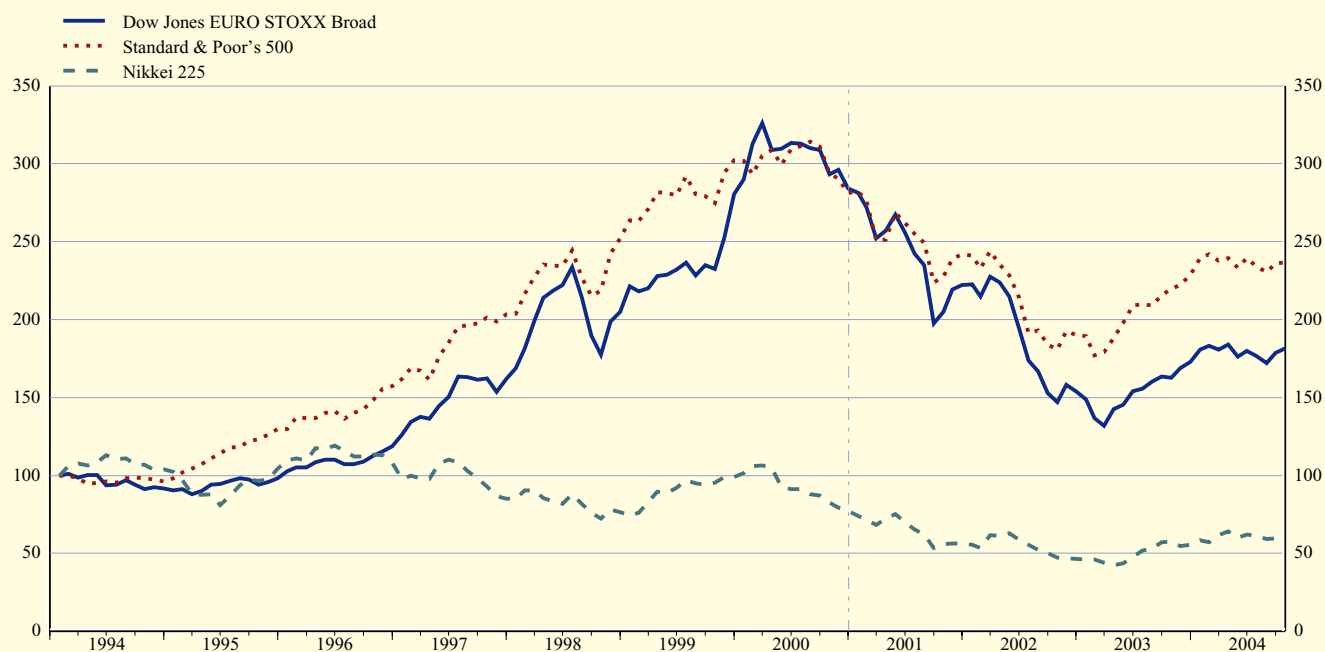
## 4.8 Stock market indices

(index levels in points; period averages)

	Dow Jones EURO STOXX indices												United States	Japan
	Benchmark		Main industry indices										Standard & Poor's 500	Nikkei 225
	Broad	50	Basic materials	Consumer services	Consumer goods	Oil & gas	Financials	Industrials	Technology	Utilities	Telecom.	Health care		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
2001	336.3	4,049.7	296.0	284.5	263.7	341.4	321.6	310.0	530.6	309.6	541.2	540.2	1,193.8	12,114.5
2002	260.0	3,052.5	267.5	194.8	239.0	309.0	243.4	252.4	345.2	255.5	349.2	411.9	995.3	10,119.3
2003	213.3	2,422.7	212.5	144.9	193.8	259.5	199.3	213.5	275.2	210.7	337.5	304.5	964.9	9,312.9
2003 Q3	221.7	2,511.5	225.1	152.1	199.7	265.8	209.9	224.9	285.9	216.0	347.4	304.6	1,000.3	10,063.2
Q4	233.0	2,614.3	233.7	160.2	211.2	266.7	221.9	240.2	317.5	219.7	360.6	320.2	1,057.1	10,423.3
2004 Q1	251.6	2,846.5	245.0	166.9	222.1	279.9	240.5	257.1	353.0	248.7	405.3	366.6	1,132.7	10,996.9
Q2	249.8	2,794.7	244.7	164.7	226.3	300.9	234.6	256.1	299.4	262.1	388.3	394.9	1,123.6	11,550.0
Q3	244.0	2,708.7	246.8	159.3	216.4	305.0	228.7	253.1	259.9	266.8	379.8	402.6	1,104.4	11,152.3
2003 Oct.	225.5	2,523.3	222.0	157.4	206.5	263.0	212.9	231.5	308.0	210.7	348.4	309.7	1,038.7	10,720.1
Nov.	233.9	2,618.1	237.5	163.1	212.9	262.0	223.0	241.5	325.4	217.0	358.7	319.3	1,050.3	10,205.4
Dec.	239.6	2,702.2	242.0	160.4	214.5	274.5	230.1	247.9	320.2	231.0	374.4	331.5	1,081.2	10,315.9
2004 Jan.	250.6	2,839.1	250.3	165.6	221.7	277.2	242.0	257.5	349.2	239.6	405.1	350.3	1,131.9	10,876.4
Feb.	253.9	2,874.8	244.7	168.4	224.1	275.6	243.7	260.1	359.0	252.1	412.3	370.0	1,143.5	10,618.6
Mar.	250.5	2,829.0	240.3	166.7	220.9	286.3	236.1	254.1	351.4	254.5	399.3	379.3	1,124.0	11,441.1
Apr.	255.0	2,860.9	247.6	168.3	227.8	300.2	241.0	262.6	321.3	264.7	402.0	389.3	1,133.4	11,962.8
May	244.4	2,728.0	240.2	160.8	223.0	297.7	228.7	250.9	284.8	256.6	378.0	395.3	1,103.6	11,141.0
June	249.8	2,792.2	246.1	164.9	227.9	304.7	233.9	254.5	291.4	264.9	384.3	400.0	1,132.9	11,527.7
July	245.2	2,730.4	245.5	162.1	221.6	302.8	227.8	251.4	272.3	267.5	382.1	397.7	1,106.7	11,390.8
Aug.	238.9	2,646.9	243.7	155.7	212.5	300.2	223.9	248.1	245.3	262.6	372.8	396.4	1,088.9	10,989.3
Sep.	248.0	2,748.6	251.1	160.0	215.1	311.8	234.6	259.9	261.9	270.1	384.4	413.7	1,117.5	11,076.8
Oct.	252.1	2,794.4	259.1	157.4	211.5	315.5	240.4	262.5	273.3	278.8	401.2	415.1	1,118.1	11,028.9

### C26 Dow Jones EURO STOXX Broad, Standard & Poor's 500 and Nikkei 225

(January 1994 = 100; monthly averages)



Source: ECB.

# PRICES, OUTPUT, DEMAND AND LABOUR MARKETS



## 5.1 HICP, other prices and costs

(annual percentage changes, unless otherwise indicated)

### 1. Harmonised Index of Consumer Prices<sup>1)</sup>

	Total				Total (s.a., percentage change on previous period)					
	Index 1996 = 100	Total	Goods	Services	Total	Processed food	Unprocessed food	Non-energy industrial goods	Energy (n.s.a.)	Services
% of total <sup>2)</sup>	100.0	100.0	58.7	41.3	100.0	11.8	7.7	31.0	8.1	41.3
	1	2	3	4	5	6	7	8	9	10
2000	106.0	2.1	2.5	1.5	-	-	-	-	-	-
2001	108.5	2.3	2.3	2.5	-	-	-	-	-	-
2002	110.9	2.3	1.7	3.1	-	-	-	-	-	-
2003	113.2	2.1	1.8	2.5	-	-	-	-	-	-
2003 Q3	113.4	2.0	1.7	2.5	0.5	0.6	1.5	0.1	0.5	0.6
Q4	114.0	2.0	1.8	2.4	0.5	1.1	0.6	0.2	-0.2	0.6
2004 Q1	114.4	1.7	1.1	2.6	0.5	0.9	-0.5	0.2	1.2	0.7
Q2	115.8	2.3	2.1	2.6	0.8	1.1	-0.1	0.4	3.3	0.6
Q3	115.9	2.2	2.0	2.7	0.5	0.4	-0.3	0.1	1.9	0.7
2004 May	115.9	2.5	2.4	2.6	0.3	0.3	0.2	0.0	2.5	0.2
June	115.9	2.4	2.2	2.6	0.1	0.1	0.3	0.1	-0.7	0.3
July	115.7	2.3	2.1	2.7	0.1	0.2	-0.4	-0.2	0.6	0.2
Aug.	115.9	2.3	2.1	2.7	0.3	0.1	-0.3	0.3	1.5	0.3
Sep. <sup>3)</sup>	116.1	2.1	1.8	2.6	0.1	-0.1	-0.1	0.0	-0.1	0.2
Oct. <sup>3)</sup>	.	2.5	.	.	.	.	.	.	.	.

	Goods						Services					
	Food (incl. alcoholic beverages and tobacco)			Industrial goods			Housing		Transport	Communication	Recreation and personal	Miscellaneous
	Total	Processed food	Unprocessed food	Total	Non-energy industrial goods	Energy	Rents					
% of total <sup>2)</sup>	19.5	11.8	7.7	39.1	31.0	8.1	10.4	6.4	6.4	2.9	15.0	6.6
	11	12	13	14	15	16	17	18	19	20	21	22
2000	1.4	1.2	1.8	3.0	0.5	13.0	1.5	1.3	2.5	-7.1	2.4	2.5
2001	4.5	2.9	7.0	1.2	0.9	2.2	1.8	1.4	3.6	-4.1	3.6	2.7
2002	3.1	3.1	3.1	1.0	1.5	-0.6	2.4	2.0	3.2	-0.3	4.2	3.4
2003	2.8	3.3	2.1	1.2	0.8	3.0	2.3	2.0	2.9	-0.6	2.7	3.4
2003 Q3	3.2	3.1	3.4	1.0	0.7	2.1	2.4	1.9	2.8	-0.4	2.6	3.2
Q4	3.7	3.8	3.6	0.9	0.8	1.6	2.3	1.9	2.8	-0.7	2.5	3.3
2004 Q1	3.0	3.5	2.2	0.2	0.7	-1.5	2.3	1.9	2.5	-1.0	2.4	4.9
Q2	2.9	3.9	1.5	1.7	0.9	4.8	2.3	1.8	3.0	-1.9	2.4	4.9
Q3	2.0	3.6	-0.3	2.0	0.8	6.3	2.5	2.0	2.9	-2.6	2.5	5.3
2004 May	3.1	3.9	1.7	2.1	0.9	6.7	2.3	1.8	2.9	-1.9	2.5	4.8
June	2.8	3.8	1.2	2.0	0.9	5.9	2.3	1.8	3.0	-2.0	2.5	5.0
July	2.6	3.8	0.7	1.8	0.7	5.9	2.5	1.9	2.9	-2.4	2.6	5.3
Aug.	2.1	3.6	-0.2	2.1	0.9	6.5	2.5	2.0	2.9	-2.5	2.6	5.2
Sep.	1.4	3.4	-1.5	2.0	0.9	6.4	2.5	1.9	2.9	-2.8	2.5	5.2

Sources: Eurostat and ECB calculations.

1) Data prior to 2001 refer to the Euro 11.

2) Referring to the index period 2004. Due to rounding, component weights might not add up to the total.

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

## 5.1 HICP, other prices and costs

(annual percentage changes, unless otherwise indicated)

### 2. Industry and commodity prices

	Industrial producer prices										World market prices of raw materials <sup>1)</sup>	Oil prices <sup>2)</sup> (EUR per barrel)		
	Industry excluding construction									Construction <sup>3)</sup>			Manufacturing	
	Total (index 2000 = 100)	Total	Industry excluding construction and energy						Energy		Total			
			Total	Intermediate goods	Capital goods	Consumer goods								
						Total	Durable	Non-durable						
% of total <sup>4)</sup>	100.0	100.0	82.5	31.6	21.3	29.5	4.0	25.5	17.5		89.5	100.0	32.8	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2000	100.0	5.3	2.5	5.0	0.6	1.6	1.4	1.6	16.4	2.5	4.8	51.9	20.4	31.0
2001	102.0	2.0	1.7	1.2	0.9	3.0	1.9	3.1	2.6	2.4	1.2	-8.3	-8.1	27.8
2002	101.9	-0.1	0.5	-0.3	0.9	1.0	1.3	1.0	-2.3	2.7	0.3	-4.1	-0.9	26.5
2003	103.4	1.4	0.8	0.8	0.3	1.1	0.6	1.2	3.8	2.1	0.9	-4.0	-4.5	25.1
2003 Q3	103.2	1.1	0.5	0.0	0.3	1.2	0.6	1.3	3.1	2.0	0.4	-6.5	-5.8	25.1
Q4	103.4	1.0	0.6	0.3	0.3	1.2	0.5	1.3	2.0	1.6	0.5	-4.2	-1.2	24.5
2004 Q1	103.9	0.2	0.8	1.0	0.3	1.1	0.4	1.3	-2.6	1.8	0.2	-2.5	9.8	25.0
Q2	105.3	2.0	1.6	2.8	0.6	1.5	0.6	1.6	3.6	2.4	2.5	28.8	20.9	29.3
Q3	.	.	.	.	.	.	.	.	.	.	.	26.9	11.9	33.3
2004 May	105.5	2.4	1.6	2.8	0.6	1.4	0.6	1.6	5.4	-	2.8	35.9	21.1	30.9
June	105.5	2.4	1.9	3.3	0.7	1.6	0.6	1.7	4.4	-	2.8	27.8	21.9	29.3
July	106.0	2.9	2.2	4.2	0.8	1.5	0.8	1.7	5.2	-	3.2	24.9	18.0	30.7
Aug.	106.4	3.1	2.3	4.8	0.9	1.4	0.8	1.5	5.3	-	3.5	25.5	11.0	34.1
Sep.	.	.	.	.	.	.	.	.	.	-	.	30.5	6.9	35.0
Oct.	.	.	.	.	.	.	.	.	.	-	.	35.1	3.7	39.4

### 3. Hourly labour costs<sup>5)</sup>

	Total (s.a. index 2000 = 100)	Total	By component		By selected economic activity			Memo item: indicator of negotiated wages
			Wages and salaries	Employers' social contributions	Mining, manufacturing and energy	Construction	Services	
	1	2	3	4	5	6	7	8
2000	100.0	3.1	3.5	2.0	3.0	3.6	3.7	2.2
2001	103.5	3.6	3.7	3.0	3.4	4.0	3.2	2.6
2002	107.4	3.7	3.6	4.1	3.7	4.0	3.5	2.7
2003	110.4	2.8	2.7	3.1	2.9	3.3	2.7	2.4
2003 Q2	110.2	3.3	3.1	3.7	3.5	3.8	3.2	2.4
Q3	110.8	2.8	2.7	3.2	3.0	3.1	2.8	2.4
Q4	111.3	2.1	2.1	2.4	2.1	2.7	2.2	2.2
2004 Q1	112.1	2.7	2.7	2.7	3.0	3.0	2.6	2.3
Q2	112.6	2.1	2.2	1.9	2.3	2.0	2.1	2.2

Sources: Eurostat, HWWA (columns 12 and 13), Thomson Financial Datastream (column 14), ECB calculations based on Eurostat data (column 6 in Table 5.1.2 and column 7 in Table 5.1.3) and ECB calculations (column 8 in Table 5.1.3).

1) Refers to the prices expressed in euro.

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

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

4) In 2000.

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

## 5.1 HICP, other prices and costs

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

### 4. Unit labour costs, compensation per employee and labour productivity

	Total (index 2000 = 100)	Total	By economic activity						
			Agriculture, hunting, forestry and fishing	Mining, manufacturing, and energy	Construction	Trade, repairs, hotels and restaurants, transport and communication	Financial, real estate, renting and business services		
	1	2	3	4	5	6	7	8	
Unit labour costs <sup>1)</sup>									
2000	100.0	1.4	0.9	-0.3	1.7	0.3	3.8	1.7	
2001	102.6	2.6	2.3	2.7	3.8	0.8	3.3	2.7	
2002	104.8	2.2	-0.2	0.9	2.7	1.9	3.7	2.5	
2003	107.0	2.0	3.7	1.3	3.8	1.7	2.0	2.5	
2003 Q2	107.1	2.5	5.6	2.6	3.8	2.2	2.4	2.5	
Q3	107.3	2.3	5.5	1.9	4.1	1.3	1.2	3.4	
Q4	107.2	1.6	3.1	0.3	3.7	2.0	1.9	1.7	
2004 Q1	107.2	1.0	-4.4	0.8	2.6	0.3	1.5	1.6	
Q2	107.4	0.3	-5.9	-2.4	0.8	-0.6	1.1	2.1	
Compensation per employee									
2000	100.0	2.7	2.1	3.4	2.6	1.7	2.4	2.8	
2001	102.8	2.8	1.8	2.6	3.0	2.7	2.4	3.0	
2002	105.4	2.5	2.7	2.5	2.8	2.6	2.0	2.8	
2003	107.9	2.4	2.2	3.3	3.5	1.9	1.8	2.4	
2003 Q2	107.7	2.5	3.9	3.4	4.1	2.4	2.3	1.9	
Q3	108.3	2.5	1.8	3.3	3.8	1.4	1.5	3.2	
Q4	108.6	2.1	1.7	3.2	3.4	1.4	1.7	2.1	
2004 Q1	109.3	2.1	-2.1	4.2	3.0	0.7	1.3	2.3	
Q2	110.0	2.1	-1.8	3.2	1.7	0.5	1.3	3.3	
Labour productivity <sup>2)</sup>									
2000	100.0	1.3	1.1	3.7	0.9	1.4	-1.3	1.1	
2001	100.2	0.2	-0.5	-0.1	-0.8	1.9	-0.9	0.2	
2002	100.5	0.3	2.9	1.6	0.1	0.7	-1.6	0.3	
2003	100.9	0.4	-1.5	2.0	-0.3	0.1	-0.1	-0.1	
2003 Q2	100.5	0.1	-1.6	0.8	0.2	0.2	-0.1	-0.6	
Q3	100.9	0.2	-3.6	1.4	-0.3	0.1	0.3	-0.1	
Q4	101.3	0.5	-1.3	2.8	-0.3	-0.5	-0.3	0.4	
2004 Q1	102.0	1.2	2.3	3.4	0.4	0.5	-0.2	0.7	
Q2	102.4	1.9	4.3	5.7	0.9	1.1	0.2	1.2	

### 5. Gross Domestic Product deflators

	Total (index 2000 = 100)	Total	Domestic demand			Exports <sup>3)</sup>	Imports <sup>3)</sup>	
			Total	Private consumption	Government consumption			Gross fixed capital formation
	1	2	3	4	5	6	7	8
2000	100.0	1.4	2.6	2.2	2.7	2.8	4.9	8.5
2001	102.4	2.4	2.3	2.3	2.4	2.0	1.4	0.8
2002	105.0	2.5	2.2	2.3	2.1	1.8	-0.4	-1.6
2003	107.2	2.1	1.8	2.0	2.2	1.3	-0.6	-1.3
2003 Q2	106.9	2.2	1.8	1.9	2.3	1.3	-0.8	-1.8
Q3	107.5	2.1	1.8	1.9	2.7	1.2	-0.7	-1.6
Q4	108.0	2.0	1.6	1.9	1.6	1.1	-0.7	-1.9
2004 Q1	108.4	1.9	1.4	1.6	1.6	1.8	-0.7	-2.2
Q2	109.1	2.0	2.0	2.0	1.8	2.6	1.2	0.9

Sources: ECB calculations based on Eurostat data.

1) Compensation (at current prices) per employee divided by value added (at constant prices) per person employed.

2) Value added (at constant prices) per person employed.

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

## 5.2 Output and demand

### 1. GDP and expenditure components

	GDP								
	Total	Domestic demand					External balance <sup>1)</sup>		
		Total	Private consumption	Government consumption	Gross fixed capital formation	Changes in inventories <sup>2)</sup>	Total	Exports <sup>1)</sup>	Imports <sup>1)</sup>
1	2	3	4	5	6	7	8	9	
<i>Current prices (EUR billions, seasonally adjusted)</i>									
2000	6,579.9	6,520.7	3,767.4	1,308.5	1,418.8	26.0	59.2	2,440.4	2,381.2
2001	6,846.3	6,730.0	3,926.4	1,372.2	1,441.9	-10.5	116.3	2,555.1	2,438.8
2002	7,079.0	6,895.6	4,039.7	1,444.8	1,428.4	-17.3	183.4	2,591.5	2,408.1
2003	7,261.7	7,105.8	4,159.7	1,500.7	1,440.1	5.3	155.9	2,585.6	2,429.8
2003 Q2	1,804.1	1,769.1	1,035.4	373.5	358.2	1.9	35.0	634.0	599.0
Q3	1,822.9	1,774.6	1,043.0	379.2	359.6	-7.3	48.3	651.2	602.9
Q4	1,836.6	1,796.2	1,048.2	378.8	364.3	4.9	40.4	654.9	614.5
2004 Q1	1,857.4	1,811.7	1,059.9	381.3	366.9	3.6	45.6	665.3	619.7
Q2	1,878.3	1,832.5	1,068.2	387.1	371.2	6.1	45.8	691.8	646.0
<i>percentage of GDP</i>									
2003	100.0	97.9	57.3	20.7	19.8	0.1	2.1	-	-
<i>Constant prices (ECU billions at 1995 prices, seasonally adjusted)</i>									
<i>quarter-on-quarter percentage changes</i>									
2003 Q2	-0.2	-0.1	0.0	0.4	-0.2	-	-	-0.8	-0.6
Q3	0.5	0.0	0.2	0.6	0.1	-	-	2.6	1.3
Q4	0.4	1.1	0.0	0.5	0.9	-	-	0.3	2.1
2004 Q1	0.7	0.3	0.7	0.1	-0.1	-	-	1.6	0.5
Q2	0.5	0.3	0.3	0.5	0.1	-	-	3.1	2.8
<i>annual percentage changes</i>									
2000	3.5	3.0	2.8	2.3	4.9	-	-	12.2	11.1
2001	1.6	1.0	1.9	2.4	-0.3	-	-	3.3	1.6
2002	0.8	0.3	0.6	3.1	-2.7	-	-	1.8	0.4
2003	0.5	1.2	1.0	1.7	-0.5	-	-	0.3	2.2
2003 Q2	0.2	1.1	1.1	1.5	-0.3	-	-	-1.2	1.2
Q3	0.4	0.8	0.8	1.7	-0.2	-	-	0.4	1.6
Q4	0.7	1.5	0.5	1.5	0.1	-	-	0.5	2.6
2004 Q1	1.4	1.1	1.0	1.7	0.7	-	-	3.8	3.4
Q2	2.0	1.6	1.2	1.8	1.0	-	-	7.8	6.9
<i>contributions to annual percentage changes of GDP in percentage points</i>									
2000	3.5	3.0	1.6	0.5	1.1	-0.1	0.5	-	-
2001	1.6	0.9	1.1	0.5	-0.1	-0.5	0.7	-	-
2002	0.8	0.3	0.3	0.6	-0.6	-0.1	0.5	-	-
2003	0.5	1.2	0.5	0.3	-0.1	0.4	-0.7	-	-
2003 Q2	0.2	1.0	0.6	0.3	-0.1	0.2	-0.9	-	-
Q3	0.4	0.8	0.5	0.3	0.0	0.0	-0.4	-	-
Q4	0.7	1.4	0.3	0.3	0.0	0.8	-0.7	-	-
2004 Q1	1.4	1.1	0.5	0.3	0.1	0.1	0.2	-	-
Q2	2.0	1.6	0.7	0.4	0.2	0.3	0.5	-	-

Source: Eurostat.

1) Exports and imports cover goods and services and include cross-border intra-euro area trade. They are not fully consistent with Table 7.3.1

2) Including acquisitions less disposals of valuables.

5.2 Output and demand

2. Value added by economic activity

	Gross value added (basic prices)							Intermediate consumption of FISIM <sup>1)</sup>	Taxes less subsidies on products
	Total	Agriculture, hunting, forestry and fishing activities	Mining, manufacturing and energy	Construction	Trade, repairs, hotels and restaurants, transport and communication	Financial, real estate, renting and business activities	Public administration, education, health and other services		
	1	2	3	4	5	6	7	8	9
<i>Current prices (EUR billions, seasonally adjusted)</i>									
2000	6,081.0	145.2	1,366.6	337.1	1,278.1	1,647.6	1,306.3	212.7	711.7
2001	6,343.3	150.7	1,405.0	351.4	1,348.1	1,721.9	1,366.2	222.2	725.1
2002	6,560.4	148.4	1,430.3	363.4	1,387.5	1,796.7	1,434.1	231.2	749.8
2003	6,729.3	151.8	1,437.5	374.2	1,417.1	1,869.8	1,479.0	240.0	772.4
2003 Q2	1,672.2	37.4	354.9	93.2	353.4	465.4	367.9	60.2	192.1
Q3	1,690.7	38.2	359.5	93.9	356.2	470.3	372.5	60.4	192.6
Q4	1,700.6	38.7	362.6	95.2	357.5	473.8	372.8	60.1	196.1
2004 Q1	1,720.4	38.5	366.8	96.7	361.3	479.4	377.8	60.4	197.3
Q2	1,743.1	38.2	373.4	98.4	364.8	485.9	382.4	61.3	196.5
<i>percentage of value added</i>									
2003	100.0	2.3	21.4	5.6	21.1	27.8	22.0	-	-
<i>Constant prices (ECU billions at 1995 prices, seasonally adjusted)</i>									
<i>quarter-on-quarter percentage changes</i>									
2003 Q2	-0.2	-1.9	-1.3	0.2	0.0	0.2	0.1	0.6	0.8
Q3	0.5	-0.8	0.9	-0.2	0.6	0.5	0.3	0.5	0.1
Q4	0.3	1.3	0.7	0.0	0.0	0.1	0.5	-0.6	0.6
2004 Q1	0.7	2.8	1.1	0.3	0.9	0.4	0.3	-0.4	0.2
Q2	0.7	-0.2	1.1	0.4	0.6	0.8	0.4	0.8	-1.5
<i>annual percentage changes</i>									
2000	3.8	-0.5	4.3	2.7	4.5	4.5	2.7	7.1	1.8
2001	1.9	-1.1	0.3	-0.4	3.4	3.0	1.7	4.7	0.4
2002	0.9	0.7	0.2	-0.6	1.1	0.7	2.1	-0.2	-0.2
2003	0.5	-3.4	0.0	-0.7	0.7	1.2	0.9	1.8	0.8
2003 Q2	0.2	-4.1	-1.2	0.0	0.6	0.9	0.8	2.8	1.4
Q3	0.4	-5.1	-0.6	-0.5	0.9	1.4	0.8	2.2	0.5
Q4	0.7	-2.2	0.7	-0.5	0.5	1.0	1.0	0.5	0.7
2004 Q1	1.3	1.3	1.3	0.3	1.5	1.3	1.2	0.1	1.7
Q2	2.2	3.1	3.7	0.5	2.1	2.0	1.5	0.3	-0.6
<i>contributions to annual percentage changes of value added in percentage points</i>									
2000	3.8	0.0	1.0	0.2	1.0	1.2	0.6	-	-
2001	1.9	0.0	0.1	0.0	0.7	0.8	0.3	-	-
2002	0.9	0.0	0.0	0.0	0.2	0.2	0.4	-	-
2003	0.5	-0.1	0.0	0.0	0.2	0.3	0.2	-	-
2003 Q2	0.2	-0.1	-0.3	0.0	0.1	0.2	0.2	-	-
Q3	0.4	-0.1	-0.1	0.0	0.2	0.4	0.2	-	-
Q4	0.7	-0.1	0.2	0.0	0.1	0.3	0.2	-	-
2004 Q1	1.3	0.0	0.3	0.0	0.3	0.3	0.2	-	-
Q2	2.2	0.1	0.8	0.0	0.5	0.5	0.3	-	-

Source: Eurostat.

