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## MONTHLY BULLETIN AUGUST 2008

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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. 4	Standard International Trade Classification (revision 4)
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

On the basis of its regular economic and monetary analyses, the Governing Council of the ECB decided at its meeting on 7 August 2008 to leave the key ECB interest rates unchanged. The information that has become available since the previous meeting of the Governing Council has further underpinned the reasoning behind its decision to increase interest rates in July. It has confirmed that annual inflation rates are likely to remain well above levels consistent with price stability for a protracted period of time and that risks to price stability over the medium term remain on the upside. This assessment is underpinned by continued vigorous money growth, with so far no signs of significant constraints on bank loan supply. In such a context, it remains crucial to avoid broadly based second-round effects in wage and price-setting. The latest economic data point to a weakening of real GDP growth in mid-2008, which in part was expected after the exceptionally strong growth in the first quarter. Against this background and in full accordance with its mandate, the Governing Council emphasises that maintaining price stability in the medium term is the ECB's primary objective and that it is its strong determination to keep medium and long-term inflation expectations firmly anchored in line with price stability. This will preserve purchasing power in the medium term and support sustainable growth and employment. On the basis of the Governing Council's assessment, the current monetary policy stance will contribute to achieving the ECB's objective. The Governing Council will continue to monitor very closely all developments over the period ahead.

The information on economic activity that has become available since 3 July 2008 suggests that real GDP growth figures for mid-2008 will be substantially weaker than for the first quarter of the year. As indicated on previous occasions, this represents partly a technical reaction to the strong growth seen in the first months of the year. In addition, it also partly reflects a weakening in GDP growth due to factors such as slower expansion at the global level and dampening effects from high and volatile oil and

food prices. In order to assess the underlying momentum of euro area economic activity and to avoid being misguided by highly volatile quarterly outturns, it is necessary to look through the volatility in quarter-on-quarter growth rates and monthly indicators.

Taking this perspective, growth in the world economy, while moderating, is expected to remain relatively resilient, benefiting in particular from sustained growth in emerging economies. This should support external demand for euro area goods and services. As regards domestic developments, in a medium-term perspective the fundamentals are sound and the euro area does not suffer from major imbalances. Investment growth has provided ongoing, though moderating, support to economic activity. Moreover, employment and labour force participation have increased significantly, and unemployment rates remain low in historical terms. However, these developments, which support household disposable income and consumption, are unlikely to fully compensate the loss of purchasing power caused by higher energy and food prices.

In the view of the Governing Council, the uncertainty surrounding this outlook for economic activity remains high, owing to, among other things, the very high and volatile levels of commodity prices and the ongoing tensions in financial markets. Overall, downside risks prevail. In particular, risks stem from the dampening impact on consumption and investment of further unanticipated increases in energy and food prices. Moreover, downside risks continue to relate to the potential for the financial market tensions to affect the real economy more adversely than currently anticipated. The possibility of disorderly developments owing to global imbalances also implies downside risks to the outlook for economic activity, as do concerns about the emergence of protectionist pressures. In this respect, the failure of the recent negotiations in the context of the World Trade Organization's Doha round on trade liberalisation is a major setback.

With regard to price developments, annual HICP inflation has remained considerably above the level consistent with price stability since last autumn, reaching 4.0% in June 2008 and, according to Eurostat's flash estimate, 4.1% in July. This worrying level of inflation rates results largely from both direct and indirect effects of past sharp increases in energy and food prices at the global level. At the same time, while labour productivity growth has decelerated, there are some indications that labour cost growth has been rising in recent quarters. Looking ahead, on the basis of current futures prices for commodities, the annual HICP inflation rate is likely to remain well above a level consistent with price stability for quite some time, moderating only gradually in 2009.

Risks to price stability at the policy-relevant medium-term horizon remain clearly on the upside and have increased over the past few months. These risks include notably the possibility of further increases in energy and food prices and of increasing indirect effects on consumer prices. There is a very strong concern that price and wage-setting behaviour could add to inflationary pressures via broadly based second-round effects. The Governing Council is monitoring price-setting behaviour and wage negotiations in the euro area with particular attention. Furthermore, there are potential upside risks from unanticipated rises in indirect taxes and administered prices.

Against this background, it is imperative to ensure that medium to longer-term inflation expectations remain firmly anchored at levels in line with price stability. The shift in relative prices and the related transfer of income from commodity-importing countries to commodity-exporting countries require a change in the behaviour of companies and households. Therefore, broadly based second-round effects stemming from the impact of higher energy and food prices on price and wage-setting behaviour must be avoided. All parties concerned, in both the private and the public sector, must meet their responsibilities in this regard. In this context, the Governing Council has repeatedly expressed

its concern about the existence of schemes in which nominal wages are indexed to consumer prices. Such schemes involve the risk of upward shocks in inflation leading to a wage-price spiral, which would be detrimental to employment and competitiveness in the countries concerned. The Governing Council therefore calls for such schemes to be avoided.

The monetary analysis confirms the prevailing upside risks to price stability at medium to longer-term horizons. In line with the ECB's monetary policy strategy, the Governing Council takes the view that the sustained underlying strength of monetary and credit expansion in the euro area over the past few years has created upside risks to price stability. Over recent quarters, these risks appear to have become manifest as inflation has trended upwards. Not least in the face of the ongoing tensions in financial markets, the monetary analysis helps to support the necessary medium-term orientation of monetary policy by focusing attention on the upside risks to price stability prevailing at medium to longer horizons. While the growth of broad money and credit aggregates is now showing some signs of moderation, also reflecting the policy measures taken since 2005 to address upside risks to price stability, the strong underlying pace of monetary expansion points to continued risks to price stability over the medium term. The current yield curve has led to very rapid increases in time deposits and to a substantial decline in annual M1 growth. Such effects and other temporary factors must be taken into account in assessing monetary developments. Overall, a broad-based analysis of the data, taking the appropriate medium-term perspective, confirms the underlying strength of money growth.

One of the main factors leading to this conclusion is the still high growth of MFI loans to the private sector, which is underpinning the robust nature of monetary growth. The pace, maturity and sectoral composition of bank borrowing suggest that, at the level of the euro area as a whole, the availability of bank credit has, as yet, not been significantly affected by the

ongoing financial tensions. Higher short-term interest rates and housing market weakness in several parts of the euro area have dampened the growth of household borrowing over the past few years. By contrast, and notwithstanding tighter financing conditions and moderating economic growth, the expansion of bank credit to non-financial corporations thus far remains very robust.

To sum up, a cross-check of the outcome of the economic analysis with that of the monetary analysis clearly confirms the assessment of increasing upside risks to price stability over the medium term. Annual inflation rates are likely to remain well above levels consistent with price stability, and monetary aggregates continue to grow vigorously, with so far no signs of significant constraints on bank loan supply. The latest economic data point to a weakening of real GDP growth in mid-2008, which in part was expected after the exceptionally strong growth in the first quarter. Against this background, it remains crucial to avoid broadly based second-round effects in wage and price-setting. In full accordance with its mandate, the Governing Council emphasises that maintaining price stability in the medium term is its primary objective and that it is its strong determination to keep medium and long-term inflation expectations firmly anchored in line with price stability, thereby preserving purchasing power in the medium term and supporting sustainable growth and employment in the euro area. On the basis of the Governing Council's assessment, the current monetary policy stance will contribute to achieving the ECB's objective. The Governing Council will continue to monitor very closely all developments over the period ahead.

Regarding fiscal policy, there are risks that some countries will not achieve their fiscal targets this year. In this situation a rigorous implementation of budget plans and the avoidance of expenditure slippage are of crucial importance. Budget plans for 2009, which are currently being finalised in a number of countries, need to reflect European commitments. In particular,

countries with still large deficits must provide ambitious and concrete deficit reduction plans, backed by clearly specified measures, preferably on the expenditure side. Where budgetary scope is available, automatic stabilisers can contribute to the smoothing of cyclical economic fluctuations.

As regards structural policies, measures which reduce adjustment costs and promote moderate unit labour cost growth are of the utmost importance, particularly in the current climate of high inflation and slowing real GDP growth. These include the removal of impediments to competition in the services sector in general, and at the various stages of the food supply chain in the retail and distribution sectors, as well as in the energy sector, more specifically. Equally, making labour markets more flexible and enhancing investment in education and training would foster productivity, thereby increasing the scope for increases in real incomes.

This issue of the Monthly Bulletin contains two articles. The first article reviews the external dimension of the ECB's monetary analysis. In particular, it considers cross-border portfolio flows and their effects on international portfolio allocation in order to assess the underlying monetary trends signalling medium to long-term inflationary risks. The second article focuses on the role of banks in the monetary policy transmission mechanism. It also assesses the monetary policy implications of recent changes in the financial landscape and in banking in particular.





# ECONOMIC AND MONETARY DEVELOPMENTS

## I THE EXTERNAL ENVIRONMENT OF THE EURO AREA

Global economic activity, albeit dampened by the economic weakness in the United States, by the global repercussions of the ongoing financial market tensions and by the elevated levels of energy and food prices, is expected to remain resilient. The slowdown in global growth concerns mainly developed economies, while economic growth remains sustained in emerging markets. In June headline consumer price inflation in OECD countries rose to its highest level since March 2000 due to sharp rises in oil and non-energy commodity prices. On balance, the risks to the outlook for global growth continue to lie on the downside.

### I.1 DEVELOPMENTS IN THE WORLD ECONOMY

Global economic activity, albeit dampened by the economic weakness in the United States, by the global repercussions of the ongoing financial market tensions and by the elevated levels of energy and food prices, is expected to remain resilient. The slowdown in global growth concerns mainly developed economies, while economic growth remains sustained in emerging markets. In July, for the second consecutive month, the global all-industry output PMI stood at 49, i.e. below the 50-point threshold between economic expansion and contraction, thus pointing to a decline in activity in both the manufacturing and services sectors.

Headline consumer price inflation in OECD countries rose in June to its highest level since March 2000 due to sharp rises in oil and non-energy commodity prices. In the year to June consumer prices in OECD countries rose by 4.4% compared with 3.9% in the month before (see Chart 1). Over the same period, consumer price inflation excluding food and energy went up to 2.2% compared with 2.1% in May. Survey evidence on global input prices suggests that cost inflation remains at an elevated level, which implies that there will be continued upward pressure on prices in the near term.

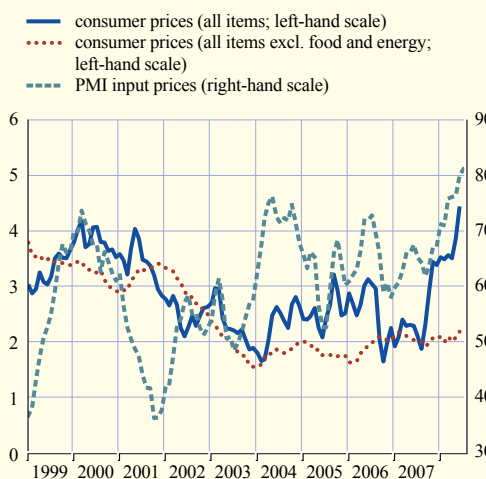
#### UNITED STATES

In the United States, economic activity recovered somewhat in the second quarter of 2008, but growth remained below its long-term average. According to advance estimates, real GDP increased at a quarterly annualised rate of 1.9% compared with 0.9% in the first quarter of 2008 (see Chart 2). This reflected a strong positive contribution from net exports and some acceleration in personal consumption expenditure, as households' disposable income improved on the back of recent fiscal stimulus measures. Residential investment continued to contract, although the quarterly pace of decline was slower than in previous periods. Data revisions revealed that GDP growth over the last three years was somewhat lower than previously estimated, while the economy contracted slightly in the last quarter of 2007.

Annual CPI inflation increased to 5.0% in June from 4.2% in the previous month, reaching its highest level in 17 years. This increase was due to the recent pick-up in energy costs, which now account for about half of the annual rate of inflation. Annual core inflation (as measured by the

Chart 1 Price developments in OECD countries

(monthly data; annual percentage changes; diffusion index)



Sources: OECD and Markit.

CPI excluding food and energy) remained broadly stable at 2.4% in June, which is the same as the average growth rate during the first half of 2008.

On 5 August the US Federal Open Market Committee decided to keep the target for the federal funds rate unchanged at 2.0%. In addition, the Federal Reserve System has recently announced further steps to enhance the effectiveness of its liquidity-providing operations, citing continued fragile circumstances in the financial markets as the reason.

#### JAPAN

In Japan, signs of a decline in economic activity were confirmed by recent data. Industrial production growth declined by 2% month on month in June, contributing to the negative industrial production growth recorded in the second quarter of 2008 (-0.7% quarter on quarter). Data also pointed to some weakness in consumption for the whole quarter.

According to the June Tankan survey, business conditions have been deteriorating. The headline diffusion index was down for large and small corporations in both the manufacturing and non-manufacturing sectors. The business conditions index slumped in all categories, although large manufacturers were the most affected.

CPI inflation in Japan has increased since the beginning of the year, mainly as a result of rising commodity prices. Annual CPI inflation went up to 2% in June from 1.3% in May, reaching the upper limit of the Bank of Japan's definition of price stability. This rise in inflation was driven in particular by increases in food prices and in oil prices. Prices excluding food and energy rose by 0.1% in annual terms.

At its meeting on 15 July 2008, the Bank of Japan decided to leave its target for the uncollateralised overnight call rate unchanged at 0.50%.

#### UNITED KINGDOM

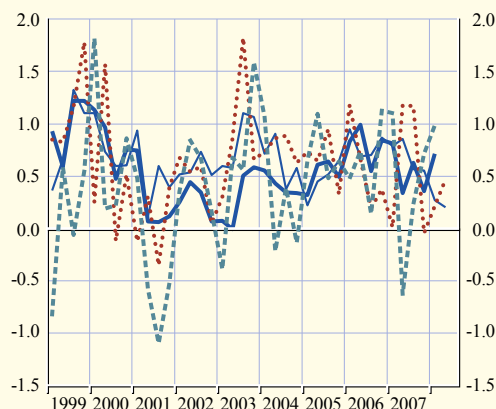
In the United Kingdom, the preliminary estimate of output growth (0.2% quarter on quarter) in the second quarter of 2008 confirmed the ongoing slowdown. The weakening growth in retail sales in the same quarter (0.6% after 1.7% in the first quarter) points to a moderation in private consumption,

**Chart 2 Main developments in major industrialised economies**

— euro area      - - - Japan  
 ..... United States      — United Kingdom

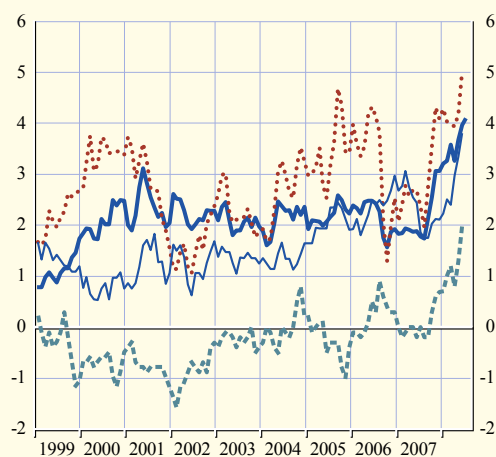
#### Output growth<sup>1)</sup>

(quarter-on-quarter percentage changes; quarterly data)



#### Inflation rates<sup>2)</sup>

(consumer prices; annual percentage changes; monthly data)



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.

thus reducing the gap between official statistics and survey indicators. Construction output declined and house prices continued to fall in the second quarter. In June the Halifax House Price Index was 8.7% lower than a year ago. Given the low and falling confidence indicators, especially for retail sales and construction, output growth is expected to remain subdued in the coming quarters. Food and energy price shocks continued to push up consumer and producer prices. In June annual HICP inflation rose to 3.8% and producer prices increased by 10.0% year on year.

On 7 August 2008 the Bank of England's Monetary Policy Committee decided to keep its main policy rate unchanged at 5.00% for the fourth consecutive time.

### OTHER EUROPEAN COUNTRIES

In most of the other large EU countries outside the euro area, GDP growth moderated in the first quarter of 2008 and inflation either remained elevated or increased further in June.

In the first quarter of 2008 quarterly real GDP growth slowed significantly in Denmark (-0.6%). In Sweden, quarterly GDP growth stood at 0.0% in the second quarter of 2008. In the three months to May, retail sales in both countries were almost unchanged compared with the previous three months. Moreover, in July, consumer and retail confidence indicators declined further in both countries. In June annual HICP inflation reached new highs of 4.2% in Denmark and 4.1% in Sweden. In both countries, rising food and energy prices continued to be the main factors behind the increase in HICP.

In the Czech Republic and Poland, there were some signs of weakening economic activity in the first quarter of 2008, with quarterly GDP growth declining to 0.9% and 1.4% respectively. By contrast, Romania enjoyed very robust GDP growth of 8.2% year on year. In Hungary, quarterly GDP growth remained sluggish at 0.3%. For these countries, there are some signs of a deterioration in confidence indicators for retail sales and consumers in the months up to July, with the exception of Hungary, where these indicators actually improved. Inflation rates remained at elevated levels in all four countries. In June HICP inflation increased to 8.7% in Romania, mainly on account of higher energy prices. In Poland, HICP inflation remained at 4.3% for the third consecutive month, as the effects of rising energy prices were offset by slight decreases in goods prices. In the Czech Republic and Hungary, headline inflation (at 6.6% in both countries) moderated, as some of the effects of the price increases in the middle of last year faded.

On 31 July 2008 Banca Națională a României raised the monetary policy rate by 25 basis points to 10.25%. On 7 August Česká národní banka decided to lower its main policy rate by 25 basis points to 3.5%.

### EMERGING ASIA

In emerging Asia, available data continue to point to a robust expansion in economic activity. In most countries, weakening global demand has so far had only a limited negative impact on export growth, with the lower contribution from net exports being largely offset by strong domestic demand. At the same time, inflationary pressures have remained strong, driven largely by high food and commodity prices, and real interest rates have turned negative in most countries in the region.

In China, year-on-year real GDP growth declined slightly in the second quarter to 10.1%, down from 10.6% in the first quarter. This slowdown was driven by external demand and, to a lesser extent, by investment, while private consumption remained strong. The upsurge in import values, driven by rising commodity prices, and the deceleration in exports resulted in a trade surplus of USD 99 billion in the first half of 2008, which is 12% below the level recorded in the same



period last year. CPI inflation eased further to 7.1% in June, due mainly to a decline in meat prices. Producer prices, however, continued to increase at a faster pace than consumer prices, indicating strong price pressures in the production chain, which are being driven mainly by rising raw material prices.

### LATIN AMERICA

In Latin America, the pace of economic activity has been decelerating, but inflationary pressures are still strong. In Brazil, industrial production grew by only 2.4% year on year in May. In June consumer price inflation reached 6% on an annual basis. In response to rising inflation and inflation expectations, the Banco Central do Brasil raised its main policy rate by 75 basis points to 13% on 23 July. In Argentina, energy constraints and the farmers' strike have been hampering economic activity. As a result, industrial production expanded by only 1.6% on an annual basis. Consumer price inflation remained high at an annual rate of 9.3% in June. Finally, activity was also weak in Mexico, with industrial production growth falling by 0.5% on an annual basis in June. Inflationary pressures nevertheless persisted and headline inflation reached 5.3% in the same month, leading the Banco de México to raise the overnight rate by 25 basis points to 8% on 18 July.

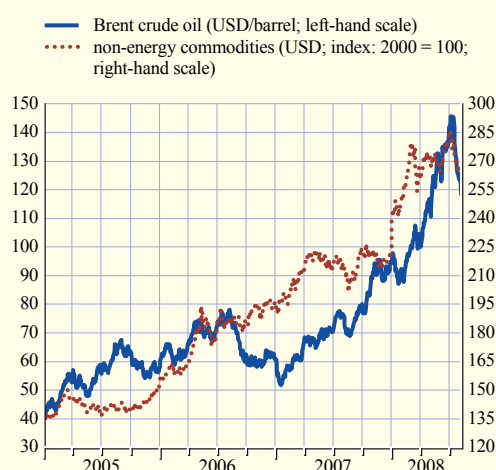
### 1.2 COMMODITY MARKETS

During the first two weeks of July, oil prices continued to surge, peaking at USD 145.7 on 4 July. Subsequently, they declined and stood at USD 118.0 on 6 August (see Chart 3), which is still 25% higher than at the beginning of the year (in euro terms the increase is around 19%). This correction was triggered by better-than-expected figures for US inventories, which nevertheless remain at very low levels. Market participants expect medium-term prices of around USD 120 for December 2009.

A look at the economic fundamentals, however, suggests that the situation is still tight and that risks of future price increases remain high, especially given the recent sensitivity to news concerning the supply-demand balance and the geopolitical environment. On the demand side, the slowdown in OECD imports is still being offset by the robust growth in demand from developing economies. Higher prices are increasingly turning energy subsidy policies in a number of emerging countries into a burden that cannot be sustained in the long run. Some countries, including China and India, have already reduced their subsidies. However, at the moment, it is difficult to assess the impact of these measures on demand due to the poor timeliness of data.

On the supply side, the IEA Medium-Term Oil Market Report paints a slightly more optimistic picture for OPEC supply. New fields should go on stream in 2009, which should boost spare capacity and therefore reduce price pressures, at least in 2009 and 2010. However, the prospects for non-OPEC supply are gloomier, especially given the increasing development costs and investment restrictions enforced in some countries.

Chart 3 Main developments in commodity markets



Sources: Bloomberg and HWWI.

Having reached record highs, the prices of non-energy commodities have also decreased in recent weeks. With regard to metal markets, prices have mainly moved sideways, with the exception of the price of lead, which rose sharply. The price of aluminium reached a record level amid supply disruptions due to power shortages in China, but then plummeted. Looking at food commodities, maize prices fell from the levels recorded at the end of June amid improved weather conditions in the US Midwest, pointing to good crop prospects. This spilled over to other cereals too, in particular soybeans and wheat. In aggregate terms, the price index for non-energy commodities (denominated in US dollars) was approximately 23% higher year on year at the end of July.

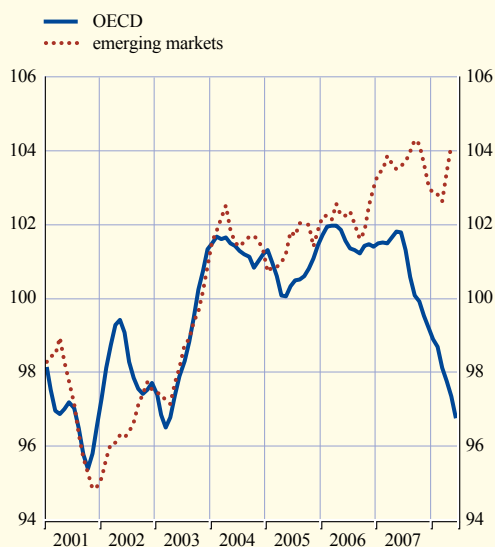
### 1.3 OUTLOOK FOR THE EXTERNAL ENVIRONMENT

In the light of the global economic slowdown, the outlook for external demand for euro area goods and services is weaker. The OECD composite leading indicator (CLI) available up to May suggests that the prospects for economic activity in OECD countries have weakened further (see Chart 4). For economic activity in major OECD non-member economies, the CLI remains favourable overall.

The uncertainty surrounding this outlook for global economic growth remains high, owing not least to the very high levels of commodity prices, and downside risks prevail. In particular, risks stem from further unanticipated increases in energy and food prices. Moreover, downside risks continue to relate to the potential for the ongoing financial market tensions to affect the real economy more adversely than anticipated. Concerns about the emergence of protectionist pressures, in particular after the failure of the recent negotiations in the context of the World Trade Organization's Doha round on trade liberalisation, and the possibility of disorderly developments owing to global imbalances also imply downside risks to the outlook.

Chart 4 OECD composite leading indicator

(monthly data; amplitude adjusted)



Source: OECD.

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

## 2 MONETARY AND FINANCIAL DEVELOPMENTS

### 2.1 MONEY AND MFI CREDIT

The latest monetary data continue to support the view that the underlying pace of monetary and credit expansion in the euro area remains strong, pointing to the persistence of upside risks to price stability over the medium to longer term. The annual growth rate of M3 moderated somewhat further in June, but remains high at 9.5%. The annual growth in MFI loans to the non-financial private sector decelerated further in June, but remained strong. The impact of the flat yield curve is leading to substitution within M3 and thus contributes to explaining the further decline in annual growth of M1 to a historically low level in June. The growth of broad money and credit aggregates is now showing signs of moderation in line with higher interest rates, tighter financing conditions and weaker economic growth, but there continues to be little evidence of additional effects coming from the ongoing tensions in financial markets via the availability of credit. At the same time, there is clear evidence that financial tensions have directly affected specific counterparts of M3, in particular MFI credit to other financial intermediaries.

#### THE BROAD MONETARY AGGREGATE M3

The annual rate of growth of M3 declined to 9.5% in June, from 10.0% in the previous month (see Chart 5). The May figure was revised downwards by 0.5 percentage point, due to corrections in marketable instruments. With a month-on-month growth rate of 0.4% in June, the short-term dynamics of M3, as measured by the three-month and six-month growth rates, have moderated since the start of 2008.

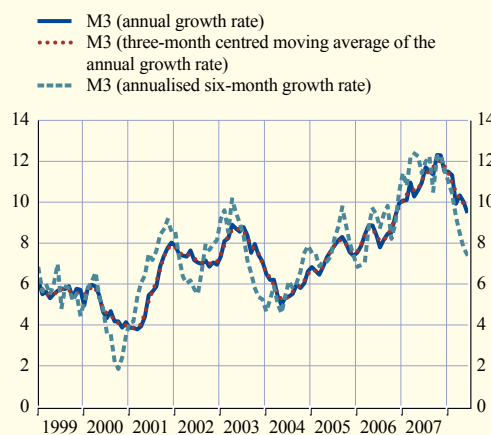
Although gradually moderating, annual M3 growth remains vigorous. Part of this growth is still due to the stimulative impact of the flat yield curve, which encourages portfolio reallocation from riskier non-monetary assets outside M3 into shorter-term monetary assets in M3. Underlying monetary growth remains strong, supported by the ongoing strength of the annual growth of loans to the non-financial private sector.

The dampening influence on money and credit developments of higher short-term interest rates since December 2005 is confirmed by the June data. This is particularly visible in the further moderation of the annual growth rates of loans to households and M1.

Overall, the growth rates of broad money and credit aggregates are now showing signs of some moderation, as interest rates have risen, financing conditions have tightened and economic growth has moderated. However, the annual growth rates remain vigorous and there is little evidence of an additional impact of the ongoing tensions in financial markets beyond that coming via the conventional determinants of money and credit demand. This notwithstanding, some specific counterparts of M3, such as credit to other financial intermediaries (OFIs), continue to exhibit developments which can be clearly linked to the nature of these tensions.

Chart 5 M3 growth

(percentage changes; adjusted for seasonal and calendar effects)



Source: ECB.

### MAIN COMPONENTS OF M3

The observed deceleration in annual M3 growth in June 2008 is largely explained by a further decline in the contribution from M1. By contrast, the contribution of short-term deposits other than overnight deposits moderated only marginally, and that of marketable instruments remained unchanged.

The annual growth rate of M1 declined further, from 2.3% in May to 1.4% in June (see Table 1), the lowest rate since the start of monetary union. From a medium-term perspective, the further decline in M1 growth in June represents a continuation of the downward trend observed since late 2005, mainly reflecting developments in overnight deposits, as the opportunity cost of holding such instruments has been on the rise. In June the growth rate of overnight deposits fell to 0.1%, from 1.3% in May, while the annual growth of currency in circulation increased to 8.0% in June from 7.5% in May.

Growth in short-term deposits other than overnight deposits (M2-M1) continued to underpin most of the annual growth in M3 in June, although their contribution declined slightly compared with May. This reflects the dynamics of deposits with an agreed maturity of up to two years (i.e. short-term time deposits), the growth rate of which, despite remaining particularly strong, edged down to 38.7% in June, from 40.5% in May. The other sub-component of M2-M1, namely deposits redeemable at a period of notice of up to three months (i.e. short-term savings deposits), continued to decline in June, but at a slightly slower pace than in May.

The exceptionally strong dynamics of short-term time deposits are to a large extent a reflection of substitution among financial assets driven by the recent shape of the yield curve, which remains flat. On the one hand, this has induced substitution into short-term time deposits, which offer returns close to money market rates, from savings deposits and overnight deposits, which are less

Table 1 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 Q3	2007 Q4	2008 Q1	2008 Q2	2008 May	2008 June
<b>M1</b>	<b>42.5</b>	<b>6.5</b>	<b>5.9</b>	<b>3.8</b>	<b>2.3</b>	<b>2.3</b>	<b>1.4</b>
Currency in circulation	7.2	8.9	8.0	7.8	7.8	7.5	8.0
Overnight deposits	35.3	6.1	5.5	3.1	1.2	1.3	0.1
<b>M2 - M1 (= other short-term deposits)</b>	<b>42.4</b>	<b>15.0</b>	<b>16.8</b>	<b>18.3</b>	<b>19.3</b>	<b>19.4</b>	<b>19.0</b>
Deposits with an agreed maturity of up to two years	25.4	37.6	40.6	41.4	40.3	40.5	38.7
Deposits redeemable at notice of up to three months	17.0	-3.2	-3.9	-3.3	-2.3	-2.4	-2.0
<b>M2</b>	<b>85.0</b>	<b>10.3</b>	<b>10.7</b>	<b>10.3</b>	<b>10.0</b>	<b>10.1</b>	<b>9.4</b>
<b>M3 - M2 (= marketable instruments)</b>	<b>15.0</b>	<b>18.7</b>	<b>19.6</b>	<b>16.3</b>	<b>10.2</b>	<b>9.7</b>	<b>9.7</b>
<b>M3</b>	<b>100.0</b>	<b>11.5</b>	<b>12.0</b>	<b>11.2</b>	<b>10.0</b>	<b>10.0</b>	<b>9.5</b>
<b>Credit to euro area residents</b>		<b>8.7</b>	<b>9.2</b>	<b>10.0</b>	<b>9.6</b>	<b>9.5</b>	<b>9.1</b>
Credit to general government		-4.0	-4.1	-2.5	-1.2	-1.9	-0.9
Loans to general government		-0.8	-1.8	-0.9	0.8	0.7	2.1
Credit to the private sector		11.6	12.2	12.7	11.9	11.9	11.1
Loans to the private sector		11.0	11.1	11.1	10.5	10.5	9.8
<b>Longer-term financial liabilities (excluding capital and reserves)</b>		<b>10.3</b>	<b>8.5</b>	<b>6.9</b>	<b>4.5</b>	<b>4.4</b>	<b>3.8</b>

Source: ECB.

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



remunerated. Such substitution also helps explain the very subdued growth of M1 seen in recent months. On the other hand, the flat yield curve implies that short-term time deposits are also attractive compared with longer-maturity assets outside M3, as they offer greater liquidity and less risk at little cost in terms of return.

The annual growth of marketable instruments (M3-M2) was unchanged in June at 9.7%. This conceals a marked fall in the growth of money market fund shares/units, which was broadly offset by significant increases in the growth of repurchase agreements and of debt securities with a maturity of up to two years. Money market fund shares/units – the largest sub-component – decelerated further, growing on an annual basis by 2.0% in June, after 4.8% in May (which was revised downwards from 7.7%). The successive monthly outflows in the period from March to June 2008 suggest that the investor aversion to money market funds that emerged in the initial phase of the financial tensions, but seemed to subside at the start of the year, may still prevail. The annual growth rate of MFI debt securities with a maturity of up to two years (short-term debt securities) rose to 20.7% in June, from 14.6% in May (which was revised downwards from 20.9%) and 11.8% in April. This implies some recovery after the fall in the growth rate during the first four months of the year from the peak of close to 60% reached in December 2007. Repurchase agreements recorded a sizeable inflow in June, raising the annual growth rate for this instrument to 18.8% from 17.1% in May.

M3 deposits, which comprise short-term deposits and repurchase agreements and represent the broadest monetary aggregate for which a sectoral breakdown is available, broadly followed the dynamics of overall M3, with their annual growth rate declining to 10.4% in June from 11.2% in May. This is a continuation of a downward trend observed since the start of the year. In June the decline was more broadly based than in previous months. In particular, the annual growth rate of household M3 deposits declined from its recent peak of 9.5% in May to 8.6% in June, but this was partially due to base effects. In the case of non-financial corporations the annual growth rate of M3 deposits decreased further to 7.9% in June from 8.9% in May, and in the case of financial intermediaries it was also slightly lower, at 19.9% in June after 21.4% in May.

#### **MAIN COUNTERPARTS OF M3**

As regards the counterparts of M3, the growth rate of total MFI credit to euro area residents declined to 9.0% in June, down from 9.5% in May (see Table 1). Within total MFI credit, credit to general government continued to decline on an annual basis, albeit at a slower rate than in the previous months (-0.9% in June, compared with -1.9% in May). At the same time, the annual growth rate of MFI credit to the private sector moderated further to 11.1% in June, after 11.9% in May.

Loans – the largest component of credit to the private sector – continued to grow at a very robust pace in June, recording an annual growth rate of 9.8% compared with 10.5% in May. The annual rates of growth of loans to non-financial corporations and to non-monetary financial institutions other than insurance corporations and pension funds remained close to their previous highs (see Table 2).

The annual growth of MFI loans to non-financial corporations (NFCs) was 13.6% in June after 14.2% in May. Shorter-term dynamics now point more clearly to a deceleration in recent months. This deceleration is in line with the lagged impact of higher interest rates, the recent tightening of credit standards, and moderation in the growth of economic activity. There continues to be little indication of an additional downward impact from the financial tensions, e.g. related to the capital position of banks. At the same time, there is also little evidence that these tensions could have

distorted loan growth upwards. For instance, looking at the maturity breakdown, the deceleration in the growth of loans to non-financial corporations reflects to a large extent lower growth in loans with shorter maturities (up to one year), which suggests that a backlog of short-term bridge loans or similar tension-related issues have not been the main driver of the strong loan developments. However, while there is no evidence of specific supply-side constraints related to the financial market tensions, a further gradual moderation in the growth of MFI lending to NFCs would be in line with the current phase of the business cycle.

Turning to the household sector, the downward trend in the annual growth rate of MFI loans observed since early 2006 continued in June 2008, with the annual growth rate declining to 4.2% from 4.9% in the previous month. This slowdown is in line with the impact of the increases in bank lending rates since late 2005 and the moderation observed in housing market dynamics in a number of euro area countries. There continues to be little indication of an additional downward impact from the financial tensions via the supply of loans. The slowdown in loan growth in June was mainly driven by lending for house purchase, the annual growth rate of which declined to 4.4% from 5.6% in May. This decline in large part reflects significant (true-sale) securitisation of mortgage loans, associated with a removal of these loans from MFI balance sheets. Such activity was higher in June than in preceding months and can thus be seen as having distorted the loan data downwards on this occasion.

In recent months, the securities generated in the context of these securitisation activities, which were previously mainly sold to non-bank financial institutions in the market, have largely been retained by MFIs themselves. This is reflected in the continued buoyant growth of MFI purchases of private sector securities other than shares (which comprise mainly securities issued by OFIs), with an annual growth rate of 36.5% in June. This can be seen as a direct impact of the financial tensions on specific counterparts of M3.

Among the other counterparts of M3, the annual growth rate of MFIs' longer-term financial liabilities (excluding capital and reserves) declined further to 3.8% in June, from 4.4% in May (see Chart 6). This decline reflects a slowdown in all sub-components. In particular, the slower

**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 Q3	2007 Q4	2008 Q1	2008 Q2	2008 May	2008 June
<b>Non-financial corporations</b>	<b>43.8</b>	<b>13.8</b>	<b>14.0</b>	<b>14.6</b>	<b>14.4</b>	<b>14.2</b>	<b>13.6</b>
Up to one year	29.2	12.1	11.9	12.8	12.8	12.5	11.9
Over one and up to five years	19.8	19.9	21.0	22.6	20.9	19.9	19.9
Over five years	50.9	12.7	12.7	12.8	13.0	13.1	12.3
<b>Households<sup>2)</sup></b>	<b>45.9</b>	<b>7.0</b>	<b>6.6</b>	<b>5.9</b>	<b>5.0</b>	<b>4.9</b>	<b>4.2</b>
Consumer credit <sup>3)</sup>	13.0	5.7	5.3	5.4	5.1	5.0	4.8
Lending for house purchase <sup>3)</sup>	71.3	8.1	7.6	6.7	5.6	5.6	4.4
Other lending	15.7	3.2	3.1	2.7	2.2	2.0	3.0
<b>Insurance corporations and pension funds</b>	<b>1.0</b>	<b>26.6</b>	<b>22.0</b>	<b>6.5</b>	<b>-1.8</b>	<b>-2.5</b>	<b>-5.8</b>
<b>Other non-monetary financial intermediaries</b>	<b>9.3</b>	<b>20.0</b>	<b>23.4</b>	<b>24.7</b>	<b>24.8</b>	<b>26.6</b>	<b>25.5</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.

growth in the private sector's holdings of long-term deposits can partly be explained by the flat yield curve that encourages substitution from long-term into shorter-term deposits. The slower growth of longer-term MFI debt securities may currently also reflect counterparties' reluctance to commit funds on a longer-term basis.

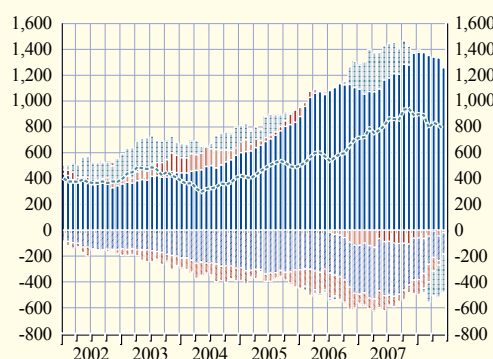
Finally, the net external asset position of the MFI sector recorded a monthly outflow of €33 billion in June, a halving of the €64 billion outflow observed in May. At the same time, the annual net outflow reached €292 billion, of which €155 billion were recorded in the second quarter of 2008 (see Box 1 entitled "Linkages between developments in MFI net external assets and other counterparts of M3").

The monetary analysis indicates that the ongoing moderation of growth in MFI loans to the non-financial private sector largely reflects the regular impact of developments in economic activity and tighter credit conditions, with no signs of an additional effect coming from the financial tensions affecting, for example, the capital position of banks. A direct impact of the financial tensions remains mainly visible in the strong growth of securities purchased from OFIs in the context of securitisation activities. Looking beyond the effects related to the financial market tensions and the flat yield curve, money and credit dynamics remained vigorous and this continues to point to upside risks to price stability over the medium to longer term.

**Chart 6 Counterparts of M3**

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

- credit to the private sector (1)
- credit to general government (2)
- net external assets (3)
- longer-term financial liabilities (excluding capital and reserves) (4)
- other counterparts (including capital and reserves) (5)
- - - M3



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.

**Box 1**

**LINKAGES BETWEEN DEVELOPMENTS IN MFI NET EXTERNAL ASSETS AND OTHER COUNTERPARTS OF M3**

Flows in MFI net external assets reflect the transactions of the euro area money-holding sector with counterparties in the rest of the world that are settled through the MFI sector. The associated international capital flows can have an important impact on developments in the monetary aggregates (see the article entitled "The external dimension of monetary analysis" in this issue of the Monthly Bulletin). For instance, in the period from late 2006 to spring 2007 the rising inflow in net external assets was clearly mirrored in the strengthening of euro area M3 growth.<sup>1</sup> However, even large developments in the net external asset position are not automatically reflected in monetary dynamics, as they may be offset by developments in other M3 counterparts such as credit and longer-term financial liabilities. Examples of this type of decoupling include the period between

<sup>1</sup> See Box 1 entitled "MFI net external assets and their impact on monetary developments" in the ECB's Annual Report 2007.

mid-2005 and mid-2006 and the period since spring 2007, particularly up to the end of 2007. Against this background, this box discusses recent cases that could cause developments in net external assets which would be offset by those in other M3 counterparts, thereby leaving M3 growth unaffected.

Following the recent peak of approximately €330 billion recorded in March 2007, the annual flow into the MFI net external asset position declined markedly, eventually turning negative and reaching approximately -€290 billion in June 2008. At the same time, the annual flow into M3 has remained relatively stable, moving in the range of €750 to €950 billion (see Chart A). From an accounting perspective, this implies that the movements in net external assets have been counterbalanced by movements in the other counterparts of M3. What is less clear by looking at the MFI balance sheet is the extent to which these counterbalancing movements are directly linked in an economic sense, or whether they are independent. In the context of the current financial market tensions, it is possible to imagine a number of cases in which developments in net external assets are directly linked to movements in other counterparts.

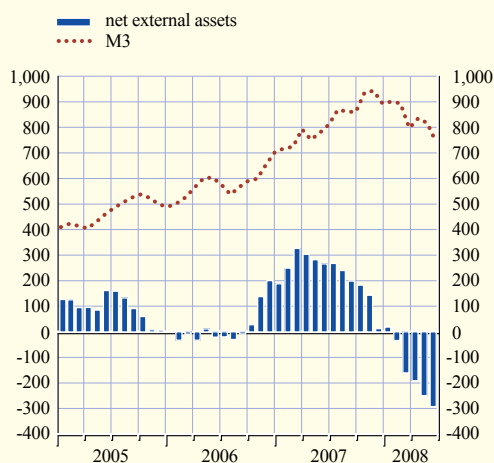
One example is the liquidity support that MFIs have had to provide to asset-backed commercial paper (ABCP) issuers (SIVs or conduits) who failed to roll over their maturing commercial paper. This support has often entailed acquiring the securities issued by these entities. To the extent that the issuers are resident in the euro area and the securities acquired were previously held by investors who are not resident in the euro area, these transactions generate both a negative flow in the net external asset position and a positive flow in MFIs' holdings of securities issued by euro area other financial intermediaries (OFIs). Chart B shows that the decline in the annual flow of net external assets since spring 2007 has coincided with a pick-up in MFIs' acquisition of securities other than shares issued by the euro area private sector (which are predominantly securities issued by OFIs).

Another, related, example concerns the relocation of some such issuers from outside to within the euro area, in the context of the restructuring and streamlining of ABCP-related activities that some banking groups have undergone. In this case, euro area MFI holdings of securities issued by these entities, which were previously foreign assets, become domestic securities. Such a restructuring would therefore also give rise to a fall in net external assets and a concomitant increase in MFIs' holdings of securities other than shares issued by the euro area private sector.

There may also be a direct link between developments in net external assets and MFIs' longer-term liabilities (excluding capital and reserves). For instance, in an environment of financial market tensions, MFIs reduced the supply of long-term debt securities from the second half of 2007 onwards, given that investors found it less attractive to hold longer-term debt securities (with

Chart A M3 and net external assets

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

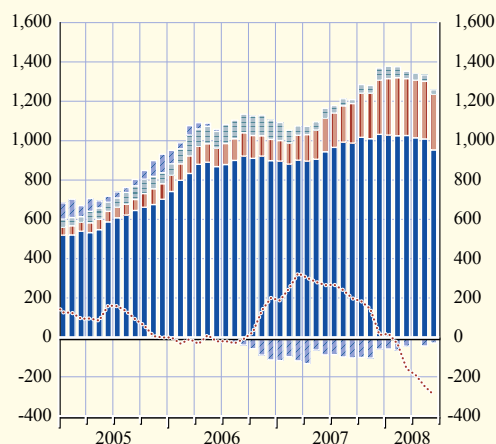


Source: ECB.

**Chart B Net external assets and credit to euro area residents**

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

- loans to the private sector
- securities other than shares issued by the private sector
- shares and other equities issued by the private sector
- credit to general government
- ..... net external assets

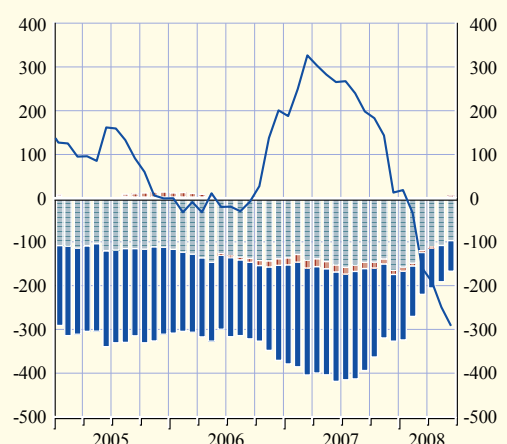


Source: ECB.

**Chart C Net external assets and longer-term financial liabilities (excluding capital and reserves)**

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

- debt securities issued with maturity of over two years
- deposits redeemable at notice of more than three months
- deposits with agreed maturity of over two years
- ..... net external assets



Source: ECB.

Note: Longer-term financial liabilities (excluding capital and reserves) are shown with an inverted sign since they are liabilities of the MFI sector.

a maturity of more than two years) and therefore required very high risk premia. In this context, it is likely that non-resident investors also have not replaced maturing securities in their portfolios with new ones. In principle, this development does not involve the euro area money-holding sector and therefore should not affect net external assets. However, owing to the considerable difficulties in identifying the ultimate holders of long-term MFI debt securities, the statistical convention is to assume that these securities are all held by euro area residents. The redemption of maturing securities by non-residents thus reduces the flow of net external assets and is mirrored in a decline in the net issuance of longer-term MFI debt securities. Chart C points to such counterbalancing movements for the period since mid-2007.

True-sale securitisation transactions are another example where, in the context of financial market tensions, developments in net external assets and longer-term financial liabilities may have moved in a counterbalancing way. Depending on the accounting standards used, these transactions are sometimes portrayed on the MFI balance sheet as the creation of a long-term time deposit (a deposit with an agreed maturity of more than two years) vis-à-vis the financial vehicle corporation (FVC) – which belongs to the OFI sector – through which the securitisation transaction is carried out.<sup>2</sup> To the extent that the moderation in the securitisation

<sup>2</sup> In some euro area countries, where securitisation activity has been particularly intense in recent years, the application of International Financial Reporting Standards also for statistical reporting purposes implies that loans transferred in the context of a true-sale securitisation transaction are often not removed from the original credit institution's balance sheet (see also Box 3 entitled "The importance of accounting standards for interpreting MFI loan statistics" in the March 2008 issue of the Monthly Bulletin). In this case, the proceeds from the sale of the loans are counterbalanced on the credit institution's balance sheet by a non-transferable liability, typically a long-term time deposit (see also the box entitled "The impact of bank loan securitisation on monetary analysis" in the February 2008 issue of the Monthly Bulletin).

market implies that foreign investors have largely refrained from purchasing new asset-backed securities from euro area FVCs, the servicing of the outstanding securities in their portfolios would have generated negative flows in the MFI net external asset position. At the same time, the amortisation of the securitised loans, in the absence of strong new securitisation activity, would tend to reduce the flow of long-term time deposits held by FVCs. Chart C shows that since the end of 2007 the reduction in the net external asset position flow has coincided with a decline in long-term time deposits. The sectoral breakdown suggests that it was mainly those held by OFIs. However, it is important to note that this decline may reflect – more prominently than developments in securitisation activity – the impact of a flat yield curve on OFI portfolio allocation, as it favours instruments at the shorter end of the maturity spectrum.

The types of transaction outlined above are examples of cases where a reduction in the flow of net external assets is linked to a matching change in other counterparts, thereby leaving headline M3 dynamics unaffected. These examples are quantitatively relevant for the euro area at the current juncture, but they should not be understood as accounting for all of the dynamics in net external assets in recent months. Nevertheless, they demonstrate the complexity and possible interlinkages of transactions portrayed on the MFI balance sheet, which are compounded when these transactions also involve counterparties outside the euro area. In this respect, they warn against a purely mechanical interpretation of developments in the various counterparts of M3.

## 2.2 SECURITIES ISSUANCE

*The annual growth rate of debt securities issued by euro area residents declined slightly in May 2008. This decline was the result of falling growth rates for debt securities issued by the non-MFI and central government sectors, which were largely offset by an increase in the growth rate of debt securities issued by the MFI sector. The growth rate of issuance of quoted shares declined marginally, remaining relatively subdued by comparison with that of debt securities.*

### DEBT SECURITIES

The annual growth rate of debt securities issued by euro area residents stood at 6.7% in May 2008, slightly lower than the 7.1% recorded in April (see Table 3). As regards the maturity structure of such issuance, the annual growth rate of short-term securities declined marginally to stand at 20.7% in May, down from 20.9% in the previous month, and that of long-term securities also declined, falling from 5.5% to 5.1%. Issuance of longer-term securities can be broken down further into securities issued at floating and fixed rates. On account of demand factors, floating rates tend to be favoured over fixed rates in periods marked by a flat yield curve. The flat yield curve observed in recent months may therefore partly explain the fact that in May the annual rate of growth of floating rate securities was again significantly higher, at 12.0%, than the rate of growth of fixed rate securities, which stood at 2.6% in that month.

The annual growth rate of debt securities issued by non-financial corporations remained almost unchanged in May at 6.5%. Viewed from a longer-term perspective, growth in debt securities issuance in this sector has declined by almost 4 percentage points since January 2008, a month which saw the highest growth rate since mid-2003. In terms of the maturity structure of issuance, the annual growth rate of long-term debt securities issued by non-financial corporations increased to 5.1% in May, up from 4.2% in April, while the growth rate of short-term issuance declined to 13.1% in May, down from 17.9% in April. Looking at seasonally adjusted data (which are more suitable for

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

Issuing sector	Amount outstanding (EUR billions)	Annual growth rates <sup>1)</sup>					
		2008	2007	2007	2007	2008	2008
		May	Q2	Q3	Q4	Q1	Apr.
<b>Debt securities:</b>	<b>12,427</b>	<b>8.8</b>	<b>9.1</b>	<b>8.9</b>	<b>8.2</b>	<b>7.1</b>	<b>6.7</b>
MFIs	5,228	10.6	10.9	10.7	9.2	7.2	7.9
Non-monetary financial corporations	1,539	28.7	28.2	26.8	25.4	23.2	21.2
Non-financial corporations	694	6.3	9.2	8.7	9.5	6.6	6.5
General government	4,966	3.2	3.3	3.0	2.7	2.8	1.7
<i>of which:</i>							
Central government	4,650	3.0	3.3	2.9	2.6	2.9	1.6
Other general government	316	5.7	2.9	4.5	2.8	1.1	2.9
<b>Quoted shares:</b>	<b>5,733</b>	<b>1.2</b>	<b>1.4</b>	<b>1.4</b>	<b>1.3</b>	<b>1.1</b>	<b>1.0</b>
MFIs	790	2.1	1.8	1.3	0.8	1.3	1.8
Non-monetary financial corporations	497	0.9	0.9	2.7	2.5	2.2	2.4
Non-financial corporations	4,446	1.0	1.3	1.3	1.3	0.9	0.7

Source: ECB.

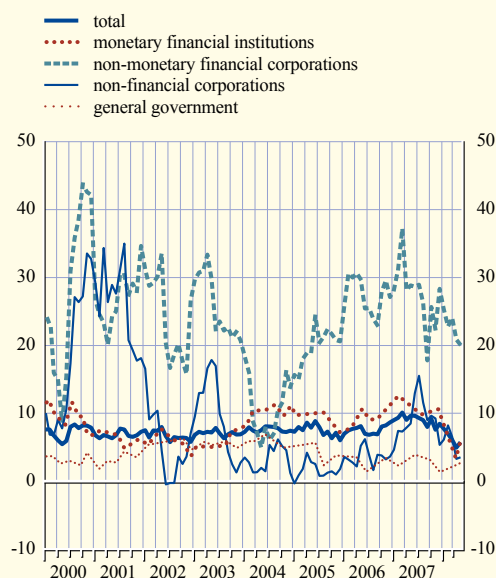
1) For details, see the technical notes for Sections 4.3 and 4.4 of the "Euro area statistics" section.

gauging short-term trends), six-month annualised growth rates fell further in May, continuing the decline observed since November 2007 and reaching levels similar to those prevailing in late 2006 (see Chart 7). In terms of the maturity structure of issuance, the six-month annualised growth rate of long-term debt securities issued by non-financial corporations increased to 4.4% in May, up from 3.3% in April, while short-term issuance recorded negative growth in May. The reduced issuance activity visible in the seasonally adjusted data may be related, at least in part, to the financial market turbulence, which has brought about an increase in the cost of market debt financing. This is evident from the increases seen in corporate bond yields and spreads, particularly for firms with low creditworthiness.

Turning to the financial sector, the annual growth rate of debt securities issued by MFIs stood at 7.9% in May, up from 7.2% in April. Continuing a trend observed since the start of the financial market turmoil, issuance of short-term securities remained strong, with an annual growth rate of 29.5% in May. The growth rate of MFIs' issuance of long-term debt securities also increased, standing at 4.5% in that month, up from 4.1% in April. The fact that issuance of short-term debt securities has been stronger than that of long-term securities can be attributed to the repricing that has affected financial sector issuers since the start of the financial market turmoil. The magnitude of this effect can be gauged even better by looking at short-term growth rates. Indeed, six-month seasonally adjusted data for long-term

**Chart 7 Sectoral breakdown of debt securities issued by euro area residents**

(six-month annualised seasonally adjusted growth rates)



Source: ECB.

debt securities issuance show a growth rate of 4.6% in May, while the growth rate of short-term issuance increased to 15.4%.

The annual growth rate of debt securities issued by non-monetary financial corporations remained robust in May, despite declining to 21.2%, down from 23.2% in April. A large part of the issuance activity in this sector is related to the various securitisation activities undertaken by special-purpose vehicles (entities, usually sponsored by banks, which are set up to fulfil temporary objectives). However, the short-term dynamics evidenced by the six-month annualised growth rate indicate that the slowdown in issuance activity in this sector has been stronger since the summer of 2007, partly reflecting the fact that some activities related to securitisation are still being hampered (see Box 2 on the results of the July 2008 bank lending survey for the euro area).

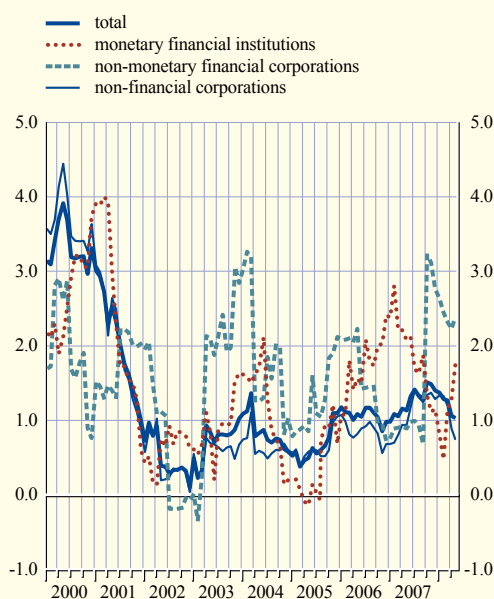
The annual growth rate of debt securities issued by the general government sector declined to 1.7% in May, down from 2.8% in April. This reduction reflected a fall in the growth rate of debt securities issued by the central government sector.

### QUOTED SHARES

The annual growth rate of quoted shares issued by euro area residents fell slightly to stand at 1.0% in May, down from 1.1% in April (see Table 3). This reflects a decline in the growth rate of quoted shares issued by non-financial corporations, which fell from 0.9% to 0.7%, while the growth rate of issuance by non-monetary financial institutions increased slightly from 2.2% to 2.4%. The annual growth rate of quoted shares issued by MFIs increased by 0.5 percentage point to stand at 1.8% in May (see Chart 8).

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

(annual growth rates)



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



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

This box describes the main results of the July 2008 bank lending survey for the euro area conducted by the Eurosystem.<sup>1</sup>

In the second quarter of 2008 the net tightening of credit standards reported by banks for loans to enterprises was somewhat lower than in the first quarter.<sup>2</sup> Net tightening remained stronger for large enterprises than for small and medium-sized enterprises (SMEs). The net tightening of credit standards reported by banks for loans to households for house purchase was also somewhat lower than in the first quarter, but the net tightening reported for consumer credit and other lending strengthened somewhat, albeit from a lower level. With regard to demand for loans, banks reported that net demand for loans to enterprises and households remained negative in the second quarter of 2008.<sup>3</sup>

This survey round also contained a set of ad hoc questions following up on the ad hoc questions included in previous survey rounds and addressing the effect of the financial turmoil (see the last section of this box). With regard to wholesale funding, banks reported that their access to money markets and debt securities markets following the turmoil in financial markets was somewhat less hampered in the second quarter than it had been in the first quarter. By contrast, access to securitisation continued to be hampered, remaining broadly unchanged from the first quarter.

#### Loans or credit lines to enterprises

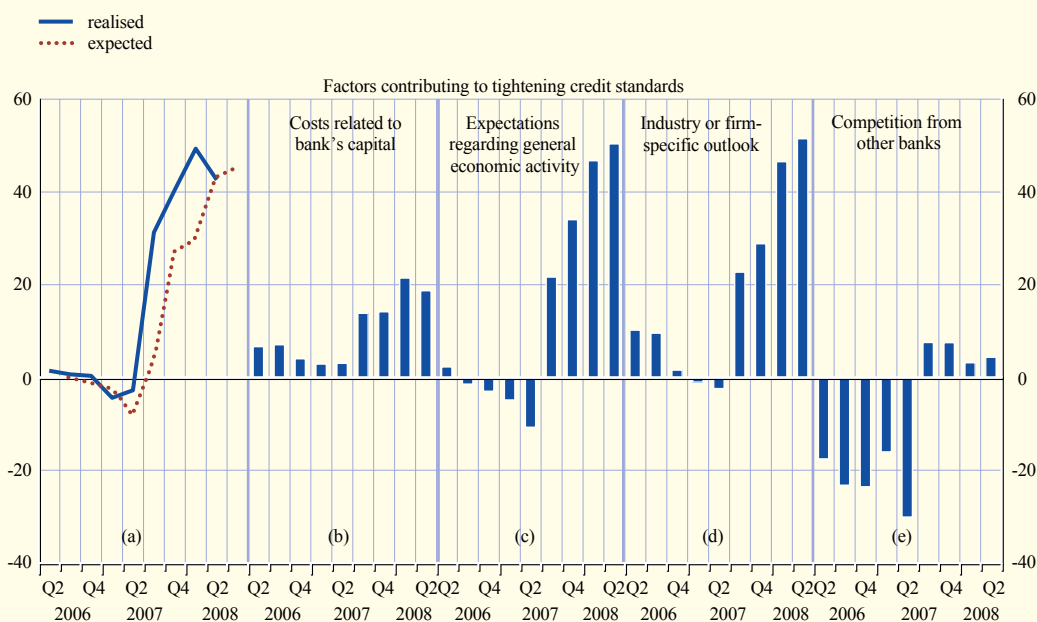
**Credit standards:** In the second quarter of 2008 the net percentage of banks reporting a tightening of credit standards for loans to enterprises was somewhat lower than in the first quarter (43%, compared with 49% in the first quarter; see Chart A). The most important factors contributing to banks' tightening of credit standards remained banks' perception of risks relating to general economic activity and the industry or firm-specific outlook. At the same time, the factors summarised in banks' funding costs and balance sheet constraints (i.e. banks' ability to access market financing, banks' costs related to their capital positions and banks' liquidity positions) contributed to the decline in the net tightening of credit standards.

As regards the terms and conditions applied to the approval of loans or credit lines to enterprises (see Chart B), margins on average loans (53%, compared with 62% in the previous round) and riskier loans (64%, compared with 72% in the previous round) continued to be tightened (i.e. widened in the case of margins) most in net terms in the second quarter, although to a somewhat lesser extent than in the first quarter. On the whole, the net tightening of non-price terms and conditions remained broadly unchanged from the first quarter, with the notable exception of collateral requirements, which increased compared with the previous quarter.

- 1 The cut-off date for the receipt of data from the responding banks was 8 July 2008. A comprehensive assessment of the results of the July 2008 bank lending survey for the euro area was published on 8 August 2008 on the ECB's website.
- 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.

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

(net percentages)



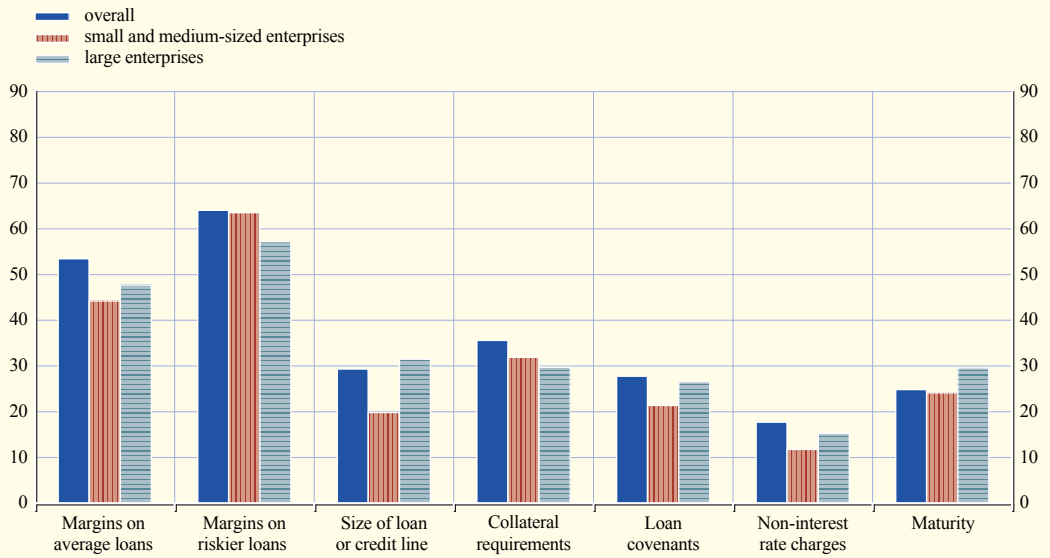
Notes: In panel (a), the net percentages refer to the difference between the sum of the percentages for “tightened considerably” and “tightened somewhat” and the sum of the percentages for “eased somewhat” and “eased considerably”. The net percentages for the questions related to the factors are the 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 refer to the expected changes over the next three months.

The net tightening of credit standards remained stronger for large enterprises (44%, compared with 53% in the first quarter of 2008) than for SMEs (34%, compared with 35% in the first quarter of 2008). While the net tightening remained broadly unchanged for SMEs, it declined for large enterprises. As regards the factors affecting banks’ credit standards, the deteriorating expectations regarding general economic activity and the industry or firm-specific outlook were the most important factors for both large enterprises and SMEs. At the same time, banks’ funding costs and balance sheet constraints – and especially banks’ liquidity positions – were more important for large firms than for SMEs (although their importance for large firms declined by comparison with the previous quarter). This may be related to the greater importance of market-based funding for bank loans to large firms. With regard to the terms and conditions of credit, increases in banks’ margins contributed most to the net tightening of credit standards for loans to both large firms and SMEs (see Chart B). With regard to non-price terms and conditions, large firms generally experienced stronger net tightening than SMEs, with the exception of collateral requirements. As regards loan maturities, the net tightening continued to be more pronounced for long-term loans (52%, compared with 57% in the previous survey round) than for short-term loans (31%, compared with 33% in the previous survey round).

Looking ahead to the third quarter of 2008, expectations point to the net tightening of credit standards for loans or credit lines to enterprises being slightly stronger (at 45%) than that seen in the second quarter of 2008 (see Chart A).

**Chart B Changes in terms and conditions applied to the approval of loans or credit lines to enterprises in the second quarter of 2008**

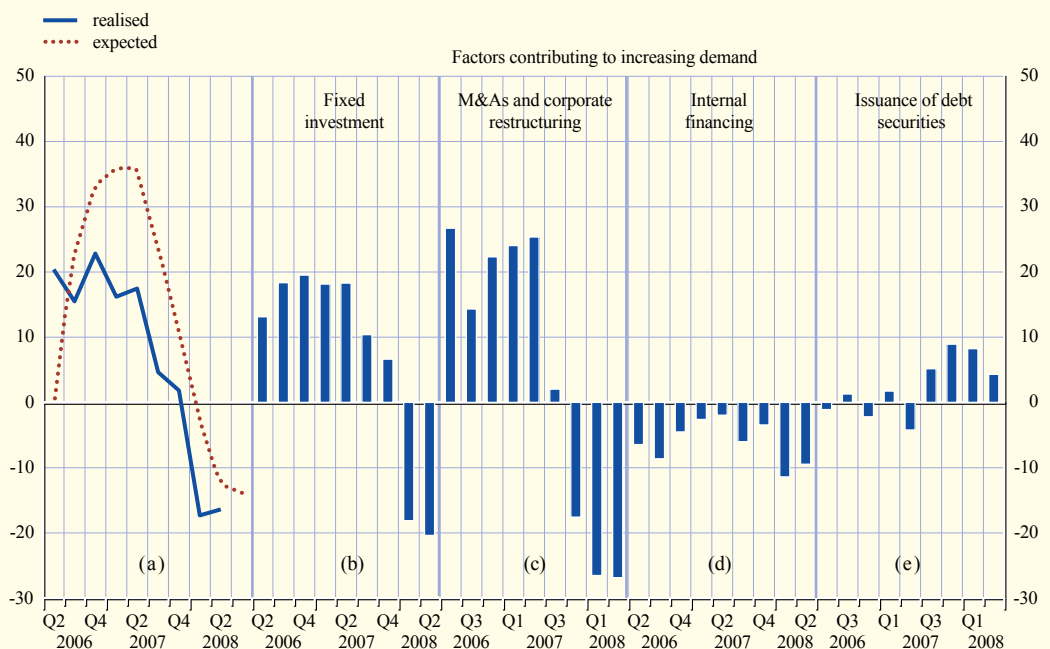
(net percentages)



Note: 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”.

**Chart C 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 refer to the expected changes over the next three months.

**Loan demand:** In the second quarter of 2008 net demand for loans to enterprises remained negative, broadly unchanged from the previous quarter (-16%, compared with -17% in the first quarter of 2008; see Chart C). The main factors behind this negative net demand were M&As and corporate restructuring and a decline in financing needs for fixed investment. In addition, internal financing also contributed to the decline in net demand for loans to enterprises, thus pointing to robust profitability among enterprises. By contrast, developments in debt securities issuance contributed positively to net demand for loans to enterprises, reflecting market conditions and the increased cost of market-based debt financing. In terms of borrower size, while net loan demand was negative for both large firms and SMEs (at -12% and -8% respectively), it remained weaker for large firms, in line with the results for previous quarters. In addition, net demand was negative across the maturity spectrum.

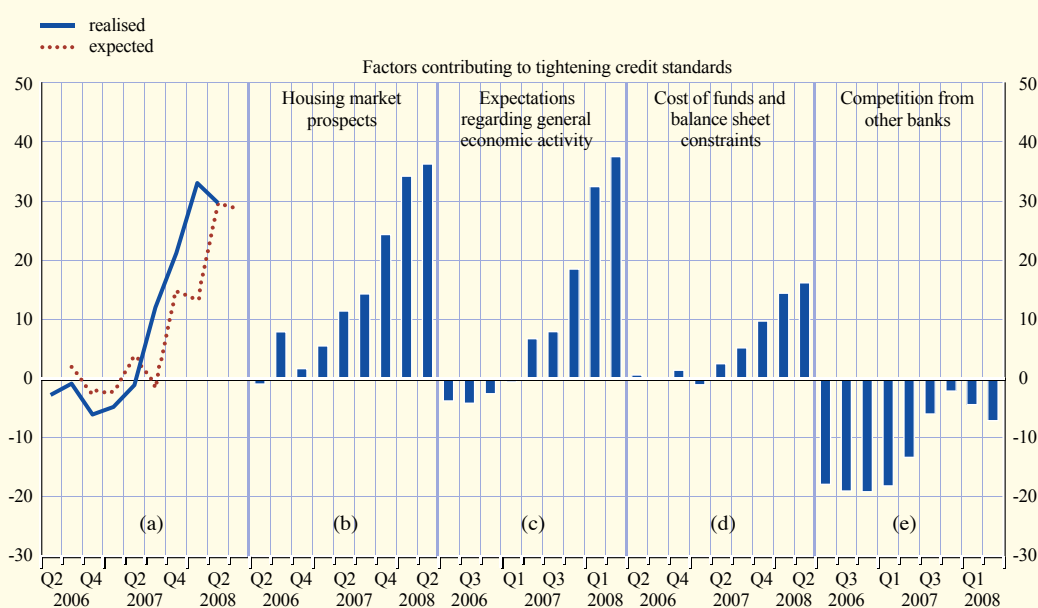
For the third quarter of 2008, net demand for loans to enterprises is expected (at -14%) to be slightly less negative than that seen in the second quarter (see Chart C). Broken down by borrower size, it is expected to be slightly less negative for SMEs and slightly more negative for large firms.

### Loans to households for house purchase

**Credit standards:** In the second quarter of 2008 the net percentage of banks reporting a tightening of credit standards for loans to households for house purchase declined somewhat (30%, down from 33% in the first quarter; see Chart D). The deteriorating expectations regarding general economic activity and housing market prospects were the main factors contributing to the net tightening of credit standards. While the cost of funds and balance sheet constraints also contributed to that net tightening, competition from other banks continued to contribute to

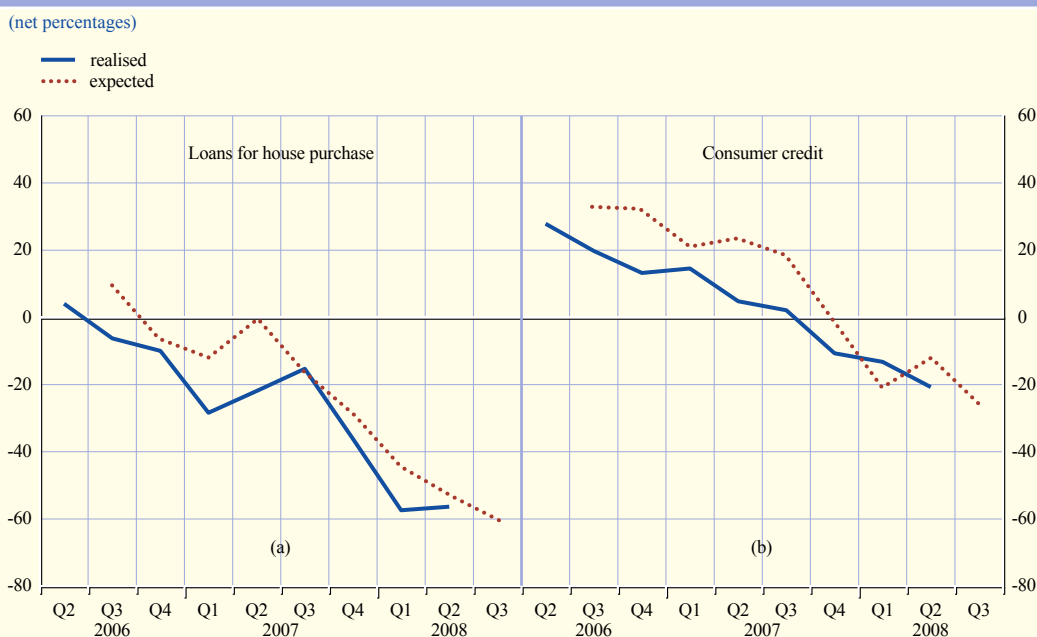
Chart D Changes in credit standards applied to the approval of loans to households for house purchase

(net percentages)



Note: See footnote for Chart A.

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



Notes: 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”. “Realised” values refer to the period in which the survey was conducted. “Expected” values refer to the expected changes over the next three months.

easing. As regards the terms and conditions on loans for house purchase, margins on average loans (23%, compared with 25% in the first quarter) and riskier loans (30%, compared with 37% in the first quarter) continued to increase, although to a lesser extent than in the first quarter. With regard to non-price terms and conditions, the tightening of loan-to-value ratios was similar to that reported for margins on riskier loans.

For the third quarter of 2008, respondent banks expect the net tightening of credit standards for loans for house purchase to remain (at 29%) broadly unchanged from the second quarter (see Chart D).

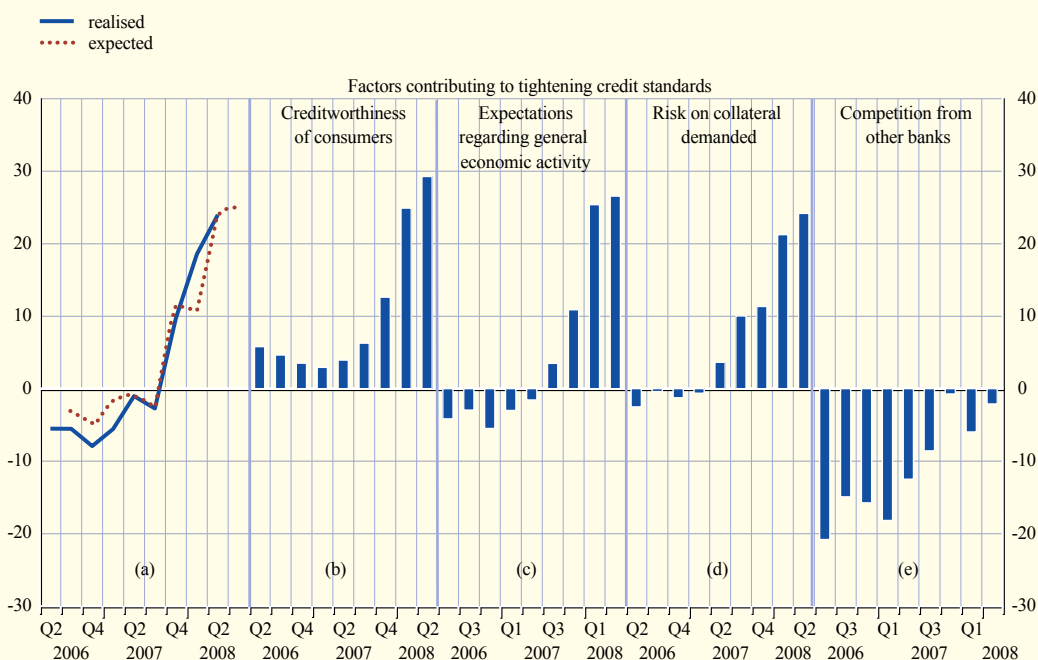
**Loan demand:** Net demand for housing loans remained negative in the second quarter of 2008, broadly unchanged from the previous quarter (-56%, compared with -57% in the first quarter; see Chart E). This mainly reflected worsening housing market prospects and deteriorating consumer confidence. For the third quarter of 2008, net loan demand is expected (at -60%) to be somewhat more negative.

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

**Credit standards:** In the second quarter of 2008 the net percentage of banks reporting a tightening of credit standards for consumer credit and other lending increased somewhat (24%, up from 19% in the previous quarter; see Chart F), although it remained lower than the level reported for loans to households for house purchase. The main factors behind the further increase in net tightening were banks’ perception of the risks relating to the deteriorating expectations regarding general economic activity and the creditworthiness of consumers, together with the

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

(net percentages)



Note: See footnote for Chart A.

risk on the collateral demanded by banks. As regards the terms and conditions of credit, the net tightening was implemented mainly through increases in loan margins. While the net tightening of margins on riskier loans remained broadly unchanged after sharp increases in previous quarters, margins on average loans were tightened somewhat further in the second quarter.

For the third quarter of 2008, the net tightening of credit standards for consumer credit and other lending to households is expected to remain (at 25%) broadly unchanged from the second quarter (see Chart F).

**Loan demand:** Net demand for consumer credit and other lending to households remained negative and declined further in the second quarter of 2008 (-21%, down from -13% in the previous quarter; see Chart E). At the same time, net demand for such lending was considerably less negative than that reported for loans for house purchase. According to responding banks, the main factor dampening demand was deteriorating consumer confidence. For the third quarter of 2008, net demand is expected to remain negative and decline further (to -26%) compared with the second quarter.

