



EUROPEAN CENTRAL BANK

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**MONTHLY BULLETIN  
FEBRUARY**

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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.europa.eu>

**Fax**

+49 69 1344 6000

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## ABBREVIATIONS

### COUNTRIES

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

### 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
HWWI	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
OECD	Organisation for Economic Co-operation and Development
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 7 February 2008, the Governing Council of the ECB decided, on the basis of its regular economic and monetary analyses, to leave the key ECB interest rates unchanged. This decision reflects the Governing Council's assessment that risks to price stability over the medium term are on the upside, in a context of very vigorous money and credit growth. The current short-term upward pressure on inflation must not spill over to the medium term. The firm anchoring of inflation expectations over the medium and long term is of the highest priority to the Governing Council, reflecting its mandate. Against this background, the Governing Council remains committed to preventing second-round effects and the materialisation of upside risks to price stability over the medium term. As the reappraisal of risk in financial markets continues, there remains unusually high uncertainty about its overall impact on the real economy. While the economic fundamentals of the euro area are sound, incoming data have confirmed that the risks surrounding the outlook for economic activity lie on the downside. The Governing Council will continue to monitor very closely all developments over the coming weeks.

Starting with the economic analysis, the latest information on economic activity around the turn of the year points to a more moderate pace of growth in the euro area than the quarter-on-quarter rate of 0.8% observed in the third quarter of 2007. This assessment is in line with indicators for business and consumer confidence which, while having declined over the past few months, overall remain consistent with ongoing growth.

Looking ahead, while the slowdown in the economies of some of the euro area's major trading partners is likely to have an impact on euro area real GDP growth in 2008, both domestic and foreign demand are expected to support ongoing growth. This assessment is broadly in line with available forecasts from private and public-sector sources. The fundamentals of the euro area economy remain sound. The euro area economy does not have major imbalances. Profitability has been

sustained and unemployment rates have fallen to levels not seen for 25 years. As a result of the improved economic conditions and wage moderation, the number of people employed and labour force participation have increased significantly. Consumption growth should therefore continue to contribute to economic expansion, in line with real disposable income, and investment growth should provide ongoing support.

That said, uncertainty about the prospects for economic growth is unusually high and the risks surrounding the outlook for economic activity have been confirmed to lie on the downside. Risks relate mainly to a potentially broader than currently expected impact of financial market developments on financing conditions and economic sentiment, with negative effects on world and euro area growth. Further downside risks stem from the scope for additional oil and other commodity price rises, concerns about protectionist pressures and the possibility of disorderly developments due to global imbalances.

With regard to price developments, according to Eurostat's flash estimate the annual HICP inflation rate was 3.2% in January 2008, compared with 3.1% in December 2007. This confirms the continued strong upward pressure on inflation in the short term, stemming mainly from strong increases in commodity prices, in particular oil and food prices, in recent months.

Looking ahead, the annual HICP inflation rate will most likely remain significantly above 2% in the coming months and moderate only gradually in the further course of 2008. This confirms the Governing Council's expectation of a protracted period of temporarily high rates of inflation. Moreover, it is important to stress that the moderation in the rate of inflation which is embedded in the December 2007 Eurosystem staff macroeconomic projections is based on the assumption that the recent rises in commodity prices will be partly reversed, in line with futures prices. More fundamentally, the projections assume that recent oil and food price dynamics

and their impact on HICP inflation do not have broadly based second-round effects on wage and price-setting behaviour.

Risks to this medium-term outlook for price developments are confirmed to lie on the upside. These risks include the possibility that stronger than currently expected wage growth may emerge, taking into account high capacity utilisation and tight labour market conditions. Furthermore, the pricing power of firms, notably in market segments with low competition, could be stronger than expected. At this juncture, it is therefore imperative that all parties concerned meet their responsibilities and that second-round effects on wage and price-setting stemming from current inflation rates be avoided. In the view of the Governing Council, this is of key importance in order to preserve price stability in the medium run and thereby the purchasing power of all euro area citizens. The Governing Council is monitoring wage negotiations in the euro area with particular attention. Indexation of nominal wages to the consumer price index should be avoided. Finally, further rises in oil and agricultural prices, continuing the strong upward trend observed in recent months, as well as increases in administered prices and indirect taxes beyond those foreseen thus far pose upside risks to the inflation outlook.

The monetary analysis confirms the prevailing upside risks to price stability at medium to longer-term horizons. Annual M3 growth, although declining somewhat in December, remained very vigorous at 11.5%, whereas M1 growth continues to moderate, reflecting the dampening impact of higher interest rates. Broad money dynamics in recent quarters are likely to have been influenced by a number of temporary factors, notably the flattening of the yield curve, which may have supported some substitution into monetary assets. Overall, taking these special factors into account, a broad-based assessment of the latest data confirms that the underlying rate of monetary expansion remains strong.

This conclusion is supported by the sustained expansion of loans to the domestic private

sector, which grew at an annual rate of 11.1% in December. Although the growth of household borrowing has moderated further over the past few quarters, reflecting the impact of higher key ECB interest rates since December 2005 and cooling housing markets in several parts of the euro area, the growth of loans to non-financial corporations has remained very robust. Bank borrowing by euro area non-financial corporations was 14.4% higher at the end of December 2007 than a year earlier.

For the time being, there is little evidence that the financial market turbulence since early August 2007 has strongly influenced the dynamics of broad money and credit aggregates. In particular, according to the available data, increased financial market volatility has not led to substantial portfolio shifts into monetary assets, as was the case between 2001 and 2003. Notwithstanding the tightening of credit standards reported in the bank lending survey for the euro area, continued strong loan growth suggests that the supply of bank credit in the euro area has not been significantly impaired by the financial turmoil thus far. Further data and analysis will be required in order to obtain a more complete picture of the impact of the financial market developments on banks' balance sheets, financing conditions and money and credit growth.

To sum up, a cross-check of the outcome of the economic analysis with that of the monetary analysis confirms the assessment that there are upside risks to price stability over the medium term, in a context of very vigorous broad money and credit growth and sound economic fundamentals in the euro area. The impact of the ongoing reappraisal of risk in financial markets on the real economy is still surrounded by unusually high uncertainty. Incoming data have confirmed that the risks surrounding the outlook for economic activity lie on the downside. Accordingly, the Governing Council will monitor very closely all developments. It remains committed to preventing second-round effects and the materialisation of upside risks to price stability over the medium term. It is

paramount that medium and long-term inflation expectations remain firmly anchored in line with price stability. Reflecting its mandate, such anchoring is of the highest priority to the Governing Council.

With respect to fiscal policies, a discretionary fiscal loosening in EU countries should be avoided. There is ample evidence that activist fiscal policies were not effective in stabilising European economies but rather led to sustained increases in the ratios of government expenditure and debt to GDP. Allowing the free operation of automatic stabilisers in countries with strong fiscal positions and safeguarding the long-term sustainability of public finances are the best contributions that fiscal policy can make to macroeconomic stability. Countries with fiscal imbalances are urged to make further progress with consolidation, in line with the requirements of the Stability and Growth Pact. There is a clear risk that some countries will fail to comply with the provisions of the preventive arm of the Pact, thereby undermining its credibility.

Structural reforms help economies to adjust to adverse shocks, foster productivity growth and increase employment and competition, thereby also helping to reduce inflationary pressures. In particular, enhancing competition in the services sectors and network industries, as well as applying adequate measures in the EU agricultural market, would be conducive to price stability in the euro area.

This issue of the Monthly Bulletin contains three articles. The first article discusses the importance of the euro money market for the transmission of monetary policy decisions and presents some of the tools employed by the ECB when monitoring this market. The second reviews developments in securitisation in the euro area. The third article provides information on the euro area yield curves published by the ECB.





# ECONOMIC AND MONETARY DEVELOPMENTS

## I THE EXTERNAL ENVIRONMENT OF THE EURO AREA

While global economic activity still continues to benefit from robust economic conditions in emerging markets, recent indicators point to further moderation in global growth, mainly triggered by the US economic slowdown. At the same time, headline consumer price inflation remained elevated in industrialised countries in December. Consumer price inflation excluding food and energy remained however at more moderate levels. On balance, risks to the outlook for growth are judged to lie on the downside.

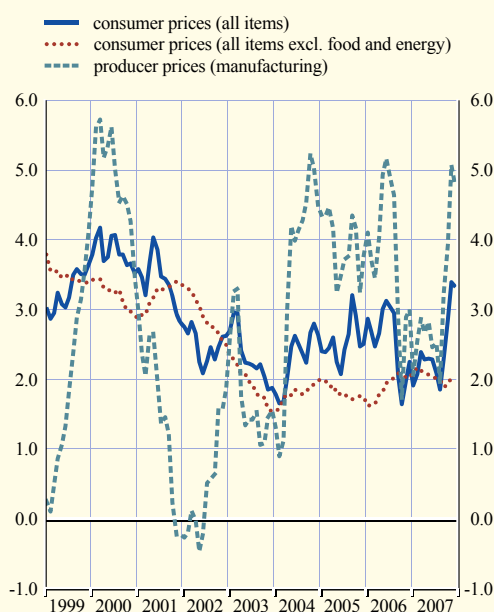
### I.1 DEVELOPMENTS IN THE WORLD ECONOMY

While global economic activity still continues to benefit from robust economic conditions in emerging markets, recent indicators point to further moderation in global growth, mainly triggered by the US economic slowdown. Moreover, the renewed tensions in financial markets and the overall reappraisal of risks are likely to have negative impacts on the global economy.

In view of higher commodity prices and unfavourable base effects, annual headline consumer price inflation remained elevated in industrialised countries in December (see Chart 1). For the OECD countries the annual rate of change of the CPI was 3.3% in December (after 3.4% in November), while annual CPI inflation excluding food and energy remained at more moderate levels, slightly increasing to an annual rate of 2.1%. More recent survey evidence on global input prices suggests that average costs rose further in January.

Chart 1 Price developments in OECD countries

(annual percentage changes; monthly data)



Source: OECD.

### UNITED STATES

In the United States, in the fourth quarter of 2007 the pace of economic activity slowed sharply, following an exceptionally strong growth rate of 4.9% in the third quarter. According to advance estimates, in the final quarter of 2007, real GDP grew by 0.6% on a quarterly annualised basis. Besides the slump in residential investment (which contracted by nearly 24% in quarterly annualised terms), the significant moderation in real GDP growth also reflects some inventory adjustment, which subtracted almost 1.3 percentage points from real GDP growth after adding 0.9 percentage point in the third quarter. Moreover, slowing consumer spending and lower growth of overseas sales also restrained economic growth.

Meanwhile, price indicators show a pick-up in inflation from the third quarter of 2007. Indeed, the latest national accounts show that in the fourth quarter of 2007 the deflator for personal consumption expenditures excluding food and energy rose at an annual rate of 2.1%, after increasing by 1.9% in the third quarter.

On 22 January at an unscheduled meeting, the US Federal Open Market Committee (FOMC) decided to cut its target for the federal funds rate by 75 basis points to 3.5%. At its regular meeting on 30 January, the target was lowered by an additional 50 basis points to 3%. The FOMC motivated these changes by referring to incoming information indicating a deepening of the housing contraction as well as some softening in labour markets.

### JAPAN

In Japan, economic activity has been slowing down in recent months, following the revision of the Building Standard Law in June 2007, which resulted in a significant drop in housing and corporate construction starts in the second half of 2007. However economic activity has continued to expand and output has been supported by resilient business conditions and robust export growth, driven in particular by strong external demand from emerging Asia.

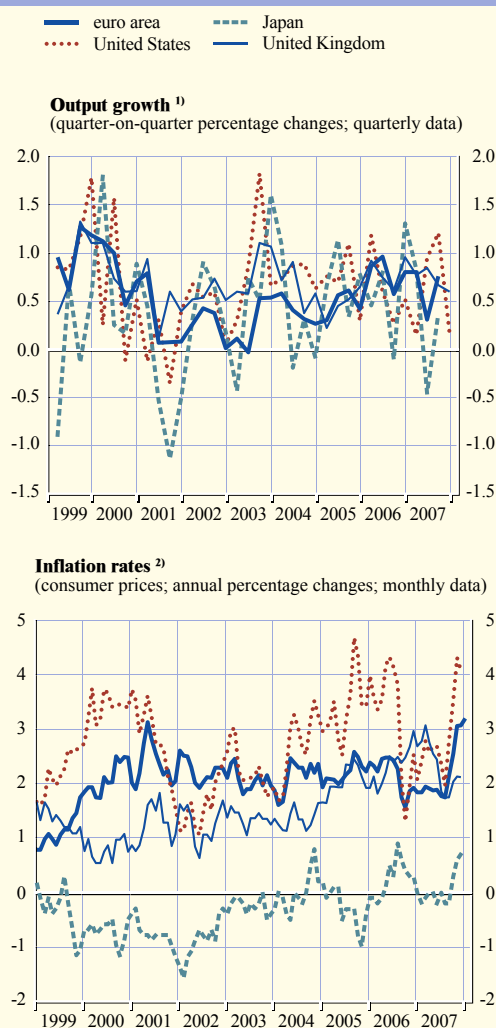
Consumer price inflation has remained subdued (see Chart 2), owing to persistent downward pressures, especially on wages. In recent months however, as a result of the rise in the price of imported raw materials, overall CPI inflation has returned to positive territory. In December 2007 the annual change in the CPI was 0.7% after 0.6% in November, while the annual change in the CPI excluding fresh food was 0.8% after 0.4% in November. Excluding food and energy, the annual change in the CPI was -0.1%, the same as in November.

At its meeting on 22 January 2008, the Bank of Japan decided to leave its target for the uncollateralised overnight call rate unchanged at 0.50%.

### UNITED KINGDOM

In the United Kingdom, according to the preliminary estimates, the quarterly rate of real GDP growth was 0.6% in the fourth quarter of 2007, down by 0.1 percentage point from the previous quarter. Retail sales data indicate that household consumption moderated in the last quarter of 2007. Activity and price indicators for the housing market were generally down in recent months. In December annual HICP inflation was unchanged from the two previous months at 2.1%. The lower contribution of utility bills continued to offset higher fuel and food prices.

Chart 2 Main developments in major industrialised economies



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

On 7 February 2008 the Bank of England's Monetary Policy Committee reduced the official Bank Rate by 25 basis points to 5.25%.

#### OTHER EUROPEAN COUNTRIES

Short-term indicators for the fourth quarter of 2007 suggest that growth momentum in other EU countries outside the euro area was broadly sustained. Inflation in these countries generally increased further in December.

In the fourth quarter of 2007, GDP growth is estimated to have remained broadly unchanged from the previous quarter in Sweden, and to have moderated significantly in Denmark from a very high level in the previous quarter. In both countries consumer confidence indicators fell in recent months, although they still remained above the long-term average. In Sweden, growth in retail sales in the three months to December was close to zero, significantly weaker than in the third quarter of 2007. In December HICP inflation changed only marginally compared with November 2007: in Sweden it increased to 2.5% and in Denmark it declined to 2.4%.

In the four largest central and eastern European economies, growth momentum in the last quarter of 2007 is estimated to have moderated in the Czech Republic, strengthened in Hungary and to have remained broadly unchanged in Poland and Romania. In December HICP inflation increased further on the back of higher food and energy prices: in the Czech Republic to 5.5%, in Hungary to 7.4% and in Poland to 4.2%. In Romania inflation declined marginally to 6.7% as the contribution of food and energy turned slightly negative. On 30 January Narodowy Bank Polski increased its policy rate by 25 basis points to 5.25%, reflecting upside risks that inflation will exceed its target in the medium term. On 7 February Česká národní banka increased its key policy rate by 25 basis points to 3.75%, in view of the risk of missing the inflation target.

#### EMERGING ASIA

In emerging Asia, economic activity continued to expand at a robust pace in the last months of the year, increasingly driven by domestic demand. At the same time export growth started to moderate in several countries – especially small open economies – owing to slower external demand. Inflationary pressures remained strong in most of the region, largely as a result of high food and commodity prices.

In China, GDP grew by 11.2% year on year in the fourth quarter, moderating slightly from 11.5% in the previous quarter. Export growth lost momentum in the second half of 2007, although remained sustained (21.6% in nominal year-on-year terms in December). The trade surplus reached a cumulative USD 262.2 billion by the end of 2007, 48% higher than in the previous year. Retail sales data indicate strong consumption demand in the last months of the year. In the context of moderating food prices, consumer price inflation in December eased to 6.5% from the 11-year high of 6.9% in November. In January the People's Bank of China again raised the banks' reserve requirement ratio by 50 basis points, to 15%.

#### LATIN AMERICA

Economic activity continued to be sustained in most of Latin America, with domestic demand remaining the main engine of growth. In Brazil, industrial production expanded by 7.3% in November, down from 9.8% in October, and annual inflation rebounded to 4.5% in December. In Argentina, industrial production maintained a robust momentum, growing at 9.9% in December, while annual consumer price inflation remained elevated at 8.5%. In Mexico, after a recovery in the third quarter, economic activity gave signs of slowing down, with annual industrial production

growth falling to 0.8% in November, down from 3.2% in October. Consumer price inflation stood at 3.8% in December.

## 1.2 COMMODITY MARKETS

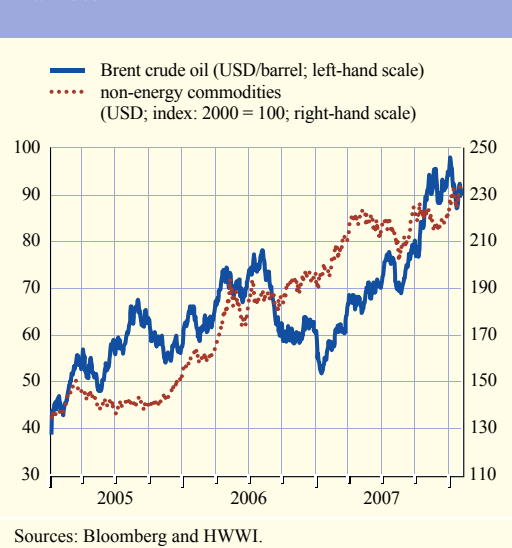
Oil prices entered a period of considerable volatility towards the end of the year 2007. After hitting a historical peak close to USD 100 at the beginning of January 2008, oil prices decreased noticeably, with the price of Brent crude oil standing at USD 89.2 on 6 February (see Chart 3).

A combination of mild winter temperatures amid slowly recovering inventories and increased concerns over a slowdown in global oil demand related to the weakness in the US economy put downward pressure on oil prices in January. At the beginning of the year very low inventories in the United States and other OECD countries and geopolitical tensions triggered concerns over short-term supply shortfalls, but with relatively mild winter temperatures in the main heating regions and a gradual build-up in inventories, the short-term tightness in the oil market eased. Market concerns over an economic slowdown in the United States affecting global oil demand, in combination with a liquidation of speculative positions during the turmoil in equity markets, put additional downward pressure on oil prices. The International Energy Agency kept its medium-term outlook for oil demand in 2008 relatively robust in January owing to strong non-OECD demand growth, but warned that a downward revision of global oil demand could be considered in the event of a substantial slowdown in the US economy. Also from the supply side, pressure eased slightly with actual production picking up significantly in December as the United Arab Emirates returned to full production capacity after field maintenance work. Given the recent easing in oil prices, OPEC did not increase its production quota at its latest meeting on 1 February.

Looking ahead, throughout this period of high volatility of spot prices and despite market concerns about a global economic slowdown, medium-term futures prices remained at elevated levels with December 2009 futures currently trading at USD 87. This mirrors market expectations of some continued tightness of oil markets in the medium run attributable to relatively robust oil demand in non-OECD countries and limited crude oil supply growth and spare capacity. In the short run, oil prices are likely to remain very sensitive to small changes in the supply-demand balance and the geopolitical environment.

The prices of non-energy commodities picked up again in January, amid considerable short-run volatility. The main driving factors were non-ferrous metals and food prices. Food prices were supported by robust demand, very low inventories data and concerns over supply shortfalls, e.g. as a result of droughts. In particular, the prices of wheat and corn increased significantly. In addition, the prices of non-ferrous metals recovered from their December declines and surged towards the end of January due to production shortfalls triggered by

Chart 3 Main developments in commodity markets



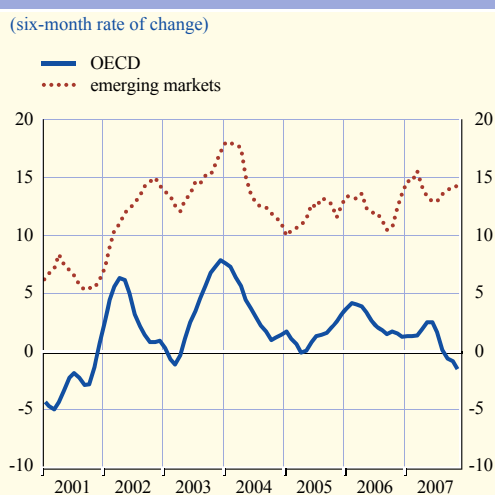
power shortages in China and South Africa. In aggregate terms, the price index for non-energy commodities (denominated in US dollars) was approximately 17% higher at the end of January than a year earlier.

### 1.3 OUTLOOK FOR THE EXTERNAL ENVIRONMENT

The moderation in global expansion is likely to lead to a slight slowdown in foreign demand for euro area goods and services, despite still continued buoyant activity in most emerging economies. In November, the composite leading indicator (CLI) for the OECD suggested that a moderate slowdown in economic activity lies ahead in the OECD area. November 2007 data indicated a weakening outlook for all the major OECD economies (see Chart 4). At the same time, the latest CLI data for major OECD non-member economies point to continued steady expansion in China and Brazil, but a weakening outlook for India.

On balance, risks to the outlook for growth are judged to lie on the downside. These downside risks relate mainly to a potentially broader than currently expected impact of financial market developments on financing conditions and economic sentiment, with negative effects on world and euro area growth. Further downside risks stem from the scope for additional oil and other commodity price rises, concerns about protectionist pressures and the possibility of disorderly developments due to global imbalances.

Chart 4 OECD composite leading indicator



Source: OECD.  
Note: The emerging market indicator is a weighted average of the CLI for Brazil, China and Russia.

## 2 MONETARY AND FINANCIAL DEVELOPMENTS

### 2.1 MONEY AND MFI CREDIT

The latest monetary data support the view that the underlying pace of monetary and credit expansion remains strong, pointing to upside risks to price stability over the medium to longer term. Although the annual growth rate of M3 moderated somewhat in December, it nonetheless remained strong at 11.5%. The annual growth rate of MFI loans to the private sector also remained robust at 11.1%. At the same time, M3 growth continued to be stimulated by the flat yield curve and thus overstates somewhat the underlying pace of monetary expansion. At the aggregate level, broad money and credit dynamics have been largely unaffected by the recent financial turmoil, although evidence of an impact on specific components and counterparts of M3 is again visible in the December data. Some caution is generally warranted when interpreting monetary developments at the end of the year, and this is particularly true on this occasion, as in 2007 developments may have been accentuated by the turmoil in financial markets. Such effects may have influenced M1 growth in particular. However, the main factor behind the moderation of both M1 growth and the growth of household borrowing remains the increases in key ECB interest rates since December 2005.

#### THE BROAD MONETARY AGGREGATE M3

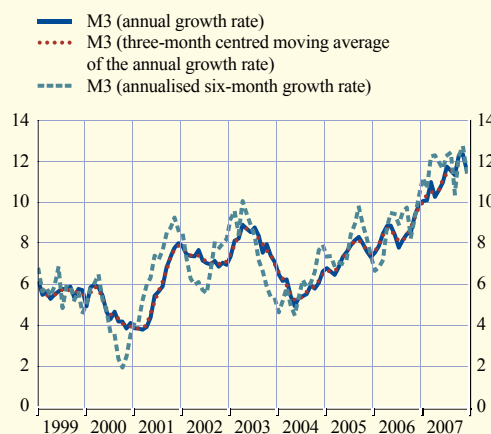
In December 2007 the annual growth rate of M3 decreased to 11.5%, from 12.3% in November (see Chart 5). This reflects the fact that the month-on-month growth rate declined to 0.3%, the lowest rate recorded over the last two years. The impact of the relatively small increase in December can also be observed in the moderation of the annualised six-month rate of growth, although both the six-month annualised growth rate and the annual rate of growth remained at a high level.

Some caution is warranted when assessing monetary developments at the end of the year, as these can be influenced by factors (such as accounting considerations) that are not fully captured by the seasonal adjustment employed for the monetary data. For instance, depending on the timing of the bank holidays at the end of December, investors may, temporarily, park funds – normally held in highly liquid monetary assets – in higher-yield monetary or non-monetary assets. In December 2007 such year-end effects may have been accentuated by the turmoil in financial markets and investors' apprehension regarding credit market developments at the turn of the year. Taking this into account, the December data continued to support the previous assessments with regard to the factors currently influencing monetary developments.

First, there is again evidence that developments in some specific components and counterparts of M3 that are closely related to the nature of the financial turmoil have been affected by that turmoil. In particular, holdings of money market fund shares/units and MFI debt securities, as well as flows in MFIs' net external assets, may have been influenced. However, the overall growth of broad money and credit aggregates still appears to have been largely unaffected.

Chart 5 M3 growth

(percentage changes; adjusted for seasonal and calendar effects)



Source: ECB.

Second, M3 growth currently overstates the underlying pace of monetary expansion, as the flat yield curve continues to render the remuneration of shorter-term monetary assets attractive by comparison with riskier, non-monetary assets outside M3. However, the continued robust growth of loans to the non-financial private sector in December supports the view that monetary dynamics are being driven largely by fundamental forces and the underlying rate of monetary expansion thus remains strong.

Third, the December monetary data also confirm that the increases in key ECB interest rates since December 2005 are continuing to influence money and credit developments. This is visible in particular in the further moderation of the annual growth rates of loans to households and M1. At the same time, the sharp moderation of M1 growth in December is likely also to reflect strong end-of-year effects.

Monetary developments in Cyprus and Malta will be included for the first time in the euro area aggregates for January 2008 (see the box below).

**Box 1****STYLISED FACTS ABOUT THE MFI SECTORS OF CYPRUS AND MALTA AND THEIR IMPACT ON MONETARY DATA FOR THE EURO AREA**

On 1 January 2008 Cyprus and Malta adopted the euro as their currency, thus increasing the number of euro area countries from 13 to 15. Monetary data for Cyprus and Malta will be included for the first time in the euro area aggregates for January, which will be published on 27 February 2008 and reported in the March 2008 issue of the Monthly Bulletin.<sup>1</sup> This box highlights some stylised facts about the balance sheet structure of MFIs resident in Cyprus and Malta.<sup>2</sup>

**Key features of the MFI sector in Cyprus**

At the end of December 2007 a total of 216 MFIs were resident in Cyprus, comprising 215 credit institutions and the Central Bank of Cyprus.<sup>3</sup> There are no money market funds established in Cyprus. The aggregated balance sheet of Cypriot MFIs totalled €99 billion at the end of December 2007, compared with €31,434 billion for total euro area MFIs. Cyprus thus makes up around 0.3% of the MFI balance sheet of the enlarged euro area. According to ECB calculations, the contribution of Cyprus to euro area M3 would have been €31 billion in December 2007. Deposits account for 98% of the Cypriot contribution to M3. Deposits with an agreed maturity of up to two years (i.e. short-term time deposits) make up a relatively large share, accounting for 57% of M3 in December 2007 (see Chart A), while the shares of overnight deposits and deposits redeemable at notice of up to and including three months were 23% and 18% respectively in that

1 For monetary statistics, the euro area series covers those EU Member States that had the euro as their currency at the time to which the statistics relate. This approach, which is also applied for MFI interest rate statistics and the HICP, differs from that applied to all other datasets, such as GDP, for which data relate to the latest composition of the euro area for the entire time series.

2 For details of the statistical methodology adopted concerning the enlargement of the euro area in MFI balance sheet statistics, see Box 1, entitled "Implications of the entry of Slovenia into the euro area for monetary statistics", in the February 2007 issue of the Monthly Bulletin. For further details, see also the "General notes" section of the Monthly Bulletin.

3 For an overview of the development of the MFI sector in the EU, see, for example, <http://www.ecb.int/stats/money/mfi/statrep/html/index.en.html>.



month. This breakdown differs from that of euro area M3, as total deposits accounted for 81% of total euro area M3 in December 2007, with a larger contribution by overnight deposits and a smaller contribution by deposits with an agreed maturity of up to two years (see Chart C). Holdings of MFI short-term debt securities and repurchase agreements, which in the euro area as a whole account for 4% and 3% of M3 holdings respectively, are not significant in Cyprus.

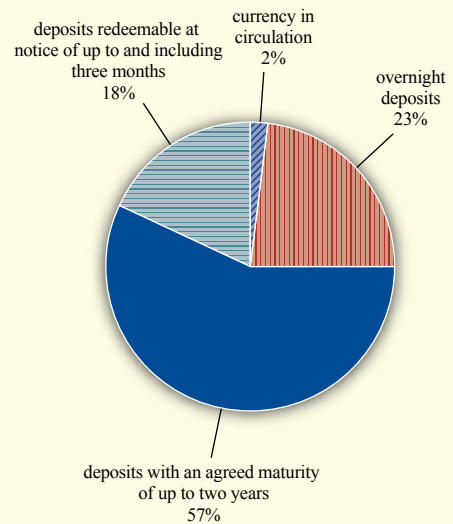
Turning to the counterparts of M3, longer-term liabilities of Cypriot MFIs totalled just over €13 billion in December 2007, while on the asset side of the balance sheet outstanding loans to the private sector totalled €34 billion. From a sectoral point of view, €16 billion of the outstanding loans was granted to households and €16 billion was granted to non-financial corporations.

### Key features of the MFI sector in Malta

28 MFIs were resident in Malta in December 2007, comprising 22 credit institutions, five money market funds and the Central Bank of Malta. The aggregated balance sheet of MFIs resident in Malta totalled €41 billion at the end of December 2007, corresponding to around 0.1% of the enlarged euro area MFI balance sheet. The contribution of Malta to euro area M3 in December 2007 would have been approximately €8 billion. As in Cyprus, deposits with an agreed maturity of up to two years play a prominent role in Malta, accounting for 55% of M3 in December 2007 (see Chart B). Together with overnight deposits (which made up 37% of M3), these accounted for 92% of Maltese M3 in December 2007. The contributions of currency in circulation and deposits redeemable at notice of up to and including three months (i.e. short-term savings deposits) stood at 7% and 1% respectively in that month. Repurchase agreements and money market fund shares/units are of very limited importance in Malta. With regard to the counterparts of M3, longer-term liabilities totalled approximately €2 billion in December 2007. On the asset side of the MFI balance sheet, outstanding MFI loans to the

**Chart A Composition of M3 in Cyprus**

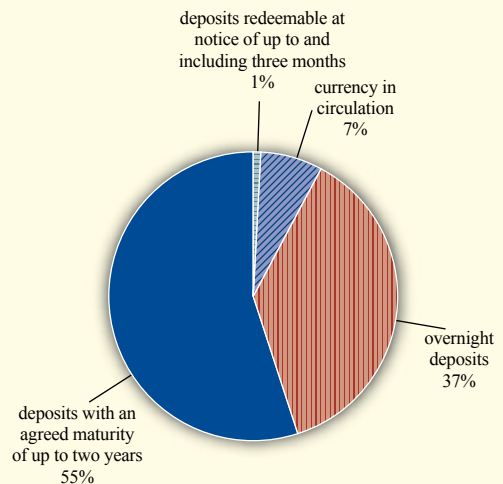
(December 2007)



Source: ECB.

**Chart B Composition of M3 in Malta**

(December 2007)



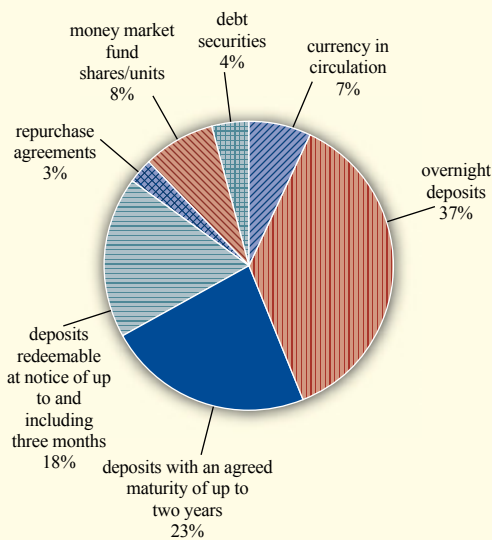
Source: ECB.

private sector in Malta totalled €8 billion in that month, of which €3 billion was granted to households and €4 billion was granted to non-financial corporations.

Euro area MFI balance sheet statistics refer to those EU Member States that had the euro as their currency in the reference month in question. Thus, data on outstanding amounts referring to the year 2007 cover the 13 countries participating in the euro area at that time, while data for the period from January 2008 cover the 15 countries now in the euro area. According to ECB calculations, the combined contribution of Cyprus and Malta to euro area M3 in December 2007 would have been less than €40 billion, out of a euro area total of €8,692 billion. The integration of Cyprus and Malta into euro area monetary statistics in January 2008 will thus not affect the dynamics of euro area M3.

Chart C Composition of euro area M3

(December 2007)



Source: ECB.

### MAIN COMPONENTS OF M3

The annual growth rate of M1 declined to 4.0% in December 2007, down from 6.3% in November. This masks divergent developments in its components. The annual growth rate of currency in circulation strengthened somewhat, whereas that of overnight deposits declined markedly (see Table 1). The latter reflects outflows of overnight deposits, which may be related to the particularly long weekend at the turn of the year, implying that holding more highly remunerated short-term time deposits was more attractive than holding overnight deposits. In these circumstances, the December data will need to be assessed in conjunction with the January data in order to form a more complete picture. Looking beyond such shorter-term effects, the annual growth rate of M1 continues to be influenced by two countervailing forces. On the one hand, there has been a dampening effect stemming from the rising opportunity cost of holding M1 as short-term interest rates have increased, and on the other hand there has been a stimulative effect as a result of strong transaction-related demand for M1 given the sustained growth in the second half of 2007.

The annual growth rate of short-term deposits other than overnight deposits increased to 17.7% in December, up from 16.7% in November, thereby continuing to make the largest contribution to annual M3 growth. Within this aggregate, the annual growth rate of deposits with an agreed maturity of up to two years (i.e. short-term time deposits) increased further, while the annual rate of decline of deposits redeemable at notice of up to three months (i.e. short-term savings deposits) moderated slightly. Both components thus contributed to the overall strengthening.

The continued strong growth of short-term time deposits reflects the relative attractiveness of their remuneration, which has broadly followed the rise in short-term money market interest rates. The spread between the remuneration of time deposits on the one hand and that of overnight deposits and short-term savings deposits on the other widened in the period up to September and thus supported

**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					
		2007 Q1	2007 Q2	2007 Q3	2007 Q4	2007 Nov.	2007 Dec.
<b>M1</b>	<b>44.3</b>	<b>7.0</b>	<b>6.2</b>	<b>6.6</b>	<b>5.9</b>	<b>6.3</b>	<b>4.0</b>
Currency in circulation	7.3	10.5	10.0	8.8	8.0	7.7	8.2
Overnight deposits	37.0	6.3	5.5	6.2	5.5	6.1	3.2
<b>M2 - M1 (= other short-term deposits)</b>	<b>40.6</b>	<b>11.9</b>	<b>13.1</b>	<b>15.0</b>	<b>16.8</b>	<b>16.7</b>	<b>17.7</b>
Deposits with an agreed maturity of up to two years	22.8	29.5	33.2	37.6	40.7	40.4	41.4
Deposits redeemable at notice of up to three months	17.8	-0.8	-2.1	-3.2	-4.0	-4.1	-3.6
<b>M2</b>	<b>84.8</b>	<b>9.1</b>	<b>9.2</b>	<b>10.3</b>	<b>10.8</b>	<b>11.0</b>	<b>10.1</b>
<b>M3 - M2 (= marketable instruments)</b>	<b>15.2</b>	<b>16.9</b>	<b>19.3</b>	<b>18.7</b>	<b>19.6</b>	<b>20.7</b>	<b>20.0</b>
<b>M3</b>	<b>100.0</b>	<b>10.2</b>	<b>10.6</b>	<b>11.5</b>	<b>12.0</b>	<b>12.3</b>	<b>11.5</b>
<b>Credit to euro area residents</b>		<b>8.0</b>	<b>8.1</b>	<b>8.8</b>	<b>9.3</b>	<b>9.2</b>	<b>10.0</b>
Credit to general government		-4.5	-4.3	-3.9	-3.8	-4.2	-2.3
Loans to general government		-1.3	-1.2	-0.9	-1.8	-1.8	-1.4
Credit to the private sector		11.1	11.0	11.7	12.3	12.2	12.7
Loans to the private sector		10.6	10.5	11.0	11.1	11.1	11.1
<b>Longer-term financial liabilities (excluding capital and reserves)</b>		<b>10.0</b>	<b>10.3</b>	<b>10.3</b>	<b>8.5</b>	<b>7.9</b>	<b>7.7</b>

Source: ECB.

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

shifts from M1 and savings deposits into time deposits. This spread stopped widening in October and November, and no further substitution was observed in the monetary flow data for these two months. The monetary data for December suggest that substitution may have started again in that month, accentuated by year-end considerations.

In the context of the relatively flat yield curve in the euro area, monetary assets remunerated at levels close to market rates, such as short-term time deposits and short-term MFI debt securities, remain attractive by comparison with riskier longer-maturity assets outside M3, since they offer greater liquidity and lower risk at little cost in terms of return.

In December the annual growth rate of marketable instruments decreased slightly to 20.0%, down from 20.7% in November. This masks divergent developments across the various instruments. On the one hand, the annual growth rate of MFIs' short-term debt securities increased further from a very high rate, while on the other hand the annual growth rate of repurchase agreements and money market fund shares/units declined. Money market fund shares/units saw further strong outflows in December, after the particularly large net outflows seen in August and September at the start of the financial turmoil, reflecting general risk aversion towards such instruments for fear of exposure to asset-backed securities. Those outflows had partly been reversed in October and November.

The annual growth rate of short-term deposits and repurchase agreements with MFIs ("M3 deposits", which represent the broadest aggregation of M3 components for which information is available by holding sector) declined to 10.8% in December, down from 11.7% in November. The strength of this growth rate continues to be explained mainly by the contribution of households, which has gradually increased over the past few years. The continuing increase in the annual growth rate of households' holdings of M3 deposits, which stood at 8.1% in December, contrasts with the declines observed recently for financial and non-financial corporations. The annual growth rate of non-financial corporations' holdings of M3 deposits declined sharply to 11.0% in December, down

from 13.0% in November, while the annual growth rate of M3 deposits held by non-monetary financial intermediaries moderated to 21.2%, down from 25.4% in the previous month.

### MAIN COUNTERPARTS OF M3

On the counterparts side, the annual growth rate of total credit to euro area residents increased in December, reflecting both the moderation in the annual rate of decline of credit to general government and the stronger annual rate of growth of credit to the private sector (see Table 1). The increase in the growth rate of credit to the private sector reflected a rise in the annual growth rate of holdings of securities, which in turn resulted from large purchases of debt securities issued by other financial intermediaries (OFIs) in the context of securitisation transactions. Loans to the private sector continued to grow strongly, with an annual growth rate of 11.1% in December, unchanged from the previous month. The short-term dynamics of these loans moderated somewhat further in December, but remained strong.

Looking at the individual components of the private sector, the annual growth rate of MFI loans to OFIs increased to 23.8% in December, up from 23.5% in the previous month. The largest contribution to this annual growth rate stems from loans with a maturity of up to one year, which might thus be seen as suggesting that conduits and structured investment vehicles have had strong recourse to credit lines. While such loans may have played a part, the strength of the annual growth rate of short-term loans to OFIs also reflects, inter alia, loans related to the takeover of an MFI, investment funds' demand for larger liquidity buffers and MFIs' increased preference for secured interbank lending through electronic trading platforms since the onset of the financial market turmoil.

The annual growth rate of loans to households declined further in December, falling to 6.2%, down from 6.5% in the previous month. This continued the trend observed since early 2006, reflecting the impact of higher bank lending rates and the moderation seen in housing market dynamics in a number of euro area economies. Thus, recent data do not point to a significant disruption of the supply of bank loans to households in response to the financial turmoil. Looking specifically at the annual growth rate of loans for house purchase, which declined to 7.1% in December, down from 7.6% in November (see Table 2), the moderation observed in euro area countries with strong

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

(quarterly figures are averages; not adjusted for seasonal and calendar effects)

	Outstanding amount as a percentage of the total <sup>1)</sup>	Annual growth rates					
		2007 Q1	2007 Q2	2007 Q3	2007 Q4	2007 Nov.	2007 Dec.
<b>Non-financial corporations</b>	<b>43.2</b>	<b>13.0</b>	<b>12.7</b>	<b>13.8</b>	<b>14.0</b>	<b>14.0</b>	<b>14.4</b>
Up to one year	29.1	9.9	10.1	12.1	11.9	11.6	12.7
Over one and up to five years	19.5	19.9	19.2	20.0	21.1	21.2	21.8
Over five years	51.3	12.4	12.0	12.7	12.7	12.8	12.7
<b>Households <sup>2)</sup></b>	<b>47.4</b>	<b>8.1</b>	<b>7.5</b>	<b>7.0</b>	<b>6.6</b>	<b>6.5</b>	<b>6.2</b>
Consumer credit <sup>3)</sup>	12.8	7.1	6.5	5.7	5.3	5.1	5.3
Lending for house purchase <sup>3)</sup>	71.5	9.4	8.6	8.1	7.6	7.6	7.1
Other lending	15.7	3.2	3.6	3.2	3.1	3.1	2.8
<b>Insurance corporations and pension funds</b>	<b>0.9</b>	<b>27.6</b>	<b>23.8</b>	<b>26.6</b>	<b>21.9</b>	<b>14.9</b>	<b>16.4</b>
<b>Other non-monetary financial intermediaries</b>	<b>8.5</b>	<b>12.3</b>	<b>15.9</b>	<b>19.8</b>	<b>22.9</b>	<b>23.5</b>	<b>23.8</b>

Source: ECB.

Notes: MFI sector including the Eurosystem; sectoral classification based on the ESA 95. For further details, see 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.

borrowing dynamics is fairly widespread and is proceeding in a gradual manner, in line with developments prior to the start of the turmoil.

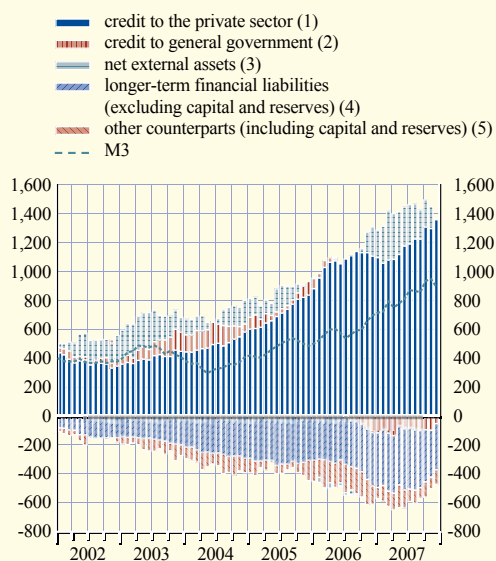
The annual growth rate of MFI loans to non-financial corporations rose to 14.4% in December, up from 14.0% in November, and remains at a very high level by the standards of the past three decades. The flow of loans to non-financial corporations totalled €60 billion in December, the third largest figure – not adjusted for seasonal effects – since the start of Stage Three of Economic and Monetary Union. This brought the total flow of loans in the five months from August to December to €224 billion. This is large in relation to cumulative flows in earlier periods and continues to suggest that the supply of bank credit has not – as yet, at least – been hampered to a significant extent by the turmoil. At the same time, insofar as a general reappraisal of risks has taken place, some corporate borrowers may face higher borrowing costs as credit risks rise. The overwhelming majority of new MFI loans being granted to non-financial corporations during the turmoil are still of a medium to long-term nature. The strong growth rate of loans to the non-financial private sector and the longer maturities of these loans suggest that such lending reflects “business as usual” by borrowers rather than re-intermediation resulting from the financial turmoil. There is currently no clear evidence of a significant impact on lending to non-financial corporations as a result of a dislocation in credit markets. However, some moderation is expected given the tightening of credit standards and increases in MFIs’ lending rates. For further details on developments in credit standards at the turn of the year, see the box entitled “The results of the January 2008 bank lending survey for the euro area”.

Among the other counterparts of M3, the annual growth rate of MFIs’ longer-term financial liabilities (excluding capital and reserves) declined to 7.7% in December, down from 7.9% in November. This further moderation in December reflected weaker growth in longer-term debt securities, while the growth of longer-term time deposits strengthened somewhat. Developments in debt securities appear to be related to the recent issuance behaviour of some banks, which may at present be finding it easier to obtain funding at shorter maturities. As for longer-term deposits, the sectoral breakdown indicates that while the non-financial private sector continued to reduce its holdings in line with shifts towards shorter maturities in the continued presence of a relatively flat yield curve, non-monetary financial intermediaries’ holdings increased strongly, reflecting liabilities incurred in the context of large securitisation transactions in a single Member State.

Over the 12 months to December 2007 MFIs’ net external asset position recorded an inflow of €9 billion, down from €153 billion in the previous month and the peak of €340 billion

**Chart 6 Counterparts of M3**

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



Source: ECB.

Notes: M3 is shown for reference only ( $M3 = 1+2+3-4+5$ ). Longer-term financial liabilities (excluding capital and reserves) are shown with an inverted sign, since they are liabilities of the MFI sector.

recorded in March (see Chart 6). This strong decline was the result of the exceptional inflow observed in December 2006 dropping out of the annual flow, combined with a strong outflow (of €74 billion) in December 2007. The recent pattern of alternating monthly in- and outflows is consistent with developments in euro exchange rate expectations, which could have contributed to these capital movements. However, monthly developments in the flow of the net external asset position of MFIs can be volatile at times of heightened uncertainty and should not be over-interpreted.

Overall, the December data show continued robust growth in the broad money and credit aggregates. Although specific components and counterparts of M3 were again affected in December 2007, the financial market turmoil has had little impact – thus far, at least – on aggregate broad money and credit dynamics. Underlying monetary growth remains strong, pointing to upside risks to price stability in the medium to longer term, particularly in an environment of already ample liquidity.

## Box 2

### THE RESULTS OF THE JANUARY 2008 BANK LENDING SURVEY FOR THE EURO AREA

This box describes the main results of the January 2008 bank lending survey for the euro area conducted by the Eurosystem.<sup>1</sup> Respondent banks reported that the net tightening of credit standards for loans to enterprises increased further in the case of both small and medium-sized enterprises (SMEs) and large enterprises in the fourth quarter of 2007.<sup>2</sup> The tightening reflects the deterioration of financial market conditions since the start of the financial turmoil last summer and a worsening of banks' situation. This was confirmed by the replies to the ad hoc questions relating to the financial turmoil included in the January 2008 survey (see the last section of this box). With regard to demand, banks reported that net demand for loans to enterprises changed little and remained slightly positive in the fourth quarter of 2007.<sup>3</sup> According to the respondent banks, the item "mergers/acquisitions and corporate restructuring" was the key factor behind the decline in net loan demand, which was broadly offset by other factors, however. For the first quarter of 2008, banks expect a continued, only slightly smaller net tightening of credit standards for loans to enterprises in comparison with the fourth quarter. Enterprises' net demand for loans is expected to fall slightly.

As regards loans to households for house purchase, banks reported that the net tightening of credit standards increased in the fourth quarter of 2007. However, this tightening was far more limited than in the case of loans to enterprises. According to respondent banks, households' net demand for loans for house purchase dropped considerably in the fourth quarter of 2007, mainly as a result of the perception of deteriorating housing market prospects and worsening consumer confidence. For the first quarter of 2008, banks expect a continued tightening of the credit standards applied to loans for house purchase, albeit to a lesser extent than the net tightening actually recorded in the previous quarter, and a further deterioration in the net demand for such loans.

1 Note that, on account of the financial turmoil experienced since last summer, the January 2008 survey was brought forward by around one month. The cut-off date for the receipt of data from the responding banks was 8 January 2008. A comprehensive assessment of the results of the January 2008 bank lending survey for the euro area was published on the ECB's website on 18 January 2008.

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

3 The term "net demand" refers to the difference between the proportion of banks reporting an increase in loan demand and the proportion of banks reporting a decline.

With regard to credit standards for consumer credit and other lending to households, banks reported a slight net tightening of credit standards in the fourth quarter of 2007, compared with a net easing of standards in the previous quarter. Net demand for consumer credit and other lending, as indicated by responding banks, fell in the fourth quarter. Looking ahead, for the first quarter of 2008, banks expect a continued slight net tightening of credit standards on loans for consumer credit and other lending to households and a further fall in the net demand for such loans.

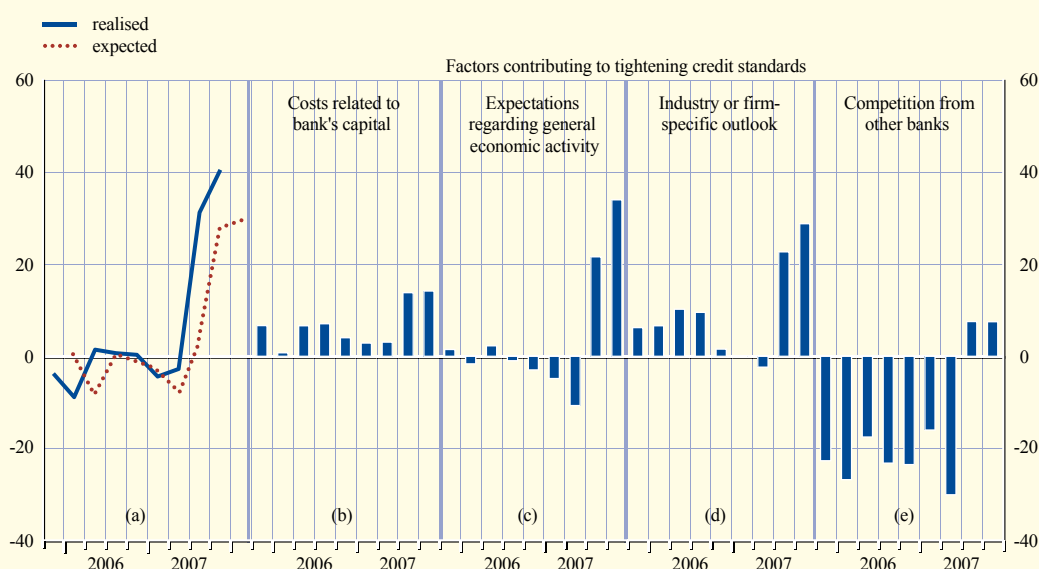
### Loans or credit lines to enterprises

**Credit standards:** Reflecting the financial turmoil in the second half of 2007, the net tightening of credit standards for loans or credit lines to enterprises increased further in the fourth quarter of 2007 (41%, compared with 31% in the previous quarter; see Chart A, panel (a)). Banks' risk perceptions regarding general economic activity and the industry or firm-specific outlook contributed to the further net tightening (see Chart A, panels (c) and (d)). In addition, the cost related to banks' capital positions, their liquidity positions and their access to market funding continued to contribute moderately to the net tightening of credit standards, thus reflecting a possible but limited impact of the financial turmoil on bank lending (see Chart A, panel (b)).

As regards the terms and conditions of credit, banks tightened their credit standards, especially by widening their margins both on average loans (38%, from 11% in the previous round) and on riskier loans (58%, from 37% in the previous round). However, non-price terms and conditions, such as shortening the maturity of loans or credit lines and/or demanding more loan covenants and collateral, also contributed to the tightening of credit standards in the fourth quarter of 2007.

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

(net percentages)



Notes: In panel (a), 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 the difference between the percentage of banks reporting that the given factor contributed to tightening and the percentage reporting that it contributed 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 first quarter of 2008 were reported by banks in the January 2008 survey.

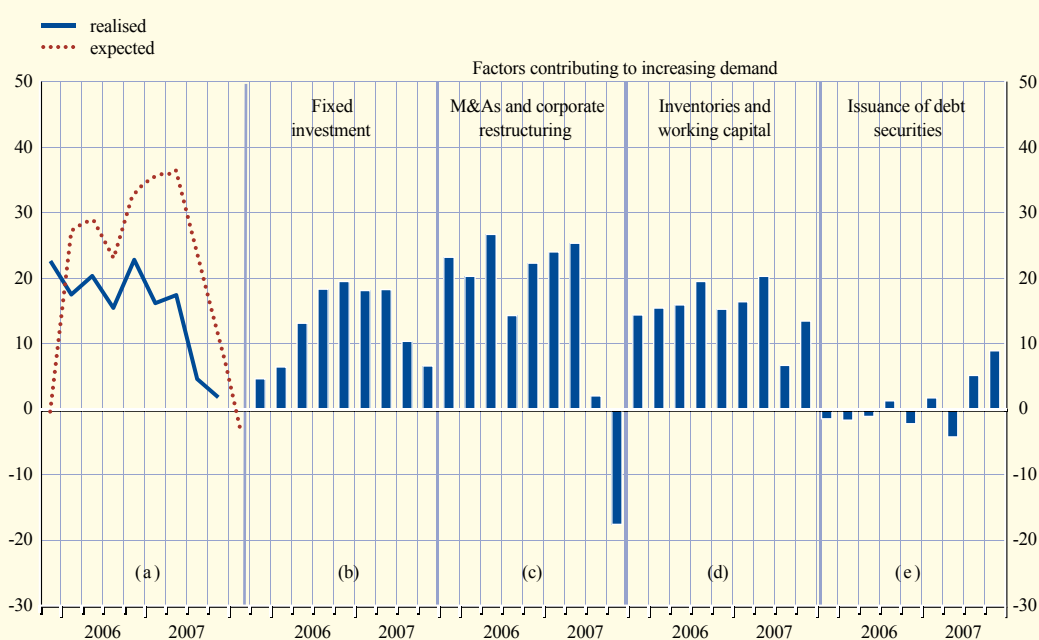
The net tightening of the credit standards affected both SMEs (27%, from 15% in the previous quarter) and, in particular, large enterprises (44%, from 33% in the previous quarter). The particularly strong net tightening of credit standards for loans to large enterprises is likely to be related somewhat to the financing of M&As. In fact, according to respondent banks, loans related to M&As were affected particularly strongly by the net tightening of credit standards in reaction to the financial turmoil (see the last section on the ad hoc questions). In addition, the worsening of conditions for securitisation in the wake of the financial turmoil probably had an impact on, especially, loans to large enterprises (see also the last section). As regards loan maturities, the net tightening was somewhat more pronounced for long-term loans (39%, from 30% in the previous survey) than for short-term loans (28%, from 16% in the previous survey).

Looking ahead to the first quarter of 2008, banks expect a continued, only slightly smaller net tightening of credit standards for loans to enterprises in comparison with the net tightening actually recorded in the fourth quarter (see Chart A, panel (a)).

**Loan demand:** In the fourth quarter of 2007, the net demand for loans by enterprises changed little and remained slightly positive (2%, compared with 5% in the previous round) (see Chart B, panel (a)). According to respondent banks, the item “mergers/acquisitions and corporate restructuring” was the key factor behind the decline in net loan demand. Inventories and working capital, as well as fixed investment, supported loan demand – albeit, at least in the case of

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

(net percentages)



Notes: In panel (a), the net percentages refer 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”. The net percentages for the questions related to the factors are the difference between the percentage of banks reporting that the given factor contributed to an increase in demand and the percentage reporting that it contributed to a decline. “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 first quarter of 2008 were reported by banks in the January 2008 survey.



the latter, less than in the previous quarter (see Chart B, panels (b) to (d)). Other factors that contributed positively to loan demand were, above all, the decline in the issuance of debt securities as well as, to a more modest extent, loans from other banks and non-banks, and the issuance of equity. This may suggest that some firms were confronted with less accessible markets or worsened financing conditions, in particular when tapping the corporate debt market for funding, in the past few months. By contrast, internal financing continued to contribute negatively to the demand for loans by enterprises. In terms of borrower size, net loan demand by SMEs was unchanged according to reporting banks, whereas net loan demand by large enterprises declined (0% and -7% respectively). Finally, net demand was positive across the maturity spectrum, with demand for long-term loans broadly equal to that for short-term loans (2% and 3% respectively), after higher demand for long-term loans than for short-term loans in previous quarters.

In the first quarter of 2008, enterprises' demand for loans is expected to fall slightly in comparison with the previous quarter (see Chart B, panel (a)). Specifically, banks expect the demand for loans to SMEs to increase, albeit less than in the previous quarter, whereas they expect net loan demand by large enterprises to decline considerably. With respect to loan maturities, banks expect a slight net increase in the demand for short-term loans, but a net decrease in the demand for long-term loans to enterprises in the first quarter of 2008.

#### Loans to households for house purchase

**Credit standards:** In the fourth quarter of 2007, banks reported a further increase in the net tightening of credit standards for loans to households for house purchase (21%, from 12% in the previous survey round; see Chart C, panel (a)). The main factors behind the net tightening were worsened expectations regarding general economic activity and deteriorating housing market prospects, relative to the previous quarter (see Chart C, panels (b) and (c)). Competition from other banks continued to contribute towards a net easing, although to a less pronounced extent than in previous quarters (see Chart C, panel (e)).

The net tightening of credit standards for loans for house purchase was implemented mainly by considerably widening the margins on both average loans and riskier loans, as well as via tighter non-price terms and conditions, such as higher collateral requirements and loan-to-value ratios.

For the first quarter of 2008, respondent banks expect a decline in the net tightening of credit standards for loans to households for house purchase in comparison with the fourth quarter of 2007 (see Chart C, panel (a)).

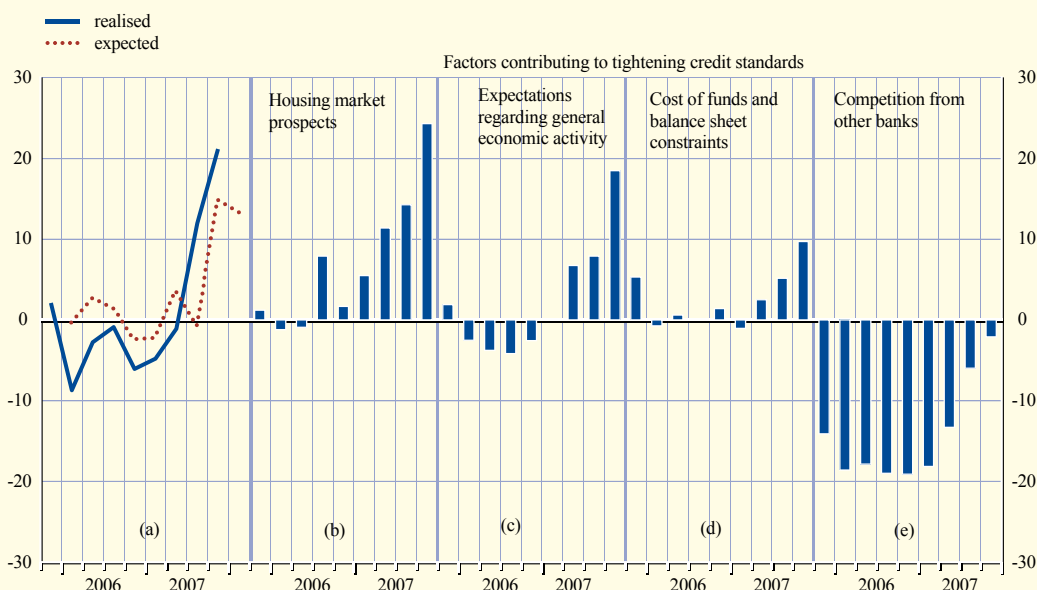
**Loan demand:** Net demand for loans to households for house purchase dropped considerably in the fourth quarter of 2007 (to -36%, from -15% in the previous round; see Chart D, panel (a)). Essentially, this reflected the perception of deteriorating housing market prospects and worsening consumer confidence. Looking ahead to the first quarter of 2008, banks expect net demand to drop further in comparison with the net demand actually recorded in the fourth quarter of 2007 (see Chart D, panel (a)).

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

**Credit standards:** In the fourth quarter of 2007, banks reported a net tightening of the credit standards applied for the approval of consumer credit and other lending to households, after

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

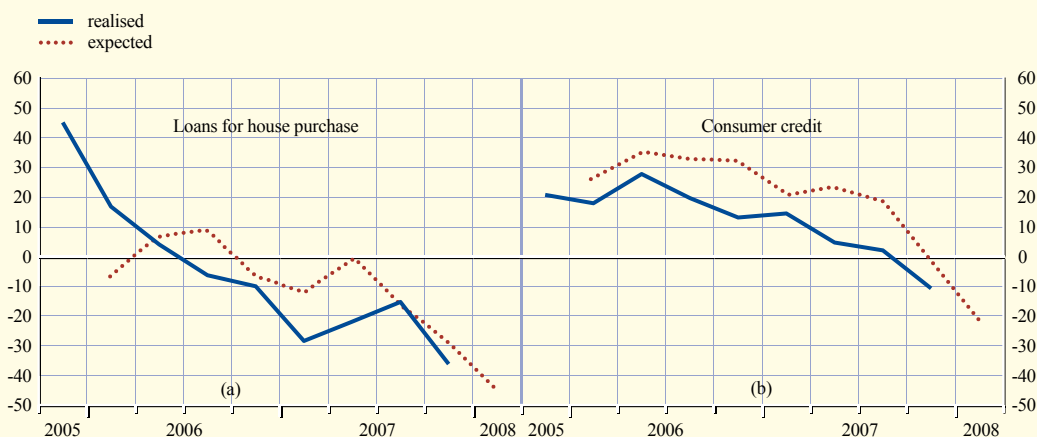
(net percentages)



Notes: In panel (a), 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 the difference between the percentage of banks reporting that the given factor contributed to tightening and the percentage reporting that it contributed 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 first quarter of 2008 were reported by banks in the January 2008 survey.

Chart D Changes in demand for loans to households for house purchase and consumer credit

(net percentages)



Notes: In panel (a), the net percentages refer 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”. The net percentages for the questions related to the factors are the difference between the percentage of banks reporting that the given factor contributed to an increase in demand and the percentage reporting that it contributed to a decline. “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 first quarter of 2008 were reported by banks in the January 2008 survey.

a slight net easing in the previous quarter (10%, from -3% in the previous round; see Chart E, panel (a)). Worsening expectations regarding general economic activity and the creditworthiness of consumers were the most important factors reported by banks for the net tightening (see Chart E, panels (b) and (c)). In addition, the risk on collateral demanded continued to contribute towards the net tightening (see Chart E, panel (d)). The net tightening was mainly implemented via a widening of the margins on average and riskier loans. For the first quarter of 2008, responding banks expect a continued net tightening of credit standards for consumer credit and other lending to households (11%), broadly unchanged in comparison with actual net tightening in the fourth quarter (see Chart E, panel a).

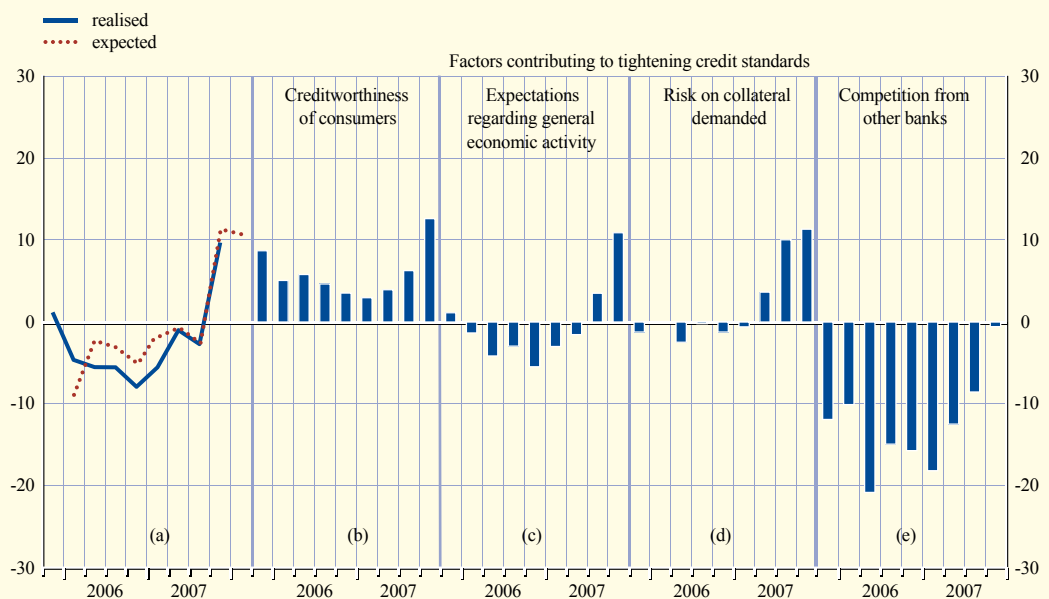
**Loan demand:** Banks reported that net demand for consumer credit and other lending to households fell considerably in the fourth quarter, after slightly positive demand in the previous quarter (-11%, compared with 2% in the previous round). For the first quarter of 2008, banks expect net demand for consumer credit and other lending to households to fall further.

#### Ad hoc questions on the financial turmoil

As a follow-up to the ad hoc questions included in the October 2007 survey, the January 2008 survey also included a set of ad hoc questions addressing the impact of the financial market tensions experienced since the second half of 2007. The questions focused, first, on the impact on credit standards and then on access to wholesale funding.

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

(net percentages)



Notes: In panel (a), 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 the difference between the percentage of banks reporting that the given factor contributed to tightening and the percentage reporting that it contributed 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 first quarter of 2008 were reported by banks in the January 2008 survey.

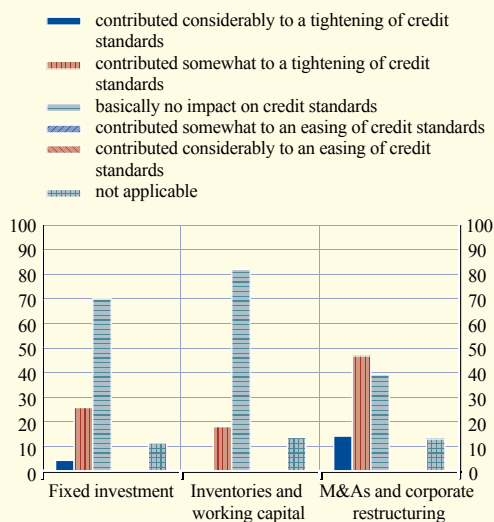
Consistent with the regular questions in the survey, the ad hoc questions suggest that the turmoil in the financial markets had a different impact across loan segments. Banks reported that credit standards for loans to both SMEs and, especially, large enterprises were affected more markedly by the turmoil than credit standards on loans to households. This seems to be in line with the impact according to loan purpose (see Chart F), which shows that the financial turmoil has contributed to the tightening of credit standards over the past three months, in particular those for loans to enterprises related to M&As and corporate restructuring: 47% of the banks reported some tightening and a further 14% reported a considerable tightening for these loans. The tightening of credit standards was somewhat less pronounced for loans to finance fixed investment.

As regards banks' expectations regarding the impact of the financial turmoil on credit standards in the first quarter of 2008, most banks expect this turmoil to have a greater effect than was seen over the past three months.

Banks generally reported that the tensions in financial markets in the second half of 2007 created more difficult conditions for accessing wholesale funding (see Chart G).<sup>4</sup> In particular, securitisation activity was hampered considerably with respect to the selling of both loans for house purchase and corporate loans in the fourth quarter of 2007. In addition, one-third of the reporting banks considered their ability to transfer credit risk off the balance sheet to be significantly impaired. Banks also reported the persistence of considerable difficulties in accessing wholesale funds through the unsecured interbank money market in the fourth quarter of 2007, although to a lesser extent at very short-term maturities. In addition, as in the last survey, banks had more difficulties in raising funds through medium to long-term bonds than through short-term debt securities. Access to the wholesale funding market is not expected to become generally easier over the next three months. While access to the unsecured short-term interbank money market and to the medium to long-term debt securities markets is expected to continue to be hampered over the next three months, broadly as much as over the past three months, access to the market for short-term debt securities is expected to become somewhat less impaired in the first quarter of 2008. In addition, securitisation activity is expected to become slightly less hampered in the first quarter of 2008.

Chart F Effect of the recent turmoil in the credit markets on banks' credit standards for the approval of loans and credit lines to enterprises over the past three months

(percentages of banks)

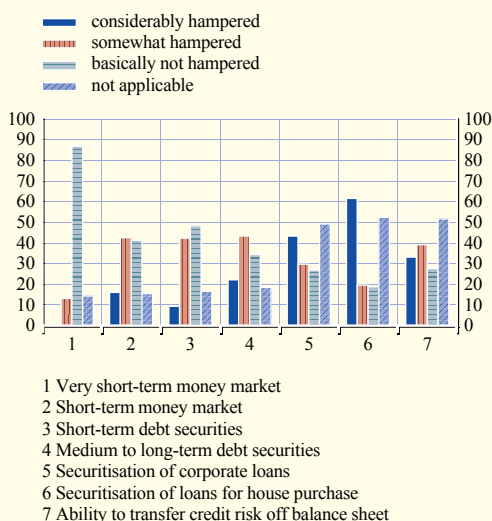


Note: The column "not applicable" is calculated as the number of banks replying "not applicable" as a percentage of the total number of banks participating in the survey. All the other columns are calculated as the number of banks choosing a particular reply as a percentage of the number of banks not replying "not applicable". Euro area figures are weighted averages of country results.

4 It should be noted that not all funding methods are relevant for the banks in the various euro area countries.

**Chart G Access to wholesale funding over the past three months**

(percentages of banks)



Note: The column “not applicable” is calculated as the number of banks replying “not applicable” as a percentage of the total number of banks participating in the survey. All the other columns are calculated as the number of banks choosing a particular reply as a percentage of the number of banks not replying “not applicable”. Euro area figures are weighted averages of country results.

5 This ad hoc question was not included in the October 2007 bank lending survey.

Difficulties in accessing wholesale funding also had an impact on the amounts that banks were willing to lend and/or the margin at which funds were lent over the past three months. Banks expect this effect to continue in the first quarter of 2008. Banks’ willingness to lend seems to have been somewhat further affected by the cost related to the bank’s capital position over the past three months and may continue to be affected also over the next three months.

Finally, as regards the impact of banks’ need to fund draw-downs on commitments to asset-backed commercial paper programmes issued by conduits or structured investment vehicles (SIVs) on banks’ lending policies,<sup>5</sup> some 30-40% of the banks for which the business has been relevant replied that such funding obligations had some or a considerable impact on their lending policy, either on the quantity or on the margin over the past three months. Over the next three months, banks expect this effect to continue. While these percentages are sizeable, it needs to be taken into account that, for around 60% of the reporting banks, this business was not considered relevant.

## 2.2 SECURITIES ISSUANCE

*Although remaining at high levels, the growth rate of debt securities issued by euro area residents declined slightly in November 2007. The bulk of the lower issuance can be traced to the MFI and the non-monetary financial institutions sectors. The growth rate of debt securities issued by non-financial corporations and by the general government posted only small declines. Issuance of quoted shares decreased marginally, and remained relatively subdued in comparison with that of debt securities.*

### DEBT SECURITIES

Issuance of debt securities by euro area residents remained buoyant in November 2007. The annual growth rate stood at 8.6% in November, only slightly lower than the 9.1% recorded in October (see Table 3). The overall growth rate masks differences across maturities as the annual growth rate of short-term securities issuance increased to 22.6% in November, from 21.7% in the previous month, while that of long-term securities issuance moderated somewhat, from 7.7% to 7.1%. Issuance of longer-term securities can be broken down further into loans issued at floating or at fixed rates. On account of demand factors, floating rates tend to be favoured over fixed rates in periods marked by a

Table 3 Securities issued by euro area residents

Issuing sector	Amount outstanding (EUR billions) 2007 Nov.	Annual growth rates <sup>1)</sup>					
		2006 Q4	2007 Q1	2007 Q2	2007 Q3	2007 Oct.	2007 Nov.
<b>Debt securities:</b>	<b>12,063</b>	<b>7.9</b>	<b>8.1</b>	<b>8.8</b>	<b>9.2</b>	<b>9.1</b>	<b>8.6</b>
MFIs	5,054	9.8	10.5	10.5	10.9	11.0	10.4
Non-monetary financial corporations	1,414	28.5	27.6	29.3	28.7	27.0	25.5
Non-financial corporations	691	4.3	4.9	6.3	9.4	8.9	8.8
General government	4,905	2.8	2.4	3.2	3.3	3.1	2.8
<i>of which:</i>							
Central government	4,588	2.4	2.1	3.1	3.3	3.0	2.7
Other general government	317	9.1	6.8	5.7	3.0	5.5	4.3
<b>Quoted shares:</b>	<b>6,590</b>	<b>1.0</b>	<b>1.1</b>	<b>1.2</b>	<b>1.4</b>	<b>1.6</b>	<b>1.5</b>
MFIs	1,014	2.0	2.3	1.8	1.5	1.4	1.1
Non-monetary financial corporations	578	1.1	1.0	1.5	1.4	3.5	3.4
Non-financial corporations	4,998	0.8	0.8	1.0	1.4	1.4	1.4

Source: ECB.

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

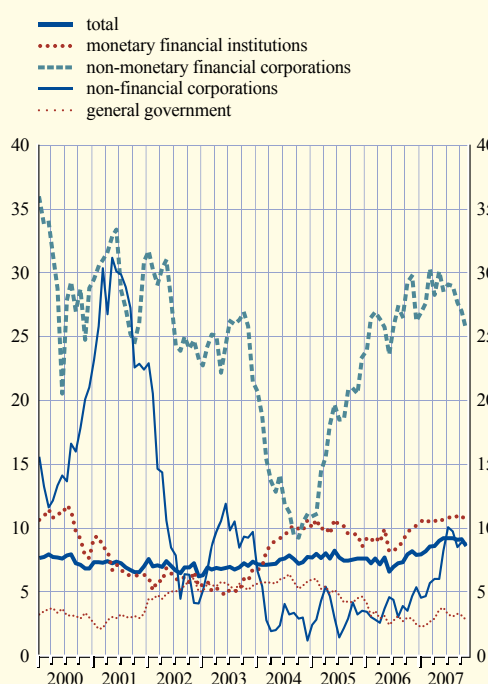
flat yield curve. As a consequence, the rather flat yield curve in late 2007 may partly explain the fact that the annual rate of growth of floating rate securities in November was again significantly higher, at 13.7%, than the rate of growth of fixed rate securities, which stood at 4.4% in that month.

The annual growth rate of debt securities issued by non-financial corporations remained broadly unchanged at 8.8% in November, after 8.9% in the previous month (see Chart 7). Viewed from a longer-term perspective, growth in debt securities issuance has thus remained generally buoyant and significantly above pre-turmoil levels. In terms of the maturity structure, the annual growth rate of long-term debt securities issued by non-financial corporations increased slightly to 6% in November, from 5.8% in October.

However, seasonally adjusted data, which are more suitable for gauging long-term trends, show that the annual growth rate of long-term debt issuance by the non-financial sector slowed down markedly in the latter part of 2007, namely from 11.3% in June to 2.4% in November. The lower issuance activity that is visible in the seasonally adjusted data may be related, at least partly, to the financial market turbulence, which has brought about an increase in the cost of market debt financing. This is evident in higher corporate bond spreads and yields, in particular for firms with a low creditworthiness. The yields offered on euro-denominated non-financial

Chart 7 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.

BBB-rated bonds, for instance, rose by around 15 basis points in November, standing at 5.4% on 30 November. Evidence from private data providers also suggests that debt financing for high-yield non-financial corporate borrowers has partly dried up.

The bulk of euro area non-financial corporations' financing takes place through the banking system. Partly as a result of continued strong loan demand from the non-financial sector, debt security issuance by MFIs grew at a robust pace in November, despite the credit concerns surrounding the financial sector. The annual growth rate of debt securities issuance by MFIs remained strong at 10.4% in November, down from 11% in October. The growth rate of MFIs' issuance of long-term securities decreased slightly to 7.7% in November. In contrast, issuance of short-term securities increased to 28.8% in November, 3.6 percentage points above the figure recorded in October. This was the highest annual issuance growth rate documented since August 2000.

The three-month growth rate of seasonally adjusted debt securities issuance declined from 13.3% in October to 10.2% in November. The overall drop emanated from lower long-term issuance, partly on account of the higher cost of long-term financing.

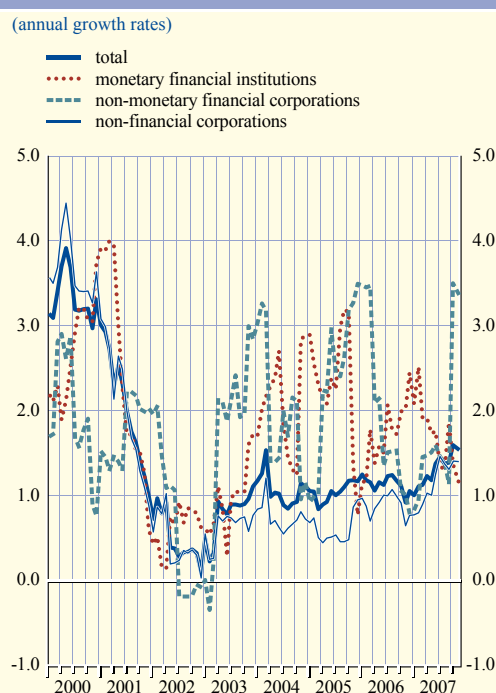
The annual growth rate of debt securities issued by non-monetary financial corporations decreased from 27% in October to 25.5% in November 2007, but still remained at a high level. A large part of the issuance activity in this sector is related to various securitisation activities undertaken by so-called special purpose vehicles (entities usually sponsored by banks to fulfil temporary objectives). The financial market turmoil led to somewhat lower securitisation activities, which, in turn, probably explain most of the decline in issuance activity in November.

The annual growth rate of debt securities issued by the general government sector dropped slightly to 2.8% in November, from 3.1% in October. This reduction reflected a slowdown in the growth of debt securities issued by both the central government sector and the other general government sector.

### QUOTED SHARES

The annual growth rate of quoted shares issued by euro area residents dropped to 1.5% in November, from 1.6% in October (see Table 3). This reflects the significant decline in the growth rates of issuance of quoted shares by MFIs, while issuance by non-monetary financial institutions dropped only moderately to stand at 1.1% and 3.4% respectively. The annual growth rate of quoted shares issued by non-financial corporations remained unchanged in November, standing at 1.4% (see Chart 8).

**Chart 8 Sectoral breakdown of quoted shares issued by euro area residents**



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

### 2.3 MONEY MARKET INTEREST RATES

*Unsecured money market interest rates decreased significantly in January and early February, mainly reflecting a downward shift in the course of the month in market expectations regarding the future path of key ECB interest rates. At the same time, at maturities beyond the very short term, spreads between unsecured and secured money market interest rates remain exceptionally elevated by historical standards.*

The spread between unsecured and secured interbank interest rates at maturities beyond the very short term declined somewhat in January and early February, while remaining exceptionally elevated by historical standards in the context of continued tensions in the term money market. For example, at three-month maturities the spread between the unsecured EURIBOR and secured rates (such as those derived from the EONIA Swap Index or the EUREPO) fell from 54 basis points on 10 January to 39 basis points on 6 February. On 6 February the one-month, three-month, six-month and twelve-month EURIBOR rates stood at 4.18%, 4.36%, 4.35% and 4.32% respectively, i.e. 3, 23, 29 and 32 basis points lower than the levels observed on 10 January (see Chart 9).

The spread between the twelve-month and one-month EURIBOR rates declined to 15 basis points on 6 February, compared with 44 basis points on 10 January (see Chart 9). This flattening of the money market yield curve principally reflected a decrease in market expectations regarding the future path of key ECB interest rates, although the moderate easing of spreads between unsecured rates and EONIA swap rates also contributed to this development.

The interest rates implied by the prices of three-month EURIBOR futures maturing in March, June and September 2008 stood at 4.25%, 3.86% and 3.57% respectively on 6 February, representing declines of 26, 51 and 63 basis points respectively by comparison with the levels observed on 10 January.

On 10 January the Governing Council decided to keep the key ECB interest rates unchanged, with the minimum bid rate in the Eurosystem's main refinancing operations remaining at 4.00%. Given the liquidity situation anticipated by the ECB at the end of the maintenance period ending on 15 January, a liquidity-absorbing fine-tuning operation was launched on the last day of that period, through which the ECB absorbed €20 billion. The EONIA stood at 4.078% on that day (see Chart 10). In the first few days of the following maintenance period, which ended on 12 February, the EONIA stabilised at around 4%, before reaching a higher level towards the end of the month, particularly on the final trading day of the month (standing at 4.187% on that day). At the beginning of February the EONIA returned to more normal levels close to 4%.

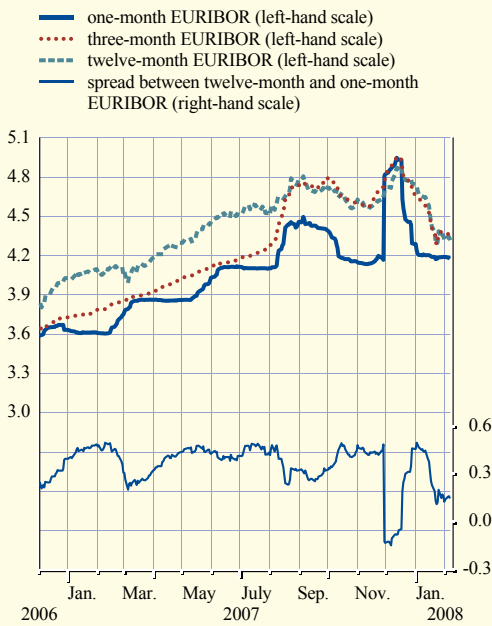
In order to accommodate counterparties' desire to fulfil their reserve requirements early within the maintenance period, the ECB continued its policy of allocating liquidity in excess of the benchmark amount in its main refinancing operations while still aiming for balanced liquidity conditions at the end of the maintenance period. Consequently, in the Eurosystem's regular weekly main refinancing operations on 15, 22 and 29 January and 5 February the ECB allotted €25 billion, €17 billion, €10 billion and €4.5 billion in excess of the respective benchmark amounts. The resulting marginal tender rates were 4.16%, 4.16%, 4.18% and 4.17% respectively.

In the Eurosystem's regular longer-term refinancing operation (LTRO) on 31 January 2008 (which was conducted in accordance with the usual LTRO procedure, with a fixed allotment amount of



**Chart 9 Money market interest rates**

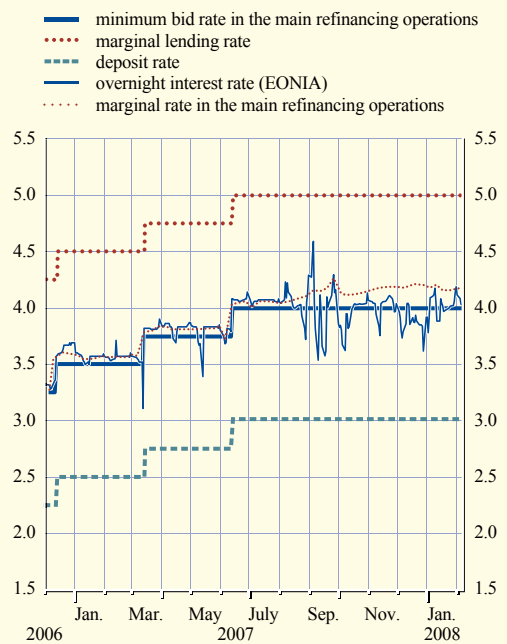
(percentages per annum; daily data)



Sources: ECB and Reuters.

**Chart 10 ECB interest rates and the overnight interest rate**

(percentages per annum; daily data)



Sources: ECB and Reuters.

€50 billion), the marginal and weighted average rates were 4.21% and 4.33% respectively. It is noteworthy that the marginal rate in this operation was 16 basis points lower than the three-month EURIBOR prevailing on that date.

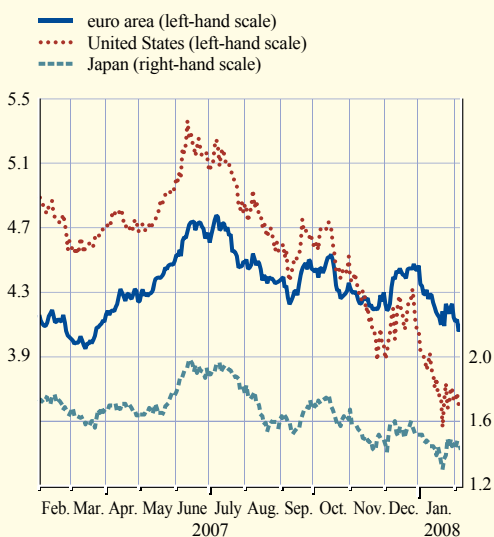
## 2.4 BOND MARKETS

*Long-term government bond yields in the major markets went down markedly amid equity market turbulences in January and early February. The sharp concomitant decline in real bond yields suggests that market participants have become somewhat more pessimistic regarding the prospects for economic activity in the major economies. Additional downward pressure on bond yields emanated from investors' decreased appetite for riskier assets. Implied bond market volatility remained elevated in both the euro area and the United States.*

Continuing the downward trend that began last summer, long-term government bond yields declined strongly in both the euro area and the United States in the course of January (see Chart 11). In the euro area and the United States, ten-year government bond yields decreased by about 35 and 50 basis points respectively between end-December 2007 and 6 February 2008, to stand at 4.1% and 3.6% on the latter date. As a consequence, the differential between long-term US bond yields and comparable euro area yields widened further in absolute terms. In Japan, by contrast, the ten-year bond yield declined only slightly in comparison with end-December 2007, standing at about 1.4% on 6 February. Market participants' uncertainty about near-term bond market developments, as

Chart 11 Long-term government bond yields

(percentages per annum; daily data)



Sources: Bloomberg and Reuters.

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

measured by implied volatility extracted from options, remained elevated in both the euro area and the United States.

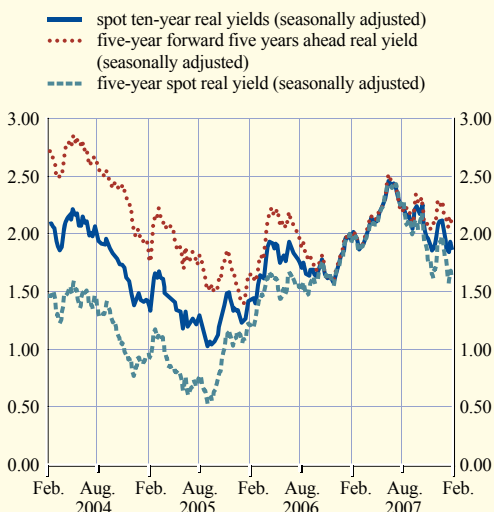
The sharp decline in long-term government bond yields in the United States in January and early February appeared to reflect mainly intensified concerns among market participants about the macroeconomic outlook. Incoming data on economic activity were generally weaker than expected by market participants, especially with regard to the housing and labour markets. Consistent with this, the significant decline in real long-term yields, as measured by the yield on inflation-linked bonds, suggests that investors have scaled back their expectations of economic activity further. In addition, flight-to-safety effects related to the correction in equity prices appear to have exerted significant downward pressure on bond yields. On 22 January, the Federal Open Market Committee (FOMC) announced a reduction of its target for the federal funds rate by 75 basis points to 3.50%. This action caused investors to reassess the outlook

for monetary policy rates in the United States, and this apparently contributed to a further decline in bond yields. By contrast, the decision by the FOMC on 30 January to reduce the target rate by further 50 basis points to 3% was well anticipated by market participants and had an only modest impact on bond yields. Long-term forward

break-even inflation rates remained at elevated levels throughout the period under review.

Chart 12 euro area inflation-linked bond yields

(percentages per annum; five-day moving averages of daily data)



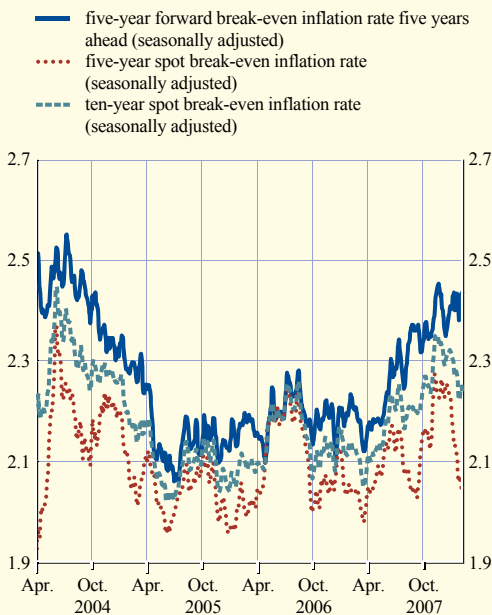
Sources: Reuters and ECB calculations.

In the euro area, nominal long-term government bond yields likewise declined markedly in January. The decrease in long-term nominal euro area bond yields was predominantly attributable to lower real yields, as measured by the yield on long-term inflation-linked bonds (see Chart 12). It should be noted, however, that despite the recent signs of moderation in economic activity, both real and nominal long-term forward yields in the euro area have remained relatively stable over the last few quarters. Notwithstanding possible movements in bond market term premia, this suggests that investors have not revised their longer-term expectations for euro area growth significantly downwards.

The term structure of break-even inflation rates steepened somewhat as medium-term break-

**Chart 13 Zero-coupon spot and forward break-even inflation rates in the euro area**

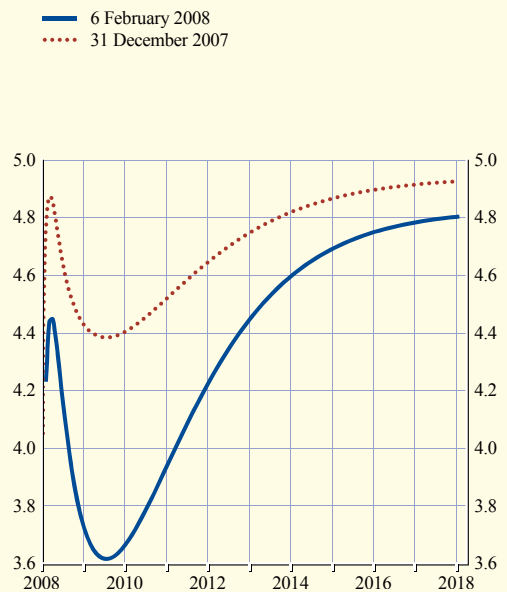
(percentages per annum; five-day moving averages of daily data)



Sources: Reuters and ECB calculations.