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

## 5.2 Output and demand

(annual percentage changes, unless otherwise indicated)

### 3. Industrial production

	Total		Industry excluding construction								Construction	Manufacturing
	Total (s.a. index 2000 = 100)	Total	Industry excluding construction and energy						Energy			
			Total	Intermediate goods	Capital goods	Consumer goods						
						Total	Durable	Non-durable				
% of total <sup>1)</sup>	100.0	82.9	82.9	74.0	30.0	22.4	21.5	3.6	17.9	8.9	17.1	75.0
	1	2	3	4	5	6	7	8	9	10	11	12
2000	5.1	100.1	5.2	5.2	6.2	8.2	1.7	6.1	0.9	1.9	2.5	5.6
2001	0.6	100.5	0.4	0.1	-0.6	1.7	0.3	-2.0	0.8	1.3	0.8	0.3
2002	-0.3	100.0	-0.5	-0.7	0.1	-1.7	-0.3	-5.6	0.7	1.1	0.8	-0.7
2003	0.3	100.3	0.3	-0.1	0.4	-0.2	-0.6	-4.4	0.1	2.9	-0.1	0.0
2003 Q3	-0.3	100.2	-0.3	-0.7	-0.7	-1.3	0.1	-3.4	0.7	2.0	0.2	-0.6
Q4	1.3	101.2	1.4	1.3	1.7	1.7	-0.2	-1.4	0.1	2.7	0.4	1.4
2004 Q1	1.2	101.3	1.0	0.9	1.0	0.6	0.4	1.0	0.3	2.1	1.3	0.9
Q2	2.6	102.2	2.9	3.0	2.8	4.7	1.1	3.1	0.7	2.6	-1.0	3.2
2004 Mar.	1.3	101.6	1.7	1.1	0.2	1.8	1.6	2.1	1.5	5.0	-1.5	1.3
Apr.	1.2	101.9	1.7	1.7	2.1	2.5	0.4	2.5	0.0	2.0	-2.6	1.9
May	3.1	102.4	3.7	3.9	3.1	5.6	2.2	5.1	1.7	3.5	-1.9	4.1
June	3.3	102.3	3.3	3.5	3.2	5.9	0.6	1.9	0.4	2.2	1.7	3.8
July	.	102.5	2.2	2.3	3.5	3.7	-0.5	0.3	-0.6	0.7	.	2.5
Aug.	.	101.9	1.6	2.6	3.1	4.6	0.3	-1.2	0.5	0.2	.	2.7
<i>month-on-month percentage changes (s.a.)</i>												
2004 Mar.	-0.1	-	0.2	0.0	-0.9	0.9	0.2	-0.2	0.3	0.2	-2.9	0.2
Apr.	0.1	-	0.3	0.5	1.4	0.9	-0.1	0.5	-0.2	-1.9	-0.7	0.6
May	0.5	-	0.5	0.6	-0.1	1.0	0.3	0.2	0.3	0.3	-0.2	0.6
June	0.1	-	-0.1	-0.2	0.2	-0.2	-0.6	-1.3	-0.5	0.7	2.9	-0.1
July	.	-	0.2	0.3	0.9	0.2	0.3	0.8	0.2	-1.2	.	0.3
Aug.	.	-	-0.6	-0.2	-0.1	-0.2	-0.3	-2.6	0.1	0.2	.	-0.2

### 4. Industrial new orders and turnover, retail sales and passenger car registrations

	Industrial new orders		Industrial turnover		Retail sales							New passenger car registrations	
	Manufacturing <sup>2)</sup> (current prices)		Manufacturing (current prices)		Current prices	Constant prices						Total (s.a. thousands <sup>3)</sup>	Total
	Total (s.a. index 2000 = 100)	Total	Total (s.a. index 2000 = 100)	Total	Total	Total (s.a. index 2000 = 100)	Total	Food, beverages, tobacco	Non-food				
									Textiles, clothing, footwear	Household equipment			
% of total <sup>1)</sup>	100.0	100.0	100.0	100.0	100.0	100.0	43.7	56.3	10.6	14.8	12	13	
	1	2	3	4	5	6	7	8	9	10	11	12	13
2000	100.2	12.2	100.0	10.8	4.0	100.0	2.1	1.8	2.1	0.8	4.1	977	-1.8
2001	98.5	-1.5	102.0	1.9	4.0	101.6	1.6	1.6	1.5	0.7	-0.2	968	-0.8
2002	98.0	-0.6	101.3	-0.6	1.8	101.7	0.0	0.9	-0.5	-2.0	-1.9	925	-4.4
2003	98.5	0.6	100.9	-0.3	1.7	102.0	0.3	1.2	-0.5	-2.9	-0.1	912	-1.4
2003 Q4	101.5	4.2	101.8	0.4	1.1	101.8	-0.3	-0.1	-0.4	-3.4	0.0	924	-2.4
2004 Q1	101.5	4.9	103.9	2.5	1.3	102.5	0.6	0.6	0.6	-1.5	2.3	912	0.9
Q2	107.6	11.8	105.9	6.3	1.1	102.2	-0.1	-0.3	0.0	-0.2	2.1	924	3.0
Q3	.	.	.	.	.	.	.	.	.	.	.	901	-3.5
2004 Apr.	104.9	6.4	106.8	4.3	1.1	103.2	0.3	0.1	0.1	0.3	2.0	927	4.6
May	112.0	16.5	102.5	3.3	0.7	100.6	-2.0	-1.8	-2.0	-3.4	0.3	922	4.1
June	106.0	12.7	108.3	11.2	1.4	102.9	1.5	0.8	1.7	2.1	3.8	924	0.6
July	105.4	5.2	105.6	2.0	1.2	102.8	0.8	0.5	1.0	0.8	2.5	907	-1.7
Aug.	104.7	10.5	105.1	9.2	1.6	101.2	-0.7	-2.2	0.4	1.6	1.8	872	-9.5
Sep.	.	.	.	.	.	.	.	.	.	.	.	924	-0.6
<i>month-on-month percentage changes (s.a.)</i>													
2004 Apr.	-	1.7	-	-0.6	0.7	-	1.5	0.8	0.9	4.0	0.9	-	1.8
May	-	6.8	-	-3.9	-0.7	-	-2.6	-1.7	-2.0	-4.3	-1.8	-	-0.5
June	-	-5.4	-	5.6	1.1	-	2.3	1.4	2.3	4.6	2.1	-	0.2
July	-	-0.6	-	-2.5	-0.2	-	-0.1	0.4	-0.4	-0.5	-0.4	-	-1.9
Aug.	-	-0.6	-	-0.5	0.0	-	-1.5	-1.7	-1.3	-2.2	-1.0	-	-3.8
Sep.	-	.	-	.	.	-	.	.	.	.	.	-	6.0

Sources: Eurostat, except columns 12 and 13 in Table 5.2.4 (ECB calculations based on data from the ACEA, European Automobile Manufacturers' Association).

1) In 2000.

2) Includes manufacturing industries working mainly on the basis of orders, representing 62.6% of total manufacturing in 2000.

3) Annual and quarterly figures are averages of monthly figures in the period concerned.

## 5.2 Output and demand

(percentage balances,<sup>1)</sup> unless otherwise indicated; seasonally adjusted)

## 5. Business and Consumer Surveys

	Economic sentiment indicator <sup>2)</sup> (long-term average = 100)	Manufacturing industry					Consumer confidence indicator <sup>3)</sup>				
		Industrial confidence indicator				Capacity utilisation <sup>3,4)</sup>	Total <sup>5)</sup>	Financial situation over next 12 months	Economic situation over next 12 months	Unemployment situation over next 12 months	Savings over next 12 months
		Total <sup>5)</sup>	Order books	Stocks of finished products	Production expectations						
	1	2	3	4	5	6	7	8	9	10	11
2000	114.1	4	2	4	16	84.5	1	4	1	1	2
2001	100.8	-9	-15	14	1	83.0	-5	2	-10	14	2
2002	94.4	-11	-25	11	3	81.5	-11	-1	-12	26	-3
2003	93.5	-10	-25	10	3	81.0	-18	-5	-21	38	-9
2003 Q3	94.2	-11	-27	11	4	81.1	-17	-4	-20	38	-8
Q4	97.7	-7	-22	9	8	81.1	-16	-5	-17	33	-9
2004 Q1	98.8	-7	-21	10	11	80.7	-14	-4	-13	30	-9
Q2	100.0	-5	-16	8	10	81.1	-15	-3	-15	32	-8
Q3	100.6	-4	-12	8	9	81.6	-14	-4	-13	29	-8
2004 May	100.1	-5	-18	7	10	-	-16	-4	-16	33	-9
June	99.7	-4	-15	8	10	-	-14	-3	-14	31	-8
July	99.8	-4	-12	8	8	81.6	-14	-4	-14	30	-9
Aug.	100.9	-4	-12	7	8	-	-14	-4	-14	30	-7
Sep.	101.0	-3	-12	8	11	-	-13	-3	-12	28	-7
Oct.	101.3	-2	-11	7	11	81.7	-14	-4	-13	29	-8
	Construction confidence indicator			Retail trade confidence indicator				Services confidence indicator			
	Total <sup>5)</sup>	Order books	Employment expectations	Total <sup>5)</sup>	Present business situation	Volume of stocks	Expected business situation	Total <sup>5)</sup>	Business climate	Demand in recent months	Demand in the months ahead
	12	13	14	15	16	17	18	19	20	21	22
2000	-5	-13	3	-2	-1	17	11	30	36	23	33
2001	-11	-16	-4	-7	-5	17	-1	15	16	8	20
2002	-19	-27	-11	-16	-20	18	-12	1	-4	-6	13
2003	-20	-27	-13	-11	-15	17	-2	2	-6	1	11
2003 Q3	-21	-28	-15	-10	-15	17	1	5	-1	4	13
Q4	-20	-27	-11	-8	-12	15	3	10	6	11	15
2004 Q1	-19	-28	-9	-8	-12	15	1	11	6	6	20
Q2	-16	-23	-9	-8	-10	15	2	11	5	11	17
Q3	-16	-24	-7	-8	-10	14	0	11	6	11	18
2004 May	-17	-22	-11	-7	-10	15	3	13	6	12	20
June	-15	-24	-6	-10	-14	16	0	10	4	11	15
July	-16	-25	-7	-9	-10	15	-1	11	6	12	16
Aug.	-15	-24	-6	-7	-10	12	2	12	7	12	17
Sep.	-16	-22	-9	-9	-11	16	0	11	4	9	20
Oct.	-14	-23	-5	-6	-13	14	8	11	6	11	17

Source: European Commission (Economic and Financial Affairs DG).

- 1) Difference between the percentages of respondents giving positive and negative replies.
- 2) The economic sentiment indicator is composed of the industrial, services, consumer, construction and retail trade confidence indicators; the industrial confidence indicator has a weight of 40%, the services confidence indicator a weight of 30%, the consumer confidence indicator a weight of 20% and the two other indicators a weight of 5% each. Values of the economic sentiment indicator above (below) 100 indicate above-average (below-average) economic sentiment, calculated for the period from January 1985.
- 3) Owing to changes in the questionnaire used for the French survey, euro area results from January 2004 onwards are not fully comparable with previous results.
- 4) Data are collected in January, April, July and October each year. The quarterly figures shown are averages of two successive surveys. Annual data are derived from quarterly averages.
- 5) The confidence indicators are calculated as simple averages of the components shown; the assessment of stocks (columns 4 and 17) and unemployment (column 10) are used with inverted signs for the calculation of confidence indicators.



## 5.3 Labour markets <sup>1)</sup>

(annual percentage changes, unless otherwise indicated)

### 1. Employment

	Whole economy		By employment status		By economic activity					
	Millions (s.a.)		Employees	Self-employed	Agriculture, hunting, forestry and fishing	Mining, manufacturing, and energy	Construction	Trade, repairs, hotels and restaurants, transport and communication	Financial, real estate, renting and business services	Public administration, education, health and other services
% of total <sup>2)</sup>	100.0	100.0	84.2	15.8	4.6	18.8	7.1	25.2	14.5	29.8
	1	2	3	4	5	6	7	8	9	10
2000	131.427	2.2	2.5	0.6	-1.5	0.6	1.9	3.1	5.9	1.6
2001	133.275	1.4	1.6	0.2	-0.4	0.3	0.6	1.5	3.9	1.4
2002	133.976	0.5	0.7	-0.2	-2.1	-1.4	-0.6	0.4	2.4	1.8
2003	134.151	0.1	0.1	0.2	-1.9	-2.0	-0.2	0.5	1.2	1.0
2003 Q2	134.076	0.2	0.2	0.1	-2.4	-2.0	0.1	0.4	1.0	1.3
Q3	134.111	0.2	0.1	0.4	-1.6	-2.0	-0.2	0.9	1.1	0.9
Q4	134.174	0.2	0.1	0.6	-0.8	-2.0	-0.3	1.1	1.2	0.6
2004 Q1	134.170	0.1	0.0	0.4	-1.0	-2.1	-0.1	1.0	1.2	0.4
Q2	134.325	0.1	0.0	0.9	-1.1	-1.8	-0.2	0.9	1.5	0.3
	<i>quarter-on-quarter changes (s.a.)</i>									
2003 Q2	0.142	0.1	0.1	0.2	-0.2	-0.5	0.4	0.3	0.1	0.3
Q3	0.035	0.0	-0.1	0.5	0.1	-0.5	-0.4	0.4	0.4	-0.1
Q4	0.063	0.0	0.0	0.3	0.1	-0.6	-0.2	0.2	0.6	0.1
2004 Q1	-0.004	0.0	0.0	-0.3	-0.9	-0.4	0.1	0.1	0.4	0.1
Q2	0.155	0.1	0.0	0.6	-0.5	-0.3	0.1	0.2	0.4	0.2

### 2. Unemployment

(seasonally adjusted)

	Total		By age <sup>3)</sup>				By gender <sup>4)</sup>			
	Millions	% of labour force	Adult		Youth		Male		Female	
			Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	Millions	% of labour force
% of total <sup>2)</sup>	100.0		78.2		21.8		50.2		49.8	
	1	2	3	4	5	6	7	8	9	10
2000	11.608	8.4	8.881	7.3	2.727	16.7	5.499	7.0	6.109	10.4
2001	11.084	8.0	8.539	7.0	2.546	15.8	5.338	6.7	5.746	9.7
2002	11.806	8.4	9.181	7.4	2.626	16.4	5.841	7.3	5.966	9.9
2003	12.536	8.9	9.796	7.8	2.740	17.2	6.295	7.9	6.241	10.2
2003 Q2	12.567	8.9	9.814	7.8	2.753	17.2	6.312	7.9	6.255	10.2
Q3	12.576	8.9	9.839	7.8	2.737	17.2	6.318	7.9	6.258	10.2
Q4	12.594	8.9	9.867	7.8	2.727	17.3	6.330	7.9	6.264	10.2
2004 Q1	12.637	8.9	9.879	7.8	2.758	17.5	6.349	7.9	6.288	10.2
Q2	12.733	9.0	9.957	7.9	2.776	17.6	6.400	8.0	6.332	10.3
2004 Mar.	12.675	8.9	9.904	7.9	2.771	17.5	6.371	7.9	6.304	10.2
Apr.	12.719	9.0	9.937	7.9	2.782	17.6	6.393	8.0	6.326	10.3
May	12.727	9.0	9.955	7.9	2.772	17.5	6.398	8.0	6.329	10.3
June	12.752	9.0	9.979	7.9	2.773	17.6	6.411	8.0	6.342	10.3
July	12.765	9.0	9.999	7.9	2.766	17.5	6.419	8.0	6.346	10.3
Aug.	12.791	9.0	10.020	7.9	2.771	17.5	6.433	8.0	6.358	10.3

Sources: ECB calculations based on Eurostat data (in Table 5.3.1) and Eurostat (Table 5.3.2).

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

2) In 2003.

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

4) Rates are expressed as a percentage of the labour force for the relevant gender.

# GOVERNMENT FINANCE

## 6.1 Revenue, expenditure and deficit/surplus <sup>1)</sup> (as a percentage of GDP)

### 1. Euro area – revenue

	Total		Current revenue								Capital revenue		Memo: fiscal burden <sup>2)</sup>	
	1	2	Direct taxes			Indirect taxes	Received by EU institutions		Social contributions		Sales	Capital taxes		
			Households	Corporations	3		4	5	6	7				8
1995	46.9	46.4	11.5	9.1	2.0	13.3	0.9	17.3	8.4	5.5	2.4	0.4	0.3	42.4
1996	47.6	47.3	11.9	9.2	2.3	13.4	0.8	17.5	8.7	5.6	2.4	0.4	0.3	43.1
1997	47.9	47.4	12.1	9.2	2.6	13.6	0.7	17.5	8.7	5.5	2.4	0.5	0.4	43.6
1998	47.3	47.0	12.4	9.7	2.3	14.2	0.7	16.4	8.5	4.9	2.4	0.3	0.3	43.3
1999	47.8	47.5	12.8	9.8	2.6	14.4	0.6	16.4	8.4	5.0	2.3	0.3	0.3	43.8
2000	47.5	47.2	13.0	10.0	2.7	14.2	0.6	16.2	8.4	4.9	2.3	0.3	0.3	43.6
2001	46.8	46.6	12.6	9.8	2.5	13.9	0.6	16.0	8.4	4.8	2.2	0.3	0.3	42.8
2002	46.3	45.9	12.2	9.6	2.3	13.8	0.4	16.0	8.4	4.7	2.3	0.3	0.3	42.3
2003	46.3	45.7	11.8	9.3	2.2	13.9	0.4	16.2	8.5	4.8	2.3	0.7	0.5	42.4

### 2. Euro area – expenditure

	Total		Current expenditure							Capital expenditure			Memo: primary expenditure <sup>3)</sup>	
	1	2	Compensation of employees	Intermediate consumption	Interest	Current transfers	Social payments		Subsidies	Paid by EU institutions	Investment	Capital transfers		Paid by EU institutions
							7	8						
1995	52.0	47.6	11.2	4.8	5.8	25.9	22.7	2.3	0.6	4.4	2.7	1.7	0.1	46.2
1996	52.0	48.1	11.2	4.8	5.8	26.3	23.2	2.3	0.6	3.9	2.6	1.3	0.0	46.2
1997	50.6	46.9	11.1	4.7	5.2	26.0	23.1	2.1	0.6	3.6	2.4	1.2	0.1	45.4
1998	49.6	45.8	10.7	4.6	4.8	25.7	22.6	2.1	0.6	3.8	2.5	1.3	0.1	44.8
1999	49.1	45.2	10.7	4.7	4.3	25.6	22.5	2.1	0.5	3.9	2.5	1.4	0.1	44.8
2000	48.5	44.6	10.6	4.7	4.1	25.3	22.2	1.9	0.5	3.9	2.5	1.3	0.1	44.4
2001	48.6	44.6	10.5	4.8	4.0	25.3	22.3	1.9	0.5	4.0	2.6	1.4	0.0	44.6
2002	48.7	44.9	10.6	4.9	3.7	25.6	22.8	1.9	0.5	3.8	2.5	1.3	0.0	45.0
2003	49.1	45.2	10.7	4.9	3.5	26.0	23.1	1.8	0.5	3.9	2.6	1.3	0.1	45.6

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

	Deficit (-)/surplus (+)					Primary deficit (-)/surplus (+)	Government consumption <sup>4)</sup>							
	Total	Central gov.	State gov.	Local gov.	Social security funds		Total	Compensation of employees	Intermediate consumption	Transfers in kind via market producers	Consumption of fixed capital	Sales (minus)	Collective consumption	Individual consumption
1995	-5.2	-4.4	-0.5	-0.1	-0.2	0.6	20.4	11.2	4.8	5.0	1.9	2.4	8.6	11.8
1996	-4.3	-3.8	-0.4	0.0	-0.1	1.4	20.5	11.2	4.8	5.1	1.9	2.4	8.6	11.9
1997	-2.7	-2.4	-0.4	0.1	0.1	2.5	20.2	11.1	4.7	5.0	1.8	2.4	8.4	11.8
1998	-2.3	-2.2	-0.2	0.1	0.1	2.5	19.9	10.7	4.6	5.0	1.8	2.4	8.2	11.7
1999	-1.3	-1.7	-0.1	0.1	0.4	2.9	19.9	10.7	4.7	5.0	1.8	2.3	8.2	11.6
2000	-1.0	-1.4	-0.1	0.1	0.5	3.1	19.9	10.6	4.7	5.1	1.8	2.3	8.2	11.7
2001	-1.7	-1.6	-0.4	0.0	0.3	2.3	20.1	10.5	4.8	5.2	1.8	2.2	8.2	11.8
2002	-2.4	-2.0	-0.5	-0.2	0.2	1.3	20.4	10.6	4.9	5.3	1.8	2.3	8.3	12.1
2003	-2.7	-2.2	-0.4	-0.1	0.0	0.7	20.6	10.7	4.9	5.4	1.8	2.3	8.4	12.3

### 4. Euro area countries – deficit (-)/surplus (+) <sup>5)</sup>

	BE	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI
	1	2	3	4	5	6	7	8	9	10	11	12
2000	0.2	1.3	-4.1	-0.9	-1.4	4.4	-0.6	6.0	2.2	-1.5	-2.8	7.1
2001	0.6	-2.8	-3.7	-0.4	-1.5	0.9	-2.6	6.4	-0.1	0.3	-4.4	5.2
2002	0.1	-3.7	-3.7	-0.1	-3.2	-0.2	-2.3	2.8	-1.9	-0.2	-2.7	4.3
2003	0.4	-3.8	-4.6	0.4	-4.1	0.1	-2.4	0.8	-3.2	-1.1	-2.8	2.3

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

- Revenue, expenditure and deficit/surplus are based on the ESA 95, but the figures exclude proceeds from the sale of UMTS licences in 2000 (the euro area deficit/surplus including those proceeds is equal to 0.1% of GDP). Transactions involving the EU budget are included and consolidated. Transactions among Member States' governments are not consolidated.
- The fiscal burden comprises taxes and social contributions.
- Comprises total expenditure minus interest expenditure.
- Corresponds to final consumption expenditure (P.3) of general government in the ESA 95.
- Including proceeds from the sale of UMTS licences.

## 6.2 Debt <sup>1)</sup>

(as a percentage of GDP)

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

	Total	Financial instruments				Holders				Other creditors <sup>3)</sup>
		Coins and deposits	Loans	Short-term securities	Long-term securities	Domestic creditors <sup>2)</sup>				
						Total	MFIs	Other financial corporations	Other sectors	
1	2	3	4	5	6	7	8	9	10	
1994	70.7	2.8	16.2	10.7	41.0	56.3	30.2	9.6	16.5	14.4
1995	74.9	2.8	17.9	10.1	44.1	58.6	32.8	8.7	17.1	16.2
1996	76.1	2.8	17.3	10.2	45.8	59.0	32.7	10.2	16.2	17.1
1997	75.5	2.7	16.3	9.0	47.4	56.7	31.0	11.8	13.9	18.7
1998	73.8	2.7	15.1	7.9	48.1	53.1	28.8	12.7	11.6	20.7
1999	72.8	2.9	14.3	6.8	48.9	48.5	27.1	9.7	11.7	24.4
2000	70.5	2.7	13.2	6.1	48.5	44.2	23.4	9.1	11.7	26.2
2001	69.5	2.7	12.5	6.3	48.1	42.2	22.2	8.3	11.7	27.3
2002	69.4	2.7	11.8	6.7	48.1	39.0	20.5	6.9	11.6	30.3
2003	70.7	2.1	11.8	7.4	49.3	38.8	20.6	7.3	10.8	31.9

### 2. Euro area – by issuer, maturity and currency denomination

	Total	Issued by <sup>4)</sup>				Original maturity			Residual maturity			Currencies	
		Central gov.	State gov.	Local gov.	Social security funds	Up to 1 year	Over 1 year	Variable interest rate	Up to 1 year	Over 1 year and up to 5 years	Over 5 years	Euro or participating currencies <sup>5)</sup>	Other currencies
1994	70.7	58.9	5.3	5.9	0.6	12.3	58.3	7.2	17.8	27.1	25.7	68.3	2.3
1995	74.9	62.6	5.6	5.9	0.8	12.9	62.0	5.6	18.9	26.8	29.2	72.7	2.1
1996	76.1	63.8	6.0	5.7	0.5	12.2	63.9	5.3	20.5	25.8	29.7	74.0	2.1
1997	75.5	63.2	6.2	5.5	0.6	11.1	64.3	4.6	19.8	25.9	29.8	73.3	2.2
1998	73.8	62.0	6.2	5.3	0.4	9.4	64.4	4.8	17.1	26.9	29.8	71.9	1.9
1999	72.8	61.2	6.1	5.2	0.3	9.2	63.6	3.2	15.5	27.7	29.7	70.8	2.0
2000	70.5	59.2	6.0	5.0	0.3	8.3	62.2	2.8	15.3	28.3	26.9	68.6	1.8
2001	69.5	58.2	6.2	4.9	0.3	8.8	60.7	1.5	16.0	26.5	27.1	68.0	1.5
2002	69.4	57.8	6.4	4.8	0.3	9.1	60.3	1.6	16.8	25.3	27.3	68.0	1.4
2003	70.7	58.3	6.7	5.2	0.6	9.2	61.5	1.5	15.9	26.2	28.6	69.7	1.0

### 3. Euro area countries

	BE	DE	GR	ES	FR	IE	IT	LU	NL	AT	PT	FI
	1	2	3	4	5	6	7	8	9	10	11	12
2000	109.1	60.2	114.0	61.1	56.8	38.3	111.2	5.5	55.9	65.8	53.3	44.6
2001	108.0	59.4	114.7	57.5	56.5	35.9	110.6	5.5	52.9	66.1	55.8	43.8
2002	105.4	60.9	112.5	54.4	58.8	32.7	107.9	5.7	52.6	65.7	58.4	42.6
2003	100.0	64.2	109.9	50.7	63.7	32.1	106.2	5.3	54.1	64.5	60.3	45.6

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

- 1) Gross general government debt at nominal value and consolidated between sub-sectors of government. Holdings by non-resident governments are not consolidated. Data are partially estimated.
- 2) Holders resident in the country whose government has issued the debt.
- 3) Includes residents of euro area countries other than the country whose government has issued the debt.
- 4) Excludes debt held by general government in the country whose government has issued it.
- 5) Before 1999, this comprises debt in ECU, in domestic currency and in the currencies of other Member States which have adopted the euro.

6.3 Change in debt <sup>1)</sup>  
(as a percentage of GDP)

1. Euro area – by source, financial instrument and sector of the holder

	Total	Source of change				Financial instruments				Holders			Other creditors <sup>7)</sup>
		Borrowing requirement <sup>2)</sup>	Valuation effects <sup>3)</sup>	Other changes in volume <sup>4)</sup>	Aggregation effect <sup>5)</sup>	Coins and deposits	Loans	Short-term securities	Long-term securities	Domestic creditors <sup>6)</sup>	MFIs	Other financial corporations	
	1	2	3	4	5	6	7	8	9	10	11	12	13
1995	7.7	5.2	0.4	2.4	-0.3	0.1	2.5	0.0	5.1	5.1	4.1	-0.4	2.6
1996	3.9	4.4	-0.2	0.1	-0.4	0.1	0.1	0.4	3.3	2.4	1.0	1.7	1.4
1997	2.3	2.3	0.5	-0.4	-0.1	0.0	-0.3	-0.8	3.4	0.0	-0.4	2.0	2.3
1998	1.7	1.9	-0.2	0.0	-0.1	0.1	-0.5	-0.7	2.8	-1.1	-0.9	1.4	2.8
1999	1.9	1.5	0.3	0.0	-0.1	0.2	-0.3	-0.8	2.7	-2.6	-0.5	-2.6	4.5
2000	1.1	1.0	0.2	0.0	0.0	0.0	-0.4	-0.4	1.9	-1.9	-2.4	-0.1	3.0
2001	1.8	1.7	0.1	0.0	0.0	0.1	-0.2	0.4	1.4	-0.3	-0.4	-0.5	2.1
2002	2.1	2.4	-0.4	0.1	0.0	0.1	-0.3	0.7	1.7	-1.8	-1.0	-1.1	3.9
2003	3.1	2.9	0.3	0.0	0.0	-0.5	0.3	0.8	2.4	0.8	0.7	0.5	2.3

2. Euro area – deficit-debt adjustment

	Change in debt	Deficit (-) / surplus (+) <sup>9)</sup>	Deficit-debt adjustment <sup>9)</sup>											
			Total	Transactions in main financial assets held by general government							Valuation effects	Exchange rate effects	Other changes in volume	Other <sup>11)</sup>
				Total	Currency and deposits	Securities <sup>10)</sup>	Loans	Shares and other equity	Privatisations	Equity injections				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1995	7.7	-5.2	2.5	0.3	0.2	-0.1	0.4	-0.1	-0.4	0.2	0.4	-0.1	2.4	-0.6
1996	3.9	-4.3	-0.5	-0.1	0.0	0.0	-0.1	-0.1	-0.2	0.2	-0.2	-0.2	0.1	-0.2
1997	2.3	-2.7	-0.4	-0.4	0.1	0.0	0.0	-0.5	-0.7	0.2	0.5	0.2	-0.4	-0.1
1998	1.7	-2.3	-0.6	-0.5	0.1	0.0	-0.1	-0.5	-0.8	0.2	-0.2	0.0	0.0	0.0
1999	1.9	-1.3	0.6	-0.2	0.5	0.1	0.0	-0.7	-0.8	0.1	0.3	0.3	0.0	0.4
2000	1.1	0.1	1.2	0.6	0.7	0.1	0.2	-0.5	-0.4	0.2	0.2	0.1	0.0	0.4
2001	1.8	-1.7	0.1	-0.5	-0.6	0.0	0.2	0.0	-0.3	0.2	0.1	0.0	0.0	0.5
2002	2.1	-2.4	-0.3	-0.4	0.0	0.1	0.1	-0.5	-0.4	0.2	-0.4	0.0	0.1	0.4
2003	3.1	-2.7	0.3	-0.3	-0.1	0.0	0.0	-0.2	-0.4	0.1	0.3	-0.2	0.0	0.3

Source: ECB.