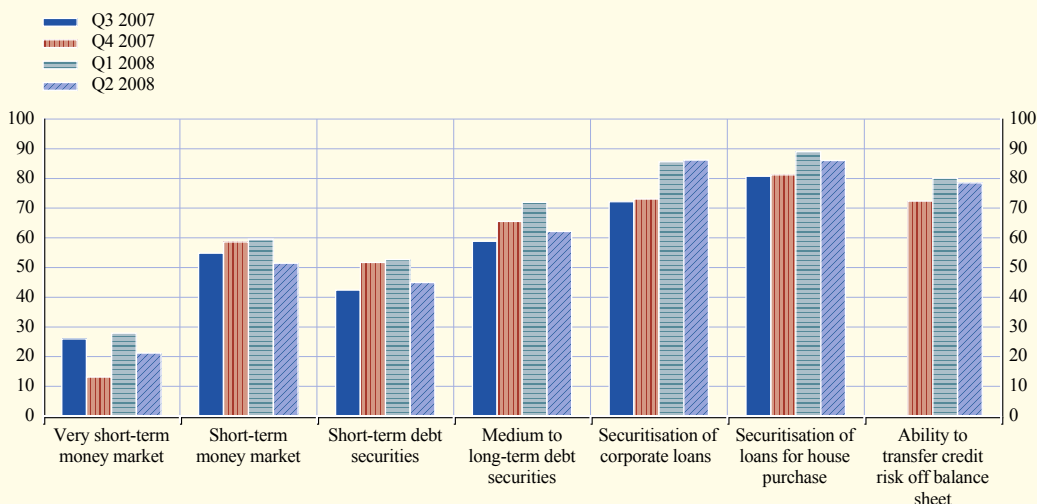
#### Ad hoc questions on the financial turmoil

The July 2008 survey round contained the same set of ad hoc questions included in previous surveys addressing the impact of the financial market tensions experienced since the second half of 2007.

With regard to banks' funding via wholesale markets, in the second quarter of 2008 banks reported that their access to money markets and debt securities markets following the turmoil in

**Chart G Access to wholesale funding**

(percentages)



Note: Figures indicate the percentages of banks reporting that access to particular sources of wholesale funding has been hampered.

financial markets was somewhat less hampered than it had been in the first quarter (see Chart G). As in the last survey round, the percentage of banks having difficulties in raising funds through medium to long-term bonds in the course of the quarter was larger than that reporting such difficulties for short-term debt securities. By contrast with the improved access to money markets and debt securities markets, access to securitisation, both true-sale and synthetic, continued to be hampered, remaining broadly unchanged from the first quarter. Around 80% to 90% of the responding banks reported that their access to securitisation was hampered. Overall, some relaxation of the wholesale funding situation was felt by responding banks compared with the situation in the previous quarter. Over the next three months, access to funding via money markets and debt securities markets is expected to remain hampered, broadly unchanged from the second quarter. However, the percentage of banks expecting access to securitisation to be considerably hampered is smaller than in the previous survey round.

In line with the less hampered access to money markets and debt securities markets, banks reported that the impact that these funding options had on bank lending declined somewhat for both quantities and margins. As regards the impact that the more difficult securitisation environment had on their lending, banks reported a further increase in the impact on the amount of loans granted and a broadly unchanged impact on margins. For all funding options, banks reported a stronger impact on margins than on the amount of loans granted to borrowers. Around one-third of banks reported that their need to fund draw-downs on commitments to asset-backed commercial paper programmes issued by conduits or structured investment vehicles had an impact on their lending policies.

Finally, with regard to the impact that changes in banks' costs related to their capital positions had on their lending policies, in the second quarter of 2008 the percentage of banks reporting that there had been some impact on capital but no impact on lending was considerably smaller than in the first quarter.

### 2.3 MONEY MARKET INTEREST RATES

Unsecured money market interest rates remained broadly stable in July and early August, while secured rates rose in line with changes in market expectations of future key ECB interest rates. As a result, spreads between unsecured and secured money market rates decreased, but nonetheless remained at elevated levels compared with the period prior to the onset of financial tensions in August 2007.

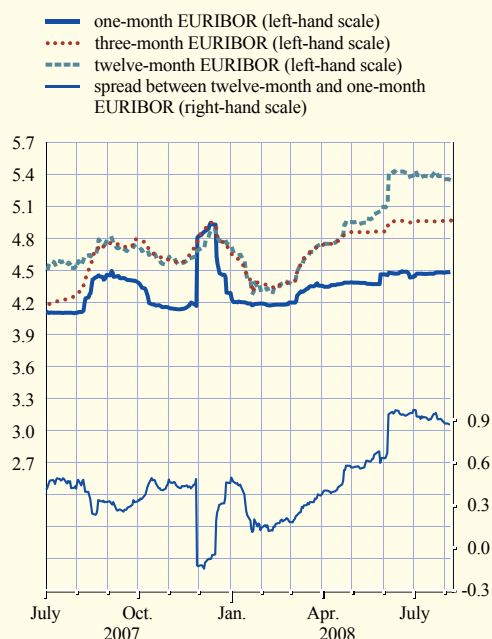
Unsecured money market rates remained broadly at the same level between 9 July and 6 August 2008. On 6 August, the one-month, three-month, six-month and twelve-month EURIBOR rates stood at 4.49%, 4.97%, 5.17% and 5.35%, respectively 2, 1 and 2 basis points higher and 4 basis points lower than the levels observed on 9 July (see Chart 9).

As a result of these developments, the spread between the twelve-month and one-month EURIBOR rates decreased slightly, to 87 basis points on 6 August compared with 93 basis points on 9 July (see Chart 9). At the same time, market expectations about the key ECB interest rates, as reflected by EONIA swaps, increased slightly between 9 July and 6 August. Over the same period, spreads between the unsecured EURIBOR and the EONIA swap index remained broadly unchanged. These spreads remained at elevated levels compared with the period prior to the onset of financial tensions in August 2007. For example, at the three-month maturity, the spread between the EURIBOR and the EONIA swap index stood at 65 basis points on 9 July compared with 62 basis points on 6 August.

The interest rates implied by the prices of three-month EURIBOR futures maturing in September 2008, December 2008 and March 2009 stood at 5.00%, 5.04% and 4.86% respectively on 6 August. This represents a decrease of 3, 8 and 21 basis points respectively compared with 9 July. When compared with the market implied expectations of secured three-

Chart 9 Money market interest rates

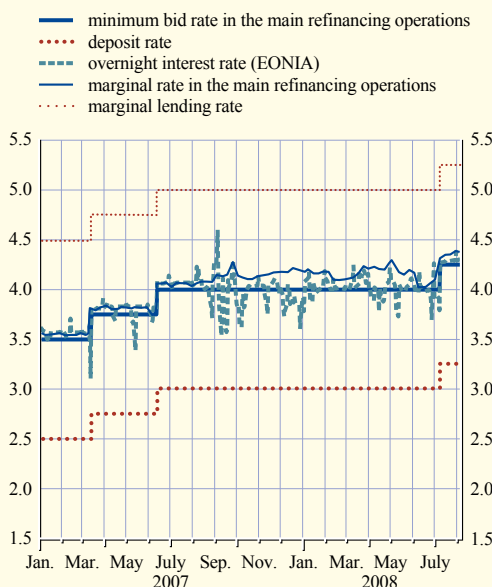
(percentages per annum; daily data)



Sources: ECB and Reuters.

Chart 10 ECB interest rates and the overnight interest rate

(percentages per annum; daily data)



Sources: ECB and Reuters.



month rates in 2009, this may indicate an anticipation of some narrowing of the spreads taking place next year.

Reflecting the liquidity situation anticipated by the ECB in the last few days of the sixth maintenance period of 2008 (ending on 8 July), a liquidity-absorbing fine-tuning operation with an overnight maturity was launched on the last day of the period. In this operation, the ECB absorbed €14.5 billion. The EONIA stood at 3.79% on that day (see Chart 10).

On 3 July the Governing Council decided to increase the key ECB interest rates by 25 basis points, with the minimum bid rate in the Eurosystem's main refinancing operations being raised to 4.25% with effect from 9 July. In the first few days of the seventh maintenance period (ending on 12 August), the EONIA stabilised at around 4.28%. During this maintenance period, in order to accommodate counterparties' wishes to fulfil their reserve requirements early in the maintenance period, the ECB continued its policy of allotting 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 8, 15, 22 and 29 July and 5 August the ECB allotted €18 billion, €14 billion, €10 billion, €8 billion and €3 billion in excess of the respective benchmark amounts. The resulting marginal tender rates for these five operations were 4.32%, 4.34%, 4.35%, 4.38% and 4.38% respectively.

In the Eurosystem's regular longer-term refinancing operation (LTRO) on 9 July (which was conducted with a fixed allotment amount of €25 billion and a maturity of six months), the marginal rate was 4.93% and the weighted average rate was 5.03%. In the LTRO on 30 July (which was conducted with a fixed allotment amount of €50 billion and a maturity of three months), the marginal rate was 4.7% and the weighted average rate was 4.76%. The marginal rate in this operation was 26 basis points lower than the three-month EURIBOR on 30 July and was 20 basis points higher than the marginal rate in the previous three-month LTRO on 25 June.

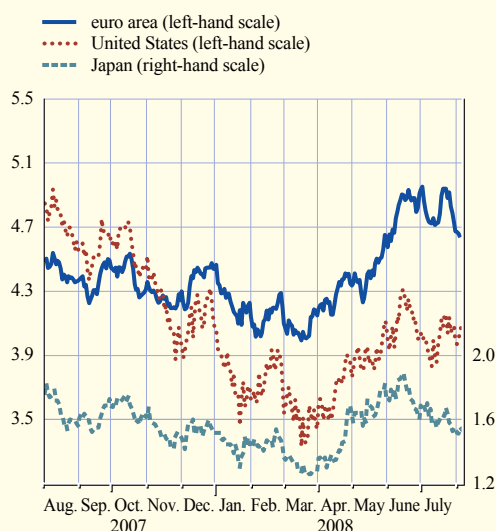
## 2.4 BOND MARKETS

*Global bond markets experienced strong volatility in July. By early August euro area long-term government bond yields were significantly below the 12-month highs recorded in late June. Shorter-term yields showed even stronger declines. In contrast, long-term interest rates in the United States rose slightly between late June and early August. Medium and long-term inflation expectations (and related risk premia), as reflected in break-even inflation rates, declined in both economic areas, particularly over medium-term horizons.*

Global bond markets experienced significant volatility in July. Developments in long-term government bond yields between late June and

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.

early August also differed somewhat across the major markets (see Chart 11). In the euro area, ten-year government bond yields declined by around 25 basis points between end-June and 6 August, standing at 4.7% on the latter date. By contrast, in the United States, long-term government bond yields rose slightly to stand at around 4.1% on 6 August. As a result, the differential between ten-year government bond yields in the United States and the euro area narrowed to -60 basis points. In Japan, the ten-year government bond yield decreased by 10 basis points, standing at 1.5% at the end of the review period. Measures of implied bond market volatility declined slightly in both the euro area and the United States over the review period, suggesting somewhat lower levels of uncertainty among market participants as regards short-term developments in bond yields.

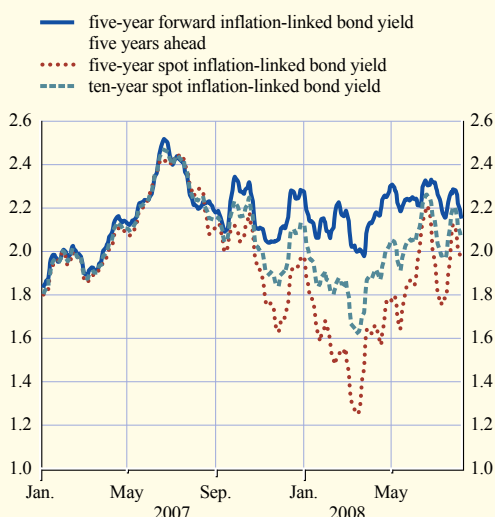
In the United States, long-term government bond yields have experienced significant volatility over the last few weeks, but ended the review period somewhat higher than at the end of June. Long-term nominal yields were strongly supported by increases in yields on long-term inflation-linked government bonds. Such increases in real yields, which were particularly strong at medium-term maturities, may reflect the gradual unwinding of flight-to-safety flows stemming from the stock market sell-off in the second quarter of 2008. The impact that these strong increases in real rates had on nominal yields was dampened by a significant decline in break-even inflation rates, probably related to the declines observed in oil prices from mid-July. Indeed, such developments suggest that market participants may have significantly reduced their inflation expectations at all horizons in the last few weeks, particularly at medium-term horizons. It is, however, important to bear in mind that such changes over the review period as a whole mask significant volatility in the course of that period, and that, taken together with the volatility in the stock market (see Section 2.6), they are likely also to reflect, to a large extent, flight-to-safety portfolio flows.

Euro area long-term nominal bond yields have also experienced significant volatility since end-June. The lower ten-year nominal bond yields observed in the review period fully reflect the lower break-even inflation rates, with real yields at longer horizons remaining broadly unchanged over the review period as a whole (see Chart 12). However, the real forward yield curve experienced a significant upward shift in the course of the review period at short to medium-term maturities, thereby flattening considerably. This shift appears to be related to the unwinding of past flight-to-safety flows.

Inflation expectations among market participants, as measured by break-even inflation rates, eased somewhat over the review period, especially at short to medium-term maturities, as oil prices retreated (see Chart 13). The strong decline – of around 60 basis points – in break-even inflation rates at short to medium-term maturities fully reversed the inverse term structure of break-even inflation rates observed at end-June. Against this background, the five-year forward break-even inflation rate five years ahead – a measure of only long-term inflation expectations and related

Chart 12 Euro area zero coupon inflation-linked bond yields

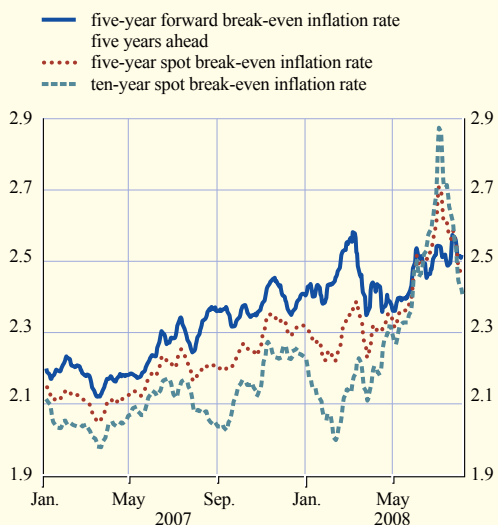
(percentages per annum; five-day moving averages of daily data; seasonally adjusted)



Sources: Reuters and ECB calculations.

**Chart 13 Euro area zero coupon break-even inflation rates**

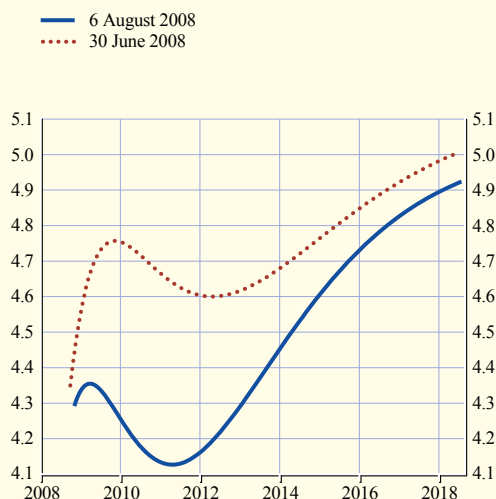
(percentages per annum; five-day moving averages of daily data; seasonally adjusted)



Sources: Reuters and ECB calculations.

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

(percentages per annum; daily data)



Sources: ECB, EuroMTS (underlying data) and Fitch Ratings (ratings).

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 is outlined in the “Euro area yield curve” section of the ECB’s website. The data used in the estimate are euro area AAA-rated government bond yields.

risk premia – remained broadly unchanged from end-June at an elevated level of 2.5%. Such developments in the term structure of break-even inflation rates were mirrored by inflation-linked swap rates, with short to medium-term rates declining strongly while longer-term rates remained elevated (2.6% at a ten-year horizon).

The implied nominal forward overnight interest rate curve for the euro area shifted downwards at all maturities, but particularly at short to medium-term horizons (see Chart 14). This may suggest that investors have reappraised the outlook for economic activity and inflationary pressures in the euro area in the context of recent data releases and the decline in oil prices.

Euro area credit spreads in the corporate bond market widened further in July and early August. The yield spread for BBB-rated corporate bonds vis-à-vis comparable government bonds increased by around 30 basis points in the period under review. While non-financial firms faced some increases in corporate bond yields, the widening of credit spreads was most pronounced for financial firms. Consequently, the spreads of financial corporations remained particularly elevated, standing close to or above the highest levels observed since the onset of the financial turmoil last summer.

Box 3 argues that the broad-based tightening of financing conditions evident in soaring corporate bond spreads has contributed to a decline in the process of consolidation in the euro area non-financial sector. Indeed, following several years of intense growth, the level of M&A activity and M&A-related syndicated lending has fallen significantly in recent months.

Box 3

RECENT DEVELOPMENTS IN M&A ACTIVITY BY EURO AREA NON-FINANCIAL CORPORATIONS

Against the backdrop of increased credit spreads in the context of the financial turmoil, the first half of this year saw a marked slowdown in M&A activity in the euro area non-financial sector. The value of completed deals with euro area firms acting as acquirers fell to €83 billion in the first half of 2008, a decline of 50% compared with the second half of 2007 and a fall of 30% compared with the first half of that year. In particular, in the second quarter of 2008 the value of such deals was only €32 billion, the lowest quarterly figure since the second quarter of 2004. This represents a break from the strong activity observed since 2005.

This slowdown was not unexpected, as can be seen from the even steeper decline in the volume of announced deals (see Chart A). Announced deals, which naturally lead finalised transactions by an average of one to two quarters, had already fallen significantly in the fourth quarter of 2007. Consequently, the subdued level of announced deals observed so far in 2008 suggests that a rebound is not likely for at least the remainder of the year.

The level of M&A activity seen in recent years compares in terms of size with the historical peak observed in the period 1999-2001. For instance, the value of total deals completed between 2005 and 2007 stood at €786 billion, not much less than the €1,054 billion seen in the period 1999-2001. A breakdown of transactions on the basis of the means of payment (see Chart B) suggests that the two episodes were similar in terms of the value of cash and debt-financed deals (with total values of around €730 billion in both periods). The difference between the two periods is explained by the aggressive recourse to share exchanges in 2000, a fact directly related to companies' inflated stock prices at that time, especially in the telecommunications, media and technology sector. The overvaluation of such equities at the turn of the century made it possible to conduct an exceptional number of large deals in those sectors.

Chart A Announced and completed M&A deals involving euro area non-financial corporations as acquirers

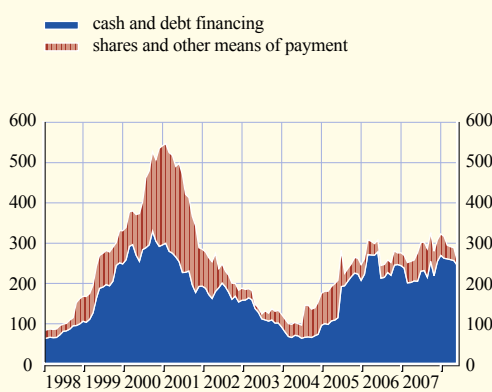
(EUR billions and basis points)



Sources: Bureau Van Dijk (Zephyr Database) and Merrill Lynch. Note: Figures for deals are three-month moving totals.

Chart B M&A deals by means of payment

(EUR billions; 12-month moving totals)



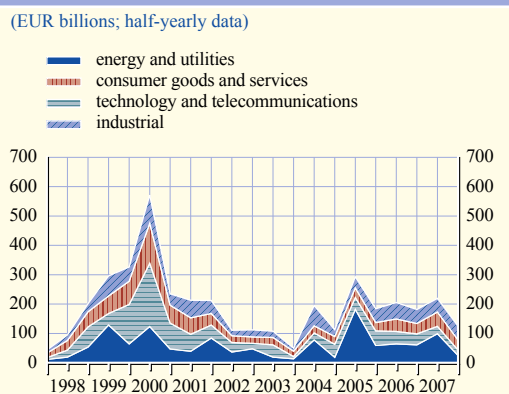
Source: Bureau Van Dijk (Zephyr Database).

With stock market developments not exhibiting signs of significant overvaluation in any particular industry in the period 2005-07, the sectoral composition of M&A activity became more homogeneous. Whereas the wave of M&A deals in the late 1990s was to a large extent driven by the boom in technology-related business and consolidation in the telecommunications sector, the current wave has seen a larger share of deals in more traditional industries (see Chart C). In particular, several important deals have taken place in the energy, materials and utilities sectors, reflecting a tendency for firms to consolidate in the still relatively fragmented euro area market. In addition, a number of noteworthy deals have taken place in the euro area financial sector. Although not considered in this box, these remain relevant for an assessment of the overall picture as regards M&A activity.

The recent wave of M&A deals seems to be related to the exceptionally favourable financing environment that prevailed until the summer of 2007. On the one hand, strong corporate balance sheets (a result, inter alia, of the large-scale restructuring that took place after the bursting of the technology bubble in 2001), the sustained level of profitability and the increasing availability of cash flows made it feasible for companies to pursue external growth strategies drawing on internal resources. On the other hand, the persistently low level of both nominal and real interest rates in the major economic areas – together with credit spreads that were compressed from a historical perspective as measured by corporate bond spreads (see Chart A) or credit default swap premia – established conditions conducive to widespread recourse to external finance.

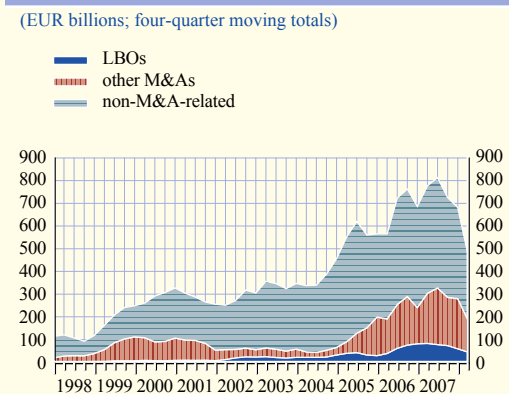
Against this background, other structural factors have supported the supply of funds to corporate participants. Financial innovation – notably in relation to banks' increased ability to resell and repackage credit and the development of a secondary market for corporate loans – has increased the supply of bank loans. The extension of the pool of lenders beyond the traditional banking sector, involving, for instance, arrangers of collateralised loan obligations and, ultimately, institutional investors, has also contributed to this development. The growth of the syndicated loan market in the euro area has been a key source of funding in the recent wave of M&A deals and represents a significant difference by comparison with the previous episode. The total volume of syndicated lending rose to €2,050 billion in the period 2005-07, around two and a half times the level observed in the period 1999-2001 when the market was less developed.

**Chart C M&A deals by sector**



Source: Bureau Van Dijk (Zephyr Database).

**Chart D Syndicated lending in the euro area**



Source: Thomson ONE Bankers.

Significantly, a large part of this credit expansion has been channelled towards M&A activities (see Chart D). These developments partly reflect the sharp increase observed in the size of the private equity industry, as can be seen from the growing share of leveraged buyout (LBO) deals. The contraction seen in M&A and LBO-related syndicated lending since the summer of 2007 has clearly been instrumental in the decline observed in (announced) M&A activities over the same period. In this respect, the decline seen in syndicated lending suggests that the overall rate of growth of loans to euro area non-financial corporations could fall further over the next few quarters.

Overall, the retrenchment in M&A activity in 2008 is a clear consequence of the repricing of risk observed across a wide range of financial instruments following the financial turmoil that began in the summer of 2007. The financing environment that has prevailed since then has been more challenging and more volatile, being characterised by increased credit spreads, by liquidity retrenchment in various key segments of fixed-income markets and by the drying-up of the securitisation and syndicated lending markets. These developments have resulted in a considerable slowdown in M&A activity in the euro area non-financial sector, as was evident from the sudden decline in newly announced deals as early as the fourth quarter of 2007. In 2008 the macroeconomic outlook and reduced profit prospects in the corporate sector have further contributed to this contraction, calling into question in particular the most highly leveraged transactions, the economic performance of which ultimately depends on the ability to generate cash flows in order to repay debt. At the same time, the retreat of private equity and LBO-related bidders may gradually make more room for traditional M&A activity related to intra-industry consolidation. In parallel, the reduced appetite for leverage and risk may contribute to the longer-term sustainability of corporate balance sheets in the euro area.

## 2.5 INTEREST RATES ON LOANS AND DEPOSITS

*In June 2008 MFI interest rates on loans to households and non-financial corporations tended to increase, broadly reflecting rising market interest rates. The increase observed in banks' funding costs since the financial market turmoil began in mid-2007 has not been fully passed on to bank interest rates.*

In May and June 2008 short-term MFI interest rates on new loans to non-financial corporations generally increased, against the backdrop of comparable increases in the majority of money market rates (see Table 4 and Chart 15). The interest rates on short-term deposits from households (i.e. those with an agreed maturity of up to one year) increased by 16 basis points between April and June 2008, and the majority of this increase occurred in June. Interest rates on short-term deposits from non-financial corporations remained unchanged in May and June. Interest rates on new short-term loans to households for consumption remained broadly unchanged in June, following an increase of 13 basis points in May. This rate category is often characterised by high levels of volatility. Short-term interest rates on loans for house purchase increased by 25 basis points between April and June. In some countries of the euro area, interest rates on loans for house purchase are linked to the twelve-month EURIBOR, which increased by 55 basis points over the same period. In June 2008 MFI interest rates on new loans to non-financial corporations of up to €1 million with a floating rate and an initial rate fixation period of up to one year increased by 6 basis points, and the corresponding interest rates for loans of over €1 million increased by 8 basis points. In June 2008 interest rates on bank overdrafts for non-financial corporations increased

by 11 basis points. These developments partly reflected the fact that the three-month money market rate increased by 8 basis points in both May and June.

Taking a longer-term perspective and looking at developments between June 2007 and June 2008, although the three-month money market rate rose by 79 basis points, short-term MFI interest rates on deposits from households and non-financial corporations increased by 65 and 34 basis points respectively. At the same time, rates on loans to households for consumption and house purchase rose by 51 and 48 basis points respectively. Interest rates on short-term loans to non-financial corporations of up to €1 million increased by 62 basis points, while interest rates on short-term loans of over €1 million increased by 45 basis points. All in all, since the outbreak

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

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

							Change in basis points up to June 2008 <sup>2)</sup>		
	2007 Q2	2007 Q3	2007 Q4	2008 Q1	2008 May	2008 June	2007 Nov.	2008 Feb.	2008 May
<b>MFI interest rates on deposits</b>									
Deposits from households									
with an agreed maturity of up to one year	3.77	4.07	4.28	4.14	4.31	4.42	34	32	11
with an agreed maturity of over two years	2.73	3.08	3.09	3.00	3.08	3.20	10	7	12
redeemable at notice of up to three months	2.41	2.57	2.61	2.71	2.74	2.75	17	7	1
redeemable at notice of over three months	3.31	3.50	3.67	3.78	3.84	3.88	25	11	4
Overnight deposits from non-financial corporations	1.79	1.92	1.97	2.03	2.06	2.07	6	6	1
Deposits from non-financial corporations									
with an agreed maturity of up to one year	3.93	4.13	4.26	4.19	4.25	4.27	16	20	2
with an agreed maturity of over two years	4.09	4.37	4.18	4.21	4.52	4.82	70	47	30
<b>MFI interest rates on loans</b>									
Loans to households for consumption									
with a floating rate and an initial rate fixation of up to one year	8.09	8.50	8.24	8.50	8.59	8.60	30	14	1
Loans to households for house purchase									
with a floating rate and an initial rate fixation of up to one year	4.99	5.23	5.31	5.21	5.35	5.47	17	20	12
with an initial rate fixation of over five and up to ten years	4.89	5.08	5.06	4.96	4.99	5.08	-2	7	9
Bank overdrafts to non-financial corporations	6.18	6.50	6.63	6.55	6.57	6.68	17	13	11
Loans to non-financial corporations									
of up to €1 million									
with a floating rate and an initial rate fixation of up to one year	5.53	5.92	6.08	5.91	6.09	6.16	21	31	7
with an initial rate fixation of over five years	5.00	5.24	5.28	5.22	5.24	5.40	11	19	16
Loans to non-financial corporations									
of over €1 million									
with a floating rate and an initial rate fixation of up to one year	4.90	5.21	5.33	5.18	5.27	5.35	27	31	8
with an initial rate fixation of over five years	5.17	5.43	5.47	5.34	5.43	5.58	20	45	15
<b>Memo items</b>									
Three-month money market interest rate	4.15	4.74	4.85	4.60	4.86	4.94	30	58	8
Two-year government bond yield	4.45	4.10	4.05	3.54	4.14	4.72	78	132	58
Five-year government bond yield	4.57	4.19	4.14	3.65	4.20	4.75	75	111	55

Source: ECB.

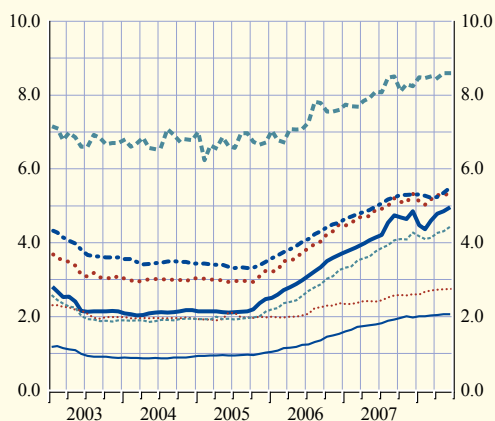
1) The weight-adjusted MFI interest rates are calculated using country weights constructed from a 12-month moving average of new business volumes. For further information, see the box entitled "Analysing MFI interest rates at the euro area level" in the August 2004 issue of the Monthly Bulletin. Quarterly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

2) Figures may not add up due to rounding.

**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



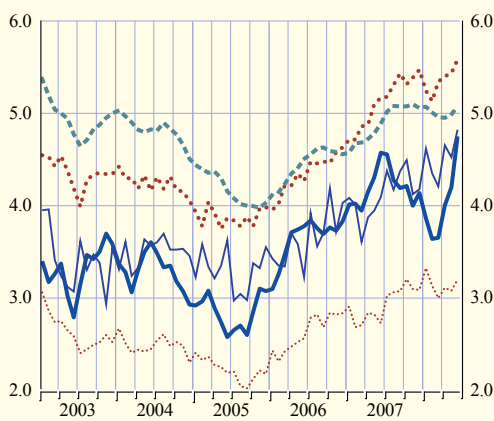
Source: ECB.

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.

of the credit market tensions in mid-2007 short-term MFI interest rates have increased somewhat less strongly than money market rates, implying that the increases in banks' costs for wholesale and securitised funding in the context of persistent distortions in the interbank markets have not been fully passed on.

In June 2008 long-term MFI interest rates on deposits with a maturity of over two years increased by 12 basis points for households, while for non-financial corporations they increased by 30 basis points (see Table 4 and Chart 16). Long-term MFI rates on loans to households for house purchase also continued their upward trend in both May and June 2008. Interest rates on loans to non-financial corporations of up to €1 million increased by 20 basis points between April and June 2008, while the corresponding rates for loans of over €1 million increased by 9 basis points over that period (see Chart 16). Two and five-year government bond yields increased by 86 and 75 basis points respectively between April and June 2008. It should be noted, however, that the majority of those increases occurred in June, when two and five-year government bond yields rose by 59 and 55 basis points respectively.



Turning to developments over a longer horizon, longer-maturity MFI deposit and lending rates increased moderately between June 2007 and June 2008. MFI interest rates on loans to households for house purchase with an initial rate fixation period of over ten years rose by 38 basis points over the same period. MFI interest rates on loans to non-financial corporations of up to €1 million with an initial rate fixation period of over five years increased by 37 basis points, while the corresponding rates for larger loans rose by 31 basis points. Government bond yields increased by a smaller amount over that period, with two and five-year yields increasing by 27 and 18 basis points respectively. As a result, spreads between MFI lending rates and government bond yields have widened moderately since the outbreak of the financial turmoil, reflecting the increase in banks' funding costs. Between end-June 2007 and June 2008 the cost of MFI loan financing, as reflected in bank bond yields, increased by almost 170 basis points.

## 2.6 EQUITY MARKETS

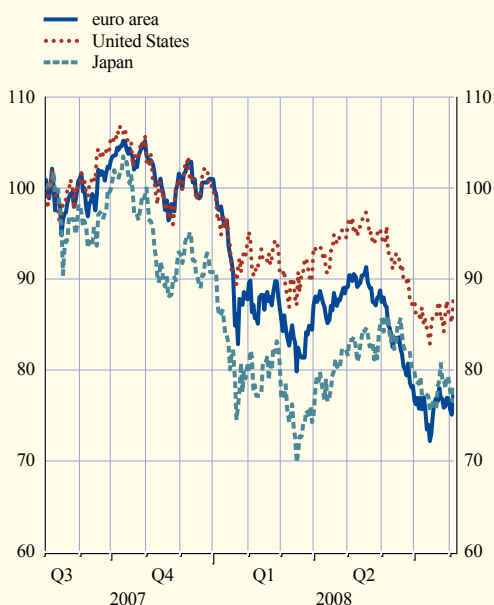
*Stock price developments in the major markets remained volatile in July. In the euro area and the United States, stock prices in early August were broadly unchanged from end-June, despite strong fluctuations in the course of the review period. Volatility in commodity prices, earnings announcements and, more recently, the monetary policy decision of the Federal Reserve on 5 August were the main factors in those fluctuations. Stock market uncertainty, as measured by implied volatility, decreased somewhat in the major markets between the end of June and early August.*

In the euro area and the United States, broad-based stock price indices in early August were broadly unchanged from late June, despite significant volatility in the course of the review period (see Chart 17). In particular, the downward trend that began in the middle of the second quarter continued in the first couple of weeks of July, followed by a rebound and some levelling-off in the second half of July and early August. The decision by the Federal Reserve to keep interest rates unchanged at its meeting on 5 August was also positively received by global stock markets. Overall, the Dow Jones EURO STOXX index declined marginally over the review period, while the Standard & Poor's 500 index posted a small gain. Stock prices in Japan, as measured by the Nikkei 225 index, declined by 2% over the same period. Stock market uncertainty, as measured by the implied volatility extracted from stock options, declined somewhat in major markets following the increases observed in June (see Chart 18).

In the first half of July stock prices in the United States continued the downward trend observed since May 2007, being adversely affected by weak earnings releases for US firms, further concerns about the US financial sector and higher oil prices. From mid-July stock prices were supported by declining oil prices and earnings reports by US corporations which were less negative than expected. More recently, the decision by the Federal Open Market Committee to keep interest rates unchanged at its meeting on 5 August and market expectations regarding the future course of monetary policy contributed to the rebound in US stock prices in early August. Overall, the Standard & Poor's 500 index ended the review period almost 1% higher than at end-June. The growth rate of annual earnings per share for corporations in the Standard & Poor's 500 index remained negative at -5% in July, but the growth forecast for earnings 12 months ahead edged upwards slightly to 16%, suggesting that analysts generally expect the downturn in earnings to be short-lived.

Chart 17 Stock price indices

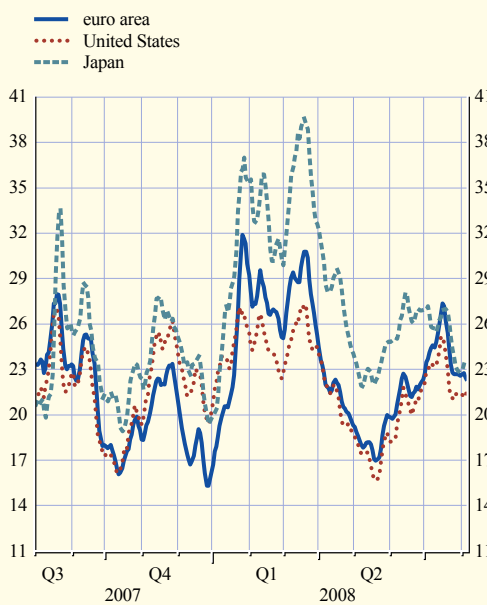
(index: 1 August 2007 = 100; daily data)



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.  
Notes: 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.

Developments in euro area stock prices broadly mirrored the US market. July data on euro area earnings per share showed actual earnings growth for the Dow Jones EURO STOXX 50 index continuing to decline, falling for the seventh month in a row. However, the forecast growth rate of earnings per share 12 months ahead remained broadly unchanged from the previous month at 8% and the forecast growth rate over the longer term stood at 7%. Overall, for euro area equities, earnings-related news was generally better than expected in July. In terms of sectoral developments, the rebound in the second half of the review period was particularly noticeable for financial stocks, which managed to fully recover the losses incurred in the first half of July and ended the period around 4% above the levels of end-June. The oil and gas sector performed worst in line with declining oil prices, while consumer goods and services, despite the deterioration in the economic outlook, outperformed the overall index.

Implied volatility declined in major stock markets in July and early August, indicating that uncertainty regarding short-term stock price developments may have diminished somewhat.

## 3 PRICES AND COSTS

*Euro area HICP inflation reached 4.0% in June 2008 and, according to Eurostat's flash estimate, 4.1% in July. High inflation outturns since last autumn have largely resulted from the direct and indirect effects of past sharp increases in energy and food prices at the global level. Looking ahead, on the basis of current futures prices for commodities, the annual HICP inflation rate is likely to remain well above a level consistent with price stability for quite some time, moderating only gradually in 2009.*

*Risks to price stability at the medium-term horizon remain clearly on the upside and have increased over the past few months. In particular, these risks include the possibility of further rises in energy and food prices and increasing indirect effects on consumer prices. Price and wage-setting behaviour could also add to inflationary pressures via broadly based second-round effects. Lastly, there are potential upside risks from unanticipated rises in indirect taxes and administered prices.*

### 3.1 CONSUMER PRICES

According to Eurostat's flash estimate, euro area HICP inflation rose to 4.1% in July 2008 from 4.0% in June. Although official estimates of the breakdown of the HICP components for July are not yet available, evidence at the country level suggests that the rise in HICP inflation can be mainly attributed to increases in the energy and food components.

The detailed breakdown for June indicates that a sharp increase in the energy component of HICP (which was up 16.0% compared with a year earlier) accounted for most of the increase in overall HICP inflation that month (see Chart 19). Energy prices in June rose by 2.5% compared with the previous month owing to a further increase in crude oil prices. In particular, the prices of heating fuel and transport fuel rose sharply in month-on-month terms in June. Upward pressures have also shown signs of intensifying for non-oil energy items, notably gas prices, which tend to follow oil price developments with a lag.

The annual rate of change in food prices remained high in June, following a small upward movement in the annual rate of change in processed food prices and unchanged unprocessed food price inflation. An analysis of the various unprocessed food items suggests some upward pressure related to past developments in global food commodity markets. Meat prices (which represent around half

**Table 5 Price developments**

(annual percentage changes, unless otherwise indicated)

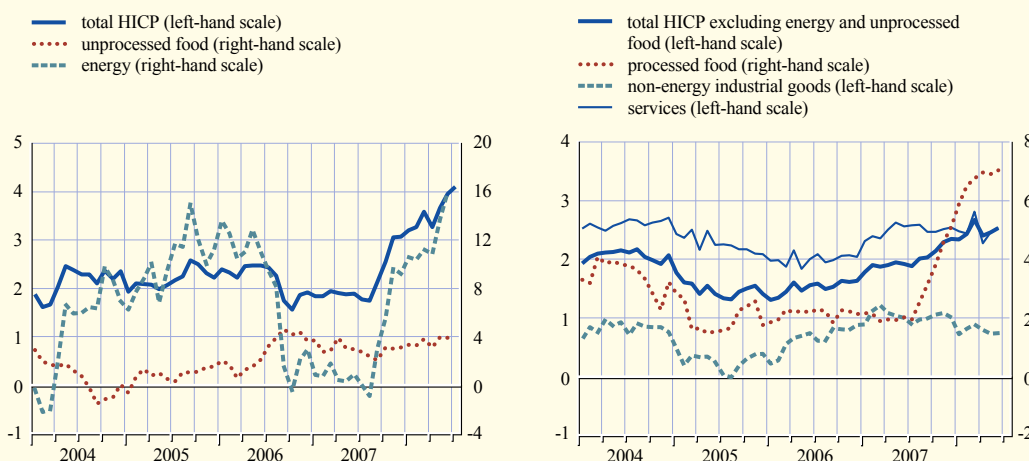
	2006	2007	2008 Feb.	2008 Mar.	2008 Apr.	2008 May	2008 June	2008 July
<b>HICP and its components</b>								
Overall index <sup>1)</sup>	2.2	2.1	3.3	3.6	3.3	3.7	4.0	4.1
Energy	7.7	2.6	10.4	11.2	10.8	13.7	16.0	.
Unprocessed food	2.8	3.0	3.3	3.8	3.1	3.9	3.9	.
Processed food	2.1	2.8	6.5	6.8	7.0	6.9	7.0	.
Non-energy industrial goods	0.6	1.0	0.8	0.9	0.8	0.7	0.7	.
Services	2.0	2.5	2.4	2.8	2.3	2.5	2.5	.
<b>Other price indicators</b>								
Industrial producer prices	5.1	2.8	5.4	5.8	6.2	7.1	8.0	.
Oil prices (EUR per barrel)	52.9	52.8	64.1	66.1	69.8	80.1	85.9	85.3
Non-energy commodity prices	24.8	9.2	15.0	10.3	5.8	6.0	9.6	9.8

Sources: Eurostat, HWWI and ECB calculations based on Thomson Financial Datastream data.

1) HICP inflation in July 2008 refers to Eurostat's flash estimate.

Chart 19 Breakdown of HICP inflation: main components

(annual percentage changes; monthly data)



Source: Eurostat.

of unprocessed food) continued to pick up, possibly reflecting the upward cost pressure from higher animal feed prices. However, this pick-up was broadly offset by a slowdown in the rate of change in fruit prices. The small rise in the annual rate of change in processed food prices, which stood at 7.0% in June, occurred mainly on account of a pick-up in the prices of bread and cereals and of oil and fats. While past developments in global food commodity markets imply that significant supply chain pressures have yet to reach consumers, in the absence of any further shocks, favourable base effects from last year's strong increases should contribute to a gradual decline in annual food price inflation over the second half of this year.

Excluding all energy and food items, which together represent over 30% of the HICP basket, annual HICP inflation rose by 0.1 percentage point to 1.8% in June, which mainly reflected an increase of a similar magnitude in services price inflation. Indirectly induced cost pressure from energy and food inputs appears to have contributed to this, mainly in the form of increases in transport services prices, as well as recreation and personal services prices (which include, inter alia, restaurant and canteen prices). Non-energy industrial goods price inflation was unchanged in June at 0.7%, with offsetting movements in two large items. On the one hand, the annual growth rate of prices for garments and clothing materials (accounting for 17% of the sub-index) fell in June on account of some early seasonal discounts, which were slightly stronger than in the previous year. On the other, car prices (accounting for about 15% of the sub-index) rose slightly – the first increase in this component since December 2007.

### 3.2 INDUSTRIAL PRODUCER PRICES

The annual rate of change in total industrial producer prices (excluding construction) increased from 7.1% in May to 8.0% in June 2008, the highest rate recorded in over 25 years. This rise was mainly driven by energy prices, with the latter reaching an exceptionally high annual growth rate of 21.4% in June.

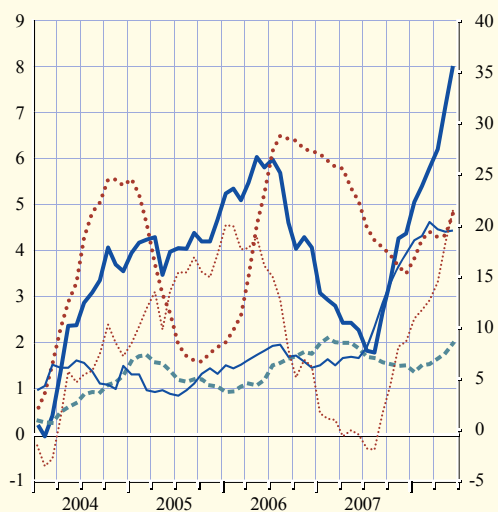
Excluding both energy and construction, producer price inflation edged up further in June 2008 to 4.0%, the highest level recorded since late 1995. This increase is mainly linked to developments in intermediate goods prices, which rose by 4.8% compared with a year earlier. It is likely that these developments reflect upward pressures at the earlier stages of the production process generated by past strong increases in commodity prices, notably metal and oil prices. The annual rate of change in capital goods prices also increased further in May to 2.0%, exceeding its 2007 average. Further down the production chain, the annual rate of change in consumer goods prices remained unchanged in June at an elevated level of 4.4%. Within the consumer goods industry, annual food price inflation fell in June to 9.5%, although it remained close to the high of 10.1% reached in March. Excluding tobacco and food, the annual rate of change in consumer goods was stable at 1.4% in June, slightly above its 2007 average.

The latest data on firms' price-setting behaviour from the Purchasing Managers' Index (PMI) point to mounting inflationary supply chain pressures in both the manufacturing and the services sectors. According to the latest survey, in July 2008 price pressures strengthened further in the manufacturing sector and also remained strong in the services sector, despite a small decline compared with the previous month (see Chart 21). In July, the manufacturing input prices index recorded a surge on account of high oil prices and continued rising prices for other commodities. At the same time, the input price index for the services sector remained close to the previous month's peak. The prices charged index increased further for manufacturing, but declined marginally from a high level for services, suggesting an ongoing pass-through of costs from firms to customers.

**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)

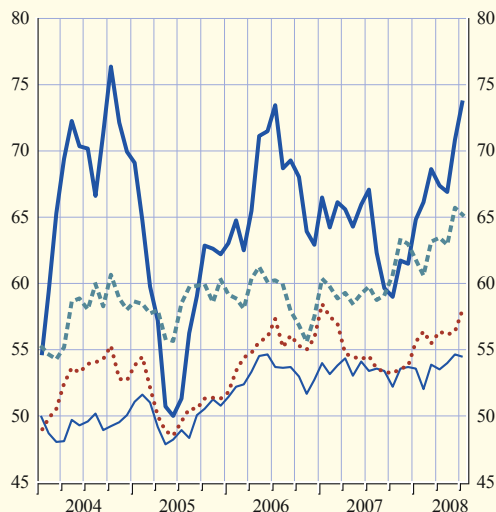


Sources: Eurostat and ECB calculations.

**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: Markit.

Note: An index value above 50 indicates an increase in prices, whereas a value below 50 indicates a decrease.

### 3.3 LABOUR COST INDICATORS

The most recent information on wage developments confirms continued strength in wage growth following the acceleration observed over recent quarters (see Table 6).

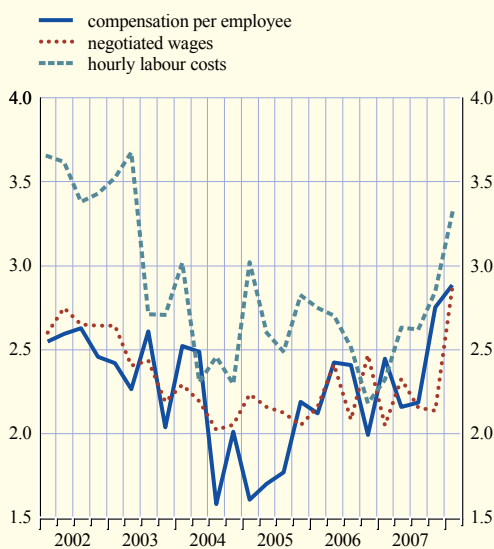
The annual growth rate of negotiated wages, hourly costs and compensation per employee all picked up in the first quarter of 2008 (see Chart 22). The annual growth rate of negotiated wages increased sharply to 2.9%, from 2.1% in the last quarter of 2007. A sizeable jump in the annual growth rate of hourly labour costs was also observed in the first quarter of 2008, largely on account of a rise in the annual growth rate of wage costs to 3.7%. The latest compensation per employee data, which show a slight downward revision for the first quarter of 2008 and an upward revision for the last quarter of 2007, confirm a recent acceleration in wage growth, which is consistent with the developments observed in other available measures. Indeed, annual growth in compensation per employee was 2.9% in the first quarter of 2008, following a substantial increase to 2.8% in the last quarter of 2007. The annual growth rate of unit labour cost, which stood unchanged in the first quarter of 2008 at 2.4%, remains at its highest rate in five years.

This acceleration in the annual growth of compensation and hourly labour costs appears to have been broad based across sectors (see Chart 23). Since the second half of 2007, particularly pronounced rises in construction, as well as in industry excluding construction, have been closely matched by a general pick-up in annual compensation growth in market services.

This rise in wage pressure can be attributed to several forces, including tighter labour markets and continued high capacity utilisation, and existing nominal wage indexation schemes linking wages to past price developments. The resulting strengthening of domestic inflationary pressures and its potential for unwelcome broadly based second-round effects require careful monitoring. The risk of

Chart 22 Selected labour cost indicators

(annual percentage changes; quarterly data)



Sources: Eurostat, national data and ECB calculations.

Table 6 Labour cost indicators

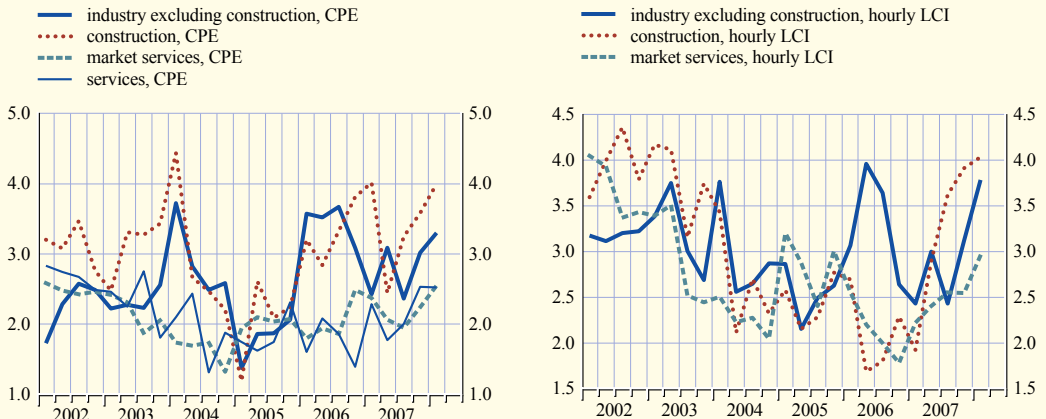
(annual percentage changes, unless otherwise indicated)

	2006	2007	2007 Q1	2007 Q2	2007 Q3	2007 Q4	2008 Q1
Negotiated wages	2.3	2.2	2.0	2.3	2.2	2.1	2.9
Total hourly labour costs	2.5	2.6	2.3	2.7	2.6	2.9	3.3
Compensation per employee	2.2	2.4	2.4	2.2	2.2	2.8	2.9
<i>Memo items:</i>							
Labour productivity	1.2	0.8	1.5	0.9	0.7	0.4	0.5
Unit labour costs	1.0	1.5	1.0	1.3	1.4	2.4	2.4

Sources: Eurostat, national data and ECB calculations.

**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”.

such second-round effects remains particularly acute in the few euro area countries where some form of automatic price indexation of wages exists. Indeed, in a context of weak productivity growth, high wages feed directly into unit labour cost growth.

### 3.4 PROFIT DEVELOPMENTS IN THE EURO AREA

The latest available national accounts data on euro area profit developments indicate that the rate of increase in profits has declined from the robust rates observed at the beginning of 2007, although it is still close to its average over the past ten years. These indications are consistent with corporate earnings expectations, which have been revised downward several times since the summer of 2007 (see Box 4 for more details). Corporate profit developments are likely to be under some pressure in the coming quarters, given continuing high commodity prices, a weakening global and domestic economic outlook, the euro exchange rate and the ongoing increase in domestic labour costs.

#### Box 4

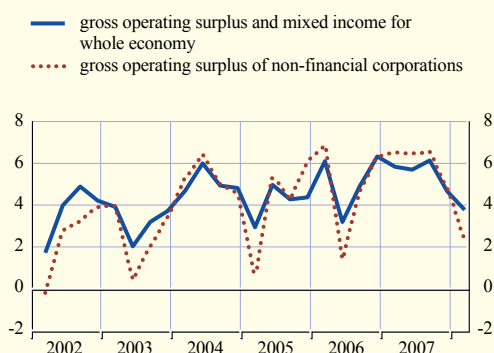
### PROFIT DEVELOPMENTS IN THE EURO AREA

This box presents the latest available national accounts data on euro area profit developments. Although these data are only available with some lag – whole economy data for the first quarter of 2008 became available in mid-July and institutional sector account data for the same period were released at the beginning of August – their analysis can shed useful light on the factors that have an impact on profit developments and, importantly, may provide some insight into the evolution of corporate sentiment and investment intentions.<sup>1</sup>

<sup>1</sup> “Institutional sectors” refers to households, non-financial corporations, etc. “Branches of activity” refers to construction, industry, services, etc.

**Chart A Gross operating surplus – whole economy and non-financial corporations**

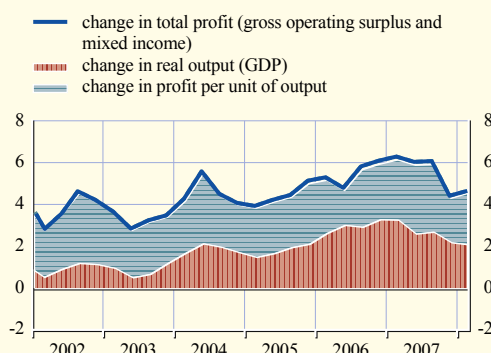
(annual percentage changes; non-seasonally and non-working day adjusted data)



Sources: Eurostat and ECB.

**Chart B Breakdown of change in profits into change in output and change in profit per unit of output**

(annual percentage changes and percentage points; seasonally and working day adjusted data)



Sources: Eurostat and ECB calculations.

Chart A shows that the rate of increase in profits has declined in recent quarters from the robust rates observed at the beginning of 2007, although it is still close to its average over the past ten years. This profile is evident from data for both the whole economy and non-financial corporations. Chart B shows the breakdown of changes in profits into changes in real output (“volume”) and changes in profit per unit of output (“margin”) for the whole economy.<sup>2</sup> It should be borne in mind that this decomposition is static and assumes that pricing and output are independent, whereas in reality they are determined jointly. Nonetheless, it is clear that both volume and margin effects have played a role in the slowdown in profits, although the slowdown in margins has occurred primarily since the third quarter of 2007. Both external and domestic factors had a marked impact on profit margins around the turn of 2008. On the external side, rises in commodity prices (both energy and non-energy) and the relative strength of the euro exchange rate played a role. On the domestic side, unit labour costs increased strongly, reflecting higher wage growth (compensation per employee) and slowing labour productivity growth. As labour constitutes the most significant cost for most firms, these developments in unit labour costs, combined with the moderation in annual GDP growth rates, are key factors behind the decline in profit growth.

An analysis of profit developments by branch of activity (i.e. industry, services, etc.) reveals a broadly similar pattern, albeit with some differences. The table shows an alternative measure of profitability – the profit mark-up indicator – which is calculated as the difference between the rates of change in the value added deflator and unit labour costs. This indicator captures firms’ mark-ups relative to their labour costs. The rate of change in the value added deflator increased in both the industry and the “mainly market” services branches from 2006 to the first quarter of 2008.<sup>3</sup> This increase may in part reflect the delayed pass-through of previous commodity price increases. However, in both branches, the rate of change in unit labour costs increased by even more than that of the value added deflator. In the case of industry, unit labour costs actually declined in 2006 and 2007, but rose in year-on-year terms in the first quarter of 2008. In services,

<sup>2</sup> Data on real activity by institutional sector are not yet available.

<sup>3</sup> The “mainly market” services branch refers to the NACE branches G-K, i.e. wholesale and retail trade; hotels and restaurants; transport, storage and communications; financial intermediation; and real estate, renting and business activities.



## Profit mark-up developments by branch of activity

(annual percentage changes and percentage points; seasonally and working day adjusted data)

	2005	2006	2007	2007 Q2	2007 Q3	2007 Q4	2008 Q1
<b>whole economy</b>	value added deflator	1.8	1.6	2.0	2.0	2.1	2.4
	unit labour cost	1.0	0.9	1.5	1.3	1.4	2.4
	- compensation per employee	1.8	2.2	2.4	2.2	2.2	2.8
	- labour productivity	0.8	1.3	0.9	0.9	0.7	0.4
	profit mark-up indicator	0.8	0.7	0.5	0.8	0.7	-0.3
<b>industry</b>	value added deflator	1.2	0.8	1.5	1.9	1.5	1.8
	unit labour cost	-0.8	-0.6	-0.3	0.1	-0.8	0.2
	- compensation per employee	1.8	3.5	2.7	3.1	2.4	3.0
	- labour productivity	2.6	4.1	3.1	3.0	3.2	2.8
	profit mark-up indicator	1.9	1.3	1.9	1.8	2.4	1.0
<b>“mainly market” services</b>	value added deflator	1.5	1.3	1.7	1.8	1.8	1.7
	unit labour cost	1.0	1.3	2.2	2.0	2.1	3.0
	- compensation per employee	2.0	2.0	2.2	2.1	2.0	2.2
	- labour productivity	1.1	1.0	0.4	0.5	0.2	-0.2
	profit mark-up indicator	0.5	0.1	-0.4	-0.2	-0.3	-1.3

Sources: Eurostat and ECB calculations.

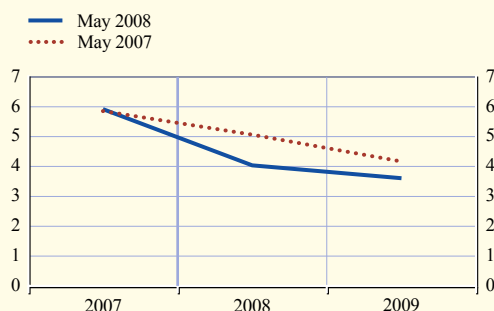
Note: The profit mark-up indicator is defined as the difference between the rates of change in the gross value added deflator and in unit labour cost. In turn, changes in unit labour cost can be broken down into changes in compensation per employee and labour productivity. Due to rounding, these figures may not always add up exactly.

the upward movement in unit labour cost growth was even more pronounced, rising from 1.0% in 2006 to 2.9% at the beginning of 2008. The steeper increase in the latter is the result of a rise in wage growth in services, as labour productivity growth declined in both branches.<sup>4</sup> Thus, notwithstanding some acceleration in the value added deflator, the strong rise in unit labour cost growth has resulted in weaker developments in the profit mark-up indicator in both branches. In addition to weaker unit labour cost developments, the somewhat stronger profit growth in industry over recent years also reflects higher output growth in that sector.

Overall, national account profit data support the information drawn from financial market-based indicators (see Box 4 entitled “Recent developments in the earnings of euro area firms” in the June 2008 issue of the Monthly Bulletin), which have highlighted downward revisions to corporate earnings expectations since summer 2007. Looking ahead, the profit environment is likely to remain challenging for the remainder of 2008. Continuing high commodity prices, slower growth in the world economy and exchange rate developments are all likely to weigh on the profitability of euro area firms exposed to the global economy, either directly or indirectly. Furthermore, weaker economic growth combined with high rates of growth in unit labour costs are also expected to be a drag on company profitability. This assessment is shared by respondents to surveys by Consensus Economics, which in May revised downward

Chart C Consensus Economics corporate profit expectations

(annual percentage changes)



Sources: Consensus Economics and ECB calculations.

4 For more detail on disaggregated wage developments, see Box 6 “Recent developments in sectoral wage and labour costs in the euro area” in the June 2008 issue of the Monthly Bulletin.

euro area corporate profit growth expectations for 2008 and 2009 compared with expectations a year previously – see Chart C.

In the current challenging environment, the main factors that can support profitability are competitive product and labour markets, moderate wage developments and medium-term price stability. Sustained profitability is necessary to support ongoing investment and job creation.

### 3.5 THE OUTLOOK FOR INFLATION

Euro area HICP inflation has remained considerably above the level consistent with price stability since last autumn. This high level of inflation has resulted largely from both direct and indirect effects of past sharp increases in energy and food prices at the global level. At the same time, while labour productivity growth has slowed down, there are some indications that labour cost growth has been rising in recent quarters. Looking ahead, on the basis of current futures prices for commodities, the annual HICP inflation rate is likely to remain well above a level consistent with price stability for quite some time, moderating only gradually in 2009.

The latest ECB Survey of Professional Forecasters (see Box 5) indicates an upward revision to private sector inflation expectations for all horizons. In the near-term, the survey indicates a substantial rise in average inflation expectations for 2008 and 2009 compared with the previous survey round, while newly available forecasts for 2010 indicate an average inflation expectation of 2.1%. Average expectations for inflation five years ahead have also been revised upward from 1.95% to 2.03%.

Risks to price stability at the medium-term horizon remain clearly on the upside and have increased over the past few months. In particular, these risks include the possibility of further rises in energy and food prices and increasing indirect effects on consumer prices. Price and wage-setting behaviour could also add to inflationary pressures via broadly based second-round effects. Lastly, there are potential upside risks from unanticipated rises in indirect taxes and administered prices.

#### Box 5

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

This box reports the results of the ECB Survey of Professional Forecasters (SPF) for the third quarter of 2008. The survey was conducted between 16 and 18 July 2008. The SPF gathers information on expectations for euro area inflation, GDP growth and unemployment from experts affiliated with 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.

## 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				
		June 2009	2009	June 2010	2010	Longer term <sup>2)</sup>
SPF Q3 2008	3.6	2.4	2.6	2.0	2.1	2.0
<i>Previous SPF (Q2 2008)</i>	<i>3.0</i>	-	<i>2.2</i>	-	-	<i>1.9</i>
Eurosystem staff macroeconomic projections	3.2 - 3.6	-	1.8 - 3.0	-	-	-
Consensus Economics (July 2008)	3.6	-	2.4	-	2.0	2.0
Euro Zone Barometer (July 2008)	3.6	-	2.4	-	2.1	2.0
Real GDP growth	2008	Q1 2009	2009	Q1 2010	2010	Longer term <sup>2)</sup>
SPF Q3 2008	1.6	0.9	1.3	1.7	1.8	2.1
<i>Previous SPF (Q2 2008)</i>	<i>1.6</i>	-	<i>1.6</i>	-	-	<i>2.1</i>
Eurosystem staff macroeconomic projections	1.5 - 2.1	-	1.0 - 2.0	-	-	-
Consensus Economics (July 2008)	1.6	-	1.2	-	1.9	2.0
Euro Zone Barometer (July 2008)	1.6	-	1.2	-	1.8	2.0
Unemployment rate <sup>1)</sup>	2008	May 2009	2009	May 2010	2010	Longer term <sup>2)</sup>
SPF Q3 2008	7.2	7.4	7.4	7.3	7.4	6.9
<i>Previous SPF (Q2 2008)</i>	<i>7.1</i>	-	<i>7.1</i>	-	-	<i>6.6</i>
Consensus Economics (July 2008)	7.2	-	7.4	-	-	-
Euro Zone Barometer (July 2008)	7.2	-	7.4	-	7.2	7.0

1) As a percentage of the labour force.

2) Longer-term inflation expectations refer to 2013 in the SPF, 2012 in the Euro Zone Barometer and the period 2014-18 in Consensus Economics. The Consensus Economics forecasts for the period 2014-18 and the year 2010 were published in the April 2008 issue of Consensus Economics.

### Inflation expectations for 2008, 2009 and 2010

SPF participants' inflation expectations for 2008 and 2009 have shifted upwards. The reported point estimates averaged 3.6% for 2008, 0.6 percentage point higher than in the previous SPF round (see the table).<sup>1</sup> The expected inflation rate for 2009 was revised upwards by 0.4 percentage point, to 2.6%. These inflation expectations reflect the elevated level of oil, commodity and food prices, as well as, to a lesser extent, concerns about higher wages. The SPF inflation expectations for 2008 and 2009 are within the ranges reported in the June 2008 Eurosystem staff macroeconomic projections. They are also in line with the projections published in the July 2008 issue of Consensus Economics and Euro Zone Barometer for 2008, but are 0.2 percentage point higher for 2009.

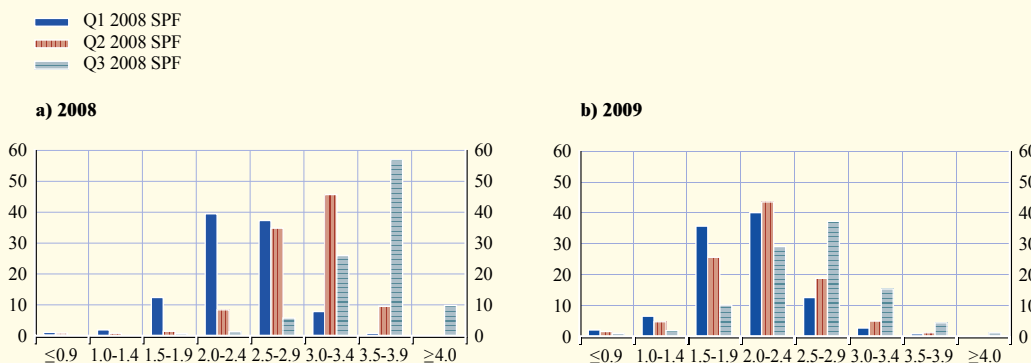
SPF participants were also asked to assess the probability of the future outcome falling within specific intervals. The aggregate probability distribution obtained by averaging the forecasters' responses provides a summary of their assessments. It also provides information about how survey participants gauge, on average, the risk of the actual outcome being above or below the most likely range. The probability distributions for expected inflation in 2008 and 2009 have shifted towards higher outcomes compared with the SPF round for the second quarter of 2008 (see Chart A). Moreover, for 2008 the interval "4.0% or above" (introduced in this survey round) has received 10% probability. For 2008 the most likely outcome for inflation is within the interval from 3.5% to 3.9%, with a probability of 57%. For 2009 the most likely outcome for inflation is concentrated in the interval from 2.5% to 2.9%, with a probability of 37%. The probability of inflation being in the lower interval, from 2.0% to 2.4%, has declined to 29%, compared with 44% in the previous SPF round.

According to the participants, upside risks to the forecasts relate, in particular, to further increases in oil, food and commodity prices, and in nominal wage growth. At the same time,

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 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 average of individual probability distributions provided by SPF forecasters.

some forecasters also cited factors posing risks on the downside, notably a slowdown in euro area economic activity, and more specifically, weak consumption growth.

Inflation expectations for 2010, provided for the first time, stand at 2.1%, equal to the figure reported in the Euro Zone Barometer and slightly above that of Consensus Economics.

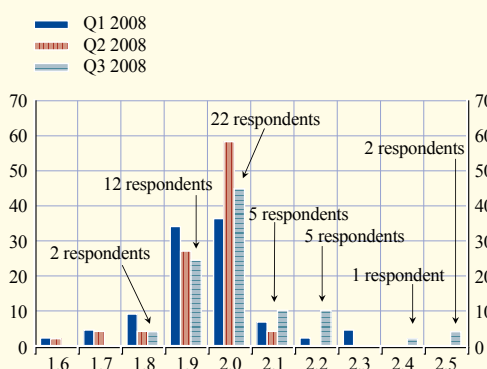
### Indicators of longer-term inflation expectations

Longer-term inflation expectations (for the year 2013) have been revised upward by 0.08 percentage point from 1.95% to 2.03%. This is the highest rate since the start of the survey in 1999. These point expectations are in line with the long-term inflation projections for 2012 provided by the Euro Zone Barometer and those for inflation six to ten years ahead published in the April 2008 issue of Consensus Economics. Having remained very low in several consecutive SPF rounds, the standard deviation of longer-term inflation expectations in the latest SPF has for the first time also increased, from 0.1 to 0.2. This indicates a rising divergence among respondents regarding the most likely outcome for the longer-term inflation rate.

The upward revision of longer-term inflation expectations reflects the increased number of respondents reporting point estimates of 2.1% or above. The number of respondents expecting a point estimate of 2.0% has declined to 22, from 28 in the previous SPF round (see Chart B). In the latest SPF round 13 respondents out of 49 have provided a point estimate of 2.1% or above, compared with only two respondents in the SPF round for the second quarter of 2008.

**Chart B Cross-sectional distribution of longer-term (five years ahead) inflation expectations among SPF respondents**

(percentage of respondents)



Source: ECB.

The probability of longer-term inflation standing at 2% or above increased to 57%, according to survey respondents, compared with 50% 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> Over time, the probability assigned to an outcome that inflation will stand at 2% or above in the next five years is broadly in line with developments in the implied five-year forward break-even inflation rate five years ahead (see Chart C).<sup>3</sup>

### Real GDP growth expectations

Compared with the previous SPF round, expectations for real GDP growth for 2008 have remained unchanged at 1.6%. The average of the point estimates for real GDP growth in 2009 has been revised down by 0.3 percentage point and now stands at 1.3%. This downward revision reflects mainly forecasters' expectations for lower euro area investment growth as a result of tighter financing conditions, a housing market slowdown and ongoing financial turbulence; lower export growth due to the world economic slowdown and strong euro exchange rate; and concerns about consumption growth in the light of high energy and oil prices.

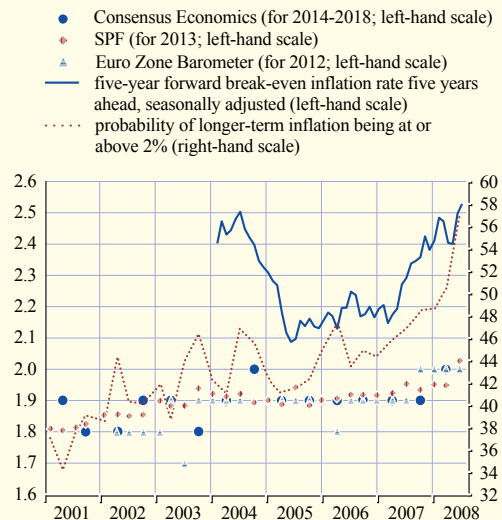
The probability distributions for expected real GDP growth in 2008 and 2009 have shifted towards lower outcomes compared with the previous SPF round (see Chart D). Greater uncertainty surrounds SPF expectations for real GDP growth in 2009 than for 2008, as reflected by a wider and flatter probability distribution for 2009 compared with 2008.

Growth expectations for 2008 and 2009 in the SPF are within the ranges of the June 2008 Eurosystem staff macroeconomic projections. SPF expectations for real GDP growth in 2008 are similar to the projections published in the latest issues of the Euro Zone Barometer and Consensus Economics; for 2009 they are 0.1 percentage point higher.

SPF expectations for real GDP growth in 2010 are at 2.1%. They are 0.1 percentage point higher than the expectations provided in the July issue of the Euro Zone Barometer, but in line with those contained in the April issue of Consensus Economics. Longer-term growth expectations (i.e. for 2013) have remained at 2.1%.

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

(average annual percentage changes; percentage probability)



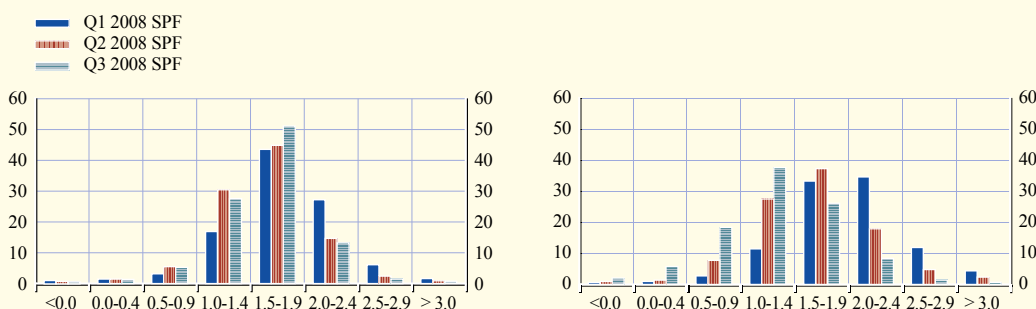
Sources: Consensus Economics, Euro Zone Barometer, Reuters and ECB calculations.

<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.

<sup>3</sup> 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).

Chart D Probability distribution for average annual real GDP growth in 2008 and 2009 in the last three rounds of the SPF<sup>1)</sup>

(probability in percentages)



Source: ECB.

1) Corresponds to the average of individual probability distributions provided by SPF forecasters.

### Expectations for the euro area unemployment rate

Unemployment rate expectations in the SPF currently stand at 7.2% for 2008 and at 7.4% for 2009. These expectations imply upward revisions of 0.1 percentage point for 2008 and of 0.3 percentage point for 2009 compared with the previous SPF round. According to the forecasters, these revisions are mainly due to lower euro area economic growth prospects, particularly in the construction sector. Unemployment rate expectations in the latest SPF round are in line with those of Consensus Economics and the Euro Zone Barometer for 2008 and 2009.

The SPF respondents expect the unemployment rate to be 7.4% in 2010, which is 0.2 percentage point higher than the expectations in the July issue of the Euro Zone Barometer.

Longer-term unemployment rate expectations have been revised upward by 0.3 percentage point and now stand at 6.9% for 2013. Respondents continued to indicate that the decline in the unemployment rate over the longer-term horizon is mainly dependent on continued labour market reforms.

## 4 OUTPUT, DEMAND AND THE LABOUR MARKET

The latest information suggests that real GDP growth in mid-2008 will be substantially weaker than it was in the first quarter of the year. This partly represents a technical reaction to the strong growth seen in the first few months of the year. It also partly reflects a weakening in GDP growth due to factors such as slower expansion at the global level and dampening effects from high and volatile oil and food prices. From a medium-term perspective, the fundamentals are sound and the euro area does not suffer from major imbalances. Employment and labour force participation have increased significantly, and unemployment rates remain low in historical terms. However, uncertainty about the prospects for economic growth remains high and risks surrounding the outlook for economic activity are on the downside.

### 4.1 OUTPUT AND DEMAND DEVELOPMENTS

#### REAL GDP AND DEMAND COMPONENTS

Following growth of 0.4% in the fourth quarter of 2007, Eurostat's second estimate of euro area real GDP growth in the first quarter of 2008 was 0.7%, having been revised down from 0.8% (see Chart 24). In part, this strong growth reflected temporary factors, notably the unusually mild winter in many parts of Europe which boosted construction activity. Economic activity is likely to have weakened significantly in the second quarter, partly as a technical reaction to the high rate of growth seen in the previous period.

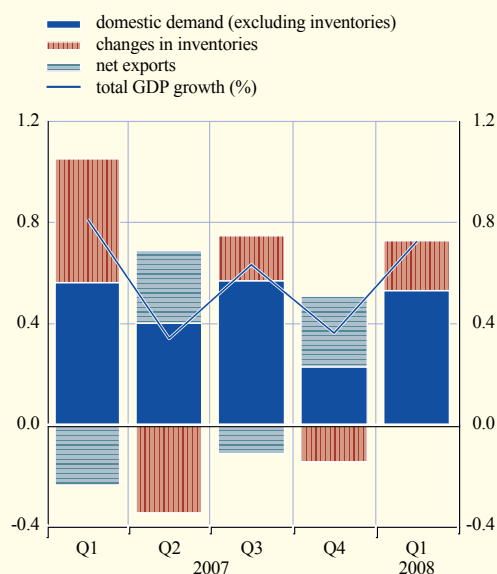
The composition of growth in the first quarter of 2008 shows that euro area activity was driven by strong growth in domestic demand and a positive contribution from inventories, while the contribution of net trade was close to zero.

The resilience of euro area domestic demand largely reflected the strength of investment, which rose by 1.6% quarter on quarter. Underlying the growth in investment was a marked 2.0% quarter-on-quarter increase in construction investment. This increase is likely to have reflected the mild weather conditions in some parts of Europe early in the year and may therefore be expected to have weakened in the second quarter. Indicators of activity in the construction sector, which in the past have correlated reasonably closely with construction investment, suggest that output fell in the second quarter (see the comments on sectoral output below).