**Chart 14 Implied forward euro area overnight interest rates**

(percentages per annum; daily data)



Sources: ECB estimates and Reuters.

Notes: The implied forward yield curve, which is derived from the term structure of interest rates observed in the market, reflects market expectations of future levels for short-term interest rates. The method used to calculate these implied forward yield curves was outlined in Box 4 of the January 1999 issue of the Monthly Bulletin. The data used in the estimate are zero-coupon swap rates.

even inflation rates declined more sharply than long-term rates. As a result, the five-year forward break-even inflation rate five years ahead, a measure of long-term inflation expectations and related risk premia, remained broadly unchanged around the elevated level of 2.4% on 6 February (see Chart 13). At the same time, the five-year break-even inflation rate declined by 20 basis points to 2.0%.

The implied forward overnight interest rate curve in the euro area shifted downward, mainly at short to medium-term horizons, between the end of December 2007 and 6 February 2008 (see Chart 14). The Governing Council's decision of 10 January to keep the key ECB interest rates unchanged was widely anticipated by market participants, and thus had little effect on the forward curve.

Euro area credit spreads in the corporate bond market rose further in January and early February 2008, after some signs of stabilisation in December 2007. Overall, the widening of spreads was most pronounced for bonds issued by financial corporations, in particular for those at the lower end of the rating spectrum. The relative cost of BBB-rated corporate bond financing across all sectors, as measured by the differential vis-à-vis comparable government bond yields, increased further by around 50 basis points in the period under review. In addition to a further reappraisal of risks, the currently elevated levels of corporate bond spreads may also reflect some concerns among investors

with regard to the outlook for corporate profitability in the context of increased financing costs and heightened uncertainty about economic growth.

## 2.5 INTEREST RATES ON LOANS AND DEPOSITS

*In November 2007 the majority of MFI interest rates remained broadly stable after the upward movements observed during the preceding months. Since the financial market turmoil got underway in the summer months of 2007, the pass-through of market interest rates to bank interest rates has materialised somewhat in the case of short-term interest rates. By contrast, the rise in long-term MFI interest rates on deposits and loans suggests some decoupling from the decline in government bond yields over the same period.*

No discernible trend in short-term MFI interest rates on deposits and loans can be observed for November, despite the decline of between 5 and 21 basis points in both money market interest rates and government bond yields (see Table 4 and Chart 15). The interest rates on short-term deposits from households and non-financial corporations changed only marginally in November. As regards short-term loans, the most significant change took place in interest rates on new loans to households for consumption, which increased by 19 basis points between October and November, thereby reversing the relatively strong decline observed in the previous month. Any interpretation regarding this interest rate should, however, be treated with some caution on account of its high volatility. Interest rates on new loans to households for house purchase with a floating rate and an initial rate fixation period of up to one year remained unchanged in November. At the same time, MFI interest rates on both small and large new loans to non-financial corporations with floating rates and an initial rate fixation period of up to one year declined slightly. These developments indicate that, where short term rates are concerned, the renewed volatility in financial markets in October and November did not have a major impact.

Taking a slightly longer perspective, since the turmoil in financial markets got underway in the summer months of 2007, developments in money market rates, which had been significantly affected by liquidity in the money markets, have only been partially passed on to short-term MFI interest rates. Between June and November 2007, the three-month money market rates rose by 49 basis points. At the same time, MFIs' short-term interest rates on household deposits rose by 31 basis points. In parallel, short-term rates on loans of up to €1 million to non-financial corporations increased by 42 basis points, while household loans for consumption and house purchase rose by 21 and 30 basis points respectively.

In November 2007 long-term MFI interest rates on deposits with a maturity of over two years declined by 4 basis points in the case of deposits from households and by 29 basis points in the case of deposits from non-financial corporations (see Table 4 and Chart 16). These decreases in deposit rates took place concurrently with the drop of 17 basis points in the yield on two-year government bonds. At the same time, long-term MFI rates on loans to households for house purchase increased marginally to stand at a level of 5.09% in November. Long-term rates on loans of up to €1 million to non-financial corporations remained unchanged, while rates on long-term loans of over €1 million to non-financial corporations increased slightly (see Chart 16). Overall, it thus seems that the spreads over medium and long-term government bond yields tended to widen in November.

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

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

	2006 Q4	2007 Q1	2007 Q2	2007 Q3	2007 Oct	2007 Nov	Change in basis points up to Nov-07 <sup>2)</sup>	
							2007 June	2007 Oct
<b>MFI interest rates on deposits</b>								
Deposits from households								
with agreed maturity up to one year	3.27	3.51	3.77	4.07	4.10	4.09	31	-1
with agreed maturity over two years	2.84	2.71	2.73	3.08	3.20	3.16	43	-4
redeemable at notice up to three months	2.37	2.38	2.41	2.57	2.58	2.58	16	-1
redeemable at notice over three months	2.86	3.14	3.31	3.50	3.57	3.63	32	6
Overnight deposits from non-financial corporations	1.53	1.72	1.79	1.92	1.97	1.97	19	1
Deposits from non-financial corporations								
with agreed maturity up to one year	3.47	3.67	3.93	4.13	4.07	4.10	17	3
with agreed maturity over two years	4.03	3.61	4.09	4.37	4.49	4.20	11	-29
<b>MFI interest rates on loans</b>								
Loans to households for consumption								
with floating rate and initial rate fixation up to one year	7.60	7.69	8.09	8.50	8.11	8.30	21	19
Loans to households for house purchase								
with floating rate and initial rate fixation up to one year	4.55	4.78	4.99	5.23	5.29	5.29	30	0
with initial rate fixation over five years and up to ten years	4.55	4.69	4.89	5.08	5.08	5.09	20	1
Bank overdrafts to non-financial corporations	5.80	6.06	6.18	6.50	6.55	6.52	34	-2
Loans to non-financial corporations								
up to €1 million with floating rate and initial rate fixation up to one year	5.08	5.29	5.53	5.92	5.96	5.95	42	-1
up to €1 million with initial rate fixation over five years	4.67	4.83	5.00	5.24	5.27	5.27	27	0
Loans to non-financial corporations								
over €1 million with floating rate and initial rate fixation up to one year	4.50	4.68	4.90	5.21	5.10	5.09	19	-2
over €1 million with initial rate fixation over five years	4.63	4.86	5.17	5.43	5.33	5.37	20	3
<b>Memo items</b>								
Three-month money market rate	3.68	3.89	4.15	4.74	4.69	4.64	49	-5
Two-year government bond yield	3.79	3.94	4.45	4.10	4.11	3.94	-52	-17
Five-year government bond yield	3.83	3.95	4.57	4.19	4.21	4.00	-57	-21

Source: ECB

1) The weight-adjusted MFI interest rates are calculated using country weights constructed from a 12-month moving average of new business volumes. For further information, see the box entitled "Analysing MFI interest rates at the euro area level" in the August 2004 issue of the Monthly Bulletin. Quarterly data refer to the end of the quarter.

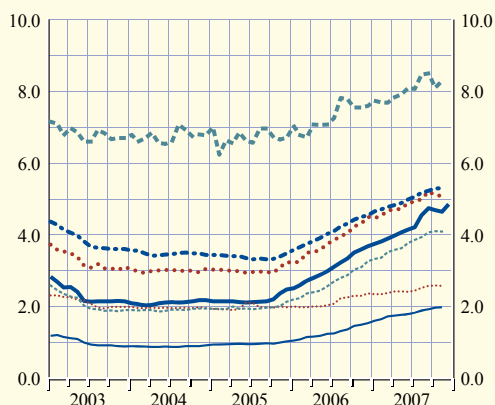
2) Figures may not add up due to rounding.

Looking once more at developments since June 2007, long-term maturity MFI deposit rates and interest rates on loans have been on an upward trend throughout the period of turmoil, and have thus been decoupled from the declining yields offered on government bonds. Reflecting the latter, the yields on two-year and five-year euro area government bonds declined by 52 and 57 basis points respectively between June and November 2007. As for lending rates, MFI interest rates on loans to households for house purchase with an initial rate fixation period of over five and up to ten years rose by 20 basis points. In the case of loans to non-financial corporations with an initial rate fixation period of over five years, MFI interest rates increased by between 20 and 27 basis points, depending on the size of the loan. All in all, the combination of higher levels of MFI interest rates on loans to

**Chart 15 Short-term MFI interest rates and a short-term market rate**

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

- three-month money market rate
- ..... loans to non-financial corporations of over €1 million with a floating rate and an initial rate fixation of up to one year
- - - loans to households for consumption with a floating rate and an initial rate fixation of up to one year
- overnight deposits from non-financial corporations
- ..... deposits from households redeemable at notice of up to three months
- - - deposits from households with an agreed maturity of up to one year
- · - · loans to households for house purchase with a floating rate and an initial rate fixation of up to one year



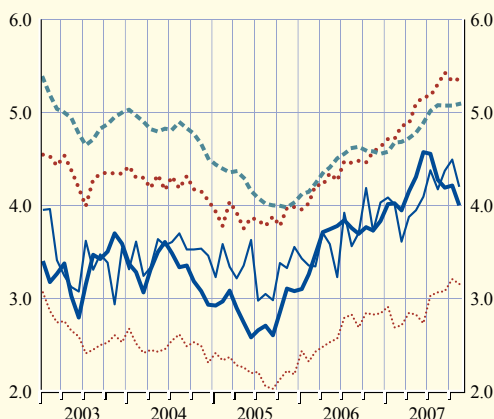
Source: ECB.

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" in the August 2004 issue of the Monthly Bulletin.

**Chart 16 Long-term MFI interest rates and a long-term market rate**

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

- five-year government bond yield
- ..... loans to non-financial corporations of over €1 million with an initial rate fixation of over five years
- - - loans to households for house purchase with an initial rate fixation of over five and up to ten years
- deposits from non-financial corporations with an agreed maturity of over two years
- ..... deposits from households with an agreed maturity of over two years



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" in the August 2004 issue of the Monthly Bulletin.

non-financial corporations coupled with lower government bond yields suggests that a widening of spreads took place over the period under review. At the same time, the higher yields offered on bonds issued by euro area banks imply higher funding costs for the MFI sector. The higher funding costs, in turn, are related to the risks that investors believe many banks in the MFI sector are facing via exposures to asset-backed securities.

## 2.6 EQUITY MARKETS

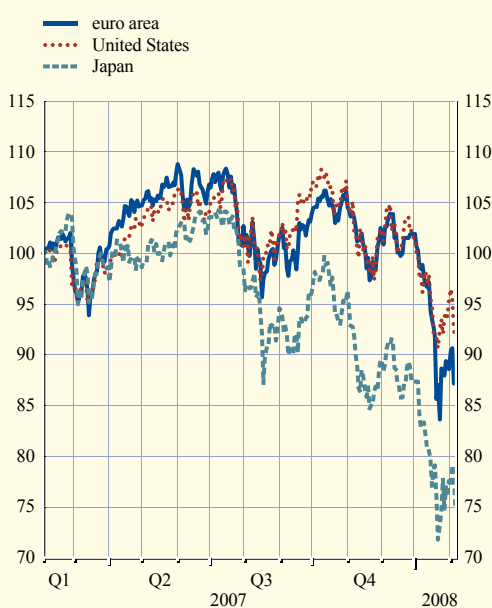
*Global stock prices declined amid intensified market concerns about the outlook for economic growth throughout the world. Although the growth rate of actual corporate earnings declined somewhat in the euro area, it remained at robust levels. At the same time, earnings growth in the United States became negative for the first time in more than five years. Implied stock market volatility rose to unusually high levels in response to the considerable swings in stock prices.*

In the course of January, an accelerating decline in broad-based stock price indices was observed in the major markets (see Chart 17). The sharp downturn appeared to be related to increasing pessimism among market participants about the global economic outlook. In addition, according to the Merrill Lynch Global Fund Manager Survey of January, the risk appetite appears to have receded further. Finally, short-term market factors may have played a role in exacerbating the swings in this period. Thereafter, in late January and early February, stock markets rebounded temporarily and market conditions calmed somewhat in the wake of the FOMC's decisions to lower its target for the federal funds rate. Overall, stock prices in the euro area, as measured by the Dow Jones EURO STOXX index, declined by around 14% between the end of December 2007 and 6 February 2008. Stock prices in the United States, as measured by the Standard & Poor's 500 index, decreased by around 10%, while stock prices in Japan, as measured by the Nikkei 225 index, went down by 14%.

The decline in stock prices in the United States probably reflected, among other things, further downward revisions in investors' perceptions of the outlook for economic activity, and thus for corporate profits, in the US economy. Data on housing and labour market developments, as well as survey evidence on business activity in the non-manufacturing sector published in January and early February, were weaker than anticipated by market participants and thus exerted downward pressure on stock prices. The annual growth rate of actual earnings per share, which continued the declining trend observed over the past few quarters, became negative in January. Although data on the expected growth of earnings per share for corporations included in the Standard & Poor's

**Chart 17 Stock price indices**

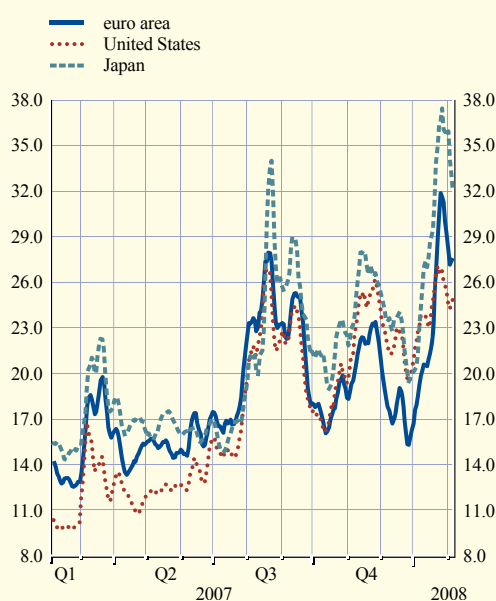
(index: 1 February 2007 = 100; daily data)



Sources: Reuters and Thomson Financial Datastream.  
Note: The indices used are 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 18 Implied stock market volatility**

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



Source: Bloomberg.  
Note: The implied volatility series reflects the expected standard deviation of percentage changes in stock prices 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.

500 index remained at robust levels in January, more companies revised their earnings estimates downward in January, especially those for the next 12 months.

The particularly strong decline in euro area stock prices over the period under review suggests that investors' concerns about a possibly sharper than anticipated slowdown in global economic activity have intensified. As discussed in Box 3 on the basis of cross-border correlations of stock market returns, investors appear to have progressively changed their perception of the financial turmoil from that of a shock mainly to the US economy to one with significant global ramifications. The growth of euro area companies' actual and expected earnings remained robust in January, although some incipient signs of weakening were observed. Actual year-on-year growth in earnings per share for firms in the Dow Jones EURO STOXX index declined to 13% in January, down from 15% in the previous month. This downturn in actual earnings growth was rather broadly based, and not confined to financial stocks alone. Although stock market analysts continued to expect the earnings per share for companies in the index to grow at a robust rate of 9% over the next 12 months, and by 8% over the next three to five years, companies' revisions to their earnings suggests that sentiment has deteriorated in recent months. With regard to sectoral stock price performance, significant losses were recorded for stocks in all economic sectors.

Implied stock market volatility, a measure of market participants' uncertainty about short-term stock market developments, increased substantially in all major markets (see Chart 18). Indeed, implied volatility in the euro area reached the highest level in almost five years, after the largest day-to-day decline since 11 September 2001 was recorded on 21 January. In late January and early February, implied volatility remained elevated, although it receded slightly from the recent peaks.

### Box 3

#### HOW CROSS-BORDER CORRELATIONS IN EQUITY MARKETS HAVE CHANGED DURING THE RECENT FINANCIAL TURMOIL

A frequent feature in financial markets during periods of financial strain is the increase in cross-border correlations between, in particular, equity markets. In line with this occurrence, this box discusses time-varying correlations between weekly returns on stocks in financial and non-financial sectors in the United States and the euro area, with special emphasis on developments over the recent financial market turmoil. To put matters into perspective, correlations are first estimated over a long sample period from 1994 to 2007. Then a snapshot of correlations during the recent financial turmoil is reported.<sup>1</sup>

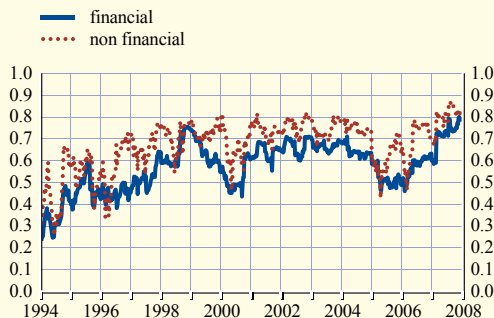
Over the long term, cross-country correlations between stock prices in the financial and non-financial sectors in the United States and the euro area have shown a clear upward trend (see Chart A), starting as early as 1994. Correlations increased from about 0.3 at the beginning of the sample to around 0.8 at the end of the period under consideration. This increase in the degree of co-movements between equity markets has been ascribed to a number of factors at play since the early 1990s, e.g. growing cross-border capital flows, the internationalisation of major

<sup>1</sup> Correlations can be estimated unconditionally or, alternatively, conditionally on an information set. This box uses a conditional approach, in that correlation estimates are updated as new information is incorporated in stock market prices. Unconditionally measured correlations, by contrast, do not vary over time and may miss changing economic conditions as reflected in financial market prices.



### Chart A Correlations between US and euro area stock market indices

(weekly data)



Source: Datastream and ECB computations.

Note: Correlations are computed according to the methodology proposed by L. Cappiello, R. Engle and K. Sheppard, "Asymmetric Dynamics in the Correlations of Global Equity and Bond Returns", *Journal of Financial Econometrics*, Fall 2006, 4(4), pp. 537-572.

financial institutions, international portfolio diversification and the synchronisation of economic cycles. For instance, developments in the asset prices of global corporations reflect economic shocks in many countries and sectors. To the extent that returns are increasingly determined by global factors, different markets tend to exhibit higher correlations.

Turning to the recent financial market turmoil that started in the summer of 2007, Chart B, panel A, plots time-varying correlations between equity prices in the financial and non-financial sectors in the United States and the euro area, focusing on the last year of data. To appraise the relative magnitude of the changes, correlations are normalised so that they are set equal to one at the beginning of March 2007, when the first tensions surfaced in the US sub-

prime mortgage market. Five broadly distinctive patterns can be detected.

First, correlations displayed a major jump well before the turmoil. At the end of February, correlations soared by about 20%, although proportionally more for financial than for non financial equities. The end of February also saw the largest one-day market fall of 2007 before the summer turmoil. During this period, world stock markets experienced what proved to be a short-lived downward correction triggered by developments in the Chinese markets. At the same time, the increase in correlations coincided with the first acknowledgement of possible risks to the housing market in the United States. Since then, correlations have never reverted to their previously lower levels. In a context of rising delinquencies in sub-prime mortgages in the United States, it seems that markets across the Atlantic suddenly became aware of higher risks in the US housing sector, which could pose downward risks to the main macroeconomic scenario.

Second, between March and mid-July, correlations changed only little. Despite the first wave of downgrades of mortgage-backed securities – and the default of two hedge funds that were heavily exposed to sub-prime structured products – which took place in June, cross-border correlations did not move significantly over this period.

Third, later in July and August, cross-border correlations spiked, particularly for the financial sector. A number of events characterised this period as the core of the turmoil. They included: massive downgrades of sub-prime market-related asset-backed securities and collateralised debt obligations which, in turn, triggered a sharp decline in the value of these securities; soaring money market rates and the standstill of the market for asset-backed commercial paper. Against this backdrop, major central banks stepped in with substantive injections of liquidity in August. While market concerns at this stage seemed to be mostly financial in character, there were also worries about the possible macroeconomic implications.<sup>2</sup>

<sup>2</sup> For details on securitisation activity, see the article entitled "Securitisation in the euro area" in this issue of the Monthly Bulletin.

Fourth, between the end of August and October 2007, cross-border correlations declined to some extent, especially for non-financial equities. Following further action by central banks, including September's cut of policy rates by the Federal Reserve, money and equity markets normalised somewhat.

Fifth, from November 2007 onwards, cross-border correlations between financial equities increased further, while those of the non-financial sector remained mostly unchanged. In this respect, correlations between financial stocks drifted upwards as the dislocation of the summer took on the form of a global credit market shock, with severe losses and a steep re-pricing of credit risk. In this period, some major US financial institutions disclosed huge write-downs, related to their exposures to structured finance instruments, with the magnitude of these losses often exceeding investors' forecasts. The increase in cross-border correlations among financials brought their absolute values above the historical peaks of the LTCM crisis in 1998 (see Chart A). Interestingly, cross-border correlations between non-financial stocks declined in September and October, although remaining at high levels. This might suggest that growth spill-overs between the real economies of the United States and the euro area seemed to be a lesser concern to market participants than the global risks derived from the instability of the financial sector.

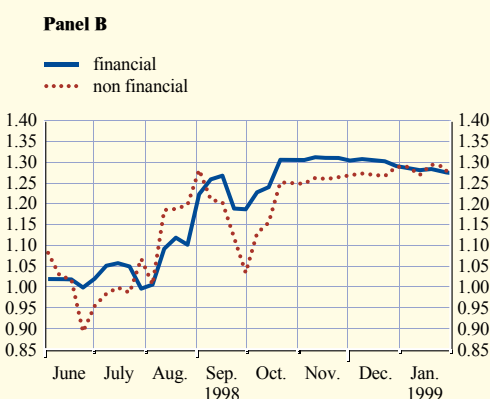
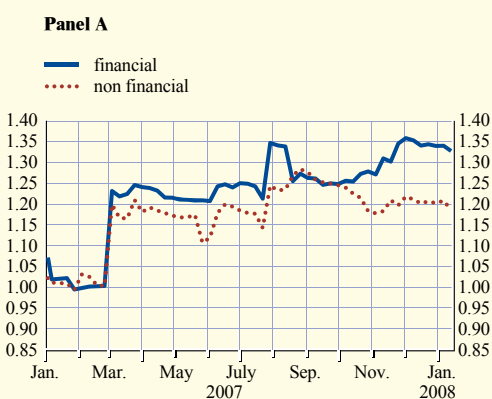
For purposes of comparison, Chart B, panel B, is a snapshot of correlations over a time span that includes the debt default in Russia in August 1998 and the ensuing LTCM crisis. In this case, too, cross-border correlations soared very strongly, both for the financial and for the non-financial sector.

All in all, the recent behaviour of cross-border sectoral correlations is evocative of market participants progressively changing their perceptions of the credit market shocks. Initially, the turmoil was mostly a reaction to a US-based shock. It later spilled over into the global economy, on the account of a possible deterioration of the credit cycle after a long period of very favourable credit conditions.

**Chart B Correlations between US and euro area stock market indices for selected periods**

(weekly data; index =1 on 1 March 2007)

(weekly data; index =1 on 6 August 1998)



Source: Datastream and ECB computations.  
Note: Correlations are computed according to the methodology proposed by L. Cappiello, R. Engle and K. Sheppard "Asymmetric Dynamics in the Correlations of Global Equity and Bond Returns", *Journal of Financial Econometrics*, Fall 2006, 4(4), pp. 537-572.

Source: Datastream and ECB computations.  
Note: Correlations are computed according to the methodology proposed by L. Cappiello, R. Engle and K. Sheppard "Asymmetric Dynamics in the Correlations of Global Equity and Bond Returns", *Journal of Financial Econometrics*, Fall 2006, 4(4), pp. 537-572.

## 3 PRICES AND COSTS

*In January 2008 euro area HICP inflation is provisionally estimated to have increased further to 3.2%, from 3.1% in the previous two months. It is likely that developments in food and energy prices continued to exert upward pressure on overall inflation. Looking ahead, the latest developments in producer prices signal ongoing upward pressure on consumer price inflation, and input cost pressure remains high. Overall, the annual HICP inflation rate is likely to remain significantly above 2% in the coming months and to moderate only gradually in the further course of 2008, assuming that the recent rises in commodity prices are partly reversed, in line with futures prices. Risks to this medium-term outlook for price developments are confirmed to lie on the upside. On the domestic side, at this juncture there is a risk of broadly based second-round effects on wage and price-setting. In particular, this includes the possibility of higher than currently expected wage increases, taking into account high capacity utilisation and tight labour market conditions. Furthermore, the pricing power of firms could turn out to be stronger than expected, especially in market segments with lower competition. Finally, further rises in oil and agricultural prices, continuing the strong upward trend observed in recent months, as well as increases in administered prices and indirect taxes beyond those currently foreseen, pose upside risks to the inflation outlook.*

### 3.1 CONSUMER PRICES

#### FLASH ESTIMATE FOR JANUARY 2008

According to Eurostat's flash estimate, the euro area HICP inflation rate was 3.2% in January 2008, up from 3.1% in December (see Table 5). If confirmed, this would be the highest annual growth rate recorded by the official index since 1999.<sup>1</sup> In addition to the impact of statistical changes that are normally implemented at the beginning of the year, this estimate is surrounded by more uncertainty than usual owing to lower than normal country coverage and methodological issues in several countries.

<sup>1</sup> In 2001, the real-time estimate for HICP inflation in May was 3.4%. However, following a methodological change, this number was later revised down to 3.1%.

**Table 5 Price developments**

(annual percentage changes, unless otherwise indicated)

	2006	2007	2007 Aug.	2007 Sep.	2007 Oct.	2007 Nov.	2007 Dec.	2008 Jan.
<b>HICP and its components</b>								
Overall index <sup>1)</sup>	2.2	2.1	1.7	2.1	2.6	3.1	3.1	3.2
Energy	7.7	2.6	-0.9	3.0	5.5	9.7	9.2	.
Unprocessed food	2.8	3.0	2.4	2.1	3.1	3.0	3.1	.
Processed food	2.1	2.8	2.5	3.1	3.8	4.6	5.1	.
Non-energy industrial goods	0.6	1.0	1.0	1.0	1.1	1.1	1.0	.
Services	2.0	2.5	2.6	2.5	2.5	2.5	2.5	.
<b>Other price indicators</b>								
Industrial producer prices	5.1	2.8	1.8	2.7	3.3	4.2	4.3	.
Oil prices (EUR per barrel)	52.9	52.8	52.4	55.2	57.7	62.8	62.8	62.4
Non-energy commodity prices	24.8	9.2	5.4	6.9	3.5	-0.1	1.4	3.0

Sources: Eurostat, HWWI and ECB calculations based on Thomson Financial Datastream.  
Note: Data on industrial producer prices refer to the euro area including Cyprus and Malta.  
1) HICP inflation in January 2008 refers to Eurostat's flash estimate.

Although no official estimate of the breakdown of the HICP components for January is yet available, anecdotal evidence suggests that food and energy prices have continued to exert upward pressure on overall inflation in many countries.

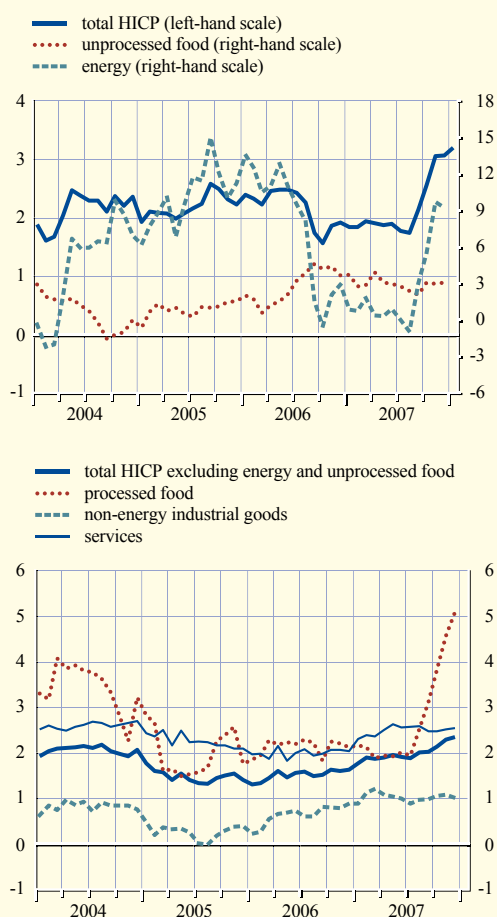
### HICP INFLATION UP TO DECEMBER 2007

Strong short-term upward pressure on inflation was visible already in November and December, with the overall annual HICP inflation rate reaching 3.1%, the highest growth rate observed since May 2001 (see Chart 19). External pressures from energy and food prices were again the key drivers behind these developments. However, in December, by contrast with the previous months, the energy component exerted a downward impact on overall HICP inflation, although this dampening effect was broadly offset by a further upward impact from (mainly processed) food prices.

The easing in the annual growth rate of energy prices in December was mainly attributable to a fall in crude oil prices over the month. In addition, there was no significant upward base effect in December from energy price developments a year earlier. In contrast, the annual growth rate of processed food prices rose further, to 5.1%, the highest rate on record, largely stemming from a strong increase in the prices of cereals and dairy products. There was also a small increase in the annual rate of change in unprocessed food prices, mainly as a result of a rise in meat prices (which account for half of the weight of this component), possibly related to the recent increases in animal feed prices. The annual rate of change in the HICP excluding food and energy remained stable in December. The short-term price dynamics of the two largest HICP components – services and non-energy industrial goods – continued to be moderate, although their annual growth rates remained higher than in previous years. The annual rate of change in services prices remained stable at 2.5%, while the annual rate of change in non-energy industrial goods prices fell slightly to 1.0%, from 1.1% in November.

Chart 19 Breakdown of HICP inflation: main components

(annual percentage changes; monthly data)



Source: Eurostat.

### 3.2 INDUSTRIAL PRODUCER PRICES

The annual rate of change in overall industrial producer prices (excluding construction) rose to 4.3% in December 2007, up slightly from 4.2% in November (see Chart 20). This was the fourth consecutive increase on account of energy and food price developments. Excluding energy and construction, annual producer price inflation remained unchanged for the third month in a row

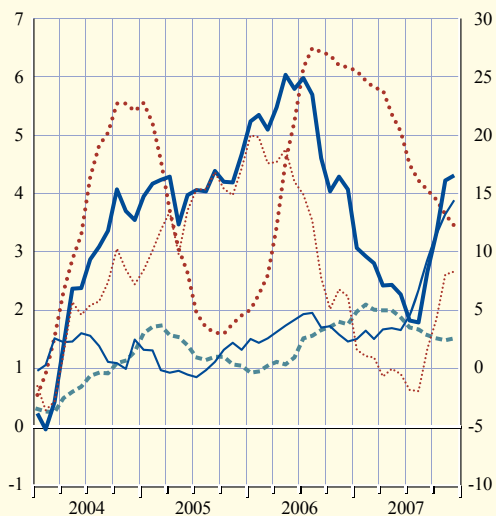
at the elevated level of 3.2%. As in previous months, this reflected counteracting developments among its components. On the one hand, the annual rate of change in intermediate goods prices recorded another slight decrease, remaining on a downward path as a result of the strength of the euro exchange rate and less dynamic industrial raw materials prices. On the other hand, the annual growth rate of consumer goods prices increased further, driven mainly by food prices. Although annual increases in the producer prices of food items remained high (8.6% in December, compared with 8.2% in November and 7.5 % in October), there are some indications of a slowdown in the short-term dynamics, indicating that the pipeline pressures on food producer items observed since August 2007 may be diminishing. Excluding tobacco and food prices, the annual rate of change in consumer goods prices increased marginally to 1.4%, remaining close to the rates recorded since the beginning of the year. The annual rate of change in capital goods prices remained unchanged in December, at 1.5%, for the third month in a row.

The most recent information on firms' price-setting behaviour from the NTC Economics Purchasing Managers' Index (PMI) confirms a picture of high input cost pressures in both the manufacturing and services sectors, with input cost indicators for both sectors still at high levels by historical standards (see Chart 21). In January 2008 the indicator of input costs in the manufacturing sector increased markedly, reaching its highest level since July 2007. Survey respondents attributed this rise to high energy prices. The output price indicator also increased further, to a ten-month high. The increase in manufacturers' selling prices for consumer goods was particularly strong. By contrast, in the services sector, the indicators for both input and output prices eased somewhat in January.

**Chart 20 Breakdown of industrial producer prices**

(annual percentage changes; monthly data)

- total industry excluding construction (left-hand scale)
- ..... intermediate goods (left-hand scale)
- - - capital goods (left-hand scale)
- consumer goods (left-hand scale)
- ..... energy (right-hand scale)

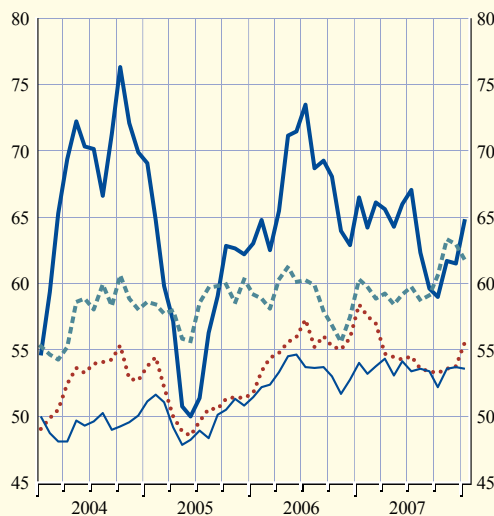


Sources: Eurostat and ECB calculation  
Note: Data refer to the euro area including Cyprus and Malta.

**Chart 21 Producer input and output price surveys**

(diffusion indices; monthly data)

- manufacturing; input prices
- ..... manufacturing; prices charged
- - - services; input prices
- services; prices charged



Source: NTC Economics.  
Note: An index value above 50 indicates an increase in prices, whereas a value below 50 indicates a decrease. Data refer to the euro area including Cyprus and Malta.

The input price indicator in services remains, however, at an elevated level, reflecting higher costs for food, oil and other energy-related purchases, and also rising wage pressures, according to survey respondents. This notwithstanding, the indicator of prices charged now stands below the average for 2007, which points to some constraints on services firms' ability to pass these high costs through to their output prices.

### 3.3 LABOUR COST INDICATORS

Information from labour cost indicators up to the third quarter of 2007 points to a continuation of contained wage developments somewhat below the average growth rates recorded in 2006 (see Table 6 and Chart 22). However, despite the moderate wage growth, the slowdown in labour productivity growth resulted in an increase in unit labour cost growth of 1.2% in the second and third quarters of 2007 (year-on-year), compared with 0.9% on average in 2006. Partial information available for the last quarter of 2007 does not point to any acceleration in wage growth.

Overall moderate wage growth in the euro area conceals, however, relatively different labour cost developments across sectors (see Chart 23). In industry (excluding construction), there was a clear moderation of the annual growth rate of hourly labour costs in 2007 as compared with 2006. In the construction sector, growth in hourly labour costs stabilised at a high level in the third quarter of 2007, following a strong rise in the second quarter. Combined with a moderation in the annual growth rate of compensation per employee, this is consistent with a slowdown in employment demand in the construction sector. In the market services sector, hourly labour cost growth increased somewhat in 2007.

Looking ahead, available information on the latest wage negotiation rounds and wage-indexation

Chart 22 Selected labour cost indicators

(annual percentage changes; quarterly data)



Sources: Eurostat, national data and ECB calculations.  
Note: Data on compensation per employee refer to the euro area including Cyprus and Malta.

Table 6 Labour cost indicators

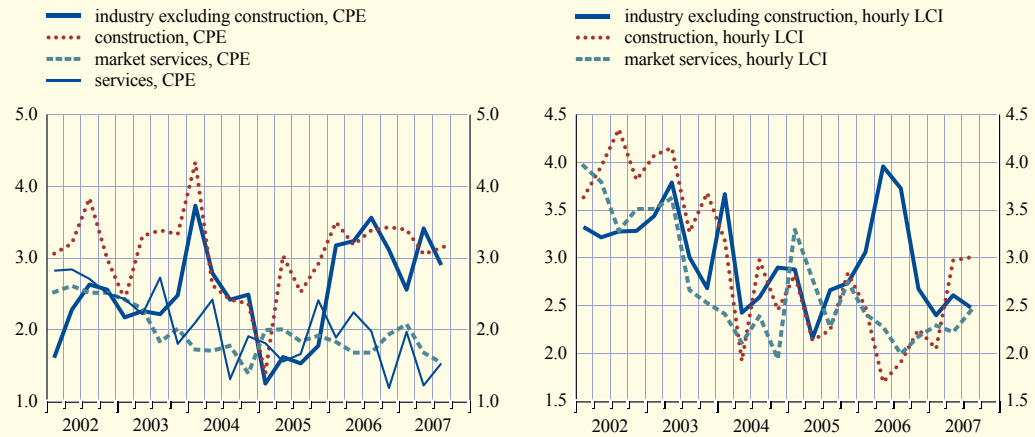
(annual percentage changes, unless otherwise indicated)

	2005	2006	2006 Q3	2006 Q4	2007 Q1	2007 Q2	2007 Q3
Negotiated wages	2.1	2.3	2.1	2.5	2.0	2.3	2.1
Total hourly labour costs	2.7	2.6	2.6	2.3	2.3	2.4	2.5
Compensation per employee	1.8	2.2	2.4	1.8	2.2	1.9	2.0
<i>Memo items:</i>							
Labour productivity	0.7	1.3	1.3	1.6	1.3	0.7	0.7
Unit labour costs	1.0	0.9	1.1	0.2	0.9	1.2	1.2

Sources: Eurostat, national data and ECB calculations.  
Note: Data on negotiated wages and hourly labour costs do not include Cyprus and Malta.

**Chart 23 Sectoral labour cost developments**

(annual percentage changes; quarterly data)



Sources: Eurostat and ECB calculations.  
 Note: CPE stands for “compensation per employee” and LCI stands for “labour cost index”.

clauses points to some acceleration in labour cost growth in 2008 in several euro area countries. In particular, the public sector may become a significant contributor to overall euro area wage growth, as several large countries will conduct major public sector wage negotiations in the course of the year. Against a background of tight labour markets, high consumer inflation perceptions and public concern about purchasing power, high wage growth in the public sector, were it to materialise, may have some influence on wage claims in the private sector. Finally, measures reducing social security contributions, which had a dampening impact on the annual growth rate of compensation per employee in 2006 and 2007, will be phased out this year.

### 3.4 EURO AREA RESIDENTIAL PROPERTY PRICES

As reported in more detail in Box 4, the latest available estimates of euro area residential property prices suggest that the gradual deceleration observed since the second half of 2005 has continued in 2007. The moderation in euro area house price inflation has been particularly pronounced in those countries that recorded relatively high increases in residential property prices in recent years.

#### Box 4

##### RECENT DEVELOPMENTS IN EURO AREA RESIDENTIAL PROPERTY PRICES

This box provides an overview of recent developments in residential property markets in the euro area, focusing on price changes against the background of trends in housing demand and supply.

The annual growth rate of residential property prices for the euro area as a whole was 5.0% in the first half of 2007, down from 6.1% in the second half of 2006. In general, the available

estimates suggest that house prices continue to be on a gradual path of normalisation following the acceleration observed between the mid-1990s and 2005 (see Chart A).

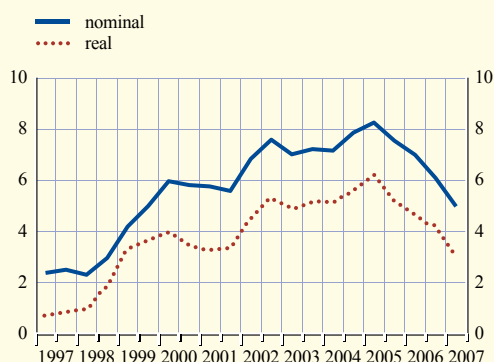
Country data suggest that the moderation in euro area house price inflation was particularly marked in those countries that recorded relatively high residential property price rises in recent years, such as Belgium, Ireland, Spain, France and Malta. By contrast, in the case of Italy, the Netherlands and Austria, available data suggest that house price increases in 2007 were roughly unchanged compared with those recorded in 2006.

In general, recent developments in euro area residential property prices primarily reflect a slowdown in the demand for housing.<sup>1</sup>

Although household income showed sustained growth, a “crude” index of housing affordability – i.e. the ratio of households’ nominal disposable income to the residential property price index – remained relatively low, stabilising in the first half of 2007 after declining continuously since

Chart A Residential property prices in the euro area

(annual percentage changes; biannual data)



Source: ECB calculations based on national data.  
Notes: The real residential property price series is calculated using the euro area HICP as a deflator. The euro area residential property price aggregate is calculated from national series covering more than 90% of euro area GDP for the whole period.

<sup>1</sup> For a detailed analysis of available indicators of housing demand and supply, see the article entitled “Assessing house price developments in the euro area” in the February 2006 issue of the Monthly Bulletin.

### Residential property prices in the euro area

(annual percentage changes)

	1997-2000	2001	2002	2003	2004	2005	2006	2007	2006		2007	
									H1	H2	H1	H2
Belgium <sup>1)</sup>	6.3	6.2	7.8	7.1	12.0	16.7	11.1	..	12.4	9.9	7.8	..
Germany <sup>2)</sup>	-0.5	0.2	-1.3	-1.3	-1.6	-1.6	0.3	..	..	..	..	..
Ireland <sup>2)</sup>	21.0	8.1	10.1	15.2	11.4	11.5	12.8	..	13.6	12.1	6.1	..
Greece <sup>2)</sup>	10.5	14.4	13.9	5.4	2.3	10.9	12.2	..	13.0	11.4	..	..
Spain <sup>2)</sup>	6.2	9.9	15.7	17.6	17.4	13.9	10.4	5.8	11.4	9.5	6.5	5.1
France <sup>1)</sup>	4.4	7.9	8.3	11.7	15.2	15.3	12.1	..	13.9	10.5	7.5	..
Italy <sup>2)</sup>	1.5	7.4	13.7	10.6	9.2	9.7	6.7	..	6.4	7.0	6.6	..
Cyprus	..	..	..	..	..	..	..	..	..	..	..	..
Luxembourg <sup>2)</sup>	5.2	11.4	10.8	11.5	14.0	11.7	..	..	..	..	..	..
Malta <sup>2)</sup>	..	..	8.7	13.3	20.3	9.8	3.5	..	5.8	1.4	1.6	..
Netherlands <sup>1)</sup>	14.1	11.2	8.4	4.8	4.1	4.7	4.5	4.6	4.8	4.3	4.5	4.8
Austria <sup>2),3)</sup>	-1.8	2.2	0.2	0.3	-2.2	5.1	4.0	..	4.1	4.0	3.9	..
Portugal <sup>2)</sup>	5.8	5.4	0.6	1.1	0.6	2.3	2.1	1.3	3.4	0.8	1.2	1.5
Slovenia	..	..	..	..	..	..	..	..	..	..	..	..
Finland <sup>1)</sup>	..	-0.5	7.4	6.3	7.3	6.1	7.4	6.0	8.3	6.6	6.4	5.6
Euro area	3.9	5.7	7.2	7.1	7.5	7.9	6.5	..	7.0	6.1	5.0	..

Sources: National sources and ECB calculations.

Notes: Weights are based on 2006 nominal GDP. The estimate of the euro area aggregate for the first half of 2007 includes a confidential estimate for Germany.

1) Existing dwellings (houses and flats); whole country.

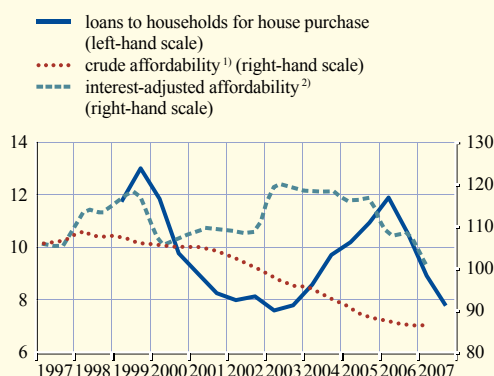
2) All dwellings (new and existing houses and flats); whole country.

3) Data up to 2000 for Vienna only.



**Chart B Selected housing demand indicators in the euro area**

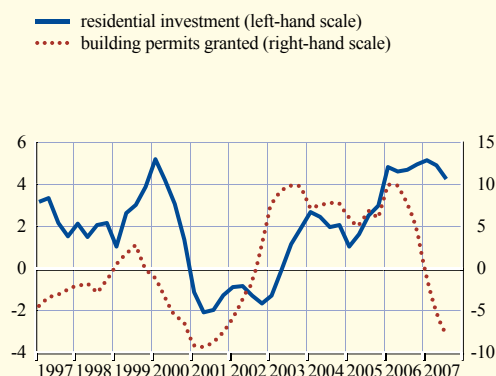
(annual percentage changes; index 100 = average)



Sources: Eurostat and ECB calculations.  
 1) Ratio of households' nominal disposable income to residential property prices.  
 2) Ratio of households' nominal disposable income to the income that households would require in order to buy a house under the prevailing borrowing conditions.

**Chart C Selected housing supply indicators in the euro area**

(annual percentage changes)



Sources: Eurostat and ECB calculations.  
 Note: Four-quarter moving averages of year-on-year growth rates.

2002 (see Chart B). This decline reflects the strong rise in house prices witnessed over the past few years. At the same time, measures of interest-adjusted affordability<sup>2</sup> suggest that housing affordability declined even further in 2007 compared with 2006, reflecting to a large extent the increases in both nominal and real bank lending rates for house purchase observed during 2007. A moderation in housing demand can also be seen in the development of mortgage loans, the annual growth rates of which started to decline in early 2006. These indications of a softening in the demand for housing coincided with a fall in the growth of building permits granted over the same period.

Available demand and supply indicators suggest that a further moderation in residential property prices may have taken place in the second half of 2007. On the demand side, the annual growth rate of MFI loans to households for house purchase declined further over this period, to stand at 7.1% in December. The results of the January 2008 bank lending survey suggest that households' net demand for loans for house purchase fell sharply in the fourth quarter of 2007. At the same time, there appears to be a moderation in the expansion of housing supply following the strong growth of recent years (see Chart C). Developments in 2007 may have also partly reflected the fact that some investment plans were frontloaded in 2006 on account of fiscal measures in some countries (such as changes to homeowner subsidisation and statutory rates for indirect taxation). Short-term indicators, such as Eurostat's building construction index, suggest that a continued moderation in residential investment growth can be expected for the fourth quarter of 2007. This is corroborated by other indicators of housing supply, such as building permits, which also suggest that the expansion of housing supply could moderate further in 2008.

2 Interest-adjusted affordability is measured as the ratio of households' nominal disposable income to the income that households would require in order to buy a house under the prevailing borrowing conditions. For more detailed information, see the article referred to in footnote 1.

Overall, recent information appears to be in line with a cooling-down of housing market developments after a prolonged period of unusually high growth rates in house prices. However, real house price growth (deflated by the HICP) still remains, on average, relatively buoyant in the euro area when seen from a historical perspective.

### 3.5 THE OUTLOOK FOR INFLATION

Overall, annual HICP inflation is likely to stay above 2% for an extended period of time, as further upward pressure from high oil and food prices is expected to keep headline inflation around its current level in the coming months. On the basis of current futures prices for commodities in international markets, the annual HICP inflation rate is likely to moderate only gradually in the course of 2008.

In the latest ECB Survey of Professional Forecasters (see Box 5), inflation expectations were revised significantly upwards for 2008, to 2.5%, while remaining unchanged at 2.0% for 2009. Professional forecasters participating in this round of the survey have also marginally revised upwards their longer-term inflation expectations.

Risks to this medium-term outlook for price developments are confirmed to lie on the upside. On the domestic side, at this juncture there is a risk of broadly based second-round effects on wage and price-setting stemming from the current elevated rates of headline inflation. In particular, this includes the possibility of higher than currently expected wage increases, taking into account high capacity utilisation and tight labour market conditions. Furthermore, the pricing power of firms may turn out to be stronger than expected, especially in market segments with lower competition. Finally, further rises in oil and agricultural prices, continuing the strong upward trend observed in recent months, as well as increases in administered prices and indirect taxes beyond those currently foreseen, pose upside risks to the inflation outlook.

#### Box 5

#### RESULTS OF THE ECB SURVEY OF PROFESSIONAL FORECASTERS FOR THE FIRST QUARTER OF 2008

This box reports the results of the ECB Survey of Professional Forecasters (SPF) for the first quarter of 2008. The survey was conducted between 16 and 18 January 2008. The SPF gathers information on expectations for euro area inflation, GDP growth and unemployment from experts affiliated to financial or non-financial institutions based in the EU. Given the diversity of the panel of participants, aggregate SPF results can reflect a relatively heterogeneous set of subjective views and assumptions.

#### Inflation expectations for 2008 and 2009

SPF participants' inflation expectations for 2008 have shifted towards higher levels. The reported point estimates averaged 2.5%, which is 0.5 percentage point higher than in the previous SPF

## Results from the SPF, Eurosystem staff macroeconomic projections, Consensus Economics and Euro Zone Barometer

(annual percentage changes, unless otherwise indicated)

HICP inflation	2008	Survey horizon			
		Dec. 2008	2009	Dec. 2009	Longer term <sup>2)</sup>
SPF Q1 2008	2.5	2.0	2.0	2.0	2.0
Previous SPF (Q4 2007)	2.0	-	2.0	-	1.9
Eurosystem staff macroeconomic projections	2.0 - 3.0	-	1.2 - 2.4	-	-
Consensus Economics (January 2008)	2.4	-	1.9	-	1.9
Euro Zone Barometer (January 2008)	2.4	-	1.9	-	2.0
Real GDP growth	2008	Q3 2008	2009	Q3 2009	Longer term <sup>2)</sup>
SPF Q1 2008	1.8	1.7	2.0	2.1	2.1
Previous SPF (Q4 2007)	2.1	-	2.2	-	2.2
Eurosystem staff macroeconomic projections	1.5 - 2.5	-	1.6 - 2.6	-	-
Consensus Economics (January 2008)	1.8	-	2.0	-	2.0
Euro Zone Barometer (January 2008)	1.8	-	2.0	-	2.0
Unemployment rate <sup>1)</sup>	2008	Nov. 2008	2009	Nov. 2009	Longer term <sup>2)</sup>
SPF Q1 2008	7.1	6.7	7.0	6.6	6.7
Previous SPF (Q4 2007)	6.7	-	6.6	-	6.4
Consensus Economics (January 2008)	7.2	-	7.1	-	-
Euro Zone Barometer (January 2008)	7.1	-	7.1	-	6.8

1) As a percentage of the labour force.

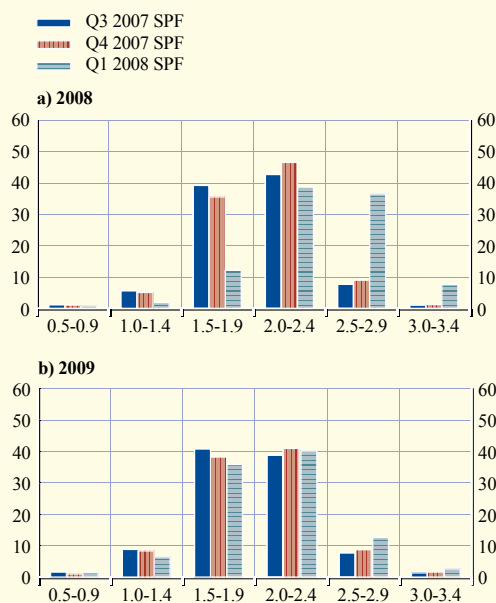
2) Longer-term inflation expectations refer to 2012 in the SPF, 2011 in the Euro Zone Barometer and the period 2013-17 in Consensus Economics. The Consensus Economics forecasts for the period 2013-17 were published in the October 2007 issue of Consensus Economics.

round (see the table).<sup>1</sup> These inflation expectations reflect concerns about higher cost and wage pressures in 2008. On average, the expected inflation rate for 2009 remained unchanged at 2.0%. SPF inflation expectations are within the ranges reported in the December 2007 Eurosystem staff macroeconomic projections, but slightly higher than the forecasts published in the January 2008 issues of Consensus Economics and the Euro Zone Barometer.

SPF participants are also asked to assess the probability of the future outcome being within specific intervals. The aggregate probability distribution obtained by averaging the forecasters' responses provides a summary of these views. It also permits an assessment of how, on average, survey participants gauge the risk of the actual outcome being above or below the most likely range. The probability distributions for expected rates of inflation in 2008 and, to a lesser extent, in 2009 have shifted towards higher outcomes compared with the SPF round for the fourth quarter of 2007 (see Chart A). For 2008, the two most

Chart A Probability distribution for average annual inflation in 2008 and 2009 in the last three rounds of the SPF<sup>1)</sup>

(probability in percentages)



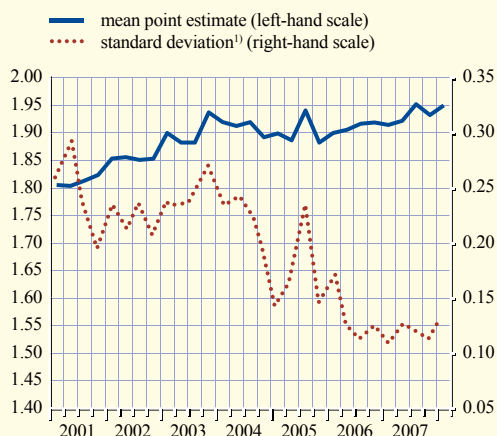
Source: ECB.

1) Corresponds to the aggregation of each individual probability distribution provided by SPF forecasters.

1 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).

**Chart B Long-term inflation expectations  
(point estimate — five years ahead)**

(average annual percentage changes; percentage points)

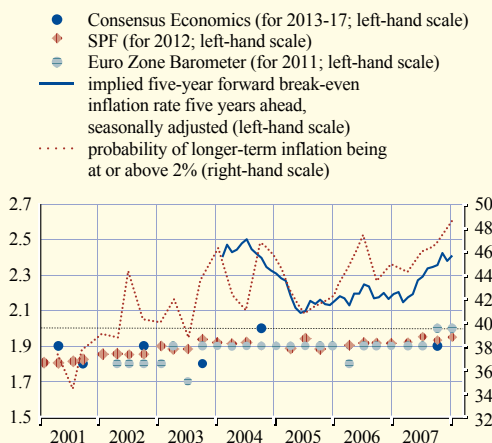


Source: ECB.

1) The standard deviation of point estimates reported by each of the panel members responding to the survey.

**Chart C Longer-term inflation expectations  
from surveys and break-even inflation rates**

(average annual percentage changes; percentage probability)



Sources: Consensus Economics, Euro Zone Barometer, ECB, Reuters and ECB calculations.

likely outcomes for inflation are within the interval from 2.0% to 2.4%, with a probability of 40%, and within the interval from 2.5% to 2.9%, with a probability of 37%. For 2009, the most likely outcome for inflation remains in the interval from 2.0% to 2.4%, with a probability of 40%. At the same time, the probability of inflation being in the lower interval, from 1.5% to 1.9%, remains at 36%.

According to the participants, upside risks to the forecasts relate, in particular, to further increases in oil prices and an acceleration in nominal wage growth. At the same time, forecasters quoted factors posing risks on the downside, notably a further strengthening of the exchange rate of the euro and the possibility of a stronger than expected contraction in aggregate demand.

### Indicators of longer-term inflation expectations

According to the latest SPF results, longer-term inflation expectations (five years ahead) have been revised marginally upwards, from 1.93% to 1.95%. To one decimal place, this revision leads to a change from 1.9% to 2.0% due to rounding. These point expectations for 2012 are in line with the long-term projections for inflation for 2011 provided by the Euro Zone Barometer in January 2008, and slightly above those for inflation six to ten years ahead published in the October 2007 issue of Consensus Economics. The standard deviation of longer-term inflation expectations in the SPF has fallen over time and remains stable at low levels, indicating a broad consensus among respondents regarding the most likely outcome for the longer-term inflation rate (see Chart B).

The probability attached by survey respondents to longer-term inflation standing at 2% or above increased slightly to 49%, compared with 48% in the previous round (see Chart C). These survey results can be compared with the break-even inflation rate, an indicator of longer-term inflation expectations among market participants calculated as the yield spread between nominal and

inflation-linked bonds.<sup>2</sup> The rise in the probability that inflation five years ahead will stand at 2% or above is in line with developments in the implied five-year forward break-even inflation rate five years ahead (see Chart C). It should be recalled that break-even inflation rates should not be interpreted as direct measures of inflation expectations, since they may also incorporate various risk premia (such as inflation uncertainty and liquidity premia).

### **Real GDP growth expectations**

In comparison with the previous SPF round, expectations for real GDP growth have been revised downwards by 0.3 percentage point for 2008 and by 0.2 percentage point for 2009. The averages of the point estimates for real GDP growth now stand at 1.8% for 2008 and 2.0% for 2009. These downward revisions mainly reflect forecasters' concerns about the economic slowdown in the United States, which could have worldwide effects.

Similarly, the downside risks to these expectations are mainly associated with higher oil prices, continued uncertainty surrounding the developments in the financial markets and a disorderly unwinding of global imbalances, with possible effects on the exchange rate of the euro. The main upside risks cited by forecasters were an overly aggressive policy easing in the United States and buoyant private consumption and employment in the euro area. SPF growth expectations for 2008 and 2009 are within the ranges of the December 2007 Eurosystem staff macroeconomic projections and in line with the results published in the latest issues of Consensus Economics and the Euro Zone Barometer.

Longer-term growth expectations (i.e. for 2012) have also been subject to a downward revision, of 0.1 percentage point, and now stand at 2.1%. According to SPF participants, longer-term growth prospects depend principally on further structural reforms in the labour market and social security systems, the demographic situation and migration flows.

### **Expectations for the euro area unemployment rate**

Unemployment rate expectations for 2008 and 2009 currently stand at 7.1% and 7.0% respectively. These expectations imply an upward revision of 0.4 percentage point for both 2008 and 2009 and could be attributed mainly to an upward revision of data in the unemployment series that took place after the end of the previous SPF round. According to some forecasters, while the unemployment rate has dropped significantly in the euro area over the past several years owing to labour market reforms, labour mobility and the reduced bargaining power of unions, any further declines are now expected to be modest. They also claim that, given the dynamics and the structural changes in the euro area labour market, it is difficult to distinguish between temporary and permanent changes in the unemployment rate. SPF unemployment rate expectations are slightly lower than those of Consensus Economics for 2008 and 2009 and the Euro Zone Barometer for 2009.

Longer-term unemployment rate expectations have been revised upwards by 0.3 percentage point and stand at 6.7% for 2012. The balance of risks to these expectations is assessed to be on the upside. Respondents continue to indicate that the decline in the unemployment rate over the longer-term horizon is mainly dependent on further, and deeper, labour market reforms.

<sup>2</sup> See also the article entitled "Measures of inflation expectations in the euro area" in the July 2006 issue of the Monthly Bulletin.

## 4 OUTPUT, DEMAND AND THE LABOUR MARKET

Euro area real GDP growth was 0.8% in the third quarter of 2007 according to the latest estimate, which is 0.1 percentage point higher than the previous estimate. The latest information points to a more moderate pace of economic activity around the turn of the year. However, while indicators based on survey data have declined in recent months, they generally continue to point to ongoing growth. This assessment is broadly in line with available forecasts from private and public sector sources. The fundamentals of the euro area economy remain sound. The euro area economy does not have major imbalances. Profitability has been sustained and unemployment rates have fallen to levels not seen for 25 years. Uncertainty about the prospects for economic growth is unusually high and the risks surrounding the outlook for economic activity have been confirmed to lie on the downside. The risks relate mainly to a potentially broader than currently expected impact of financial market developments on financing conditions and economic sentiment, with negative effects on world and euro area growth. Further downside risks stem from the scope for additional oil and other commodity price rises, concerns about protectionist pressures and the possibility of disorderly developments due to global imbalances.

### 4.1 OUTPUT AND DEMAND DEVELOPMENTS

#### REAL GDP AND EXPENDITURE COMPONENTS

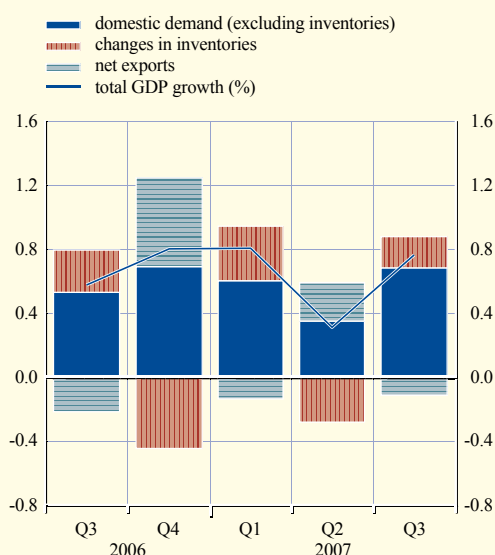
According to Eurostat's second estimate of national accounts data, real GDP growth was 0.8% in the third quarter of 2007, which is 0.1 percentage point higher than the previous estimate (see Chart 24). The increase is mainly attributable to a higher contribution from domestic demand, at 0.6 percentage point, on account of stronger than previously estimated investment growth. The estimate of private consumption growth was left unchanged, at 0.5%, confirming the positive indications observed in the previous quarter. The small negative contribution of net trade and the positive contribution of inventories were also unchanged from the previous estimate.

The first estimate of the breakdown of total investment for the third quarter of 2007 was also made available with Eurostat's release. It indicates that non-construction investment growth accelerated somewhat, rising from 0.9% in the second quarter to 1.4% in the third quarter. Construction investment growth rebounded to 1.0% in the third quarter, following the decline of 1.0% observed in the previous quarter. Overall, these figures support the assessment presented in previous issues of the Monthly Bulletin regarding the strength of investment growth and the specific weather-related factors which affected the construction sector in the second quarter of 2007.

In sum, the latest estimate of national accounts data shows that euro area economic growth remained robust in the first three quarters of 2007, albeit somewhat weaker, on average, than in 2006.

Chart 24 Real GDP growth and contributions

(quarter-on-quarter growth rate and quarterly percentage point contributions; seasonally adjusted)



Sources: Eurostat and ECB calculations.  
Note: Data refer to the euro area including Cyprus and Malta.

## SECTORAL OUTPUT AND INDUSTRIAL PRODUCTION

The second estimate of national accounts data left the sectoral composition of value added growth in the third quarter of 2007 broadly unchanged. The contributions of both the industrial and services sectors to euro area total value added were confirmed at 0.3 percentage point and 0.5 percentage point respectively.

The latest information suggests that the contribution of industry to euro area real GDP growth in the fourth quarter of 2007 was much lower than in the third quarter. Industrial production (excluding construction) declined by 0.3% month on month in November, following an increase of 0.6% in the previous month (see Chart 25). Looking at the figures in more detail, there was a contraction in all the main industrial groupings, except energy, in November. The average level of production in the first two months of the fourth quarter was only marginally higher than in the third quarter, thereby confirming the early signals from survey data. At the same time, on a more positive note, industrial new orders (excluding heavy transport equipment) rose again, by 0.8% month on month in November, following an increase of 1.3% in the previous month. The average level of industrial new orders (excluding heavy transport equipment) in the first two months of the fourth quarter was 1% higher than in the third quarter, while the average level of domestic new orders was 1.7% higher. As new orders lead production to some extent,<sup>1</sup> this suggests that domestic demand is likely to make a stronger contribution to industrial production than external demand, looking ahead.

In the construction sector, production decreased by 0.9% month on month in November, thus reversing the increase of 0.7% seen in October. The latest release confirms the view that the increase in October was temporary and probably reflected the lower than average levels of rainfall in Spain and Portugal. On average, production in the construction sector in the first two months of the fourth quarter was only marginally above the level seen in the third quarter.

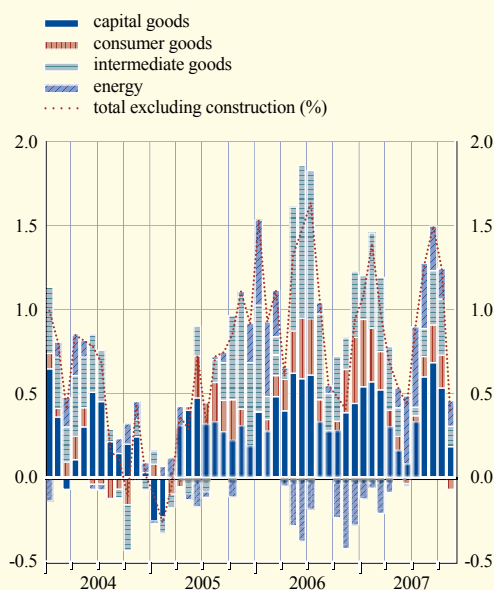
Overall, the most recent information confirms that industrial production growth was much weaker in the fourth quarter than in the third quarter.

## SURVEY DATA FOR THE INDUSTRIAL AND SERVICES SECTORS

Survey data indicate that the pace of growth remained slow at the beginning of the first quarter of 2008. The Purchasing Managers' Index (PMI) and the European Commission's indicators generally declined in January, in particular in the services sector. The decline in the manufacturing sector

Chart 25 Industrial production growth and contributions

(growth rate and percentage point contributions; monthly data; seasonally adjusted)



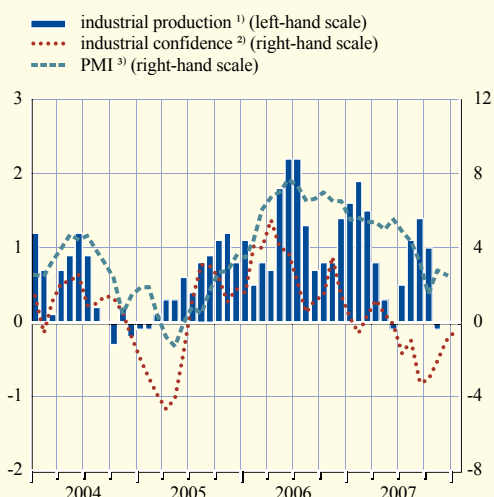
Sources: Eurostat and ECB calculations.

Notes: Data shown are calculated as three-month moving averages against the corresponding average three months earlier. Data refer to the euro area including Cyprus and Malta.

<sup>1</sup> See Box 7 entitled "New orders in euro area manufacturing industries" in the December 2003 issue of the Monthly Bulletin.

**Chart 26 Industrial production, industrial confidence and the PMI**

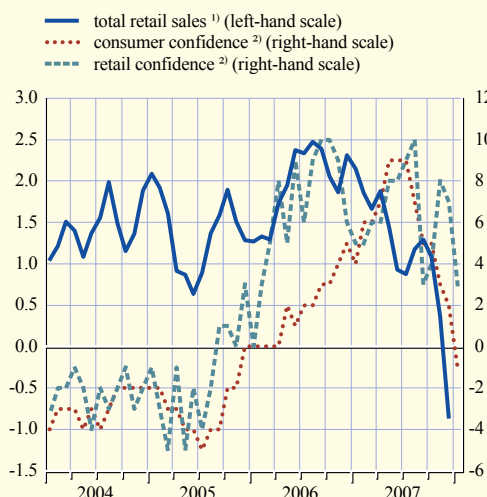
(monthly data; seasonally adjusted)



Sources: Eurostat, European Commission Business and Consumer Surveys, NTC Economics and ECB calculations.  
Note: Data on industrial production refer to the euro area including Cyprus and Malta.  
1) 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.

**Chart 27 Retail sales and confidence in the retail trade and household sectors**

(monthly data)



Sources: European Commission Business and Consumer Surveys and Eurostat.  
Note: Data refer to the euro area including Cyprus and Malta.  
1) Annual percentage changes; three-month 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.

was quite small and was only signalled by the Commission's survey (see Chart 26). As regards the services sector, both the Commission's indicator and the PMI for services now stand below their historical average levels, although they remain at levels consistent with positive growth at the beginning of the first quarter of 2008.

In January the European Commission released the results of its quarterly questionnaire on capacity utilisation. According to this release, manufacturing capacity utilisation declined only slightly in January, to 83.9%, while reported labour shortages remain at high levels in this sector. Moreover, the number of respondents who mentioned financing constraints as a limit to manufacturing production did not increase in January.

Overall, despite the high levels of capacity utilisation and labour shortages, survey data for both the industrial and services sectors indicate that the moderation in economic activity in the fourth quarter of 2007 may have continued at the start of 2008.

### INDICATORS OF HOUSEHOLD SPENDING

Available indicators of household spending suggest that consumption growth was somewhat weaker in the fourth quarter of 2007, following growth of 0.5% in the third quarter.

In December retail sales in the euro area declined by 0.1% month on month, following a decline of 0.7% in November. In the fourth quarter as a whole, retail sales declined by 1.0% quarter on quarter (see Chart 27). New passenger car registrations increased strongly, by 8.2% month on



month in December, mainly on account of a temporary factor in France, where the introduction of an emissions tax scheme in 2008 encouraged consumers to make acquisitions earlier than they had planned, in 2007. Notwithstanding, these two components are likely to have provided a negative net contribution to private consumption growth in the fourth quarter of 2007. The information available at the beginning of 2008 indicates that the rate of private consumption growth is unlikely to increase in the first quarter of the year. The European Commission's retail trade confidence indicator, which signals the perceptions of retailers, declined in January. Euro area consumer confidence also declined, mainly reflecting consumers' less favourable assessments of the general economic situation. Consumer confidence is now slightly below its historical average level, having declined continuously since its peak in May 2007. Nevertheless, conditions are favourable in the labour market, implying that the outlook for private consumption in 2008 remains broadly positive.

## 4.2 LABOUR MARKET

The euro area labour market has shown a clear improvement in recent years and, despite some moderation, this favourable trend has continued according to the latest available data.

### UNEMPLOYMENT

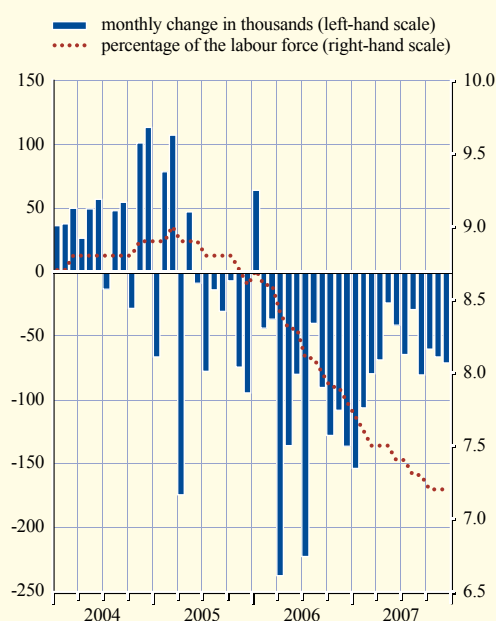
The unemployment rate remained unchanged at 7.2% in December 2007 (see Chart 28). The average monthly reduction in the number of unemployed persons during the fourth quarter was close to 70,000, which is slightly above the average monthly reduction seen in the previous two quarters. The unemployment rate declined significantly, by 0.6 percentage point, in the 12 months to December. On average, the unemployment rate was 7.4% in 2007, compared with 8.2% in 2006.

### EMPLOYMENT

Euro area employment growth was 0.3% quarter on quarter in the third quarter of 2007, following increases of 0.6% in the previous two quarters (see Table 7), as presented in Eurostat's second estimate. The sectoral breakdown, which has now become available, shows that the moderation in employment growth in the third quarter was due to developments in the construction sector and, to a lesser extent, in the services sector. Among services, the moderation in employment growth was broadly based across the various sub-sectors (namely trade and transport, finance and business, and public administration). Compared with the previous quarter, employment growth in industry excluding construction remained unchanged at a low, but still positive, rate in the third quarter of 2007.

Chart 28 Unemployment

(monthly data; seasonally adjusted)



Source: Eurostat.

Note: Data refer to the euro area including Cyprus and Malta.

Table 7 Employment growth

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

	Annual rates		Quarterly rates				
	2005	2006	2006 Q3	2006 Q4	2007 Q1	2007 Q2	2007 Q3
Whole economy	0.9	1.5	0.2	0.4	0.6	0.6	0.3
<i>of which:</i>							
Agriculture and fishing	-1.0	-1.2	-1.3	-0.8	0.8	-1.0	-1.3
Industry	-0.2	0.6	0.3	0.4	0.6	0.4	0.1
Excluding construction	-1.3	-0.3	0.0	0.0	0.1	0.1	0.1
Construction	2.5	2.7	0.9	1.5	1.8	1.2	0.1
Services	1.4	2.0	0.3	0.4	0.6	0.7	0.5
Trade and transport	0.7	1.5	0.0	0.2	0.7	0.9	0.7
Finance and business	2.4	3.6	1.0	1.0	1.4	1.0	0.7
Public administration <sup>1)</sup>	1.4	1.7	0.1	0.4	0.2	0.5	0.3

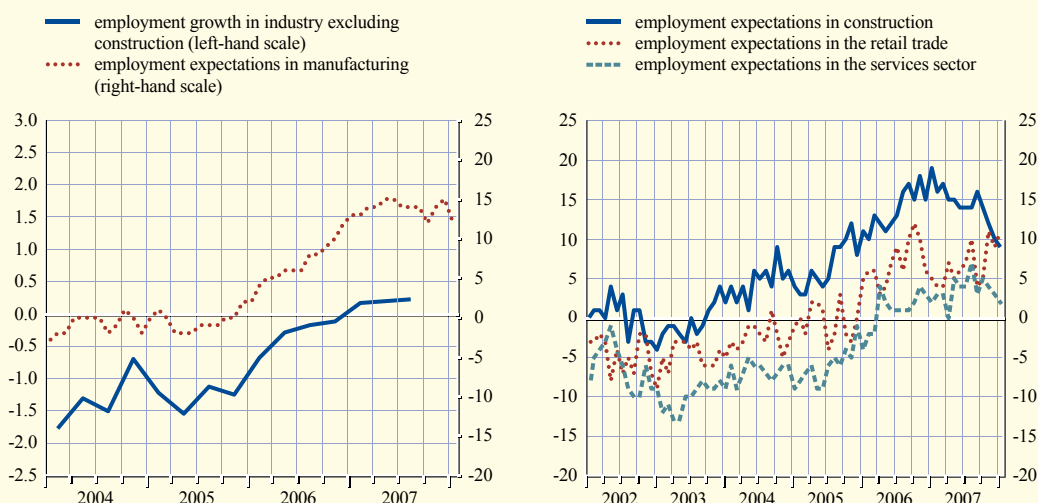
Sources: Eurostat and ECB calculations.

1) Also includes education, health and other services.

The favourable developments in the euro area labour market in recent years appear to have continued at the beginning of the first quarter of 2008, based on survey data available for January (see Chart 29). According to the NTC Economics PMI survey, job creation continued in January in both the industrial and services sectors. The employment expectations reported in the European Commission's Business and Consumer Survey convey a similar picture. Overall, labour market conditions have so far remained broadly unaffected by the recent increase in uncertainty regarding the prospects for economic growth.

Chart 29 Employment growth and employment expectations

(annual percentage changes; percentage balances; seasonally adjusted)



Sources: Eurostat and European Commission Business and Consumer Surveys.

Note: Percentage balances are mean-adjusted.

### 4.3 THE OUTLOOK FOR ECONOMIC ACTIVITY

The latest information on economic activity supports the assessment made in previous issues of the Monthly Bulletin that the quarterly growth of euro area real GDP is likely to have moderated around the turn of the year. Growth in the industrial sector was particularly strong in the third quarter of 2007, but slowed in the fourth quarter. Business and consumer confidence indicators have declined over the past few months, although they generally remain at levels pointing to ongoing growth. This assessment is broadly in line with available forecasts from private and public sector sources. The fundamentals of the euro area economy remain sound. The euro area economy does not have major imbalances. Profitability has been sustained and unemployment rates have fallen to levels not seen for 25 years. Consumption growth should therefore continue to contribute to economic expansion, in line with developments in real disposable income, and investment growth should provide ongoing support.

Nevertheless, uncertainty about the prospects for economic growth is unusually high and the risks surrounding the outlook for economic activity have been confirmed to lie on the downside. The latter relate mainly to a potentially broader than currently expected impact of financial market developments on financing conditions and economic sentiment, with negative effects on world and euro area growth. Further downside risks stem from the scope for additional oil and other commodity price rises, concerns about protectionist pressures and the possibility of disorderly developments due to global imbalances.

## 5 EXCHANGE RATE AND BALANCE OF PAYMENTS DEVELOPMENTS

### 5.1 EXCHANGE RATES

In January and early February the euro recorded a slight depreciation in nominal effective terms, amid increasing volatility. This development largely reflected counterbalancing movements in the bilateral exchange rates vis-à-vis the euro area's major trading partners.

#### EFFECTIVE EXCHANGE RATE OF THE EURO

The single currency traded mostly sideways in December 2007 and January 2008, albeit in a context of increased volatility. The broad stability in these two months followed a sizeable strengthening of the euro in November, possibly on account of renewed concerns about global credit markets, which led market participants to expect a widening gap in future policy interest rates between the United States and the euro area. On 6 February 2008 the nominal effective exchange rate of the euro – as measured against the currencies of 22 of the euro area's important trading partners – was 1.1% above the level at the end of October and 3.3% higher than its average level in 2007 (see Chart 30).

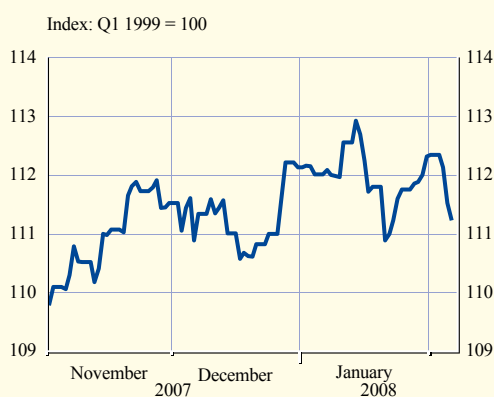
Taking a longer-term perspective, in January 2008 the CPI-deflated real effective exchange rate of the euro – calculated vis-à-vis the currencies of a group of important trading partners – traded 3.9% above its average level in 2007.

#### US DOLLAR/EURO

The single currency remained broadly stable against the US currency in December and January, amid increased volatility. By contrast, the euro appreciated by slightly more than 2% against the dollar in November, reflecting in part the market impact of soft US macroeconomic data, renewed credit-related concerns and associated market participants' expectations of further reductions in US policy rates in the first half of 2008. The swings recorded in the euro/US dollar rate in December may have been related to a temporary reversal in the level of global risk aversion, on account of major central banks addressing the liquidity strains in money markets. This reversal was subsequently offset by fresh signs of weakness in the US housing and labour markets as well as in the US manufacturing sector. In January, the oscillations in the euro/US dollar rate followed renewed global credit market concerns as well as the sizeable change in monetary policy rates announced by the Federal Reserve System. On 6 February the euro traded at USD

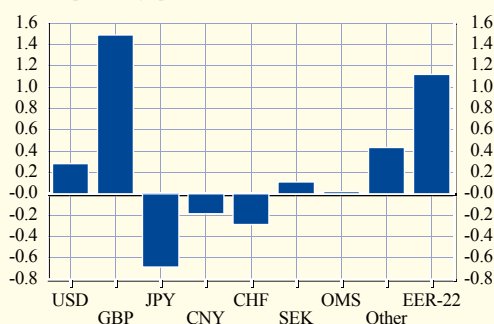
Chart 30 Euro effective exchange rate and its decomposition<sup>1)</sup>

(daily data)



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

From 31 October 2007 to 6 February 2008  
(in percentage points)



Source: ECB.

1) An upward movement of the index represents an appreciation of the euro against the currencies of the most important trading partners of the euro area and all non-euro area EU Member States.

2) Contributions to EER-22 changes are displayed individually for the currencies of the six main trading partners of the euro area. The category "Other Member States (OMS)" refers to the aggregate contribution of the currencies of the non-euro area Member States (except the GBP and SEK).

The category "Other" refers to the aggregate contribution of the remaining six trading partners of the euro area in the EER-22 index. Changes are calculated using the corresponding overall trade weights in the EER-22 index.

1.46, 1.2% above its level at the end of October and 6.7% stronger than its average level in 2007 (see Chart 31).

### JAPANESE YEN/EURO

The Japanese yen strengthened sharply in January 2008, reportedly related to some unwinding of carry trade positions as the rise in the implied volatility of the euro/yen bilateral exchange rate to values close to historical highs reduced the attractiveness of such trades. In recent months, the behaviour of the exchange rate of the euro vis-à-vis the Japanese yen has been influenced by large swings in the volatility of financial prices and exchange rates, in turn associated to developments in global credit markets. By influencing the profitability of carry trades, such swings in the perception of financial risk induced shifts in the set of currencies used to fund carry trades. After a temporary rebound of the yen around mid-October, when concerns about credit-related risks surged again, a more significant appreciation of the yen vis-à-vis the single currency took place in November, amid increasing volatility in the foreign exchange market. In December, the Japanese currency weakened again, possibly on account of a less risk-averse environment and a downward revision to the Japanese economic outlook. On 6 February 2008, the euro stood at JPY 155.58, 6.6% weaker than its level at the end of October 2007 and 3.5% weaker than its average level in 2007 (see Chart 31).

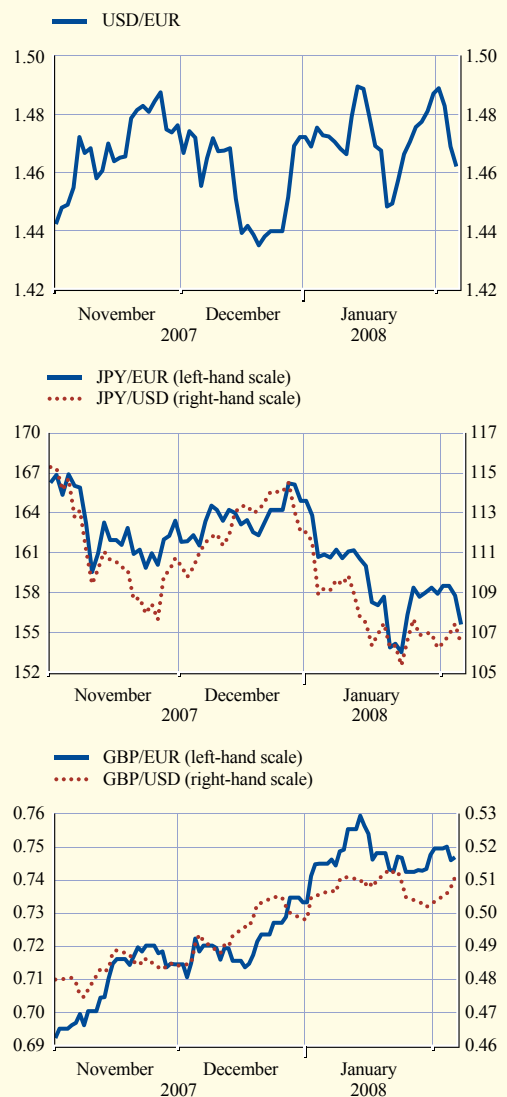
### EU MEMBER STATES' CURRENCIES

Since the end of October 2007 most currencies participating in ERM II have remained stable and have continued to trade at, or close to, their respective central rates (see Chart 32). The Slovak koruna, which after its revaluation in March had continued to trade on the strong side of its new central rate, remained broadly stable between the end of October 2007 and early February 2008. On 6 February its deviation from its ERM II central rate was about 6%. The Latvian lats strengthened by slightly less than 1% vis-à-vis the euro over the same three-month period and on 6 February 2008 was about 1% stronger than the central rate of the unilaterally set fluctuation band of  $\pm 1\%$ .

With regard to the currencies of other EU Member States not participating in ERM II, between the end of October 2007 and 6 February 2008 the euro appreciated by about 7% vis-à-vis the pound sterling. The strengthening of the euro intensified in November and December, as market

Chart 31 Patterns in exchange rates

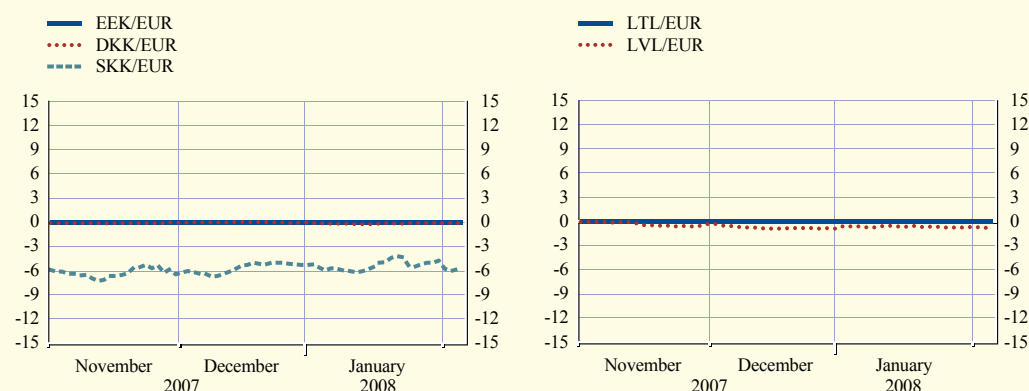
(daily data)



Source: ECB.

Chart 32 Patterns in exchange rates in ERM II

(daily data; deviation from the central rate in percentage points)



Source: ECB.

Note: A positive (negative) deviation from the central rate against the euro implies that the currency is on 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.

expectations of further interest rate cuts in the United Kingdom grew, but moderated somewhat in January. Over the same period the euro appreciated by about 10% vis-à-vis the Romanian leu, while it depreciated by 5% against the Czech koruna and by about 1% against the Polish zloty.

### OTHER CURRENCIES

Since the end of October 2007 the euro has depreciated by 4.2% vis-à-vis the Swiss franc, while it has appreciated by almost 7% against the Canadian dollar, 4.2% vis-à-vis the Australian dollar and 3.4% vis-à-vis the Norwegian krone. Meanwhile, the euro strengthened against some of the currencies of the main Asian trading partners, especially against the Korean won (6%). The euro depreciated by about 2.5% against the Chinese renminbi, whose rate of appreciation vis-à-vis the US dollar started to increase around mid-December 2007.

## 5.2 BALANCE OF PAYMENTS

*The 12-month cumulated current account of the euro area showed a surplus of around 0.3% of GDP in November 2007, compared with a deficit of a similar magnitude a year earlier, largely reflecting an increase in the goods surplus. In the financial account, combined direct and portfolio investment continued to record large inflows in the 12-month period to November 2007, reflecting sizeable net inflows in portfolio investment.*

### TRADE AND THE CURRENT ACCOUNT

In November 2007 the values of exports and imports of goods and services grew by 1.0% and 1.3% respectively (in terms of seasonally adjusted three-month moving average figures). This compares with corresponding growth rates of 2.9% and 3.0% in the three-month period to August. The moderation in the growth rate of both exports and imports primarily reflects developments in goods trade (see Table 8).

**Table 8 Main items of the euro area balance of payments**

(seasonally adjusted, unless otherwise indicated)

	2007		Three-month moving average figures ending				12-month cumulated figures ending	
	2007 Oct.	2007 Nov.	2007 Feb.	2007 May	2007 Aug.	2007 Nov.	2006 Nov.	2007 Nov.
<i>EUR billions</i>								
<b>Current account</b>	3.1	0.7	1.8	1.1	4.2	1.5	-21.3	25.6
Goods balance	8.5	4.8	3.6	6.0	6.3	6.0	19.3	65.4
Exports	129.2	128.8	122.3	123.0	127.2	128.9	1,376.8	1,504.4
Imports	120.7	124.0	118.8	117.0	121.0	122.9	1,357.5	1,439.0
Services balance	2.7	3.2	3.6	3.7	3.7	3.5	33.9	43.5
Exports	38.8	38.9	37.4	38.5	39.0	39.1	424.3	462.0
Imports	36.0	35.7	33.8	34.8	35.4	35.5	390.4	418.5
Income balance	2.3	0.2	0.0	-2.0	0.4	0.4	6.2	-3.4
Current transfers balance	-10.4	-7.5	-5.5	-6.6	-6.2	-8.4	-80.7	-80.0
<b>Financial account<sup>1)</sup></b>	-80.6	-11.7	3.9	-0.8	30.2	-35.4	123.4	-6.3
Combined net direct and portfolio investment	-34.9	21.2	16.1	12.1	21.0	-0.7	120.4	145.3
Net direct investment	21.3	11.0	-13.9	-10.8	-10.8	-1.7	-130.2	-111.5
Net portfolio investment	-56.1	10.2	30.0	22.8	31.8	1.0	250.6	256.8
Equities	-7.0	-15.1	25.3	9.1	29.4	-0.4	162.2	190.2
Debt instruments	-49.1	25.3	4.7	13.7	2.4	1.4	88.4	66.6
Bonds and notes	-11.8	28.1	17.2	11.4	2.5	8.5	132.5	118.9
Money market instruments	-37.4	-2.7	-12.5	2.3	-0.2	-7.1	-44.2	-52.3
<i>Percentage changes over previous period</i>								
<b>Goods and services</b>								
Exports	-0.1	-0.2	1.7	1.1	2.9	1.0	12.4	9.2
Imports	-1.3	1.9	2.0	-0.5	3.0	1.3	15.3	6.3
<b>Goods</b>								
Exports	0.5	-0.3	0.9	0.6	3.4	1.3	14.1	9.3
Imports	-2.6	2.8	2.4	-1.5	3.4	1.6	17.8	6.0
<b>Services</b>								
Exports	-2.0	0.3	4.3	2.8	1.4	0.1	7.4	8.9
Imports	3.3	-0.9	0.7	3.0	1.6	0.5	7.3	7.2

Source: ECB.

Note: Figures may not add up due to rounding.

1) Figures refer to balances (net flows). A positive (negative) sign indicates a net inflow (outflow). Not seasonally adjusted.