1) Data are partially estimated. Annual change in gross nominal consolidated debt is expressed as a percentage of GDP, i.e.  $[\text{debt}(t) - \text{debt}(t-1)] \div \text{GDP}(t)$ .

2) The borrowing requirement is by definition equal to transactions in debt.

3) Includes, in addition to the impact of foreign exchange movements, effects arising from measurement at nominal value (e.g. premia or discounts on securities issued).

4) Includes, in particular, the impact of the reclassification of units and certain types of debt assumption.

5) The difference between the changes in the aggregated debt, resulting from the aggregation of countries' debt, and the aggregation of countries' change in debt is due to variations in the exchange rates used for aggregation before 1999.

6) Holders resident in the country whose government has issued the debt.

7) Includes residents of euro area countries other than the country whose government has issued the debt.

8) Including proceeds from sales of UMTS licences.

9) The difference between the annual change in gross nominal consolidated debt and the deficit as a percentage of GDP.

10) Excluding financial derivatives.

11) Mainly composed of transactions in other assets and liabilities (trade credits, other receivables/payables and financial derivatives).

## 6.4 Quarterly revenue, expenditure and deficit/surplus <sup>1)</sup>

(as a percentage of GDP)

### 1. Euro area – quarterly revenue

	Total		Current revenue					Capital revenue		Memo: fiscal burden <sup>2)</sup>
	1	2	Direct taxes	Indirect taxes	Social contributions	Sales	Property income	8	Capital taxes	
1999 Q1	44.1	43.7	10.8	13.3	16.0	2.0	0.7	0.5	0.3	40.4
Q2	48.3	47.8	13.7	13.6	16.2	2.2	1.3	0.5	0.3	43.7
Q3	45.2	44.7	11.9	13.1	16.1	2.1	0.7	0.5	0.3	41.3
Q4	52.0	51.3	14.5	14.9	17.1	3.1	0.8	0.7	0.3	46.8
2000 Q1	44.0	43.5	11.2	13.2	15.7	1.9	0.7	0.5	0.3	40.4
Q2	48.3	47.7	14.1	13.6	16.0	2.1	1.1	0.6	0.3	44.0
Q3	44.9	44.5	12.1	12.8	16.0	2.0	0.8	0.4	0.3	41.2
Q4	51.3	50.7	14.3	14.5	17.0	3.1	0.9	0.5	0.3	46.1
2001 Q1	43.0	42.6	10.7	12.9	15.5	1.8	0.8	0.4	0.2	39.4
Q2	47.7	47.3	13.8	13.2	15.9	2.0	1.5	0.4	0.2	43.1
Q3	44.4	44.0	11.9	12.5	15.8	1.9	0.8	0.4	0.3	40.6
Q4	50.7	50.1	13.9	14.3	16.8	3.2	0.9	0.5	0.3	45.3
2002 Q1	42.7	42.3	10.4	13.0	15.7	1.7	0.7	0.4	0.2	39.3
Q2	46.4	45.8	12.9	12.9	15.8	2.1	1.4	0.6	0.4	42.0
Q3	44.5	44.0	11.5	13.0	15.8	2.0	0.7	0.4	0.3	40.5
Q4	50.6	50.0	13.8	14.6	16.7	3.2	0.8	0.6	0.3	45.4
2003 Q1	42.7	42.2	10.0	13.1	15.9	1.7	0.7	0.5	0.2	39.3
Q2	47.2	45.5	12.4	12.9	16.1	2.1	1.2	1.7	1.4	42.8
Q3	43.9	43.4	11.1	12.9	15.9	1.9	0.6	0.5	0.3	40.2
Q4	51.1	50.0	13.5	14.8	16.8	3.2	0.7	1.1	0.3	45.4
2004 Q1	42.3	41.8	9.9	13.1	15.7	1.7	0.6	0.5	0.3	38.9
Q2	45.8	45.2	12.5	13.1	15.7	2.1	0.9	0.6	0.4	41.8

### 2. Euro area – quarterly expenditure and deficit/surplus

	Total		Current expenditure						Capital expenditure			Deficit (-)/ surplus (+)	Primary deficit (-)/ surplus (+)
	1	2	Total	Compensation of employees	Intermediate consumption	Interest	Current transfers	Social benefits		Investment	Capital transfers		
								7	8				
1999 Q1	47.8	44.5	10.5	4.3	4.7	25.0	21.8	1.3	3.3	1.9	1.3	-3.6	1.0
Q2	47.9	44.3	10.6	4.5	4.3	24.8	21.6	1.5	3.6	2.4	1.2	0.4	4.8
Q3	47.7	44.1	10.3	4.5	4.2	25.1	21.6	1.6	3.7	2.5	1.1	-2.5	1.6
Q4	51.7	46.9	11.2	5.3	3.9	26.5	22.9	1.7	4.8	3.1	1.7	0.3	4.2
2000 Q1	46.6	43.3	10.3	4.4	4.3	24.2	21.2	1.2	3.3	2.0	1.4	-2.6	1.7
Q2	47.1	43.7	10.5	4.6	4.0	24.6	21.3	1.4	3.4	2.4	1.1	1.2	5.2
Q3	43.7	43.4	10.2	4.5	4.1	24.5	21.4	1.5	0.3	2.5	1.1	1.2	5.3
Q4	50.8	46.9	11.2	5.3	3.9	26.5	22.7	1.6	3.9	3.2	1.5	0.4	4.3
2001 Q1	45.9	42.6	10.2	4.1	4.1	24.1	21.2	1.2	3.3	2.0	1.4	-2.9	1.2
Q2	47.1	43.7	10.5	4.7	4.0	24.5	21.3	1.4	3.4	2.4	1.1	0.6	4.6
Q3	47.1	43.3	10.2	4.6	4.0	24.6	21.5	1.5	3.7	2.5	1.2	-2.7	1.3
Q4	52.5	47.4	11.2	5.6	3.8	26.7	23.0	1.6	5.1	3.2	1.8	-1.8	2.0
2002 Q1	46.5	43.1	10.5	4.2	3.9	24.6	21.6	1.2	3.4	2.0	1.4	-3.8	0.1
Q2	47.5	44.1	10.5	4.9	3.7	24.9	21.7	1.3	3.5	2.4	1.1	-1.1	2.6
Q3	47.7	44.0	10.2	4.7	3.7	25.4	21.9	1.4	3.7	2.5	1.1	-3.2	0.5
Q4	52.2	47.7	11.3	5.7	3.5	27.2	23.5	1.5	4.5	2.8	1.6	-1.5	2.0
2003 Q1	47.1	43.6	10.5	4.3	3.7	25.1	22.0	1.1	3.5	2.0	1.5	-4.4	-0.8
Q2	48.2	44.7	10.7	4.8	3.5	25.7	22.3	1.4	3.5	2.4	1.1	-1.0	2.5
Q3	48.0	44.4	10.4	4.8	3.5	25.7	22.2	1.4	3.6	2.6	1.0	-4.1	-0.7
Q4	52.6	47.8	11.3	5.7	3.3	27.5	23.9	1.5	4.8	3.3	1.5	-1.5	1.8
2004 Q1	46.7	43.4	10.4	4.2	3.4	25.3	22.0	1.0	3.3	2.1	1.3	-4.4	-1.0
Q2	47.4	44.1	10.6	4.6	3.3	25.5	22.3	1.3	3.4	2.4	0.9	-1.6	1.7

Source: ECB calculations based on Eurostat and national data.

1) Revenue, expenditure and deficit/surplus are based on the ESA 95. Transactions involving the EU budget are not included. Including these transactions would increase both revenue and expenditure by, on average, about 0.2% of GDP. Otherwise, and except for different data transmission deadlines, the quarterly data are consistent with the annual data. The data are not seasonally adjusted.

2) The fiscal burden comprises taxes and social contributions.

# EXTERNAL TRANSACTIONS AND POSITIONS

## 7.1 Balance of payments

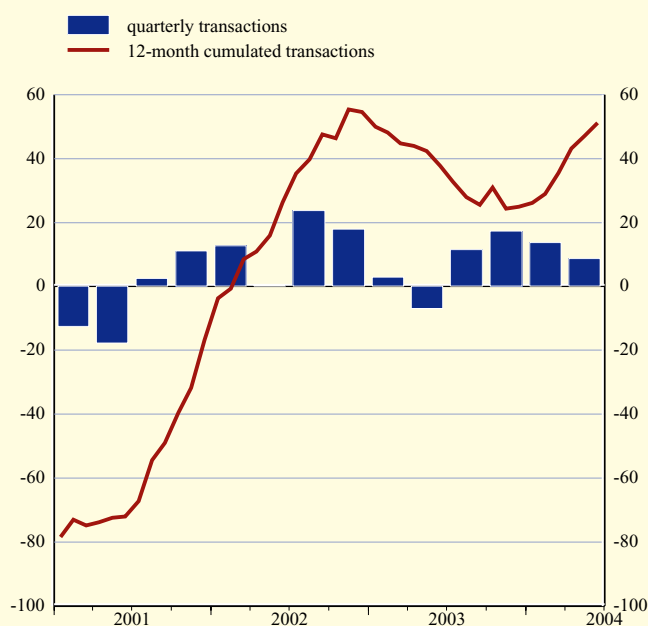
(EUR billions; net transactions)

### 1. Summary balance of payments

	Current account					Capital account	Net lending/borrowing to/from rest of the world (columns 1+6)	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	14
2001	-16.7	73.6	-0.4	-38.6	-51.4	6.6	-10.1	-34.2	-112.4	67.9	-0.9	-6.6	17.8	44.3
2002	54.5	133.6	13.1	-44.1	-48.1	11.0	65.4	-65.8	-4.7	114.6	-10.8	-162.7	-2.3	0.4
2003	24.9	108.5	15.6	-43.4	-55.9	13.4	38.3	-50.5	-13.1	17.6	-13.1	-71.7	29.8	12.2
2003 Q2	-6.9	24.2	5.7	-17.0	-19.7	1.9	-5.0	-32.0	2.7	62.0	-1.4	-97.6	2.3	37.0
Q3	11.5	36.8	3.7	-9.4	-19.6	2.8	14.3	-0.6	-19.1	-59.1	-4.6	80.1	2.0	-13.6
Q4	17.3	30.7	4.3	-5.0	-12.7	7.4	24.7	-3.6	-9.6	10.5	-4.1	-13.9	13.6	-21.2
2004 Q1	13.6	28.6	0.1	-8.0	-7.0	3.6	17.2	-12.2	-23.6	-3.1	6.6	-1.5	9.4	-5.0
Q2	8.7	32.7	8.8	-16.4	-16.4	4.1	12.7	-11.7	-19.2	20.9	-0.6	-9.9	-2.9	-1.1
2003 Aug.	3.0	10.5	-0.1	-1.4	-6.0	1.7	4.8	5.9	-5.6	-36.2	-2.6	50.0	0.3	-10.7
Sep.	5.6	10.9	1.2	0.7	-7.2	0.2	5.9	-6.9	-9.5	10.8	0.4	-8.5	-0.1	1.0
Oct.	8.0	13.4	2.0	-3.9	-3.5	1.2	9.2	-0.1	-9.2	34.1	1.6	-27.3	0.7	-9.1
Nov.	3.3	8.7	0.6	0.4	-6.4	1.1	4.4	13.2	3.9	3.4	0.6	-0.2	5.5	-17.6
Dec.	6.1	8.6	1.8	-1.5	-2.8	5.1	11.1	-16.7	-4.3	-27.0	-6.3	13.6	7.3	5.5
2004 Jan.	-2.7	5.3	-1.0	-8.6	1.7	0.3	-2.4	-18.7	-7.2	-9.1	1.8	-1.1	-3.0	21.1
Feb.	5.4	9.8	0.4	-0.1	-4.7	2.1	7.5	18.2	9.1	13.3	1.3	-14.1	8.6	-25.7
Mar.	11.0	13.6	0.7	0.7	-4.0	1.2	12.2	-11.7	-25.5	-7.2	3.5	13.8	3.7	-0.4
Apr.	0.2	10.2	1.5	-7.5	-4.0	0.8	1.0	-23.3	-4.7	-9.9	0.5	-6.4	-2.7	22.3
May	2.4	10.5	3.8	-6.0	-5.9	2.3	4.8	9.5	-0.7	-0.8	-1.0	11.0	1.1	-14.3
June	6.0	12.0	3.5	-2.9	-6.6	1.0	7.0	2.1	-13.8	31.7	-0.1	-14.4	-1.3	-9.1
July	2.8	13.9	1.8	-6.6	-6.3	1.1	3.9	-12.0	-8.5	-30.7	-0.9	27.5	0.6	8.0
Aug.	2.1	5.5	0.7	1.1	-5.2	1.6	3.7	0.1	4.4	5.1	-3.1	-8.6	2.4	-3.8
<i>12-month cumulated transactions</i>														
2004 Aug.	50.2	122.3	16.9	-34.1	-54.9	18.0	68.2	-46.2	-66.1	13.6	-1.7	-14.9	23.0	-22.0

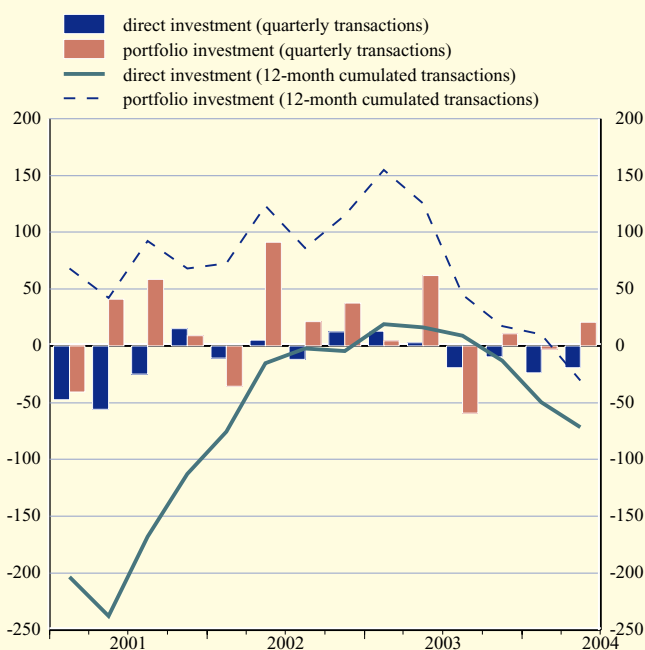
### C27 B.o.p. current account balance

(EUR billions)



### C28 B.o.p. net direct and portfolio investment

(EUR billions)



Source: ECB.

## 7.1 Balance of payments

(EUR billions; transactions)

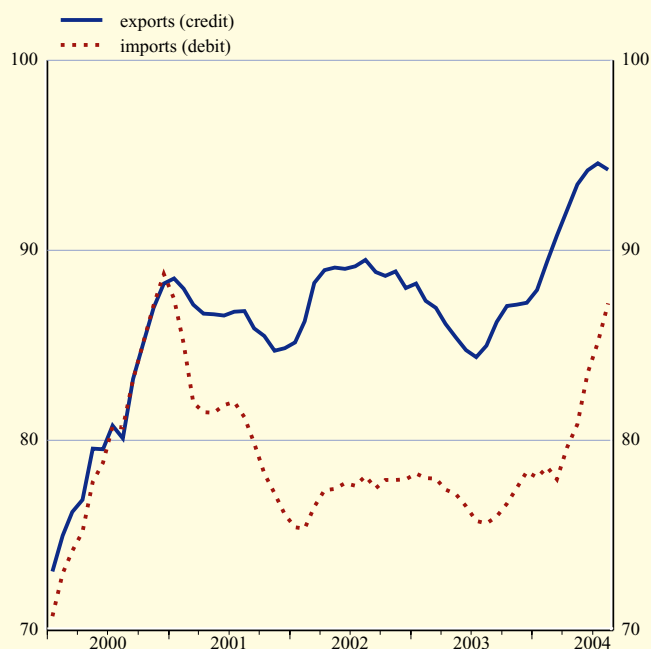
### 2. Current account

(seasonally adjusted)

	Total			Goods		Services		Income		Current transfers	
	Credit	Debit	Net	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit
	1	2	3	4	5	6	7	8	9	10	11
2003 Q2	408.7	408.1	0.5	254.2	229.6	79.4	76.6	55.8	67.3	19.2	34.6
Q3	413.9	408.4	5.5	258.7	228.0	80.2	77.6	56.2	66.1	18.8	36.8
Q4	419.9	407.9	12.0	261.8	235.1	82.4	78.3	54.6	62.7	21.1	31.8
2004 Q1	435.9	418.2	17.7	272.3	233.8	84.4	80.0	59.2	68.1	20.2	36.3
Q2	451.0	434.7	16.3	282.6	250.6	87.7	82.0	59.8	69.6	20.8	32.5
2003 Aug.	139.0	136.7	2.3	86.8	76.2	26.4	26.0	19.5	22.3	6.3	12.3
Sep.	138.2	136.0	2.2	86.9	76.5	27.1	26.0	18.1	21.3	6.1	12.2
Oct.	139.2	132.7	6.5	87.5	77.4	27.7	25.9	17.6	21.3	6.4	8.1
Nov.	139.8	137.4	2.4	87.0	78.5	27.6	26.9	18.5	19.9	6.7	12.2
Dec.	140.9	137.8	3.1	87.3	79.2	27.1	25.5	18.5	21.5	8.1	11.6
2004 Jan.	142.9	137.3	5.6	89.5	76.5	27.4	26.0	19.0	22.7	7.0	12.1
Feb.	146.6	141.4	5.2	91.5	80.1	29.3	27.6	19.7	21.9	6.1	11.9
Mar.	146.4	139.5	6.9	91.3	77.2	27.6	26.4	20.4	23.6	7.0	12.3
Apr.	150.0	141.0	9.0	93.6	81.5	28.7	27.1	21.0	23.3	6.7	9.0
May	150.5	145.3	5.2	95.6	83.8	29.8	27.3	18.6	22.4	6.6	11.9
June	150.5	148.4	2.1	93.5	85.3	29.2	27.6	20.2	24.0	7.6	11.5
July	146.6	145.6	1.0	94.6	86.4	26.8	26.4	19.4	21.1	5.8	11.7
Aug.	149.1	149.5	-0.4	94.6	90.0	27.8	26.3	19.4	20.7	7.3	12.4

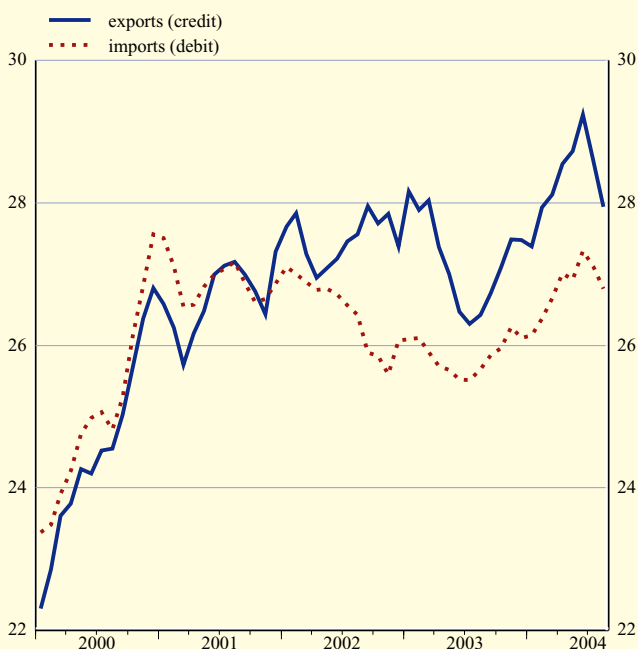
### C29 B.o.p. goods

(EUR billions, seasonally adjusted; three-month moving average)



### C30 B.o.p. services

(EUR billions, seasonally adjusted; three-month moving average)



Source: ECB.

7.1 Balance of payments

(EUR billions; transactions)

3. Current and capital accounts

	Current account											Capital account	
	Total			Goods		Services		Income		Current transfers		Credit	Debit
	Credit	Debit	Net	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit		
1	2	3	4	5	6	7	8	9	10	11	12	13	
2001	1,710.2	1,726.9	-16.7	1,033.9	960.2	321.7	322.0	275.9	314.4	78.8	130.2	17.4	10.8
2002	1,714.5	1,660.1	54.5	1,063.2	929.7	329.8	316.7	236.1	280.3	85.3	133.4	19.0	8.1
2003	1,664.1	1,639.3	24.9	1,036.2	927.7	326.0	310.3	221.2	264.6	80.8	136.6	23.2	9.8
2003 Q2	407.6	414.5	-6.9	254.5	230.3	79.4	73.7	59.3	76.3	14.5	34.2	4.5	2.6
Q3	412.6	401.1	11.5	257.1	220.2	86.5	82.8	53.9	63.4	15.1	34.7	4.1	1.4
Q4	431.7	414.3	17.3	271.4	240.7	84.4	80.1	56.6	61.5	19.4	32.1	9.2	1.9
2004 Q1	430.2	416.5	13.6	265.9	237.3	76.0	75.9	56.6	64.7	31.7	38.7	5.1	1.6
Q2	451.5	442.9	8.7	284.3	251.6	87.7	78.9	64.1	80.4	15.4	31.9	5.3	1.2
2003 Aug.	125.4	122.3	3.0	76.4	65.9	27.5	27.6	16.6	18.0	4.8	10.8	2.1	0.4
Sep.	139.9	134.3	5.6	89.1	78.2	28.0	26.8	18.1	17.4	4.7	11.9	0.7	0.5
Oct.	148.1	140.1	8.0	97.3	83.9	29.1	27.1	17.1	21.0	4.5	8.0	1.6	0.4
Nov.	134.5	131.2	3.3	86.8	78.1	25.9	25.3	16.1	15.7	5.7	12.1	1.7	0.6
Dec.	149.1	143.1	6.1	87.3	78.7	29.4	27.6	23.3	24.8	9.1	11.9	5.9	0.9
2004 Jan.	139.8	142.5	-2.7	80.9	75.7	23.9	24.9	17.5	26.1	17.5	15.8	0.8	0.5
Feb.	134.9	129.5	5.4	85.7	75.9	24.9	24.5	17.5	17.6	6.7	11.5	2.6	0.5
Mar.	155.5	144.6	11.0	99.3	85.7	27.2	26.5	21.6	20.9	7.4	11.4	1.8	0.6
Apr.	147.9	147.7	0.2	93.2	83.1	27.7	26.1	22.1	29.6	4.9	8.9	1.1	0.4
May	144.3	141.9	2.4	91.8	81.3	29.1	25.4	18.4	24.4	5.0	10.8	2.7	0.3
June	159.3	153.3	6.0	99.3	87.3	30.9	27.4	23.6	26.4	5.6	12.1	1.5	0.5
July	153.2	150.4	2.8	98.4	84.5	30.7	28.9	19.2	25.7	5.0	11.3	1.7	0.6
Aug.	138.2	136.0	2.1	85.9	80.4	29.2	28.5	17.4	16.3	5.6	10.9	2.0	0.4

4. Income account

	Total		Compensation of employees		Investment income							
	Credit	Debit	Credit	Debit	Total		Direct investment					
					Credit	Debit	Total		Equity		Debt	
							Credit	Debit	Credit	Debit	Credit	Debit
1	2	3	4	5	6	7	8	9	10	11	12	
2001	275.9	314.4	14.7	5.9	261.2	308.5	59.2	60.3	48.8	50.2	10.3	10.1
2002	236.1	280.3	14.7	6.0	221.5	274.3	52.5	57.9	44.4	50.7	8.1	7.2
2003	221.2	264.6	14.7	5.7	206.5	259.0	51.7	54.8	42.1	46.0	9.6	8.8
2003 Q2	59.3	76.3	3.6	1.4	55.6	74.9	14.3	16.5	11.4	14.2	2.9	2.4
Q3	53.9	63.4	3.7	1.5	50.2	61.9	12.6	13.4	10.5	11.9	2.1	1.5
Q4	56.6	61.5	3.8	1.5	52.8	60.0	15.8	13.9	13.0	11.1	2.8	2.9
2004 Q1	56.6	64.7	3.7	1.3	53.0	63.3	15.1	15.0	12.0	12.6	3.1	2.4
Q2	64.1	80.4	3.7	1.6	60.4	78.8	20.9	18.0	17.7	15.4	3.2	2.6

	Investment income									
	Portfolio investment						Other investment			
	Total		Equity		Debt		Credit	Debit	Credit	Debit
	Credit	Debit	Credit	Debit	Credit	Debit				
13	14	15	16	17	18	19	20			
2001	85.0	116.9	18.0	44.8	67.0	72.1	117.0	131.3		
2002	85.7	123.3	19.7	52.4	66.0	70.9	83.2	93.1		
2003	85.2	126.0	20.8	49.7	64.4	76.3	69.6	78.2		
2003 Q2	23.4	37.7	7.8	21.3	15.6	16.3	17.9	20.7		
Q3	21.6	30.7	4.8	10.3	16.8	20.4	16.1	17.8		
Q4	21.2	26.3	4.7	9.7	16.6	16.6	15.7	19.8		
2004 Q1	21.6	30.8	4.7	9.4	16.9	21.4	16.2	17.6		
Q2	24.3	43.6	8.5	25.8	15.9	17.8	15.1	17.3		

Source: ECB.