Non-construction investment also increased at a fast pace in the first quarter (rising by 1.1% quarter on quarter). Over the past two years strong profitability and high capacity utilisation appear to have encouraged firms to invest to expand capacity. However, as discussed in Box 4, available national accounts data on euro area profit developments indicate that the rate of growth of corporate profitability has declined from the robust rates observed at the beginning of 2007. In addition, although capacity constraints remain elevated, they also appear to have waned over the past year. The European Commission's July business survey indicates that capacity utilisation in the industrial

Chart 24 Real GDP growth and contributions

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



Sources: Eurostat and ECB calculations.

sector was above its long-run average and that firms continued to cite equipment shortages as an important factor limiting production, but both indicators are some way below the peaks seen in mid-2007.

Having declined in the fourth quarter of 2007, private consumption recovered moderately in the first three months of 2008, increasing by 0.2% quarter on quarter. A number of factors appear to have contained household spending, including muted growth in real income and a decline in financial wealth. According to the euro area institutional sector accounts, household nominal gross disposable income rose by 3.6% year on year in the first quarter of 2008, following year-on-year growth of 3.9% in the previous quarter. However, rising food and energy prices have dampened purchasing power, with real disposable income rising by only 0.7% year on year – the lowest rate of growth since 2003. In addition, household net financial worth declined sharply in the first quarter of 2008, driven by a decline in the value of shareholdings.

Available indicators suggest that private consumption remained subdued in the second quarter. The volume of retail trade fell by 0.9% quarter on quarter in the second quarter (see Chart 25). New passenger car registrations in the euro area also decreased sharply in the second quarter, falling to their lowest level since 2003. Moreover, the European Commission's consumer confidence indicator fell steadily in the second quarter. Looking ahead to the third quarter, initial indications suggest that the weakness in consumption may persist. July saw a further deterioration in consumer confidence, with the component that records households' expectations about their personal financial situation reaching its lowest level since the series began in 1985. Concerns about purchasing power appeared to continue to weigh on sentiment, with the index that records consumers' perceptions of recent price developments rising to its highest level since the survey began in 1985. By contrast, although July saw a marked increase in the proportion of households expecting higher unemployment in the euro area, households have remained relatively optimistic about labour market developments, suggesting that labour market conditions continue to be broadly supportive for private consumption.

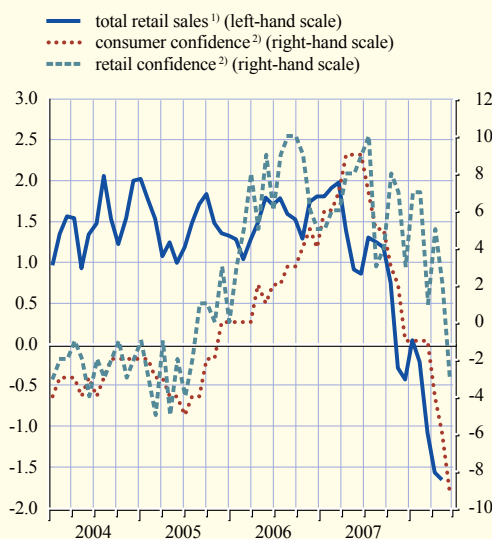
## SECTORAL OUTPUT

In terms of sectoral output, the pick-up in the pace of euro area activity in the first quarter of 2008 reflected an increase in quarter-on-quarter growth in the services sector and the industry (excluding construction) sector, which rose to 0.5% and 0.7% respectively, and an exceptionally strong rise in construction sector value-added of 2.1% quarter on quarter.

In line with expectations that some of the strength seen in euro area industrial activity in the first quarter of the year would prove temporary, available data suggest that growth weakened in the second quarter of 2008. Euro area industrial production (excluding construction) decreased by

**Chart 25 Retail sales and confidence in the retail trade and household sectors**

(monthly data)



Sources: European Commission Business and Consumer Surveys and Eurostat.

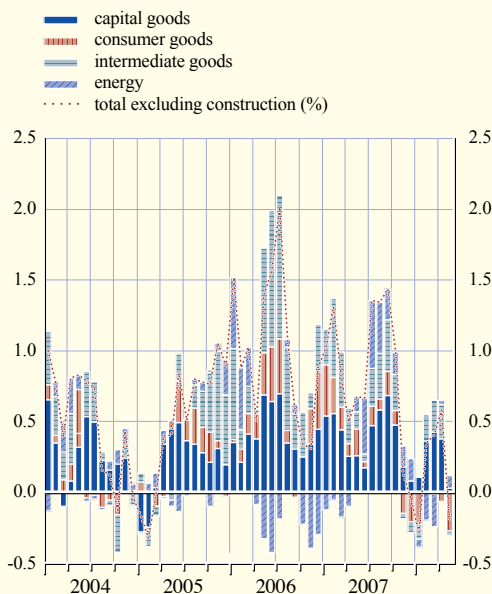
1) Annual percentage changes; three-month moving averages; working day-adjusted.

2) Percentage balances; seasonally and mean-adjusted.



**Chart 26 Industrial production growth and contributions**

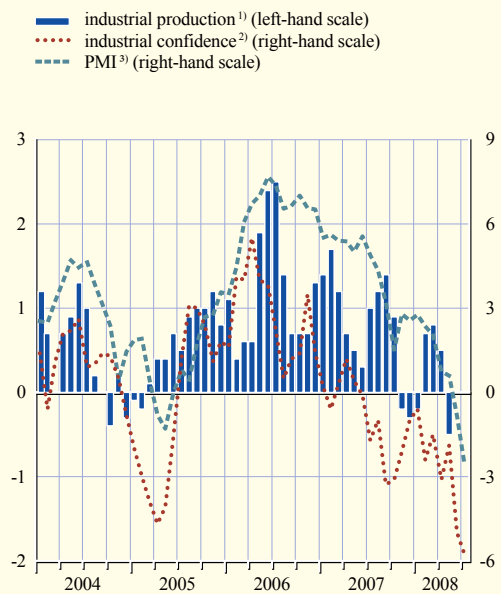
(growth rate and percentage point contributions; monthly data; seasonally adjusted)



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

**Chart 27 Industrial production, industrial confidence and the PMI**

(monthly data; seasonally adjusted)



Sources: Eurostat, European Commission Business and Consumer Surveys, Markit and ECB calculations.  
Note: All series refer to manufacturing.  
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.

1.9% in May, compared with April (see Chart 26). In addition, revised estimates of production suggest a flatter profile for industrial output since autumn 2007 than was previously estimated. Indicators based on survey data for the manufacturing sector, which had pointed to a substantial weakening in growth momentum between the first and second quarters of 2008, exhibited a further deterioration in July, indicating that the weaker growth has persisted into the third quarter. The Purchasing Managers' Index (PMI) for manufacturing posted a sharp decline in July, reflecting a fall in output as well as in the more forward-looking new orders index – both series are now at their lowest levels since 2001. A similar picture is conveyed by the European Commission's industrial confidence indicator for July (see Chart 27).

Production in the construction sector rose slightly in May. However, this followed large falls in March and April, such that overall growth in the second quarter is expected to have been negative: the average level of production in April and May was 2.1% lower than the level in the first quarter. The downward trend is confirmed by survey data. In the construction sector, confidence declined in July, according to both the European Commission's indicator and Markit's PMI indicator.

Services value-added growth in the first quarter of 2008 was driven by a strong contribution from trade and transportation activity and more moderate growth in the financial and business services sub-sector. Looking through the rather volatile quarterly movements, however, available data suggest a general slowdown across service sectors in the past twelve months, reflecting the range

of shocks that have affected the euro area economy, including the financial turmoil and the increases in food and energy prices. Survey data to July 2008 point to continued broad-based weakening in growth across services activities. In particular, the European Commission's services confidence indicator declined markedly in July, to levels not seen since mid-2003.

Overall, recent data for the industrial and services sectors indicate that growth in the second quarter was substantially weaker than it was in the first quarter of the year, as some of the temporary factors that boosted activity early in the year have unwound. Survey data for July suggest that the relatively subdued pace of economic activity persisted early in the third quarter of 2008.

## 4.2 LABOUR MARKET

The euro area labour market has shown a clear improvement in recent years. Labour market conditions are still broadly favourable, although the unemployment rate rose slightly in the second quarter of 2008. Employment expectations have declined in recent months and point to a moderation in employment growth looking ahead.

### EMPLOYMENT

Eurostat's second estimate confirmed that euro area employment growth was 0.3% quarter on quarter in the first three months of 2008. The increase in employment was driven by continued job creation in the services and manufacturing sectors, while employment in the construction sector fell (see Table 7).

Looking ahead, indicators of firms' employment intentions suggest somewhat more subdued employment growth in the coming months. According to the PMI survey, firms' employment expectations declined in July 2008 in both the industrial and services sectors. A similar picture is evident from the European Commission's business survey (see Chart 28), with employment expectations indices falling in all sectors apart from retail trade in July. Notwithstanding the weakening of employment indicators observed in both surveys in recent months, labour market conditions have so far been resilient and some tightness in the labour market persists. According to the European Commission's business confidence survey, services and industrial sector firms continued to cite labour shortages as a significant factor limiting production.

**Table 7 Employment growth**

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

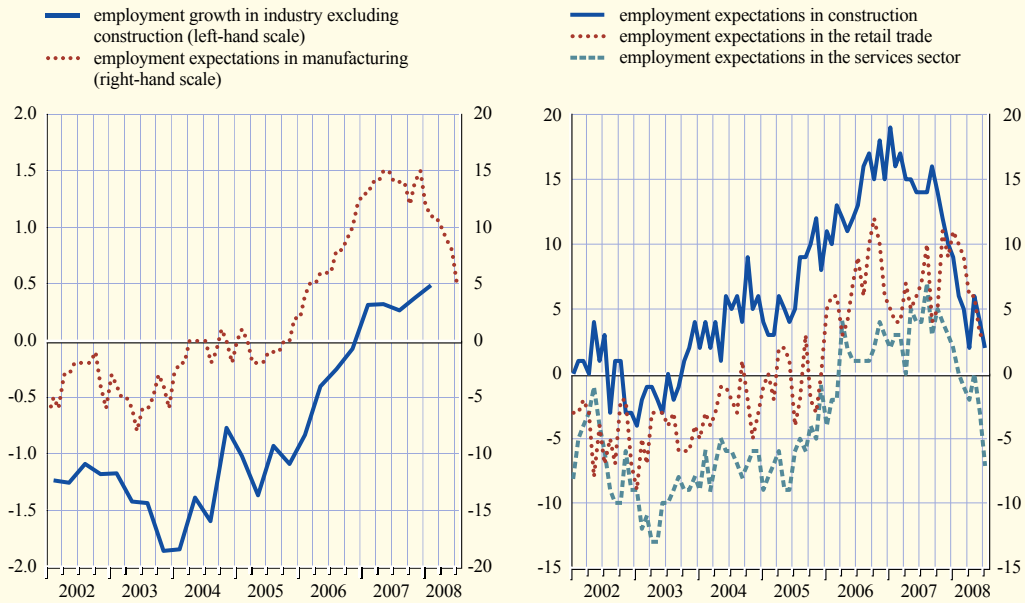
	Annual rates		Quarterly rates				
	2006	2007	2007 Q1	2007 Q2	2007 Q3	2007 Q4	2008 Q1
Whole economy	1.6	1.8	0.5	0.5	0.4	0.3	0.3
<i>of which:</i>							
Agriculture and fishing	-1.5	-1.1	0.8	-0.6	-1.1	-0.6	0.4
Industry	0.5	1.4	0.7	0.2	0.0	0.2	0.2
Excluding construction	-0.4	0.3	0.1	0.1	0.0	0.2	0.2
Construction	2.6	3.9	1.9	0.4	-0.1	0.3	-0.1
Services	2.2	2.1	0.5	0.7	0.7	0.4	0.4
Trade and transport	1.5	1.7	0.4	0.8	0.8	0.1	0.5
Finance and business	3.8	4.3	1.3	1.3	0.7	0.9	0.9
Public administration <sup>1)</sup>	2.0	1.3	0.1	0.3	0.5	0.4	-0.1

Sources: Eurostat and ECB calculations.

1) Also includes education, health and other services.

**Chart 28 Employment growth and employment expectations**

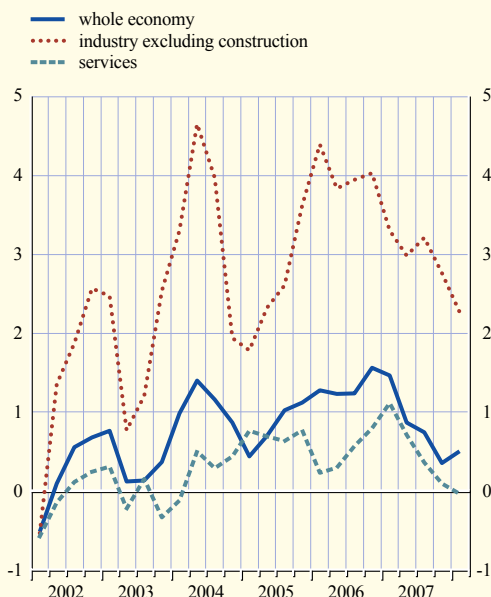
(annual percentage changes; percentage balances; seasonally adjusted)



Sources: Eurostat and European Commission Business and Consumer Surveys.  
Note: Percentage balances are mean-adjusted.

**Chart 29 Labour productivity**

(annual percentage changes)



Sources: Eurostat and ECB calculations.

Year-on-year labour productivity (per person employed) grew by 0.5% in the first quarter of 2008, which is slightly stronger than the rate recorded in the previous quarter (see Chart 29). The improvement was mainly explained by a marked rise in productivity in the construction sector, where output was very high.

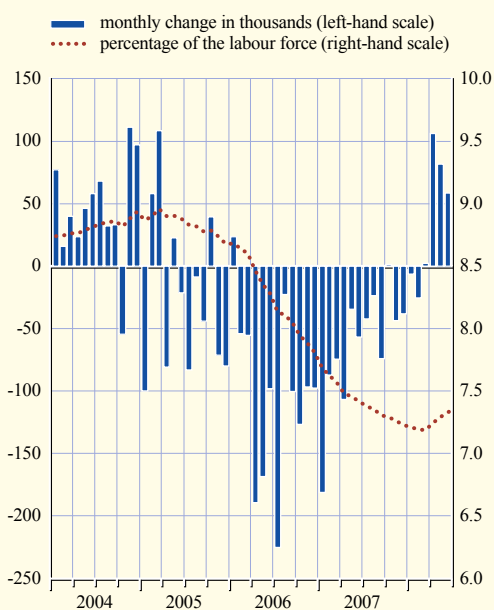
#### UNEMPLOYMENT

The euro area unemployment rate was unchanged, at 7.3% in June 2008 (see Chart 30), following a slight upward revision to the figure for May. Following revisions to the data for previous months, the latest data now show that the unemployment rate rose slightly, to 7.3% in the second quarter, from 7.2% in the previous quarter.

The number of unemployed persons increased again in June. The rise can be attributed to a sharp increase in the unemployment figures for Spain (of 91,000), which was only partly offset by developments in Germany, where the figures declined by 39,000. Overall in the

Chart 30 Unemployment

(monthly data; seasonally adjusted)



Source: Eurostat.

second quarter, the increase in the number of unemployed persons was the largest seen since 2003.

#### 4.3 THE OUTLOOK FOR ECONOMIC ACTIVITY

The latest information indicates that growth in mid-2008 will be substantially weaker than it was in the first quarter of the year. This partly represents a technical reaction to the strong growth seen in the first few months of the year, when, notably, the mild weather conditions in some parts of Europe boosted construction activity. In addition, it also partly reflects a weakening in GDP growth due to factors such as slower expansion at the global level and dampening effects from high and volatile oil and food prices.

Growth in the world economy, while moderating, is expected to remain relatively resilient, benefiting in particular from sustained growth in emerging economies. This should support external demand for euro area goods and

services. As regards domestic developments, from a medium-term perspective the fundamentals are sound and the euro area does not suffer from major imbalances. Moreover, although employment expectations have declined in recent months and point to a moderation in employment growth looking ahead, labour market conditions are still broadly favourable – employment and labour force participation have increased significantly, and unemployment rates remain low in historical terms. However, these developments, which support household disposable income and consumption, are unlikely to fully compensate the loss of purchasing power caused by higher energy and food prices.

The uncertainty surrounding this outlook for economic growth remains high, owing to, among other things, the very high and volatile levels of commodity prices and the ongoing tensions in financial markets. Overall, downside risks prevail. In particular, risks stem from the dampening impact on consumption and investment of further unanticipated increases in energy and food prices. Moreover, downside risks continue to relate to the potential for the financial market turbulence to affect the real economy more adversely than currently anticipated. The possibility of disorderly developments owing to global imbalances also implies downside risks to the outlook for economic activity, as do concerns about the emergence of protectionist pressures, in particular after the failure of recent negotiations in the context of the World Trade Organization's Doha round on trade liberalisation.

## 5 EXCHANGE RATE AND BALANCE OF PAYMENTS DEVELOPMENTS

### 5.1 EXCHANGE RATES

The exchange rates of the euro largely stabilised in the three months to August, amid some volatility. On 6 August the euro stood broadly at the same level in effective terms as at the end of April and around 7% above its 2007 average.

#### EFFECTIVE EXCHANGE RATE OF THE EURO

On 6 August 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 broadly unchanged from its level at the end of April 2008 and around 7% higher than its average level in 2007 (see Chart 31).

The overall stability of the effective exchange rate of the euro over the past three months was the result of largely offsetting movements in bilateral rates, some of which experienced quite significant swings. A marked strengthening of the euro vis-à-vis the Japanese yen and, to a lesser extent, the Canadian dollar and Australian dollar was counterbalanced by a weakening vis-à-vis some of the currencies of the new EU Member States, most notably the Hungarian forint and Polish zloty, as well as against the Chinese renminbi.

Taking a longer-term perspective, the nominal effective exchange rate of the euro on 6 August stood 6.7% higher than at the beginning of 2005. Most of this appreciation was accounted for by a strengthening of the nominal bilateral exchange rates vis-à-vis the US dollar, the pound sterling and the Japanese yen.

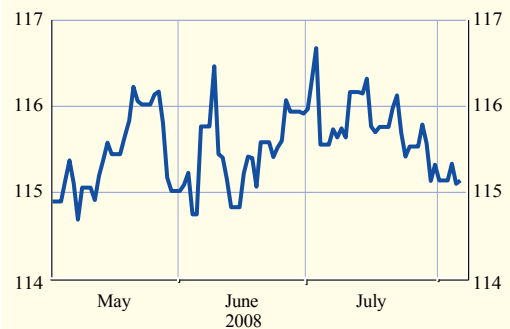
#### US DOLLAR/EURO

After appreciating vis-à-vis the US dollar throughout most of May, the value of the euro subsequently experienced rather significant swings in June and July and a depreciation in early August. To some extent, the US dollar/euro exchange rate continued to be driven by shifting market expectations regarding the relative resilience of economic activity in the two economies. Data releases supporting

Chart 31 Euro effective exchange rate and its decomposition<sup>1)</sup>

(daily data)

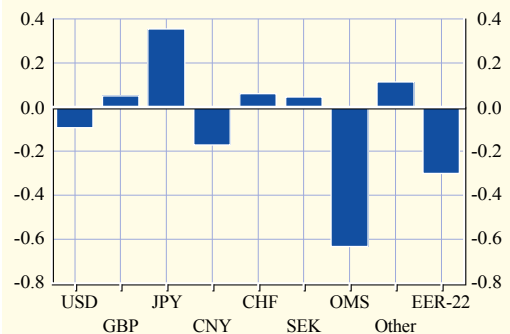
Index: Q1 1999 = 100



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

From 30 April 2008 to 6 August 2008

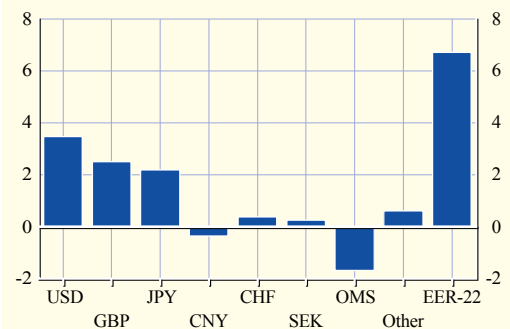
(in percentage points)



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

From 3 January 2005 to 6 August 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.

market concerns about the US inflation outlook may have contributed to the weakening of the euro vis-à-vis the US dollar in the first half of June as a result of the associated changes in market expectations about relative monetary policy stances in the United States and in the euro area. Later on, however, around mid-July, market turbulences related to concerns about the soundness of the US financial system supported the single currency's exchange rate against the US dollar. After a period of relatively high exchange rate volatility, in late July and early August, the euro again lost some of its earlier gains, on the back of less favourable market views on the resilience of the euro area economy. On 6 August the euro traded at USD 1.55, broadly unchanged from its level at the end of April 2008 and 12.9% stronger than its average level in 2007 (see Chart 32).

#### JAPANESE YEN/EURO

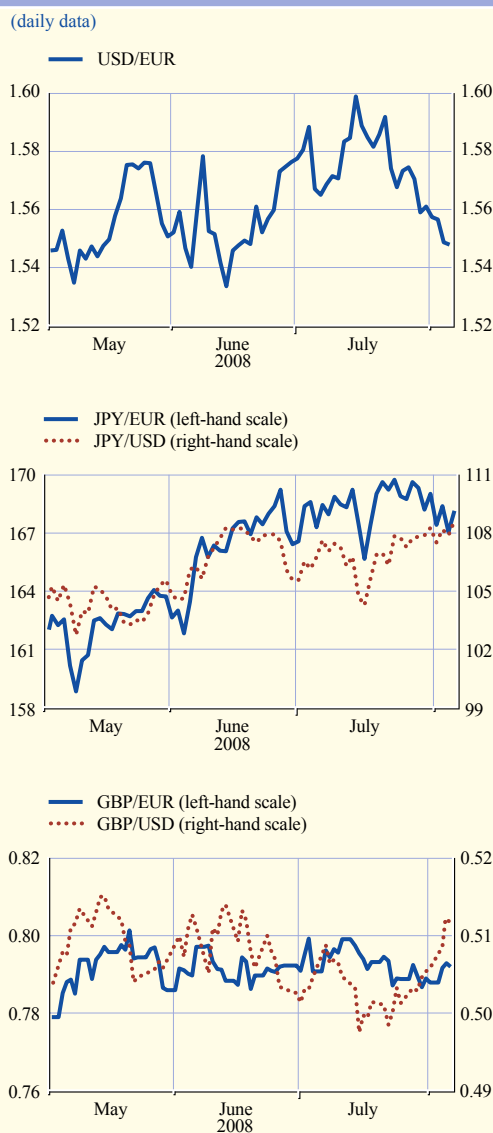
After a period of broad stability in May and early June, the euro appreciated vis-à-vis the Japanese yen throughout most of June and July, to some extent reflecting the deterioration of economic prospects in Japan amid market uncertainty. Later on, in early August, the single currency lost some of its earlier gains against the yen. This resulted in an overall appreciation of the euro by 3.4% between the end of April and 6 August, with the euro trading at JPY 168.16 on 6 August, 4.3% above its average in 2007 (see Chart 32). Expectations of future volatility in the bilateral Japanese yen/euro exchange rate, as captured by indicators based on option prices, currently stand somewhat below their historical average.

#### EU MEMBER STATES' CURRENCIES

Since the end of April 2008, most currencies participating in ERM II remained stable vis-à-vis the euro and continued to trade at, or close to, their respective central rates (see Chart 33). Following the revaluation of its central rate within ERM II by 17.6472% with effect from 29 May, the Slovak koruna consistently traded slightly weaker than its new central rate of SKK 30.1260 to the euro, standing 0.8% below this rate on 6 August (see Box 6). The Latvian lats remained broadly stable vis-à-vis the euro in the first six months of 2008 and traded close to its central rate on 6 August.

With regard to the currencies of other EU Member States not participating in ERM II, the euro was broadly stable vis-à-vis the pound sterling, notwithstanding some short-term volatility, between the end of April 2008 and 6 August 2008. Over the same period, the euro depreciated

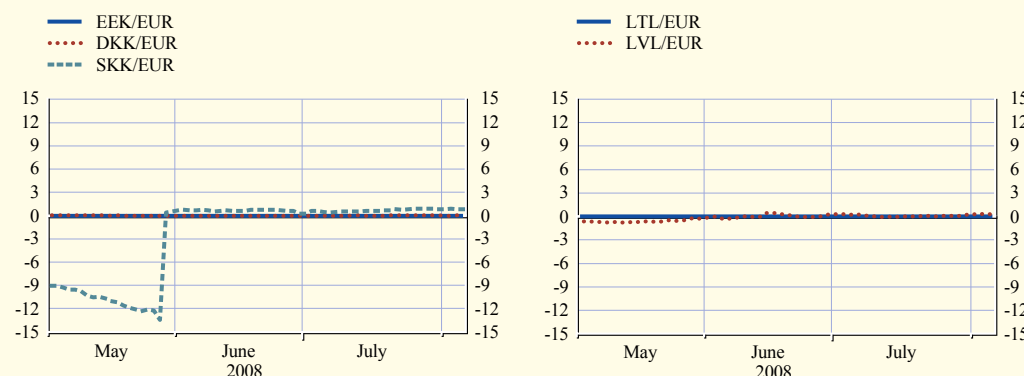
Chart 32 Patterns in exchange rates



Source: ECB.

**Chart 33 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. The central rate of the Slovak koruna in ERM II was revalued by 17.6472% with effect from 29 May 2008.

vis-à-vis the currencies of some of the new EU Member States, namely by 6.7% against the Hungarian forint, by 6.1% against the Polish zloty, by 5.5% vis-à-vis the Romanian leu and by 4.9% against the Czech koruna.

**Box 6**

**THE INTRODUCTION OF THE EURO IN SLOVAKIA ON 1 JANUARY 2009**

In response to a request by the national authorities of Slovakia for a review of their progress in fulfilling the provisions of the Maastricht Treaty for the adoption of the euro (Article 122(2)), the ECB and the European Commission both prepared the required Convergence Reports. These reports, examining the achievement of a high degree of sustainable convergence, were published on 7 May 2008. On the basis of the results of the underlying examination, the European Commission concluded that Slovakia had fulfilled the necessary conditions for the adoption of the single currency. On 8 July 2008 the EU Council adopted a decision allowing Slovakia to adopt the euro as its currency on 1 January 2009.

The EU Council also adopted a regulation fixing the irrevocable conversion rate for the Slovak koruna to the euro. The conversion rate was set at 30.1260 korunas per euro. This conversion rate corresponds to the existing central rate in the exchange rate mechanism II (ERM II). The ECB supported the choice of the existing central rate as the conversion rate upon adoption of the euro. The Slovak koruna entered ERM II in November 2005. During its participation in ERM II, the currency was revalued twice against the euro (by 8.5% in March 2007 and by 17.6472% in May 2008), supported by ongoing improvements in underlying fundamentals.<sup>1</sup> Now that the conversion rate has been fixed, the ECB, together

<sup>1</sup> See Box 11, entitled "Revaluation of the Slovak koruna within ERM II", in the June 2008 issue of the Monthly Bulletin for further information.

with Národná banka Slovenska, will monitor developments in the market exchange rate of the Slovak koruna against the euro in the context of the ERM II agreement until the end of 2008.

With the introduction of the euro by Slovakia on 1 January 2009, the euro area will comprise 16 EU Member States. Slovakia will share the benefits of the single currency, which eliminates exchange rate uncertainty within Economic and Monetary Union and offers a credible monetary policy framework for maintaining price stability in an environment of low long-term interest rates, full price and cost transparency, reduced transaction and information costs, and greater resilience to economic and financial shocks. In order to ensure that the benefits of adopting the euro are reaped in full, the EU Council has encouraged Slovakia to pursue prudent fiscal policies and implement further structural reforms. The EU communiqué issued upon the Slovak koruna's revaluation in May 2008 lists the relevant policy recommendations for Slovakia in more detail.<sup>2</sup> At the same time, in order to fully reap the advantages of the euro and to allow adjustment mechanisms to operate efficiently within the enlarged currency area, the full integration of Slovakia into the euro area calls for all remaining barriers to be removed, including those related to labour mobility. Indeed, open, competitive and flexible markets are of particular importance for the functioning of the euro area economy and the smooth conduct of the single monetary policy.

<sup>2</sup> See the box referred to in footnote 1.

## OTHER CURRENCIES

Between the end of April and 6 August 2008, the euro appreciated by 3% against the Canadian dollar, by 1.8% vis-à-vis the Australian dollar and by around 1% against the Swiss franc and the Swedish krona. At the same time, it depreciated by 2.4% against the Chinese renminbi.

## 5.2 BALANCE OF PAYMENTS

*The 12-month cumulated current account up to May 2008 recorded a deficit of €5.8 billion (0.1% of GDP), compared with a surplus of €13.0 billion a year earlier. This largely reflected an increase in the deficit in current transfers and a decrease in the surplus in goods. In the financial account, combined direct and portfolio investment registered cumulative net outflows of €41.7 billion in the 12-month period to May 2008, compared with net inflows of €207.8 billion a year earlier. This contraction mainly reflected lower net inflows in portfolio investment.*

### TRADE AND THE CURRENT ACCOUNT

The 12-month cumulated current account recorded a deficit of €5.8 billion in May 2008, which corresponded to 0.1% of GDP. A widening deficit in current transfers and a contraction of the surplus in goods, which were only partly offset by an increase in the surplus in services, accounted for most of this change (see Chart 34).

The deficit in current transfers (€93.1 billion) resulted from a long-standing trend, largely reflecting deficits vis-à-vis the EU institutions and non-G10 countries outside the European Union, developments that are to a large extent driven by outflows of foreign aid and workers' remittances. The decline in the goods surplus, by contrast, is a more recent phenomenon that started



in October 2007. Moderate export growth, combined with increasing import prices, accounted for most of the adverse developments in goods trade. Accordingly, the latest balance of payments data show, in seasonally adjusted terms, a decline of 3.4% in the value of goods exports in May 2008 relative to the previous month, accompanied by a 4.5% increase in the value of goods imports (see Table 8). The slowdown in the expansion of goods exports that took place in May affected, in particular, exports to the United States and emerging Asia and took place against the background of weaker growth in foreign demand.

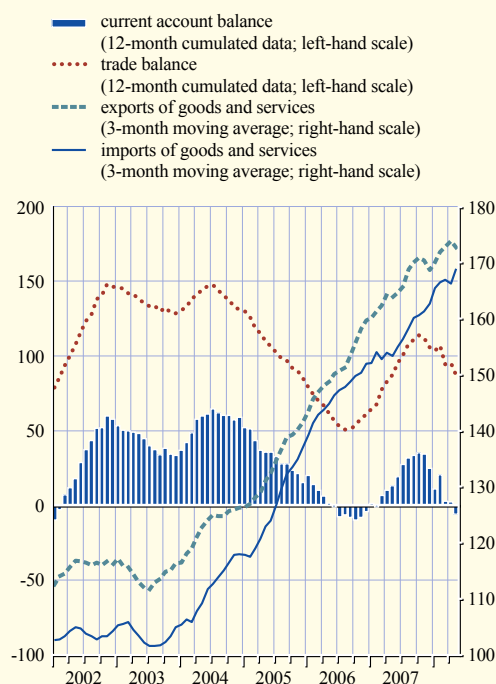
While euro area export prices have been rising moderately, the sharp increases in the prices of both oil and non-oil commodities seem to have been the main factor behind the growth in the value of imports (see Chart 35). These price developments are reflected in the indications arising from the breakdown of trade in goods by volume and price, available up to April 2008. They signal a steady increase in import prices since April 2007, while import volumes remained broadly stable.

Turning to services, which account for about 20% of total euro area trade and are particularly volatile in character, exports declined by 1.5% in the three-month period to May 2008, while imports increased by 2.0%. As a result, over the same period, the euro area surplus in services was €3.5 billion, down from that of €4.9 billion recorded in the previous three-month period. In 12-month cumulated terms, however, the surplus in services increased to reach €51.5 billion, from €44.1 billion a year earlier.

Finally, on account of mainly higher income payments to non-euro area residents, the income balance deteriorated. It recorded a deficit of €1.5 billion in the three-month period ending in May, down from a surplus of €0.2 billion in the preceding three-month period. The income balance deteriorated by €5.1 billion in 12-month cumulated terms (from €5.6 billion in the 12-month period up to May 2007 to € 0.5 billion in the 12 months up to May 2008).

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

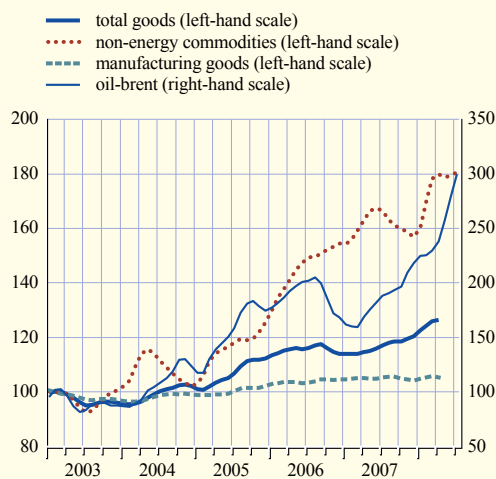
(EUR billions; monthly data; seasonally adjusted)



Source: ECB.

**Chart 35 Extra-euro area import prices for selected commodities**

(indices: 2003Q1 = 100; seasonally adjusted; 3-month moving average)



Sources: Eurostat and ECB calculations.

Note: The latest observations are for April 2008, except in the case of Brent crude oil and non-energy commodities (July 2008).

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

(seasonally adjusted, unless otherwise indicated)

			Three-month moving average figures ending				12-month cumulated figures ending	
	2008 Apr.	2008 May	2007 Aug.	2007 Nov.	2008 Feb.	2008 May	2007 May	2008 May
<i>EUR billions</i>								
<b>Current account</b>	1.5	-7.3	5.0	1.4	-2.2	-6.1	13.0	-5.8
Goods balance	7.1	-3.3	6.3	4.6	0.6	0.3	43.1	35.4
Exports	135.7	131.1	127.4	128.6	130.1	131.5	1,444.9	1,552.6
Imports	128.6	134.4	121.0	124.0	129.5	131.2	1,401.8	1,517.2
Services balance	3.6	2.7	4.2	4.6	4.9	3.5	44.1	51.5
Exports	41.4	41.0	41.4	41.8	41.8	41.1	458.4	498.5
Imports	37.8	38.3	37.2	37.2	36.9	37.6	414.3	447.0
Income balance	-2.1	-0.8	0.9	0.6	0.2	-1.5	5.6	0.5
Current transfers balance	-7.2	-5.9	-6.5	-8.3	-7.8	-8.4	-79.8	-93.1
<b>Financial account<sup>1)</sup></b>	18.2	44.2	35.2	-15.1	-12.5	22.4	98.5	89.6
Combined net direct and portfolio investment	-26.2	12.6	23.5	1.1	-25.7	-12.8	207.8	-41.7
Net direct investment	-22.4	-10.4	-8.9	1.2	-41.2	-21.1	-158.6	-209.8
Net portfolio investment	-3.7	23.0	32.3	-0.1	15.5	8.3	366.4	168.1
Equities	-22.4	7.2	29.4	-6.9	21.6	-0.9	228.0	129.9
Debt instruments	18.7	15.9	2.9	6.7	-6.2	9.2	138.4	38.2
Bonds and notes	1.8	36.5	3.0	8.5	13.8	14.7	191.5	119.7
Money market instruments	16.9	-20.6	-0.1	-1.8	-19.9	-5.4	-53.1	-81.5
<i>Percentage changes over previous period</i>								
<b>Goods and services</b>								
Exports	4.9	-2.8	3.0	0.9	0.9	0.5	11.0	7.8
Imports	-0.6	3.8	3.2	1.9	3.2	1.5	9.9	8.2
<b>Goods</b>								
Exports	6.2	-3.4	3.3	0.9	1.2	1.1	12.0	7.5
Imports	-1.5	4.5	3.3	2.4	4.5	1.3	10.3	8.2
<b>Services</b>								
Exports	0.9	-1.0	2.2	1.0	-0.1	-1.5	8.2	8.7
Imports	2.5	1.3	2.9	0.1	-1.0	2.0	8.7	7.9

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.

## FINANCIAL ACCOUNT

The most recent data on the financial account of the euro area balance of payments suggest that the responsiveness of global investment to differentials in international returns in some key portfolio market segments remains limited in the wake of a prolonged period of credit-related concerns and heightened investor risk aversion triggered by the financial turmoil (See Box 7 on the impact of the financial turmoil on euro area cross-border financial flows). In the three-month period to May 2008, euro area combined direct and portfolio investment recorded average monthly net outflows of €12.8 billion, compared with net outflows of €25.7 billion in the three-month period ending in February 2008 (see Table 8).

Starting with portfolio investment, net inflows in the three months to May decreased by €7.2 billion in comparison with the preceding three-month period. This was largely driven by developments in equity flows. Euro area residents continued to reduce their investment in equities abroad, a trend that had started in January 2008. At the same time, foreign investment flows in euro area equities contracted, nonetheless remaining positive, as favourable equity return differentials between the euro area and the United States would suggest. As a result, in the three months to May, equities

recorded net outflows of €0.9 billion, compared with net inflows of €21.6 billion in the previous three-month period. In the three-month period to May, in accordance with differentials on international bond returns, the euro area recorded net inflows of €14.7 billion in bonds and notes, a value broadly similar to that recorded in the previous three-month period. This resulted from an increase in foreign investment in the euro area, which was partly offset by an increase in euro area residents' investment in foreign bonds and notes. Finally, the net outflows of €5.4 billion recorded for euro area money market instruments, as compared with €19.9 billion in the three-month period ending in February, were largely determined by a contraction of investment in foreign instruments by euro area residents.

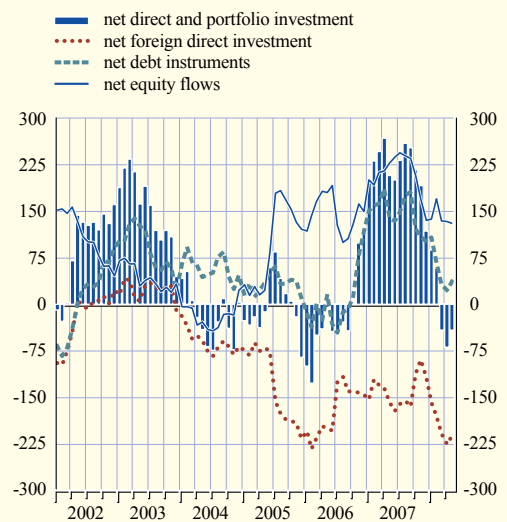
The financial account was likewise affected significantly by lower net outflows in direct investment. In the three-month period ending in May 2008, net outflows totalled €21.1 billion, down from €41.2 billion in the previous three-month period. This resulted from two counterbalancing effects, namely repatriations by foreign residents, mainly of equity capital and inter-company loans, and a contraction of euro area investment abroad. While the former was possibly linked to valuation effects, the latter may reflect a somewhat worsened outlook for multinational enterprises based in the euro area, the stock market valuations of which declined markedly over recent months after having improved steadily in the past few years.

Viewed from a longer-term perspective, the euro area recorded combined net outflows in direct and portfolio investment of €41.7 billion in the 12-month period ending May 2008, a considerable decline in comparison with the net inflows of €207.8 billion recorded a year earlier (see Chart 36). This decrease largely resulted from lower net inflows in portfolio investment, which, in turn, reflected lower net purchases of both euro area equities and euro area debt instruments by non-residents. At the same time, net outflows in direct investment increased in comparison with a year earlier, so that cumulative net outflows of €209.8 billion were recorded in the 12-month period up to May 2008, an increase from €158.6 billion a year earlier (see also Box 7 on the impact of the financial turmoil on euro area cross-border financial flows).

The net international investment position of the euro area vis-à-vis the rest of the world showed net liabilities of €1.3 trillion (14% of euro area GDP) at the end of the first quarter of 2008. This represented a decrease of €16 billion in net liabilities in comparison with the end of the fourth quarter of 2007.

**Chart 36 Euro area combined direct and portfolio investment**

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



Source: ECB.

Box 7

**THE IMPACT OF THE FINANCIAL TURMOIL ON EURO AREA CROSS-BORDER FINANCIAL FLOWS**

The financial turmoil that started in early August 2007 as a result of the US subprime mortgage crisis has led to uncertainty in financial markets and to diminished liquidity in key market segments. Over the last year, global economic activity has been dampened by the economic weakness in the United States, by the global repercussions of the financial turmoil and, increasingly, by high prices for oil and other commodities. The resulting global portfolio allocation decisions have affected euro area cross-border portfolio flows. This box suggests that the repatriation of portfolio funds by both euro area residents and foreign investors may simply reflect heightened investor risk aversion, as the fundamentals of the euro area economy remain sound. It is worth noting that euro area foreign direct investment activity, which is driven by longer-term considerations, does not seem to have been particularly affected by the financial turmoil over the last year.

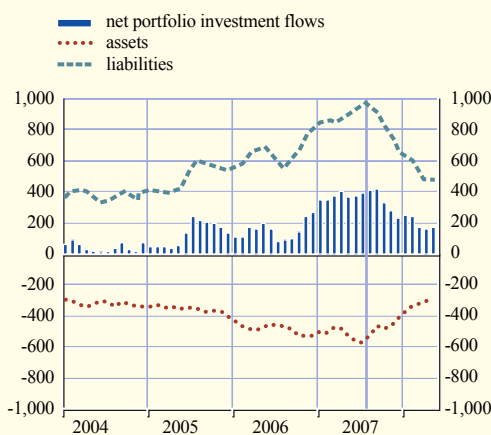
Starting with portfolio investment, both euro area investment abroad (asset flows) and foreign investment in the euro area (liability flows) followed an upward trend until July 2007 (see Chart A). The outbreak of the financial turmoil interrupted these trends. From July 2007 to May 2008, both assets and liabilities declined by around half on a 12-month cumulated basis. By the same token, net portfolio inflows declined from around €390 billion to around €170 billion by May 2008, owing to the reduction in net flows of both equities and long-term bonds and notes.<sup>1</sup>

Specifically, the financial turmoil has severely affected inflows and outflows of both equity and fixed income securities. Since the beginning of 2008, euro area residents, particularly euro area MFIs, have been net sellers of equity assets (see Chart B) owing to a combination of several

<sup>1</sup> The cross-border financial flows analysed in this box are all 12-month cumulated data.

**Chart A Euro area portfolio investment flows**

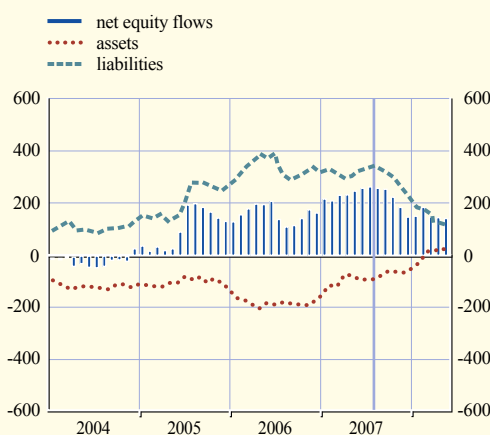
(EUR billions; monthly data; 12-month cumulated flows)



Source: ECB.  
Note: The vertical line represents the beginning of the financial turmoil.

**Chart B Euro area equity portfolio flows**

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



Source: ECB.  
Note: The vertical line represents the beginning of the financial turmoil.

factors such as expectations of a decline in asset returns in euro terms, an increased need for liquidity and greater risk aversion.<sup>2</sup> Repatriations of equity funds by euro area residents have been particularly large from Japan, the United Kingdom and Switzerland, while net investment in the United States continued to flow but on a very small scale. The decline in equity flows was larger on the liabilities side than on the assets side, but there remains a net inflow to the euro area.

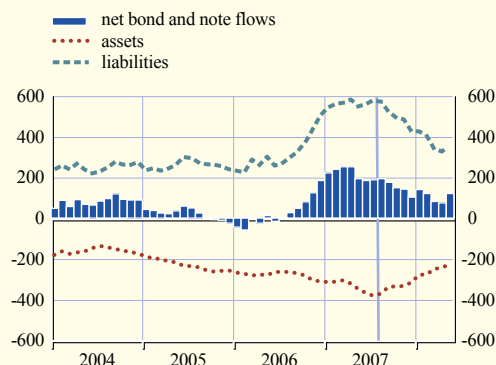
The reduction of cross-border investment in long-term fixed income instruments (see Chart C) mirrors the subdued activity in international debt markets, with low issuance of bonds and notes amid continued financial market turmoil. By contrast, cross-border money market instrument outflows initially slowed significantly, but have rebounded in 2008 (see Chart D). In particular, net issuance of commercial paper by European financial institutions increased significantly. This development is broadly in line with the market observation that commercial paper investors might favour euro-denominated assets issued by financial institutions with relatively high credit ratings.

Turning to foreign direct investment (FDI), since 2005 FDI outflows emanating from euro area residents to the rest of the world have been considerably larger than FDI inflows to the euro area (see Chart E). The financial market turbulence did not change this pattern and does so far not

2 See also the article entitled "The external dimension of monetary analysis" in this issue of the Monthly Bulletin, and R. A. De Santis, C. A. Favero and B. Roffia, "Euro area money demand and international portfolio allocation: a contribution to assessing risks to price stability", ECB Working Paper No 926, presented at the ECB workshop on "The external dimension of monetary analysis", Frankfurt am Main, 12-13 December 2007.

**Chart C Euro area bond and note flows**

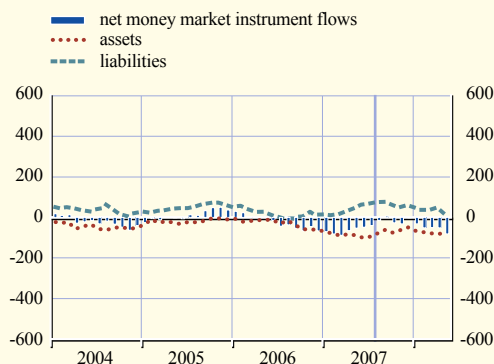
(EUR billions; monthly data; 12-month cumulated flows)



Source: ECB.  
Note: The vertical line represents the beginning of the financial turmoil.

**Chart D Euro area money market instrument flows**

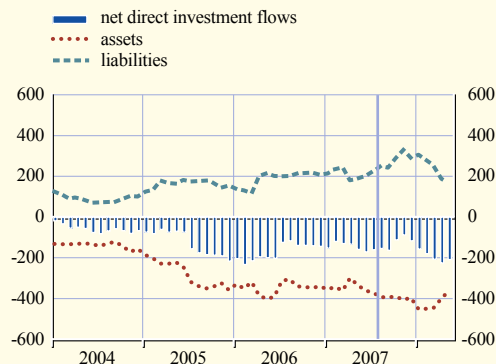
(EUR billions; monthly data; 12-month cumulated flows)



Source: ECB.  
Note: The vertical line represents the beginning of the financial turmoil.

**Chart E Euro area direct investment flows**

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



Source: ECB.  
Note: The vertical line represents the beginning of the financial turmoil.

seem to have affected euro area residents' FDI activity in a particular manner. On the contrary, the latter has fluctuated between €370 billion and €460 billion (12-month cumulated flows) since summer 2007, with a recent decline in equity capital flows while other capital flows (mostly inter-company loans) have increased. Euro area FDI inflows, which had increased until the end of 2007, declined markedly in the spring of 2008, however.

Overall, the financial turmoil that began in August 2007 has significantly affected euro area cross-border portfolio flows. These developments seemed mainly to be related to heightened risk aversion by global investors.



## ARTICLES

# THE EXTERNAL DIMENSION OF MONETARY ANALYSIS



*Monetary analysis, which plays a prominent role in the ECB's monetary policy strategy, helps to identify the medium to longer-term trends in inflation and thereby provides relevant information for policy decisions aimed at the maintenance of price stability. In interpreting monetary developments, it is important to distinguish the "noise" and other transient influences on the monetary data from the underlying trends which contain information on the medium to longer-term inflationary risks both at global and domestic levels.*

*Recent years have been characterised by ample global monetary liquidity, a concept often used to explain the low yields and credit spreads and the coincident rally in a large set of asset prices, such as equity, bond and commodity prices. The impact of global monetary liquidity on international risk premia as well as on commodity prices also has implications for domestic economic analysis, in particular through their direct effects on expected inflation.*

*Moreover, owing to financial developments and globalisation, cross-border capital flows and interlinkages between money and asset prices have also increased. One interpretation of these cross-border capital flows is that they affect money velocity, making the identification of the long-run relationship between money growth and price developments at the domestic level more complex. As regards the euro area, the trend in cross-border portfolio flows has shown a tight co-movement with M3 developments. Therefore, it is important that the analytical framework underpinning the ECB's monetary analysis takes into account the forces driving international portfolio allocation in order to assess the underlying monetary trends signalling medium to long-term inflationary risks.*

*Against this background, monetary analysis would benefit from two types of enhancement along two possible avenues. A first avenue consists of monitoring global monetary liquidity and studying its impact on commodity and global asset prices, as well as its influence on domestic inflation. A second avenue consists of assessing domestic monetary developments by controlling for the effects of capital flows and international asset prices in order to extract the underlying monetary trends. This article explores these avenues and argues that placing money demand in the context of portfolio flows and international asset prices is important to explain euro area M3 dynamics and to measure excess liquidity that can pose risks to price stability.*

### I INTRODUCTION

The ECB's primary objective is to maintain price stability in the euro area over the medium to longer term. In both the theoretical and empirical literature, it is widely recognised that monetary developments contain important information relevant for the assessment of the risks to price stability over that horizon, as the money stock and the price level are closely related in the long run. On this basis, the ECB has assigned a prominent role to money in its monetary policy strategy, with monetary analysis being used, from a medium to longer-term perspective, to cross-check the assessment of short to

medium-term risks to price stability obtained from the economic analysis.

In practice, short to medium-run monetary developments are often affected by shocks, which make the identification of the relationship between monetary developments and inflation more complex. As a consequence, the analytical framework underpinning monetary analysis needs to filter out the "noise" and other transient influences on monetary data in order to extract the underlying trends that contain information relevant for medium to longer-term inflationary risks. In this respect, several studies have confirmed that there is a strong relationship



between monetary growth and inflation at low frequencies.<sup>1</sup> In other words, the relationship between money and prices is stronger between the trend-like developments than at frequencies influenced by business cycle fluctuations.

Recent years have been characterised by ample global liquidity, which is often used to explain the low yields and credit spreads and the coincident rally in a large set of asset prices, such as equity, bond and commodity prices. The last decade has also been characterised by financial globalisation and international capital flows, which have affected money velocity.

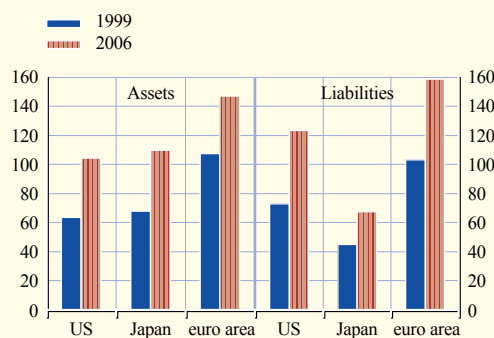
Developments in cross-border capital flows, international asset prices and global liquidity have rendered monetary analysis more challenging. Against this background, Section 2 discusses in more depth the financial globalisation phenomenon and how some of its effects can be taken into account from a monetary analysis perspective. Section 3 illustrates the global monetary liquidity phenomenon and its implications for the economy. Section 4 describes the links between international capital flows, asset prices and euro area broad aggregate M3 developments, and how the modelling of these interlinkages can help to interpret monetary developments in the euro area. Section 5 concludes.

## 2 FINANCIAL GLOBALISATION

The euro area economy is relatively open to international influences, particularly when compared with the United States and Japan. In 2006, the combined value of imports and exports of goods and services for the euro area was around 42% of gross domestic product (GDP), compared with around 28% and 32% for United States and Japan, respectively. The euro area also accounted for 18% of the value of world exports, compared with approximately 12% for the United States and 6% for Japan.

**Chart 1 International investment positions: assets and liabilities in the G3 countries**

(as a ratio of nominal GDP)



Source: IMF.

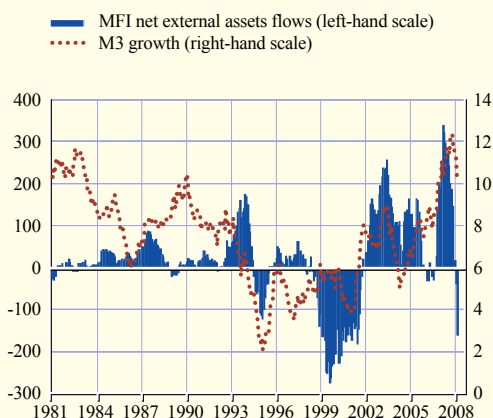
From a financial perspective, the average ratios of international investment asset and liability positions to GDP, which represent a frequently used measure of financial openness, exceeded 150% in 2006 for the euro area (also due to the bilateral transactions with the United Kingdom), compared with about 115% for the United States and 90% for Japan (see Chart 1). Furthermore, this ratio has been increasing significantly in recent years.

Developments in international investment positions are a reflection of the expansion in cross-border direct and portfolio investments. The ongoing process of financial globalisation, triggered by financial deregulation, innovation and technological change, has created more possibilities to diversify financial risks globally through holding foreign assets in investment portfolios, thus affecting all facets of the financial system, be they markets, infrastructures, institutions. In the same vein, cross-border merger and acquisition activities of non-financial corporations, a key driver of foreign direct investment, have risen exponentially, as corporations aim to grow globally.

<sup>1</sup> See, for instance, K. Assenmacher-Wesche and S. Gerlach (2007), "Money at low frequencies", *Journal of the European Economic Association*, Vol. 5(2-3), pp. 534-542; and P. Kugler and S. Kaufmann (2005), "Does money matter for inflation in the euro area?", Oesterreichische Nationalbank Working Papers, No 103.

**Chart 2 MFI net external assets and M3 growth in the euro area**

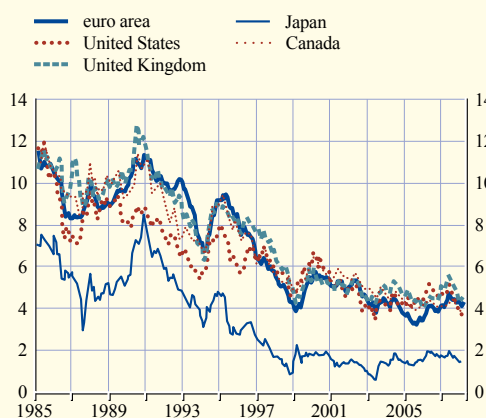
(annual flows in EUR billions; annual percentage changes)



Source: ECB.

**Chart 3 Long-term interest rates in the G5 countries**

(percentages per annum)



Sources: BIS, ECB, ECB calculations, IMF.

Financial globalisation creates opportunities to enhance risk-sharing across countries but, at the same time, it has also increased the exposure of national economies to developments in the rest of the world via wealth effects and international capital flows. As global financial integration deepens, portfolio allocation decisions are increasingly determined by developments in expected relative yields worldwide. Should return expectations favour a specific economic area, cross-border capital flows will shift towards that region. One likely consequence of such flows will be an impact on monetary developments through the net external asset position of the banking sector (i.e. the net transactions of the money-holding sector with counterparties in the rest of the world). Cross-border capital flows may alter the amount of funds available to investors in an economy, thus affecting the velocity of money and making the relationship between money growth and price developments at the domestic level more complex.

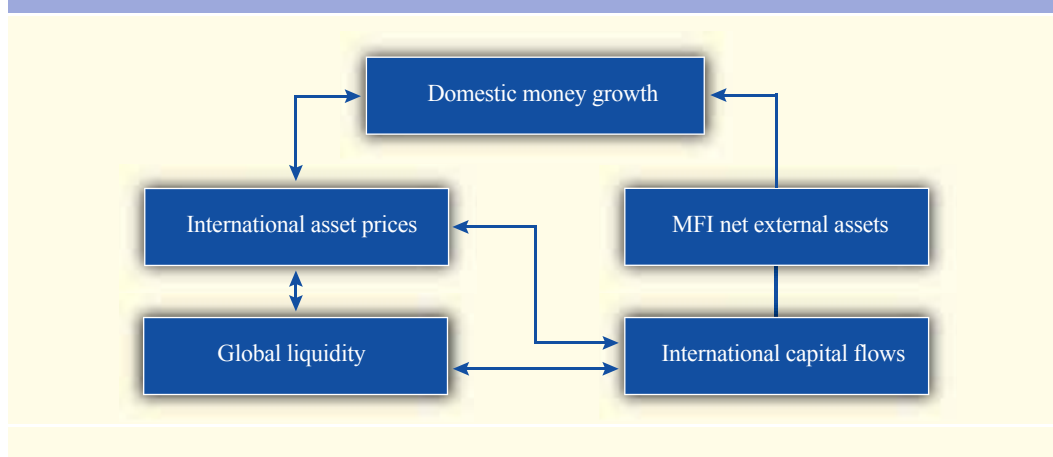
Evidence for the euro area shows that MFI net external assets have been, at least in accounting terms, an important driving force behind euro area monetary dynamics over the past decade. Whereas flows in MFI net external assets in the 1980s and early 1990s remained subdued,

a high degree of co-movement between the annual flows of MFI net external assets and annual M3 growth has been detected in the past seven years (see Chart 2), albeit with exceptions in 2005, at the end of 2007 and in early 2008. Box 1 provides a more detailed explanation of the relationships among international capital flows, MFI net external assets and M3 growth for the euro area.

The general opening-up of economies to international financial markets and financial innovation (e.g. the development of credit risk transfer markets and securitisation) have also influenced the evolution of asset prices, such as long-term interest rates, which have converged to very low levels, particularly since 2000 (see Chart 3). In recent years, short-term interest rates have also been unusually low by historical standards, serving to fuel the growth of global monetary liquidity (i.e. the sum of money for transaction purposes and short-term instruments at the global level).

Furthermore, strong growth in global monetary liquidity may have underpinned increases in international asset prices and, more generally, placed downward pressure on returns across a range of asset classes. In the context of rapid liquidity expansion, asset prices may overshoot,

Chart 4 The external dimension of monetary analysis



leading to potentially costly boom-bust cycles, a misallocation of resources and pressures on price developments.<sup>2</sup>

All these mechanisms, which ultimately have an impact on domestic money growth, are illustrated in Chart 4. Against this background, two possible avenues can be envisaged to account for the external dimension of the monetary analysis. A first avenue consists of monitoring global monetary liquidity and studying its impact on commodity, equity and bond prices (i.e. international asset prices), as well as its influence on domestic inflation. The basic principle anchoring monetary policy – namely Milton Friedman’s view that “...in the long run, inflation is always and everywhere a monetary phenomenon” – may be more easily demonstrated by analysing liquidity at global level, where cross-border capital flows that can distort monetary developments at national level are internalised within a global aggregate. On this basis, one can then trace how global liquidity may influence the outlook for domestic price stability through its effects on asset and commodity prices in international markets.

A second avenue involves deepening the assessment of domestic monetary developments by controlling for the effects of capital flows and

international asset prices, in order to extract the underlying domestic monetary trends and the associated signals about price developments.

These two avenues are not mutually exclusive. On the contrary, they are interlinked. The next two sections discuss several aspects related to each of these two possible avenues.

<sup>2</sup> See, for instance, R. Adalid and C. Detken (2007), “Liquidity shocks and asset price boom/bust cycles”, ECB Working Paper Series, No 732.

## Box I

## THE MONETARY PRESENTATION OF THE EURO AREA BALANCE OF PAYMENTS

From a statistical perspective, the international influence on euro area monetary developments is reflected in the counterparts of the broad aggregate M3 through the net external asset position of the MFI sector. The latter measures all the transactions of the money-holding sector (i.e. households, non-financial corporations, non-MFI financial intermediaries and general government) with counterparties outside the euro area, to the extent that they are settled via resident banks.<sup>1</sup>

For the euro area, these financial flows (i.e. portfolio investment in equities and debt securities and direct investment) are also recorded in the so-called “monetary presentation of the balance of payments”, which establishes a link between the balance of payments and changes in MFI net external assets.<sup>2</sup> The balance of payments is an identity which always sums to zero. For example, assuming that the sum of the current and capital accounts and errors and omissions is equal to zero, a negative balance of the financial transactions by the non-MFI sector (i.e. net outflows attributable to direct and portfolio disinvestment of the non-MFI sector) must be equal to a positive balance of the financial transactions by the MFI sector. This implies a decrease in the flows of the net external assets of the MFI sector (see Table A). *Ceteris paribus*, the latter then causes a decrease in M3 (see Table B).

An example of how these transactions are recorded can be useful to understand the influence on monetary developments. If a non-MFI resident (e.g. household) of the euro area purchases a bond issued by a non-resident (e.g. US corporation) and the operation is settled through a euro area MFI, the transaction implies net bond outflows in the balance of payments and a decline in the net external assets of the MFI sector, as the euro area bank in charge of the transaction reduces its deposits with the counterpart bank in the United States. Whether this also has an impact on euro area M3 depends on the way in which the household finances the purchase of the bond

1 Only transactions between, on the one hand, money-holders and, on the other hand, banks and non-residents have a direct impact on the money stock. Any transaction among euro area non-MFIs would only imply a circulation of money within the money-holding sector, with no impact on the total money stock in the euro area. This would be the case, for example, if private transactions were to be financed by an exchange of shares.

2 See also the box entitled “The monetary presentation of the euro area balance of payments” in the June 2003 issue of the Monthly Bulletin.

**Table A Monetary presentation of the euro area balance of payments**

(flows)

	Current account
+	Capital account
+	Balance of financial transactions by the non-MFI sector
+	Errors and omissions
=	Balance of payments of the non-MFI sector
=	- Balance of payments of the MFI sector
=	Change in the net external assets of the MFI sector

**Table B Accounting identity of the euro area MFI balance sheet**

(stocks)

	M3
=	Credit to euro area residents
+	Net external assets of euro area MFIs
-	Longer-term financial liabilities
+	Other counterparts

vis-à-vis its resident bank. If it is financed via a decrease in the deposits that the household holds with its euro area bank, then there will be a downward impact on M3. Conversely, if it is financed via an MFI loan to the household, then, on balance, there will be no impact on M3, but just on the composition of the counterparts of M3.

By the same reasoning, if, for instance, a non-resident purchases a bond from a euro area household and the transaction is settled through a euro area MFI, this implies net bond inflows and an increase in the net external asset position of the MFI sector, as the bank account balance of the non-resident with the euro area MFI (which represents an external liability of the bank) will fall. If the funds raised by the sale of the debt instrument are paid into the bank account of the euro area household (included in the money stock), the overall M3 stock will increase.

Using the monetary presentation of the balance of payments in the context of the monetary analysis can allow, first, developments in MFI net external assets to be linked to transactions in specific asset classes (such as debt securities, equities, etc.) and, second, a distinction to be drawn between transactions made by euro area and non-euro area resident investors. At the same time, it gives an idea of the size of the phenomenon whereby portfolio flows may have an impact on domestic liquidity.

### 3 GLOBAL MONETARY LIQUIDITY: ISSUES, DEVELOPMENTS AND IMPLICATIONS FOR ASSET AND CONSUMER PRICES

Monetary liquidity allows economic agents to settle their transactions using money. Prima facie, one would measure monetary liquidity by the amount of money agents possess. More generally, monetary liquidity is defined in quantitative terms on the basis of monetary and financial aggregates such as M3, which includes cash and bank deposits held for transaction purposes as well as a variety of short-term savings instruments. An environment of high monetary liquidity could affect consumer prices, if it is spent on goods and services, and, if invested, the risk-taking behaviour of market participants by temporarily distorting the pricing of risks, leading to an accumulation of financial imbalances and thus increasing the probability of a boom-bust cycle in financial markets. When looking at the major currency areas, except for Japan, strong money growth has been observed in each of them since the turn of the century (see Chart 5), following the extended period of low short and long-term interest rates.

However, when constructing a global monetary liquidity measure, several issues ought to be

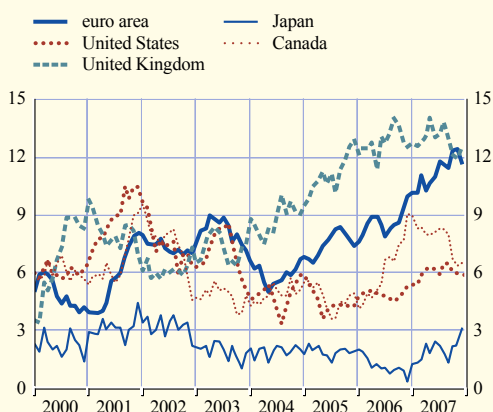
considered.<sup>3</sup> First, different measures of money can be used. On the one hand, narrow monetary aggregates, which comprise banknotes and coins and highly liquid deposits such as overnight deposits, are more homogeneous across economies, although they can be volatile at times. On the other hand, broad monetary aggregates are less volatile, as they include less liquid deposits and marketable instruments and therefore internalise important substitution processes between different monetary assets. However, they are less homogeneous across countries and thus less easy to interpret.

Second, in terms of aggregation methods, a common currency denomination has to be chosen. Theoretically, the usefulness of the global liquidity measure depends on the exchange rate regime adopted by the contributing countries. More precisely, the relationship between global measures of money and prices may be more likely to be found in countries which have historically been, and are still, characterised by a fixed exchange rate regime. In terms of aggregation procedures, the issue of whether market exchange rates or purchasing power exchange rates (i.e. the exchange

<sup>3</sup> For a discussion of these aspects, see also the box entitled “Worldwide trends in monetary aggregates: some conceptual issues” in the November 2006 issue of the Monthly Bulletin.

**Chart 5 Broad money growth in the G5 countries**

(annual percentage changes)

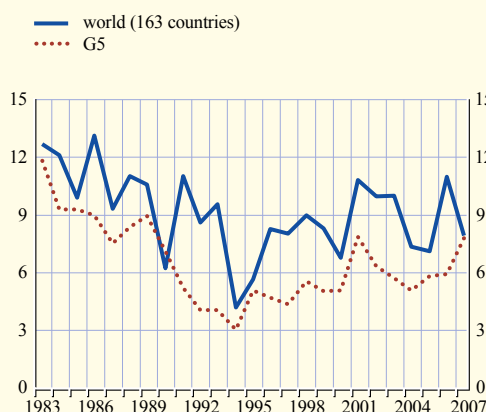


Sources: BIS, ECB, ECB calculations.

Note: The broad monetary aggregates used in the construction of the global money measure are: M3 for the euro area, M2 for the United States, M2+CD for Japan, M4 for the United Kingdom and M2+ for Canada.

**Chart 6 Broad money growth in the G5 countries and in the world**

(annual percentage changes)



Source: IMF World Economic Outlook.

Note: The monetary aggregate measures are converted using purchasing power parity exchange rates.

rates that equalise the purchasing power of different currencies, given the prices of goods and services in the corresponding economies) should be used also becomes important.<sup>4</sup> Using purchasing power parity exchange rates helps to mitigate the impact of the exchange rate on the dynamics of the monetary aggregate and the associated liquidity measure turns out to be less volatile. However, the drawback is that it tends to overestimate the weight of fast-growing economies over time.

Third, the geographical coverage may vary according to whether only the main industrialised countries or also the emerging market economies are considered. Including the liquidity of fast-growing emerging markets in the global measure serves the assessment of recent developments in asset and commodity prices. However, adopting such a broad geographical coverage limits the meaningfulness of the time series from an historical perspective given the lack of long runs of data for some emerging markets and, therefore, the comparability of the associated global liquidity measures over time.

A global measure including the main industrialised countries is a possible compromise for measuring the liquidity situation worldwide.

In fact, a comparison of a measure of global money growth for the five large industrial economies (i.e. the United States, the euro area, Japan, the United Kingdom and Canada, henceforth denoted as the G5) with a similar measure for 163 countries representing the world (see Chart 6) shows that the longer-term pattern is broadly similar. More precisely, the aggregated broad money stock rose rapidly in the late 1980s, before exhibiting a rather sharp deceleration, although amid higher volatility in the mid-1990s. Since the mid-1990s, an ongoing strengthening in global liquidity growth has been recorded.

Another point to be noted is that, by construction, these monetary aggregates only capture the liquid holdings of the resident money-holding sectors in each country. Therefore, cross-border “hot money” (such as deposits, cash, etc.), which is likely to reflect more the speculative short-term arbitrage transactions and may be useful for the analysis of global asset price developments, is not included in the global measures considered above, since for each

<sup>4</sup> See also the box entitled “Measuring world growth: do weights matter?” in the June 2006 issue of the Monthly Bulletin.

national aggregate such hot money is treated as a non-resident holding.

All these measurement issues and the fact that no single measure of global liquidity has yet been identified have held back the development of the literature on this topic. Therefore, it remains a challenging task to evaluate the impact of global money on commodity and asset prices, as well as its influence on domestic inflation.

From a central banking perspective, the key issue is to understand how global liquidity can ultimately influence domestic price stability. Specifically, it is important to understand the channels through which global liquidity can affect price developments in one country, such as by having an impact on international commodity prices, by influencing risk and term premia in international asset markets and by affecting domestic monetary developments.

In the long run, under a flexible exchange rate regime, the effects of global liquidity on domestic inflation can be overcome by active domestic monetary policy. As pointed out by Woodford (2007), global developments could affect domestic inflation in the shorter term, but should not “impair in any substantial way the ability of central banks to control domestic inflation through national monetary policy [...]”. It remains appropriate for central banks to be assigned responsibility for stabilizing a suitably chosen index of domestic prices, despite continuing changes in the real economy, whether domestic or foreign in origin.<sup>5</sup>

In the shorter term, global liquidity can affect asset prices and, therefore, indirectly, domestic conditions via wealth effects and international capital flows. Moreover, global liquidity may affect international commodity prices and the prices of these commodities – used as intermediate inputs in production processes – can affect domestic prices of some goods, thereby influencing the terms of trade.

Whether terms-of-trade developments exert a positive or negative pressure on aggregate inflation in the short run will depend on their net

effect on aggregate supply and demand. On the one hand, for a given level of aggregate demand, an adverse permanent terms-of-trade shock reduces potential output, so that the resulting positive output gap causes an upward pressure on inflation. On the other hand, a negative aggregate demand effect would materialise if a permanent commodity price shock impinges on individuals’ wealth via its impact on current and expected future income. For a given potential output growth, the negative wealth effect would give rise to excess aggregate supply, thereby leading to downward pressure on domestic inflation.

Overall, it is not straightforward to disentangle empirically the different effects on asset and consumer price inflation. Preliminary empirical evidence suggests that shocks to global liquidity (stemming, for example, from financial innovation, abolition of controls on international capital movements or changes in macroeconomic policy) may influence the outlook for asset and commodity prices as well as for domestic inflation.<sup>6</sup> During the boom phase of asset price cycles, shocks to domestic monetary liquidity have played a role in driving housing prices across OECD countries.<sup>7</sup> There is also some empirical evidence that excessive liquidity, when imbalances are growing in the boom

5 M. Woodford (2007), “Globalization and monetary control”, NBER Working Paper Series, No 13329.

6 See M. Ciccarelli and B. Mojon (2005), “Global inflation”, ECB Working Paper Series, No 537, and F. Browne and D. Cronin (2007), “Commodity prices, money and inflation”, ECB Working Paper Series, No 738. Other studies have investigated the issue concerning the effects of global liquidity on global/domestic inflation and output: J. Sousa and A. Zaghini (2004), “Monetary policy shocks in the euro area and global liquidity spillovers”, ECB Working Paper Series, No 309; R. Ruffer and L. Stracca (2007), “What is global excess liquidity, and does it matter?”, ECB Working Paper Series, No 696; and finally C. E. V. Borio and A. Filardo (2007), “Globalisation and inflation: New cross-country evidence on the global determinants of domestic inflation”, BIS Working Papers, No 227.

7 See C. Detken and F. Smets (2004), “Asset price booms and monetary policy”, ECB Working Paper Series, No 364, also published in H. Siebert (ed.), “Macroeconomic Policies in the World Economy”, Springer, Berlin, 2004; R. Adalid and C. Detken (2007), *op. cit.*; and C. Goodhart and B. Hofmann (2008), “House prices, money, credit and the macroeconomy”, ECB Working Paper Series, No 888. With regard to the effects of an accommodative monetary policy on housing prices in the euro area and in the United States, see also C. Greiber and R. Setzer (2007), “Money and housing – Evidence for the euro area and the US”, Deutsche Bundesbank Discussion Paper, No 12/2007.

phase, is an indicator of the depth of the following recession in economic activity during the subsequent bust phase, thereby exacerbating the financial crisis. Should these results be corroborated by further analysis, then excess global liquidity could act as an additional signal for inflationary developments and financial imbalances.

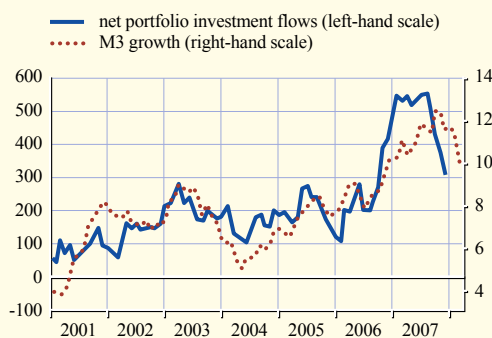
#### 4 THE LINK BETWEEN INTERNATIONAL CAPITAL FLOWS, MFI NET EXTERNAL ASSETS AND EURO AREA M3 DYNAMICS

Globalisation of financial markets has increased the share of global wealth invested outside investors' home jurisdictions. The associated cross-border capital flows can influence systematically domestic monetary developments. In the presence of expectations of higher risk-adjusted returns relative to a specific economic area, international portfolios are reallocated, generating cross-border transactions towards such a region. In a closed economy, if a domestic household sells a bond or equity to another household, there is no impact on the overall money stock, as money simply circulates within the money-holding sector. Conversely, transactions between resident MFIs and non-residents typically have an impact on money holdings. More precisely, as regards the euro area, external transactions (be they direct investment or portfolio flows into equities and/or debt securities) by euro area resident non-MFIs and non-euro area residents have a direct impact on the external assets and liabilities of the MFI sector, to the extent that they are settled via resident banks (for details see Box 1).

A closer investigation of the components of MFI net external assets since 1999 indicates that net flows of foreign direct investment have been negative and mainly disconnected from M3 dynamics, whereas cross-border portfolio investment flows (in equities and debt securities) show a tight co-movement with M3 developments (see Chart 7). Therefore, the analysis of cross-border portfolio transactions, including the behaviour of euro area investors abroad vis-à-vis foreign investors, may shed

Chart 7 Net portfolio flows and M3 growth in the euro area

(annual flows in EUR billions; annual percentage changes)



Source: ECB.

some light on why monetary developments at times cannot be fully explained by traditional money demand determinants, such as output and interest rates.

Five key periods have characterised the net inflows in cross-border portfolio investment in the euro area since the start of Stage Three of EMU.

Between 1999 and mid-2001, the significant decline in the net external assets of the MFI sector reflected euro area non-MFI residents' building-up of large holdings of foreign shares, following strong merger and acquisition activities undertaken by euro area residents, partly in the context of the "new economy" boom in the United States.

From mid-2001 up to mid-2003, in an environment of heightened financial market and geopolitical uncertainty and a search for safer returns,<sup>8</sup> the euro area money-holding sector reallocated its portfolios from domestic and foreign equity holdings to domestic money holdings, while the pattern of foreign portfolio investment in the euro area was relatively stable.

<sup>8</sup> This period coincided with the strong decline in the stock market indices during 2001, the terrorist attacks on 11 September 2001, the accounting scandals in the United States in 2002, the subsequent geopolitical uncertainties in the Middle East and the war in Iraq. The period 2001-2003 was, therefore, characterised by an extraordinary preference for liquid and safe financial assets by euro area residents.