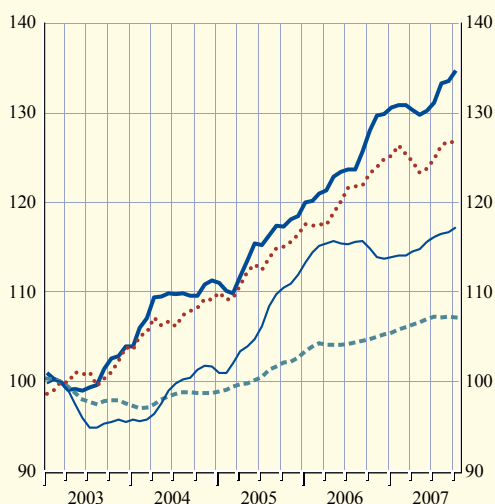
The breakdown of goods trade into volumes and prices up to October 2007 suggests that increased export volumes were the primary driver of euro area export growth in value terms, as export prices fell slightly (see Chart 33). As regards goods imports, import prices continued to increase in the three-month period to October, primarily reflecting the large increases in oil prices. Meanwhile, the growth rate of import volumes moderated, which could be related to the slightly lower growth rate of euro area industrial production over the same period.

Taking a longer-term perspective, the 12-month cumulated current account to November recorded a surplus of €25.6 billion (around 0.3% of euro area GDP), compared with a deficit of €21.3 billion a year earlier (see Chart 34). This shift largely resulted from developments in the goods surplus, which – in 12-month cumulated terms – rose by €46.1 billion compared with the same period a year earlier. By contrast, the balance for services increased more moderately, while the income balance registered a small deficit (€3.4 billion) compared with a surplus a year earlier. The balance of current transfers remained broadly unchanged, showing a deficit of €80.0 billion.

**Chart 33 Breakdown of trade in goods into volumes and prices**

(index: 2003 Q1 = 100; seasonally adjusted; three-month moving average)

- export volumes
- ... import volumes
- - - export prices
- import prices

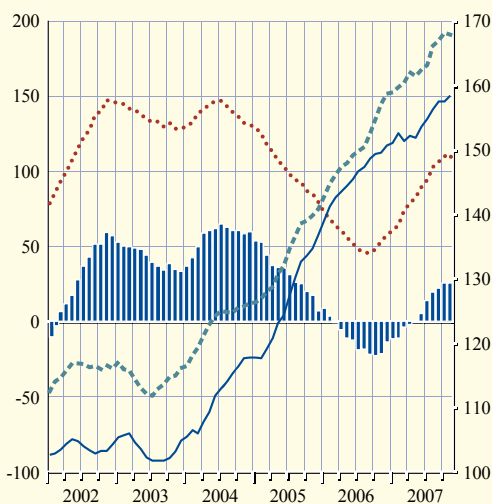


Sources: Eurostat and ECB calculations.  
Note: Latest extra-euro area observations are for October 2007.

**Chart 34 The euro area current account and trade balances**

(EUR billions; monthly data; seasonally adjusted)

- current account balance (12-month cumulated data; left-hand scale)
- ... trade balance (12-month cumulated data; left-hand scale)
- - - exports of goods and services (3-month moving average; right-hand scale)
- imports of goods and services (3-month moving average; right-hand scale)



Source: ECB.

## FINANCIAL ACCOUNT

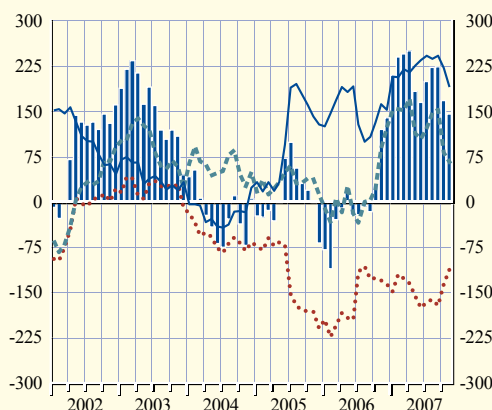
In the three-month period to November 2007, the combined direct and portfolio investment of the euro area recorded monthly average net outflows of €0.7 billion, as opposed to average net inflows of €21.0 billion in the period to August (Table 8). The change in the combined figure is mostly attributable to a shift from relatively large net inflows to almost balanced net transactions in equities.

The November data suggest continued interest in cross-border portfolio investment in long-term bonds by both euro area residents and foreigners. However, in the wake of the credit market turbulence which began in August 2007, the data indicate that net investment by foreigners in euro area equities remains below pre-turmoil levels.

**Chart 35 Euro area combined direct and portfolio investment**

(EUR billions; monthly data; 12-month cumulated flows)

- net direct and portfolio investment
- ... net foreign direct investment
- - - net debt instruments
- net equity flows



Source: ECB.



From a longer-term perspective, cumulated net inflows in combined direct and portfolio investment amounted to €145.3 billion in the 12-month period to November 2007, compared with net inflows of €120.4 billion a year earlier (see Chart 35). The higher inflows reflected a decrease in net outflows in direct investment of €18.7 billion and an increase in net inflows in portfolio investment of €6.2 billion. Underlying this increase in net inflows in portfolio investment is a change in the composition of net portfolio flows, which led to an increase in net equity investment flows of €28.0 billion, while cumulated net inflows in debt instruments declined by €21.8 billion.

## ARTICLES

# THE ANALYSIS OF THE EURO MONEY MARKET FROM A MONETARY POLICY PERSPECTIVE



*The ECB has a strong interest in an effective and well-functioning euro money market. The money market is the initial step in the transmission of monetary policy from the Governing Council's decision regarding key ECB interest rates to yields and rates in a broader set of financial markets more relevant for private sector investment and saving decisions, monetary dynamics and, ultimately, the outlook for price stability. By using its ability to steer market interest rates at the shortest maturities close to the minimum bid rate in the Eurosystem's main refinancing operations and by communicating its strategy and policy intentions in a clear and transparent manner, the ECB can influence money market interest rates at longer maturities. At the same time, the ECB recognises that developments in money market interest rates beyond the shortest maturities reflect market forces and thus that this market segment is beyond the ECB's direct control. This is particularly evident during specific periods of financial market stress, when changes in risk and liquidity premia may affect longer-term money market rates and thus interfere with the transmission of monetary policy. It is therefore of paramount importance for the ECB to analyse money market developments to assess their implications for the appropriate setting of the monetary policy stance and to decide whether any intervention is needed in order to contribute to a smooth functioning of the euro money market.*

### I INTRODUCTION

The euro money market is the market in which short-term funds are raised by banks, investment funds and other financial intermediaries (see Box 1 for a description of the key features of the euro money market). Credit institutions are particularly active in this market (including the associated derivatives markets) given their demand for refinancing, their desire to hedge short-term positions and their need to obtain central bank liquidity so as to meet reserve requirements.

The money market is important for monetary policy in a number of respects. For the ECB, controlling short-term money market rates is the initial step in the transmission of monetary policy from the Governing Council's decision regarding key ECB interest rates<sup>1</sup> to yields and rates in a broader set of financial markets more relevant for private sector investment and saving decisions, monetary dynamics and, ultimately, the outlook for price stability. By using its ability to steer money market rates at the shortest maturities close to the minimum bid rate in the Eurosystem's main refinancing operations (MROs) and by communicating its strategy and policy intentions in a clear and transparent manner, the ECB can influence interest rates and yields at longer maturities. Well-functioning money markets are

therefore fundamental to the ECB's ability to meet its primary objective of maintaining price stability in the euro area. Section 2 explains the interest of the ECB in contributing to a well-functioning, efficient and transparent money market.

In normal circumstances, the transmission of monetary policy through the money market is very smooth and effective. This is testimony to the design of the tools and procedures used to implement monetary policy decisions, and to the effectiveness of the liquidity operations conducted by the ECB and the ECB's communication of its policy. However, it is important to guard against complacency. On occasion, tensions may emerge in the money market which interfere with the smooth transmission of monetary policy. Examples include the transition to the new millennium ("Y2K"); the terrorist attacks on 11 September 2001; and the recent concerns about bank exposures to US sub-prime mortgage defaults that have hindered interbank trading. Moreover, at least in principle, the inevitable

<sup>1</sup> The most prominent key ECB interest rate is the minimum bid rate, which represents the floor for the price of central bank liquidity in the open market operations and signals the monetary policy stance. The two other key interest rates, on the marginal lending facility and the deposit facility, define the corridor within which the overnight interest rate can fluctuate.

volatility at the very short end of the money market maturity spectrum (induced, for example, by the difficulty in forecasting some of the autonomous factors influencing the liquidity situation, such as the demand for banknotes and government deposits held with the Eurosystem<sup>2</sup>) could create undesirable “noise” at the longer maturities. Section 3 of this article describes a number of tools, techniques and indicators that are employed at the ECB to monitor the effectiveness of monetary policy transmission through the money market.

Aside from its key role in the transmission process, the money market can also be an important source of information for monetary policy-makers. Over the past two decades, it

has increasingly been recognised that private sector expectations play an important role in the assessment of monetary policy. To the extent that money market rates embody expectations of the future path of key ECB interest rates (and, implicitly, market participants’ interpretations of the ECB’s monetary policy strategy and statements, of macroeconomic data releases, and of financial market developments), policy-makers are interested in how and why they evolve. Section 4 describes a number of tools used to extract these monetary policy expectations in the regular monitoring of money markets’ understanding of the ECB.

<sup>2</sup> For more details, see the article entitled “The Eurosystem’s experience with forecasting autonomous factors and excess reserves” in the January 2008 issue of the Monthly Bulletin.

#### Box 1

##### KEY FEATURES OF THE EURO MONEY MARKET

This box presents the key features of the euro money market, which is one of the largest and most liquid money markets in the world. The term “euro money market” refers to the market for euro-denominated short-term funds and related derivative instruments.

Credit institutions account for the largest share of the euro money market. They rely on the euro money market for the management of their short-term liquidity positions and for the fulfilment of their minimum reserve requirements. The other important participants besides credit institutions are money market funds, other financial intermediaries (such as investment funds other than money market funds), insurance companies and pension funds, as well as large non-financial corporations. The participation of other financial intermediaries, hedge funds in particular, has increased over recent years in some market segments.

The most important money market segments are the unsecured deposit markets and the secured repo markets. Besides those traditional market segments, the derivatives markets have become increasingly important over recent years. The derivative money market segments can be grouped into exchange-traded instruments, such as short-term interest rate futures and options, and instruments that are typically traded over the counter (OTC), e.g. overnight index swaps (OISs), interest rate swaps (IRs), foreign exchange (FX) swaps and forward rate agreements (FRAs).

It is important to note that all these instruments exhibit different risk profiles. When providing unsecured interbank deposits, for example, a bank transfers funds to another bank for a specified period of time. During this time it assumes the full counterparty credit risk, i.e. the risk that the counterparty is unable to repay the nominal amount (plus interest) at the maturity of the deposit. In the secured repo markets, this counterparty credit risk is mitigated by the fact that the bank

which provides liquidity receives collateral (e.g. bonds) in return. In the event of a credit default, the liquidity-providing bank is entitled to utilise the collateral received to satisfy its claim against the defaulting bank. Because of the significantly lower credit risk, secured repo rates are usually somewhat lower than unsecured deposit rates. The magnitude of the spreads between these two rates depends on the maturity of the transaction. It reflects banks' desire to borrow, their willingness to lend on an unsecured rather than a secured basis, and their assessment of the credit risk. These factors can vary significantly over time, as evidenced in the recent period of turmoil.

The credit risk in derivative instruments is usually fairly low, as no nominal amounts are exchanged and this risk is therefore limited to the replacement risk, in the event that the derivative position has generated a positive market value by the time of a counterparty default. The pricing of these instruments can nevertheless also be indirectly affected by credit risk considerations, namely by the credit risk embedded in the instrument underlying the derivative. This effect is less pronounced for OISs, which are based on an unsecured interbank overnight lending rate (for euro-denominated swaps, the euro overnight index average, EONIA), as this underlying rate includes by definition only a one-day credit risk, even if the OIS's maturity is several months. For other derivative instruments, this impact can however be substantial, as a three-month EURIBOR future, for example, relates to an unsecured three-month deposit rate at a future point in time. Any development with an impact on interbank credit risk assessments, and thus the pricing in the unsecured deposit markets, can therefore be expected to also be reflected in the pricing of the aforementioned future – as has been the case in recent months.

The relative importance of the various money market segments can best be assessed by looking at turnover data. While the volumes of the exchange-traded markets are well-known (owing to the transparency of the futures and options exchanges),<sup>1</sup> the size of the euro money market segments which are traded OTC is much harder to gauge. The best sources in this respect are periodic surveys such as the ECB's annual euro money market survey and the International Capital Market Association's semi-annual European repo market survey. However, the latter only provides data on outstanding amounts in one specific market segment,<sup>2</sup> while the former, at least so far, does not reveal the overall size of the different market segments. Instead, it concentrates on their relative sizes and developments over time.

The main findings of the ECB's latest euro money market survey (which was published in November 2007 and covered turnover data for the second quarter of 2007, i.e. before the recent money market turmoil) are as follows:

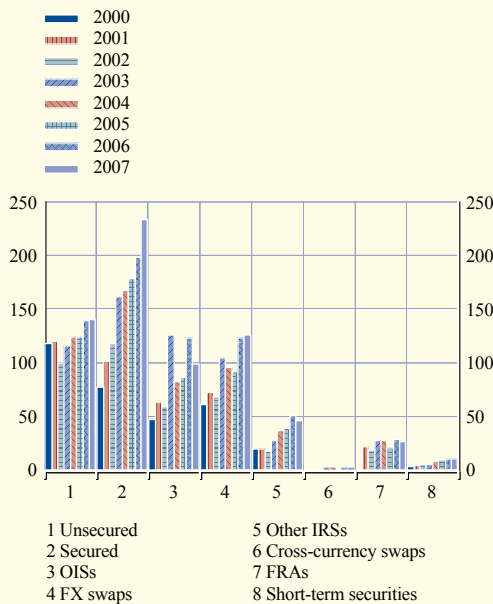
- The aggregated turnover of all euro money market segments continued to expand in the second quarter of 2007, recording a 4.5% year-on-year increase. The increase in turnover in the secured market was particularly strong, at 19.6%. Trading volumes in the FX swap market and the unsecured market also increased by 10.5% and 5.5% respectively. By contrast, turnover in the OIS market, which had displayed a very strong increase of 52% in 2006, decreased by almost 20%, and trading also declined by around 8.5% in both the FRA and the other IRS markets.

<sup>1</sup> For example, the turnover in three-month EURIBOR futures on Euronext.liffe reached a new record of 27.4 million contracts in August 2007, which represents an increase of 54% compared with the year before.

<sup>2</sup> According to the International Capital Market Association's survey number 13, the total value of repo contracts outstanding on the books of 77 institutions at close of business on 13 June 2007 was €6,775 billion. Using samples of institutions which participated in several surveys, the report estimates that the outstanding amount increased by 7-15% (depending on the sample) over the year to June 2007.

**Chart A Daily turnover traded in each money market segment from 2000 to 2007**

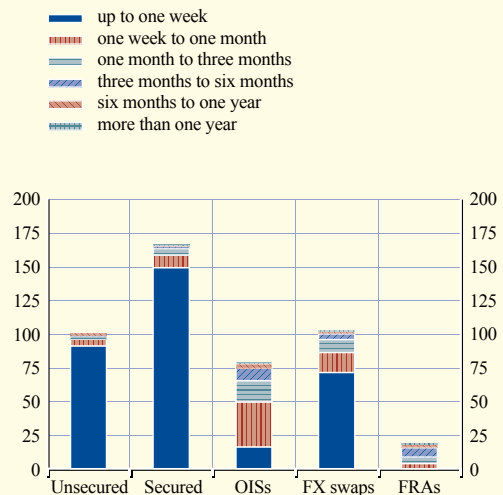
(volume of unsecured transactions in Q2 2002 = 100)



Source: ECB.  
Note: The data are taken from a panel of 85 banks for 2000 and 2001 and 114 banks thereafter.

**Chart B Total unsecured, secured, OIS, FX swap and FRA turnover for the different maturity breakdowns in 2007**

(volume of unsecured transactions in Q2 2007 = 100)



Source: ECB.  
Note: The data are taken from a panel of 169 banks.

- The secured segment further extended its leading position, accounting for 35.0% of the total turnover (Chart A). Turnover in the secured market has continuously increased since the second quarter of 2001. This confirms a trend towards limiting credit risk exposure and also reflects the constraints that result from capital adequacy requirements. The unsecured market remained the second most active market segment in the second quarter of 2007 (with a share of 21.0%), while the share of FX swaps rose to 18.1%, putting this segment in third place, ahead of the OIS market, which accounted for 14.1%.
- Activity in unsecured, secured and FX swap markets continued to be largely concentrated at very short-term maturities, as can be seen in Chart B. The consistent trend towards liquidity concentration at very short maturities for these instruments has been made possible by technological developments, e.g. via increased electronic trading and an increasing use of automated collateral management and straight-through processing. The OIS market also showed a greater concentration at shorter maturities compared with previous years (“maturity” in this case is defined as the time between the start and end dates of an OIS). Almost two-thirds of the average daily turnover in OISs was concentrated at maturities of up to one month. This is seen to reflect the length of the ECB’s reserve maintenance periods, with an increasing share of turnover being related to OISs starting and ending at the same time as the ECB’s reserve maintenance periods.

## 2 THE MONEY MARKET FROM THE MONETARY POLICY PERSPECTIVE

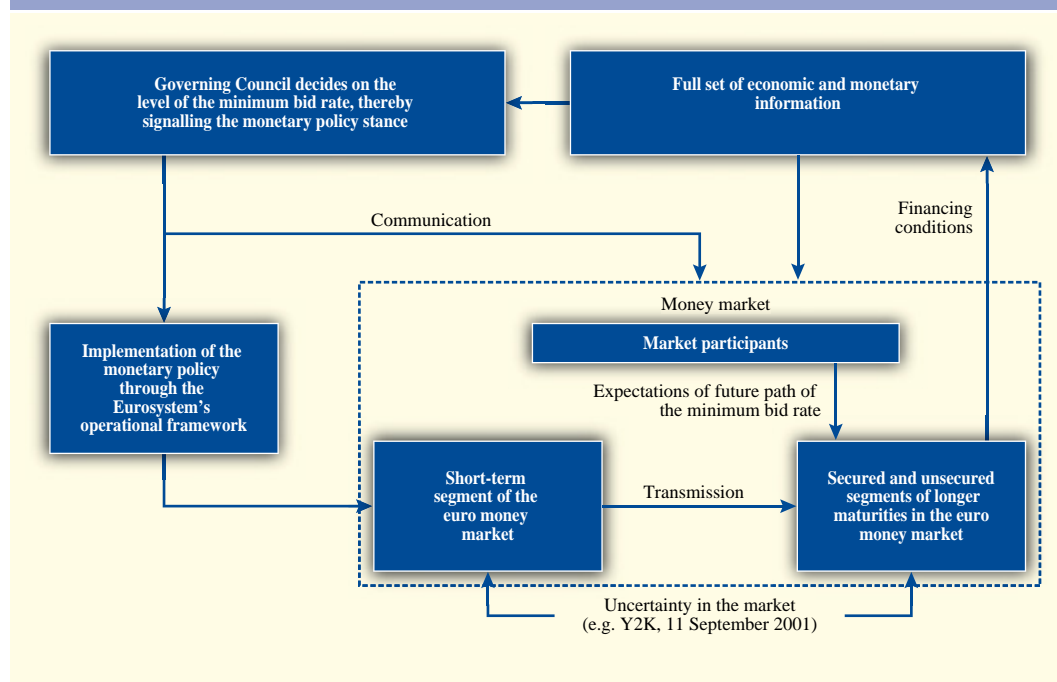
In the euro area, the Governing Council of the ECB decides on the appropriate level of the key ECB interest rates following a comprehensive assessment of the outlook for price stability and the associated risks, based on its economic and monetary analyses. These decisions are then implemented under the responsibility of the ECB's Executive Board through the Eurosystem's operational framework. More specifically, the Governing Council sets the level of the minimum bid rate in the Eurosystem's weekly MROs, which constitutes the main signal of the monetary policy stance. In the MROs, the ECB aims to supply the liquidity necessary for the banking system to operate smoothly, in such a way that very short-term market interest rates remain appropriately aligned with the policy stance signalled by the Governing Council (see Chart 1). Through the money market yield curve, the monetary policy stance is transmitted to financial instruments and credit conditions more generally. These will in turn influence

saving and investment decisions and monetary dynamics, and thus, in the end, affect price developments in the euro area.

The operational framework is the initial link between the key ECB interest rates and market rates. It provides the ECB with sufficient tools and procedures to exert a significant influence on the market price of euro-denominated funds in the shortest-maturity segment of the money market. The ECB seeks to keep the shortest-maturity market interest rates stable at levels close to the minimum bid rate.

Narrow spreads between short-term money market interest rates and the minimum bid rate are to be expected owing to differences in maturity and to risk premia, as well as transaction costs. However, an excessively wide or volatile spread would undermine the clarity of the signal provided by the minimum bid rate and, ultimately, the credibility of the operational framework in its implementation of Governing Council decisions. It is also desirable that volatility in short-term interest rates – caused

Chart 1 Schematic view of the interactions between money markets and monetary policy in the euro area



by their sensitivity to liquidity conditions – does not propagate throughout the money market yield curve. This is a prerequisite for the term maturities to genuinely reflect market expectations of the future path of the minimum bid rate and hence to have the desired influence on the outlook for price stability.

The money market is thus characterised by both institutional and market dynamics. The shortest maturities (covering the days until the next monetary policy decision is implemented) are under normal conditions mostly affected by liquidity conditions, whereas maturities extending beyond the next monetary policy decision reflect market expectations of the future path of the minimum bid rate and thus depend on the full set of available information which enters into the Governing Council's monetary policy-making process. In this context, an analysis of the longer maturity rates can shed light on the overall functioning of the money market and on whether market participants have a clear understanding of the monetary policy strategy and its implementation over time.

At the same time, it has to be recognised that the money market can also be adversely affected by turmoil in the financial markets. This is particularly evident during periods when heightened uncertainty and a lack of confidence among banks and investors result in spillover effects on the money market. Such periods include Y2K; the days after the terrorist attacks on 11 September 2001; and the tensions in financial markets starting in the second half of 2007. A particular characteristic of these periods is that, while they interfere with the determination of interest rates in the money market, they do not originate from the evolution of liquidity conditions or reflect a change in market participants' perceptions of the monetary policy stance. Under such circumstances, the ECB's liquidity management may need to be adjusted in order to support market confidence and to steer the shortest-maturity segment in the money market. Measures of this type were indeed implemented in each of the three episodes mentioned above.

Hence, both under normal circumstances and in the case of financial turmoil, it is important to maintain a clear distinction between monetary policy decisions taken to maintain price stability and liquidity management decisions related to the implementation of the monetary policy stance and the distribution of liquidity within maintenance periods and across maturities.

Summing up, the ECB's primary objective is to maintain price stability. The ECB can directly affect the shortest-maturity segments of the money market, whereas the term maturities can only be influenced through its credibility and communication. While recognising that its actions can only have limited effects on freely operating markets, the ECB has a strong interest in contributing to a smooth functioning of the euro money market. In this context, a clear distinction should be maintained under all circumstances between interest rate decisions taken to maintain price stability (i.e. the determination of the monetary policy stance) and liquidity management decisions taken when implementing this stance.

### 3 STEERING SHORT-TERM MONEY MARKET INTEREST RATES

Once the levels of the key ECB interest rates have been set by the Governing Council, the Executive Board is empowered to implement them in the money market through the Eurosystem's operational framework. In this framework, the open market operations and standing facilities serve to steer very short-term money market interest rates and, if necessary, to limit their volatility around the minimum bid rate. In addition, the ECB requires credit institutions to hold minimum reserves with the Eurosystem central banks, the level of which is determined in relation to their reserve base. The most important function of the reserve requirement is to stabilise money market rates through the averaging mechanism over each reserve maintenance period.<sup>3</sup>

<sup>3</sup> For a description of the operational framework, see the article entitled "Changes to the Eurosystem's operational framework for monetary policy" in the August 2003 issue of the Monthly Bulletin.

The Eurosystem's approach to monetary policy implementation relies largely on self-regulating market mechanisms. One good example of this is the ECB's limited presence in the market – i.e. its “hands-off” approach with very few direct interventions in the market, typically only once a week, and more frequently only in periods of financial market stress.

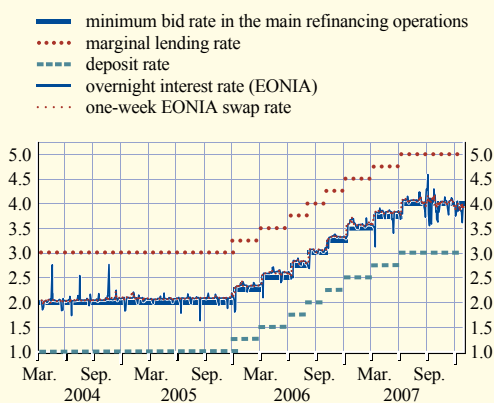
Although the ECB targets neutral liquidity conditions at the end of each maintenance period (zero net recourse to standing facilities), deviations from a balance between the demand for and the supply of liquidity can cause short-term interest rate fluctuations. In particular, the overnight interest rate is likely to fluctuate within the corridor around the minimum bid rate. For instance, deviations in the supply of liquidity may arise owing to the difficulty of forecasting some of the autonomous factors influencing the liquidity situation (e.g. the demand for banknotes and government deposits held with the Eurosystem).<sup>4</sup> The demand for liquidity may also be affected by exogenous shocks, such as periods of financial stress that lead to heightened uncertainty about the liquidity needs of banks (e.g. the three episodes mentioned in Section 2).

Given the relevance from a monetary policy perspective of assessing how effectively short-term market interest rates are steered around the minimum bid rate, the ECB monitors a number of indicators. These address two issues: first, how close are short-term market interest rates to the minimum bid rate; and second, how stable are they around this level? These issues reflect the design of the operational framework, the policy choices made within it (e.g. liquidity decisions) and the framework's robustness to shocks.

Since March 2004, when a number of changes to the Eurosystem's operational framework were introduced,<sup>5</sup> the spreads between money market interest rates at the shortest maturities and the minimum bid rate have, in general, been small and their volatility has been contained (see Box 2 for a discussion of various volatility measures monitored by ECB staff in this context).

**Chart 2 Key ECB interest rates and the shortest segment of money market rates**

(percentages per annum; daily data)



Sources: ECB and Reuters.

Chart 2 shows the evolution of key ECB interest rates and short-term market interest rates since 10 March 2004, and Table 1 summarises some of the statistical features. On most days the euro overnight index average (EONIA) settled slightly above, but very close to, the minimum bid rate. The small spread of 6 to 7 basis points over the minimum bid rate reflects the difference in maturities and the fact that the EONIA is an unsecured interbank rate and thus includes a small premium for credit risk and transaction costs.

On specific days, spreads are larger, with the EONIA both above and below the minimum bid rate on occasion. These larger spreads normally occur at the end of the reserve maintenance period. The existence of an averaging mechanism for reserve requirements over a maintenance period has a straightforward effect on the pattern of volatility in the overnight rate. Volatility tends to be rather low throughout most of the maintenance period and rises considerably in the days between the last MRO and the end of the period when the need to fulfil the reserve requirement becomes more binding. Although

4 For details on the forecasting process, see the article entitled “The Eurosystem's experience with forecasting autonomous factors and excess reserves” in the January 2008 issue of the Monthly Bulletin.

5 For more details on the operational framework, see the article referred to in footnote 3.



**Table I Spread of the EONIA and the one-week EONIA swap rate over the minimum bid rate**

(basis points; 10 March 2004-31 December 2007)

	EONIA	one-week EONIA swap
<b>Standard deviation</b>		
All days <sup>1)</sup>	9	5
Excluding the last week of each maintenance period	6	4
<b>Average spread</b>		
All days <sup>1)</sup>	6	8
Excluding the last week of each maintenance period	7	8

Sources: Reuters and ECB calculations.

1) The spread between the one-week EONIA swap rate and the minimum bid rate is affected by markets gradually pricing in the interest rate increases during the review period. Hence, the spread increased in the days between an announced increase in the minimum bid rate and the start of the maintenance period in which it was implemented.

there is no clear criterion to determine the ideal size of these spreads, excessively large and persistent spreads are undesirable as they would obscure the level of interest rates set by the Governing Council. Since October 2004 the ECB has more frequently conducted fine-tuning operations at the end of maintenance periods and this has served to reduce the size of spikes in the EONIA spread.<sup>6</sup>

Similarly, fine-tuning operations have served to smooth the functioning of the overnight market

at specific points in time when uncertainty about the liquidity needs of credit institutions has been particularly high, such as after the terrorist attacks of 11 September 2001 and on certain days during the tensions in the money market in the second half of 2007.

6 For more details of the stabilising effect on the overnight interest rate from fine-tuning operations at the end of the maintenance period, see the article entitled “The Eurosystem’s experience with fine-tuning operations at the end of the reserve maintenance period” in the November 2006 issue of the Monthly Bulletin.

## Box 2

### MEASURING VOLATILITY IN THE MONEY MARKET

Volatility is a key indicator for monitoring overall money market performance, especially in relation to two issues: (i) assessing how monetary policy decisions are perceived in financial markets; and (ii) analysing how well the market functions, in particular as regards the transmission of the monetary policy signal from the short end to the long end of the interest rate maturity spectrum.

As far as the former issue is concerned, central banks strive to ensure that their policy actions and communication do not foster unnecessary uncertainty (i.e. add “noise” to the economy), which would typically manifest itself in higher volatility in financial markets.

As regards the latter issue, analysing volatility offers insights into the microstructure of money markets and the efficiency with which they operate. For instance, comparing the volatility of interest rates at specific maturities with the average level of volatility across the whole maturity spectrum may allow the central bank to detect atypical movements in some segments of the money market, which, in turn, could be related to imperfections in the market’s structure and might impinge on the effective transmission of the monetary policy impulse.

Against this background, an issue of great importance for central banks is how to measure adequately the volatility of interest rates and financial yields.

### Volatility measures

Several methods to construct measures of money market volatility are used regularly at the ECB, each with advantages and disadvantages. A broad distinction can be made between, on the one hand, measures which simply rely on transformations of the data (typically, descriptive statistics for the time series of money market returns) and, on the other hand, measures which are derived from mathematical or econometric models.<sup>1</sup>

Within the first class of measures, historical volatility represents common statistical measures of spread for historical (often monthly) time series of financial market returns. A typical measure of historical volatility in money market interest rates is the standard deviation of the time series of money market returns around its sample mean. Other possible measures of spread used to construct historical volatility include the absolute or mean square error, the range between maximum and minimum values and the inter-quartile range.

Historical volatility measures have several advantages. First, they are very simple to compute. Second, their interpretation is intuitive and straightforward. Third, at least for financial data, the relatively long time series required to construct the measures are normally available. Fourth, historical volatility is independent of any specific model. This improves the generality of results and, by avoiding dependence on any specific model specification or econometric technique, will be robust to specification and estimation errors. However, the model-free character of historical volatility also has drawbacks, e.g. the measure is a purely descriptive tool, which has limited direct application for either modelling or forecasting purposes.

In recent years high-frequency intraday financial data have become increasingly available, permitting the construction of additional volatility measures. One such measure is realised volatility.<sup>2</sup> Realised volatility is usually defined as the sum of intra-daily squared returns of a (financial) time series. As such, it simply transforms the time series of returns and thus, conceptually, is not too distinct from the measures of historical volatility described above. However, realised volatility has the advantage that it is independent of the mean level of the time series in the sample. This may help to provide meaningful estimates of volatility even in time series which show trend behaviour.

The second class of measures gauge volatility using a specific model or econometric framework. One of the main approaches is to estimate conditional volatility, which captures the variance of a time series for financial yields conditional on the behaviour of certain deterministic variables which can interact with each other and with the past levels of volatility. In the academic literature, the specification of these models is extremely heterogeneous.

1 For a comprehensive survey of various parametric and nonparametric measures of volatility, see T. Andersen, T. Bollerslev and F. X. Diebold (2002), "Parametric and nonparametric volatility measurement", National Bureau of Economic Research Technical Working Paper No 279.

2 For a definition and a discussion of the theoretical properties of this volatility measure, see T. Andersen and T. Bollerslev (1997), "Intraday periodicity and volatility persistence in financial markets", *Journal of Empirical Finance*, Vol. 4, pp. 115-158.

One of the most prominent models for constructing conditional volatility measures is the Auto Regressive Conditional Heteroscedasticity (ARCH) model.<sup>3</sup> Over the past 25 years, this basic framework has spawned numerous variants and extensions, such as Bollerslev's GARCH model or other variants which introduced more flexible functional forms of the volatility equation.

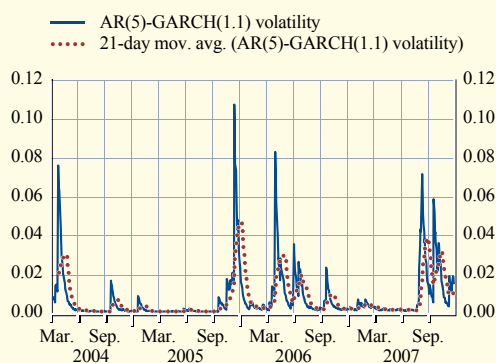
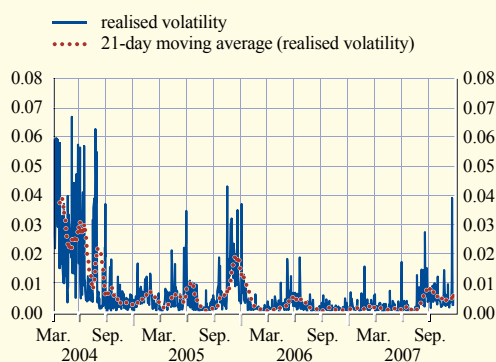
Conditional volatility measures have several advantages. First, by imposing some structure on the way the time series of returns is interpreted and developed over time, they use the available information more efficiently to extract the pattern of volatility. Second, standard econometric tools are used to estimate and test the models on which these measures are based.

In financial markets, another widely used tool to measure volatility is implied volatility. Similar to the measures of conditional volatility, implied volatility is derived from a model, which transforms the prices of options on a specific security into a measure of the volatility of the returns on that security. However, by contrast with the empirical econometric models underlying conditional volatility, the option pricing model – which emerged from the seminal Black and Scholes formula for valuing bond options used to derive implied volatility – is not data-based.

Despite their popularity among practitioners, implied volatility measures have some limitations. First, not all instruments of interest have options associated with them. For example, in the specific case of the euro money market, implied volatility can only be computed for the three-month EURIBOR futures. Second, they require a specific option pricing model. Even assuming that a particular pricing model is accurate, these models are typically based on theoretical assumptions that may be difficult to verify in practice. Third, because implied volatility is a proxy for the uncertainty of the return on a financial instrument, it is very sensitive to the maturity of the option contract and mechanically decreases as the maturity of the contract approaches. Fourth, the length of time series for implied volatility is limited by the fact that this

### Implied, realised and ARCH(1) volatility of three-month EURIBOR interest rates<sup>1)</sup>

(percentages per annum; daily observations)



1) The analysis starts on 10 March 2004 after the introduction of the new operational framework. For further details, see the box entitled "The volatility of the overnight interest rate from a medium-term perspective" in the March 2005 issue of the Monthly Bulletin.

3 For details on a typical ARCH model structure, see the seminal article by R. F. Engle (1982), "Autoregressive conditional heteroscedasticity with estimates of the variance of United Kingdom inflation", *Econometrica*, Vol. 50(4), pp. 987-1008.

measure can only be calculated for the life of a specific contract, which is normally limited to one year in the case of money market contracts. However, on the positive side, implied volatility has been proved to have good forecasting properties for realised volatility, as shown by findings in the empirical literature. It thus offers a forward-looking measure of volatility, which – although it is approximate – may be useful in many contexts.

The chart shows these three volatility measures computed over the period from March 2004 (i.e. after the introduction of the changes to the Eurosystem's operational framework) to December 2007. Since no single three-month EURIBOR futures contract was actively traded over the entire sample period, the top panel of the chart shows an implied volatility with a constant six months to maturity. This is an artificial measure computed for the sole purpose of allowing a numerical comparison of the three measures over the whole sample. To improve readability of the realised and conditional volatility time series, together with the daily time series of volatility, the chart also displays their respective 21-day moving averages (i.e. approximately corresponding to one trading month), which helps to smooth out idiosyncratic daily movements.

Despite the differences between the three measures, they tend to follow the same pattern. The evolution of the three volatility measures in the chart tends to suggest that the ECB's monetary policy has been sufficiently clear and transparent to financial markets and has not had a negative impact on volatility dynamics, as shown by the overall limited level of volatility over most of the period considered. At the end of the period, the sharp rise which is visible in all three measures considered coincides with the tensions associated with the financial turbulence in the euro area money market.

The evolution of the one-week EONIA swap rate is much smoother than that of the EONIA itself (the former reflects the expected average level of the EONIA over one week)<sup>7</sup> and provides initial evidence that most of the volatility in the EONIA is contained within the overnight segment (see Table 1). As has previously been demonstrated, this assessment is confirmed by econometric models, which show that under normal conditions there has not been a noticeable transmission of volatility from the overnight interest rate to the term maturities.<sup>8</sup> At times of tension, volatility at both overnight and longer maturities can increase and the causality of the transmission of volatility may be less clear. Consequently, volatility in overnight rates might be caused by volatility in the term segment of the money market rather than vice versa. In this context, it is useful for policy-makers to monitor a broad set of volatility measures, as described in Box 2.

Overall, it seems that, under normal conditions, rates in the shortest-maturity segment of the euro

money market have so far been successfully steered close to the minimum bid rate, and fluctuations have been concentrated on specific days close to the end of maintenance periods or when liquidity conditions have changed. In this environment, there has been little evidence of a transmission of volatility to the term maturities. During the recent periods of tension in the money market, the ECB's liquidity management has served to stabilise overnight rates around the minimum bid rate and may have contributed to some limited smoothing of tensions at longer maturities, although tensions persist.

7 For more information on the technical features of EONIA and EURIBOR interest rates, see the box entitled "The information content of the main money market instruments in the euro area" in the June 2001 issue of the Monthly Bulletin.

8 For further details, see the box entitled "Volatility of the overnight interest rate and its transmission along the money market yield curve" in the August 2007 issue of the Monthly Bulletin.

#### 4 ASSESSING INFORMATION IN THE MONEY MARKET YIELD CURVE

For the policy-maker, money market interest rates at longer maturities contain a broad set of information about market participants' expectations of the future path of short-term market interest rates and, ultimately, the minimum bid rate. By monitoring expectations, monetary policy-makers can assess the transmission process of the monetary policy stance to overall financing conditions.

When extracting expectations, it is necessary to distinguish between the different characteristics of the instruments in the money market as they contain different information. As described in Box 1, secured instruments (e.g. EUREPO repurchase agreements) or instruments that only involve an exchange of interest payments (e.g. EONIA swaps) are less exposed to counterparty default risks and are therefore, other things being equal, closest to the minimum bid rate. Unsecured instruments, such as some interbank deposits (e.g. the benchmark euro interbank offered rate (EURIBOR)), contain a more pronounced premium, compensating for the potential risk that the counterparty is unable to repay the loan. This also implies that changes in the EURIBOR may reflect changes in the level of trust between banks or investors rather than changes in the expected path of the minimum bid rate. When assessing information in the money market, it is therefore essential to distinguish between changes in the expected path of the minimum bid rate and the evolution of other elements, such as time-varying risk premia. At the same time, monitoring expected future levels of unsecured interbank rates is relevant from a financing conditions perspective as these are expected to affect MFI loan and deposit rates as well as other market rates across the maturity spectrum.

From a policy perspective, it is important to monitor whether market interest rates reflect a future path of the minimum bid rate that is consistent with the Governing Council's own views and communication. For this purpose, the

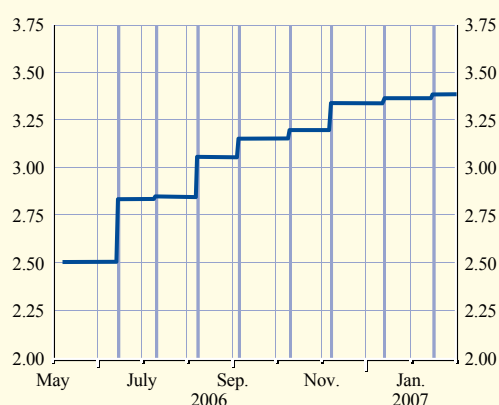
most accurate indicator is forward rates computed on the basis of the EONIA swap curve. The risk premium embedded in these rates is considered negligible for maturities up to several months, and banks and investors commonly use them for hedging purposes.<sup>9</sup> The forward rates are constructed to account for the starting and ending date of each reserve maintenance period. Assuming that market participants expect the minimum bid rate to be changed only at the start of a new maintenance period (in line with the scheduled dates of the meetings at which the Governing Council regularly makes monetary policy decisions), the forward rates are constructed as steps, indicating the average expected level of the EONIA rate in each maintenance period. The expected level of the minimum bid rate is obtained by subtracting the premia corresponding to the EONIA's normal spread over the minimum bid rate. This is typically assumed to be constant over the forecast horizon, except for certain times such as the periods around the end of calendar years, when premia are usually assumed to be somewhat higher. These ECB date-adjusted forward rates have gradually come to be commonly used by private banks and are now regularly reported on wire services.

To illustrate such a step chart, Chart 3 presents data collected on 5 May 2006, a day following a Governing Council meeting. It shows the nine subsequent maintenance periods, from the period starting on 10 May 2006 to that starting on 17 January 2007. At the time that this chart was originally constructed, the level of the minimum bid rate in the maintenance period starting in May was already known (2.50%). Along the curve, there was a strong consensus in the market that the ECB would increase the minimum bid rate to 2.75% at the meeting in June and leave it unchanged in July. Further increases to 3.00% and 3.25% were fully priced in by the market by August and November 2006 respectively.

<sup>9</sup> For a detailed discussion of the liquidity in money market instruments, see the "Euro money market study 2006", ECB, February 2007.

**Chart 3 Expectations of the minimum bid rate in future maintenance periods extracted from the EONIA swap curve (5 May 2006)**

(percentages per annum; daily data)



Source: Reuters.

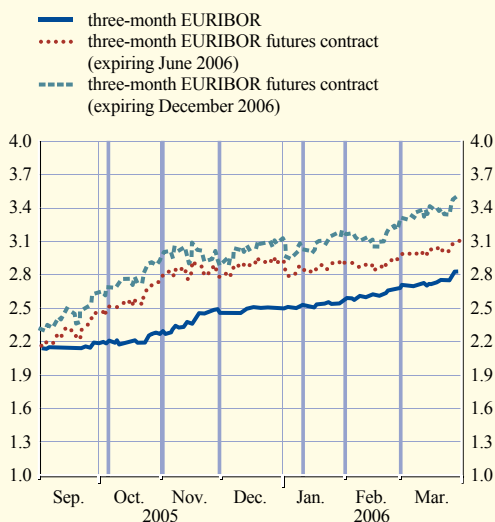
Note: A constant spread between the EONIA and the minimum bid rate has been subtracted. Furthermore, owing to end-of-year effects 1 additional basis point has been subtracted from the maintenance period starting in December. Vertical bars indicate the beginning of maintenance periods.

Based on such information, monetary policy-makers can assess whether they are content with the path of the minimum bid rate as reflected in rates at longer maturities. Such an assessment can assist in refining communication so as to maintain, if desired, a high degree of predictability, both in the short term (e.g. the decision at the next interest rate-setting meeting) and possibly over the longer term.<sup>10</sup> At the same time, the quality of the analysis is dependent on an assumption of a constant spread between the EONIA and the minimum bid rate, which highlights the importance of an overall stable evolution of the EONIA.

Another commonly used set of indicators is extracted from the EURIBOR curve, and from derivatives linked to the three-month EURIBOR that allow for a richer analysis than the EONIA swap and EURIBOR curves. In particular, futures contracts provide information about the expected level of the interbank rate at longer horizons. In addition, options on futures contracts facilitate an analysis of the dispersion surrounding the expected level implied by the futures price,

**Chart 4 Evolution of three-month money market interest rates and interest rates implied by three-month EURIBOR futures contracts**

(percentages per annum; daily data)



Sources: ECB and Reuters.

Note: Vertical bars indicate the first Governing Council meeting of the month.

and are thus an indicator of market uncertainty regarding the level of future market rates.

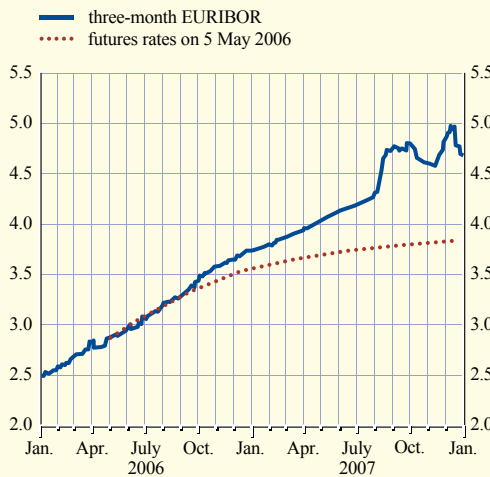
Although EURIBOR rates include sizeable risk premia which are broadly constant under normal conditions, risk premia can increase in periods when the financial sector is affected by specific shocks or increased uncertainty, e.g. as seen in the transition to the new millennium. From a monetary policy perspective, it is important to monitor developments in risk and liquidity premia, as well as in market expectations of key ECB interest rates.

To illustrate how developments in indicators based on EURIBOR rates can be monitored, Chart 4 provides an example of the evolution of the spot three-month EURIBOR and three-month deposit rates implied by the futures contracts expiring in mid-June and mid-December 2006. It shows how the market derives its expectations on

<sup>10</sup> For a detailed discussion, see the article entitled "The predictability of the ECB's monetary policy" in the January 2006 issue of the Monthly Bulletin.

**Chart 5 Three-month interest rates and futures rates in the euro area**

(percentages per annum; daily data)



Source: Reuters.  
Note: Three-month futures contracts for delivery at the end of the current and next six to seven quarters as quoted on Euronext Liffe.

the basis of the continuous flow of information. While the three-month EURIBOR gradually increased following two ECB interest rate increases (in December 2005 and March 2006), expectations of future interest rates gradually shifted upwards, reflecting growing market expectations of further increases in the minimum bid rate later in 2006. In particular, the upward shifts in expectations appeared in the periods between monetary policy-relevant Governing Council meetings (indicated by vertical bars) and show how the market in real time evaluates incoming information and adjusts its perceptions of future ECB action.

This gradual evolution of expectations is also supported by model-based tools, which show that monetary policy decisions made in 2005 and 2006 were well anticipated by the market and that the information conveyed in the ensuing press conferences had a small, although visible, impact on market expectations at the medium-term horizon.<sup>11</sup> The tools thereby provide evidence that the interest rate decisions made by the Governing Council are highly predictable. In this context, the high degree of predictability is considered to reflect that monetary policy

decisions are being made in a credible and transparent manner that is well explained to the public.

At the same time, data for EURIBOR futures contracts provide a useful indicator of expected three-month rates over the coming four to eight quarters. An example of a futures curve observed on 5 May 2006 is presented in Chart 5. It shows how future market interest rates, derived from three-month EURIBOR futures contracts expiring in the second half of 2006 and in 2007, were expected to increase. At the same time, the realised spot three-month EURIBOR turned out to be relatively close to the expected level in 2006, while the discrepancy rose for the longer forecast horizons. This supports the overall view that the ECB's monetary policy is rather predictable in the short term, while greater uncertainty is attached to longer-term forecasts of interest rates, largely because of the greater uncertainty surrounding the evolution of the economy over longer horizons.

From a monetary policy perspective, it is also essential to assess the dispersion of market participants' opinions – or the uncertainty in the market – in parallel with measures of expected interest rates. Extracting the level of expected interest rates in periods of low uncertainty does not provide the same information content as expectations extracted in a high-uncertainty environment. A low-uncertainty environment usually reflects higher confidence of market participants about the future developments in the economy and can contribute to reducing risk premia. By the same token, if uncertainty in the market remains moderate along the money market yield curve following the policy announcement, it usually suggests that market participants have a sound understanding of the future path of the minimum bid rate, and thus of the central bank's strategy and the latest data on which the central bank will base its decisions.

<sup>11</sup> See the articles entitled "The predictability of the ECB's monetary policy" in the January 2006 issue of the Monthly Bulletin and "Communicating monetary policy to financial markets" in the April 2007 issue.

For the purpose of assessing the dispersion of uncertainty, a commonly used measure is risk-neutral densities (RNDs) implied by options on EURIBOR futures.<sup>12</sup> The RNDs provide an approximation of what the market would perceive as the probability distribution of the price of the underlying futures contract, if market participants were risk-neutral. Since market participants are generally risk-averse, RNDs most likely differ from the “true” perceptions of the market. However, assuming that risk premia mainly influence the mean of the distribution (which corresponds to the price of the futures), the RNDs are normally considered as useful measures of the dispersion surrounding the price.

An example of such densities is presented in Chart 6, which illustrates the RNDs derived from options on the futures contracts expiring in mid-December 2005 and mid-June 2006 based on data collected on 27 October 2005. The probability distribution derived from the December 2005 contract is less dispersed than that derived from the June 2006 contract, reflecting the increasing uncertainty when looking further ahead. At the same time, both probability distributions were skewed slightly towards higher rates, indicating that market participants attached an upward bias to the average level of expected three-month EURIBOR rates.

All in all, money market instruments provide policy-makers with a large selection of highly

informative tools when assessing whether the markets have a genuine understanding of the outlook for short-term interest rates, and thereby the monetary policy stance at each point in time.

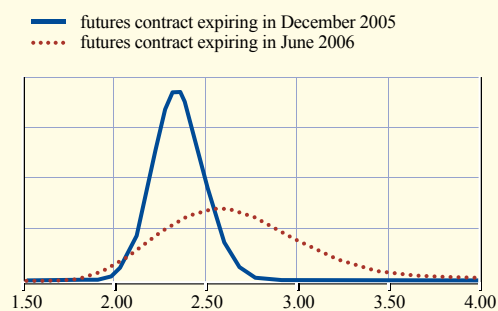
## 5 CONCLUSION

The euro money market is of paramount importance to the ECB for the transmission of its monetary policy stance to the broader financial markets, from where it influences private sector investment and saving decisions, monetary dynamics and, ultimately, the outlook for price stability.

The levels of the key ECB interest rates are decided by the Governing Council of the ECB with the objective of ensuring price stability in the euro area. The operational framework for monetary policy and the liquidity management decisions made by the Executive Board of the ECB are efficient tools to ensure that interest rates in the shortest-maturity segment of the euro money market remain in a narrow range close to the minimum bid rate. This normally contains fluctuations to a few days at most per month and prevents volatility at short-term maturities from being transmitted throughout the money market yield curve. At the same time, the ECB recognises that developments in longer-term money market interest rates reflect market forces and that this market segment is beyond the ECB’s direct control. This is particularly evident during specific periods of financial market stress, when changes in risk premia and mistrust among banks and investors affect these longer-term rates and may thus interfere with the transmission of the monetary policy stance.

When assessing the transmission of the monetary policy stance to the financial markets, the ECB therefore monitors a broad set of indicators derived from various money market instruments. These indicators are included in the economic and monetary analyses underlying the ECB’s monetary policy decisions.

**Chart 6 Risk-neutral densities for the three-month EURIBOR on 27 October 2005**



Sources: Reuters and ECB calculation.  
 Note: Estimates are based on a mixture of lognormals for the implied risk-neutral density, applied to quotations of the three-month EURIBOR futures options traded on Euronext.liffe.

<sup>12</sup> More information on RNDs can be found in the article entitled “The information content of interest rates and their derivatives for monetary policy” in the May 2000 issue of the Monthly Bulletin.





## SECURITISATION IN THE EURO AREA

*The recent turmoil in credit markets has highlighted how securitisation has changed in only a few years from being a relatively niche market in the euro area to being a major force behind capital market developments. This increasingly influential role of securitisation is of interest to central banks for a number of reasons. From a monetary policy perspective, securitisation, through its effect on the funding of banks and credit markets, not only impacts on the transmission mechanism via the supply of loans, but also affects monetary analysis. In addition, the recent turmoil in credit markets has strongly highlighted the significance of securitisation markets from a financial stability perspective. Lastly, securitisation has been at the forefront of financial innovation and, through the use of credit derivatives and related financial instruments, has contributed to financial integration in the euro area. This article will first present some facts about securitisation developments in the euro area. It will then focus on some possible monetary policy implications, also taking into account recent events. Finally, it will highlight some of the weaknesses of the securitisation market which led to the rapid evaporation of liquidity during the credit market turmoil.*

### I INTRODUCTION

Over the past decade, securitisation has expanded dramatically. While this growth in securitisation has been a global trend, it has been particularly rapid in the euro area, owing to factors such as the introduction of the euro and the associated increase in financial market integration, as well as the movement towards a more market-based financial system. The large increase in securitisation forms part of a wider trend of financial innovation in credit markets, which also includes the development of credit derivatives and changes in the syndicated loan market. In the euro area, banks have securitised an increasingly wide range of financial assets. Initially, the most commonly securitised assets were mortgage loans, while in recent years more sophisticated forms of securitisation have been developed, and banks can increasingly securitise a large portion of their corporate and consumer credit portfolio.

Securitisation and financial innovation in credit markets have produced significant changes, both in the financial structure of the euro area and in the role of banks. The increase in securitisation has modified the functioning of credit markets, reducing the fundamental role of liquidity transformation traditionally performed by financial intermediaries. It is likely that the changing business model of banks from “originate and hold” to “originate, repackage and sell” will also have significant implications for the effectiveness of monetary policy via the

banking sector. At the same time, the recent turbulence in credit markets has highlighted some features of certain products, which can impair the market functioning in times of strain, such as the products’ high level of complexity and opacity, and consequently investors’ over-reliance on credit ratings and the market’s lack of liquidity.

This article focuses on developments in securitisation in the euro area and discusses some of their possible implications from a monetary policy perspective. Section 2 introduces the main concepts related to the securitisation market, and explains some of the basic instruments and originators’ motives for using securitisation. Section 3 briefly reviews the spectacular increase in securitisation that has occurred in the euro area in recent years and its subsequent retrenchment in the last quarters of 2007. Section 4 discusses some potential effects of this securitisation process on the monetary policy transmission mechanism, while Section 5 assesses its impact on the operational framework for monetary policy. In the light of the above, Section 6 highlights some considerations related to the recent problems in the securitisation market.<sup>1</sup>

<sup>1</sup> This article will not deal with the possible implications of securitisation activity for financial stability, as they have already been covered in the December 2007 Financial Stability Review, and will be considered in other forthcoming ECB publications.

## 2 SECURITISATION: CONCEPTS AND MOTIVES

Traditional securitisation can be defined as the pooling of financial assets, such as residential mortgage loans, and their subsequent sale to a special-purpose vehicle (SPV), which then issues fixed-income securities for sale to investors – known as asset-backed securities (ABS) – the principal and interest of which depend on the cash flows produced by the pool of underlying financial assets (see Chart 1). The SPV usually acquires the underlying assets from the originator in what is known as a “true sale”.<sup>2</sup> The cash received from the investors who purchase the securities issued by the SPV is then passed back to the originator. The SPV also appoints a servicer to collect interest and principal payments on the underlying loans (in Europe, this is usually the originator). Two other important parties to the transaction are the swap counterparty, who is normally involved to hedge the interest rate and currency risks on the pool, and the trustee, who ensures that the money is transferred from the servicer to the SPV and that investors are paid in accordance with the promised priority. Despite the seeming complexity of the securitisation process, the key underlying concept is that if the originator goes bankrupt, the collateral held by the SPV is still good and the servicer ensures that payments on the collateral continue to be made, so that investors still receive their interest and principal. The credit quality of the securities

issued by the SPV is thus de-linked from the solvency of the originator.

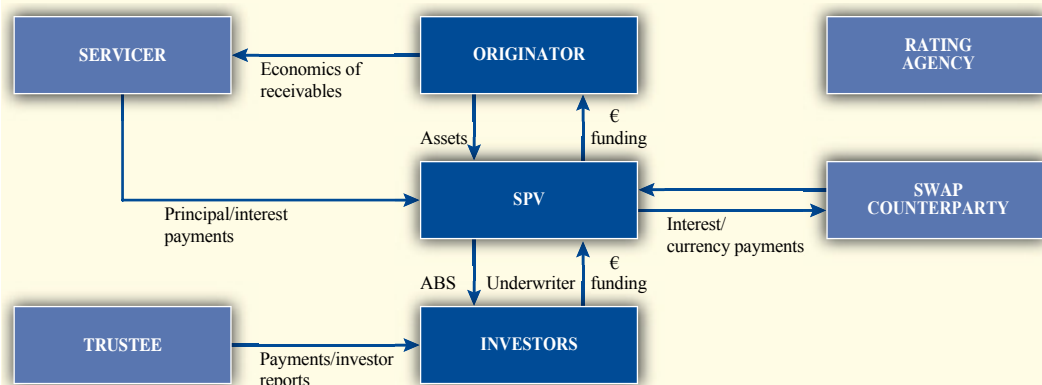
For originators, there are a number of non-mutually exclusive motives for using securitisation. First, in the case of traditional true-sale securitisation, it provides an important source of funding. Furthermore, as investors in ABS are typically different from investors in, for instance, covered bonds,<sup>3</sup> it also allows originators to expand and diversify their range of funding sources, which may facilitate more stable and cost-efficient financing. Funding via securitisation may also have advantages over outright loan sales owing to the diversification benefits of pooling and tranching the risks of the underlying assets.<sup>4</sup> Second, securitisation allows originators to transfer credit risk off their balance sheet. This has enabled banks to lower their regulatory needs for costly equity capital, thereby

2 For investors, this helps to guarantee the “remoteness” of the expected cash flows of the underlying assets from the solvency of the originator. The SPV usually does not have any other function apart from issuing the securities and owning the assets underlying these securities, so as to eliminate any incentive for another party to place the SPV into insolvency.

3 Covered bonds generally attract a different investor base from ABS because they often have: (i) a fixed and known maturity date; (ii) the additional protection of a special legal framework; (iii) greater liquidity. ABS, on the other hand, normally have amortising structures, such that the principal is paid back gradually over time and the maturity date of the security is often not known in advance. Some investors do not wish to assume this “prepayment risk” usually inherent in ABS.

4 See DeMarzo, P. M. (2005), “The Pooling and Tranching of Securities: A Model of Informed Intermediation”, in *The Review of Financial Studies*, Vol. 18, pp. 1-35.

Chart 1 Transaction participants and functions in the creation of an ABS



Source: Adapted and simplified version of a chart in “European Securitisation: A Resource Guide”, European Securitisation Forum.

reducing the overall cost of financing.<sup>5</sup> Third, securitisation could be used for general risk management purposes, as the capital relief and new funding would be employed to modify the risk profile of an institution, for instance by diversifying the loan portfolio geographically or by sector. Finally, the advent of collateralised debt obligations (CDOs) has also introduced the possibility of enhanced revenues via securitisation. In this respect, investment banks and investment managers often arrange transactions solely to exploit arbitrage opportunities in credit risk markets.

Given that cost-efficient funding is an important objective, issuers aim to obtain the highest possible credit rating from a rating agency for the bulk of the notes issued to investors. Although the credit quality of the underlying individual loans may be rather low, the rating can be boosted substantially by pooling the portfolio of assets and using a variety of credit enhancement techniques, such as third-party guarantees or the slicing of the issuance of securities into different tranches. In the simplest transaction, the securities issued by the SPV would be broken down into three “tranches”: the senior tranche, the mezzanine tranche and the equity tranche.<sup>6</sup> All tranches are backed by the same pool of assets but, if some of the underlying assets default, there is a “cascade” of payments such that the equity tranche is the first to suffer losses, followed by the mezzanine tranche, and lastly the senior tranche. In order to signal the quality of the securitised assets and align its interests with those of investors, the originator of the assets can retain part of the equity tranche on its balance sheet. As it would bear most of the risks, the originator would maintain a strong incentive to continue monitoring the credit quality of the underlying assets.<sup>7</sup>

Traditionally, the majority of securitised assets have been large numbers of small, relatively homogenous, consumer-related assets, such as prime residential mortgage loans. These assets are particularly appropriate for securitisation because the information asymmetries (or the different degrees of knowledge) between originating banks and outside investors regarding the quality of the underlying claims are usually rather

low. This allows outside investors to estimate the value of the underlying portfolio quite accurately. Furthermore, pooling large amounts of homogenous and usually small assets helps to reduce idiosyncratic risks, i.e. risks related to individual underlying assets (such as mortgage loans). At the same time, the underlying portfolio remains subject to macroeconomic risks, for instance declines in housing prices or market confidence crises, which can have a strong impact on the value of the securities, as illustrated by the recent credit market turbulence.

Over the last few years, there has been a significant trend towards the securitisation of generally larger, heterogeneous assets, such as high-yield bonds, leveraged loans or mezzanine tranches of other ABS transactions, often combining some of the techniques of traditional securitisation with recent innovations in credit risk management (such as CDOs, see Box 1). As well as selling the underlying assets to the SPV using a true sale, arrangers can transfer only the credit risk of the underlying assets using credit derivatives, while the actual assets remain on the balance sheet of the arranger (a process which is known as “synthetic securitisation”).

- 5 In the past, under the first Basel Capital Accord (“Basel I”), banks often securitised part of their loan portfolio, while retaining the risky equity tranche on their balance sheet. In this way, banks were often able to reduce their Basel I capital requirements and retain significant risk exposure to the securitised assets. The intention of the revised Basel Accord (“Basel II”), which started to come into force in 2007, is to align regulatory capital requirements with the actual economic risk of exposure more closely, thereby reducing the level of regulatory arbitrage which was often present under Basel I.
- 6 In practice, the number of tranches is normally much higher than three and the senior tranche can be broken into further “sub-tranches”, which often have the same credit rating, but different maturity dates, in order to better cater for different investor preferences.
- 7 In recent years, however, the equity tranches have often been sold off to the markets. At the same time, regulators in a number of countries have often forced originators to hold on to the equity tranches.

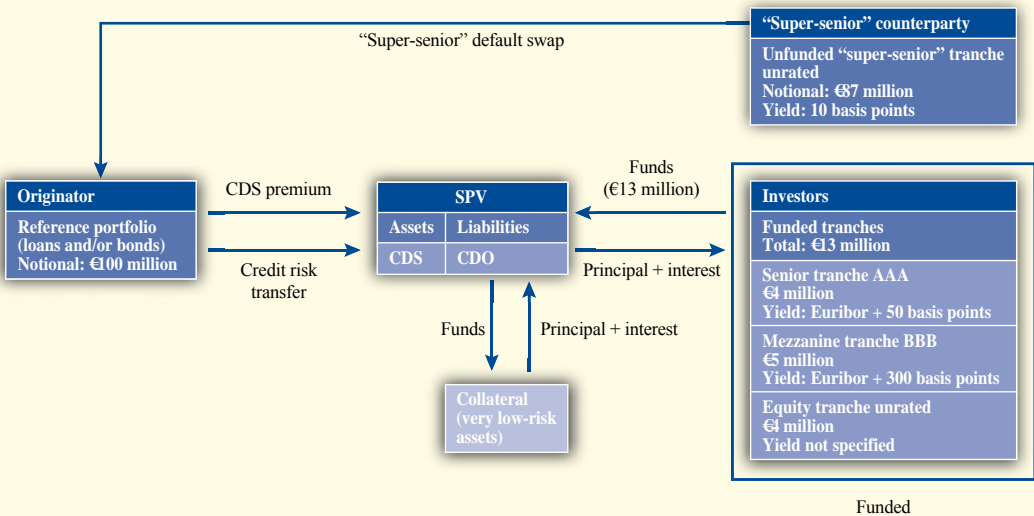
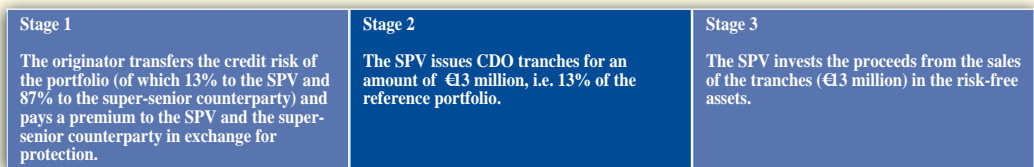
Box 1

**COLLATERALISED DEBT OBLIGATIONS (CDOs)**

In very broad terms, CDOs are instruments that enable market participants to readily transfer very significant amounts of credit risk to investors, often via highly leveraged transactions. CDOs aim to create value by attracting liquidity towards credit risk in asset classes that, on their own, would be too illiquid or too complex for some investors to consider. Unlike traditional securitisation, the number of assets backing a CDO tends to be rather low, but they are often highly heterogeneous, with high concentrations of exposure to individual obligors. Hence, it is more difficult for investors to ascertain the risk of CDOs, as they need to consider not only the credit risk of individual assets, but also correlations between them. In practice, rating agencies play a crucial role, assigning credit ratings to the different tranches based on their models and assumed correlations.

As well as using the “true sale” cash method that is characteristic of traditional securitisation, the banks arranging CDO transactions often use credit derivatives, such as credit default swaps (CDS), to transfer the credit risk of the underlying pool of assets (which is usually termed “synthetic securitisation”). In the case of synthetic securitisation, the transactions are highly flexible in terms of their asset mix and risk-return characteristics, enabling investors to choose “tailor-made” CDOs to suit their needs. Furthermore, the underlying assets remain on the balance

**A partially-funded synthetic CDO**



Sources: See Cousseran, O. and Rahmouni, I. (2005), “The CDO Market: Functioning and Implications in terms of Financial Stability”, in *Financial Stability Review*, No 6, June, Banque de France; Tavakoli, J. M. (2003), “Collateralized Debt Obligations and Structured Finance: New Developments in Cash and Synthetic Securitization”, John Wiley & Sons.

sheet of the originator or arranger, while the SPV holds a pool of CDS that reference the assets. The CDS generate a premium payment from the originator or arranger to the SPV, but in the event that any of the underlying assets default, the SPV is responsible for any losses. On the liability side, the SPV still issues fixed-income securities for sale to investors which can either be “funded” or “unfunded” (see diagram). In funded synthetic securitisation, investors pay for the notes in cash which is invested by the SPV in high-quality assets, such as government or covered bonds. In unfunded transactions, investors do not put any cash upfront, which means that the arranging bank risks the investor failing to provide compensation if the underlying assets default. Most synthetic transactions tend to be partially funded, with the super-senior tranche being unfunded, and the other senior and subordinated tranches being funded.

As with traditional ABS, CDOs are classified by the type of underlying asset. If the underlying assets are loans, used, for example, to fund leveraged buy-outs of corporations, the transaction is known as a collateralised loan obligation (CLO), but if the underlying assets are corporate bonds or other debt securities, the transaction is known as a collateralised bond obligation (CBO). The latter – which expanded significantly in 2006 – have normally been cash rather than synthetic instruments, i.e. the SPV purchases the underlying collateral outright, as in traditional securitisation.

Investors’ search for high-yielding assets led to CDO instruments becoming increasingly complex. Consequently, they took on higher leverage and more risky and opaque underlying exposures. As a result of their complexity and opacity, there was a very limited secondary market for such instruments, and so they were often valued using banks’ in-house models. By construction, these models needed to make a number of assumptions and, because of the leverage, the slightest change in these assumptions could often lead to significant changes in the price of the security. As will be explained in more detail in Section 6, the extreme difficulty in valuing such instruments, as well as the fundamental lack of liquidity in the CDO market, have been instrumental in the recent turbulence in credit markets.

### 3 MARKET DEVELOPMENTS

The growth in euro-denominated securitisation increased at the end of the 1990s and has been particularly strong in recent years (see Chart 2).<sup>8</sup> While the rise in securitisation has been a global trend, in Europe it has also been linked to regional factors. In particular, the introduction of the euro contributed to closer financial integration in Europe, enabling institutional investors to

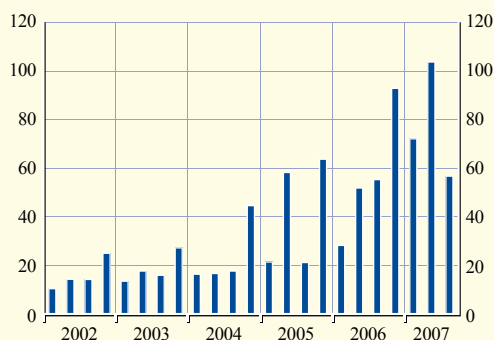
increase their cross-country exposure and giving issuers access to a broader pool of potential investors.<sup>9</sup> The recent financial market turbulence, however, had a significant dampening effect on securitisation activity in the second half of 2007.

8 Data on securitisation at the euro area level are currently not available from the Eurosystem. Data from a number of different data providers presented in this article are often not directly comparable owing to differences in geographical coverage, conceptual definitions and compilation methods.

9 See the ECB’s Structural Issues Report on “Corporate finance in the euro area”, May 2007.

Chart 2 Issuance of euro-denominated ABS

(EUR billions; quarterly issuance)



Source: European Commission.

Last observation: Third quarter of 2007.

Note: Includes issuance in euro by non-euro area originators.

The securitisation market in the euro area has a number of characteristics: first, the special role played by synthetic securitisation (see Box 1 for a definition) in overcoming the limited size and fragmentation of corporate bond markets; second, the considerable variation in the level of securitisation across the euro area; and third, the dominance of the residential mortgage-backed securities (RMBS) segment (and more recently the commercial mortgage-backed securities (CMBS) and CDO segments) and the relatively subdued level of securitisation of loans to small and medium-sized enterprises (SMEs). These features are analysed further in this section.

#### THE ROLE OF SYNTHETIC SECURITISATION

Direct financing for non-financial corporations via the corporate bond market has traditionally been rather limited, despite significant growth since the introduction of the euro.<sup>10</sup> In addition, firms which do raise funds through capital market products have tended to be rather concentrated in particular industries, such as telecommunications. In the light of the limited role of the corporate bond market, synthetic CDO securitisation has played a beneficial role in fostering more “complete” markets. It has allowed investors to broaden their risk exposure to more firms and industries than had been possible in the past. In addition, since the assets

can stay on the originator’s balance sheet, the legal and administrative costs are significantly lower than those involved in an outright sale.<sup>11</sup> It is difficult to estimate the size of the market, as most transactions are private placements and there are no comprehensive data publicly available, but some sources indicate that the issuance of synthetic CDOs<sup>12</sup> reached more than €124 billion in 2006 (see Chart 3). At the same time, issuance is expected to have declined in the last quarter of 2007 as a result of strains in credit markets.

#### CROSS-COUNTRY DIFFERENCES IN ISSUANCE VOLUME

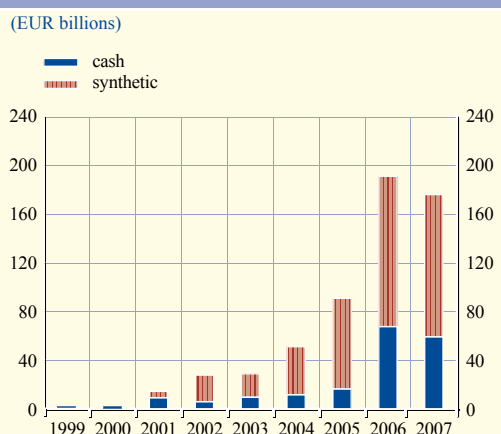
In general, the amount of securitisation has increased in all euro area countries, but the largest markets are based in Spain, the Netherlands and Italy (see Chart 4).

10 According to ECB statistics, outstanding nominal amounts of euro-denominated debt securities issued by euro area-based non-financial corporations amounted to only €561 billion at the end of 2006, compared with €3,668 billion for MFIs and €1,035 billion for non-MFI financial corporations, which consisted to a large extent of ABS and CDOs issued by SPVs.

11 This is particularly important in Europe where the true-sale securitisation of a portfolio of loans to entities in more than one country would involve dealing with legal and administrative complexities in multiple jurisdictions. See the 2007 European Financial Markets Lawyers Group report on the legal obstacles to cross-border securitisations in the EU ([www.efmlg.org](http://www.efmlg.org)).

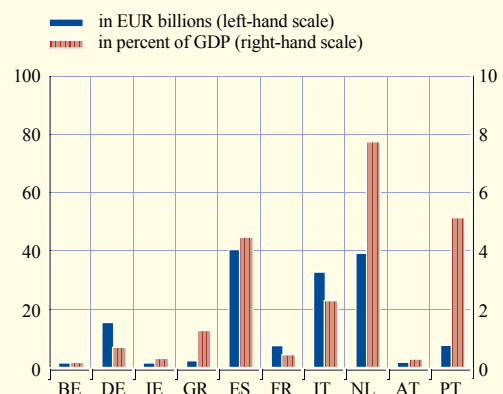
12 Measured as the value of both funded and unfunded tranches.

**Chart 3 Issuance of euro-denominated cash and synthetic CDOs**



Source: Creditflux.  
Note: Data for 2007 refer only to the first three quarters.

**Chart 4 Securitisation in the euro area by country of collateral in 2006**



Sources: European Securitisation Forum and Eurostat.  
Note: CDOs and synthetic securitisation are not included.

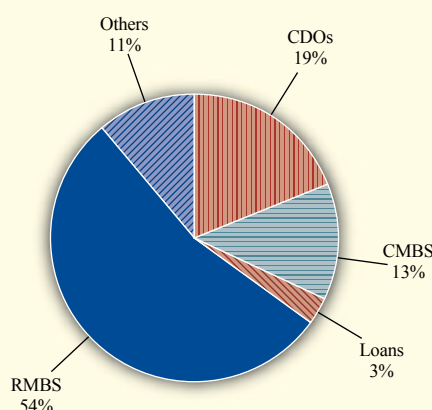
Furthermore, relative to GDP, securitisation has also been very strong in Portugal. One of the main factors causing the divergent levels of issuance is related to developments in RMBS, which account for more than half of all securitisation issuance. The issuance of RMBS has generally been higher in countries such as Spain and the Netherlands, where house purchase lending has been growing considerably faster than deposits. Another key factor affecting the issuance of RMBS in different countries is the legal framework for the early repayment of mortgage loans by borrowers. In countries where significant penalties are applied, which reduce the incentive for early repayment, there is less need for issuers to use amortising structures, such as RMBS, to transfer the prepayment risk to investors. Instead, these banks can resort to covered bonds with the full repayment of the principal amount on a single date. There are also important legal, administrative and regulatory factors that affect issuance volumes, not only of RMBS, but also of all other types of securitisation. For example, the absence of specific rules in some continental European civil codes has either discouraged market participants in those jurisdictions from securitising their assets, or meant that they have been saddled with greater economic and administrative costs (e.g. the use of offshore vehicles, re-registration of the mortgage deed, the need for borrower notification and/or consent, the taxation treatment of the transaction, etc.).

#### RMBS, CDO AND CMBS INSTRUMENTS CONTINUE TO DOMINATE

As indicated earlier, RMBS have persistently accounted for the largest share of securitisation issuance in the EU since the market started, growing at an annual rate of about 30%, but the issuance of other asset classes, in particular CDOs<sup>13</sup> and CMBS, has also accelerated strongly. RMBS still accounted for around 54% of total European issuance in 2006, but CDOs accounted for around 19% and CMBS for 13% (see Chart 5).

Chart 5 European securitisation issuance in 2006

(percentages, by collateral type)



Source: European Securitisation Forum.

Notes: Includes non-euro area European issuance, such as the issuance of securities with UK collateral. "CDOs" includes securities issued in euros only. "Loans" includes leveraged, commercial, consumer, corporate and other loans. "Others" includes car loans, credit card receivables, leases, account, health care, insurance, utility and other receivables.

The issuance of ABS backed by loans to SMEs could potentially encourage additional funding for lending to SMEs. In the euro area, however, ABS backed by SME loans constitute a small fraction of total securitisation issuance, and the market is concentrated mainly in Germany, Spain and, to some extent, the Netherlands.<sup>14</sup> The strong growth of the SME securitisation markets in Germany and Spain has been fuelled by special government support programmes, specifically initiated to strengthen the securitisation of SME loans in order to promote further lending to this sector. There are several factors which have tended to inhibit the growth of SME loan securitisation in the euro area. First, there is a lack of standardisation in SME loans, especially compared with other products, such as mortgages or consumer loans.

<sup>13</sup> The CDO market is particularly difficult to quantify and map owing to the lack of sources that are consistent and representative of the market as whole. See Cousseran, O. and Rahmouni, I., op. cit.

<sup>14</sup> By the end of the first quarter of 2007, the cumulative issuance of SME CLOs amounted to €72 billion by German banks, €48 billion by Spanish banks and €23 billion by Dutch banks.



Second, the availability of data is a significant issue: originators may find it difficult to provide historical data on the performance of SME loans through an economic cycle. Third, while large lenders can often fund themselves more cheaply using other sources (such as unsecured borrowing), smaller lenders, which would have more incentives to resort to this type of securitisation, do not have enough SME loans to generate reasonably sized transactions.

#### 4 SECURITISATION, BANK LENDING AND MONETARY POLICY

Securitisation and financial innovation in credit markets have produced significant changes, both in the financial structure of the euro area and in the role of banks therein. One of the main effects of the developments in true-sale and, in particular, synthetic securitisation, is that large amounts of credit, which were traditionally illiquid, have now become available outside the banking sector. In a sense, while the origination of loans remains largely local, securitisation can make loan funding global in that it makes it tradable and available to investors. As a result, banks have maintained, and probably enhanced, their role as originators of credit, while progressively losing importance as primary holders of illiquid assets.

From a monetary policy perspective, the fact that securitisation is bringing about changes in credit markets means that it will also lead to changes in loan dynamics,<sup>15</sup> thereby altering the behaviour of monetary counterparts and monetary policy analysis in general (see Box 2). Under normal macroeconomic conditions, one of the anticipated consequences of securitisation from a macroeconomic perspective is an overall increase in the aggregate supply of loans. This is because, by being able to securitise part of their assets, banks could have access to additional funding that could be used, in turn, to grant additional loans. Furthermore, by fully removing loans from their balance sheet, banks have often been able to obtain regulatory capital relief and have used it to expand the supply of loans. In

this respect, the large increase in securitisation probably contributed to the strong loan growth and favourable lending standards from early 2005 to the first half of 2007.

By affecting banks' conditions, changes in securitisation activity are also likely to affect the transmission mechanism of monetary policy. According to the bank lending channel theory, banks' conditions can significantly affect how their supply of credit responds to monetary policy changes.<sup>16</sup> In this respect, after a monetary tightening, the drop in the supply of credit is expected to be larger for the following types of banks: (i) small banks that are mostly financed by deposits and equity; (ii) less liquid banks<sup>17</sup> that cannot protect their loan portfolio against monetary tightening simply by drawing down cash and securities; and (iii) poorly capitalised banks that might be below their target capital and have less access to markets for unsecured funding.<sup>18</sup> However, securitisation is expected to weaken the effects of these factors on the transmission mechanism. First, securitisation enables banks to provide additional lending without increasing the size of their balance sheet. Second, it enables them to obtain additional liquidity independently of their securities holdings. Third, by removing loans from their balance sheet through securitisation, banks can improve their capital position on account of the transfer of credit risk.

Overall, securitisation and other innovations in credit risk markets are expected to have a significant impact on banks' ability and

15 For an overview of the role of credit and the banking sector from a monetary policy perspective, see Stiglitz, J. E. and Greenwald, B. (2003), "Towards a New Paradigm in Monetary Economics", Cambridge University Press.

16 See Bernanke, B. (2007), "The Financial Accelerator and the Credit Channel", speech at the conference entitled "The credit channel of monetary policy in the twenty-first century", Federal Bank of Atlanta, Georgia, 15 June. Existing evidence on the effects of securitisation on interest rates remains scarce and conclusions are mixed.

17 Kashyap, A. and Stein, J. C. (2000), "What Do a Million Observations on Banks Say About the Transmission of Monetary Policy", in *American Economic Review*, Vol. 90, No 3, pp. 407-428.

18 See Van den Heuvel, S. J. (2002), "Does Bank Capital Matter for Monetary Transmission?", in *Federal Reserve Bank of New York Economic Policy Review*, May, pp. 260-266.

## Box 2

## THE IMPACT OF BANK LOAN SECURITISATION ON MONETARY ANALYSIS

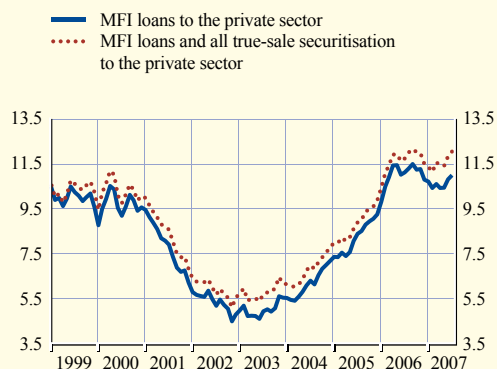
The aim of monetary analysis is to identify monetary trends associated with price developments over the medium to longer term. Extracting this policy-relevant “signal” has become more challenging in an environment where monetary developments are increasingly influenced by financial innovation such as securitisation. This box assesses the impact of securitisation on MFI credit to the private sector and on the broad monetary aggregate M3, from both a conceptual and a quantitative point of view. The focus of the box is on the direct effects on MFI balance sheet positions, but the more indirect effects that work through MFIs’ reduced credit exposure are also touched upon.

## The effects of loan securitisation on MFI credit to the private sector

The most obvious impact of loan securitisation on the MFI balance sheet is its direct effect on loan and credit positions. In the case of traditional true-sale securitisation, the loan is transferred from the MFI balance sheet to that of a financial vehicle corporation (FVC). This reduces the recorded MFI loans in statistical terms.<sup>1</sup> However, from the perspective of the borrower, the loan is still outstanding. Traditional securitisation can thus drive a wedge between the growth rate of total loans granted to the private sector and the growth rate derived from the MFI balance sheet statistics. Estimates on the basis of data available at the ECB on traditional loan securitisation suggest that the annual growth rate of MFI loans to the private sector in the euro area is currently about one percentage point below the annual growth rate of total loans to the private sector originated by MFIs (see Chart A).<sup>2</sup> In the case of synthetic securitisation, only the credit risk of a loan is transferred to the FVC, while the loan itself remains on the MFI balance sheet. Synthetic securitisation thus has no direct impact on MFI loan statistics.

Chart A Impact of true-sale securitisation on loans to the private sector

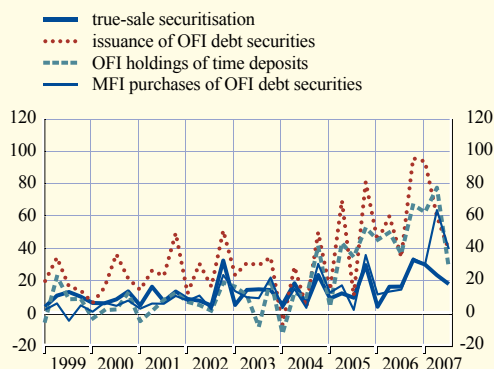
(annual percentage changes)



Sources: ECB, ECB estimates.

Chart B Securitisation, issuance and MFI purchases of OFI debt securities, and OFI holdings of time deposits

(quarterly flows in EUR billions)



Sources: ECB, ECB estimates.

1 Following the adoption of the International Accounting Standards (IAS39) by the euro area MFIs, a traditional securitisation transaction may not lead to a decrease in the loan holdings if the securitised loan is not derecognised, i.e. taken off the MFI balance sheet in accounting and statistical terms.

2 It should be noted that the currently available estimates on traditional securitisation for the euro area are surrounded by uncertainty and suffer from partial coverage. Harmonised and more detailed securitisation statistics are currently being developed by the ESCB.

Another relevant aspect when looking at the effects of securitisation on MFI credit is that the ECB's definition of credit to the private sector is a broad concept. In addition to loans, credit to the private sector includes financing provided through purchases of debt securities (such as corporate bonds), as well as of shares and other equity issued by non-banks. In order to improve the asset diversification of their credit portfolios, MFIs may buy debt securities issued by other financial intermediaries (OFIs) as a result of the securitisation process.<sup>3</sup> In this respect, Chart B shows that the quarterly flows of MFI purchases of OFI debt securities correspond in magnitude to the reduction in the outstanding amount of loans due to traditional securitisation. This implies that there has only been a change in the composition of credit to the private sector and no major impact on the overall amount of credit. By contrast, in the case of synthetic securitisation, if the MFI sector buys securities issued by the OFIs, there will be an increase in overall credit growth on the balance sheet, even though households and firms have not received any more financing.

### **The effects on components and other counterparts of M3**

In addition to loans (and, more generally, credit) to the private sector, securitisation activities between MFIs and FVCs can show up in other positions on the consolidated balance sheet of the MFI sector. Which precise positions are likely to be affected depends on the type of securitisation transaction, the way it is financed and the residence of the FVC involved.

Conceptually, in the case of traditional securitisation, the transfer of loans should lead to a corresponding decrease on the liability side of the MFI balance sheet. Initially, this decrease will most likely be reflected in a decline in overnight deposits of OFIs, but may also be subsequently rebalanced across other OFI holdings of deposits or securities. However, as the FVC and the MFI are typically closely linked and act together, it may well be that the FVC first has to borrow in order to acquire the loan from the MFI. This would lead to an increase in short-term deposits for a very short transactions-related demand. When assessing these impacts of traditional securitisation, it needs to be borne in mind that, due to accounting standards or the ability of MFIs to grant more loans, a decrease in the MFI balance sheet may not take place.<sup>4</sup> In this respect, the accounting standards applied to securitisation transactions differ across euro area countries.

Synthetic securitisation has no direct impact on the MFI balance sheet. However, the longer-term financing of the purchase of the credit risk by the FVC is generally carried out through the issuance and sale of ABS. The proceeds of these sales need to be held as collateral and may be invested in different instruments. To the extent that they are invested with MFIs, they may impact on the deposit or debt security positions on the MFI balance sheet. In this respect, Chart B shows that, since mid-2004, the flows into OFI holdings of time deposits follow a pattern similar to those of the issuance of OFI debt securities. However, it must be noted that these time deposits may not only reflect collateral held, but also two other elements, depending on the country: i) the consequence of accounting standards that preclude MFIs from derecognising substantial parts

<sup>3</sup> The importance of loan securitisation can be seen in the strong issuance of debt securities by non-monetary financial corporations, which consists almost exclusively of debt securities issued by OFIs (see also the tables in Section 4.1 to 4.8 of the "Euro area statistics" section of the ECB's Monthly Bulletin). In September 2007 the amount outstanding of debt securities issued by non-monetary financial corporations constituted around 11% of total outstanding debt securities and 19% of the stock of debt securities issued, with the exclusion of those issued by the general government. These shares are larger than the corresponding shares of debt securities issued by non-financial corporations and, in particular, they have doubled compared with their respective values in the period 1999-2000.

<sup>4</sup> Following the adoption of IAS39 by euro area MFIs, a traditional securitisation transaction may not lead to a one-to-one decrease in the loan holdings, if part of it is not derecognised and is, for instance, balanced on the liabilities side under "deposits" or "remaining liabilities". At the same time, the liquid instrument holdings of MFIs increase by the amount of the loans sold.

of their traditional securitisation transactions, and ii) non-marketable covered bonds placed with OFIs by the MFI as a basis for securitisation.

The sale of ABS by OFIs may also trigger changes in the deposit holdings of the money-holding sectors that buy these securities. In this respect, it is conceivable that the purchase of ABS by a household, for instance, implies a reduction in households' short-term deposits and an increase in FVC/OFI holdings of short-term deposits by the same amount. This would have an impact on the sectoral composition of M3 as regards short-term deposits, but no impact on overall M3. However, if the FVC were to invest the proceeds in longer-term rather than shorter-term deposits (outside M3), this would imply a reduction in overall M3.

Securitisation transactions might also have an impact on the external assets and liabilities of MFIs for two reasons. First, if FVC securities are purchased by a non-euro area resident/MFI, *ceteris paribus*, the transaction will increase the net external assets of the MFI and could therefore affect M3. Second, securitisation often involves FVCs located in offshore centres, which can also impact on the MFI's net external asset position, depending on the way the financing transaction is conducted.

### Conclusions

The overall impact of loan securitisation on money and credit aggregates is not easy to quantify, as it depends on the type of securitisation and on accounting standards on the one hand, and on the financing and investment strategies of both the FVCs that sell the ABS and of the money-holding sectors that buy the securities, on the other hand. Many different financing and investment transactions are presumably occurring simultaneously and may cancel each other out in terms of their impact on M3, but, if they are taking place at different points in time, they may lead to some short-term volatility in M3 developments.

In order to extract policy-relevant signals from monetary developments, it is important to gauge the impact of financial innovation, such as securitisation, on monetary aggregates through a comprehensive analysis of the MFI balance sheet. The ECB's monetary analysis is well placed to live up to this challenge, as it can examine in increasing detail the various components, counterparts and money-holding sectors of M3.

incentives to grant credit and, more specifically, on the effectiveness of the bank lending channel. In this respect, securitisation has probably altered those bank characteristics usually emphasised in the literature when identifying shifts in loan supply. For instance, the size indicator is less significant, as securitisation activity can considerably reduce the amount of loans on banks' balance sheets. Liquidity is also affected by securitisation because of the short-term inflows caused by the sale of ABS which modify the standard liquidity ratio. Furthermore, securitisation may reduce the regulatory

requirements for capital if the underlying risk is completely passed on to the markets, as well as render the standard capital-to-asset ratio a poor approximation of the relevant capital constraints faced by banks in this regard. More broadly, securitisation provides banks with additional flexibility to face changes in market conditions associated with monetary policy movements.

According to some tentative empirical evidence, the increase in securitisation is expected to diminish the impact of monetary policy changes

on banks' loan supply, although this effect seems to be dependent on the economic cycle.<sup>19</sup> However, this does not mean that the banking sector has become less relevant from a monetary policy perspective. For instance, by making banks more dependent on market funding (and due to the opacity of many of the instruments), securitisation could tighten the connection between banks' funding and financial markets. As a result, banks' incentives and ability to lend are expected to depend on financial market conditions to a larger extent than in the past, when banks were overwhelmingly funded via bank deposits. This is mainly because deposits tend to have more stable remuneration and are less dependent on financial market conditions than tradable instruments. Under more extreme circumstances, the impact of the banking sector's situation on credit conditions could actually be significant (see Section 6).<sup>20</sup>

## 5 THE ROLE OF ABS IN THE IMPLEMENTATION OF MONETARY POLICY

Securitisation has impacted on the implementation of monetary policy in the euro area, as ABS constitute a growing share of the collateral accepted in the Eurosystem's credit operations. By the end of September 2007, the pledging of ABS with the Eurosystem reached €215 billion, which represents 17% of all collateral.