## 7.1 Balance of payments

(EUR billions; transactions)

### 5. Direct investment

	By resident units abroad							By non-resident units in the euro area						
	Total	Equity capital and reinvested earnings			Other capital (mostly inter-company loans)			Total	Equity capital and reinvested earnings			Other capital (mostly inter-company loans)		
		Total	MFI's excluding Eurosystem	Non-MFI's	Total	MFI's excluding Eurosystem	Non-MFI's		Total	MFI's excluding Eurosystem	Non-MFI's	Total	MFI's excluding Eurosystem	Non-MFI's
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
2001	-316.5	-237.9	-19.6	-218.3	-78.6	-0.1	-78.4	204.1	146.5	5.5	141.0	57.6	0.9	56.7
2002	-151.3	-136.4	-14.9	-121.4	-15.0	0.0	-14.9	146.6	111.9	3.1	108.8	34.7	0.5	34.3
2003	-118.6	-93.4	3.8	-97.2	-25.2	-0.1	-25.1	105.5	105.2	2.8	102.4	0.3	0.0	0.3
2003 Q2	-29.8	-22.4	5.1	-27.5	-7.4	0.0	-7.4	32.5	30.2	1.9	28.3	2.3	0.0	2.3
Q3	-32.2	-34.4	-1.2	-33.2	2.2	-0.1	2.4	13.1	15.9	-0.4	16.2	-2.8	-0.4	-2.4
Q4	-27.2	-18.6	2.0	-20.6	-8.7	0.2	-8.8	17.6	29.8	0.4	29.4	-12.2	0.5	-12.7
2004 Q1	-27.8	-21.3	-5.8	-15.5	-6.5	-0.1	-6.4	4.2	13.7	-0.6	14.3	-9.5	-0.3	-9.2
Q2	-32.6	-27.4	-3.7	-23.7	-5.2	0.0	-5.2	13.4	8.2	0.6	7.6	5.2	0.8	4.4
2003 Aug.	-4.9	-10.3	-0.5	-9.7	5.3	-0.1	5.4	-0.6	-0.9	0.2	-1.2	0.3	0.1	0.2
Sep.	-17.9	-15.6	0.2	-15.8	-2.3	0.0	-2.2	8.3	12.4	0.2	12.2	-4.1	0.1	-4.2
Oct.	-11.1	-5.8	2.0	-7.8	-5.3	0.0	-5.3	1.9	6.0	0.1	5.9	-4.1	0.3	-4.4
Nov.	0.6	4.1	-1.2	5.3	-3.5	0.1	-3.6	3.3	5.0	0.4	4.6	-1.8	0.1	-1.8
Dec.	-16.8	-16.9	1.2	-18.1	0.1	0.1	0.1	12.5	18.8	-0.1	18.8	-6.3	0.1	-6.4
2004 Jan.	-9.4	-4.3	0.3	-4.6	-5.1	0.0	-5.1	2.2	7.8	0.2	7.5	-5.6	-0.1	-5.5
Feb.	-5.8	-3.2	-1.2	-2.0	-2.6	0.0	-2.6	14.9	4.7	0.3	4.4	10.3	-0.1	10.3
Mar.	-12.6	-13.8	-4.9	-8.9	1.2	-0.1	1.3	-12.9	1.2	-1.2	2.4	-14.2	-0.1	-14.1
Apr.	-16.0	-7.6	-0.5	-7.1	-8.4	0.1	-8.5	11.3	5.7	0.2	5.5	5.5	0.0	5.5
May	-4.5	-7.9	-0.1	-7.8	3.3	0.0	3.4	3.8	5.1	0.4	4.7	-1.3	0.3	-1.6
June	-12.1	-12.0	-3.2	-8.8	-0.2	0.0	-0.2	-1.7	-2.6	0.0	-2.6	0.9	0.4	0.5
July	-11.7	-9.7	0.3	-9.9	-2.0	0.0	-2.0	3.2	5.6	0.2	5.4	-2.4	-0.1	-2.3
Aug.	8.8	-7.0	0.1	-7.1	15.8	0.0	15.7	-4.4	-4.6	0.1	-4.8	0.3	0.0	0.3

### 6. Portfolio investment by instrument

	Total		Equity		Debt instruments					
	Assets	Liabilities	Assets	Liabilities	Assets			Liabilities		
					Total	Bonds and notes	Money market instruments	Total	Bonds and notes	Money market instruments
1	2	3	4	5	6	7	8	9	10	
2001	-281.9	349.8	-101.6	232.6	-180.3	-155.9	-24.4	117.3	113.1	4.1
2002	-175.8	290.4	-40.4	88.9	-135.4	-89.6	-45.8	201.5	133.7	67.9
2003	-283.8	301.4	-67.7	103.6	-216.1	-172.8	-43.3	197.8	191.8	6.0
2003 Q2	-107.3	169.3	-33.2	30.5	-74.1	-59.3	-14.8	138.8	124.6	14.2
Q3	-63.3	4.2	-19.4	25.1	-43.9	-37.2	-6.8	-20.9	-7.8	-13.1
Q4	-64.3	74.8	-26.3	45.7	-38.0	-25.4	-12.6	29.1	34.6	-5.6
2004 Q1	-92.4	89.3	-30.8	24.5	-61.5	-46.9	-14.6	64.8	42.1	22.7
Q2	-52.7	73.6	-16.2	-5.9	-36.5	-31.5	-5.0	79.5	81.1	-1.6
2003 Aug.	-14.5	-21.7	-5.3	3.4	-9.2	-6.3	-2.9	-25.1	-8.8	-16.3
Sep.	-21.8	32.6	-5.6	10.8	-16.2	-8.8	-7.4	21.8	14.3	7.5
Oct.	-33.6	67.7	-15.0	22.2	-18.7	-11.7	-6.9	45.6	27.0	18.6
Nov.	-20.4	23.8	-3.6	11.3	-16.7	-15.0	-1.7	12.4	12.8	-0.4
Dec.	-10.3	-16.7	-7.7	12.2	-2.6	1.3	-3.9	-28.9	-5.1	-23.8
2004 Jan.	-47.2	38.0	-10.2	1.5	-37.0	-19.3	-17.6	36.5	25.8	10.7
Feb.	-19.0	32.3	-9.8	20.5	-9.2	-3.0	-6.2	11.8	11.0	0.8
Mar.	-26.2	19.0	-10.9	2.5	-15.3	-24.6	9.2	16.5	5.3	11.2
Apr.	-26.2	16.2	1.6	-19.8	-27.7	-9.6	-18.1	36.0	36.2	-0.2
May	-12.9	12.1	-1.3	0.4	-11.6	-15.8	4.2	11.6	15.5	-3.8
June	-13.6	45.3	-16.4	13.4	2.8	-6.0	8.8	31.9	29.4	2.4
July	-33.7	3.0	-3.0	8.7	-30.7	-12.4	-18.3	-5.7	-1.5	-4.2
Aug.	-31.5	36.6	-11.1	15.1	-20.4	-14.3	-6.1	21.5	14.8	6.7

Source: ECB.

## 7.1 Balance of payments

(EUR billions; transactions)

### 7. Portfolio investment assets by instrument and sector of holder

	Equity					Debt instruments									
						Bonds and notes					Money market instruments				
	Eurosystem	MFIs excluding Eurosystem	Non-MFIs			Eurosystem	MFIs excluding Eurosystem	Non-MFIs			Eurosystem	MFIs excluding Eurosystem	Non-MFIs		
			Total	General gov.	Other sectors			Total	General gov.	Other sectors			Total	General gov.	Other sectors
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
2001	-0.4	4.0	-105.2	-2.1	-103.2	0.2	-67.1	-89.0	-1.2	-87.8	-2.4	-40.7	18.6	-0.1	18.7
2002	-0.4	-7.6	-32.4	-4.4	-28.0	-0.6	-15.0	-74.1	-0.9	-73.2	2.0	-32.8	-15.0	-1.1	-14.0
2003	-0.3	-12.7	-54.7	-2.6	-52.1	-2.2	-45.4	-125.1	-0.2	-124.9	0.2	-42.6	-0.9	0.6	-1.5
2003 Q2	-0.2	0.7	-33.8	-0.8	-33.0	-0.2	-25.6	-33.5	0.0	-33.5	1.0	-1.6	-14.3	1.0	-15.3
Q3	-0.1	-6.2	-13.1	-0.8	-12.3	-1.4	-8.5	-27.3	-0.3	-27.0	0.1	-1.0	-5.9	-0.1	-5.8
Q4	0.0	-3.6	-22.7	-0.4	-22.3	-0.4	-6.9	-18.1	-0.1	-18.0	-0.2	-13.1	0.7	1.3	-0.6
2004 Q1	0.0	-6.0	-24.8	-0.9	-24.0	-0.5	-26.3	-20.2	-0.6	-19.6	-0.2	-10.6	-3.8	-1.1	-2.7
Q2	0.0	-12.4	-3.7	-0.7	-3.0	0.4	-8.8	-23.1	-0.2	-22.9	0.1	-7.2	2.1	-2.6	4.7
2003 Aug.	0.0	-1.0	-4.2	-	-	-0.6	-2.3	-3.5	-	-	0.1	4.0	-7.0	-	-
Sep.	0.0	-3.2	-2.4	-	-	-0.7	-4.5	-3.6	-	-	-0.1	-1.7	-5.6	-	-
Oct.	0.0	-4.7	-10.3	-	-	-0.4	-1.7	-9.7	-	-	-0.1	-4.1	-2.8	-	-
Nov.	0.0	1.4	-5.1	-	-	0.0	-8.1	-6.8	-	-	-0.1	-2.7	1.1	-	-
Dec.	0.0	-0.3	-7.4	-	-	0.0	2.9	-1.7	-	-	0.0	-6.4	2.5	-	-
2004 Jan.	0.0	-3.4	-6.8	-	-	0.0	-13.0	-6.3	-	-	0.1	-15.5	-2.3	-	-
Feb.	0.1	-3.1	-6.7	-	-	0.0	-1.6	-1.4	-	-	-0.2	-5.5	-0.4	-	-
Mar.	0.0	0.5	-11.4	-	-	-0.4	-11.6	-12.5	-	-	0.0	10.4	-1.1	-	-
Apr.	0.0	-1.0	2.5	-	-	0.2	-2.8	-7.0	-	-	0.0	-15.3	-2.8	-	-
May	0.0	-1.8	0.5	-	-	0.2	-7.4	-8.6	-	-	-0.2	2.6	1.8	-	-
June	0.0	-9.7	-6.7	-	-	0.0	1.4	-7.5	-	-	0.3	5.5	3.1	-	-
July	0.0	-9.0	6.0	-	-	-0.3	-13.1	1.0	-	-	0.3	-18.3	-0.3	-	-
Aug.	0.0	-4.2	-6.8	-	-	0.3	-21.4	6.8	-	-	-0.1	5.0	-11.0	-	-

### 8. Other investment by sector

	Total		Eurosystem		General government		MFIs (excluding Eurosystem)						Other sectors			
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Total		Long-term		Short-term		Assets	Liabilities		
							Assets	Liabilities	Assets	Liabilities	Assets	Liabilities				
															Currency and deposits	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2001	-268.2	261.6	0.6	4.4	3.0	-	-0.4	-229.1	232.4	-46.9	22.7	-182.3	209.7	-42.6	-	25.2
2002	-230.4	67.8	-1.2	19.3	0.1	-	-8.2	-166.0	27.8	-32.2	51.7	-133.8	-23.9	-63.4	-	28.8
2003	-236.5	164.9	-0.8	12.0	-1.3	-	-3.6	-152.8	133.8	-55.6	56.9	-97.2	76.9	-81.6	-	22.6
2003 Q2	-132.2	34.6	0.2	4.9	-2.0	-	3.9	-103.2	26.9	-11.5	11.8	-91.7	15.1	-27.2	-	-1.1
Q3	92.0	-11.9	0.3	5.8	-0.3	-	5.3	87.6	-7.1	-12.5	16.4	100.2	-23.4	4.4	-	-16.0
Q4	-73.2	59.3	-0.7	-0.6	2.7	-	-4.6	-71.5	53.8	-16.6	18.2	-54.8	35.6	-3.7	-	10.7
2004 Q1	-182.0	180.5	-0.6	-1.2	-0.6	-0.5	-6.4	-156.1	158.5	-10.5	0.4	-145.6	158.1	-24.7	-20.0	29.6
Q2	-23.6	13.7	0.9	1.6	-4.1	-4.0	3.1	-6.5	22.3	-2.4	6.7	-4.1	15.5	-13.9	4.7	-13.2
2003 Aug.	79.8	-29.8	0.3	1.5	0.5	-	0.5	73.4	-30.2	-2.0	2.7	75.4	-33.0	5.6	-	-1.6
Sep.	-29.1	20.6	-0.1	1.8	1.7	-	2.7	-28.1	20.6	-5.9	5.4	-22.2	15.2	-2.5	-	-4.4
Oct.	-51.4	24.1	-0.2	0.9	1.1	-	-2.0	-40.7	25.7	-5.8	-2.0	-34.9	27.8	-11.6	-	-0.5
Nov.	-35.7	35.5	0.4	-2.8	1.1	-	1.5	-34.7	27.9	-6.0	10.0	-28.7	17.9	-2.4	-	8.9
Dec.	13.9	-0.3	-0.9	1.3	0.5	-	-4.0	3.9	0.2	-4.8	10.2	8.8	-10.0	10.3	-	2.3
2004 Jan.	-68.9	67.8	-0.5	2.6	-0.3	-0.3	-4.6	-62.6	76.4	-1.3	4.3	-61.3	72.1	-5.5	-4.1	-6.7
Feb.	-28.8	14.6	-0.4	-4.3	0.4	0.3	-0.2	-23.8	16.6	-5.5	-0.6	-18.3	17.2	-5.1	-5.0	2.6
Mar.	-84.3	98.1	0.2	0.5	-0.7	-0.5	-1.5	-69.7	65.5	-3.7	-3.2	-66.0	68.7	-14.1	-10.8	33.7
Apr.	-53.1	46.6	0.6	0.6	-1.2	-0.9	-0.3	-51.5	54.3	-6.4	0.4	-45.1	53.9	-1.0	3.2	-8.0
May	10.7	0.2	-0.1	-0.3	0.1	0.2	0.5	17.6	10.4	3.6	3.6	14.0	6.8	-6.8	4.7	-10.4
June	18.7	-33.2	0.5	1.3	-3.0	-3.3	2.9	27.4	-42.5	0.3	2.7	27.0	-45.2	-6.1	-3.2	5.2
July	57.5	-30.0	-0.3	1.7	-0.4	-0.6	-0.4	47.6	-12.5	6.8	-6.5	40.7	-6.0	10.6	5.0	-18.8
Aug.	-35.3	26.6	-0.2	0.1	-0.3	-0.5	0.1	-32.0	18.8	-5.2	3.4	-26.8	15.4	-2.7	0.2	7.6

Source: ECB.

## 7.1 Balance of payments

(EUR billions; transactions)

### 9. Other investment by instrument

	Eurosystem				General government							
	Assets		Liabilities		Assets				Liabilities			
	Loans/currency and deposits	Other assets	Loans/currency and deposits	Other liabilities	Trade credits	Loans/currency and deposits			Other assets	Trade credits	Loans	Other liabilities
						Total	Loans	Currency and deposits				
1	2	3	4	5	6	7	8	9	10	11	12	
2001	0.6	0.0	4.5	0.0	-0.1	4.4	-	-	-1.3	0.0	-0.5	0.1
2002	-1.2	0.0	19.3	0.0	1.5	-0.4	-	-	-1.0	0.0	-8.0	-0.2
2003	-0.8	0.0	12.1	0.0	-0.1	-0.4	-	-	-0.9	0.0	-3.9	0.3
2003 Q2	0.2	0.0	4.9	0.0	0.0	-1.7	-	-	-0.3	0.0	3.6	0.3
Q3	0.3	0.0	5.8	0.0	0.0	-0.1	-	-	-0.2	0.0	4.8	0.5
Q4	-0.7	0.0	-0.6	0.0	0.0	2.7	-	-	0.1	0.0	-4.1	-0.4
2004 Q1	-0.6	0.0	-1.3	0.0	0.0	0.2	0.7	-0.5	-0.8	0.0	-6.1	-0.3
Q2	0.9	0.0	1.5	0.1	0.0	-3.6	0.4	-4.0	-0.5	0.0	2.9	0.2

	MFIs (excluding Eurosystem)				Other sectors							
	Assets		Liabilities		Assets				Liabilities			
	Loans/currency and deposits	Other assets	Loans/currency and deposits	Other liabilities	Trade credits	Loans/currency and deposits			Other assets	Trade credits	Loans	Other liabilities
						Total	Loans	Currency and deposits				
13	14	15	16	17	18	19	20	21	22	23	24	
2001	-215.1	-14.0	222.2	10.2	-3.5	-30.2	-	-	-8.9	1.3	18.7	5.2
2002	-162.2	-3.8	30.6	-2.8	-3.5	-58.4	-	-	-1.5	-3.0	25.9	5.9
2003	-150.7	-2.1	136.5	-2.7	-4.8	-63.8	-	-	-13.0	7.9	13.7	1.0
2003 Q2	-103.9	0.7	28.5	-1.6	-1.1	-18.5	-	-	-7.5	-0.2	-7.2	6.4
Q3	87.9	-0.2	-5.7	-1.3	-1.3	4.7	-	-	0.9	0.9	-11.5	-5.4
Q4	-70.9	-0.6	54.0	-0.2	-1.1	-2.1	-	-	-0.5	2.1	9.7	-1.1
2004 Q1	-153.6	-2.6	157.0	1.6	-2.5	-20.6	-0.6	-20.0	-1.7	4.8	24.6	0.3
Q2	-5.9	-0.6	22.2	0.0	-3.2	-9.8	-14.5	4.7	-0.9	1.3	-12.8	-1.7

### 10. Reserve assets

	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	
2001	17.8	0.6	-1.0	-4.2	22.5	10.0	-5.3	-1.1	20.4	-1.6	0.0	0.0
2002	-2.3	0.7	0.2	-2.0	-1.2	-2.3	-15.3	0.0	8.1	8.5	-0.2	0.0
2003	29.8	1.7	0.0	-1.6	29.7	-1.8	1.6	0.0	22.6	7.3	0.1	0.0
2003 Q2	2.3	0.5	0.0	-2.6	4.4	-0.5	0.0	-0.1	4.8	0.2	0.0	0.0
Q3	2.0	0.1	0.0	-0.7	2.6	-1.1	4.1	0.0	-4.7	4.3	0.0	0.0
Q4	13.6	0.6	0.0	1.8	11.1	-1.0	-1.9	0.0	13.0	1.1	0.0	0.0
2004 Q1	9.4	-0.1	-0.1	0.7	8.7	0.8	1.8	0.5	8.1	-2.4	0.0	0.0
Q2	-2.9	0.5	0.1	0.6	-4.1	-3.3	2.2	0.0	5.4	-8.4	0.0	0.0

Source: ECB.

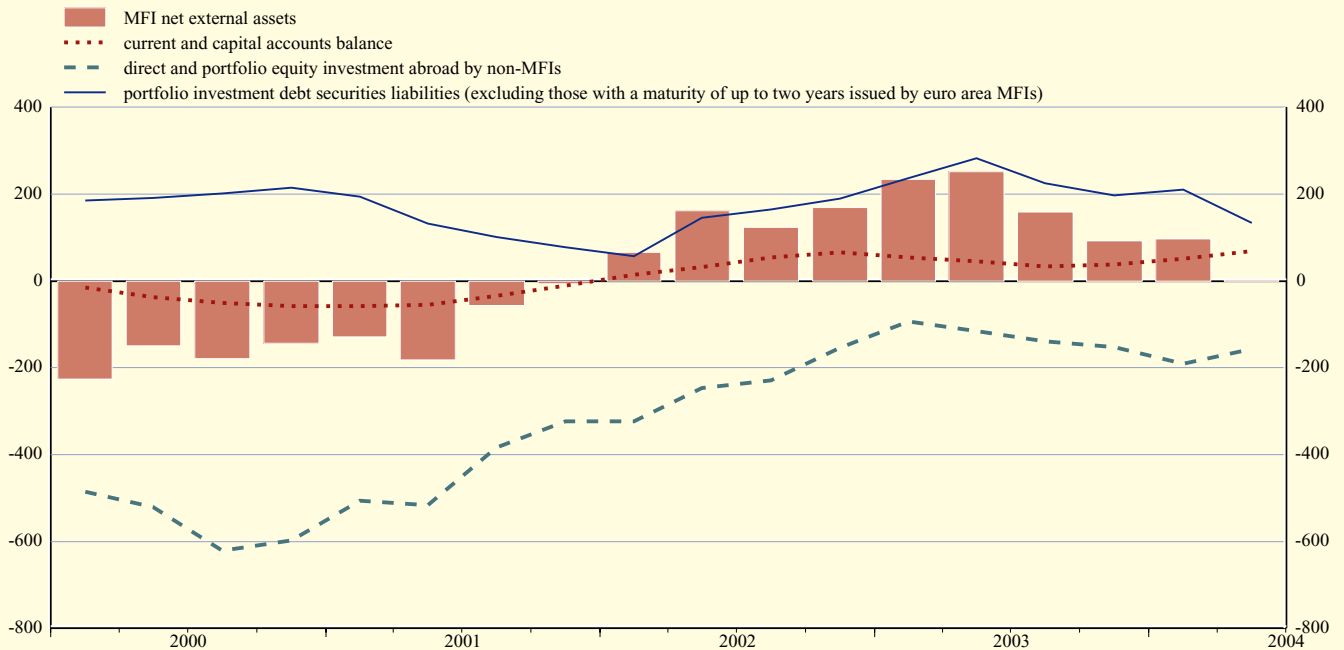
7.2 Monetary presentation of the balance of payments

(EUR billions; transactions)

	B.o.p. items balancing transactions in the external counterpart of M3										Memo: Transactions in the external counterpart of M3	
	Current and capital accounts balance	Direct investment		Portfolio investment			Other investment		Financial derivatives	Errors and omissions		Total of columns 1 to 10
		By resident units abroad (non-MFIs)	By non- resident units in the euro area	Assets	Liabilities		Assets	Liabilities				
					Non-MFIs	Equity <sup>1)</sup>						
1	2	3	4	5	6	7	8	9	10	11	12	
2001	-10.1	-296.8	203.2	-175.6	172.3	78.5	-39.7	24.7	-0.9	44.3	-0.1	-6.9
2002	65.4	-136.4	146.2	-121.5	52.0	190.3	-63.3	20.6	-10.8	0.4	143.0	168.5
2003	38.3	-122.3	105.5	-180.7	108.7	196.7	-83.0	19.0	-13.1	12.2	81.3	93.3
2003 Q2	-5.0	-34.9	32.5	-81.5	29.6	144.9	-29.2	2.8	-1.4	37.0	94.8	95.9
Q3	14.3	-30.8	13.5	-46.3	27.5	-12.9	4.1	-10.7	-4.6	-13.6	-59.6	-56.5
Q4	24.7	-29.4	17.1	-40.1	42.1	20.4	-1.0	6.1	-4.1	-21.2	14.6	20.3
2004 Q1	17.2	-21.9	4.5	-48.8	8.2	57.7	-25.3	23.3	6.6	-5.0	16.4	37.5
Q2	12.7	-28.9	12.6	-24.7	-5.9	68.4	-18.0	-10.1	-0.6	-1.1	4.5	0.8
2003 Aug.	4.8	-4.3	-0.8	-14.7	-1.1	-11.7	6.1	-1.1	-2.6	-10.7	-36.0	-31.9
Sep.	5.9	-18.1	8.3	-11.5	19.0	13.5	-0.8	-1.7	0.4	1.0	15.8	14.0
Oct.	9.2	-13.1	1.6	-22.7	17.4	40.3	-10.5	-2.5	1.6	-9.1	12.1	11.5
Nov.	4.4	1.7	3.2	-10.8	11.3	10.4	-1.4	10.4	0.6	-17.6	12.2	18.3
Dec.	11.1	-18.0	12.3	-6.6	13.5	-30.2	10.8	-1.8	-6.3	5.5	-9.6	-9.5
2004 Jan.	-2.4	-9.7	2.3	-15.4	-6.6	33.8	-5.8	-11.3	1.8	21.1	7.8	22.0
Feb.	7.5	-4.6	15.0	-8.5	20.5	7.5	-4.6	2.4	1.3	-25.7	10.7	8.7
Mar.	12.2	-7.6	-12.8	-25.0	-5.8	16.4	-14.8	32.2	3.5	-0.4	-2.1	6.8
Apr.	1.0	-15.6	11.2	-7.2	-22.6	28.9	-2.2	-8.3	0.5	22.3	8.1	6.3
May	4.8	-4.4	3.5	-6.3	3.8	8.8	-6.7	-9.9	-1.0	-14.3	-21.9	-20.3
June	7.0	-8.9	-2.1	-11.1	13.0	30.7	-9.1	8.0	-0.1	-9.1	18.3	14.8
July	3.9	-12.0	3.3	6.7	4.3	-4.4	10.2	-19.2	-0.9	8.0	0.0	-1.1
Aug.	3.7	8.6	-4.3	-11.0	14.9	22.5	-3.0	7.7	-3.1	-3.8	32.1	29.8
	<i>12-month cumulated transactions</i>											
2004 Aug.	68.2	-101.6	41.5	-129.5	82.5	178.1	-37.9	5.9	-1.7	-22.0	83.5	101.2

C31 Main b.o.p. transactions underlying the developments in MFI net external assets

(EUR billions; 12-month cumulated transactions)



Source: ECB.

1) Excluding money market fund shares/units.

2) Excluding debt securities with a maturity of up to two years issued by euro area MFIs.

## 7.3 Trade in goods

(seasonally adjusted, unless otherwise indicated)

### 1. Values, volumes and unit values by product group

	Total (n.s.a.)		Exports (f.o.b.)					Imports (c.i.f.)					
	Exports	Imports	Total			Memo: Manufactures	Total			Memo: Manufactures	Oil		
			Intermediate	Capital	Consumption		Intermediate	Capital	Consumption				
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Values (EUR billions; annual percentage changes for columns 1 and 2)												
2000	21.7	29.5	1,002.2	492.4	216.4	262.8	875.3	1,023.6	590.9	182.8	220.8	743.6	122.7
2001	6.1	-0.7	1,062.3	505.8	234.8	289.1	931.9	1,014.1	579.0	178.8	228.2	740.5	107.7
2002	2.0	-3.0	1,083.6	512.5	227.8	309.3	948.7	984.4	559.2	163.3	234.1	717.0	105.2
2003	-2.5	0.2	1,055.8	497.6	220.9	298.6	918.2	985.4	550.8	162.7	239.4	710.0	108.8
2003 Q1	-1.0	3.7	265.4	125.7	54.9	75.5	230.6	249.8	142.6	41.4	58.7	178.1	29.9
Q2	-5.8	-2.6	257.1	122.4	52.6	72.4	224.6	243.4	135.3	40.0	59.8	177.4	25.2
Q3	-2.5	-1.2	264.5	124.8	56.0	75.0	231.4	243.2	135.0	39.5	59.9	175.3	26.8
Q4	-0.7	1.1	268.8	124.8	57.4	75.7	231.5	249.0	137.9	41.8	61.0	179.1	26.9
2004 Q1	4.9	0.0	277.2	130.6	58.3	75.2	241.4	250.2	136.9	41.0	61.9	181.8	26.2
Q2	11.8	8.5	286.1	134.4	59.0	78.4	246.1	261.8	144.2	43.4	61.6	185.2	29.2
2004 Mar.	13.4	5.4	93.8	44.5	19.5	25.8	81.3	84.4	46.2	13.5	20.8	60.5	9.6
Apr.	10.4	5.1	95.7	45.1	20.0	26.1	83.6	86.9	47.7	14.9	20.8	62.2	8.9
May	8.8	5.5	94.7	44.2	19.4	25.8	80.7	85.9	47.4	14.2	20.3	61.3	9.7
June	16.2	15.2	95.6	45.0	19.6	26.6	81.9	89.0	49.1	14.2	20.5	61.8	10.7
July	7.8	8.6	95.6	45.4	20.0	25.8	83.2	90.1	50.5	14.0	20.8	63.7	10.9
Aug.	11.7	19.1	96.1	46.0	20.2	26.0	82.9	93.2	51.9	14.9	21.6	64.9	11.5
	Volume indices (2000 = 100; annual percentage changes for columns 1 and 2)												
2000	12.4	6.0	100.0	100.0	100.0	100.0	100.0	99.9	99.9	100.0	100.0	100.0	99.9
2001	5.2	-0.8	105.1	102.1	108.4	108.1	105.6	98.9	99.3	96.4	100.6	98.0	99.3
2002	2.8	-0.5	108.0	105.1	105.7	115.3	108.4	98.5	98.9	90.2	104.4	96.7	101.4
2003	0.8	3.6	108.8	105.1	106.7	114.7	108.6	101.9	100.1	95.7	110.1	99.7	104.7
2003 Q1	1.9	4.1	107.9	104.6	104.2	114.8	107.5	100.4	99.4	95.8	107.0	98.5	98.4
Q2	-2.2	2.7	106.1	103.5	102.0	111.6	106.2	101.9	100.4	94.4	110.1	99.9	104.3
Q3	0.7	2.3	109.5	106.1	108.7	115.6	110.0	101.3	99.4	93.4	110.3	99.1	110.0
Q4	2.7	5.1	111.6	106.2	111.7	116.9	110.6	103.8	101.2	99.1	113.1	101.6	106.1
2004 Q1	8.0	4.8	116.0	111.9	114.9	116.7	115.9	105.5	100.9	99.5	116.0	104.0	101.3
Q2	11.7	5.4	117.9	113.6	115.5	119.6	116.9	106.4	100.9	103.0	114.4	104.1	101.1
2004 Mar.	16.1	9.1	117.4	113.8	116.2	119.9	116.8	106.2	101.0	98.4	116.9	103.5	110.2
Apr.	11.4	5.8	118.9	115.0	117.7	119.8	119.4	107.8	102.5	107.0	116.9	105.5	97.2
May	8.8	1.2	117.2	112.2	113.9	117.7	115.0	105.8	99.4	101.5	113.0	103.3	102.1
June	14.9	9.2	117.7	113.5	115.0	121.2	116.2	106.4	100.9	100.4	113.3	103.5	103.9
July	.	.	.	.	.	.	.	.	102.1	97.5	.	.	.
Aug.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Unit value indices (2000 = 100; annual percentage changes for columns 1 and 2)												
2000	8.3	22.0	99.9	99.9	99.9	100.0	99.9	100.0	100.0	99.9	100.0	99.9	99.8
2001	1.0	0.2	100.9	100.6	100.2	101.8	100.9	100.2	98.6	101.4	102.7	101.6	88.6
2002	-0.8	-2.5	100.1	99.1	99.6	102.1	100.0	97.7	95.7	99.0	101.6	99.8	84.6
2003	-3.2	-3.2	96.9	96.2	95.7	99.0	96.6	94.5	93.2	93.0	98.5	95.7	85.0
2003 Q1	-2.8	-0.3	98.2	97.6	97.4	100.0	98.0	97.2	97.2	94.6	99.4	97.3	99.3
Q2	-3.7	-5.2	96.8	96.1	95.3	98.8	96.6	93.3	91.3	92.7	98.4	95.5	78.7
Q3	-3.1	-3.4	96.4	95.6	95.2	98.7	96.1	93.8	91.9	92.5	98.4	95.2	79.3
Q4	-3.2	-3.9	96.1	95.4	95.0	98.6	95.7	93.7	92.2	92.4	97.7	94.9	82.7
2004 Q1	-2.9	-4.7	95.4	94.8	93.9	98.1	95.2	92.7	91.9	90.2	96.6	94.0	84.1
Q2	0.1	3.0	96.8	96.1	94.5	99.8	96.2	96.2	96.8	92.1	97.5	95.7	94.1
2004 Mar.	-2.3	-3.4	95.6	95.2	93.1	98.1	95.4	93.1	92.8	90.3	96.7	94.4	85.4
Apr.	-0.9	-0.6	96.4	95.6	94.5	99.3	96.0	94.5	94.6	91.7	96.5	95.1	89.6
May	0.0	4.2	96.8	96.1	94.5	100.0	96.2	95.9	96.8	91.7	97.5	95.7	92.5
June	1.1	5.5	97.3	96.7	94.5	100.2	96.6	98.1	98.8	92.9	98.5	96.4	100.3
July	.	.	.	.	.	.	.	.	100.4	94.0	.	.	.
Aug.	.	.	.	.	.	.	.	.	.	.	.	.	.