One consequence of this reallocation was a repatriation of funds previously invested in foreign equities. This led to the accumulation of capital flows from residents and/or non-residents in the euro area, so that the resulting portfolio shifts affected monetary dynamics, as argued by the ECB on several occasions.<sup>9</sup> Annual M3 growth increased strongly, driven by a large increase in the net external assets of the MFI sector.

Subsequently, from the summer of 2003 to mid-2004, net portfolio inflows gradually declined. In particular, in the summer of 2003 – amid expectations of capital losses as a result of a sharp rise in long-term bond yields – major disinvestment by non-residents of euro area bonds and notes stopped the positive trend in net portfolio flows. Net portfolio inflows declined up to June 2004, mainly because of weak economic growth in the euro area relative to developments in other economic regions. The gradual decline of annual net capital inflows and the associated decrease in MFI net external assets helped to dampen M3 growth.

The fourth period, from mid-2004 to mid-2007, saw a rebound, with a strong rise in net inflows in portfolio investment associated with an increase in net purchases of euro area portfolio securities by non-euro area residents. Market survey data indicated a renewed interest in euro area equity securities among foreign investors, with one of the key reasons cited being that euro area equities were seen as being attractively priced in relative terms. Growing evidence of an improving economic outlook in the euro area since the beginning of 2005 may have been a key factor underlying these investment strategies. During this period, annual flows into M3, after levelling off briefly, continued to strengthen also due to the stimulative impact on the economy of the low level of interest rates.

The fifth period, from mid-2007 up to April 2008, has been characterised by a downward trend in net portfolio inflows partly due to the financial turmoil that occurred from the summer

of 2007, though the net annual inflow remains sizeable.<sup>10</sup> M3 growth mirrored the pattern of annual portfolio flows.

Overall, it can be asserted that external transactions and, more precisely, transactions in portfolio investment, have co-moved with monetary dynamics in the euro area in the last eight years. Hence, understanding the factors behind developments in portfolio flows can help to improve monetary analysis.

Notwithstanding this help, identifying the determinants of portfolio flows remains difficult because portfolio managers' decisions are based on expectations of future returns, which obviously might differ from ex post return realisations.

A recent analytical study shows that it is possible to codify and quantify the implications of cross-border portfolio flows and international asset prices for monetary developments in the euro area within a money demand framework (see Box 2). This turns out to be important to explain euro area M3 dynamics in the period 1980-2008. In particular, euro area M3 and euro area and US equity and bond prices are interlinked and any disequilibria in these three markets (namely, euro area money, euro area and US assets) trigger corrective responses in the other two markets. Moreover, given that asset prices are available in a timely manner, a real-time assessment of inflationary risks remains feasible. The empirical evidence for the euro area suggests that placing money demand in the context of portfolio flows and international asset prices is important to measure excess liquidity that can pose direct risks to price stability.

<sup>9</sup> See, for instance, the box entitled "External capital flows and domestic monetary dynamics in the euro area" in the February 2005 issue of the Monthly Bulletin and the box entitled "Recent developments in MFI net external assets" in the July 2005 issue of the Monthly Bulletin.

<sup>10</sup> For an analysis of net external assets and international investment, see the box entitled "Recent developments in MFI net external assets" in the July 2005 issue of the Monthly Bulletin and the box entitled "MFI net external assets and their impact on monetary developments" in the ECB's Annual Report 2007.

## Box 2

## EURO AREA MONEY DEMAND AND INTERNATIONAL PORTFOLIO ALLOCATION

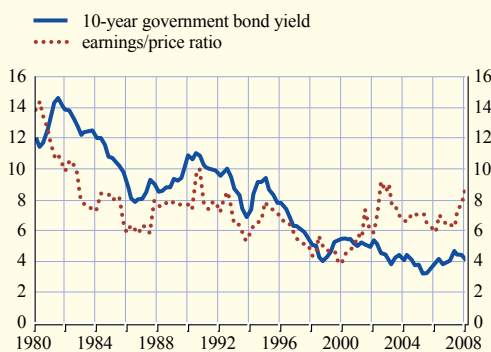
Over the past decade, cross-border capital flows and interlinkages between money and asset prices have increased owing to financial developments and globalisation. Cross-border capital flows may affect money velocity, making the identification of the long-run relationship between money growth and price developments at the domestic level more complex. The tight co-movement between net portfolio flows and M3 growth observed in the euro area and depicted in Chart 7 in Section 4 is analysed within a money demand framework proposed by De Santis, Favero and Roffia (2008) (hereafter referred to as DFR).<sup>1</sup> As with other money demand models, this approach takes as a starting point that various financial frictions exist. This implies that modelling monetary aggregates is both feasible and relevant to the understanding of macroeconomic dynamics.

The key element of the DFR model is the adoption of a portfolio-balance approach to money demand, which is characterised by two main features. First, in order for transactions to have an impact on aggregate M3, a counterpart sector which is not part of the money-holding sector is needed; in the DFR model, this is the external (i.e. non-resident) money-holding sector. Second, in order to explain portfolio shifts, a set of opportunity cost variables is needed, including domestic and foreign asset returns. In this model, returns on domestic and foreign assets (stocks and long-term bonds), as well as the own rate of return on holding euro area M3, are found to influence money holdings. More precisely, for a given level of risk, portfolio allocation among risky assets depends on the asset returns expected by domestic and foreign agents in excess of the own rate of return on money.

1 See R. A. De Santis, C. A. Favero and B. Roffia (2008), "Euro area money demand and international portfolio allocation: a contribution to assessing risks to price stability", ECB Working Paper No 926; also presented at the ECB workshop entitled "The external dimension of monetary analysis", Frankfurt am Main, 12-13 December 2007.

Chart A Earnings/price ratio and ten-year government bond yield in the euro area

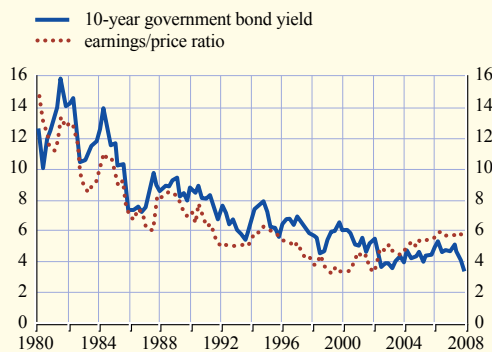
(percent; percentages per annum)



Sources: BIS, Datastream, ECB calculations.

Chart B Earnings/price ratio and ten-year government bond yield in the United States

(percent; percentages per annum)



Sources: BIS, Datastream.

Using standard econometric techniques, three long-run relationships can be found.

(i) A euro area money demand equation, which relates the demand for euro area M3 to income/wealth and the relative yields between US and euro area equities and long-term bonds.

(ii) Two relationships between the earnings/price ratios and long-term bond yields for the euro area (including also in this case the own rate of return on M3) and the United States, which capture the equilibrium in the euro area and US asset markets respectively and are a representation of the “FED model” of

Lander, Orphanides and Douvogiannis (1997).<sup>2</sup> This model postulates that the earnings/price ratio of a stock index tends to move in the same direction as the long-term government bond yield (see Charts A and B), thus providing a way to predict price movements in the equity market. To close a positive gap between such variables, either equity prices or long-term bond yields, or both, are expected to increase, thereby raising future returns. Chart A above shows that, based on actual data, this gap started increasing in 2001 in the euro area, which actually corresponds to the period in which increasing net portfolio inflows and higher euro area M3 growth were recorded.

The parameters of these three relationships are significant and the system is stable over the sample period from the first quarter of 1980 to the first quarter of 2008 on the basis of standard statistical tests, with the residuals of the three equations being “mean reverting” or, in other words, “stationary”.

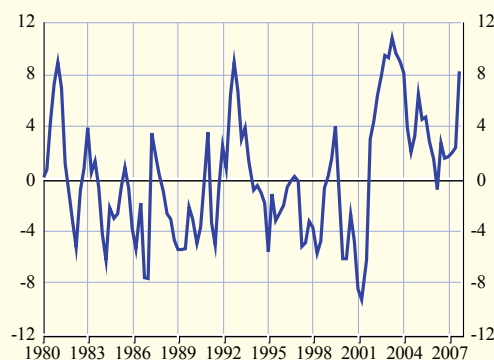
Chart C represents the residuals from the long-run money demand or the so-called “monetary overhang”. The series fluctuates around zero, so that all departures of the actual M3 stock from the long-run money demand implied by the model are “corrected” over time. However, as the model consists of a system, these residuals should be understood in the context of the model as a whole, i.e. by also taking into account the potential divergences of earnings/price ratio from bond yields, which can occur in the other two asset markets in the model. In particular, although the model may explain well the long-run evolution of the stock of M3, this does not exclude that there may be indications of risks to price stability stemming from developments in asset markets.

On the basis of this model set-up, two main observations are worth making.

(i) Given that asset prices are volatile, this introduces some volatility into the residuals of the money demand, although, at the same time, the latter exhibits a fast reversion to the mean. While confirming the underlying relationship between money and a small number of

**Chart C** The residuals of the long-run euro area money demand equation in the DFR model

(percentages)



Source: De Santis, Favero and Roffia (2008).

<sup>2</sup> J. Lander, A. Orphanides and M. Douvogiannis (1997), “Earnings, forecasts and the predictability of stock returns: evidence from trading the S&P”, *Journal of Portfolio Management*, Vol. 23, pp. 24-35.

macroeconomic variables, this model suggests that asset price developments are important determinants of monetary developments.

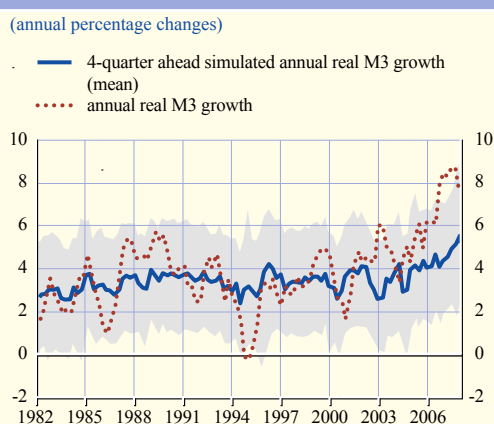
- (ii) There are linkages between money and asset price developments which run in both directions, so that disequilibria in any of the three markets encompassed by the model – M3 and euro area/US asset markets – trigger corrective responses in all markets.<sup>3</sup> Thus, this portfolio approach relates monetary developments to asset price dynamics in an international context, offering a link to the growing literature on asset prices and money.

As regards the mechanisms through which these inter-relationships manifest themselves in the model, if the euro area earnings/price ratio is below the euro area long-term bond yield, risk-adjusted excess returns on euro area assets are expected to decline, with the consequences that global investors sell euro area assets to domestic agents and, as a result, euro area M3 growth decreases. If the US earnings/price ratio is below the US long-term government bond yield, euro area M3 growth might also decline, if global investors sell US assets also partly to euro area agents, as a consequence of the decline in expected risk-adjusted excess returns on US assets. The impulse response analysis as well as anecdotal evidence indicate that a rise in euro area and/or US earnings/price ratio above their respective long-term bond yields leads to net portfolio flows into the euro area and to an increase in euro area M3 growth. It is also worth noting that there is a strong co-movement between the USD/EUR exchange rate and the residuals in the asset price equations. Therefore, the inclusion of earnings/price ratios, bond yields and the own rate of return on euro area M3 in the DFR money demand model implicitly captures the influence of net portfolio flows and the exchange rate on euro area M3 growth.

All in all, it can be safely argued that placing money demand in the context of international portfolio flows is important to explain euro area M3 dynamics. Moreover, given that asset prices are available in a timely fashion, a real-time assessment of inflationary risks is feasible by comparing actual money growth with model-based simulated values.

Chart D shows the annual M3 growth explained by the developments in the variables included in the model. The results point towards an increasing positive gap between actual real money growth and real money growth fitted by the model in recent years. This gap is statistically significant in explaining euro area HICP developments. An evaluation of the forecasting performance of this indicator for inflation developments over a horizon of six quarters ahead has been carried out following a standard bivariate approach using the

Chart D Real euro area M3 growth: actual and simulated values with the DFR model



Source: De Santis, Favero and Roffia (2008).  
 Note: The shaded area covers the 95% confidence interval of the 4-quarter ahead simulated annual real M3 growth.

<sup>3</sup> When looking at the short-run dynamics of the system, the impact of the three disequilibria is rather pervasive in the system as many variables react to some or all of the disequilibria.

methodology proposed by Stock and Watson (1999).<sup>4</sup> It turns out that, when running recursive estimates of the equations for the period from the first quarter of 2000 to the first quarter of 2008, the money growth gap indicator based on the DFR model outperforms the univariate model benchmark and exhibits a good performance on the basis of both the mean square forecast errors and bias. As the DFR model is stable, this suggests some increasing risks to price stability in the euro area, particularly over the last couple of years.

4 J. Stock and M. W. Watson (1999), "Forecasting inflation", *Journal of Monetary Economics*, Vol. 44, pp. 293-335.

## 5 CONCLUDING REMARKS

Monetary analysis aims to identify the underlying trend rate of monetary expansion that robustly signals risks to price stability over the medium to longer term. Therefore, monetary analysis aims to separate this underlying signal from developments linked, for instance, to the increasing influence of financial globalisation on the velocity of money through movements in international asset prices, which can affect international portfolio allocation and, thereby, directly domestic money markets, rendering monetary analysis more challenging at higher frequencies.

At the same time, recent years have also been characterised by a large amount of global liquidity and savings invested in global portfolios, which have strongly affected risk premia across a variety of asset classes. Ultimately, the developments in asset and commodity prices might impinge on domestic consumer prices via wealth and terms-of-trade effects.

Global liquidity, portfolio flows, international asset prices and domestic money growth are all interlinked. In such an environment, monetary analysis requires increasing sophistication by relying on a wider range of analytical tools and models, which can help disentangle empirically the different effects on asset and consumer price inflation. While the long-run relationship between domestic money growth and inflation is undisputed, empirical work on the effects of global liquidity is still in its infancy. The empirical evidence for the euro area suggests that placing money demand in the context of portfolio flows and international asset prices is

important to explain euro area M3 dynamics and to measure excess liquidity that can pose direct risks to price stability.

# THE ROLE OF BANKS IN THE MONETARY POLICY TRANSMISSION MECHANISM

## ARTICLES

The role of banks in the monetary policy transmission mechanism

*In the euro area financial system banks are traditionally of major importance for the allocation of savings and the financing of firms and households. Hence, banks' adjustment of their lending and pricing of loans in response to ECB monetary policy actions is an influential channel through which monetary policy affects the economy. The money and credit market tensions observed since mid-2007 have highlighted the importance of closely monitoring the role of banks in the monetary policy transmission mechanism. This article takes stock of recent research concerning this role, focusing in particular on the euro area. The article first describes the various channels through which banks may play a part in monetary transmission. It then assesses the monetary policy implications of recent changes in the financial landscape and in banking in particular. In view of these developments, it is likely that the transmission mechanism has evolved.*

## I INTRODUCTION

Banks are important players in the euro area financial system and facilitate the flows of financial assets from savers to those with investment and consumption needs. They are the main collectors of funds from and providers of finance to the non-financial corporate and household sectors. This contrasts with the United States, where capital market-based finance is more important (see Table 1). Hence, from a monetary policy perspective, a clear understanding of the role of banks in the monetary policy transmission mechanism is essential.<sup>1</sup>

This article takes stock of recent research concerning the role of banks in the transmission mechanism in the euro area. Section 2 highlights the various channels through which banks may play a role in the transmission mechanism. Section 3 reviews the fundamental changes banking has undergone in recent years owing

to financial innovation, regulatory changes and the process of financial integration and their potential implications for the role of banks in the transmission mechanism. Section 4 puts these findings into the perspective of the credit market tensions observed since mid-2007. Section 5 concludes.

## 2 THE ROLE OF BANKS IN MONETARY POLICY TRANSMISSION

In general, the financial soundness of banks and their counterparties may have more or less substantial effects on the real economy, depending on the existence and magnitude of credit market frictions. This can happen, in the presence of asymmetric information, as banks impose a risk premium on their provision of

<sup>1</sup> See also the studies conducted in the early 2000s by the Eurosystem's Monetary Transmission Network, which are collected in I. Angeloni, A. N. Kashyap and B. Mojon (eds.), *Monetary policy transmission in the euro area*, Cambridge University Press, 2003.

Table 1 Selected indicators of financial structure in the euro area and the United States

(as a percentage of GDP)

End-2007	euro area	United States
Total bank financial assets	249	144
Bank credit to non-banks	137	62
of which loans to the non-financial corporate sector	50	17
Debt securities issued by non-financial corporations	8	26
Stock market capitalisation	75	112
Securitisation	6	18

Sources: ECB, Eurostat, Dealogic, Thomson Financial Datastream and Federal Reserve Board of Governors.

Notes: Total bank financial assets refers to the aggregated MFI sector for the euro area and to the sum of commercial banks, savings institutions, credit unions, money market mutual funds, and security brokers and dealers for the United States. Securitisation figures are based on euro/dollar-denominated asset-backed securities, mortgage-backed securities and agency-related securities.

credit on top of borrowers' credit risk. Under certain circumstances, banks may even ration credit.<sup>2</sup> Moreover, the fact that credit risk evolves with economic cycles owing to fluctuations in borrowers' collateral values implies that bank lending behaviour has a generic tendency to be pro-cyclical and may, itself, cause macroeconomic fluctuations. It has been argued that these effects may even be amplified by minimum capital requirements, which are calculated using risk-weighted assets. Against this background, banks' behaviour may contribute to the transmission of monetary policy to real economic activity in a number of ways.<sup>3</sup>

#### STANDARD MONETARY POLICY TRANSMISSION CHANNELS

Academic research has identified several channels through which monetary policy may be transmitted to the real side of the economy. First of all, monetary policy may have an impact on real spending decisions via the traditional interest rate channel, whereby changes in key ECB interest rates affect the general level of interest rates and hence consumption and investment decisions and, ultimately, real economic activity and inflation.<sup>4</sup> Owing to the relatively large share of bank loans and deposits in total financial assets and liabilities in the euro area, the bank interest rate pass-through is a key element of the interest rate channel. The impact of this channel may vary with the amplitude and speed with which bank interest rates on loans and deposits are adjusted when policy rates change. It should be noted that the bank interest rate pass-through itself depends on a multitude of factors, such as the degree of competition among banks and financial market development, but also the balance sheet situation of banks and their borrowers, in which respect it can arguably also be viewed in relation to the credit channel (discussed below).

Second, owing to the potential presence of credit market imperfections and non-perfect substitutability of bank versus non-bank assets and liabilities, banks may play a distinct role in amplifying the effects of changes to monetary

policy. The extent to which bank lending behaviour affects the transmission of monetary policy largely hinges on whether bank loans and deposits are "special" (in terms of having no perfect substitutes), as emphasised by the literature on the credit channel of monetary transmission.<sup>5</sup> In essence, the existence of a credit channel depends, on the one hand, on the extent to which banks can easily substitute other funding sources for deposits and, on the other hand, on the extent to which bank borrowers are able to find alternative funding sources to bank financing. With respect to the latter, in particular, small and medium-sized enterprises and households could have difficulties in finding sources of external financing other than bank loans and hence largely depend on the ready availability of bank credit to fund their investment and consumption activities.

The "narrow" credit channel, or bank lending channel, operates via the effect of a monetary policy change on the liability side of banks' balance sheets, which may induce the adjustment of bank assets, including loans. For example, a monetary policy-induced reduction of banks' reserve holdings could lead to a contraction in loan supply if banks either are not fully able to substitute other sources of funding for deposits (for example, because

2 See J. E. Stiglitz and A. Weiss, "Credit rationing in markets with imperfect information", *American Economic Review*, 71, No 3, June 1981, pp. 393-410; and B. Holmström and J. Tirole, "Financial intermediation, loanable funds, and the real sector", *The Quarterly Journal of Economics*, Vol. 112, No 3, 1997, pp. 663-691. See also X. Freixas and J.-C. Rochet, *Microeconomics of Banking*, MIT Press, 1997.

3 As counterparties in monetary policy operations, banks clearly also play a direct role in the implementation of monetary policy.

4 The interest rate channel works on the assumption that some prices and nominal wages are inflexible (sticky) in the short run. For recent evidence on the broad monetary policy transmission mechanism in the euro area see for example J. Boivin, M. P. Giannoni and B. Mojon, "Macroeconomic dynamics in the euro area", invited contribution to D. Acemoglu, K. Rogoff and M. Woodford (eds.), *NBER Macroeconomics Annual 2008*.

5 See for example B. S. Bernanke and A. Blinder, "Credit, money, and aggregate demand", *American Economic Review*, 78, No 2, May 1988, pp. 901-921; B. S. Bernanke and M. Gertler, "Inside the black box: the credit channel of monetary policy transmission", *Journal of Economic Perspectives*, 9, No 4, fall 1995, pp. 27-48; and B. S. Bernanke, M. Gertler and S. Gilchrist, "The financial accelerator in a quantitative business cycle framework" in J. Taylor and M. Woodford (eds.) *Handbook of Macroeconomics*, Amsterdam, North-Holland, 1999.

of their size or capital position) or have insufficient liquidity buffers.<sup>6</sup> Part of the bank lending channel is related to banks' capital positions, in the sense that monetary policy can induce banks to adjust their loan supply by affecting capital positions (which are subject to minimum regulatory requirements and credit ratings-based target ratios).<sup>7</sup>

The "broad" credit channel (or balance sheet channel) relates to the balance sheet position of banks' borrowers. Monetary policy may, via the impact on real interest rates, which affect disposable income, firms' cash flows and (via the asset price channel) collateral values, change the net worth of borrowers and hence banks' willingness to supply loans. It thus may alter "the external finance premium" facing bank borrowers.<sup>8</sup>

### THE RISK-TAKING CHANNEL OF MONETARY TRANSMISSION

More recently the notion of a "risk-taking" channel of monetary policy transmission has been put forward.<sup>9</sup> This channel can work along several dimensions (see also Box 1 for a more detailed exposition of the relationship between monetary policy and risk aversion). First, by affecting collateral values, asset prices and cash flows, monetary policy may affect the risk perception and risk tolerance of banks (and non-banks) and hence the overall risk-taking behaviour in the economy. For example, Jiménez et al. (2007) show that banks tend to lend to riskier borrowers when the monetary policy stance is accommodative.<sup>10</sup> Arguably, one needs to distinguish in this context between the standard balance sheet channel effects on the net worth of borrowers and the additional amplifying effect from the induced risk-taking behaviour of banks and other economic agents. Furthermore, bank credit has also been shown to be related to economic fluctuations, as evidenced for example by the empirical correlation between credit and asset price cycles.<sup>11</sup> Second, in addition to this effect working through the risk-taking attitude of banks it has been suggested that monetary policy, by affecting asset prices, may drive a wedge between actual returns and

some institutional investors' nominal return targets, which may induce these investors to "search for yield" across a wider array of assets. For example, it could be the case that the environment of low interest rates observed in recent years has led some institutional investors (such as pension funds and insurance corporations) to invest increasingly in credit-related assets, which has allowed banks to increasingly fund themselves by selling loans in the secondary market, thus potentially boosting their ability to supply new loans. It has also been argued that if financial intermediaries and market participants expect some kind

6 Empirically, this channel has typically been explored using microeconomic data; see for example A. N. Kashyap and J. Stein, "What do a million observations on banks say about the transmission of monetary policy?", *American Economic Review*, 90, No 3, June 2000, pp. 407-28. For the euro area, see the collection of papers in I. Angeloni, A. N. Kashyap and B. Mojon (eds.), *Monetary policy transmission in the euro area*, Cambridge University Press, 2003.

7 A precondition for the bank capital channel is that the market for bank equity is imperfect; see for example S. Van den Heuvel, "Does bank capital matter for monetary transmission?", *Economic Policy Review*, Federal Reserve Bank of New York, May 2002, pp. 259-265; R. P. Kishan and T. P. Opiela, "Bank capital and loan asymmetry in the transmission of monetary policy", *Journal of Banking & Finance*, 30, 2006, pp. 259-285; L. Gambacorta and P. Mistrulli, "Bank capital and lending behaviour: empirical evidence for Italy", Banca d'Italia Economic Research Paper No 486, 2003; and Y. Altunbas, G. de Bondt and D. Marqués, "Bank capital, bank lending, and monetary policy in the euro area", *Kredit und Kapital*, 4/2004.

8 The external finance premium is the difference between the cost to the borrower of external versus internal funds.

9 See for example C. Borio and H. Zhu, "Capital regulation, risk-taking and monetary policy: a missing link in the transmission mechanism?", paper presented at the ECB conference on "The implications of changes in banking and financing for the monetary policy transmission mechanism", November 2007.

10 See G. Jiménez, S. Ongena, J. L. Peydró-Alcalde and J. Saurina, "Hazardous times for monetary policy: What do twenty-three million bank loans say about the effects of monetary policy on credit risk?", CEPR Discussion Paper No 6514, 2007 (and forthcoming ECB Working Paper). Likewise, it has been shown that bank lending standards tend to be pro-cyclical; see A. N. Berger and G. F. Udell, "The institutional memory hypothesis and the procyclicality of bank lending behaviour", *Journal of Financial Intermediation*, 13, 2004, pp. 458-495.

11 See for example C. Borio and P. Lowe, "Asset prices, financial and monetary stability: exploring the nexus", BIS Working Paper No 114, July 2002; C. Borio and P. Lowe, "Securing sustainable price stability: should credit come back from the wilderness?", BIS Working Paper No 157, July 2004; C. Reinhart and K. Rogoff, "Is the 2007 US sub-prime financial crisis so different? An international historical comparison", NBER Working Paper No 13761, 2008; and C. Detken and F. Smets, "Asset price booms and monetary policy", in Horst Siebert (ed.), *Macroeconomic policies in the world economy*, Springer, Berlin, 2004.



of “insurance” from the central bank against downside risks to asset prices, it may lead to moral hazard issues in the form of excessive risk-taking on average over the business cycle.

#### Box I

### RISK-TAKING AND RISK COMPENSATION AS ELEMENTS IN THE MONETARY POLICY TRANSMISSION PROCESS

The issue of risk-taking and risk management on the part of commercial banks is only one aspect of a possible risk-taking channel of monetary policy. The fact that monetary policy rates are among the set of potential driving factors behind financial risk spreads has long been acknowledged. Only recently, though, has the academic literature started to explore more systematically the mechanisms through which the strategy and conduct of monetary policy may influence risk assessment as well as the size and dynamics of financial risk premia. Complementing the analysis of risk-taking on part of commercial banks in the main text, this box takes a more general perspective on the relationship between monetary policy and risk premia.

#### The relevance of financial risk premia to the monetary policy transmission process

The key policy instrument of modern central banks is a nominal short-term interest rate. As current and expected levels of interest rates are a central element in the valuation of various financial securities, monetary policy has an impact on a broad range of asset prices and yields. These in turn are important factors influencing real economic activity and inflation.

As financial assets are claims to future payments, their prices can be interpreted as reflecting the expectation of these payments, discounted to the present. The discount factors used for this exercise can be understood as reflecting interest rates on different maturities augmented by premia whose size will differ according to the “riskiness” of the respective asset.<sup>1</sup> Hence, riskier assets will trade at a lower price or – alternatively – offer a higher return to investors. This decomposition of asset prices and returns implies that changes in monetary policy rates may have an impact on their values, by changing the outlook for future payments or by changing the risk-free component of the discount factor, but also by impacting on the required risk premium. Thus, for any part of the transmission mechanism that operates via changes in asset values and interest rates – which affect investment and spending decisions – potential amplifying or attenuating effects stemming from changing risk premia have to be taken into account.

Given the relevance of risk premia to the monetary policy transmission mechanism, the impact of monetary policy may be explored along two – interrelated – dimensions. First, there is a need to determine the channels of influence that may exist between the level of short-term interest rates on one side and the private sector’s assessment of risk and its desired risk compensation on the other. Second, it is important to understand the general relationship between risk premia and the conduct and strategy of monetary policy. This second aspect takes a more structural perspective, geared to the relevance of aspects such as the objective of monetary policy or central bank transparency and communication.

<sup>1</sup> See J. H. Cochrane, *Asset pricing*, Princeton University Press, 2005.

### Changes in policy rates and risk premia

Concerning the former aspect, changing monetary policy rates may in principle impact on both the perceived riskiness of certain assets and the risk compensation desired by investors.<sup>2</sup> The two effects should also hold, by analogy, from the viewpoint of a bank regarding the perceived riskiness of borrowers or their projects on one side, and the bank's general inclination to engage in riskier lending on the other.

As an example of the first type of impact, tighter monetary conditions may contribute to an increase in the riskiness of securities issued by firms through an induced rise in interest rate costs or a weakening of balance sheets. Hence this effect may be interpreted as an additional facet of the balance-sheet channel. This helps to explain why expected excess returns on stocks and corporate bond spreads would be likely to increase in response to a tightening of monetary policy.<sup>3</sup>

As regards the second type, changing interest rates could lead to a change in desired risk compensation. Risk compensation can be thought of as being closely related to investors' risk aversion, which is not constant over time but changes with economic conditions. A relationship between monetary policy and investor risk aversion may arise, for example, in economic models with habit persistence, in which risk appetite (the opposite of risk aversion) is higher the more investors' current consumption levels exceed a "reference level" of consumption. The latter can be best understood as an average of consumption levels over the recent past. If a contractionary monetary policy move negatively affects current real activity and consumption levels, it may at the same time increase investors' risk aversion.<sup>4</sup>

Regarding the empirical evidence for these effects, it is somewhat challenging to pin down quantitatively the relationship between monetary policy rates and risk premia. One approach is to explore the direct ("reduced-form") relationship between monetary policy rates on one side and measures of risk premia, risk assessment or risk compensation on the other.<sup>5</sup> However, as monetary policy reacts to changes in the economic environment, it is often deemed more appropriate to single out the pure effect, i.e. that of the unexpected part of changes in monetary policy rates, on risk premia. Concerning the effects of such monetary policy impulses, there is in fact evidence that increases in policy rates can lead to higher expected excess returns on stocks or to a widening of corporate bond spreads.<sup>6</sup>

2 See B. S. Bernanke and K. N. Kuttner, "What explains the stock market's reaction to Federal Reserve policy?", *The Journal of Finance*, 60, No 3, June 2005, pp. 1221–1257.

3 Concerning inflation risk premia contained in nominal asset prices, short-term interest rate increases may have the opposite effect, i.e. that of lowering premia, as found in the arbitrage-free model described in P. Hördahl and O. Tristani, "Inflation risk premia in the term structure of interest rates", ECB Working paper No 734, 2007. The authors argue that this effect may be a reflection of a monetary policy tightening increasing private sector confidence in the absence of future upside inflation surprises.

4 See for example J. Y. Campbell and J. H. Cochrane, "By force of habit: a consumption-based explanation of aggregate stock market behavior", *Journal of Political Economy*, 107, 1999, pp. 205–51. In the model by J. A. Wachter described in "A consumption-based model of the term structure of interest rates", *Journal of Financial Economics*, 79, 2006, pp. 365–99, in which risk itself is constant, the surplus consumption ratio – implying time-varying risk compensation – fully determines term premia on nominal bonds.

5 See for example S. Manganello and G. Wolswijk, "Market discipline, financial integration and fiscal rules – what drives spreads in the euro area government bond market?", ECB Working Paper No 745, 2007, which points to a strong co-movement of euro area sovereign bond spreads with the level of short-term interest rates. Another example is the relationship between the monetary policy stance and risk compensation in the credit default swap (CDS) market found in J. D. Amato, "Risk aversion and risk premia in the CDS market", BIS Quarterly Review, December 2005.

6 See for example Deutsche Bundesbank, "Corporate bond spreads", Financial Stability Report 2005, and Bernanke and Kuttner (2005; see footnote 2).

### Elements of monetary policy strategy and risk premia

Besides the question of how monetary policy rate changes impact on risk premia, it is important to know whether elements of a monetary policy strategy can influence the overall levels of risk premia. In fact, recent academic literature confirms the view – long held by monetary policy-makers and commentators – that investors’ risk assessment and risk compensation depend on aspects such as the transparency, credibility or predictability of monetary policy.

For instance, improved monetary policy credibility and predictability have been put forward as one explanation for the recent episode of surprisingly low government bond yields and associated term premia.<sup>7</sup> Moreover, it has been suggested that the policy objective itself – for example the perceived weight the central bank attaches to price stability as opposed to other conceivable objectives – plays a role.<sup>8</sup>

A perceived systematic reaction of a central bank to macroeconomic conditions, typically captured in the academic literature through the stylised concept of a “reaction function”, is also relevant. The degree to which a central bank reacts to undesired macroeconomic fluctuations, i.e. fluctuations that are incompatible with its objective of price stability, will certainly have an impact on the risk premium desired by investors holding assets that pay out in nominal terms.<sup>9</sup>

Finally, it is arguably important how well the public understands the working of the economy in general and the reactions of monetary policy in particular. In this respect, changes in households’ confidence in the monetary policy rule may well impact on the size of both inflation premia embedded in nominal bond yields and equity premia.<sup>10</sup>

Overall, the literature exploring the role of risk premia and their dependence on monetary policy in a consistent framework of modern monetary (equilibrium) models is still in its infancy. Further exploration of this nexus is certainly an avenue through which a more complete view of the transmission mechanism may be obtained.

7 See D. Backus and J. H. Wright, “Cracking the conundrum”, Finance and Economics Discussion Series Paper, Federal Reserve Board, 2007-46. Concerning the credibility issue more generally, F. J. Palomino, “Interest rates, bond premia and monetary policy”, mimeo, University of Michigan, 2007, finds that the stability benefits that arise from commitment policy (extensively discussed in the literature on optimal monetary policy) come with the by-product of lower inflation risk premia.

8 See P. Söderlind, “Monetary policy effects on financial risk premia”, University of St. Gallen Discussion Paper No 2006-26.

9 See M. F. Gallmeyer, B. Hollifield, F. J. Palomino and S. E. Zin, “Arbitrage-free bond pricing with dynamic macroeconomic models”, *Federal Reserve Bank of St. Louis Review*, July/August 2007, pp. 305-326.

10 Overall premia would then consist of proper risk premia as well as uncertainty premia. See O. Tristani, “Model misspecification, the equilibrium natural interest rate and the equity risk premium”, ECB Working Paper No 808, 2007.

### 3 RECENT DEVELOPMENTS IN BANKING AND THEIR IMPLICATIONS FOR THE MONETARY TRANSMISSION MECHANISM

The above-mentioned theoretical and empirical findings concerning the role of banks in the monetary policy transmission mechanism refer largely to a traditional financial system where banks act as intermediaries by taking deposits from and granting loans to the non-financial sector and where there is a clear distinction

between the functioning of banks and of capital markets. Over the past few decades, however, major changes have taken place in the ways banks conduct their business, as well as in the financial system more generally. An important question is how, in particular, the emergence of securitisation and structured credit products has – by transforming the traditional bank business model and bringing new investors to the credit markets – influenced the financial system and the ways it interacts with monetary

policy. The multitude of financial innovations, particularly in the area of credit risk transfer, is likely to have impacted on the monetary policy transmission mechanism. In the process, the conduct of monetary policy has become more complex than in the past.

### RECENT CHANGES TO FINANCIAL INTERMEDIATION

The favourable environment in recent years of low risk premia, low inflation and rapid technological progress combined with a long-running process of financial deregulation and integration as well as the parallel move to fair-value accounting standards and more risk-sensitive capital adequacy rules has spurred a large amount of financial innovation. One of the most remarkable developments in this regard has been the surge in securitisation activity and the spread of new, innovative credit risk transfer instruments more generally.<sup>12</sup>

Whereas securitisation activities in the US financial system have been important for a number of years, in the euro area they have developed more recently. Nonetheless, the growth of securitisation markets in the euro area until the recent slowdown owing to the financial market tensions that began in mid-2007 was remarkable (see Chart 1). Indeed, the issuance

of euro-denominated asset-backed securities increased from around €50 billion in 1999 to almost €400 billion in mid-2007.<sup>13</sup> It is worth noting, however, that progress in securitisation activity has been relatively uneven across euro area countries and that, despite the strong growth observed in recent years, the level of securitisation activity in the euro area remains well below that in the United States and the United Kingdom (see Chart 2).

Another illustration of the surge in credit transfer activities in the financial system is that the notional amount outstanding in the global credit default swap (CDS) market rose from virtually zero in 2001 to around USD 60 trillion at the end of 2007.<sup>14</sup> In addition, the past decades have seen the growing importance of a range of non-bank financial intermediaries.<sup>15</sup> While this process originated to a large extent in the United States, a similar

12 For a more detailed review of securitisation activity see the article entitled “Securitisation in the euro area” in the February 2008 issue of the Monthly Bulletin.

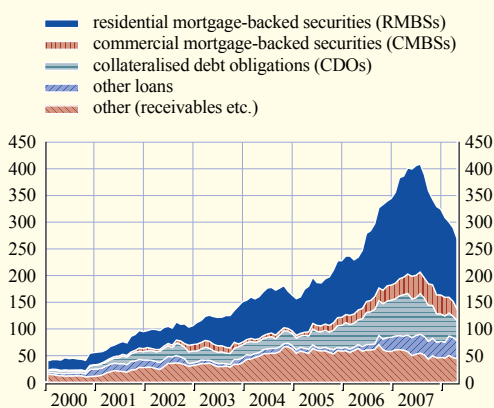
13 Based on a 12-month moving sum.

14 See for example “OTC derivatives market activity in the second half of 2007”, BIS, May 2008, and “ISDA Year-End 2007 Market Survey”, International Swaps and Derivatives Association, 2008.

15 See also R. Rajan, “Has financial development made the world riskier?”, NBER Working Paper No 11728, 2005.

Chart 1 Issuance of euro-denominated asset-backed securities

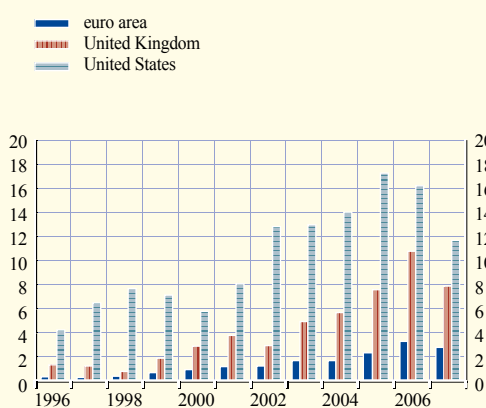
(monthly data; 12-month moving sum)



Source: Dealogic DCM Analytics.  
Note: The “CDO” category does not include synthetic CDOs.

Chart 2 Securitisation in the euro area, the United Kingdom and the United States

(as a percentage of GDP)



Source: Dealogic DCM Analytics.  
Note: By country of underlying risk. Figures include asset-backed securities but exclude CDOs and securities issued by US government-sponsored agencies.

development has been observed in the euro area financial system, whereby non-bank financial intermediaries such as investment funds, insurance companies, pension funds and credit card operators have become increasingly important. More recently, more esoteric financial players such as hedge funds, collateralised debt obligation (CDO) funds, special purpose vehicles and conduits have also expanded significantly.<sup>16</sup>

The emergence of these new players has created a larger investor base and hence has, on the one hand, facilitated the placement of financial assets originated by banks (such as securitised and syndicated loans) and, on the other, encouraged market-based financing (such as commercial paper and corporate bonds). A further implication of these developments is that the way banks provide and price their loans is increasingly determined by the extent to which the loans can be either hedged or sold in the market place. Hence, the loan granting process has become more sensitive to changes in market-based prices of credit risk (such as CDS spreads and secondary loan prices).

All in all, these developments have transformed the financial system, making it more market-oriented, and have also increasingly blurred the traditional distinction between a bank-based and a market-based system.<sup>17</sup> While these developments have resulted in financial intermediation becoming more based on market prices, they have also allowed a wider dispersion of risks across the system. Partly in light of these developments, the past decades have seen a relative decline in the importance of the traditional model of financial intermediation whereby banks obtain funding mainly via deposits and use these funds to grant loans that they hold to maturity. This model has over time been complemented with another, where banks increasingly rely on market-based funding and transfer a major part of their credit risk off balance sheet. In other words, some segments of the banking sector have moved away from the traditional

“originate-and-hold” model and towards an “originate-and-distribute” model. A simple illustration of the changing nature of banking is the increasing “funding gap” (i.e. the difference between deposits from and loans to the non-financial private sector) of euro area MFIs, which suggests that banks are tending to rely more on non-deposit funding, such as market-based debt and securitisation.<sup>18</sup> However, except for the larger banks, the majority of euro area banks have not adopted the “originate-and-distribute” banking model and still base their operations on the traditional “originate-and-hold” model.<sup>19</sup>

#### MONETARY POLICY IMPLICATIONS OF THE CHANGING FINANCIAL LANDSCAPE

Assuming that the trend of financial innovation has changed the nature of at least a part of the banking system, it may in the process have also altered the role of banks in the transmission of monetary policy in important ways.

With respect to the interest rate channel, it may be expected that the increasing degree of market-based pricing of bank loans has made bank interest rates more sensitive to changes in monetary policy rates via the latter’s effect on market interest rates. Indeed, evidence for the United States suggests that the growth of securitisation activities has speeded up the responsiveness of mortgage rates to changes in policy rates.<sup>20</sup> More recent evidence for the euro area also points to a

16 See for example “Corporate finance in the euro area – structural issues report”, ECB, May 2007.

17 See also J.-C. Trichet, “Some reflections on the development of credit derivatives”, keynote address given at the 22nd Annual General Meeting of the International Swaps and Derivatives Association (ISDA), Boston, 18 April 2007.

18 According to the MFI balance sheet statistics, the funding gap of euro area MFIs increased from around nil in 1997 to more than €1,300 billion (or 5% of total assets) in the first quarter of 2008. Moreover, this figure may be even higher depending on the extent to which securitised loans are derecognised from banks’ balance sheets.

19 See also Box 2.2 entitled “Medium-term challenges for the different banking models” in “Financial Stability Report”, Banco de España, April 2008.

20 See A. Estrella, “Securitization and the efficacy of monetary policy”, *Economic Policy Review*, Volume 8, No 1, Federal Reserve Bank of New York, May 2002, pp. 243-255.

stronger and faster bank interest rate pass-through from changes in policy rates for banks which are more active in securitisation and derivatives markets.<sup>21</sup>

A number of observations can also be made regarding the credit channel. First, “true sale” securitisation, in which the underlying assets are removed from the originating bank’s balance sheet, has provided banks with an additional funding source. This is likely to have reduced the sensitivity of bank loan supply to changes in monetary policy rates and, other things being equal, weakened the bank lending channel.

Second, by transferring credit risk off balance sheet, securitisation may help originating banks to obtain capital relief, which in turn may free up funds for additional provision of loans as well as reduce the possibility of balance sheet constraints in the face of monetary policy changes. This was an issue under the Basel I capital adequacy framework, as securitisation was often perceived as a means for banks to arbitrage on the level of required regulatory capital by transferring better-quality assets off balance sheet while retaining the riskier loans (as the capital requirements distinguished only to a limited degree between different kinds of credit risk). The new Basel II framework aims to, among other things, correct incentives for such regulatory arbitrage by aligning the regulatory capital requirements more closely with actual economic risk.<sup>22</sup> At the same time, it has been argued that this more risk-sensitive framework potentially amplifies the pro-cyclical nature of bank lending and thus may lead in certain periods to a reduction of loan supply.<sup>23</sup>

Third, the use of structured credit products should be seen in the context of advances in bank risk management systems. Notably, the combination of new credit risk modelling techniques and credit derivatives has allowed an improved allocation and dispersion of banking book risk at the portfolio level, which in turn may have enhanced banks’ ability to expand

their balance sheets. All in all the emergence of securitisation and credit derivatives is likely to have led in normal circumstances to a change in bank lending dynamics, possibly leading to a more muted reaction of bank loan supply to monetary policy changes.<sup>24</sup> Empirical evidence on the role of securitisation and bank risk-taking in the monetary policy transmission mechanism is provided in Box 2. Hence, by expanding the breadth of the credit markets the advances in credit risk transfer instruments are likely to have reduced the effectiveness of the bank lending channel in normal circumstances, while potentially making it more pronounced if the securitisation markets grind to a halt.

Furthermore, the advent of structured credit products has provided the markets with a range of new tools to assess the creditworthiness of borrowers. This increase in credit market information may contribute to compressing the overall external finance premium and hence to reducing the effectiveness of the broad credit channel. At the same time, the enhanced liquidity and more continuous pricing of credit market products offered by credit risk transfer

21 See R. Gropp, C. Kok Sørensen and J. Lichtenberger, “The dynamics of bank spreads and financial structure”, ECB Working Paper No 714, 2007.

22 It is currently uncertain what the net effect of the introduction of Basel II-based capital requirements on securitisation activities will be. Thus, according to the BIS’s latest quantitative impact study (QIS5), capital requirements related to banks’ securitised assets may either increase or decrease depending on the type of bank and on the approach applied (“standardised” or “internal ratings-based” (IRB)); see “Results of the fifth quantitative impact study (QIS5)”, Basel Committee on Banking Supervision, 16 June 2006.

23 The European Commission, also taking into account the contribution of the ECB, will on an ongoing basis monitor the extent to which the new capital adequacy requirements produce pro-cyclical effects on the economic cycle; see Article 156 of Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast). See also recent initiatives by the Basel Committee on Banking Supervision (see footnote 31).

24 For empirical evidence, see for example Estrella (2002; see footnote 20); E. Loutskina and P. E. Strahan, “Securitization and the declining impact of bank finance on loan supply: evidence from mortgage acceptance rates”, NBER Working Paper No 11983; B. Hirtle, “Credit derivatives and bank credit supply”, Federal Reserve Bank of New York Staff Reports No 276, February 2007; and Y. Altunbas, L. Gambacorta and D. Marqués, “Securitisation and the bank lending channel”, ECB Working Paper No 838, 2007.

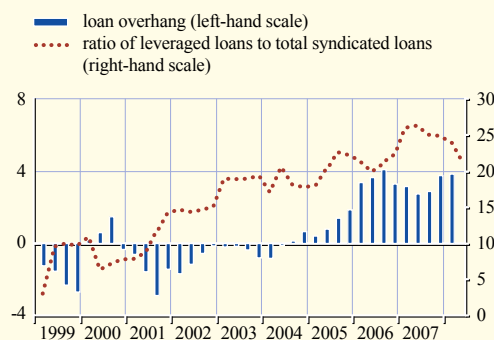
instruments as well as the parallel move to fair-value accounting standards may have accentuated the sensitivity of the external finance premium to changes in monetary policy.<sup>25</sup> Hence, a priori the net effect of financial innovation on the balance sheet channel is somewhat ambiguous.

With respect to the risk-taking channel of monetary policy transmission, financial innovation in parallel with changes to the capital regulatory framework (Basel II) is likely to have increased the importance of the perception, pricing and management of risk for the behaviour of banks and other financial intermediaries.<sup>26</sup> Similarly, more market-based pricing may have reinforced the incentive structures driving banks and institutional investors, potentially leading to more extreme risk-taking behaviour. These considerations point to a strengthening of the risk-taking channel.

While there is presently only scarce empirical research on the impact of financial innovation on the risk-taking channel, some recent studies provide evidence of a potential strengthening of monetary policy transmission through the risk-taking channel due to the changing role of banks. For example, it has been found that changes in monetary policy affect CDS spreads, as predicted by both the balance sheet channel and the risk-taking channel.<sup>27</sup> An easing of monetary policy would be expected to lower CDS spreads, which would make it less costly for banks to hedge their credit risk and hence may allow them to originate riskier loans (as they would then be able to off-load the loans more easily). Two other studies note a positive link between asset prices and (mainly investment) banks' risk-taking.<sup>28</sup> This derives from the fact that banks tend to target a specific leverage ratio, or a certain risk metric (e.g. the Value at Risk). Hence, the development towards more market-based pricing of bank balance sheets implies a higher volatility of liabilities in the sense that banks tend to increase leverage when asset prices increase and reduce it when they decline, which in turn may lead to amplified effects on the real economy of monetary policy changes.

**Chart 3** The ratio of leveraged loans to total syndicated loans and the "overhang" of loans to non-financial corporations in the euro area

(percentage points and percentages; quarterly data)



Sources: Dealogic LoanAnalytics, ECB and ECB calculations. Note: "Leveraged loans" are defined as loans to non-investment grade and non-rated borrowers. The "loan overhang" is defined as the difference between actual loan growth and the implied loan growth derived from a standard vector-error correction model of loans to non-financial corporations.

In view of these considerations, Chart 3 presents some tentative evidence that during the recent period of low interest rates and vigorous credit transfer activity, euro area banks not only increased their lending to non-financial corporations by more than expected on the basis of developments in fundamental factors such as fixed investment, internal financing and the cost of financing (which traditionally explain loan growth fairly well) but also tended to engage in riskier lending, which only reversed around mid-2007 with the outbreak of the financial market tensions.

25 See also H. Zhu, "An empirical comparison of credit spreads between the bond market and the credit default swap market", *Journal of Financial Services Research*, Volume 29, No 3, June 2006, pp. 211-235, which shows that credit derivatives premia (i.e. CDS spreads) respond more than corporate bond spreads to changes in the availability and cost of financing.

26 See C. Borio and H. Zhu, (2007; see footnote 9).

27 See J. D. Amato (2005; see footnote 5 of Box 1).

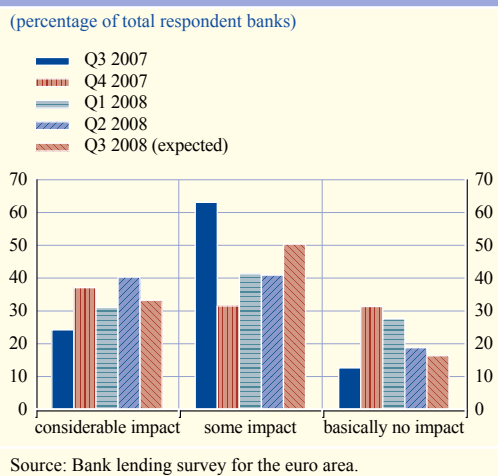
28 See T. Adrian and H. S. Shin, "Liquidity and leverage", paper presented at the ECB conference on "The implications of changes in banking and financing for the monetary policy transmission mechanism", 29-30 November 2007, Frankfurt am Main; and D. Greenshaw, J. Hatzius, A. N. Kashyap and H. S. Shin, "Leveraged losses: lessons from the mortgage market meltdown", paper presented at the US Monetary Policy Forum conference, February 2008.

#### 4 THE IMPACT OF THE CREDIT MARKET TENSIONS SINCE MID-2007

The empirical findings on the impact of changes to the financial landscape on the monetary policy transmission mechanism (reported in Section 3) have mostly been derived for samples covering a period of booming securitisation and derivatives activities. Hence, it cannot be excluded that these findings only apply during periods of low financial market volatility, ample liquidity and benign risk levels. Indeed, recent events have shown that during periods of stress the securitisation and credit derivatives markets could come to a standstill. Questions concerning the implications of new financial instruments and the changing nature of banking have indeed come to the fore in the course of the financial market tensions since mid-2007.<sup>29</sup> The latest rounds of the bank lending survey for the euro area included a number of ad hoc questions related to the current tensions. For example, 70-80% of the banks (regularly using securitisation) responded that the current difficulties in accessing funding via securitisation would hamper their lending to either some or a considerable extent (see Chart 4).<sup>30</sup> Hence, the upward effect on loan supply stemming from the rise of credit risk transfer activities (including securitisation) may at least temporarily have evaporated.

Although the slowdown in securitisation activity is not likely to be permanent, securitisation may take different forms in the future, possibly as a result of a combination of regulatory requirements and changing market practices.<sup>31</sup> In any case, recent events have shown that the effects of financial innovations and the role of banks in monetary policy transmission could be highly non-linear. In particular, banks' ability and willingness to take on and distribute additional credit risk is likely to hinge crucially on the smooth functioning of the securitisation and structured credit markets. Certainly, an enhanced understanding of the overall impact of a drying up of credit risk transfer markets is essential. Generally, it is difficult to ascertain a priori how the financial system would function under such circumstances. Arguably, a certain degree of

Chart 4 The impact on bank lending of difficulties in raising funds via securitisation



reintermediation should be expected, although this very much depends on the financial soundness of banks. Furthermore, the financial market tensions have underlined the growing importance of market-based pricing in financial intermediation. The pressure on banks' profitability and balance sheets has been driven mainly by revaluation adjustments of their marketable assets and rising costs related to credit hedging activities rather than by outright losses on their loan portfolios. This also reflects the fact that so far the impact of the financial market tensions on the euro area non-financial private sector has been limited. Finally, recent events have highlighted the importance of a sufficiently high level of credit market transparency and supervision to ensure that market participants have confidence in the quality of the balance sheets of banks and other financial intermediaries.

29 See the Overview section and Boxes 5 and 13 in "Financial Stability Review", ECB, December 2007, and the Overview section and special feature article A in "Financial Stability Review", ECB, June 2008.

30 Moreover, about one-third of the banks responded that lending could be hampered by currently rising costs related to their capital position.

31 See also the recent initiatives by the Financial Stability Forum ("Report of the Financial Stability Forum on enhancing market and institutional resilience", 7 April 2008), the Institute of International Finance ("Interim IIF report on market best practices", April 2008), and the Basel Committee on Banking Supervision ("Principles for sound liquidity risk management and supervision", June 2008).



### THE IMPORTANCE OF BANK RISK AND SECURITISATION FOR BANK LENDING AND THE TRANSMISSION OF MONETARY POLICY

In the few years prior to the financial market tensions that started in the second half of 2007, most balance sheet and profitability indicators for euro area banks showed a very positive picture. Banks' credit risk was very low – as measured either by indicators extracted from their financial statements, such as the amount of loan loss provisions, or by market-based measures such as expected default frequencies, or spreads on CDSs or subordinated debt. Moreover, during this period banks' profits and capital positions stood at relatively high levels. These developments were supported by a favourable macroeconomic environment and strong increases in asset prices. Consequently, banks' funding conditions were very favourable due to their low cost of financing and the strong demand for deposits and their marketable debt. In this respect, banks also benefited from an increasing ability to securitise their assets in an environment of ample liquidity and strong demand for credit products from non-bank investors searching for yield, which resulted in a surge in securitisation of euro-denominated assets until mid-2007 (see Chart 1). There is accumulating evidence suggesting that these factors were in part the cause of a strong supply of bank credit and a progressive loosening in credit standards. This was reflected, for instance, in the results of the bank lending survey for the euro area and the strong loan growth observed over the past two to three years.<sup>1</sup>

It is inherently difficult to ascertain the possible impact of monetary policy on loan supply and in particular to disentangle demand and supply effects.<sup>2</sup> In the economic literature, this identification problem has traditionally been solved by using extensive micro data from the banking sector, as individual banks' characteristics are expected to mostly reflect supply effects. Building on this idea, and using data from banks' financial statements, securitisation activity and market-based indicators of banks' risk for around 3,000 euro area banks over the first seven years of EMU, a loan equation was constructed by regressing the growth rate of the lending of individual banks on GDP growth rates, interest rate changes and other country-specific characteristics as well as a number of bank-specific characteristics including capital, securitisation and risk positions. From a monetary policy perspective, this econometric exercise seems to provide evidence that in the years immediately prior to the market turmoil, securitisation activity partly sheltered banks' loan supply from the impact of monetary policy changes.<sup>3</sup> Chart A shows that the monetary policy impact on the lending of banks that securitise a major part of their loan portfolio is statistically insignificant. For banks that use securitisation to a lesser degree, monetary policy does seem to impact on their lending behaviour.

As a consequence of the tensions in credit risk markets beginning in the summer of 2007, the issuance of asset-backed securities slowed down markedly, while banks' risk profiles also deteriorated and their capital positions came under pressure. The bank lending channel

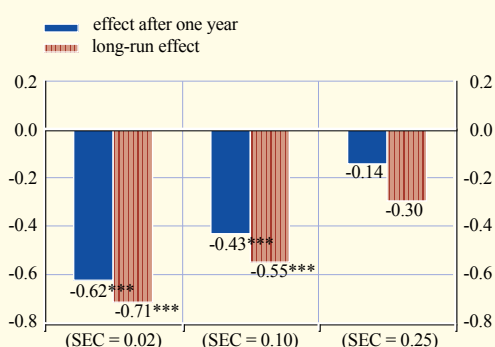
1 See for instance G. Dell'Ariccia, D. Igan and L. Laeven, "Credit booms and lending standards: evidence from the subprime mortgage market" or A. Sufi and A. Mian, "The consequences of mortgage credit expansion: evidence from the 2007 mortgage default crisis", papers presented at the Conference on Bank Structure and Competition entitled "Credit market turmoil: causes, consequences and cures", Federal Reserve Bank of Chicago, May 2008.

2 J. Peek and E. Rosengren, "Is bank lending important for the transmission of monetary policy: an overview", Federal Reserve Bank of Boston Conference Series; Proceedings, 1995, pp. 1-14.

3 See Y. Altunbas, L. Gambacorta and D. Marqués-Ibáñez, "Securitisation and the bank lending channel", ECB Working Paper No 838, 2007, and Banca d'Italia Working Paper No 653, 2007.

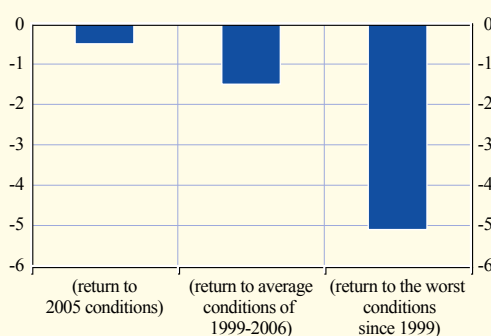
**Chart A Effect of a 1 percentage point increase in the key ECB interest rates on bank loan growth**

(percentage points)



Source: Altunbas et al. (2007).

Notes: "SEC" indicates the degree to which banks securitise their assets. For example, "SEC = 0.02" refers to banks that securitise up to 2% of their assets. "\*\*\*" indicates statistical significance at the 1% level.

**Chart B Estimated effects on the growth rate of total lending from a shock to loan supply**

Sources: Altunbas et al. and ECB calculations.

Note: "Conditions" refers to the level of securitisation activity, bank risk and capital position.

mechanism suggests that these developments would negatively affect bank loan supply. In this light, using the model described above, three different scenarios were conducted for changes in the baseline level of the growth of bank loans arising from a negative shock to the supply of loans. It can be assumed that the positive bank conditions prior to the credit market tensions (including banks' risk, capital-to-asset ratios and securitisation activity) are likely to have deteriorated. For that reason, the loan equation is "shocked" by adjusting bank conditions (i.e. their level of risk, securitisation activity and capital position) in order to evaluate the possible effect on loan supply. The results of the three scenarios (shown in Chart B) suggest a decline in the growth of supplied lending compared with the baseline scenario.

The first scenario assumes that securitisation activity – which was very strong in the first half of 2007 – bank capital and risk positions all return to the level of 2005, i.e. it assumes a relatively light effect of the credit market tensions. Under this scenario there is an exogenous decline in the volume of loans securitised by around 30%. This in turn produces an immediate reduction in the growth of loans to the non-financial private sector of around 0.5 percentage point (left-hand panel of Chart B).

Under the second scenario, securitisation activity, capital levels and bank risk are assumed to return to their average levels since the introduction of the euro. This would potentially result in a further decline in the supply of credit. It would produce a reduction in the growth of loans to the private sector of around 1.5 percentage points (middle panel of Chart B).

The third, extreme scenario assumes that bank conditions, measured by the three variables mentioned above, deteriorate from the current situation to the worst annual levels observed since 1999. This implies, for instance, a drop in securitisation activity to zero and a deterioration in the quality of credit to the level experienced in 2002. In this extreme case, the growth rate of the supply of loans to euro area residents would drop by around 5 percentage points (right-hand panel of Chart B).

When interpreting these results, at least three issues need to be considered. First, the decline in loan growth is linked to the loan supply effect only. Hence, it is merely an initial direct impact on top of the effects of other macroeconomic factors, such as a possible decline in economic activity, that are also likely to lead directly to changes in loan growth. Second, the model results are based on a sample of banks that is not directly comparable with the official MFI balance sheet statistics, which are constructed differently and have a more comprehensive coverage. Finally, possible effects due to non-linearities are not included in the model.

## 5 CONCLUSION

This article has argued that structural changes to the financial landscape in recent years, such as the multitude of credit market innovations, more risk-sensitive accounting and regulatory frameworks, and the emergence of non-bank credit market investors, have changed the nature of banking and the role of banks in transmitting monetary policy to the real economy. In light of these developments, banking may have become more flexible but also more risk-sensitive. The existing theoretical and empirical evidence suggests that the interest rate channel may have in the process been strengthened (in the sense of a faster bank interest rate pass-through). At the same time, the credit channel is likely to have weakened somewhat, whereas the factors driving the risk-taking channel are likely to have become more pronounced.

All in all, however, it is not easy to draw firm conclusions on the monetary policy implications of the trend of financial innovation and the changing role of banks. It is nonetheless likely that the transmission mechanism has become more complex over time in light of the increasing inter-linkages between the banking sector and financial markets. The credit market tensions that began in mid-2007 indeed highlight considerable interactions between monetary policy transmission, financial stability, banking supervision, and credit market oversight and transparency, and also point to important asymmetries in the transmission mechanism over time. In this regard, the fact that financial intermediation is more sensitive to market price adjustments than in the past also makes it more prone to abrupt disruptions and potentially

creates significant non-linear effects in monetary policy transmission. While the more disruption-prone and pro-cyclical nature of financial intermediation arising from financial innovation will have to be addressed in a structural manner (via regulatory initiatives and/or changes in market practices), recent developments have illustrated the importance of closely monitoring credit market indicators and call for a further strengthening of monetary and credit analysis by central banks. Likewise, recent events underline the need to monitor and further explore the links between monetary policy transmission and risk premia.

# 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 spot rate (% per annum, end-of- period) <sup>3)</sup>
	1	2	3	4	5	6	7	8
2006	8.6	8.7	8.4	-	10.9	15.2	3.08	3.91
2007	6.4	9.9	11.1	-	10.8	18.6	4.28	4.38
2007 Q3	6.5	10.3	11.5	-	11.0	19.9	4.49	4.38
Q4	5.9	10.7	12.0	-	11.1	19.5	4.72	4.38
2008 Q1	3.8	10.3	11.2	-	11.1	20.4	4.48	4.13
Q2	2.3	10.0	10.0	-	10.5	.	4.86	4.73
2008 Feb.	3.7	10.6	11.3	10.9	11.0	20.2	4.36	4.06
Mar.	2.8	9.7	9.9	10.5	10.9	17.1	4.60	4.13
Apr.	2.4	10.3	10.3	10.1	10.7	18.4	4.78	4.32
May	2.3	10.1	10.0	9.9	10.5	17.0	4.86	4.52
June	1.4	9.4	9.5	.	9.8	.	4.94	4.73
July	.	.	.	.	.	.	4.96	4.53

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

	HICP	Industrial producer prices	Hourly labour costs	Real GDP	Industrial production excluding construction	Capacity utilisation in manufacturing (percentages)	Employment	Unemployment (% of labour force)
	1	2	3	4	5	6	7	8
2006	2.2	5.1	2.5	2.8	4.0	83.2	1.6	8.2
2007	2.1	2.8	2.6	2.7	3.4	84.2	1.8	7.4
2007 Q4	2.9	4.0	2.9	2.2	3.0	84.0	1.8	7.3
2008 Q1	3.4	5.4	3.3	2.1	2.5	83.9	1.6	7.2
Q2	3.6	7.1	.	.	.	83.4	.	7.3
2008 Feb.	3.3	5.4	-	-	3.1	-	-	7.2
Mar.	3.6	5.8	-	-	1.3	-	-	7.2
Apr.	3.3	6.2	-	-	4.0	83.8	-	7.2
May	3.7	7.1	-	-	-0.5	-	-	7.3
June	4.0	8.0	-	-	.	-	-	7.3
July	4.1	.	-	-	.	82.9	-	.

### 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>4)</sup> (index, 1999 Q1 = 100)		USD/EUR exchange rate
	Current and capital accounts	Goods	Direct investment	Portfolio investment		Nominal	Real (CPI)	
2006	7.9	19.2	-144.7	266.3	325.8	103.6	104.5	1.2556
2007	40.5	55.6	-117.3	235.7	347.4	107.7	108.3	1.3705
2007 Q3	15.2	17.1	-40.9	65.1	340.5	107.6	108.2	1.3738
Q4	16.7	9.7	-4.3	-62.3	347.4	110.5	111.2	1.4486
2008 Q1	-9.6	-2.9	-104.8	73.4	356.3	112.7	113.1	1.4976
Q2	.	.	.	.	354.5	115.7	115.7	1.5622
2008 Feb.	9.8	4.7	-22.4	14.7	375.4	111.8	111.9	1.4748
Mar.	-3.8	1.4	-30.5	5.7	356.3	114.6	115.0	1.5527
Apr.	-6.8	4.2	-22.4	-3.7	348.7	116.0	116.1	1.5751
May	-19.6	-4.4	-10.4	23.0	349.2	115.5	115.6	1.5557
June	.	.	.	.	354.5	115.4	115.5	1.5553
July	.	.	.	.	.	115.8	115.8	1.5770

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.
- Based on AAA-rated euro area central government bond yield curves. For further information, see table 4.7.
- 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 July	2008 18 July	2008 25 July	2008 1 August
<b>Gold and gold receivables</b>	208,993	208,946	208,368	208,342
<b>Claims on non-euro area residents in foreign currency</b>	136,001	131,763	135,536	136,858
<b>Claims on euro area residents in foreign currency</b>	55,761	56,635	54,928	54,698
<b>Claims on non-euro area residents in euro</b>	15,160	16,660	15,160	16,401
<b>Lending to euro area credit institutions in euro</b>	475,160	455,051	475,519	466,022
Main refinancing operations	175,001	154,998	175,500	165,999
Longer-term refinancing operations	299,997	300,016	300,016	300,018
Fine-tuning reverse operations	0	0	0	0
Structural reverse operations	0	0	0	0
Marginal lending facility	157	0	1	0
Credits related to margin calls	5	37	2	5
<b>Other claims on euro area credit institutions in euro</b>	32,144	33,919	34,955	35,232
<b>Securities of euro area residents in euro</b>	112,872	110,234	112,034	111,658
<b>General government debt in euro</b>	37,461	37,456	37,456	37,456
<b>Other assets</b>	378,625	376,684	376,943	377,895
<b>Total assets</b>	<b>1,452,177</b>	<b>1,427,348</b>	<b>1,450,899</b>	<b>1,444,562</b>

### 2. Liabilities

	2008 11 July	2008 18 July	2008 25 July	2008 1 August
<b>Banknotes in circulation</b>	685,613	685,062	683,850	688,625
<b>Liabilities to euro area credit institutions in euro</b>	236,172	215,748	208,670	214,824
Current accounts (covering the minimum reserve system)	236,075	215,628	208,556	214,732
Deposit facility	62	76	74	87
Fixed-term deposits	0	0	0	0
Fine-tuning reverse operations	0	0	0	0
Deposits related to margin calls	35	44	40	5
<b>Other liabilities to euro area credit institutions in euro</b>	229	227	254	227
<b>Debt certificates issued</b>	0	0	0	0
<b>Liabilities to other euro area residents in euro</b>	59,642	56,801	87,785	66,414
<b>Liabilities to non-euro area residents in euro</b>	76,702	78,271	77,986	78,868
<b>Liabilities to euro area residents in foreign currency</b>	2,451	1,839	2,909	2,093
<b>Liabilities to non-euro area residents in foreign currency</b>	18,224	15,960	16,335	18,325
<b>Counterpart of special drawing rights allocated by the IMF</b>	5,120	5,120	5,120	5,120
<b>Other liabilities</b>	143,992	144,286	143,956	146,032
<b>Revaluation accounts</b>	152,364	152,364	152,364	152,364
<b>Capital and reserves</b>	71,668	71,670	71,670	71,670
<b>Total liabilities</b>	<b>1,452,177</b>	<b>1,427,348</b>	<b>1,450,899</b>	<b>1,444,562</b>

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
2008 9 July	3.25	0.25	-	4.25	0.25	5.25	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							
2008 9 Apr.	247,590	295	130,000	4.00	4.23	4.24	7
16	249,682	310	204,500	4.00	4.21	4.26	7
23	218,419	302	173,000	4.00	4.21	4.25	7
30	247,451	316	170,000	4.00	4.26	4.29	7
7 May	229,288	304	150,000	4.00	4.26	4.29	7
14	208,523	287	191,500	4.00	4.18	4.26	7
21	203,091	326	176,500	4.00	4.15	4.22	7
28	224,080	330	170,000	4.00	4.19	4.23	7
4 June	210,100	336	153,000	4.00	4.17	4.22	7
11	202,780	343	191,000	4.00	4.03	4.18	7
18	224,290	425	188,000	4.00	4.03	4.13	7
25	243,286	439	208,000	4.00	4.07	4.25	7
2 July	254,664	433	154,500	4.00	4.10	4.15	7
9	263,642	400	175,000	4.25	4.32	4.37	7
16	265,931	440	155,000	4.25	4.34	4.36	7
23	268,193	461	175,500	4.25	4.35	4.38	7
30	247,409	430	166,000	4.25	4.38	4.42	7
6 Aug.	241,886	424	160,000	4.25	4.38	4.41	7
Longer-term refinancing operations							
2008 31 Jan.	98,183	151	50,000	-	4.21	4.33	92
21 Feb.	110,490	105	60,000	-	4.15	4.26	91
28	109,612	165	50,000	-	4.16	4.23	91
13 Mar.	132,591	139	60,000	-	4.25	4.40	91
27	131,334	190	50,000	-	4.44	4.53	91
3 Apr.	103,109	177	25,000	-	4.55	4.61	189
2 May	101,175	177	50,000	-	4.67	4.75	90
22	86,628	138	50,000	-	4.50	4.68	84
29	97,744	171	50,000	-	4.51	4.62	91
12 June	99,781	128	50,000	-	4.60	4.72	91
26	89,836	174	50,000	-	4.50	4.67	91
10 July	74,579	141	25,000	-	4.93	5.03	182
31	107,684	189	50,000	-	4.70	4.76	91

#### 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 20 Dec.	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
12 Feb.	Collection of fixed-term deposits	29,155	22	16,000	4.00	-	-	-	1
11 Mar.	Reverse transaction	45,085	32	9,000	-	4.00	4.13	4.14	1
20	Reverse transaction	65,810	44	15,000	-	4.00	4.13	4.20	5
31	Reverse transaction	30,720	25	15,000	-	4.00	4.06	4.13	1
15 Apr.	Collection of fixed-term deposits	14,880	7	14,880	4.00	-	-	-	1
13 May	Collection of fixed-term deposits	32,465	29	23,500	4.00	-	-	-	1
10 June	Collection of fixed-term deposits	18,505	15	14,000	4.00	-	-	-	1
8 July	Collection of fixed-term deposits	14,585	12	14,585	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	
2006	15,648.3	8,411.7	601.9	1,968.4	1,180.3	3,486.1	
2007	17,394.7	9,438.8	815.0	2,143.1	1,364.0	3,633.9	
2008 Feb.	17,734.6	9,572.0	844.7	2,132.7	1,533.9	3,651.2	
Mar.	17,703.3	9,551.7	840.2	2,126.0	1,558.4	3,627.1	
Apr.	17,956.0	9,762.0	856.2	2,135.6	1,562.3	3,640.0	
May	18,093.1	9,817.9	910.6	2,156.1	1,548.9	3,659.6	

## 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
2008 Q1	204.6	205.3	0.7	0.0	4.10
2008 13 May	207.8	208.6	0.8	0.0	4.24
10 June	207.3	208.1	0.8	0.0	4.17
8 July	211.9	212.7	0.8	0.0	4.06
12 Aug.	214.1	.	.	.	.

## 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>3)</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
2008 12 Feb.	353.6	173.8	268.5	0.2	0.0	0.4	0.6	651.7	51.7	-110.7	202.4	854.5
11 Mar.	343.3	181.3	268.5	0.1	0.3	0.3	0.0	653.2	59.7	-125.0	205.3	858.7
15 Apr.	349.1	181.5	278.6	0.1	2.6	0.6	0.4	661.7	70.2	-128.6	207.5	869.9
13 May	364.5	174.4	295.0	0.1	0.0	0.3	0.8	667.6	68.9	-112.3	208.6	876.5
10 June	375.0	172.8	287.9	0.3	0.0	0.2	0.5	671.4	67.3	-111.5	208.1	879.7
8 July	376.4	185.4	275.4	0.1	0.0	0.4	0.5	677.2	64.9	-118.3	212.7	890.3

Source: ECB.

1) End of period.