This rapid increase in the mobilisation of ABS as collateral for the Eurosystem's credit operations is an important development in a number of ways.

First, it shows that the Eurosystem's collateral framework has been highly flexible and responsive to financial market innovation. The criteria for eligible collateral were purposely designed to be rather general, focusing on the objective qualities of the asset and the issuer, so as to ensure that the various risks to the central bank are sufficiently low, as well as to be neutral towards financial market developments. Consequently, after the inception of the securitisation market in the euro area in 1999, ABS that fulfilled the existing general criteria

became automatically eligible. Since some of those instruments displayed features that the Eurosystem did not feel comfortable with as a collateral taker, some specific eligibility criteria for structured finance products became applicable in 2006. In addition to the general eligibility criteria, such as being denominated in euro and having a minimum credit rating of single-A, ABS must now fulfil the following criteria: (i) only the most senior tranche (or sub-tranches) of an ABS structure are eligible;<sup>21</sup> (ii) ABS must be backed by assets that have been legally acquired by the SPV in a manner that the Eurosystem considers to be "true sale", (iii) ABS must not be backed by assets involving credit derivatives; (iv) the issuing SPV must be located in the European Economic Area (EEA).<sup>22</sup> These criteria were introduced primarily in order to exclude such instruments as synthetic CDOs and cash CDOs containing other synthetic tranches of ABS from eligibility. As the turmoil in credit markets has shown, these types of asset display significantly higher rating volatility and are very difficult to value, and were therefore not deemed suitable as collateral for central bank credit operations. The issuer residence of the SPV was restricted to the EEA to simplify the eligibility assessment procedures. Nevertheless, despite the introduction of these additional criteria, the volume of eligible ABS still amounted to €756 billion at the end of September 2007, which is estimated to constitute approximately 60% of the entire outstanding European securitisation market. Compared with

19 Findings for the US jumbo mortgages market suggest that securitisation could make the bank lending channel less effective, see Loutskina, E. and Strahan, P. E. (2006), "Securitization and the Declining Impact of Bank Finance on Loan Supply: Evidence from Mortgage Acceptance Rate", *NBER Working Paper Series*, No 11983. Altunbas, Y., Gambacorta, L. and Marqués, D. found similar results for the euro area, but the "sheltering effect" of securitisation on the supply of loans seems to depend on the economic cycle and bank risk, see (2007), "Securitisation and the Bank Lending Channel", *Bank of Italy Working Paper Series*, No 653.

20 See Bernanke, B., op. cit.

21 This was not a new criterion, as subordinated tranches of ABS had never been eligible after 1999; rather, in 2006, there was an explicit clarification of how the ECB defines subordination in the case of ABS.

22 The EEA includes the 27 Member States of the EU, as well as Iceland, Norway and Liechtenstein.

other central banks in the world, the Eurosystem accepts a high volume of “private label” ABS.<sup>23</sup>

Second, the ability of banks to mobilise their ABS portfolios in order to obtain central bank liquidity is likely to deepen the link between financial market developments and the granting of credit by banks, which has already been discussed in Section 4 of this article.

Third, the wide acceptance of high-quality collateral in the Eurosystem’s credit operations has probably helped indirectly to mitigate liquidity problems in a number of market segments.

## 6 SOME CONSIDERATIONS RELATED TO RECENT STRAINS IN CREDIT MARKETS

Securitisation has certainly played a beneficial role both in ensuring that credit markets in the euro area have become more “complete” and by allowing banks and investors to transfer and diversify their risks more easily. At the same time, the recent turbulence in credit markets,<sup>24</sup> initially triggered by the losses on US sub-prime mortgages, has clearly highlighted some weaknesses in the securitisation market, predominantly in the CDO segment, but also in the asset-backed commercial paper (ABCP) conduits and structured investment vehicles (SIVs), which had been used by banks to finance off-balance sheet such CDOs and other structured credit products.

These weaknesses include (i) the instruments’ high level of complexity, (ii) the difficulty in valuing such instruments, (iii) the tendency of some investors to over rely on ratings, and (iv) inadequate information on financial institutions’ exposures to structured instruments and off-balance-sheet entities, which makes it very difficult to track final exposures through the financial system. Recent events have revealed the resulting fragility of structured credit markets, illustrating that episodes of mispricing of credit risk may be followed by abrupt adjustments in

credit conditions owing to the opaqueness and stronger dependence on market perceptions.<sup>25</sup>

The weaknesses in the CDO segment, in particular the valuation difficulties, have contributed to the evaporation of liquidity in these instruments since the turmoil began. CDOs need to be valued using sophisticated theoretical models, and the prices that the models produce are usually highly sensitive to underlying correlation assumptions and methodologies. Since the rating agencies began to downgrade a large number of CDOs and RMBS with exposure to US sub-prime collateral, the market has lost confidence in the accuracy of the valuation models. The uncertainty about the valuations has been exacerbated by concerns that the SIVs, which have been among the largest investors in these assets, would be forced to start selling off their collateral to repay investors. Liquidity has also been adversely affected among fears that banks which sponsored ABCP conduits would be forced to once again include the assets backing the ABCP in their balance sheets.

The withdrawal of liquidity has also affected the traditional ABS segment, including the most simple securitisation structures, such as prime RMBS. Even before the turbulence began, the secondary market for traditional ABS was not particularly active, as the investor base typically had a “buy-and-hold” strategy and the marking-to-market of their positions was normally carried out using rough approximations.<sup>26</sup> However, since the problems in credit markets started to unfold, risk management considerations have been paramount and so the accurate valuation of securities has become very important, even to

23 In its main temporary open market operations, the Federal Reserve System accepts mortgage-backed securities (MBS) guaranteed by the government agencies as eligible collateral, but not “private label” MBS without such a guarantee.

24 For a description of the recent credit market turmoil, see ECB (2007), *Financial Stability Review*, December.

25 See Rajan R. (2006), “Has Financial Development Made the World Riskier?”, *NBER Working Paper Series*, No 11728, and the ECB’s Structural Issues Report on “Corporate finance in the euro area”, May 2007.

26 See the report of the Mortgage Funding Expert Group, European Commission, 22 December 2006.

### Comparison of spreads for triple-A rated covered bonds and prime RMBS in July and October 2007

(basis points)

	July	October
Spanish covered bonds (Cedulas, 5 years, to swaps <sup>1)</sup> )	+3	+23
German covered bonds (Pfandbriefe, 5 years, to swaps <sup>1)</sup> )	-5	+1
Spanish RMBS (all-in debt only cost to Libor <sup>2)</sup> )	+13	+80
UK RMBS (all-in debt only cost to Libor <sup>2)</sup> )	+11	+49
Netherlands RMBS (all-in debt only cost to Libor <sup>2)</sup> )	+14	+43

Sources: RBS Global Banking and Markets.

1) Difference in the yield on a five-year maturity bond versus the equivalent maturity interest rate swap.

2) Difference in bond yield versus the euro London Interbank Offered Rate (Libor).

“buy-and-hold” investors. The lack of liquidity in the traditional ABS segment has also resulted in investors suffering marked-to-market losses, which, although small compared with the losses on products backed by US sub-prime mortgages, has led to greater risk aversion and further withdrawal of liquidity.

As a result of the vicious circle of withdrawal of liquidity leading to marked-to-market losses and then a further withdrawal of liquidity, the issuance of traditional ABS in the euro area declined substantially in the third quarter of 2007, as compared with previous quarters. In parallel, RMBS and covered bond yields have increased significantly in most countries (see table). So far, however, the performance of the mortgage loans that back the RMBS and covered bonds has been relatively good, with losses and delinquencies remaining at historically low levels in most euro area countries.

policy, as it can alter both loan dynamics and the impact of interest rate changes on the supply of credit. The importance of accepting a broad range of assets as collateral for the smooth functioning of interbank money markets, as well as for the stability of financial markets, was most clearly illustrated during the recent episode of volatility in financial markets. The episode also showed that, under extreme conditions, securitisation could have an impact on credit conditions and financial stability.

## 7 CONCLUSIONS

The significant increase in securitisation in the euro area over the last decade has modified the functioning of credit markets and transformed the traditional role of banks as providers and monitors of credit. This article has described some of the basic concepts and instruments, as well as highlighted some of the special features of the securitisation market in the euro area. It has also shown that central banks are paying more and more attention to securitisation in the light of its impact on the conduct of monetary

## THE NEW EURO AREA YIELD CURVES

*Yield curves describe the relationship between the residual maturity of financial instruments and their associated interest rates. This article describes the various ways of presenting this relationship using spot rates, forward rates or par yields and the model used by the ECB for its daily estimates, calculated from euro area central government bonds. It also provides detailed information on the data used and their selection and on data checking procedures. As a result of the interplay between the chosen dataset, the applied quality checks and the model used for the yield curve estimation, the term structure is smooth and fits the market data very well. The ECB yield curves provide a consistent reference term structure to market participants on a daily basis.*

### I INTRODUCTION

The level of market interest rates typically depends, among many other factors, on the residual maturity of the underlying financial instrument. The relationship between interest rates and the residual maturity is referred to as the term structure of interest rates and is depicted by the yield curve. Yield curves – via the calculation of implied forward rates – contain information on market participants' expectations vis-à-vis future short-term interest rates. Since January 1999, the ECB has regularly reported in the Monthly Bulletin on developments in the implied forward overnight interest rate curve for the euro area. Since 10 July 2007, the ECB estimates and releases yield curves calculated from euro area central government bonds on a daily basis.<sup>1</sup> These yield curves, particularly the curve based on AAA-rated bonds, can be considered as risk-free and as a benchmark, since

these bonds have a negligible expected default rate. The ECB yield curves provide a consistent reference term structure to market participants on a daily basis. This article explains how yield curves can be represented and provides background information on the data and model selection for the daily computation of the ECB's euro area yield curves. Box 1 provides information on the additional usefulness of the yield curve for monetary policy purposes, while Box 2 compares the new government bond yield curves with the curves derived on the basis of interest rate swaps, which have been used by the ECB since January 1999.

<sup>1</sup> The daily releases, including charts and tables, are available at <http://www.ecb.europa.eu/stats/money/yc/html/index.en.html>.

#### Box 1

#### USEFULNESS OF THE YIELD CURVE FOR MONETARY POLICY PURPOSES

Bond prices, like other financial asset prices, aggregate market participants' views about the future and are therefore inherently forward-looking in nature. In this regard, the yield curve offers a particularly rich and useful set of information for monetary policy purposes. This box focuses on information about the expected path of future short-term rates and the outlook for economic activity and inflation.<sup>1</sup> For this purpose, this section also elaborates on possible decompositions of the yield curve into real and purely nominal components.

<sup>1</sup> A much broader review of the information content of interest rates can be found in the article entitled "The information content of interest rates and their derivatives for monetary policy" in the May 2000 issue of the Monthly Bulletin.



### **The yield curve and expectations on future developments in short-term interest rates**

The yield curve depicts interest rates with different remaining maturities. The relative level of short and long-term interest rates at a certain date (the slope of the yield curve) should depend on market participants' expectations on future short-term interest rates.<sup>2</sup> According to what is known as the pure expectations hypothesis of the yield curve, arbitrage operations establish a close relationship between the slope of the yield curve and interest rate expectations. Instead of buying a long-term bond, an investor could also consider rolling over investments in short-term bonds over a period of the same length as the remaining maturity of the long-term bond. Disregarding risk considerations, the total return on the investment in the long-term bond should be equal to the expected cumulative return on the revolving investment in short-term bonds. This also implies that the average expected future short-term interest rate over the investment horizon should equal the long-term interest rate. For example, an upward sloping yield curve, featuring higher long-term interest rates than short-term rates, would then imply an expected increase in short-term rates.

However, the pure expectations hypothesis is strongly rejected by the empirical facts. Instead, the expected average short-term interest rate over a certain horizon tends to deviate from a corresponding long-term interest rate because long-term rates also contain unobservable risk or term premia. For that reason, the yield curve is upward sloping on average. Hence, in order to extract market expectations about future short-term interest rates from the yield curve, one needs an estimate of these term premia. However, this task is complicated in particular by the fact that term premia seem to fluctuate over time in a way that is not yet sufficiently understood. Nevertheless, the expectations hypothesis still appears to be a reasonable starting point for gauging interest rate expectations from the yield curve. Notably for shorter horizons, term premia tend to be relatively low and stable.

In summary, the yield curve provides two key pieces of information on market sentiments: an indication of market expectations on interest rates and global investors' perception of risk. Both are essential for monetary policy decisions and financial stability analysis.

### **The slope of the yield curve as an indicator for the outlook on economic activity**

The slope of the yield curve has often appeared to be a useful indicator to predict future economic activity. A steepening of the curve often anticipated an acceleration of economic activity while a flattening, and in particular an inversion of the curve, often indicated an imminent slowdown.

The explanation for this stylised fact is that a large positive spread between long and short-term interest rates may indicate that the market anticipates an increase in short-term interest rates because of a more positive outlook for economic growth. If such expectations are not systematically wrong, the term spread tends to predict economic activity relatively well. At the same time, the above-mentioned term premia may sometimes blur the yield curve's usefulness as a leading business cycle indicator. In fact, recent analysis by ECB staff has shown that the strong decline in the slope of the euro area yield curve in the last few years has been mainly driven by a decline in the term premium and not by increasingly lower interest rate expectations. As a

<sup>2</sup> Forward rates based on the yield curve have been used by the ECB as short-term interest rate assumptions since June 2006. See Box 10 entitled "Technical assumptions" in the June 2006 issue of the Monthly Bulletin.

result, it is likely that the euro area yield curve flattened during these years without anticipating a decline in domestic economic activity.<sup>3</sup>

### Decomposing the yield curve into real and inflation components

In addition to growth expectations, the longer end of the yield curve may also mirror market participants' views about trend developments in inflation (the Fisher hypothesis). In order to disentangle real interest rates from inflation expectations, one needs either a measure of proper ex ante real interest rates or a measure of market participants' inflation expectations. In the euro area, the yields on inflation-linked government bonds provide information about ex ante real interest rates. Although only relatively few government bonds are still linked to the euro area HICP, an estimation of euro area real yield curves is nevertheless possible.<sup>4</sup>

Subtracting the yield curve for inflation-linked bonds from a comparable yield curve for conventional nominal government bonds provides an estimate of the term structure of so-called break-even inflation rates. Break-even inflation rates can only be interpreted as "pure" inflation expectations if one abstracts from the existence of an inflation risk premium. However, this assumption appears to be rejected by the empirical facts. Decomposing break-even inflation rates into pure inflation expectations and the inflation risk premium requires a model-based analysis of the interaction between nominal and real yield curves on the one hand and inflation dynamics and corresponding inflation expectations on the other. Using real and nominal yield curves as an input, a model-based decomposition of the euro area yield curve has suggested that movements in the real components and not movements in the nominal (inflationary) components have been the main driver of the changes in the euro area yield curve since the start of Monetary Union in 1999.<sup>5</sup>

Despite the fact that time-varying term premia complicate the interpretation of movements in the yield curve, the yield curve remains a crucial source of information for monetary policy. This is especially the case in the light of recent advancements in modelling and understanding movements in term premia.

3 See Box 3 entitled "The recent flattening of the euro area yield curve: what role was played by risk premia?" in the December 2006 issue of the Monthly Bulletin.

4 See Box 3 entitled "Estimation of constant-maturity index-linked bond yields and break-even inflation rates for the euro area" in the July 2006 issue of the Monthly Bulletin.

5 See Box 3 entitled "Long-term real and inflation risk premia in the euro area bond market" in the April 2007 issue of the Monthly Bulletin.

## 2 METHODS TO REPRESENT THE YIELD CURVE

A yield curve is a graphical representation of the so-called term structure of interest rates, i.e. the relationship between the residual maturities of a homogeneous set of financial instruments and their computed interest rates. This computation is made on the basis of market prices for the underlying financial instruments, for instance government bonds that are traded on stock exchanges. In normal circumstances,

yield curves are upward sloping; that is, longer-term securities give a higher rate of return than shorter-term securities, since the longer the lender has to wait for the amortisation of his loan, the higher the expected risk (or term) premium (see also Box 1).

The relationship between the redemption value and the current market price determines the (annual) rate of return – also called yield to maturity – of an investment in fixed income

instruments such as bonds. Calculating this interest rate is straightforward in the case of zero coupon bonds, which provide only one payment. However, in practice these bonds are not always available, especially for residual maturities exceeding 12 months. Indeed, most debt securities in the euro area pay regular interest and are thus coupon-bearing. When calculating the yield to maturity of coupon-bearing bonds, all payment flows (coupons and redemptions) are discounted to current values at the same rate – i.e. the yield to maturity. Unless a constant discount rate applies to all maturities, i.e. the term structure is flat, the (zero coupon) interest rates – also referred to as spot rates – and yields to maturity of coupon bonds will differ.

In order to derive the implicit average annual interest rate from the market price of a coupon-bearing bond, each future interest payment on this bond has to be discounted by the different current average interest rates related to the time at which the future payment occurs. This implies solving a set of equations with several unknowns. To facilitate the term structure estimation, it is useful to impose a functional form between interest rates and time to maturity. The term structure is then found via an iterative procedure. The ECB has chosen a functional form proposed by Nelson and Siegel and extended by Svensson.<sup>2</sup>

This model strikes a good balance between different criteria, including goodness of fit, smoothness and stability of the curve. Goodness of fit ensures that the derived yield curve indeed describes the observed data as well as possible. This can be measured by common error measures such as the mean absolute error (MAE). The Svensson model is generally also able to capture different movements in the underlying term structure (flexibility). This is particularly relevant for shorter maturities for which the yields react more to news or expectations of changes in policy interest rates. A crucial indicator for this criterion is the percentage of cases for which an estimated price for a bond lies within the bid-ask range for that bond. This is elaborated below.

The smoothness of a curve is important to ensure that expectations on future interest rates, as derived from the term structure, remain meaningful and do not become erratic. The yield curve should also be stable, even in the case of exceptionally mispriced instruments or missing data. Such rare events, which are made even less likely because of the data selection methods described below, should not have a noticeable impact on the curve as a whole. At the same time, changes in the pricing of bonds throughout the curve, for example as a result of news that changes expectations, should be appropriately reflected.

Chart 1 illustrates several points made above: while the population of bonds is rather large, some gaps remain, in particular for longer residual maturities where the number of issued debt securities is smaller. Comparing estimated yields for each maturity from the Svensson model with corresponding observations shows that the estimated values fit the observed yields rather well. This is attributable to the quality and the homogeneity of the dataset, which itself has almost the shape of a curve. It is worth mentioning that this fit is achieved despite the fact that the Svensson model is a parsimonious model, i.e. it is estimated with only a few parameters. This feature eases the communication of the yield curve, as it allows market participants to replicate the curve on the basis of a small set of parameters. The ECB releases these parameters every day, in addition to the set of interest rates that describes the term structure.

The estimated yield curve can be presented in various ways. The most basic is the presentation of spot (interest) rates explained above. From these spot rates, forward (interest) rates can be derived. These are interest rates for a future

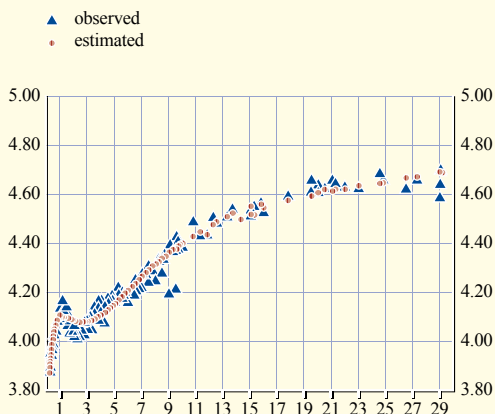
2 Svensson's functional form of the zero coupon rate  $z(TTM)$  is:

$$z(TTM) = \beta_0 + \beta_1 \left[ \frac{1 - e^{-\frac{-TTM}{\tau_1}}}{TTM\tau_1} \right] + \beta_2 \left[ \frac{1 - e^{-\frac{-TTM}{\tau_2}}}{TTM\tau_2} - e^{-\frac{-TTM}{\tau_1}} \right] + \beta_3 \left[ \frac{1 - e^{-\frac{-TTM}{\tau_3}}}{TTM\tau_3} - e^{-\frac{-TTM}{\tau_2}} \right]$$

where TTM = term to maturity and  $\beta_1, \tau_i$  are the parameters to be estimated. See Svensson, 1994, "Estimating and Interpreting Forward Interest Rates: Sweden 1992-1994", NBER Working Paper No 4871.

**Chart 1 Observed yields versus estimated yields using the Svensson model**

(percentages per annum)

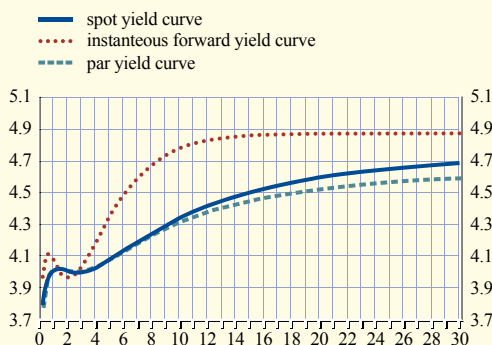


Sources: ECB calculations and EuroMTS; ratings provided by Fitch Ratings.

Note: Data for 14 December 2007. The horizontal axis refers to years to maturity. Due to the close fit of the estimated values to the observed values, the 160 observed points are not clearly visible.

**Chart 2 Estimated spot, instantaneous forward and par yield curves**

(percentages per annum)



Sources: ECB calculations and EuroMTS; ratings provided by Fitch Ratings.

Note: Data for 14 December 2007. The horizontal axis refers to years to maturity.

period and are implied in today's spot rates. For example, the forward interest rate for a one-year loan to be granted in two years' time is calculated from the difference between the three-year and the two-year spot rates.<sup>3</sup> When presenting forward rates derived using the Svensson model, the ECB displays the instantaneous forward curve, which reflects the interest rates applicable to the very near future (for example an overnight rate), for a bond issued at the chosen time. Since spot rates are calculated for maturities up to 30 years, the instantaneous forward rates are also available for a horizon of 30 years.

A third way to present the term structure of interest rates is to show the par yields. The spot rates are then transformed into the yields of coupon-bearing bonds that trade at par, i.e. their price is equivalent to their face values (redemption prices) and their yields are therefore equal to their coupon rates. This presentation is often favoured by market participants as they

typically trade coupon-bearing bonds. The values of the par yield curve are thus the closest to the yields of individual benchmark bonds that are quoted in the financial press. Chart 2 shows the different representations of the yield curve on a given day.

3 If the spot rates for two and three years are 4.0% and 4.5% respectively, the implied one-year forward rate, using a simple discrete formula, is 5.5% in two years. In this instance, it would make no difference to an investor if he were to place money at the three-year spot rate or invest initially at the two-year spot rate, followed by a deposit at the agreed one-year forward rate applicable in two years. In this simple example, the forward rate is given by  $\frac{R_2 T_2 - R_1 T_1}{T_2 - T_1}$ , where  $R_1$  is the spot rate at time  $T_1$ .

Here  $R_1 = 0.04$ ,  $R_2 = 0.045$ ,  $T_1 = 2$  years and  $T_2 = 3$  years. See, for example, J. Hull, *Introduction to Futures and Options Markets*, 1997, Prentice Hall.

Box 2

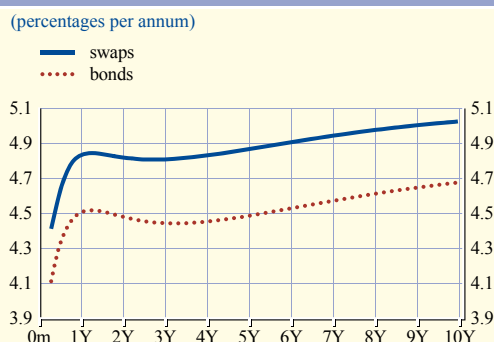
**COMPARING SWAP AND GOVERNMENT BOND YIELD CURVES**

Since January 1999 the ECB has regularly reported in the Monthly Bulletin on developments in the implied forward overnight interest rate curve for the euro area. This curve is estimated on the basis of interest rates observed on the fixed side of interest rate swap contracts for maturities of one to ten years and on money market rates for maturities of less than a year. Hence, such a forward curve should mirror market participants' expectations about the future path of short-term money market interest rates disregarding maturity and instrument-specific unobservable risk premia. The newly available government bond yield curve, as presented in this article, offers an alternative to compute an implied forward overnight interest rate curve for the euro area. Both curves provide complementary information and the choice between the two therefore depends on the analytical purpose at hand. Moreover, the swap curve is frequently used by the finance industry as the basis for their pricing of derivatives products, whereas for example long-term investors tend to prefer the government bond yield curve for their strategic asset allocation.

What are the main differences between a government bond curve and a swap curve? The government bond yield curve can be considered as a risk-free yield curve if the default risk of government bonds is assumed to be negligible. This assumption is especially reasonable for a curve based on AAA-rated bonds. In contrast, the swap curve is constructed from instruments which are more vulnerable to default of the counterparties involved. In addition to credit risk considerations, government bonds differ from swap contracts because they can be used as collateral. Both aspects contribute to the spread between swap rates and the government bond yields for corresponding maturities.

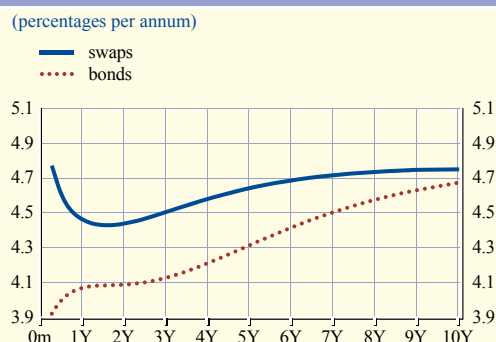
A comparison of movements in the government bond yield curve and the swap rate curve can provide valuable information, especially in periods of financial market stress. For example, forward curves derived from both interest rate swaps and government bonds contained roughly the same information at the end of June 2007 (see Chart A). At this time, both curves signalled market expectations of rising short-term interest rates over a horizon of about one year.

**Chart A Implied forward euro area overnight interest rates on 29 June 2007**



Source: ECB. Underlying data provided by Reuters and EuroMTS; ratings provided by Fitch Ratings.

**Chart B Implied forward euro area overnight interest rates on 31 August 2007**



Source: ECB. Underlying data provided by Reuters and EuroMTS; ratings provided by Fitch Ratings.

Additionally, the spread between both curves was rather constant across maturities. However, this picture changed dramatically during the money market tensions in August 2007 (see Chart B).

In fact, at the end of August, interest rates on the short end of the government forward curve had dropped substantially compared with end-June. This was probably attributable to a combination of a drop in the expected future short-term risk-free rate and flight-to-safety portfolio shifts of market participants. At the same time short-term forward rates derived from the swap curve increased significantly. This increase mainly reflected market participants' perception of a tight liquidity situation on the money market.

### 3 IMPLEMENTATION OF THE EURO AREA YIELD CURVE

#### 3.1 DATA SELECTION

On each trading day, the ECB receives and checks a set of files with prices and yields of the euro area government bonds that were traded/quoted during the previous trading day.<sup>4</sup> The initial basket of bonds undergoes some predefined quality checks and corrupted prices/yields, if any, are eliminated (for example, there should be no zero or negative prices/yields in the population). Afterwards, several selection criteria are applied to ensure that the yield curve is estimated on the basis of a sufficiently homogeneous population of bonds. Only euro area central government bonds issued in euro are considered. Special featured bonds and/or variable rate coupon bonds are removed.

Typically, yield curves are used to obtain risk-free benchmark rates. As a rule, the issuer with the lowest credit risk is the central government. In the euro area many central governments have AAA issuer rating. Currently, the ECB releases two different sets of euro area yield curves: (1) a reference curve based on AAA-rated government bonds; and (2) an additional curve based on central government bonds from all euro area countries regardless of their credit rating.

#### LIQUIDITY

Liquidity considerations play a major role in the selection process of the bonds. The more liquid a market is, the better the information content of prices in that market segment. Typical liquidity

measures are: total turnover<sup>5</sup>, average trade size and bid-ask spreads. Moreover, small bonds are often rather illiquid. In the production of the ECB's yield curves only bonds with a minimum trading volume of €1 million per day are used. In addition, only debt securities with a maximum bid-ask spread of 3 basis points are retained.

#### SYNCHRONICITY

Market expectations can be gauged from the yield curve if the underlying yields reflect a homogeneous information set. This requires that yield or price data are taken at about the same time. The dataset used for the estimation of the euro area yield curves comprises the close-of-market prices, i.e. the prices of the last executed transactions at 5 p.m. Central European Time (CET) for each bond. If there have been no transactions, quotes posted at that time are used.

#### MATURITY SPECTRUM

The euro area central government bond yield curves are estimated using debt securities with residual maturities above three months and below 30 years. Bonds with maturities below three months are less traded and thus typically have more volatile prices/yields than other bonds. On the other side of the spectrum, only a few bonds have a remaining maturity exceeding 30 years and often their price mainly reflects the exceptional demand of institutional investors that need assets with a long duration. In view of these possible distortions and their lack of

<sup>4</sup> Underlying data are provided by EuroMTS; ratings are provided by Fitch Ratings.

<sup>5</sup> Measured as total volume of daily trades.

liquidity, these very long-term bonds are not retained either.

### ADJUSTMENT FOR TAX AND MARKET CONVENTIONS

In the interests of comparability, yields before tax are used. The population of bonds used for the estimation of euro area yield curves comprises bonds traded in different markets with different trading calendars and market conventions. Some adjustments are therefore made to guarantee comparability, for example regarding the settlement and day-count conventions.

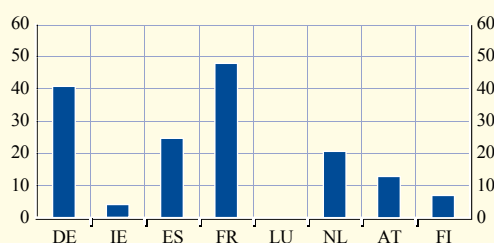
### OUTLIER DETECTION AND REMOVAL

Despite the above-mentioned selection criteria, the yields of a few bonds may still deviate significantly from the rest. To prevent noise in the yield curve estimation, these outliers are removed from the sample. Outliers are traced separately for a number of residual maturity brackets. Bonds with yields that deviate more than two standard deviations from the average are considered as outliers and are removed from the sample. Within each of these brackets, the average yield and standard deviation are calculated. This procedure is iterated in order to reduce the sensitivity of the analysis to potentially large outliers eliminated in the first round that could have distorted the average yield level and the standard deviation.

### 3.2 BOND POPULATION AND ESTIMATION RESULTS

Applying the above-mentioned selection criteria and checks results in a very stable population of

**Chart 3 Average number of AAA-rated central government bonds per country**



Sources: ECB and EuroMTS; ratings provided by Fitch Ratings. Note: Data refer to the period from 29 December 2006 to 14 December 2007.

bonds that is used for the actual estimation of the yield curves. It contains some 160 debt securities for the AAA curve and some 260 bonds for the curve with issues by all euro area central governments. The day-to-day fluctuations are negligible.

The sample is also very stable in terms of the country contributions. Chart 3 shows the average number of bonds per country for the AAA curve over the past 12 months.

The quality of the estimation becomes apparent when examining the difference between the observed yields and their theoretical counterparts derived from the computed yield curve (see also Chart 1).

The table below presents some statistics on the daily goodness of fit of the reference euro area yield curve. On average nearly 80% of the actual yields can be replicated with a margin of 3 basis points.

**Table Goodness-of-fit measures for the euro area AAA yield curve**

(basis points unless otherwise indicated)

	Hit rate: percentage of bonds for which the theoretical yield deviates from the observed yield by 3 basis points or less	Mean absolute error	Weighted mean absolute error	Root mean squared error
Average	78.4	2.08	1.27	2.93
Standard deviation	11.8	0.62	0.37	0.78

Source: ECB. Underlying data provided by EuroMTS; ratings provided by Fitch Ratings. Note: Results based on daily observations for the period from 29 December 2006 to 14 December 2007.

The average daily MAE for the period for which data are currently available was 2.08, which means that, on average, the absolute difference between the real observed yield of a bond and that estimated by the model is around 2 basis points. If weighted by the duration of each bond, the average absolute error for the period amounts to a mere 1.27 basis points. These results suggest a very good fit. Even during the recent financial market turmoil, when central government bond prices also became more volatile, the fit remained high, albeit not at the level witnessed in calmer periods (hit rate of up to 90%). In turn, this has led to an increase in the standard deviation of the above-mentioned quality indicators. Moreover, the large number of bonds included in the final population limits the impact of a slight mispricing of an individual bond.

As a result of the interplay between the chosen dataset, the applied quality checks and the model used for the yield curve estimation, the term structure is smooth and fits the market data very well.

#### 4 CONCLUSION

For monetary policy purposes and for analysing financial market developments, central banks and other market participants need reliable representations of the term structure of interest rates. The new euro area government bond yield curves released on a daily basis are a useful complement to the already existing information. In particular, the term structures based on AAA-rated instruments are considered free of credit risk and therefore provide a floor for the borrowing costs of the economy. As a result of a careful data selection procedure and various quality checks, the new euro area government bond yield curve is smooth and stable, and fits the market data and its purpose very well.





# EURO AREA STATISTICS





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<sup>1</sup> For further information, please contact us at: [statistics@ecb.europa.eu](mailto:statistics@ecb.europa.eu). See the ECB Statistical Data Warehouse on the Statistics section of the ECB website (<http://sdw.ecb.europa.eu>) for longer runs and more detailed data.

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#### ENLARGEMENT OF THE EURO AREA ON 1 JANUARY 2008 TO INCLUDE CYPRUS AND MALTA

Unless otherwise indicated, all data series covering observations for 2008 relate to the Euro 15 (the euro area including Cyprus and Malta) for the whole time series. For interest rates, monetary statistics and the HICP (and, for consistency reasons, the components and counterparts of M3 and the components of the HICP), 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 indicated in the tables by means of a footnote. In such cases, where underlying data are available, absolute and percentage changes for 2001, 2007 and 2008, calculated from a base in 2000, 2006 and 2007, use a series which takes into account the impact of the entry of Greece, Slovenia and Cyprus and Malta, respectively, into the euro area. Historical data referring to the euro area before the entry of Cyprus and Malta are available on the ECB web site at <http://www.ecb.europa.eu/stats/services/downloads/html/index.en.html>

#### 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-MFI 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
2006	8.6	8.7	8.4	-	10.9	15.8	3.08	3.86
2007	6.4	9.9	11.1	-	10.8	.	4.28	4.33
2007 Q1	7.0	9.1	10.2	-	10.6	16.5	3.82	4.08
Q2	6.2	9.2	10.6	-	10.5	18.7	4.07	4.42
Q3	6.6	10.3	11.5	-	11.0	20.3	4.49	4.48
Q4	5.9	10.8	12.0	-	11.1	.	4.72	4.34
2007 Aug.	6.7	10.5	11.5	11.5	11.2	20.6	4.54	4.43
Sep.	6.1	10.2	11.3	11.7	11.0	19.3	4.74	4.37
Oct.	6.4	11.2	12.3	12.0	11.3	19.5	4.69	4.40
Nov.	6.3	11.0	12.3	12.1	11.1	18.8	4.64	4.25
Dec.	4.0	10.1	11.5	.	11.1	.	4.85	4.38
2008 Jan.	.	.	.	.	.	.	4.49	4.23

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

	HICP <sup>1)</sup>	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
2006	2.2	5.1	2.6	2.8	4.0	83.2	1.5	8.2
2007	2.1	2.8	.	.	.	84.2	.	7.4
2007 Q2	1.9	2.4	2.4	2.5	2.8	84.3	1.8	7.5
Q3	1.9	2.1	2.5	2.7	4.0	84.0	1.9	7.3
Q4	2.9	3.9	.	.	.	84.0	.	7.2
2007 Aug.	1.7	1.8	-	-	4.7	-	-	7.4
Sep.	2.1	2.7	-	-	3.5	-	-	7.3
Oct.	2.6	3.3	-	-	4.4	84.0	-	7.3
Nov.	3.1	4.2	-	-	3.0	-	-	7.2
Dec.	3.1	4.3	-	-	.	-	-	7.2
2008 Jan.	3.2	.	-	-	.	83.9	-	.

### 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-22 <sup>3)</sup> (index, 1999 Q1 = 100)		USD/EUR exchange rate
	Current and capital accounts	Goods	Direct investment	Portfolio investment		Nominal	Real (CPI)	
2006	-3.7	23.0	-136.4	276.4	325.8	103.6	104.5	1.2556
2007	.	.	.	.	347.4	107.7	108.3	1.3705
2007 Q1	4.8	8.6	-14.6	129.8	331.5	105.5	106.3	1.3106
Q2	-2.4	20.1	-66.8	72.4	325.3	107.1	107.7	1.3481
Q3	11.0	18.5	-37.8	76.2	340.5	107.6	108.2	1.3738
Q4	.	.	.	.	347.4	110.5	111.2	1.4486
2007 Aug.	0.5	4.0	0.3	1.9	330.4	107.1	107.6	1.3622
Sep.	4.9	6.5	-37.4	48.9	340.5	108.2	108.8	1.3896
Oct.	5.1	8.7	21.3	-56.1	346.6	109.4	110.1	1.4227
Nov.	2.2	5.1	11.0	10.2	339.2	111.0	111.7	1.4684
Dec.	.	.	.	.	347.4	111.2	111.7	1.4570
2008 Jan.	.	.	.	.	.	112.0	112.4	1.4718

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.

- 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.
- 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.
- 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

	2008 11 January	2008 18 January	2008 25 January	2008 1 February
<b>Gold and gold receivables</b>	201,704	201,663	201,612	201,452
<b>Claims on non-euro area residents in foreign currency</b>	140,648	140,963	140,031	143,046
<b>Claims on euro area residents in foreign currency</b>	38,713	36,942	36,356	34,525
<b>Claims on non-euro area residents in euro</b>	14,531	14,658	16,194	14,501
<b>Lending to euro area credit institutions in euro</b>	420,172	459,024	444,491	435,999
Main refinancing operations	151,500	190,500	175,500	167,501
Longer-term refinancing operations	268,487	268,487	268,487	268,491
Fine-tuning reverse operations	0	0	0	0
Structural reverse operations	0	0	0	0
Marginal lending facility	184	1	492	4
Credits related to margin calls	1	36	12	3
<b>Other claims on euro area credit institutions in euro</b>	26,987	30,294	28,572	30,695
<b>Securities of euro area residents in euro</b>	97,302	96,695	98,057	99,340
<b>General government debt in euro</b>	38,705	38,705	38,705	38,634
<b>Other assets</b>	332,300	331,835	333,524	332,726
<b>Total assets</b>	1,311,062	1,350,779	1,337,542	1,330,918

### 2. Liabilities

	2008 11 January	2008 18 January	2008 25 January	2008 1 February
<b>Banknotes in circulation</b>	659,395	653,245	649,514	652,624
<b>Liabilities to euro area credit institutions in euro</b>	181,285	231,056	193,199	199,240
Current accounts (covering the minimum reserve system)	180,614	230,825	192,680	198,471
Deposit facility	665	212	501	510
Fixed-term deposits	0	0	0	0
Fine-tuning reverse operations	0	0	0	0
Deposits related to margin calls	6	19	18	259
<b>Other liabilities to euro area credit institutions in euro</b>	345	334	314	256
<b>Debt certificates issued</b>	0	0	0	0
<b>Liabilities to other euro area residents in euro</b>	55,043	47,068	71,972	55,057
<b>Liabilities to non-euro area residents in euro</b>	45,604	48,621	51,041	48,797
<b>Liabilities to euro area residents in foreign currency</b>	1,105	1,369	1,180	1,301
<b>Liabilities to non-euro area residents in foreign currency</b>	18,795	18,458	17,978	19,267
<b>Counterpart of special drawing rights allocated by the IMF</b>	5,311	5,311	5,311	5,311
<b>Other liabilities</b>	126,791	127,944	129,663	131,749
<b>Revaluation accounts</b>	147,665	147,665	147,665	147,665
<b>Capital and reserves</b>	69,723	69,708	69,705	69,651
<b>Total liabilities</b>	1,311,062	1,350,779	1,337,542	1,330,918

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	
			Fixed rate tenders	Variable rate tenders			
	Level	Change	Fixed rate	Minimum bid rate	Change	Level	Change
			Level	Level			
	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
2005 6 Dec.	1.25	0.25	-	2.25	0.25	3.25	0.25
2006 8 Mar.	1.50	0.25	-	2.50	0.25	3.50	0.25
15 June	1.75	0.25	-	2.75	0.25	3.75	0.25
9 Aug.	2.00	0.25	-	3.00	0.25	4.00	0.25
11 Oct.	2.25	0.25	-	3.25	0.25	4.25	0.25
13 Dec.	2.50	0.25	-	3.50	0.25	4.50	0.25
2007 14 Mar.	2.75	0.25	-	3.75	0.25	4.75	0.25
13 June	3.00	0.25	-	4.00	0.25	5.00	0.25

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	
Main refinancing operations							
2007 10 Oct.	322,684	342	218,000	4.00	4.12	4.16	7
17	283,439	349	171,000	4.00	4.11	4.14	7
24	304,089	348	182,000	4.00	4.11	4.14	7
31	287,241	308	170,000	4.00	4.14	4.16	7
7 Nov.	275,580	300	160,000	4.00	4.14	4.15	7
14	280,458	298	182,000	4.00	4.15	4.16	7
21	277,051	299	169,000	4.00	4.17	4.19	7
28	257,966	283	178,000	4.00	4.18	4.20	7
5 Dec.	253,519	273	163,000	4.00	4.18	4.20	7
12	280,565	284	218,500	4.00	4.18	4.21	7
19	377,148	390	348,607	4.00	4.21	4.21	16
28	47,652	118	20,000	4.00	4.20	4.27	7
2008 4 Jan.	275,291	269	128,500	4.00	4.18	4.21	5
9	283,354	301	151,500	4.00	4.20	4.22	7
16	242,078	281	190,500	4.00	4.16	4.21	7
23	234,633	276	175,500	4.00	4.16	4.19	7
30	253,268	264	167,500	4.00	4.18	4.20	7
6 Feb.	223,805	226	161,500	4.00	4.17	4.20	7
Longer-term refinancing operations							
2007 31 May	72,697	147	50,000	-	4.06	4.07	91
28 June	66,319	139	50,000	-	4.11	4.12	91
26 July	78,703	144	50,000	-	4.20	4.20	98
24 Aug.	125,787	146	40,000	-	4.49	4.61	91
30	119,755	168	50,000	-	4.56	4.62	91
13 Sep.	139,021	140	75,000	-	4.35	4.52	90
27	85,353	159	50,000	-	4.50	4.63	84
1 Nov.	87,587	157	50,000	-	4.45	4.53	91
23	147,977	130	60,000	-	4.55	4.61	90
29	132,386	175	50,000	-	4.65	4.70	91
12 Dec.	105,126	122	60,000	-	4.81	4.88	92
20	48,476	97	48,476	-	4.00	4.56	98
2008 31 Jan.	98,183	151	50,000	-	4.21	4.33	92

#### 2. Other tender operations

Date of settlement	Type of operation	Bids (amount)	Number of participants	Allotment (amount)	Fixed rate tenders	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	
2007 11 Sep.	Collection of fixed-term deposits	66,388	37	60,000	4.00	-	-	-	1
9 Oct.	Collection of fixed-term deposits	40,235	18	24,500	4.00	-	-	-	1
12	Collection of fixed-term deposits	40,080	22	30,000	4.00	-	-	-	5
13 Nov.	Collection of fixed-term deposits	27,750	10	27,750	4.00	-	-	-	1
7 Dec.	Collection of fixed-term deposits	37,615	30	8,000	4.00	-	-	-	5
11	Collection of fixed-term deposits	23,550	20	21,000	4.00	-	-	-	1
17	Collection of fixed-term deposits	36,610	25	36,610	4.00	-	-	-	2
19	Collection of fixed-term deposits	133,610	52	133,610	4.00	-	-	-	1
20	Collection of fixed-term deposits	165,815	58	150,000	4.00	-	-	-	1
21	Collection of fixed-term deposits	141,565	55	141,565	4.00	-	-	-	6
27	Collection of fixed-term deposits	145,640	49	145,640	4.00	-	-	-	1
28	Collection of fixed-term deposits	160,450	52	150,000	4.00	-	-	-	3
2008 2 Jan.	Collection of fixed-term deposits	168,640	54	168,640	4.00	-	-	-	1
3	Collection of fixed-term deposits	212,620	69	200,000	4.00	-	-	-	1
15	Collection of fixed-term deposits	45,712	28	20,000	4.00	-	-	-	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 2 in Section 1.3.

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.

**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
2005	14,040.7	7,409.5	499.2	1,753.5	1,174.9	3,203.6
2006	15,648.3	8,411.7	601.9	1,968.4	1,180.3	3,486.1
2007 Q1	16,253.0	8,634.2	657.4	2,009.8	1,358.8	3,592.8
Q2	16,753.3	8,940.5	677.6	2,066.6	1,383.5	3,685.1
2007 July	16,822.3	8,955.9	694.0	2,089.3	1,392.1	3,690.9
Aug.	16,890.0	8,994.1	713.9	2,086.8	1,407.8	3,687.5
Sep.	16,968.2	9,073.2	745.5	2,075.7	1,424.9	3,649.0
Oct. <sup>2)</sup>	17,242.4	9,255.8	799.4	2,098.1	1,425.0	3,664.2
Nov. <sup>2)</sup>	17,338.9	9,302.0	804.7	2,096.9	1,489.0	3,646.4

**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
2006	172.5	173.2	0.7	0.0	3.30
2007	195.9	196.8	1.0	0.0	4.17
2007 Q1	179.8	180.6	0.8	0.0	3.55
Q2	185.3	186.2	0.9	0.0	3.80
Q3	191.9	192.7	0.9	0.0	4.09
2007 9 Oct.	192.5	193.4	0.9	0.0	4.18
13 Nov.	193.7	194.4	0.7	0.0	4.12
11 Dec.	195.9	196.8	1.0	0.0	4.17
2008 15 Jan. <sup>3)</sup>	199.8	200.9	1.1	0.0	4.20
12 Feb.	201.6	.	.	.	.

**3. Liquidity**

Maintenance period ending on:	Liquidity-providing factors						Liquidity-absorbing factors				Credit institutions' current accounts	Base money
	Monetary policy operations of the Eurosystem						Banknotes in circulation	Central government deposits with the Eurosystem	Other factors (net)			
	Eurosystem's net assets in gold and foreign currency	Main refinancing operations	Longer-term refinancing operations	Marginal lending facility	Other liquidity-providing operations	Deposit facility				Other liquidity-absorbing operations <sup>4)</sup>		
1	2	3	4	5	6	7	8	9	10	11	12	
2006	327.0	313.1	120.0	0.1	0.1	0.1	0.0	598.6	54.9	-66.4	173.2	771.8
2007	327.5	173.0	278.6	0.3	0.0	0.4	2.2	644.6	61.9	-126.6	196.8	841.9
2007 Q1	321.6	288.7	134.6	0.0	0.0	0.5	0.8	606.2	47.1	-90.0	180.6	787.2
Q2	326.4	284.9	150.0	0.3	0.0	0.2	0.2	625.2	49.1	-99.4	186.2	811.7
Q3	317.3	268.7	171.7	0.2	10.7	0.4	1.7	639.2	52.3	-117.8	192.7	832.4
2007 9 Oct.	321.9	194.3	262.3	0.3	0.0	1.6	0.9	637.3	63.7	-118.0	193.4	832.3
13 Nov.	327.6	180.2	265.0	0.1	0.0	0.6	5.1	640.1	55.9	-123.3	194.4	835.1
11 Dec.	327.5	173.0	278.6	0.3	0.0	0.4	2.2	644.6	61.9	-126.6	196.8	841.9
2008 15 Jan.	343.8	255.7	268.8	0.3	0.0	1.1	68.4	668.2	46.4	-116.4	200.9	870.2

Source: ECB.

- 1) End of period.
- 2) Includes the reserve bases of credit institutions in Malta and Cyprus. On a transitional basis, credit institutions located in the euro area may have decided to deduct from their own reserve bases any liabilities owed to credit institutions located in Malta or Cyprus. Starting from the reserve base as at end-January 2008, the standard treatment applies (see Regulation (EC) No 1348/2007 of the ECB of 9 November 2007 concerning transitional provisions for the application of minimum reserves by the ECB following the introduction of the euro in Cyprus and Malta (ECB/2007/11)).
- 3) Owing to the adoption of the euro by Cyprus and Malta on 1 January 2008, the reserve requirement is an average - weighted by the number of calendar days - of the reserve requirements for the then 13 countries of the euro area for the period 12-31 December 2007 and the reserve requirements for the 15 countries now in the euro area for the period 1-15 January 2008.
- 4) Starting from 1 January 2008, includes monetary policy operations in the form of collection of fixed-term deposits which were conducted by the Central Bank of Malta and the Central Bank of Cyprus before 1 January 2008 and were still outstanding after this date.



# MONEY, BANKING AND INVESTMENT FUNDS

## 2.1 Aggregated balance sheet of euro area MFIs <sup>1)</sup>

(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>2)</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
<b>Eurosystem</b>														
2005	1,404.9	635.5	20.7	0.6	614.2	185.7	165.6	2.1	18.1	-	14.8	337.0	14.7	217.2
2006	1,558.2	695.7	19.7	0.6	675.3	217.0	187.5	2.5	27.0	-	17.2	351.4	14.7	262.4
2007 Q1	1,576.7	693.3	19.7	0.6	673.0	238.0	205.5	2.1	30.4	-	17.4	359.6	14.8	253.6
Q2	1,651.5	751.5	17.7	0.6	733.1	249.8	213.2	2.2	34.3	-	17.8	354.1	15.4	263.0
2007 July	1,669.9	762.7	17.7	0.6	744.3	254.5	216.8	2.2	35.5	-	17.5	357.5	15.7	262.0
Aug.	1,649.6	730.5	17.7	0.6	712.1	256.1	217.4	2.1	36.6	-	17.6	360.6	15.6	269.2
Sep.	1,707.3	753.5	17.8	0.6	735.1	259.5	219.3	2.2	38.0	-	17.7	368.8	15.6	292.3
Oct.	1,781.8	800.2	17.8	0.6	781.8	262.3	220.4	2.2	39.8	-	17.9	378.1	15.6	307.6
Nov.	1,805.1	814.3	17.8	0.6	795.9	266.9	223.3	2.1	41.6	-	17.6	367.9	15.6	322.8
Dec. <sup>3)</sup>	2,048.0	1,029.4	17.8	0.6	1,010.9	268.6	224.9	2.0	41.7	-	17.4	373.7	15.3	343.6
<b>MFIs excluding the Eurosystem</b>														
2005	23,631.5	13,681.7	826.9	8,285.1	4,569.7	3,498.6	1,429.4	551.5	1,517.7	83.1	1,008.7	3,652.8	165.7	1,540.9
2006	25,973.9	14,904.2	810.5	9,160.3	4,933.4	3,555.2	1,276.5	645.8	1,632.8	83.5	1,194.5	4,330.1	172.6	1,733.9
2007 Q1	27,107.8	15,340.0	801.4	9,441.0	5,097.6	3,661.0	1,282.2	685.8	1,693.0	92.4	1,244.5	4,684.7	195.1	1,890.1
Q2	28,066.3	15,775.4	798.2	9,712.6	5,264.6	3,759.0	1,281.7	761.2	1,716.1	96.6	1,273.9	4,888.9	201.7	2,070.8
2007 July	28,140.3	15,881.4	799.7	9,809.8	5,271.9	3,774.4	1,257.7	777.0	1,739.7	97.1	1,260.1	4,928.0	198.2	2,001.2
Aug.	28,161.5	15,964.3	793.1	9,848.9	5,322.3	3,741.8	1,228.5	780.9	1,732.4	95.5	1,248.4	4,917.7	198.4	1,995.4
Sep.	28,476.1	16,172.0	793.0	9,948.6	5,430.4	3,748.4	1,214.9	805.1	1,728.4	95.9	1,257.2	4,878.6	203.1	2,120.9
Oct.	29,163.4	16,554.5	944.0	10,027.3	5,583.1	3,833.7	1,214.0	878.3	1,741.4	98.6	1,307.8	4,987.5	216.6	2,164.7
Nov.	29,443.2	16,723.7	944.9	10,110.1	5,668.7	3,851.1	1,212.2	892.8	1,746.1	99.2	1,296.4	5,023.7	215.4	2,233.6
Dec. <sup>3)</sup>	29,385.8	16,876.9	956.3	10,145.7	5,774.9	3,882.1	1,194.3	950.6	1,737.3	93.7	1,310.7	4,868.9	207.5	2,146.0

### 2. Liabilities

	Total	Currency in circulation	Deposits of euro area residents			Money market fund shares/ units <sup>3)</sup>	Debt securities issued <sup>4)</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
<b>Eurosystem</b>											
2005	1,404.9	582.7	385.4	24.4	14.5	346.5	-	0.1	202.9	27.6	206.2
2006	1,558.2	647.0	431.6	33.7	15.9	382.0	-	0.1	208.6	35.3	235.6
2007 Q1	1,576.7	632.7	455.6	44.8	17.5	393.3	-	0.3	216.3	39.5	232.4
Q2	1,651.5	652.6	495.2	51.2	23.3	420.7	-	0.1	207.0	51.0	245.6
2007 July	1,669.9	660.0	511.4	53.3	21.8	436.4	-	0.1	209.5	43.9	244.8
Aug.	1,649.6	657.0	482.8	52.9	17.5	412.5	-	0.1	212.3	46.9	250.5
Sep.	1,707.3	657.2	510.7	51.7	19.1	439.9	-	0.1	222.6	48.3	268.4
Oct.	1,781.8	661.9	561.6	54.9	22.9	483.8	-	0.1	228.7	51.8	277.7
Nov.	1,805.1	665.5	570.0	48.2	24.1	497.7	-	0.1	226.0	53.9	289.6
Dec. <sup>3)</sup>	2,048.0	697.0	714.7	23.9	19.1	671.8	-	0.1	238.3	66.0	331.9
<b>MFIs excluding the Eurosystem</b>											
2005	23,631.5	-	12,212.2	149.2	7,211.9	4,851.2	698.9	3,858.3	1,310.6	3,518.0	2,033.5
2006	25,973.9	-	13,257.2	124.2	7,890.6	5,242.4	697.7	4,247.6	1,449.7	3,991.1	2,330.5
2007 Q1	27,107.8	-	13,595.8	139.0	8,060.9	5,395.9	758.7	4,424.8	1,529.7	4,255.7	2,543.1
Q2	28,066.3	-	14,021.0	169.8	8,278.3	5,572.9	795.6	4,523.4	1,551.2	4,451.8	2,723.2
2007 July	28,140.3	-	14,038.8	126.8	8,324.5	5,587.6	809.7	4,549.1	1,568.4	4,498.5	2,675.9
Aug.	28,161.5	-	14,042.7	120.8	8,319.3	5,602.6	801.7	4,576.7	1,567.7	4,539.0	2,633.8
Sep.	28,476.1	-	14,250.3	144.3	8,408.9	5,697.1	776.7	4,577.4	1,589.5	4,527.3	2,755.0
Oct.	29,163.4	-	14,624.8	129.4	8,631.1	5,864.2	782.6	4,649.3	1,643.3	4,629.7	2,833.6
Nov.	29,443.2	-	14,803.9	151.6	8,692.9	5,959.4	795.9	4,654.5	1,641.0	4,636.5	2,911.3
Dec. <sup>3)</sup>	29,385.8	-	15,077.5	128.2	8,872.2	6,077.0	754.7	4,639.3	1,678.8	4,531.2	2,704.4

Source: ECB.

- 1) Data refer to the changing composition of the euro area. For further information, see the General notes.
- 2) Amounts issued by euro area residents. Amounts issued by non-euro area residents are included in external assets.
- 3) Amounts held by euro area residents.
- 4) 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 <sup>1)</sup>**

(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	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											
2005	17,870.7	9,133.3	847.5	8,285.7	2,148.5	1,595.0	553.6	710.5	3,989.7	180.4	1,708.2
2006	19,743.5	9,991.1	830.2	9,161.0	2,112.3	1,464.0	648.3	829.9	4,681.5	187.3	1,941.4
2007 Q1	20,649.7	10,262.7	821.1	9,441.6	2,175.6	1,487.7	687.9	857.6	5,044.2	209.9	2,099.5
Q2	21,414.1	10,529.2	816.0	9,713.2	2,258.4	1,494.9	763.4	880.3	5,243.0	217.1	2,286.1
2007 July	21,462.9	10,627.9	817.4	9,810.4	2,253.7	1,474.6	779.2	865.9	5,285.5	213.8	2,216.1
Aug.	21,454.0	10,660.4	810.9	9,849.5	2,229.0	1,446.0	783.0	854.2	5,278.3	214.0	2,218.2
Sep.	21,691.7	10,760.0	810.8	9,949.2	2,241.4	1,434.2	807.3	857.8	5,247.3	218.7	2,366.4
Oct.	22,241.1	10,989.8	961.8	10,028.0	2,314.8	1,434.4	880.4	914.8	5,365.5	232.2	2,424.0
Nov.	22,441.2	11,073.4	962.7	10,110.7	2,330.3	1,435.5	894.8	905.5	5,391.6	231.0	2,509.5
Dec. <sup>(p)</sup>	22,293.9	11,120.4	974.1	10,146.4	2,371.8	1,419.2	952.6	905.1	5,242.6	222.9	2,431.1
Transactions											
2005	1,608.0	708.9	12.8	696.0	156.2	76.2	80.0	53.2	448.0	1.4	240.4
2006	1,997.9	877.3	-14.4	891.6	10.6	-96.8	107.4	98.5	801.7	6.4	203.5
2007 Q1	884.6	254.0	-8.2	262.2	63.2	19.0	44.2	20.8	394.4	0.5	151.8
Q2	788.1	282.0	-5.4	287.4	84.4	11.0	73.4	16.7	222.3	3.2	179.4
2007 July	77.7	101.6	1.4	100.3	-4.0	-20.6	16.5	-10.6	64.2	-3.3	-70.2
Aug.	-11.9	32.9	-6.6	39.5	-25.4	-29.7	4.3	-10.5	-10.9	0.1	1.9
Sep.	312.8	111.8	0.1	111.7	14.7	-10.9	25.6	2.9	31.2	4.7	147.5
Oct.	368.3	77.4	-3.2	80.6	46.1	6.3	39.7	47.7	149.9	4.8	42.5
Nov.	261.1	88.1	0.9	87.2	14.0	-1.2	15.2	-5.4	80.7	-1.3	84.8
Dec. <sup>(p)</sup>	-138.1	55.8	11.4	44.4	44.4	-13.6	58.0	-0.4	-145.3	-8.0	-84.7

**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	Remaining liabilities	Excess of inter-MFI liabilities
Outstanding amounts										
2005	17,870.7	532.8	173.6	7,226.4	615.8	2,322.6	1,200.6	3,545.6	2,239.7	13.7
2006	19,743.5	592.2	158.0	7,906.5	614.1	2,587.9	1,276.5	4,026.5	2,566.1	15.7
2007 Q1	20,649.7	588.4	183.8	8,078.4	666.3	2,701.6	1,341.8	4,295.3	2,775.4	18.7
Q2	21,414.1	604.9	221.0	8,301.6	699.1	2,773.1	1,346.8	4,502.8	2,968.8	-4.0
2007 July	21,462.9	612.9	180.1	8,346.2	712.6	2,774.1	1,366.2	4,542.4	2,920.8	7.7
Aug.	21,454.0	610.5	173.7	8,336.8	706.1	2,807.8	1,368.3	4,585.9	2,884.2	-19.3
Sep.	21,691.7	610.4	196.0	8,428.0	680.7	2,811.0	1,395.1	4,575.5	3,023.4	-28.6
Oct.	22,241.1	613.5	184.3	8,654.0	684.1	2,868.3	1,461.1	4,681.5	3,111.3	-16.9
Nov.	22,441.2	618.6	199.8	8,717.0	696.7	2,866.9	1,458.5	4,690.4	3,200.9	-7.6
Dec. <sup>(p)</sup>	22,293.9	638.5	152.1	8,891.3	661.0	2,860.5	1,494.1	4,597.2	3,036.3	-37.1
Transactions										
2005	1,608.0	64.4	10.9	495.7	-3.0	213.5	95.5	448.0	333.9	-50.8
2006	1,997.9	59.4	-15.2	683.7	27.0	285.6	57.2	601.6	253.2	45.4
2007 Q1	884.6	-4.2	24.8	157.1	54.5	117.5	38.9	292.5	196.8	6.9
Q2	788.1	16.5	37.2	225.1	30.5	70.9	2.4	230.5	183.4	-8.4
2007 July	77.7	8.0	-41.5	47.1	14.4	4.6	19.7	58.4	-48.8	15.8
Aug.	-11.9	-2.3	-6.3	-10.4	-6.9	32.6	3.8	40.2	-34.8	-27.7
Sep.	312.8	-0.1	22.3	103.8	-26.2	21.5	21.9	55.4	113.5	0.8
Oct.	368.3	3.1	-16.5	76.3	13.7	15.2	41.7	136.1	76.8	22.0
Nov.	261.1	5.1	15.5	67.6	11.6	6.7	4.7	48.6	86.2	15.0
Dec. <sup>(p)</sup>	-138.1	19.9	-47.7	174.9	-35.9	-4.3	38.1	-84.9	-169.5	-28.8

Source: ECB.

1) Data refer to the changing composition of the euro area. For further information, see the General notes.

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 <sup>1)</sup>

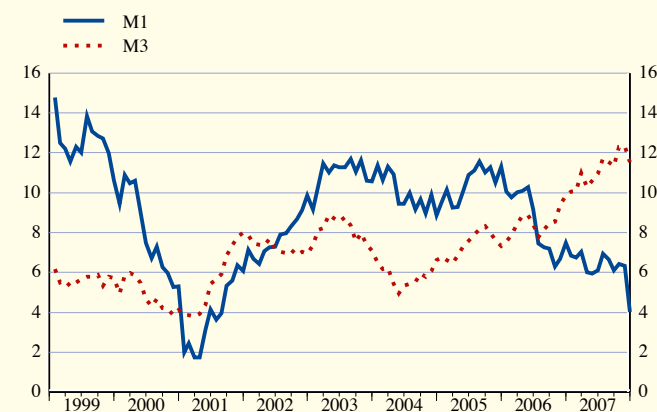
(EUR billions and annual growth rates; seasonally adjusted; outstanding amounts and growth rates at end of period, transactions during period)

### 1. Monetary aggregates <sup>2)</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>3)</sup>
	1	2	3	4	5	6	7	8	Loans		11
									9	10	
Outstanding amounts											
2005	3,419.4	2,653.2	6,072.6	999.4	7,072.0	-	5,000.2	2,472.5	9,561.0	8,287.3	425.8
2006	3,676.6	2,953.1	6,629.7	1,102.1	7,731.8	-	5,428.7	2,321.2	10,658.5	9,167.4	636.8
2007 Q1	3,746.8	3,064.9	6,811.8	1,190.3	8,002.0	-	5,604.1	2,301.4	10,978.1	9,444.7	755.9
Q2	3,785.4	3,170.7	6,956.1	1,228.3	8,184.4	-	5,728.2	2,297.9	11,324.9	9,684.5	728.3
2007 July	3,809.3	3,228.3	7,037.7	1,235.6	8,273.3	-	5,765.5	2,286.4	11,436.7	9,782.9	728.5
Aug.	3,823.5	3,273.7	7,097.2	1,243.3	8,340.5	-	5,795.9	2,265.6	11,553.5	9,888.8	696.4
Sep.	3,821.2	3,316.7	7,138.0	1,260.0	8,398.0	-	5,799.1	2,253.5	11,648.0	9,958.2	666.9
Oct.	3,836.2	3,421.1	7,257.3	1,273.2	8,530.4	-	5,916.4	2,400.9	11,856.7	10,045.4	668.1
Nov.	3,859.7	3,447.7	7,307.4	1,312.9	8,620.3	-	5,911.2	2,389.1	11,918.3	10,106.8	695.8
Dec. <sup>(p)</sup>	3,826.5	3,505.3	7,331.8	1,310.4	8,642.2	-	5,976.2	2,417.8	12,027.9	10,155.9	626.4
Transactions											
2005	337.0	138.9	475.9	8.5	484.4	-	400.8	94.5	835.5	700.4	0.1
2006	255.5	309.9	565.4	130.2	695.6	-	427.0	-114.1	1,105.0	896.5	200.2
2007 Q1	63.6	105.4	169.0	91.1	260.1	-	150.0	-23.7	298.7	258.8	127.0
Q2	37.9	108.0	146.0	32.1	178.0	-	123.9	-0.1	354.9	255.6	-27.0
2007 July	24.7	58.8	83.4	7.9	91.4	-	42.1	-11.8	119.5	101.4	3.0
Aug.	13.8	45.1	58.9	10.5	69.4	-	27.4	-21.9	118.9	106.4	-32.4
Sep.	0.6	47.4	48.0	19.7	67.7	-	18.0	-11.0	107.2	81.3	-33.2
Oct.	16.3	73.5	89.7	22.1	111.9	-	48.5	-1.0	167.5	89.1	2.9
Nov.	24.6	28.7	53.3	39.2	92.6	-	11.0	-14.0	70.9	65.9	42.6
Dec. <sup>(p)</sup>	-33.6	58.1	24.5	-2.5	22.0	-	70.1	31.3	118.7	57.9	-73.9
Growth rates											
2005 Dec.	11.3	5.4	8.5	0.9	7.3	7.5	8.9	4.1	9.6	9.2	0.1
2006 Dec.	7.5	11.7	9.3	13.2	9.9	9.8	8.5	-4.7	11.6	10.8	200.2
2007 Mar.	7.0	12.7	9.5	20.1	11.0	10.5	9.1	-4.9	10.9	10.6	339.6
June	6.1	13.9	9.5	19.9	11.0	11.1	9.3	-3.7	11.6	10.8	270.0
2007 July	7.0	15.0	10.5	19.4	11.7	11.4	9.2	-3.7	11.6	11.0	270.8
Aug.	6.7	15.3	10.5	17.9	11.5	11.5	9.3	-4.1	11.8	11.2	242.9
Sep.	6.1	15.4	10.2	17.9	11.3	11.7	9.0	-4.3	11.7	11.0	201.9
Oct.	6.4	17.0	11.2	19.1	12.3	12.0	9.1	-4.0	12.4	11.3	188.9
Nov.	6.3	16.7	11.0	20.7	12.3	12.1	8.6	-4.2	12.2	11.1	152.6
Dec. <sup>(p)</sup>	4.0	17.7	10.1	20.0	11.5	.	9.0	-2.3	12.7	11.1	8.9

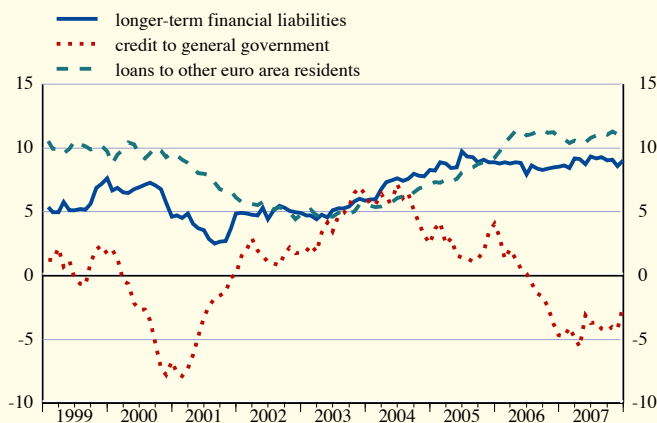
### C1 Monetary aggregates <sup>1)</sup>

(annual growth rates; seasonally adjusted)



### C2 Counterparts <sup>1)</sup>

(annual growth rates; seasonally adjusted)



Source: ECB.

1) Data refer to the changing composition of the euro area. For further information, see the General notes.

2) 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).

3) Values in the section "growth rates" are sums of the transactions during the 12 months ending in the period indicated.

## 2.3 Monetary statistics <sup>1)</sup>

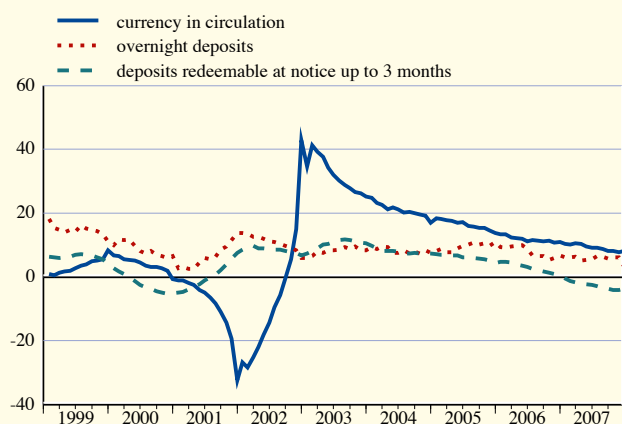
(EUR billions and annual growth rates; seasonally adjusted; outstanding amounts and growth rates at end of period, transactions during period)

### 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
Outstanding amounts											
2005	521.5	2,897.9	1,109.9	1,543.2	241.6	631.6	126.2	2,202.6	86.9	1,511.2	1,199.6
2006	579.0	3,097.5	1,401.7	1,551.4	272.0	631.4	198.7	2,396.2	102.4	1,654.6	1,275.6
2007 Q1	592.1	3,154.7	1,528.2	1,536.8	280.3	670.0	239.9	2,461.4	107.8	1,696.4	1,338.5
Q2	599.2	3,186.2	1,645.2	1,525.5	285.1	700.5	242.8	2,522.4	109.4	1,748.6	1,347.7
2007 July	604.7	3,204.7	1,709.4	1,518.9	290.6	704.8	240.2	2,527.8	110.7	1,764.6	1,362.4
Aug.	608.2	3,215.3	1,762.9	1,510.8	287.0	695.4	260.8	2,550.2	111.1	1,767.8	1,366.8
Sep.	610.6	3,210.6	1,808.2	1,508.5	298.0	679.6	282.4	2,528.7	113.0	1,769.6	1,387.9
Oct.	617.8	3,218.4	1,883.7	1,537.4	288.7	684.7	299.8	2,558.8	120.6	1,780.6	1,456.5
Nov.	618.8	3,240.9	1,914.3	1,533.4	300.4	700.1	312.4	2,547.9	120.5	1,781.0	1,461.9
Dec. <sup>(p)</sup>	627.0	3,199.5	1,970.8	1,534.5	312.7	680.4	317.3	2,550.4	119.9	1,812.4	1,493.6
Transactions											
2005	63.2	273.8	69.1	69.8	-5.9	-2.0	16.4	198.4	-4.3	111.2	95.5
2006	57.5	198.0	300.8	9.2	31.2	28.8	70.2	216.3	15.5	137.8	57.4
2007 Q1	12.6	51.0	120.9	-15.4	8.4	40.9	41.8	68.3	4.6	40.4	36.6
Q2	7.0	30.9	118.5	-10.5	3.4	28.3	0.4	62.8	1.7	52.9	6.5
2007 July	5.5	19.2	65.4	-6.6	5.6	5.2	-2.8	9.3	1.2	16.5	15.1
Aug.	3.6	10.2	53.2	-8.2	-3.6	-9.8	24.0	17.9	0.5	2.9	6.1
Sep.	2.4	-1.8	49.5	-2.1	14.3	-16.6	22.0	-3.7	1.9	3.8	16.1
Oct.	7.2	9.1	83.9	-10.4	-9.3	15.4	16.0	-10.4	0.8	13.7	44.5
Nov.	1.0	23.6	32.6	-3.9	11.8	14.4	13.0	-3.4	-0.1	1.7	12.7
Dec. <sup>(p)</sup>	8.2	-41.8	57.0	1.1	12.3	-19.9	5.1	4.6	-0.7	31.9	34.2
Growth rates											
2005 Dec.	13.8	10.9	6.5	4.4	-2.4	-0.3	15.7	10.0	-4.7	8.1	8.9
2006 Dec.	11.0	6.8	27.2	0.6	13.0	4.7	54.5	9.9	17.8	9.1	4.7
2007 Mar.	10.5	6.4	32.3	-1.7	19.3	12.2	51.9	11.0	20.6	9.0	5.3
June	9.2	5.5	35.1	-2.5	14.6	14.4	49.2	11.0	17.6	9.6	5.4
2007 July	9.2	6.5	37.5	-2.9	14.3	14.4	46.9	10.6	17.0	9.9	5.2
Aug.	8.7	6.3	38.6	-3.5	11.2	12.8	45.0	10.7	15.4	9.5	5.9
Sep.	8.2	5.7	38.2	-3.6	11.7	9.4	55.7	10.0	15.1	9.0	6.8
Oct.	8.1	6.1	41.8	-4.2	12.7	11.4	51.4	8.6	13.8	8.9	9.6
Nov.	7.7	6.1	40.4	-4.1	16.0	11.0	57.9	7.3	11.5	8.4	10.7
Dec. <sup>(p)</sup>	8.2	3.2	41.4	-3.6	15.7	9.2	60.2	6.1	9.7	9.9	13.2

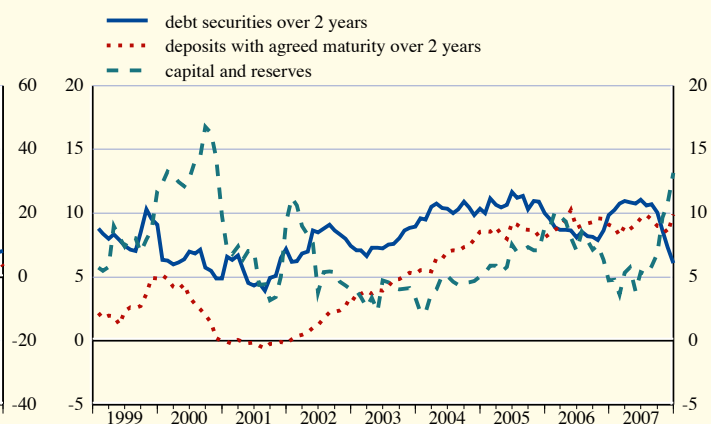
### C3 Components of monetary aggregates <sup>1)</sup>

(annual growth rates; seasonally adjusted)



### C4 Components of longer-term financial liabilities <sup>1)</sup>

(annual growth rates; seasonally adjusted)



Source: ECB.

1) Data refer to the changing composition of the euro area. For further information, see the General notes.

## 2.4 MFI loans, breakdown <sup>1), 2)</sup>

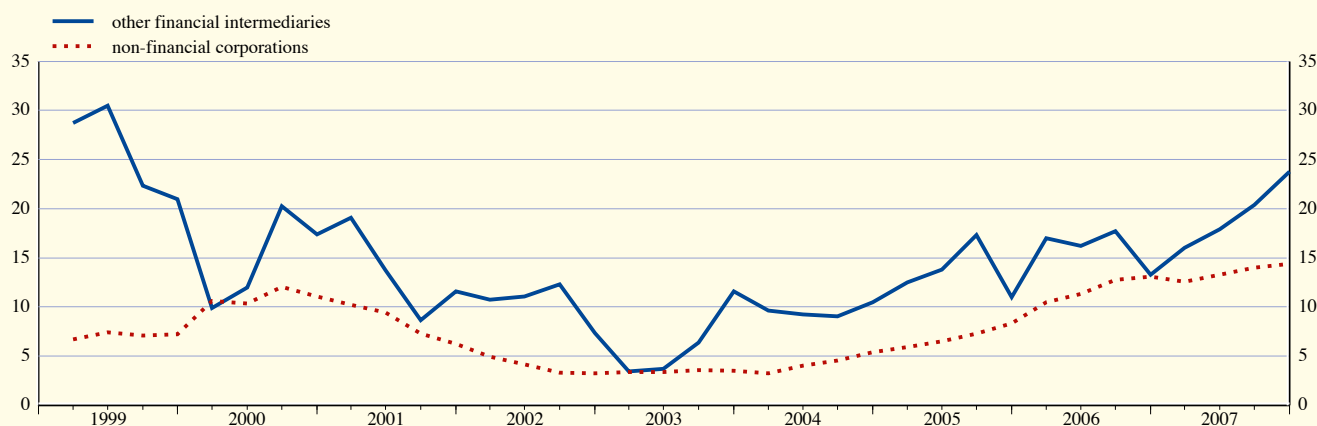
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

### 1. Loans to financial intermediaries and non-financial corporations <sup>3)</sup>

	Insurance corporations and pension funds		Other financial intermediaries <sup>4)</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								
2005	64.6	41.6	620.4	370.2	3,409.1	1,037.7	594.0	1,777.3
2006	82.8	55.2	696.0	420.6	3,844.5	1,137.9	707.1	1,999.5
2007 Q1	98.5	71.7	774.5	488.6	3,957.3	1,172.1	738.8	2,046.4
Q2	110.5	83.5	802.2	502.3	4,107.8	1,223.3	777.1	2,107.5
Q3	112.0	87.7	852.8	534.2	4,231.6	1,248.1	815.1	2,168.4
2007 Oct.	115.5	90.3	867.0	528.9	4,272.6	1,246.5	831.8	2,194.4
Nov.	108.8	83.3	875.3	531.0	4,326.6	1,267.0	842.2	2,217.4
Dec. <sup>(p)</sup>	95.9	70.3	859.0	520.8	4,383.2	1,276.3	856.4	2,250.6
Transactions								
2005	15.0	9.8	60.8	29.2	262.7	56.8	54.3	151.6
2006	18.1	13.9	81.9	57.7	446.2	100.5	123.1	222.6
2007 Q1	15.8	16.6	71.1	67.9	106.1	31.2	29.6	45.3
Q2	12.0	11.8	29.0	13.9	161.0	57.8	40.0	63.2
Q3	1.7	4.4	56.5	36.3	129.3	25.7	39.6	64.0
2007 Oct.	3.6	2.6	15.9	-4.2	39.4	-0.9	16.3	23.9
Nov.	-6.6	-6.9	9.6	3.9	57.2	20.8	12.5	23.9
Dec. <sup>(p)</sup>	-12.9	-13.0	-15.2	-9.7	59.6	10.1	16.2	33.3
Growth rates								
2005 Dec.	30.6	31.2	11.0	8.7	8.3	5.8	9.9	9.3
2006 Dec.	28.0	33.3	13.3	15.6	13.1	9.7	20.8	12.4
2007 Mar.	20.4	26.1	16.0	19.6	12.6	9.9	18.7	12.1
June	30.7	40.6	17.9	20.4	13.3	11.1	20.1	12.2
Sep.	25.6	40.0	20.4	23.0	14.0	12.6	20.5	12.5
2007 Oct.	30.2	46.4	23.1	22.7	13.9	11.5	21.1	12.8
Nov.	14.9	22.9	23.5	23.7	14.0	11.6	21.2	12.8
Dec. <sup>(p)</sup>	16.4	27.9	23.8	25.7	14.4	12.7	21.8	12.7

### C5 Loans to financial intermediaries and non-financial corporations <sup>2)</sup>

(annual growth rates)



Source: ECB.

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

2) Data refer to the changing composition of the euro area. For further information, see the General notes.

3) Before January 2003 data were collected in March, June, September and December each year. Monthly data prior to January 2003 are derived from quarterly data.

4) This category includes investment funds.

**2.4 MFI loans, breakdown<sup>1), 2)</sup>**

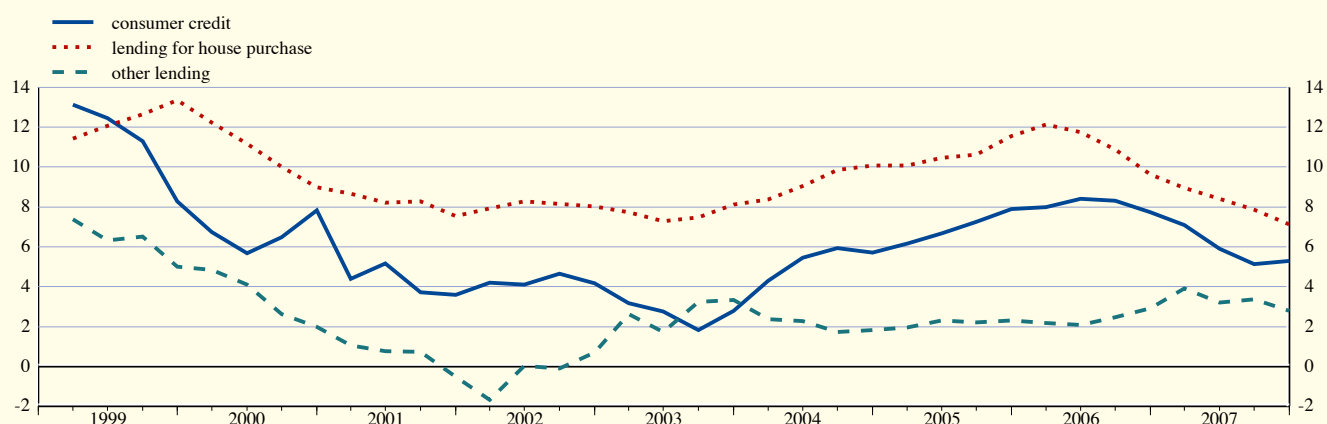
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

**2. Loans to households<sup>3)</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													
2005	4,191.0	554.1	129.1	200.7	224.3	2,915.3	15.2	67.5	2,832.6	721.6	147.3	99.9	474.4
2006	4,537.0	586.5	135.3	202.7	248.5	3,212.1	15.6	72.1	3,124.5	738.4	146.2	101.5	490.7
2007 Q1	4,610.7	590.1	132.0	202.4	255.7	3,272.1	16.1	71.9	3,184.1	748.5	147.5	102.5	498.5
Q2	4,692.1	602.3	134.9	204.6	262.8	3,336.7	16.4	72.6	3,247.7	753.1	150.3	103.8	499.0
2007 July	4,716.2	606.4	136.0	205.0	265.5	3,358.7	15.8	73.1	3,269.9	751.1	146.5	104.3	500.3
Aug.	4,730.6	606.0	134.9	204.4	266.7	3,374.1	15.8	73.1	3,285.2	750.5	144.2	104.4	501.9
Sep.	4,752.3	607.3	134.1	203.1	270.1	3,392.3	16.1	73.4	3,302.9	752.7	146.6	104.2	501.9
Oct.	4,772.2	613.2	136.0	203.9	273.3	3,407.1	16.0	73.7	3,317.4	751.8	145.4	104.2	502.3
Nov.	4,799.4	613.9	132.9	205.1	275.9	3,427.5	15.9	73.6	3,338.0	757.9	150.1	104.6	503.2
Dec. <sup>(p)</sup>	4,807.5	617.6	136.0	205.4	276.2	3,436.7	16.0	73.7	3,347.1	753.2	147.4	103.7	502.2
Transactions													
2005	357.5	40.7	9.0	11.6	20.0	300.6	0.7	4.8	295.0	16.2	3.8	1.3	11.1
2006	345.4	42.6	8.2	4.8	29.5	281.8	1.5	4.6	275.8	20.9	1.4	3.8	15.7
2007 Q1	69.2	2.1	-3.2	-0.7	5.9	58.7	0.6	0.2	58.0	8.4	0.7	0.7	7.1
Q2	85.3	13.6	3.1	2.5	8.0	65.9	0.3	0.8	64.8	5.8	2.9	1.9	1.1
2007 July	25.1	4.2	1.2	0.4	2.6	22.5	-0.2	0.4	22.3	-1.5	-3.8	0.6	1.7
Aug.	14.5	-0.4	-1.0	-0.6	1.2	15.3	0.1	0.1	15.2	-0.5	-2.3	0.2	1.7
Sep.	24.4	1.0	-0.7	-1.2	2.9	19.5	0.2	0.3	19.0	3.9	2.7	0.1	1.1
Oct.	21.7	5.8	2.0	0.9	2.8	15.8	-0.1	0.3	15.5	0.1	-1.0	0.3	0.9
Nov.	27.0	0.0	-3.0	0.9	2.1	20.6	0.0	0.0	20.6	6.5	4.8	0.5	1.2
Dec. <sup>(p)</sup>	12.8	4.8	3.4	0.8	0.6	10.1	0.2	0.1	9.9	-2.1	-2.7	-0.1	0.7
Growth rates													
2005 Dec.	9.4	7.9	7.5	6.1	9.8	11.5	5.1	7.5	11.7	2.3	2.6	1.3	2.4
2006 Dec.	8.2	7.7	6.5	2.4	13.2	9.6	9.7	6.8	9.7	2.9	1.0	3.9	3.3
2007 Mar.	7.9	7.1	5.7	1.5	12.8	8.9	13.6	6.4	9.0	3.9	1.6	4.1	4.6
June	7.2	5.9	4.4	0.6	11.3	8.4	11.0	4.6	8.5	3.2	0.5	5.3	3.6
2007 July	7.0	5.9	4.7	0.5	11.2	8.1	9.5	4.5	8.2	3.2	0.5	5.7	3.5
Aug.	7.0	5.8	4.7	0.4	10.9	8.1	9.9	4.5	8.2	3.2	-0.1	5.7	3.7
Sep.	6.8	5.1	3.9	-0.5	10.5	7.9	7.1	4.4	8.0	3.4	1.0	5.3	3.7
Oct.	6.8	5.6	4.2	0.0	11.0	7.9	8.9	4.4	7.9	3.2	0.8	5.1	3.5
Nov.	6.5	5.1	1.6	0.0	11.3	7.6	6.8	4.6	7.7	3.1	1.3	4.7	3.3
Dec. <sup>(p)</sup>	6.2	5.3	1.3	1.5	10.5	7.1	6.6	3.0	7.2	2.8	0.8	4.0	3.1

**C6 Loans to households<sup>2)</sup>**

(annual growth rates)



Source: ECB.

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

2) Data refer to the changing composition of the euro area. For further information, see the General notes.

3) Including non-profit institutions serving households. Before January 2003 data were collected in March, June, September and December each year. Monthly data prior to January 2003 are derived from quarterly data.



## 2.4 MFI loans, breakdown <sup>1), 2)</sup>

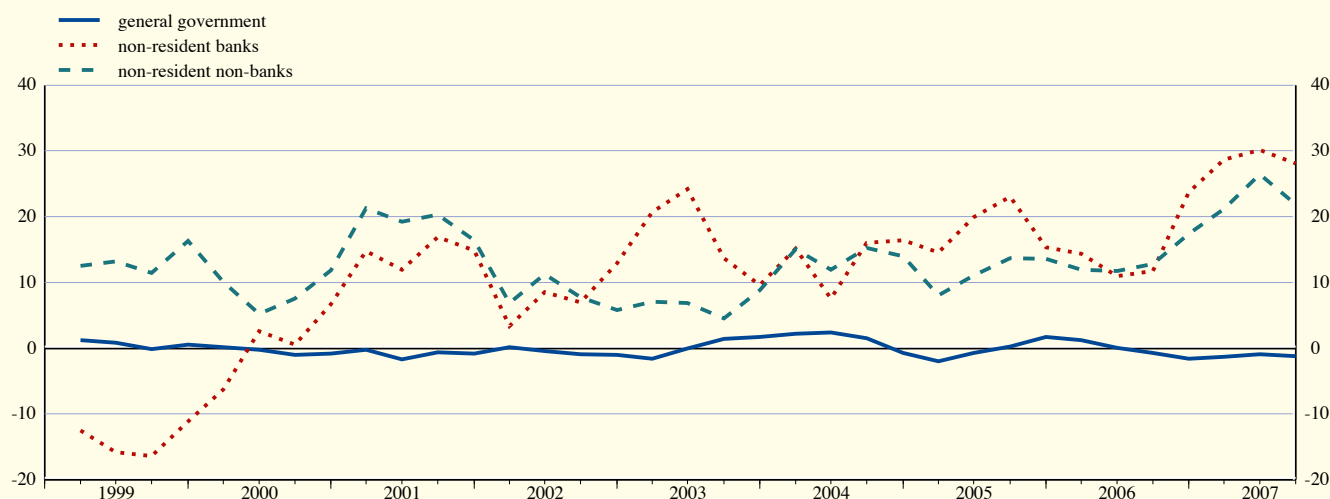
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

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

	General government					Non-euro area residents				
	Total	Central government	Other general government			Total	Banks <sup>3)</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										
2005	826.9	125.1	246.8	425.8	29.2	2,485.2	1,722.1	763.1	66.0	697.1
2006	810.5	104.1	232.5	448.1	25.8	2,924.3	2,061.0	863.4	63.2	800.2
2007 Q1	801.4	97.2	225.2	447.8	31.2	3,169.7	2,265.1	904.6	60.0	844.6
Q2	798.2	95.7	218.8	446.1	37.6	3,286.4	2,334.3	952.0	61.4	890.6
Q3 <sup>(p)</sup>	793.0	92.4	213.9	447.8	39.1	3,301.6	2,354.1	947.3	59.9	887.5
Transactions										
2005	13.7	-5.6	-8.1	21.9	5.5	296.8	207.9	89.0	1.3	87.7
2006	-13.4	-17.6	-14.3	21.9	-3.4	532.5	402.9	129.6	0.0	129.6
2007 Q1	-8.2	-6.9	-6.3	-0.3	5.3	272.7	222.0	50.8	-2.7	53.5
Q2	-3.4	-1.8	-5.5	-2.5	6.4	135.3	79.6	55.7	1.8	53.9
Q3 <sup>(p)</sup>	-5.1	-3.2	-5.0	1.7	1.5	76.2	57.5	18.5	-0.2	18.6
Growth rates										
2005 Dec.	1.7	-4.3	-3.2	5.4	22.9	14.8	15.3	13.6	2.0	14.9
2006 Dec.	-1.6	-14.0	-5.8	5.1	-11.6	21.8	23.7	17.4	-0.1	19.1
2007 Mar.	-1.3	-15.2	-6.1	4.6	6.8	26.4	28.7	21.2	-0.9	23.2
June	-0.9	-7.7	-5.9	2.0	17.3	29.0	30.1	26.5	-5.2	29.4
Sep. <sup>(p)</sup>	-1.2	-8.2	-6.3	2.3	9.7	26.2	28.1	21.9	-4.2	24.2

### C7 Loans to government and non-euro area residents <sup>2)</sup>

(annual growth rates)



Source: ECB.