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

## 7.3 Trade in goods

(EUR billions, unless otherwise indicated; seasonally adjusted)

## 2. Geographical breakdown

	Total	Other EU Member States				Switzerland	United States	Japan	Asia excl. Japan	Africa	Latin America	Other countries
		United Kingdom	Sweden	Denmark	Others							
	1	2	3	4	5	6	7	8	9	10	11	12
<b>Exports (f.o.b.)</b>												
2000	1,002.2	189.1	39.4	23.5	97.2	63.9	172.5	34.4	153.6	56.4	47.0	125.2
2001	1,062.3	202.3	37.0	24.4	105.9	66.3	180.2	34.5	165.4	60.4	49.8	136.0
2002	1,083.6	205.7	37.1	25.3	112.1	64.0	184.1	33.0	170.2	59.5	43.4	149.2
2003	1,055.8	193.1	38.6	24.8	117.4	63.3	166.1	31.3	170.4	59.4	37.9	153.5
2003 Q1	265.4	49.1	9.6	6.3	28.3	16.6	43.1	7.8	42.7	14.7	10.4	36.7
Q2	257.1	47.0	9.5	6.1	29.3	15.6	40.2	7.6	41.4	14.5	9.5	36.4
Q3	264.5	48.0	9.6	6.3	30.2	15.3	41.4	7.8	43.3	15.2	9.1	38.4
Q4	268.8	49.1	9.8	6.1	29.6	15.9	41.4	8.1	43.0	14.9	8.9	41.9
2004 Q1	277.2	49.1	10.0	6.1	31.2	15.5	42.4	8.4	46.5	15.1	9.6	43.1
Q2	286.1	50.2	10.3	6.2	31.5	16.3	44.0	8.1	47.1	16.1	9.8	46.5
2004 Mar.	93.8	16.1	3.4	2.0	10.6	5.2	14.6	2.8	15.4	5.0	3.1	15.6
Apr.	95.7	16.8	3.4	2.1	11.1	5.5	14.8	2.7	15.8	5.5	3.2	14.6
May	94.7	16.5	3.5	2.0	10.6	5.3	14.5	2.6	15.5	4.9	3.4	16.0
June	95.6	16.9	3.4	2.1	9.8	5.4	14.6	2.8	15.8	5.7	3.2	15.9
July	95.6	17.1	3.5	2.1	10.0	5.9	14.4	2.8	16.9	5.5	3.4	14.0
Aug.	96.1	.	.	.	.	.	.	.	.	.	.	.
<i>% share of total exports</i>												
2003	100.0	18.3	3.7	2.4	11.1	6.0	15.7	3.0	16.1	5.6	3.6	14.5
<b>Imports (c.i.f.)</b>												
2000	1,023.6	159.5	39.1	22.3	78.8	50.4	142.0	67.3	217.0	73.7	40.3	133.0
2001	1,014.1	154.5	35.6	22.0	88.9	52.9	138.7	58.5	208.2	74.0	40.9	139.9
2002	984.4	149.6	35.6	22.9	93.5	52.1	125.6	52.7	204.7	67.8	39.4	140.5
2003	985.4	137.8	36.7	23.0	102.1	50.4	110.2	51.9	215.7	69.0	39.6	149.1
2003 Q1	249.8	35.8	9.2	5.9	24.6	13.1	28.3	13.3	53.4	18.5	9.7	37.8
Q2	243.4	34.3	9.1	5.8	25.2	12.5	28.1	13.2	53.0	16.9	9.7	35.5
Q3	243.2	33.6	9.1	5.6	25.3	12.4	27.2	12.6	53.1	17.0	9.7	37.6
Q4	249.0	34.0	9.3	5.7	27.0	12.4	26.6	12.8	56.1	16.5	10.5	38.1
2004 Q1	250.2	33.5	9.3	5.9	27.0	12.7	26.1	13.4	55.4	16.5	10.6	39.8
Q2	261.8	34.4	9.7	5.8	26.2	13.2	29.7	12.6	62.6	16.8	10.6	40.1
2004 Mar.	84.4	10.9	3.1	2.1	9.0	4.2	8.7	4.5	19.0	5.7	3.6	13.4
Apr.	86.9	11.2	3.2	1.9	9.7	4.4	10.2	4.3	20.4	5.2	3.7	12.8
May	85.9	11.4	3.3	1.9	8.5	4.4	9.7	4.1	20.6	5.6	3.4	13.0
June	89.0	11.7	3.3	2.0	7.9	4.4	9.8	4.2	21.7	6.1	3.5	14.3
July	90.1	12.2	3.3	2.0	8.6	4.4	9.5	4.6	21.6	6.2	3.7	14.1
Aug.	93.2	.	.	.	.	.	.	.	.	.	.	.
<i>% share of total imports</i>												
2003	100.0	14.0	3.7	2.3	10.4	5.1	11.2	5.3	21.9	7.0	4.0	15.1
<b>Balance</b>												
2000	-21.4	29.6	0.3	1.2	18.4	13.5	30.4	-32.9	-63.5	-17.3	6.7	-7.8
2001	48.2	47.8	1.4	2.4	17.0	13.4	41.6	-24.0	-42.8	-13.5	8.9	-3.9
2002	99.2	56.0	1.5	2.4	18.6	11.9	58.5	-19.6	-34.5	-8.3	4.0	8.7
2003	70.4	55.3	1.9	1.8	15.4	12.9	56.0	-20.6	-45.3	-9.6	-1.7	4.4
2003 Q1	15.6	13.3	0.4	0.4	3.8	3.5	14.8	-5.6	-10.8	-3.8	0.6	-1.1
Q2	13.8	12.7	0.4	0.3	4.0	3.1	12.1	-5.6	-11.6	-2.4	-0.2	0.9
Q3	21.3	14.3	0.5	0.7	4.9	2.9	14.2	-4.8	-9.8	-1.8	-0.6	0.7
Q4	19.8	15.0	0.5	0.4	2.7	3.5	14.8	-4.7	-13.1	-1.6	-1.6	3.9
2004 Q1	27.0	15.6	0.7	0.2	4.2	2.8	16.3	-5.0	-8.8	-1.3	-1.0	3.3
Q2	24.3	15.8	0.6	0.4	5.3	3.1	14.3	-4.5	-15.6	-0.7	-0.8	6.4
2004 Mar.	9.4	5.2	0.2	-0.1	1.6	0.9	5.9	-1.7	-3.6	-0.7	-0.5	2.2
Apr.	8.9	5.6	0.3	0.2	1.4	1.2	4.6	-1.6	-4.6	0.4	-0.4	1.8
May	8.8	5.0	0.2	0.1	2.0	1.0	4.8	-1.5	-5.1	-0.7	0.0	3.0
June	6.6	5.2	0.1	0.1	1.9	1.0	4.9	-1.4	-5.9	-0.4	-0.4	1.6
July	5.5	4.9	0.2	0.1	1.5	1.5	5.0	-1.8	-4.7	-0.6	-0.4	-0.1
Aug.	2.9	.	.	.	.	.	.	.	.	.	.	.

Sources: Eurostat and ECB calculations based on Eurostat data (balance and columns 5 and 12).

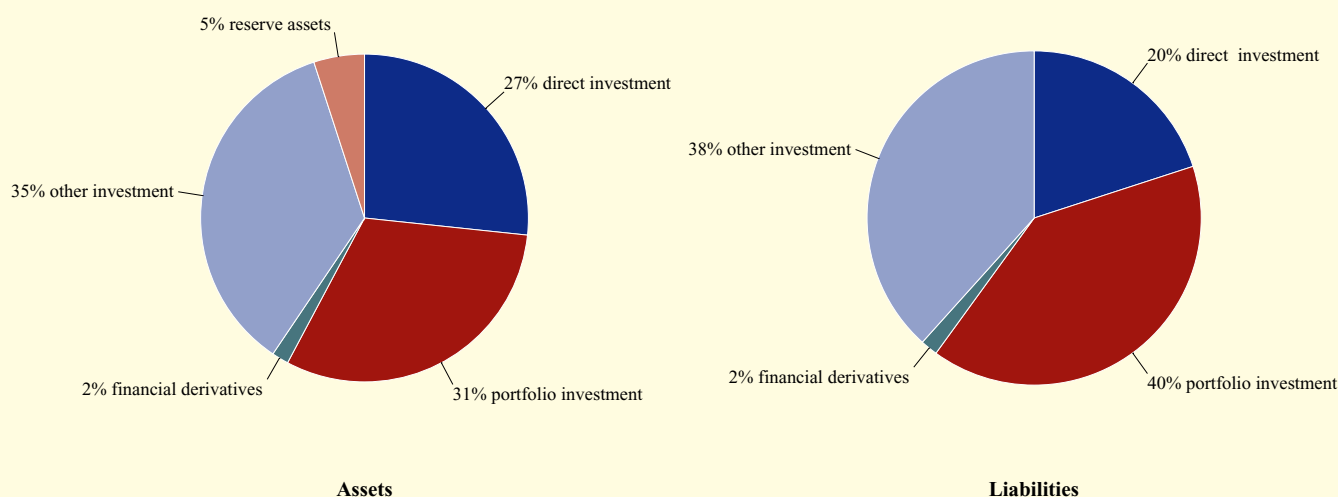
## 7.4 International investment position

(EUR billions, unless otherwise indicated; end-of-period outstanding amounts)

### 1. Summary international investment position

	Total 1	Total as a % of GDP 2	Direct investment 3	Portfolio investment 4	Financial derivatives 5	Other investment 6	Reserve assets 7
Net international investment position							
1999	-318.5	-5.1	369.6	-892.8	16.0	-193.5	382.2
2000	-386.8	-5.9	452.7	-786.4	2.0	-446.3	391.2
2001	-189.6	-2.8	496.4	-691.4	1.5	-388.8	392.7
2002	-289.6	-4.1	425.1	-756.3	-8.1	-316.4	366.1
Outstanding assets							
1999	5,796.6	92.4	1,174.5	2,058.0	111.1	2,070.8	382.2
2000	6,751.2	102.6	1,626.7	2,351.1	105.8	2,276.4	391.2
2001	7,537.2	110.1	1,897.0	2,521.3	108.4	2,617.9	392.7
2002	7,277.9	102.8	1,937.5	2,270.4	122.6	2,581.3	366.1
Outstanding liabilities							
1999	6,115.1	97.5	804.9	2,950.8	95.1	2,264.3	-
2000	7,138.0	108.5	1,174.0	3,137.5	103.7	2,722.7	-
2001	7,726.8	112.9	1,400.6	3,212.7	106.9	3,006.7	-
2002	7,567.5	106.9	1,512.5	3,026.7	130.7	2,897.6	-

### C32 International investment position by item at end-2002



Source: ECB.

## 7.4 International investment position

(EUR billions; end-of-period outstanding amounts)

### 2. Direct investment

	By resident units abroad						By non-resident units in the euro area					
	Equity capital and reinvested earnings			Other capital (mostly inter-company loans)			Equity capital and reinvested earnings			Other capital (mostly inter-company loans)		
	Total	MFIs excluding Eurosystem	Non-MFIs	Total	MFIs excluding Eurosystem	Non-MFIs	Total	MFIs excluding Eurosystem	Non-MFIs	Total	MFIs excluding Eurosystem	Non-MFIs
1	2	3	4	5	6	7	8	9	10	11	12	
1999	938.7	85.7	853.0	235.8	1.8	234.0	606.3	24.3	582.0	198.6	1.7	196.9
2000	1,273.4	115.2	1,158.2	353.3	1.7	351.6	869.2	32.1	837.1	304.8	1.8	303.0
2001	1,513.2	129.3	1,383.9	383.8	1.4	382.4	1,043.3	42.3	1,001.1	357.3	2.5	354.8
2002	1,554.4	137.5	1,416.9	383.1	1.4	381.7	1,107.7	43.1	1,064.6	404.8	2.7	402.1

### 3. Portfolio investment by instrument

	Equity		Debt instruments					
	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	
1999	1,013.7	1,698.9	1,044.4	937.1	107.2	1,251.9	1,146.5	105.4
2000	1,183.7	1,606.7	1,167.4	1,045.3	122.2	1,530.8	1,365.5	165.4
2001	1,122.4	1,582.0	1,399.0	1,222.0	176.9	1,630.7	1,460.8	169.9
2002	862.2	1,328.3	1,408.3	1,168.7	239.6	1,698.5	1,518.5	179.9

### 4. Portfolio investment assets by instrument and sector of holder

	Equity					Debt instruments									
	Euro-system	MFIs excluding Eurosystem	Non-MFIs			Euro-system	Bonds and notes			Money market instruments					
			Total	General gov.	Other sectors		Total	General gov.	Other sectors	Total	General gov.	Other sectors			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1999	0.4	25.9	987.3	4.1	983.2	4.5	257.2	675.4	6.2	669.2	2.6	68.5	36.1	0.2	35.9
2000	0.9	42.7	1,140.1	5.7	1,134.4	3.4	328.5	713.4	5.7	707.7	0.5	85.6	36.1	0.1	35.9
2001	1.3	38.1	1,082.9	6.7	1,076.3	2.2	418.7	801.1	8.3	792.8	2.8	131.9	42.2	0.2	42.0
2002	1.4	38.0	822.8	8.4	814.4	5.0	379.0	784.8	8.8	776.0	1.2	190.1	48.2	1.1	47.1

### 5. Other investment

	Eurosystem						General government							
	Total		Loans/currency and deposits		Other assets/liabilities		Total		Trade credits		Loans/currency and deposits		Other assets/liabilities	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1999	3.1	37.0	3.0	36.6	0.1	0.3	125.5	57.3	2.5	0.1	72.4	45.4	50.6	11.8
2000	3.0	41.8	2.9	41.4	0.1	0.3	133.9	59.5	2.8	0.2	77.5	47.2	53.5	12.1
2001	3.1	40.7	3.0	40.5	0.1	0.2	127.3	61.6	3.1	0.2	68.4	49.1	55.8	12.4
2002	3.4	58.1	3.4	57.9	0.1	0.2	120.6	61.0	1.3	0.1	64.9	45.8	54.3	15.1

	MFIs (excluding Eurosystem)						Other sectors							
	Total		Loans/currency and deposits		Other assets/liabilities		Total		Trade credits		Loans/currency and deposits		Other assets/liabilities	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
15	16	17	18	19	20	21	22	23	24	25	26	27	28	
1999	1,317.7	1,823.5	1,291.8	1,798.1	25.9	25.5	624.5	346.5	158.9	91.8	396.3	224.6	69.3	30.1
2000	1,458.5	2,169.0	1,421.4	2,127.1	37.1	42.0	681.1	452.4	173.9	110.9	422.9	311.8	84.2	29.6
2001	1,715.8	2,413.1	1,668.3	2,364.1	47.5	49.0	771.7	491.3	176.6	109.5	507.4	346.8	87.6	35.1
2002	1,717.0	2,274.6	1,660.1	2,227.2	56.9	47.4	740.3	503.9	176.5	105.2	485.4	354.6	78.4	44.0

Source: ECB.



## 7.5 International reserves

(EUR billions, unless otherwise indicated; end-of-period outstanding amounts)

	Reserve assets													Memo		
	Total	Monetary gold		Special drawing rights	Reserve position in the IMF	Foreign exchange							Other claims	Assets	Liabilities	
		In EUR billions	In fine troy ounces (millions)			Total	Currency and deposits		Securities			Financial derivatives		Claims on euro area residents in foreign currency	Predetermined short-term net drains in foreign currency	
							With monetary authorities and the BIS	With banks	Total	Equity	Bonds and notes					Money market instruments
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Eurosysteem																
2000 Dec.	391.2	119.2	404.157	4.3	21.2	246.5	16.8	20.5	208.5	0.0	155.3	53.2	0.7	0.0	16.3	-21.7
2001 Dec.	392.7	126.1	401.876	5.5	25.3	235.8	8.0	25.9	201.5	1.2	144.4	55.9	0.4	0.0	24.7	-28.5
2002 Dec.	366.1	130.4	399.022	4.8	25.0	205.8	10.3	35.3	159.8	1.0	117.1	41.7	0.4	0.0	22.4	-26.3
2003 Sep.	332.9	131.7	395.444	4.6	26.1	170.5	9.5	30.3	130.4	-	-	-	0.3	0.0	17.1	-25.5
Oct.	332.4	131.4	395.284	4.6	26.2	170.2	9.4	31.5	128.6	-	-	-	0.8	0.0	17.8	-24.9
Nov.	321.9	131.0	394.294	4.6	25.4	160.9	11.2	26.9	121.8	-	-	-	1.0	0.0	15.8	-17.5
Dec.	306.5	130.0	393.543	4.4	23.3	148.9	10.0	30.4	107.8	-	-	-	0.7	0.0	20.3	-16.3
2004 Jan.	309.7	127.0	393.542	4.5	23.5	154.7	10.2	32.5	111.7	-	-	-	0.3	0.0	19.3	-17.1
Feb.	298.5	125.4	393.540	4.5	23.3	145.2	10.1	32.6	102.4	-	-	-	0.1	0.0	20.8	-10.9
Mar.	308.4	136.4	393.539	4.6	23.2	144.2	9.7	29.3	105.5	-	-	-	-0.2	0.0	20.4	-10.5
Apr.	303.9	128.0	393.536	4.7	23.7	147.5	10.5	26.5	110.8	-	-	-	-0.2	0.0	20.4	-12.7
May	298.9	126.5	392.415	4.7	23.3	144.4	10.6	25.8	108.0	-	-	-	0.1	0.0	18.8	-9.3
June	301.4	127.8	392.324	4.6	22.4	146.7	11.4	27.6	107.1	-	-	-	0.6	0.0	18.3	-10.2
July	301.3	127.5	392.221	4.6	22.1	147.1	9.8	27.1	110.2	-	-	-	0.1	0.0	19.6	-9.5
Aug.	301.7	131.9	392.222	4.6	21.7	143.4	8.3	30.2	104.7	-	-	-	0.2	0.0	20.5	-8.7
Sep.	298.2	131.4	392.200	4.6	20.5	141.8	8.0	31.2	102.5	-	-	-	0.1	0.0	19.1	-8.5
of which held by the European Central Bank																
2001 Dec.	49.3	7.8	24.656	0.1	0.0	41.4	0.8	7.0	33.6	0.0	23.5	10.1	0.0	0.0	3.6	-5.9
2002 Dec.	45.5	8.1	24.656	0.2	0.0	37.3	1.2	9.9	26.1	0.0	19.5	6.7	0.0	0.0	3.0	-5.2
2003 Sep.	40.7	8.2	24.656	0.2	0.0	32.3	0.9	4.5	26.9	-	-	-	0.0	0.0	2.4	-2.3
Oct.	40.4	8.2	24.656	0.2	0.0	32.0	1.0	4.7	26.3	-	-	-	0.0	0.0	2.7	-2.3
Nov.	39.6	8.2	24.656	0.2	0.0	31.2	1.0	5.2	25.0	-	-	-	0.0	0.0	2.6	-2.4
Dec.	36.9	8.1	24.656	0.2	0.0	28.6	1.4	5.0	22.2	-	-	-	0.0	0.0	2.8	-1.5
2004 Jan.	38.3	8.0	24.656	0.2	0.0	30.1	1.3	6.9	21.9	-	-	-	0.0	0.0	2.5	-2.0
Feb.	36.1	7.9	24.656	0.2	0.0	28.0	1.1	7.7	19.2	-	-	-	0.0	0.0	2.8	-0.4
Mar.	37.9	8.5	24.656	0.2	0.0	29.1	1.0	5.4	22.8	-	-	-	0.0	0.0	2.5	-0.4
Apr.	37.7	8.0	24.656	0.2	0.0	29.5	1.0	4.7	23.8	-	-	-	0.0	0.0	2.6	-0.5
May	37.4	7.9	24.656	0.2	0.0	29.2	1.4	5.5	22.3	-	-	-	0.0	0.0	2.4	-0.6
June	37.4	8.0	24.656	0.2	0.0	29.2	1.5	3.7	24.0	-	-	-	0.0	0.0	2.4	-0.5
July	38.0	8.0	24.656	0.2	0.0	29.8	1.4	4.6	23.9	-	-	-	0.0	0.0	2.5	-1.0
Aug.	37.5	8.3	24.656	0.2	0.0	29.0	1.2	5.9	21.9	-	-	-	0.0	0.0	3.2	-0.9
Sep.	38.0	8.3	24.656	0.2	0.0	29.6	0.9	6.8	21.9	-	-	-	0.0	0.0	2.0	-1.0

Source: ECB.

# EXCHANGE RATES

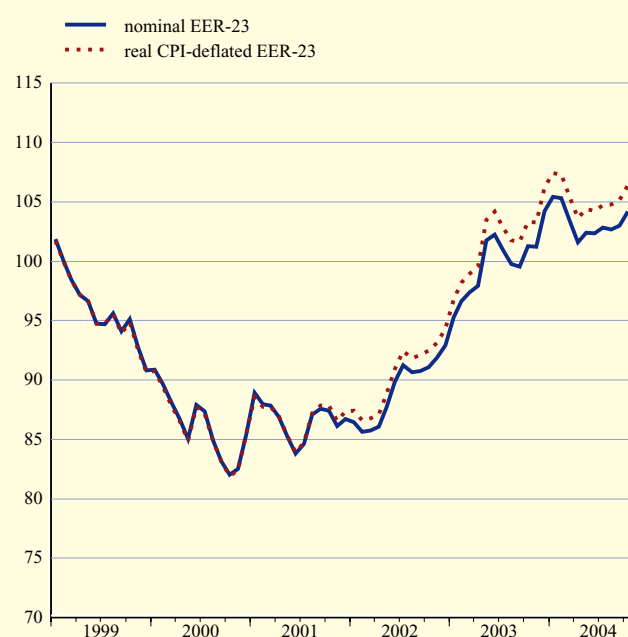
## 8.1 Effective exchange rates <sup>1)</sup>

(period averages; index 1999 Q1=100)

	EER-23						EER-42		
	Nominal	Real CPI	Real PPI	Real GDP deflator	Real ULCM	Real ULCT	Nominal	Real CPI	
	1	2	3	4	5	6	7	8	
2001	86.7	86.8	88.4	86.7	86.3	85.1	90.4	87.0	
2002	89.2	90.3	91.9	90.2	88.5	88.2	94.8	90.9	
2003	99.9	101.7	102.2	101.6	100.0	99.4	106.6	101.6	
2003 Q3	100.1	102.1	102.2	101.9	100.7	100.2	106.4	101.5	
Q4	102.2	104.3	104.1	104.2	102.6	101.4	109.1	103.9	
2004 Q1	104.7	106.7	106.4	106.8	105.5	103.9	111.6	106.1	
Q2	102.1	104.1	103.6	104.4	103.8	101.1	109.2	103.7	
Q3	102.8	104.9	104.5	.	.	.	110.1	104.5	
2003 Oct.	101.3	103.3	103.1	.	.	.	108.0	103.0	
Nov.	101.2	103.3	103.2	.	.	.	108.0	102.9	
Dec.	104.2	106.2	105.9	.	.	.	111.2	105.9	
2004 Jan.	105.4	107.4	107.0	.	.	.	112.5	106.9	
Feb.	105.3	107.3	106.9	.	.	.	112.3	106.8	
Mar.	103.4	105.4	105.2	.	.	.	110.2	104.7	
Apr.	101.6	103.7	103.2	.	.	.	108.3	103.0	
May	102.4	104.4	103.9	.	.	.	109.5	104.1	
June	102.3	104.2	103.7	.	.	.	109.6	104.0	
July	102.8	104.7	104.4	.	.	.	110.1	104.4	
Aug.	102.7	104.8	104.4	.	.	.	109.9	104.4	
Sep.	103.0	105.1	104.8	.	.	.	110.3	104.7	
Oct.	104.2	106.4	106.0	.	.	.	111.5	105.8	
	<i>% change versus previous month</i>								
2004 Oct.	1.1	1.2	1.2	.	.	.	1.1	1.1	
	<i>% change versus previous year</i>								
2004 Oct.	2.9	3.0	2.8	.	.	.	3.3	2.8	

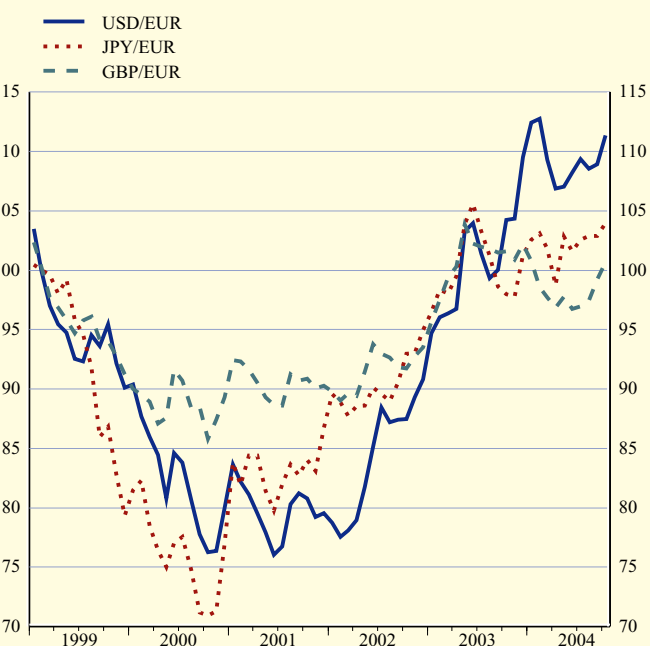
## C33 Effective exchange rates

(monthly averages; index 1999 Q1=100)



## C34 Bilateral exchange rates

(monthly averages; index 1999 Q1=100)



Source: ECB.

1) For the definition of the trading partner groups and other information, please refer to the General notes.