2) 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 Q3	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
Q4	2,046.1	1,031.7	17.8	0.6	1,013.3	268.6	225.1	1.9	41.6	-	17.4	373.7	15.2	339.6
2008 Jan.	1,934.3	886.8	19.4	0.7	866.7	273.5	230.2	2.0	41.3	-	16.3	401.3	15.4	341.1
Feb.	1,957.8	902.9	19.4	0.7	882.8	279.1	236.2	2.2	40.7	-	16.5	400.6	15.3	343.3
Mar.	2,017.8	965.9	19.4	0.7	945.9	278.5	235.9	2.3	40.3	-	16.2	383.3	15.2	358.6
Apr.	2,012.4	951.4	18.8	0.7	931.9	278.9	235.1	2.5	41.3	-	16.6	375.3	16.0	374.3
May	2,009.4	934.9	18.8	0.7	915.4	280.0	236.3	2.4	41.3	-	16.5	376.6	16.0	385.4
June <sup>3)</sup>	2,097.9	1,010.6	18.5	0.7	991.5	277.5	234.7	2.4	40.4	-	15.7	380.8	15.9	397.3
<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	25,950.2	14,904.3	810.5	9,160.3	4,933.5	3,555.4	1,276.5	645.9	1,632.9	83.5	1,171.4	4,329.0	172.6	1,733.9
2007 Q3	28,438.9	16,175.3	794.0	9,948.1	5,433.3	3,748.3	1,214.4	806.3	1,727.6	95.9	1,226.1	4,875.1	203.1	2,115.0
Q4	29,447.4	16,905.0	956.1	10,159.9	5,789.0	3,880.8	1,194.1	949.7	1,737.0	93.5	1,296.6	4,872.5	206.0	2,193.0
2008 Jan.	30,046.7	17,124.1	961.0	10,299.7	5,863.3	3,973.5	1,220.8	961.9	1,790.8	98.1	1,315.6	5,088.5	205.7	2,241.2
Feb.	30,219.2	17,164.9	951.4	10,354.5	5,859.0	4,023.7	1,217.4	985.2	1,821.1	102.7	1,303.2	5,129.2	200.6	2,295.0
Mar.	30,229.4	17,249.6	958.0	10,454.6	5,837.0	4,037.1	1,215.7	1,005.9	1,815.4	100.5	1,312.8	4,973.8	198.4	2,357.2
Apr.	30,533.5	17,437.6	971.0	10,531.4	5,935.2	4,098.0	1,224.2	1,033.9	1,840.0	99.8	1,372.4	5,074.9	199.1	2,251.7
May	30,897.6	17,618.3	963.3	10,597.6	6,057.4	4,172.5	1,227.4	1,056.0	1,889.1	98.7	1,384.2	5,060.0	199.7	2,364.1
June <sup>3)</sup>	30,734.0	17,629.0	976.9	10,658.9	5,993.1	4,181.0	1,217.2	1,075.0	1,888.8	98.3	1,308.2	4,894.6	200.7	2,422.3

### 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 Q3	1,707.3	657.2	510.7	51.7	19.1	439.9	-	0.1	222.6	48.3	268.4
Q4	2,046.1	697.0	714.7	23.9	19.1	671.8	-	0.1	238.0	66.0	330.3
2008 Jan.	1,934.3	671.3	626.6	54.6	21.0	551.1	-	0.1	254.5	72.9	308.9
Feb.	1,957.8	674.4	653.9	53.7	23.1	577.0	-	0.1	259.3	58.2	311.9
Mar.	2,017.8	681.9	703.2	60.4	20.8	622.0	-	0.1	246.5	70.3	315.9
Apr.	2,012.4	690.5	682.9	66.9	23.1	592.9	-	0.1	237.9	81.4	319.7
May	2,009.4	692.8	656.3	44.4	25.0	586.9	-	0.1	239.1	95.6	325.5
June <sup>3)</sup>	2,097.9	699.7	733.2	55.2	24.6	653.3	-	0.1	240.0	98.7	326.2
<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	25,950.2	-	13,257.2	124.2	7,890.6	5,242.4	698.3	4,247.6	1,449.7	3,991.1	2,306.2
2007 Q3	28,438.9	-	14,255.0	144.3	8,410.0	5,700.7	778.4	4,577.1	1,589.4	4,527.5	2,711.6
Q4	29,447.4	-	15,082.4	127.1	8,865.9	6,089.4	754.1	4,645.2	1,678.8	4,533.2	2,753.6
2008 Jan.	30,046.7	-	15,188.9	114.3	8,926.4	6,148.2	835.5	4,686.7	1,699.4	4,794.2	2,841.9
Feb.	30,219.2	-	15,219.0	135.4	8,942.3	6,141.3	852.8	4,686.7	1,702.8	4,869.0	2,889.0
Mar.	30,229.4	-	15,299.2	139.6	9,010.7	6,148.9	843.0	4,683.2	1,713.7	4,764.1	2,926.3
Apr.	30,533.5	-	15,480.3	130.8	9,100.4	6,249.1	852.1	4,710.9	1,721.8	4,929.3	2,839.0
May	30,897.6	-	15,653.5	129.7	9,171.8	6,352.1	854.8	4,792.4	1,727.8	4,968.4	2,900.7
June <sup>3)</sup>	30,734.0	-	15,650.9	155.9	9,213.8	6,281.2	831.0	4,805.1	1,727.8	4,791.2	2,928.0

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	19,723.8	9,991.1	830.2	9,161.0	2,112.4	1,464.0	648.4	811.2	4,680.4	187.3	1,941.4
2007 Q3	21,652.2	10,760.4	811.8	9,948.7	2,242.2	1,433.7	808.5	826.4	5,243.9	218.7	2,360.5
Q4	22,331.4	11,134.4	973.9	10,160.5	2,370.9	1,419.2	951.7	884.7	5,246.2	221.1	2,474.1
2008 Jan.	22,834.4	11,280.8	980.5	10,300.4	2,414.9	1,451.0	963.9	893.7	5,489.7	221.1	2,534.2
Feb.	22,977.8	11,326.0	970.8	10,355.1	2,441.0	1,453.6	987.4	872.5	5,529.8	216.0	2,592.6
Mar.	23,001.3	11,432.7	977.4	10,455.3	2,459.8	1,451.6	1,008.2	871.2	5,357.1	213.6	2,666.8
Apr.	23,185.8	11,521.9	989.8	10,532.1	2,495.7	1,459.3	1,036.3	926.2	5,450.1	215.1	2,576.9
May	23,375.8	11,580.3	982.1	10,598.2	2,522.0	1,463.6	1,058.4	918.7	5,436.6	215.7	2,702.4
June <sup>(p)</sup>	23,309.4	11,655.0	995.4	10,659.6	2,529.4	1,452.0	1,077.4	860.9	5,275.5	216.6	2,772.1
Transactions											
2006	1,997.5	877.3	-14.4	891.6	10.7	-96.8	107.5	97.7	801.9	6.4	203.5
2007	2,593.4	1,016.6	-9.7	1,026.3	229.5	-46.8	276.3	59.8	792.1	-0.5	496.0
2008 Q1	763.6	262.4	0.7	261.7	82.1	24.0	58.1	-7.9	259.8	-8.7	175.9
Q2 <sup>(p)</sup>	342.7	233.3	17.9	215.4	84.8	13.2	71.6	-2.9	-73.8	3.0	98.3
2008 Jan.	409.6	93.8	3.6	90.3	23.4	14.6	8.8	10.5	236.2	-1.3	47.0
Feb.	194.1	50.7	-9.6	60.2	27.4	2.8	24.6	-19.8	85.4	-5.1	55.5
Mar.	160.0	117.9	6.7	111.2	31.2	6.6	24.6	1.4	-61.8	-2.3	73.5
Apr.	175.6	93.0	12.2	80.8	39.5	11.3	28.3	52.9	79.9	1.5	-91.2
May	187.5	60.5	-7.7	68.2	29.6	8.3	21.3	-6.9	-20.0	0.6	123.8
June <sup>(p)</sup>	-20.5	79.8	13.3	66.5	15.7	-6.4	22.0	-48.8	-133.8	0.9	65.7

**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	19,723.8	592.2	158.0	7,906.5	614.7	2,587.8	1,280.8	4,026.5	2,541.8	15.6
2007 Q3	21,652.2	610.4	196.0	8,429.2	682.5	2,811.5	1,394.7	4,575.7	2,979.9	-27.9
Q4	22,331.4	638.5	151.0	8,885.0	660.6	2,866.8	1,487.5	4,599.2	3,083.9	-41.1
2008 Jan.	22,834.4	623.1	168.9	8,947.4	737.4	2,854.8	1,515.7	4,867.1	3,150.8	-30.8
Feb.	22,977.8	628.7	189.2	8,965.5	750.1	2,825.0	1,514.8	4,927.3	3,200.9	-23.6
Mar.	23,001.3	632.9	200.0	9,031.5	742.4	2,827.6	1,502.5	4,834.3	3,242.1	-12.0
Apr.	23,185.8	641.3	197.7	9,123.5	752.3	2,829.8	1,496.9	5,010.6	3,158.7	-25.1
May	23,375.8	645.7	174.1	9,196.8	756.1	2,862.1	1,484.9	5,064.0	3,226.2	-33.9
June <sup>(p)</sup>	23,309.4	652.1	211.1	9,238.4	732.7	2,876.0	1,504.9	4,889.9	3,254.3	-50.1
Transactions										
2006	1,997.5	59.4	-15.2	683.7	27.6	285.5	57.4	601.6	252.2	45.3
2007	2,593.4	45.8	-13.3	835.0	54.7	270.2	162.0	778.8	468.2	-8.1
2008 Q1	763.6	-6.7	46.6	116.9	53.3	-12.5	22.0	345.0	137.2	61.7
Q2 <sup>(p)</sup>	342.7	19.2	10.8	205.6	-9.3	52.1	19.7	56.1	22.3	-33.9
2008 Jan.	409.6	-16.4	15.3	16.3	43.8	3.2	11.9	254.7	63.2	17.5
Feb.	194.1	5.6	20.3	25.0	11.9	-21.1	2.3	99.3	36.4	14.3
Mar.	160.0	4.2	11.0	75.5	-2.4	5.3	7.9	-9.0	37.5	30.0
Apr.	175.6	8.5	-2.3	88.7	10.4	0.6	3.8	155.3	-74.3	-15.1
May	187.5	4.4	-24.0	71.3	3.9	31.8	-8.9	50.1	66.0	-7.0
June <sup>(p)</sup>	-20.5	6.4	37.1	45.6	-23.7	19.8	24.7	-149.2	30.6	-11.7

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

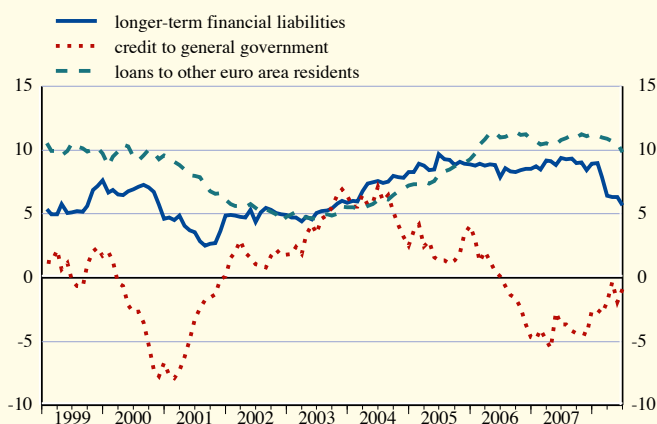
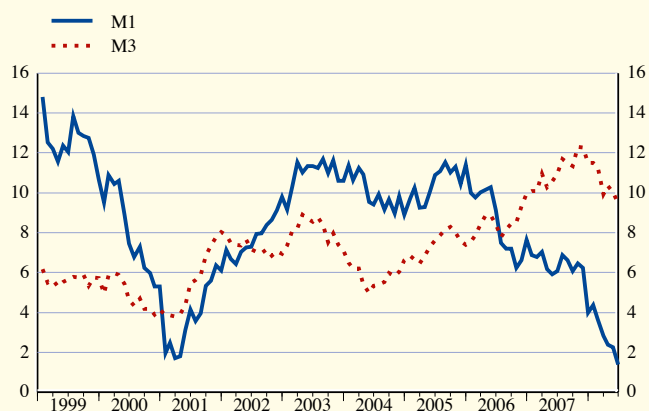
	M1		M2	M3-M2	M3	M3 3-month moving average (centred)	Longer-term financial liabilities	Credit to general government	Credit to other euro area residents		Net external assets <sup>3)</sup>
	1	2	3	4	5	6	7	8	Loans		11
									9	10	
<b>Outstanding amounts</b>											
2005	3,423.3	2,653.2	6,076.5	998.1	7,074.6	-	5,000.6	2,473.0	9,564.3	8,289.3	424.3
2006	3,686.1	2,953.0	6,639.1	1,101.7	7,740.8	-	5,434.1	2,321.3	10,644.4	9,171.5	634.3
2007 Q3	3,819.3	3,314.8	7,134.1	1,264.2	8,398.3	-	5,795.8	2,258.5	11,608.0	9,948.6	662.7
Q4	3,835.4	3,504.0	7,339.4	1,310.7	8,650.1	-	5,977.7	2,417.2	12,027.6	10,176.5	626.7
2008 Jan.	3,857.3	3,575.8	7,433.1	1,349.4	8,782.5	-	6,038.2	2,431.9	12,174.4	10,304.3	620.2
Feb.	3,853.5	3,630.6	7,484.1	1,344.4	8,828.5	-	6,012.4	2,424.7	12,249.3	10,372.5	599.2
Mar.	3,853.1	3,666.1	7,519.2	1,337.9	8,857.1	-	5,972.2	2,420.6	12,336.2	10,458.7	540.8
Apr.	3,839.1	3,767.9	7,607.0	1,336.2	8,943.3	-	6,001.9	2,434.6	12,425.1	10,522.4	472.6
May	3,856.2	3,793.1	7,649.3	1,346.0	8,995.3	-	6,011.4	2,434.6	12,520.7	10,596.3	412.1
June <sup>(p)</sup>	3,837.8	3,828.6	7,666.5	1,355.6	9,022.1	-	6,026.2	2,431.3	12,558.1	10,630.5	376.9
<b>Transactions</b>											
2006	261.2	309.8	571.0	131.0	702.0	-	427.7	-114.7	1,105.8	898.6	200.6
2007	147.4	523.4	670.8	220.3	891.1	-	488.5	-60.1	1,369.3	1,031.6	12.6
2008 Q1	12.2	137.1	149.3	0.1	149.4	-	26.5	-7.9	282.7	249.2	-47.0
Q2 <sup>(p)</sup>	-16.4	163.5	147.0	20.4	167.4	-	71.7	23.4	242.8	182.8	-156.6
2008 Jan.	9.7	40.9	50.6	16.7	67.3	-	44.5	-5.5	95.2	78.2	-0.7
Feb.	-0.1	56.6	56.5	-5.4	51.0	-	-12.7	-6.9	82.9	73.7	-14.7
Mar.	2.6	39.6	42.2	-11.1	31.1	-	-5.3	4.5	104.6	97.3	-31.6
Apr.	-14.7	101.0	86.3	-1.1	85.2	-	35.7	17.4	91.0	67.6	-60.2
May	15.4	25.0	40.4	9.1	49.6	-	12.9	4.0	97.2	75.9	-63.7
June <sup>(p)</sup>	-17.2	37.5	20.2	12.3	32.6	-	23.2	2.0	54.5	39.3	-32.6
<b>Growth rates</b>											
2005 Dec.	11.4	5.4	8.5	0.9	7.4	7.5	8.9	4.1	9.6	9.3	-0.4
2006 Dec.	7.6	11.7	9.4	13.3	10.0	9.8	8.5	-4.7	11.6	10.8	200.6
2007 Sep.	6.1	15.4	10.2	18.1	11.3	11.7	9.0	-4.4	11.6	11.0	198.4
Dec.	4.0	17.7	10.1	20.0	11.5	11.8	8.9	-2.6	12.8	11.2	12.6
2008 Jan.	4.4	17.8	10.4	18.2	11.5	11.4	9.0	-2.5	12.8	11.1	18.5
Feb.	3.7	19.2	10.6	15.4	11.3	10.9	7.8	-2.8	12.7	11.0	-33.4
Mar.	2.8	18.1	9.7	11.0	9.9	10.5	6.4	-1.9	12.3	10.9	-159.8
Apr.	2.4	19.8	10.3	10.5	10.3	10.1	6.3	-0.3	12.3	10.7	-190.5
May	2.3	19.4	10.1	9.7	10.0	9.9	6.3	-1.9	11.9	10.5	-249.3
June <sup>(p)</sup>	1.4	19.0	9.4	9.7	9.5	.	5.7	-0.9	11.1	9.8	-291.6

### CI 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>

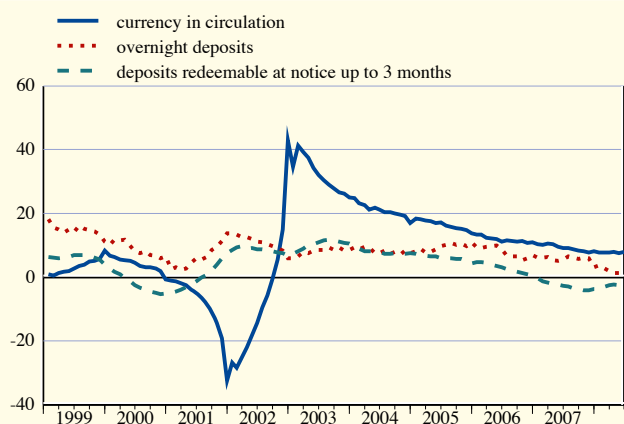
(EUR billions and annual growth rates; seasonally adjusted; outstanding amounts and growth rates at end of period, transactions during period)

### 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	521.1	2,902.2	1,109.6	1,543.7	236.0	635.9	126.2	2,205.0	86.8	1,511.3	1,197.5
2006	578.4	3,107.7	1,401.0	1,552.0	266.1	637.0	198.6	2,399.6	102.2	1,655.0	1,277.3
2007 Q3	611.6	3,207.7	1,807.8	1,507.0	295.3	687.2	281.7	2,526.5	112.9	1,766.9	1,389.4
2007 Q4	625.8	3,209.6	1,968.7	1,535.3	307.4	686.8	316.5	2,561.0	119.6	1,813.5	1,483.6
2008 Jan.	629.5	3,227.8	2,038.8	1,537.0	306.4	745.2	297.8	2,579.8	122.9	1,819.0	1,516.5
2008 Feb.	634.2	3,219.3	2,093.9	1,536.6	313.4	754.8	276.3	2,559.1	121.3	1,816.0	1,516.0
2008 Mar.	638.0	3,215.0	2,124.6	1,541.5	308.7	746.8	282.3	2,545.9	119.4	1,813.7	1,493.1
2008 Apr.	644.8	3,194.4	2,224.8	1,543.1	323.7	744.0	268.5	2,561.8	118.7	1,817.9	1,503.4
2008 May	643.7	3,212.5	2,256.5	1,536.6	316.8	739.7	289.4	2,566.7	117.6	1,829.7	1,497.4
2008 June <sup>(p)</sup>	649.7	3,188.1	2,292.0	1,536.7	341.8	727.8	286.0	2,574.0	117.0	1,833.0	1,502.2
Transactions											
2006	57.3	203.9	300.5	9.3	30.9	30.0	70.1	217.2	15.4	138.1	57.0
2007	46.9	100.4	579.4	-55.9	43.3	58.8	118.2	152.3	9.9	164.5	161.8
2008 Q1	11.2	1.0	136.4	0.7	1.3	31.2	-32.3	9.8	-1.5	1.8	16.4
2008 Q2 <sup>(p)</sup>	11.7	-28.1	168.3	-4.9	33.1	-18.7	6.0	29.5	-2.5	18.3	26.4
2008 Jan.	2.7	7.0	45.0	-4.1	-0.9	25.0	-7.5	22.9	1.9	3.2	16.6
2008 Feb.	4.7	-4.8	56.9	-0.3	7.0	8.8	-21.3	-12.2	-1.5	-1.6	2.7
2008 Mar.	3.8	-1.2	34.5	5.0	-4.9	-2.6	-3.6	-0.9	-1.8	0.2	-2.8
2008 Apr.	6.8	-21.4	99.5	1.5	15.0	-2.2	-13.8	14.2	-0.7	2.5	19.7
2008 May	-1.0	16.5	31.5	-6.5	-6.9	-4.2	20.2	5.2	-1.2	11.6	-2.8
2008 June <sup>(p)</sup>	6.0	-23.2	37.3	0.1	25.0	-12.3	-0.4	10.1	-0.6	4.2	9.5
Growth rates											
2005 Dec.	13.8	11.0	6.6	4.4	-3.0	-0.1	15.7	10.0	-4.7	8.1	8.8
2006 Dec.	11.0	7.0	27.2	0.6	13.2	4.9	54.5	9.9	17.8	9.1	4.7
2007 Sep.	8.3	5.7	38.2	-3.6	12.1	9.8	55.2	10.1	15.1	9.0	6.4
2007 Dec.	8.1	3.2	41.3	-3.6	16.3	9.2	59.5	6.3	9.6	9.9	12.4
2008 Jan.	7.8	3.7	40.9	-3.7	17.6	11.0	40.0	6.5	9.2	9.5	12.9
2008 Feb.	7.7	2.9	43.0	-3.1	18.4	10.9	24.0	4.7	6.3	8.9	12.5
2008 Mar.	7.7	1.9	39.2	-2.5	11.4	8.2	17.9	3.9	3.5	7.1	10.4
2008 Apr.	8.0	1.3	41.6	-2.2	17.8	6.8	11.8	3.7	1.9	6.5	11.2
2008 May	7.5	1.3	40.5	-2.4	17.1	4.8	14.7	3.3	0.5	6.2	12.5
2008 June <sup>(p)</sup>	8.0	0.1	38.7	-2.0	18.8	2.0	20.7	2.8	-0.8	5.5	11.7

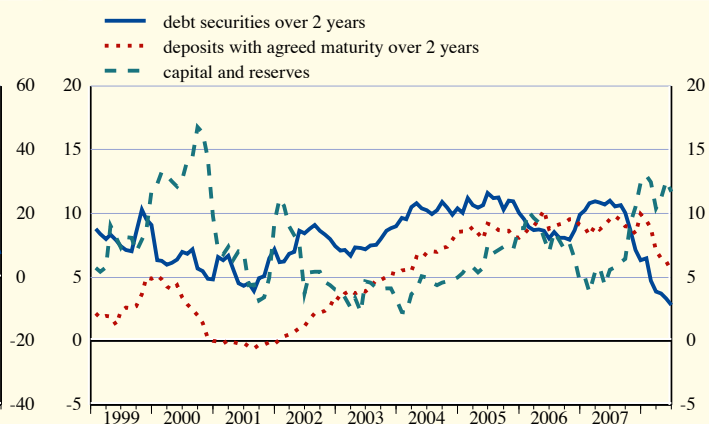
### C3 Components of monetary aggregates <sup>1)</sup>

(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>

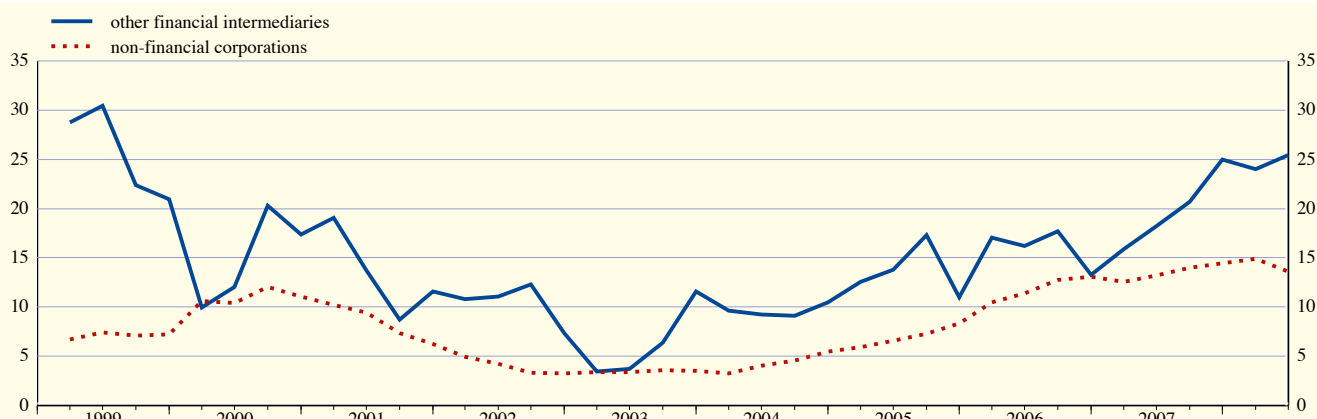
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

### 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	2	3	4	5	6	7	8
<b>Outstanding amounts</b>								
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 Q3	112.0	87.8	854.7	535.3	4,230.5	1,248.2	814.0	2,168.4
Q4	96.4	70.6	866.4	526.2	4,389.0	1,276.8	858.9	2,253.3
2008 Jan.	101.7	75.7	901.8	559.3	4,460.8	1,294.7	878.9	2,287.2
Feb.	102.7	76.7	902.1	559.6	4,497.9	1,307.2	887.9	2,302.9
Mar.	104.2	79.0	943.7	596.8	4,545.8	1,327.1	898.3	2,320.4
Apr.	102.3	76.4	967.3	618.2	4,590.8	1,337.8	904.2	2,348.8
May	105.8	80.2	987.6	632.7	4,618.6	1,338.3	910.8	2,369.5
June <sup>(p)</sup>	103.6	79.3	995.5	623.5	4,668.6	1,365.1	925.3	2,378.2
<b>Transactions</b>								
2006	18.1	13.9	81.9	57.7	446.2	100.5	123.1	222.6
2007	14.0	15.8	175.2	113.4	556.3	145.0	155.7	255.6
2008 Q1	8.0	8.6	79.7	71.7	137.1	48.0	36.2	52.9
Q2 <sup>(p)</sup>	-0.6	0.3	50.6	25.3	130.6	40.7	30.6	59.3
2008 Jan.	5.3	5.2	32.4	30.5	44.1	10.9	14.2	18.9
Feb.	1.1	1.0	2.0	1.7	39.6	13.5	10.1	15.9
Mar.	1.6	2.4	45.3	39.5	53.5	23.6	11.8	18.0
Apr.	-1.9	-2.7	21.1	19.1	49.4	12.4	8.5	28.6
May	3.4	3.8	20.1	14.4	28.6	0.8	6.9	20.9
June <sup>(p)</sup>	-2.2	-0.9	9.4	-8.2	52.6	27.6	15.2	9.8
<b>Growth rates</b>								
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 Sep.	25.6	40.0	20.7	23.3	14.0	12.6	20.3	12.5
Dec.	16.9	28.5	25.0	26.9	14.5	12.7	22.0	12.8
2008 Jan.	2.2	5.4	26.6	28.5	14.4	12.2	22.7	12.8
Feb.	6.4	9.9	23.1	23.1	14.8	13.0	22.8	12.9
Mar.	6.3	10.8	24.0	24.4	14.9	13.8	22.3	12.9
Apr.	-2.7	-3.4	23.1	24.5	14.9	13.1	21.8	13.4
May	-2.5	-2.2	26.6	30.0	14.2	12.5	19.9	13.1
June <sup>(p)</sup>	-5.8	-4.6	25.5	25.6	13.6	11.9	19.9	12.3

### 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>

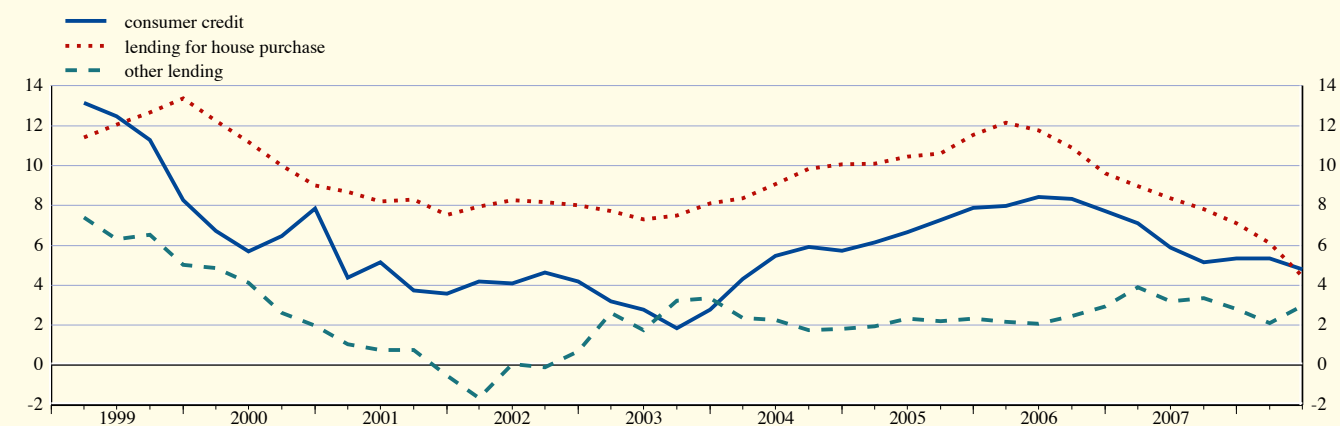
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

**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	
<b>Outstanding amounts</b>														
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 Q3	4,750.8	607.3	134.1	203.1	270.1	3,390.9	16.1	73.4	3,301.4	752.7	146.6	104.2	501.9	
Q4	4,808.1	617.9	137.6	203.7	276.6	3,436.9	15.9	73.8	3,347.2	753.4	147.5	104.0	501.8	
2008 Jan.	4,835.4	619.4	136.8	204.1	278.5	3,457.1	15.9	73.7	3,367.5	758.9	146.7	104.8	507.3	
Feb.	4,851.7	619.0	135.7	202.5	280.8	3,471.5	15.8	73.5	3,382.2	761.2	145.4	105.7	510.1	
Mar.	4,861.0	623.9	136.5	203.0	284.4	3,476.3	16.1	73.3	3,387.0	760.7	147.0	105.3	508.5	
Apr.	4,871.0	627.9	136.1	204.6	287.2	3,484.6	16.1	73.1	3,395.5	758.4	145.6	102.6	510.3	
May	4,885.6	628.2	136.3	203.7	288.2	3,498.8	15.8	73.1	3,409.9	758.6	144.4	102.1	512.2	
June <sup>(p)</sup>	4,891.2	634.9	139.2	205.0	290.7	3,486.4	16.0	73.4	3,397.0	769.9	153.2	102.5	514.2	
<b>Transactions</b>														
2006	345.3	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	280.6	31.3	3.6	1.1	26.7	228.5	0.9	2.3	225.3	20.7	1.7	4.4	14.6	
2008 Q1	37.0	2.3	-1.7	-1.9	5.9	31.4	0.0	-0.7	32.0	3.3	-1.4	0.6	4.0	
Q2 <sup>(p)</sup>	34.8	10.9	2.7	2.2	6.0	11.5	-0.1	0.2	11.4	12.4	6.7	-1.7	7.3	
2008 Jan.	8.6	-1.6	-1.4	-0.9	0.8	11.1	-0.1	-0.2	11.5	-0.9	-1.9	-0.1	1.1	
Feb.	17.5	-0.5	-1.0	-1.5	2.0	14.8	-0.1	-0.2	15.0	3.3	-1.2	1.0	3.5	
Mar.	10.9	4.5	0.8	0.5	3.2	5.5	0.3	-0.3	5.5	0.9	1.7	-0.2	-0.6	
Apr.	12.1	4.3	-0.3	1.7	3.0	8.9	0.0	-0.2	9.1	-1.2	-1.3	-2.1	2.3	
May	16.0	0.1	0.2	-0.9	0.7	14.8	-0.2	0.0	15.0	1.2	-1.1	-0.2	2.5	
June <sup>(p)</sup>	6.6	6.5	2.9	1.4	2.3	-12.2	0.2	0.3	-12.7	12.3	9.2	0.6	2.5	
<b>Growth rates</b>														
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 Sep.	6.7	5.1	3.9	-0.5	10.5	7.8	7.1	4.4	7.9	3.4	1.0	5.3	3.7	
Dec.	6.2	5.3	2.7	0.5	10.7	7.1	6.1	3.2	7.2	2.8	1.2	4.3	3.0	
2008 Jan.	6.0	5.3	2.1	0.6	10.8	6.9	7.2	2.4	7.0	2.7	0.7	5.1	2.9	
Feb.	5.9	5.4	3.0	0.2	10.9	6.6	4.5	1.9	6.7	2.8	-0.4	6.0	3.1	
Mar.	5.4	5.3	3.9	-0.1	10.4	6.1	2.5	2.0	6.2	2.1	-0.2	4.3	2.3	
Apr.	5.2	5.4	2.6	0.8	10.3	5.9	4.9	1.7	6.0	2.0	-0.2	1.8	2.7	
May	4.9	5.0	2.9	-0.3	10.1	5.6	2.3	1.4	5.7	2.0	-0.4	1.3	2.9	
June <sup>(p)</sup>	4.2	4.8	3.6	-0.2	9.3	4.4	0.0	1.2	4.5	3.0	2.3	0.8	3.6	

**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>

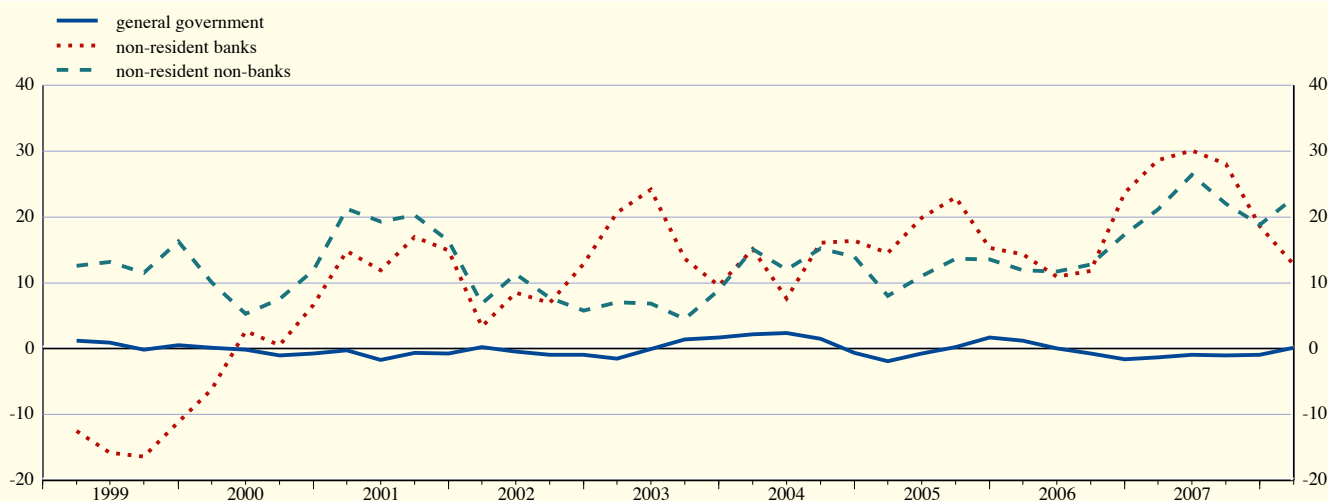
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

### 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 Q2	798.3	95.7	218.8	446.2	37.6	3,286.0	2,334.1	952.0	61.4	890.5
Q3	794.0	92.7	213.9	446.0	41.4	3,302.8	2,354.1	948.7	61.3	887.4
Q4	956.1	213.4	217.6	495.7	29.4	3,295.2	2,337.9	957.2	59.8	897.4
2008 Q1 <sup>(p)</sup>	958.0	211.2	212.8	504.2	30.1	3,413.4	2,396.4	1,017.0	61.3	955.7
Transactions										
2006	-13.4	-17.6	-14.3	21.9	-3.4	532.5	402.9	129.5	-0.1	129.6
2007	-7.7	-4.5	-13.0	6.2	3.5	542.0	382.3	159.7	0.3	159.5
2007 Q2	-3.4	-1.8	-5.5	-2.5	6.4	135.0	79.4	55.7	1.8	53.9
Q3	-4.2	-2.8	-5.0	-0.2	3.8	77.5	57.7	19.8	1.2	18.6
Q4	8.0	7.0	3.8	9.2	-12.0	56.8	23.3	33.5	-0.1	33.6
2008 Q1 <sup>(p)</sup>	0.7	-2.7	-4.9	7.9	0.7	215.5	123.5	91.8	2.7	89.1
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 June	-0.9	-7.7	-5.9	2.0	17.3	29.0	30.1	26.4	-5.2	29.4
Sep.	-1.0	-7.8	-6.3	1.9	16.0	26.3	28.1	22.1	-2.0	24.2
Dec.	-1.0	-4.3	-5.6	1.4	13.7	18.7	18.6	18.8	0.5	20.2
2008 Mar. <sup>(p)</sup>	0.1	1.2	-5.2	3.1	-3.5	15.7	12.8	23.0	9.6	23.9

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

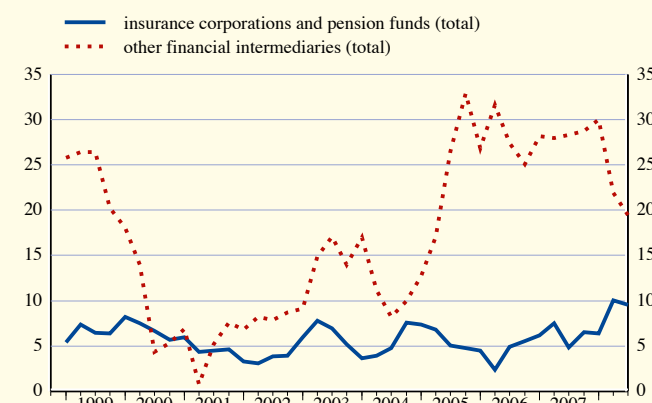
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

### 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	
<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 Q3	676.6	67.9	62.9	522.9	0.8	1.1	21.0	1,392.9	331.2	305.9	580.9	13.0	0.8	161.1
2007 Q4	687.8	71.1	68.9	525.1	0.8	1.1	20.9	1,472.7	312.3	348.0	652.8	12.2	0.3	147.1
2008 Jan.	714.7	83.6	76.3	526.6	1.5	1.4	25.2	1,502.1	332.3	339.7	652.4	12.9	0.3	164.5
Feb.	707.2	72.8	75.9	530.7	1.6	1.6	24.6	1,499.6	315.2	362.4	643.7	11.9	0.3	166.1
Mar.	723.3	81.8	83.9	532.6	1.6	1.6	21.9	1,526.2	333.2	361.1	648.8	13.2	0.2	169.6
Apr.	722.4	74.9	87.7	534.2	1.4	1.6	22.6	1,560.4	312.4	395.6	656.3	14.1	0.2	181.8
May	718.7	69.6	88.8	535.6	1.3	1.6	21.7	1,579.7	321.4	390.8	672.0	12.7	0.2	182.6
June <sup>6)</sup>	717.2	73.6	83.7	537.3	1.4	1.6	19.8	1,597.0	331.0	386.4	682.9	12.0	0.2	184.5
<b>Transactions</b>														
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	41.4	0.8	11.7	33.4	-0.2	-0.3	-4.1	341.1	32.7	98.9	183.7	1.7	0.1	24.1
2008 Q1	33.2	10.5	13.9	7.4	0.2	0.2	1.0	59.9	23.0	14.6	-0.7	1.0	-0.1	22.1
2008 Q2 <sup>6)</sup>	-6.0	-8.2	-0.2	4.7	-0.2	0.0	-2.1	67.8	-3.9	25.1	32.9	-1.2	0.0	14.9
2008 Jan.	24.0	12.2	6.0	1.4	0.1	0.0	4.4	26.6	18.1	-8.9	-0.2	0.5	-0.1	17.2
Feb.	-7.3	-10.8	-0.2	4.1	0.1	0.2	-0.6	2.0	-14.5	23.5	-7.7	-0.9	0.0	1.6
Mar.	16.5	9.2	8.2	1.9	0.0	0.0	-2.8	31.3	19.4	0.0	7.2	1.4	0.0	3.3
Apr.	-1.0	-6.9	3.8	1.6	-0.2	0.0	0.7	31.8	-21.1	34.1	5.8	0.8	0.0	12.2
May	-3.7	-5.3	1.1	1.5	-0.1	0.0	-0.9	17.1	7.1	-4.8	15.5	-1.4	0.0	0.8
June <sup>6)</sup>	-1.3	4.0	-5.1	1.6	0.1	0.0	-1.9	18.9	10.1	-4.2	11.7	-0.6	0.0	1.9
<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 Sep.	6.5	1.5	23.4	6.6	-18.2	-	-13.7	28.7	20.5	31.1	38.5	29.0	-	12.1
2007 Dec.	6.4	1.1	20.5	6.8	-22.5	-	-16.3	30.0	11.5	39.5	39.1	16.0	-	19.0
2008 Jan.	9.2	15.9	30.1	6.2	-21.5	-	4.0	28.4	8.9	39.0	37.6	24.1	-	21.8
Feb.	7.8	4.3	28.2	6.3	-21.4	-	1.9	28.5	6.5	48.2	34.5	16.7	-	21.2
Mar.	10.0	12.7	41.8	6.6	-17.7	-	-4.3	21.9	6.3	36.5	26.5	17.6	-	13.4
Apr.	8.7	6.6	37.5	6.3	-20.6	-	-7.3	22.9	2.6	44.4	23.9	24.2	-	20.8
May	9.3	6.5	45.6	6.0	-17.9	-	-5.3	21.8	2.6	43.9	22.2	11.5	-	21.5
June <sup>6)</sup>	9.6	13.4	42.3	5.6	-11.0	-	3.4	19.5	4.0	35.4	19.8	5.6	-	21.6

### C8 Total deposits 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.

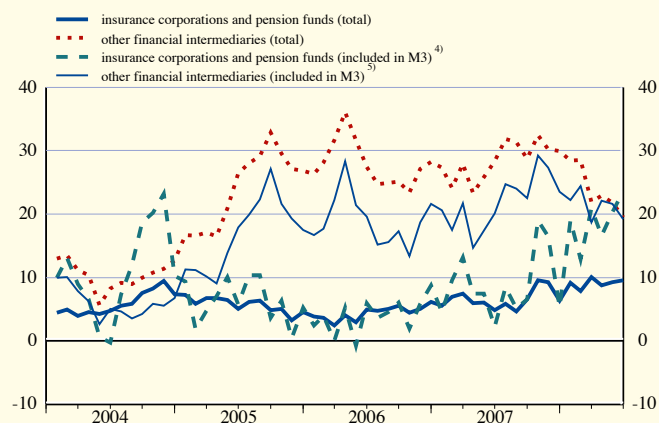
3) This category includes investment funds.

4) Covers deposits in columns 2, 3, 5 and 7.

5) Covers deposits in columns 9, 10, 12 and 14.

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

(annual growth rates)



## 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

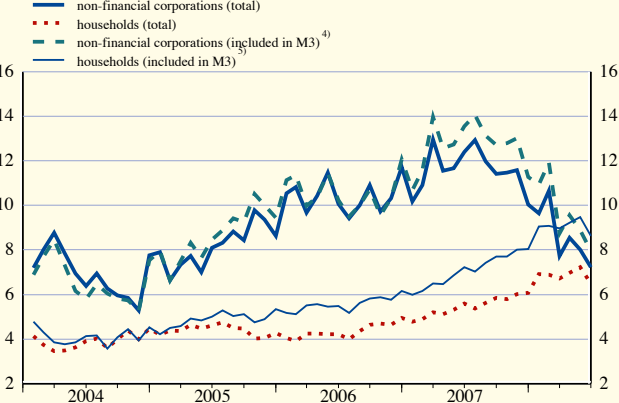
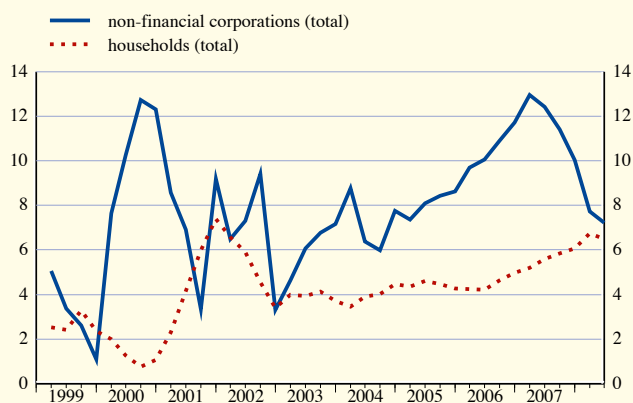
	Non-financial corporations							Households <sup>3)</sup>						
	Total	Overnight	With agreed maturity		Redeemable at notice		Repos	Total	Overnight	With agreed maturity		Redeemable at notice		Repos
			Up to 2 years	Over 2 years	Up to 3 months	Over 3 months				Up to 2 years	Over 2 years	Up to 3 months	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 Q3	1,405.0	844.6	438.8	64.1	31.6	1.4	24.4	4,706.3	1,754.3	886.5	565.7	1,308.0	107.9	84.0
Q4	1,470.6	882.1	474.6	59.6	29.2	1.4	23.7	4,989.0	1,777.6	994.5	561.1	1,457.6	111.1	87.1
2008 Jan.	1,426.4	840.9	472.3	60.0	29.4	1.6	22.3	5,045.0	1,763.1	1,057.4	558.5	1,462.4	112.0	91.6
Feb.	1,440.9	833.3	494.0	60.2	28.6	1.5	23.3	5,053.9	1,747.7	1,084.3	553.3	1,461.6	111.1	95.9
Mar.	1,448.4	847.0	488.4	59.8	28.9	1.5	22.9	5,076.5	1,757.2	1,100.4	548.4	1,465.9	109.1	95.6
Apr.	1,458.7	837.9	510.2	60.4	27.8	1.4	21.0	5,119.4	1,771.5	1,133.9	543.9	1,464.9	107.8	97.5
May	1,477.5	853.3	512.9	61.2	27.5	1.4	21.3	5,148.2	1,777.9	1,159.3	539.8	1,463.0	106.4	101.8
June <sup>5)</sup>	1,481.7	866.0	502.2	61.7	27.3	1.5	22.9	5,163.0	1,784.0	1,179.5	534.9	1,460.4	105.7	98.5
Transactions														
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	134.5	31.8	123.3	-8.0	-11.0	-0.7	-1.1	280.9	21.7	321.9	-45.4	-45.6	11.2	17.1
2008 Q1	-27.5	-35.5	10.6	0.1	-1.9	-0.1	-0.8	59.2	-26.5	89.2	-14.2	5.1	-2.9	8.5
Q2 <sup>5)</sup>	33.9	19.4	14.1	2.0	-1.6	-0.1	0.1	87.2	26.6	79.9	-13.4	-5.5	-3.3	2.9
2008 Jan.	-54.7	-43.6	-8.2	-0.1	-1.3	0.0	-1.5	26.3	-21.2	45.9	-4.4	1.4	0.0	4.6
Feb.	16.6	-6.9	22.9	0.4	-0.8	-0.1	1.1	9.1	-15.2	26.6	-5.1	-0.7	-0.9	4.3
Mar.	10.6	15.0	-4.0	-0.3	0.2	0.0	-0.4	23.9	9.8	16.8	-4.7	4.4	-2.0	-0.3
Apr.	9.9	-9.2	21.5	0.6	-1.0	-0.1	-1.9	42.6	13.9	33.5	-4.5	-1.0	-1.3	2.0
May	18.7	15.4	2.6	0.8	-0.3	0.0	0.3	28.7	6.4	25.4	-4.1	-1.8	-1.4	4.2
June <sup>5)</sup>	5.3	13.2	-10.0	0.6	-0.2	0.0	1.7	15.9	6.2	21.0	-4.8	-2.7	-0.6	-3.3
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 Sep.	11.4	7.1	32.5	-8.8	-28.4	-26.9	-2.8	5.8	2.7	43.9	-7.2	-3.5	16.0	29.6
Dec.	10.0	3.7	34.8	-11.7	-26.9	-31.6	-4.3	6.1	1.2	47.8	-7.5	-3.5	11.2	24.4
2008 Jan.	9.6	4.3	31.5	-11.9	-27.7	-34.7	-10.6	6.9	2.3	48.6	-7.4	-3.5	9.2	25.7
Feb.	10.6	3.2	37.2	-10.6	-26.9	-37.4	-11.3	6.9	1.4	48.0	-7.4	-2.8	6.2	27.9
Mar.	7.7	2.0	29.3	-10.8	-29.0	-1.3	-15.3	6.7	1.4	45.5	-7.6	-2.1	2.7	25.2
Apr.	8.6	0.6	34.7	-9.9	-28.5	-5.9	-14.2	7.0	1.1	45.9	-7.4	-1.8	1.2	28.4
May	8.0	1.3	31.0	-8.3	-29.2	-6.9	-21.0	7.2	1.3	45.7	-7.1	-1.7	0.1	29.3
June <sup>5)</sup>	7.2	0.8	28.3	-6.9	-26.6	-6.6	-13.0	6.5	-0.4	44.8	-7.3	-1.6	-1.1	26.8

### 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>**

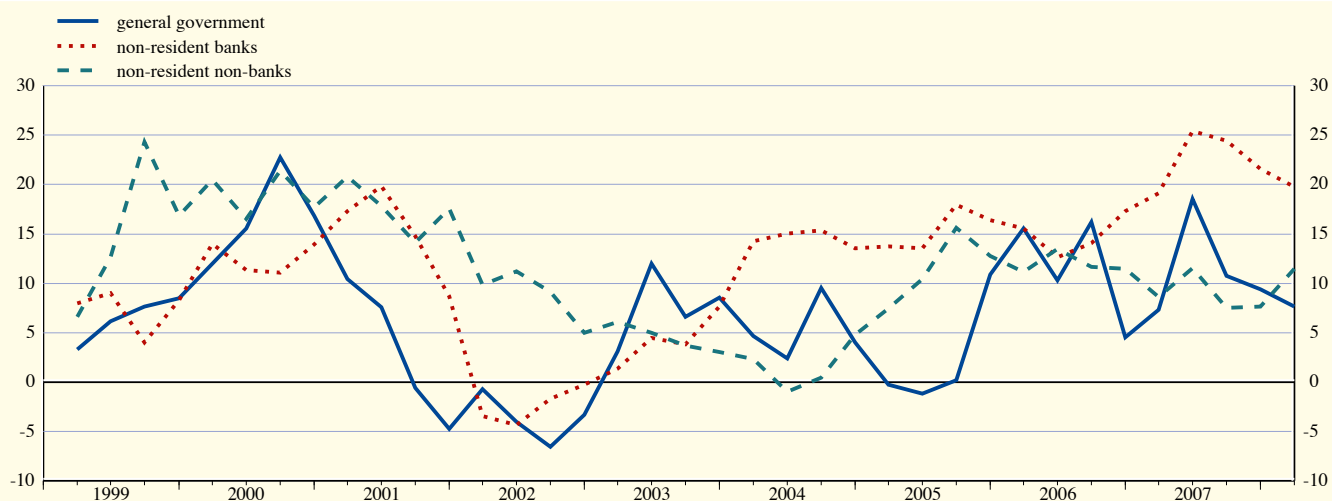
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

**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	90.8	68.6	3,429.0	2,557.1	871.9	128.6	743.3
2007 Q2	380.2	169.8	43.8	95.2	71.4	3,821.4	2,898.6	922.8	137.5	785.3
Q3	373.5	144.3	60.0	97.2	72.0	3,877.0	2,963.4	913.6	145.9	767.7
Q4	372.9	127.1	59.0	106.8	80.1	3,856.2	2,962.9	893.3	143.4	749.9
2008 Q1 <sup>(p)</sup>	375.9	139.6	49.7	106.7	80.0	4,039.8	3,100.0	939.8	133.2	806.6
Transactions										
2006	14.2	-24.5	7.0	7.8	23.9	476.6	385.8	90.8	6.6	84.2
2007	30.9	-3.1	13.6	8.9	11.5	614.6	548.3	66.3	20.2	46.1
2007 Q2	42.4	30.8	1.7	6.4	3.5	177.6	136.0	41.6	5.7	35.9
Q3	-7.3	-26.1	16.1	2.0	0.6	130.2	120.7	9.4	10.8	-1.4
Q4	-12.0	-21.9	-1.0	2.8	8.1	50.3	54.3	-4.1	-0.5	-3.5
2008 Q1 <sup>(p)</sup>	2.8	12.4	-9.2	-0.2	-0.2	279.0	227.0	52.1	-6.3	58.4
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	9.6	53.5	15.8	17.3	11.5	5.3	12.6
2007 June	18.5	21.9	10.5	12.2	25.3	21.8	25.4	11.5	8.9	12.0
Sep.	10.7	-3.5	44.0	13.3	19.4	20.0	24.5	7.5	13.2	6.5
Dec.	9.4	-2.3	29.9	9.8	16.7	18.0	21.6	7.6	15.8	6.2
2008 Mar. <sup>(p)</sup>	7.7	-3.7	18.2	12.4	17.8	17.8	19.8	11.4	7.2	12.2

**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.

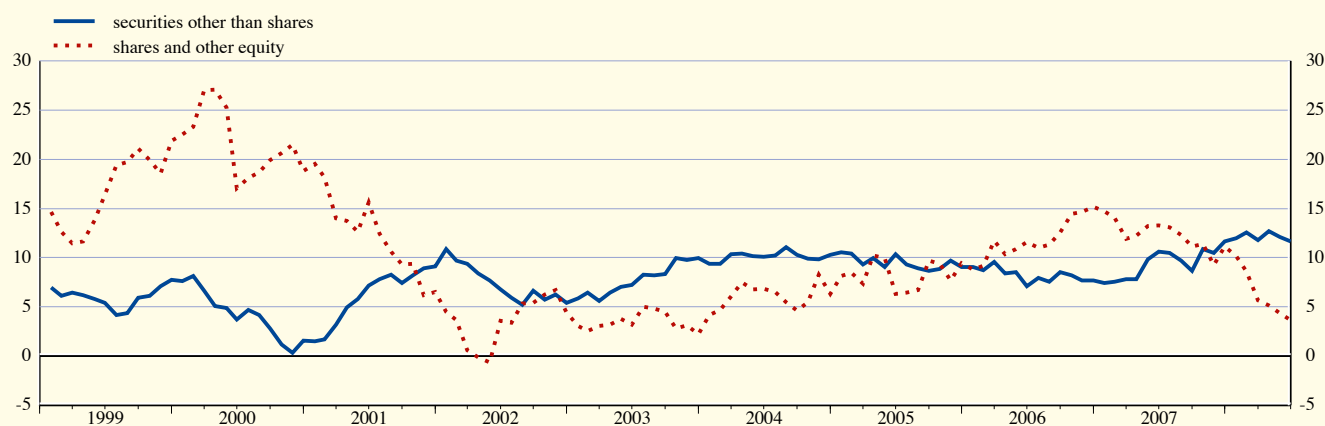
## 2.6 MFI holdings of securities, breakdown <sup>1), 2)</sup>

(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
<b>Outstanding amounts</b>												
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	4,664.3	1,560.6	72.3	1,260.4	16.2	615.8	30.1	1,108.9	1,465.9	373.0	798.5	294.4
2007 Q3	4,972.9	1,645.5	82.1	1,199.7	14.7	770.6	35.7	1,224.6	1,572.6	412.8	813.3	346.5
Q4	5,113.6	1,652.9	84.0	1,177.5	16.6	916.3	33.4	1,232.8	1,639.9	424.8	871.8	343.3
2008 Jan.	5,250.9	1,697.1	93.7	1,203.2	17.6	925.1	36.8	1,277.4	1,646.9	433.7	881.9	331.3
Feb.	5,313.5	1,727.7	93.4	1,201.7	15.7	949.7	35.4	1,289.8	1,629.0	442.7	860.5	325.8
Mar.	5,301.9	1,728.0	87.5	1,200.4	15.4	960.1	45.8	1,264.8	1,606.4	453.2	859.6	293.6
Apr.	5,384.0	1,748.1	91.9	1,208.1	16.0	984.9	49.0	1,286.0	1,670.7	458.3	914.1	298.3
May	5,477.8	1,790.0	99.1	1,212.7	14.7	1,006.9	49.1	1,305.3	1,682.9	477.5	906.7	298.7
June <sup>(p)</sup>	5,471.2	1,790.3	98.5	1,202.1	15.2	1,026.5	48.5	1,290.2	1,599.5	458.4	849.8	291.3
<b>Transactions</b>												
2006	337.4	122.8	10.6	-122.7	0.5	100.6	6.5	219.0	193.3	58.6	96.2	38.5
2007	541.2	136.6	18.2	-86.7	1.5	267.3	9.5	194.7	163.6	51.8	59.7	52.0
2008 Q1	214.9	58.8	5.5	19.4	-0.6	43.0	14.8	74.1	-17.7	25.7	-8.1	-35.2
Q2 <sup>(p)</sup>	185.5	64.6	11.4	10.1	0.0	68.1	3.3	28.1	8.3	13.9	-2.9	-2.7
2008 Jan.	103.4	28.0	7.2	15.1	0.8	5.5	3.3	43.5	16.4	6.9	10.5	-1.0
Feb.	80.4	29.8	1.3	-1.6	-1.6	24.8	-0.5	28.2	-14.7	9.0	-20.0	-3.7
Mar.	31.1	0.9	-3.0	5.9	0.3	12.6	11.9	2.4	-19.4	9.7	1.4	-30.5
Apr.	77.7	19.9	3.8	10.5	0.6	24.9	3.2	14.8	61.7	5.6	52.8	3.3
May	94.7	42.3	7.1	7.0	-1.3	21.3	0.0	18.3	14.2	20.9	-6.8	0.2
June <sup>(p)</sup>	13.1	2.4	0.5	-7.4	0.7	21.9	0.1	-5.0	-67.6	-12.6	-48.8	-6.2
<b>Growth rates</b>												
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	18.6	13.6	15.2
2007 Sep.	8.6	6.3	27.1	-10.0	-5.7	31.7	49.2	21.0	11.1	20.7	2.3	24.4
Dec.	11.7	8.8	25.6	-6.9	10.5	42.9	33.4	17.7	11.1	13.9	7.5	17.7
2008 Jan.	11.9	8.9	32.7	-6.8	20.0	44.0	32.2	17.8	10.2	13.9	7.6	12.1
Feb.	12.6	10.1	26.4	-6.7	8.7	45.2	21.0	18.3	8.6	13.5	6.7	7.3
Mar.	11.8	8.7	24.7	-5.5	12.2	41.0	52.7	16.1	5.6	15.0	4.3	-2.9
Apr.	12.7	9.1	28.4	-2.8	16.2	40.3	59.4	15.7	5.2	13.7	3.9	-2.8
May	12.1	10.6	36.7	-4.8	4.3	38.5	59.6	13.6	4.3	12.6	4.1	-6.1
June <sup>(p)</sup>	11.7	10.9	36.5	-4.7	9.8	35.5	62.9	12.1	3.6	17.1	2.6	-10.1

## 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
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	-4.2	-1.2	-1.4	-1.6	-2.7	-0.2	-0.2	-2.3	-6.8	-0.8	-2.3	-3.7
2007 Q4	-1.6	-0.4	-0.6	-0.6	-1.2	-0.1	-0.1	-1.0	-2.2	-0.2	-1.1	-1.0
2008 Q1	-1.1	-0.4	-0.3	-0.4	-1.2	0.0	-0.1	-1.2	-1.3	-0.4	-0.2	-0.8
2008 Jan.	-0.5	-0.2	-0.1	-0.2	-0.7	0.0	0.0	-0.6	-0.6	-0.3	0.0	-0.3
Feb.	-0.3	-0.1	-0.1	-0.1	-0.2	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.2
Mar.	-0.3	-0.1	-0.1	-0.1	-0.4	0.0	0.0	-0.4	-0.5	-0.1	-0.1	-0.3
Apr.	-0.3	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.9	-0.1	-0.6	-0.2
May	-0.3	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.5	0.0	-0.3	-0.2
June <sup>6)</sup>	-0.3	0.0	-0.1	-0.1	-0.3	0.0	0.0	-0.3	-0.6	-0.1	-0.1	-0.4

**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
2006	-13.2	-3.5	-4.6	-5.1	-0.8	-0.1	-0.7
2007	-12.4	-2.1	-5.4	-4.9	-5.2	-3.4	-1.8
2007 Q4	-4.9	-0.9	-2.6	-1.4	-3.7	-3.3	-0.4
2008 Q1	-3.0	-1.2	-0.8	-1.0	-2.4	-1.8	-0.6
2008 Jan.	-1.5	-0.8	-0.3	-0.5	-0.3	-0.1	-0.3
Feb.	-0.4	-0.1	-0.2	-0.1	-0.2	0.0	-0.2
Mar.	-1.1	-0.3	-0.3	-0.4	-1.8	-1.7	-0.1
Apr.	-3.3	-0.5	-2.7	-0.2	0.0	0.0	0.1
May	-0.8	-0.2	-0.4	-0.3	-0.1	-0.1	0.0
June <sup>6)</sup>	-1.2	-0.2	-0.4	-0.6	0.0	0.0	0.0

**3. Revaluation of securities held by MFIs**

	Securities other than shares							Shares and other equity				
	Total	MFIs		General government		Other euro area residents		Non-euro area residents	Total	MFIs	Non-MFIs	Non-euro area residents
		Euro	Non-euro	Euro	Non-euro	Euro	Non-euro					
	1	2	3	4	5	6	7	8	9	10	11	12
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	-11.8	-2.7	0.0	0.6	-0.2	-2.5	-0.5	-6.5	13.6	3.2	9.6	0.8
2007 Q4	-4.0	-1.0	0.0	0.9	-0.1	-0.4	-0.2	-3.2	0.3	2.7	0.0	-2.4
2008 Q1	-20.3	-4.7	-0.2	0.4	-0.2	-4.8	-0.6	-10.2	-22.3	-1.3	-13.0	-7.9
2008 Jan.	-7.7	-3.4	0.0	2.6	0.0	-3.1	-0.1	-3.7	-15.8	-2.1	-9.2	-4.4
Feb.	-3.6	0.1	0.0	0.0	-0.1	-0.2	-0.3	-3.1	-3.2	0.0	-1.4	-1.8
Mar.	-9.0	-1.4	-0.1	-2.2	-0.2	-1.5	-0.2	-3.4	-3.3	0.7	-2.4	-1.6
Apr.	-2.7	0.5	0.0	-2.5	0.0	-0.1	-0.4	-0.2	3.6	0.7	1.4	1.4
May	-2.7	-0.3	0.0	-2.5	0.0	0.7	0.0	-0.6	-2.0	-1.6	-0.5	0.2
June <sup>6)</sup>	-10.2	-2.4	-0.1	-3.1	0.0	-2.2	-0.1	-2.3	-11.4	-2.2	-8.1	-1.2

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 Q2	5,573.0	90.5	9.5	5.8	0.4	1.3	1.1	8,448.3	96.3	3.7	2.3	0.3	0.1	0.6
Q3	5,700.7	91.2	8.8	5.3	0.4	1.3	1.0	8,554.3	96.1	3.9	2.4	0.3	0.1	0.6
Q4	6,089.4	92.1	7.9	4.8	0.4	1.1	1.0	8,993.0	96.4	3.6	2.2	0.4	0.1	0.5
2008 Q1 <sup>4)</sup>	6,148.9	91.8	8.2	4.8	0.5	1.3	1.0	9,150.3	96.4	3.6	2.1	0.4	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 Q2	2,898.6	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	2,963.4	46.2	53.8	33.6	2.6	2.3	11.9	913.6	49.5	50.5	33.8	1.1	1.9	9.6
Q4	2,962.9	46.7	53.3	33.7	2.9	2.5	11.0	893.3	50.3	49.7	32.8	1.6	1.6	10.0
2008 Q1 <sup>4)</sup>	3,100.0	48.0	52.0	33.3	2.9	2.7	10.1	939.8	52.3	47.7	32.0	1.4	1.5	8.9

### 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	3.2
2006	4,485.5	80.5	19.5	10.0	1.6	3.5
2007 Q2	4,797.0	80.2	19.8	10.1	1.6	3.7
Q3	4,862.4	80.8	19.2	9.7	1.7	3.6
Q4	4,948.0	81.4	18.6	9.3	1.7	3.4
2008 Q1 <sup>4)</sup>	4,993.3	82.1	17.9	8.8	1.7	3.3

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	USD	JPY	CHF			GBP	Total	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	4,933.5	-	-	-	-	-	9,970.8	96.4	3.6	1.6	0.2	1.1	0.5	
2007 Q2	5,264.9	-	-	-	-	-	10,509.4	96.2	3.8	1.8	0.2	1.0	0.6	
Q3	5,433.3	-	-	-	-	-	10,742.0	96.1	3.9	1.9	0.2	1.0	0.5	
Q4	5,789.0	-	-	-	-	-	11,116.0	96.2	3.8	1.8	0.2	0.9	0.6	
2008 Q1 <sup>(p)</sup>	5,837.0	-	-	-	-	-	11,412.6	96.1	3.9	1.8	0.2	1.0	0.6	
To non-euro area residents														
2005	1,722.1	48.5	51.5	30.5	4.3	2.0	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	863.4	39.3	60.7	43.2	1.1	4.0	8.6	
2007 Q2	2,334.1	50.3	49.7	28.7	1.9	2.4	952.0	39.4	60.6	43.1	1.0	3.8	8.4	
Q3	2,354.1	48.8	51.2	28.3	2.1	2.5	948.7	39.2	60.8	43.3	1.1	3.9	8.2	
Q4	2,337.9	48.0	52.0	28.9	2.3	2.4	957.2	40.9	59.1	41.3	1.2	3.7	8.2	
2008 Q1 <sup>(p)</sup>	2,396.4	48.1	51.9	28.7	2.6	2.6	1,017.0	43.1	56.9	39.3	1.3	4.2	7.6	

**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	USD	JPY	CHF			GBP	Total	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	1,980.9	97.8	2.2	1.1	0.3	0.1	0.5	
2006	1,632.9	95.6	4.4	2.3	0.2	0.3	1,922.5	97.6	2.4	1.3	0.3	0.1	0.7	
2007 Q2	1,716.7	95.4	4.6	2.2	0.3	0.3	2,044.6	97.6	2.4	1.3	0.3	0.1	0.7	
Q3	1,727.6	95.2	4.8	2.4	0.3	0.2	2,020.7	97.5	2.5	1.4	0.3	0.1	0.7	
Q4	1,737.0	95.2	4.8	2.4	0.3	0.3	2,143.9	97.7	2.3	1.4	0.2	0.1	0.5	
2008 Q1 <sup>(p)</sup>	1,815.4	95.2	4.8	2.6	0.3	0.3	2,221.7	97.2	2.8	1.8	0.3	0.1	0.4	
Issued by non-euro area residents														
2005	397.5	51.0	49.0	28.5	0.8	0.5	522.8	38.3	61.7	35.0	7.8	0.8	12.6	
2006	514.5	52.2	47.8	28.8	0.7	0.4	594.4	38.9	61.1	36.5	4.9	0.8	14.2	
2007 Q2	584.0	51.9	48.1	28.5	0.7	0.5	666.8	37.4	62.6	36.9	4.3	0.7	15.7	
Q3	573.8	53.9	46.1	26.7	0.7	0.4	650.7	35.3	64.7	38.9	4.1	0.7	14.5	
Q4	580.5	53.8	46.2	27.4	0.7	0.4	652.3	35.8	64.2	39.4	4.5	0.8	12.6	
2008 Q1 <sup>(p)</sup>	633.5	51.2	48.8	29.8	0.8	0.5	630.9	37.7	62.3	37.5	5.0	0.8	11.7	

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 Q4	5,552.3	320.9	2,005.6	170.7	1,834.9	2,024.9	670.9	185.8	344.3
2007 Q1	5,714.1	332.6	2,031.4	181.0	1,850.4	2,071.8	719.1	186.6	372.7
Q2	5,989.4	346.5	2,043.5	192.9	1,850.7	2,219.0	784.4	179.7	416.4
Q3	5,892.8	358.3	2,015.0	187.0	1,828.0	2,168.5	773.6	180.6	396.6
Q4	5,781.3	353.4	1,993.4	184.1	1,809.3	2,077.4	784.0	189.1	384.0
2008 Q1 <sup>(a)</sup>	5,150.8	367.0	1,855.5	164.5	1,690.9	1,664.1	716.2	197.1	350.8

### 2. Liabilities

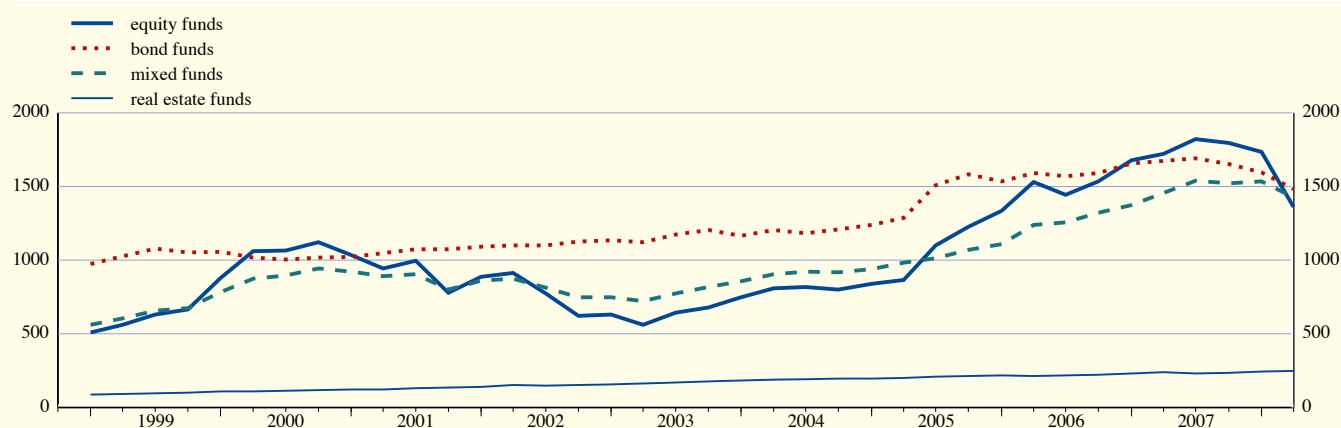
	Total 1	Deposits and loans taken 2	Investment fund shares 3	Other liabilities 4
2006 Q4	5,552.3	76.6	5,218.7	257.1
2007 Q1	5,714.1	80.9	5,350.8	282.5
Q2	5,989.4	84.3	5,587.7	317.4
Q3	5,892.8	78.5	5,496.8	317.5
Q4	5,781.3	76.8	5,411.5	293.0
2008 Q1 <sup>(a)</sup>	5,150.8	76.2	4,835.6	238.9

### 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 Q4	5,552.3	1,681.6	1,656.3	1,376.5	231.8	606.2	4,252.7	1,299.6
2007 Q1	5,714.1	1,724.1	1,674.1	1,459.8	238.5	617.7	4,373.2	1,341.0
Q2	5,989.4	1,825.7	1,692.2	1,539.7	230.8	701.0	4,577.1	1,412.4
Q3	5,892.8	1,797.1	1,654.6	1,523.2	236.1	681.7	4,468.3	1,424.5
Q4	5,781.3	1,735.5	1,596.8	1,535.4	244.2	669.4	4,344.6	1,436.7
2008 Q1 <sup>(a)</sup>	5,150.8	1,361.3	1,483.5	1,427.7	249.6	628.7	3,779.1	1,371.6

### CI4 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 Q4	1,681.6	56.2	66.0	22.7	43.3	1,429.9	74.5	-	54.9
2007 Q1	1,724.1	59.4	65.8	25.7	40.0	1,461.7	78.6	-	58.6
Q2	1,825.7	61.1	67.9	27.4	40.5	1,546.6	84.2	-	65.9
Q3	1,797.1	72.0	68.7	26.7	41.9	1,505.5	82.4	-	68.5
Q4	1,735.5	58.1	71.8	26.5	45.2	1,464.2	79.5	-	61.9
2008 Q1 <sup>(p)</sup>	1,361.3	51.0	63.0	21.3	41.7	1,129.9	65.7	-	51.6
<b>Bond funds</b>									
2006 Q4	1,656.3	108.3	1,342.9	91.1	1,251.8	45.4	49.8	-	109.9
2007 Q1	1,674.1	112.3	1,355.7	95.1	1,260.6	44.5	52.5	-	109.0
Q2	1,692.2	114.9	1,345.5	99.5	1,246.0	62.8	55.8	-	113.2
Q3	1,654.6	109.9	1,318.4	97.0	1,221.5	62.6	53.3	-	110.4
Q4	1,596.8	116.1	1,273.1	92.7	1,180.4	58.0	49.8	-	99.8
2008 Q1 <sup>(p)</sup>	1,483.5	124.8	1,167.8	80.2	1,087.6	56.8	45.4	-	88.6
<b>Mixed funds</b>									
2006 Q4	1,376.5	71.0	519.8	43.5	476.3	364.3	292.9	0.4	128.2
2007 Q1	1,459.8	73.8	530.9	45.5	485.4	380.9	322.3	0.3	151.5
Q2	1,539.7	84.0	529.5	50.2	479.3	399.0	346.5	0.9	179.8
Q3	1,523.2	86.2	522.6	46.3	476.3	405.4	345.1	0.5	163.3
Q4	1,535.4	89.7	547.0	47.3	499.7	393.1	343.6	0.7	161.4
2008 Q1 <sup>(p)</sup>	1,427.7	97.8	527.8	46.5	481.3	338.8	313.9	1.2	148.1
<b>Real estate funds</b>									
2006 Q4	231.8	17.6	6.1	1.7	4.4	4.3	7.0	184.9	11.9
2007 Q1	238.5	18.9	6.7	1.9	4.8	4.6	9.6	186.1	12.6
Q2	230.8	18.8	6.6	1.9	4.7	4.3	10.0	178.1	12.9
Q3	236.1	20.7	6.4	1.6	4.8	3.9	13.1	179.2	12.8
Q4	244.2	19.7	6.0	1.5	4.5	3.4	12.5	187.9	14.7
2008 Q1 <sup>(p)</sup>	249.6	19.9	5.3	1.1	4.2	3.1	11.3	195.4	14.6

**2. Funds by type of investor**

	Total 1	Deposits 2	Holdings of securities other than shares 3	Holdings of shares/ other equity 4	Holdings of investment fund shares 5	Fixed assets 6	Other assets 7
2006 Q4	4,252.7	265.6	1,402.2	1,653.0	498.4	153.1	280.6
2007 Q1	4,373.2	274.4	1,420.5	1,696.3	529.1	153.3	299.5
Q2	4,577.1	281.1	1,431.2	1,819.5	576.6	145.0	323.7
Q3	4,468.3	287.9	1,375.7	1,791.2	564.1	142.9	306.4
Q4	4,344.6	279.9	1,336.9	1,717.4	569.6	149.1	291.8
2008 Q1 <sup>(p)</sup>	3,779.1	279.1	1,218.4	1,360.8	513.6	154.1	253.2
<b>Special investors' funds</b>							
2006 Q4	1,299.6	55.3	603.4	371.9	172.6	32.7	63.7
2007 Q1	1,341.0	58.2	610.9	375.5	189.9	33.3	73.2
Q2	1,412.4	65.4	612.4	399.5	207.8	34.7	92.7
Q3	1,424.5	70.4	639.3	377.3	209.5	37.7	90.2
Q4	1,436.7	73.4	656.6	360.0	214.5	40.0	92.2
2008 Q1 <sup>(p)</sup>	1,371.6	87.9	637.1	303.3	202.6	43.0	97.6