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

2) Data refer to the changing composition of the euro area. For further information, see the General notes.

3) 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), 2)</sup>**

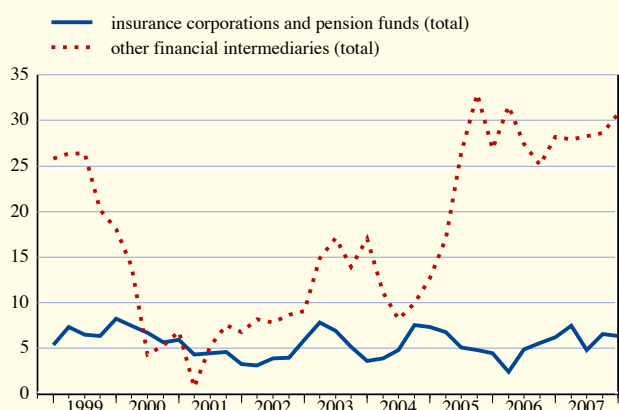
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

**1. Deposits by financial intermediaries**

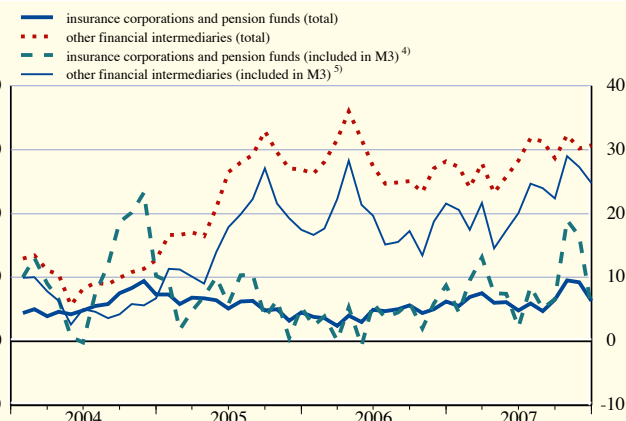
	Insurance corporations and pension funds							Other financial intermediaries <sup>3)</sup>						
	Total	Overnight	With agreed maturity		Redeemable at notice		Repos	Total	Overnight	With agreed maturity		Redeemable at notice		Repos
			Up to 2 years	Over 2 years	Up to 3 months	Over 3 months				Up to 2 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>														
2005	612.6	67.8	51.9	469.7	1.2	1.4	20.6	880.4	233.9	185.0	329.8	10.5	0.1	121.1
2006	650.0	70.2	57.1	495.4	1.0	1.4	24.9	1,140.3	283.1	251.8	469.4	10.6	0.2	125.1
2007 Q1	658.8	72.3	58.4	503.0	1.1	1.2	22.9	1,264.7	318.6	267.7	515.7	11.4	0.3	151.0
Q2	656.4	65.0	58.0	512.2	0.8	1.2	19.2	1,347.3	321.0	288.2	571.7	11.5	0.2	154.6
Q3	676.6	67.9	62.9	522.9	0.8	1.1	21.0	1,391.8	331.7	305.9	580.9	13.0	0.8	159.5
2007 Oct.	695.9	73.7	73.9	524.6	0.8	1.1	21.8	1,430.8	323.4	339.6	599.9	12.4	0.8	154.6
Nov.	691.7	69.0	76.6	524.6	0.8	1.1	19.6	1,452.4	340.3	327.9	607.1	11.7	0.9	164.4
Dec. <sup>4)</sup>	687.8	70.9	68.8	525.2	0.8	1.1	20.9	1,481.6	322.9	347.9	652.8	12.2	0.3	145.4
<b>Transactions</b>														
2005	26.3	7.4	-0.6	19.2	0.4	0.0	-0.2	176.1	40.1	37.3	96.8	1.5	0.0	0.4
2006	37.9	2.7	5.5	25.6	-0.2	0.0	4.4	249.2	45.5	67.8	130.5	0.3	0.1	4.9
2007 Q1	8.6	2.1	1.0	7.6	0.1	-0.2	-2.0	124.8	35.8	16.2	46.2	0.7	0.0	26.0
Q2	-2.8	-7.7	-0.3	9.2	-0.2	0.0	-3.7	82.8	3.0	21.0	56.5	0.1	0.0	2.2
Q3	22.9	3.0	5.1	13.1	0.0	-0.1	1.8	50.0	12.0	19.8	7.9	1.6	0.6	8.2
2007 Oct.	19.4	5.9	11.1	1.6	0.0	0.0	0.8	41.4	-7.7	34.5	19.9	-0.5	0.0	-4.8
Nov.	-2.9	-4.6	2.5	1.4	0.0	0.0	-2.2	21.3	17.6	-12.8	7.3	-0.7	0.0	9.9
Dec. <sup>4)</sup>	-4.0	1.9	-7.8	0.6	0.0	0.0	1.3	29.7	-17.3	20.1	46.0	0.5	-0.5	-19.0
<b>Growth rates</b>														
2005 Dec.	4.5	12.4	-1.2	4.3	36.0	-	-0.8	26.9	22.2	25.0	47.3	14.3	-	0.4
2006 Dec.	6.2	4.0	10.7	5.4	-16.3	-	21.2	28.2	19.5	36.8	38.9	2.9	-	4.0
2007 Mar.	7.5	10.4	15.9	5.9	-2.9	-	16.0	27.9	15.6	37.6	38.1	4.1	-	12.4
June	4.8	-5.6	21.1	5.7	-20.8	-	-13.3	28.3	13.5	35.6	41.4	5.9	-	10.5
Sept.	6.5	1.5	23.4	6.6	-18.2	-	-13.7	28.6	20.7	31.1	38.5	29.0	-	11.0
2007 Oct.	9.5	11.5	53.5	6.9	-19.8	-	-22.0	32.3	23.2	43.7	37.0	23.1	-	15.1
Nov.	9.3	8.2	51.7	7.3	-18.8	-	-28.0	30.2	24.0	35.2	34.5	9.0	-	21.2
Dec. <sup>4)</sup>	6.4	0.9	20.5	6.8	-22.4	-	-16.3	30.7	15.3	39.4	39.1	15.9	-	17.7

**C8 Total deposits by sector<sup>2)</sup>**

(annual growth rates)


**C9 Total deposits and deposits included in M3 by sector<sup>2)</sup>**

(annual growth rates)



Source: ECB.

- 1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.
- 2) Data refer to the changing composition of the euro area. For further information, see the General notes.
- 3) This category includes investment funds.
- 4) Covers deposits in columns 2, 3, 5 and 7.
- 5) Covers deposits in columns 9, 10, 12 and 14.

## 2.5 Deposits held with MFIs, breakdown <sup>1), 2)</sup>

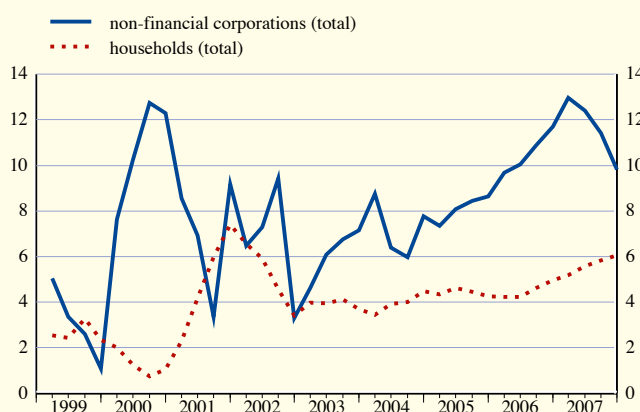
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

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

	Non-financial corporations							Households <sup>3)</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														
2005	1,211.9	769.2	305.1	67.2	44.5	1.2	24.6	4,343.1	1,685.9	534.0	631.7	1,354.2	84.5	52.8
2006	1,343.1	851.8	355.3	69.4	40.5	1.3	24.8	4,552.6	1,751.2	669.0	606.8	1,355.7	99.8	70.0
2007 Q1	1,349.0	833.0	379.3	68.9	39.4	1.3	27.0	4,589.5	1,727.5	745.0	593.1	1,342.2	105.4	76.4
Q2	1,386.0	861.6	392.5	68.2	36.1	1.3	26.4	4,678.1	1,785.8	802.3	577.1	1,329.0	106.2	77.7
Q3	1,405.0	844.6	438.8	64.1	31.6	1.4	24.3	4,706.3	1,754.3	886.5	565.7	1,308.0	107.9	84.0
2007 Oct.	1,415.3	836.7	460.1	63.8	29.0	1.4	24.2	4,855.0	1,730.3	927.5	559.5	1,442.3	109.0	86.3
Nov.	1,429.3	850.9	460.2	61.3	31.3	1.4	24.2	4,876.6	1,734.2	954.1	556.3	1,434.7	110.0	87.3
Dec. <sup>(p)</sup>	1,467.8	880.0	474.1	59.5	29.2	1.4	23.7	4,988.9	1,777.8	994.7	560.8	1,457.5	111.1	87.1
Transactions														
2005	96.6	88.9	11.4	-1.6	3.7	-0.4	-5.4	177.7	125.1	16.3	-2.8	45.9	-4.0	-2.9
2006	141.2	85.7	55.7	3.9	-4.2	0.1	0.2	215.2	65.7	137.5	-23.1	2.5	15.4	17.2
2007 Q1	3.3	-19.8	23.5	-0.6	-1.4	-0.7	2.2	25.1	-29.1	70.9	-14.8	-13.9	5.5	6.4
Q2	38.1	29.2	13.6	-0.6	-3.4	0.0	-0.6	89.5	58.5	58.0	-15.9	-13.1	0.8	1.4
Q3	23.3	-15.6	48.0	-2.6	-4.4	0.1	-2.0	29.5	-31.1	85.3	-11.6	-21.0	1.7	6.3
2007 Oct.	10.9	-7.4	20.7	-0.3	-1.9	-0.1	-0.2	2.6	-23.9	40.4	-4.5	-12.9	1.1	2.4
Nov.	17.3	14.3	3.1	-2.4	2.3	0.0	0.0	21.9	4.0	26.9	-3.4	-7.5	1.0	1.0
Dec. <sup>(p)</sup>	38.7	28.9	14.0	-1.6	-2.2	0.0	-0.5	112.2	43.4	40.7	4.5	22.8	1.1	-0.2
Growth rates														
2005 Dec.	8.6	13.1	3.8	-2.0	9.0	-29.0	-18.2	4.3	8.5	3.1	-0.4	3.3	-4.5	-5.1
2006 Dec.	11.7	11.2	18.4	5.7	-9.4	5.9	0.6	5.0	3.9	25.8	-3.7	0.2	18.2	32.6
2007 Mar.	13.0	12.0	22.6	-2.2	-16.1	-29.8	25.4	5.2	2.9	35.0	-4.8	-1.9	22.1	38.7
June	12.4	10.1	26.2	-4.8	-18.0	-29.5	20.0	5.6	3.2	40.2	-6.3	-2.5	19.2	32.9
Sep.	11.4	7.1	32.5	-8.8	-28.4	-26.9	-2.9	5.8	2.7	43.9	-7.2	-3.5	16.0	29.6
2007 Oct.	11.5	7.4	31.2	-9.2	-30.7	-31.9	-3.0	5.8	1.8	46.6	-7.4	-4.1	14.6	29.1
Nov.	11.5	6.7	32.7	-11.7	-24.4	-31.8	1.8	6.0	1.8	47.2	-7.5	-4.0	12.5	27.5
Dec. <sup>(p)</sup>	9.8	3.5	34.6	-11.8	-26.9	-31.6	-4.5	6.1	1.2	47.8	-7.5	-3.5	11.2	24.4

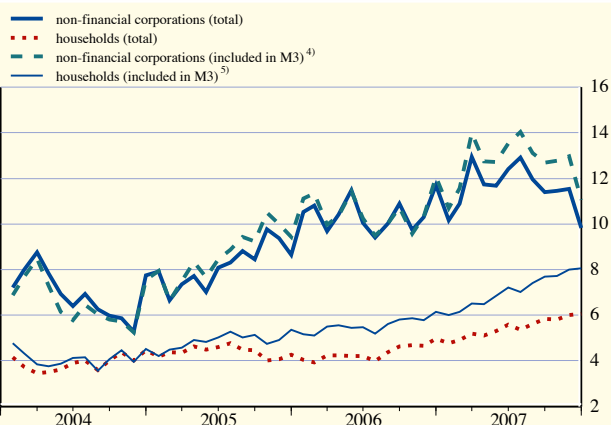
### C10 Total deposits by sector <sup>2)</sup>

(annual growth rates)



### C11 Total deposits and deposits included in M3 by sector <sup>2)</sup>

(annual growth rates)



Source: ECB.

- 1) MFI sector excluding the Eurosystem; sectoral classification is based on ESA 95.
- 2) Data refer to the changing composition of the euro area. For further information, see the General notes.
- 3) Including non-profit institutions serving households.
- 4) Covers deposits in columns 2, 3, 5 and 7.
- 5) Covers deposits in columns 9, 10, 12 and 14.

**2.5 Deposits held with MFIs, breakdown <sup>1), 2)</sup>**

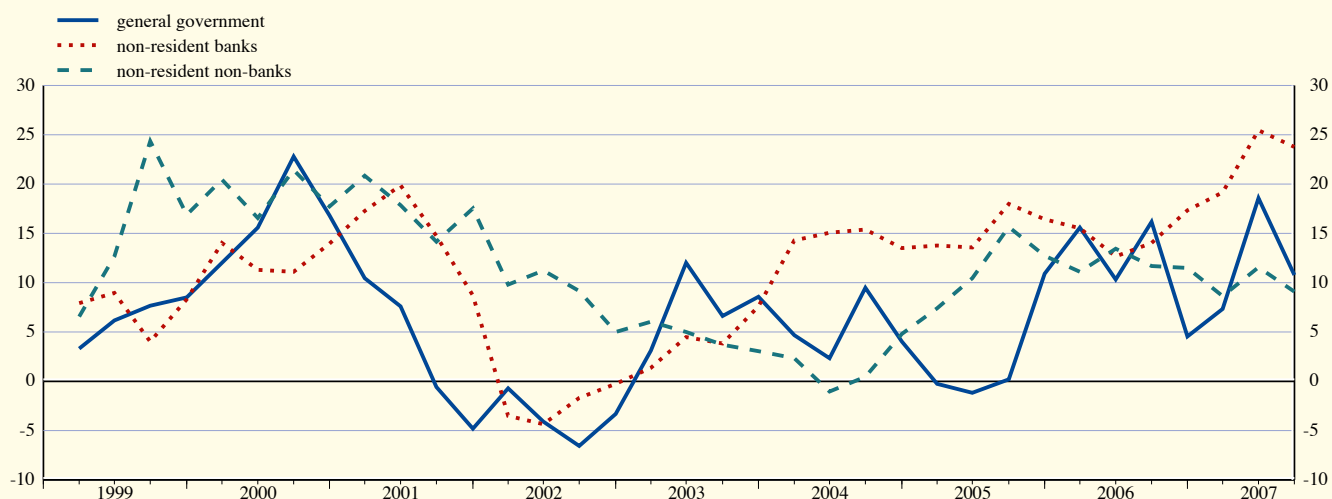
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

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

	General government					Non-euro area residents				
	Total	Central government	Other general government			Total	Banks <sup>3)</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										
2005	313.1	149.2	38.3	80.9	44.7	3,050.5	2,250.5	800.0	125.8	674.2
2006	329.0	124.2	45.4	91.8	67.6	3,429.0	2,557.1	871.9	128.6	743.3
2007 Q1	337.8	139.0	42.1	88.8	67.9	3,663.9	2,778.3	885.6	132.4	753.2
Q2	380.2	169.8	43.8	95.2	71.4	3,821.5	2,898.7	922.8	137.5	785.3
Q3 <sup>(p)</sup>	373.5	144.3	60.0	97.5	71.7	3,875.5	2,946.7	927.2	145.5	781.7
Transactions										
2005	30.8	11.2	7.8	11.5	0.3	381.1	292.8	88.3	17.8	70.5
2006	14.2	-24.5	7.0	8.7	22.9	476.6	385.8	90.8	6.6	84.2
2007 Q1	7.8	14.1	-3.3	-3.3	0.2	256.6	237.2	19.4	4.2	15.2
Q2	42.4	30.8	1.7	6.4	3.5	177.7	136.1	41.6	5.7	35.9
Q3 <sup>(p)</sup>	-7.3	-26.1	16.1	2.3	0.4	128.7	103.9	23.1	10.4	12.7
Growth rates										
2005 Dec.	10.9	8.1	25.4	16.6	0.6	15.4	16.4	12.7	16.8	12.0
2006 Dec.	4.5	-16.5	18.4	10.8	51.3	15.8	17.3	11.5	5.3	12.6
2007 Mar.	7.3	-6.3	10.4	12.3	38.6	16.4	19.2	8.6	5.8	9.1
June	18.5	21.9	10.5	12.2	25.3	21.8	25.4	11.5	8.9	12.0
Sep. <sup>(p)</sup>	10.7	-3.5	44.0	13.6	19.0	20.0	23.8	9.1	12.9	8.4

**C12 Deposits by government and non-euro area residents <sup>2)</sup>**

(annual growth rates)



Source: ECB.

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

2) Data refer to the changing composition of the euro area. For further information, see the General notes.

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

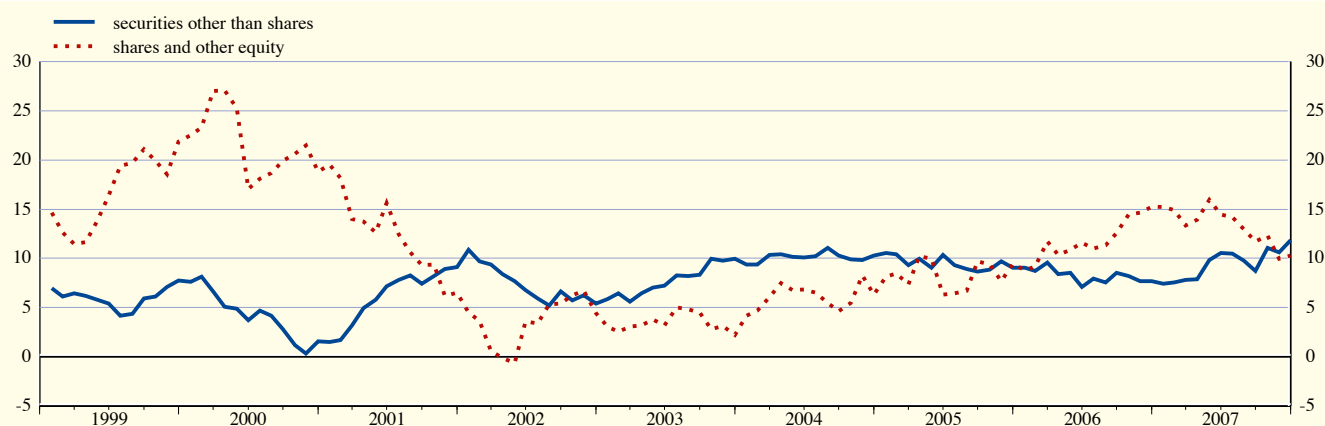
## 2.6 MFI holdings of securities, breakdown <sup>1), 2)</sup>

(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
Outstanding amounts												
2005	4,418.9	1,450.4	67.3	1,412.5	17.0	525.7	25.8	920.3	1,254.7	308.5	700.1	246.1
2006	4,663.8	1,560.5	72.3	1,260.4	16.2	615.7	30.1	1,108.6	1,490.3	377.3	817.2	295.8
2007 Q1	4,842.7	1,616.6	76.5	1,266.6	15.6	651.7	34.1	1,181.7	1,576.5	399.7	844.8	332.0
Q2	5,010.6	1,637.1	78.9	1,266.1	15.6	727.1	34.1	1,251.7	1,623.3	406.8	867.1	349.4
2007 July	5,045.7	1,651.0	88.7	1,242.4	15.4	741.2	35.8	1,271.3	1,607.5	407.2	852.9	347.4
Aug.	5,002.0	1,648.7	83.7	1,213.4	15.2	747.1	33.8	1,260.1	1,587.6	407.2	841.1	339.2
Sep.	4,973.7	1,646.4	82.1	1,200.2	14.7	769.3	35.7	1,225.3	1,607.5	412.5	844.6	350.3
Oct.	5,092.8	1,656.3	85.1	1,199.4	14.7	840.0	38.3	1,259.1	1,655.7	406.5	901.4	347.8
Nov.	5,126.6	1,664.3	81.9	1,197.6	14.6	858.9	33.9	1,275.5	1,644.0	404.0	892.4	347.6
Dec. <sup>(p)</sup>	5,114.9	1,653.5	83.8	1,177.7	16.6	917.3	33.3	1,232.8	1,653.9	418.5	892.2	343.2
Transactions												
2005	356.3	85.7	2.0	52.3	-0.9	71.9	7.7	137.6	109.1	26.5	53.4	29.2
2006	336.8	122.7	10.6	-122.7	0.5	100.4	6.5	218.7	194.4	58.8	97.0	38.6
2007 Q1	190.1	55.6	5.2	2.7	-0.8	37.0	7.6	82.9	78.5	20.6	20.7	37.2
Q2	172.3	26.2	2.4	-0.1	0.3	73.1	0.2	70.2	35.2	5.5	16.6	13.2
2007 July	43.0	13.0	10.1	-23.3	-0.2	14.5	2.0	26.8	-10.8	1.2	-10.7	-1.3
Aug.	-43.9	-2.7	-5.2	-29.4	-0.3	6.4	-2.0	-10.8	-17.4	0.1	-10.5	-7.0
Sep.	-4.6	-3.5	0.8	-13.0	0.0	22.5	3.0	-14.4	19.4	6.3	3.0	10.1
Oct.	147.1	50.9	3.9	5.6	0.2	36.7	3.1	46.8	39.3	-6.2	47.7	-2.1
Nov.	48.6	7.6	-1.8	-3.7	0.1	19.1	-3.8	31.1	-3.7	-1.9	-5.4	3.6
Dec. <sup>(p)</sup>	-2.4	-10.2	2.6	-18.4	2.2	58.8	-0.7	-36.6	12.3	16.0	-0.3	-3.4
Growth rates												
2005 Dec.	9.0	6.3	3.6	4.2	-4.5	16.0	43.8	18.2	9.4	9.4	8.0	13.6
2006 Dec.	7.7	8.5	16.5	-8.9	3.0	19.3	25.7	24.2	15.2	18.7	13.7	15.2
2007 Mar.	7.8	7.9	18.4	-10.2	-3.3	21.3	40.6	25.2	13.3	21.0	6.4	24.1
June	10.6	8.6	25.9	-8.8	-7.1	28.0	43.4	29.5	14.4	17.8	7.5	31.0
2007 July	10.5	8.5	34.4	-9.3	-7.8	28.1	47.0	27.7	14.2	19.6	5.9	32.4
Aug.	9.7	7.7	27.2	-9.7	-10.5	29.5	35.5	25.8	13.0	18.5	5.2	29.3
Sep.	8.7	6.3	27.2	-9.8	-5.7	31.4	49.2	21.1	11.7	19.2	3.9	25.3
Oct.	11.0	8.8	32.2	-8.7	-3.6	34.7	54.1	23.3	12.3	17.1	7.6	20.1
Nov.	10.6	8.3	25.4	-9.1	-5.2	36.1	41.7	22.2	9.9	7.6	6.3	23.6
Dec. <sup>(p)</sup>	11.9	8.8	25.3	-6.3	10.6	43.0	32.9	17.8	10.3	11.0	7.5	17.0

## C13 MFI holdings of securities <sup>2)</sup>

(annual growth rates)



Source: ECB.

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

2) Data refer to the changing composition of the euro area. For further information, see the General notes.

**2.7 Revaluation of selected MFI balance sheet items <sup>1), 2)</sup>**

(EUR billions)

**1. Write-offs/write-downs of loans to households <sup>3)</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
2005	-4.1	-1.7	-0.9	-1.5	-4.4	-0.3	-1.1	-3.0	-9.8	-2.7	-3.2	-3.9
2006	-3.9	-1.5	-0.9	-1.6	-2.7	-0.1	-0.1	-2.4	-6.7	-1.1	-2.0	-3.6
2007 Q1	-1.0	-0.3	-0.3	-0.5	-0.7	-0.1	0.0	-0.6	-1.9	-0.4	-0.3	-1.2
2007 Q2	-0.7	-0.2	-0.3	-0.3	-0.4	0.0	0.0	-0.4	-1.4	0.0	-0.5	-0.8
2007 July	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.3	-0.1	-0.1	-0.2
Aug.	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.3	0.0	-0.1	-0.2
Sep.	-0.4	-0.1	-0.1	-0.2	-0.3	0.0	0.0	-0.2	-0.7	-0.1	-0.3	-0.3
Oct.	-0.3	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.5	-0.1	-0.2	-0.2
Nov.	-0.3	0.0	-0.1	-0.1	-0.2	0.0	-0.1	-0.1	-0.4	0.0	-0.1	-0.3
Dec. <sup>(p)</sup>	-1.1	-0.3	-0.5	-0.4	-0.9	-0.1	0.0	-0.8	-2.6	-0.1	-0.7	-1.8

**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
2005	-19.3	-7.4	-5.6	-6.2	-1.2	-0.3	-0.9
2006	-13.2	-3.5	-4.6	-5.1	-0.8	-0.1	-0.7
2007 Q1	-2.8	-0.5	-0.7	-1.7	-0.1	0.0	-0.1
2007 Q2	-3.0	-0.4	-1.4	-1.2	-1.2	0.0	-1.2
2007 July	-0.5	-0.1	-0.1	-0.3	0.0	0.0	0.0
Aug.	-0.5	-0.1	-0.2	-0.2	0.0	0.0	0.0
Sep.	-0.8	-0.1	-0.5	-0.3	-0.1	0.0	-0.1
Oct.	-0.8	0.0	-0.5	-0.3	-0.9	-0.9	0.0
Nov.	-0.6	-0.1	-0.2	-0.3	-0.1	0.0	-0.1
Dec. <sup>(p)</sup>	-3.4	-0.7	-1.8	-0.8	-1.0	-0.7	-0.3

**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
2005	21.5	3.4	0.5	6.7	0.7	1.3	0.2	8.6	25.7	5.0	14.4	6.3
2006	-8.6	1.2	-0.4	-7.9	-0.2	-0.4	-0.3	-0.7	31.5	7.1	16.3	8.0
2007 Q1	-4.2	-1.5	-0.2	0.2	0.0	-0.5	-0.1	-2.1	7.4	0.7	6.7	0.0
2007 Q2	-4.0	-0.7	0.0	-3.8	-0.1	0.0	-0.1	0.6	12.7	1.7	6.8	4.2
2007 July	-1.2	0.4	0.1	0.4	0.0	-0.3	-0.1	-1.7	-3.3	-0.6	-2.0	-0.6
Aug.	-0.4	0.0	0.1	0.3	0.0	-0.3	0.0	-0.4	-2.9	-0.1	-1.6	-1.2
Sep.	-0.8	0.5	-0.1	-0.2	-0.1	-0.3	-0.1	-0.6	0.6	-1.0	0.5	1.0
Oct.	-2.5	0.7	0.1	-3.8	0.0	-0.2	0.0	0.8	7.5	1.3	3.6	2.6
Nov.	-0.7	-0.7	0.0	2.0	0.0	-0.1	-0.1	-1.8	-8.0	-0.5	-3.6	-3.8
Dec. <sup>(p)</sup>	-4.9	-0.8	0.0	-1.5	0.0	-0.3	-0.1	-2.0	-2.5	-0.8	-0.7	-1.0

Source: ECB.

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

2) Data refer to the changing composition of the euro area. For further information, see the General notes.

3) Including non-profit institutions serving households.

## 2.8 Currency breakdown of selected MFI balance sheet items <sup>1),2)</sup>

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

### 1. Deposits

	MFIs <sup>3)</sup>							Non-MFIs						
	All currencies (outstanding amount)	Euro <sup>4)</sup>	Non-euro currencies					All currencies (outstanding amount)	Euro <sup>4)</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	
	By euro area residents													
2005	4,851.2	90.9	9.1	5.6	0.4	1.5	1.0	7,361.0	96.8	3.2	1.9	0.3	0.1	0.5
2006	5,242.4	90.7	9.3	5.6	0.4	1.5	1.2	8,014.8	96.4	3.6	2.2	0.3	0.1	0.6
2007 Q1	5,395.9	90.5	9.5	5.6	0.5	1.4	1.2	8,199.9	96.3	3.7	2.3	0.3	0.1	0.6
Q2	5,572.9	90.5	9.5	5.8	0.4	1.3	1.1	8,448.1	96.3	3.7	2.3	0.3	0.1	0.6
Q3 <sup>4)</sup>	5,697.1	91.2	8.8	5.4	0.4	1.3	0.9	8,553.2	96.0	4.0	2.4	0.3	0.1	0.6
	By non-euro area residents													
2005	2,250.5	46.2	53.8	35.4	2.7	2.8	10.0	800.0	51.8	48.2	32.1	1.7	2.2	9.2
2006	2,557.1	45.3	54.7	35.1	2.3	2.7	11.5	871.9	50.7	49.3	32.0	1.3	2.0	10.4
2007 Q1	2,778.3	46.4	53.6	34.3	2.5	2.5	11.2	885.6	51.1	48.9	31.8	1.6	2.2	9.4
Q2	2,898.7	45.0	55.0	34.8	2.6	2.4	11.8	922.8	51.2	48.8	32.3	1.3	1.8	9.7
Q3 <sup>4)</sup>	2,946.7	46.0	54.0	34.1	2.7	2.4	11.5	927.2	49.8	50.2	33.4	1.1	1.9	9.7

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

	All currencies (outstanding amount)	Euro <sup>4)</sup>	Non-euro currencies				
			Total				
			USD	JPY	CHF	GBP	
	1	2	3	4	5	6	7
2005	4,051.7	81.2	18.8	9.6	1.8	1.9	3.2
2006	4,485.5	80.5	19.5	10.0	1.6	1.9	3.5
2007 Q1	4,673.7	80.7	19.3	9.8	1.7	1.9	3.5
Q2	4,797.0	80.2	19.8	10.1	1.6	1.8	3.7
Q3 <sup>4)</sup>	4,862.4	80.8	19.2	9.7	1.6	1.8	3.6

Source: ECB.

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

2) Data refer to the changing composition of the euro area. For further information, see the General notes.

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

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

**2.8 Currency breakdown of selected MFI balance sheet items <sup>1),2)</sup>**

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

**3. Loans**

	MFIs <sup>3)</sup>							Non-MFIs						
	All currencies (outstanding amount)	Euro <sup>4)</sup>	Non-euro currencies				All currencies (outstanding amount)	Euro <sup>4)</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														
2005	4,569.7	-	-	-	-	-	9,112.0	96.3	3.7	1.6	0.2	1.3	0.5	
2006	4,933.4	-	-	-	-	-	9,970.8	96.4	3.6	1.6	0.2	1.1	0.5	
2007 Q1	5,097.6	-	-	-	-	-	10,242.4	96.4	3.6	1.7	0.2	1.1	0.5	
Q2	5,264.6	-	-	-	-	-	10,510.8	96.2	3.8	1.8	0.2	1.0	0.6	
Q3 <sup>(p)</sup>	5,430.4	-	-	-	-	-	10,741.6	96.1	3.9	1.9	0.2	1.0	0.5	
To non-euro area residents														
2005	1,722.1	48.5	51.5	30.5	4.3	2.0	10.1	763.1	38.2	61.8	43.7	1.8	4.1	8.6
2006	2,061.0	50.7	49.3	28.9	2.0	2.3	11.0	863.4	39.3	60.7	43.2	1.1	4.0	8.6
2007 Q1	2,265.1	51.7	48.3	27.7	2.2	2.5	10.8	904.6	41.3	58.7	41.8	1.0	4.1	8.1
Q2	2,334.3	50.3	49.7	28.7	1.9	2.4	11.7	952.0	39.4	60.6	43.1	1.0	3.8	8.4
Q3 <sup>(p)</sup>	2,354.1	48.9	51.1	28.6	2.0	2.5	12.6	947.3	38.8	61.2	43.6	1.1	3.8	8.3

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

	Issued by MFIs <sup>3)</sup>							Issued by non-MFIs						
	All currencies (outstanding amount)	Euro <sup>4)</sup>	Non-euro currencies				All currencies (outstanding amount)	Euro <sup>4)</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														
2005	1,517.7	95.6	4.4	2.0	0.3	0.4	1.4	1,980.9	97.8	2.2	1.1	0.3	0.1	0.5
2006	1,632.8	95.6	4.4	2.3	0.2	0.3	1.3	1,922.3	97.6	2.4	1.3	0.3	0.1	0.7
2007 Q1	1,693.0	95.5	4.5	2.3	0.3	0.3	1.4	1,968.0	97.5	2.5	1.3	0.3	0.1	0.8
Q2	1,716.1	95.4	4.6	2.2	0.3	0.3	1.6	2,042.9	97.6	2.4	1.3	0.3	0.1	0.7
Q3 <sup>(p)</sup>	1,728.4	95.3	4.7	2.3	0.3	0.2	1.5	2,020.0	97.5	2.5	1.4	0.3	0.1	0.7
Issued by non-euro area residents														
2005	397.5	51.0	49.0	28.5	0.8	0.5	15.7	522.8	38.3	61.7	35.0	7.8	0.8	12.6
2006	514.4	52.2	47.8	28.8	0.7	0.4	14.5	594.2	38.9	61.1	36.5	4.9	0.8	14.2
2007 Q1	545.3	52.7	47.3	28.5	0.6	0.5	14.4	636.3	38.2	61.8	36.9	4.4	0.6	14.8
Q2	584.1	51.9	48.1	28.5	0.7	0.5	14.6	667.6	37.4	62.6	36.9	4.3	0.7	15.7
Q3 <sup>(p)</sup>	576.2	53.8	46.2	26.8	0.7	0.4	15.0	650.0	35.4	64.6	38.8	4.3	0.7	15.0

Source: ECB.

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

2) Data refer to the changing composition of the euro area. For further information, see the General notes.

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

4) 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				
2006 Q2	5,137.9	316.9	1,908.6	145.2	1,763.3	1,777.9	601.0	180.3	353.2
Q3	5,359.0	317.5	1,985.0	178.4	1,806.6	1,874.4	631.3	181.5	369.2
Q4	5,551.3	320.6	2,005.8	170.6	1,835.2	2,022.0	670.6	187.9	344.3
2007 Q1	5,713.3	332.4	2,031.8	181.0	1,850.8	2,068.9	718.7	188.9	372.7
Q2	5,989.0	346.2	2,044.3	192.9	1,851.5	2,216.1	784.0	182.0	416.3
Q3 <sup>(p)</sup>	5,895.2	361.8	2,013.8	186.9	1,826.9	2,172.1	769.5	181.0	397.0

### 2. Liabilities

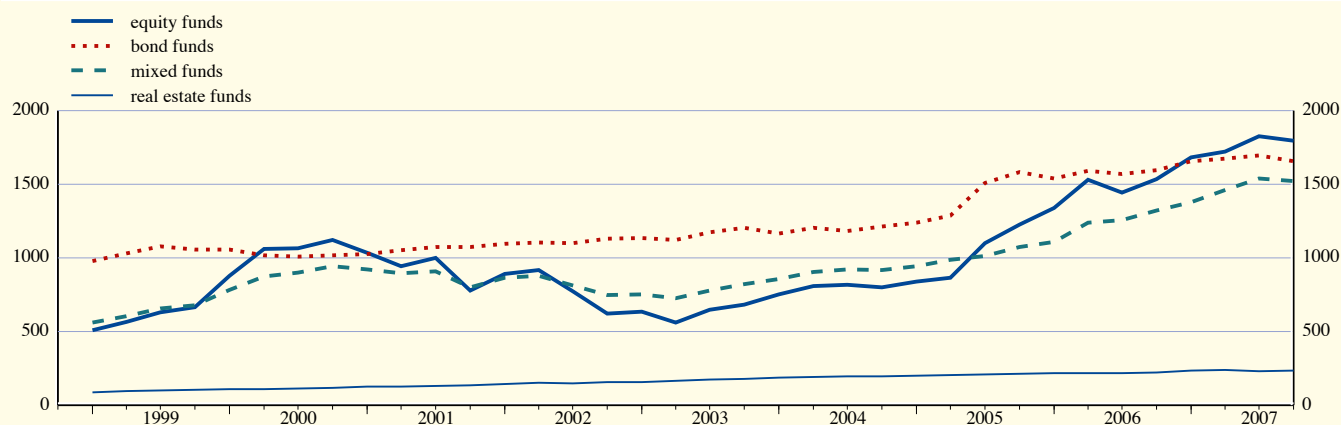
	Total 1	Deposits and loans taken 2	Investment fund shares 3	Other liabilities 4
Q3	5,359.0	75.9	4,999.5	283.7
Q4	5,551.3	77.8	5,217.0	256.4
2007 Q1	5,713.3	82.2	5,349.7	281.8
Q2	5,989.0	85.9	5,586.9	316.6
Q3 <sup>(p)</sup>	5,895.2	81.8	5,497.6	316.2

### 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	
2006 Q2	5,137.9	1,443.3	1,569.3	1,257.0	217.4	650.9	3,913.2	1,224.7	
Q3	5,359.0	1,533.3	1,594.2	1,321.5	221.2	688.9	4,085.5	1,273.5	
Q4	5,551.3	1,680.5	1,657.0	1,376.0	231.8	606.0	4,252.1	1,299.2	
2007 Q1	5,713.3	1,723.2	1,674.9	1,459.3	238.4	617.5	4,372.7	1,340.5	
Q2	5,989.0	1,824.8	1,693.4	1,539.2	230.9	700.7	4,577.2	1,411.8	
Q3 <sup>(p)</sup>	5,895.2	1,797.2	1,655.7	1,522.5	234.4	685.3	4,466.5	1,428.7	

## C14 Total assets of investment funds

(EUR billions)



Source: ECB.

1) Other than money market funds. 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				
<b>Equity funds</b>									
2006 Q2	1,443.3	52.3	51.4	6.5	44.9	1,221.7	69.3	-	48.6
Q3	1,533.3	53.8	76.1	33.2	42.9	1,284.3	66.8	-	52.3
Q4	1,680.5	56.1	66.0	22.7	43.3	1,429.3	74.3	-	54.8
2007 Q1	1,723.2	59.3	65.7	25.7	40.0	1,461.2	78.4	-	58.6
Q2	1,824.8	60.9	67.9	27.4	40.4	1,546.2	84.0	-	65.9
Q3 <sup>(p)</sup>	1,797.2	73.3	68.6	26.7	41.9	1,504.8	82.2	-	68.4
<b>Bond funds</b>									
2006 Q2	1,569.3	106.5	1,264.7	87.3	1,177.4	38.5	47.5	-	112.1
Q3	1,594.2	105.5	1,288.5	86.8	1,201.8	41.6	48.2	-	110.3
Q4	1,657.0	108.3	1,343.6	91.1	1,252.5	45.4	49.8	-	110.0
2007 Q1	1,674.9	112.3	1,356.5	95.1	1,261.4	44.5	52.5	-	109.0
Q2	1,693.4	114.9	1,346.7	99.5	1,247.2	62.9	55.7	-	113.2
Q3 <sup>(p)</sup>	1,655.7	109.9	1,319.4	96.9	1,222.5	62.7	53.2	-	110.5
<b>Mixed funds</b>									
2006 Q2	1,257.0	72.0	484.1	40.3	443.8	318.7	253.6	0.2	128.5
Q3	1,321.5	68.5	510.6	45.2	465.4	332.3	272.3	0.3	137.4
Q4	1,376.0	71.0	519.4	43.4	476.0	364.2	292.8	0.4	128.2
2007 Q1	1,459.3	73.8	530.5	45.5	485.0	380.8	322.3	0.3	151.5
Q2	1,539.2	84.0	529.2	50.2	479.0	398.9	346.4	0.9	179.8
Q3 <sup>(p)</sup>	1,522.5	86.0	523.0	46.3	476.7	405.2	343.9	0.5	163.9
<b>Real estate funds</b>									
2006 Q2	217.4	15.5	5.6	1.5	4.1	1.6	5.4	179.4	9.9
Q3	221.2	16.4	6.0	1.6	4.4	1.9	6.2	180.3	10.4
Q4	231.8	17.6	6.1	1.7	4.4	2.2	7.0	187.0	11.9
2007 Q1	238.4	18.9	6.7	1.9	4.8	2.3	9.6	188.4	12.6
Q2	230.9	18.8	6.6	1.9	4.7	2.0	10.0	180.4	12.9
Q3 <sup>(p)</sup>	234.4	20.7	6.3	1.5	4.8	2.0	13.1	179.5	12.8

**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
2006 Q2	3,913.2	257.1	1,321.4	1,449.8	452.2	151.2	281.5
Q3	4,085.5	260.6	1,374.1	1,531.3	470.9	151.2	297.3
Q4	4,252.1	265.4	1,402.4	1,650.2	498.2	155.2	280.6
2007 Q1	4,372.7	274.3	1,420.9	1,693.5	529.0	155.6	299.5
Q2	4,577.2	280.9	1,432.0	1,816.8	576.5	147.3	323.7
Q3 <sup>(p)</sup>	4,466.5	289.0	1,376.8	1,788.2	563.2	143.3	306.0
<b>Special investors' funds</b>							
2006 Q2	1,224.7	59.9	587.2	328.1	148.8	29.1	71.7
Q3	1,273.5	56.9	610.9	343.1	160.5	30.2	71.9
Q4	1,299.2	55.2	603.4	371.8	172.4	32.7	63.7
2007 Q1	1,340.5	58.0	610.8	375.4	189.7	33.3	73.2
Q2	1,411.8	65.3	612.4	399.3	207.6	34.7	92.7
Q3 <sup>(p)</sup>	1,428.7	72.8	637.0	383.9	206.3	37.7	91.0

Source: ECB.



## EURO AREA ACCOUNTS

### 3.1 Integrated economic and financial accounts by institutional sector

(EUR billions)

Uses	Euro area	Households	Non-financial corporations	Financial corporations	General government	Rest of the world
<b>2007 Q3</b>						
<b>External account</b>						
Exports of goods and services						496.8
Trade balance <sup>1)</sup>						-24.7
<b>Generation of income account</b>						
Gross value added (basic prices)						
Taxes less subsidies on products						
Gross domestic product (market prices)						
Compensation of employees	1,015.7	106.6	646.7	50.7	211.7	
Other taxes less subsidies on production	27.0	6.4	13.9	3.4	3.3	
Consumption of fixed capital	318.6	86.9	179.2	11.2	41.4	
Net operating surplus and mixed income <sup>1)</sup>	609.5	292.0	289.4	28.6	-0.6	
<b>Allocation of primary income account</b>						
Net operating surplus and mixed income						4.1
Compensation of employees						
Taxes less subsidies on production						
Property income	776.9	50.9	284.2	378.1	63.7	127.8
Interest	471.5	48.5	78.2	281.2	63.6	80.3
Other property income	305.3	2.4	206.1	96.9	0.0	47.5
Net national income <sup>1)</sup>	1,880.9	1,499.6	117.6	55.2	208.5	
<b>Secondary distribution of income account</b>						
Net national income						
Current taxes on income, wealth, etc.	265.7	199.0	55.5	10.9	0.3	2.0
Social contributions	386.5	386.5				1.0
Social benefits other than social transfers in kind	390.7	1.3	15.3	23.4	350.6	0.7
Other current transfers	176.8	68.4	22.8	45.0	40.7	7.8
Net non-life insurance premiums	43.0	32.7	8.8	0.9	0.7	1.0
Non-life insurance claims	42.9			42.9		0.7
Other	90.9	35.7	14.0	1.2	40.0	6.0
Net disposable income <sup>1)</sup>	1,858.1	1,318.4	50.7	58.4	430.6	
<b>Use of income account</b>						
Net disposable income						
Final consumption expenditure	1,686.3	1,262.8			423.5	
Individual consumption expenditure	1,520.7	1,262.8			257.9	
Collective consumption expenditure	165.6				165.6	
Adjustment for the change in net equity of households in pension fund reserves	16.3	0.0	2.1	14.3	0.0	0.1
Net saving/current external account <sup>1)</sup>	171.8	71.9	48.6	44.1	7.1	-0.9
<b>Capital account</b>						
Net saving / current external account						
Gross capital formation	489.6	162.1	260.6	11.1	55.7	
Gross fixed capital formation	478.4	159.9	252.1	10.8	55.6	
Changes in inventories and acquisitions less disposals of valuables	11.1	2.2	8.6	0.3	0.2	
Consumption of fixed capital						
Acquisitions less disposals of non-produced non-financial assets	0.5	0.1	0.4	0.1	0.0	-0.5
Capital transfers	33.2	8.9	1.5	1.9	20.8	4.6
Capital taxes	5.9	5.6	0.3	0.0		0.0
Other capital transfers	27.3	3.3	1.3	1.9	20.8	4.6
Net lending (+)/net borrowing (-) (from capital account) <sup>1)</sup>	2.6	-3.4	-19.4	43.1	-17.6	-2.6
Statistical discrepancy	0.0	10.2	-10.2	0.0	0.0	0.0

Sources: ECB and Eurostat.

1) For the calculation of the balancing items, see the Technical notes.

## 3.1 Integrated economic and financial accounts by institutional sector (cont'd)

(EUR billions)

Resources	Euro area	Households	Non-financial corporations	Financial corporations	General government	Rest of the world
2007 Q3						
<b>External account</b>						
Imports of goods and services						472.1
<i>Trade balance</i>						
<b>Generation of income account</b>						
Gross value added (basic prices)	1,970.8	491.9	1,129.2	93.9	255.8	
Taxes less subsidies on products	229.7					
Gross domestic product (market prices) <sup>2)</sup>	2,200.5					
Compensation of employees						
Other taxes less subsidies on production						
Consumption of fixed capital						
<i>Net operating surplus and mixed income</i>						
<b>Allocation of primary income account</b>						
Net operating surplus and mixed income	609.5	292.0	289.4	28.6	-0.6	
Compensation of employees	1,016.6	1,016.6				3.2
Taxes less subsidies on production	255.8				255.8	1.0
Property income	775.9	241.8	112.4	404.6	17.0	128.8
Interest	464.2	73.5	42.9	341.4	6.3	87.6
Other property income	311.7	168.3	69.5	63.2	10.7	41.1
<i>Net national income</i>						
<b>Secondary distribution of income account</b>						
Net national income	1,880.9	1,499.6	117.6	55.2	208.5	
Current taxes on income, wealth, etc.	267.0				267.0	0.7
Social contributions	386.5	1.0	16.6	38.5	330.4	1.0
Social benefits other than social transfers in kind	388.5	388.5				2.9
Other current transfers	155.0	84.6	10.2	44.1	16.2	29.6
Net non-life insurance premiums	42.9			42.9		1.2
Non-life insurance claims	42.4	34.0	7.3	0.9	0.3	1.2
Other	69.7	50.5	2.9	0.4	15.9	27.2
<i>Net disposable income</i>						
<b>Use of income account</b>						
Net disposable income	1,858.1	1,318.4	50.7	58.4	430.6	
Final consumption expenditure						
Individual consumption expenditure						
Collective consumption expenditure						
Adjustment for the change in net equity of households in pension fund reserves	16.4	16.4				0.0
<i>Net saving/current external account</i>						
<b>Capital account</b>						
Net saving / current external account	171.8	71.9	48.6	44.1	7.1	-0.9
Gross capital formation						
Gross fixed capital formation						
Changes in inventories and acquisitions less disposals of valuables						
Consumption of fixed capital	318.6	86.9	179.2	11.2	41.4	
Acquisitions less disposals of non-produced non-financial assets						
Capital transfers	35.5	8.8	15.3	0.8	10.5	2.4
Capital taxes	5.9				5.9	0.0
Other capital transfers	29.6	8.8	15.3	0.8	4.6	2.4
<i>Net lending (+)/net borrowing (-) (from capital account)</i>						
Statistical discrepancy						

Sources: ECB and Eurostat.

2) Gross domestic product is equal to gross value added of all domestic sectors plus net taxes (taxes less subsidies) on products.

### 3.1 Integrated economic and financial accounts by institutional sector (cont'd)

(EUR billions)

Assets	Euro area	Households	Non-financial corporations	MFIs	Other financial intermediaries	Insurance corporations and pension funds	General government	Rest of the world
2007 Q3								
<b>Opening balance sheet, financial assets</b>								
Total financial assets		17,772.4	14,345.0	21,322.7	10,123.0	6,175.6	2,918.9	14,719.8
Monetary gold and special drawing rights (SDRs)				177.5				
Currency and deposits		5,449.6	1,669.8	2,426.5	1,445.4	761.0	623.9	3,944.1
Short-term debt securities		44.8	136.5	111.2	319.4	238.2	32.4	782.0
Long-term debt securities		1,262.9	255.7	3,520.1	1,857.7	1,944.9	207.6	2,319.7
Loans		35.0	1,779.9	11,485.6	1,360.2	357.9	356.7	1,504.7
<i>of which long-term</i>		18.5	983.9	8,619.0	1,037.7	295.7	314.5	.
Shares and other equity		5,546.1	7,810.2	1,905.7	4,885.3	2,432.7	1,144.9	5,430.5
Quoted shares		1,301.1	1,993.0	749.3	2,545.1	860.0	441.1	.
Unquoted shares and other equity		2,541.5	5,406.5	872.6	1,615.6	482.1	555.3	.
Mutual fund shares		1,703.5	410.7	283.8	724.5	1,090.6	148.4	.
Insurance technical reserves		5,083.1	134.0	1.9	0.0	150.6	3.1	190.7
Other accounts receivable and financial derivatives		350.9	2,558.8	1,694.1	255.1	290.2	550.4	548.2
<i>Net financial worth</i>								
<b>Financial account, transactions in financial assets</b>								
Total transactions in financial assets		72.1	163.1	372.3	181.7	59.3	-29.6	455.6
Monetary gold and special drawing rights (SDRs)				-1.1				1.1
Currency and deposits		35.4	13.9	78.7	50.0	23.8	-44.6	126.9
Short-term debt securities		11.3	9.9	-3.2	-16.5	-3.9	8.8	15.7
Long-term debt securities		-7.1	-21.1	-8.6	40.2	25.8	5.3	52.4
Loans		0.2	50.0	267.1	137.8	-2.1	1.0	210.8
<i>of which long-term</i>		-0.1	30.1	190.5	151.4	5.1	1.1	.
Shares and other equity		-2.5	78.8	-7.6	-12.6	8.5	0.3	37.9
Quoted shares		-9.6	29.5	-20.9	34.3	2.3	-3.3	.
Unquoted shares and other equity		28.5	83.7	16.8	-27.3	8.7	-1.2	.
Mutual fund shares		-21.4	-34.4	-3.5	-19.6	-2.6	4.7	.
Insurance technical reserves		42.3	0.7	0.0	0.0	1.4	0.0	11.2
Other accounts receivable and financial derivatives		-7.5	30.8	46.9	-17.3	5.8	-0.4	-0.3
<i>Changes in net financial worth due to transactions</i>								
<b>Other changes account, financial assets</b>								
Total other changes in financial assets		-242.1	-207.3	-79.1	-90.6	-29.2	-7.8	-118.8
Monetary gold and special drawing rights (SDRs)				15.3				
Currency and deposits		-0.3	-2.4	-38.9	-6.7	0.2	0.0	-77.9
Short-term debt securities		-1.2	-4.9	-1.1	0.3	-1.8	-0.1	-0.5
Long-term debt securities		14.7	4.1	-31.9	20.4	-13.2	3.0	0.4
Loans		-0.1	-5.9	-38.9	-1.9	-1.7	0.1	-26.9
<i>of which long-term</i>		-0.1	-3.8	-16.2	-4.1	-0.4	-0.1	.
Shares and other equity		-243.6	-200.1	-13.8	-98.8	-28.8	-10.3	-25.8
Quoted shares		-80.0	-122.1	-15.2	-53.4	-9.5	-14.5	.
Unquoted shares and other equity		-147.3	-73.8	8.1	-38.4	-11.2	7.4	.
Mutual fund shares		-16.2	-4.2	-6.8	-7.0	-8.0	-3.1	.
Insurance technical reserves		-12.5	0.0	0.0	0.0	0.0	0.0	8.6
Other accounts receivable and financial derivatives		0.8	2.0	30.4	-3.9	16.1	-0.5	3.4
<i>Other changes in net financial worth</i>								
<b>Closing balance sheet, financial assets</b>								
Total financial assets		17,602.4	14,300.8	21,615.8	10,214.2	6,205.7	2,881.5	15,055.6
Monetary gold and special drawing rights (SDRs)				191.7				
Currency and deposits		5,484.8	1,681.3	2,466.3	1,488.8	785.0	579.3	3,993.0
Short-term debt securities		54.8	141.6	106.9	303.2	232.5	41.1	797.2
Long-term debt securities		1,270.5	238.7	3,479.6	1,918.4	1,957.5	215.9	2,372.5
Loans		35.1	1,823.9	11,713.7	1,496.1	354.2	357.8	1,688.6
<i>of which long-term</i>		18.4	1,010.2	8,793.4	1,185.0	300.4	315.5	.
Shares and other equity		5,300.1	7,688.9	1,884.3	4,773.9	2,412.4	1,134.9	5,442.6
Quoted shares		1,211.5	1,900.4	713.2	2,526.1	852.9	423.3	.
Unquoted shares and other equity		2,422.7	5,416.3	897.5	1,549.9	479.6	561.5	.
Mutual fund shares		1,665.9	372.2	273.6	697.9	1,079.9	150.0	.
Insurance technical reserves		5,112.9	134.8	2.0	0.0	152.0	3.1	210.4
Other accounts receivable and financial derivatives		344.2	2,591.7	1,771.4	233.8	312.1	549.4	551.2
<i>Net financial worth</i>								

Source: ECB.

## 3.1 Integrated economic and financial accounts by institutional sector (cont'd)

(EUR billions)

Liabilities	Euro area	Households	Non-financial corporations	MFIs	Other financial inter- mediaries	Insurance corporations and pension funds	General govern- ment	Rest of the world
2007 Q3								
<b>Opening balance sheet, liabilities</b>								
Total liabilities		5,709.4	23,478.2	21,660.9	10,046.3	6,315.1	6,767.3	13,222.7
Monetary gold and special drawing rights (SDRs)								
Currency and deposits			26.6	13,022.9	221.4	3.8	328.0	2,717.5
Short-term debt securities			304.9	372.0	78.9	0.2	655.7	253.0
Long-term debt securities			438.0	2,674.8	1,422.1	25.2	4,311.6	2,496.9
Loans		5,195.5	6,608.5		1,336.6	193.6	1,079.4	2,466.3
<i>of which long-term</i>		4,879.2	4,426.7		612.0	73.9	919.3	.
Shares and other equity			13,416.1	3,399.8	6,761.4	688.5	5.6	4,884.1
Quoted shares			5,061.3	1,121.1	363.2	338.1	0.0	.
Unquoted shares and other equity			8,354.8	1,222.9	935.0	349.8	5.6	.
Mutual fund shares				1,055.8	5,463.3			.
Insurance technical reserves		32.7	333.9	53.6	0.6	5,142.2	0.5	
Other accounts payable and financial derivatives		481.2	2,350.3	2,137.9	225.3	261.6	386.4	405.0
<i>Net financial worth<sup>1)</sup></i>	-1,319.6	12,063.0	-9,133.3	-338.2	76.7	-139.5	-3,848.4	
<b>Financial account, transactions in liabilities</b>								
Total transactions in liabilities		65.4	192.6	354.6	157.0	58.6	-12.0	458.2
Monetary gold and special drawing rights (SDRs)								
Currency and deposits			0.0	245.5	-8.5	0.1	2.3	44.8
Short-term debt securities			-11.0	40.4	7.4	0.3	2.6	-17.6
Long-term debt securities			-2.3	35.9	12.3	0.1	-5.0	45.9
Loans		82.5	168.6		171.1	8.3	-1.4	235.5
<i>of which long-term</i>		85.5	130.9		135.0	0.3	-3.4	.
Shares and other equity			49.2	0.3	-43.2	3.7	0.0	92.8
Quoted shares			8.7	6.9	6.6	0.9	0.0	.
Unquoted shares and other equity			40.5	2.2	11.0	2.8	0.0	.
Mutual fund shares				-8.8	-60.8			.
Insurance technical reserves		0.0	1.9	-0.3	0.0	54.0	0.0	
Other accounts payable and financial derivatives		-17.1	-13.7	32.8	17.9	-8.0	-10.6	56.7
<i>Changes in net financial worth due to transactions<sup>1)</sup></i>	2.6	6.7	-29.6	17.6	24.7	0.7	-17.6	-2.6
<b>Other changes account, liabilities</b>								
Total other changes in liabilities		-0.8	-222.2	-323.9	-61.7	-32.2	49.7	-198.9
Monetary gold and special drawing rights (SDRs)								
Currency and deposits			0.0	-88.4	0.2	0.0	0.0	-37.8
Short-term debt securities			0.4	-6.9	0.0	0.0	0.0	-3.0
Long-term debt securities			3.0	-20.2	1.0	-0.2	43.5	-29.6
Loans		-2.8	-2.0		-7.6	-2.5	0.3	-60.8
<i>of which long-term</i>		-1.9	-3.0		-2.3	-3.3	0.0	.
Shares and other equity			-263.9	-226.8	-61.0	-39.9	0.4	-30.0
Quoted shares			-135.4	-95.8	-74.0	-44.0	0.0	.
Unquoted shares and other equity			-128.4	-131.5	15.8	4.1	0.4	.
Mutual fund shares				0.4	-2.8			.
Insurance technical reserves		0.0	0.0	0.0	0.0	-3.9	0.0	
Other accounts payable and financial derivatives		2.0	40.3	18.3	5.7	14.2	5.4	-37.7
<i>Other changes in net financial worth<sup>1)</sup></i>	-64.9	-241.3	14.9	244.8	-28.9	3.0	-57.5	80.2
<b>Closing balance sheet, liabilities</b>								
Total liabilities		5,773.9	23,448.7	21,691.6	10,141.6	6,341.4	6,804.9	13,482.0
Monetary gold and special drawing rights (SDRs)								
Currency and deposits			26.6	13,180.0	213.1	3.9	330.3	2,724.5
Short-term debt securities			294.3	405.5	86.3	0.5	658.3	232.3
Long-term debt securities			438.8	2,690.6	1,435.3	25.2	4,350.1	2,513.1
Loans		5,275.2	6,775.1		1,500.2	199.5	1,078.4	2,641.0
<i>of which long-term</i>		4,962.8	4,554.7		744.7	70.9	915.8	.
Shares and other equity			13,201.4	3,173.3	6,657.2	652.3	6.0	4,946.9
Quoted shares			4,934.6	1,032.2	295.8	295.1	0.0	.
Unquoted shares and other equity			8,266.8	1,093.7	961.7	356.6	6.0	.
Mutual fund shares				1,047.4	5,399.7			.
Insurance technical reserves		32.7	335.7	53.3	0.6	5,192.3	0.5	
Other accounts payable and financial derivatives		466.0	2,376.9	2,189.0	248.9	267.8	381.3	424.1
<i>Net financial worth<sup>1)</sup></i>	-1,381.9	11,828.5	-9,148.0	-75.8	72.6	-135.8	-3,923.4	

Source: ECB.

## 3.2 Euro area non-financial accounts

(EUR billions; four-quarter cumulated flows)

Uses	2003	2004	2005	2005 Q4- 2006 Q3	2006 Q1- 2006 Q4	2006 Q2- 2007 Q1	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3
<b>Generation of income account</b>								
Gross value added (basic prices)								
Taxes less subsidies on products								
Gross domestic product (market prices)								
Compensation of employees	3,666.5	3,772.0	3,878.7	3,994.4	4,031.2	4,075.3	4,117.7	4,157.4
Other taxes less subsidies on production	110.3	122.1	129.9	131.8	128.7	130.4	133.0	134.3
Consumption of fixed capital	1,073.7	1,121.3	1,173.1	1,212.4	1,225.0	1,236.7	1,247.5	1,258.9
<i>Net operating surplus and mixed income</i> <sup>1)</sup>	1,887.3	1,988.6	2,051.7	2,126.0	2,162.8	2,196.8	2,228.5	2,268.6
<b>Allocation of primary income account</b>								
Net operating surplus and mixed income								
Compensation of employees								
Taxes less subsidies on production								
Property income	2,281.8	2,335.9	2,553.9	2,820.4	2,935.5	3,026.2	3,119.8	3,196.0
Interest	1,267.3	1,242.4	1,328.9	1,525.3	1,602.3	1,671.7	1,737.1	1,798.7
Other property income	1,014.5	1,093.6	1,225.0	1,295.0	1,333.2	1,354.6	1,382.7	1,397.3
<i>Net national income</i> <sup>1)</sup>	6,406.2	6,684.1	6,907.9	7,153.9	7,234.6	7,330.4	7,412.5	7,504.2
<b>Secondary distribution of income account</b>								
Net national income								
Current taxes on income, wealth, etc.	856.8	882.3	932.0	990.6	1,023.4	1,037.2	1,060.5	1,088.2
Social contributions	1,388.2	1,427.4	1,469.5	1,517.9	1,532.8	1,545.1	1,557.4	1,568.6
Social benefits other than social transfers in kind	1,407.9	1,453.1	1,497.1	1,531.5	1,542.2	1,549.6	1,557.7	1,567.6
Other current transfers	658.5	683.2	702.5	703.7	705.8	710.4	718.7	722.0
Net non-life insurance premiums	174.0	175.8	175.7	175.5	174.9	175.7	176.8	177.3
Non-life insurance claims	174.6	176.3	176.8	175.8	175.0	176.0	177.1	177.4
Other	309.9	331.1	350.0	352.3	355.9	358.8	364.8	367.3
<i>Net disposable income</i> <sup>1)</sup>	6,336.3	6,606.8	6,821.7	7,067.2	7,145.3	7,240.8	7,323.7	7,415.8
<b>Use of income account</b>								
Net disposable income								
Final consumption expenditure	5,854.7	6,076.3	6,308.3	6,502.7	6,564.7	6,619.5	6,669.3	6,724.0
Individual consumption expenditure	5,234.6	5,432.6	5,647.8	5,830.1	5,886.6	5,935.7	5,981.8	6,031.1
Collective consumption expenditure	620.1	643.7	660.5	672.6	678.2	683.8	687.5	692.9
Adjustment for the change in net equity of households in pension funds reserves	54.6	57.3	59.5	62.2	63.2	63.2	63.4	64.4
<i>Net saving</i> <sup>1)</sup>	481.9	530.7	513.7	564.8	581.0	621.6	654.7	692.1
<b>Capital account</b>								
Net saving								
Gross capital formation	1,526.1	1,607.4	1,698.5	1,816.5	1,841.5	1,881.8	1,914.4	1,945.0
Gross fixed capital formation	1,527.3	1,599.9	1,688.2	1,780.5	1,813.5	1,856.5	1,888.7	1,918.0
Changes in inventories and acquisitions less disposals of valuables	-1.2	7.5	10.3	35.9	28.0	25.3	25.7	26.9
Consumption of fixed capital								
Acquisitions less disposals of non-produced non-financial assets	0.6	-1.1	-0.1	1.1	1.2	1.0	1.1	1.3
Capital transfers	182.6	167.5	181.6	176.7	191.4	190.3	188.2	171.6
Capital taxes	35.9	29.8	24.2	22.5	22.3	22.9	23.3	23.8
Other capital transfers	146.8	137.7	157.4	154.2	169.1	167.4	164.9	147.8
<i>Net lending (+)/net borrowing (-) (from capital account)</i> <sup>1)</sup>	41.1	62.1	1.9	-26.7	-21.7	-6.9	3.6	20.6

Sources: ECB and Eurostat.

1) For the calculation of the balancing items, see the Technical notes.

**3.2 Euro area non-financial accounts (cont'd)**

(EUR billions; four-quarter cumulated flows)

Resources	2003	2004	2005	2005 Q4- 2006 Q3	2006 Q1- 2006 Q4	2006 Q2- 2007 Q1	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3
<b>Generation of income account</b>								
Gross value added (basic prices)	6,737.8	7,004.0	7,233.3	7,464.7	7,547.7	7,639.2	7,726.7	7,819.1
Taxes less subsidies on products	761.2	797.2	839.7	885.9	904.5	921.7	934.6	945.2
Gross domestic product (market prices) <sup>2)</sup>	7,499.0	7,801.2	8,073.0	8,350.6	8,452.2	8,560.8	8,661.3	8,764.3
Compensation of employees								
Other taxes less subsidies on production								
Consumption of fixed capital								
<i>Net operating surplus and mixed income</i>								
<b>Allocation of primary income account</b>								
Net operating surplus and mixed income	1,887.3	1,988.6	2,051.7	2,126.0	2,162.8	2,196.8	2,228.5	2,268.6
Compensation of employees	3,673.6	3,779.1	3,884.2	4,000.3	4,037.1	4,081.3	4,123.7	4,163.4
Taxes less subsidies on production	880.7	933.1	981.1	1,028.8	1,044.4	1,061.9	1,077.0	1,088.1
Property income	2,246.4	2,319.3	2,544.8	2,819.2	2,925.8	3,016.7	3,103.1	3,180.1
Interest	1,236.3	1,211.5	1,302.7	1,502.7	1,578.3	1,645.7	1,710.7	1,768.5
Other property income	1,010.1	1,107.8	1,242.1	1,316.6	1,347.5	1,370.9	1,392.4	1,411.5
<i>Net national income</i>								
<b>Secondary distribution of income account</b>								
Net national income	6,406.2	6,684.1	6,907.9	7,153.9	7,234.6	7,330.4	7,412.5	7,504.2
Current taxes on income, wealth, etc.	858.7	885.4	935.7	995.2	1,028.2	1,042.4	1,067.3	1,095.5
Social contributions	1,387.3	1,426.5	1,469.1	1,517.4	1,532.4	1,544.7	1,556.9	1,568.1
Social benefits other than social transfers in kind	1,401.4	1,445.6	1,489.4	1,524.0	1,534.7	1,541.7	1,549.5	1,559.2
Other current transfers	594.1	611.1	620.7	620.3	619.6	623.9	631.7	635.3
Net non-life insurance premiums	174.6	176.3	176.8	175.8	175.0	176.0	177.1	177.4
Non-life insurance claims	171.3	173.5	174.4	173.0	172.4	173.3	174.6	175.1
Other	248.2	261.3	269.5	271.5	272.2	274.7	280.0	282.8
<i>Net disposable income</i>								
<b>Use of income account</b>								
Net disposable income	6,336.3	6,606.8	6,821.7	7,067.2	7,145.3	7,240.8	7,323.7	7,415.8
Final consumption expenditure								
Individual consumption expenditure								
Collective consumption expenditure								
Adjustment for the change in net equity of households in pension funds reserves	54.8	57.5	59.8	62.5	63.5	63.5	63.7	64.6
<i>Net saving</i>								
<b>Capital account</b>								
Net saving	481.9	530.7	513.7	564.8	581.0	621.6	654.7	692.1
Gross capital formation								
Gross fixed capital formation								
Changes in inventories and acquisitions less disposals of valuables								
Consumption of fixed capital	1,073.7	1,121.3	1,173.1	1,212.4	1,225.0	1,236.7	1,247.5	1,258.9
Acquisitions less disposals of non-produced non-financial assets								
Capital transfers	194.8	184.0	195.1	190.3	206.4	207.8	205.1	187.6
Capital taxes	35.9	29.8	24.2	22.5	22.3	22.9	23.3	23.8
Other capital transfers	158.9	154.2	170.9	167.9	184.1	185.0	181.8	163.8
<i>Net lending (+)/net borrowing (-) (from capital account)</i>								

Sources: ECB and Eurostat.

2) Gross domestic product is equal to gross value added of all domestic sectors plus net taxes (taxes less subsidies) on products.



### 3.3 Households

(EUR billions; four-quarter cumulated flows; outstanding amounts at end-of-period)

	2003	2004	2005	2005 Q4- 2006 Q3	2006 Q1- 2006 Q4	2006 Q2- 2007 Q1	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3
<b>Income, saving and changes in net worth</b>								
Compensation of employees (+)	3,673.6	3,779.1	3,884.2	4,000.3	4,037.1	4,081.3	4,123.7	4,163.4
Gross operating surplus and mixed income (+)	1,228.6	1,280.5	1,329.3	1,383.6	1,403.9	1,424.9	1,445.8	1,466.6
Interest receivable (+)	237.5	230.6	228.7	249.6	259.8	267.7	275.2	282.8
Interest payable (-)	124.1	125.2	128.9	148.7	156.9	165.0	173.2	180.5
Other property income receivable (+)	615.4	650.3	696.7	725.4	736.6	742.9	753.0	756.9
Other property income payable (-)	8.9	9.4	9.4	9.5	9.5	9.5	9.5	9.5
Current taxes on income and wealth (-)	702.0	705.5	738.4	770.8	788.8	797.1	810.5	829.5
Net social contributions (-)	1,384.4	1,423.7	1,465.5	1,513.7	1,528.6	1,540.8	1,553.2	1,564.3
Net social benefits (+)	1,396.7	1,440.7	1,484.2	1,518.6	1,529.3	1,536.3	1,544.0	1,553.7
Net current transfers receivable (+)	65.3	64.6	67.4	62.8	62.9	64.5	65.3	66.4
<b>= Gross disposable income</b>	<b>4,997.7</b>	<b>5,182.1</b>	<b>5,348.4</b>	<b>5,497.5</b>	<b>5,545.8</b>	<b>5,605.1</b>	<b>5,660.8</b>	<b>5,705.9</b>
Final consumption expenditure (-)	4,319.7	4,485.4	4,653.3	4,798.2	4,843.5	4,882.1	4,920.9	4,961.2
Changes in net worth in pension funds (+)	54.5	57.1	59.4	62.0	63.1	63.0	63.4	64.4
<b>= Gross saving</b>	<b>732.5</b>	<b>753.8</b>	<b>754.4</b>	<b>761.4</b>	<b>765.4</b>	<b>786.1</b>	<b>803.4</b>	<b>809.1</b>
Consumption of fixed capital (-)	288.1	303.3	318.4	331.0	335.2	338.8	342.1	344.8
Net capital transfers receivable (+)	12.6	18.9	25.0	28.9	32.3	30.3	27.6	20.5
Other changes in net worth <sup>1)</sup> (+)	256.1	300.1	617.9	366.5	479.4	386.1	604.1	200.0
<b>= Changes in net worth <sup>1)</sup></b>	<b>713.2</b>	<b>769.5</b>	<b>1,078.9</b>	<b>825.8</b>	<b>941.9</b>	<b>863.7</b>	<b>1,092.9</b>	<b>684.8</b>
<b>Investment, financing and changes in net worth</b>								
Net acquisition of non-financial assets (+)	495.8	526.7	559.7	600.4	612.0	627.1	638.1	644.8
Consumption of fixed capital (-)	288.1	303.3	318.4	331.0	335.2	338.8	342.1	344.8
Main items of financial investment (+)								
Short-term assets	211.3	214.6	207.7	262.2	301.6	345.8	378.5	398.9
Currency and deposits	226.5	213.0	247.9	265.6	283.8	293.2	316.9	328.2
Money market fund shares	25.1	-6.4	-20.2	-17.5	0.3	25.7	44.7	42.9
Debt securities <sup>2)</sup>	-40.3	8.0	-20.1	14.0	17.6	26.9	16.8	27.7
Long-term assets	311.0	342.3	443.3	359.7	303.1	257.9	222.5	157.7
Deposits	-5.7	33.7	-10.1	-0.3	-6.7	-19.7	-29.3	-34.1
Debt securities	25.8	65.8	17.0	69.1	62.4	46.4	29.7	-2.0
Shares and other equity	59.9	-8.5	136.1	-7.3	-29.7	-26.3	-32.8	-32.5
Quoted, unquoted shares and other equity	7.6	-13.5	61.4	-8.7	-1.4	30.2	32.2	38.0
Mutual fund shares	52.2	5.0	74.7	1.5	-28.3	-56.5	-65.0	-70.6
Life insurance and pension fund reserves	231.0	251.3	300.4	298.2	277.1	257.4	254.8	226.3
Main items of financing (-)								
Loans	262.8	311.7	390.3	411.4	390.7	382.4	364.6	361.6
of which from euro area MFIs	211.6	280.8	358.3	372.1	346.5	337.2	316.8	302.3
Other changes in financial assets (+)								
Shares and other equity	272.5	256.5	521.4	353.8	460.0	371.4	587.4	196.1
Life insurance and pension fund reserves	29.0	56.9	129.4	55.0	48.5	33.4	66.1	29.8
Remaining net flows (+)	-55.5	-12.5	-73.8	-62.9	-57.4	-50.7	-92.9	-36.0
<b>= Changes in net worth <sup>1)</sup></b>	<b>713.2</b>	<b>769.5</b>	<b>1,078.9</b>	<b>825.8</b>	<b>941.9</b>	<b>863.7</b>	<b>1,092.9</b>	<b>684.8</b>
<b>Financial balance sheet</b>								
Financial assets (+)								
Short-term assets	4,058.0	4,275.7	4,494.8	4,644.7	4,751.6	4,830.1	4,969.5	5,020.9
Currency and deposits	3,710.1	3,926.0	4,176.7	4,318.2	4,456.5	4,497.3	4,613.3	4,653.9
Money market fund shares	321.0	313.9	300.5	285.4	261.3	281.0	305.0	302.8
Debt securities <sup>2)</sup>	27.0	35.7	17.6	41.2	33.8	51.8	51.2	64.3
Long-term assets	9,214.9	9,847.5	10,931.5	11,483.6	11,761.0	11,981.2	12,081.2	11,863.0
Deposits	841.9	876.6	883.9	870.9	871.0	847.8	836.3	830.9
Debt securities	1,202.1	1,243.3	1,239.6	1,286.8	1,286.5	1,301.8	1,256.5	1,261.1
Shares and other equity	3,629.8	3,878.4	4,529.1	4,808.2	4,999.0	5,160.4	5,241.1	4,997.3
Quoted, unquoted shares and other equity	2,480.8	2,712.8	3,207.9	3,462.0	3,613.6	3,775.6	3,842.6	3,634.2
Mutual fund shares	1,149.1	1,165.6	1,321.2	1,346.2	1,385.4	1,384.8	1,398.5	1,363.1
Life insurance and pension fund reserves	3,541.0	3,849.2	4,278.9	4,517.6	4,604.6	4,671.1	4,747.3	4,773.7
Remaining net assets (+)	190.2	228.0	184.0	203.9	202.6	215.0	207.8	219.8
Liabilities (-)								
Loans	3,922.2	4,245.6	4,630.0	4,915.9	5,015.6	5,099.1	5,195.5	5,275.2
of which from euro area MFIs	3,521.2	3,812.5	4,195.9	4,464.5	4,543.0	4,611.3	4,692.7	4,752.9
<b>= Net financial wealth</b>	<b>9,540.8</b>	<b>10,105.6</b>	<b>10,980.3</b>	<b>11,416.3</b>	<b>11,699.7</b>	<b>11,927.2</b>	<b>12,063.0</b>	<b>11,828.5</b>

Sources: ECB and Eurostat.

1) Excluding changes in net worth due to other changes in non-financial assets such as revaluations of residential property.

2) Securities issued by MFIs with a maturity of less than two years and by other sectors with a maturity of less than one year.

## 3.4 Non-financial corporations

(EUR billions; four-quarter cumulated flows; outstanding amounts at end-of-period)

	2003	2004	2005	2005 Q4- 2006 Q3	2006 Q1- 2006 Q4	2006 Q2- 2007 Q1	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3
<b>Income and saving</b>								
Gross value added (basic prices) (+)	3,835.1	3,989.3	4,112.9	4,240.3	4,296.1	4,353.8	4,409.9	4,467.2
Compensation of employees (-)	2,313.0	2,382.6	2,445.6	2,518.8	2,544.8	2,574.4	2,606.7	2,634.9
Other taxes less subsidies on production (-)	58.7	65.2	71.1	72.9	72.7	74.7	77.1	78.1
<b>= Gross operating surplus (+)</b>	<b>1,463.4</b>	<b>1,541.5</b>	<b>1,596.2</b>	<b>1,648.6</b>	<b>1,678.7</b>	<b>1,704.7</b>	<b>1,726.2</b>	<b>1,754.2</b>
Consumption of fixed capital (-)	607.9	632.6	661.7	681.5	688.0	694.0	699.7	706.4
<b>= Net operating surplus (+)</b>	<b>855.4</b>	<b>908.9</b>	<b>934.4</b>	<b>967.1</b>	<b>990.7</b>	<b>1,010.7</b>	<b>1,026.5</b>	<b>1,047.8</b>
Property income receivable (+)	320.6	365.9	423.7	453.0	465.0	470.0	474.8	480.5
Interest receivable	126.6	121.9	132.5	149.3	154.7	159.1	163.7	166.9
Other property income receivable	194.1	244.1	291.2	303.7	310.3	311.0	311.1	313.6
Interest and rents payable (-)	228.6	226.4	235.1	265.0	278.2	290.3	301.5	311.1
<b>= Net entrepreneurial income (+)</b>	<b>947.5</b>	<b>1,048.4</b>	<b>1,123.0</b>	<b>1,155.1</b>	<b>1,177.5</b>	<b>1,190.4</b>	<b>1,199.8</b>	<b>1,217.2</b>
Distributed income (-)	692.6	753.6	839.4	878.9	906.1	913.8	921.4	929.0
Taxes on income and wealth payable (-)	117.1	135.7	148.1	169.5	184.3	189.1	197.7	206.2
Social contributions receivable (+)	73.3	73.5	74.1	76.3	76.7	77.3	74.7	72.5
Social benefits payable (-)	59.7	60.3	62.1	62.4	61.9	62.0	61.9	62.1
Other net transfers (-)	55.9	62.1	60.4	60.1	59.9	60.6	59.9	58.9
<b>= Net saving</b>	<b>95.6</b>	<b>110.1</b>	<b>87.3</b>	<b>60.6</b>	<b>41.9</b>	<b>42.2</b>	<b>33.7</b>	<b>33.5</b>
<b>Investment, financing and saving</b>								
Net acquisition of non-financial assets (+)	193.8	211.8	237.2	287.5	288.0	301.6	316.8	329.7
Gross fixed capital formation (+)	803.6	840.8	888.8	936.7	950.3	973.2	993.8	1,012.0
Consumption of fixed capital (-)	607.9	632.6	661.7	681.5	688.0	694.0	699.7	706.4
Net acquisition of other non-financial assets (+)	-1.8	3.6	10.1	32.3	25.8	22.5	22.7	24.1
Main items of financial investment (+)								
Short-term assets	106.0	102.9	125.9	156.3	179.2	210.0	221.1	185.7
Currency and deposits	64.3	84.1	113.2	124.8	145.1	163.9	164.5	158.4
Money market fund shares	22.5	16.5	8.6	8.0	3.6	19.7	23.5	-9.4
Debt securities <sup>1)</sup>	18.5	-2.5	4.4	24.1	31.0	27.1	34.2	37.5
Long-term assets	284.5	188.9	348.4	298.8	320.9	342.3	365.1	423.2
Deposits	43.4	0.6	30.7	20.2	21.4	29.4	29.1	16.8
Debt securities	-46.4	-53.2	-27.5	-36.2	-22.5	-30.1	-34.8	-31.5
Shares and other equity	147.3	175.8	214.3	191.5	174.6	176.1	192.1	240.2
Other, mainly intercompany loans	140.2	65.7	130.9	123.2	147.4	166.8	178.7	197.7
Remaining net assets (+)	59.5	75.8	68.0	143.0	159.8	136.3	130.1	145.5
Main items of financing (-)								
Debt	296.3	219.0	400.9	596.9	627.8	649.6	686.6	743.5
of which loans from euro area MFIs	102.8	172.5	264.6	425.1	448.7	444.9	484.6	521.6
of which debt securities	63.1	7.3	3.3	28.4	41.3	44.3	59.7	40.6
Shares and other equity	205.7	192.1	230.3	162.3	197.4	212.9	224.4	229.0
Quoted shares	19.0	11.9	100.5	37.8	34.3	46.5	66.2	74.1
Unquoted shares and other equity	186.7	180.1	129.8	124.5	163.1	166.4	158.2	154.9
Net capital transfers receivable (-)	46.3	58.3	61.1	65.9	80.8	85.5	86.2	75.8
<b>= Net saving</b>	<b>95.6</b>	<b>110.1</b>	<b>87.3</b>	<b>60.6</b>	<b>41.9</b>	<b>42.2</b>	<b>33.7</b>	<b>33.5</b>
<b>Financial balance sheet</b>								
Financial assets								
Short-term assets	1,307.5	1,368.0	1,499.8	1,603.2	1,672.7	1,711.8	1,766.3	1,780.9
Currency and deposits	1,028.9	1,102.6	1,220.7	1,276.9	1,356.8	1,364.8	1,405.0	1,428.9
Money market fund shares	143.8	163.7	176.3	194.4	185.8	204.2	205.2	185.6
Debt securities <sup>1)</sup>	134.8	101.7	102.9	131.9	130.1	142.8	156.1	166.3
Long-term assets	6,424.8	6,907.1	8,029.6	8,781.6	9,206.2	9,511.2	9,885.7	9,793.4
Deposits	137.6	136.8	175.4	214.3	206.3	260.5	264.8	252.3
Debt securities	377.6	324.4	285.2	255.5	260.7	234.1	236.1	213.9
Shares and other equity	4,563.9	5,047.2	6,049.0	6,697.8	7,059.1	7,283.6	7,605.0	7,503.3
Other, mainly intercompany loans	1,345.7	1,398.7	1,520.0	1,614.0	1,680.2	1,733.0	1,779.9	1,823.9
Remaining net assets	230.9	268.0	265.2	304.2	301.0	358.9	369.1	376.1
Liabilities								
Debt	6,037.5	6,221.0	6,632.8	7,103.9	7,244.9	7,431.3	7,685.3	7,843.8
of which loans from euro area MFIs	3,034.4	3,160.8	3,419.5	3,743.8	3,857.4	3,957.3	4,107.8	4,231.6
of which debt securities	628.2	667.8	671.3	696.9	698.8	710.4	742.9	733.0
Shares and other equity	8,241.7	9,172.2	10,715.8	11,634.5	12,349.5	12,770.6	13,416.1	13,201.4
Quoted shares	2,731.9	2,987.1	3,680.9	4,077.3	4,451.5	4,664.2	5,061.3	4,934.6
Unquoted shares and other equity	5,509.8	6,185.2	7,034.9	7,557.1	7,897.9	8,106.4	8,354.8	8,266.8

Sources: ECB and Eurostat.

1) Securities issued by MFIs with a maturity of less than two years and by other sectors with a maturity of less than one year.

### 3.5 Insurance corporations and pension funds

(EUR billions; four-quarter cumulated flows; outstanding amounts at end-of-period)

	2003	2004	2005	2005 Q4- 2006 Q3	2006 Q1- 2006 Q4	2006 Q2- 2007 Q1	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3
<b>Financial account, financial transactions</b>								
<b>Main items of financial investment (+)</b>								
Short-term assets	21.7	40.1	28.6	-7.1	17.5	43.8	41.7	42.4
Currency and deposits	7.0	13.2	7.2	8.3	12.4	18.0	2.4	8.9
Money market fund shares	7.7	2.7	0.4	-4.2	3.6	7.1	3.6	0.3
Debt securities <sup>1)</sup>	7.1	24.2	21.0	-11.2	1.4	18.7	35.7	33.3
Long-term assets	230.2	217.0	281.3	344.2	323.1	282.8	284.8	243.5
Deposits	22.8	36.7	18.5	40.7	52.2	63.7	71.3	69.3
Debt securities	144.5	131.0	128.7	147.3	145.4	146.5	155.6	138.5
Loans	11.5	6.6	-2.7	10.5	4.0	-9.3	-8.4	-14.7
Quoted shares	9.5	13.0	31.6	14.7	16.7	12.1	5.7	2.9
Unquoted shares and other equity	5.1	-0.9	18.2	25.5	20.5	12.8	15.1	21.6
Mutual fund shares	36.7	30.6	87.0	105.5	84.2	57.1	45.5	26.0
Remaining net assets (+)	-3.7	9.9	9.3	15.5	11.5	25.4	25.7	34.9
<b>Main items of financing (-)</b>								
Debt securities	5.0	-1.8	0.1	-0.3	4.0	4.0	3.6	3.4
Loans	12.4	4.5	12.5	37.1	32.7	34.0	44.0	42.5
Shares and other equity	11.4	12.9	8.8	11.4	7.3	9.6	11.8	10.4
Insurance technical reserves	237.0	261.2	335.3	334.2	314.4	299.8	297.3	272.5
Net equity of households in life insurance and pension fund reserves	210.3	229.5	291.8	291.5	267.4	249.2	247.9	230.9
Prepayments of insurance premiums and reserves for outstanding claims	26.8	31.6	43.5	42.7	47.0	50.5	49.4	41.6
<b>= Changes in net financial worth due to transactions</b>	-17.5	-9.8	-37.4	-29.7	-6.3	4.7	-4.6	-7.9
<b>Other changes account</b>								
<b>Other changes in financial assets (+)</b>								
Shares and other equity	107.1	110.2	190.2	125.6	190.6	155.8	250.3	148.0
Other net assets	-10.1	159.2	43.7	-0.7	-51.3	-69.3	-81.9	-116.1
<b>Other changes in liabilities (-)</b>								
Shares and other equity	98.4	21.0	117.4	86.3	48.3	34.6	97.7	13.0
Insurance technical reserves	33.7	84.3	139.4	61.1	57.8	44.4	67.0	36.9
Net equity of households in life insurance and pension fund reserves	34.2	64.6	145.6	63.7	61.7	46.9	68.7	38.4
Prepayments of insurance premiums and reserves for outstanding claims	-0.5	19.8	-6.2	-2.6	-4.0	-2.4	-1.6	-1.5
<b>= Other changes in net financial worth</b>	-35.0	164.0	-22.9	-22.5	33.3	7.4	3.6	-18.1
<b>Financial balance sheet</b>								
<b>Financial assets (+)</b>								
Short-term assets	264.6	418.4	437.4	445.8	457.2	479.2	483.0	486.2
Currency and deposits	121.3	133.6	142.7	144.4	154.6	155.9	144.4	154.0
Money market fund shares	68.5	72.2	74.3	80.4	80.4	82.8	84.3	80.9
Debt securities <sup>1)</sup>	74.8	212.5	220.4	221.0	222.2	240.5	254.3	251.3
Long-term assets	3,770.2	4,126.0	4,622.1	4,972.8	5,076.9	5,162.4	5,251.8	5,255.4
Deposits	457.6	497.1	516.6	559.9	569.5	595.7	616.6	631.0
Debt securities	1,483.7	1,652.8	1,800.6	1,903.2	1,894.1	1,915.8	1,928.8	1,938.7
Loans	368.3	363.7	367.2	376.3	365.8	355.0	357.9	354.2
Quoted shares	526.1	574.9	702.1	761.6	831.0	855.0	860.0	852.9
Unquoted shares and other equity	306.7	337.1	396.9	435.2	457.1	460.4	482.1	479.6
Mutual fund shares	627.7	700.5	838.9	936.6	959.3	980.6	1,006.3	999.0
Remaining net assets (+)	105.6	121.5	159.0	175.9	176.5	180.5	175.4	192.4
<b>Liabilities (-)</b>								
Debt securities	23.4	21.9	22.0	23.7	26.2	26.0	25.4	25.6
Loans	126.5	119.8	131.8	168.9	164.9	183.8	193.6	199.5
Shares and other equity	429.3	463.3	589.5	628.9	645.0	661.0	688.5	652.3
Insurance technical reserves	3,789.4	4,134.9	4,609.6	4,882.9	4,981.7	5,062.9	5,142.2	5,192.3
Net equity of households in life insurance and pension fund reserves	3,208.5	3,502.6	3,940.0	4,183.6	4,269.1	4,336.1	4,409.5	4,452.9
Prepayments of insurance premiums and reserves for outstanding claims	580.9	632.3	669.6	699.3	712.6	726.7	732.7	739.4
<b>= Net financial wealth</b>	-228.3	-74.0	-134.3	-109.8	-107.2	-111.6	-139.5	-135.8

Source: ECB.

1) Securities issued by MFIs with a maturity of less than two years and by other sectors with a maturity of less than one year.