## 8.2 Bilateral exchange rates

(period averages; units of national currency per euro)

	US dollar	Pound sterling	Japanese yen	Swiss franc	Swedish krona	South Korean won	Hong Kong dollar	Danish krone	Singapore dollar	Canadian dollar	Norwegian krone	Australian dollar	Icelandic krona	New Zealand dollar	South African rand
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2001	0.8956	0.62187	108.68	1.5105	9.2551	1,154.83	6.9855	7.4521	1.6039	1.3864	8.0484	1.7319	87.42	2.1300	7.6873
2002	0.9456	0.62883	118.06	1.4670	9.1611	1,175.50	7.3750	7.4305	1.6912	1.4838	7.5086	1.7376	86.18	2.0366	9.9072
2003	1.1312	0.69199	130.97	1.5212	9.1242	1,346.90	8.8079	7.4307	1.9703	1.5817	8.0033	1.7379	86.65	1.9438	8.5317
2003 Q3	1.1248	0.69888	132.14	1.5451	9.1631	1,321.05	8.7674	7.4309	1.9699	1.5533	8.2472	1.7089	88.40	1.9254	8.3505
2003 Q4	1.1890	0.69753	129.45	1.5537	9.0093	1,404.56	9.2219	7.4361	2.0507	1.5659	8.2227	1.6622	89.16	1.9032	8.0159
2004 Q1	1.2497	0.67987	133.97	1.5686	9.1843	1,464.18	9.7201	7.4495	2.1179	1.6482	8.6310	1.6337	87.22	1.8532	8.4768
2004 Q2	1.2046	0.66704	132.20	1.5374	9.1450	1,400.41	9.3925	7.4393	2.0518	1.6374	8.2634	1.6907	87.70	1.9180	7.9465
2004 Q3	1.2220	0.67216	134.38	1.5363	9.1581	1,411.03	9.5310	7.4367	2.0867	1.5998	8.3890	1.7226	87.48	1.8701	7.7869
2003 Oct.	1.1692	0.69763	128.12	1.5485	9.0105	1,364.70	9.0530	7.4301	2.0282	1.5489	8.2274	1.6867	89.17	1.9446	8.1540
2003 Nov.	1.1702	0.69278	127.84	1.5590	8.9939	1,388.09	9.0836	7.4370	2.0233	1.5361	8.1969	1.6337	88.60	1.8608	7.8806
2003 Dec.	1.2286	0.70196	132.43	1.5544	9.0228	1,463.90	9.5386	7.4419	2.1016	1.6131	8.2421	1.6626	89.68	1.8982	7.9934
2004 Jan.	1.2613	0.69215	134.13	1.5657	9.1368	1,492.23	9.7951	7.4481	2.1415	1.6346	8.5925	1.6374	87.69	1.8751	8.7788
2004 Feb.	1.2646	0.67690	134.78	1.5734	9.1763	1,474.74	9.8314	7.4511	2.1323	1.6817	8.7752	1.6260	86.72	1.8262	8.5555
2004 Mar.	1.2262	0.67124	133.13	1.5670	9.2346	1,429.40	9.5547	7.4493	2.0838	1.6314	8.5407	1.6370	87.23	1.8566	8.1326
2004 Apr.	1.1985	0.66533	129.08	1.5547	9.1653	1,381.58	9.3451	7.4436	2.0193	1.6068	8.2976	1.6142	87.59	1.8727	7.8890
2004 May	1.2007	0.67157	134.48	1.5400	9.1277	1,412.29	9.3618	7.4405	2.0541	1.6541	8.2074	1.7033	87.97	1.9484	8.1432
2004 June	1.2138	0.66428	132.86	1.5192	9.1430	1,406.18	9.4648	7.4342	2.0791	1.6492	8.2856	1.7483	87.55	1.9301	7.8110
2004 July	1.2266	0.66576	134.08	1.5270	9.1962	1,420.66	9.5672	7.4355	2.0995	1.6220	8.4751	1.7135	87.71	1.8961	7.5137
2004 Aug.	1.2176	0.66942	134.54	1.5387	9.1861	1,409.37	9.4968	7.4365	2.0886	1.6007	8.3315	1.7147	87.08	1.8604	7.8527
2004 Sep.	1.2218	0.68130	134.51	1.5431	9.0920	1,403.06	9.5290	7.4381	2.0719	1.5767	8.3604	1.7396	87.65	1.8538	7.9943
2004 Oct.	1.2490	0.69144	135.97	1.5426	9.0620	1,426.19	9.7284	7.4379	2.0947	1.5600	8.2349	1.7050	87.58	1.8280	7.9861
	<i>% change versus previous month</i>														
2004 Oct.	2.2	1.5	1.1	0.0	-0.3	1.6	2.1	0.0	1.1	-1.1	-1.5	-2.0	-0.1	-1.4	-0.1
	<i>% change versus previous year</i>														
2004 Oct.	6.8	-0.9	6.1	-0.4	0.6	4.5	7.5	0.1	3.3	0.7	0.1	1.1	-1.8	-6.0	-2.1

	Cyprus pound	Czech koruna	Estonian kroon	Hungarian forint	Lithuanian litas	Latvian lats	Maltese lira	Polish zloty	Slovenian tolar	Slovak koruna	Bulgarian lev	Romanian leu	Turkish lira
	16	17	18	19	20	21	22	23	24	25	26	27	28
2001	0.57589	34.068	15.6466	256.59	3.5823	0.5601	0.4030	3.6721	217.9797	43.300	1.9482	26,004	1,102,425
2002	0.57530	30.804	15.6466	242.96	3.4594	0.5810	0.4089	3.8574	225.9772	42.694	1.9492	31,270	1,439,680
2003	0.58409	31.846	15.6466	253.62	3.4527	0.6407	0.4261	4.3996	233.8493	41.489	1.9490	37,551	1,694,851
2003 Q3	0.58574	32.168	15.6466	259.65	3.4528	0.6419	0.4268	4.4244	234.8763	41.747	1.9466	37,410	1,569,762
2003 Q4	0.58404	32.096	15.6466	259.82	3.4526	0.6528	0.4287	4.6232	236.1407	41.184	1.9494	39,735	1,721,043
2004 Q1	0.58615	32.860	15.6466	260.00	3.4530	0.6664	0.4283	4.7763	237.6479	40.556	1.9517	40,550	1,665,395
2004 Q2	0.58480	32.022	15.6466	252.16	3.4528	0.6542	0.4255	4.6877	238.8648	40.076	1.9493	40,664	1,759,532
2004 Q3	0.57902	31.593	15.6466	248.80	3.4528	0.6597	0.4266	4.4236	239.9533	40.020	1.9559	40,994	1,807,510
2003 Oct.	0.58418	31.989	15.6466	255.77	3.4525	0.6483	0.4281	4.5952	235.6663	41.304	1.9473	38,803	1,679,067
2003 Nov.	0.58328	31.974	15.6466	259.31	3.4528	0.6471	0.4275	4.6174	236.1345	41.102	1.9476	39,927	1,726,781
2003 Dec.	0.58459	32.329	15.6466	264.74	3.4525	0.6631	0.4304	4.6595	236.6662	41.132	1.9533	40,573	1,761,551
2004 Jan.	0.58647	32.724	15.6466	264.32	3.4531	0.6707	0.4301	4.7128	237.3167	40.731	1.9557	41,107	1,698,262
2004 Feb.	0.58601	32.857	15.6466	263.15	3.4532	0.6698	0.4284	4.8569	237.5123	40.551	1.9535	40,563	1,682,658
2004 Mar.	0.58598	32.985	15.6466	253.33	3.4528	0.6596	0.4266	4.7642	238.0683	40.400	1.9465	40,029	1,620,374
2004 Apr.	0.58630	32.519	15.6466	250.41	3.4529	0.6502	0.4251	4.7597	238.4520	40.151	1.9465	40,683	1,637,423
2004 May	0.58589	31.976	15.6466	252.91	3.4528	0.6557	0.4259	4.7209	238.7400	40.164	1.9464	40,554	1,818,487
2004 June	0.58239	31.614	15.6466	253.02	3.4528	0.6565	0.4254	4.5906	239.3591	39.923	1.9547	40,753	1,814,266
2004 July	0.58171	31.545	15.6466	249.89	3.4528	0.6596	0.4259	4.4651	239.9023	39.899	1.9558	40,962	1,784,116
2004 Aug.	0.57838	31.634	15.6466	248.85	3.4528	0.6586	0.4261	4.4310	239.9900	40.111	1.9559	40,946	1,799,918
2004 Sep.	0.57696	31.601	15.6466	247.66	3.4528	0.6610	0.4277	4.3748	239.9677	40.049	1.9559	41,075	1,838,497
2004 Oct.	0.57595	31.491	15.6466	246.69	3.4528	0.6690	0.4297	4.3182	239.9067	39.997	1.9559	41,082	1,860,247
	<i>% change versus previous month</i>												
2004 Oct.	-0.2	-0.3	0.0	-0.4	0.0	1.2	0.5	-1.3	0.0	-0.1	0.0	0.0	1.2
	<i>% change versus previous year</i>												
2004 Oct.	-1.4	-1.6	0.0	-3.6	0.0	3.2	0.4	-6.0	1.8	-3.2	0.4	5.9	10.8

Source: ECB.

## DEVELOPMENTS OUTSIDE THE EURO AREA

## 9.1 In other EU Member States

(annual percentage changes, unless otherwise indicated)

## 1. Economic and financial developments

	Czech Republic	Denmark	Estonia	Cyprus	Latvia	Lithuania	Hungary	Malta	Poland	Slovenia	Slovakia	Sweden	United Kingdom
	1	2	3	4	5	6	7	8	9	10	11	12	13
HICP													
2002	1.4	2.4	3.6	2.8	2.0	0.4	5.2	2.6	1.9	7.5	3.5	2.0	1.3
2003	-0.1	2.0	1.4	4.0	2.9	-1.1	4.7	1.9	0.7	5.7	8.5	2.3	1.4
2004 Q1	2.0	0.7	0.6	1.0	4.3	-1.1	6.8	2.5	1.8	3.7	8.2	0.6	1.3
Q2	2.5	0.8	3.2	1.2	5.8	0.5	7.4	3.3	3.4	3.8	8.0	1.2	1.4
Q3	3.0	1.0	3.9	2.5	7.4	2.3	7.0	3.0	4.7	3.6	7.2	1.2	1.2
2004 May	2.6	1.1	3.7	1.2	6.1	1.0	7.8	3.1	3.5	3.9	8.2	1.5	1.5
June	2.7	0.9	4.4	2.4	6.1	1.0	7.5	3.2	4.3	3.9	8.1	1.2	1.6
July	3.1	1.1	4.0	2.9	6.7	1.8	7.2	3.1	4.7	3.7	8.3	1.2	1.4
Aug.	3.2	0.9	3.9	2.8	7.8	2.2	7.2	2.5	4.9	3.7	7.0	1.2	1.3
Sep.	2.8	0.9	3.8	1.8	7.7	3.0	6.7	3.2	4.7	3.4	6.4	1.2	1.1
General government deficit (-)/surplus (+) as a % of GDP													
2001	-5.9	2.1	0.3	-2.4	-2.1	-2.0	-4.4	-6.4	-3.8	-2.8	-6.0	2.8	0.7
2002	-6.8	0.7	1.4	-4.6	-2.7	-1.5	-9.2	-5.8	-3.6	-2.4	-5.7	0.0	-1.7
2003	-12.6	0.3	3.1	-6.4	-1.5	-1.9	-6.2	-9.6	-3.9	-2.0	-3.7	0.3	-3.3
General government gross debt as a % of GDP													
2001	25.3	49.2	4.4	64.3	14.9	22.9	53.5	62.0	36.7	28.1	48.7	54.4	38.8
2002	28.8	48.8	5.3	67.4	14.1	22.4	57.2	62.3	41.1	29.5	43.3	52.6	38.3
2003	37.8	45.9	5.3	70.9	14.4	21.4	59.1	70.4	45.4	29.4	42.6	52.0	39.8
Long-term government bond yield as a % per annum, period average													
2004 Apr.	4.60	4.30	-	5.17	4.89	4.55	7.89	4.65	7.02	4.83	5.06	4.55	4.99
May	4.88	4.46	-	5.17	4.95	4.46	8.25	4.65	7.32	4.77	5.13	4.68	5.15
June	5.02	4.53	-	5.49	4.93	4.47	8.55	4.65	7.27	4.69	5.09	4.72	5.24
July	5.11	4.62	-	6.58	4.89	4.58	8.47	4.65	7.44	4.65	5.03	4.57	5.14
Aug.	5.02	4.45	-	6.58	4.88	4.57	8.44	4.70	7.36	4.66	5.02	4.42	5.03
Sep.	5.02	4.38	-	6.58	4.87	4.56	8.58	4.70	6.96	4.63	5.04	4.37	4.95
3-month interest rate as a % per annum, period average													
2004 Apr.	2.06	2.17	2.62	3.94	4.49	2.69	-	2.90	5.69	4.99	5.35	2.19	4.39
May	2.16	2.20	2.61	5.16	4.47	2.70	-	2.90	5.99	4.76	4.91	2.20	4.53
June	2.33	2.21	2.42	5.30	3.94	2.68	11.10	2.90	5.91	4.46	4.33	2.20	4.79
July	2.47	2.22	2.41	5.23	4.05	2.69	-	2.94	6.34	4.03	3.96	2.20	4.86
Aug.	2.57	2.21	2.41	5.16	4.12	2.71	-	2.96	6.60	4.01	3.96	2.20	4.96
Sep.	2.72	2.21	2.41	5.15	4.14	2.68	-	2.96	7.12	4.07	4.16	2.20	4.95
Real GDP													
2002	1.7	1.0	7.2	2.0	6.4	6.8	3.5	1.8	1.3	3.4	4.4	2.1	1.8
2003	3.1	0.5	5.1	2.0	7.5	9.7	2.9	0.2	.	2.3	4.2	1.6	2.2
2003 Q4	3.3	1.4	6.1	3.1	7.5	12.2	3.6	2.1	.	2.5	4.7	2.4	2.9
2004 Q1	3.1	1.7	7.0	3.6	8.8	7.1	4.2	2.3	.	3.8	5.5	2.8	3.4
Q2	.	2.6	.	4.1	7.7	7.5	4.0	-1.5	.	4.6	5.4	3.5	3.6
Current and capital accounts balance as a % of GDP													
2002	-5.7	2.1	-9.9	-4.7	-6.5	-4.8	-6.9	-0.9	-2.6	0.7	-7.6	5.3	-1.7
2003	-6.2	2.7	-12.7	-3.4	-7.6	-6.5	-9.0	-5.4	-2.2	-1.0	-0.5	6.4	-1.7
2003 Q4	-10.0	1.5	-15.9	-4.9	-8.6	-9.5	-9.0	-9.1	-1.5	-2.3	-0.6	6.4	-1.7
2004 Q1	-2.4	3.1	-11.5	-12.6	-8.5	-8.9	-9.8	-7.0	-1.4	0.6	1.2	7.6	-1.0
Q2	-5.8	3.6	-20.4	-11.1	-16.7	-10.6	-10.3	0.1	-2.9	-2.6	-7.6	7.9	-2.8
Unit labour costs													
2002	5.8	1.8	4.1	-	-0.4	-1.2	8.9	-	-1.6	6.0	4.4	0.8	3.4
2003	3.9	2.2	4.6	-	4.9	1.5	7.0	-	.	4.8	6.6	0.5	.
2003 Q4	2.7	1.0	2.7	-	-	.	-	-	-	-	-	-	.
2004 Q1	.	1.6	4.7	-	-	.	-	-	-	-	-	-	.
Q2	.	0.6	4.8	-	-	.	-	-	-	-	-	-	.
Standardised unemployment rate as a % of labour force (s.a.)													
2002	7.3	4.6	9.5	3.9	12.5	13.6	5.6	7.5	19.8	6.1	18.7	4.9	5.1
2003	7.8	5.6	10.2	4.5	10.4	12.7	5.7	8.2	19.2	6.5	17.5	5.6	5.0
2004 Q1	8.4	5.6	9.8	5.0	9.9	11.5	5.8	8.9	19.1	6.2	18.3	6.2	4.7
Q2	8.4	5.4	9.6	4.7	9.8	11.2	5.8	8.8	18.9	6.1	18.5	6.5	4.7
Q3	8.4	5.3	9.1	5.0	9.7	10.7	5.8	8.5	18.7	5.9	18.1	6.5	.
2004 May	8.4	5.4	9.6	4.5	9.8	11.1	5.7	8.8	18.9	6.0	18.5	6.6	4.7
June	8.4	5.4	9.5	4.8	9.7	11.1	5.7	8.8	18.8	6.0	18.4	6.5	4.7
July	8.4	5.3	9.3	4.9	9.7	11.0	5.8	8.6	18.8	5.9	18.2	6.4	4.6
Aug.	8.4	5.3	9.1	5.0	9.7	10.7	5.8	8.4	18.7	5.9	18.0	6.3	.
Sep.	8.4	5.3	8.9	5.1	9.7	10.4	5.9	8.4	18.7	5.9	18.0	6.8	.

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

## 9.2 In the United States and Japan

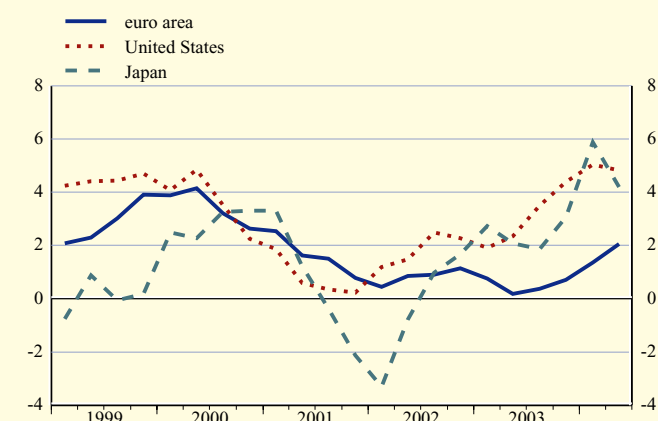
(annual percentage changes, unless otherwise indicated)

### 1. Economic and financial developments

	Consumer price index	Unit labour costs <sup>1)</sup> (manufacturing)	Real GDP	Industrial production index (manufacturing)	Unemployment rate as a % of labour force (s.a.)	Broad money <sup>2)</sup>	3-month interbank deposit rate <sup>3)</sup> as a % per annum	10-year government bond yield <sup>3)</sup> as a % per annum	Exchange rate <sup>4)</sup> as national currency per euro	Fiscal deficit (-)/surplus (+) as a % of GDP	Gross public debt <sup>5)</sup> as a % of GDP	
	1	2	3	4	5	6	7	8	9	10	11	
United States												
2000	3.4	4.3	3.7	4.8	4.0	9.4	6.53	6.03	0.9236	1.6	44.2	
2001	2.8	0.2	0.8	-3.9	4.8	11.4	3.78	5.01	0.8956	-0.4	43.4	
2002	1.6	-0.3	1.9	-0.5	5.8	8.0	1.80	4.60	0.9456	-3.8	45.6	
2003	2.3	3.2	3.0	0.1	6.0	6.3	1.22	4.00	1.1312	-4.6	47.9	
2003 Q3	2.2	3.1	3.5	-0.6	6.1	7.2	1.13	4.21	1.1248	-5.1	47.4	
Q4	1.9	3.5	4.4	1.7	5.9	4.6	1.17	4.27	1.1890	-4.3	47.9	
2004 Q1	1.8	-0.6	5.0	3.2	5.6	4.5	1.12	4.00	1.2497	-4.5	48.7	
Q2	2.9	-2.5	4.8	5.9	5.6	5.8	1.30	4.58	1.2046	.	.	
Q3	2.7	.	3.9	5.8	5.4	4.6	1.75	4.29	1.2220	.	.	
2004 June	3.3	.	.	.	5.9	5.6	5.7	1.50	4.73	1.2138	.	.
July	3.0	.	.	.	6.1	5.5	4.6	1.63	4.48	1.2266	.	.
Aug.	2.7	.	.	.	6.2	5.4	4.4	1.73	4.27	1.2176	.	.
Sep.	2.5	.	.	.	4.9	5.4	4.9	1.90	4.13	1.2218	.	.
Oct.	.	.	.	.	.	.	.	2.08	4.08	1.2490	.	.
Japan												
2000	-0.7	-6.7	2.8	5.7	4.7	2.1	0.28	1.76	99.47	-7.5	126.9	
2001	-0.7	4.4	0.4	-6.8	5.0	2.8	0.15	1.34	108.68	-6.1	134.7	
2002	-0.9	-3.2	-0.3	-1.2	5.4	3.3	0.08	1.27	118.06	-7.9	141.3	
2003	-0.3	-3.8	2.4	3.2	5.2	1.7	0.06	0.99	130.97	.	.	
2003 Q3	-0.2	-1.5	1.9	1.0	5.2	1.8	0.05	1.19	132.14	.	.	
Q4	-0.3	-4.3	3.1	4.2	5.1	1.5	0.06	1.38	129.45	.	.	
2004 Q1	-0.1	-6.5	5.9	6.8	4.9	1.7	0.05	1.31	133.97	.	.	
Q2	-0.3	-6.7	4.2	7.4	4.6	1.9	0.05	1.59	132.20	.	.	
Q3	-0.1	.	.	6.3	.	1.9	0.05	1.64	134.38	.	.	
2004 June	0.0	-8.0	.	8.9	4.6	1.7	0.05	1.77	132.86	.	.	
July	-0.1	-5.1	.	5.7	4.9	1.8	0.05	1.79	134.08	.	.	
Aug.	-0.2	.	.	9.8	.	1.8	0.05	1.63	134.54	.	.	
Sep.	0.0	.	.	3.8	.	2.0	0.05	1.50	134.51	.	.	
Oct.	.	.	.	.	.	.	0.05	1.49	135.97	.	.	

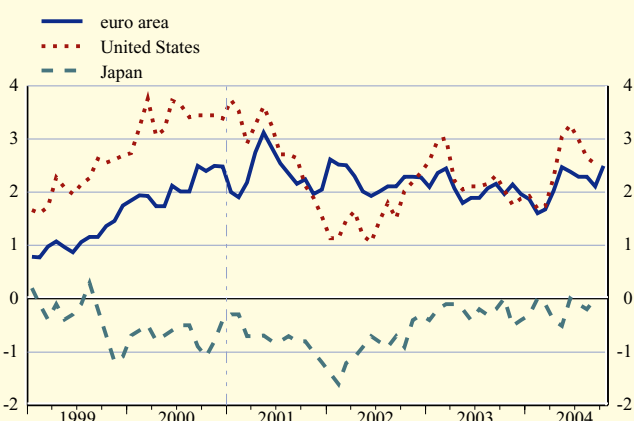
### C35 Real gross domestic product

(annual percentage changes; quarterly)



### C36 Consumer price indices

(annual percentage changes; monthly)



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

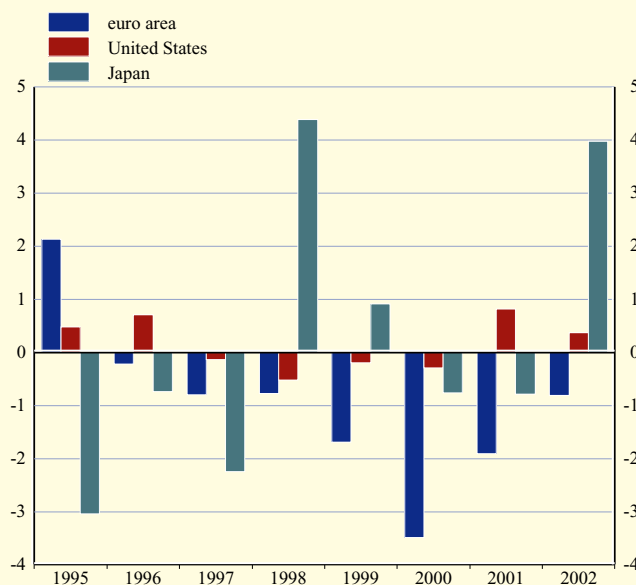
- 1) Data for the United States are seasonally adjusted.
- 2) Average-of-period values; M3 for US, M2+CDs for Japan.
- 3) For more information, see Sections 4.6 and 4.7.
- 4) For more information, see Section 8.2.
- 5) Gross consolidated general government debt (end of period).

9.2 In the United States and Japan  
(as a percentage of GDP)

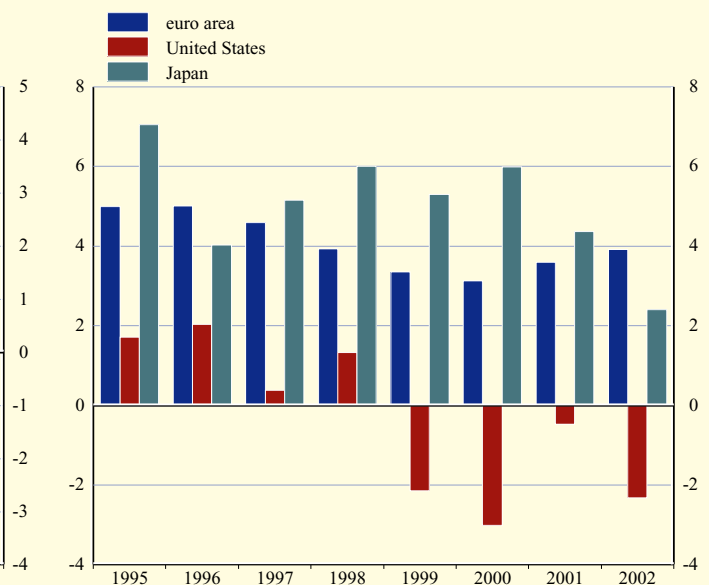
2. Saving, investment and financing

	National saving and investment			Investment and financing of non-financial corporations						Investment and financing of households <sup>1)</sup>			
	Gross saving 1	Gross capital formation 2	Net lending to the rest of the world 3	Gross capital formation 4	Gross fixed capital formation 5	Net acquisition of financial assets 6	Gross saving 7	Net incurrence of liabilities 8	Securities and shares 9	Capital expenditures <sup>2)</sup> 10	Net acquisition of financial assets 11	Gross saving <sup>3)</sup> 12	Net incurrence of liabilities 13
United States													
2000	18.0	20.8	-4.0	9.5	9.0	12.3	7.5	12.6	2.4	12.6	2.8	11.1	5.8
2001	16.4	19.1	-3.7	8.0	8.4	1.8	7.6	0.9	1.8	12.7	5.3	10.7	5.8
2002	14.2	18.4	-4.4	7.3	7.2	1.4	8.0	1.1	-0.1	12.8	4.3	11.1	6.6
2003	13.5	18.4	-4.7	7.0	7.1	4.6	8.5	2.7	0.9	13.1	7.6	10.7	8.2
2002 Q3	13.8	18.3	-4.4	7.3	7.2	0.8	7.9	0.6	-1.8	12.9	3.1	10.8	5.5
2002 Q4	13.3	18.3	-4.7	7.1	7.0	5.4	8.3	4.3	0.7	12.9	3.3	10.5	8.0
2003 Q1	12.8	18.2	-5.0	6.9	6.9	3.6	7.8	2.4	1.0	12.8	7.2	10.2	9.3
2003 Q2	13.2	18.1	-4.8	6.8	7.0	5.8	8.5	4.0	2.0	13.1	11.2	10.5	12.5
2003 Q3	13.7	18.6	-4.6	7.0	7.1	4.2	8.7	2.1	0.3	13.3	8.6	11.2	6.9
2003 Q4	14.4	18.8	-4.3	7.2	7.2	4.7	9.1	2.5	0.3	13.3	3.7	10.7	4.1
2004 Q1	13.7	19.1	-4.9	7.4	7.1	5.5	8.9	3.9	1.3	13.2	7.2	10.3	9.8
2004 Q2	13.7	19.7	-5.5	7.7	7.3	4.1	8.7	2.5	-0.1	13.3	7.3	10.2	8.4
Japan													
2000	27.8	26.3	2.3	15.4	15.5	0.9	14.5	-1.0	0.2	5.2	3.9	10.5	-0.1
2001	26.4	25.8	2.0	15.3	15.3	-2.8	14.3	-6.3	0.2	4.9	2.8	8.6	0.2
2002	25.7	23.9	2.8	13.7	14.0	-1.7	15.7	-7.4	-0.9	4.8	-0.2	8.5	-2.1
2003	.	24.1	.	.	.	3.2	.	-5.1	-0.2	.	-1.2	.	-0.8
2002 Q3	24.5	23.9	2.7	.	.	1.1	.	-10.0	-2.4	.	-8.1	.	-0.4
2002 Q4	24.2	25.2	2.2	.	.	5.5	.	9.8	0.7	.	10.2	.	-1.7
2003 Q1	28.2	23.4	2.8	.	.	17.5	.	-1.8	1.7	.	-13.1	.	2.9
2003 Q2	.	23.3	.	.	.	-25.8	.	-20.5	-0.9	.	4.1	.	-5.7
2003 Q3	.	24.1	.	.	.	9.8	.	-5.5	-3.0	.	-5.5	.	1.1
2003 Q4	.	24.9	.	.	.	11.5	.	6.5	1.2	.	8.7	.	-1.2
2004 Q1	.	23.8	.	.	.	11.3	.	0.6	-0.4	.	-7.6	.	2.6
2004 Q2	.	23.1	.	.	.	-10.1	.	-12.3	-0.6	.	4.7	.	-5.9

C37 Net lending of non-financial corporations  
(as a percentage of GDP)



C38 Net lending of households<sup>1)</sup>  
(as a percentage of GDP)



Sources: ECB, Federal Reserve Board, Bank of Japan and Economic and Social Research Institute.

1) Including non-profit institutions serving households.

2) Gross capital formation in Japan. Capital expenditures in the United States include purchases of consumer durable goods.

3) Gross saving in the United States is increased by expenditures on consumer durable goods.

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## TECHNICAL NOTES

### RELATING TO THE EURO AREA OVERVIEW

#### CALCULATION OF GROWTH RATES FOR MONETARY DEVELOPMENTS

The average growth rate for the quarter ending in month  $t$  is calculated as:

$$a) \left( \frac{0.5I_t + \sum_{i=1}^2 I_{t-i} + 0.5I_{t-3}}{0.5I_{t-12} + \sum_{i=1}^2 I_{t-i-12} + 0.5I_{t-15}} - 1 \right) \times 100$$

where  $I_t$  is the index of adjusted outstanding amounts as at month  $t$  (see also below). Likewise, for the year ending in month  $t$ , the average growth rate is calculated as:

$$b) \left( \frac{0.5I_t + \sum_{i=1}^{11} I_{t-i} + 0.5I_{t-12}}{0.5I_{t-12} + \sum_{i=1}^{11} I_{t-i-12} + 0.5I_{t-24}} - 1 \right) \times 100$$

### RELATING TO SECTIONS 2.1 TO 2.6

#### CALCULATION OF TRANSACTIONS

Monthly transactions are calculated from monthly differences in outstanding amounts adjusted for reclassifications, other revaluations, exchange rate variations and any other changes which do not arise from transactions.