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>2008 Q1</b>						
<b>External account</b>						
Exports of goods and services						500.7
<i>Trade balance</i> <sup>1)</sup>						-4.4
<b>Generation of income account</b>						
Gross value added (basic prices)						
Taxes less subsidies on products						
Gross domestic product (market prices)						
Compensation of employees	1,038.7	105.0	659.7	55.0	219.0	
Other taxes less subsidies on production	23.4	3.2	12.9	3.7	3.6	
Consumption of fixed capital	328.1	89.9	184.3	11.1	42.8	
<i>Net operating surplus and mixed income</i> <sup>1)</sup>	604.7	297.4	281.4	27.1	-1.2	
<b>Allocation of primary income account</b>						
Net operating surplus and mixed income						4.5
Compensation of employees						
Taxes less subsidies on production						
Property income	800.5	52.8	280.4	401.4	65.9	144.1
Interest	514.2	50.7	86.0	311.7	65.8	85.7
Other property income	286.2	2.1	194.4	89.6	0.1	58.3
<i>Net national income</i> <sup>1)</sup>	1,914.9	1,547.7	107.3	41.2	218.6	
<b>Secondary distribution of income account</b>						
Net national income						
Current taxes on income, wealth, etc.	235.9	200.8	26.8	8.1	0.3	1.3
Social contributions	393.7	393.7				0.7
Social benefits other than social transfers in kind	395.6	1.4	16.0	26.5	351.7	0.7
Other current transfers	192.9	70.1	25.6	47.0	50.2	9.7
Net non-life insurance premiums	44.8	32.6	10.5	1.0	0.7	1.4
Non-life insurance claims	45.0			45.0		0.7
Other	103.0	37.4	15.0	1.1	49.5	7.6
<i>Net disposable income</i> <sup>1)</sup>	1,884.1	1,364.7	69.0	44.8	405.6	
<b>Use of income account</b>						
Net disposable income						
Final consumption expenditure	1,718.8	1,282.5			436.4	
Individual consumption expenditure	1,549.2	1,282.5			266.7	
Collective consumption expenditure	169.6				169.6	
Adjustment for the change in net equity of households in pension fund reserves	14.7	0.0	1.9	12.8	0.0	0.1
<i>Net saving/current external account</i> <sup>1)</sup>	165.3	97.0	67.1	31.9	-30.7	22.9
<b>Capital account</b>						
Net saving / current external account						
Gross capital formation	516.3	162.4	296.4	12.0	45.5	
Gross fixed capital formation	483.0	160.0	265.9	12.0	45.0	
Changes in inventories and acquisitions less disposals of valuables	33.3	2.4	30.4	0.0	0.4	
Consumption of fixed capital						
Acquisitions less disposals of non-produced non-financial assets	0.0	-0.5	0.5	0.1	-0.1	0.0
Capital transfers	35.4	7.4	1.6	1.3	25.2	9.1
Capital taxes	5.5	5.3	0.2	0.0		0.0
Other capital transfers	29.9	2.1	1.3	1.3	25.2	9.1
<i>Net lending (+)/net borrowing (-) (from capital account)</i> <sup>1)</sup>	-16.7	33.1	-31.0	30.5	-49.3	16.7
Statistical discrepancy	0.0	8.3	-8.3	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
<b>2008 Q1</b>						
<b>External account</b>						
Imports of goods and services						496.3
<i>Trade balance</i>						
<b>Generation of income account</b>						
Gross value added (basic prices)	1,995.0	495.6	1,138.3	96.9	264.2	
Taxes less subsidies on products	244.5					
Gross domestic product (market prices) <sup>2)</sup>	2,239.5					
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	604.7	297.4	281.4	27.1	-1.2	
Compensation of employees	1,041.2	1,041.2				2.1
Taxes less subsidies on production	267.2				267.2	0.7
Property income	802.2	261.9	106.4	415.5	18.5	142.4
Interest	499.0	78.2	46.7	367.1	7.1	100.9
Other property income	303.2	183.7	59.6	48.4	11.4	41.4
<i>Net national income</i>						
<b>Secondary distribution of income account</b>						
Net national income	1,914.9	1,547.7	107.3	41.2	218.6	
Current taxes on income, wealth, etc.	236.7				236.7	0.5
Social contributions	393.3	1.0	18.0	39.1	335.1	1.1
Social benefits other than social transfers in kind	393.2	393.2				3.2
Other current transfers	164.2	88.8	12.0	46.1	17.4	38.4
Net non-life insurance premiums	45.0			45.0		1.2
Non-life insurance claims	44.2	35.1	8.2	0.7	0.3	1.5
Other	74.9	53.7	3.8	0.4	17.1	35.7
<i>Net disposable income</i>						
<b>Use of income account</b>						
Net disposable income	1,884.1	1,364.7	69.0	44.8	405.6	
Final consumption expenditure						
Individual consumption expenditure						
Collective consumption expenditure						
Adjustment for the change in net equity of households in pension fund reserves	14.8	14.8				0.0
<i>Net saving/current external account</i>						
<b>Capital account</b>						
Net saving / current external account	165.3	97.0	67.1	31.9	-30.7	22.9
Gross capital formation						
Gross fixed capital formation						
Changes in inventories and acquisitions less disposals of valuables						
Consumption of fixed capital	328.1	89.9	184.3	11.1	42.8	
Acquisitions less disposals of non-produced non-financial assets						
Capital transfers	41.5	15.5	16.1	0.9	9.1	2.9
Capital taxes	5.5				5.5	0.0
Other capital transfers	36.0	15.5	16.1	0.9	3.6	2.9
<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 inter- mediaries	Insurance corporations and pension funds	General govern- ment	Rest of the world
2008 Q1								
<b>Opening balance sheet, financial assets</b>								
Total financial assets		17,664.5	14,877.4	22,398.3	10,217.1	6,229.4	2,911.7	15,161.4
Monetary gold and special drawing rights (SDRs)				205.6				
Currency and deposits		5,695.7	1,767.4	2,478.4	1,533.3	799.4	534.2	4,008.9
Short-term debt securities		48.9	130.7	117.8	297.4	260.7	40.2	771.1
Long-term debt securities		1,300.7	211.9	3,671.0	1,919.4	1,960.6	225.7	2,458.4
Loans		40.3	2,113.1	12,173.6	1,490.0	337.8	379.4	1,677.8
<i>of which long-term</i>		23.9	1,201.2	9,239.0	1,166.0	295.0	329.5	.
Shares and other equity		5,064.4	7,774.3	1,897.5	4,779.0	2,397.2	1,175.3	5,429.8
Quoted shares		1,137.1	1,939.6	725.1	2,509.0	846.2	441.7	.
Unquoted shares and other equity		2,320.2	5,474.7	909.5	1,562.4	467.3	585.0	.
Mutual fund shares		1,607.0	360.0	262.8	707.6	1,083.6	148.6	.
Insurance technical reserves		5,212.4	134.2	2.0	0.0	148.0	3.3	230.9
Other accounts receivable and financial derivatives		302.2	2,745.7	1,852.5	198.0	325.7	553.6	584.6
<i>Net financial worth</i>								
<b>Financial account, transactions in financial assets</b>								
Total transactions in financial assets		114.8	144.6	759.1	-10.0	107.6	15.1	489.3
Monetary gold and special drawing rights (SDRs)				-0.9				0.9
Currency and deposits		53.5	-29.3	119.7	74.8	29.0	31.3	286.3
Short-term debt securities		12.5	23.8	12.3	52.4	4.4	-11.9	6.4
Long-term debt securities		32.1	-34.3	157.1	-100.3	25.6	-4.1	67.8
Loans		-0.3	18.2	354.4	24.3	24.6	-13.1	33.9
<i>of which long-term</i>		-0.4	18.3	159.7	14.9	2.3	-0.3	.
Shares and other equity		-61.9	127.5	-22.9	-69.5	23.1	6.9	81.2
Quoted shares		-22.8	51.2	-16.8	-76.5	8.3	-0.1	.
Unquoted shares and other equity		-4.3	74.5	7.0	13.7	2.9	0.1	.
Mutual fund shares		-34.8	1.9	-13.0	-6.8	11.9	6.9	.
Insurance technical reserves		57.2	3.0	0.0	0.0	-1.4	0.0	5.7
Other accounts receivable and financial derivatives		21.8	35.6	139.5	8.3	2.3	6.0	7.2
<i>Changes in net financial worth due to transactions</i>								
<b>Other changes account, financial assets</b>								
Total other changes in financial assets		-551.1	-712.3	-399.7	-494.8	-143.8	-98.6	-615.3
Monetary gold and special drawing rights (SDRs)				8.0				
Currency and deposits		1.6	-2.2	-89.7	-23.4	1.4	-5.2	-116.3
Short-term debt securities		-3.6	-12.0	0.3	-8.9	3.1	0.0	-12.4
Long-term debt securities		-1.4	24.8	-67.3	-20.2	3.6	1.2	-16.8
Loans		0.6	-4.1	-73.0	19.9	-5.1	0.2	-9.3
<i>of which long-term</i>		0.4	-1.6	-43.6	22.3	0.9	0.1	.
Shares and other equity		-506.4	-737.0	-74.3	-455.2	-147.7	-89.1	-431.1
Quoted shares		-191.7	-224.1	-71.4	-323.1	-75.6	-81.0	.
Unquoted shares and other equity		-228.9	-498.2	1.4	-77.2	-30.4	2.8	.
Mutual fund shares		-85.8	-14.8	-4.4	-54.9	-41.8	-10.8	.
Insurance technical reserves		-44.8	0.0	0.0	0.0	-0.1	0.0	0.3
Other accounts receivable and financial derivatives		3.0	18.2	-103.7	-7.1	1.1	-5.7	-29.9
<i>Other changes in net financial worth</i>								
<b>Closing balance sheet, financial assets</b>								
Total financial assets		17,228.2	14,309.7	22,757.7	9,712.3	6,193.2	2,828.3	15,034.5
Monetary gold and special drawing rights (SDRs)				212.8				
Currency and deposits		5,750.8	1,735.9	2,508.4	1,584.7	829.8	560.4	4,178.9
Short-term debt securities		57.8	142.5	130.3	340.9	268.1	28.2	765.1
Long-term debt securities		1,331.4	202.4	3,760.8	1,799.0	1,989.8	222.9	2,509.4
Loans		40.5	2,127.3	12,454.9	1,534.3	357.3	366.5	1,702.4
<i>of which long-term</i>		23.9	1,217.9	9,355.1	1,203.2	298.2	329.3	.
Shares and other equity		4,496.0	7,164.8	1,800.2	4,254.3	2,272.5	1,093.1	5,079.9
Quoted shares		922.6	1,766.7	636.9	2,109.5	779.0	360.6	.
Unquoted shares and other equity		2,087.0	5,051.0	918.0	1,498.9	439.9	587.9	.
Mutual fund shares		1,486.5	347.1	245.4	645.9	1,053.7	144.7	.
Insurance technical reserves		5,224.8	137.2	2.0	0.0	146.5	3.3	236.9
Other accounts receivable and financial derivatives		326.9	2,799.5	1,888.3	199.1	329.2	553.8	561.9
<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 intermediaries	Insurance corporations and pension funds	General government	Rest of the world
<b>2008 Q1</b>								
<b>Opening balance sheet, liabilities</b>								
Total liabilities		5,919.1	24,006.2	22,379.7	10,119.9	6,431.2	6,798.0	13,600.0
Monetary gold and special drawing rights (SDRs)								
Currency and deposits			24.9	13,780.5	88.7	4.5	253.0	2,665.6
Short-term debt securities			277.4	448.9	87.4	0.6	611.3	241.1
Long-term debt securities			451.8	2,729.3	1,624.2	26.8	4,344.7	2,571.1
Loans		5,345.7	7,175.1		1,570.2	166.1	1,180.3	2,774.6
<i>of which long-term</i>		5,028.5	4,930.2		782.9	65.8	1,039.9	.
Shares and other equity			13,261.9	3,141.4	6,564.7	666.4	3.6	4,879.4
Quoted shares			4,972.8	1,009.5	263.6	277.3	0.0	.
Unquoted shares and other equity			8,289.1	1,097.1	975.9	388.4	3.6	.
Mutual fund shares				1,034.9	5,325.2			.
Insurance technical reserves		33.1	334.8	53.7	0.6	5,308.2	0.5	
Other accounts payable and financial derivatives		540.3	2,480.3	2,226.0	184.1	258.6	404.5	468.3
<i>Net financial worth<sup>1)</sup></i>	-1,355.8	11,745.4	-9,128.8	18.6	97.1	-201.9	-3,886.3	
<b>Financial account, transactions in liabilities</b>								
Total transactions in liabilities		73.5	183.8	735.6	-4.9	95.5	64.4	472.7
Monetary gold and special drawing rights (SDRs)								
Currency and deposits			0.0	443.9	1.9	-0.1	-15.3	134.9
Short-term debt securities			12.3	-19.5	-1.7	0.0	47.5	61.5
Long-term debt securities			-0.2	28.8	34.8	-0.1	47.3	33.4
Loans		38.8	136.0		73.7	12.6	5.9	175.0
<i>of which long-term</i>		41.4	87.3		14.6	0.2	-17.1	.
Shares and other equity			41.3	96.8	-99.5	3.3	0.0	42.4
Quoted shares			-1.8	6.6	-1.3	0.1	0.0	.
Unquoted shares and other equity			43.2	-2.8	-9.2	3.2	0.0	.
Mutual fund shares				93.0	-89.0			.
Insurance technical reserves		0.0	2.1	0.5	0.0	61.9	0.0	
Other accounts payable and financial derivatives		34.7	-7.7	185.2	-14.1	18.0	-21.0	25.6
<i>Changes in net financial worth due to transactions<sup>1)</sup></i>	-16.7	41.4	-39.3	23.5	-5.1	12.1	-49.3	16.7
<b>Other changes account, liabilities</b>								
Total other changes in liabilities		8.1	-1,332.5	-525.3	-513.5	-102.9	32.5	-590.0
Monetary gold and special drawing rights (SDRs)								
Currency and deposits			0.1	-175.2	-3.5	0.0	0.0	-55.0
Short-term debt securities			-0.6	-18.6	10.1	0.0	-0.5	-24.0
Long-term debt securities			-1.2	-31.2	-15.8	-0.8	50.8	-77.9
Loans		0.6	15.7		-22.3	0.0	0.0	-64.8
<i>of which long-term</i>		1.7	19.5		-14.7	0.3	0.0	.
Shares and other equity			-1,363.4	-208.4	-477.6	-58.4	-0.6	-332.5
Quoted shares			-772.7	-159.2	-33.6	-33.2	0.0	.
Unquoted shares and other equity			-590.7	-77.9	-21.2	-25.2	-0.6	.
Mutual fund shares				28.7	-422.8			.
Insurance technical reserves		0.0	0.6	0.4	0.0	-45.6	0.0	
Other accounts payable and financial derivatives		7.4	16.3	-92.4	-4.4	1.9	-17.2	-35.8
<i>Other changes in net financial worth<sup>1)</sup></i>	33.4	-559.1	620.3	125.6	18.7	-40.9	-131.1	-25.4
<b>Closing balance sheet, liabilities</b>								
Total liabilities		6,000.6	22,857.5	22,590.0	9,601.6	6,423.9	6,894.9	13,482.7
Monetary gold and special drawing rights (SDRs)								
Currency and deposits			25.0	14,049.2	87.1	4.4	237.7	2,745.5
Short-term debt securities			289.1	410.7	95.9	0.6	658.2	278.5
Long-term debt securities			450.4	2,727.0	1,643.2	25.9	4,442.8	2,526.6
Loans		5,385.1	7,326.7		1,621.6	178.7	1,186.3	2,884.8
<i>of which long-term</i>		5,071.5	5,037.0		782.7	66.3	1,022.9	.
Shares and other equity			11,939.9	3,029.8	5,987.6	611.3	3.0	4,589.3
Quoted shares			4,198.3	856.9	228.6	244.2	0.0	.
Unquoted shares and other equity			7,741.5	1,016.3	945.6	366.4	3.0	.
Mutual fund shares				1,156.6	4,813.4			.
Insurance technical reserves		33.1	337.4	54.6	0.6	5,324.5	0.5	
Other accounts payable and financial derivatives		582.4	2,489.0	2,318.8	165.5	278.5	366.4	458.0
<i>Net financial worth<sup>1)</sup></i>	-1,339.1	11,227.6	-8,547.9	167.7	110.7	-230.6	-4,066.6	

Source: ECB.



### 3.2 Euro area non-financial accounts

(EUR billions; four-quarter cumulated flows)

Uses	2004	2005	2006	2006 Q2- 2007 Q1	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3	2007 Q1- 2007 Q4	2007 Q2- 2008 Q1
<b>Generation of income account</b>								
Gross value added (basic prices)								
Taxes less subsidies on products								
Gross domestic product (market prices)								
Compensation of employees	3,779.8	3,889.7	4,046.4	4,089.8	4,132.2	4,172.5	4,222.4	4,267.7
Other taxes less subsidies on production	121.4	129.5	128.8	131.2	133.4	134.1	135.5	135.2
Consumption of fixed capital	1,121.3	1,174.4	1,228.2	1,242.0	1,255.4	1,268.3	1,281.9	1,294.1
<i>Net operating surplus and mixed income</i> <sup>1)</sup>	1,996.7	2,068.8	2,172.1	2,207.1	2,243.1	2,284.5	2,311.2	2,332.1
<b>Allocation of primary income account</b>								
Net operating surplus and mixed income								
Compensation of employees								
Taxes less subsidies on production								
Property income	2,343.5	2,565.1	2,958.2	3,058.1	3,186.4	3,274.8	3,364.5	3,432.6
Interest	1,246.1	1,336.9	1,618.5	1,699.7	1,781.6	1,857.9	1,937.7	1,999.1
Other property income	1,097.4	1,228.1	1,339.7	1,358.4	1,404.9	1,416.9	1,426.8	1,433.5
<i>Net national income</i> <sup>1)</sup>	6,693.0	6,939.9	7,269.4	7,364.4	7,451.9	7,545.2	7,634.4	7,702.1
<b>Secondary distribution of income account</b>								
Net national income								
Current taxes on income, wealth, etc.	883.7	933.5	1,024.5	1,037.7	1,060.2	1,084.9	1,108.3	1,122.2
Social contributions	1,429.6	1,472.1	1,536.6	1,549.5	1,563.2	1,575.2	1,590.8	1,606.9
Social benefits other than social transfers in kind	1,455.9	1,499.3	1,548.4	1,556.6	1,565.4	1,575.3	1,591.4	1,602.7
Other current transfers	685.2	707.7	714.1	718.8	725.6	729.2	737.0	744.8
Net non-life insurance premiums	175.8	175.8	175.5	176.7	178.1	178.8	179.8	180.0
Non-life insurance claims	176.4	176.9	175.6	177.1	178.4	178.9	179.7	179.8
Other	333.0	355.0	363.0	365.0	369.1	371.5	377.5	385.0
<i>Net disposable income</i> <sup>1)</sup>	6,614.8	6,851.5	7,177.8	7,273.4	7,361.9	7,455.0	7,542.6	7,605.1
<b>Use of income account</b>								
Net disposable income								
Final consumption expenditure	6,091.0	6,329.2	6,588.9	6,645.6	6,700.6	6,759.8	6,825.9	6,893.2
Individual consumption expenditure	5,440.7	5,661.1	5,906.1	5,957.3	6,008.1	6,061.1	6,120.6	6,181.9
Collective consumption expenditure	650.3	668.2	682.8	688.3	692.5	698.7	705.3	711.3
Adjustment for the change in net equity of households in pension funds reserves	57.3	60.1	62.1	62.1	60.2	60.5	60.9	61.9
<i>Net saving</i> <sup>1)</sup>	524.0	522.5	589.3	628.2	661.6	695.5	717.0	712.1
<b>Capital account</b>								
Net saving								
Gross capital formation	1,611.4	1,707.9	1,849.7	1,891.9	1,923.1	1,952.9	1,986.0	2,006.8
Gross fixed capital formation	1,602.1	1,696.5	1,826.2	1,871.2	1,904.5	1,932.8	1,960.7	1,978.8
Changes in inventories and acquisitions less disposals of valuables	9.3	11.4	23.4	20.6	18.6	20.0	25.3	28.0
Consumption of fixed capital								
Acquisitions less disposals of non-produced non-financial assets	-1.2	-0.1	0.5	0.1	0.0	-0.2	-0.3	-0.2
Capital transfers	172.9	180.6	174.3	173.2	170.7	169.6	160.3	159.6
Capital taxes	29.9	24.4	22.3	22.9	23.4	24.1	24.0	23.7
Other capital transfers	143.0	156.2	152.0	150.2	147.3	145.5	136.3	136.0
<i>Net lending (+)/net borrowing (-) (from capital account)</i> <sup>1)</sup>	51.8	2.8	-17.4	-3.8	11.2	27.6	29.9	17.0

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	2004	2005	2006	2006 Q2- 2007 Q1	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3	2007 Q1- 2007 Q4	2007 Q2- 2008 Q1
<b>Generation of income account</b>								
Gross value added (basic prices)	7,019.3	7,262.4	7,575.5	7,670.1	7,764.2	7,859.3	7,951.0	8,029.2
Taxes less subsidies on products	799.8	842.5	910.1	926.4	937.0	947.1	953.7	955.9
Gross domestic product (market prices) <sup>2)</sup>	7,819.1	8,104.9	8,485.6	8,596.5	8,701.2	8,806.4	8,904.7	8,985.1
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	1,996.7	2,068.8	2,172.1	2,207.1	2,243.1	2,284.5	2,311.2	2,332.1
Compensation of employees	3,786.8	3,895.3	4,052.4	4,095.8	4,138.3	4,178.6	4,228.7	4,274.4
Taxes less subsidies on production	934.9	983.7	1,050.2	1,067.2	1,079.9	1,090.0	1,098.0	1,098.9
Property income	2,318.0	2,557.2	2,952.9	3,052.4	3,176.9	3,266.9	3,361.0	3,429.4
Interest	1,215.0	1,309.4	1,587.3	1,667.5	1,751.3	1,825.6	1,903.2	1,957.9
Other property income	1,102.9	1,247.8	1,365.6	1,384.9	1,425.6	1,441.3	1,457.9	1,471.5
<i>Net national income</i>								
<b>Secondary distribution of income account</b>								
Net national income	6,693.0	6,939.9	7,269.4	7,364.4	7,451.9	7,545.2	7,634.4	7,702.1
Current taxes on income, wealth, etc.	886.8	937.1	1,029.2	1,042.8	1,067.0	1,092.3	1,115.6	1,129.2
Social contributions	1,428.8	1,471.5	1,536.0	1,549.0	1,562.5	1,574.5	1,590.2	1,606.1
Social benefits other than social transfers in kind	1,448.4	1,491.7	1,540.5	1,548.4	1,557.0	1,566.6	1,582.7	1,593.7
Other current transfers	612.4	623.9	626.4	631.5	637.9	641.2	647.2	650.7
Net non-life insurance premiums	176.4	176.9	175.6	177.1	178.4	178.9	179.7	179.8
Non-life insurance claims	173.6	174.5	173.0	174.3	175.9	176.6	177.5	177.6
Other	262.3	272.5	277.7	280.1	283.6	285.7	290.1	293.3
<i>Net disposable income</i>								
<b>Use of income account</b>								
Net disposable income	6,614.8	6,851.5	7,177.8	7,273.4	7,361.9	7,455.0	7,542.6	7,605.1
Final consumption expenditure								
Individual consumption expenditure								
Collective consumption expenditure								
Adjustment for the change in net equity of households in pension funds reserves	57.5	60.4	62.4	62.4	60.5	60.7	61.2	62.1
<i>Net saving</i>								
<b>Capital account</b>								
Net saving	524.0	522.5	589.3	628.2	661.6	695.5	717.0	712.1
Gross capital formation								
Gross fixed capital formation								
Changes in inventories and acquisitions less disposals of valuables								
Consumption of fixed capital	1,121.3	1,174.4	1,228.2	1,242.0	1,255.4	1,268.3	1,281.9	1,294.1
Acquisitions less disposals of non-produced non-financial assets								
Capital transfers	189.5	194.3	189.6	191.0	187.9	185.9	177.1	176.9
Capital taxes	29.9	24.4	22.3	22.9	23.4	24.1	24.0	23.7
Other capital transfers	159.6	169.9	167.3	168.1	164.5	161.9	153.1	153.3
<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)

	2004	2005	2006	2006 Q2- 2007 Q1	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3	2007 Q1- 2007 Q4	2007 Q2- 2008 Q1
<b>Income, saving and changes in net worth</b>								
Compensation of employees (+)	3,786.8	3,895.3	4,052.4	4,095.8	4,138.3	4,178.6	4,228.7	4,274.4
Gross operating surplus and mixed income (+)	1,285.1	1,334.4	1,408.7	1,431.2	1,454.6	1,477.1	1,494.6	1,513.8
Interest receivable (+)	230.7	228.3	263.7	272.8	281.3	289.9	300.2	307.5
Interest payable (-)	125.3	129.8	162.3	172.1	182.4	190.6	199.2	204.0
Other property income receivable (+)	651.5	697.9	740.5	745.8	758.3	761.6	766.4	767.2
Other property income payable (-)	9.2	9.5	9.7	9.7	9.8	9.7	9.8	9.7
Current taxes on income and wealth (-)	706.5	739.2	791.8	800.1	813.9	830.7	850.4	863.1
Net social contributions (-)	1,425.9	1,468.1	1,532.5	1,545.3	1,559.0	1,570.9	1,586.6	1,602.6
Net social benefits (+)	1,443.5	1,486.5	1,535.0	1,542.9	1,551.4	1,560.9	1,577.0	1,588.1
Net current transfers receivable (+)	65.1	67.6	65.3	67.3	67.9	68.2	69.3	69.2
<b>= Gross disposable income</b>	5,195.7	5,363.3	5,569.2	5,628.6	5,686.8	5,734.4	5,790.1	5,840.7
Final consumption expenditure (-)	4,496.8	4,670.2	4,864.9	4,904.7	4,946.7	4,989.1	5,036.4	5,089.2
Changes in net worth in pension funds (+)	57.1	60.0	62.0	62.0	60.3	60.6	61.2	62.2
<b>= Gross saving</b>	756.0	753.1	766.3	785.9	800.4	805.9	814.9	813.8
Consumption of fixed capital (-)	304.1	319.5	336.5	340.6	344.5	347.5	350.6	353.9
Net capital transfers receivable (+)	18.5	24.4	26.2	25.4	22.7	19.9	14.3	12.7
Other changes in net worth <sup>1)</sup> (+)	301.6	542.9	508.7	420.1	643.6	259.2	-38.2	-776.6
<b>= Changes in net worth <sup>1)</sup></b>	771.9	1,000.9	964.7	890.8	1,122.2	737.4	440.4	-304.1
<b>Investment, financing and changes in net worth</b>								
Net acquisition of non-financial assets (+)	525.7	559.3	614.6	630.5	641.5	648.1	652.7	654.4
Consumption of fixed capital (-)	304.1	319.5	336.5	340.6	344.5	347.5	350.6	353.9
Main items of financial investment (+)								
Short-term assets	214.8	207.4	306.3	347.8	379.8	394.5	420.3	447.0
Currency and deposits	213.0	247.9	283.8	293.2	316.9	328.3	348.0	381.9
Money market fund shares	-6.4	-20.2	0.7	25.7	44.7	44.4	43.5	41.3
Debt securities <sup>2)</sup>	8.2	-20.3	21.8	28.9	18.2	21.9	28.8	23.7
Long-term assets	343.6	432.8	328.7	281.8	237.8	194.5	178.8	107.9
Deposits	29.8	-8.4	5.1	-10.9	-22.7	-31.5	-34.6	-31.6
Debt securities	64.0	7.8	71.6	54.9	41.9	14.2	32.7	49.9
Shares and other equity	-2.6	139.4	-39.0	-44.3	-63.2	-59.1	-75.0	-143.6
Quoted, unquoted shares and other equity	-10.5	67.3	-8.8	16.8	9.3	22.3	9.4	-26.9
Mutual fund shares	7.9	72.2	-30.2	-61.1	-72.5	-81.4	-84.4	-116.7
Life insurance and pension fund reserves	252.5	294.0	291.0	282.1	281.8	270.8	255.8	233.2
Main items of financing (-)								
Loans	309.1	393.1	391.2	384.8	366.0	361.9	343.8	303.8
of which from euro area MFIs	280.8	372.8	348.3	340.1	317.4	303.2	283.1	249.7
Other changes in financial assets (+)								
Shares and other equity	255.9	478.0	475.2	383.2	599.7	232.9	-56.9	-723.9
Life insurance and pension fund reserves	49.2	102.9	56.8	39.2	65.9	32.1	14.8	-32.4
Remaining net flows (+)	-4.2	-66.9	-89.3	-66.3	-92.0	-55.3	-74.9	-99.5
<b>= Changes in net worth <sup>1)</sup></b>	771.9	1,000.9	964.7	890.8	1,122.2	737.4	440.4	-304.1
<b>Financial balance sheet</b>								
Financial assets (+)								
Short-term assets	4,275.6	4,493.6	4,754.1	4,831.2	4,970.9	5,017.6	5,206.7	5,363.6
Currency and deposits	3,926.0	4,176.7	4,456.5	4,497.3	4,613.3	4,653.9	4,844.7	4,935.1
Money market fund shares	313.9	300.5	261.7	281.0	305.0	304.3	303.7	359.3
Debt securities <sup>2)</sup>	35.6	16.4	35.8	52.9	52.6	59.4	58.2	69.1
Long-term assets	9,775.0	10,800.9	11,690.6	11,903.1	12,016.4	11,842.3	11,771.6	11,148.2
Deposits	865.9	910.7	918.4	893.1	882.9	880.3	851.0	815.7
Debt securities	1,251.0	1,224.4	1,283.0	1,293.8	1,258.9	1,263.3	1,291.3	1,320.0
Shares and other equity	3,804.6	4,415.3	4,891.0	5,041.1	5,110.4	4,886.8	4,760.7	4,136.7
Quoted, unquoted shares and other equity	2,644.4	3,105.4	3,520.7	3,673.7	3,733.5	3,547.9	3,457.3	3,009.6
Mutual fund shares	1,160.3	1,309.9	1,370.3	1,367.4	1,377.0	1,338.9	1,303.3	1,127.1
Life insurance and pension fund reserves	3,853.5	4,250.4	4,598.1	4,675.0	4,764.2	4,811.9	4,868.7	4,875.8
Remaining net assets (+)	249.1	187.0	142.0	153.1	158.1	155.8	112.8	100.9
Liabilities (-)								
Loans	4,245.8	4,651.9	5,037.4	5,100.4	5,190.8	5,265.5	5,345.7	5,385.1
of which from euro area MFIs	3,812.5	4,210.4	4,559.5	4,629.0	4,708.9	4,769.8	4,827.8	4,861.6
<b>= Net financial wealth</b>	10,053.9	10,829.6	11,549.3	11,787.0	11,954.6	11,750.2	11,745.4	11,227.6

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)

	2004	2005	2006	2006 Q2- 2007 Q1	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3	2007 Q1- 2007 Q4	2007 Q2- 2008 Q1
<b>Income and saving</b>								
Gross value added (basic prices) (+)	3,996.0	4,136.2	4,318.5	4,377.4	4,436.7	4,494.3	4,546.8	4,589.4
Compensation of employees (-)	2,386.2	2,456.3	2,558.6	2,587.0	2,617.9	2,646.2	2,678.6	2,710.1
Other taxes less subsidies on production (-)	64.5	72.4	74.8	77.3	79.5	80.4	80.7	80.8
<b>= Gross operating surplus (+)</b>	<b>1,545.3</b>	<b>1,607.6</b>	<b>1,685.1</b>	<b>1,713.0</b>	<b>1,739.3</b>	<b>1,767.7</b>	<b>1,787.5</b>	<b>1,798.4</b>
Consumption of fixed capital (-)	632.3	661.9	689.6	697.1	704.4	712.0	720.1	727.3
<b>= Net operating surplus (+)</b>	<b>913.0</b>	<b>945.7</b>	<b>995.5</b>	<b>1,015.9</b>	<b>1,034.9</b>	<b>1,055.7</b>	<b>1,067.4</b>	<b>1,071.1</b>
Property income receivable (+)	363.8	430.4	482.4	491.3	513.3	522.4	534.6	546.5
Interest receivable	122.7	134.2	158.4	164.4	170.7	176.2	181.2	185.1
Other property income receivable	241.1	296.2	324.0	326.9	342.6	346.2	353.4	361.4
Interest and rents payable (-)	227.6	235.4	281.1	295.5	309.3	320.7	333.0	342.2
<b>= Net entrepreneurial income (+)</b>	<b>1,049.2</b>	<b>1,140.7</b>	<b>1,196.8</b>	<b>1,211.7</b>	<b>1,238.9</b>	<b>1,257.4</b>	<b>1,269.0</b>	<b>1,275.5</b>
Distributed income (-)	753.2	843.5	913.8	918.4	938.8	943.4	945.2	952.6
Taxes on income and wealth payable (-)	136.1	148.8	183.5	187.4	194.1	201.5	205.3	206.3
Social contributions receivable (+)	73.6	72.6	77.3	77.0	73.8	72.1	71.3	70.5
Social benefits payable (-)	60.5	60.5	62.7	63.0	62.9	63.2	63.3	63.6
Other net transfers (-)	63.3	63.9	63.3	63.1	60.9	59.5	60.1	59.8
<b>= Net saving</b>	<b>109.7</b>	<b>96.6</b>	<b>50.8</b>	<b>56.8</b>	<b>55.9</b>	<b>61.9</b>	<b>66.4</b>	<b>63.7</b>
<b>Investment, financing and saving</b>								
Net acquisition of non-financial assets (+)	215.9	246.6	290.6	304.4	315.3	326.6	344.1	352.2
Gross fixed capital formation (+)	842.8	896.9	959.7	984.7	1,005.5	1,023.3	1,043.0	1,054.3
Consumption of fixed capital (-)	632.3	661.9	689.6	697.1	704.4	712.0	720.1	727.3
Net acquisition of other non-financial assets (+)	5.3	11.6	20.6	16.7	14.2	15.3	21.2	25.2
Main items of financial investment (+)								
Short-term assets	103.1	127.1	153.8	186.1	202.9	176.4	174.3	161.6
Currency and deposits	88.9	112.9	144.5	163.1	163.4	157.6	148.3	116.2
Money market fund shares	16.5	8.6	3.7	19.7	23.5	-9.2	-18.8	-10.8
Debt securities <sup>1)</sup>	-2.3	5.6	5.6	3.4	16.0	28.0	44.9	56.1
Long-term assets	210.6	382.9	383.1	388.7	417.8	450.0	442.5	424.0
Deposits	3.1	35.5	23.2	28.0	38.8	24.0	21.2	-5.7
Debt securities	-52.9	-32.1	-22.1	-29.2	-44.0	-46.1	-70.7	-85.7
Shares and other equity	179.7	239.0	201.5	195.1	210.4	242.7	290.0	347.3
Other, mainly intercompany loans	80.6	140.6	180.5	194.8	212.5	229.4	202.2	168.0
Remaining net assets (+)	75.7	89.4	207.3	176.2	162.8	207.6	205.2	185.4
Main items of financing (-)								
Debt	230.2	422.6	688.7	677.0	709.9	764.1	792.0	787.6
of which loans from euro area MFIs	172.4	278.0	449.8	444.8	484.2	522.4	559.5	591.3
of which debt securities	7.1	11.5	39.2	38.7	54.1	37.9	48.4	51.6
Shares and other equity	201.4	266.7	225.5	248.1	257.3	258.3	235.3	197.4
Quoted shares	11.7	100.6	39.6	58.9	77.0	82.7	45.0	23.7
Unquoted shares and other equity	189.7	166.1	185.9	189.2	180.3	175.6	190.3	173.7
Net capital transfers receivable (-)	64.1	60.1	69.9	73.4	73.4	74.0	73.3	75.4
<b>= Net saving</b>	<b>109.7</b>	<b>96.6</b>	<b>50.8</b>	<b>56.8</b>	<b>55.9</b>	<b>61.9</b>	<b>66.4</b>	<b>63.7</b>
<b>Financial balance sheet</b>								
<b>Financial assets</b>								
Short-term assets	1,376.1	1,508.2	1,651.1	1,689.5	1,741.6	1,756.8	1,823.8	1,839.5
Currency and deposits	1,102.6	1,220.7	1,356.8	1,364.7	1,405.0	1,429.0	1,499.7	1,478.9
Money market fund shares	163.7	176.3	185.9	204.2	205.2	185.8	162.3	183.7
Debt securities <sup>1)</sup>	109.8	111.3	108.4	120.7	131.4	142.0	161.8	177.0
Long-term assets	7,219.6	8,214.4	9,430.4	9,791.3	10,165.3	10,087.0	10,173.7	9,533.4
Deposits	141.0	191.1	216.5	268.1	277.5	268.2	267.7	257.0
Debt securities	330.7	282.9	260.2	237.6	228.4	197.1	180.9	168.0
Shares and other equity	5,209.7	6,061.2	7,078.4	7,325.4	7,641.7	7,557.5	7,612.0	6,981.2
Other, mainly intercompany loans	1,538.1	1,679.1	1,875.3	1,960.1	2,017.6	2,064.2	2,113.1	2,127.3
Remaining net assets	209.7	256.6	353.4	423.0	405.3	413.7	424.5	472.7
<b>Liabilities</b>								
Debt	6,340.0	6,809.0	7,472.3	7,634.4	7,890.6	8,047.1	8,239.0	8,403.7
of which loans from euro area MFIs	3,160.8	3,433.0	3,872.5	3,971.7	4,122.6	4,247.9	4,407.7	4,545.8
of which debt securities	650.5	669.3	690.2	695.8	731.9	719.5	729.2	739.5
Shares and other equity	9,249.0	10,586.4	12,273.8	12,728.8	13,359.1	13,191.7	13,261.9	11,939.9
Quoted shares	2,988.6	3,682.9	4,454.4	4,689.0	5,065.4	4,982.9	4,972.8	4,198.3
Unquoted shares and other equity	6,260.4	6,903.5	7,819.4	8,039.8	8,293.8	8,208.8	8,289.1	7,741.5

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)

	2004	2005	2006	2006 Q2- 2007 Q1	2006 Q3- 2007 Q2	2006 Q4- 2007 Q3	2007 Q1- 2007 Q4	2007 Q2- 2008 Q1
<b>Financial account, financial transactions</b>								
<b>Main items of financial investment (+)</b>								
Short-term assets	39.8	26.1	51.5	69.8	56.6	49.6	41.8	61.4
Currency and deposits	13.2	7.2	12.4	18.0	2.4	8.9	7.8	32.5
Money market fund shares	2.7	0.4	3.7	7.1	3.6	0.3	0.0	9.8
Debt securities <sup>1)</sup>	23.8	18.5	35.4	44.7	50.6	40.4	34.1	19.1
Long-term assets	220.6	285.5	321.4	289.0	282.8	264.1	240.5	231.0
Deposits	37.5	17.4	66.0	71.7	68.5	67.1	53.5	30.9
Debt securities	131.6	131.0	121.4	141.4	154.8	156.8	137.4	113.1
Loans	6.3	-2.5	-1.0	-18.1	-16.6	-22.5	-16.9	17.5
Quoted shares	12.8	32.2	22.0	15.7	7.0	5.7	6.7	16.8
Unquoted shares and other equity	2.0	21.2	29.0	18.3	18.3	21.6	20.9	30.5
Mutual fund shares	30.5	86.2	83.9	60.0	50.7	35.2	38.8	22.3
Remaining net assets (+)	9.0	15.1	21.4	28.2	27.5	33.1	1.2	-29.1
<b>Main items of financing (-)</b>								
Debt securities	-1.7	-0.4	5.2	5.0	3.9	3.3	1.4	1.2
Loans	4.7	19.2	31.1	18.0	23.3	20.7	8.0	12.6
Shares and other equity	13.6	9.4	8.1	10.8	12.4	10.5	11.7	11.5
Insurance technical reserves	262.6	336.5	337.6	334.8	338.6	323.7	302.6	273.2
Net equity of households in life insurance and pension fund reserves	231.0	293.6	288.2	279.8	282.9	277.6	266.1	243.7
Prepayments of insurance premiums and reserves for outstanding claims	31.6	42.9	49.4	55.0	55.7	46.1	36.5	29.4
<b>= Changes in net financial worth due to transactions</b>	-9.8	-38.0	12.3	18.3	-11.3	-11.4	-40.3	-35.3
<b>Other changes account</b>								
<b>Other changes in financial assets (+)</b>								
Shares and other equity	110.0	179.7	164.4	119.1	238.0	129.6	14.0	-166.2
Other net assets	141.8	72.0	-40.0	-50.3	-71.0	-107.9	-51.7	-15.8
<b>Other changes in liabilities (-)</b>								
Shares and other equity	21.2	122.0	45.9	32.9	96.7	14.8	-22.5	-93.0
Insurance technical reserves	84.3	135.7	57.4	44.2	71.6	35.6	27.5	-24.5
Net equity of households in life insurance and pension fund reserves	64.4	144.1	58.2	42.8	69.3	35.1	13.4	-36.8
Prepayments of insurance premiums and reserves for outstanding claims	19.9	-8.4	-0.8	1.4	2.2	0.5	14.1	12.3
<b>= Other changes in net financial worth</b>	146.3	-6.1	21.1	-8.3	-1.3	-28.6	-42.7	-64.6
<b>Financial balance sheet</b>								
<b>Financial assets (+)</b>								
Short-term assets	401.8	432.6	485.1	508.5	514.6	519.1	523.0	569.1
Currency and deposits	133.6	142.7	154.6	155.9	144.4	154.0	163.2	190.9
Money market fund shares	72.2	74.3	80.4	82.8	84.3	81.0	78.2	87.2
Debt securities <sup>1)</sup>	195.9	215.6	250.1	269.9	285.9	284.1	281.6	291.0
Long-term assets	4,106.9	4,604.8	5,030.2	5,115.3	5,211.9	5,236.3	5,232.7	5,148.4
Deposits	499.6	520.3	586.8	612.1	626.4	638.4	636.2	639.0
Debt securities	1,622.0	1,778.7	1,846.3	1,881.6	1,889.4	1,929.5	1,939.7	1,966.9
Loans	363.6	366.5	360.8	344.9	346.6	342.9	337.8	357.3
Quoted shares	595.4	727.8	831.3	850.5	877.0	864.2	846.2	779.0
Unquoted shares and other equity	334.9	375.9	443.3	443.7	461.8	454.3	467.3	439.9
Mutual fund shares	691.4	835.7	961.8	982.4	1,010.9	1,007.0	1,005.4	966.5
Remaining net assets (+)	128.2	170.7	208.6	208.4	206.0	204.1	210.6	192.8
<b>Liabilities (-)</b>								
Debt securities	22.3	21.3	26.7	27.3	26.6	26.4	27.4	26.5
Loans	120.2	132.9	160.7	167.0	177.8	183.3	166.1	178.7
Shares and other equity	491.7	623.1	677.2	692.9	720.1	685.9	666.4	611.3
Insurance technical reserves	4,110.9	4,583.1	4,978.1	5,075.9	5,175.5	5,234.4	5,308.2	5,324.5
Net equity of households in life insurance and pension fund reserves	3,478.5	3,916.1	4,262.5	4,342.0	4,434.0	4,487.3	4,542.0	4,548.9
Prepayments of insurance premiums and reserves for outstanding claims	632.5	667.0	715.7	733.8	741.5	747.1	766.2	775.6
<b>= Net financial wealth</b>	-108.2	-152.3	-118.9	-130.8	-167.5	-170.6	-201.9	-230.6

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

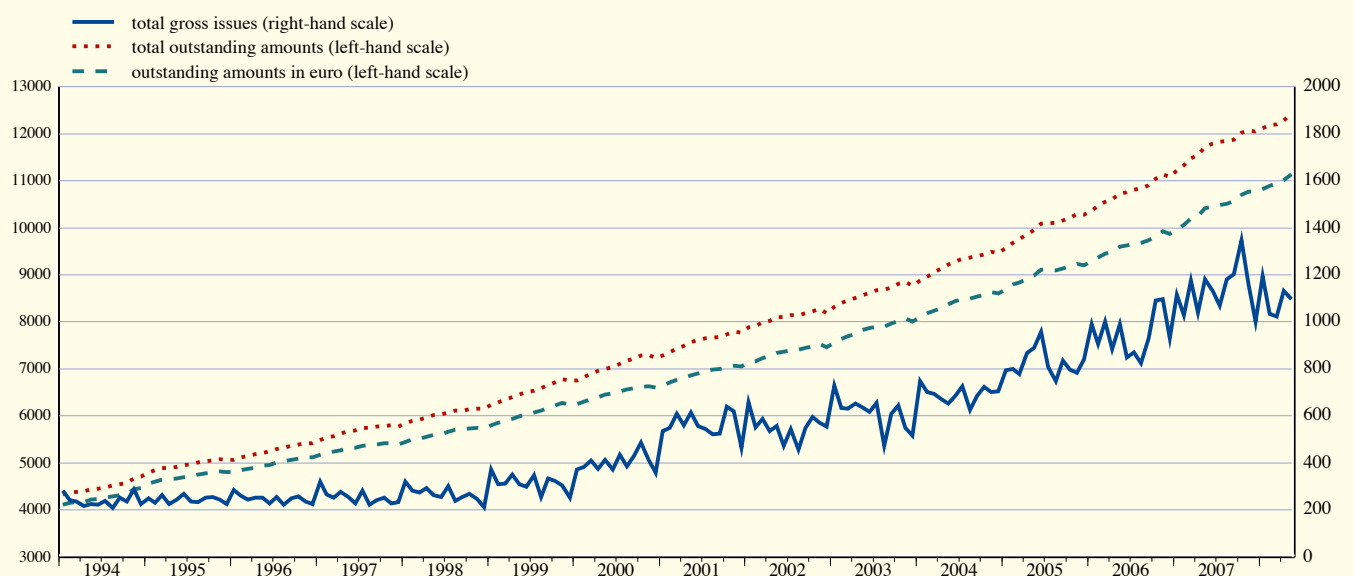
## 4.1 Securities, other than shares, by original maturity, residency of the issuer and currency

(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	6-month growth rates	
											11	12
<b>Total</b>												
2007 May	12,405.2	1,217.3	209.4	10,414.7	1,116.1	157.6	11,723.6	1,179.8	178.2	8.9	132.6	9.6
June	12,536.9	1,222.2	131.6	10,461.4	1,071.4	46.6	11,786.8	1,131.1	60.5	9.2	54.4	9.6
July	12,539.4	1,076.6	1.4	10,488.9	1,004.7	26.6	11,829.0	1,068.7	44.4	9.1	60.1	9.3
Aug.	12,567.4	1,184.1	28.2	10,514.8	1,131.9	26.1	11,849.3	1,181.8	26.1	9.1	83.0	9.0
Sep.	12,657.9	1,243.6	88.8	10,570.2	1,154.0	53.8	11,876.9	1,201.8	44.1	9.0	55.4	8.0
Oct.	12,767.8	1,350.4	108.7	10,701.0	1,278.9	129.8	12,023.5	1,348.0	147.3	9.1	131.5	9.2
Nov.	12,857.2	1,176.4	87.6	10,772.6	1,108.1	69.6	12,068.7	1,160.2	64.4	8.6	48.2	7.6
Dec.	12,883.4	1,039.6	29.2	10,769.8	958.1	0.2	12,050.0	1,001.1	-17.2	9.0	107.0	8.5
2008 Jan.	12,917.4	1,199.4	38.0	10,824.4	1,130.0	58.7	12,118.4	1,195.5	68.1	8.5	20.2	7.7
Feb.	12,999.9	1,024.7	82.6	10,897.0	966.2	72.8	12,179.3	1,034.1	75.8	8.0	42.8	7.0
Mar.	13,106.0	1,070.4	106.1	10,944.4	966.4	47.3	12,196.9	1,021.7	44.9	7.1	7.0	6.1
Apr.	.	.	.	11,010.8	1,067.2	66.5	12,276.1	1,132.0	78.4	7.1	67.3	4.9
May	.	.	.	11,138.3	1,023.2	127.3	12,426.9	1,096.5	141.5	6.7	93.5	5.7
<b>Long-term</b>												
2007 May	11,269.7	266.7	185.1	9,407.6	199.7	134.4	10,533.1	226.2	149.4	9.0	105.7	9.1
June	11,371.2	261.1	100.1	9,474.3	193.2	65.3	10,615.5	219.9	78.7	8.9	48.5	8.8
July	11,396.1	199.0	24.6	9,484.2	162.9	9.6	10,637.4	188.9	23.7	8.8	45.0	8.3
Aug.	11,390.1	103.2	-6.6	9,477.1	87.3	-7.6	10,635.2	104.5	-2.7	8.5	50.2	7.6
Sep.	11,413.3	157.5	21.9	9,492.4	132.2	14.0	10,623.8	146.6	12.8	8.0	8.2	6.1
Oct.	11,490.6	236.9	78.4	9,556.7	200.7	65.6	10,686.6	225.1	72.6	7.7	81.2	6.6
Nov.	11,571.7	175.3	79.4	9,617.5	141.7	59.0	10,729.2	156.6	55.8	7.1	36.2	5.2
Dec.	11,628.6	197.9	57.5	9,665.4	163.9	48.6	10,764.1	175.2	37.3	7.4	81.7	5.8
2008 Jan.	11,627.8	194.3	2.5	9,658.6	166.1	-3.5	10,761.3	189.7	1.5	6.7	11.8	5.2
Feb.	11,674.9	181.7	47.0	9,707.8	162.4	49.2	10,803.6	186.5	51.3	6.1	27.6	4.7
Mar.	11,710.9	178.5	36.3	9,733.6	144.0	25.9	10,802.2	158.9	22.5	5.3	-1.7	4.5
Apr.	.	.	.	9,797.3	206.9	63.9	10,875.8	224.6	69.1	5.5	79.6	4.5
May	.	.	.	9,899.5	222.8	102.2	10,986.2	244.2	108.9	5.1	61.7	4.9

## 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											
2006	11,088	4,573	1,167	625	4,419	304	11,365	8,396	429	1,114	1,341	85
2007	12,050	5,054	1,476	674	4,531	315	13,630	10,088	552	1,457	1,453	79
2007 Q2	11,787	4,879	1,314	674	4,612	308	3,351	2,369	123	453	389	17
Q3	11,877	4,960	1,346	664	4,597	310	3,452	2,604	91	393	346	18
Q4	12,050	5,054	1,476	674	4,531	315	3,509	2,663	196	328	302	21
2008 Q1	12,197	5,095	1,495	678	4,616	313	3,251	2,358	72	316	478	27
2008 Feb.	12,179	5,107	1,484	684	4,591	314	1,034	744	33	101	148	8
Mar.	12,197	5,095	1,495	678	4,616	313	1,022	727	31	107	149	7
Apr.	12,276	5,126	1,521	681	4,636	313	1,132	782	43	121	181	6
May	12,427	5,228	1,539	694	4,650	316	1,097	801	32	120	135	9
	Short-term											
2006	1,014	575	16	89	330	4	9,196	7,392	63	1,023	688	31
2007	1,286	787	19	117	357	6	11,349	9,052	65	1,361	832	38
2007 Q2	1,171	632	12	115	407	5	2,727	2,081	14	412	210	9
Q3	1,253	715	10	112	410	6	3,012	2,406	11	377	207	11
Q4	1,286	787	19	117	357	6	2,953	2,427	22	302	192	9
2008 Q1	1,395	817	32	128	411	6	2,716	2,100	22	305	278	12
2008 Feb.	1,376	818	31	127	392	7	848	649	15	98	82	4
Mar.	1,395	817	32	128	411	6	863	659	3	103	95	3
Apr.	1,400	817	32	128	417	7	907	680	3	113	107	4
May	1,441	857	32	130	414	8	852	667	3	103	73	6
	Long-term <sup>1)</sup>											
2006	10,075	3,998	1,151	536	4,089	301	2,169	1,004	366	91	654	54
2007	10,764	4,267	1,457	557	4,174	309	2,281	1,036	486	96	621	42
2007 Q2	10,615	4,247	1,302	558	4,205	304	624	288	108	41	179	8
Q3	10,624	4,245	1,335	552	4,188	304	440	199	79	16	138	8
Q4	10,764	4,267	1,457	557	4,174	309	557	236	174	26	110	11
2008 Q1	10,802	4,278	1,463	550	4,205	306	535	258	50	11	200	16
2008 Feb.	10,804	4,289	1,452	557	4,199	306	187	95	17	4	66	5
Mar.	10,802	4,278	1,463	550	4,205	306	159	69	28	4	54	4
Apr.	10,876	4,309	1,490	553	4,219	306	225	102	39	8	74	2
May	10,986	4,371	1,507	564	4,236	308	244	134	28	17	62	4
	Of which long-term fixed rate											
2006	7,058	2,136	545	410	3,731	237	1,294	475	144	57	578	39
2007	7,323	2,274	589	422	3,788	250	1,285	532	117	61	540	36
2007 Q2	7,318	2,256	584	423	3,811	244	340	132	29	25	147	7
Q3	7,313	2,254	591	415	3,806	246	263	100	25	8	123	7
Q4	7,323	2,274	589	422	3,788	250	278	128	23	19	99	8
2008 Q1	7,301	2,271	583	413	3,789	246	330	130	13	8	168	10
2008 Feb.	7,321	2,282	584	419	3,791	245	120	52	5	3	58	3
Mar.	7,301	2,271	583	413	3,789	246	87	30	6	3	44	3
Apr.	7,345	2,291	588	416	3,805	245	143	58	10	7	67	1
May	7,418	2,321	591	427	3,832	247	143	63	8	15	54	3
	Of which long-term variable rate											
2006	2,596	1,512	595	113	312	64	720	408	217	31	49	15
2007	2,986	1,615	850	124	338	58	823	373	360	33	51	6
2007 Q2	2,836	1,608	705	123	341	59	230	112	78	16	23	1
Q3	2,856	1,610	728	125	336	57	139	72	52	7	8	1
Q4	2,986	1,615	850	124	338	58	241	75	148	7	8	3
2008 Q1	3,029	1,627	859	126	357	60	158	96	33	3	20	5
2008 Feb.	3,013	1,626	848	126	351	62	54	35	10	1	5	1
Mar.	3,029	1,627	859	126	357	60	58	29	21	1	7	1
Apr.	3,058	1,642	880	126	350	60	70	37	28	1	3	1
May	3,104	1,671	891	127	355	60	88	62	18	1	5	1

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**

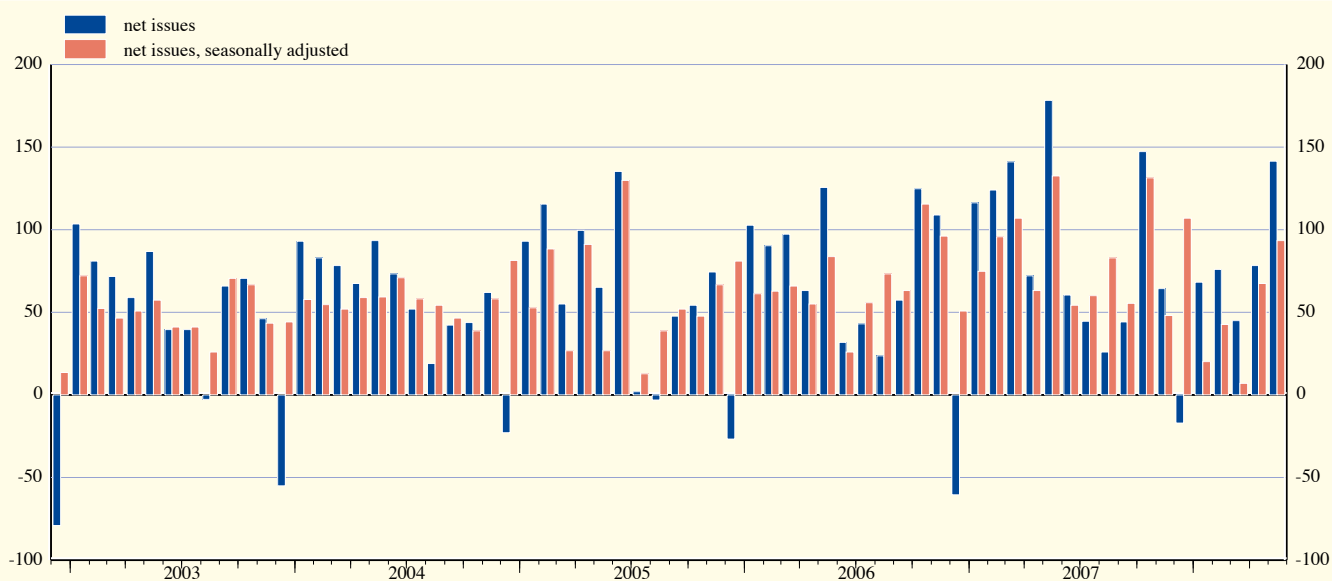
(EUR billions unless otherwise indicated; transactions during the period; nominal values)

**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												
2006	807.6	422.3	243.5	29.4	90.1	22.3	809.3	427.8	239.8	29.5	89.8	22.3
2007	1,001.5	484.9	330.6	54.6	120.4	10.9	1,012.7	495.2	326.0	57.2	123.2	10.9
2007 Q2	310.8	105.9	56.2	37.0	111.8	-0.1	250.2	114.2	42.9	29.0	65.0	-0.9
Q3	114.6	95.2	36.3	-7.7	-11.5	2.2	198.6	120.8	64.3	-0.8	8.1	6.2
Q4	194.4	95.7	144.3	12.6	-63.0	4.9	286.6	137.0	107.6	18.5	20.6	2.9
2008 Q1	188.8	69.0	25.3	7.5	88.9	-1.9	70.0	-9.1	46.2	2.9	33.2	-3.2
2008 Feb.	75.8	14.2	18.7	0.0	44.0	-1.1	42.8	-12.4	18.4	-1.4	40.0	-1.9
Mar.	44.9	6.0	14.9	-3.4	28.0	-0.6	7.0	-13.0	12.2	-5.4	13.6	-0.3
Apr.	78.4	32.3	25.2	2.4	18.9	-0.4	67.3	17.8	34.8	-2.2	16.9	0.0
May	141.5	93.1	17.2	13.4	13.9	3.8	93.5	89.9	11.7	7.1	-19.8	4.5
Long-term												
2006	756.2	347.4	237.2	27.0	121.4	23.2	756.2	349.3	233.8	26.8	123.2	23.2
2007	740.2	285.3	327.4	27.4	92.0	8.0	737.7	287.1	323.0	27.3	92.4	7.9
2007 Q2	272.9	101.2	59.2	23.0	90.1	-0.6	207.1	97.0	45.8	16.6	49.0	-1.3
Q3	33.8	14.1	37.9	-4.4	-14.2	0.4	103.4	27.8	66.3	-1.9	6.9	4.2
Q4	165.8	28.5	135.4	8.0	-11.0	4.9	199.1	54.8	99.0	5.4	37.1	2.8
2008 Q1	75.3	34.4	12.8	-4.1	34.2	-2.0	37.7	-1.7	33.3	2.5	6.8	-3.2
2008 Feb.	51.3	15.0	5.8	-0.6	32.3	-1.2	27.6	-8.4	5.1	1.1	31.5	-1.8
Mar.	22.5	4.1	14.6	-4.8	8.5	0.1	-1.7	-11.4	12.6	-4.6	1.9	-0.1
Apr.	69.1	28.6	25.3	2.8	13.0	-0.7	79.6	28.7	35.4	2.7	12.9	-0.2
May	108.9	61.0	16.9	11.3	17.4	2.4	61.7	50.9	10.7	8.0	-11.0	3.2

**CI6 Net issues of securities, other than shares, seasonally adjusted and non-seasonally adjusted**

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



Source: ECB.



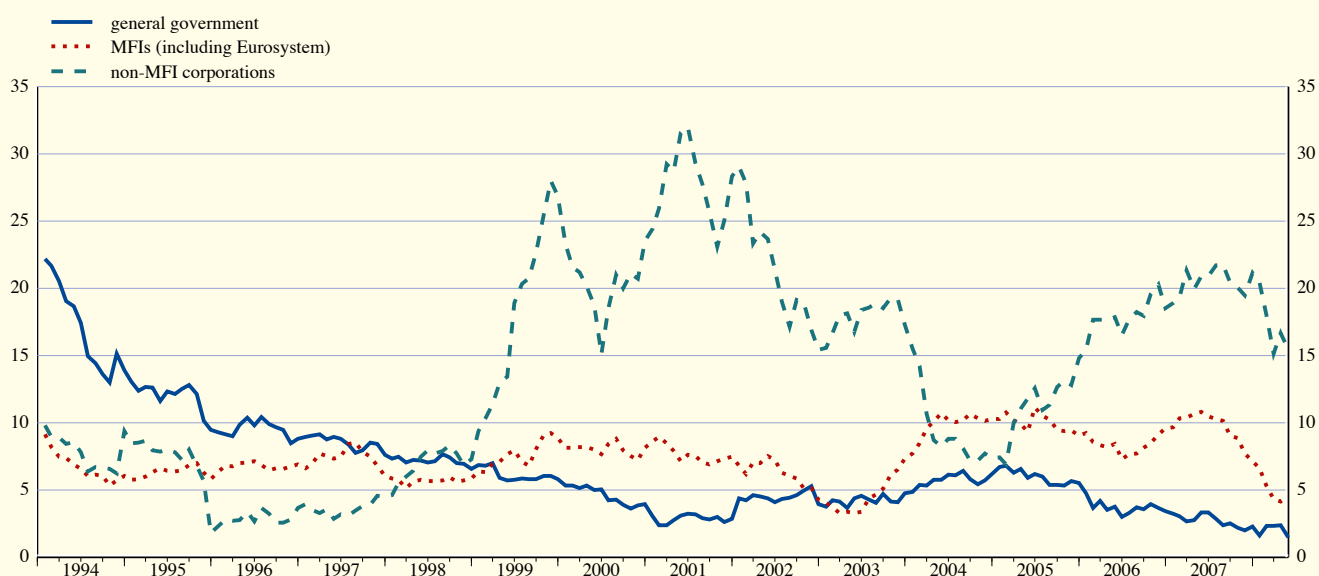
### 4.3 Growth rates of securities, other than shares, issued by euro area residents <sup>1)</sup>

(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												
2007 May	8.9	10.5	29.3	6.0	3.5	4.9	9.6	11.5	28.9	8.5	3.7	3.1
June	9.2	10.8	27.9	8.2	3.8	3.2	9.6	10.5	28.6	13.0	4.3	1.2
July	9.1	10.8	28.5	10.0	3.3	2.5	9.3	9.6	28.9	15.5	3.8	0.7
Aug.	9.1	11.0	28.6	9.5	3.1	2.5	9.0	9.8	26.2	11.6	3.8	3.1
Sep.	9.0	10.9	27.0	8.0	3.2	4.2	8.0	10.1	17.8	9.0	3.3	3.5
Oct.	9.1	11.0	26.9	8.8	3.0	5.4	9.2	11.1	25.6	9.7	3.0	5.4
Nov.	8.6	10.4	25.6	8.9	2.7	4.2	7.6	9.4	22.3	9.2	1.6	5.4
Dec.	9.0	10.6	28.5	8.7	2.7	3.6	8.5	10.9	28.3	5.4	1.3	6.1
2008 Jan.	8.5	10.0	27.1	10.5	2.2	3.1	7.7	10.3	25.3	6.1	0.6	5.4
Feb.	8.0	8.7	24.5	9.8	2.9	2.8	7.0	7.5	22.8	8.2	2.1	2.4
Mar.	7.1	7.7	21.0	7.8	2.8	1.7	6.1	5.2	24.1	6.5	2.4	-0.2
Apr.	7.1	7.2	23.2	6.6	2.9	1.1	4.9	3.4	20.8	3.3	2.8	-3.1
May	6.7	7.9	21.2	6.5	1.6	2.9	5.7	6.2	20.0	3.5	1.6	0.5
Long-term												
2007 May	9.0	10.8	29.8	4.1	3.2	5.1	9.1	11.1	30.0	6.2	2.5	2.7
June	8.9	10.5	28.5	6.2	3.3	3.4	8.8	10.4	29.8	9.1	2.4	0.6
July	8.8	10.3	29.2	7.0	2.9	2.7	8.3	9.2	30.3	8.1	2.1	0.5
Aug.	8.5	10.1	29.3	6.6	2.4	2.7	7.6	8.0	27.4	7.2	2.1	2.8
Sep.	8.0	9.0	27.9	5.6	2.4	3.5	6.1	6.1	18.9	5.5	2.7	2.0
Oct.	7.7	8.8	27.1	5.5	2.0	4.6	6.6	5.9	25.4	5.2	2.4	3.7
Nov.	7.1	7.7	25.8	6.0	1.9	3.1	5.2	4.3	21.6	5.7	1.3	3.5
Dec.	7.4	7.1	28.6	5.1	2.3	2.7	5.8	4.0	27.4	1.3	2.1	4.8
2008 Jan.	6.7	6.6	27.2	5.8	1.6	2.2	5.2	4.0	24.2	3.6	1.0	3.7
Feb.	6.1	5.3	23.4	5.7	2.3	1.9	4.7	2.6	19.5	4.2	2.6	0.9
Mar.	5.3	4.3	19.9	4.2	2.4	0.9	4.5	2.5	20.7	2.9	2.1	-0.2
Apr.	5.5	4.1	22.1	4.3	2.5	0.4	4.5	2.4	18.9	3.3	2.6	-2.8
May	5.1	4.5	19.8	5.1	1.4	1.8	4.9	4.6	17.9	4.4	1.5	0.2

### 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.

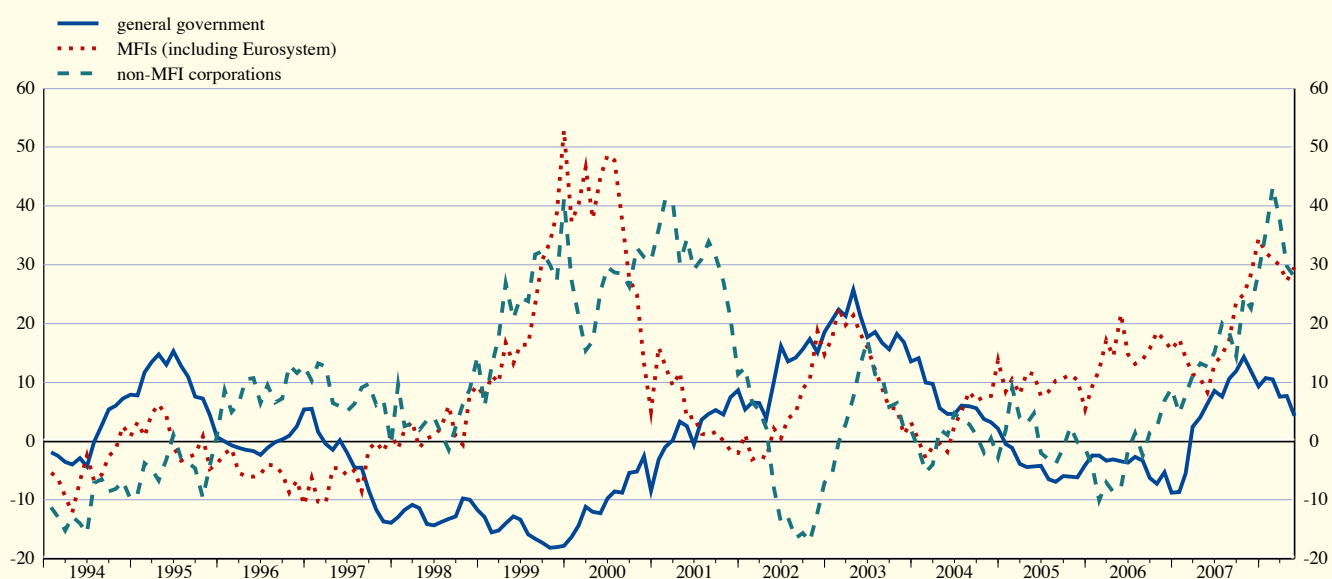
**4.3 Growth rates of securities, other than shares, issued by euro area residents<sup>1)</sup> (cont'd)**

(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												
2006	4.5	4.7	14.0	0.4	3.2	13.5	16.1	11.9	40.2	25.7	5.0	4.3
2007	5.1	7.1	17.4	3.5	2.4	6.6	15.7	11.1	37.9	18.5	3.8	-1.7
2007 Q2	5.5	7.5	19.5	2.7	2.7	7.5	16.5	12.1	38.0	18.9	5.1	-0.2
Q3	5.3	8.0	17.1	4.3	2.3	4.9	16.3	11.1	39.9	19.8	4.4	-4.7
Q4	4.5	6.7	13.1	4.4	1.8	6.3	15.1	9.0	39.5	14.5	4.8	-6.5
2008 Q1	3.3	5.3	8.4	4.1	1.3	3.3	14.3	6.0	38.8	12.5	11.4	-3.2
2007 Dec.	4.3	6.8	11.1	4.3	1.7	5.7	15.4	7.2	43.6	10.9	8.3	-8.7
2008 Jan.	3.3	6.0	10.1	4.5	0.7	3.9	15.4	6.7	42.0	13.2	11.6	-4.5
Feb.	3.1	4.8	6.7	4.4	1.5	2.4	13.8	5.3	37.5	12.9	12.2	-0.1
Mar.	2.5	3.5	5.6	2.7	1.5	1.4	12.2	4.7	31.0	12.3	12.3	-1.1
Apr.	2.6	3.7	5.0	3.5	1.7	0.8	12.5	4.6	36.1	9.4	7.2	-1.2
May	2.6	4.6	4.3	5.1	1.0	1.7	12.0	5.4	31.6	8.1	6.9	1.8
In euro												
2006	3.8	3.1	11.5	-0.4	3.2	13.7	14.9	10.1	36.7	28.0	5.2	3.5
2007	4.5	6.4	14.1	1.9	2.7	6.7	15.1	10.2	35.6	18.3	3.9	-2.4
2007 Q2	4.8	6.8	15.9	0.8	2.9	7.3	15.7	11.2	35.5	19.4	5.2	-0.8
Q3	4.6	7.1	14.0	2.9	2.5	5.1	15.7	10.3	38.1	18.9	4.5	-5.6
Q4	4.0	6.2	10.9	2.9	2.1	6.6	14.9	8.7	38.0	13.3	4.9	-7.1
2008 Q1	2.9	4.9	7.1	2.8	1.5	3.5	14.9	5.8	39.3	11.7	11.7	-4.0
2007 Dec.	3.8	6.3	9.3	3.1	1.9	6.1	15.9	7.0	43.6	9.9	8.6	-8.8
2008 Jan.	2.9	5.4	8.7	3.3	0.9	4.2	16.0	6.6	42.1	12.3	11.9	-4.8
Feb.	2.8	4.5	5.8	3.2	1.7	2.5	14.5	5.2	38.2	12.0	12.5	-1.3
Mar.	2.3	3.1	4.5	1.0	1.7	1.4	12.8	4.4	32.1	11.8	12.9	-2.7
Apr.	2.4	3.4	4.0	1.8	1.9	0.8	13.6	4.9	37.8	8.8	7.6	-2.6
May	2.3	4.3	3.8	3.5	1.1	1.7	13.3	6.3	32.9	7.8	7.3	0.5

**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)

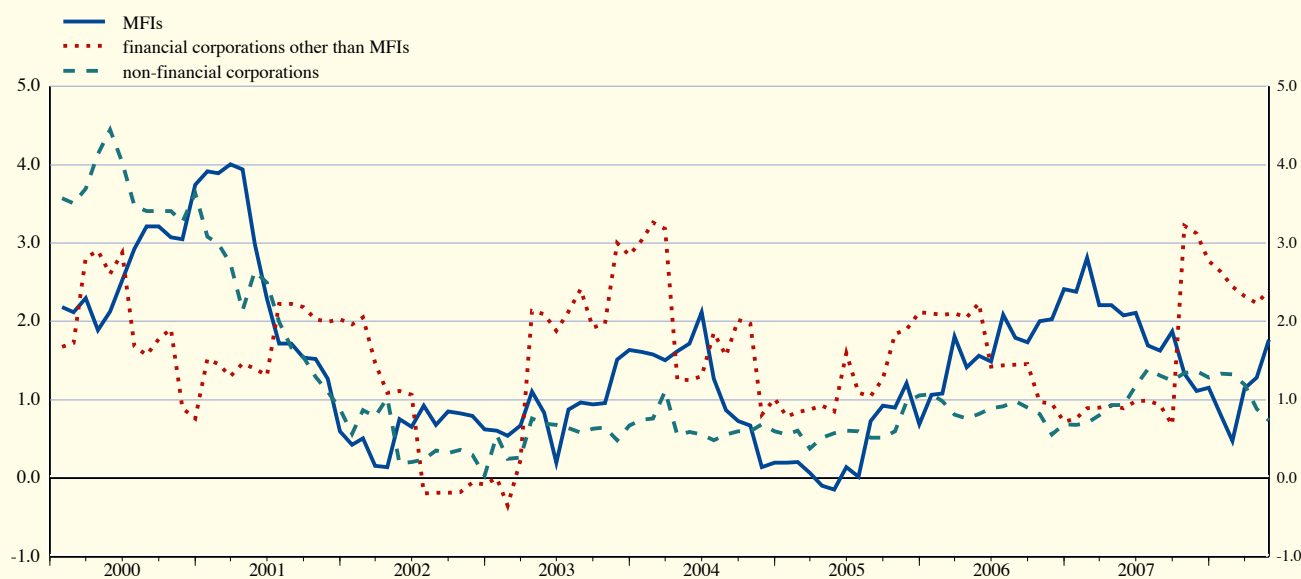
##### 1. Outstanding amounts and annual growth rates

(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
2006 May	5,396.4	103.1	1.1	901.3	1.6	543.6	2.2	3,951.4	0.8
June	5,408.2	103.3	1.0	909.8	1.5	539.7	1.4	3,958.7	0.9
July	5,405.1	103.4	1.2	923.0	2.1	553.7	1.4	3,928.3	0.9
Aug.	5,586.9	103.4	1.2	963.8	1.8	604.6	1.4	4,018.5	1.0
Sep.	5,728.5	103.5	1.1	991.8	1.7	616.7	1.5	4,120.0	0.9
Oct.	5,917.6	103.5	1.0	1,022.4	2.0	623.8	1.0	4,271.4	0.8
Nov.	5,972.2	103.6	0.9	1,031.8	2.0	613.6	0.9	4,326.8	0.6
Dec.	6,190.9	103.8	1.0	1,063.9	2.4	633.2	0.7	4,493.7	0.7
2007 Jan.	6,369.9	103.9	1.0	1,123.5	2.4	646.2	0.8	4,600.2	0.7
Feb.	6,283.9	104.0	1.1	1,092.8	2.8	637.8	0.9	4,553.3	0.7
Mar.	6,510.1	104.0	1.1	1,111.4	2.2	649.3	0.9	4,749.4	0.8
Apr.	6,760.5	104.2	1.2	1,168.6	2.2	675.5	0.9	4,916.3	0.9
May	7,040.4	104.3	1.1	1,174.5	2.1	688.8	0.9	5,177.0	0.9
June	6,961.9	104.6	1.3	1,128.6	2.1	677.1	1.0	5,156.1	1.2
July	6,731.4	104.8	1.4	1,099.8	1.7	608.8	1.0	5,022.7	1.4
Aug.	6,618.1	104.8	1.3	1,060.2	1.6	583.8	0.9	4,974.1	1.3
Sep.	6,682.2	104.8	1.3	1,048.8	1.9	597.2	0.7	5,036.1	1.2
Oct.	6,936.7	105.1	1.5	1,072.8	1.3	629.2	3.2	5,234.7	1.3
Nov.	6,622.4	105.2	1.5	1,032.7	1.1	579.2	3.1	5,010.5	1.4
Dec.	6,578.8	105.3	1.4	1,017.2	1.2	579.0	2.8	4,982.7	1.3
2008 Jan.	5,756.8	105.3	1.4	887.9	0.8	497.3	2.6	4,371.5	1.3
Feb.	5,811.0	105.3	1.3	858.2	0.5	492.4	2.4	4,460.5	1.3
Mar.	5,557.5	105.4	1.3	858.5	1.1	501.3	2.3	4,197.7	1.2
Apr.	5,738.4	105.3	1.1	835.2	1.3	519.4	2.2	4,383.7	0.9
May	5,733.0	105.4	1.0	789.9	1.8	497.1	2.4	4,446.0	0.7

##### C19 Annual growth rates for quoted shares issued by euro area residents

(annual percentage changes)



Source: ECB.

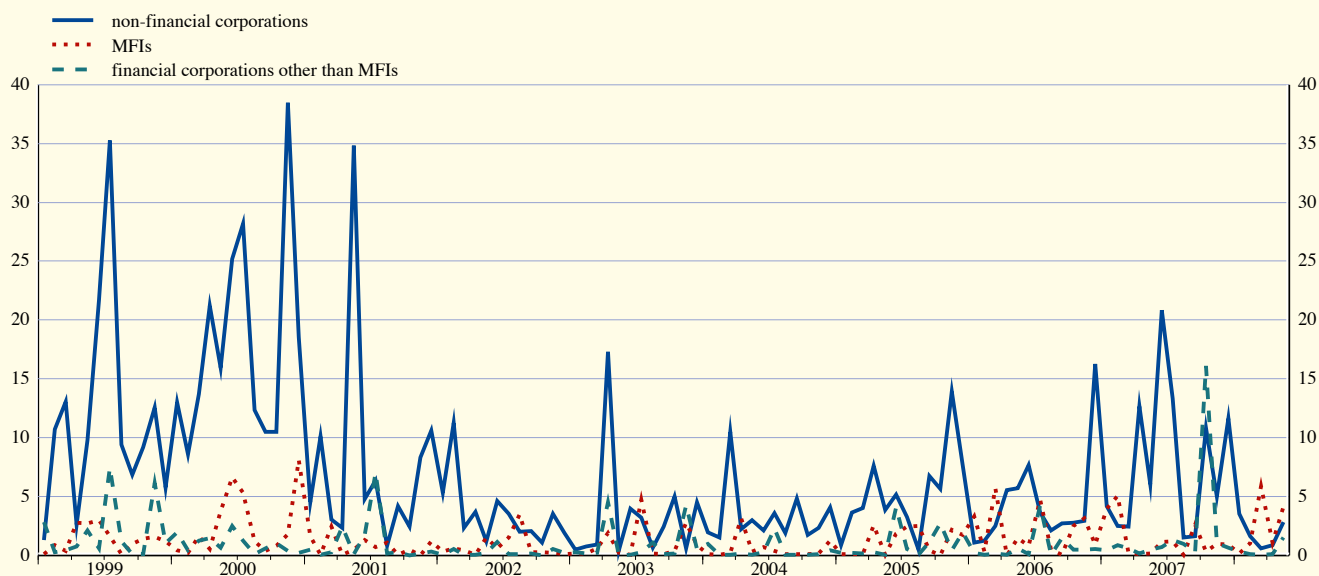
1) For the calculation of the index and the growth rates, see the Technical notes.