# FINANCIAL MARKETS

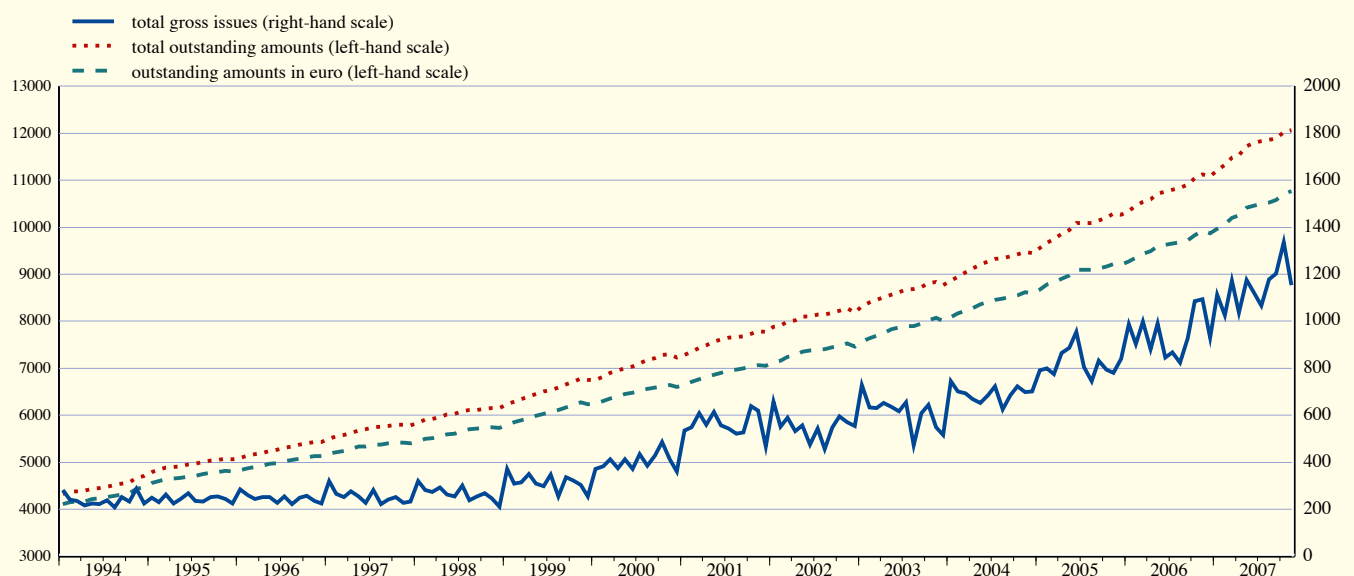
## 4.1 Securities, other than shares, by original maturity, residency of the issuer and currency

(EUR billions and period growth rates; seasonally adjusted; 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	Net issues	In euro			In all currencies					
				Outstanding amounts	Gross issues	Net issues	Outstanding amounts	Gross issues	Net issues	Annual growth rates	Seasonally adjusted <sup>2)</sup>	
1	2	3	4	5	6	7	8	9	10	Net issues 11	6-month growth rates 12	
<b>Total</b>												
2006 Nov.	11,760.3	1,135.0	138.1	9,922.2	1,037.0	91.2	11,127.3	1,093.0	107.8	8.2	95.1	8.2
Dec.	11,736.8	977.7	-24.3	9,868.1	885.8	-55.4	11,083.2	930.5	-59.4	7.9	52.0	8.7
2007 Jan.	11,836.3	1,146.3	99.4	9,966.1	1,052.7	98.1	11,211.1	1,112.3	116.6	7.9	75.3	9.0
Feb.	11,946.4	1,044.9	110.2	10,062.8	958.5	96.9	11,327.5	1,024.6	123.7	8.2	95.0	9.3
Mar.	12,178.6	1,258.6	231.0	10,200.2	1,119.6	136.1	11,470.5	1,172.2	142.3	8.5	108.0	10.1
Apr.	12,202.0	1,040.6	23.1	10,256.1	982.2	55.6	11,536.9	1,037.1	72.5	8.6	63.8	9.1
May	12,415.9	1,216.9	214.7	10,417.7	1,114.4	162.4	11,725.5	1,175.6	183.8	9.0	137.9	9.8
June	12,546.5	1,220.1	130.5	10,462.2	1,068.0	44.5	11,786.6	1,124.2	58.3	9.2	52.1	9.7
July	12,551.5	1,075.0	3.9	10,492.2	1,002.8	29.1	11,831.3	1,065.3	46.9	9.2	62.6	9.4
Aug.	12,579.7	1,183.3	28.4	10,518.3	1,130.7	26.4	11,852.8	1,179.2	27.3	9.2	84.5	9.2
Sep.	12,674.2	1,243.4	92.9	10,578.6	1,154.1	58.6	11,885.7	1,201.4	49.3	9.1	60.8	8.2
Oct.	.	.	.	10,699.7	1,268.0	120.1	12,022.2	1,335.8	137.0	9.1	120.9	9.2
Nov.	.	.	.	10,767.9	1,102.8	66.3	12,063.1	1,152.3	60.0	8.6	43.8	7.4
<b>Long-term</b>												
2006 Nov.	10,713.3	226.4	134.6	8,992.6	167.5	94.4	10,046.2	193.8	109.0	8.3	94.2	9.0
Dec.	10,735.2	172.0	19.2	9,012.1	133.5	16.5	10,073.5	153.6	13.8	8.2	59.9	9.0
2007 Jan.	10,812.2	231.9	76.8	9,063.3	177.2	51.1	10,145.7	201.0	62.1	8.2	68.3	9.3
Feb.	10,911.6	237.6	99.6	9,146.4	189.8	83.3	10,242.6	223.4	104.8	8.4	82.6	9.6
Mar.	11,049.4	278.2	137.8	9,243.1	213.2	96.5	10,342.2	234.0	101.6	8.6	78.4	9.9
Apr.	11,091.6	182.4	41.9	9,275.1	156.0	31.7	10,380.0	177.7	45.3	8.6	53.4	9.0
May	11,278.6	266.9	188.6	9,410.7	199.2	137.2	10,536.1	225.5	152.1	9.1	108.4	9.2
June	11,379.1	259.1	99.1	9,475.9	190.6	63.9	10,617.0	217.1	77.3	9.0	46.8	8.9
July	11,406.8	197.9	27.3	9,488.2	161.6	12.1	10,641.3	187.6	26.1	8.8	47.3	8.4
Aug.	11,400.8	102.4	-6.6	9,481.0	86.6	-7.7	10,639.1	103.8	-2.7	8.6	50.4	7.6
Sep.	11,428.0	157.5	25.9	9,500.9	132.7	18.5	10,632.4	147.1	17.3	8.0	12.9	6.3
Oct.	.	.	.	9,556.3	191.0	56.7	10,685.7	214.9	63.0	7.7	71.5	6.6
Nov.	.	.	.	9,614.2	137.8	56.0	10,724.0	150.4	51.6	7.1	31.9	5.0

## C15 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.
- 2) For the calculation of the growth rates, see the Technical notes. The 6-month growth rates have been annualised.

## 4.2 Securities, other than shares, issued by euro area residents, by sector of the issuer and instrument type

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

### 1. Outstanding amounts and gross issues

	Outstanding amounts						Gross issues					
	Total	MFIs (including Eurosystem)	Non-MFI corporations		General government		Total	MFIs (including Eurosystem)	Non-MFI corporations		General government	
			Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government			Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government
1	2	3	4	5	6	7	8	9	10	11	12	
	Total											
2005	10,270	4,120	934	607	4,327	283	9,874	6,988	326	1,031	1,435	95
2006	11,083	4,564	1,171	636	4,408	305	11,337	8,377	423	1,113	1,339	85
2006 Q4	11,083	4,564	1,171	636	4,408	305	3,110	2,364	148	334	241	23
2007 Q1	11,471	4,759	1,266	648	4,489	309	3,309	2,446	141	285	415	23
Q2	11,787	4,868	1,326	684	4,600	308	3,337	2,359	119	453	389	18
Q3	11,886	4,951	1,360	678	4,586	310	3,446	2,599	89	394	345	19
2007 Aug.	11,853	4,929	1,362	683	4,570	308	1,179	920	22	135	97	5
Sep.	11,886	4,951	1,360	678	4,586	310	1,201	933	21	107	132	8
Oct.	12,022	5,049	1,395	688	4,575	315	1,336	1,001	60	126	140	10
Nov.	12,063	5,054	1,414	691	4,588	317	1,152	894	33	109	110	6
	Short-term											
2005	945	482	7	90	361	5	7,797	6,046	45	943	729	33
2006	1,010	570	12	94	329	4	9,175	7,375	59	1,023	686	31
2006 Q4	1,010	570	12	94	329	4	2,556	2,086	14	305	144	7
2007 Q1	1,128	621	12	106	385	4	2,651	2,132	16	271	222	8
Q2	1,170	627	11	120	407	5	2,717	2,072	12	413	209	9
Q3	1,253	712	9	117	409	7	3,007	2,401	10	378	207	11
2007 Aug.	1,214	666	10	119	413	5	1,075	862	4	134	72	3
Sep.	1,253	712	9	117	409	7	1,054	870	3	102	75	5
Oct.	1,337	774	15	126	414	7	1,121	904	11	117	84	4
Nov.	1,339	783	15	127	407	8	1,002	827	2	101	69	2
	Long-term <sup>1)</sup>											
2005	9,325	3,637	927	516	3,966	278	2,078	942	281	88	706	61
2006	10,074	3,994	1,159	542	4,079	301	2,163	1,002	363	90	653	54
2006 Q4	10,074	3,994	1,159	542	4,079	301	554	279	134	29	97	16
2007 Q1	10,342	4,138	1,254	542	4,105	304	658	313	125	13	192	14
Q2	10,617	4,241	1,315	564	4,194	304	620	287	106	40	179	8
Q3	10,632	4,240	1,351	561	4,177	304	439	198	79	15	138	8
2007 Aug.	10,639	4,263	1,351	564	4,158	303	104	57	18	1	25	2
Sep.	10,632	4,240	1,351	561	4,177	304	147	63	19	5	58	3
Oct.	10,686	4,276	1,380	562	4,161	308	215	97	48	9	55	5
Nov.	10,724	4,271	1,399	565	4,180	309	150	67	30	8	41	4
	Of which long-term fixed rate											
2005	6,724	2,020	463	408	3,616	217	1,229	414	92	53	622	48
2006	7,049	2,136	544	413	3,720	237	1,291	475	143	56	577	39
2006 Q4	7,049	2,136	544	413	3,720	237	280	116	46	18	90	10
2007 Q1	7,166	2,211	570	413	3,730	243	403	172	40	9	169	13
Q2	7,309	2,255	584	426	3,800	244	339	132	29	24	147	7
Q3	7,309	2,254	592	422	3,795	246	262	100	24	8	123	7
2007 Aug.	7,301	2,269	597	425	3,766	245	66	32	12	0	21	2
Sep.	7,309	2,254	592	422	3,795	246	87	27	2	2	52	3
Oct.	7,320	2,280	593	426	3,771	250	127	54	16	6	47	4
Nov.	7,345	2,281	592	430	3,790	252	95	41	4	8	39	4
	Of which long-term variable rate											
2005	2,266	1,350	458	92	306	60	718	432	187	27	58	12
2006	2,604	1,508	605	115	312	64	717	406	216	31	49	15
2006 Q4	2,604	1,508	605	115	312	64	233	124	87	11	5	7
2007 Q1	2,726	1,560	671	115	318	61	213	114	83	4	12	1
Q2	2,846	1,603	716	126	341	60	228	111	76	16	23	1
Q3	2,869	1,605	742	127	336	57	138	71	52	7	8	1
2007 Aug.	2,864	1,606	740	127	334	58	27	19	5	1	2	1
Sep.	2,869	1,605	742	127	336	57	47	28	15	1	4	0
Oct.	2,902	1,607	770	125	342	58	71	28	32	3	6	1
Nov.	2,919	1,606	789	124	343	57	46	19	25	1	2	0

Source: ECB.

1) The residual difference between total long-term debt securities and fixed and variable rate long-term debt securities consists of zero coupon bonds and revaluation effects.

**4.2 Securities, other than shares, issued by euro area residents, by sector of the issuer and instrument type**

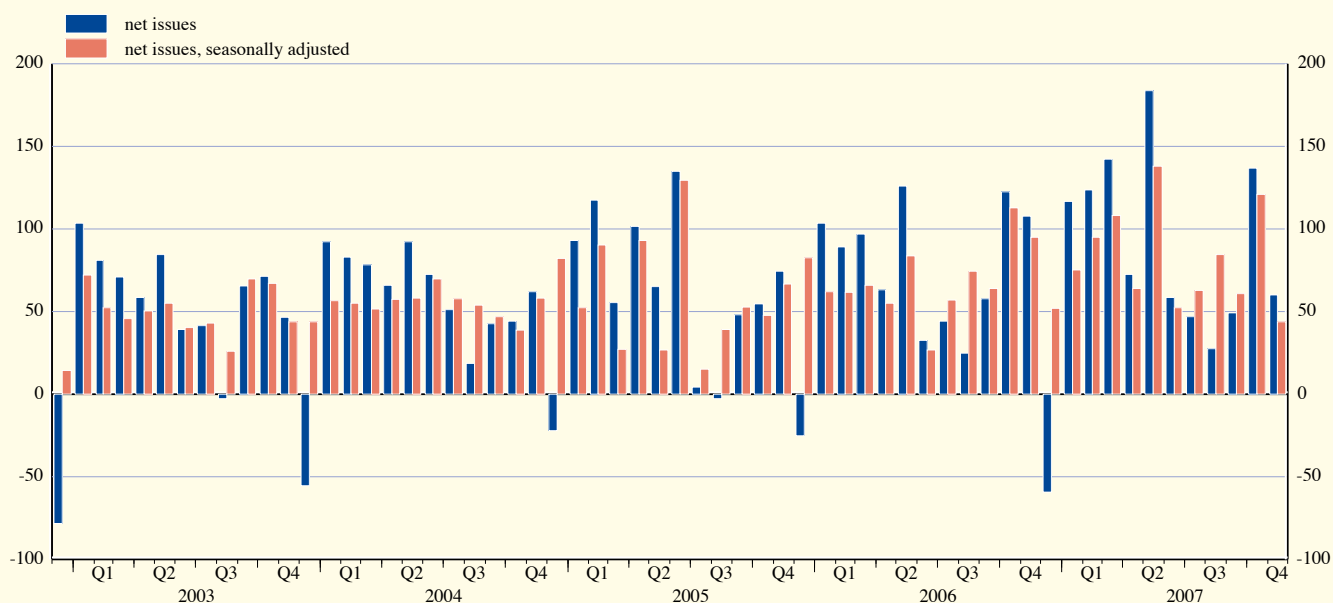
(EUR billions unless otherwise indicated; transactions during the period; nominal values)

**2. Net issues**

	Non-seasonally adjusted						Seasonally adjusted					
	Total	MFIs (including Eurosystem)	Non-MFI corporations		General government		Total	MFIs (including Eurosystem)	Non-MFI corporations		General government	
			Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government			Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government
1	2	3	4	5	6	7	8	9	10	11	12	
	Total											
2005	720.7	319.8	176.3	20.7	171.5	32.4	723.6	323.7	173.0	20.5	173.8	32.6
2006	808.5	419.0	244.1	32.5	90.5	22.3	810.1	424.5	240.4	32.8	90.1	22.3
2006 Q4	171.0	97.8	100.1	7.7	-41.2	6.7	260.1	133.1	71.8	12.0	38.2	5.0
2007 Q1	382.7	187.1	96.0	13.0	82.7	3.9	278.3	122.4	113.4	10.6	29.3	2.6
Q2	314.7	105.1	61.2	36.3	112.1	-0.1	253.8	113.4	47.8	28.1	65.4	-0.9
Q3	123.4	97.1	38.8	-3.7	-11.1	2.3	207.9	122.6	67.2	3.4	8.4	6.3
2007 Aug.	27.3	33.4	9.8	-10.3	-6.3	0.7	84.5	52.9	29.6	-6.5	6.0	2.5
Sep.	49.3	30.1	1.9	-3.5	18.1	2.6	60.8	40.3	7.1	1.4	8.3	3.7
Oct.	137.0	85.6	46.0	10.6	-9.8	4.6	120.9	61.5	43.0	5.9	6.2	4.3
Nov.	60.0	18.1	20.9	4.4	14.5	2.1	43.8	19.7	11.7	5.0	8.4	-1.1
	Long-term											
2005	713.1	296.4	176.7	21.1	186.3	32.7	714.2	298.0	173.5	20.8	189.1	32.8
2006	759.2	346.5	238.7	29.2	121.5	23.3	759.1	348.4	235.2	29.0	123.3	23.3
2006 Q4	209.3	96.0	99.4	9.9	-3.2	7.2	249.0	120.9	71.2	7.4	44.0	5.5
2007 Q1	268.5	141.1	96.3	1.0	26.7	3.3	229.4	107.2	113.5	7.5	-0.9	2.1
Q2	274.6	100.5	62.3	22.3	90.2	-0.6	208.7	96.3	48.7	15.8	49.2	-1.3
Q3	40.8	14.0	40.6	-0.3	-14.0	0.4	110.6	27.7	69.3	2.3	7.0	4.2
2007 Aug.	-2.7	2.5	9.6	-1.7	-13.8	0.7	50.4	20.2	29.6	0.8	-2.6	2.4
Sep.	17.3	-7.1	3.1	-1.1	21.6	0.9	12.9	-9.5	8.1	0.3	12.3	1.7
Oct.	63.0	32.8	39.7	1.2	-14.9	4.1	71.5	30.2	35.8	-0.6	2.2	3.8
Nov.	51.6	3.7	21.6	3.9	20.7	1.6	31.9	5.4	12.8	3.7	11.4	-1.5

**C16 Net issues of securities, other than shares, seasonally adjusted and non-seasonally adjusted**

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



Source: ECB.

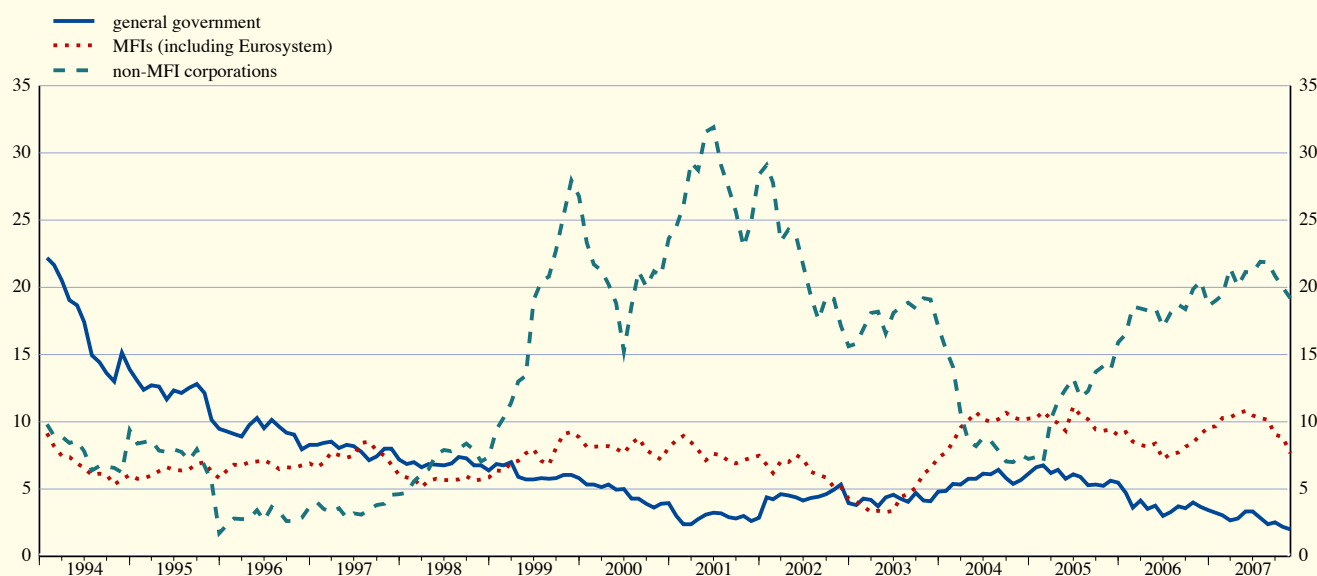
### 4.3 Growth rates of securities, other than shares, issued by euro area residents <sup>1)</sup>

(percentage changes)

	Annual growth rates (non-seasonally adjusted)						6-month seasonally adjusted growth rates					
	Total	MFIs (including Eurosystem)	Non-MFI corporations		General government		Total	MFIs (including Eurosystem)	Non-MFI corporations		General government	
			Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government			Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government
	1	2	3	4	5	6	7	8	9	10	11	12
	Total											
2006 Nov.	8.2	10.0	29.8	4.7	2.5	8.8	8.2	9.4	29.4	3.6	3.2	7.0
Dec.	7.9	10.2	26.2	5.4	2.1	7.9	8.7	11.0	27.1	4.1	3.2	5.5
2007 Jan.	7.9	10.5	26.9	4.5	1.9	7.4	9.0	12.0	28.2	4.8	2.7	4.4
Feb.	8.2	10.7	27.6	4.7	2.1	5.8	9.3	12.3	31.0	7.5	2.3	2.1
Mar.	8.5	10.4	30.3	5.7	2.4	6.7	10.1	11.7	37.1	7.3	3.1	5.1
Apr.	8.6	10.6	28.3	6.0	2.6	7.2	9.1	10.9	28.6	7.8	2.9	6.1
May	9.0	10.4	30.1	6.0	3.5	5.0	9.8	11.5	30.6	8.1	3.7	3.3
June	9.2	10.7	28.6	8.2	3.8	3.4	9.7	10.5	29.9	12.4	4.3	1.1
July	9.2	10.8	29.1	10.1	3.3	2.6	9.4	9.6	30.1	15.5	3.9	0.7
Aug.	9.2	11.0	29.0	9.7	3.1	2.6	9.2	9.8	27.2	12.0	3.9	3.1
Sep.	9.1	10.9	27.6	8.5	3.2	4.3	8.2	10.2	19.0	9.9	3.3	3.5
Oct.	9.1	11.0	27.0	8.9	3.0	5.5	9.2	11.1	25.4	10.0	3.0	5.2
Nov.	8.6	10.4	25.5	8.8	2.7	4.3	7.4	9.4	20.4	9.4	1.6	5.3
	Long-term											
2006 Nov.	8.3	9.1	29.5	5.1	3.3	9.4	9.0	10.4	29.1	2.5	3.9	7.6
Dec.	8.2	9.5	25.8	5.7	3.1	8.4	9.0	10.5	27.1	3.8	4.3	6.2
2007 Jan.	8.2	9.6	26.6	5.4	2.9	7.6	9.3	11.3	28.2	6.0	3.6	4.8
Feb.	8.4	10.3	27.4	4.8	2.9	5.9	9.6	12.4	31.2	6.2	2.6	2.6
Mar.	8.6	10.3	30.0	5.3	2.4	6.9	9.9	12.1	37.4	5.7	2.1	5.2
Apr.	8.6	10.6	28.2	4.8	2.5	7.4	9.0	11.9	29.0	5.8	1.7	5.8
May	9.1	10.8	30.1	4.2	3.2	5.1	9.2	11.2	31.0	6.0	2.5	2.8
June	9.0	10.4	28.8	6.3	3.3	3.4	8.9	10.4	30.5	8.8	2.4	0.6
July	8.8	10.3	29.4	7.2	2.9	2.7	8.4	9.2	30.8	8.3	2.1	0.6
Aug.	8.6	10.1	29.4	7.0	2.4	2.7	7.6	7.9	27.8	7.9	2.1	2.8
Sep.	8.0	9.0	28.2	6.2	2.4	3.5	6.3	6.1	19.7	6.7	2.8	2.0
Oct.	7.7	8.8	26.9	5.8	2.0	4.6	6.6	5.8	24.8	5.7	2.4	3.6
Nov.	7.1	7.7	25.5	6.0	1.9	3.1	5.0	4.3	20.0	6.0	1.3	3.4

### C17 Annual growth rates of long-term debt securities, by sector of the issuer, in all currencies combined

(annual percentage changes)



Source: ECB.

1) For the calculation of the growth rates, see the Technical notes. The 6-month growth rates have been annualised.

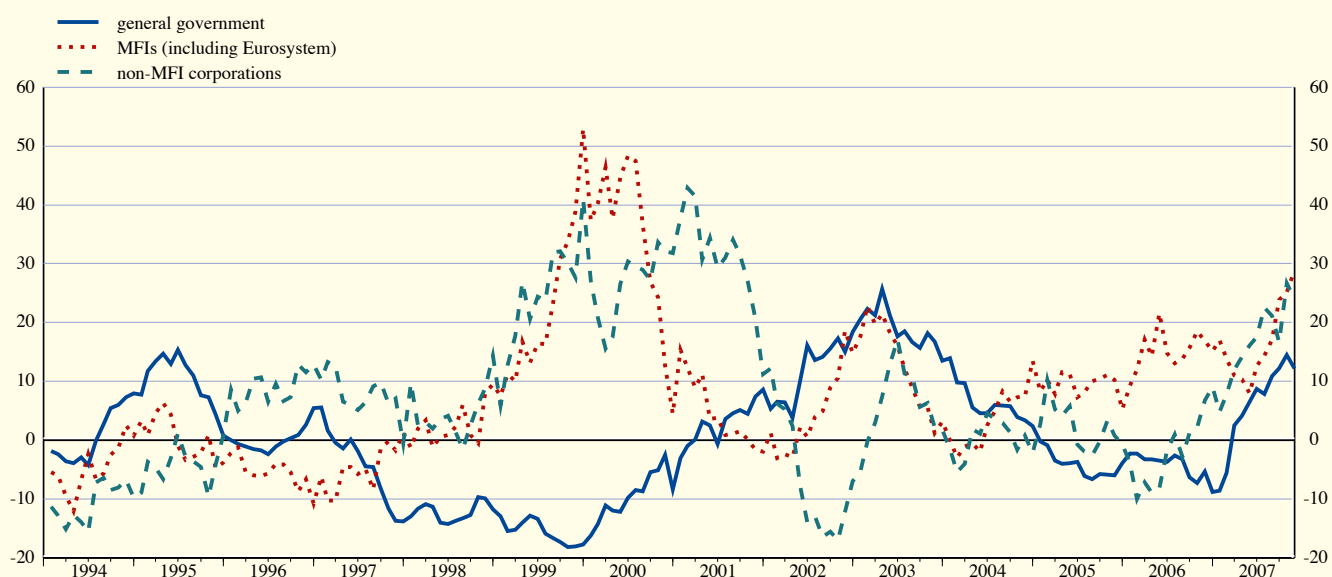
### 4.3 Growth rates of securities, other than shares, issued by euro area residents <sup>1)</sup> (cont'd)

(percentage changes)

	Long-term fixed rate						Long-term variable rate					
	Total	MFIs (including Eurosystem)	Non-MFI corporations		General government		Total	MFIs (including Eurosystem)	Non-MFI corporations		General government	
			Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government			Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government
13	14	15	16	17	18	19	20	21	22	23	24	
In all currencies combined												
2005	4.7	3.1	5.6	0.2	5.5	15.0	19.5	18.6	35.5	22.3	9.9	4.8
2006	4.5	4.7	13.9	0.8	3.2	13.4	16.4	11.8	41.1	28.0	5.0	4.5
2006 Q4	5.1	5.4	20.0	1.1	3.2	11.0	15.5	11.0	36.4	27.4	5.1	5.0
2007 Q1	5.3	6.3	20.7	2.7	3.0	7.7	15.2	12.2	33.5	21.9	1.0	4.6
Q2	5.5	7.5	19.9	2.7	2.7	7.5	16.5	12.1	37.9	18.9	5.1	-0.3
Q3	5.4	8.0	17.7	4.7	2.3	5.0	16.2	11.1	39.4	19.5	4.4	-4.7
2007 June	5.7	8.0	17.2	3.9	3.1	5.1	16.9	11.8	39.6	19.7	6.4	-3.1
July	5.4	8.3	17.6	4.9	2.2	4.8	16.6	11.0	40.1	20.2	6.3	-5.5
Aug.	5.3	8.2	18.4	5.1	1.9	4.7	16.0	11.1	39.1	19.1	3.0	-5.0
Sep.	5.1	6.8	16.7	4.2	2.5	5.6	15.3	10.6	38.2	18.7	1.3	-4.3
Oct.	4.6	6.9	14.8	5.1	1.7	6.8	15.3	9.9	37.7	13.0	4.9	-3.5
Nov.	4.4	6.5	13.5	5.3	1.7	6.4	13.7	8.2	35.5	12.8	4.6	-9.4
In euro												
2005	4.3	0.9	9.0	-0.3	5.4	15.3	18.9	17.3	34.9	22.1	10.3	5.4
2006	3.8	3.1	11.3	0.1	3.2	13.6	15.2	10.1	37.6	30.9	5.2	3.7
2006 Q4	4.3	4.1	15.1	-0.4	3.3	11.0	14.5	9.6	33.6	30.3	5.2	4.0
2007 Q1	4.7	5.4	16.2	1.1	3.3	7.7	14.0	10.9	30.0	23.3	1.0	4.1
Q2	4.9	6.8	16.4	0.8	2.9	7.4	15.8	11.2	35.4	19.7	5.2	-0.8
Q3	4.7	7.1	14.7	3.3	2.5	5.2	15.7	10.3	37.6	18.7	4.5	-5.6
2007 June	5.1	7.2	14.2	2.3	3.3	5.2	16.4	10.9	37.9	19.5	6.5	-3.7
July	4.8	7.4	14.9	3.7	2.4	4.9	15.9	10.0	38.3	19.4	6.4	-6.4
Aug.	4.6	7.4	15.3	3.9	2.1	5.0	15.5	10.5	37.3	18.0	3.2	-5.9
Sep.	4.5	5.9	13.6	2.4	2.9	5.9	14.8	9.8	36.6	17.7	1.5	-5.2
Oct.	4.1	6.3	13.1	3.4	1.9	7.1	14.9	9.5	35.7	11.7	5.1	-4.2
Nov.	4.0	6.2	11.7	4.3	1.9	6.8	13.5	8.1	33.7	11.6	4.8	-10.0

### C18 Annual growth rates of short-term debt securities, by sector of the issuer, in all currencies combined

(annual percentage changes)



Source: ECB.

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



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

(EUR billions, unless otherwise indicated; market values)

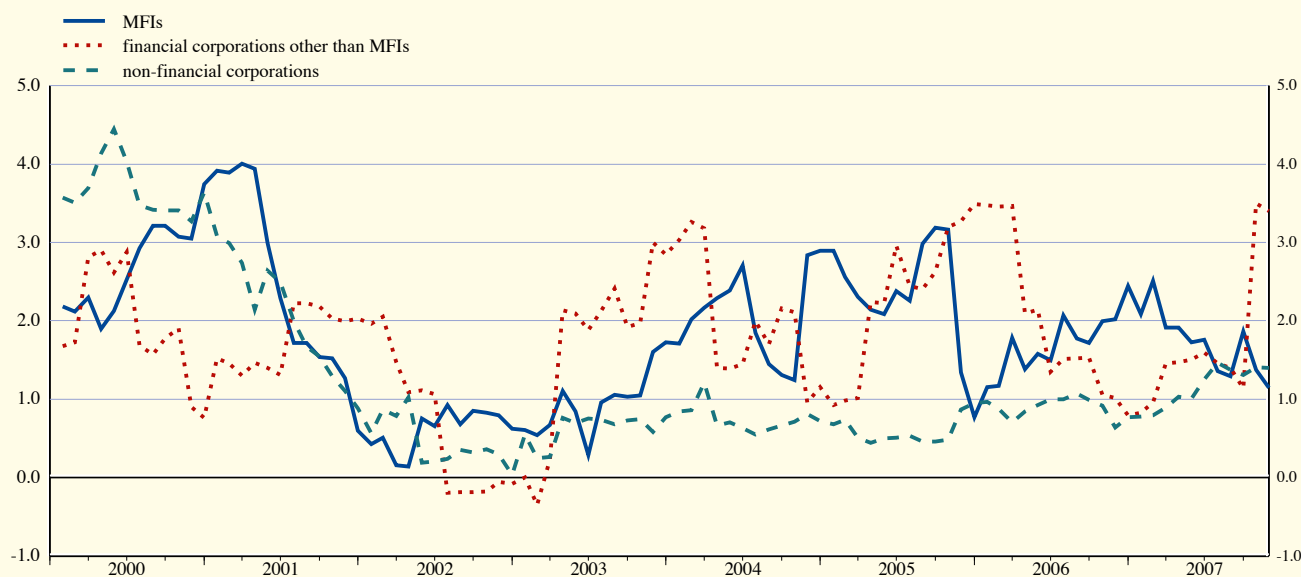
##### 1. Outstanding amounts and annual growth rates

(outstanding amounts as end-of-period)

	Total			MFIs		Financial corporations other than MFIs		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
2005 Nov.	4,888.6	103.4	1.2	809.2	1.3	514.0	3.3	3,565.4	0.9
Dec.	5,062.9	103.5	1.2	836.4	0.8	541.2	3.5	3,685.3	0.9
2006 Jan.	5,303.5	103.6	1.2	884.8	1.2	540.9	3.5	3,877.7	1.0
Feb.	5,443.2	103.6	1.2	938.8	1.2	566.9	3.5	3,937.4	0.9
Mar.	5,644.8	103.7	1.2	962.3	1.8	584.3	3.5	4,098.1	0.7
Apr.	5,669.6	103.8	1.1	948.8	1.4	578.2	2.1	4,142.6	0.8
May	5,378.9	103.9	1.2	892.8	1.6	542.8	2.1	3,943.3	0.9
June	5,390.3	104.0	1.1	901.0	1.5	538.9	1.4	3,950.4	1.0
July	5,387.2	104.1	1.2	914.3	2.1	553.0	1.5	3,919.9	1.0
Aug.	5,568.5	104.2	1.2	955.0	1.8	603.8	1.5	4,009.7	1.1
Sep.	5,709.5	104.2	1.2	982.6	1.7	615.8	1.5	4,111.1	1.0
Oct.	5,896.7	104.3	1.1	1,011.8	2.0	622.9	1.1	4,262.0	0.9
Nov.	5,951.0	104.4	0.9	1,020.6	2.0	612.6	1.0	4,317.8	0.6
Dec.	6,168.6	104.6	1.1	1,052.4	2.4	632.1	0.8	4,484.1	0.8
2007 Jan.	6,343.0	104.6	1.0	1,107.3	2.1	645.1	0.8	4,590.6	0.8
Feb.	6,258.4	104.7	1.1	1,077.3	2.5	636.7	1.0	4,544.5	0.8
Mar.	6,475.2	104.8	1.1	1,095.9	1.9	648.1	1.5	4,731.3	0.9
Apr.	6,723.3	105.0	1.2	1,152.2	1.9	674.2	1.5	4,896.9	1.0
May	7,002.3	105.1	1.2	1,157.2	1.7	687.5	1.5	5,157.6	1.0
June	6,924.0	105.4	1.4	1,111.2	1.8	675.7	1.6	5,137.1	1.3
July	6,700.6	105.6	1.5	1,081.1	1.4	607.3	1.5	5,012.1	1.5
Aug.	6,587.4	105.6	1.4	1,041.6	1.3	582.3	1.4	4,963.4	1.4
Sep.	6,651.0	105.7	1.4	1,030.5	1.9	595.8	1.1	5,024.7	1.3
Oct.	6,902.5	106.0	1.6	1,052.3	1.4	627.8	3.5	5,222.4	1.4
Nov.	6,590.2	106.0	1.5	1,013.9	1.1	577.9	3.4	4,998.4	1.4

#### C19 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 <sup>1)</sup>

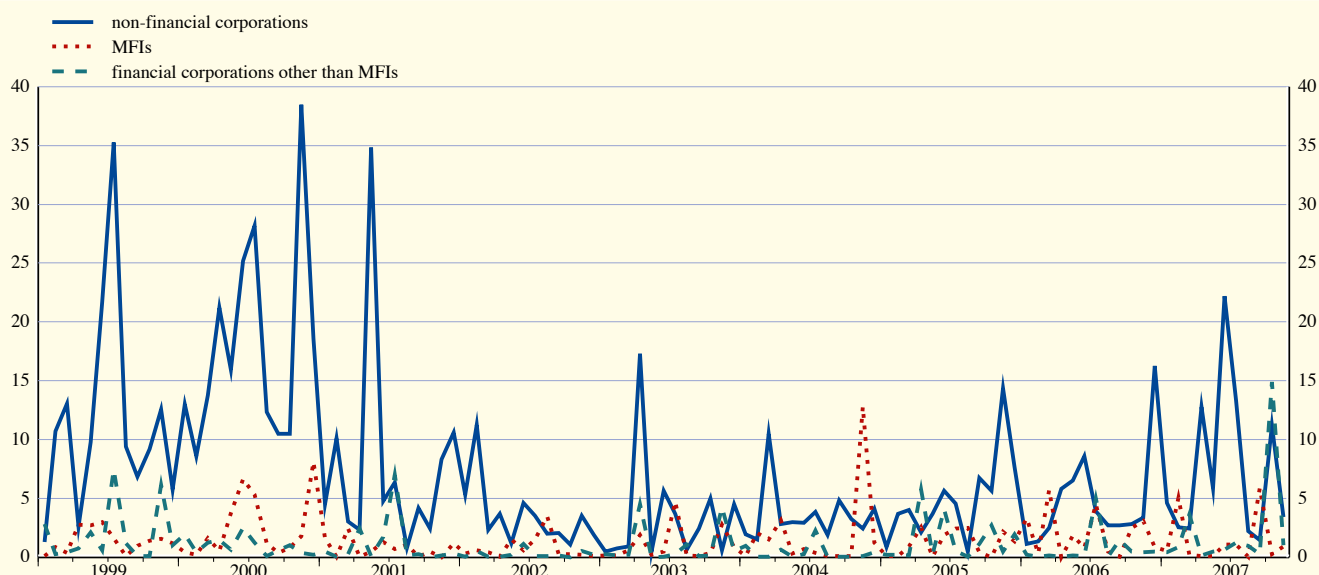
(EUR billions; market values)

### 2. Transactions during the month

	Total			MFIs			Financial corporations other than MFIs			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
2005 Nov.	17.0	3.9	13.0	2.1	0.0	2.1	0.5	0.1	0.4	14.4	3.9	10.5
Dec.	10.9	7.3	3.6	1.3	4.3	-3.0	1.9	0.4	1.5	7.7	2.6	5.0
2006 Jan.	4.6	0.8	3.9	3.3	0.0	3.3	0.2	0.0	0.2	1.1	0.7	0.4
Feb.	1.7	1.7	0.0	0.3	0.1	0.2	0.0	0.0	0.0	1.3	1.6	-0.3
Mar.	8.3	5.4	2.9	5.7	0.0	5.7	0.1	0.0	0.1	2.5	5.4	-3.0
Apr.	5.8	0.5	5.3	0.0	0.2	-0.1	0.0	0.0	0.0	5.8	0.3	5.5
May	8.5	2.2	6.3	1.9	0.0	1.8	0.2	0.0	0.2	6.5	2.2	4.3
June	9.4	2.7	6.7	0.8	0.3	0.5	0.1	0.1	0.0	8.6	2.4	6.2
July	13.4	6.6	6.8	4.5	0.0	4.5	5.0	3.5	1.5	3.9	3.1	0.8
Aug.	3.2	1.8	1.4	0.4	0.0	0.4	0.0	0.1	-0.1	2.7	1.6	1.1
Sep.	4.2	0.5	3.7	0.0	0.0	0.0	1.5	0.0	1.4	2.7	0.5	2.2
Oct.	5.8	1.2	4.6	2.5	0.0	2.5	0.5	0.0	0.5	2.8	1.2	1.6
Nov.	6.9	2.0	4.9	3.1	0.0	3.1	0.4	0.2	0.3	3.3	1.8	1.5
Dec.	17.6	5.1	12.5	0.9	0.3	0.5	0.5	0.0	0.5	16.2	4.7	11.5
2007 Jan.	5.5	3.9	1.6	0.5	0.1	0.4	0.4	0.0	0.4	4.6	3.8	0.8
Feb.	8.4	2.0	6.4	5.0	0.0	5.0	0.9	0.0	0.9	2.5	2.0	0.5
Mar.	6.3	1.7	4.6	0.2	0.0	0.2	3.6	0.4	3.3	2.4	1.4	1.1
Apr.	13.0	0.4	12.6	0.1	0.3	-0.2	0.1	0.0	0.1	12.8	0.2	12.6
May	6.4	1.8	4.5	0.1	0.0	0.1	0.4	0.0	0.4	5.8	1.8	4.0
June	23.8	1.6	22.3	1.0	0.0	1.0	0.6	0.0	0.6	22.2	1.6	20.6
July	15.7	1.8	13.8	1.1	0.0	1.1	1.2	0.3	0.9	13.3	1.5	11.8
Aug.	3.2	6.6	-3.4	0.0	0.1	-0.1	1.0	1.4	-0.5	2.2	5.1	-2.8
Sep.	7.5	2.5	5.1	5.9	0.0	5.9	0.2	0.3	-0.1	1.4	2.1	-0.7
Oct.	26.4	7.4	19.0	0.3	2.6	-2.4	14.9	0.5	14.4	11.2	4.3	6.9
Nov.	5.3	3.3	2.0	0.9	0.0	0.9	1.0	1.3	-0.3	3.4	2.0	1.4

### C20 Gross issues of quoted shares by sector of the issuer

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



Source: ECB.

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

## 4.5 MFI interest rates on euro-denominated deposits and loans by euro area residents <sup>1)</sup>

(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>2)</sup>	With agreed maturity			Redeemable at notice <sup>2),3)</sup>		Overnight <sup>2)</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
2007 Jan.	0.98	3.33	3.48	2.92	2.35	2.98	1.61	3.49	3.91	4.07	3.46
Feb.	1.00	3.37	3.64	2.72	2.35	3.07	1.64	3.48	3.80	4.15	3.47
Mar.	1.02	3.51	3.65	2.68	2.39	3.14	1.71	3.67	3.83	3.72	3.64
Apr.	1.04	3.59	3.68	2.78	2.42	3.20	1.75	3.74	4.01	3.87	3.70
May	1.06	3.62	3.51	2.72	2.43	3.25	1.78	3.74	3.80	3.72	3.73
June	1.08	3.78	3.79	2.64	2.42	3.32	1.77	3.94	4.09	4.16	3.90
July	1.10	3.86	3.90	2.97	2.45	3.40	1.81	4.01	4.16	4.51	3.95
Aug.	1.14	3.93	3.93	3.01	2.53	3.46	1.89	4.08	4.33	4.20	3.93
Sep.	1.16	4.07	3.98	2.92	2.58	3.50	1.91	4.14	4.34	4.41	3.97
Oct.	1.17	4.11	4.16	3.31	2.53	3.57	1.97	4.07	4.37	4.63	3.93
Nov.	1.18	4.08	4.22	3.20	2.54	3.64	2.01	4.10	4.41	4.04	3.98
Dec.	1.18	4.28	4.13	3.19	2.57	3.68	1.97	4.26	4.39	4.21	3.95

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

	Bank overdrafts <sup>2)</sup>	Consumer credit				Lending for house purchase					Other lending by initial rate fixation		
		By initial rate fixation			Annual percentage rate of charge <sup>4)</sup>	By initial rate fixation				Annual percentage rate of charge <sup>3)</sup>	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		Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 and up to 10 years	Over 10 years				
	1	2	3	4	5	6	7	8	9	10	11	12	13
2007 Jan.	10.14	7.63	6.68	8.39	8.25	4.68	4.60	4.60	4.50	4.83	5.13	5.43	4.92
Feb.	10.31	7.69	6.83	8.27	8.28	4.71	4.71	4.70	4.61	4.90	5.27	5.38	5.14
Mar.	10.22	7.51	6.68	8.34	8.14	4.79	4.76	4.71	4.62	4.94	5.26	5.60	5.20
Apr.	10.29	7.77	6.69	8.24	8.15	4.85	4.73	4.75	4.67	5.00	5.29	5.57	5.21
May	10.32	8.10	6.73	8.30	8.27	4.88	4.80	4.81	4.74	5.02	5.38	5.65	5.32
June	10.38	8.07	6.66	8.25	8.26	5.00	4.93	4.90	4.82	5.15	5.49	5.77	5.37
July	10.49	8.06	6.76	8.30	8.35	5.06	4.93	5.02	4.91	5.26	5.54	5.80	5.41
Aug.	10.55	8.43	6.85	8.31	8.48	5.15	4.98	5.08	4.90	5.24	5.36	5.93	5.47
Sep.	10.53	8.48	6.83	8.39	8.54	5.23	5.02	5.09	5.02	5.31	5.46	5.87	5.51
Oct.	10.64	8.10	6.88	8.40	8.38	5.29	5.05	5.08	5.11	5.38	5.63	6.05	5.59
Nov.	10.50	8.38	6.90	8.36	8.47	5.28	5.04	5.10	5.11	5.38	5.60	5.95	5.49
Dec.	10.48	8.04	6.92	8.14	8.28	5.31	4.99	5.06	5.15	5.43	5.67	5.82	5.41

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

	Bank overdrafts <sup>2)</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
2007 Jan.		5.94	5.16	5.31	4.69	4.44	4.67	4.70
Feb.		6.03	5.21	5.44	4.86	4.51	4.69	4.71
Mar.		6.04	5.30	5.45	4.88	4.66	4.81	4.87
Apr.		6.12	5.37	5.47	4.88	4.70	4.99	4.90
May		6.12	5.43	5.57	4.95	4.72	5.10	5.12
June		6.17	5.53	5.70	5.03	4.89	5.28	5.17
July		6.30	5.58	5.77	5.09	4.90	4.95	5.17
Aug.		6.35	5.77	5.86	5.17	5.01	5.46	5.29
Sep.		6.49	5.93	5.90	5.23	5.20	5.60	5.41
Oct.		6.53	5.95	6.00	5.26	5.11	5.19	5.31
Nov.		6.50	5.96	5.90	5.29	5.08	5.28	5.36
Dec.		6.59	6.08	5.94	5.31	5.37	5.62	5.47

Source: ECB.

1) Data refer to the changing composition of the euro area. For further information, see the General notes.

2) For this instrument category, new business and outstanding amounts coincide. End-of-period.

3) 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.

4) 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)

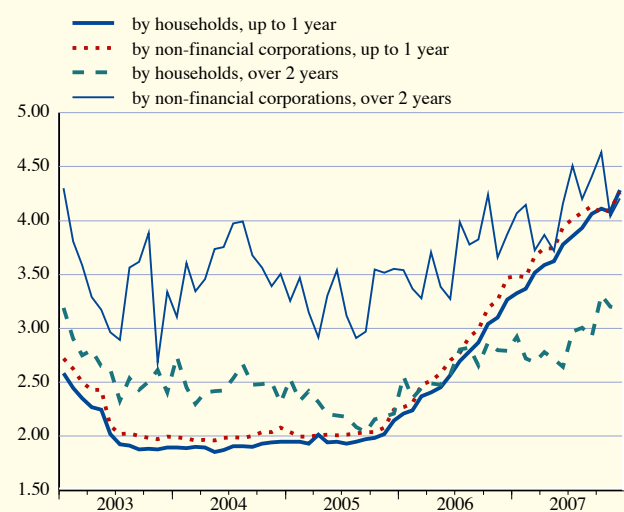
	Deposits from households					Deposits from non-financial corporations			Repos
	Overnight <sup>1)</sup>	With agreed maturity		Redeemable at notice <sup>1)2)</sup>		Overnight <sup>1)</sup>	With agreed maturity		
		Up to 2 years	Over 2 years	Up to 3 months	Over 3 months		Up to 2 years	Over 2 years	
	1	2	3	4	5	6	7	8	9
2007 Jan.	0.98	2.99	3.06	2.35	2.98	1.61	3.45	3.91	3.36
Feb.	1.00	3.07	3.12	2.35	3.07	1.64	3.49	3.92	3.41
Mar.	1.02	3.16	3.05	2.39	3.14	1.71	3.61	3.93	3.54
Apr.	1.04	3.23	3.06	2.42	3.20	1.75	3.67	3.93	3.59
May	1.06	3.30	3.03	2.43	3.25	1.78	3.72	3.96	3.66
June	1.08	3.39	3.04	2.42	3.32	1.77	3.87	3.99	3.79
July	1.10	3.49	3.02	2.45	3.40	1.81	3.92	4.00	3.85
Aug.	1.14	3.58	3.03	2.53	3.46	1.89	4.03	4.07	3.89
Sep.	1.16	3.68	3.06	2.58	3.50	1.91	4.13	4.09	3.93
Oct.	1.17	3.79	3.04	2.53	3.57	1.97	4.18	4.11	3.93
Nov.	1.18	3.85	3.06	2.54	3.64	2.01	4.21	4.18	3.97
Dec.	1.18	3.94	3.03	2.57	3.68	1.97	4.34	4.17	4.01

#### 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
2007 Jan.	5.05	4.38	4.72	8.53	6.83	5.95	5.30	4.76	4.77
Feb.	5.11	4.46	4.79	8.66	6.95	5.96	5.37	4.83	4.83
Mar.	5.14	4.45	4.79	8.62	6.88	5.95	5.44	4.90	4.84
Apr.	5.14	4.48	4.80	8.67	6.96	5.97	5.50	4.94	4.87
May	5.16	4.48	4.82	8.71	6.95	5.97	5.50	4.98	4.90
June	5.20	4.53	4.86	8.68	6.94	6.01	5.62	5.09	4.96
July	5.28	4.57	4.89	8.80	6.95	6.06	5.70	5.15	5.00
Aug.	5.35	4.58	4.90	8.85	6.97	6.08	5.76	5.24	5.05
Sep.	5.44	4.64	4.94	8.99	7.00	6.13	5.91	5.34	5.14
Oct.	5.49	4.68	4.98	9.02	7.10	6.16	5.96	5.44	5.22
Nov.	5.48	4.72	4.99	8.86	7.12	6.21	5.96	5.49	5.22
Dec.	5.53	4.73	5.00	9.03	7.14	6.24	6.07	5.60	5.28

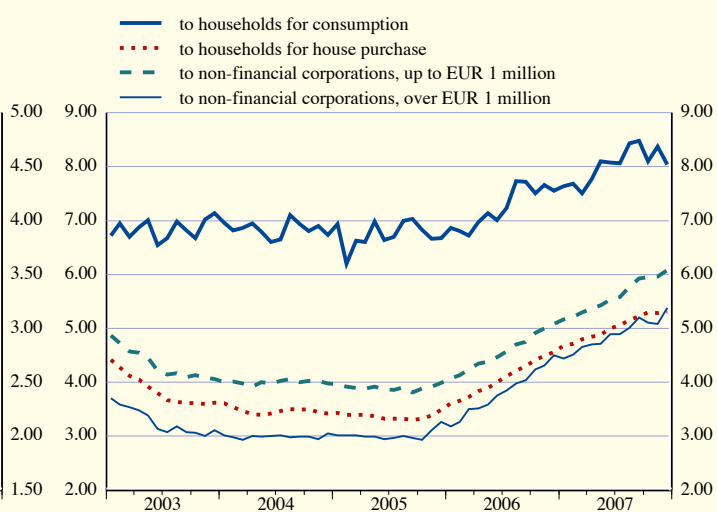
#### C21 New deposits with agreed maturity

(percentages per annum excluding charges; period averages)



#### C22 New loans at floating rate and up to 1 year initial rate fixation

(percentages per annum excluding charges; period averages)



Source: ECB.

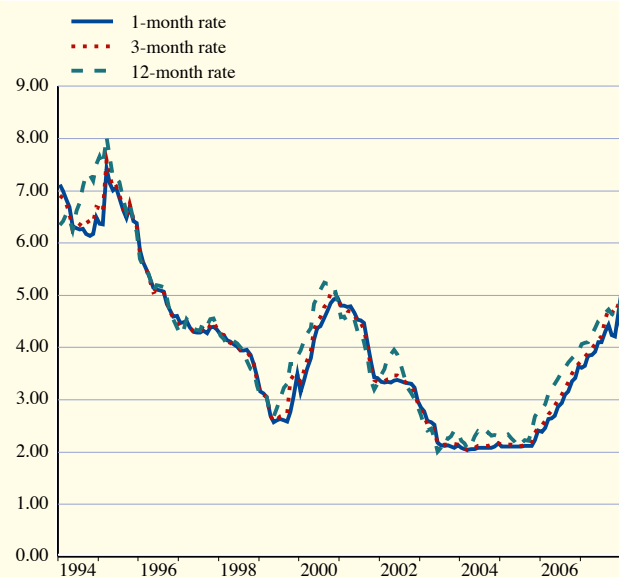
## 4.6 Money market interest rates

(percentages per annum; period averages)

	Euro area <sup>1,2)</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
2005	2.09	2.14	2.18	2.23	2.33	3.56	0.06
2006	2.83	2.94	3.08	3.23	3.44	5.19	0.30
2007	3.87	4.08	4.28	4.35	4.45	5.30	0.79
2006 Q4	3.36	3.46	3.59	3.72	3.86	5.37	0.49
2007 Q1	3.61	3.71	3.82	3.94	4.09	5.36	0.62
Q2	3.86	3.96	4.07	4.20	4.38	5.36	0.69
Q3	4.05	4.28	4.49	4.56	4.65	5.45	0.89
Q4	3.95	4.37	4.72	4.70	4.68	5.02	0.96
2007 Jan.	3.56	3.62	3.75	3.89	4.06	5.36	0.56
Feb.	3.57	3.65	3.82	3.94	4.09	5.36	0.59
Mar.	3.69	3.84	3.89	4.00	4.11	5.35	0.71
Apr.	3.82	3.86	3.98	4.10	4.25	5.35	0.66
May	3.79	3.92	4.07	4.20	4.37	5.36	0.67
June	3.96	4.10	4.15	4.28	4.51	5.36	0.73
July	4.06	4.11	4.22	4.36	4.56	5.36	0.77
Aug.	4.05	4.31	4.54	4.59	4.67	5.48	0.92
Sep.	4.03	4.43	4.74	4.75	4.72	5.49	0.99
Oct.	3.94	4.24	4.69	4.66	4.65	5.15	0.97
Nov.	4.02	4.22	4.64	4.63	4.61	4.96	0.91
Dec.	3.88	4.71	4.85	4.82	4.79	4.97	0.99
2008 Jan.	4.02	4.20	4.49	4.51	4.51	3.95	0.89

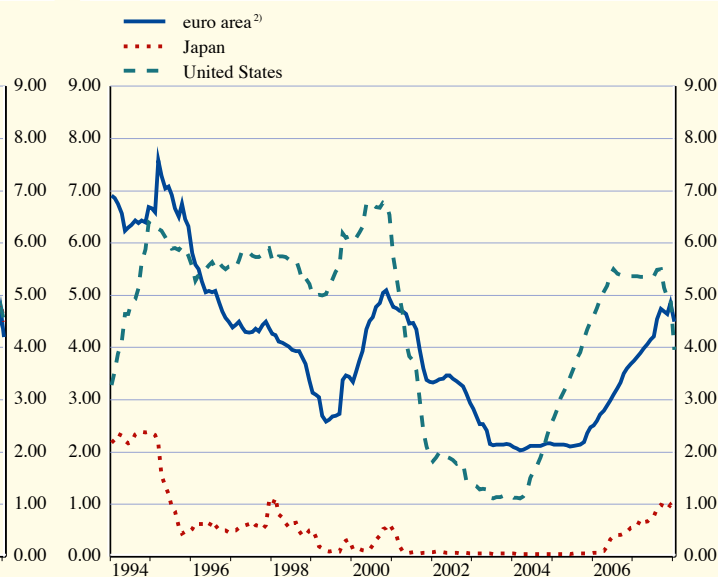
### C23 Euro area money market rates <sup>2)</sup>

(monthly; percentages per annum)



### C24 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.

2) Data refer to the changing composition of the euro area. For further information, see the General notes.

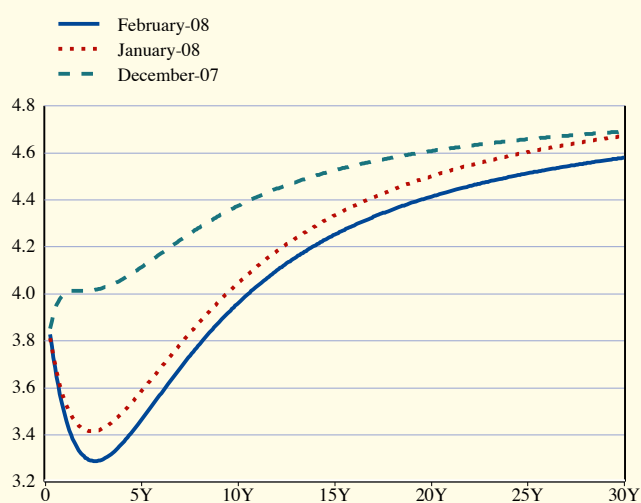
### 4.7 Euro area yield curves <sup>1)</sup>

(AAA-rated euro area central government bonds; end-of-period; rates in percentages per annum; spreads in percentage points)

	Spot rates							Instantaneous forward rates				
	3 months	1 year	2 years	5 years	7 years	10 years	10 years - 3 months (spread)	10 years - 2 years (spread)	1 year	2 years	5 years	10 years
2006 Dec.	3.44	3.76	3.82	3.83	3.86	3.91	0.47	0.09	3.92	3.85	3.88	4.08
2007 Jan.	3.54	3.84	3.92	3.96	4.00	4.06	0.53	0.15	4.01	3.97	4.05	4.25
Feb.	3.63	3.79	3.80	3.81	3.85	3.92	0.29	0.12	3.85	3.77	3.90	4.13
Mar.	3.70	3.92	3.95	3.93	3.96	4.02	0.33	0.08	4.03	3.93	3.97	4.25
Apr.	3.81	4.01	4.06	4.06	4.08	4.13	0.32	0.07	4.14	4.08	4.08	4.33
May	3.86	4.21	4.31	4.32	4.33	4.37	0.51	0.06	4.44	4.37	4.33	4.51
June	3.90	4.26	4.38	4.43	4.46	4.51	0.61	0.13	4.51	4.48	4.49	4.68
July	3.98	4.23	4.28	4.28	4.30	4.36	0.38	0.08	4.36	4.28	4.32	4.53
Aug.	3.86	3.98	4.03	4.12	4.20	4.32	0.47	0.29	4.07	4.09	4.32	4.67
Sep.	3.80	3.96	4.03	4.15	4.25	4.38	0.57	0.35	4.08	4.13	4.39	4.75
Oct.	3.87	4.01	4.06	4.10	4.17	4.29	0.42	0.23	4.11	4.08	4.25	4.63
Nov.	3.86	3.84	3.82	3.91	4.03	4.21	0.35	0.39	3.81	3.80	4.19	4.76
Dec.	3.85	4.00	4.01	4.11	4.23	4.38	0.52	0.36	4.06	4.02	4.40	4.78
2008 Jan.	3.81	3.55	3.42	3.59	3.79	4.05	0.24	0.62	3.32	3.34	4.08	4.80

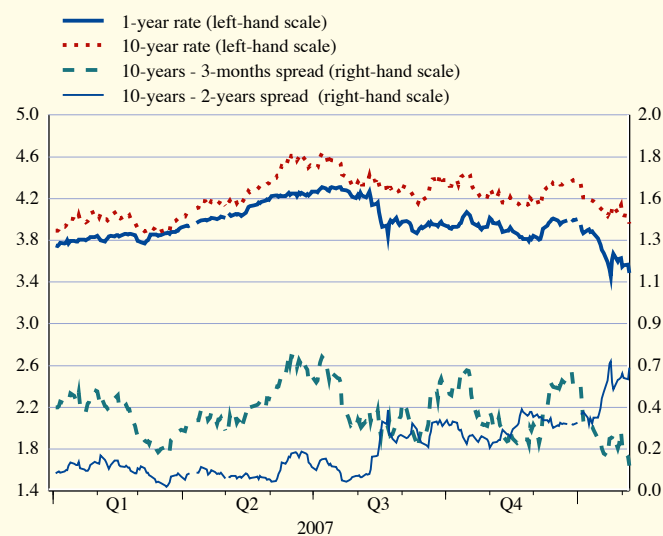
### C25 Euro area spot yield curves

(percentages per annum; end-of-period)



### C26 Euro area spot rates and spreads

(daily data; rates in percentages per annum; spreads in percentage points)



Source: ECB, underlying data provided by EuroMTS, ratings provided by Fitch Ratings.

1) Data refer to the changing composition of the euro area. For further information, see the General notes.

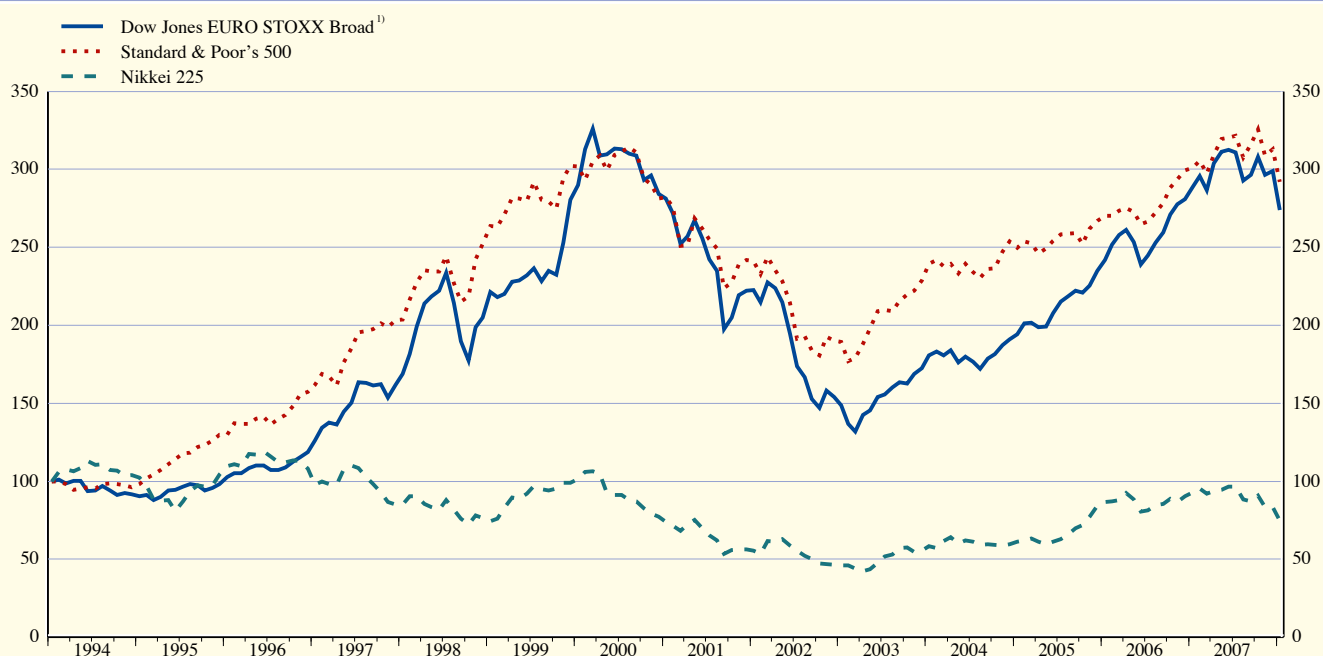
## 4.8 Stock market indices

(index levels in points; period averages)

	Dow Jones EURO STOXX indices <sup>1)</sup>												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	
2005	293.8	3,208.6	307.0	181.3	245.1	378.6	287.7	307.3	297.2	334.1	433.1	457.0	1,207.4	12,421.3
2006	357.3	3,795.4	402.3	205.0	293.7	419.8	370.3	391.3	345.3	440.0	416.8	530.2	1,310.5	16,124.0
2007	416.4	4,315.8	543.8	235.4	366.5	449.6	408.3	488.4	383.4	561.4	492.7	519.2	1,476.5	16,984.4
2006 Q4	383.3	4,032.4	450.4	219.3	315.1	432.7	400.7	419.5	343.1	490.8	450.1	526.3	1,389.2	16,465.0
2007 Q1	402.5	4,150.5	489.9	233.3	335.7	422.8	418.6	462.7	349.4	512.3	472.8	527.2	1,424.8	17,363.9
Q2	429.0	4,416.2	549.6	246.8	373.0	454.1	434.2	512.5	376.6	556.0	475.8	536.7	1,496.6	17,678.7
Q3	416.4	4,317.6	568.3	233.5	373.3	465.6	399.8	494.4	400.9	556.3	476.7	503.8	1,489.8	16,907.5
Q4	417.8	4,377.9	567.3	228.3	383.8	455.7	381.2	484.1	406.3	620.0	544.8	509.2	1,494.6	16,002.5
2007 Jan.	400.4	4,157.8	476.4	229.1	328.2	426.5	419.8	452.2	350.4	505.0	485.0	538.1	1,423.9	17,270.0
Feb.	410.3	4,230.2	496.6	235.9	339.4	428.2	428.3	476.2	355.3	524.7	481.0	530.4	1,445.3	17,729.4
Mar.	397.5	4,070.5	497.9	235.1	340.2	413.9	408.6	461.2	343.0	508.5	452.6	512.9	1,407.0	17,130.0
Apr.	421.7	4,330.7	531.7	247.6	363.9	437.2	432.7	493.8	362.4	540.4	477.4	531.5	1,462.7	17,466.5
May	431.7	4,444.8	545.5	248.5	374.4	454.1	439.8	514.4	374.5	559.2	476.2	547.7	1,511.3	17,577.7
June	433.4	4,470.2	571.9	244.2	380.4	471.1	429.4	529.0	393.1	568.2	473.8	529.9	1,514.5	18,001.4
July	431.3	4,449.0	585.9	242.6	384.7	491.4	418.7	529.3	399.8	563.1	467.1	513.1	1,520.9	17,986.8
Aug.	406.4	4,220.6	550.8	227.8	362.5	444.5	393.5	479.0	390.0	544.4	469.2	495.4	1,454.6	16,461.0
Sep.	411.3	4,284.4	569.1	230.1	373.2	461.5	386.3	473.8	414.7	562.7	495.9	503.2	1,496.0	16,233.9
Oct.	427.1	4,430.8	587.6	234.9	394.6	463.8	399.4	492.9	419.5	602.4	527.9	507.6	1,539.7	16,910.4
Nov.	411.4	4,314.9	549.1	225.3	380.2	450.3	369.1	477.1	400.8	624.1	555.0	501.9	1,461.3	15,514.0
Dec.	414.5	4,386.0	564.0	224.1	375.8	452.5	374.0	481.8	397.8	634.9	552.6	518.6	1,480.0	15,520.1
2008 Jan.	380.2	4,042.1	529.7	202.3	338.7	431.4	339.7	426.3	351.2	602.9	528.4	492.9	1,380.3	13,953.4

## C27 Dow Jones EURO STOXX Broad, Standard & Poor's 500 and Nikkei 225

(January 1994 = 100; monthly averages)



Source: ECB.

1) Data refer to the changing composition of the euro area. For further information, see the General notes.

# 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)						Memo item: Administered prices <sup>2)</sup>	
	Index 2005 = 100	Total		Goods	Services	Total	Processed food	Unprocessed food	Non-energy industrial goods	Energy (n.s.a.)	Services	Total HICP excluding administered prices	Administered prices
		Total excl. unprocessed food and energy											
% of total <sup>3)</sup>	100.0	100.0	82.8	59.2	40.8	100.0	11.9	7.6	30.0	9.6	40.8	86.2	13.8
	1	2	3	4	5	6	7	8	9	10	11	12	13
2004	97.9	2.1	2.1	1.8	2.6	-	-	-	-	-	-	2.0	3.2
2005	100.0	2.2	1.5	2.1	2.3	-	-	-	-	-	-	2.1	2.8
2006	102.2	2.2	1.5	2.3	2.0	-	-	-	-	-	-	2.1	3.0
2007	104.4	2.1	2.0	1.9	2.5	-	-	-	-	-	-	2.1	2.4
2006 Q4	102.8	1.8	1.6	1.6	2.1	0.0	0.7	0.6	0.3	-4.2	0.6	1.6	2.9
2007 Q1	102.9	1.9	1.9	1.6	2.4	0.5	0.3	0.1	0.3	1.0	0.7	1.7	2.8
Q2	104.4	1.9	1.9	1.5	2.6	0.8	0.5	0.9	0.2	3.3	0.7	1.8	2.4
Q3	104.4	1.9	2.0	1.5	2.5	0.6	1.1	0.9	0.2	0.7	0.6	1.8	2.1
Q4	105.7	2.9	2.3	3.2	2.5	1.0	2.5	1.2	0.3	2.9	0.6	3.0	2.2
2007 Aug.	104.3	1.7	2.0	1.2	2.6	0.1	0.7	0.3	0.1	-0.9	0.1	1.7	2.1
Sep.	104.7	2.1	2.0	1.9	2.5	0.2	0.7	0.3	0.1	0.6	0.1	2.1	2.1
Oct.	105.2	2.6	2.1	2.6	2.5	0.4	1.1	0.6	0.1	0.6	0.2	2.6	2.2
Nov.	105.8	3.1	2.3	3.4	2.5	0.6	0.8	0.3	0.1	3.4	0.2	3.2	2.2
Dec.	106.2	3.1	2.3	3.4	2.5	0.2	0.6	0.1	0.0	-0.3	0.3	3.2	2.2
2008 Jan. <sup>4)</sup>		3.2											

	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>3)</sup>	19.6	11.9	7.6	39.6	30.0	9.6	10.2	6.2	6.4	3.1	14.4	6.7		
	14	15	16	17	18	19	20	21	22	23	24	25		
2004	2.3	3.4	0.6	1.6	0.8	4.5	2.4	1.9	2.8	-2.0	2.4	5.1		
2005	1.6	2.0	0.8	2.4	0.3	10.1	2.6	2.0	2.7	-2.2	2.3	3.1		
2006	2.4	2.1	2.8	2.3	0.6	7.7	2.5	2.1	2.5	-3.3	2.3	2.3		
2007	2.8	2.8	3.0	1.4	1.0	2.6	2.7	2.0	2.6	-1.9	2.9	3.2		
2006 Q4	2.9	2.2	4.1	1.0	0.8	1.5	2.5	2.1	2.3	-2.5	2.4	2.4		
2007 Q1	2.5	2.1	3.1	1.1	1.1	1.1	2.6	2.0	2.9	-2.1	2.8	2.5		
Q2	2.5	2.0	3.3	1.0	1.0	0.5	2.7	2.0	2.6	-1.9	2.9	3.6		
Q3	2.5	2.5	2.4	0.9	1.0	0.7	2.7	2.0	2.4	-1.5	3.0	3.4		
Q4	3.9	4.5	3.1	2.8	1.0	8.1	2.7	2.0	2.6	-2.1	3.0	3.2		
2007 July	2.3	1.9	2.8	0.7	0.9	0.0	2.7	1.9	2.5	-1.7	3.0	3.5		
Aug.	2.5	2.5	2.4	0.6	1.0	-0.9	2.7	2.0	2.4	-1.1	3.0	3.4		
Sep.	2.7	3.1	2.1	1.5	1.0	3.0	2.7	2.0	2.4	-1.6	2.9	3.2		
Oct.	3.5	3.8	3.1	2.1	1.1	5.5	2.7	2.0	2.5	-2.1	2.9	3.2		
Nov.	4.0	4.6	3.0	3.2	1.1	9.7	2.7	2.0	2.6	-1.9	3.0	3.2		
Dec.	4.3	5.1	3.1	3.0	1.0	9.2	2.6	2.0	2.8	-2.3	3.0	3.2		

Sources: Eurostat and ECB calculations.

- 1) Data refer to the changing composition of the euro area. For further information, see the General notes.
- 2) ECB estimates based on Eurostat data; these experimental statistics can only provide an approximate measure of price administration since changes in administered prices cannot be fully isolated from other influences. Please refer to <http://www.ecb.europa.eu/stats/prices/hicp/html/index.en.html> for a note explaining the methodology used in the compilation of this indicator.
- 3) Referring to the index period 2007.
- 4) Estimate based on provisional national releases usually covering around 95% of the euro area, as well as on early information on energy prices.



## 5.1 HICP, other prices and costs

(annual percentage changes, unless otherwise indicated)

### 2. Industry, construction, residential property and commodity prices

	Industrial producer prices excluding construction										Construct- ion <sup>1)</sup>	Residential property prices <sup>2)</sup>	World market prices of raw materials <sup>3)</sup>	Oil prices <sup>4)</sup> (EUR per barrel)		
	Total (index 2000 = 100)	Total	Industry excluding construction and energy							Energy					Total	Total excluding energy
			Manu- facturing	Total	Intermed- iate goods	Capital goods	Consumer goods									
							Total	Durable	Non-durable							
% of total <sup>5)</sup>	100.0	100.0	89.5	82.4	31.6	21.2	29.6	4.0	25.6	17.6	100.0	32.8				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
2004	105.7	2.3	2.5	2.0	3.5	0.7	1.3	0.7	1.4	4.0	4.1	7.5	18.4	10.8	30.5	
2005	110.1	4.1	3.2	1.8	2.9	1.4	1.1	1.3	1.1	13.6	3.1	7.9	28.5	9.4	44.6	
2006	115.8	5.1	3.4	2.8	4.8	1.4	1.7	1.6	1.7	13.3	4.1	6.5	19.7	24.8	52.9	
2007	119.1	2.8	3.1	3.2	4.8	1.8	2.3	1.9	2.4	1.7	.	.	3.9	9.2	52.8	
2006 Q4	116.6	4.1	2.8	3.5	6.2	1.8	1.6	1.7	1.6	6.0	4.6	6.1 <sup>6)</sup>	3.9	23.0	47.3	
2007 Q1	117.3	2.9	2.5	3.4	6.0	2.0	1.5	1.9	1.5	1.2	4.4	-	-5.5	15.7	44.8	
Q2	118.5	2.4	2.6	3.2	5.4	2.0	1.7	1.8	1.6	-0.4	4.4	5.0 <sup>6)</sup>	-3.1	13.8	51.0	
Q3	119.3	2.1	2.7	3.0	4.3	1.6	2.4	1.8	2.5	-0.7	3.5	-	2.0	6.7	54.2	
Q4	121.2	3.9	4.5	3.2	3.7	1.5	3.7	1.9	3.9	6.9	.	.	23.5	1.6	61.0	
2007 Aug.	119.2	1.8	2.3	3.0	4.2	1.7	2.4	1.8	2.4	-1.9	-	-	-3.4	5.4	52.4	
Sep.	119.6	2.7	3.4	3.1	4.1	1.6	2.9	1.9	3.0	1.7	-	-	12.1	6.9	55.2	
Oct.	120.4	3.3	3.9	3.2	3.9	1.5	3.3	1.8	3.6	4.2	-	-	19.5	3.5	57.7	
Nov.	121.5	4.2	4.8	3.1	3.6	1.5	3.7	1.9	4.0	8.0	-	-	26.9	-0.1	62.8	
Dec.	121.6	4.3	4.7	3.1	3.4	1.5	3.9	1.9	4.2	8.3	-	-	24.1	1.4	62.8	
2008 Jan.	.	.	.	.	.	.	.	.	.	.	-	-	35.0	3.0	62.4	

### 3. Hourly labour costs<sup>7)</sup>

	Total (s.a. index 2000 = 100)	Total	By component		By selected economic activity			Memo: indicator of negotiated wages <sup>8)</sup>
			Wages and salaries	Employers' social contributions	Mining, manufacturing and energy	Construction	Services	
% of total <sup>5)</sup>	100.0	100.0	73.1	26.9	34.6	9.1	56.3	
	1	2	3	4	5	6	7	8
2003	110.9	3.2	2.9	4.2	3.2	3.8	3.1	2.4
2004	113.7	2.5	2.3	3.0	2.9	2.6	2.2	2.1
2005	116.7	2.7	2.7	2.6	2.6	2.5	2.8	2.1
2006	119.7	2.6	2.7	2.3	3.4	2.1	2.2	2.3
2006 Q3	120.1	2.6	2.7	2.5	3.7	1.9	2.0	2.1
Q4	120.8	2.3	2.4	2.0	2.7	2.2	2.2	2.5
2007 Q1	121.5	2.3	2.4	1.9	2.4	2.0	2.3	2.0
Q2	122.2	2.4	2.5	1.8	2.6	3.0	2.2	2.3
Q3	123.0	2.5	2.5	2.2	2.5	3.0	2.4	2.1

Sources: Eurostat, HWWI (columns 13 and 14 in Table 2 in Section 5.1), ECB calculations based on Thomson Financial Datastream data (column 15 in Table 2 in Section 5.1), ECB calculations based on Eurostat data (column 6 in Table 2 in Section 5.1 and column 7 in Table 3 in Section 5.1) and ECB calculations (column 12 in Table 2 in Section 5.1 and column 8 in Table 3 in Section 5.1).

1) Input prices for residential buildings.

2) Experimental data based on non-harmonised national sources (see the ECB website for further details).

3) Refers to the prices expressed in euro.

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

5) In 2000.

6) The quarterly data for the second (fourth) quarter refer to semi-annual averages of the first (second) half of the year, respectively. Since some national data are only available at annual frequency, the semi-annual estimate is partially derived from annual results; therefore, the accuracy of semi-annual data is lower than the accuracy of annual data.

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

8) Experimental data (see the ECB website for further details).

**5.1 HICP, other prices and costs**

(annual percentage changes, unless otherwise indicated)

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

(seasonally adjusted)

	Total (index 2000 = 100)	Total	By economic activity					Financial, real estate, renting and business services	Public administration, education, health and other services
			Agriculture, hunting, forestry and fishing	Mining, manufacturing and energy	Construction	Trade, repairs, hotels and restaurants, transport and communication			
	1	2	3	4	5	6	7	8	
Unit labour costs <sup>1)</sup>									
2003	106.7	1.9	6.5	0.4	3.3	2.0	1.8	3.2	
2004	107.9	1.2	-9.5	-0.2	3.6	0.4	2.6	2.2	
2005	109.1	1.0	7.0	-0.7	3.5	0.6	1.7	1.8	
2006	110.0	0.9	1.3	-1.0	1.5	0.2	2.1	2.5	
2006 Q3	110.0	1.1	3.2	-0.7	1.6	-0.2	2.6	2.7	
Q4	110.0	0.2	-0.4	-1.4	2.2	-0.4	2.0	0.9	
2007 Q1	110.8	0.9	0.2	-1.2	1.6	-0.4	3.5	2.0	
Q2	111.5	1.2	1.3	0.1	5.6	0.2	3.3	0.7	
Q3	111.4	1.2	1.2	-1.0	5.6	0.6	2.6	1.7	
Compensation per employee									
2003	107.7	2.3	2.5	2.3	3.1	1.9	2.5	2.5	
2004	110.0	2.1	1.3	2.8	2.9	1.4	1.9	2.3	
2005	112.0	1.8	1.5	1.5	2.5	1.7	2.0	1.9	
2006	114.5	2.2	1.2	3.3	3.4	1.7	1.6	2.0	
2006 Q3	114.7	2.4	2.4	3.6	3.4	1.3	1.8	2.6	
Q4	115.1	1.8	2.8	3.1	3.4	1.8	1.6	0.5	
2007 Q1	116.2	2.2	3.3	2.6	3.4	1.3	2.5	2.2	
Q2	116.6	1.9	4.8	3.4	3.0	1.3	1.7	0.9	
Q3	116.9	2.0	4.5	2.9	3.1	1.2	1.7	1.7	
Labour productivity <sup>2)</sup>									
2003	101.0	0.4	-3.8	1.8	-0.2	-0.2	0.7	-0.7	
2004	101.9	1.0	12.0	3.1	-0.6	0.9	-0.7	0.1	
2005	102.7	0.7	-5.2	2.3	-1.1	1.0	0.3	0.0	
2006	104.1	1.3	-0.1	4.3	1.8	1.5	-0.5	-0.4	
2006 Q3	104.2	1.3	-0.8	4.3	1.7	1.5	-0.8	-0.1	
Q4	104.7	1.6	3.2	4.5	1.2	2.2	-0.4	-0.4	
2007 Q1	104.9	1.3	3.0	3.8	1.8	1.7	-0.9	0.2	
Q2	104.6	0.7	3.4	3.3	-2.4	1.1	-1.5	0.2	
Q3	105.0	0.7	3.3	3.9	-2.3	0.5	-0.9	0.0	

**5. Gross domestic product deflators**

	Total (s.a. 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
2003	107.4	2.1	2.0	2.1	2.4	1.2	-1.2	-1.7
2004	109.5	2.0	2.2	2.1	2.3	2.5	1.1	1.6
2005	111.6	1.9	2.3	2.1	2.6	2.4	2.6	3.8
2006	113.7	1.9	2.4	2.2	2.1	2.7	2.7	4.0
2006 Q3	114.0	2.0	2.3	2.1	2.2	2.8	2.7	3.6
Q4	114.5	1.8	1.8	1.8	0.6	2.7	2.0	2.1
2007 Q1	115.3	2.2	1.9	1.7	1.5	3.2	1.6	0.8
Q2	116.1	2.3	2.0	1.8	0.7	3.2	2.0	1.0
Q3	116.5	2.2	2.0	1.7	1.5	2.9	1.6	1.1

Sources: ECB calculations based on Eurostat data.

- 1) Compensation (at current prices) per employee divided by value added (volumes) per person employed.
- 2) Value added (volumes) 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>									
2003	7,489.3	7,332.9	4,295.6	1,531.4	1,505.3	0.6	156.4	2,639.8	2,483.4
2004	7,773.9	7,613.4	4,449.5	1,587.0	1,572.5	4.4	160.5	2,844.3	2,683.8
2005	8,051.1	7,932.4	4,612.8	1,651.2	1,656.2	12.2	118.7	3,057.6	2,938.9
2006	8,438.4	8,336.7	4,801.0	1,719.2	1,790.2	26.4	101.7	3,390.6	3,288.9
2006 Q3	2,121.9	2,101.7	1,206.8	431.1	452.0	11.8	20.2	851.8	831.6
Q4	2,148.7	2,110.1	1,215.2	433.0	462.4	-0.5	38.6	879.0	840.5
2007 Q1	2,180.8	2,146.4	1,220.7	439.9	475.9	9.9	34.4	889.8	855.4
Q2	2,202.1	2,161.6	1,235.6	441.8	479.1	5.1	40.6	904.8	864.2
Q3	2,228.1	2,190.7	1,248.0	446.7	486.8	9.3	37.4	927.3	889.9
<i>percentage of GDP</i>									
2006	100.0	98.8	56.9	20.4	21.2	0.3	1.2	-	-
<i>Chain-linked volumes (prices of the previous year, seasonally adjusted<sup>3)</sup>)</i>									
<i>quarter-on-quarter percentage changes</i>									
2006 Q3	0.6	0.8	0.5	0.5	0.8	-	-	1.1	1.7
Q4	0.8	0.2	0.5	0.4	1.6	-	-	3.0	1.7
2007 Q1	0.8	1.0	0.0	0.9	1.9	-	-	0.8	1.2
Q2	0.3	0.1	0.6	0.1	-0.1	-	-	0.9	0.3
Q3	0.8	0.9	0.5	0.6	1.2	-	-	2.2	2.6
<i>annual percentage changes</i>									
2003	0.8	1.5	1.2	1.8	1.3	-	-	1.1	3.1
2004	2.0	1.8	1.6	1.3	2.2	-	-	7.0	6.7
2005	1.5	1.7	1.5	1.4	2.7	-	-	4.5	5.2
2006	2.8	2.6	1.8	1.9	4.9	-	-	7.8	7.6
2006 Q3	2.9	3.0	1.7	1.8	5.0	-	-	6.6	7.1
Q4	3.2	2.5	2.1	2.2	5.8	-	-	8.8	6.9
2007 Q1	3.2	2.9	1.4	2.0	7.1	-	-	6.6	5.9
Q2	2.5	2.1	1.6	2.0	4.3	-	-	5.9	4.9
Q3	2.7	2.2	1.6	2.1	4.7	-	-	7.1	5.9
<i>contributions to quarter-on-quarter percentage changes of GDP in percentage points</i>									
2006 Q3	0.6	0.8	0.3	0.1	0.2	0.3	-0.2	-	-
Q4	0.8	0.2	0.3	0.1	0.3	-0.5	0.6	-	-
2007 Q1	0.8	0.9	0.0	0.2	0.4	0.3	-0.1	-	-
Q2	0.3	0.1	0.3	0.0	0.0	-0.3	0.2	-	-
Q3	0.8	0.9	0.3	0.1	0.3	0.2	-0.1	-	-
<i>contributions to annual percentage changes of GDP in percentage points</i>									
2003	0.8	1.4	0.7	0.4	0.3	0.1	-0.6	-	-
2004	2.0	1.8	0.9	0.3	0.4	0.2	0.2	-	-
2005	1.5	1.7	0.9	0.3	0.5	0.0	-0.2	-	-
2006	2.8	2.6	1.0	0.4	1.0	0.1	0.2	-	-
2006 Q3	2.9	3.0	1.0	0.4	1.0	0.6	-0.1	-	-
Q4	3.2	2.4	1.2	0.4	1.2	-0.4	0.8	-	-
2007 Q1	3.2	2.8	0.8	0.4	1.5	0.1	0.3	-	-
Q2	2.5	2.1	0.9	0.4	0.9	-0.1	0.4	-	-
Q3	2.7	2.1	0.9	0.4	1.0	-0.2	0.6	-	-

Sources: Eurostat and ECB calculations.

1) Exports and imports cover goods and services and include cross-border intra-euro area trade. They are not fully consistent with Tables 7.1.2 and 7.3.1.

2) Including acquisitions less disposals of valuables.

3) Annual data are not adjusted for the variations in the number of working days.

## 5.2 Output and demand

## 2. Value added by economic activity

	Gross value added (basic prices)							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
	Current prices (EUR billions, seasonally adjusted)							
2003	6,728.3	150.8	1,394.3	390.8	1,427.4	1,831.6	1,533.4	761.0
2004	6,978.0	153.7	1,430.1	412.5	1,478.8	1,908.8	1,594.1	795.9
2005	7,212.5	142.0	1,457.6	438.6	1,518.2	1,999.5	1,656.6	838.6
2006	7,535.2	138.2	1,520.7	481.1	1,571.4	2,105.2	1,718.4	903.2
2006 Q3	1,897.4	34.7	382.7	122.2	396.2	529.9	431.6	224.6
Q4	1,916.4	35.3	387.3	124.8	400.1	535.5	433.3	232.3
2007 Q1	1,942.6	35.7	394.9	128.7	403.1	541.9	438.3	238.2
Q2	1,963.6	36.1	399.6	129.1	407.2	550.0	441.6	238.6
Q3	1,991.2	38.0	405.3	131.2	411.6	558.8	446.2	236.9
	<i>percentage of value added</i>							
2006	100.0	1.8	20.2	6.4	20.9	27.9	22.8	-
	Chain-linked volumes (prices of the previous year, seasonally adjusted <sup>1)</sup> )							
	<i>quarter-on-quarter percentage changes</i>							
2006 Q3	0.6	-0.4	0.8	0.9	0.8	0.5	0.3	0.4
Q4	0.7	0.8	0.9	1.3	0.7	0.8	0.2	1.7
2007 Q1	0.9	1.6	1.3	2.1	0.6	0.8	0.5	0.0
Q2	0.4	-0.9	0.5	-1.3	0.7	0.7	0.3	-0.6
Q3	0.8	-0.5	1.4	0.2	0.9	0.8	0.3	0.7
	<i>annual percentage changes</i>							
2003	0.7	-6.1	0.3	0.1	0.7	1.6	0.9	1.6
2004	2.1	10.5	2.4	0.8	2.5	1.6	1.4	1.6
2005	1.5	-6.2	0.7	1.4	1.6	2.7	1.4	1.6
2006	2.7	-1.6	3.8	4.4	2.8	3.0	1.2	3.4
2006 Q3	2.9	-2.5	4.1	4.8	3.1	3.1	1.3	2.5
Q4	3.2	0.6	4.4	5.4	3.7	3.4	1.2	3.5
2007 Q1	3.2	2.1	4.0	7.5	3.4	3.3	1.3	2.7
Q2	2.6	1.0	3.5	3.0	2.9	2.9	1.3	1.5
Q3	2.8	1.0	4.1	2.3	3.0	3.2	1.3	1.8
	<i>contributions to quarter-on-quarter percentage changes of value added in percentage points</i>							
2006 Q3	0.6	0.0	0.2	0.1	0.2	0.1	0.1	-
Q4	0.7	0.0	0.2	0.1	0.1	0.2	0.0	-
2007 Q1	0.9	0.0	0.3	0.1	0.1	0.2	0.1	-
Q2	0.4	0.0	0.1	-0.1	0.2	0.2	0.1	-
Q3	0.8	0.0	0.3	0.0	0.2	0.2	0.1	-
	<i>contributions to annual percentage changes of value added in percentage points</i>							
2003	0.7	-0.1	0.1	0.0	0.1	0.4	0.2	-
2004	2.1	0.2	0.5	0.0	0.5	0.4	0.3	-
2005	1.5	-0.1	0.1	0.1	0.3	0.7	0.3	-
2006	2.7	0.0	0.8	0.3	0.6	0.8	0.3	-
2006 Q3	2.9	-0.1	0.8	0.3	0.7	0.8	0.3	-
Q4	3.2	0.0	0.9	0.3	0.8	0.9	0.3	-
2007 Q1	3.2	0.0	0.8	0.5	0.7	0.9	0.3	-
Q2	2.6	0.0	0.7	0.2	0.6	0.8	0.3	-
Q3	2.8	0.0	0.8	0.1	0.6	0.9	0.3	-

Sources: Eurostat and ECB calculations.

1) Annual data are not adjusted for the variations in the number of working days.