If  $L_t$  represents the outstanding amount at the end of month  $t$ ,  $C_t^M$  the reclassification adjustment in month  $t$ ,  $E_t^M$  the exchange rate adjustment and  $V_t^M$  the other revaluation adjustments, the transactions  $F_t^M$  in month  $t$  are defined as:

$$c) F_t^M = (L_t - L_{t-1}) - C_t^M - E_t^M - V_t^M$$

Similarly, the quarterly transactions  $F_t^Q$  for the quarter ending in month  $t$  are defined as:

$$d) F_t^Q = (L_t - L_{t-3}) - C_t^Q - E_t^Q - V_t^Q$$

where  $L_{t-3}$  is the amount outstanding at the end of month  $t-3$  (the end of the previous quarter)

and, for example,  $C_t^Q$  is the reclassification adjustment in the quarter ending in month  $t$ .

For those quarterly series for which monthly observations are now available (see below), the quarterly transactions can be derived as the sum of the three monthly transactions in the quarter.

#### CALCULATION OF GROWTH RATES FOR MONTHLY SERIES

Growth rates may be calculated from transactions or from the index of adjusted outstanding amounts. If  $F_t^M$  and  $L_t$  are defined as above, the index  $I_t$  of adjusted outstanding amounts in month  $t$  is defined as:

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

The base of the index (of the non-seasonally adjusted series) is currently set as December 2001 = 100. Time series of the index of adjusted outstanding amounts are available on the ECB's website ([www.ecb.int](http://www.ecb.int)) under the "Monetary statistics" sub-section of the "Statistics" section.

The annual growth rate  $a_t$  for month  $t$  – i.e. the change in the 12 months ending in month  $t$  – may be calculated using either of the following two formulae:

$$f) a_t = \left[ \prod_{i=0}^{11} \left( 1 + \frac{F_{t-i}^M}{L_{t-i-1}} \right) - 1 \right] \times 100$$

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

Unless otherwise indicated, the annual growth rates refer to the end of the indicated period. For example, the annual percentage change for the year 2002 is calculated in g) by dividing the index of December 2002 by the index of December 2001.



Growth rates for intra-annual periods may be derived by adapting formula g). For example, the month-on-month growth rate  $a_t^M$  may be calculated as:

$$h) a_t^M = \left( \frac{I_t}{I_{t-1}} - 1 \right) \times 100$$

Finally, the three-month moving average for the annual growth rate of M3 is obtained as  $(a_t + a_{t-1} + a_{t-2})/3$ , where  $a_t$  is defined as in f) or g) above.

#### CALCULATION OF GROWTH RATES FOR QUARTERLY SERIES

If  $F_t^Q$  and  $L_{t-3}$  are defined as above, the index  $I_t$  of adjusted outstanding amounts for the quarter ending in month  $t$  is defined as:

$$i) I_t = I_{t-3} \times \left( 1 + \frac{F_t^Q}{L_{t-3}} \right)$$

The annual growth rate in the four quarters ending in month  $t$ , i.e.  $a_t$ , may be calculated using formula g).

#### SEASONAL ADJUSTMENT OF THE EURO AREA MONETARY STATISTICS<sup>1</sup>

The approach used relies on a multiplicative decomposition through X-12-ARIMA.<sup>2</sup> The seasonal adjustment may include a day-of-the-week adjustment, and for some series is carried out indirectly by means of a linear combination of components. In particular, this is the case for M3, derived by aggregating the seasonally adjusted series for M1, M2 less M1, and M3 less M2.

The seasonal adjustment procedures are first applied to the index of adjusted outstanding amounts.<sup>3</sup> The resulting estimates of the seasonal factors are then applied to the levels and to the adjustments arising from reclassifications and revaluations, in turn yielding seasonally adjusted transactions.

Seasonal (and trading day) factors are revised at annual intervals or as required.

#### RELATING TO SECTIONS 3.1 TO 3.3

#### CALCULATION OF GROWTH RATES

Growth rates are calculated on the basis of financial transactions and therefore exclude reclassifications, revaluations, exchange rate variations and any other changes which do not arise from transactions.

If  $T_t$  represents the transactions in quarter  $t$  and  $L_t$  represents the outstanding amount at the end of quarter  $t$ , then the growth rate for the quarter  $t$  is calculated as:

$$j) \frac{\sum_{i=0}^3 T_{t-i}}{L_{t-4}} \times 100$$

#### RELATING TO SECTION 4.3 AND 4.4

#### CALCULATION OF GROWTH RATES FOR DEBT SECURITIES AND QUOTED SHARES

Growth rates are calculated on the basis of financial transactions and therefore exclude reclassifications, revaluations, exchange rate variations and any other changes which do not arise from transactions. They may be calculated

<sup>1</sup> For details, see "Seasonal adjustment of monetary aggregates and HICP for the euro area", ECB (August 2000) and the "Statistics" section of the ECB's website ([www.ecb.int](http://www.ecb.int)), under the "Monetary statistics" sub-section.

<sup>2</sup> 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, pp.127-152, or "X-12-ARIMA Reference Manual", Time Series Staff, Bureau of the Census, Washington, D.C.

For internal purposes, the model-based approach of TRAMO-SEATS is also used. For details on TRAMO-SEATS, see Gomez, V. and Maravall, A. (1996), "Programs TRAMO and SEATS: Instructions for the User", Banco de España, Working Paper No. 9628, Madrid.

<sup>3</sup> It follows that for the seasonally adjusted series, the level of the index for the base period, i.e. December 2001, generally differs from 100, reflecting the seasonality of that month.

from transactions or from the index of adjusted outstanding amounts. If  $N_t^M$  represents the transactions (net issues) in month  $t$  and  $L_t$  the level outstanding at the end of the month  $t$ , the index  $I_t$  of adjusted outstanding amounts in month  $t$  is defined as:

$$k) \quad I_t = I_{t-1} \times \left( 1 + \frac{N_t^M}{L_{t-1}} \right)$$

As a base, the index is set equal to 100 on December 2001. The growth rate  $a_t$  for month  $t$  corresponding to the change in the 12 months ending in month  $t$ , may be calculated using either of the following two formulae:

$$l) \quad a_t = \left[ \prod_{i=0}^{11} \left( 1 + \frac{N_{t-i}^M}{L_{t-i-1}} \right) - 1 \right] \times 100$$

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

The method used to calculate the growth rates for securities other than shares is the same as that used for the monetary aggregates, the only difference being that an “N” is used rather than an “F”. The reason for this is to distinguish between the different ways of obtaining “net issues” for securities issues statistics, where the ECB collects information on gross issues and redemptions separately, and “transactions” used for the monetary aggregates.

The calculation formula used for Section 4.3 is also used for Section 4.4 and is likewise based on that used for the monetary aggregates. Section 4.4 is based on market values and the basis for the calculation are financial transactions, which exclude reclassifications, revaluations or any other changes that do not arise from transactions. Exchange rate variations are not included as all quoted shares covered are denominated in euro.

## RELATING TO TABLE 1 IN SECTION 5.1

### SEASONAL ADJUSTMENT OF THE HICP<sup>4</sup>

The approach used relies on multiplicative decomposition through X-12-ARIMA (see footnote 2 on page S74). The seasonal adjustment of the overall HICP for the euro area is carried out indirectly by aggregating the seasonally adjusted euro area series for processed food, unprocessed food, industrial goods excluding energy, and services. Energy is added without adjustment since there is no statistical evidence of seasonality. Seasonal factors are revised at annual intervals or as required.

## RELATING TO TABLE 2 IN SECTION 7.1

### SEASONAL ADJUSTMENT OF THE BALANCE OF PAYMENTS CURRENT ACCOUNT

The approach relies on multiplicative decomposition through X-12-ARIMA (see footnote 2 on page S74). The raw data for goods and services are pre-adjusted to take “working day” and “Easter” effects into account. Data on income credits are subject to a “working day” pre-adjustment. The seasonal adjustment for these items is carried out using these pre-adjusted series. Income debits and current transfers are not pre-adjusted. The seasonal adjustment of the total current account is carried out by aggregating the seasonally adjusted euro area series for goods, services, income and current transfers. Seasonal factors are revised at semi-annual intervals or as required.

<sup>4</sup> For details, see “Seasonal adjustment of monetary aggregates and HICP for the euro area”, ECB (August 2000) and the “Statistics” section of the ECB’s website ([www.ecb.int](http://www.ecb.int)), under the “Monetary statistics” sub-section.



## GENERAL NOTES

The “Euro area statistics” section of the Monthly Bulletin focuses on statistics for the euro area as a whole. More detailed and longer runs of data, with further explanatory notes, are available in the “Statistics” section of the ECB’s website ([www.ecb.int](http://www.ecb.int)). Services available under the “Data services” sub-section include a browser interface with search facilities, subscription to different datasets and a facility for downloading data directly as compressed Comma Separated Value (CSV) files. For further information, please contact us at: [statistics@ecb.int](mailto:statistics@ecb.int).

In general, the cut-off date for the statistics included in the Monthly Bulletin is the day preceding the first meeting in the month of the Governing Council. For this issue, the cut-off date was 3 November 2004.

All data relate to the Euro 12, unless otherwise indicated. For the monetary data, the Harmonised Index of Consumer Prices (HICP), investment fund and financial market statistics, the statistical series relating to the euro area cover the EU Member States that had adopted the euro at the time to which the statistics relate. Where applicable, this is shown in the tables by means of a footnote; in the charts, the break is indicated by a dotted line. In these cases, where underlying data are available, absolute and percentage changes for 2001, calculated from a base in 2000, use a series which takes into account the impact of Greece’s entry into the euro area.

Given that the composition of the ECU does not coincide with the former currencies of the countries 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 EU Member States which have not adopted the euro. To avoid this effect on the monetary statistics, the pre-1999 data in Sections 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 otherwise indicated,

price and cost statistics before 1999 are based on data expressed in national currency terms.

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

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

The group “Other EU Member States” comprises the Czech Republic, Denmark, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia, Slovakia, Sweden and United Kingdom.

In most cases, the terminology used within the tables follows international standards, such as those contained in the European System of Accounts 1995 (ESA 95) and the IMF Balance of Payments Manual. Transactions refer to voluntary exchanges (measured directly or derived), while flows also encompass changes in outstanding amounts owing to price and exchange rate changes, write-offs, and other changes.

In the tables, the term “up to (x) years” means “up to *and including* (x) years”.

### OVERVIEW

Developments in key indicators for the euro area are summarised in an overview table.

### MONETARY POLICY STATISTICS

Section 1.4 shows statistics on minimum reserve and liquidity factors. Annual and quarterly observations refer to averages of the last reserve maintenance period of the year/quarter. Until December 2003, the maintenance periods started on the 24th calendar day of a month and ran to the 23rd of the following month. On 23 January 2003 the ECB announced changes to the operational



framework, which were implemented on 10 March 2004. As a result of these changes, maintenance periods start on the settlement day of the main refinancing operation (MRO) following the Governing Council meeting at which the monthly assessment of the monetary policy stance is scheduled. A transitional maintenance period was defined to cover the period from 24 January to 9 March 2004.

Table 1 in Section 1.4 shows the components of the reserve base of credit institutions subject to reserve requirements. The 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. When a credit institution cannot provide evidence of the amount of its issues of debt securities with a maturity of up to two years held by the institutions mentioned above, it may deduct a certain percentage of these liabilities from its reserve base. The percentage for calculating the reserve base was 10% until November 1999 and 30% thereafter.

Table 2 in Section 1.4 contains average data for completed maintenance periods. The amount of the 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 from the end of each calendar month. Subsequently, each credit institution deducts from this figure a lump-sum allowance of €100,000. The resulting required reserves are then aggregated at the euro area level (column 1). The current account holdings (column 2) are the aggregate average daily current account holdings of credit institutions, including those that serve the fulfilment of reserve requirements. The excess reserves (column 3) are the average current account holdings over the maintenance period in excess of the required reserves. The deficiencies (column 4) are defined as the average shortfalls of current account holdings from required reserves over the maintenance period, computed

on the basis of those credit institutions that have not fulfilled their reserve requirement. The interest rate on minimum reserves (column 5) is equal to 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 Section 1.3).

Table 3 in Section 1.4 shows the banking system's liquidity position, which is defined as the current account holdings in euro of credit institutions in the euro area with the Eurosystem. All amounts are derived from the consolidated financial statement of the Eurosystem. The other liquidity-absorbing operations (column 7) exclude the issuance of debt certificates initiated by national central banks in Stage Two of EMU. The net other factors (column 10) represent the netted remaining items in the consolidated financial statement of the Eurosystem. The credit institutions' current accounts (column 11) are equal to the difference between the sum of liquidity-providing factors (columns 1 to 5) and the sum of liquidity-absorbing factors (columns 6 to 10). The base money (column 12) is calculated as the sum of the deposit facility (column 6), the banknotes in circulation (column 8) and the credit institutions' current account holdings (column 11).

## **MONEY, BANKING AND INVESTMENT FUNDS**

Section 2.1 shows the aggregated balance sheet of the monetary financial institution (MFI) sector, i.e. the sum of the harmonised balance sheets of all MFIs resident in the euro area. MFIs are central banks, credit institutions as defined under Community law, money market funds and other institutions whose business it is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credits and/or make investments in securities. A complete list of MFIs is published on the ECB's website.

Section 2.2 shows the consolidated balance sheet of the MFI sector, which is obtained by netting the aggregated balance sheet positions between MFIs in the euro area. Due to limited heterogeneity in recording practices, the sum of the inter-MFI positions is not necessarily zero; the balance is shown in column 10 of the liabilities side of Section 2.2. Section 2.3 sets out the euro area monetary aggregates and counterparts. These are derived from the consolidated MFI balance sheet; they also take account of some monetary assets/liabilities of central government. Statistics on monetary aggregates and counterparts are adjusted for seasonal and trading-day effects. The external liabilities item of Sections 2.1 and 2.2 shows the holdings by non-euro area residents of i) shares/units issued by money market funds located in the euro area and ii) debt securities issued with a maturity of up to two years by MFIs located in the euro area. In Section 2.3, however, these holdings are excluded from the monetary aggregates and contribute to the item “net external assets”.

Section 2.4 provides an analysis by sector, type and original maturity of loans granted by MFIs other than the Eurosystem (the banking system) resident in the euro area. Section 2.5 shows a sectoral and instrument analysis of deposits held with the euro area banking system. Section 2.6 shows the securities held by the euro area banking system, by type of issuer.

Sections 2.2 to 2.6 include transactions, which are derived as differences in outstanding amounts adjusted for reclassifications, revaluations, exchange rate variations and any other changes which do not arise from transactions. Section 2.7 shows selected revaluations which are used in the derivation of transactions. Sections 2.2 to 2.6 also provide growth rates in terms of annual percentage changes based on the transactions. Section 2.8 shows a quarterly currency breakdown of selected MFI balance sheet items.

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 “Guidance Notes to the Regulation ECB/2001/13 on the MFI Balance Sheet Statistics” (ECB, November 2002) explains practices recommended to be followed by the NCBs. Since 1 January 1999 the statistical information has been collected and compiled on the basis of Regulation ECB/1998/16 of 1 December 1998 concerning the consolidated balance sheet of the Monetary Financial Institutions sector<sup>1</sup>, as last amended by Regulation ECB/2003/10<sup>2</sup>.

In line with this Regulation, the balance sheet item “money market paper” has been merged with the item “debt securities” on both the assets and liabilities side of the MFI balance sheet.

Section 2.9 shows end-of-quarter outstanding amounts for the balance sheet of the euro area investment funds (other than money market funds). The balance sheet is aggregated and therefore includes, among the liabilities, holdings by investment funds of shares/units issued by other investment funds. Total assets/liabilities are also broken down by investment policy (equity funds, bond funds, mixed funds, real estate funds and other funds) and by type of investor (general public funds and special investors’ funds). Section 2.10 shows the aggregated balance sheet for each investment fund sector as identified by investment policy and type of investor.

## FINANCIAL AND NON-FINANCIAL ACCOUNTS

Sections 3.1 and 3.2 show quarterly data on financial accounts for non-financial sectors in the euro area, comprising general government (S.13 in the ESA 95), non-financial corporations (S.11 in the ESA 95), and households (S.14 in the ESA 95) including non-

1 OJL 356, 30.12.1998, p. 7.

2 OJL 250, 2.10.2003, p. 19.

profit institutions serving households (S.15 in the ESA 95). The data cover non-seasonally adjusted amounts outstanding and financial transactions classified according to the ESA 95 and show the main financial investment and financing activities of the non-financial sectors. On the financing side (liabilities), the data are presented by ESA 95 sector and original maturity (“short-term” refers to an original maturity of up to one year; “long-term” refers to an original maturity of over one year). Whenever possible, the financing taken from MFIs is presented separately. The information on financial investment (assets) is currently less detailed than that on financing, especially since a breakdown by sector is not possible.

Section 3.3 shows quarterly data on financial accounts for insurance corporations and pension funds (S.125 in the ESA 95) in the euro area. As in Sections 3.1 and 3.2, the data cover non-seasonally adjusted amounts outstanding and financial transactions, and show the main financial investment and financing activities of this sector.

The quarterly data in these three sections are based on quarterly national financial accounts data and MFI balance sheet and securities issues statistics. Sections 3.1 and 3.2 also refer to data taken from the BIS international banking statistics. Although all euro area countries contribute to the MFI balance sheet and securities issues statistics, Ireland and Luxembourg do not yet provide quarterly national financial accounts data.

Section 3.4 shows annual data on saving, investment (financial and non-financial) and financing for the euro area as a whole, and separately for non-financial corporations and households. These annual data provide, in particular, fuller sectoral information on the acquisition of financial assets and are consistent with the quarterly data in the two previous sections.

## FINANCIAL MARKETS

The series on financial market statistics for the euro area cover the EU Member States that had adopted the euro at the time to which the statistics relate.

Statistics on securities other than shares and quoted shares (Sections 4.1 to 4.4) are produced by the ECB using data from the ESCB and the BIS. Section 4.5 presents MFI interest rates on euro-denominated deposits and loans by euro area residents. Statistics on money market interest rates, long-term government bond yields and stock market indices (Sections 4.6 to 4.8) are produced by the ECB using data from wire services.

Statistics on securities issues cover securities other than shares (debt securities), which are presented in Sections 4.1, 4.2 and 4.3, and quoted shares, which are presented in Section 4.4. Debt securities are broken down into short-term and long-term securities. “Short-term” means securities with an original maturity of one year or less (in exceptional cases two years or less). Securities with a longer maturity, or with optional maturity dates, the latest of which is more than one year away, or with indefinite maturity dates, are classified as “long-term”. The statistics on debt securities are estimated to cover approximately 95% of total issues by euro area residents. Euro-denominated securities indicated in Sections 4.1, 4.2 and 4.3 also include items expressed in national denominations of the euro.

Section 4.1 shows securities issued, redemptions, net issues and outstanding amounts for all maturities, with an additional breakdown of long-term maturities. Net issues differ from the change in outstanding amounts owing to valuation changes, reclassifications and other adjustments.

Columns 1 to 4 show the outstanding amounts, gross issues, redemptions and net issues for all euro-denominated issues. Columns 5 to 8 show

the outstanding amounts, gross issues, redemptions and net issues for all securities other than shares (debt securities) issued by euro residents. Columns 9 to 11 show the percentage share of the outstanding amounts, gross issues and redemptions of securities that have been issued in euro by euro area residents. Column 12 shows euro-denominated net issues by euro area residents.

Section 4.2 contains a sectoral breakdown of outstanding amounts and gross issues for euro area resident issuers which is in line with the ESA 95<sup>3</sup>. The ECB is included in the Eurosystem.

The total outstanding amounts in column 1 of Section 4.2 are identical to the data on outstanding amounts of Section 4.1, column 5. The outstanding amounts of securities issued by MFIs in Section 4.2, column 2, are broadly comparable with debt securities issued as shown on the liabilities side of the aggregated MFI balance sheet in Section 2.1, column 8.

Section 4.3 shows annual growth rates for debt securities issued by euro area residents (broken down by maturity and by sector of the issuer), which are based on financial transactions that occur when an institutional unit acquires or disposes of financial assets and incurs or repays liabilities. The annual growth rates therefore exclude reclassifications, revaluations, exchange rate variations and any other changes which do not arise from transactions.

Section 4.4, columns 1, 4, 6 and 8, show the outstanding amounts of quoted shares issued by euro area residents broken down by issuing sector. The monthly data for quoted shares issued by non-financial corporations correspond to the quarterly series shown in Section 3.2 (main liabilities, column 21).

Section 4.4, columns 3, 5, 7 and 9, show annual growth rates for quoted shares issued by euro area residents (broken down by the sector of the issuer), which are based on financial

transactions that occur when an issuer sells or redeems shares for cash excluding investments in the issuers' own shares. Transactions include the quotation of an issuer on a stock exchange for the first time and the creation or deletion of new instruments. The calculation of annual growth rates excludes reclassifications, revaluations and any other changes which do not arise from transactions.

Section 4.5 presents statistics on all the interest rates that MFIs resident in the euro area apply to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in the euro area. Euro area MFI interest rates are calculated as a weighted average (by corresponding business volume) of the euro area countries' interest rates for each category.

MFI interest rate statistics are broken down by type of business coverage, sector, instrument category and maturity, period of notice or initial period of interest rate fixation. The new MFI interest rate statistics replace the ten transitional statistical series on euro area retail interest rates that have been published in the ECB's Monthly Bulletin since January 1999.

Section 4.6 presents money market interest rates for the euro area, the United States and Japan. For the euro area, a broad spectrum of money market interest rates is covered spanning from interest rates on overnight deposits to those on twelve-month deposits. Before January 1999 synthetic euro area interest rates were calculated on the basis of national rates weighted by GDP. With the exception of the overnight rate to December 1998, monthly, quarterly and yearly values are period averages.

<sup>3</sup> The code numbers in the ESA 95 for the sectors shown in tables in the Monthly Bulletin are: MFIs (including the Eurosystem), which comprises the ECB, the NCBs of the euro area countries (S.121) and other monetary financial institutions (S.122); non-monetary financial corporations, which comprises other financial intermediaries (S.123), financial auxiliaries (S.124) and insurance corporations and pension funds (S.125); non-financial corporations (S.11); central government (S.1311); and other general government, which comprises state government (S.1312), local government (S.1313) and social security funds (S.1314).



Overnight deposits are represented by interbank deposit bid rates up to December 1998. From January 1999 column 1 of Section 4.6 shows the euro overnight index average (EONIA). These are end-of-period rates up to December 1998 and period averages thereafter. From January 1999 interest rates on one-, three-, six- and twelve-month deposits are euro interbank offered rates (EURIBOR); until December 1998, London interbank offered rates (LIBOR) were available. For the United States and Japan, interest rates on three-month deposits are represented by LIBOR.

Section 4.7 presents government bond yields for the euro area, the United States and Japan. Until December 1998, two-, three-, five- and seven-year euro area yields were end-of-period values and ten-year yields period averages. Thereafter, all yields are period averages. Until December 1998, euro area yields were calculated on the basis of harmonised national government bond yields weighted by GDP; thereafter, the weights are the nominal outstanding amounts of government bonds in each maturity band. For the United States and Japan, ten-year yields are period averages.

Section 4.8 shows stock market indices for the euro area, the United States and Japan.

## **PRICES, OUTPUT, DEMAND AND LABOUR MARKETS**

Most of the data described in this section are 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. Statistics on GDP and expenditure components, value added by economic activity, industrial production, retail sales and passenger car registrations are adjusted for the variations in the number of working days.

The Harmonised Index of Consumer Prices (HICP) for the euro area (Section 5.1) is

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

Industrial producer prices (Table 2 in Section 5.1), industrial production, industrial new orders, industrial turnover and retail sales (Section 5.2) are covered by Council Regulation (EC) No 1165/98 of 19 May 1998 concerning short-term statistics<sup>4</sup>. The breakdown by end-use of products for industrial producer prices and industrial production is the harmonised sub-division of industry excluding construction (NACE sections C to E) into Main Industrial Groupings (MIGs) as defined by Commission Regulation (EC) No 586/2001 of 26 March 2001<sup>5</sup>. Industrial producer prices reflect the ex-factory gate prices of producers. They include indirect taxes except VAT and other deductible taxes. Industrial production reflects the value added of the industries concerned.

World market prices of raw materials (Table 2 in Section 5.1) measures price changes of euro-denominated euro area imports compared with the base period.

The Labour Cost Indices (Table 3 in Section 5.1) measure the average labour cost per hour worked. They do not, however, cover agriculture, fishing, public administration, education, health and services not elsewhere classified. The ECB calculates the indicator of negotiated wages (memo item in Table 3 of Section 5.1) on the basis of non-harmonised national definition data.

4 OJL 162, 5.6.1998, p. 1.

5 OJL 86, 27.3.2001, p. 11.

Unit labour cost components (Table 4 in Section 5.1), GDP and its components (Tables 1 and 2 in Section 5.2), GDP deflators (Table 5 in Section 5.1) and employment statistics (Table 1 in Section 5.3) are results of the ESA 95 quarterly national accounts.

Industrial new orders (Table 4 in Section 5.2) measure the orders received during the reference period and cover industries working mainly on the basis of orders – in particular textile, pulp and paper, chemical, metal, capital goods and durable consumer goods industries. The data are calculated on the basis of current prices.

Indices for turnover in industry and for the retail trade (Table 4 in Section 5.2) measure the turnover, including all duties and taxes with the exception of VAT, invoiced during the reference period. Retail trade turnover covers all retail trade excluding sales of motor vehicles and motorcycles, and except repairs. New passenger car registrations covers registrations of both private and commercial passenger cars.

Qualitative business and consumer survey data (Table 5 in Section 5.2) draw on the European Commission Business and Consumer Surveys.

Unemployment rates (Table 2 in Section 5.3) conform to International Labour Organisation (ILO) guidelines. They refer to persons actively seeking work as a share of the labour force, using harmonised criteria and definitions. The labour force estimates underlying the unemployment rate are different from the sum of the employment and unemployment levels published in Section 5.3.

## GOVERNMENT FINANCE

Sections 6.1 to 6.4 show the general government fiscal position in the euro area. The data are mainly consolidated and are based on the ESA 95 methodology. The annual euro area aggregates in Sections 6.1 to 6.3 are compiled by the ECB from harmonised data provided by

the NCBS, which are regularly updated. The deficit and debt data for the euro area countries may therefore differ from those used by the European Commission within the excessive deficit procedure. The quarterly euro area aggregates in Section 6.4 are compiled by the ECB on the basis of Eurostat and national data.

Section 6.1 presents annual figures on general government revenue and expenditure on the basis of definitions laid down in Commission Regulation (EC) No 1500/2000 of 10 July 2000<sup>6</sup> amending the ESA 95. Section 6.2 shows details of general government gross consolidated debt at nominal value in line with the Treaty provisions on the excessive deficit procedure. Sections 6.1 and 6.2 include summary data for the individual euro area countries owing to their importance in the framework of the Stability and Growth Pact. Section 6.3 presents changes in general government debt. The difference between the change in the government debt and the government deficit – the deficit-debt adjustment – is mainly explained by government transactions in financial assets and by foreign exchange valuation effects. Section 6.4 presents quarterly figures on general government revenue and expenditure on the basis of definitions laid down in the Regulation (EC) No 1221/2002 of the European Parliament and of the Council of 10 June 2002<sup>7</sup> on quarterly non-financial accounts for general government.

## EXTERNAL TRANSACTIONS AND POSITIONS

The concepts and definitions used in balance of payments (b.o.p.) and international investment position (i.i.p.) statistics (Sections 7.1, 7.2, 7.4 and 7.5) are generally in line with the IMF Balance of Payments Manual (fifth edition, October 1993), the ECB Guideline of 2 May 2003 on the statistical reporting requirements of the ECB (ECB/2003/7)<sup>8</sup>, and Eurostat

6 OJL 172, 12.7.2000, p. 3.

7 OJL 179, 9.7.2002, p. 1.

8 OJL 131, 28.5.2003, p. 20.

documents. Additional references about the methodologies and sources used in the euro area b.o.p. and i.i.p. statistics can be found in the ECB publication entitled “European Union balance of payments/international investment position statistical methods” (November 2003), which can be downloaded from the ECB’s website.

The presentation of net transactions in the financial account follows the sign convention of the IMF Balance of Payments Manual: an increase of assets appears with a minus sign, while an increase of liabilities appears with a plus sign. In the current account and capital account, both credit and debit transactions are presented with a plus sign.

The euro area b.o.p. is compiled by the ECB. The recent monthly figures should be regarded as provisional. Data are revised when figures for the following month and/or the detailed quarterly b.o.p. are published. Earlier data are revised periodically or as a result of methodological changes in the compilation of the source data.