**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
2006 May	7.7	2.2	5.5	1.4	0.0	1.4	0.6	0.0	0.6	5.7	2.2	3.5
June	8.5	2.7	5.8	0.8	0.3	0.5	0.1	0.1	0.0	7.7	2.4	5.3
July	12.6	6.6	6.0	4.7	0.0	4.7	4.2	3.5	0.7	3.6	3.1	0.6
Aug.	2.6	1.8	0.8	0.5	0.0	0.5	0.0	0.1	-0.1	2.1	1.6	0.5
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.	5.7	1.2	4.5	2.5	0.0	2.5	0.5	0.0	0.5	2.7	1.2	1.5
Nov.	6.5	2.0	4.5	3.1	0.0	3.1	0.5	0.2	0.3	2.9	1.8	1.1
Dec.	17.7	5.1	12.6	0.9	0.3	0.6	0.5	0.0	0.5	16.3	4.7	11.6
2007 Jan.	8.5	3.9	4.6	4.0	0.1	3.8	0.4	0.0	0.4	4.1	3.8	0.3
Feb.	8.4	2.0	6.3	5.0	0.0	5.0	0.9	0.0	0.9	2.5	2.0	0.5
Mar.	3.2	1.7	1.5	0.2	0.0	0.2	0.6	0.4	0.2	2.4	1.4	1.0
Apr.	12.9	0.4	12.5	0.1	0.3	-0.2	0.2	0.0	0.1	12.7	0.2	12.5
May	6.6	1.9	4.7	0.1	0.0	0.1	0.5	0.0	0.5	6.0	1.9	4.2
June	22.6	1.6	21.0	1.1	0.0	1.1	0.7	0.0	0.7	20.8	1.6	19.3
July	15.8	1.8	13.9	1.2	0.0	1.2	1.3	0.3	1.0	13.3	1.5	11.8
Aug.	2.5	6.6	-4.2	0.0	0.1	-0.1	1.0	1.4	-0.5	1.5	5.1	-3.6
Sep.	4.5	2.5	2.0	2.6	0.0	2.6	0.3	0.3	-0.1	1.6	2.1	-0.5
Oct.	27.2	8.0	19.1	0.3	3.2	-2.9	16.1	0.5	15.5	10.8	4.3	6.5
Nov.	7.0	3.3	3.6	0.9	0.0	0.9	1.0	1.3	-0.3	5.0	2.0	3.0
Dec.	13.2	4.6	8.6	0.9	0.0	0.9	0.7	2.2	-1.5	11.6	2.5	9.2
2008 Jan.	3.9	1.4	2.6	0.1	0.0	0.1	0.3	0.7	-0.4	3.5	0.7	2.8
Feb.	2.7	1.9	0.9	1.0	0.0	1.0	0.1	0.3	-0.2	1.6	1.6	0.1
Mar.	6.5	5.8	0.6	5.9	0.0	5.9	0.0	0.5	-0.4	0.6	5.4	-4.8
Apr.	2.1	3.0	-0.9	1.1	0.0	1.1	0.1	0.5	-0.3	0.9	2.5	-1.7
May	8.4	5.9	2.5	4.1	0.1	4.1	1.5	0.3	1.2	2.8	5.6	-2.8

**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 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	4.14	3.18	2.57	3.68	1.95	4.26	4.40	4.03	3.95
2008 Jan.	1.20	4.19	4.32	3.43	2.57	3.75	2.01	4.13	4.38	4.68	3.95
Feb.	1.21	4.10	4.18	3.22	2.65	3.77	2.01	4.07	4.18	4.36	3.93
Mar.	1.22	4.14	3.97	3.08	2.69	3.78	2.03	4.20	4.23	4.07	3.96
Apr.	1.22	4.28	4.16	3.14	2.72	3.81	2.05	4.27	4.56	4.62	4.00
May	1.23	4.32	4.27	3.19	2.73	3.84	2.07	4.26	4.68	4.40	4.03
June	1.24	4.43	4.61	3.27	2.74	3.88	2.06	4.28	4.72	4.02	4.11

### 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>4)</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 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	5.04	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	5.07	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	5.03	5.10	5.11	5.38	5.60	5.95	5.49
Dec.	10.46	8.05	6.93	8.17	8.26	5.32	5.03	5.07	5.18	5.40	5.67	5.83	5.43
2008 Jan.	10.46	8.11	7.00	8.47	8.48	5.32	5.02	5.07	5.14	5.37	5.59	5.93	5.49
Feb.	10.45	8.54	7.24	8.44	8.70	5.26	4.97	5.02	5.11	5.35	5.55	5.87	5.55
Mar.	10.52	8.41	7.05	8.42	8.55	5.20	4.89	4.96	5.11	5.28	5.65	5.79	5.46
Apr.	10.53	8.32	7.02	8.46	8.55	5.23	4.91	4.95	5.12	5.29	5.83	5.80	5.45
May	10.57	8.69	7.01	8.44	8.63	5.34	4.96	4.98	5.13	5.36	5.99	5.87	5.59
June	10.63	8.61	6.91	8.43	8.60	5.47	5.09	5.07	5.20	5.52	6.02	6.11	5.64

### 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	2	3	4	5	6
2007 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	5.96	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.	6.62	6.08	5.96	5.30	5.35	5.62	5.48
2008 Jan.	6.62	5.93	5.92	5.27	5.12	5.35	5.23
Feb.	6.56	5.84	5.86	5.24	5.04	5.43	5.14
Mar.	6.56	5.91	5.77	5.23	5.19	5.44	5.34
Apr.	6.54	6.03	5.77	5.20	5.30	5.42	5.39
May	6.57	6.10	5.93	5.25	5.27	5.70	5.38
June	6.68	6.16	6.07	5.40	5.35	5.66	5.48

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 (cont'd)**

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

**4. Interest rates on deposits (outstanding amounts)**

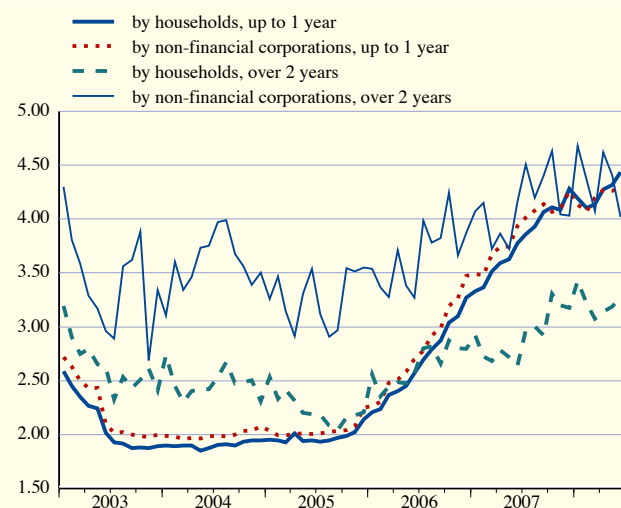
	Deposits from households					Deposits from non-financial corporations			Repos
	Overnight <sup>1)</sup>	With agreed maturity		Redeemable at notice <sup>1)2)</sup>		Overnight <sup>1)</sup>	With agreed maturity		
		Up to 2 years	Over 2 years	Up to 3 months	Over 3 months		Up to 2 years	Over 2 years	
	1	2	3	4	5	6	7	8	9
2007 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	3.95	3.03	2.57	3.68	1.95	4.33	4.17	4.01
2008 Jan.	1.20	3.98	3.06	2.57	3.75	2.01	4.27	4.21	4.01
Feb.	1.21	3.99	3.11	2.65	3.77	2.01	4.23	4.24	3.97
Mar.	1.22	4.01	3.07	2.69	3.78	2.03	4.29	4.24	3.96
Apr.	1.22	4.07	3.07	2.72	3.81	2.05	4.37	4.29	3.91
May	1.23	4.13	3.06	2.73	3.84	2.07	4.43	4.26	4.04
June	1.24	4.20	3.08	2.74	3.88	2.06	4.49	4.32	4.12

**5. Interest rates on loans (outstanding amounts)**

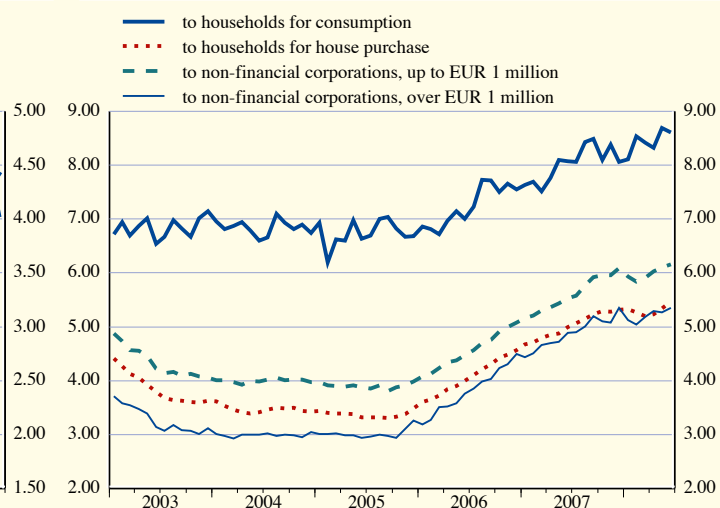
	Loans to households						Loans to non-financial corporations		
	Lending for house purchase, with maturity			Consumer credit and other loans, with maturity			With maturity		
	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Up to 1 year	Over 1 and up to 5 years	Over 5 years
	1	2	3	4	5	6	7	8	9
2007 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	5.35	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.	5.54	4.75	5.00	8.97	7.13	6.22	6.08	5.57	5.28
2008 Jan.	5.62	4.75	5.01	8.99	7.15	6.24	6.06	5.55	5.27
Feb.	5.60	4.82	5.03	9.05	7.21	6.26	5.99	5.52	5.30
Mar.	5.61	4.80	5.02	9.06	7.19	6.25	5.99	5.51	5.27
Apr.	5.59	4.85	5.03	9.07	7.22	6.28	6.04	5.54	5.29
May	5.62	4.85	5.05	9.08	7.22	6.27	6.09	5.59	5.32
June	5.66	4.90	5.08	9.09	7.24	6.33	6.19	5.69	5.39

**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.

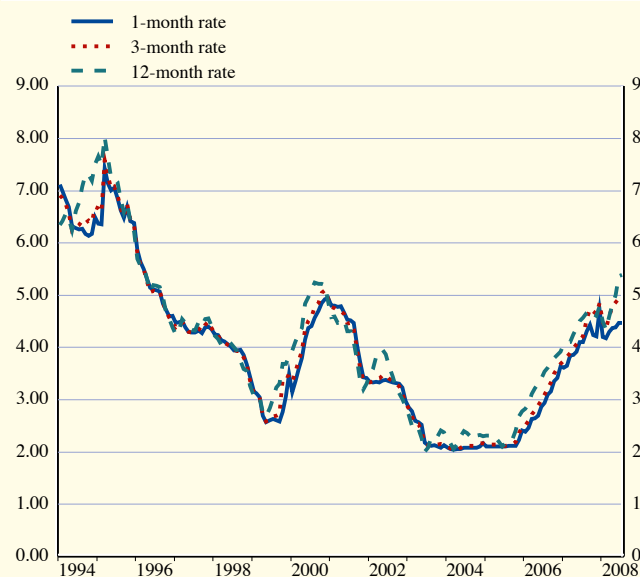
## 4.6 Money market interest rates

(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
2007 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
2008 Q1	4.05	4.23	4.48	4.48	4.48	3.26	0.92
Q2	4.00	4.41	4.86	4.93	5.05	2.75	0.92
2007 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	4.48	4.50	4.50	3.92	0.89
Feb.	4.03	4.18	4.36	4.36	4.35	3.09	0.90
Mar.	4.09	4.30	4.60	4.59	4.59	2.78	0.97
Apr.	3.99	4.37	4.78	4.80	4.82	2.79	0.92
May	4.01	4.39	4.86	4.90	4.99	2.69	0.92
June	4.01	4.47	4.94	5.09	5.36	2.77	0.92
July	4.19	4.47	4.96	5.15	5.39	2.79	0.92

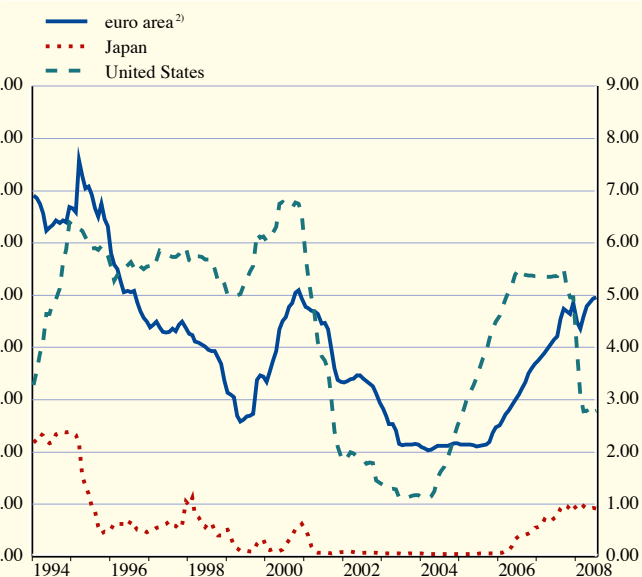
### C23 Euro area money market rates <sup>2)</sup>

(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.

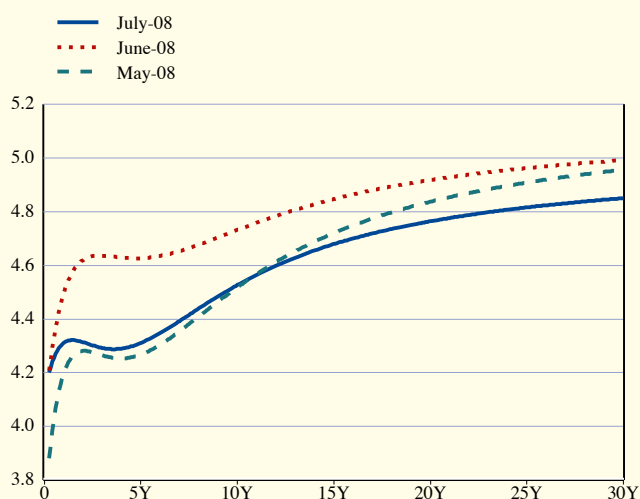
### 4.7 Euro area yield curves <sup>1)</sup>

(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
	1	2	3	4	5	6	7	8	9	10	11	12
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
Feb.	3.83	3.42	3.20	3.43	3.72	4.06	0.23	0.86	3.04	3.03	4.16	4.99
Mar.	3.87	3.70	3.60	3.70	3.87	4.13	0.26	0.54	3.53	3.49	4.10	4.91
Apr.	3.90	3.89	3.86	3.95	4.10	4.32	0.42	0.46	3.86	3.81	4.29	4.95
May	3.88	4.20	4.28	4.27	4.35	4.52	0.64	0.24	4.41	4.29	4.40	5.03
June	4.21	4.49	4.62	4.63	4.65	4.73	0.52	0.11	4.73	4.72	4.64	5.00
July	4.20	4.31	4.31	4.31	4.39	4.53	0.33	0.21	4.36	4.27	4.46	4.93

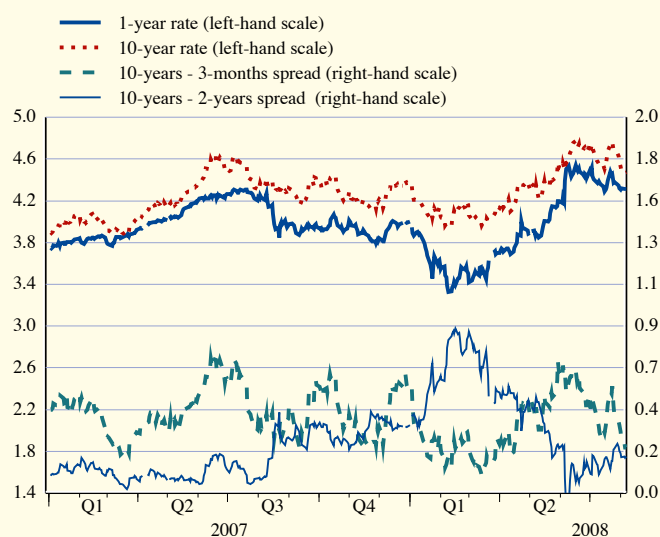
### C25 Euro area spot yield curves

(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.



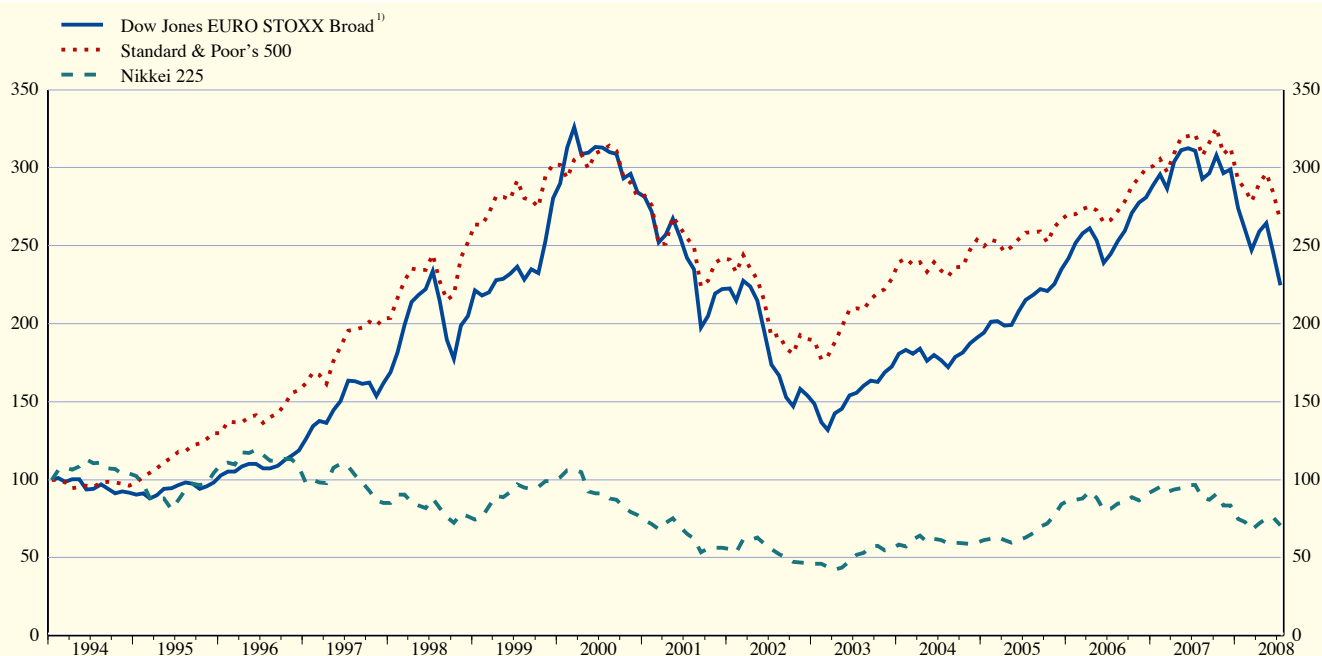
## 4.8 Stock market indices

(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
2007 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
2008 Q1	361.8	3,809.4	520.9	194.0	327.1	412.0	318.1	413.3	339.2	573.3	490.1	454.4	1,351.7	13,372.7
Q2	355.9	3,705.6	576.2	185.0	317.8	442.8	313.7	408.2	306.5	557.1	437.7	427.1	1,371.7	13,818.3
2007 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
Feb.	360.6	3,776.6	520.7	194.0	323.8	407.6	311.9	417.7	356.2	573.9	493.2	452.6	1,354.6	13,522.6
Mar.	342.9	3,587.3	511.4	184.7	317.6	395.2	300.8	394.7	308.9	540.2	444.9	414.1	1,317.5	12,586.6
Apr.	359.6	3,768.1	553.9	189.3	324.6	423.2	326.5	406.2	312.8	550.2	449.3	429.6	1,370.5	13,382.1
May	367.1	3,812.8	588.9	189.2	328.2	462.5	325.8	424.3	313.2	567.2	447.5	436.3	1,402.0	14,000.2
June	340.2	3,527.8	586.2	176.1	299.6	442.6	287.6	393.5	292.8	553.8	415.3	414.7	1,341.3	14,084.6
July	311.9	3,298.7	529.0	158.2	272.7	401.5	260.0	348.6	281.7	513.7	412.7	418.1	1,257.6	13,153.0

### 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	82.6	59.1	40.9	100.0	11.9	7.6	29.8	9.8	40.9	87.8	12.2
	1	2	3	4	5	6	7	8	9	10	11	12	13
2004	97.9	2.1	2.1	1.8	2.6	-	-	-	-	-	-	1.9	3.6
2005	100.0	2.2	1.5	2.1	2.3	-	-	-	-	-	-	2.1	2.5
2006	102.2	2.2	1.5	2.3	2.0	-	-	-	-	-	-	2.1	2.6
2007	104.4	2.1	2.0	1.9	2.5	-	-	-	-	-	-	2.2	2.0
2007 Q2	104.4	1.9	1.9	1.5	2.6	0.8	0.5	0.8	0.2	3.3	0.7	1.9	2.1
Q3	104.4	1.9	2.0	1.5	2.5	0.5	1.1	0.9	0.2	0.7	0.6	1.9	1.7
Q4	105.7	2.9	2.3	3.2	2.5	1.0	2.6	1.2	0.3	2.9	0.6	3.1	1.8
2008 Q1	106.4	3.4	2.5	3.9	2.6	1.0	2.0	0.5	0.2	3.4	0.7	3.5	2.2
Q2	108.1	3.6	2.5	4.5	2.4	1.1	1.1	1.1	0.1	5.9	0.5	3.8	2.4
2008 Feb.	106.2	3.3	2.4	3.8	2.4	0.2	0.7	-0.3	0.2	0.1	0.2	3.4	2.1
Mar.	107.2	3.6	2.7	4.1	2.8	0.6	0.3	0.7	0.1	2.3	0.5	3.7	2.4
Apr.	107.6	3.3	2.4	4.0	2.3	0.1	0.4	0.2	0.0	1.0	-0.3	3.4	2.3
May	108.2	3.7	2.5	4.5	2.5	0.6	0.2	0.6	0.0	3.6	0.4	3.8	2.4
June	108.6	4.0	2.5	4.9	2.5	0.5	0.4	0.3	0.1	2.5	0.3	4.2	2.5
July <sup>4)</sup>	.	4.1	.	.	.	.	.	.	.	.	.	.	.

	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						
% of total <sup>3)</sup>	19.5	11.9	7.6	39.6	29.8	9.8	10.1	6.0	6.1	3.3	14.7	6.8
	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
2007 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
2008 Q1	5.2	6.4	3.5	3.2	0.8	10.7	2.5	1.9	3.1	-2.5	3.2	3.2
Q2	5.7	7.0	3.6	3.9	0.8	13.5	2.3	1.9	3.7	-1.7	3.0	2.2
2008 Jan.	4.9	5.9	3.3	3.1	0.7	10.6	2.6	1.9	3.1	-2.9	3.0	3.3
Feb.	5.2	6.5	3.3	3.1	0.8	10.4	2.5	1.9	3.0	-3.1	3.1	3.2
Mar.	5.6	6.8	3.8	3.4	0.9	11.2	2.5	1.9	3.3	-1.5	3.7	3.1
Apr.	5.4	7.0	3.1	3.2	0.8	10.8	2.4	1.8	3.2	-1.6	2.7	2.1
May	5.8	6.9	3.9	3.9	0.7	13.7	2.3	1.9	3.8	-1.7	3.1	2.2
June	5.8	7.0	3.9	4.5	0.7	16.0	2.2	1.9	4.0	-1.6	3.2	2.2

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 2008.

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	Interme- diate 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	105.8	2.3	2.6	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	1.9	2.9	1.4	1.1	1.3	1.1	13.6	2.8	7.8	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	4.2	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	4.0	4.5	3.9	9.2	52.8	
2007 Q2	118.5	2.4	2.6	3.2	5.4	2.0	1.7	1.8	1.7	-0.4	4.5	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	3.6	-	2.0	6.7	54.2	
Q4	121.2	4.0	4.5	3.2	3.7	1.5	3.6	1.9	3.9	7.0	3.4	4.0 <sup>6)</sup>	23.5	1.6	61.0	
2008 Q1	123.6	5.4	5.4	3.6	4.2	1.5	4.4	2.3	4.8	11.7	3.1	-	36.5	11.9	64.2	
Q2	127.0	7.1	6.3	3.8	4.5	1.8	4.4	2.3	4.8	18.0	-	-	44.0	7.1	78.5	
2008 Feb.	123.6	5.4	5.4	3.6	4.2	1.5	4.3	2.3	4.7	11.7	-	-	37.2	15.0	64.1	
Mar.	124.5	5.8	5.7	3.8	4.4	1.5	4.6	2.5	5.0	12.6	-	-	34.8	10.3	66.1	
Apr.	125.5	6.2	5.5	3.7	4.3	1.7	4.5	2.4	4.9	14.4	-	-	32.7	5.8	69.8	
May	127.1	7.1	6.4	3.8	4.3	1.8	4.4	2.3	4.8	18.2	-	-	47.7	6.0	80.1	
June	128.3	8.0	6.9	4.0	4.8	2.0	4.4	2.3	4.8	21.4	-	-	51.2	9.6	85.9	
July	-	-	-	-	-	-	-	-	-	-	-	-	46.8	9.8	85.3	

### 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
2004	113.6	2.5	2.3	3.2	2.9	2.7	2.3	2.1
2005	116.7	2.7	2.8	2.7	2.6	2.4	2.9	2.1
2006	119.6	2.5	2.7	2.2	3.3	2.1	2.1	2.3
2007	122.8	2.6	2.8	2.1	2.8	3.1	2.5	2.2
2007 Q1	121.4	2.3	2.4	1.9	2.5	1.9	2.2	2.0
Q2	122.3	2.7	2.8	2.3	3.1	2.9	2.4	2.3
Q3	123.2	2.6	2.8	2.3	2.4	3.6	2.6	2.2
Q4	124.2	2.9	3.2	2.0	3.1	3.9	2.6	2.1
2008 Q1	125.1	3.3	3.7	2.3	3.7	4.0	3.0	2.9

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						
			Agriculture, hunting, forestry and fishing	Mining, manufacturing and energy	Construction	Trade, repairs, hotels and restaurants, transport and communication	Financial, real estate, renting and business services		
	1	2	3	4	5	6	7	8	
Unit labour costs <sup>1)</sup>									
2004	107.6	0.8	-11.3	-1.1	3.3	0.3	2.2	2.1	
2005	108.8	1.1	7.5	-0.5	3.0	0.8	1.6	2.0	
2006	109.9	1.0	2.1	-0.4	1.3	0.3	2.3	2.5	
2007	111.6	1.5	1.1	-0.3	3.9	0.6	3.0	2.0	
2007 Q1	110.7	1.0	0.3	-0.8	2.1	-0.4	2.5	2.2	
Q2	111.5	1.3	1.8	0.1	4.2	0.2	3.3	0.9	
Q3	111.5	1.4	1.9	-0.8	4.8	1.1	2.7	1.9	
Q4	112.6	2.4	1.4	0.2	4.8	1.7	3.6	2.8	
2008 Q1	113.3	2.4	1.2	1.0	2.6	1.8	4.3	2.5	
Compensation per employee									
2004	110.0	2.1	1.2	2.9	2.9	1.5	1.7	2.4	
2005	112.0	1.8	1.8	1.8	2.0	1.7	2.3	1.8	
2006	114.5	2.2	2.7	3.4	3.4	1.6	2.2	1.6	
2007	117.3	2.4	3.2	2.8	3.3	1.9	1.9	2.4	
2007 Q1	116.3	2.4	3.0	2.4	4.0	2.1	2.1	2.5	
Q2	117.0	2.2	3.7	3.1	2.4	1.9	1.7	1.7	
Q3	117.3	2.2	3.1	2.4	3.2	2.0	1.6	2.2	
Q4	118.5	2.8	2.9	3.0	3.6	1.8	2.4	3.1	
2008 Q1	119.7	2.9	3.6	3.3	4.0	2.0	2.9	2.7	
Labour productivity <sup>2)</sup>									
2004	102.2	1.3	14.1	4.1	-0.3	1.1	-0.5	0.3	
2005	103.0	0.7	-5.3	2.2	-1.0	0.9	0.7	-0.2	
2006	104.2	1.2	0.5	3.8	2.1	1.3	-0.1	-0.8	
2007	105.1	0.8	2.0	3.1	-0.6	1.3	-1.1	0.4	
2007 Q1	105.1	1.5	2.7	3.3	1.9	2.5	-0.4	0.3	
Q2	104.9	0.9	1.9	3.0	-1.7	1.7	-1.6	0.8	
Q3	105.2	0.7	1.1	3.2	-1.5	0.9	-1.0	0.3	
Q4	105.2	0.4	1.5	2.8	-1.2	0.1	-1.2	0.3	
2008 Q1	105.7	0.5	2.4	2.3	1.4	0.3	-1.4	0.2	

**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
2004	109.5	1.9	2.1	2.1	2.2	2.5	1.0	1.4
2005	111.6	2.0	2.3	2.1	2.5	2.6	2.5	3.5
2006	113.8	1.9	2.4	2.2	1.9	2.9	2.7	3.9
2007	116.3	2.2	2.2	2.1	1.5	2.7	1.4	1.2
2007 Q1	115.4	2.2	1.9	1.9	1.5	2.9	1.3	0.5
Q2	116.1	2.3	1.9	1.9	0.7	2.9	1.6	0.8
Q3	116.7	2.3	2.2	1.9	1.4	2.5	1.2	0.9
Q4	117.1	2.3	2.7	2.7	2.3	2.4	1.5	2.7
2008 Q1	117.8	2.1	2.8	3.0	2.1	2.2	2.3	4.0

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>									
2004	7,809.8	7,661.1	4,479.1	1,594.0	1,578.6	9.4	148.8	2,858.5	2,709.7
2005	8,106.0	7,997.2	4,650.3	1,658.8	1,672.0	16.2	108.8	3,076.0	2,967.2
2006	8,504.7	8,411.9	4,844.9	1,723.7	1,814.8	28.5	92.8	3,413.3	3,320.5
2007	8,926.1	8,796.2	5,024.6	1,789.9	1,944.8	36.9	130.0	3,670.2	3,540.2
2007 Q1	2,199.1	2,168.4	1,235.1	442.3	478.9	12.0	30.7	893.9	863.2
Q2	2,220.7	2,184.5	1,250.3	444.9	482.5	6.7	36.2	909.2	873.0
Q3	2,245.1	2,212.5	1,263.3	449.4	488.1	11.6	32.7	929.9	897.2
Q4	2,261.2	2,230.8	1,275.9	453.1	495.2	6.5	30.4	937.3	906.8
2008 Q1	2,292.3	2,265.8	1,288.5	457.7	506.7	12.8	26.5	964.2	937.7
<i>percentage of GDP</i>									
2007	100.0	98.5	56.3	20.1	21.8	0.4	1.5	-	-
<i>Chain-linked volumes (prices of the previous year, seasonally adjusted<sup>3)</sup>)</i>									
<i>quarter-on-quarter percentage changes</i>									
2007 Q1	0.8	1.1	0.1	1.1	1.3	-	-	0.9	1.5
Q2	0.3	0.1	0.6	0.2	0.0	-	-	1.0	0.3
Q3	0.6	0.8	0.5	0.6	0.7	-	-	2.0	2.4
Q4	0.4	0.1	-0.1	0.1	1.1	-	-	0.4	-0.2
2008 Q1	0.7	0.7	0.2	0.4	1.6	-	-	1.9	2.0
<i>annual percentage changes</i>									
2004	2.1	1.9	1.6	1.4	2.4	-	-	7.2	7.0
2005	1.7	1.9	1.7	1.5	3.1	-	-	4.7	5.6
2006	2.8	2.7	1.8	2.0	5.2	-	-	7.9	7.6
2007	2.7	2.3	1.6	2.3	4.5	-	-	6.1	5.3
2007 Q1	3.2	3.0	1.5	2.4	6.8	-	-	6.7	6.1
Q2	2.6	2.2	1.8	2.3	3.9	-	-	6.0	5.2
Q3	2.7	2.2	1.8	2.5	3.8	-	-	7.1	6.1
Q4	2.2	2.0	1.2	2.0	3.1	-	-	4.4	4.0
2008 Q1	2.1	1.6	1.2	1.4	3.5	-	-	5.5	4.5
<i>contributions to quarter-on-quarter percentage changes of GDP in percentage points</i>									
2007 Q1	0.8	1.1	0.1	0.2	0.3	0.5	-0.2	-	-
Q2	0.3	0.1	0.3	0.0	0.0	-0.3	0.3	-	-
Q3	0.6	0.7	0.3	0.1	0.2	0.2	-0.1	-	-
Q4	0.4	0.1	0.0	0.0	0.2	-0.1	0.3	-	-
2008 Q1	0.7	0.7	0.1	0.1	0.3	0.2	0.0	-	-
<i>contributions to annual percentage changes of GDP in percentage points</i>									
2004	2.1	1.9	0.9	0.3	0.5	0.2	0.2	-	-
2005	1.7	1.9	0.9	0.3	0.6	0.0	-0.2	-	-
2006	2.8	2.6	1.0	0.4	1.1	0.1	0.2	-	-
2007	2.7	2.3	0.9	0.5	1.0	0.0	0.3	-	-
2007 Q1	3.2	3.0	0.9	0.5	1.4	0.2	0.3	-	-
Q2	2.6	2.2	1.0	0.5	0.8	-0.1	0.4	-	-
Q3	2.7	2.2	1.0	0.5	0.8	-0.2	0.5	-	-
Q4	2.2	1.9	0.7	0.4	0.7	0.2	0.2	-	-
2008 Q1	2.1	1.6	0.7	0.3	0.8	-0.1	0.4	-	-

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
<i>Current prices (EUR billions, seasonally adjusted)</i>								
2004	7,011.1	153.5	1,436.5	414.2	1,488.7	1,914.6	1,603.7	798.7
2005	7,264.4	142.0	1,474.6	440.0	1,529.1	2,013.7	1,665.0	841.6
2006	7,595.2	139.6	1,540.2	482.5	1,586.9	2,123.0	1,723.1	909.5
2007	7,967.7	150.3	1,616.9	520.7	1,655.5	2,235.7	1,788.7	958.5
2007 Q1	1,958.7	36.5	398.3	128.4	407.6	547.4	440.6	240.4
Q2	1,982.7	36.9	402.6	129.0	412.0	556.2	446.0	237.9
Q3	2,006.4	38.2	407.5	130.8	417.5	563.2	449.1	238.7
Q4	2,019.8	38.7	408.4	132.5	418.3	568.9	452.9	241.4
2008 Q1	2,049.1	40.1	416.7	136.7	425.1	574.9	455.7	243.2
<i>percentage of value added</i>								
2007	100.0	1.9	20.3	6.5	20.8	28.1	22.4	-
<i>Chain-linked volumes (prices of the previous year, seasonally adjusted<sup>1)</sup>)</i>								
<i>quarter-on-quarter percentage changes</i>								
2007 Q1	0.9	1.0	1.0	1.4	0.7	0.9	0.6	0.4
Q2	0.5	-1.0	0.5	-1.0	0.7	0.7	0.5	-0.8
Q3	0.6	-1.4	1.0	0.4	0.8	0.7	0.3	0.7
Q4	0.4	1.4	0.5	0.4	0.1	0.6	0.3	-0.2
2008 Q1	0.7	1.5	0.7	2.1	0.9	0.3	0.3	1.3
<i>annual percentage changes</i>								
2004	2.2	10.9	2.7	0.9	2.3	1.9	1.6	1.0
2005	1.7	-6.1	1.1	1.6	1.7	3.1	1.3	1.6
2006	2.8	-0.9	3.4	4.7	2.8	3.6	1.1	3.0
2007	2.8	0.9	3.4	3.2	3.0	3.2	1.7	1.4
2007 Q1	3.4	2.5	3.6	6.7	3.7	3.6	1.7	2.2
Q2	2.8	0.4	3.3	2.8	3.2	3.0	1.8	1.2
Q3	2.7	-0.2	3.5	2.2	3.1	3.2	1.7	1.9
Q4	2.4	0.0	3.1	1.3	2.3	3.0	1.6	0.1
2008 Q1	2.2	0.5	2.8	1.9	2.6	2.4	1.3	1.1
<i>contributions to quarter-on-quarter percentage changes of value added in percentage points</i>								
2007 Q1	0.9	0.0	0.2	0.1	0.1	0.3	0.1	-
Q2	0.5	0.0	0.1	-0.1	0.1	0.2	0.1	-
Q3	0.6	0.0	0.2	0.0	0.2	0.2	0.1	-
Q4	0.4	0.0	0.1	0.0	0.0	0.2	0.1	-
2008 Q1	0.7	0.0	0.1	0.1	0.2	0.1	0.1	-
<i>contributions to annual percentage changes of value added in percentage points</i>								
2004	2.2	0.2	0.6	0.1	0.5	0.5	0.4	-
2005	1.7	-0.1	0.2	0.1	0.4	0.8	0.3	-
2006	2.8	0.0	0.7	0.3	0.6	1.0	0.3	-
2007	2.8	0.0	0.7	0.2	0.6	0.9	0.4	-
2007 Q1	3.4	0.0	0.7	0.4	0.8	1.0	0.4	-
Q2	2.8	0.0	0.7	0.2	0.7	0.8	0.4	-
Q3	2.7	0.0	0.7	0.1	0.6	0.9	0.4	-
Q4	2.4	0.0	0.6	0.1	0.5	0.8	0.4	-
2008 Q1	2.2	0.0	0.6	0.1	0.5	0.7	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	
	% of total <sup>1)</sup>	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		
1	2	3	4	5	6	7	8	9	10	11	12	
2005	1.4	104.0	1.4	1.4	1.2	0.9	3.0	0.5	-0.7	0.7	1.4	0.7
2006	4.0	108.2	4.0	4.4	4.4	5.0	5.9	2.5	4.4	2.2	0.8	3.9
2007	3.4	111.8	3.4	4.0	3.7	3.8	5.9	2.4	1.4	2.5	-0.6	3.2
2007 Q2	2.9	111.2	2.8	3.3	3.4	3.2	4.9	2.0	1.5	2.1	-0.3	2.5
Q3	3.7	112.8	3.9	4.2	4.0	3.6	6.6	3.1	2.3	3.2	1.1	1.7
Q4	2.5	112.8	3.0	2.6	2.0	1.9	5.2	0.7	-2.5	1.2	5.5	-0.5
2008 Q1	2.4	113.2	2.5	1.8	1.7	1.5	5.1	0.2	-1.7	0.6	4.4	1.4
2007 Dec.	0.8	112.6	1.5	1.3	0.8	0.5	3.0	-0.3	-4.7	0.4	4.3	-3.8
2008 Jan.	3.3	113.3	3.3	3.2	3.0	2.2	6.6	1.6	-0.3	1.9	2.9	3.2
Feb.	3.3	113.5	3.1	2.8	3.4	1.9	6.4	0.8	-0.8	1.0	4.5	4.5
Mar.	0.9	112.9	1.3	-0.3	-0.8	0.5	2.8	-1.5	-3.8	-1.1	6.1	-2.7
Apr.	3.1	114.0	4.0	4.4	4.4	2.6	7.5	0.7	1.2	0.6	6.3	-2.2
May	-0.7	111.9	-0.5	-0.5	-1.2	-0.7	2.4	-3.6	-5.1	-3.4	-1.1	-1.5
<i>month-on-month percentage changes (s.a.)</i>												
2007 Dec.	0.0	-	0.0	0.2	0.2	0.6	-0.6	0.1	-0.2	0.1	0.3	-0.5
2008 Jan.	0.9	-	0.6	1.1	1.2	0.7	2.3	0.7	1.8	0.5	-4.4	2.5
Feb.	0.4	-	0.2	0.1	0.4	0.2	0.5	-0.4	-0.1	-0.4	1.7	1.1
Mar.	-1.0	-	-0.6	-0.7	-1.8	-0.6	-1.8	-0.7	-2.0	-0.5	2.9	-2.8
Apr.	0.7	-	1.0	0.5	2.1	0.4	2.2	0.5	2.0	0.2	-1.1	-0.6
May	-1.6	-	-1.9	-1.5	-2.4	-1.4	-2.1	-1.8	-3.3	-1.5	-2.6	0.2

### 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			
1	2	3	4	5	6	7	8	9	10	11	12	13	
% of total <sup>1)</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	43.7	56.3	10.6	14.8		
2005	109.2	3.9	110.8	3.6	2.3	106.8	1.4	0.8	1.8	2.5	1.4	939	0.9
2006	119.3	9.3	118.9	7.3	2.9	108.5	1.6	0.3	2.5	2.7	4.4	968	3.0
2007	128.9	8.3	126.1	6.3	2.4	109.6	0.9	-0.3	1.8	3.2	2.0	964	-0.5
2007 Q3	129.1	6.5	127.4	6.3	2.6	110.0	1.3	-0.8	2.7	5.6	2.6	963	2.1
Q4	131.4	8.2	127.0	5.2	2.1	109.1	-0.3	-0.8	0.1	0.3	-1.3	976	0.3
2008 Q1	130.9	3.9	131.3	4.4	3.1	108.9	-0.2	-1.5	0.7	0.0	-1.5	947	-0.6
Q2	.	.	.	.	2.0	108.0	-1.7	-2.7	-1.0	.	.	910	-5.0
2008 Jan.	131.4	7.0	132.1	7.4	3.8	109.4	0.8	-1.6	2.4	2.8	0.3	949	-1.3
Feb.	131.4	9.4	131.8	10.2	4.8	109.2	1.7	0.5	2.3	4.8	0.0	975	5.7
Mar.	130.1	-3.7	130.0	-3.2	0.9	108.1	-2.8	-3.3	-2.5	-6.8	-4.3	916	-4.7
Apr.	132.8	12.4	132.7	14.3	1.1	107.9	-1.8	-2.2	-1.3	-8.7	-1.3	942	2.2
May	127.9	-4.6	131.2	1.0	3.4	108.4	-0.1	-1.4	0.6	5.1	-0.7	897	-9.9
June	.	.	.	.	1.4	107.8	-3.1	-4.4	-2.2	.	.	891	-6.5
<i>month-on-month percentage changes (s.a.)</i>													
2008 Jan.	-	2.0	-	5.1	0.9	-	0.6	0.0	1.0	2.2	0.8	-	-5.3
Feb.	-	0.0	-	-0.2	0.1	-	-0.2	0.1	-0.4	1.5	-0.1	-	2.7
Mar.	-	-1.0	-	-1.4	-0.9	-	-1.0	-0.4	-1.4	-6.3	-2.2	-	-6.0
Apr.	-	2.1	-	2.1	0.4	-	-0.2	-0.5	-0.1	-0.5	0.9	-	2.8
May	-	-3.6	-	-1.1	0.6	-	0.5	-0.2	1.0	6.0	0.3	-	-4.8
June	-	.	-	.	-0.1	-	-0.6	-0.4	-0.6	.	.	-	-0.7

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
2007 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
2008 Q1	100.5	0	-1	7	10	83.9	-12	-7	-17	11	-12
Q2	96.5	-3	-6	9	7	83.4	-15	-10	-22	13	-14
Q3	.	.	.	.	.	.	.	.	.	.	.
2008 Feb.	100.2	0	-2	7	10	-	-12	-7	-18	12	-12
Mar.	99.6	0	-1	7	8	-	-12	-7	-17	11	-13
Apr.	97.1	-2	-5	9	8	83.8	-12	-8	-19	11	-12
May	97.6	-2	-5	8	7	-	-15	-10	-21	13	-15
June	94.8	-5	-9	10	5	-	-17	-12	-25	14	-16
July	89.5	-8	-13	11	1	82.9	-20	-13	-30	20	-16
	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
2007 Q3	0	-8	7	1	7	14	11	20	16	20	24
Q4	-3	-11	4	0	4	16	13	15	11	14	20
2008 Q1	-7	-14	-1	-1	2	16	12	10	4	12	15
Q2	-11	-17	-4	-3	-1	16	7	8	3	9	13
Q3	.	.	.	.	.	.	.	.	.	.	.
2008 Feb.	-7	-13	-2	1	5	16	14	10	3	13	13
Mar.	-9	-15	-3	1	5	15	11	9	2	11	13
Apr.	-12	-18	-6	-5	-4	18	6	7	1	7	12
May	-9	-16	-2	-1	3	14	8	8	4	9	13
June	-11	-19	-4	-4	-3	17	7	9	4	10	14
July	-14	-22	-6	-9	-10	17	1	1	-7	4	7

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	85.0	15.0	4.0	17.1	7.7	25.4	15.8	30.0
	1	2	3	4	5	6	7	8	9	10
2004	138.375	0.7	0.7	0.9	-2.8	-1.4	1.3	1.2	2.4	1.3
2005	139.691	1.0	1.1	0.4	-0.8	-1.1	2.6	0.8	2.4	1.5
2006	141.917	1.6	1.7	0.8	-1.5	-0.4	2.6	1.5	3.8	2.0
2007	144.459	1.8	2.0	0.7	-1.1	0.3	3.9	1.7	4.3	1.3
2007 Q1	143.484	1.8	2.0	0.5	-0.1	0.3	4.9	1.1	4.1	1.4
Q2	144.232	1.7	1.9	0.6	-1.4	0.4	4.6	1.4	4.6	1.0
Q3	144.832	1.9	2.0	1.3	-1.3	0.2	3.6	2.2	4.2	1.4
Q4	145.288	1.8	2.0	0.5	-1.6	0.3	2.4	2.3	4.2	1.3
2008 Q1	145.729	1.6	1.8	0.7	-1.8	0.5	0.6	2.3	3.8	1.1
	<i>quarter-on-quarter percentage changes (s.a.)</i>									
2007 Q1	0.775	0.5	0.6	0.4	0.8	0.1	1.9	0.4	1.3	0.1
Q2	0.748	0.5	0.5	0.5	-0.6	0.1	0.4	0.8	1.3	0.3
Q3	0.601	0.4	0.5	0.1	-1.1	0.0	-0.1	0.8	0.7	0.5
Q4	0.456	0.3	0.5	-0.6	-0.6	0.2	0.3	0.1	0.9	0.4
2008 Q1	0.442	0.3	0.3	0.6	0.4	0.2	-0.1	0.5	0.9	-0.1

### 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		78.1		21.9		49.7		50.3	
	1	2	3	4	5	6	7	8	9	10
2004	13.100	8.8	10.159	7.7	2.941	17.1	6.557	7.9	6.543	9.9
2005	13.286	8.8	10.341	7.8	2.945	17.2	6.697	8.0	6.589	9.9
2006	12.513	8.2	9.774	7.2	2.740	16.2	6.215	7.4	6.298	9.3
2007	11.372	7.4	8.894	6.5	2.478	14.8	5.591	6.6	5.781	8.4
2007 Q1	11.633	7.6	9.098	6.7	2.535	15.2	5.705	6.8	5.928	8.7
Q2	11.405	7.5	8.933	6.6	2.473	14.8	5.583	6.6	5.823	8.5
Q3	11.274	7.3	8.828	6.5	2.445	14.6	5.561	6.6	5.712	8.3
Q4	11.176	7.3	8.718	6.4	2.458	14.7	5.515	6.5	5.660	8.2
2008 Q1	11.113	7.2	8.679	6.3	2.434	14.5	5.500	6.5	5.613	8.1
2008 Jan.	11.129	7.2	8.696	6.3	2.433	14.5	5.495	6.5	5.635	8.1
Feb.	11.104	7.2	8.672	6.3	2.432	14.5	5.492	6.5	5.612	8.1
Mar.	11.106	7.2	8.668	6.3	2.438	14.5	5.512	6.5	5.594	8.1
Apr.	11.212	7.2	8.742	6.3	2.471	14.7	5.594	6.6	5.618	8.1
May	11.294	7.3	8.799	6.4	2.495	14.8	5.672	6.6	5.622	8.1
June	11.352	7.3	8.849	6.4	2.504	14.9	5.731	6.7	5.622	8.1

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

	Current revenue											Capital revenue		Memo: fiscal burden <sup>2)</sup>
	Total	Direct taxes					Indirect taxes	Social contributions			Sales	Capital taxes		
		Households	Corporations	Received by EU institutions	Employers	Employees								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1999	47.0	46.7	12.5	9.3	2.9	14.1	0.6	16.1	8.3	4.9	2.3	0.3	0.3	43.0
2000	46.5	46.2	12.7	9.4	3.0	13.9	0.6	15.8	8.2	4.8	2.2	0.3	0.3	42.6
2001	45.7	45.5	12.3	9.2	2.7	13.5	0.5	15.6	8.1	4.7	2.2	0.2	0.3	41.7
2002	45.2	44.8	11.8	9.1	2.5	13.5	0.4	15.6	8.2	4.6	2.1	0.3	0.3	41.2
2003	45.0	44.4	11.4	8.8	2.3	13.5	0.4	15.7	8.2	4.6	2.1	0.6	0.5	41.1
2004	44.6	44.1	11.3	8.5	2.5	13.5	0.3	15.6	8.1	4.5	2.1	0.5	0.4	40.8
2005	44.9	44.4	11.6	8.6	2.6	13.7	0.3	15.4	8.1	4.5	2.2	0.5	0.3	41.0
2006	45.5	45.2	12.1	8.8	3.0	13.9	0.3	15.4	8.1	4.5	2.1	0.3	0.3	41.6
2007	45.6	45.4	12.5	9.0	3.2	13.9	0.3	15.2	8.0	4.4	2.1	0.3	0.3	41.9

### 2. Euro area – expenditure

	Current expenditure									Capital expenditure			Memo: primary expenditure <sup>3)</sup>	
	Total	Compensation of employees	Intermediate consumption	Interest	Current transfers	Social payments		Subsidies	Paid by EU institutions	Investment	Capital transfers	Paid by EU institutions		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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	44.3
2000	46.5	43.8	10.4	4.8	3.9	24.7	21.7	2.0	0.5	2.8	2.5	1.3	0.0	42.6
2001	47.6	43.7	10.3	4.8	3.8	24.8	21.7	1.9	0.5	3.9	2.5	1.4	0.0	43.8
2002	47.7	43.9	10.4	4.9	3.5	25.1	22.2	1.9	0.5	3.8	2.4	1.4	0.0	44.2
2003	48.1	44.2	10.5	4.9	3.3	25.4	22.6	1.9	0.5	3.9	2.5	1.4	0.1	44.8
2004	47.5	43.6	10.4	5.0	3.1	25.1	22.4	1.8	0.5	3.9	2.5	1.4	0.0	44.4
2005	47.4	43.5	10.4	5.1	3.0	25.1	22.3	1.7	0.5	3.9	2.5	1.4	0.0	44.4
2006	46.8	43.0	10.2	5.0	2.9	24.9	22.1	1.7	0.5	3.9	2.5	1.4	0.0	43.9
2007	46.2	42.5	10.1	5.0	3.0	24.5	21.7	1.6	0.4	3.8	2.5	1.3	0.0	43.3

### 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
1999	-1.4	-1.7	-0.1	0.1	0.4	2.7	19.9	10.6	4.8	4.9	1.8	2.3	8.3	11.6
2000	0.0	-0.4	-0.1	0.1	0.5	3.9	19.7	10.4	4.8	4.9	1.8	2.2	8.2	11.6
2001	-1.8	-1.7	-0.4	-0.1	0.3	2.0	19.8	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	20.2	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	1.8	2.1	8.3	12.2
2004	-2.9	-2.5	-0.4	-0.3	0.2	0.2	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	-1.3	-1.4	-0.1	-0.2	0.4	1.6	20.3	10.2	5.0	5.2	1.9	2.1	8.0	12.3
2007	-0.6	-1.1	0.0	0.0	0.5	2.4	20.1	10.1	5.0	5.2	1.9	2.1	7.9	12.2

### 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
2004	0.0	-3.8	1.4	-7.4	-0.3	-3.6	-3.5	-4.1	-1.2	-4.6	-1.7	-3.7	-3.4	-2.3	2.4
2005	-2.3	-3.4	1.6	-5.1	1.0	-2.9	-4.2	-2.4	-0.1	-3.0	-0.3	-1.5	-6.1	-1.5	2.9
2006	0.3	-1.6	3.0	-2.6	1.8	-2.4	-3.4	-1.2	1.3	-2.5	0.5	-1.5	-3.9	-1.2	4.1
2007	-0.2	0.0	0.3	-2.8	2.2	-2.7	-1.9	3.3	2.9	-1.8	0.4	-0.5	-2.6	-0.1	5.3

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

1) The data refer to the Euro 15. Revenue, expenditure and deficit/surplus are based on the ESA 95. Transactions involving the EU budget are included and consolidated.

Transactions among Member States' governments are not consolidated.

2) The fiscal burden comprises taxes and social contributions.

3) Comprises total expenditure minus interest expenditure.

4) Corresponds to final consumption expenditure (P.3) of general government in the ESA 95.

5) 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	MFIs	Other financial corporations	Other sectors	
1	2	3	4	5	6	7	8	9	10	
1998	72.8	2.8	15.2	5.3	49.6	52.5	26.5	14.5	11.5	20.4
1999	72.0	2.9	14.4	4.3	50.5	48.8	25.3	13.8	9.7	23.2
2000	69.3	2.7	13.1	3.7	49.7	44.2	22.0	12.4	9.8	25.1
2001	68.2	2.8	12.4	4.0	49.0	42.0	20.6	11.1	10.4	26.2
2002	68.0	2.7	11.8	4.5	49.0	40.2	19.3	10.7	10.1	27.9
2003	69.2	2.1	12.4	5.0	49.7	39.4	19.5	11.2	8.7	29.7
2004	69.6	2.2	11.9	5.0	50.5	37.6	18.4	10.8	8.3	32.0
2005	70.2	2.4	11.8	4.7	51.3	35.5	17.2	11.1	7.2	34.7
2006	68.5	2.5	11.4	4.1	50.5	33.8	17.5	9.4	6.9	34.6
2007	66.3	2.2	10.8	4.3	49.1	32.3	17.0	8.5	6.9	34.0

### 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
1998	72.8	61.2	6.1	5.2	0.4	8.2	64.6	7.8	15.5	26.4	30.9	71.0	1.8
1999	72.0	60.5	6.0	5.1	0.4	7.3	64.7	6.8	13.6	27.9	30.6	69.9	2.1
2000	69.3	58.1	5.9	4.9	0.4	6.5	62.7	6.1	13.4	27.8	28.0	67.3	1.9
2001	68.2	57.0	6.1	4.7	0.4	7.0	61.2	5.2	13.7	26.5	28.0	66.5	1.7
2002	68.0	56.6	6.3	4.7	0.4	7.6	60.4	5.1	15.3	25.0	27.7	66.6	1.5
2003	69.2	57.0	6.5	5.1	0.6	7.8	61.4	5.0	14.8	25.8	28.6	68.0	1.1
2004	69.6	57.4	6.6	5.1	0.4	7.8	61.7	4.7	14.7	26.2	28.7	68.5	1.1
2005	70.2	57.7	6.7	5.3	0.5	7.9	62.3	4.6	14.9	25.7	29.6	68.9	1.2
2006	68.5	56.0	6.5	5.4	0.5	7.5	61.0	4.5	14.4	24.5	29.6	67.5	1.0
2007	66.3	54.2	6.3	5.3	0.5	7.5	58.9	4.2	14.2	23.4	28.8	65.5	0.8

### 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
2004	94.2	65.6	29.5	98.6	46.2	64.9	103.8	70.2	6.3	72.6	52.4	63.8	58.3	27.6	44.1
2005	92.1	67.8	27.4	98.0	43.0	66.4	105.8	69.1	6.1	70.4	52.3	63.5	63.6	27.5	41.3
2006	88.2	67.6	25.1	95.3	39.7	63.6	106.5	64.8	6.6	64.2	47.9	61.8	64.7	27.2	39.2
2007	84.9	65.0	25.4	94.5	36.2	64.2	104.0	59.8	6.8	62.6	45.4	59.1	63.6	24.1	35.4

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

- 1) The data refer to the Euro 15. 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	
1999	2.0	1.6	0.4	0.0	-0.1	0.2	-0.2	-0.9	2.8	-1.6	-0.2	-0.2	3.6
2000	1.0	1.1	0.0	-0.1	0.0	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	0.7	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	0.0	0.0	0.0	0.3	0.3	-0.1	2.6	-0.8	-0.6	0.7	3.9
2006	1.5	1.4	0.1	0.0	0.0	0.2	0.1	-0.4	1.5	0.0	1.1	-1.2	1.5
2007	1.1	1.1	0.0	0.0	0.0	-0.1	-0.1	0.4	0.9	0.1	0.3	-0.5	1.0

#### 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	
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	-0.1	0.1
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	-0.1
2003	3.1	-3.1	0.0	0.1	0.1	0.0	0.0	0.1	-0.2	0.1	-0.2	-0.1	0.0	0.1
2004	3.1	-2.9	0.2	0.3	0.2	0.0	0.1	0.0	-0.5	0.2	-0.1	-0.1	0.0	0.0
2005	3.1	-2.6	0.5	0.7	0.4	0.1	0.1	0.1	-0.3	0.2	0.0	0.0	0.0	-0.2
2006	1.5	-1.3	0.1	0.4	0.4	-0.1	0.3	-0.1	-0.3	0.1	0.1	0.0	0.0	-0.3
2007	1.1	-0.6	0.5	0.5	0.2	0.0	0.2	0.1	-0.3	0.2	0.0	0.0	0.0	0.0

Source: ECB.

- The data refer to the Euro 15 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.
- Holders 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	Indirect taxes	Social contributions	Sales	Property income	8	Capital taxes	
2002 Q1	41.8	41.4	10.1	12.7	15.4	1.7	0.7	0.4	0.2	38.4
Q2	45.5	45.0	12.4	12.7	15.4	1.9	1.7	0.5	0.3	40.9
Q3	43.5	43.0	11.2	12.8	15.4	1.9	0.7	0.4	0.3	39.7
Q4	49.0	48.4	13.4	14.0	16.2	2.9	0.9	0.6	0.3	44.0
2003 Q1	41.9	41.4	9.8	12.8	15.5	1.7	0.7	0.5	0.2	38.3
Q2	46.0	44.6	12.0	12.9	15.7	2.0	1.4	1.5	1.2	41.7
Q3	42.6	42.2	10.8	12.5	15.5	1.9	0.6	0.5	0.2	39.1
Q4	49.2	48.2	13.1	14.2	16.2	2.9	0.8	1.0	0.3	43.8
2004 Q1	41.3	40.9	9.6	12.8	15.3	1.7	0.6	0.4	0.3	38.0
Q2	45.0	44.2	12.1	13.0	15.3	2.0	1.0	0.8	0.6	41.0
Q3	42.7	42.2	10.6	12.7	15.4	1.9	0.6	0.5	0.3	39.0
Q4	49.1	48.1	12.9	14.3	16.2	2.9	0.7	1.0	0.4	43.8
2005 Q1	42.0	41.5	9.9	13.0	15.3	1.7	0.6	0.5	0.3	38.4
Q2	44.6	44.0	11.8	13.2	15.1	2.0	1.1	0.6	0.3	40.4
Q3	43.3	42.6	11.0	12.9	15.2	1.9	0.7	0.7	0.3	39.5
Q4	49.2	48.4	13.4	14.3	16.1	2.9	0.8	0.8	0.3	44.1
2006 Q1	42.5	42.0	10.2	13.3	15.1	1.7	0.8	0.5	0.3	39.0
Q2	45.8	45.3	12.5	13.6	15.2	2.0	1.3	0.4	0.3	41.5
Q3	43.7	43.2	11.5	12.9	15.2	1.9	0.7	0.5	0.3	40.0
Q4	49.6	48.9	14.1	14.3	15.9	2.9	0.8	0.6	0.3	44.6
2007 Q1	42.3	41.9	10.3	13.5	14.8	1.7	0.8	0.4	0.3	38.9
Q2	46.3	45.8	13.0	13.6	15.1	2.0	1.4	0.4	0.3	41.9
Q3	43.8	43.3	12.1	12.8	15.0	1.9	0.7	0.4	0.3	40.2
Q4	49.8	49.2	14.5	14.2	15.9	2.9	0.9	0.6	0.3	44.9
2008 Q1	42.3	41.9	10.6	13.1	14.9	1.7	0.8	0.4	0.2	38.8

### 2. Euro area – quarterly expenditure and deficit/surplus

	Total		Current expenditure					Capital expenditure			Deficit (-)/ surplus (+)	Primary deficit (-)/ surplus (+)	
	1	2	Compensation of employees	Intermediate consumption	Interest	Current transfers	Social benefits	Subsidies	Investment	Capital transfers			
													3
2002 Q1	46.1	42.7	10.2	4.4	3.7	24.4	21.1	1.4	3.4	2.0	1.5	-4.3	-0.7
Q2	46.4	43.0	10.3	4.8	3.5	24.3	21.1	1.3	3.4	2.3	1.1	-0.9	2.6
Q3	46.9	43.2	10.1	4.7	3.5	24.9	21.4	1.4	3.7	2.5	1.2	-3.4	0.1
Q4	50.8	46.3	11.1	5.6	3.3	26.4	22.7	1.6	4.4	2.8	1.6	-1.8	1.5
2003 Q1	46.8	43.3	10.3	4.6	3.5	25.0	21.4	1.3	3.5	1.9	1.6	-4.9	-1.4
Q2	47.1	43.6	10.4	4.8	3.4	25.1	21.7	1.3	3.5	2.3	1.2	-1.1	2.3
Q3	47.1	43.4	10.3	4.8	3.3	25.1	21.6	1.3	3.7	2.5	1.2	-4.5	-1.2
Q4	51.1	46.3	11.0	5.6	3.1	26.5	22.9	1.5	4.8	3.3	1.6	-1.9	1.2
2004 Q1	46.4	43.0	10.3	4.6	3.1	25.0	21.4	1.2	3.4	1.9	1.5	-5.0	-1.9
Q2	46.6	43.2	10.4	4.8	3.3	24.8	21.4	1.3	3.3	2.3	1.0	-1.6	1.7
Q3	46.1	42.7	10.0	4.7	3.1	24.9	21.5	1.3	3.4	2.4	1.0	-3.4	-0.3
Q4	50.9	45.7	11.0	5.7	2.9	26.1	22.6	1.4	5.2	3.1	2.1	-1.8	1.1
2005 Q1	46.9	43.1	10.2	4.7	3.1	25.2	21.4	1.2	3.7	1.9	1.8	-4.9	-1.8
Q2	46.2	42.8	10.2	4.9	3.2	24.5	21.3	1.1	3.4	2.3	1.1	-1.5	1.6
Q3	45.8	42.4	9.9	4.8	2.9	24.7	21.3	1.2	3.4	2.5	1.0	-2.5	0.4
Q4	50.6	45.8	11.1	5.8	2.8	26.1	22.6	1.4	4.8	3.1	1.6	-1.4	1.3
2006 Q1	45.4	42.2	10.0	4.5	2.9	24.7	21.2	1.2	3.1	1.9	1.2	-2.9	0.0
Q2	45.6	42.3	10.3	4.8	3.1	24.2	21.2	1.1	3.2	2.3	0.9	0.2	3.3
Q3	45.4	42.0	9.9	4.7	2.9	24.5	21.1	1.2	3.5	2.5	1.0	-1.8	1.1
Q4	50.5	45.2	10.7	5.8	2.7	25.9	22.3	1.3	5.4	3.2	2.2	-1.0	1.7
2007 Q1	44.5	41.3	9.8	4.5	3.0	24.0	20.6	1.1	3.1	2.0	1.2	-2.2	0.8
Q2	44.8	41.7	10.0	4.8	3.2	23.7	20.7	1.1	3.2	2.3	0.8	1.5	4.6
Q3	44.8	41.4	9.7	4.7	3.0	24.0	20.8	1.2	3.4	2.5	0.9	-1.0	2.0
Q4	50.5	45.2	10.7	5.8	2.8	25.9	22.2	1.4	5.3	3.3	1.9	-0.7	2.1
2008 Q1	44.5	41.4	9.8	4.6	2.9	24.1	20.5	1.2	3.1	2.0	1.1	-2.2	0.7

Source: ECB calculations based on Eurostat and national data.

1) The data refer to the Euro 15. 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 <sup>1)</sup>**  
(as a percentage of GDP)

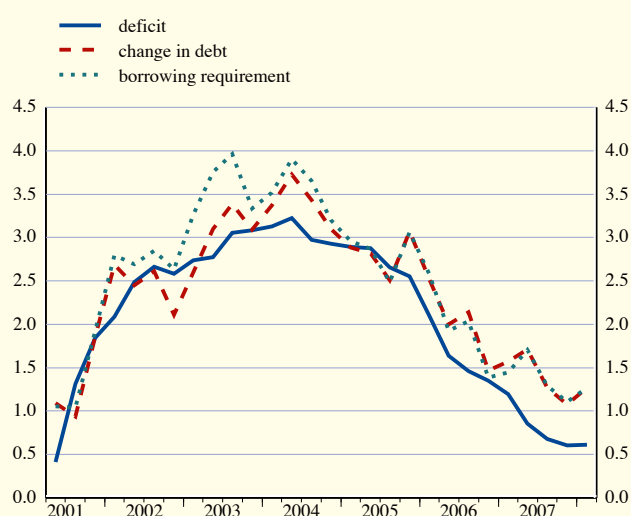
**1. Euro area – Maastricht debt by financial instrument <sup>2)</sup>**

	Total 1	Financial instruments			
		Currency and deposits 2	Loans 3	Short-term securities 4	Long-term securities 5
2005 Q2	71.5	2.3	11.7	5.2	52.3
Q3	71.0	2.4	11.8	5.2	51.8
Q4	70.2	2.4	11.8	4.7	51.3
2006 Q1	70.5	2.5	11.7	4.9	51.4
Q2	70.6	2.5	11.6	4.9	51.6
Q3	70.1	2.5	11.6	4.7	51.3
Q4	68.5	2.5	11.4	4.1	50.5
2007 Q1	68.8	2.4	11.4	4.8	50.2
Q2	69.0	2.2	11.2	5.1	50.5
Q3	68.0	2.1	11.0	5.2	49.7
Q4	66.3	2.2	10.8	4.3	49.1
2008 Q1	67.1	2.2	10.9	5.1	49.1

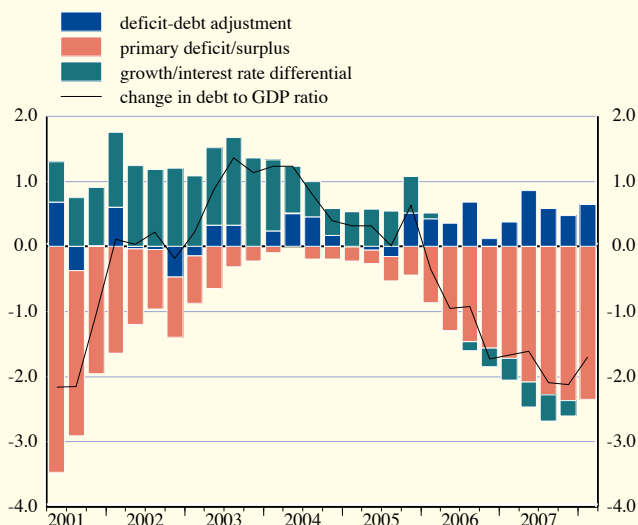
**2. Euro area – deficit-debt adjustment**

	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
2005 Q2	5.4	-1.5	3.9	3.3	2.5	0.0	0.3	0.5	0.1	0.4	5.3
Q3	0.6	-2.5	-2.0	-2.4	-2.3	0.0	0.3	-0.4	0.1	0.4	0.5
Q4	-0.6	-1.4	-2.1	-0.4	0.0	0.0	-0.3	-0.1	0.0	-1.6	-0.6
2006 Q1	4.8	-2.9	1.9	1.3	1.0	0.1	0.6	-0.5	-0.4	1.0	5.2
Q2	3.3	0.2	3.5	3.2	2.5	0.1	0.4	0.2	0.6	-0.4	2.6
Q3	1.2	-1.8	-0.6	-0.8	-0.7	-0.1	0.2	-0.2	0.2	0.0	1.0
Q4	-3.1	-1.0	-4.1	-2.1	-1.2	-0.6	-0.2	-0.2	-0.1	-1.9	-3.0
2007 Q1	5.1	-2.2	2.9	2.0	1.1	0.1	0.6	0.2	-0.2	1.0	5.2
Q2	3.7	1.5	5.2	4.7	4.1	0.0	0.5	0.1	0.1	0.3	3.6
Q3	-0.6	-1.0	-1.6	-1.6	-2.2	0.0	0.4	0.2	0.0	-0.1	-0.6
Q4	-3.6	-0.7	-4.3	-2.9	-2.1	-0.1	-0.6	-0.1	-0.1	-1.3	-3.5
2008 Q1	5.7	-2.2	3.5	2.3	1.9	0.0	0.1	0.3	-0.1	1.2	5.7

**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 data refer to the Euro 15.

2) 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

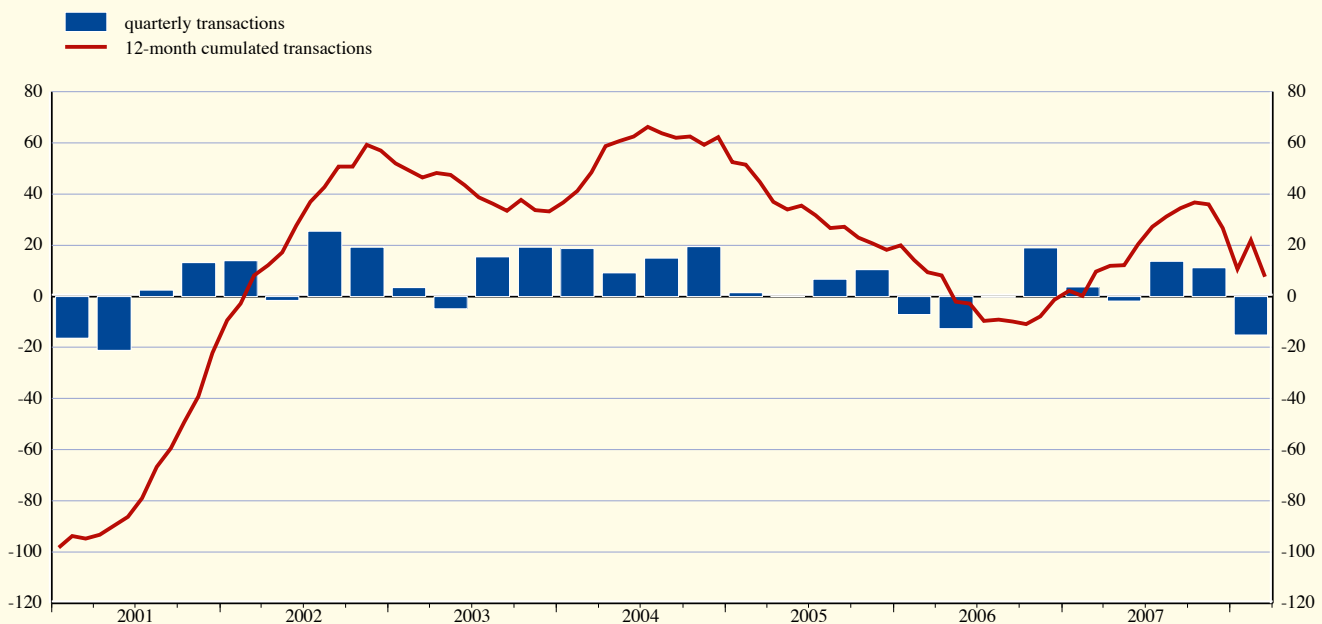
### 7.1 Summary balance of payments <sup>1)</sup>

(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
2005	18.1	48.3	37.3	5.4	-72.9	11.4	29.6	9.2	-216.4	131.4	-18.2	94.5	18.0	-38.8
2006	-1.3	19.2	42.3	15.1	-77.9	9.2	7.9	112.4	-144.7	266.3	2.4	-10.3	-1.3	-120.3
2007	26.6	55.6	50.9	4.2	-84.1	13.9	40.5	96.2	-117.3	235.7	-90.5	73.7	-5.3	-136.7
2007 Q1	3.7	8.6	9.4	6.9	-21.3	4.6	8.4	29.4	-14.3	142.4	-15.2	-81.9	-1.6	-37.8
Q2	-2.0	20.1	14.0	-19.4	-16.7	2.1	0.1	49.8	-57.9	90.4	-19.7	41.2	-4.2	-50.0
Q3	13.6	17.1	17.2	5.0	-25.6	1.6	15.2	97.5	-40.9	65.1	-26.8	104.4	-4.4	-112.7
Q4	11.1	9.7	10.3	11.6	-20.5	5.6	16.7	-80.5	-4.3	-62.3	-28.8	10.0	4.9	63.8
2008 Q1	-15.2	-2.9	10.7	6.1	-29.0	5.6	-9.6	19.2	-104.8	73.4	-14.9	70.7	-5.1	-9.6
2007 May	-13.2	4.0	3.8	-16.0	-5.0	1.5	-11.7	6.9	-25.9	11.3	-1.9	24.1	-0.7	4.8
June	13.7	11.2	6.5	0.0	-4.0	0.0	13.8	-8.8	-26.9	72.6	-8.3	-44.2	-1.9	-5.0
July	6.3	7.8	5.6	0.7	-7.7	0.9	7.2	48.0	-0.1	20.6	-12.9	43.4	-3.0	-55.3
Aug.	1.1	3.6	4.3	1.6	-8.5	0.2	1.3	66.5	0.5	3.8	-5.2	66.4	1.0	-67.8
Sep.	6.2	5.7	7.2	2.8	-9.4	0.4	6.7	-17.0	-41.2	40.7	-8.8	-5.3	-2.3	10.3
Oct.	4.2	7.2	4.0	3.3	-10.3	1.4	5.6	-41.0	35.4	-50.9	1.5	-27.0	0.1	35.5
Nov.	2.9	4.8	3.1	1.7	-6.7	1.1	3.9	12.6	9.6	9.9	-22.7	15.5	0.3	-16.5
Dec.	4.1	-2.2	3.1	6.6	-3.4	3.2	7.3	-52.1	-49.2	-21.2	-7.6	21.4	4.6	44.9
2008 Jan.	-18.0	-9.1	3.1	-1.3	-10.8	2.4	-15.6	22.9	-51.9	53.0	-19.2	47.4	-6.4	-7.2
Feb.	7.6	4.7	4.3	4.4	-5.8	2.2	9.8	-8.4	-22.4	14.7	1.7	-7.0	4.6	-1.4
Mar.	-4.8	1.4	3.2	3.0	-12.4	1.0	-3.8	4.7	-30.5	5.7	2.6	30.2	-3.3	-0.9
Apr.	-7.4	4.2	3.0	-7.0	-7.7	0.5	-6.8	18.2	-22.4	-3.7	-14.2	61.9	-3.4	-11.4
May	-21.4	-4.4	3.6	-15.7	-5.0	1.8	-19.6	44.2	-10.4	23.0	-29.7	58.6	2.8	-24.6
	<i>12-month cumulated transactions</i>													
2008 May	-5.4	35.0	51.3	0.1	-91.8	15.1	9.7	89.8	-209.8	168.1	-122.7	261.3	-7.1	-99.5

### 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**

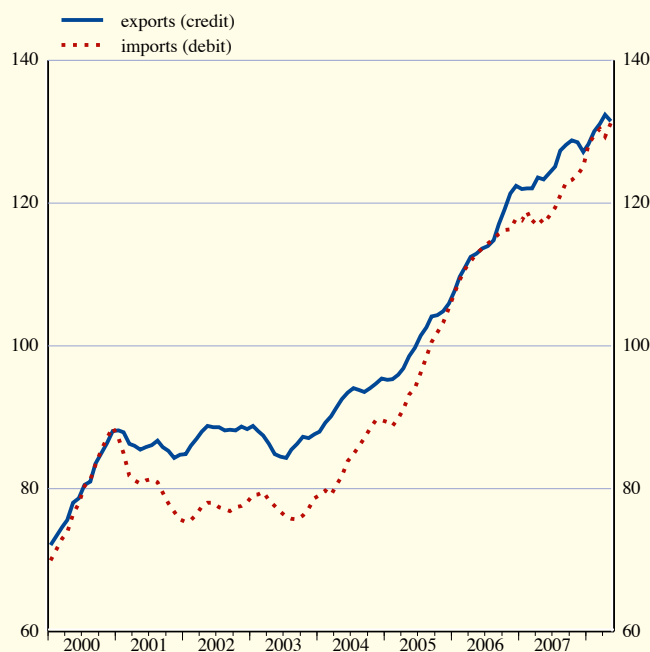
(EUR billions; transactions)

**1. Summary current and capital accounts**

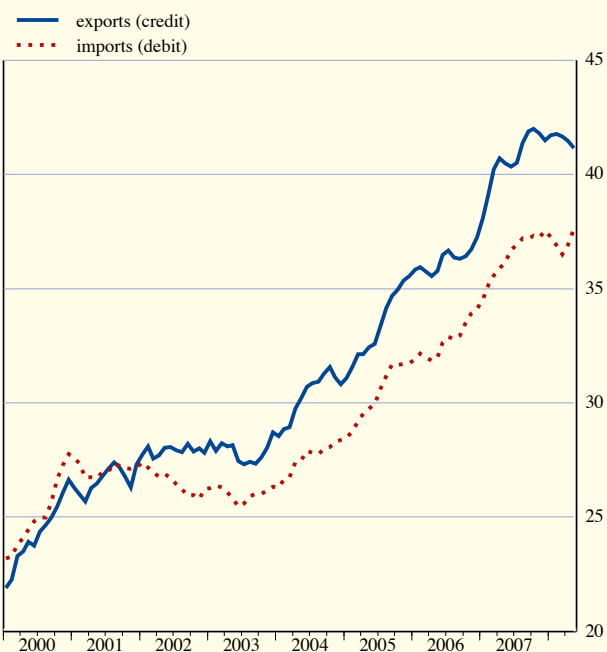
	Current account											Capital account			
	Total			Goods		Services		Income		Current transfers			Credit	Debit	
	Credit	Debit	Net	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Workers remittances				
											11	12	13		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
2005	2,090.7	2,072.6	18.1	1,220.3	1,172.0	405.9	368.5	378.7	373.3	85.8	5.3	158.8	14.6	24.3	12.9
2006	2,401.1	2,402.4	-1.3	1,391.2	1,372.0	437.0	394.8	483.7	468.6	89.2	5.4	167.0	16.9	23.7	14.5
2007	2,643.9	2,617.3	26.6	1,504.4	1,448.8	492.2	441.3	557.2	553.0	90.1	6.1	174.2	20.3	25.6	11.7
2007 Q1	627.5	623.7	3.7	361.5	352.8	111.4	101.9	127.6	120.6	27.0	1.4	48.3	4.6	7.7	3.1
Q2	656.0	658.0	-2.0	373.6	353.5	120.2	106.2	142.7	162.0	19.5	1.6	36.2	4.9	4.6	2.5
Q3	665.5	651.9	13.6	376.1	359.0	135.4	118.2	137.6	132.6	16.4	1.7	42.1	5.2	4.3	2.8
Q4	694.9	683.7	11.1	393.2	383.4	125.2	114.9	149.4	137.8	27.1	1.4	47.6	5.5	8.9	3.4
2008 Q1	675.5	690.7	-15.2	387.1	390.1	114.9	104.2	147.6	141.5	25.9	1.5	54.9	5.0	8.9	3.3
2008 Mar.	225.5	230.3	-4.8	130.2	128.8	38.3	35.1	52.6	49.5	4.4	.	16.8	.	2.2	1.2
Apr.	235.5	242.9	-7.4	138.0	133.7	39.9	36.9	50.1	57.1	7.5	.	15.2	.	1.5	1.0
May	226.1	247.5	-21.4	128.8	133.1	40.3	36.7	50.2	65.9	6.8	.	11.8	.	2.7	0.9
	Seasonally adjusted														
2007 Q1	639.8	630.4	9.3	366.3	351.6	120.7	106.7	130.6	130.3	22.1	.	41.8	.	.	.
Q2	652.2	642.0	10.1	372.7	354.5	121.1	110.1	136.1	136.9	22.3	.	40.5	.	.	.
Q3	675.5	665.7	9.8	384.4	368.7	125.7	111.6	144.0	141.7	21.5	.	43.8	.	.	.
Q4	674.0	678.3	-4.3	381.5	375.4	124.5	112.6	146.5	144.0	21.4	.	46.3	.	.	.
2008 Q1	691.2	704.0	-12.8	393.3	391.2	125.0	109.5	152.1	154.4	20.8	.	49.0	.	.	.
2007 Dec.	221.9	228.1	-6.2	124.7	128.0	41.4	38.0	46.8	45.7	9.0	.	16.4	.	.	.
2008 Jan.	229.2	236.9	-7.6	131.9	131.8	41.9	36.5	50.3	52.4	5.1	.	16.1	.	.	.
Feb.	238.9	231.6	7.3	133.7	128.7	42.0	36.2	52.6	51.0	10.7	.	15.7	.	.	.
Mar.	223.1	235.6	-12.5	127.8	130.6	41.0	36.9	49.2	51.0	5.0	.	17.2	.	.	.
Apr.	235.0	233.5	1.5	135.7	128.6	41.4	37.8	47.9	50.0	10.0	.	17.1	.	.	.
May	228.7	236.0	-7.3	131.1	134.4	41.0	38.3	49.5	50.3	7.1	.	13.0	.	.	.