## 5.2 Output and demand

(annual percentage changes, unless otherwise indicated)

### 3. Industrial production

	Total		Industry excluding construction									Construction
	Total (s.a. index 2000 = 100)	Total	Industry excluding construction and energy							Energy		
			Manu- facturing	Total	Intermediate goods	Capital goods	Consumer goods					
							Total	Durable	Non-durable			
% of total <sup>1)</sup>	100.0	82.9	82.9	75.0	74.0	30.0	22.4	21.5	3.6	17.9	8.9	17.1
	1	2	3	4	5	6	7	8	9	10	11	12
2004	1.8	102.5	2.2	2.2	2.1	2.4	3.4	0.6	0.1	0.7	2.2	-0.5
2005	1.3	103.9	1.3	1.3	1.1	0.8	2.8	0.4	-1.0	0.7	1.4	0.4
2006	4.0	108.1	4.0	4.4	4.4	4.9	6.0	2.5	4.2	2.2	0.9	4.1
2006 Q4	4.5	109.5	4.0	5.0	4.9	5.4	6.8	3.3	5.5	2.9	-3.3	7.0
2007 Q1	4.8	110.6	4.0	6.0	6.0	6.7	7.1	4.0	4.2	4.0	-7.5	11.0
Q2	3.0	111.1	2.8	3.3	3.2	3.2	4.8	2.1	1.3	2.3	-0.5	3.1
Q3	4.0	112.8	4.0	4.3	4.2	3.5	6.7	3.2	2.2	3.4	1.5	2.5
2007 June	2.7	111.5	2.7	3.0	2.7	2.9	5.1	1.6	2.1	1.5	-0.4	2.1
July	4.1	112.2	4.1	4.8	4.8	4.2	7.4	2.9	1.7	3.2	-1.0	3.3
Aug.	4.6	113.5	4.7	5.0	4.9	3.5	7.6	5.2	4.6	5.2	1.7	3.3
Sep.	3.3	112.6	3.5	3.3	3.1	2.9	5.4	1.9	1.2	2.0	4.0	1.1
Oct.	4.3	113.3	4.4	4.0	3.9	3.2	7.1	2.1	0.6	2.3	6.7	3.1
Nov.	2.5	112.7	3.0	2.2	2.1	1.8	4.7	1.0	-3.9	1.8	6.0	-0.9
<i>month-on-month percentage changes (s.a.)</i>												
2007 June	-0.1	-	0.1	0.0	0.0	0.2	0.4	-0.3	0.0	-0.4	1.1	0.0
July	0.7	-	0.6	0.7	0.7	0.5	1.3	0.3	-0.3	0.4	0.0	0.5
Aug.	1.0	-	1.2	1.2	1.2	1.2	1.5	1.8	3.8	1.5	0.8	0.0
Sep.	-0.9	-	-0.9	-1.3	-1.3	-1.4	-1.3	-1.6	-3.7	-1.3	0.6	-0.2
Oct.	0.8	-	0.6	0.6	0.5	0.6	1.0	0.2	-0.1	0.2	0.3	0.7
Nov.	-0.6	-	-0.5	-0.6	-0.6	-0.7	-0.4	-0.4	-2.2	-0.1	0.2	-0.9

### 4. Industrial new orders and turnover, retail sales and new 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
2005	109.2	3.9	110.8	3.6	2.2	106.7	1.3	0.6	1.7	2.3	1.2	941	1.6
2006	119.2	9.2	118.9	7.3	3.5	109.0	2.1	0.7	2.7	2.9	4.9	973	3.3
2007	.	.	.	.	2.2	109.8	0.7	-0.4	1.4	.	.	963	-1.1
2007 Q1	125.0	7.9	124.5	7.6	2.7	109.7	1.6	0.4	2.5	4.2	4.2	949	-1.8
Q2	129.3	10.4	126.0	6.4	2.1	109.8	0.9	-0.2	1.8	3.0	2.3	951	-1.9
Q3	129.6	6.6	127.5	6.3	2.4	110.4	1.3	-0.6	2.5	5.4	2.2	961	0.7
Q4	.	.	.	.	1.7	109.3	-0.9	-1.1	-0.7	.	.	988	-1.1
2007 July	130.1	12.0	127.5	10.3	2.4	110.3	1.4	-1.9	3.6	5.6	4.0	950	0.9
Aug.	129.8	5.4	128.4	6.4	2.0	110.3	0.9	0.2	1.3	0.9	1.9	961	0.7
Sep.	128.8	2.5	126.6	2.5	2.9	110.5	1.6	-0.1	2.5	9.4	0.5	973	0.3
Oct.	132.2	11.0	127.5	9.4	2.9	109.8	0.8	0.6	1.1	1.7	-0.5	965	-0.3
Nov.	135.5	11.7	128.0	4.6	1.4	109.1	-1.2	-1.7	-1.0	-1.0	-2.6	960	-3.8
Dec.	.	.	.	.	1.0	109.0	-2.0	-2.0	-1.9	.	.	1,040	1.0
<i>month-on-month percentage changes (s.a.)</i>													
2007 July	-	-2.4	-	-0.2	0.5	-	0.4	0.1	0.4	0.9	0.3	-	-2.1
Aug.	-	-0.3	-	0.6	0.1	-	0.0	0.1	-0.1	-0.3	0.4	-	1.1
Sep.	-	-0.7	-	-1.4	0.5	-	0.2	0.3	0.1	2.0	-1.3	-	1.3
Oct.	-	2.6	-	0.8	-0.3	-	-0.6	-0.4	-0.8	-3.1	-0.5	-	-0.8
Nov.	-	2.5	-	0.4	-0.3	-	-0.7	-1.0	-0.5	-0.5	-0.7	-	-0.5
Dec.	-	.	-	.	0.3	-	-0.1	0.0	-0.1	.	.	-	8.2

Sources: Eurostat, except columns 12 and 13 in Table 4 in Section 5.2 (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				
		Industrial confidence indicator				Capacity utilisation <sup>3)</sup> (percentages)	Total <sup>4)</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>4)</sup>	Order books	Stocks of finished products	Production expectations						
	1	2	3	4	5	6	7	8	9	10	11
2004	98.7	-5	-15	8	10	81.5	-14	-4	-14	30	-9
2005	97.4	-7	-17	11	6	81.2	-14	-4	-15	28	-9
2006	106.3	2	0	6	13	83.2	-9	-3	-9	15	-9
2007	108.4	4	5	5	13	84.2	-5	-2	-4	5	-8
2006 Q4	109.3	6	6	4	15	84.0	-7	-3	-7	10	-9
2007 Q1	109.4	6	7	4	14	84.4	-5	-2	-5	6	-8
Q2	111.0	6	8	4	15	84.3	-3	-1	0	2	-7
Q3	108.7	4	5	6	13	84.0	-4	-2	-3	3	-7
Q4	104.3	2	1	7	11	84.0	-8	-4	-10	7	-10
2007 Aug.	109.4	5	6	5	13	-	-4	-2	-3	3	-8
Sep.	106.3	3	3	7	11	-	-6	-3	-7	6	-7
Oct.	105.4	2	1	7	11	84.0	-6	-4	-6	5	-10
Nov.	104.1	3	2	6	12	-	-8	-4	-11	7	-11
Dec.	103.4	2	0	7	11	-	-9	-5	-12	8	-10
2008 Jan.	101.7	1	-1	7	12	83.9	-12	-7	-17	11	-11
	Construction confidence indicator			Retail trade confidence indicator				Services confidence indicator			
	Total <sup>4)</sup>	Order books	Employment expectations	Total <sup>4)</sup>	Present business situation	Volume of stocks	Expected business situation	Total <sup>4)</sup>	Business climate	Demand in recent months	Demand in the months ahead
	12	13	14	15	16	17	18	19	20	21	22
2004	-12	-19	-4	-8	-12	14	2	11	6	8	18
2005	-7	-11	-2	-7	-12	13	4	11	5	10	18
2006	1	-4	5	1	3	14	13	18	13	18	24
2007	-1	-8	7	1	4	15	12	19	16	19	23
2006 Q4	3	-2	8	2	8	13	11	20	13	21	26
2007 Q1	1	-8	9	-1	2	16	12	21	16	21	25
Q2	0	-6	6	2	4	13	14	22	19	22	25
Q3	0	-8	7	1	7	14	11	20	16	20	24
Q4	-3	-11	4	0	4	16	13	15	11	14	20
2007 Aug.	-1	-9	6	4	10	14	14	21	17	21	24
Sep.	0	-8	8	-3	2	15	5	18	13	18	22
Oct.	-2	-9	6	-2	3	16	9	18	15	17	22
Nov.	-4	-12	4	2	7	16	15	13	10	12	18
Dec.	-5	-11	2	1	4	17	15	14	9	13	19
2008 Jan.	-6	-12	1	-3	-3	18	10	12	6	12	19

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 1990 to 2007.
- 3) 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.
- 4) The confidence indicators are calculated as simple averages of the components shown; the assessments 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	84.8	15.2	4.2	17.5	7.6	25.2	15.5	30.0
	1	2	3	4	5	6	7	8	9	10
2003	136.298	0.4	0.4	0.8	-2.3	-1.5	0.3	0.8	0.9	1.6
2004	137.398	0.8	0.7	1.2	-1.4	-1.3	1.3	1.3	2.2	1.3
2005	138.596	0.9	1.0	0.1	-1.0	-1.3	2.5	0.7	2.4	1.4
2006	140.681	1.5	1.6	0.8	-1.2	-0.3	2.7	1.5	3.6	1.7
2006 Q3	140.890	1.5	1.7	0.6	-1.7	-0.1	3.0	1.6	3.9	1.4
Q4	141.440	1.5	1.7	0.8	-2.6	-0.4	4.2	1.3	3.8	1.6
2007 Q1	142.334	1.8	2.1	0.1	-0.9	0.3	5.9	1.4	4.2	1.1
Q2	143.161	1.8	2.1	0.0	-2.1	0.4	5.6	1.5	4.4	1.1
Q3	143.630	1.9	2.0	1.3	-2.3	0.2	4.7	2.4	4.0	1.3
	<i>quarter-on-quarter percentage changes (s.a.)</i>									
2006 Q3	0.288	0.2	0.3	-0.5	-1.3	0.0	0.9	0.0	1.0	0.1
Q4	0.550	0.4	0.4	0.1	-0.8	0.0	1.5	0.2	1.0	0.4
2007 Q1	0.894	0.6	0.7	0.4	0.8	0.1	1.8	0.7	1.4	0.2
Q2	0.827	0.6	0.6	0.5	-1.0	0.1	1.2	0.9	1.0	0.5
Q3	0.469	0.3	0.3	0.3	-1.3	0.1	0.1	0.7	0.7	0.3

### 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		49.6		50.4	
	1	2	3	4	5	6	7	8	9	10
2004	13.063	8.8	10.132	7.7	2.931	17.0	6.534	7.9	6.529	10.0
2005	13.285	8.9	10.342	7.8	2.943	17.2	6.696	8.0	6.590	9.9
2006	12.487	8.2	9.761	7.3	2.726	16.1	6.199	7.4	6.288	9.3
2007	11.336	7.4	8.874	6.5	2.462	14.8	5.594	6.6	5.742	8.4
2006 Q3	12.278	8.1	9.629	7.2	2.649	15.8	6.060	7.2	6.218	9.2
Q4	11.960	7.9	9.302	6.9	2.658	15.8	5.907	7.0	6.053	8.9
2007 Q1	11.583	7.6	9.075	6.7	2.508	15.0	5.657	6.7	5.926	8.7
Q2	11.397	7.5	8.949	6.6	2.447	14.7	5.587	6.6	5.810	8.5
Q3	11.250	7.3	8.815	6.5	2.436	14.6	5.583	6.6	5.668	8.3
2007 July	11.297	7.4	8.849	6.5	2.447	14.7	5.592	6.6	5.705	8.3
Aug.	11.267	7.4	8.827	6.5	2.441	14.6	5.590	6.6	5.677	8.3
Sep.	11.187	7.3	8.768	6.4	2.419	14.5	5.567	6.6	5.620	8.2
Oct.	11.127	7.3	8.729	6.4	2.398	14.4	5.568	6.6	5.559	8.1
Nov.	11.060	7.2	8.679	6.3	2.382	14.4	5.549	6.5	5.511	8.0
Dec.	10.990	7.2	8.623	6.3	2.366	14.3	5.524	6.5	5.465	8.0

Source: Eurostat.

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 2006.

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	Social contributions			Sales	Capital taxes	13		
			Households	Corporations		Employers	Employees						
			3	4	5	6	7	8	9	10	11	12	14
1998	46.6	46.3	12.2	9.2	2.7	13.9	0.6	16.1	8.3	4.9	2.3	0.3	42.5
1999	47.0	46.7	12.5	9.3	2.9	14.2	0.6	16.1	8.3	4.9	2.3	0.3	43.0
2000	46.6	46.4	12.7	9.5	2.9	13.9	0.6	15.9	8.2	4.8	2.2	0.3	42.7
2001	45.8	45.6	12.3	9.3	2.7	13.6	0.6	15.7	8.2	4.7	2.2	0.2	41.8
2002	45.3	45.0	11.8	9.1	2.5	13.5	0.4	15.7	8.2	4.6	2.1	0.3	41.3
2003	45.0	44.4	11.4	8.9	2.3	13.5	0.4	15.8	8.2	4.7	2.1	0.6	41.2
2004	44.6	44.1	11.3	8.6	2.5	13.5	0.3	15.6	8.1	4.5	2.1	0.5	40.8
2005	45.0	44.5	11.6	8.6	2.6	13.7	0.3	15.5	8.1	4.5	2.2	0.5	41.1
2006	45.6	45.3	12.2	8.8	3.0	13.9	0.3	15.5	8.1	4.5	2.1	0.3	41.8

### 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						
			3	4	5	6	7	8	9	10	11	12	13	14
1998	48.9	45.1	10.6	4.7	4.6	25.2	22.2	2.1	0.5	3.8	2.4	1.4	0.1	44.3
1999	48.4	44.5	10.6	4.8	4.1	25.1	22.1	2.1	0.5	3.9	2.5	1.4	0.1	44.4
2000	47.7	43.9	10.4	4.8	3.9	24.8	21.7	2.0	0.5	3.8	2.5	1.3	0.0	43.7
2001	47.7	43.8	10.3	4.8	3.8	24.8	21.8	1.9	0.5	3.9	2.5	1.4	0.0	43.9
2002	47.9	44.0	10.4	4.9	3.5	25.2	22.3	1.9	0.5	3.8	2.4	1.4	0.0	44.4
2003	48.1	44.2	10.5	4.9	3.3	25.4	22.6	1.9	0.5	4.0	2.5	1.4	0.1	44.8
2004	47.4	43.6	10.4	5.0	3.1	25.1	22.4	1.7	0.5	3.8	2.4	1.4	0.0	44.3
2005	47.5	43.6	10.4	5.1	3.0	25.2	22.4	1.7	0.5	3.9	2.5	1.4	0.0	44.5
2006	47.2	43.1	10.2	5.0	2.9	25.0	22.2	1.7	0.5	4.1	2.5	1.6	0.0	44.3

### 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
1998	-2.3	-2.3	-0.2	0.1	0.1	2.3	19.8	10.6	4.7	4.8	1.8	2.3	8.2	11.6
1999	-1.4	-1.7	-0.1	0.1	0.4	2.7	19.9	10.6	4.8	4.8	1.8	2.3	8.3	11.6
2000	-1.0	-1.4	-0.1	0.1	0.5	2.9	19.8	10.4	4.8	4.9	1.8	2.2	8.2	11.6
2001	-1.9	-1.7	-0.4	-0.1	0.3	1.9	19.9	10.3	4.8	5.0	1.8	2.2	8.1	11.7
2002	-2.6	-2.1	-0.5	-0.2	0.2	0.9	20.3	10.4	4.9	5.1	1.8	2.1	8.2	12.0
2003	-3.1	-2.4	-0.5	-0.2	0.0	0.2	20.5	10.5	4.9	5.2	1.9	2.1	8.3	12.2
2004	-2.8	-2.4	-0.4	-0.3	0.1	0.3	20.4	10.4	5.0	5.1	1.9	2.1	8.3	12.1
2005	-2.6	-2.2	-0.3	-0.2	0.2	0.4	20.5	10.4	5.1	5.2	1.9	2.2	8.2	12.3
2006	-1.6	-1.6	-0.1	-0.2	0.3	1.3	20.4	10.2	5.0	5.2	1.9	2.1	8.0	12.3

### 4. Euro area countries – deficit (-)/surplus (+) <sup>5)</sup>

	BE	DE	IE	GR	ES	FR	IT	CY	LU	MT	NL	AT	PT	SI	FI
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2003	0.0	-4.0	0.4	-5.6	-0.2	-4.1	-3.5	-6.5	0.5	-9.8	-3.1	-1.6	-2.9	-2.7	2.5
2004	0.0	-3.8	1.3	-7.3	-0.3	-3.6	-3.5	-4.1	-1.2	-4.9	-1.7	-1.2	-3.4	-2.3	2.3
2005	-2.3	-3.4	1.2	-5.1	1.0	-2.9	-4.2	-2.4	-0.1	-3.1	-0.3	-1.6	-6.1	-1.5	2.7
2006	0.4	-1.6	2.9	-2.5	1.8	-2.5	-4.4	-1.2	0.7	-2.5	0.6	-1.4	-3.9	-1.2	3.8

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

- The data refer to the Euro 13. 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 0.0% 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.
- Includes proceeds from the sale of UMTS licences and settlements under swaps and forward rate agreements.



## 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				
		Currency and deposits	Loans	Short-term securities	Long-term securities	Domestic creditors <sup>2)</sup>				Other creditors <sup>3)</sup>
						Total	MFI	Other financial corporations	Other sectors	
1	2	3	4	5	6	7	8	9	10	
1997	74.1	2.8	16.2	6.4	48.8	55.6	28.4	13.6	13.7	18.4
1998	72.8	2.7	15.2	5.3	49.6	52.4	26.5	14.5	11.4	20.4
1999	72.0	2.9	14.4	4.2	50.5	48.8	25.3	13.8	9.6	23.2
2000	69.4	2.7	13.2	3.7	49.8	44.3	22.0	12.5	9.8	25.1
2001	68.3	2.8	12.4	4.0	49.2	42.1	20.6	11.2	10.3	26.3
2002	68.1	2.7	11.8	4.5	49.1	40.2	19.3	10.7	10.1	28.0
2003	69.1	2.0	12.3	5.0	49.7	39.4	19.4	11.2	8.8	29.8
2004	69.5	2.2	11.9	5.0	50.5	37.5	18.4	10.8	8.4	32.0
2005	70.3	2.4	11.8	4.7	51.4	35.5	17.3	10.9	7.2	34.8
2006	68.6	2.5	11.4	4.1	50.7	32.9	17.6	8.4	6.9	35.7

### 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
1997	74.1	62.1	6.0	5.4	0.6	9.4	64.7	8.4	18.1	25.3	30.7	72.1	2.0
1998	72.8	61.1	6.1	5.3	0.4	8.1	64.6	7.5	15.4	26.4	30.9	70.9	1.8
1999	72.0	60.4	6.0	5.1	0.4	7.3	64.7	6.6	13.6	27.9	30.5	69.8	2.1
2000	69.4	58.2	5.9	4.9	0.4	6.5	62.9	5.8	13.4	27.9	28.1	67.5	1.9
2001	68.3	57.1	6.1	4.8	0.4	7.0	61.4	4.9	13.7	26.6	28.0	66.7	1.7
2002	68.1	56.7	6.3	4.8	0.4	7.6	60.5	4.9	15.3	25.0	27.8	66.7	1.5
2003	69.1	56.9	6.5	5.1	0.6	7.8	61.4	4.8	14.7	25.8	28.6	68.0	1.1
2004	69.5	57.3	6.6	5.1	0.4	7.8	61.7	4.6	14.7	26.2	28.7	68.5	1.1
2005	70.3	57.8	6.7	5.3	0.5	7.9	62.4	4.6	14.9	25.7	29.7	69.1	1.2
2006	68.6	56.1	6.6	5.4	0.6	7.5	61.2	4.5	14.4	24.8	29.5	67.7	0.9

### 3. Euro area countries

	BE	DE	IE	GR	ES	FR	IT	CY	LU	MT	NL	AT	PT	SI	FI
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2003	98.6	63.8	31.1	97.9	48.7	62.9	104.3	68.9	6.3	69.3	52.0	64.6	56.9	27.9	44.3
2004	94.2	65.6	29.5	98.6	46.2	64.9	103.8	70.2	6.4	72.7	52.4	63.8	58.3	27.6	44.1
2005	92.2	67.8	27.4	98.0	43.0	66.7	106.2	69.1	6.2	70.8	52.3	63.4	63.7	27.4	41.4
2006	88.2	67.5	25.1	95.3	39.7	64.2	106.8	65.2	6.6	64.7	47.9	61.7	64.8	27.1	39.2

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

- 1) The data refer to the Euro 13. 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>	Currency and deposits	Loans	Short-term securities	Long-term securities	Domestic creditors <sup>6)</sup>	MFIs	Other financial corporations	
1998	1.8	2.2	-0.3	0.0	-0.1	0.1	-0.3	-0.8	2.8	-0.9	-0.7	1.5	2.7
1999	2.0	1.6	0.4	0.0	0.0	0.2	-0.2	-0.9	2.8	-1.6	-0.2	-0.2	3.6
2000	1.0	1.1	0.0	0.0	-0.1	0.0	-0.5	-0.3	1.9	-2.1	-2.0	-0.6	3.1
2001	1.9	1.9	-0.1	0.1	0.0	0.2	-0.2	0.4	1.4	-0.3	-0.5	-0.8	2.2
2002	2.1	2.7	-0.5	0.0	0.0	0.0	-0.2	0.7	1.6	-0.5	-0.5	-0.1	2.6
2003	3.1	3.3	-0.2	0.0	0.0	-0.6	0.9	0.6	2.1	0.4	0.6	0.8	2.7
2004	3.1	3.2	-0.1	0.0	0.0	0.2	0.1	0.1	2.7	-0.3	-0.3	0.1	3.4
2005	3.1	3.1	0.1	-0.1	0.0	0.3	0.2	-0.1	2.6	-0.7	-0.4	0.5	3.8
2006	1.5	1.4	0.1	0.0	0.0	0.2	0.1	-0.4	1.6	-1.0	1.0	-2.1	2.5

### 2. Euro area – deficit-debt adjustment

	Change in debt	Deficit (-) / surplus (+) <sup>8)</sup>	Deficit-debt adjustment <sup>9)</sup>											Other <sup>10)</sup>
			Total	Transactions in main financial assets held by general government							Valuation effects	Exchange rate effects	Other changes in volume	
				Total	Currency and deposits	Loans	Securities <sup>11)</sup>	Shares and other equity	Privatisations	Equity injections				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1998	1.8	-2.3	-0.5	-0.2	0.2	0.0	0.1	-0.4	-0.7	0.2	-0.3	0.0	0.0	0.0
1999	2.0	-1.4	0.6	0.0	0.5	0.1	0.0	-0.5	-0.7	0.1	0.4	0.2	0.0	0.2
2000	1.0	0.0	1.0	1.0	0.7	0.2	0.2	0.0	-0.4	0.2	0.0	0.1	0.0	0.0
2001	1.9	-1.8	0.0	-0.5	-0.6	0.1	0.1	-0.1	-0.3	0.1	-0.1	0.0	0.1	0.6
2002	2.1	-2.6	-0.5	0.1	0.1	0.0	0.0	0.0	-0.3	0.1	-0.5	-0.1	0.0	0.0
2003	3.1	-3.1	0.0	0.1	0.0	0.0	0.0	0.1	-0.2	0.1	-0.2	-0.1	0.0	0.1
2004	3.1	-2.8	0.2	0.3	0.2	0.0	0.1	0.0	-0.5	0.2	-0.1	-0.1	0.0	0.1
2005	3.1	-2.6	0.5	0.7	0.4	0.1	0.2	0.1	-0.3	0.2	0.1	0.1	-0.1	-0.2
2006	1.5	-1.6	-0.1	0.3	0.4	-0.1	0.2	-0.1	-0.4	0.1	0.1	0.0	0.0	-0.5

Source: ECB.

- The data refer to the Euro 13 and are partially estimated. Annual change in gross nominal consolidated debt is expressed as a percentage of GDP, i.e.  $[\text{debt}(t) - \text{debt}(t-1)] \div \text{GDP}(t)$ .
- The borrowing requirement is by definition equal to transactions in debt.
- 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).
- Includes, in particular, the impact of the reclassification of units and certain types of debt assumption.
- 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 2001.
- Holder's resident in the country whose government has issued the debt.
- Includes residents of euro area countries other than the country whose government has issued the debt.
- Including proceeds from sales of UMTS licences.
- The difference between the annual change in gross nominal consolidated debt and the deficit as a percentage of GDP.
- Mainly composed of transactions in other assets and liabilities (trade credits, other receivables/payables and financial derivatives).
- Excluding 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 3	Indirect taxes 4	Social contributions 5	Sales 6	Property income 7	8	Capital taxes 9	
2001 Q3	43.4	43.1	11.6	12.4	15.5	1.9	0.9	0.4	0.3	39.7
2001 Q4	49.2	48.7	13.5	13.9	16.3	2.9	1.1	0.5	0.3	44.0
2002 Q1	41.9	41.5	10.1	12.7	15.4	1.7	0.8	0.4	0.2	38.5
2002 Q2	45.6	45.1	12.6	12.7	15.5	2.0	1.6	0.5	0.3	41.1
2002 Q3	43.5	43.1	11.2	12.8	15.5	1.9	0.8	0.4	0.3	39.6
2002 Q4	49.2	48.6	13.4	14.1	16.3	3.0	0.9	0.6	0.3	44.1
2003 Q1	41.9	41.4	9.7	12.8	15.6	1.7	0.7	0.5	0.2	38.3
2003 Q2	45.9	44.4	12.0	12.7	15.7	2.0	1.3	1.5	1.2	41.6
2003 Q3	42.8	42.3	10.8	12.7	15.5	1.9	0.7	0.5	0.2	39.2
2003 Q4	49.2	48.2	13.1	14.2	16.2	2.9	0.8	1.0	0.3	43.8
2004 Q1	41.4	40.9	9.5	12.8	15.3	1.7	0.7	0.4	0.3	38.0
2004 Q2	45.0	44.2	12.1	13.0	15.3	2.0	0.9	0.8	0.6	41.0
2004 Q3	42.6	42.1	10.6	12.6	15.4	1.9	0.7	0.5	0.3	38.9
2004 Q4	49.2	48.3	13.0	14.4	16.2	2.9	0.8	1.0	0.4	43.9
2005 Q1	42.0	41.5	9.9	12.9	15.3	1.7	0.6	0.5	0.3	38.4
2005 Q2	44.7	44.1	11.9	13.3	15.2	2.0	1.0	0.6	0.3	40.7
2005 Q3	43.3	42.6	11.0	12.9	15.2	1.9	0.8	0.7	0.3	39.4
2005 Q4	49.4	48.6	13.4	14.3	16.1	3.0	0.9	0.8	0.3	44.2
2006 Q1	42.6	42.1	10.2	13.3	15.2	1.7	0.8	0.5	0.3	39.0
2006 Q2	45.9	45.4	12.6	13.6	15.3	2.0	1.2	0.5	0.3	41.8
2006 Q3	43.6	43.1	11.4	12.9	15.3	1.9	0.8	0.5	0.3	39.9
2006 Q4	49.9	49.3	14.2	14.4	16.0	2.9	0.9	0.7	0.3	44.9
2007 Q1	42.4	42.0	10.4	13.4	14.9	1.7	0.9	0.4	0.3	39.0
2007 Q2	46.3	45.9	13.1	13.7	15.2	1.9	1.2	0.5	0.3	42.2
2007 Q3	43.8	43.4	12.1	12.8	15.0	1.9	0.8	0.5	0.3	40.2

### 2. Euro area – quarterly expenditure and deficit/surplus

	Total		Current expenditure					Capital expenditure			Deficit (-)/ surplus (+)	Primary deficit (-)/ surplus (+)	
	Total 1	Compensation of employees 2	Intermediate consumption 3	Interest 4	Current transfers 5	Social benefits 6	Subsidies 7	Investment 9	Capital transfers 10	11			
													12
2001 Q3	46.1	42.4	10.0	4.6	3.8	24.1	20.8	1.4	3.7	2.5	1.2	-2.7	1.2
2001 Q4	51.2	46.3	11.0	5.7	3.6	26.0	22.1	1.7	4.9	3.2	1.7	-2.1	1.5
2002 Q1	46.2	42.8	10.3	4.3	3.7	24.5	21.2	1.3	3.5	2.0	1.5	-4.3	-0.7
2002 Q2	46.7	43.2	10.3	4.9	3.6	24.4	21.2	1.3	3.4	2.3	1.1	-1.0	2.5
2002 Q3	46.8	43.2	10.0	4.7	3.5	24.9	21.5	1.4	3.7	2.5	1.2	-3.3	0.2
2002 Q4	50.9	46.5	11.1	5.7	3.3	26.4	22.7	1.6	4.4	2.8	1.6	-1.7	1.6
2003 Q1	46.8	43.3	10.3	4.5	3.5	25.0	21.5	1.3	3.5	1.9	1.6	-5.0	-1.5
2003 Q2	47.3	43.7	10.4	4.8	3.4	25.2	21.7	1.3	3.6	2.3	1.2	-1.4	2.0
2003 Q3	47.0	43.3	10.2	4.8	3.3	25.0	21.6	1.3	3.7	2.5	1.2	-4.2	-0.9
2003 Q4	51.2	46.3	11.0	5.7	3.1	26.5	22.9	1.5	4.8	3.3	1.6	-1.9	1.2
2004 Q1	46.4	43.1	10.3	4.6	3.2	25.0	21.4	1.2	3.4	1.9	1.5	-5.1	-1.9
2004 Q2	46.5	43.2	10.4	4.9	3.1	24.8	21.5	1.2	3.3	2.3	1.0	-1.5	1.6
2004 Q3	46.0	42.6	9.9	4.7	3.2	24.9	21.5	1.3	3.4	2.5	1.0	-3.4	-0.3
2004 Q4	50.7	45.8	11.0	5.7	3.0	26.1	22.7	1.4	4.9	3.1	1.8	-1.5	1.5
2005 Q1	46.9	43.2	10.3	4.7	3.1	25.2	21.4	1.2	3.7	1.9	1.9	-4.9	-1.8
2005 Q2	46.4	43.0	10.2	5.0	3.2	24.6	21.4	1.1	3.4	2.4	1.1	-1.7	1.5
2005 Q3	45.8	42.3	9.9	4.8	2.9	24.7	21.4	1.2	3.5	2.5	1.0	-2.5	0.4
2005 Q4	50.7	45.9	11.1	5.8	2.8	26.2	22.7	1.4	4.8	3.1	1.7	-1.3	1.5
2006 Q1	45.6	42.4	10.1	4.5	3.0	24.9	21.3	1.2	3.1	1.9	1.3	-3.0	0.0
2006 Q2	46.0	42.6	10.3	4.9	3.1	24.3	21.3	1.1	3.3	2.4	1.0	-0.1	3.0
2006 Q3	46.2	41.9	9.8	4.7	2.9	24.5	21.2	1.2	4.2	2.5	1.8	-2.6	0.3
2006 Q4	50.7	45.3	10.7	5.9	2.7	26.0	22.4	1.4	5.4	3.2	2.2	-0.8	1.9
2007 Q1	44.6	41.4	9.9	4.5	2.9	24.1	20.6	1.1	3.2	2.0	1.2	-2.1	0.8
2007 Q2	45.0	41.7	10.0	4.9	3.1	23.8	20.8	1.0	3.3	2.4	0.9	1.3	4.4
2007 Q3	44.6	41.2	9.6	4.6	2.9	24.0	20.8	1.2	3.5	2.5	0.9	-0.8	2.1

Source: ECB calculations based on Eurostat and national data.

1) Revenue, expenditure and deficit/surplus are based on the ESA 95. Transactions between the EU budget and entities outside the government sector are not included. 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.

## 6.5 Quarterly debt and change in debt

(as a percentage of GDP)

### 1. Euro area – Maastricht debt by financial instrument<sup>1)</sup>

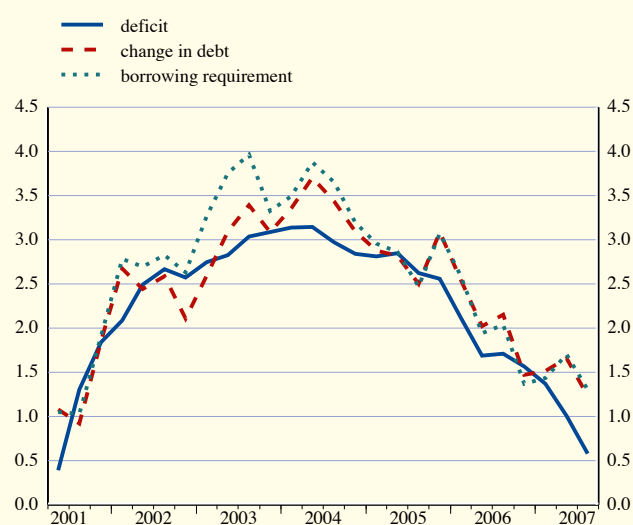
	Total 1	Financial instruments			
		Currency and deposits 2	Loans 3	Short-term securities 4	Long-term securities 5
2004 Q4	69.5	2.2	11.9	5.0	50.5
2005 Q1	70.9	2.2	11.9	5.2	51.5
Q2	71.6	2.3	11.7	5.2	52.4
Q3	71.1	2.4	11.8	5.2	51.8
Q4	70.3	2.4	11.8	4.7	51.4
2006 Q1	70.7	2.5	11.7	4.9	51.5
Q2	70.8	2.5	11.6	4.9	51.8
Q3	70.3	2.5	11.6	4.7	51.4
Q4	68.6	2.5	11.4	4.1	50.7
2007 Q1	68.9	2.4	11.4	4.8	50.3
Q2	69.1	2.2	11.1	5.1	50.7
Q3	68.1	2.1	11.0	5.2	49.8

### 2. Euro area – deficit-debt adjustment

	Change in debt 1	Deficit (-)/ surplus (+) 2	Deficit-debt adjustment							Memo: Borrowing requirement 11	
			Total 3	Transactions in main financial assets held by general government				Valuation effects and other changes in volume 9	Other 10		
				Total 4	Currency and deposits 5	Loans 6	Securities 7				Shares and other equity 8
2004 Q4	-3.0	-1.5	-4.5	-3.3	-2.6	0.1	-0.2	-0.6	0.0	-1.2	-3.0
2005 Q1	7.3	-4.9	2.4	2.4	1.3	0.3	0.3	0.4	0.0	0.0	7.3
Q2	5.4	-1.7	3.7	3.3	2.5	0.0	0.3	0.5	0.1	0.3	5.3
Q3	0.6	-2.5	-2.0	-2.4	-2.3	0.0	0.3	-0.4	0.0	0.4	0.5
Q4	-0.6	-1.3	-1.9	-0.4	0.0	0.0	-0.3	-0.1	-0.1	-1.4	-0.5
2006 Q1	4.9	-3.0	1.9	1.3	1.0	0.1	0.6	-0.5	-0.3	0.9	5.1
Q2	3.3	-0.1	3.2	3.2	2.5	0.1	0.4	0.2	0.6	-0.6	2.7
Q3	1.2	-2.6	-1.4	-0.9	-0.7	-0.1	0.1	-0.1	0.2	-0.7	1.0
Q4	-3.1	-0.8	-3.8	-2.1	-1.2	-0.6	-0.1	-0.2	-0.1	-1.6	-2.9
2007 Q1	4.8	-2.1	2.7	1.8	1.0	0.2	0.6	0.0	-0.3	1.2	5.2
Q2	3.8	1.3	5.1	4.8	4.1	0.0	0.5	0.2	0.1	0.2	3.7
Q3	-0.5	-0.8	-1.3	-1.8	-2.2	0.1	0.3	0.0	0.0	0.5	-0.6

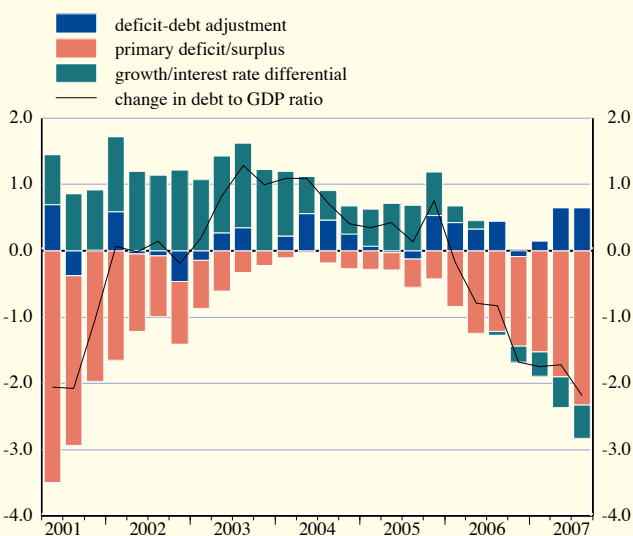
### C28 Deficit, borrowing requirement and change in debt

(four-quarter moving sum as a percentage of GDP)



### C29 Maastricht debt

(annual change in the debt to GDP ratio and underlying factors)



Source: ECB calculations based on Eurostat and national data.

1) The stock data in quarter t are expressed as a percentage of the sum of GDP in t and the previous three quarters.



## EXTERNAL TRANSACTIONS AND POSITIONS

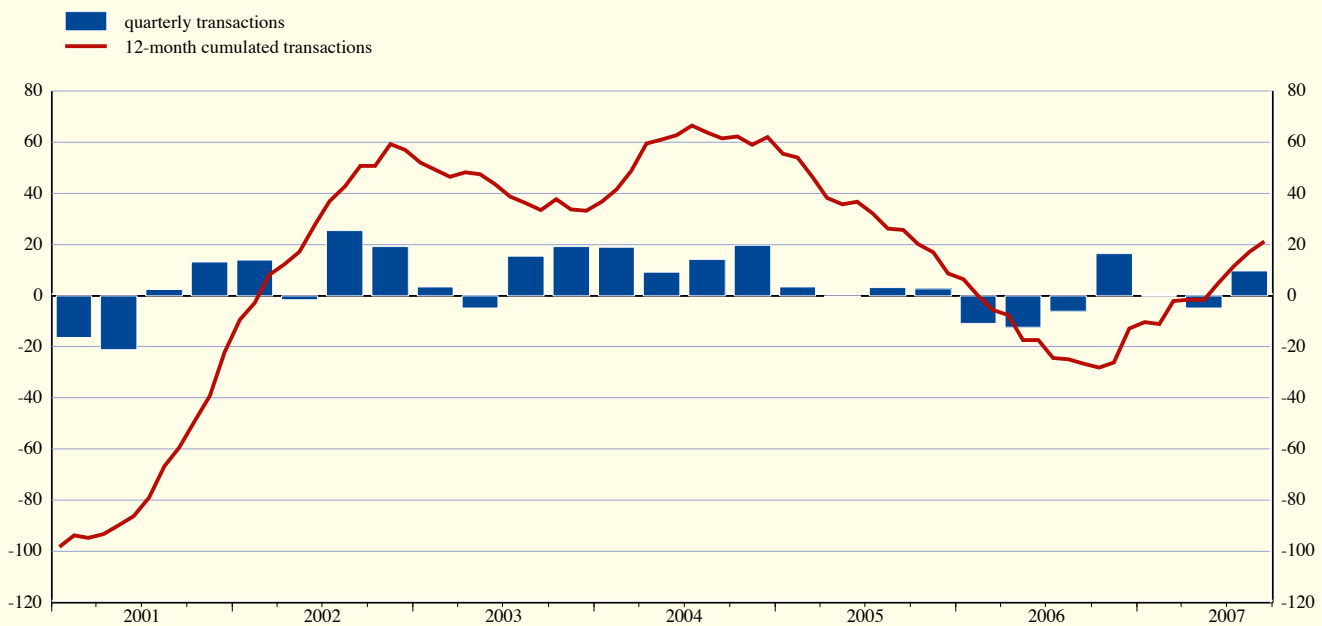
### 7.1 Summary balance of payments <sup>1)</sup>

(EUR billions; net transactions)

	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
2004	62.0	102.9	28.7	-9.7	-59.9	16.4	78.4	-16.8	-66.8	72.1	-8.3	-26.2	12.5	-61.7
2005	8.5	47.9	31.6	1.9	-72.9	11.3	19.9	24.2	-208.8	141.3	-16.4	90.1	18.0	-44.1
2006	-12.9	23.0	35.1	6.1	-77.1	9.1	-3.7	118.0	-136.4	276.4	2.5	-23.2	-1.3	-114.3
2006 Q3	-6.1	6.7	10.2	1.3	-24.3	2.2	-3.9	41.3	-41.5	21.1	12.6	52.2	-3.2	-37.5
Q4	16.4	16.9	7.6	7.3	-15.4	4.6	21.0	-42.2	-52.5	116.9	-2.7	-101.4	-2.4	21.2
2007 Q1	-0.2	8.6	7.8	4.7	-21.2	5.0	4.8	4.7	-14.6	129.8	-16.4	-92.5	-1.6	-9.5
Q2	-4.9	20.1	12.6	-21.1	-16.5	2.4	-2.4	23.6	-66.8	72.4	-23.2	45.4	-4.2	-21.2
Q3	9.8	18.5	14.4	2.1	-25.2	1.2	-1.0	90.6	-37.8	76.2	-32.5	88.2	-3.6	-101.6
2006 Nov.	1.4	6.9	1.6	0.3	-7.4	0.7	2.2	-10.6	-13.7	57.6	-2.9	-51.0	-0.6	8.4
Dec.	14.5	4.8	3.5	5.9	0.2	3.3	17.8	-32.9	-24.6	24.3	-5.5	-25.3	-1.9	15.1
2007 Jan.	-3.7	-4.2	1.1	1.1	-1.7	2.2	-1.4	42.7	-13.8	42.7	-4.2	20.9	-3.0	-41.2
Feb.	-3.6	2.6	2.9	3.0	-12.1	1.1	-2.4	2.0	-3.2	22.9	-7.9	-9.3	-0.5	0.5
Mar.	7.1	10.1	3.8	0.6	-7.4	1.6	8.7	-39.9	2.4	64.2	-4.3	-104.1	1.9	31.2
Apr.	-4.6	4.5	3.2	-4.6	-7.7	0.6	-4.0	41.2	-8.4	1.1	-9.9	59.9	-1.5	-37.2
May	-12.7	4.3	3.4	-15.4	-5.1	1.8	-10.9	-3.7	-26.3	3.2	-2.9	23.0	-0.7	14.6
June	12.4	11.3	6.0	-1.1	-3.8	0.0	12.4	-13.9	-32.1	68.1	-10.4	-37.6	-1.9	1.5
July	4.8	7.9	4.8	-0.2	-7.7	0.8	5.6	45.9	-0.7	25.4	-12.9	37.0	-2.9	-51.4
Aug.	0.4	4.0	3.6	1.1	-8.3	0.1	0.5	58.6	0.3	1.9	-8.4	63.9	1.0	-59.1
Sep.	4.6	6.5	6.1	1.2	-9.2	0.3	4.9	-13.9	-37.4	48.9	-11.1	-12.6	-1.6	9.0
Oct.	3.9	8.7	3.1	2.3	-10.3	1.2	5.1	-80.6	21.3	-56.1	-6.9	-38.3	-0.5	75.5
Nov.	1.0	5.1	2.0	1.0	-7.0	1.1	2.2	-11.7	11.0	10.2	-33.2	0.1	0.2	9.5
	<i>12-month cumulated transactions</i>													
2007 Nov.	24.0	65.8	43.4	-5.1	-80.0	14.4	38.4	-6.3	-111.5	256.8	-117.7	-22.4	-11.5	-32.1

### C30 B.o.p. current account balance

(EUR billions)



Source: ECB.

1) The sign convention is explained in the general notes

**7.2 Current and capital accounts**

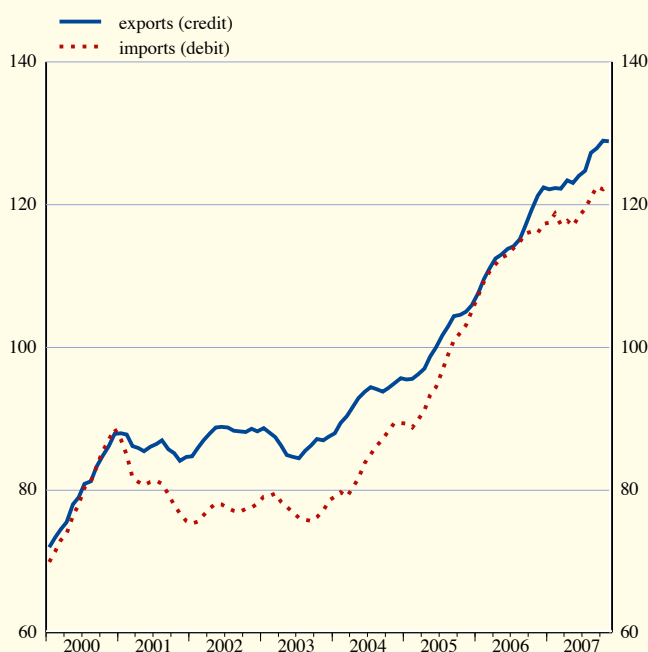
(EUR billions; transactions)

**1. Summary current and capital accounts**

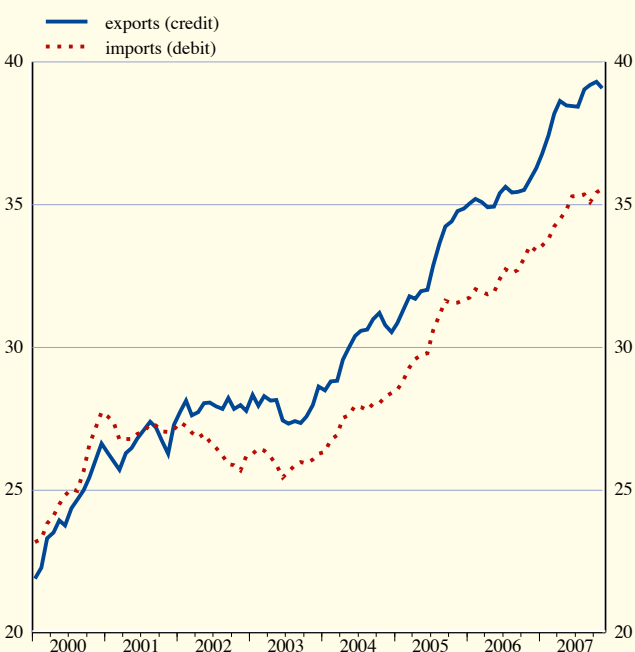
	Current account											Capital account			
	Total			Goods		Services		Income		Current transfers			Credit	Debit	
	Credit	Debit	Net	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Workers remittances				
											11	12	13		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
2004	1,864.7	1,802.7	62.0	1,127.6	1,024.7	363.9	335.2	291.3	301.0	81.9	5.3	141.7	11.7	24.4	8.0
2005	2,071.2	2,062.6	8.5	1,222.2	1,174.2	399.7	368.2	364.2	362.3	85.1	5.3	158.0	13.1	24.1	12.8
2006	2,368.9	2,381.7	-12.9	1,392.0	1,369.0	426.1	391.0	463.9	457.8	86.9	5.3	164.0	15.5	23.7	14.5
2006 Q3	586.2	592.3	-6.1	343.3	336.6	114.0	103.8	113.1	111.8	15.8	1.5	40.1	3.9	4.5	2.3
Q4	639.7	623.3	16.4	374.8	357.9	109.3	101.6	127.6	120.3	28.1	1.4	43.5	4.4	8.8	4.2
2007 Q1	615.8	616.0	-0.2	361.3	352.8	105.3	97.5	122.4	117.7	26.7	1.4	48.0	4.6	7.8	2.8
Q2	646.6	651.5	-4.9	373.3	353.2	115.0	102.4	139.7	160.8	18.6	1.6	35.1	4.9	4.9	2.5
Q3	650.8	641.1	9.8	375.3	356.8	126.2	111.8	133.5	131.4	15.9	1.7	41.1	5.2	4.1	2.8
2007 Sep.	217.6	213.0	4.6	126.4	119.9	40.5	34.5	45.9	44.7	4.7	.	13.9	.	1.2	0.9
Oct.	230.7	226.8	3.9	140.5	131.8	41.0	37.8	44.9	42.6	4.3	.	14.6	.	2.0	0.8
Nov.	223.3	222.2	1.0	136.4	131.3	37.1	35.1	44.6	43.7	5.1	.	12.2	.	2.2	1.1
	Seasonally adjusted														
2006 Q3	598.1	607.4	-9.3	351.3	347.9	106.4	98.1	119.4	119.7	21.0	.	41.7	.	.	.
Q4	621.9	619.6	2.3	367.3	351.8	108.8	100.1	123.5	123.9	22.2	.	43.8	.	.	.
2007 Q1	630.4	622.5	7.9	366.7	351.6	114.5	102.7	126.6	128.1	22.6	.	40.1	.	.	.
Q2	642.4	638.1	4.3	372.0	354.9	115.4	105.9	132.7	137.1	22.3	.	40.2	.	.	.
Q3	663.6	656.0	7.6	383.5	367.5	117.6	105.2	141.0	140.7	21.4	.	42.6	.	.	.
2007 June	219.5	214.0	5.5	126.7	119.4	39.0	35.7	46.3	46.7	7.5	.	12.2	.	.	.
July	219.2	215.4	3.8	125.9	121.7	38.4	35.0	47.2	44.8	7.7	.	13.9	.	.	.
Aug.	222.0	218.9	3.2	129.1	121.9	39.6	35.4	46.3	47.1	7.0	.	14.5	.	.	.
Sep.	222.3	221.7	0.6	128.6	123.9	39.6	34.9	47.5	48.7	6.7	.	14.1	.	.	.
Oct.	221.6	218.4	3.1	129.2	120.7	38.8	36.0	47.7	45.5	5.9	.	16.3	.	.	.
Nov.	220.6	219.9	0.7	128.8	124.0	38.9	35.7	47.4	47.2	5.5	.	12.9	.	.	.

**C31 B.o.p. goods**

(EUR billions, seasonally adjusted; three-month moving average)


**C32 B.o.p. services**

(EUR billions, seasonally adjusted; three-month moving average)



Source: ECB.

## 7.2 Current and capital accounts

(EUR billions)

### 2. Income account

(transactions)

	Compensation of employees		Investment income													
	Credit	Debit	Total		Direct investment						Portfolio investment				Other investment	
			Credit	Debit	Equity			Debt			Equity		Debt		Credit	Debit
	Credit	Debit			Reinv. earnings	Debit	Credit	Debit	Credit	Debit	Credit	Debit				
			1	2									3	4	5	6
2004	15.3	7.6	275.9	293.4	99.6	37.1	78.4	31.4	12.8	12.6	23.8	54.2	72.6	75.6	67.2	72.6
2005	15.4	9.2	348.8	353.1	127.0	32.1	89.1	-10.2	14.2	13.6	31.7	69.6	82.1	80.4	93.9	100.4
2006	16.0	9.9	447.8	447.9	151.4	27.0	94.2	40.3	18.5	16.7	39.0	99.0	101.5	87.2	137.4	150.9
2006 Q3	4.0	3.0	109.2	108.8	34.9	13.3	23.4	13.0	4.6	4.2	8.7	21.5	26.3	21.2	34.8	38.6
Q4	4.2	2.6	123.4	117.8	42.5	7.6	26.2	9.1	5.2	5.0	8.2	19.1	27.9	23.4	39.6	44.1
2007 Q1	4.0	1.9	118.5	115.8	34.4	15.6	22.5	6.5	5.1	4.9	9.6	18.2	27.8	25.4	41.6	44.8
Q2	4.0	2.5	135.6	158.3	38.8	4.1	23.0	2.1	5.7	4.8	16.0	52.9	28.7	28.3	46.4	49.4
Q3	4.2	3.1	129.3	128.3	36.2	14.7	22.1	12.0	5.5	5.1	11.0	23.9	30.8	26.8	45.8	50.4

### 3. Geographical breakdown

(cumulated transactions)

	Total	European Union 27 (outside the euro area)					Brazil	Canada	China	India	Japan	Russia	Switzerland	United States	Other	
		Total	Denmark	Sweden	United Kingdom	Other EU countries										EU institutions
2006 Q4 to 2007 Q3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Credits																
<b>Current account</b>	2,552.9	977.0	53.7	84.0	501.7	277.3	60.2	29.9	33.9	72.6	28.3	56.1	86.5	164.9	401.2	702.5
Goods	1,484.7	541.5	33.8	54.5	232.9	220.2	0.0	17.1	18.2	59.2	21.8	34.5	65.1	84.5	198.3	444.5
Services	455.7	165.0	9.5	12.3	109.2	28.2	5.9	4.5	6.7	10.1	4.9	10.6	9.4	44.9	79.8	119.9
Income	523.2	205.3	10.0	16.5	146.1	26.3	6.4	8.1	8.3	3.1	1.7	10.8	11.9	29.6	115.2	129.3
investment income	506.9	199.8	9.9	16.4	144.4	26.1	3.0	8.1	8.2	3.1	1.7	10.7	11.8	23.1	113.8	126.7
Current transfers	89.3	65.2	0.5	0.7	13.5	2.7	47.8	0.2	0.6	0.2	0.0	0.3	0.1	5.9	7.9	8.7
<b>Capital account</b>	25.6	21.0	0.0	0.0	0.9	0.1	19.9	0.0	0.0	0.0	0.0	0.4	0.1	0.4	0.9	2.7
Debits																
<b>Current account</b>	2,531.9	837.4	42.0	76.8	406.0	216.0	96.5	-	27.7	-	-	92.6	-	159.6	363.5	-
Goods	1,420.7	420.2	28.2	49.5	171.3	171.2	0.0	23.1	12.6	159.3	17.9	55.0	85.4	73.5	135.3	438.4
Services	413.3	134.3	7.9	10.0	86.2	30.1	0.1	4.0	6.4	9.2	3.4	7.8	7.5	32.9	87.5	120.3
Income	530.2	178.7	5.5	16.5	138.2	10.8	7.7	-	6.9	-	-	29.4	-	47.5	134.2	-
investment income	520.2	172.7	5.4	16.4	136.9	6.3	7.7	-	6.7	-	-	29.3	-	47.1	133.2	-
Current transfers	167.6	104.2	0.4	0.9	10.4	3.9	88.7	1.4	1.9	2.1	0.6	0.4	0.5	5.6	6.5	44.4
<b>Capital account</b>	12.3	1.8	0.0	0.1	0.9	0.3	0.4	0.1	0.1	0.1	0.2	0.1	0.0	0.7	1.7	7.5
Net																
<b>Current account</b>	21.0	139.6	11.7	7.2	95.7	61.3	-36.3	-	6.2	-	-	-36.5	-	5.3	37.7	-
Goods	64.0	121.3	5.6	5.0	61.6	49.0	0.0	-6.0	5.6	11.0	3.9	-20.5	-20.3	11.0	63.0	6.1
Services	42.4	30.7	1.5	2.3	23.0	-2.0	5.8	0.5	0.3	0.9	1.4	2.7	1.9	12.0	-7.7	-0.4
Income	-7.1	26.7	4.5	0.0	8.0	15.5	-1.3	-	1.5	-	-	-18.6	-	-18.0	-19.0	-
investment income	-13.3	27.0	4.5	0.0	7.5	19.8	-4.7	-	1.5	-	-	-18.6	-	-24.0	-19.5	-
Current transfers	-78.3	-39.1	0.1	-0.1	3.1	-1.2	-40.9	-1.2	-1.2	-1.9	-0.6	-0.1	-0.3	0.3	1.4	-35.6
<b>Capital account</b>	13.3	19.3	0.0	-0.1	0.0	-0.2	19.5	-0.1	-0.1	0.0	-0.2	0.4	0.0	-0.3	-0.9	-4.8

Source: ECB.

**7.3 Financial account**

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

**1. Summary financial account**

	Total <sup>1)</sup>			Total as a % of GDP			Direct investment		Portfolio investment		Net financial derivatives	Other investment		Reserve assets
	Assets	Liabilities	Net	Assets	Liabilities	Net	Assets	Liabilities	Assets	Liabilities		Assets	Liabilities	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>Outstanding amounts (international investment position)</b>														
2003	7,817.7	8,608.3	-790.7	104.4	115.0	-10.6	2,169.3	2,084.2	2,655.4	3,585.9	-19.8	2,706.1	2,938.3	306.7
2004	8,604.1	9,492.8	-888.7	110.5	121.9	-11.4	2,321.2	2,243.0	3,036.5	4,081.3	-37.3	3,002.7	3,168.5	281.0
2005	10,729.0	11,566.7	-837.7	133.2	143.6	-10.4	2,809.4	2,447.6	3,876.6	5,110.5	-46.1	3,769.1	4,008.6	320.1
2006	12,191.6	13,216.0	-1,024.4	144.5	156.7	-12.1	3,075.9	2,658.8	4,441.3	5,965.2	-43.5	4,392.0	4,592.0	325.8
2007 Q2	13,388.1	14,567.7	-1,179.6	154.8	168.4	-13.6	3,318.0	2,798.1	4,812.7	6,629.5	-11.4	4,943.5	5,140.1	325.3
Q3	13,624.6	14,923.5	-1,298.9	155.6	170.4	-14.8	3,374.0	2,876.9	4,820.4	6,684.7	-0.5	5,090.2	5,361.9	340.5
<b>Changes to outstanding amounts</b>														
2003	509.9	593.8	-83.9	6.8	7.9	-1.1	162.6	257.7	363.5	341.4	-7.2	50.4	-5.2	-59.4
2004	786.4	884.4	-98.0	10.1	11.4	-1.3	151.9	158.8	381.2	495.4	-17.5	296.6	230.2	-25.7
2005	2,124.9	2,073.9	51.0	26.4	25.7	0.6	488.2	204.6	840.0	1,029.2	-8.9	766.4	840.2	39.1
2006	1,462.6	1,649.3	-186.7	17.3	19.6	-2.2	266.5	211.2	564.7	854.8	2.7	623.0	583.4	5.7
2007 Q2	579.6	691.6	-112.0	26.3	31.3	-5.1	176.3	87.0	220.5	357.0	14.0	174.9	247.6	-6.2
Q3	236.5	355.9	-119.4	10.8	16.2	-5.4	56.0	78.8	7.8	55.2	10.9	146.7	221.8	15.2
<b>Transactions</b>														
2003	664.7	649.5	15.2	8.9	8.7	0.2	146.8	136.5	281.5	337.2	13.8	250.4	175.7	-27.8
2004	814.4	797.6	16.8	10.5	10.2	0.2	163.1	96.3	344.7	416.8	8.3	310.7	284.5	-12.5
2005	1,332.8	1,357.0	-24.2	16.5	16.8	-0.3	355.4	146.7	412.1	553.4	16.4	566.8	656.9	-18.0
2006	1,589.6	1,707.6	-118.0	18.8	20.2	-1.4	334.3	197.9	535.0	811.4	-2.5	721.5	698.3	1.3
2007 Q1	630.5	635.2	-4.7	29.4	29.6	-0.2	92.0	77.4	147.4	277.2	16.4	373.0	280.5	1.6
Q2	482.2	505.8	-23.6	21.9	22.9	-1.1	111.6	44.7	153.0	225.4	23.2	190.3	235.7	4.2
Q3	407.3	497.9	-90.6	18.6	22.7	-4.1	109.4	71.6	34.0	110.2	32.5	227.8	316.1	3.6
2007 July	91.0	136.9	-45.9	.	.	.	24.7	24.0	46.9	72.3	12.9	3.5	40.5	2.9
Aug.	55.2	113.8	-58.6	.	.	.	27.9	28.3	-5.8	-3.9	8.4	25.6	89.5	-1.0
Sep.	261.1	247.2	13.9	.	.	.	56.8	19.3	-7.1	41.8	11.1	198.7	186.1	1.6
Oct.	236.3	155.7	80.6	.	.	.	24.0	45.3	68.2	12.1	6.9	136.7	98.3	0.5
Nov.	160.2	148.4	11.7	.	.	.	18.2	29.1	33.3	43.5	33.2	75.7	75.8	-0.2
<b>Other changes</b>														
2003	-154.8	-55.6	-99.2	-2.1	-0.7	-1.3	15.7	121.2	82.0	4.1	-21.0	-200.0	-180.9	-31.6
2004	-27.9	86.8	-114.7	-0.4	1.1	-1.5	-11.2	62.5	36.4	78.6	-25.8	-14.1	-54.3	-13.3
2005	792.1	716.9	75.2	9.8	8.9	0.9	132.8	57.9	427.9	475.8	-25.3	199.6	183.2	57.1
2006	-127.0	-58.2	-68.7	-1.5	-0.7	-0.8	-67.8	13.3	29.7	43.4	5.1	-98.5	-114.9	4.4
2007 Q2	97.4	185.8	-88.4	4.4	8.4	-4.0	64.7	42.3	67.6	131.6	-9.2	-15.4	11.9	-10.4
Q3	-170.8	-142.0	-28.8	-7.8	-6.5	-1.3	-53.4	7.2	-26.3	-55.0	-21.6	-81.2	-94.2	11.6
<b>Other changes due to exchange rate changes</b>														
2003	-433.2	-179.8	-253.4	-5.8	-2.4	-3.4	-101.8	26.9	-103.8	-49.8	.	-195.5	-156.9	-32.1
2004	-182.4	-138.1	-44.3	-2.3	-1.8	-0.6	-34.7	8.2	-67.3	-92.1	.	-71.0	-54.2	-9.4
2005	371.6	221.3	150.3	4.6	2.7	1.9	83.2	-20.9	120.5	125.5	.	149.3	116.8	18.7
2006	-292.2	-140.3	-151.9	-3.5	-1.7	-1.8	-65.9	14.4	-84.8	-51.1	.	-126.3	-103.6	-15.2
<b>Other changes due to price changes</b>														
2003	218.9	158.4	60.5	2.9	2.1	0.8	74.1	32.5	165.4	125.8	-21.0	.	.	0.4
2004	119.2	243.1	-123.9	1.5	3.1	-1.6	37.8	28.2	110.3	214.9	-25.8	.	.	-3.1
2005	287.1	351.4	-64.3	3.6	4.4	-0.8	74.0	55.8	196.2	295.6	-25.3	.	.	42.2
2006	317.8	272.1	45.7	3.8	3.2	0.5	75.6	46.2	220.7	225.9	5.1	.	.	16.4
<b>Other changes due to other adjustments</b>														
2003	59.5	-34.3	93.8	0.8	-0.5	1.3	43.4	61.7	20.4	-72.0	.	-4.5	-24.0	0.2
2004	35.3	-18.2	53.5	0.5	-0.2	0.7	-14.3	26.2	-6.5	-44.2	.	56.9	-0.2	-0.7
2005	133.4	144.3	-10.9	1.7	1.8	-0.1	-24.4	23.1	111.2	54.8	.	50.3	66.4	-3.7
2006	-152.6	-190.0	37.4	-1.8	-2.3	0.4	-77.5	-47.3	-106.2	-131.4	.	27.8	-11.3	3.3
<b>Growth rates of outstanding amounts</b>														
2003	9.2	8.2	-	.	.	.	7.4	7.4	12.4	10.5	.	9.5	6.1	-7.9
2004	10.3	9.2	-	.	.	.	7.5	4.6	12.8	11.4	.	11.4	9.6	-4.1
2005	15.0	13.9	-	.	.	.	14.9	6.5	13.0	13.1	.	18.3	20.1	-5.9
2006	15.0	14.9	-	.	.	.	12.1	8.1	13.9	16.0	.	19.4	17.6	0.3
2007 Q1	15.7	14.9	-	.	.	.	12.7	9.3	11.9	16.0	.	22.7	16.7	2.7
Q2	17.2	16.0	-	.	.	.	12.2	6.9	14.0	16.7	.	24.4	20.6	3.5
Q3	17.2	16.3	-	.	.	.	12.9	8.2	11.2	15.4	.	25.7	22.5	3.6

Source: ECB.

1) Net financial derivatives are included in assets.



## 7.3 Financial account

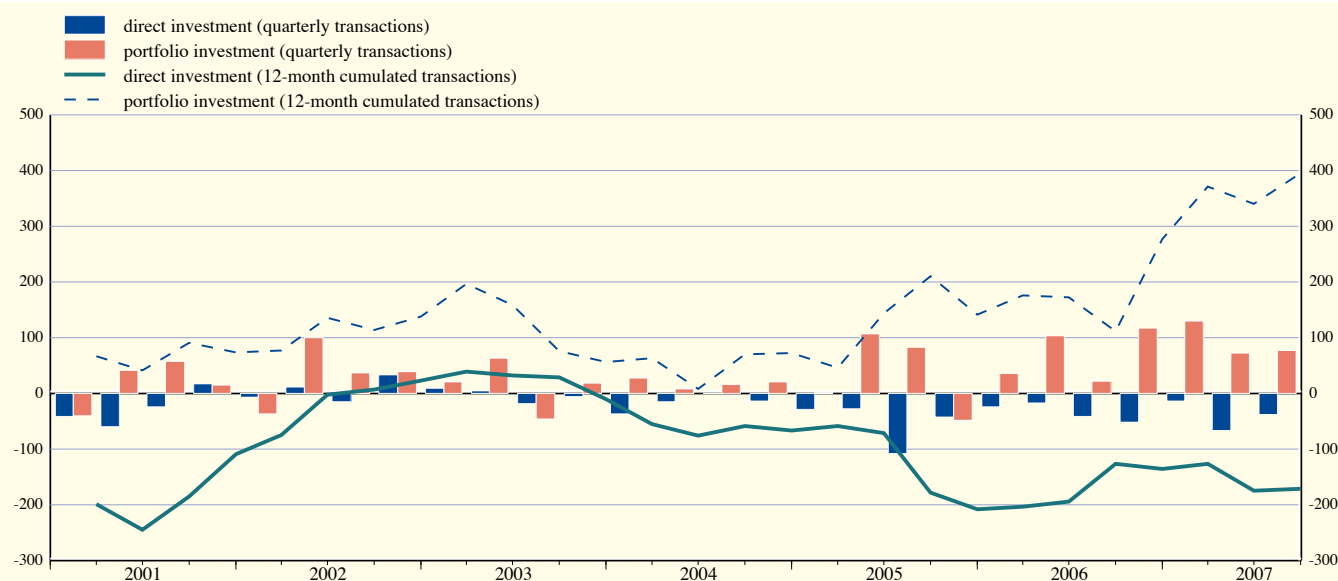
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

### 2. 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	MFIs	Non-MFIs	Total	MFIs	Non-MFIs		Total	into MFIs	into Non-MFIs	Total	to MFIs	to Non-MFIs
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Outstanding amounts (international investment position)														
2005	2,809.4	2,290.8	178.0	2,112.8	518.6	4.2	514.4	2,447.6	1,841.2	55.2	1,786.0	606.5	8.4	598.0
2006	3,075.9	2,510.5	211.2	2,299.3	565.4	3.6	561.7	2,658.8	2,039.8	59.8	1,980.1	619.0	7.8	611.1
2007 Q2	3,318.0	2,680.1	228.2	2,451.8	638.0	7.6	630.3	2,798.1	2,144.3	57.3	2,087.0	653.7	13.4	640.3
Q3	3,374.0	2,729.8	240.5	2,489.3	644.2	7.1	637.2	2,876.9	2,200.5	57.8	2,142.8	676.4	13.7	662.7
Transactions														
2005	355.4	296.6	12.1	284.5	58.8	0.2	58.6	146.7	116.8	1.0	115.9	29.9	-0.3	30.2
2006	334.3	265.2	35.4	229.8	69.1	0.0	69.0	197.9	172.3	4.9	167.5	25.6	0.1	25.5
2006 Q4	74.0	50.9	15.9	35.1	23.1	0.6	22.5	21.5	16.6	0.9	15.8	4.9	-0.1	4.9
2007 Q1	92.0	59.6	4.7	54.9	32.4	-2.1	34.5	77.4	48.3	0.9	47.4	29.1	-0.8	29.9
Q2	111.6	88.5	5.9	82.6	23.0	1.5	21.6	44.7	47.0	-1.0	47.9	-2.3	0.9	-3.2
Q3	109.4	75.5	15.5	60.1	33.9	-0.6	34.4	71.6	43.2	0.6	42.6	28.5	0.3	28.1
2007 July	24.7	18.1	1.2	16.9	6.6	-0.6	7.2	24.0	14.9	0.2	14.6	9.2	-0.3	9.5
Aug.	27.9	18.6	3.2	15.4	9.3	-0.7	10.0	28.3	11.8	0.0	11.8	16.5	-0.3	16.8
Sep.	56.8	38.8	11.1	27.7	18.0	0.8	17.2	19.3	16.5	0.4	16.1	2.8	1.0	1.8
Oct.	24.0	24.2	-12.1	36.3	-0.2	-0.6	0.4	45.3	30.1	0.2	29.9	15.2	-0.2	15.4
Nov.	18.2	9.8	2.3	7.4	8.4	-0.8	9.2	29.1	6.9	0.4	6.6	22.2	0.4	21.8
Growth rates														
2005	14.9	15.3	8.0	15.9	13.4	-0.5	13.5	6.5	7.0	1.9	7.1	5.1	-4.5	5.2
2006	12.1	11.8	20.5	11.0	13.5	-2.2	13.6	8.1	9.4	8.9	9.4	4.3	-0.3	4.3
2007 Q1	12.7	11.6	21.8	10.7	17.7	-55.5	18.1	9.3	9.6	7.5	9.7	8.4	-9.4	8.6
Q2	12.2	11.2	20.5	10.5	16.4	-47.7	16.7	6.9	7.2	4.4	7.3	6.0	-11.7	6.2
Q3	12.9	11.2	21.4	10.3	20.6	-38.5	20.8	8.2	7.7	2.4	7.8	9.8	-1.4	9.9

## C33 B.o.p. net direct and portfolio investment

(EUR billions)



Source: ECB.

## 7.3 Financial account

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

## 3. Portfolio investment assets

	Total	Equity					Debt instruments										
		Total		MFIs		Non-MFIs	Bonds and notes			Money market instruments							
	1	2	3	Euro-system		General government		7	MFIs		Non-MFIs		12	MFIs		Non-MFIs	
				4	5	6	8		9	10	11	13		14	15	16	
Outstanding amounts (international investment position)																	
2005	3,876.6	1,725.0	102.5	3.0	1,622.5	27.2	1,835.6	701.1	8.6	1,134.5	11.6	316.0	262.8	0.8	53.2	0.4	
2006	4,441.3	2,012.0	122.2	2.8	1,889.8	37.0	2,051.5	829.5	10.8	1,222.0	13.4	377.8	310.6	8.7	67.2	0.3	
2007 Q2	4,812.7	2,176.9	152.1	3.0	2,024.8	41.4	2,207.1	921.4	11.2	1,285.7	14.7	428.6	339.6	8.1	89.0	10.4	
Q3	4,820.4	2,180.4	140.9	2.8	2,039.5	42.3	2,238.1	920.9	11.5	1,317.1	15.5	402.0	315.7	8.1	86.3	10.1	
Transactions																	
2005	412.1	134.3	14.4	0.1	119.9	3.5	260.4	117.2	0.7	143.2	0.8	17.4	14.4	-0.1	2.9	-0.1	
2006	535.0	156.3	18.1	0.0	138.2	6.2	309.5	171.7	2.6	137.8	1.1	69.2	56.6	8.0	12.6	-0.1	
2007 Q1	147.4	17.6	19.0	0.0	-1.4	0.8	93.8	51.2	0.7	42.6	1.2	36.0	22.6	-0.7	13.4	5.5	
Q2	153.0	12.0	4.9	0.0	7.1	1.5	116.5	66.0	0.3	50.5	0.5	24.5	13.4	0.1	11.1	4.5	
Q3	34.0	7.8	-8.1	0.0	15.9	2.0	43.7	12.7	0.4	31.0	0.9	-17.4	-14.1	0.0	-3.4	-0.3	
2007 July	46.9	8.5	-1.5	0.0	9.9	.	25.1	19.6	0.5	5.6	.	13.3	9.7	0.0	3.6	.	
Aug.	-5.8	1.2	-9.5	0.0	10.7	.	14.0	0.0	0.0	14.0	.	-21.0	-10.5	-0.1	-10.5	.	
Sep.	-7.1	-1.9	2.8	0.0	-4.7	.	4.6	-6.8	-0.1	11.4	.	-9.7	-13.3	0.1	3.5	.	
Oct.	68.2	9.6	9.3	0.0	0.3	.	32.5	12.9	0.3	19.6	.	26.1	27.6	0.0	-1.5	.	
Nov.	33.3	12.1	6.4	0.0	5.7	.	25.9	22.3	0.5	3.6	.	-4.7	4.1	-0.4	-8.8	.	
Growth rates																	
2005	13.0	9.8	18.1	6.1	9.3	19.7	17.0	20.8	9.1	14.7	8.0	6.0	6.1	-6.6	4.3	-8.3	
2006	13.9	9.1	18.1	0.9	8.5	21.8	17.2	25.1	31.1	12.4	10.1	22.1	22.5	1,022.8	22.9	-20.5	
2007 Q2	14.0	5.1	35.7	0.2	3.3	15.2	19.6	28.7	56.9	13.8	23.6	33.6	30.7	12.3	46.7	56.2	
Q3	11.2	3.6	29.4	0.1	2.1	17.3	17.5	21.9	53.4	14.6	28.6	18.8	14.4	11.3	39.5	162.0	

## 4. Portfolio investment liabilities

	Total	Equity			Debt instruments									
		Total		Non-MFIs	Bonds and notes			Money market instruments						
	1	2	3	4	5	MFIs		Non-MFIs		9	MFIs		Non-MFIs	
						6	7	8	10		11	12		
Outstanding amounts (international investment position)														
2005	5,110.5	2,434.4	533.6	1,900.8	2,371.1	725.9	1,645.2	1,176.1	304.9	106.8	198.1	158.5		
2006	5,965.2	2,932.5	671.1	2,261.4	2,738.8	848.3	1,890.4	1,254.6	293.9	124.0	170.0	138.6		
2007 Q2	6,629.5	3,314.8	803.4	2,511.4	2,969.7	951.6	2,018.1	1,272.4	345.0	143.8	201.2	184.5		
Q3	6,684.7	3,319.9	808.6	2,511.2	3,004.0	979.6	2,024.4	1,273.0	360.8	142.6	218.2	193.3		
Transactions														
2005	553.4	263.0	-	-	237.1	-	-	-	53.3	-	-	-		
2006	811.4	309.2	97.4	212.1	500.1	215.1	286.4	151.2	2.1	28.3	-26.8	-19.3		
2007 Q1	277.2	113.5	56.1	57.4	141.8	62.3	79.5	28.4	21.9	5.8	16.1	22.3		
Q2	225.4	71.2	16.6	54.6	117.4	44.7	72.7	48.4	36.8	15.0	21.8	19.9		
Q3	110.2	43.7	23.0	20.7	52.6	26.7	25.8	25.4	14.0	2.7	11.2	12.2		
2007 July	72.3	49.3	.	.	24.0	.	.	.	-0.9	.	.	.		
Aug.	-3.9	-24.5	.	.	14.7	.	.	.	5.9	.	.	.		
Sep.	41.8	18.9	.	.	13.9	.	.	.	9.0	.	.	.		
Oct.	12.1	2.7	.	.	20.7	.	.	.	-11.3	.	.	.		
Nov.	43.5	-3.0	.	.	54.0	.	.	.	-7.5	.	.	.		
Growth rates														
2005	13.1	13.6	.	.	11.2	.	.	.	23.7	.	.	.		
2006	16.0	12.6	18.1	11.0	21.8	31.6	17.8	13.3	0.7	27.5	-13.2	-12.0		
2007 Q1	16.0	11.1	22.6	8.0	23.3	36.2	18.1	12.2	2.3	22.3	-8.5	-3.4		
Q2	16.7	12.1	22.5	9.2	21.5	34.5	16.2	11.5	18.5	41.7	6.1	13.7		
Q3	15.4	11.0	18.1	8.9	19.5	28.2	15.7	12.9	21.7	35.5	13.8	21.1		

Source: ECB.

## 7.3 Financial account

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

### 5. Other investment assets

	5. Other investment assets														
	Total	Eurosystem			MFIs (excluding Eurosystem)			General government				Other sectors			
		Total	Loans/currency and deposits	Other assets	Total	Loans/currency and deposits	Other assets	Trade credits	Loans/currency and deposits	Currency and deposits	Trade credits	Loans/currency and deposits	Currency and deposits		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Outstanding amounts (international investment position)															
2005	3,769.1	5.8	5.4	0.4	2,514.7	2,458.5	56.2	127.6	19.7	60.8	11.8	1,121.0	189.5	800.8	345.6
2006	4,392.0	8.8	8.4	0.4	2,938.3	2,879.1	59.2	117.1	14.1	57.8	15.4	1,327.9	187.7	988.7	375.2
2007 Q2	4,943.5	17.3	17.0	0.3	3,333.7	3,265.1	68.6	125.9	13.7	67.1	27.5	1,466.6	198.2	1,112.6	422.4
Q3	5,090.2	19.5	19.2	0.3	3,351.9	3,284.4	67.5	106.1	13.5	48.0	13.3	1,612.7	197.3	1,265.5	426.0
Transactions															
2005	566.8	0.9	0.9	0.0	395.2	392.1	3.1	-4.6	0.0	-5.8	2.4	175.3	9.0	149.4	3.9
2006	721.5	2.9	2.9	0.0	524.1	520.0	4.1	-1.8	0.0	-2.6	3.1	196.2	5.4	178.6	26.4
2007 Q1	373.0	5.3	5.3	0.0	290.4	282.1	8.3	-7.2	0.0	-7.4	-5.2	84.6	2.2	74.3	39.2
Q2	190.3	3.5	3.5	0.0	130.6	126.4	4.2	17.6	0.0	17.1	17.4	38.7	2.4	30.2	-3.3
Q3	227.8	1.7	1.7	0.0	77.5	80.3	-2.8	-18.2	-0.1	-18.4	-14.1	166.8	2.6	163.9	6.5
2007 July	3.5	-0.4	.	.	36.4	.	.	-18.2	.	.	-14.2	-14.3	.	.	-12.7
Aug.	25.6	2.6	.	.	9.0	.	.	-0.5	.	.	-0.8	14.5	.	.	-1.5
Sep.	198.7	-0.5	.	.	32.1	.	.	0.5	.	.	0.9	166.6	.	.	20.7
Oct.	136.7	1.3	.	.	101.5	.	.	-4.3	.	.	-4.3	38.2	.	.	10.2
Nov.	75.7	-1.5	.	.	57.4	.	.	3.4	.	.	4.3	16.4	.	.	-8.5
Growth rates															
2005	18.3	19.4	19.9	13.6	19.2	19.6	6.0	-3.5	0.2	-9.2	12.6	19.3	5.2	23.4	1.5
2006	19.4	50.5	53.4	9.8	21.2	21.5	7.4	-1.5	0.0	-4.3	26.1	17.7	2.9	22.6	7.5
2007 Q1	22.7	54.6	56.3	12.3	26.3	26.6	14.4	-2.3	0.0	-5.6	23.2	16.9	2.4	21.8	8.6
Q2	24.4	115.0	119.5	11.2	28.7	28.8	22.3	3.4	-0.1	4.4	32.9	16.8	1.9	20.6	5.7
Q3	25.7	150.5	156.9	10.2	25.9	26.2	15.1	-2.3	-0.9	-6.9	11.4	26.7	4.8	33.6	9.4

### 6. Other investment liabilities

	6. Other investment liabilities														
	Total	Eurosystem			MFIs (excluding Eurosystem)			General government				Other sectors			
		Total	Loans/currency and deposits	Other liabilities	Total	Loans/currency and deposits	Other liabilities	Total	Trade credits	Loans	Other liabilities	Total	Trade credits	Loans	Other liabilities
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Outstanding amounts (international investment position)															
2005	4,008.6	82.4	82.1	0.2	3,098.0	3,045.8	52.3	44.3	0.0	40.5	3.8	783.9	133.1	580.8	70.1
2006	4,592.0	100.2	99.9	0.2	3,467.3	3,413.5	53.8	47.8	0.0	43.9	3.8	976.8	144.5	744.5	87.7
2007 Q2	5,140.1	116.1	115.8	0.3	3,877.0	3,814.8	50.9	0.0	45.7	5.2	62.2	1,096.1	148.6	844.9	102.6
Q3	5,361.9	114.1	113.8	0.3	3,934.0	3,869.0	54.7	0.0	48.7	6.1	65.0	1,259.1	154.2	1,003.6	101.3
Transactions															
2005	656.9	6.7	6.7	0.0	483.3	481.7	1.6	-2.2	0.0	-1.9	-0.3	169.2	13.5	149.2	6.5
2006	698.3	18.5	18.5	0.0	495.7	492.5	3.2	1.4	0.0	1.5	-0.1	182.6	11.9	159.7	11.0
2007 Q1	280.5	5.4	5.3	0.1	266.7	264.7	1.9	1.6	0.0	1.7	-0.1	6.9	-2.1	3.6	5.4
Q2	235.7	10.9	10.9	-0.1	180.5	178.3	2.1	0.0	0.0	-0.9	0.9	44.2	4.9	38.8	0.5
Q3	316.1	-1.3	-1.3	0.0	131.7	131.0	0.7	3.9	0.0	3.1	0.8	181.6	3.8	179.3	-1.4
2007 July	40.5	-6.7	.	.	48.0	.	.	-1.7	.	.	.	0.9	.	.	.
Aug.	89.5	4.3	.	.	51.8	.	.	4.2	.	.	.	29.3	.	.	.
Sep.	186.1	1.2	.	.	32.0	.	.	1.4	.	.	.	151.4	.	.	.
Oct.	98.3	3.8	.	.	89.9	.	.	1.8	.	.	.	2.8	.	.	.
Nov.	75.8	5.0	.	.	61.3	.	.	2.5	.	.	.	6.9	.	.	.
Growth rates															
2005	20.1	8.9	8.9	4.3	19.1	19.4	4.3	-4.9	26.4	-4.7	-7.2	27.9	11.4	34.4	13.1
2006	17.6	22.6	22.6	6.6	16.2	16.4	6.0	3.1	-41.1	3.7	-3.2	22.9	8.8	27.0	15.6
2007 Q1	16.7	19.2	19.2	14.9	16.6	16.9	-1.3	11.9	2.1	12.5	4.8	17.4	5.0	20.9	10.3
Q2	20.6	28.6	28.6	14.4	22.0	22.1	14.2	10.9	26.1	9.5	27.5	15.3	6.4	16.8	17.2
Q3	22.5	20.7	20.7	8.4	20.1	20.3	10.2	4.3	80.3	1.1	43.7	31.4	6.9	39.0	8.9

Source: ECB.

## 7.3 Financial account

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

## 7. Reserve assets

	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	
<b>Outstanding amounts (international investment position)</b>																
2003	306.7	130.0	393.543	4.4	23.3	149.0	10.0	30.4	107.9	1.0	80.5	26.5	0.7	0.0	20.3	-16.3
2004	281.0	125.4	389.998	3.9	18.6	133.0	12.5	25.5	94.7	0.5	56.6	37.6	0.4	0.0	19.1	-12.8
2005	320.1	163.4	375.861	4.3	10.6	141.7	12.6	21.4	107.9	0.6	69.4	38.0	-0.2	0.0	25.6	-17.9
2006	325.8	176.3	365.213	4.6	5.2	139.7	6.3	22.5	110.7	0.5	79.3	30.8	0.3	0.0	24.6	-21.5
2007 Q2	325.3	172.8	358.768	4.7	4.3	143.5	5.7	27.7	110.1	0.2	85.4	24.5	0.0	0.0	26.6	-24.6
Q3	340.5	187.0	356.925	4.7	3.8	144.9	7.5	27.5	109.6	0.3	85.8	23.5	0.4	0.0	26.2	-26.8
2007 Oct.	346.6	194.4	355.749	4.6	3.7	143.9	6.7	26.6	110.1	-	-	-	0.5	0.0	26.0	-26.4
Nov.	339.2	188.6	355.291	4.6	3.5	142.4	8.5	23.1	110.4	-	-	-	0.5	0.0	26.8	-25.5
Dec.	347.4	201.0	353.688	4.6	3.6	138.2	7.2	22.0	108.5	-	-	-	0.5	0.0	45.0	-38.6
<b>Transactions</b>																
2004	-12.5	-1.2	-	-0.5	-4.0	-6.8	2.9	-3.3	-6.6	-0.5	-18.3	12.2	0.1	0.0	-	-
2005	-18.0	-3.9	-	0.2	-8.6	-5.7	-0.2	-7.2	1.6	0.0	4.8	-3.2	0.0	0.0	-	-
2006	1.3	-4.2	-	0.5	-5.2	10.2	-6.1	2.7	13.7	0.0	19.4	-5.7	0.0	0.0	-	-
2007 Q1	1.6	-0.4	-	0.0	-0.8	2.9	-1.4	5.0	-0.7	-0.4	5.8	-6.1	0.0	0.0	-	-
Q2	4.2	-0.7	-	0.1	0.5	4.2	0.8	0.3	3.1	0.1	2.3	0.7	0.0	0.0	-	-
Q3	3.6	-1.2	-	0.1	-0.3	4.9	2.0	0.9	2.1	0.1	2.3	-0.2	0.0	0.0	-	-
<b>Growth rates</b>																
2004	-4.1	-0.9	-	-10.4	-17.0	-4.6	30.2	-10.7	-6.1	-46.6	-22.4	45.1	-55.8	-	-	-
2005	-5.9	-2.8	-	4.4	-44.6	-4.1	-2.0	-25.3	1.5	2.2	7.1	-7.9	20.5	-	-	-
2006	0.3	-2.4	-	11.6	-49.0	7.7	-48.4	12.7	13.4	0.0	29.2	-15.4	-73.2	-	-	-
2007 Q1	2.7	-2.1	-	12.6	-37.2	11.2	-21.7	10.2	13.5	-75.1	30.9	-21.9	-81.3	-	-	-
Q2	3.5	-1.7	-	15.6	-34.3	12.5	5.8	26.1	9.9	-52.6	22.1	-17.8	-69.2	-	-	-
Q3	3.6	-1.9	-	10.7	-32.6	12.5	74.6	15.1	9.2	-29.8	18.8	-14.6	-86.9	-	-	-

Source: ECB.

## 7.3 Financial account

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

### 8. Geographical breakdown

	Total	European Union 27 (outside the euro area)						Canada	China	Japan	Switzer-land	United States	Offshore financial centres	Internat. organisa-tions	Other countries
		Total	Denmark	Sweden	United Kingdom	Other EU countries	EU institutions								
		1	2	3	4	5	6								
<b>2006</b>	Outstanding amounts (international investment position)														
<b>Direct investment</b>	417.1	-47.3	-7.2	-21.0	-218.6	199.8	-0.3	37.3	22.1	-6.2	78.1	-24.5	-5.6	-0.2	363.2
Abroad	3,075.9	1,147.6	35.1	83.4	803.8	225.2	0.0	90.2	24.9	68.2	300.0	608.0	329.1	0.0	508.0
Equity/reinvested earnings	2,510.5	934.2	32.0	58.1	644.5	199.5	0.0	71.0	20.1	63.5	250.1	453.1	306.8	0.0	411.7
Other capital	565.4	213.4	3.1	25.3	159.3	25.7	0.0	19.2	4.8	4.7	49.9	154.9	22.2	0.0	96.3
In the euro area	2,658.8	1,194.9	42.3	104.4	1,022.5	25.4	0.3	52.8	2.7	74.4	221.8	632.5	334.7	0.3	144.7
Equity/reinvested earnings	2,039.8	958.9	36.8	86.2	825.4	10.2	0.2	47.0	0.3	60.7	163.9	477.0	208.9	0.0	123.2
Other capital	619.0	236.0	5.5	18.2	197.1	15.2	0.1	5.8	2.5	13.7	57.9	155.5	125.8	0.3	21.5
<b>Portfolio investment assets</b>	4,441.3	1,375.2	65.5	140.8	1,002.5	97.9	68.6	84.5	37.5	262.7	141.1	1,452.6	527.7	32.1	527.7
Equity	2,012.0	487.1	12.3	58.0	393.0	23.6	0.1	22.6	35.2	181.0	128.6	670.9	216.5	1.4	268.7
Debt instruments	2,429.3	888.1	53.2	82.8	609.5	74.2	68.4	61.9	2.3	81.7	12.5	781.7	311.2	30.7	259.0
Bonds and notes	2,051.5	730.9	48.4	70.9	471.2	72.3	68.2	59.7	2.3	62.2	8.4	657.6	271.9	29.7	228.8
Money market instruments	377.8	157.2	4.8	11.9	138.3	2.0	0.2	2.2	0.0	19.6	4.0	124.1	39.4	1.0	30.3
<b>Other investment</b>	-200.0	103.9	86.3	13.3	121.7	31.3	-148.7	-1.4	3.9	-37.5	-49.3	-5.4	-212.8	-20.0	18.7
Assets	4,392.0	2,306.6	111.2	69.0	1,986.6	130.4	9.4	19.4	25.2	73.6	263.1	585.9	438.3	45.7	634.2
General government	117.1	25.2	2.1	0.1	14.2	1.5	7.4	0.0	1.9	0.2	0.1	3.1	1.4	38.5	46.7
MFIs	2,947.1	1,730.6	95.5	47.7	1,489.5	97.2	0.6	11.0	12.0	38.8	162.3	344.0	274.4	6.6	367.5
Other sectors	1,327.9	550.9	13.6	21.2	482.9	31.7	1.4	8.4	11.4	34.7	100.7	238.8	162.5	0.6	220.0
Liabilities	4,592.0	2,202.8	25.0	55.7	1,864.9	99.1	158.1	20.8	21.3	111.2	312.4	591.4	651.1	65.6	615.5
General government	47.8	24.1	0.0	0.3	2.4	0.0	21.4	0.0	0.0	0.7	0.0	6.2	0.2	2.7	13.8
MFIs	3,567.5	1,662.0	19.4	35.0	1,433.5	77.1	97.0	13.9	8.5	60.2	252.4	416.2	580.4	60.4	513.5
Other sectors	976.8	516.7	5.5	20.4	429.0	22.0	39.8	6.8	12.8	50.3	59.9	169.0	70.5	2.6	88.2
<b>2006 Q4 to 2007 Q3</b>	Cumulated transactions														
<b>Direct investment</b>	171.7	44.2	-5.5	4.4	16.1	29.3	-0.1	21.0	0.9	-8.5	21.9	-9.2	23.4	0.0	78.1
Abroad	387.0	123.5	2.0	6.5	81.0	34.1	0.0	28.7	3.4	3.3	32.5	77.0	42.0	0.0	83.2
Equity/reinvested earnings	274.6	70.6	1.8	2.7	35.4	30.8	0.0	18.4	2.2	3.0	19.0	68.2	29.7	0.0	63.6
Other capital	112.4	52.9	0.2	3.8	45.6	3.4	0.0	10.3	1.2	0.3	13.5	8.8	12.3	0.0	13.0
In the euro area	215.3	79.4	7.5	2.1	64.8	4.8	0.1	7.7	2.5	11.9	10.7	86.2	18.6	0.0	-1.6
Equity/reinvested earnings	155.1	58.5	7.5	0.8	47.5	2.5	0.1	0.4	0.4	8.3	6.4	69.2	6.5	0.0	5.5
Other capital	60.2	20.9	0.0	1.3	17.3	2.3	0.0	7.3	2.1	3.6	4.3	17.0	12.1	0.0	-7.1
<b>Portfolio investment assets</b>	480.0	136.9	10.7	17.0	95.2	6.9	7.1	5.7	-2.0	-6.6	-1.0	172.6	78.3	-2.0	98.2
Equity	69.8	1.5	2.4	2.0	-3.5	0.4	0.2	-1.0	-2.5	-2.0	-3.8	21.5	33.3	0.0	22.8
Debt instruments	410.2	135.4	8.3	15.0	98.7	6.5	6.9	6.7	0.5	-4.7	2.7	151.1	45.0	-2.0	75.3
Bonds and notes	343.1	105.6	8.2	14.8	71.7	4.5	6.4	5.5	0.5	1.8	2.4	126.9	27.1	-1.8	75.1
Money market instruments	67.1	29.8	0.2	0.2	26.9	2.0	0.6	1.3	0.0	-6.5	0.3	24.2	17.9	-0.2	0.2
<b>Other investment</b>	60.3	118.7	25.6	-10.2	80.6	39.3	-16.5	-4.0	0.4	-33.9	-3.6	-116.7	58.8	0.1	40.5
Assets	1,059.8	558.8	24.9	-1.4	472.2	59.9	3.2	3.3	4.2	-16.8	38.9	260.7	93.4	9.4	107.9
General government	-2.3	-2.2	1.2	-0.8	-2.9	-0.1	0.4	-0.1	0.0	0.4	0.0	-0.1	0.0	0.9	-1.2
MFIs	720.8	417.0	22.1	2.5	333.5	58.5	0.4	-0.9	1.9	-8.9	39.0	96.6	82.6	8.5	84.9
Other sectors	341.3	144.0	1.5	-3.0	141.5	1.5	2.4	4.2	2.3	-8.3	0.0	164.2	10.8	0.0	24.2
Liabilities	999.5	440.1	-0.7	8.9	391.6	20.6	19.7	7.3	3.8	17.1	42.6	377.4	34.6	9.3	67.3
General government	2.4	6.3	-0.2	0.0	-1.6	0.0	8.0	0.0	0.0	-0.2	-2.6	0.3	0.1	0.2	-1.7
MFIs	697.5	368.9	-1.4	6.9	341.4	16.2	5.8	5.3	2.9	17.1	27.5	186.5	26.3	9.0	54.0
Other sectors	299.6	64.9	0.9	2.0	51.7	4.4	5.8	2.0	0.9	0.2	17.7	190.6	8.3	0.1	15.0

Source: ECB.