In Section 7.1, Table 2 contains seasonally adjusted data for the current account. Where appropriate, the adjustment covers also working-day, leap year and/or Easter effects. Table 7 provides a sectoral breakdown of euro area purchasers of securities issued by non-euro area residents. It is not yet possible to show a sectoral breakdown of euro area issuers of securities acquired by non-residents. In Tables 8 and 9 the breakdown between “loans” and “currency and deposits” is based on the sector of the non-resident counterpart, i.e. assets vis-à-vis non-resident banks are classified as deposits, whereas assets vis-à-vis other non-resident sectors are classified as loans. This breakdown follows the distinction made in other statistics, such as the MFI consolidated balance sheet, and conforms with the IMF Balance of Payments Manual.

Section 7.2 contains a monetary presentation of the b.o.p.: the b.o.p. transactions mirroring the

transactions in the external counterpart of M3. The data follow the sign conventions of the b.o.p., except for the transactions in the external counterpart of M3 taken from money and banking statistics (column 12), where a positive sign denotes an increase of assets or a decrease of liabilities. In the liabilities of portfolio investment, the b.o.p. transactions include sales and purchases of equity and debt securities issued by MFIs, apart from shares of money market funds and debt securities issued by MFIs with a maturity of up to two years. A specific methodological note on the monetary presentation of the euro area b.o.p. is available in the “Statistics” section of the ECB’s website. See also Box 1 in the June 2003 issue of the Monthly Bulletin.

Section 7.3 shows data on euro area external trade in goods. The main source is Eurostat. The ECB derives volume indices from Eurostat value and unit value indices, and performs seasonal adjustment of unit value indices, while value data are seasonally and working-day adjusted by Eurostat.

The breakdown by product group in columns 4 to 6 and 9 to 11 of Table 7.3.1 is in line with the classification by Broad Economic Categories. Manufactured goods (columns 7 and 12) and oil (column 13) are in line with the SITC Rev. 3 definition. The geographical breakdown shows main trading partners individually or in regional groups.

Owing to differences in definitions, classification, coverage and time of recording, external trade data, in particular for imports, are not fully comparable with the goods item in the balance of payments statistics (Sections 7.1 and 7.2). The difference for imports accounted for around 5% in the recent years (ECB estimate), a significant part of which relates to the inclusion of insurance and freight services in the external trade data (c.i.f. basis).

The data on the euro area i.i.p. in Section 7.4 are based on positions vis-à-vis non-euro area residents, considering the euro area as a single

economy (see also Box 9 in the December 2002 issue of the Monthly Bulletin). The i.i.p. is valued at current market prices, with the exception of direct investment, where book values are used to a large extent.

The outstanding amounts of the Eurosystem's international reserves and related assets and liabilities are shown in Section 7.5, together with the part held by the ECB. These figures are not fully comparable with those of the Eurosystem's weekly financial statement owing to differences in coverage and valuation. The data in Section 7.5 are in line with the recommendations for the IMF/BIS template on international reserves and foreign currency liquidity. Changes in the gold holdings of the Eurosystem (column 3) are due to transactions in gold within the terms of the Central Bank Gold Agreement of 26 September 1999, updated on 8 March 2004. More information on the statistical treatment of the Eurosystem's international reserves can be found in a publication entitled "Statistical treatment of the Eurosystem's international reserves" (October 2000), which can be downloaded from the ECB's website. The website also contains more comprehensive data in accordance with the template on international reserves and foreign currency liquidity.

## EXCHANGE RATES

Section 8.1 shows nominal and real effective exchange rate (EER) indices for the euro calculated by the ECB on the basis of weighted averages of bilateral exchange rates of the euro against the currencies of the euro area's trading partners. A positive change denotes an appreciation of the euro. Weights are based on trade in manufactured goods with the trading partners in the periods 1995-1997 and 1999-2001, and are calculated to account for third-market effects. The EER indices result from the linking at the beginning of 1999 of the indices based on 1995-1997 weights to those based on 1999-2001 weights. The EER-23 group of trading partners is composed of the 13 non-euro

area EU Member States, Australia, Canada, China, Hong Kong, Japan, Norway, Singapore, South Korea, Switzerland and the United States. The EER-42 group includes, in addition to the EER-23, the following countries: Algeria, Argentina, Brazil, Bulgaria, Croatia, India, Indonesia, Israel, Malaysia, Mexico, Morocco, New Zealand, the Philippines, Romania, Russia, South Africa, Taiwan, Thailand and Turkey. Real EERs are calculated using consumer price indices, producer price indices, gross domestic product deflators, unit labour costs in manufacturing and unit labour costs in the total economy.

For more detailed information on the calculation of the EERs, see Box 10 entitled "Update of the overall trade weights for the effective exchange rates of the euro and computation of a new set of euro indicators" in the September 2004 issue of the Monthly Bulletin and the ECB's Occasional Paper No 2 ("The effective exchange rates of the euro" by Luca Buldorini, Stelios Makrydakis and Christian Thimann, February 2002), which can be downloaded from the ECB's website.

The bilateral rates shown in Section 8.2 are monthly averages of those published daily as reference rates for these currencies.

## DEVELOPMENTS OUTSIDE THE EURO AREA

Statistics on other EU Member States (Section 9.1) follow the same principles as those for data relating to the euro area. Data for the United States and Japan contained in Section 9.2 are obtained from national sources.



# CHRONOLOGY OF MONETARY POLICY MEASURES OF THE EUROSYSTEM<sup>1</sup>

## 3 JANUARY 2002

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

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

## 7 FEBRUARY, 7 MARCH, 4 APRIL, 2 MAY, 6 JUNE, 4 JULY 2002

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

## 10 JULY 2002

The Governing Council of the ECB decides to reduce the allotment amount for each of the longer-term refinancing operations to be conducted in the second half of 2002 from €20 billion to €15 billion. This latter amount takes into consideration the expected liquidity needs of the euro area banking system in the second half of 2002 and reflects the desire of the Eurosystem to continue to provide the bulk of liquidity through its main refinancing operations.

## 1 AUGUST, 12 SEPTEMBER, 10 OCTOBER, 7 NOVEMBER 2002

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

## 5 DECEMBER 2002

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 2.75%, starting from the operation to be settled on 11 December 2002. It also decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 3.75% and 1.75% respectively, both with effect from 6 December 2002.

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

## 9 JANUARY 2003

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 2.75%, 3.75% and 1.75% respectively.

## 23 JANUARY 2003

The Governing Council of the ECB decides to implement the following two measures to

<sup>1</sup> The chronology of monetary policy measures of the Eurosystem taken between 1999 and 2001 can be found on pages 176 to 180 of the ECB's Annual Report 1999, on pages 205 to 208 of the ECB's Annual Report 2000 and on pages 219 to 220 of the ECB's Annual Report 2001.

improve the operational framework for monetary policy:

First, the timing of the reserve maintenance period will be changed so that it will always start on the settlement day of the main refinancing operation (MRO) following the Governing Council meeting at which the monthly assessment of the monetary policy stance is pre-scheduled. Furthermore, as a rule, the implementation of changes to the standing facility rates will be aligned with the start of the new reserve maintenance period.

Second, the maturity of the MROs will be shortened from two weeks to one week.

These measures are scheduled to come into effect during the first quarter of 2004.

Further to the press release of 10 July 2002, the Governing Council also decides to maintain at €15 billion the allotment amount for each of the longer-term refinancing operations to be conducted in the year 2003. This amount takes into consideration the expected liquidity needs of the euro area banking system in 2003 and reflects the desire of the Eurosystem to continue to provide the bulk of liquidity through its main refinancing operations.

### **6 FEBRUARY 2003**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 2.75%, 3.75% and 1.75% respectively.

### **6 MARCH 2003**

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.25 percentage

point to 2.50%, starting from the operation to be settled on 12 March 2003. It also decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.25 percentage point, to 3.50% and 1.50% respectively, both with effect from 7 March 2003.

### **3 APRIL 2003**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 2.50%, 3.50% and 1.50% respectively.

### **8 MAY 2003**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 2.50%, 3.50% and 1.50% respectively.

It also announces the results of its evaluation of the ECB's monetary policy strategy. This strategy, which was announced on 13 October 1998, consists of three main elements: a quantitative definition of price stability, a prominent role for money in the assessment of risks to price stability, and a broadly based assessment of the outlook for price developments.

The Governing Council confirms the definition of price stability formulated in October 1998, namely that "price stability is defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%. Price stability is to be maintained over the medium term". At the same time, the Governing Council agrees that in the pursuit of price stability it will aim to maintain

inflation rates close to 2% over the medium term.

The Governing Council confirms that its monetary policy decisions will continue to be based on a comprehensive analysis of the risks to price stability. At the same time, the Governing Council decides to clarify in its communication the respective roles played by economic and monetary analysis in the process of coming to the Council's overall assessment of risks to price stability.

To underscore the longer-term nature of the reference value for monetary growth as a benchmark for the assessment of monetary developments, the Governing Council also decides that it will no longer conduct a review of the reference value on an annual basis. However, it will continue to assess the underlying conditions and assumptions.

### **5 JUNE 2003**

The Governing Council of the ECB decides to lower the minimum bid rate on the main refinancing operations by 0.50 percentage point to 2.0%, starting from the operation to be settled on 9 June 2003. It also decides to lower the interest rates on both the marginal lending facility and the deposit facility by 0.50 percentage point, to 3.0% and 1.0% respectively, both with effect from 6 June 2003.

### **10 JULY, 31 JULY, 4 SEPTEMBER, 2 OCTOBER, 6 NOVEMBER, 4 DECEMBER 2003 AND 8 JANUARY 2004**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 2.0%, 3.0% and 1.0% respectively.

### **12 JANUARY 2004**

The Governing Council of the ECB decides to increase the allotment amount for each of the longer-term refinancing operations to be conducted in the year 2004 from €15 billion to €25 billion. This increased amount takes into consideration the higher liquidity needs of the euro area banking system anticipated for the year 2004. The Eurosystem will, however, continue to provide the bulk of liquidity through its main refinancing operations. The Governing Council may decide to adjust the allotment amount again at the beginning of 2005.

### **5 FEBRUARY, 4 MARCH 2004**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 2.0%, 3.0% and 1.0% respectively.

### **10 MARCH 2004**

In accordance with the Governing Council's decision of 23 January 2003, the maturity of the Eurosystem's main refinancing operations is reduced from two weeks to one week and the maintenance period for the Eurosystem's required reserve system is redefined to start on the settlement day of the main refinancing operation following the Governing Council meeting at which the monthly assessment of the monetary policy stance is pre-scheduled, rather than on the 24th day of the month.





**1 APRIL, 6 MAY, 3 JUNE, 1 JULY,  
5 AUGUST, 2 SEPTEMBER, 7 OCTOBER,  
4 NOVEMBER 2004**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 2.0%, 3.0% and 1.0% respectively.

## DOCUMENTS PUBLISHED BY THE EUROPEAN CENTRAL BANK SINCE 2003

This list is designed to inform readers about selected documents published by the European Central Bank since January 2003. For Working Papers, the list only refers to publications released between August and October 2004. The publications are available to interested parties free of charge from the Press and Information Division. Please submit orders in writing to the postal address given on the back of the title page.

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### ANNUAL REPORT

“Annual Report 2002”, April 2003.

“Annual Report 2003”, April 2004.

### MONTHLY BULLETIN ARTICLES

“The demand for currency in the euro area and the impact of the euro cash changeover”, January 2003.

“CLS – purpose, concept and implications”, January 2003.

“The relationship between monetary policy and fiscal policies in the euro area”, February 2003.

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#### **OTHER PUBLICATIONS**

- “EU banking sector stability”, February 2003.
- “List of Monetary Financial Institutions and institutions subject to minimum reserves”, February 2003.
- “Review of the foreign exchange market structure”, March 2003.
- “Structural factors in the EU housing markets”, March 2003.
- “List of Monetary Financial Institutions in the accession countries”, March 2003.
- “Memorandum of Understanding on the exchange of information among credit registers for the benefit of reporting institutions”, March 2003.
- “Memorandum of Understanding on Economic and Financial Statistics between the Directorate General Statistics of the European Central Bank and the Statistical Office of the European Communities (Eurostat).  
Annex 1: Share of responsibilities in the field of balance of payments and international investment position statistics”, March 2003.
- “TARGET Annual Report 2002”, April 2003.
- “Supplementary guidance notes concerning statistics on the holders of money market fund shares/units”, April 2003.
- “Money, banking and financial market statistics in the accession countries.  
Methodological Manual. Vol. 1: The current definition and structure of money and banking statistics in the accession countries”, May 2003.
- “Money, banking and financial market statistics in the accession countries.  
Methodological Manual. Vol. 2: Statistics on other financial intermediaries, financial markets and interest rates in the accession countries”, May 2003.
- “Accession countries: balance of payments/international investment position statistical methods”, May 2003.
- “Electronic money system security objectives according to the common criteria methodology”, May 2003.
- “The transformation of the European financial system, Second ECB Central Banking Conference, October 2002, Frankfurt am Main”, June 2003.
- “Letter from the ECB President to the President of the Convention regarding the draft Constitutional Treaty”, June 2003.
- “Developments in national supervisory structures”, June 2003.
- “Oversight standards for euro retail payment systems”, June 2003.
- “Towards a Single Euro Payments Area – progress report”, June 2003.
- “Amendments to the risk control framework for tier one and tier two eligible assets”, July 2003.
- “ECB statistics: A brief overview”, August 2003.
- “Portfolio investment income: Task force report”, August 2003.
- “The New Basel Capital Accord”, August 2003.

“Payment and securities settlement systems in the European Union: Addendum incorporating 2001 figures”, September 2003.

“Letter from the ECB President to the President of the Council of the European Union regarding the Opinion of the ECB of 19 September 2003 at the request of the Council of the European Union on the draft Treaty establishing a Constitution for Europe (CON/2003/20)”, 22 September 2003.

“Inflation differentials in the euro area: potential causes and policy implications”, September 2003.

“Correspondent central banking model (CCBM): procedures for Eurosystem counterparties”, September 2003.

“Bond markets and long-term interest rates in European Union accession countries”, October 2003.

“Manual on MFI interest rate statistics – Regulation ECB/2001/18”, October 2003.

“European Union balance of payments/international investment position statistical methods”, November 2003.

“Money market study 2002”, November 2003.

“Background studies for the ECB’s evaluation of its monetary policy strategy”, November 2003.

“Structural analysis of the EU banking sector, Year 2002”, November 2003.

“TARGET: the Trans-European Automated Real-Time Gross settlement Express Transfer system – update 2003”, November 2003.

“TARGET2: the payment system of the Eurosystem”, November 2003.

“Seasonal adjustment”, November 2003.

“Comments of the ECB on the third consultative document of the European Commission on regulatory capital review”, November 2003.

“EU banking sector stability”, November 2003.

“Review of the international role of the euro”, December 2003.

“Policy position of the Governing Council of the European Central Bank on exchange rate issues relating to the acceding countries”, December 2003.

“Assessment of accession countries’ securities settlement systems against the standards for the use of EU securities settlement systems in Eurosystem credit operations”, January 2004.

“The monetary policy of the ECB”, January 2004.

“The implementation of monetary policy in the euro area: General documentation on Eurosystem monetary policy instruments and procedures”, February 2004.

“Guidance notes on the MFI balance sheet statistics relating to EU enlargement as laid down in Regulation ECB/2003/10”, February 2004.

“Comments on the communication from the Commission to the Council and the European Parliament concerning a new legal framework for payments in the internal market (consultative document)”, February 2004.

“Foreign direct investment task force report”, March 2004.

“External evaluation of the economic research activities of the European Central Bank”, April 2004.

“Payment and securities settlement systems in the accession countries – Addendum incorporating 2002 figures” (Blue Book, April 2004), April 2004.

“Payment and securities settlement systems in the European Union – Addendum incorporating 2002 figures” (Blue Book, April 2004), April 2004.

“TARGET compensation claim form”, April 2004.

“Letter from the ECB President to the President of the Council of the European Union: negotiations on the draft Treaty establishing a Constitution for Europe”, April 2004.

“The use of central bank money for settling securities transactions”, May 2004.

“TARGET Annual Report 2003”, May 2004.

“Assessment of euro large-value payment systems against the Core Principles”, May 2004.

“Credit risk transfer by EU banks: activities, risks and risk management”, May 2004.

“Risk Management for Central Bank Foreign Reserves”, May 2004.

“Comparison of household saving ratios, euro area/United States/Japan”, June 2004.

“The development of statistics for Economic and Monetary Union” by Peter Bull, July 2004.

“ECB staff macroeconomic projections for the euro area”, September 2004.

“Letter from the ECB President to the Chairman of International Accounting Standards Board of 6 September 2004: Exposure draft of proposed amendments to IAS 39 – the fair value option”, September 2004.

“Institutional provisions: Statute of the ESCB and of the ECB. Rules of procedures”, October 2004.

“Convergence Report 2004”, October 2004.

“Standards for securities clearing and settlement in the European Union”, October 2004.

“The European Central Bank – History, role and functions”, October 2004.

“E-payments without frontiers”, October 2004.

#### **INFORMATION BROCHURES**

“Information guide for credit institutions using TARGET”, July 2003.

“TARGET2 – the future TARGET system”, September 2004.

“TARGET – the current system”, September 2004.

## GLOSSARY

**Autonomous liquidity factors:** liquidity factors which normally do not stem from the use of monetary policy instruments. They include, for example, banknotes in circulation, government deposits with the central bank, and net foreign assets of the central bank.

**Central parity:** the exchange rate of ERM II member currencies vis-à-vis the euro around which the ERM II fluctuation margins are defined.

**Compensation per employee:** compensation is defined as the total remuneration, in cash or in kind, payable by employers to employees. Compensation includes gross wages and salaries, as well as bonuses, overtime payments and employers' social security contributions. Compensation per employee is defined as total compensation divided by the total number of employees.

**Consolidated balance sheet of the MFI sector:** obtained by netting out inter-MFI positions (mainly loans granted by one MFI to another) on the aggregated MFI balance sheet.

**Debt (financial accounts):** includes loans, debt securities issued, and pension fund reserves of non-financial corporations, valued at market value at the end of the period. In the quarterly financial accounts, debt does not include loans granted by non-financial sectors (for example inter-company loans) or by banks outside the euro area, whereas these components are included in the annual financial accounts.

**Debt ratio (general government):** general government debt is defined as total gross debt at nominal value outstanding at the end of the year and consolidated between and within the sectors of general government. The government debt-to-GDP ratio is defined as the ratio of general government debt to gross domestic product at current market prices and is the subject of one of the fiscal convergence criteria laid down in Article 104 (2) of the Treaty establishing the European Community.

**Debt securities:** represent a promise on the part of the issuer (i.e. the borrower) to make one or more payment(s) to the holder (the lender) at a specified future date or dates. They usually carry a specific rate of interest (the coupon) and/or are sold at a discount to the amount that will be repaid at maturity. Debt securities issued with an original maturity of more than one year are classified as long-term.

**Deficit ratio (general government):** the general government deficit is defined as net borrowing and corresponds to the difference between total government revenue and total government expenditure. The deficit ratio is defined as the ratio of the general government deficit to gross domestic product at current market prices and is the subject of one of the fiscal convergence criteria laid down in Article 104 (2) of the Treaty establishing the European Community. It is also referred to as the budget deficit ratio or the fiscal deficit ratio.

**Deposit facility:** a standing facility of the Eurosystem which counterparties may use to make overnight deposits, remunerated at a pre-specified interest rate, at a national central bank.

**Direct investment:** cross-border investment that reflects the objective of obtaining a lasting interest in an enterprise resident in another economy (in practice assumed for ownership equivalent to at least 10% of the voting rights). The direct investment account records net acquisitions of assets abroad by euro area residents (as "direct investment



abroad”) and net acquisitions of euro area assets by non-residents (as “direct investment in the euro area”). Direct investment includes equity capital, reinvested earnings and other capital associated with inter-company operations.

**EC surveys:** qualitative business and consumer surveys conducted for the European Commission. Questions are addressed to managers in manufacturing, construction, retail and services as well as to consumers. The confidence indicators are composite indicators calculated as the arithmetic average of the percentage balances of several components (see Table 5.2.5 in the “Euro area statistics” section for details).

**EONIA (euro overnight index average):** a measure of the interest rate prevailing in the euro interbank overnight market based on transactions.

**Equity securities:** represent ownership of a stake in a corporation. Comprise shares traded on stock exchanges (quoted shares), unquoted shares and other forms of equity. Equities usually produce income in the form of dividends.

**ERM II (exchange rate mechanism II):** the exchange rate arrangement which provides the framework for exchange rate policy cooperation between the euro area countries and the EU Member States not participating in Stage Three of EMU.

**EURIBOR (euro interbank offered rate):** the rate at which a prime bank is willing to lend funds in euro to another prime bank, computed daily for interbank deposits with different maturities of up to 12 months.

**Euro effective exchange rates (EERs, nominal/real):** nominal euro EERs are weighted averages of bilateral euro exchange rates against the currencies of euro area’s trading partners. The ECB publishes nominal EER indices for the euro against the currencies of a narrow and a broad group of trading partners. The weights used reflect the share of each partner country in euro area trade. Real EERs are nominal EERs deflated by a weighted average of foreign, relative to domestic, prices or costs. They are, thus, measures of price and cost competitiveness.

**Eurozone Manufacturing Input Prices Index (EPI):** a weighted average of the manufacturing input price data derived from surveys of manufacturing business conditions conducted in a number of euro area countries.

**Eurozone purchasing managers’ surveys:** surveys of manufacturing and service sector business conditions conducted for a number of countries in the euro area and used to compile indices. The Eurozone Manufacturing Purchasing Managers’ Index (PMI) is a weighted indicator calculated from indices of output, new orders, employment, suppliers’ delivery times and stocks of purchases. The service sector survey asks questions on business activity, expectations of future business activity, amount of business outstanding, incoming new business, employment, input prices and prices charged. The Eurozone Composite Index is calculated combining the results from the manufacturing and service sector surveys.

**External trade in goods:** intra- and extra-euro area exports and imports of goods, measured in terms of value and as volume and unit value indices. Intra-euro area trade records the arrival and dispatch of goods flowing between the euro area countries, while extra-euro area trade records

the external trade of the euro area. External trade statistics are not directly comparable with exports and imports recorded in the National Accounts, as the latter include both intra- and extra-euro area transactions and also combine goods and services.

**Fixed rate tender:** a tender procedure where the interest rate is specified in advance by the central bank and participating counterparties bid the amount of money they wish to transact at the fixed interest rate.

**General government:** comprises central, state and local government and social security funds. Publicly-owned units carrying out commercial operations, such as public enterprises, are in principle excluded from general government.

**Gross domestic product (GDP):** the final result of production activity. It corresponds to the economy's output of goods and services less intermediate consumption, plus net taxes on products and imports. GDP can be broken down by output, expenditure or income components. The main expenditure aggregates which make up GDP are household final consumption, government final consumption, gross fixed capital formation, changes in inventories, and exports and imports of goods and services (including intra-euro area trade).

**Gross monthly earnings:** a measure of gross monthly wages and salaries of employees, including employees' social security contributions.

**Harmonised Index of Consumer Prices (HICP):** a measure of consumer prices which is compiled by Eurostat and harmonised for all EU countries.

**Hourly labour cost index:** a measure of labour costs, including gross wages and salaries (including bonuses of all kinds), employers' social security contributions and other labour costs (such as vocational training costs, recruitment costs and employment-related taxes) and net of subsidies, per hour actually worked. Hourly costs are obtained by dividing the total of these costs for all employees by all hours worked by them (including overtime).

**Implied volatility:** a measure of expected volatility (standard deviation in terms of annualised percentage changes) in the prices of, for example, bonds and stocks (or of corresponding futures contracts), which can be extracted from option prices.

**Index of negotiated wages:** a measure of the direct outcome of collective bargaining in terms of basic pay (i.e. excluding bonuses) at the euro area level. It refers to the implied average change in monthly wages and salaries.

**Industrial producer prices:** a measure of the factory-gate prices (transportation costs are not included) of all products sold by industry excluding construction on the domestic markets of the euro area countries, excluding imports.

**Industrial production:** a measure of the gross value added created by industry at constant prices.

**Inflation-indexed government bonds:** debt securities whose coupon payments and principal are linked to a specific consumer price index.

**International investment position (i.i.p.):** the value and composition of an economy's outstanding net financial claims on (or financial liabilities to) the rest of the world. Also referred to as the net external asset position.

**Job vacancies:** a measure of newly created jobs, unoccupied jobs or jobs about to become vacant in the near future, for which the employer has taken recent active steps to find a suitable candidate.

**Key ECB interest rates:** the interest rates, set by the Governing Council, which reflect the monetary policy stance of the ECB. They are the minimum bid rate on the main refinancing operations, the interest rate on the marginal lending facility and the interest rate on the deposit facility.

**Labour force:** the sum of persons in employment and the number of unemployed.

**Labour productivity:** a measure of the output that can be produced with a given input of labour. Labour productivity can be measured in several ways. It is commonly measured as GDP at constant prices divided by either total employment or total hours worked.

**Longer-term refinancing operation:** a monthly open market operation, conducted by the Eurosystem, with a usual maturity of three months. The operations are conducted as variable rate tenders with pre-announced allotment volumes.

**M1:** narrow monetary aggregate. Comprises currency in circulation plus overnight deposits held with MFIs and central government (e.g. at the post office or treasury).

**M2:** intermediate monetary aggregate. Comprises M1 and deposits redeemable at a period of notice of up to and including three months (i.e. short-term savings deposits) and deposits with an agreed maturity of up to and including two years (i.e. short-term time deposits) held with MFIs and central government.

**M3:** broad monetary aggregate. Comprises M2 and marketable instruments, i.e. repurchase agreements, money market fund shares and units, and debt securities with a maturity of up to and including two years issued by MFIs.

**Marginal lending facility:** a standing facility of the Eurosystem which counterparties may use to receive credit from a national central bank at a pre-specified interest rate against eligible assets.

**Main refinancing operation:** a weekly open market operation conducted by the Eurosystem. In 2003 the Governing Council decided that as of March 2004 the maturity of these operations would be reduced from two weeks to one. The operations are conducted as variable rate tenders with a pre-announced minimum bid rate.

**MFIs (monetary financial institutions):** financial institutions forming the money-issuing sector of the euro area. They include the ECB, the national central banks of the euro area countries, and credit institutions and money market funds located in the euro area.

**MFI credit to euro area residents:** comprises MFI loans to euro area residents and MFI holdings of securities issued by euro area residents. Securities comprise shares, other equity and debt securities.

**MFI longer-term financial liabilities:** comprise deposits with an agreed maturity of over two years, deposits redeemable at a period of notice of over three months, debt securities issued with an original maturity of more than two years and the capital and reserves of the euro area MFI sector.

**MFI net external assets:** comprise external assets of euro area MFIs (such as gold, non-euro banknotes, securities issued by non-euro area residents and loans granted to non-euro area residents) minus external liabilities of the euro area MFI sector (such as non-euro area residents' holdings of deposits, repurchase agreements, money market fund shares and units, and debt securities with a maturity of up to and including two years issued by MFIs).

**Portfolio investment:** a record of net acquisitions by euro area residents of securities issued by non-residents of the euro area ("assets") and net acquisitions by non-residents of the euro area of securities issued by euro area residents ("liabilities"). Includes equity securities, debt securities in the form of bonds and notes, and money market instruments. Transactions are recorded at the effective price paid or received, less commissions and expenses. To be regarded as a portfolio asset, ownership in an enterprise must be equivalent to less than 10% of the voting rights.

**Price stability:** the maintenance of price stability is the primary objective of the Eurosystem. The Governing Council defines price stability as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%. The Governing Council has also made it clear that, in the pursuit of price stability, it aims to maintain inflation rates below, but close to, 2% over the medium term.

**Reference value for M3 growth:** the annual growth rate of M3 over the medium term consistent with the maintenance of price stability. At present, the reference value for annual M3 growth is 4½%.

**Reserve requirement:** the minimum amount of reserves a credit institution is required to hold with the Eurosystem. Compliance is determined on the basis of the average of the daily balances over a maintenance period of around one month.

**Unit labour costs:** a measure of total labour costs per unit of output calculated for the euro area as the ratio of total compensation of employees to gross domestic product at constant prices.

**Variable rate tender:** a tender procedure where the counterparties bid both the amount of money they wish to transact with the central bank and the interest rate at which they wish to enter into the transaction.

**Wage drift:** a measure of the gap between the rate of increase of wages and salaries actually paid and that of basic negotiated wages (e.g. due to additional elements such as bonuses and promotion premia and clauses covering unexpected inflation).

**Yield curve:** describes the relationship between interest rates at different maturities at a given point in time. The slope of the yield curve can be measured as the difference between interest rates at two selected maturities.