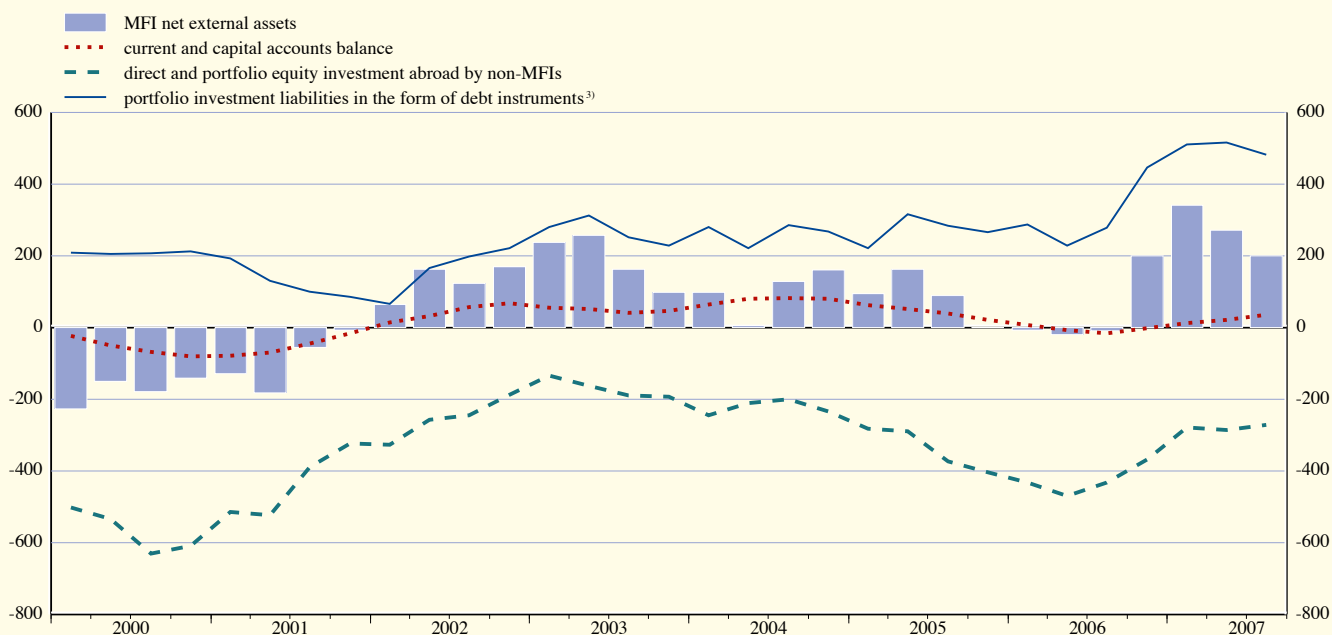
**7.4 Monetary presentation of the balance of payments <sup>1)</sup>**

(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 Non-MFIs	Liabilities		Assets Non-MFIs	Liabilities Non-MFIs				
					Equity <sup>2)</sup>	Debt instruments <sup>3)</sup>						
1	2	3	4	5	6	7	8	9	10	11	12	
2004	80.3	-141.8	95.5	-197.3	119.9	267.5	-51.0	30.6	-8.3	-61.2	134.1	161.2
2005	21.5	-343.2	147.1	-265.6	220.0	266.7	-170.7	167.0	-16.4	-43.9	-17.7	0.0
2006	-1.6	-298.8	197.8	-288.1	248.3	446.4	-194.2	183.7	2.5	-115.0	181.1	200.1
2006 Q3	-3.2	-67.4	36.3	-52.9	26.8	81.4	-20.5	26.4	12.6	-37.4	2.1	2.1
Q4	21.6	-57.4	21.6	-68.4	67.8	159.2	-56.8	63.5	-2.7	21.2	169.6	176.0
2007 Q1	4.8	-89.5	78.3	-54.6	94.8	150.8	-77.4	8.4	-16.4	-9.5	89.7	101.9
Q2	-2.4	-104.2	43.8	-68.7	60.4	123.9	-56.2	44.3	-23.2	-21.2	-3.5	-8.2
Q3	11.0	-94.5	71.3	-43.5	33.7	48.9	-148.6	185.6	-32.5	-101.6	-70.2	-69.6
2006 Nov.	2.3	-11.0	1.3	-17.2	32.5	78.6	-36.8	17.0	-2.9	8.3	72.0	69.2
Dec.	18.1	-28.9	12.8	-18.5	21.6	24.9	6.4	29.2	-5.5	15.7	75.7	81.0
2007 Jan.	-1.4	-25.7	12.9	-16.3	39.9	45.7	-38.9	3.5	-4.2	-41.2	-25.8	-22.9
Feb.	-2.4	-42.0	33.3	-22.0	41.1	44.3	-24.3	27.6	-7.9	0.5	48.0	40.5
Mar.	8.7	-21.7	32.1	-16.3	13.7	60.7	-14.1	-22.6	-4.3	31.2	67.5	84.3
Apr.	-4.0	-23.9	17.0	-21.3	-14.5	38.5	-10.6	24.1	-9.9	-37.2	-41.8	-40.1
May	-10.9	-43.0	19.7	-20.3	10.9	41.1	-23.1	3.4	-2.9	14.6	-10.5	-15.1
June	12.4	-37.2	7.1	-27.2	64.0	44.2	-22.5	16.7	-10.4	1.5	48.7	47.0
July	5.6	-24.1	24.4	-19.1	34.6	19.0	32.5	-0.8	-12.9	-51.4	7.7	5.8
Aug.	0.5	-25.5	28.6	-14.2	-14.6	23.8	-14.0	33.4	-8.4	-59.1	-49.5	-51.1
Sep.	4.9	-44.9	18.3	-10.2	13.7	6.1	-167.1	152.9	-11.1	9.0	-28.4	-24.2
Oct.	5.1	-36.7	45.5	-18.4	-19.6	-10.0	-33.9	4.6	-6.9	75.5	5.1	13.8
Nov.	2.2	-16.6	28.7	-0.6	0.4	55.9	-19.8	9.5	-33.2	9.5	36.0	32.2
	<i>12-month cumulated transactions</i>											
2007 Nov.	38.7	-370.4	280.3	-204.4	191.4	394.3	-329.5	281.5	-117.7	-31.4	132.8	151.1

**C34 Main b.o.p. transactions underlying the developments in MFI net external assets <sup>1)</sup>**

(EUR billions; 12-month cumulated transactions)



Source: ECB.

- 1) Data refer to the changing composition of the euro area. For further information, see the General notes.
- 2) Excluding money market fund shares/units.
- 3) Excluding debt securities with a maturity of up to two years issued by euro area MFIs.

## 7.5 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)													
2003	-2.3	0.5	1,059.5	500.9	221.7	299.7	916.9	986.8	553.0	164.9	240.5	708.4	109.0
2004	8.9	9.4	1,146.2	544.9	247.2	314.8	995.9	1,073.7	603.6	184.2	256.2	767.8	128.9
2005	7.8	13.5	1,241.1	590.9	270.1	334.9	1,070.0	1,225.8	704.8	208.1	276.5	842.9	186.2
2006	12.1	14.5	1,392.8	675.1	295.1	372.4	1,194.1	1,403.9	835.7	219.7	307.4	952.8	224.4
2006 Q2	10.2	16.1	342.4	165.1	72.9	91.6	292.4	349.4	207.4	55.9	76.2	236.0	57.3
Q3	8.8	11.3	349.9	170.8	72.5	92.7	299.4	355.3	214.3	53.8	76.9	239.5	59.9
Q4	12.8	8.6	364.3	177.6	76.5	96.9	314.9	358.0	212.7	54.4	79.1	248.7	52.3
2007 Q1	8.8	4.8	369.7	177.8	78.1	97.5	318.1	360.4	213.7	53.7	79.7	254.7	47.3
Q2	8.8	2.9	371.3	178.6	78.3	98.4	316.3	360.5	217.4	50.6	79.3	248.2	52.7
Q3	9.3	5.2	381.4	183.3	79.7	100.3	326.7	373.0	222.0	52.5	82.4	257.9	56.8
2007 June	9.2	2.8	126.2	60.7	26.1	33.4	107.8	121.3	73.1	17.1	26.8	84.4	17.9
July	13.5	9.0	125.4	60.4	25.6	33.4	107.2	124.6	74.7	17.6	27.1	85.8	19.2
Aug.	11.6	4.6	128.9	62.1	27.0	33.6	110.7	125.0	74.3	17.7	27.7	86.9	18.9
Sep.	3.3	2.2	127.1	60.7	27.1	33.3	108.9	123.4	73.0	17.3	27.7	85.2	18.7
Oct.	9.6	7.3	128.7	62.0	27.0	33.9	109.1	125.7	74.7	17.1	27.8	84.5	19.3
Nov.	4.4	6.7	129.0	.	.	.	108.3	126.3	.	.	.	82.4	.
Volume indices (2000 = 100; annual percentage changes for columns 1 and 2)													
2003	1.0	3.6	108.6	106.3	106.9	113.1	108.4	102.1	100.3	97.3	109.8	100.2	103.0
2004	9.0	6.5	117.6	115.4	120.1	118.5	118.1	108.2	104.1	109.4	117.7	108.4	104.9
2005	4.9	5.1	123.9	120.3	129.6	123.6	124.3	114.4	107.6	124.2	123.7	116.4	109.7
2006	8.3	6.8	134.3	131.9	138.8	133.3	135.1	122.1	115.3	131.0	133.0	127.2	109.4
2006 Q2	5.9	5.3	132.6	130.1	137.7	130.8	133.1	121.1	113.6	133.0	133.0	126.9	106.9
Q3	5.8	5.5	135.0	133.2	137.2	133.0	135.7	122.9	117.1	129.4	132.8	127.6	116.2
Q4	10.1	6.9	139.6	137.2	143.0	138.6	141.2	125.9	119.0	131.4	136.7	132.1	109.7
2007 Q1	7.0	5.9	140.6	135.8	146.0	138.4	141.7	126.4	118.7	130.5	137.4	134.5	102.1
Q2	5.8	2.8	140.0	134.9	145.4	139.2	140.0	124.8	118.4	124.9	136.1	131.2	106.2
Q3	6.6	4.2	143.5	137.9	147.4	141.7	144.5	127.9	119.0	129.1	140.6	136.3	110.9
2007 June	6.1	0.9	142.3	137.1	145.5	141.5	142.8	124.9	117.9	126.6	138.1	133.7	105.6
July	10.2	7.6	141.4	136.5	141.9	140.4	142.0	128.1	119.8	130.4	138.6	135.8	111.6
Aug.	9.2	5.3	146.0	140.5	150.2	143.4	147.1	129.3	120.5	131.2	142.1	138.6	111.8
Sep.	0.8	-0.2	143.2	136.8	150.0	141.1	144.4	126.2	116.7	125.8	141.0	134.6	109.3
Oct.	7.3	2.8	145.2	140.1	150.4	143.1	145.2	127.6	117.0	126.0	142.7	134.7	104.9
Nov.	.	.	.	.	.	.	.	.	.	.	.	.	.
Unit value indices (2000 = 100; annual percentage changes for columns 1 and 2)													
2003	-3.2	-3.0	97.6	96.2	96.3	101.1	97.4	94.8	93.6	92.3	99.5	96.0	86.4
2004	-0.1	2.6	97.5	96.4	95.7	101.4	97.1	97.3	98.4	91.7	98.9	96.3	99.6
2005	2.8	7.9	100.2	100.2	96.8	103.4	99.1	105.0	111.2	91.2	101.5	98.3	137.6
2006	3.5	7.4	103.8	104.4	98.8	106.6	101.8	112.8	123.1	91.3	105.0	101.8	166.8
2006 Q2	4.0	10.2	103.3	103.6	98.4	106.9	101.2	113.2	124.0	91.6	104.2	101.1	174.3
Q3	2.8	5.6	103.7	104.7	98.2	106.5	101.7	113.4	124.3	90.5	105.2	102.0	167.5
Q4	2.5	1.6	104.5	105.7	99.4	106.7	102.7	111.5	121.5	90.1	105.1	102.4	154.9
2007 Q1	1.6	-1.0	105.2	107.0	99.4	107.6	103.4	111.9	122.3	89.6	105.4	102.9	150.8
Q2	2.8	0.1	106.2	108.1	100.1	107.9	104.1	113.3	124.7	88.3	105.8	102.8	161.3
Q3	2.6	1.0	106.4	108.5	100.5	108.0	104.2	114.4	126.7	88.6	106.5	102.9	166.5
2007 June	2.9	1.9	106.5	108.4	100.1	108.2	104.3	114.4	126.4	88.5	105.7	102.9	165.4
July	3.0	1.3	106.5	108.5	100.8	108.8	104.4	114.5	127.0	88.1	106.4	103.0	167.9
Aug.	2.2	-0.7	106.0	108.3	100.2	107.3	104.0	113.8	125.7	88.0	106.2	102.3	165.0
Sep.	2.5	2.4	106.6	108.7	100.6	108.0	104.2	115.1	127.5	89.6	107.0	103.2	166.7
Oct.	2.1	4.4	106.4	108.4	100.3	108.4	103.9	115.9	130.3	88.9	106.1	102.3	179.8
Nov.	.	.	.	.	.	.	.	.	.	.	.	.	.

Sources: Eurostat and ECB calculations based on Eurostat data (volume indices and seasonal adjustment of unit value indices).

**7.5 Trade in goods**

(EUR billions, unless otherwise indicated; seasonally adjusted)

**2. Geographical breakdown**

	Total	European Union 27 (outside the euro area)				Russia	Switzerland	Turkey	United States	Asia		Africa	Latin America	Other countries	
	1	Denmark	Sweden	United Kingdom	Other EU countries	6	7	8	9	China	Japan	13	14	15	
<b>Exports (f.o.b.)</b>															
2003	1,059.5	24.8	38.6	194.6	125.2	29.2	62.9	24.8	167.0	201.0	35.1	31.3	59.4	37.8	94.1
2004	1,146.2	25.8	42.1	204.3	138.7	35.9	66.6	31.9	172.6	225.3	40.4	33.3	64.5	40.6	97.7
2005	1,241.1	29.0	45.2	202.9	158.4	43.7	70.8	34.7	185.1	243.7	43.3	34.0	73.3	46.9	107.4
2006	1,392.8	31.7	49.8	216.6	195.5	55.2	77.7	38.9	201.0	273.3	53.9	34.5	77.9	54.8	120.3
2006 Q2	342.4	7.9	12.2	53.9	48.0	12.9	18.6	9.9	49.6	66.1	12.7	8.4	19.2	13.5	30.6
Q3	349.9	7.9	12.7	54.6	49.7	14.2	19.6	9.7	49.9	68.4	13.7	8.7	19.2	13.6	30.3
Q4	364.3	8.1	13.1	54.8	52.4	15.6	21.0	9.7	51.2	72.4	14.8	8.6	20.1	14.3	31.7
2007 Q1	369.7	8.3	13.5	56.6	54.1	15.7	20.5	10.3	50.0	72.3	14.4	8.8	21.4	14.9	32.2
Q2	371.3	8.4	13.9	55.9	55.2	16.7	20.0	9.9	48.6	72.8	14.9	8.9	21.4	15.4	33.1
Q3	381.4	8.5	14.2	58.6	57.9	17.1	20.6	10.3	49.2	74.6	15.3	8.4	22.1	15.6	32.8
2007 June	126.2	2.7	4.8	19.2	18.8	5.7	6.7	3.3	16.5	24.8	5.0	3.1	7.3	5.1	11.4
July	125.4	3.0	4.8	19.3	19.0	5.7	6.8	3.3	16.3	24.8	5.0	2.8	7.3	5.2	10.0
Aug.	128.9	2.9	4.7	20.1	19.6	5.8	6.8	3.5	16.4	25.1	5.1	2.9	7.5	5.4	11.1
Sep.	127.1	2.7	4.7	19.1	19.3	5.6	7.0	3.5	16.4	24.7	5.2	2.6	7.3	5.1	11.7
Oct.	128.7	2.9	4.8	19.2	19.7	5.9	7.0	3.4	16.2	25.2	5.2	2.8	7.4	5.3	11.7
Nov.	129.0	.	.	.	.	6.0	7.2	3.5	15.8	25.4	5.1	2.7	7.3	5.1	.
<i>% share of total exports</i>															
2006	100.0	2.3	3.6	15.6	14.0	4.0	5.6	2.8	14.4	19.6	3.9	2.5	5.6	3.9	8.6
<b>Imports (c.i.f.)</b>															
2003	986.8	23.7	36.9	138.6	109.0	47.4	50.5	19.4	110.5	269.2	74.4	52.1	68.8	39.9	72.8
2004	1,073.7	25.4	39.8	144.4	116.8	56.6	53.3	23.2	113.3	308.6	92.3	54.0	72.8	45.1	74.3
2005	1,225.8	26.3	42.2	152.4	129.4	76.2	58.0	25.5	120.0	362.2	118.0	53.0	95.9	53.7	83.8
2006	1,403.9	28.4	47.7	166.6	154.5	95.6	62.4	29.5	131.0	418.8	144.4	56.9	110.6	66.2	92.6
2006 Q2	349.4	7.0	11.6	42.8	37.7	25.5	15.4	7.5	32.2	104.4	35.4	14.1	27.3	16.3	21.7
Q3	355.3	7.2	12.1	41.4	39.5	24.1	16.1	7.5	32.7	104.9	35.7	14.4	28.3	16.8	24.8
Q4	358.0	7.1	12.6	40.8	41.6	22.2	16.0	7.6	33.6	108.0	39.8	14.3	27.8	17.4	23.4
2007 Q1	360.4	7.0	12.9	40.8	42.3	22.6	16.9	7.9	33.7	111.0	42.3	14.9	26.4	17.9	21.0
Q2	360.5	7.0	12.7	41.2	43.3	23.7	16.5	7.9	32.2	107.1	39.6	14.2	27.0	18.4	23.4
Q3	373.0	7.3	12.8	42.3	45.4	23.6	17.2	8.1	33.0	112.9	44.3	14.5	27.9	19.0	23.7
2007 June	121.3	2.4	4.2	14.0	15.0	8.0	5.6	2.7	10.6	36.4	13.7	4.8	9.6	6.2	6.5
July	124.6	2.5	4.2	14.3	14.7	8.2	5.7	2.7	10.9	37.9	14.8	4.7	9.4	6.2	8.0
Aug.	125.0	2.4	4.3	14.4	15.3	7.8	5.8	2.7	10.9	38.1	14.9	5.0	9.2	6.3	7.8
Sep.	123.4	2.4	4.2	13.6	15.4	7.6	5.7	2.7	11.2	36.9	14.7	4.8	9.4	6.5	7.9
Oct.	125.7	2.2	4.2	14.0	15.5	9.0	5.6	2.7	10.6	37.1	14.7	4.9	9.4	6.5	8.6
Nov.	126.3	.	.	.	.	9.0	5.5	2.8	10.7	36.1	14.2	4.5	10.0	6.7	.
<i>% share of total imports</i>															
2006	100.0	2.0	3.4	11.9	11.0	6.8	4.4	2.1	9.3	29.8	10.3	4.1	7.9	4.7	6.6
<b>Balance</b>															
2003	72.8	1.1	1.7	56.0	16.2	-18.2	12.4	5.4	56.6	-68.2	-39.3	-20.8	-9.4	-2.1	21.3
2004	72.5	0.4	2.3	60.0	21.9	-20.7	13.3	8.7	59.3	-83.3	-51.9	-20.7	-8.3	-4.5	23.4
2005	15.4	2.7	3.0	50.5	29.1	-32.5	12.8	9.2	65.1	-118.5	-74.6	-19.0	-22.7	-6.8	23.6
2006	-11.1	3.3	2.1	50.0	41.0	-40.4	15.3	9.4	70.1	-145.5	-90.4	-22.3	-32.7	-11.4	27.7
2006 Q2	-7.0	1.0	0.7	11.0	10.4	-12.6	3.2	2.5	17.4	-38.3	-22.7	-5.7	-8.2	-2.8	8.9
Q3	-5.4	0.7	0.7	13.2	10.2	-9.8	3.5	2.2	17.2	-36.5	-22.0	-5.7	-9.0	-3.2	5.5
Q4	6.3	1.1	0.5	13.9	10.8	-6.6	5.0	2.1	17.6	-35.6	-25.0	-5.7	-7.7	-3.1	8.3
2007 Q1	9.3	1.3	0.5	15.8	11.8	-6.9	3.6	2.4	16.3	-38.7	-27.9	-6.1	-5.1	-3.0	11.3
Q2	10.9	1.4	1.2	14.7	11.9	-7.1	3.5	2.0	16.4	-34.3	-24.8	-5.4	-5.6	-3.0	9.7
Q3	8.4	1.3	1.4	16.3	12.6	-6.5	3.4	2.2	16.2	-38.3	-29.1	-6.2	-5.8	-3.4	9.1
2007 June	4.8	0.3	0.6	5.1	3.8	-2.3	1.0	0.6	5.9	-11.6	-8.6	-1.7	-2.4	-1.1	4.9
July	0.8	0.5	0.6	5.1	4.3	-2.5	1.1	0.6	5.4	-13.1	-9.8	-1.9	-2.1	-1.0	2.0
Aug.	3.9	0.5	0.4	5.7	4.3	-2.0	1.1	0.8	5.5	-13.0	-9.8	-2.2	-1.7	-0.9	3.3
Sep.	3.7	0.3	0.5	5.5	4.0	-2.0	1.3	0.8	5.3	-12.2	-9.5	-2.1	-2.1	-1.4	3.8
Oct.	3.0	0.7	0.5	5.2	4.2	-3.1	1.4	0.7	5.6	-11.8	-9.5	-2.1	-2.1	-1.2	3.0
Nov.	2.7	.	.	.	.	-3.1	1.7	0.8	5.1	-10.8	-9.1	-1.8	-2.7	-1.5	.

Sources: Eurostat and ECB calculations based on Eurostat data (balance and columns 5, 12 and 15).





## EXCHANGE RATES

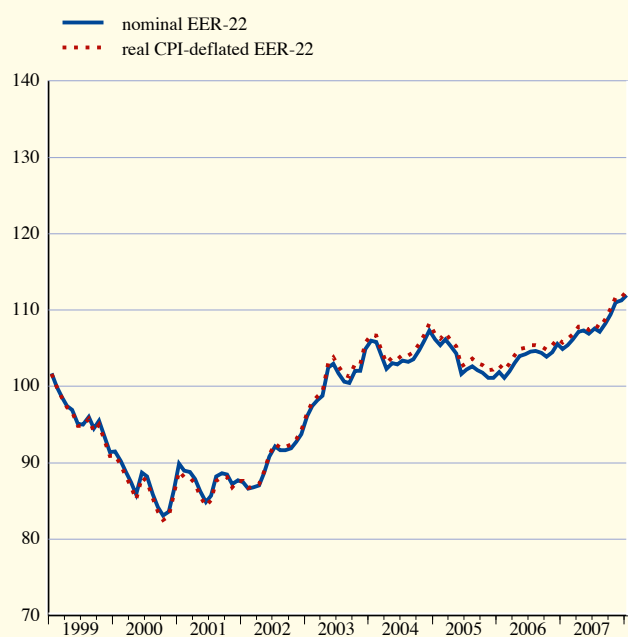
### 8.1 Effective exchange rates <sup>1)</sup>

(period averages; index 1999 Q1=100)

	EER-22						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	
2005	103.3	104.2	102.5	102.3	99.2	102.0	109.7	103.7	
2006	103.6	104.6	103.0	102.3	99.6	101.5	110.0	103.4	
2007	107.7	108.3	106.9	.	.	.	114.2	106.6	
2006 Q4	104.6	105.5	104.1	103.1	99.6	101.0	111.3	104.4	
2007 Q1	105.5	106.3	104.9	103.9	99.5	102.0	112.1	104.9	
Q2	107.1	107.7	106.2	105.4	101.9	103.8	113.5	106.0	
Q3	107.6	108.2	106.7	105.8	101.6	103.9	114.1	106.4	
Q4	110.5	111.2	109.6	.	.	.	117.0	109.0	
2007 Jan.	104.9	105.7	104.4	-	-	-	111.5	104.5	
Feb.	105.4	106.2	104.9	-	-	-	111.9	104.8	
Mar.	106.1	106.8	105.3	-	-	-	112.8	105.5	
Apr.	107.2	107.8	106.4	-	-	-	113.7	106.3	
May	107.3	107.9	106.2	-	-	-	113.6	106.1	
June	106.9	107.4	105.9	-	-	-	113.2	105.6	
July	107.6	108.0	106.4	-	-	-	113.9	106.2	
Aug.	107.1	107.6	106.3	-	-	-	113.7	106.0	
Sep.	108.2	108.8	107.5	-	-	-	114.8	107.0	
Oct.	109.4	110.1	108.7	-	-	-	115.8	108.0	
Nov.	111.0	111.7	110.1	-	-	-	117.6	109.6	
Dec.	111.2	111.7	110.1	-	-	-	117.6	109.4	
2008 Jan.	112.0	112.4	110.6	-	-	-	118.3	110.0	
	<i>% change versus previous month</i>								
2008 Jan.	0.6	0.6	0.5	-	-	-	0.6	0.5	
	<i>% change versus previous year</i>								
2008 Jan.	6.7	6.3	5.9	-	-	-	6.1	5.3	

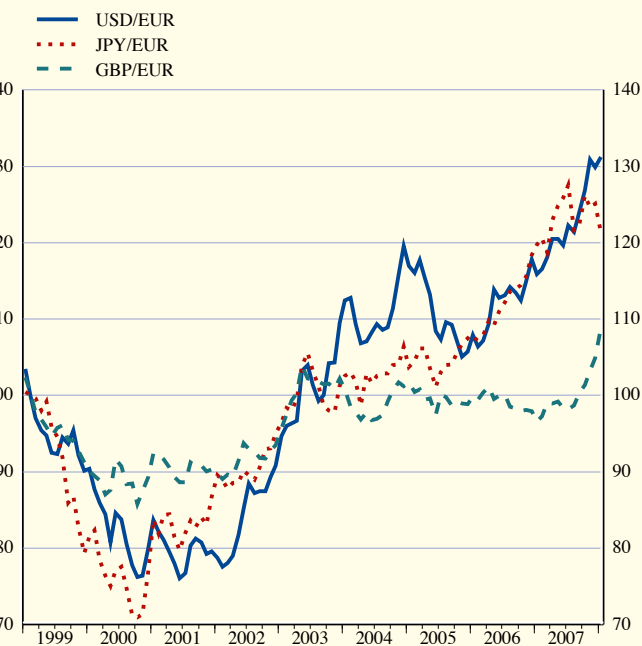
### C35 Effective exchange rates

(monthly averages; index 1999 Q1=100)



### C36 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)

	Danish kroner 1	Swedish krona 2	Pound sterling 3	US dollar 4	Japanese yen 5	Swiss franc 6	South Korean won 7	Hong Kong dollar 8	Singapore dollar 9	Canadian dollar 10	Norwegian kroner 11	Australian dollar 12
2005	7.4518	9.2822	0.68380	1.2441	136.85	1.5483	1,273.61	9.6768	2.0702	1.5087	8.0092	1.6320
2006	7.4591	9.2544	0.68173	1.2556	146.02	1.5729	1,198.58	9.7545	1.9941	1.4237	8.0472	1.6668
2007	7.4506	9.2501	0.68434	1.3705	161.25	1.6427	1,272.99	10.6912	2.0636	1.4678	8.0165	1.6348
2007 Q2	7.4500	9.2573	0.67880	1.3481	162.89	1.6478	1,252.05	10.5372	2.0562	1.4791	8.1060	1.6214
Q3	7.4446	9.2639	0.68001	1.3738	161.90	1.6473	1,274.31	10.7250	2.0841	1.4374	7.9175	1.6229
Q4	7.4557	9.2899	0.70782	1.4486	163.83	1.6596	1,334.12	11.2639	2.1061	1.4201	7.8778	1.6279
2007 July	7.4410	9.1842	0.67440	1.3716	166.76	1.6567	1,259.70	10.7247	2.0789	1.4417	7.9380	1.5809
Aug.	7.4429	9.3231	0.67766	1.3622	159.05	1.6383	1,273.37	10.6469	2.0744	1.4420	7.9735	1.6442
Sep.	7.4506	9.2835	0.68887	1.3896	159.82	1.6475	1,291.46	10.8151	2.1009	1.4273	7.8306	1.6445
Oct.	7.4534	9.1735	0.69614	1.4227	164.95	1.6706	1,301.67	11.0327	2.0849	1.3891	7.6963	1.5837
Nov.	7.4543	9.2889	0.70896	1.4684	162.89	1.6485	1,348.46	11.4211	2.1242	1.4163	7.9519	1.6373
Dec.	7.4599	9.4319	0.72064	1.4570	163.55	1.6592	1,356.79	11.3619	2.1108	1.4620	8.0117	1.6703
2008 Jan.	7.4505	9.4314	0.74725	1.4718	158.68	1.6203	1,387.66	11.4863	2.1062	1.4862	7.9566	1.6694
	<i>% change versus previous month</i>											
2008 Jan.	-0.1	0.0	3.7	1.0	-3.0	-2.3	2.3	1.1	-0.2	1.7	-0.7	-0.1
	<i>% change versus previous year</i>											
2008 Jan.	0.0	3.9	12.6	13.2	1.4	0.3	13.9	13.3	5.4	-2.8	-3.9	0.6
	Czech koruna 13	Estonian kroon 14	Latvian lats 15	Lithuanian litas 16	Hungarian forint 17	Polish zloty 18	Slovak koruna 19	Bulgarian lev 20	New Roman- ian leu 21	Croatian kuna 22	New Turkish lira 23	
2005	29.782	15.6466	0.6962	3.4528	248.05	4.0230	38.599	1.9558	3.6209	7.4008	1.6771	
2006	28.342	15.6466	0.6962	3.4528	264.26	3.8959	37.234	1.9558	3.5258	7.3247	1.8090	
2007	27.766	15.6466	0.7001	3.4528	251.35	3.7837	33.775	1.9558	3.3353	7.3376	1.7865	
2007 Q2	28.272	15.6466	0.6986	3.4528	248.31	3.8005	33.751	1.9558	3.2789	7.3494	1.8029	
Q3	27.941	15.6466	0.6988	3.4528	251.82	3.7900	33.579	1.9558	3.2321	7.3080	1.7685	
Q4	26.826	15.6466	0.7005	3.4528	252.86	3.6584	33.424	1.9558	3.4489	7.3281	1.7261	
2007 July	28.359	15.6466	0.6969	3.4528	246.90	3.7682	33.326	1.9558	3.1345	7.2947	1.7574	
Aug.	27.860	15.6466	0.6978	3.4528	255.20	3.8116	33.603	1.9558	3.2246	7.3161	1.7921	
Sep.	27.573	15.6466	0.7021	3.4528	253.33	3.7891	33.829	1.9558	3.3481	7.3134	1.7536	
Oct.	27.335	15.6466	0.7030	3.4528	251.02	3.7062	33.624	1.9558	3.3537	7.3284	1.7089	
Nov.	26.733	15.6466	0.7005	3.4528	254.50	3.6575	33.232	1.9558	3.4739	7.3365	1.7498	
Dec.	26.317	15.6466	0.6975	3.4528	253.18	3.6015	33.404	1.9558	3.5351	7.3178	1.7195	
2008 Jan.	26.050	15.6466	0.6982	3.4528	256.03	3.6092	33.546	1.9558	3.6937	7.3155	1.7322	
	<i>% change versus previous month</i>											
2008 Jan.	-1.0	0.0	0.1	0.0	1.1	0.2	0.4	0.0	4.5	0.0	0.7	
	<i>% change versus previous year</i>											
2008 Jan.	-6.4	0.0	0.1	0.0	0.8	-7.0	-3.5	0.0	8.9	-0.8	-6.5	
	Brazilian real <sup>1)</sup> 24	Chinese yuan renminbi 25	Icelandic krona 26	Indonesian rupiah 27	Malaysian ringgit 28	Mexican peso <sup>1)</sup> 29	New Zealand dollar 30	Philippine peso 31	Russian rouble 32	South African rand 33	Thai baht 34	
2005	3.0360	10.1955	78.23	12,072.83	4.7119	13.5643	1.7660	68.494	35.1884	7.9183	50.068	
2006	2.7333	10.0096	87.76	11,512.37	4.6044	13.6936	1.9373	64.379	34.1117	8.5312	47.594	
2007	2.6603	10.4178	87.63	12,528.33	4.7076	14.9801	1.8627	63.026	35.0183	9.6596	44.214	
2007 Q2	2.6590	10.3476	85.82	12,082.62	4.6204	14.6736	1.8188	63.134	34.8589	9.5688	44.011	
Q3	2.6333	10.3834	86.71	12,705.62	4.7608	15.0578	1.8508	63.035	35.0350	9.7645	43.220	
Q4	2.5863	10.7699	88.69	13,374.03	4.8613	15.7217	1.8965	62.330	35.6947	9.8088	45.097	
2007 July	2.5803	10.3899	83.16	12,441.28	4.7184	14.8200	1.7446	62.418	35.0292	9.5712	41.870	
Aug.	2.6735	10.3162	88.46	12,765.65	4.7457	15.0491	1.8786	62.862	34.9211	9.8391	43.337	
Sep.	2.6455	10.4533	88.59	12,927.37	4.8249	15.3293	1.9358	63.911	35.1723	9.8912	44.570	
Oct.	2.5653	10.6741	86.30	12,945.80	4.8005	15.4044	1.8739	62.894	35.4008	9.6371	44.898	
Nov.	2.5920	10.8957	89.34	13,608.92	4.9279	15.9776	1.9231	63.271	35.9174	9.8553	46.120	
Dec.	2.6050	10.7404	90.82	13,620.45	4.8576	15.8096	1.8930	60.556	35.7927	9.9626	44.153	
2008 Jan.	2.6111	10.6568	94.50	13,839.19	4.8090	16.0639	1.9054	60.079	36.0300	10.3101	44.758	
	<i>% change versus previous month</i>											
2008 Jan.	0.2	-0.8	4.0	1.6	-1.0	1.6	0.7	-0.8	0.7	3.5	1.4	
	<i>% change versus previous year</i>											
2008 Jan.	-6.2	5.3	3.8	17.3	5.5	12.9	1.9	-5.5	4.6	10.3	-2.4	

Source: ECB.

1) For these currencies the ECB computes and publishes euro reference exchange rates as from 1 January 2008. Previous data are indicative.



## DEVELOPMENTS OUTSIDE THE EURO AREA

### 9.1 In other EU Member States

(annual percentage changes, unless otherwise indicated)

#### 1. Economic and financial developments

	Bulgaria	Czech Republic	Denmark	Estonia	Latvia	Lithuania	Hungary	Poland	Romania	Slovakia	Sweden	United Kingdom
	1	2	3	4	5	6	7	8	9	10	11	12
HICP												
2006	7.4	2.1	1.9	4.4	6.6	3.8	4.0	1.3	6.6	4.3	1.5	2.3
2007	7.6	3.0	1.7	6.7	10.1	5.8	7.9	2.6	4.9	1.9	1.7	2.3
2007 Q2	4.7	2.6	1.5	5.8	8.5	5.0	8.5	2.3	3.9	1.7	1.4	2.6
Q3	9.0	2.7	1.0	6.7	10.4	5.9	7.3	2.4	5.1	1.4	1.4	1.8
Q4	11.2	4.9	2.2	9.2	13.7	7.9	7.1	3.7	6.8	2.4	2.3	2.1
2007 Aug.	9.3	2.6	0.9	6.1	10.2	5.6	7.1	2.1	5.0	1.2	1.2	1.8
Sep.	11.0	2.8	1.2	7.5	11.5	7.1	6.4	2.7	6.1	1.7	1.6	1.8
Oct.	10.6	4.0	1.8	8.7	13.2	7.6	6.9	3.1	6.9	2.4	1.9	2.1
Nov.	11.4	5.1	2.5	9.3	13.7	7.9	7.2	3.7	6.8	2.3	2.4	2.1
Dec.	11.6	5.5	2.4	9.7	14.0	8.2	7.4	4.2	6.7	2.5	2.5	2.1
General government deficit (-)/surplus (+) as a % of GDP												
2004	2.3	-3.0	1.9	1.8	-1.0	-1.5	-6.5	-5.7	-1.5	-2.4	0.8	-3.4
2005	2.0	-3.5	4.6	1.9	-0.4	-0.5	-7.8	-4.3	-1.4	-2.8	2.4	-3.3
2006	3.2	-2.9	4.6	3.6	-0.3	-0.6	-9.2	-3.8	-1.9	-3.7	2.5	-2.7
General government gross debt as a % of GDP												
2004	37.9	30.4	44.0	5.1	14.5	19.4	59.4	45.7	18.8	41.4	52.4	40.4
2005	29.2	30.2	36.3	4.4	12.5	18.6	61.6	47.1	15.8	34.2	52.2	42.1
2006	22.8	30.1	30.3	4.0	10.6	18.2	65.6	47.6	12.4	30.4	47.0	43.2
Long-term government bond yield as a % per annum, period average												
2007 July	4.79	4.59	4.58	-	5.28	4.89	6.58	5.60	6.86	4.70	4.45	5.46
Aug.	4.79	4.48	4.39	-	5.32	4.80	6.80	5.68	6.93	4.65	4.25	5.19
Sep.	4.44	4.54	4.36	-	5.21	4.72	6.67	5.69	6.93	4.61	4.22	5.05
Oct.	4.59	4.50	4.39	-	5.06	4.72	6.61	5.64	6.93	4.64	4.31	5.00
Nov.	4.94	4.54	4.21	-	5.12	4.57	6.74	5.70	6.93	4.59	4.22	4.74
Dec.	5.08	4.65	4.33	-	5.10	4.94	6.93	5.86	6.93	4.61	4.31	4.70
3-month interest rate as a % per annum, period average												
2007 July	4.69	3.07	4.42	4.73	6.66	4.97	7.87	4.78	6.92	4.34	3.78	6.02
Aug.	4.80	3.28	4.66	4.94	7.99	5.25	7.83	4.91	6.69	4.33	3.96	6.42
Sep.	5.25	3.46	4.85	5.21	11.06	5.59	7.72	5.09	6.82	4.32	4.22	6.65
Oct.	5.59	3.55	4.84	5.22	12.75	5.93	7.60	5.13	7.25	4.33	4.37	6.27
Nov.	6.32	3.73	4.82	5.36	11.69	6.50	7.51	5.36	7.71	4.35	4.61	6.41
Dec.	6.56	4.05	4.92	7.23	10.78	7.07	7.63	5.67	7.93	4.31	4.74	6.36
Real GDP												
2006	6.1	6.4	3.9	11.2	11.9	7.7	3.9	6.2	7.7	8.5	4.1	2.9
2007	6.1	.	.	.	.	8.7	.	.	.	.	.	3.1
2007 Q2	6.6	6.2	-0.1	7.6	11.0	7.6	1.6	6.6	5.6	9.3	2.9	3.2
Q3	4.5	6.1	1.6	6.4	10.9	11.6	1.1	5.8	5.7	9.4	2.6	3.3
Q4	.	.	.	.	.	8.1	.	.	.	.	.	2.9
Current and capital accounts balance as a % of GDP												
2005	-11.0	-1.5	4.5	-9.3	-11.2	-5.9	-6.0	-1.3	-7.9	-8.5	6.9	-2.4
2006	-15.0	-2.8	2.6	-13.2	-21.1	-9.6	-5.9	-2.6	-10.5	-7.1	6.3	-3.8
2007 Q1	-27.3	2.3	-2.0	-21.1	-24.4	-12.2	-4.6	-2.4	-16.9	1.0	9.4	-5.4
Q2	-18.9	-4.7	2.8	-11.7	-22.7	-14.6	-5.9	-4.2	-16.0	-6.9	4.8	-4.2
Q3	-11.3	-4.9	2.9	-13.4	-23.8	-10.2	-3.2	-1.9	-10.9	-6.6	5.5	-6.2
Unit labour costs												
2005	2.4	-0.6	2.0	2.6	15.2	5.9	3.1	0.3	.	4.3	0.0	3.9
2006	4.5	1.7	1.6	8.0	14.0	8.5	.	.	.	1.7	0.4	2.6
2007 Q1	14.6	3.4	2.0	16.0	-	4.6	-	-	-	2.5	4.1	0.3
Q2	13.2	2.4	5.8	20.1	-	7.7	-	-	-	-0.4	3.7	2.4
Q3	16.6	3.0	4.3	20.7	-	5.9	-	-	-	0.3	2.8	2.3
Standardised unemployment rate as a % of labour force (s.a.)												
2006	9.0	7.1	3.9	5.9	6.9	5.6	7.4	13.8	7.3	13.3	7.1	5.3
2007	6.9	5.3	3.7	4.9	5.9	4.3	7.2	9.6	6.7	11.2	6.1	.
2007 Q2	7.1	5.5	3.9	5.0	5.9	4.3	7.2	10.0	6.7	11.3	6.1	5.3
Q3	6.7	5.2	3.8	4.7	5.8	4.1	7.2	9.2	6.5	11.3	5.7	5.3
Q4	5.9	4.8	3.2	5.2	5.4	4.0	7.3	8.4	7.0	11.0	5.7	.
2007 Aug.	6.7	5.2	3.9	4.7	5.8	4.0	7.3	9.2	6.5	11.3	5.7	5.3
Sep.	6.5	5.1	3.8	4.9	5.7	4.0	7.2	8.9	6.5	11.2	5.8	5.2
Oct.	6.1	5.0	3.3	5.1	5.5	4.0	7.3	8.7	7.1	11.2	5.8	5.2
Nov.	5.9	4.8	3.2	5.2	5.4	4.0	7.3	8.4	7.1	11.0	5.8	.
Dec.	5.8	4.7	3.1	5.3	5.4	3.9	7.3	8.1	7.0	10.8	5.6	.

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

## 9.2 In the United States and Japan

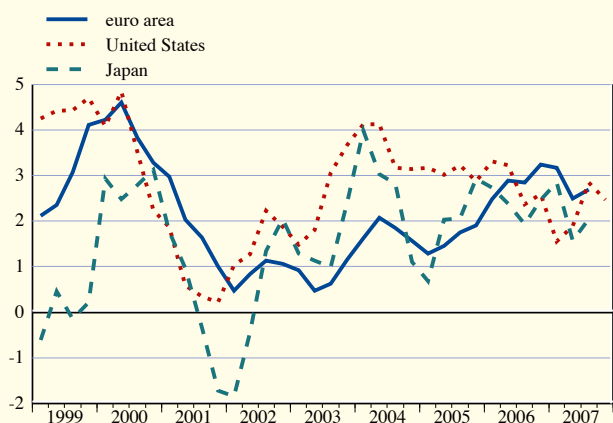
(annual percentage changes, unless otherwise indicated)

### 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											
2004	2.7	-0.1	3.6	3.0	5.5	4.7	1.62	4.26	1.2439	-4.4	48.9
2005	3.4	-0.5	3.1	4.0	5.1	4.4	3.56	4.28	1.2441	-3.6	49.2
2006	3.2	-1.5	2.9	5.0	4.6	4.8	5.19	4.79	1.2556	-2.6	48.6
2007	2.9	.	2.2	2.0	4.6	5.9	5.30	4.63	1.3705	.	.
2006 Q4	1.9	0.4	2.6	3.6	4.4	4.9	5.37	4.63	1.2887	-2.1	48.6
2007 Q1	2.4	0.9	1.5	2.3	4.5	5.4	5.36	4.68	1.3106	-3.0	49.5
Q2	2.7	2.4	1.9	2.0	4.5	6.1	5.36	4.84	1.3481	-2.7	48.3
Q3	2.4	2.8	2.8	1.8	4.7	6.3	5.45	4.74	1.3738	-3.2	48.7
Q4	4.0	.	2.5	1.8	4.8	5.9	5.02	4.27	1.4486	.	.
2007 Sep.	2.8	.	.	1.6	4.7	6.4	5.49	4.51	1.3896	.	.
Oct.	3.5	.	.	1.9	4.8	6.0	5.15	4.52	1.4227	.	.
Nov.	4.3	.	.	2.4	4.7	6.0	4.96	4.16	1.4684	.	.
Dec.	4.1	.	.	1.2	5.0	5.9	4.97	4.10	1.4570	.	.
2008 Jan.	.	.	.	.	4.9	.	3.95	3.73	1.4718	.	.
Japan											
2004	0.0	-4.9	2.7	5.5	4.7	1.9	0.05	1.50	134.44	-6.2	157.6
2005	-0.3	-0.6	1.9	1.1	4.4	1.8	0.06	1.39	136.85	-6.4	164.2
2006	0.2	-2.6	2.4	4.8	4.1	1.1	0.30	1.74	146.02	.	.
2007	0.1	.	.	2.7	3.8	1.6	0.79	1.68	161.25	.	.
2006 Q4	0.3	-3.6	2.5	5.9	4.1	0.6	0.49	1.70	151.72	.	.
2007 Q1	-0.1	-2.2	2.8	3.0	4.0	1.0	0.62	1.68	156.43	.	.
Q2	-0.1	.	1.6	2.4	3.8	1.5	0.69	1.74	162.89	.	.
Q3	-0.1	.	2.0	2.7	3.8	1.9	0.89	1.72	161.90	.	.
Q4	0.5	.	.	2.8	3.8	2.0	0.96	1.57	163.83	.	.
2007 Sep.	-0.2	.	.	0.8	4.0	1.8	0.99	1.61	159.82	.	.
Oct.	0.3	.	.	4.8	4.0	1.9	0.97	1.66	164.95	.	.
Nov.	0.6	.	.	3.0	3.8	2.0	0.91	1.51	162.89	.	.
Dec.	0.7	.	.	0.7	3.8	2.0	0.99	1.53	163.55	.	.
2008 Jan.	.	.	.	.	.	.	0.89	1.44	158.68	.	.

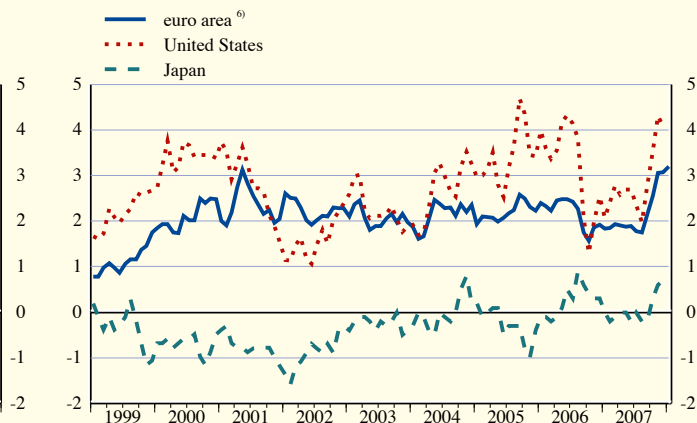
#### C37 Real gross domestic product

(annual percentage changes; quarterly)



#### C38 Consumer price indices

(annual percentage changes; monthly)



Sources: National data (columns 1, 2 (United States), 3, 4, 5 (United States), 6, 9 and 10); OECD (column 2 (Japan)); Eurostat (column 5 (Japan), 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; M2 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).

6) Data refer to the changing composition of the euro area. For further information, see the General notes.



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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 2006 = 100. Time series of the index of adjusted outstanding amounts are available on the ECB's website ([www.ecb.europa.eu](http://www.ecb.europa.eu)) under the "Money, banking and financial markets" 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:

$$f) a_t = \left[ \prod_{i=0}^{11} \left( 1 + \frac{F_{t-i}^M}{L_{t-1-i}} \right) - 1 \right] \times 100$$

$$g) a_t = \left( \frac{I_t}{I_{t-12}} - 1 \right) \times 100$$

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:

$$h) \quad a_t^M = \left( \frac{I_t}{I_{t-1}} - 1 \right) \times 100$$

Finally, the three-month moving average (centred) for the annual growth rate of M3 is obtained as  $(a_{t+1} + a_t + a_{t-1})/3$ , 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:

$$i) \quad I_t = I_{t-3} \times \left( 1 + \frac{F_t^Q}{L_{t-3}} \right)$$

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 3.5

#### EQUALITY OF USES AND RESOURCES

In Table 3.1 the data conform to a basic accounting identity. As regards non-financial transactions, total uses equal total resources for each transaction category. Likewise in the financial account, this accounting identity is also reflected, i.e. for each financial instrument category, total transactions in financial assets equal total transactions in liabilities. In the other changes in assets account and the financial balance sheets, total financial assets equal total liabilities for each financial instrument category, with the exception of monetary gold and special drawing rights, which are by definition not a liability of any sector.

#### CALCULATION OF BALANCING ITEMS

The balancing items at the end of each account in Tables 3.1 and 3.2 are computed as follows:

The trade balance equals imports minus exports of goods and services vis-à-vis the euro area rest of the world.

1 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.europa.eu](http://www.ecb.europa.eu)), under the "Money, banking and financial markets" sub-section.

2 For details, see Findley, D., Monsell, B., Bell, W., Otto, M., and Chen, B. C. (1998), "New Capabilities and Methods of the X-12-ARIMA Seasonal Adjustment Program", *Journal of Business and Economic Statistics*, 16, 2, 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.

3 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.

Net operating surplus and mixed income is defined for resident sectors only and is calculated as gross value added (gross domestic product at market prices for the euro area) minus compensation of employees (uses) minus other taxes less subsidies on production (uses) minus consumption of fixed capital (uses).

Net national income is defined for resident sectors only and is computed as net operating surplus and mixed income plus compensation of employees (resources) plus taxes less subsidies on production (resources) plus net property income (resources minus uses).

Net disposable income is also only defined for resident sectors and equals net national income plus net current taxes on income and wealth (resources minus uses) plus net social contributions (resources minus uses) plus net social benefits other than social transfers in kind (resources minus uses) plus net other current transfers (resources minus uses).

Net saving is defined for resident sectors and is calculated as net disposable income plus the net adjustment for the change in net equity of households in pension funds reserves (resources minus uses) minus final consumption expenditure (uses). For the rest of the world, current external account is compiled as the trade balance plus all net income (resources minus uses).

Net lending/net borrowing is computed from the capital account as net saving plus net capital transfers (resources minus uses) minus gross capital formation (uses) minus acquisitions less disposals of non-produced non-financial assets (uses) plus consumption of fixed capital (resources). It can also be calculated in the financial account as total transactions in financial assets minus total transactions in liabilities (also known as changes in net financial worth (wealth) due to transactions). For the household and non-financial corporation sectors, there is a statistical discrepancy between these balancing items computed from the capital account and the financial account, respectively.

Changes in net worth (wealth) are calculated as changes in net worth (wealth) due to savings and capital transfers plus other changes in net financial worth (wealth). It currently excludes other changes in non-financial assets due to unavailability of data.

Net financial worth (wealth) is calculated as total financial assets minus total liabilities, whereas changes in net financial worth (wealth) are equal to the sum of changes in net financial worth (wealth) due to transactions (lending/ net borrowing from the financial account) and other changes in net financial worth (wealth).

Finally, changes in net financial worth (wealth) due to transactions are computed as total transactions in financial assets minus total transactions in liabilities and other changes in net financial worth (wealth) are calculated as total other changes in financial assets minus total other changes in liabilities.

#### 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 from transactions or from the index of notional stocks. 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 notional stocks in month  $t$  is defined as:

$$j) \quad I_t = I_{t-1} \times \left( 1 + \frac{N_t^M}{L_{t-1}} \right)$$

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:



$$k) \quad a_t = \left[ \prod_{i=0}^{11} \left( 1 + \frac{N_{t-i}^M}{L_{t-1-i}} \right) - 1 \right] \times 100$$

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

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 and the equivalent “transactions” calculated used for the monetary aggregates.

The average growth rate for the quarter ending in month t is calculated as:

$$m) \quad \left( \frac{0.5I_t + \sum_{i=1}^2 I_{t-i} + 0.5I_{t-3}}{0.5I_{t-12} + \sum_{i=1}^2 I_{t-i-12} + 0.5I_{t-15}} - 1 \right) \times 100$$

where  $I_t$  is the index of notional stocks as at month t. Likewise, for the year ending in month t, the average growth rate is calculated as:

$$n) \quad \left( \frac{0.5I_t + \sum_{i=1}^{11} I_{t-i} + 0.5I_{t-12}}{0.5I_{t-12} + \sum_{i=1}^{11} I_{t-i-12} + 0.5I_{t-24}} - 1 \right) \times 100$$

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.

#### SEASONAL ADJUSTMENT OF SECURITIES ISSUES STATISTICS<sup>4</sup>

The approach used relies on a multiplicative decomposition through X-12-ARIMA. The

seasonal adjustment for the securities issues total is carried out indirectly by means of a linear combination of sector and maturity component breakdowns.

The seasonal adjustment procedures are applied to the index of notional stocks. The resulting estimates of the seasonal factors are then applied to the outstanding amounts, from which seasonally adjusted net issues are derived. Seasonal factors are revised at annual intervals or as required.

Similar as depicted in formula l) and m), the growth rate  $a_t$  for month t corresponding to the change in the 6 months ending in month t, may be calculated using either of the following two formulae:

$$o) \quad a_t = \left[ \prod_{i=0}^5 \left( 1 + \frac{N_{t-i}^M}{L_{t-1-i}} \right) - 1 \right] \times 100$$

$$p) \quad a_t = \left( \frac{I_t}{I_{t-6}} - 1 \right) \times 100$$

#### RELATING TO TABLE I 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 S78). 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.

<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.europa.eu](http://www.ecb.europa.eu)), under the “Money, banking and financial markets” sub-section.

**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 S78). The raw data for goods, services and income are pre-adjusted to take a working-day effect into account. The working-day adjustment in goods and services is corrected for national public holidays. Data on goods credits are also pre-adjusted for Easter. The seasonal adjustment for these items is carried out using these pre-adjusted series. 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 (and trading day) factors are revised at semi-annual intervals or as required.

**RELATING TO SECTION 7.3****CALCULATION OF GROWTH RATES FOR THE  
QUARTERLY AND ANNUAL SERIES**

The annual growth rate for quarter  $t$  is calculated on the basis of quarterly transactions ( $F_t$ ) and positions ( $L_t$ ), as follows:

$$a_t = \left( \prod_{i=t-3}^t \left( 1 + \frac{F_i}{L_{i-1}} \right) - 1 \right) \times 100$$

The growth rate for the annual series is equal to the growth rate in the last quarter of the year.





## 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.europa.eu](http://www.ecb.europa.eu)). This allows user-friendly access to data via the ECB’s Statistical Data Warehouse (<http://sdw.ecb.europa.eu/>), which includes search and download facilities. Further services available under the “Data services” sub-section include the subscription to different datasets and a repository of compressed Comma Separated Value (CSV) files. For further information, please contact us at: [statistics@ecb.europa.eu](mailto:statistics@ecb.europa.eu).

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 ECB’s Governing Council. For this issue, the cut-off date was 6 February 2008.

Unless otherwise indicated, all data series covering observations for 2008 relate to the Euro 15 (i.e. the euro area including Cyprus and Malta) for the whole time series. For interest rates, monetary statistics and the HICP (and, for consistency reasons, the components and counterparts of M3 and the components of the HICP), the statistical series refer to the changing composition of the euro area. Where applicable, this is indicated in the tables by means of a footnote. In such cases, where underlying data are available, absolute and percentage changes for 2001, 2007 and 2008, calculated from bases in 2000, 2006 and 2007, use a series which takes into account the impact of the entry of Greece, Slovenia, and Cyprus and Malta, respectively, into the euro area. Historical data referring to the euro area before the entry of Cyprus and Malta are available on the ECB’s website at <http://www.ecb.europa.eu/stats/services/downloads/html/index.en.html>.

The statistical series referring to the changing composition of the euro area are based on the euro area composition at the time to which the statistics relate. Thus, data prior to 2001 refer to the Euro 11, i.e. the following 11 EU Member States:

Belgium, Germany, Ireland, Spain, France, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland. Data from 2001 to 2006 refer to the Euro 12, i.e. the Euro 11 plus Greece. Data for 2007 refer to the Euro 13, i.e. the Euro 12 plus Slovenia, and data after 2008 refer to the Euro 15, i.e. the Euro 13 plus Cyprus and Malta.

Given that the composition of the European currency unit (ECU) does not coincide with the former currencies of the countries that have adopted the single currency, pre-1999 amounts originally expressed in the participating currencies and converted into ECU at current ECU exchange rates are affected by movements in the currencies of EU Member States that 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 Bulgaria, the Czech Republic, Denmark, Estonia, Latvia, Lithuania, Hungary, Poland, Romania, Slovakia, Sweden and the 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 (NCBs) 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 MROs (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 NCBs 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, and include positions of non-MFIs resident in the euro area held with MFIs resident in the euro area; 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 an analysis, by sector and instrument, 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 that do not arise from transactions. Section 2.7 shows selected revaluations that 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 "Monetary Financial Institutions and Markets Statistics Sector Manual – Guidance for the statistical classification of customers. Third Edition" (ECB, March 2007). The "Guidance Notes to the Regulation ECB/2001/13 on the MFI Balance Sheet Statistics" (ECB, November 2002) explains practices that NCBs are recommended to follow. 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.

<sup>1</sup> OJ L 356, 30.12.1998, p. 7.

<sup>2</sup> OJ L 250, 2.10.2003, p. 19.

## EURO AREA ACCOUNTS

Section 3.1 shows quarterly integrated euro area accounts data, which provide comprehensive information on the economic activities of households (including non-profit institutions serving households), non-financial corporations, financial corporations and general government, as well as on the interaction between these sectors and both the euro area and the rest of the world. The non-seasonally adjusted data on current prices are displayed for the last available quarter, following a simplified sequence of accounts in accordance with the methodological framework of the European System of Accounts 1995 (ESA 95).

In short, the sequence of accounts (transactions) comprises: (1) the generation of income account, which shows how the production activity translates into various categories of income; (2) the allocation of primary income account, which records receipts and expenses relating to various forms of property income (for the economy as a whole, the balancing item of the primary income account is the national income); (3) the secondary distribution of income account, which shows how the national income of an institutional sector changes because of current transfers; (4) the use of income account, which shows how disposable income is spent on consumption or saved; (5) the capital account, which shows how savings and net capital transfers are spent in the acquisition of non-financial assets (the balancing item of the capital account is net lending/net borrowing); and (6) the financial account, which records the net acquisitions of financial assets and the net incurrence of liabilities. As each non-financial transaction is mirrored by a financial transaction, the balancing item of the financial account conceptually also equals net lending/net borrowing as calculated from the capital account.

In addition, opening and closing financial balance sheets are presented, which provide a picture of the financial wealth of each individual sector at a given point in time. Finally, other

changes in financial assets and liabilities (e.g. those resulting from the impact of changes in asset prices) are also shown.

The sector coverage of the financial account and of the financial balance sheets is more detailed for the financial corporations sector, showing a breakdown into MFIs, other financial intermediaries (including financial auxiliaries), and insurance corporations and pension funds.

Section 3.2 shows four-quarter cumulated flows (transactions) for the so-called non-financial accounts of the euro area (i.e. accounts (1) to (5) above) also following the simplified sequence of accounts.

Section 3.3 shows four-quarter cumulated flows (transactions and other changes) for households' income, expenditure and accumulation accounts, and outstanding amounts for the financial balance sheet accounts, following a more analytical presentation. Sector-specific transactions and balancing items are arranged so as to more easily depict financing and investment decisions of households, whilst respecting the account identities as presented in Sections 3.1 and 3.2.

Section 3.4 displays four-quarter cumulated flows (transactions) for non-financial corporations' income and accumulation accounts, and outstanding amounts for the financial balance sheet accounts, following a more analytical presentation.

Section 3.5 shows four-quarter cumulated financial flows (transactions and other changes) and outstanding amounts for the financial balance sheets of insurance corporations and pension funds.

## 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 (changing composition), with the exception of statistics on securities issues

(Tables 4.1 to 4.4), which relate to the Euro 13 (i.e. the Euro 12 plus Slovenia) for the whole time series (fixed composition).

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". Long-term debt securities issued by euro area residents are broken down further into fixed and variable rate issues. Fixed rate issues consist of issues where the coupon rate does not change during the life of the issues. Variable rate issues include all issues where the coupon is periodically re-fixed by reference to an independent interest rate or index. The statistics on debt securities are estimated to cover approximately 95% of total issues by euro area residents. The 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 other than shares, by original maturity, residency of the issuer and currency. The section presents outstanding amounts, gross issues and net issues of securities other than shares denominated in euro and securities other than shares issued by euro area residents in euro and in all currencies for total and long-term debt securities. Net issues differ from the changes in outstanding amounts owing

to valuation changes, reclassifications and other adjustments. This section also presents seasonally adjusted statistics, including annualised six-month seasonally adjusted growth rates for total and long-term debt securities. The latter are calculated from the seasonally adjusted index of notional stocks, from which the seasonal effects have been removed. See the Technical notes for details.

Section 4.2 contains a sectoral breakdown of outstanding amounts, gross issues and net issues for issuers resident in the euro area in line with the ESA 95. The ECB is included in the Eurosystem.

The total outstanding amounts for total and long-term debt securities in column 1 of Table 1 in Section 4.2 corresponds to the data on outstanding amounts for total and long-term debt securities issued by euro area residents in column 7 of Section 4.1. The outstanding amounts for total and long-term debt securities issued by MFIs in column 2 of Table 1 in Section 4.2 are broadly comparable with data for debt securities issued, as shown on the liabilities side of the aggregated MFI balance sheet in column 8 of Table 2 in Section 2.1. The total net issues for total debt securities in column 1 of Table 2 in Section 4.2 correspond to the data on total net issues by euro area residents in column 9 of Section 4.1. The residual difference between long-term debt securities and total fixed and variable rate long-term debt securities in Table 1 in Section 4.2 consists of zero coupon bonds and revaluation effects.

Section 4.3 shows non-seasonally and seasonally adjusted growth rates for debt securities issued by euro area residents (broken down by maturity, type of instrument, sector of the issuer and currency), which are based on financial transactions that occur when an institutional unit incurs or redeems liabilities. The growth rates therefore exclude reclassifications, revaluations, exchange rate variations and any other changes that do not arise from transactions. The seasonally adjusted growth rates have been annualised for presentational purposes. See the Technical notes for details.



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 that 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 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, ranging 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. 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) where available. For the United States and Japan, interest rates on three-month deposits are represented by LIBOR.

Table 4.7 shows end-of-period rates estimated from nominal spot yield curves based on AAA-rated euro-denominated bonds issued by euro area central governments. The yield curves are estimated using the Svensson model<sup>3</sup>. Spreads between the ten-year rates and the three-month and two-year rates are also released. Additional yield curves (daily releases, including charts and tables) and the corresponding methodological information are available at <http://www.ecb.europa.eu/stats/money/yc/html/index.en.html>. Daily data may also be downloaded.

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 hourly labour costs, 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.

3 Svensson, L. E., 1994, "Estimating and Interpreting Forward Interest Rates: Sweden 1992-1994", Centre for Economic Policy Research, Discussion Paper No 1051.

The Harmonised Index of Consumer Prices (HICP) for the euro area (Table 1 in 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 by households on final consumption in the economic territory of the euro area. The table includes seasonally adjusted HICP data and experimental HICP-based estimates of administered prices, 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 changes in labour costs per hour worked in industry (including construction) and market services. Their methodology is laid down in Regulation (EC) No 450/2003 of the European Parliament and of the Council of 27 February 2003 concerning the labour cost index<sup>6</sup> and in the implementing Commission Regulation (EC) No 1216/2003 of 7 July 2003<sup>7</sup>. A breakdown of hourly labour costs for the euro area is available by labour cost component (wages and salaries, and employers' social contributions plus

employment-related taxes paid by the employer less subsidies received by the employer) and by economic activity. 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.

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 the 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), except repairs. New passenger car registrations cover 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 Organization (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.

4 OJ L 162, 5.6.1998, p. 1.

5 OJ L 86, 27.3.2001, p. 11.

6 OJ L 69, 13.3.2003, p. 1.

7 OJ L 169, 8.7.2003, p. 37.

## GOVERNMENT FINANCE

Sections 6.1 to 6.5 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 on the basis of 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 Sections 6.4 and 6.5 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>8</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. The deficits/surpluses presented for the individual euro area countries correspond to excessive deficit procedure B.9, as defined by Commission Regulation (EC) No 351/2002 of 25 February 2002 amending Council Regulation (EC) No 3605/93 as regards references to the ESA 95. 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 Regulation (EC) No 1221/2002 of the European Parliament and of the Council of 10 June 2002 on quarterly non-financial accounts for general government<sup>9</sup>. Section 6.5 presents quarterly figures on gross consolidated government debt, the deficit-debt adjustment and

the government borrowing requirement. These figures are compiled using data provided by the Member States under Regulations (EC) No 501/2004 and No 222/2004 and data provided by the NCBs.

## 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 to 7.4) are generally in line with the IMF Balance of Payments Manual (fifth edition, October 1993), the ECB Guideline of 16 July 2004 on the statistical reporting requirements of the ECB (ECB/2004/15)<sup>10</sup> and the amending ECB Guideline of 31 May 2007 (ECB/2007/3)<sup>11</sup>. 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” (May 2007), and in the following Task Force reports: “Portfolio investment collection systems” (June 2002), “Portfolio investment income” (August 2003) and “Foreign direct investment” (March 2004), all of which can be downloaded from the ECB’s website. In addition, the report by the ECB/European Commission (Eurostat) Task Force on Quality of balance of payments and international investment position statistics (June 2004) is available on the website of the Committee on Monetary, Financial and Balance of Payments Statistics ([www.cmfb.org](http://www.cmfb.org)). The annual quality report on the euro area b.o.p./i.i.p., which is based on the Task Force’s recommendations, is available on the ECB’s website.

The tables in Sections 7.1 and 7.4 follow the sign convention in the IMF Balance of Payments Manual, i.e. surpluses in the current account and in the capital account have a plus sign, while in the financial account a plus sign

8 OJ L 172, 12.7.2000, p. 3.

9 OJ L 179, 9.7.2002, p. 1.

10 OJ L 354, 30.11.2004, p. 34.

11 OJ L 159, 20.6.2007, p. 48.

denotes an increase in liabilities or a decrease in assets. In the tables in Section 7.2, both credit and debit transactions are presented with a plus sign. Furthermore, starting with the February 2008 issue of the Monthly Bulletin, the tables in Section 7.3 have been restructured in order to allow the data on balance of payments, the international investment position and related growth rates to be presented together; in the new tables, transactions in assets and liabilities that correspond to increases in positions are shown with a plus sign.

The euro area b.o.p. is compiled by the ECB. 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 7.2, Table 1 also contains seasonally adjusted data for the current account. Where appropriate, the adjustment also covers working-day, leap-year and/or Easter effects. Table 3 in Section 7.2 and Table 8 in Section 7.3 present a breakdown of the euro area b.o.p. and i.i.p. vis-à-vis main partner countries individually or as a group, distinguishing between EU Member States outside the euro area and countries or areas outside the European Union. The breakdown also shows transactions and positions vis-à-vis EU institutions (which, apart from the ECB, are treated statistically as outside the euro area, regardless of their physical location) and, for some purposes, also offshore centres and international organisations. The breakdown does not cover transactions or positions in portfolio investment liabilities, financial derivatives and international reserves. In addition, separate data are not provided for investment income payable to Brazil, mainland China, India and Russia. The geographical breakdown is described in the article entitled “Euro area balance of payments and international investment position vis-à-vis main counterparts” in the February 2005 issue of the Monthly Bulletin.

The data on the euro area b.o.p. financial account and i.i.p. in Section 7.3 are based on transactions and positions vis-à-vis non-residents of the euro area, considering the euro area as a single economic entity (see also Box 9 in the December 2002 issue of the Monthly Bulletin, Box 5 in the January 2007 issue of the Monthly Bulletin and Box 6 in the January 2008 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 for unquoted shares, and other investments (e.g. loans and deposits). The quarterly i.i.p. is compiled on the basis of the same methodological framework as the annual i.i.p. As some data sources are not available on a quarterly basis (or are available with a delay), the quarterly i.i.p. is partly estimated on the basis of financial transactions, asset prices and foreign exchange developments.

Table 1 in Section 7.3 summarises the i.i.p. and financial transactions in the euro area b.o.p. The breakdown of the change in the annual i.i.p. is obtained by applying a statistical model to the i.i.p. changes other than transactions with information from the geographical breakdown and currency composition of assets and liabilities, as well as price indices for different financial assets. In this table, Columns 5 and 6 refer to direct investment by resident units abroad and direct investment by non-resident units in the euro area.

In Table 5 in Section 7.3, the breakdown into “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 to the IMF Balance of Payments Manual.

The outstanding amounts of the Eurosystem’s international reserves and related assets and liabilities are shown in Section 7.3, Table 7. 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 Table 7 are in line with the recommendations for the 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, which was 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.

Section 7.4 contains a monetary presentation of the euro area balance of payments, in which the balance of payments transactions mirror the transactions in the external counterpart to M3. In portfolio investment liabilities (Columns 5 and 6), the transactions include sales and purchases of equity and debt securities issued by MFIs in the euro area, excluding shares of money market funds and debt securities with a maturity of up to two years. A methodological note on the monetary presentation of the euro area balance of payments 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 7.5 shows data on euro area external trade in goods. The source is Eurostat. Unit value indices are shown without any adjustment, while value data and volume indices are seasonally and working-day-adjusted by Eurostat. The breakdown by product group in columns 4 to 6 and 9 to 11 of Table 1 in Section 7.5 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 (Table 2 in Section 7.5) shows main trading partners individually or in regional groups. China excludes Hong Kong. On account of 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 b.o.p. statistics (Sections 7.1 and 7.2). The difference for imports has been around 5% in 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).

## 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-22 group of trading partners is composed of the 12 non-euro area EU Member States plus Australia, Canada, China, Hong Kong, Japan, Norway, Singapore, South Korea, Switzerland and the United States. The EER-42 group includes the EER-22 and the following countries: Algeria, Argentina, Brazil, Chile, Croatia, Iceland, India, Indonesia, Israel, Malaysia, Mexico, Morocco, New Zealand, the Philippines, Russia, South Africa, Taiwan, Thailand, Turkey and Venezuela. 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 8 entitled "The effective exchange rates of the euro following the recent euro area and EU enlargements" in the March 2007 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. The data for the United States and Japan contained in Section 9.2 are obtained from national sources.



## ANNEXES

# CHRONOLOGY OF MONETARY POLICY MEASURES OF THE EUROSYSTEM<sup>1</sup>



### 12 JANUARY AND 2 FEBRUARY 2006

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 2.25%, 3.25% and 1.25% respectively.

### 2 MARCH 2006

The Governing Council of the ECB decides to increase the minimum bid rate on the main refinancing operations by 25 basis points to 2.50%, starting from the operation to be settled on 8 March 2006. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 3.50% and 1.50% respectively, both with effect from 8 March 2006.

### 6 APRIL AND 4 MAY 2006

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 JUNE 2006

The Governing Council of the ECB decides to increase the minimum bid rate on the main refinancing operations by 25 basis points to 2.75%, starting from the operation to be settled on 15 June 2006. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 3.75% and 1.75% respectively, both with effect from 15 June 2006.

### 6 JULY 2006

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.

### 3 AUGUST 2006

The Governing Council of the ECB decides to increase the minimum bid rate on the main refinancing operations by 25 basis points to 3.0%, starting from the operation to be settled on 9 August 2006. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 4.0% and 2.0%, both with effect from 9 August 2006.

### 31 AUGUST 2006

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 3.0%, 4.0% and 2.0% respectively.

### 5 OCTOBER 2006

The Governing Council of the ECB decides to increase the minimum bid rate on the main refinancing operations by 25 basis points to 3.25%, starting from the operation to be settled on 11 October 2006. In addition, it decides to increase the interest rates on both the marginal

<sup>1</sup> The chronology of monetary policy measures taken by the Eurosystem between 1999 and 2005 can be found in the ECB's Annual Report for the respective years.



lending facility and the deposit facility by 25 basis points, to 4.25% and 2.25%, both with effect from 11 October 2006.

#### **2 NOVEMBER 2006**

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.

#### **7 DECEMBER 2006**

The Governing Council of the ECB decides to increase the minimum bid rate on the main refinancing operations by 25 basis points to 3.50%, starting from the operation to be settled on 13 December 2006. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 4.50% and 2.50%, both with effect from 13 December 2006.

#### **21 DECEMBER 2006**

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 2007 from €40 billion to €50 billion. This increased amount takes the following aspects into consideration: the liquidity needs of the euro area banking system have grown strongly in recent years and are expected to increase further in the year 2007. Therefore the Eurosystem has decided to increase slightly the share of the liquidity needs satisfied by the longer-term refinancing operations. 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 2008.

#### **11 JANUARY AND 8 FEBRUARY 2007**

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 3.50%, 4.50% and 2.50% respectively.

#### **8 MARCH 2007**

The Governing Council of the ECB decides to increase the minimum bid rate on the main refinancing operations by 25 basis points to 3.75%, starting from the operation to be settled on 14 March 2007. In addition, it decides to increase the interest rates on both the marginal lending facility and the deposit facility by 25 basis points, to 4.75% and 2.75%, both with effect from 14 March 2007.

#### **12 APRIL AND 10 MAY 2007**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 3.75%, 4.75% and 2.75% respectively.

#### **6 JUNE 2007**

The Governing Council of the ECB decides to increase the minimum bid rate on the main refinancing operations by 25 basis points to 4%, starting from the operation to be settled on 13 June 2007. In addition, it decides to increase by 25 basis points the interest rates on both the marginal lending facility and the deposit facility, to 5% and 3% respectively, with effect from 13 June 2007.

**5 JULY, 2 AUGUST, 6 SEPTEMBER, 4 OCTOBER,  
8 NOVEMBER AND 6 DECEMBER 2007 AND  
10 JANUARY AND 7 FEBRUARY 2008**

The Governing Council of the ECB decides that the minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility will remain unchanged at 4.00%, 5.00% and 3.00% respectively.





## DOCUMENTS PUBLISHED BY THE EUROPEAN CENTRAL BANK SINCE 2007

This list is designed to inform readers about selected documents published by the European Central Bank since January 2007. For Working Papers, the list only refers to publications released between November 2007 and January 2008. Unless otherwise indicated, hard copies can be obtained or subscribed to free of charge, stock permitting, by contacting [info@ecb.europa.eu](mailto:info@ecb.europa.eu).

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### ANNUAL REPORT

“Annual Report 2006”, April 2007.

### CONVERGENCE REPORT

“Convergence Report May 2007”.

### MONTHLY BULLETIN ARTICLES

- “The enlarged EU and euro area economies”, January 2007.
- “Developments in the structural features of the euro area labour markets over the last decade”, January 2007.
- “Putting China's economic expansion in perspective”, January 2007.
- “Challenges to fiscal sustainability in the euro area”, February 2007.
- “The EU arrangements for financial crisis management”, February 2007.
- “Migrant remittances to regions neighbouring the EU”, February 2007.
- “Communicating monetary policy to financial markets”, April 2007.
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- “From government deficit to debt: bridging the gap”, April 2007.
- “Measured inflation and inflation perceptions in the euro area”, May 2007.
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- “Adjustment of global imbalances in a financially integrating world”, August 2007.
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- “Circulation and supply of euro banknotes and preparations for the second series of banknotes”, October 2007.
- “The stock market's changing structure and its consolidation: implications for the efficiency of the financial system and monetary policy”, November 2007.
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- “Productivity developments and monetary policy”, January 2008.

- “Globalisation, trade and the euro area macroeconomy”, January 2008.
- “The Eurosystem’s experience with forecasting autonomous factors and excess reserves”, January 2008.
- “The analysis of the euro money market from a monetary policy perspective”, February 2008.
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#### **STATISTICS POCKET BOOK**

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## GLOSSARY

This glossary contains selected items that are frequently used in the Monthly Bulletin. A more comprehensive and detailed glossary can be found on the ECB's website ([www.ecb.europa.eu/home/glossary/html/index.en.html](http://www.ecb.europa.eu/home/glossary/html/index.en.html)).

**Autonomous liquidity factors:** liquidity factors that do not normally stem from the use of monetary policy instruments. Such factors are, for example, banknotes in circulation, government deposits with the central bank and the net foreign assets of the central bank.

**Balance of payments (b.o.p.):** a statistical statement that summarises, for a specific period of time, the economic transactions of an economy with the rest of the world.

**Bank lending survey (BLS):** a quarterly survey on lending policies that has been conducted by the Eurosystem since January 2003. It addresses qualitative questions on developments in credit standards, terms and conditions of loans and loan demand for both enterprises and households to a predefined sample group of banks in the euro area.

**Borrowing requirement (general government):** net incurrence of debt by general government.

**Capital account:** a b.o.p. account that covers all capital transfers and acquisitions/disposals of non-produced, non-financial assets between residents and non-residents.

**Central parity (or central rate):** the exchange rate of each ERM II member currency vis-à-vis the euro, around which the ERM II fluctuation margins are defined.

**Compensation per employee:** the total remuneration, in cash or in kind, that is payable by employers to employees, i.e. gross wages and salaries, as well as bonuses, overtime payments and employers' social security contributions, divided by the total number of employees.

**Consolidated balance sheet of the MFI sector:** a balance sheet obtained by netting out inter-MFI positions (e.g. inter-MFI loans and deposits) in the aggregated MFI balance sheet. It provides statistical information on the MFI sector's assets and liabilities vis-à-vis residents of the euro area not belonging to this sector (i.e. general government and other euro area residents) and vis-à-vis non-euro area residents. It is the main statistical source for the calculation of monetary aggregates, and it provides the basis for the regular analysis of the counterparts of M3.

**Current account:** a b.o.p. account that covers all transactions in goods and services, income and current transfers between residents and non-residents.

**Debt (financial accounts):** loans, deposit liabilities, debt securities issued and pension fund reserves of non-financial corporations (resulting from employers' direct pension commitments on behalf of their employees), valued at market value at the end of the period. However, due to data limitations, the debt given in the quarterly financial accounts does not include loans granted by non-financial sectors (e.g. inter-company loans) or by banks outside the euro area, whereas these components are included in the annual financial accounts.

**Debt (general government):** the gross debt (deposits, loans and debt securities excluding financial derivatives) at nominal value outstanding at the end of the year and consolidated between and within the sectors of general government.

**Debt security:** a promise on the part of the issuer (i.e. the borrower) to make one or more payment(s) to the holder (the lender) on a specified future date or dates. Such securities 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.

**Debt-to-GDP ratio (general government):** the ratio of general government debt to GDP at current market prices. It is the subject of one of the fiscal criteria laid down in Article 104(2) of the Treaty establishing the European Community to define the existence of an excessive deficit.

**Deficit (general government):** the general government's net borrowing, i.e. the difference between total government revenue and total government expenditure.

**Deficit-debt adjustment (general government):** the difference between the general government deficit and the change in general government debt.

**Deficit ratio (general government):** the ratio of the general government deficit to GDP at current market prices. It is the subject of one of the fiscal criteria laid down in Article 104(2) of the Treaty establishing the European Community to define the existence of an excessive deficit. It is also referred to as the budget deficit ratio or the fiscal deficit ratio.

**Deflation:** a decline in the general price level, e.g. in the consumer price index.

**Deposit facility:** a standing facility of the Eurosystem which counterparties may use to make overnight deposits, remunerated at a pre-specified interest rate, at an NCB.

**Direct investment:** cross-border investment for the purpose of obtaining a lasting interest in an enterprise resident in another economy (assumed, in practice, for ownership of at least 10% of the ordinary shares or voting power). Included are equity capital, reinvested earnings and other capital associated with inter-company operations. The direct investment account records net transactions/positions in assets abroad by euro area residents (as "direct investment abroad") and net transactions/positions in euro area assets by non-residents (as "direct investment in the euro area").

**Effective exchange rates (EERs) of the euro (nominal/real):** weighted averages of bilateral euro exchange rates against the currencies of the euro area's main trading partners. The ECB publishes nominal EER indices for the euro against two groups of trading partners: the EER-22 (comprising the 12 non-euro area EU Member States and the 10 main trading partners outside the EU) and the EER-42 (composed of the EER-22 and 20 additional countries). The weights used reflect the share of each partner country in euro area trade and account for competition in third markets. 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.

**EONIA (euro overnight index average):** a measure of the effective interest rate prevailing in the euro interbank overnight market. It is calculated as a weighted average of the interest

rates on unsecured overnight lending transactions denominated in euro, as reported by a panel of contributing banks.

**Equities:** securities representing ownership of a stake in a corporation. They 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 that 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 area:** the area formed by those EU Member States in which the euro has been adopted as the single currency in accordance with the Treaty establishing the European Community.

**European Commission surveys:** harmonised surveys of business and/or consumer sentiment conducted on behalf of the European Commission in each of the EU Member States. Such questionnaire-based surveys are addressed to managers in the manufacturing, construction, retail and services industries, as well as to consumers. From each monthly survey, composite indicators are calculated that summarise the replies to a number of different questions in a single indicator (confidence indicators).

**Eurosystem:** the central banking system made up of the ECB and the NCBs of those EU Member States that have already adopted the euro.

**Eurozone Purchasing Managers' Surveys:** surveys of business conditions in manufacturing and in services industries 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 services sector survey asks questions on business activity, expectations of future business activity, the amount of business outstanding, incoming new business, employment, input prices and prices charged. The Eurozone Composite Index is calculated by combining the results from the manufacturing and services sector surveys.

**External trade in goods:** exports and imports of goods with countries outside the euro area, measured in terms of value and as indices of volume and unit value. External trade statistics are not comparable with the exports and imports recorded in the national accounts, as the latter include both intra-euro area and extra-euro area transactions, and also combine goods and services. Nor are they fully comparable with the goods item in b.o.p. statistics. Besides methodological adjustments, the main difference is that imports in external trade statistics are recorded including insurance and freight services, whereas they are recorded free on board in the goods item in the b.o.p. statistics.

**Financial account:** a b.o.p. account that covers all transactions in direct investment, portfolio investment, other investment, financial derivatives and reserve assets, between residents and non-residents.

**Fixed rate tender:** a tender procedure in which the interest rate is specified in advance by the central bank and in which participating counterparties bid the amount of money they wish to transact at the fixed interest rate.

**General government:** a sector defined in the ESA 95 as comprising resident entities that are engaged primarily in the production of non-market goods and services intended for individual and collective consumption and/or in the redistribution of national income and wealth. Included are central, regional and local government authorities as well as social security funds. Excluded are government-owned entities that conduct commercial operations, such as public enterprises.

**Gross domestic product (GDP):** the value of an economy's total 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 that make up GDP are household final consumption, government final consumption, gross fixed capital formation, changes in inventories, and imports and exports of goods and services (including intra-euro area trade).

**Harmonised Index of Consumer Prices (HICP):** a measure of consumer prices that is compiled by Eurostat and harmonised for all EU Member States.

**Hourly labour cost index:** a measure of labour costs, including gross wages and salaries (in cash and in kind, including bonuses) and other labour costs (employers' social contributions plus employment-related taxes paid by the employer minus subsidies received by the employer), per hour actually worked (including overtime).

**Implied volatility:** the expected volatility (i.e. standard deviation) in the rates of change of the price of an asset (e.g. a share or a bond). It can be derived from the asset's price, maturity date and exercise price of its options, as well as from a riskless rate of return, using an option pricing model such as the Black-Scholes model.

**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:** 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:** the gross value added created by industry at constant prices.

**Inflation:** an increase in the general price level, e.g. in the consumer price index.

**Inflation-indexed government bonds:** debt securities issued by the general government, the coupon payments and principal of which 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.

**International reserves:** external assets readily available to and controlled by monetary authorities for directly financing or regulating the magnitude of payments imbalances through intervention in exchange markets. The international reserves of the euro area comprise non-euro denominated claims on non-euro area residents, gold, special drawing rights (SDRs) and the reserve positions in the IMF which are held by the Eurosystem.

**Job vacancies:** a collective term covering 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 total of persons in employment and the number of unemployed.

**Labour productivity:** the output that can be produced with a given input of labour. It can be measured in several ways, but is commonly measured as GDP at constant prices divided by either total employment or total hours worked.

**Longer-term refinancing operation:** a regular open market operation executed by the Eurosystem in the form of reverse transactions. Such operations are carried out through a monthly standard tender and normally have a maturity of three months.

**M1:** a narrow monetary aggregate that comprises currency in circulation plus overnight deposits held with MFIs and central government (e.g. at the post office or treasury).

**M2:** an intermediate monetary aggregate that comprises M1 plus 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:** a broad monetary aggregate that comprises M2 plus marketable instruments, in particular repurchase agreements, money market fund shares and units, and debt securities with a maturity of up to and including two years issued by MFIs.

**Main refinancing operation:** a regular open market operation executed by the Eurosystem in the form of reverse transactions. Such operations are carried out through a weekly standard tender and normally have a maturity of one week.

**Marginal lending facility:** a standing facility of the Eurosystem which counterparties may use to receive overnight credit from an NCB at a pre-specified interest rate against eligible assets.

**MFI credit to euro area residents:** MFI loans granted to non-MFI euro area residents (including general government and the private sector) and MFI holdings of securities (shares, other equity and debt securities) issued by non-MFI euro area residents.

**MFI interest rates:** the interest rates that are applied by resident credit institutions and other MFIs, excluding central banks and money market funds, to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in the euro area.

**MFI longer-term financial liabilities:** deposits with an agreed maturity of over two years, deposits redeemable at a period of notice of over three months, debt securities issued by euro area MFIs with an original maturity of more than two years and the capital and reserves of the euro area MFI sector.

**MFI net external assets:** the external assets of the euro area MFI sector (such as gold, foreign currency banknotes and coins, securities issued by non-euro area residents and loans granted to non-euro area residents) minus the external liabilities of the euro area MFI sector (such as non-euro area residents' deposits and repurchase agreements, as well as their holdings of money market fund shares/units and debt securities issued by MFIs with a maturity of up to and including two years).

**MFIs (monetary financial institutions):** financial institutions which together form the money-issuing sector of the euro area. These include the Eurosystem, resident credit institutions (as defined in Community law) and all other resident financial institutions whose business 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 credit and/or invest in securities. The latter group consists predominantly of money market funds.

**Minimum bid rate:** the lower limit to the interest rates at which counterparties may submit bids in the variable tenders.

**Other investment:** an item in the b.o.p. and the i.i.p. that covers the financial transactions/positions with non-residents in trade credits, deposits and loans, and other accounts receivable and payable.

**Portfolio investment:** euro area residents' net transactions and/or positions in securities issued by non-residents of the euro area ("assets") and non-residents' net transactions and/or positions in securities issued by euro area residents ("liabilities"). Included are equity securities and debt securities (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 ordinary shares or voting power.

**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 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.

**Purchasing power parity (PPP):** the rate at which one currency is converted into another so as to equalise the purchasing power of the two currencies by eliminating the differences in the price levels prevailing in the countries concerned. In their simplest form, PPPs show the ratio of the prices in national currency of the same good or service in different countries.

**Reference value for M3 growth:** the annual growth rate of M3 over the medium term that is 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.

**Survey of Professional Forecasters (SPF):** a quarterly survey that has been conducted by the ECB since 1999 to collect macroeconomic forecasts on euro area inflation, real GDP growth and unemployment from a panel of experts affiliated to financial and non-financial organisations based in the EU.

**Unit labour costs:** a measure of total labour costs per unit of output calculated for the euro area as the ratio of total compensation per employee to labour productivity (defined as GDP at constant prices per person employed).

**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.

**Write-down:** a downward adjustment to the value of loans recorded in the balance sheets of MFIs when it is recognised that the loans have become partly unrecoverable.

**Write-off:** the removal of the value of loans from the balance sheets of MFIs when the loans are considered to be totally unrecoverable.

**Yield curve:** a graphical representation of the relationship between the interest rate or yield and the residual maturity at a given point in time for debt securities with the same credit risk but different maturity dates. The slope of the yield curve can be measured as the difference between the interest rates or yield at two selected maturities.





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