**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	Reinv. earnings	Credit	Debit	Credit	Debit	Credit	Debit			
			1	2										3	4	5
2005	15.7	9.3	363.1	364.0	140.2	38.5	97.6	-14.3	15.4	14.4	31.5	69.4	82.2	81.1	93.8	101.5
2006	16.5	10.0	467.2	458.6	171.4	36.8	106.0	39.0	19.7	17.3	39.1	99.2	102.2	85.6	134.7	150.5
2007	17.2	10.6	540.0	542.4	173.1	54.7	104.1	24.9	24.7	20.7	45.1	115.5	119.6	107.8	177.5	194.4
2007 Q1	4.2	2.0	123.4	118.6	39.7	18.4	27.0	6.5	5.5	4.8	9.8	18.3	27.9	24.1	40.4	44.4
Q2	4.2	2.6	138.5	159.4	44.4	6.2	27.7	1.0	6.3	5.4	15.2	52.5	28.9	26.4	43.7	47.5
Q3	4.3	3.2	133.3	129.4	40.4	16.4	23.5	10.7	5.9	5.0	10.9	23.9	30.4	26.7	45.7	50.2
Q4	4.6	2.7	144.7	135.0	48.6	13.6	25.9	6.7	6.9	5.5	9.1	20.9	32.4	30.6	47.7	52.2
2008 Q1	4.6	2.0	143.1	139.6	48.8	24.0	27.3	13.5	6.3	5.3	9.4	21.2	31.2	34.2	47.4	51.5

### 3. Geographical breakdown (cumulated transactions)

2007 Q2 to 2008 Q1	Total	European Union 27 (outside the euro area)						Brazil	Canada	China	India	Japan	Russia	Switzer-land	United States	Other
	1	Total	Den-mark	Sweden	United Kingdom	Other EU countries	EU institutions	8	9	10	11	12	13	14	15	16
		Credits														
<b>Current account</b>	2,691.9	1,022.0	56.1	85.3	536.0	285.5	59.1	34.9	35.1	79.2	30.9	56.3	90.5	175.5	410.5	757.1
Goods	1,530.0	554.7	34.9	55.1	238.1	226.6	0.0	19.1	18.4	62.4	23.6	33.8	70.2	85.7	194.4	467.7
Services	495.7	175.9	10.8	13.2	116.6	29.2	6.0	5.6	6.9	13.5	5.5	10.7	11.3	48.3	83.3	134.9
Income	577.3	226.5	9.8	15.5	167.8	26.8	6.6	10.0	9.1	3.0	1.7	11.3	8.8	35.4	125.6	145.6
investment income	559.6	220.3	9.7	15.4	165.6	26.6	3.0	10.0	9.0	3.0	1.7	11.3	8.7	28.8	124.0	142.8
Current transfers	89.0	64.9	0.7	1.4	13.5	2.9	46.4	0.2	0.7	0.3	0.1	0.4	0.2	6.1	7.3	8.9
<b>Capital account</b>	26.7	23.1	0.0	0.1	0.9	0.1	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	2.3
		Debits														
<b>Current account</b>	2,684.3	889.9	44.5	81.7	435.5	222.9	105.3	-	29.5	-	-	97.6	-	170.2	362.5	-
Goods	1,486.0	435.5	28.3	51.4	177.0	178.8	0.0	25.7	12.9	165.8	18.9	56.0	95.7	74.8	136.7	464.1
Services	443.5	140.8	9.1	10.9	90.5	30.1	0.2	4.4	6.9	10.7	4.0	8.0	8.5	35.8	90.2	134.2
Income	573.9	198.7	6.4	17.9	156.8	9.8	7.8	-	7.6	-	-	33.2	-	53.8	128.6	-
investment income	563.4	192.4	6.3	17.9	155.4	5.1	7.8	-	7.5	-	-	33.1	-	53.3	127.7	-
Current transfers	180.8	114.8	0.7	1.4	11.1	4.2	97.3	1.5	2.0	2.6	0.7	0.4	0.6	5.8	6.9	45.4
<b>Capital account</b>	11.9	2.3	0.0	0.1	1.3	0.3	0.6	0.2	0.1	0.1	0.2	0.1	0.1	0.6	0.9	7.5
		Net														
<b>Current account</b>	7.6	132.1	11.6	3.6	100.5	62.6	-46.2	-	5.6	-	-	-41.4	-	5.3	48.0	-
Goods	44.0	119.2	6.5	3.7	61.1	47.8	0.0	-6.6	5.5	-103.3	4.7	-22.2	-25.5	10.9	57.7	3.7
Services	52.1	35.0	1.7	2.3	26.1	-0.8	5.8	1.2	0.0	2.8	1.6	2.7	2.8	12.5	-6.9	0.6
Income	3.4	27.8	3.4	-2.4	11.0	16.9	-1.1	-	1.5	-	-	-21.9	-	-18.4	-3.0	-
investment income	-3.8	27.9	3.4	-2.4	10.2	21.5	-4.8	-	1.5	-	-	-21.8	-	-24.5	-3.7	-
Current transfers	-91.8	-49.9	0.0	0.0	2.4	-1.4	-50.9	-1.3	-1.3	-2.4	-0.6	0.0	-0.3	0.2	0.3	-36.5
<b>Capital account</b>	14.8	20.7	0.0	0.0	-0.4	-0.2	21.3	-0.1	-0.1	0.0	-0.2	-0.1	0.0	-0.1	-0.1	-5.1

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	104.0	114.5	-10.5	2,169.3	2,084.2	2,655.4	3,585.9	-19.8	2,706.1	2,938.3	306.7
2004	8,609.8	9,497.9	-888.1	110.1	121.4	-11.4	2,314.6	2,242.0	3,042.9	4,076.4	-37.3	3,008.7	3,179.5	281.0
2005	10,737.9	11,575.7	-837.8	132.4	142.7	-10.3	2,796.4	2,444.5	3,887.8	5,105.7	-46.2	3,779.7	4,025.5	320.1
2006	12,195.1	13,226.4	-1,031.3	143.5	155.6	-12.1	3,050.2	2,654.1	4,459.3	5,960.7	-43.6	4,403.4	4,611.5	325.8
2007 Q4	13,754.8	15,049.5	-1,294.7	154.2	168.7	-14.5	3,472.3	2,988.8	4,710.3	6,715.2	46.5	5,178.5	5,345.5	347.3
2008 Q1	13,635.8	14,914.8	-1,279.0	151.5	165.7	-14.2	3,535.6	2,990.3	4,393.3	6,387.8	30.4	5,320.1	5,536.7	356.3
<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	792.2	889.6	-97.4	10.1	11.4	-1.2	145.3	157.8	387.5	490.6	-17.6	302.6	241.2	-25.7
2005	2,128.0	2,077.8	50.3	26.2	25.6	0.6	481.8	202.5	844.9	1,029.3	-8.8	771.1	846.0	39.1
2006	1,457.3	1,650.7	-193.5	17.1	19.4	-2.3	253.8	209.6	571.5	855.1	2.6	623.7	586.1	5.7
2007 Q4	108.6	101.5	7.2	4.7	4.4	0.3	86.4	92.4	-74.8	7.4	46.9	43.2	1.7	6.8
2008 Q1	-119.0	-134.7	15.6	-5.3	-6.0	0.7	63.3	1.5	-317.0	-327.4	-16.0	141.6	191.2	9.0
<b>Transactions</b>														
2004	812.4	798.3	14.2	10.4	10.2	0.2	161.5	93.9	345.6	416.5	8.3	309.4	287.8	-12.5
2005	1,326.1	1,335.3	-9.2	16.3	16.5	-0.1	364.7	148.3	412.6	544.0	18.2	548.6	643.0	-18.0
2006	1,598.4	1,710.8	-112.4	18.8	20.1	-1.3	346.0	201.3	535.9	802.2	-2.4	717.7	707.3	1.3
2007	1,790.2	1,886.4	-96.2	20.1	21.1	-1.1	402.4	285.1	426.8	662.4	90.5	865.2	938.9	5.3
2007 Q3	390.7	488.3	-97.5	17.7	22.1	-4.4	115.8	75.0	33.8	99.0	26.8	209.9	314.3	4.4
Q4	293.8	213.3	80.5	12.6	9.2	3.5	78.9	74.7	98.7	36.4	28.8	92.2	102.2	-4.9
2008 Q1	482.4	501.6	-19.2	21.5	22.3	-0.9	143.2	38.4	46.5	119.8	14.9	272.8	343.4	5.1
2008 Jan.	322.2	345.0	-22.9	.	.	.	82.8	30.9	16.8	69.8	19.2	196.9	244.4	6.4
Feb.	135.1	126.7	8.4	.	.	.	34.4	12.0	30.2	44.8	-1.7	76.8	69.9	-4.6
Mar.	25.2	29.9	-4.7	.	.	.	26.0	-4.5	-0.5	5.2	-2.6	-1.0	29.2	3.3
Apr.	83.8	102.0	-18.2	.	.	.	-18.8	-41.2	31.1	27.4	14.2	53.9	115.8	3.4
May	58.2	102.4	-44.2	.	.	.	10.1	-0.3	52.6	75.6	29.7	-31.4	27.2	-2.8
<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	-20.2	91.3	-111.6	-0.3	1.2	-1.4	-16.2	63.9	41.9	74.1	-25.9	-6.8	-46.7	-13.3
2005	802.0	742.5	59.5	9.9	9.2	0.7	117.1	54.3	432.3	485.2	-27.0	222.5	203.0	57.1
2006	-141.1	-60.0	-81.1	-1.7	-0.7	-1.0	-92.2	8.3	35.6	52.9	5.0	-94.0	-121.3	4.4
2007 Q4	-185.2	-111.8	-73.4	-8.0	-4.8	-3.2	7.4	17.7	-173.5	-29.1	18.2	-49.0	-100.5	11.7
2008 Q1	-601.5	-636.3	34.8	-26.8	-28.3	1.6	-79.8	-36.9	-363.5	-447.2	-30.9	-131.1	-152.2	3.9
<b>Other changes due to exchange rate changes</b>														
2003	-433.3	-179.7	-253.6	-5.8	-2.4	-3.4	-101.9	26.9	-103.8	-49.8	.	-195.5	-156.9	-32.1
2004	-182.4	-138.3	-44.0	-2.3	-1.8	-0.6	-34.5	8.2	-67.5	-92.0	.	-70.9	-54.5	-9.4
2005	371.9	221.6	150.3	4.6	2.7	1.9	83.2	-21.0	120.7	125.3	.	149.4	117.2	18.7
2006	-292.6	-140.6	-151.9	-3.4	-1.7	-1.8	-66.0	14.5	-85.0	-51.0	.	-126.4	-104.0	-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	119.1	243.0	-123.9	1.5	3.1	-1.6	37.7	28.2	110.4	214.8	-25.9	.	.	-3.1
2005	285.2	351.1	-65.9	3.5	4.3	-0.8	73.5	55.8	196.5	295.3	-27.0	.	.	42.2
2006	317.1	272.2	44.9	3.7	3.2	0.5	74.8	46.1	220.8	226.0	5.0	.	.	16.4
<b>Other changes due to other adjustments</b>														
2003	59.6	-34.3	93.9	0.8	-0.5	1.2	43.5	61.7	20.5	-72.0	.	-4.5	-24.0	0.2
2004	43.0	-13.4	56.4	0.6	-0.2	0.7	-19.3	27.5	-1.0	-48.7	.	64.1	7.8	-0.7
2005	144.9	169.8	-24.9	1.8	2.1	-0.3	-39.6	19.4	115.1	64.6	.	73.1	85.8	-3.7
2006	-165.7	-191.6	25.9	-1.9	-2.3	0.3	-101.0	-52.3	-100.3	-122.1	.	32.4	-17.2	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	-	.	.	.	7.4	4.4	12.8	11.4	.	11.3	9.7	-4.1
2005	14.9	13.7	-	.	.	.	15.4	6.6	13.0	12.8	.	17.7	19.7	-5.9
2006	15.1	14.9	-	.	.	.	12.6	8.3	13.9	15.8	.	19.3	17.7	0.3
2007 Q3	17.0	16.7	-	.	.	.	13.4	9.0	11.1	15.6	.	25.1	22.8	3.9
Q4	14.7	14.2	-	.	.	.	13.1	10.7	9.6	11.1	.	19.6	20.5	1.7
2008 Q1	12.9	12.5	-	.	.	.	14.3	8.9	7.2	7.8	.	16.3	20.7	2.6

Source: ECB.

1) Net financial derivatives are included in assets.

## 7.3 Financial account

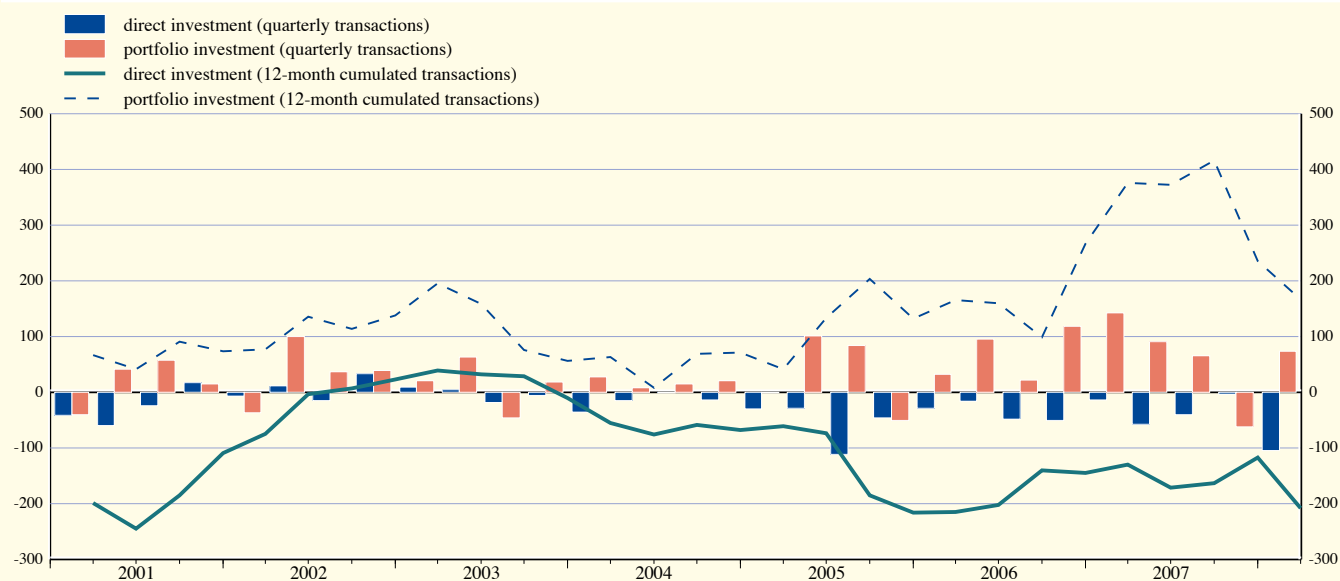
(EUR billions and annual growth rates; outstanding amounts and growth rates at end of period, transactions during period)

### 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	2,796.4	2,278.8	176.0	2,102.8	517.6	4.0	513.5	2,444.5	1,839.6	56.2	1,783.4	605.0	8.5	596.4
2006	3,050.2	2,484.8	203.3	2,281.6	565.3	3.7	561.7	2,654.1	2,037.8	61.7	1,976.0	616.4	7.9	608.4
2007 Q4	3,472.3	2,818.3	237.0	2,581.3	654.0	8.4	645.6	2,988.8	2,259.1	61.7	2,197.3	729.8	13.7	716.0
2008 Q1	3,535.6	2,847.1	237.3	2,609.8	688.6	10.4	678.2	2,990.3	2,271.6	61.5	2,210.2	718.7	13.4	705.2
Transactions														
2006	346.0	271.5	38.6	232.9	74.5	0.0	74.5	201.3	171.7	5.8	165.9	29.5	0.1	29.5
2007	402.4	310.0	28.3	281.6	92.4	-0.5	92.9	285.1	185.8	1.9	183.9	99.3	1.3	98.0
2007 Q3	115.8	85.9	18.0	68.0	29.9	-0.6	30.5	75.0	51.7	0.4	51.3	23.3	0.3	22.9
Q4	78.9	65.3	-4.6	69.8	13.7	0.6	13.0	74.7	29.1	1.9	27.2	45.6	0.7	44.9
2008 Q1	143.2	89.7	10.3	79.4	53.5	2.3	51.2	38.4	37.6	-0.1	37.8	0.7	0.1	0.6
2008 Jan.	82.8	53.8	6.6	47.1	29.0	0.2	28.8	30.9	22.6	0.3	22.3	8.3	0.9	7.4
Feb.	34.4	17.2	3.8	13.4	17.2	-0.5	17.7	12.0	5.4	0.4	5.1	6.5	0.1	6.4
Mar.	26.0	18.7	-0.1	18.8	7.3	2.6	4.7	-4.5	9.6	-0.8	10.4	-14.1	-0.9	-13.2
Apr.	-18.8	-25.0	4.4	-29.4	6.2	-0.1	6.3	-41.2	-31.9	1.0	-32.9	-9.3	0.0	-9.3
May	10.1	10.9	2.2	8.7	-0.8	-1.7	1.0	-0.3	3.7	-2.0	5.7	-4.0	0.4	-4.5
Growth rates														
2005	15.4	15.8	13.4	16.0	13.4	-1.1	13.5	6.6	7.0	1.7	7.2	5.2	-4.4	5.3
2006	12.6	12.1	23.2	11.2	14.7	-2.2	14.8	8.3	9.3	10.4	9.3	5.0	-0.2	5.0
2007 Q3	13.4	12.2	24.2	11.2	18.7	-38.4	18.9	9.0	8.7	2.1	8.9	10.1	1.7	10.2
Q4	13.1	12.4	13.6	12.3	16.0	-43.5	16.3	10.7	9.1	3.1	9.3	15.8	8.1	15.8
2008 Q1	14.3	13.1	14.8	12.9	19.4	67.9	18.9	8.9	8.3	1.5	8.5	10.7	18.1	10.6

### 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

	3. Portfolio investment assets															
	Total	Equity					Debt instruments									
		Total	MFIs		Non-MFIs		Bonds and notes					Money market instruments				
				Euro-system		General government	Total	MFIs	Non-MFIs		Total	MFIs	Non-MFIs			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
	Outstanding amounts (international investment position)															
2005	3,887.8	1,726.5	102.5	3.0	1,624.0	27.2	1,845.3	710.9	9.0	1,134.4	11.6	316.0	263.0	0.8	53.0	0.4
2006	4,459.3	2,014.1	122.0	2.8	1,892.1	37.0	2,067.8	846.3	11.3	1,221.5	13.4	377.4	310.4	8.7	67.0	0.3
2007 Q4	4,710.3	2,046.3	144.4	2.8	1,901.9	41.7	2,260.5	929.2	11.7	1,331.2	15.2	403.5	323.7	8.2	79.8	0.4
2008 Q1	4,393.3	1,729.0	94.0	2.6	1,635.0	36.2	2,218.7	921.3	10.5	1,297.4	15.7	445.6	360.4	8.8	85.2	0.5
	Transactions															
2006	535.9	153.0	18.3	0.0	134.7	6.1	314.5	173.2	2.6	141.3	1.1	68.4	56.2	8.0	12.2	-0.1
2007	426.8	53.0	34.3	-0.1	18.7	5.3	319.5	161.0	2.3	158.5	2.4	54.3	50.8	6.1	3.5	0.3
2007 Q3	33.8	7.5	-8.3	0.0	15.8	2.1	42.3	12.2	0.3	30.1	0.7	-16.0	-14.2	0.0	-1.7	-0.2
Q4	98.7	17.6	18.8	-0.1	-1.2	0.9	70.0	31.5	0.7	38.5	0.5	11.1	29.1	6.7	-18.0	-9.1
2008 Q1	46.5	-47.3	-40.9	0.1	-6.4	-0.6	27.1	25.1	-1.2	2.0	0.5	66.6	53.6	-0.1	13.0	0.1
2008 Jan.	16.8	-21.0	-11.3	0.0	-9.8	.	4.5	11.1	-0.7	-6.7	.	33.4	34.3	0.0	-0.9	.
Feb.	30.2	-7.9	-2.4	0.0	-5.5	.	23.8	20.9	0.1	2.9	.	14.2	6.6	0.0	7.6	.
Mar.	-0.5	-18.4	-27.3	0.1	8.9	.	-1.2	-6.9	-0.6	5.8	.	19.0	12.6	-0.1	6.4	.
Apr.	31.1	1.3	1.1	-0.1	0.2	.	26.7	17.9	0.4	8.8	.	3.1	1.6	0.3	1.5	.
May	52.6	12.0	3.7	0.1	8.3	.	34.7	10.5	0.7	24.1	.	5.9	3.2	0.2	2.8	.
	Growth rates															
2005	13.0	9.8	18.2	5.9	9.3	19.7	17.0	20.9	9.7	14.7	8.0	5.9	6.2	-6.6	3.5	-8.3
2006	13.9	8.9	18.3	0.9	8.3	21.7	17.4	24.9	29.7	12.7	10.6	21.9	22.3	1,022.8	22.1	-20.8
2007 Q3	11.1	3.4	29.1	0.1	1.9	17.3	17.3	21.6	53.0	14.3	24.0	19.0	14.4	11.3	40.7	157.3
Q4	9.6	2.6	28.1	-3.0	0.9	13.8	15.6	19.4	20.8	13.1	18.1	14.6	16.8	69.3	4.9	70.1
2008 Q1	7.2	-0.6	-20.5	1.9	0.7	9.6	12.0	15.5	1.1	9.6	14.2	22.0	27.0	80.9	2.0	-90.4

## 4. Portfolio investment liabilities

	4. Portfolio investment liabilities														
	Total	Equity			Debt instruments										
		Total	MFIs		Non-MFIs		Bonds and notes					Money market instruments			
					General government	Total	MFIs	Non-MFIs		Total	MFIs	Non-MFIs			
1	2	3	4	5	6	7	8	9	10	11	12				
	Outstanding amounts (international investment position)														
2005	5,105.7	2,433.7	533.5	1,900.1	2,365.6	723.0	1,642.6	1,175.6	306.4	108.5	198.0	158.5			
2006	5,960.7	2,931.4	671.0	2,260.4	2,732.3	845.3	1,887.0	1,253.7	297.0	127.6	169.4	138.6			
2007 Q4	6,715.2	3,263.2	744.6	2,521.0	3,111.3	1,053.4	2,052.6	1,305.2	340.7	179.1	162.3	143.1			
2008 Q1	6,387.8	2,896.7	760.5	2,136.6	3,148.9	1,041.1	2,108.3	1,377.4	342.1	164.2	177.9	169.7			
	Transactions														
2006	802.2	302.4	95.1	207.3	498.1	212.9	285.1	149.1	1.6	28.2	-26.5	-20.1			
2007	662.4	188.2	60.0	128.1	421.1	194.2	225.2	144.1	53.1	48.4	5.2	12.0			
2007 Q3	99.0	33.3	21.7	11.8	50.1	28.4	21.7	24.8	15.6	4.1	11.5	12.4			
Q4	36.4	-30.6	-33.0	2.6	92.9	35.9	55.4	37.3	-25.8	22.3	-47.8	-45.3			
2008 Q1	119.8	45.5	73.3	-27.8	68.0	23.1	45.0	60.4	6.3	-1.9	8.2	24.3			
2008 Jan.	69.8	23.7	.	.	39.9	.	.	.	6.2	.	.	.			
Feb.	44.8	27.5	.	.	23.6	.	.	.	-6.3	.	.	.			
Mar.	5.2	-5.8	.	.	4.5	.	.	.	6.4	.	.	.			
Apr.	27.4	-21.1	.	.	28.5	.	.	.	20.0	.	.	.			
May	75.6	19.2	.	.	71.1	.	.	.	-14.7	.	.	.			
	Growth rates														
2005	12.8	13.0	.	.	11.2	.	.	.	23.6	.	.	.			
2006	15.8	12.3	17.7	10.8	21.8	31.4	17.7	13.1	0.5	26.7	-13.1	-12.5			
2007 Q3	15.6	10.6	17.4	8.6	20.3	31.9	15.3	13.3	24.4	39.8	16.0	23.6			
Q4	11.1	6.4	8.8	5.6	15.5	23.1	12.0	11.8	17.8	37.6	3.4	8.9			
2008 Q1	7.8	4.0	10.4	2.0	11.7	15.8	9.7	13.8	11.3	29.4	-1.0	9.8			

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

	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
Outstanding amounts (international investment position)															
2005	3,779.7	7.9	7.2	0.7	2,522.1	2,466.0	56.2	127.6	19.7	60.8	11.8	1,122.1	188.9	802.7	347.9
2006	4,403.4	11.3	10.6	0.7	2,946.2	2,887.1	59.1	117.1	14.2	57.8	15.4	1,328.7	187.2	990.3	377.7
2007 Q4	5,178.5	23.3	22.7	0.7	3,354.7	3,282.9	71.9	107.1	13.4	47.8	13.5	1,693.3	196.8	1,366.3	437.2
2008 Q1	5,320.1	33.2	32.9	0.3	3,462.3	3,392.7	69.6	99.8	13.3	41.9	11.2	1,724.9	199.3	1,394.4	445.4
Transactions															
2006	717.7	3.3	3.3	0.0	521.4	517.2	4.2	-2.0	0.0	-2.7	3.1	194.9	5.2	176.2	25.0
2007	865.2	13.3	13.3	0.0	560.3	548.9	11.4	-6.9	-0.5	-7.1	-2.0	298.5	10.2	274.2	17.7
2007 Q3	209.9	1.8	1.8	0.0	75.9	78.7	-2.8	-18.2	-0.1	-18.4	-14.1	150.4	3.1	147.1	5.1
Q4	92.2	3.4	3.4	0.0	57.1	55.4	1.8	1.3	-0.4	1.7	-0.1	30.4	3.3	27.5	-19.8
2008 Q1	272.8	9.3	9.3	0.0	217.8	213.7	4.1	-5.3	-0.1	-5.0	-1.3	51.0	6.4	42.6	14.3
2008 Jan.	196.9	3.5	.	.	187.0	.	.	-4.1	.	.	-4.0	10.6	.	.	6.8
Feb.	76.8	2.1	.	.	64.2	.	.	0.5	.	.	4.1	10.0	.	.	-8.0
Mar.	-1.0	3.8	.	.	-33.4	.	.	-1.7	.	.	-1.4	30.4	.	.	15.4
Apr.	53.9	2.2	.	.	50.3	.	.	1.9	.	.	1.4	-0.5	.	.	-16.4
May	-31.4	-0.7	.	.	-33.8	.	.	3.9	.	.	3.8	-0.8	.	.	-9.9
Growth rates															
2005	17.7	21.0	23.1	3.3	19.3	19.7	6.0	-3.5	0.2	-9.1	12.7	17.1	5.2	20.3	1.3
2006	19.3	41.9	45.7	3.1	21.1	21.3	7.6	-1.6	0.0	-4.5	26.1	17.5	2.8	22.3	7.0
2007 Q3	25.1	111.9	119.5	3.1	26.0	26.2	15.1	-2.7	-0.8	-7.6	11.4	24.7	4.7	30.4	7.9
Q4	19.6	117.9	125.5	-3.9	19.1	19.1	18.9	-6.0	-3.8	-12.4	-13.3	22.0	5.4	26.5	5.0
2008 Q1	16.3	119.0	124.2	-5.3	15.4	15.5	10.2	-4.4	-4.3	-9.9	17.5	18.7	7.0	22.2	-0.5

### 6. Other investment liabilities

	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	4,025.5	82.4	82.2	0.2	3,114.2	3,061.8	52.4	44.9	0.0	41.1	3.8	784.0	133.1	581.0	70.0
2006	4,611.5	100.2	100.0	0.2	3,487.0	3,433.1	53.9	48.3	0.0	44.4	3.8	976.1	144.5	744.1	87.5
2007 Q4	5,345.5	138.2	137.9	0.2	3,943.6	3,874.8	68.9	51.8	0.0	46.2	5.6	1,211.9	156.9	945.2	109.8
2008 Q1	5,536.7	158.2	157.8	0.4	4,073.8	4,032.5	41.3	51.0	0.0	46.9	4.1	1,253.8	160.5	980.1	113.1
Transactions															
2006	707.3	18.6	18.5	0.0	496.1	492.8	3.2	2.0	0.0	2.1	-0.1	190.8	11.7	167.2	11.9
2007	938.9	52.5	52.5	0.0	639.2	634.0	5.2	2.9	0.0	3.1	-0.1	244.3	10.8	240.9	-7.5
2007 Q3	314.3	-1.3	-1.3	0.0	139.1	138.4	0.8	3.8	0.0	3.1	0.7	172.6	3.1	174.7	-5.2
Q4	102.2	37.5	37.5	-0.1	50.8	50.5	0.3	-1.7	0.0	-0.7	-0.9	15.6	3.7	20.2	-8.3
2008 Q1	343.4	21.3	21.2	0.2	283.9	281.3	2.7	-0.3	0.0	1.4	-1.7	38.4	3.2	31.6	3.6
2008 Jan.	244.4	10.5	.	.	197.7	.	.	4.3	.	.	.	31.9	.	.	.
Feb.	69.9	-8.4	.	.	109.1	.	.	-4.2	.	.	.	-26.6	.	.	.
Mar.	29.2	19.2	.	.	-22.9	.	.	-0.3	.	.	.	33.2	.	.	.
Apr.	115.8	8.7	.	.	116.8	.	.	-0.3	.	.	.	-9.4	.	.	.
May	27.2	19.1	.	.	1.7	.	.	-1.6	.	.	.	7.9	.	.	.
Growth rates															
2005	19.7	8.9	8.9	4.3	19.2	19.5	4.3	-4.6	10.3	-4.4	-7.2	24.9	11.5	30.2	13.1
2006	17.7	22.6	22.6	6.6	16.2	16.3	6.1	4.2	-24.1	5.0	-3.2	24.0	8.7	28.3	16.8
2007 Q3	22.8	20.6	20.6	8.4	20.3	20.5	10.5	3.4	17.8	2.1	9.9	33.2	7.4	42.3	5.1
Q4	20.5	52.7	52.8	-3.3	18.5	18.6	9.6	5.9	53.8	6.8	-8.2	24.8	7.3	32.4	-5.7
2008 Q1	20.7	67.3	67.4	17.6	17.9	18.0	9.9	3.9	24.6	6.2	-13.8	27.5	10.9	35.7	-8.3

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>																
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 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 Q4	347.3	201.0	353.688	4.6	3.6	138.2	7.2	22.0	108.5	0.4	87.7	20.4	0.5	0.0	44.1	-38.5
2008 Q1	356.3	208.4	353.060	4.3	3.4	140.1	6.6	26.8	105.9	0.5	89.8	15.6	0.9	0.1	36.7	-37.3
2008 Apr.	348.7	197.8	352.868	4.3	3.4	143.1	8.0	25.4	109.8	-	-	-	0.0	0.0	44.7	-48.1
2008 May	349.2	201.4	352.697	4.3	4.1	139.3	6.7	23.8	109.0	-	-	-	-0.1	0.0	59.8	-60.0
2008 June	354.5	207.9	352.314	4.3	4.0	138.3	7.4	24.0	105.6	-	-	-	1.2	0.0	59.4	-59.2
<b>Transactions</b>																
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	5.3	-2.9	-	0.3	-0.9	8.8	0.9	1.8	6.0	0.0	14.3	-8.3	0.0	0.0	-	-
2007 Q3	4.4	-0.3	-	0.1	-0.3	4.9	2.0	0.9	2.1	0.1	2.3	-0.2	0.0	0.0	-	-
2007 Q4	-4.9	-1.5	-	0.1	-0.2	-3.3	-0.4	-4.4	1.5	0.1	4.0	-2.6	0.1	0.0	-	-
2008 Q1	5.1	-0.6	-	-0.3	0.0	5.9	-0.7	5.7	0.9	0.1	6.1	-5.3	0.1	0.1	-	-
<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 Q3	3.9	-1.4	-	10.7	-32.6	12.5	74.5	15.1	9.2	-29.8	18.8	-14.6	-86.9	-	-	-
2007 Q4	1.7	-1.6	-	7.3	-18.0	6.2	14.1	7.3	5.6	1.1	18.4	-27.4	-59.1	-	-	-
2008 Q1	2.6	-1.6	-	0.4	-2.9	8.5	32.2	10.2	7.1	407.6	18.0	-33.1	-46.5	-	-	-

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. organisations	Other countries
	Total	Denmark	Sweden	United Kingdom	Other EU countries	EU institutions									
	1	2	3	4	5	6	7								
<b>2006</b>	<b>Outstanding amounts (international investment position)</b>														
<b>Direct investment</b>	396.0	-63.7	-7.2	-21.0	-219.6	184.4	-0.3	37.0	22.1	-6.2	77.4	-24.8	-6.1	-0.2	360.5
Abroad	3,050.2	1,120.0	35.1	83.4	804.4	197.0	0.0	90.2	24.9	68.2	300.3	608.0	329.7	0.0	508.9
Equity/reinvested earnings	2,484.8	906.9	32.0	58.1	644.9	171.8	0.0	71.0	20.1	63.5	250.4	453.1	307.4	0.0	412.4
Other capital	565.3	213.1	3.1	25.3	159.4	25.3	0.0	19.2	4.8	4.7	49.9	154.9	22.3	0.0	96.5
In the euro area	2,654.1	1,183.7	42.3	104.5	1,024.0	12.7	0.3	53.1	2.7	74.4	222.9	632.8	335.8	0.3	148.4
Equity/reinvested earnings	2,037.8	951.9	36.8	86.3	826.7	1.8	0.2	47.3	0.3	60.7	164.8	477.1	209.6	0.0	126.1
Other capital	616.4	231.8	5.5	18.2	197.2	10.9	0.1	5.9	2.5	13.7	58.0	155.7	126.2	0.3	22.3
<b>Portfolio investment assets</b>	4,459.3	1,375.3	65.7	141.4	1,006.1	93.5	68.6	85.1	37.6	262.8	141.2	1,455.5	529.2	32.2	540.3
Equity	2,014.1	486.5	12.3	58.4	393.2	22.4	0.1	22.6	35.2	181.0	128.7	671.0	216.6	1.4	271.1
Debt instruments	2,445.2	888.9	53.4	83.0	612.9	71.2	68.4	62.4	2.4	81.8	12.5	784.5	312.6	30.8	269.3
Bonds and notes	2,067.8	732.6	48.6	71.1	474.4	70.4	68.2	60.2	2.3	62.3	8.5	660.3	273.0	29.8	238.8
Money market instruments	377.4	156.3	4.9	11.9	138.5	0.8	0.2	2.3	0.0	19.6	4.0	124.2	39.5	1.0	30.5
<b>Other investment</b>	-208.2	92.8	86.4	13.5	116.3	25.2	-148.6	-1.6	3.9	-37.5	-50.2	-5.1	-215.7	-20.0	25.2
Assets	4,403.4	2,291.6	111.4	69.2	1,988.1	113.3	9.5	19.5	25.3	73.7	263.5	586.7	438.6	45.7	659.0
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	2,957.5	1,718.0	95.7	47.9	1,490.9	82.8	0.8	11.0	12.0	38.9	162.7	344.7	274.7	6.6	389.0
Other sectors	1,328.7	548.3	13.6	21.2	483.0	29.1	1.4	8.4	11.4	34.7	100.7	238.9	162.5	0.6	223.3
Liabilities	4,611.5	2,198.8	25.0	55.7	1,871.8	88.1	158.1	21.0	21.3	111.2	313.6	591.8	654.3	65.7	633.8
General government	48.3	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	14.3
MFIs	3,587.2	1,659.8	19.5	35.0	1,440.4	67.9	97.0	14.2	8.5	60.3	253.7	416.6	583.6	60.4	530.2
Other sectors	976.1	514.9	5.5	20.4	429.0	20.2	39.8	6.8	12.8	50.3	59.9	169.0	70.5	2.6	89.3
<b>2007 Q2 to 2008 Q1</b>	<b>Cumulated transactions</b>														
<b>Direct investment</b>	207.9	90.7	2.0	-2.1	66.5	24.3	0.0	17.9	2.9	2.1	22.3	-35.3	40.7	-0.2	66.8
Abroad	451.8	129.5	1.3	5.4	90.9	32.0	0.0	19.7	2.7	10.3	40.6	76.1	73.3	-0.1	99.7
Equity/reinvested earnings	334.9	99.5	0.6	3.5	70.0	25.4	0.0	12.4	0.7	3.8	26.1	60.6	62.4	0.0	69.5
Other capital	116.9	30.1	0.7	1.9	20.9	6.5	0.0	7.3	2.0	6.5	14.5	15.5	10.9	-0.1	30.2
In the euro area	244.0	38.8	-0.7	7.4	24.4	7.7	0.0	1.8	-0.2	8.3	18.3	111.4	32.6	0.1	32.9
Equity/reinvested earnings	172.8	44.4	-1.8	8.6	36.8	0.8	0.0	-0.3	0.1	8.8	9.3	74.7	22.2	0.0	13.6
Other capital	71.2	-5.6	1.1	-1.2	-12.4	6.9	0.0	2.1	-0.3	-0.6	9.0	36.8	10.4	0.1	19.2
<b>Portfolio investment assets</b>	328.5	92.7	0.2	7.0	75.7	2.8	6.9	4.8	1.4	-15.9	-15.7	127.6	20.2	-3.3	116.7
Equity	-10.7	-17.5	0.2	1.1	-20.0	1.1	0.1	-1.6	0.6	-28.2	-19.6	4.2	29.9	-0.1	21.5
Debt instruments	339.2	110.2	0.1	5.9	95.7	1.7	6.8	6.5	0.8	12.3	3.9	123.4	-9.8	-3.2	95.1
Bonds and notes	253.9	64.0	0.8	2.1	53.1	1.7	6.3	7.0	0.4	4.7	2.3	86.5	6.1	-2.8	85.6
Money market instruments	85.3	46.2	-0.7	3.8	42.6	0.0	0.5	-0.6	0.5	7.6	1.5	36.9	-15.9	-0.4	9.5
<b>Other investment</b>	-226.3	-251.8	52.9	-1.2	-338.5	49.0	-14.0	1.0	16.5	4.2	-74.4	-93.1	42.6	29.4	99.5
Assets	770.8	199.4	23.9	2.2	99.6	67.3	6.5	3.6	9.7	16.0	-38.8	314.4	121.8	14.2	130.6
General government	-4.6	-1.4	1.0	0.2	-3.0	-0.3	0.6	0.0	-0.1	0.0	0.0	0.0	0.0	0.5	-3.7
MFIs	504.3	139.2	20.6	3.4	42.1	67.6	5.5	2.6	6.2	24.9	-37.7	133.9	98.6	13.7	122.9
Other sectors	271.1	61.7	2.3	-1.4	60.5	0.0	0.3	1.0	3.5	-8.9	-1.2	180.4	23.2	0.0	11.4
Liabilities	997.1	451.2	-29.0	3.4	438.1	18.3	20.5	2.6	-6.8	11.8	35.5	407.5	79.3	-15.2	31.1
General government	2.0	3.9	-0.1	0.1	-3.9	0.0	7.8	0.0	0.0	0.0	0.0	-0.3	0.1	-0.8	-0.9
MFIs	722.0	407.3	-28.6	0.5	414.2	13.1	8.1	2.0	-8.0	11.2	22.9	203.5	66.5	-14.3	31.0
Other sectors	273.0	40.1	-0.3	2.8	27.8	5.2	4.6	0.6	1.1	0.7	12.6	204.3	12.7	-0.1	1.0

Source: ECB.

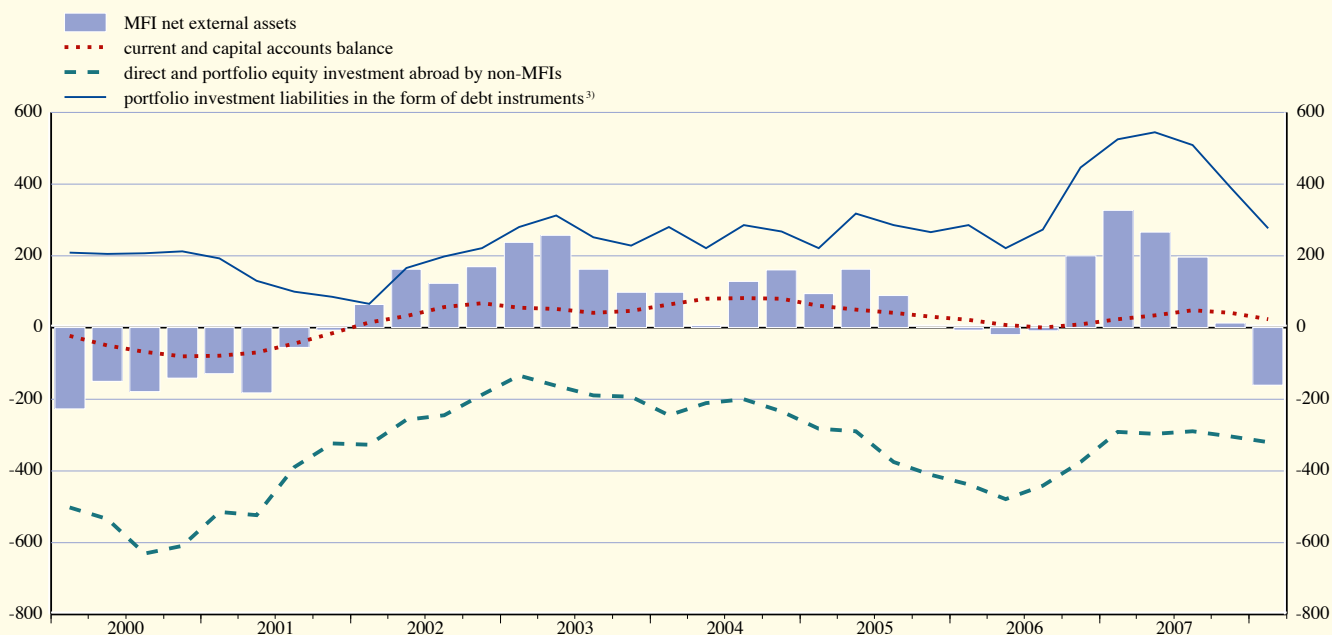
7.4 Monetary presentation of the balance of payments <sup>1)</sup>

(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	
2005	29.9	-349.1	149.6	-264.8	212.4	266.2	-150.8	148.2	-18.2	-33.9	-10.6	-0.1
2006	9.7	-313.5	206.6	-288.3	242.1	445.2	-192.9	192.8	2.4	-114.8	189.4	200.3
2007	41.4	-375.3	283.8	-182.0	142.4	390.1	-291.6	247.3	-90.7	-129.7	35.8	13.3
2007 Q1	8.7	-90.2	80.0	-52.4	91.4	165.4	-70.9	10.5	-15.2	-36.1	91.1	88.2
Q2	-0.1	-101.3	53.8	-67.4	65.6	134.1	-56.8	46.7	-19.8	-56.7	-2.0	-0.2
Q3	14.9	-99.5	76.1	-42.9	25.3	48.0	-132.1	176.7	-26.8	-104.8	-65.3	-67.3
Q4	17.9	-84.3	74.1	-19.3	-39.8	42.6	-31.8	13.4	-28.8	68.0	12.0	-7.5
2008 Q1	-9.8	-130.6	38.2	-8.7	5.8	52.5	-45.7	38.1	-14.9	-9.4	-84.3	-85.2
2007 May	-11.9	-42.7	21.5	-19.8	12.1	47.3	-24.9	6.2	-1.9	4.7	-9.4	-13.5
June	13.8	-35.4	11.5	-27.4	65.3	45.7	-23.1	17.4	-8.4	-10.8	48.6	55.7
July	7.0	-25.5	26.7	-22.3	33.1	19.5	32.2	4.9	-12.9	-53.7	9.0	8.2
Aug.	1.2	-28.5	33.3	-11.1	-14.7	23.6	-12.6	31.8	-5.1	-66.9	-48.9	-51.1
Sep.	6.6	-45.5	16.0	-9.5	7.0	4.8	-151.7	139.9	-8.8	15.8	-25.3	-24.4
Oct.	5.8	-34.9	59.2	-12.7	-24.2	4.3	-26.4	3.9	1.4	36.9	13.3	11.9
Nov.	4.3	-28.4	41.5	-2.4	-7.3	64.9	-12.6	10.7	-22.7	-14.5	33.5	28.6
Dec.	7.8	-21.0	-26.6	-4.2	-8.3	-26.6	7.3	-1.1	-7.6	45.6	-34.8	-48.0
2008 Jan.	-15.8	-75.9	30.0	17.4	-9.8	33.7	-6.5	36.1	-19.2	-7.1	-17.1	-18.5
Feb.	9.8	-31.1	11.9	-5.0	19.9	15.9	-10.5	-30.8	1.7	-1.4	-19.7	-13.9
Mar.	-3.9	-23.5	-3.6	-21.1	-4.3	2.9	-28.7	32.8	2.6	-0.9	-47.5	-52.8
Apr.	-6.9	23.1	-41.2	-10.5	-37.2	43.8	-1.4	-9.6	-14.2	-11.3	-65.3	-75.3
May	-19.7	-9.7	-0.8	-35.2	4.2	36.7	-3.1	6.3	-29.7	-24.5	-75.5	-70.1
	<i>12-month cumulated transactions</i>											
2008 May	10.2	-336.3	157.9	-144.0	23.6	269.3	-237.2	242.4	-122.8	-92.9	-229.8	-249.8

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:			
			Intermediate	Capital	Consumption		Intermediate	Capital	Consumption	Manufactures	Oil		
	1	2	3	4	5	6	7	8	9	10	11	12	13
Values (EUR billions; annual percentage changes for columns 1 and 2)													
2004	9.0	9.3	1,144.5	543.6	246.3	313.7	995.0	1,075.8	605.0	184.2	256.7	771.3	130.0
2005	7.8	13.4	1,238.3	589.9	269.0	333.8	1,068.7	1,227.4	706.2	208.2	277.0	846.8	187.0
2006	11.6	13.7	1,384.9	686.5	296.4	365.3	1,182.9	1,397.4	857.0	216.4	304.5	943.8	224.6
2007	8.4	5.7	1,501.3	736.8	323.8	393.3	1,276.2	1,474.6	897.7	224.1	323.9	1,010.5	222.2
2006 Q4	12.3	7.6	363.0	181.9	77.3	95.3	312.2	356.6	219.0	53.9	78.3	246.4	51.8
2007 Q1	9.0	5.2	367.9	180.5	79.5	96.5	311.6	359.0	216.4	56.8	79.7	250.2	47.5
Q2	9.4	3.6	370.6	181.5	80.3	97.0	317.2	360.2	220.6	53.9	79.2	249.9	52.5
Q3	10.1	6.4	381.2	187.3	81.8	100.0	326.2	375.4	227.2	57.3	82.4	259.5	57.5
Q4	5.4	7.4	381.6	187.5	82.3	99.8	321.3	380.0	233.5	56.1	82.5	250.8	64.7
2008 Q1	6.7	9.4	395.1	193.9	84.1	104.2	331.3	395.2	246.9	57.2	81.6	255.7	70.0
2007 Dec.	-0.2	5.1	124.5	61.2	26.5	32.6	103.8	125.9	79.2	18.0	26.8	82.2	22.8
2008 Jan.	10.1	12.6	132.3	65.3	28.3	35.2	110.7	133.6	82.6	19.5	28.0	85.9	24.6
Feb.	12.8	10.1	134.1	65.8	28.6	35.6	112.9	131.7	81.6	19.1	27.3	86.0	21.5
Mar.	-1.7	5.5	128.7	62.8	27.2	33.4	107.7	129.9	82.7	18.6	26.3	83.8	23.9
Apr.	15.9	15.8	135.8	67.4	28.6	35.7	112.5	134.5	84.7	18.6	27.2	84.4	23.9
May	4.1	9.1	131.2	.	.	.	108.1	132.8	.	.	.	83.2	.
Volume indices (2000 = 100; annual percentage changes for columns 1 and 2)													
2004	9.0	6.4	117.5	114.9	120.2	118.6	118.6	108.0	104.1	108.8	117.6	109.0	106.2
2005	4.7	5.0	123.5	119.7	129.8	123.6	124.6	114.0	107.5	123.5	123.6	117.1	110.6
2006	7.8	6.0	133.5	133.6	140.2	131.2	134.4	121.0	117.9	128.5	131.3	126.1	110.0
2007	6.0	4.2	141.5	138.8	151.0	139.4	142.1	125.9	119.8	136.7	138.5	133.8	107.0
2006 Q4	9.6	6.0	139.2	140.5	145.8	136.8	140.7	125.2	122.6	130.0	134.9	131.0	111.4
2007 Q1	7.2	6.3	139.9	137.2	148.9	137.0	139.2	126.2	121.2	137.1	137.0	132.4	108.1
Q2	6.5	3.4	139.4	136.3	149.2	137.7	140.7	124.4	119.6	132.2	137.0	132.4	105.8
Q3	7.4	5.3	143.2	140.5	152.4	141.4	144.9	126.8	119.5	140.1	139.4	136.7	106.5
Q4	3.4	1.7	143.5	141.0	153.7	141.7	143.7	126.3	119.0	137.5	140.6	133.7	107.9
2008 Q1	3.8	-1.0	146.1	142.4	154.6	146.1	146.8	125.7	119.4	138.9	137.2	134.4	109.2
2007 Dec.	-2.1	-1.3	140.2	138.2	147.1	139.0	139.3	124.1	119.3	132.2	136.5	131.4	109.7
2008 Jan.	6.9	2.0	147.3	144.5	155.9	148.9	147.8	128.2	121.1	142.4	140.0	135.4	117.1
Feb.	9.6	-0.2	148.6	145.0	158.8	148.9	149.8	126.0	118.9	137.9	137.7	135.2	101.6
Mar.	-4.0	-4.7	142.5	137.8	149.3	140.6	143.0	123.0	118.2	136.3	134.0	132.6	109.1
Apr.	13.4	5.4	150.6	147.5	158.6	150.1	149.6	127.4	120.7	137.0	140.1	134.2	106.8
May	.	.	.	.	.	.	.	.	.	.	.	.	.
Unit value indices (n.s.a.; 2000 = 100; annual percentage changes for columns 1 and 2)													
2004	-0.1	2.7	97.6	96.6	95.7	101.2	97.3	97.4	98.3	92.3	99.0	96.3	99.6
2005	2.9	8.0	100.4	100.6	96.8	103.3	99.4	105.2	111.1	91.8	101.5	98.5	137.7
2006	3.6	7.4	104.0	104.9	98.7	106.5	102.0	113.0	123.1	91.9	105.1	101.9	166.5
2007	2.2	1.4	106.3	108.4	100.1	107.9	104.1	114.6	126.8	89.4	106.0	102.8	169.3
2006 Q4	2.6	1.5	104.5	105.8	99.0	106.6	102.9	111.5	121.0	90.5	105.3	102.4	151.5
2007 Q1	1.7	-1.0	105.4	107.5	99.7	107.9	103.8	111.3	120.9	90.3	105.5	102.9	143.5
Q2	2.8	0.2	106.6	108.8	100.5	107.8	104.5	113.3	124.9	89.0	104.9	102.8	162.1
Q3	2.5	0.9	106.7	108.9	100.3	108.3	104.4	115.8	128.7	89.3	107.2	103.4	176.2
Q4	2.0	5.6	106.6	108.7	100.0	107.8	103.7	117.7	132.8	89.0	106.3	102.2	195.5
2008 Q1	2.8	10.5	108.4	111.2	101.6	109.2	104.6	123.0	140.0	89.9	107.8	103.6	209.0
2007 Dec.	1.9	6.4	106.8	108.5	100.8	107.6	103.7	119.0	134.8	89.2	106.9	102.2	203.4
2008 Jan.	3.1	10.5	108.0	110.7	101.6	108.6	104.2	122.4	138.5	89.8	108.7	103.7	205.9
Feb.	2.9	10.3	108.5	111.2	101.1	109.7	104.8	122.7	139.4	90.4	108.0	103.9	206.7
Mar.	2.5	10.6	108.6	111.7	102.2	109.2	104.8	123.9	142.1	89.4	106.6	103.3	214.3
Apr.	2.2	9.8	108.5	112.0	101.1	109.2	104.6	123.9	142.6	88.6	105.7	102.8	218.5
May	.	.	.	.	.	.	.	.	.	.	.	.	.

Source: Eurostat.

## 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>															
2004	1,144.5	25.8	42.1	204.5	133.9	35.9	66.6	31.8	172.7	225.7	40.4	33.3	64.6	40.7	100.3
2005	1,238.3	29.0	45.2	203.3	153.2	43.7	70.8	34.7	185.3	244.2	43.3	34.1	73.4	46.9	108.7
2006	1,384.9	31.7	49.9	216.8	189.8	55.2	77.2	38.8	199.9	271.7	53.7	34.5	77.7	54.4	121.7
2007	1,501.3	33.8	55.3	228.8	220.1	67.1	81.9	40.9	195.2	296.2	60.2	34.3	87.2	61.3	133.5
2006 Q4	363.0	8.2	13.2	54.9	51.2	15.7	20.8	9.7	51.2	71.9	14.8	8.7	20.1	14.2	31.9
2007 Q1	367.9	8.3	13.5	56.9	52.5	15.6	20.5	10.2	49.7	72.0	14.3	8.7	21.3	14.8	32.7
Q2	370.6	8.4	13.9	55.8	53.8	16.7	20.0	9.9	48.7	73.3	14.9	8.8	21.4	15.4	33.2
Q3	381.2	8.5	14.2	58.6	56.4	17.3	20.6	10.3	49.5	75.1	15.4	8.5	22.2	15.6	33.0
Q4	381.6	8.5	13.7	57.5	57.4	17.5	20.8	10.5	47.3	75.9	15.7	8.2	22.2	15.6	34.6
2008 Q1	395.1	8.8	13.9	57.6	60.6	19.2	20.8	11.7	48.3	78.3	16.7	8.5	23.8	16.0	36.0
2007 Dec.	124.5	2.8	4.5	18.9	19.0	5.8	6.8	3.5	15.1	25.4	5.3	2.8	7.5	5.0	10.1
2008 Jan.	132.3	2.9	4.6	19.8	20.2	6.2	6.9	3.9	16.4	26.1	5.8	2.9	7.8	5.3	12.1
Feb.	134.1	3.0	4.7	19.2	20.4	6.5	6.9	4.0	16.6	26.4	5.5	2.9	8.1	5.4	12.8
Mar.	128.7	2.9	4.6	18.7	20.0	6.5	7.0	3.7	15.2	25.8	5.5	2.8	7.9	5.3	11.1
Apr.	135.8	3.0	4.6	20.2	21.0	6.5	7.2	3.8	16.2	26.1	5.9	2.8	8.0	5.3	13.7
May	131.2	.	.	.	.	6.3	7.2	3.6	14.7	25.6	5.5	2.8	7.9	5.3	.
<i>% share of total exports</i>															
2007	100.0	2.2	3.7	15.2	14.7	4.5	5.5	2.7	13.0	19.7	4.0	2.3	5.8	4.1	8.9
<b>Imports (c.i.f.)</b>															
2004	1,075.8	25.4	39.8	144.8	115.5	56.6	53.4	23.2	113.4	309.3	92.3	54.1	72.9	45.2	76.3
2005	1,227.4	26.4	42.3	153.2	127.8	76.3	58.1	25.5	120.2	363.6	118.2	53.2	96.0	53.8	84.2
2006	1,397.4	28.5	47.9	167.2	152.3	95.6	62.3	29.4	125.9	418.6	144.5	57.0	110.5	66.3	93.0
2007	1,474.6	28.1	51.6	167.8	174.5	97.4	67.1	32.2	131.1	445.4	170.1	58.5	112.6	74.6	92.3
2006 Q4	356.6	7.1	12.7	40.9	41.0	22.1	16.0	7.6	32.5	108.1	39.8	14.4	27.8	17.4	23.4
2007 Q1	359.0	7.0	12.8	40.8	41.5	22.6	16.9	7.9	33.4	110.4	42.4	14.8	26.4	18.1	21.1
Q2	360.2	7.0	12.8	41.6	42.5	23.8	16.5	7.9	32.2	107.6	39.9	14.3	26.9	18.3	23.3
Q3	375.4	7.3	12.8	42.8	44.9	23.6	17.2	8.1	33.3	114.8	44.6	14.8	28.1	18.8	23.6
Q4	380.0	6.8	13.2	42.5	45.7	27.4	16.5	8.3	32.2	112.6	43.2	14.5	31.2	19.4	24.3
2008 Q1	395.2	7.2	13.9	43.6	48.1	28.0	16.9	8.4	33.8	115.9	43.4	14.6	33.9	19.6	25.9
2007 Dec.	125.9	2.2	4.4	14.0	14.9	9.2	5.4	2.8	10.5	37.6	14.1	4.8	11.5	6.4	6.9
2008 Jan.	133.6	2.3	4.6	14.9	15.9	9.5	5.5	2.8	11.4	39.4	14.9	4.8	11.5	6.6	9.1
Feb.	131.7	2.6	4.7	14.5	16.0	9.2	5.8	2.8	11.2	38.3	14.5	5.0	11.3	6.5	8.9
Mar.	129.9	2.3	4.6	14.2	16.1	9.3	5.5	2.8	11.2	38.2	14.0	4.8	11.1	6.5	7.9
Apr.	134.5	2.7	4.5	14.2	16.7	9.9	5.7	2.9	11.0	38.4	14.4	4.9	12.3	6.9	9.2
May	132.8	.	.	.	.	9.7	5.5	2.8	10.8	37.2	14.3	4.5	11.4	6.9	.
<i>% share of total imports</i>															
2007	100.0	1.9	3.5	11.4	11.8	6.6	4.5	2.2	8.9	30.2	11.5	4.0	7.6	5.1	6.3
<b>Balance</b>															
2004	68.7	0.4	2.3	59.6	18.4	-20.7	13.3	8.6	59.2	-83.6	-52.0	-20.8	-8.3	-4.5	24.0
2005	10.9	2.6	2.9	50.1	25.4	-32.5	12.7	9.2	65.1	-119.4	-74.8	-19.1	-22.6	-6.9	24.4
2006	-12.5	3.2	2.0	49.7	37.6	-40.4	15.0	9.4	74.0	-146.9	-90.8	-22.4	-32.8	-11.9	28.7
2007	26.7	5.7	3.7	61.0	45.6	-30.3	14.9	8.7	64.1	-149.2	-110.0	-24.2	-25.5	-13.3	41.2
2006 Q4	6.3	1.1	0.6	14.0	10.3	-6.4	4.9	2.1	18.6	-36.2	-25.0	-5.6	-7.7	-3.2	8.4
2007 Q1	8.9	1.3	0.6	16.1	11.0	-7.0	3.6	2.3	16.3	-38.4	-28.1	-6.2	-5.1	-3.3	11.6
Q2	10.4	1.4	1.1	14.2	11.3	-7.0	3.5	2.0	16.6	-34.3	-25.1	-5.5	-5.5	-2.9	9.9
Q3	5.9	1.2	1.4	15.8	11.5	-6.3	3.4	2.2	16.1	-39.7	-29.2	-6.3	-6.0	-3.2	9.4
Q4	1.5	1.7	0.5	15.0	11.8	-9.9	4.3	2.2	15.1	-36.7	-27.6	-6.2	-8.9	-3.9	10.3
2008 Q1	-0.1	1.6	0.0	14.0	12.5	-8.8	4.0	3.3	14.5	-37.7	-26.6	-6.2	-10.1	-3.7	10.2
2007 Dec.	-1.4	0.6	0.0	4.9	4.0	-3.4	1.4	0.7	4.6	-12.2	-8.8	-2.0	-3.9	-1.4	3.2
2008 Jan.	-1.3	0.7	0.0	4.9	4.3	-3.3	1.4	1.1	5.0	-13.4	-9.1	-2.0	-3.7	-1.3	3.1
Feb.	2.3	0.4	0.0	4.7	4.4	-2.7	1.2	1.2	5.5	-11.8	-9.0	-2.1	-3.2	-1.1	3.9
Mar.	-1.1	0.6	0.0	4.5	3.9	-2.9	1.4	0.9	4.0	-12.4	-8.5	-2.0	-3.1	-1.3	3.2
Apr.	1.4	0.3	0.1	6.0	4.3	-3.4	1.5	0.9	5.2	-12.3	-8.6	-2.0	-4.2	-1.6	4.5
May	-1.5	.	.	.	.	-3.3	1.7	0.7	3.9	-11.6	-8.9	-1.7	-3.5	-1.6	.

Source: Eurostat.



## EXCHANGE RATES

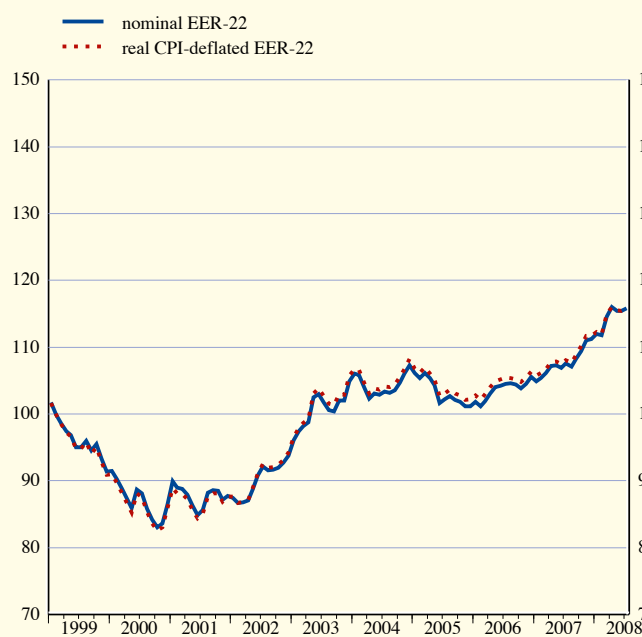
### 8.1 Effective exchange rates <sup>1)</sup>

(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	102.2	98.2	101.9	109.7	103.7	
2006	103.6	104.6	103.0	102.2	98.7	101.5	110.0	103.4	
2007	107.7	108.3	106.8	106.0	101.6	104.7	114.2	106.6	
2007 Q2	107.1	107.7	106.1	105.5	101.8	104.4	113.5	106.0	
Q3	107.6	108.2	106.8	106.0	101.3	104.6	114.1	106.4	
Q4	110.5	111.2	109.5	108.5	104.1	107.4	117.0	109.0	
2008 Q1	112.7	113.1	111.2	110.7	105.9	109.4	119.4	110.8	
Q2	115.7	115.7	113.2	.	.	.	122.6	113.3	
2007 July	107.6	108.1	106.5	-	-	-	113.9	106.2	
Aug.	107.1	107.7	106.4	-	-	-	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	109.9	-	-	-	117.6	109.7	
Dec.	111.2	111.7	110.0	-	-	-	117.6	109.4	
2008 Jan.	112.0	112.3	110.4	-	-	-	118.3	109.9	
Feb.	111.8	111.9	110.5	-	-	-	118.2	109.5	
Mar.	114.6	115.0	112.8	-	-	-	121.5	112.8	
Apr.	116.0	116.1	113.9	-	-	-	123.1	113.8	
May	115.5	115.6	113.2	-	-	-	122.4	113.2	
June	115.4	115.5	112.6	-	-	-	122.4	113.1	
July	115.8	115.8	112.8	-	-	-	122.8	113.4	
	<i>% change versus previous month</i>								
2008 July	0.3	0.3	0.2	-	-	-	0.4	0.3	
	<i>% change versus previous year</i>								
2008 July	7.6	7.2	6.0	-	-	-	7.8	6.7	

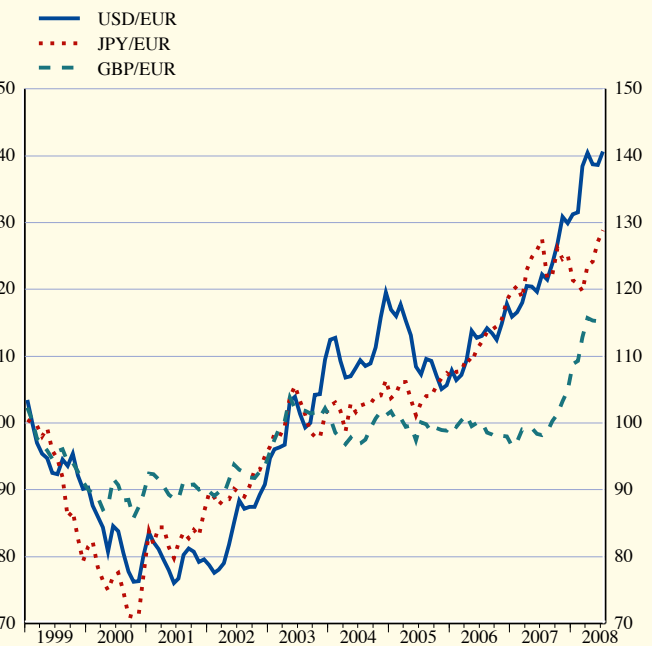
### C35 Effective exchange rates

(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 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
2008 Q1	7.4534	9.3996	0.75698	1.4976	157.80	1.6014	1,430.84	11.6737	2.1107	1.5022	7.9583	1.6533
2008 Q2	7.4599	9.3517	0.79286	1.5622	163.35	1.6114	1,590.82	12.1845	2.1346	1.5769	7.9401	1.6559
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
Feb.	7.4540	9.3642	0.75094	1.4748	157.97	1.6080	1,392.57	11.4996	2.0808	1.4740	7.9480	1.6156
Mar.	7.4561	9.4020	0.77494	1.5527	156.39	1.5720	1,523.14	12.0832	2.1489	1.5519	7.9717	1.6763
Apr.	7.4603	9.3699	0.79487	1.5751	161.56	1.5964	1,555.98	12.2728	2.1493	1.5965	7.9629	1.6933
May	7.4609	9.3106	0.79209	1.5557	162.31	1.6247	1,613.18	12.1341	2.1259	1.5530	7.8648	1.6382
June	7.4586	9.3739	0.79152	1.5553	166.26	1.6139	1,604.95	12.1425	2.1278	1.5803	7.9915	1.6343
July	7.4599	9.4566	0.79308	1.5770	168.45	1.6193	1,604.58	12.3004	2.1438	1.5974	8.0487	1.6386
-% change versus previous month												
2008 July	0.0	0.9	0.2	1.4	1.3	0.3	0.0	1.3	0.8	1.1	0.7	0.3
-% change versus previous year												
2008 July	0.3	3.0	17.6	15.0	1.0	-2.3	27.4	14.7	3.1	10.8	1.4	3.7
	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 Roma- nian 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 Q4	26.826	15.6466	0.7005	3.4528	252.86	3.6584	33.424	1.9558	3.4489	7.3281	1.7261	
2008 Q1	25.564	15.6466	0.6973	3.4528	259.30	3.5759	33.069	1.9558	3.6887	7.2852	1.8036	
2008 Q2	24.830	15.6466	0.6997	3.4528	248.04	3.4070	31.403	1.9558	3.6521	7.2556	1.9717	
2008 Jan.	26.050	15.6466	0.6982	3.4528	256.03	3.6092	33.546	1.9558	3.6937	7.3155	1.7322	
Feb.	25.377	15.6466	0.6967	3.4528	262.15	3.5768	33.085	1.9558	3.6557	7.2707	1.7632	
Mar.	25.208	15.6466	0.6970	3.4528	259.94	3.5363	32.499	1.9558	3.7194	7.2662	1.9309	
Apr.	25.064	15.6466	0.6974	3.4528	253.75	3.4421	32.374	1.9558	3.6428	7.2654	2.0500	
May	25.100	15.6466	0.6987	3.4528	247.69	3.4038	31.466	1.9558	3.6583	7.2539	1.9408	
June	24.316	15.6466	0.7032	3.4528	242.42	3.3736	30.322	1.9558	3.6556	7.2469	1.9206	
July	23.528	15.6466	0.7035	3.4528	231.82	3.2591	30.319	1.9558	3.5764	7.2297	1.9128	
-% change versus previous month												
2008 July	-3.2	0.0	0.0	0.0	-4.4	-3.4	0.0	0.0	-2.2	-0.2	-0.4	
-% change versus previous year												
2008 July	-17.0	0.0	0.9	0.0	-6.1	-13.5	-9.0	0.0	14.1	-0.9	8.8	
	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	2.6594	10.4178	87.63	12,528.33	4.7076	14.9743	1.8627	63.026	35.0183	9.6596	44.214	
2007 Q4	2.5863	10.7699	88.69	13,374.03	4.8613	15.7217	1.8965	62.330	35.6947	9.8088	45.097	
2008 Q1	2.6012	10.7268	101.09	13,861.78	4.8325	16.1862	1.8960	61.211	36.3097	11.2736	46.461	
2008 Q2	2.5882	10.8687	119.09	14,460.45	5.0183	16.2919	2.0129	67.174	36.9108	12.1648	50.437	
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	
Feb.	2.5516	10.5682	98.06	13,542.26	4.7548	15.8786	1.8513	59.845	36.1357	11.2899	46.085	
Mar.	2.6445	10.9833	112.08	14,241.09	4.9455	16.6678	1.9344	64.031	36.8259	12.3712	48.848	
Apr.	2.6602	11.0237	116.65	14,497.21	4.9819	16.5608	1.9960	65.790	37.0494	12.2729	49.752	
May	2.5824	10.8462	117.46	14,436.99	5.0081	16.2402	2.0011	66.895	36.9042	11.8696	49.942	
June	2.5185	10.7287	123.28	14,445.41	5.0666	16.0617	2.0424	68.903	36.7723	12.3467	51.649	
July	2.5097	10.7809	123.61	14,442.77	5.1258	16.1119	2.0900	70.694	36.8261	12.0328	52.821	
-% change versus previous month												
2008 July	-0.3	0.5	0.3	0.0	1.2	0.3	2.3	2.6	0.1	-2.5	2.3	
-% change versus previous year												
2008 July	-2.7	3.8	48.6	16.1	8.6	8.7	19.8	13.3	5.1	25.7	26.2	

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
<b>HICP</b>												
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 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
2008 Q1	12.4	7.6	3.2	11.3	16.3	10.8	6.9	4.5	8.0	3.4	3.1	2.4
Q2	14.0	6.7	3.7	11.5	17.5	12.3	6.8	4.3	8.6	4.0	3.8	3.4
2008 Feb.	12.2	7.6	3.3	11.5	16.5	10.9	6.7	4.6	8.0	3.4	2.9	2.5
Mar.	13.2	7.1	3.3	11.2	16.6	11.4	6.7	4.4	8.7	3.6	3.2	2.5
Apr.	13.4	6.7	3.4	11.6	17.4	11.9	6.8	4.3	8.7	3.7	3.2	3.0
May	14.0	6.8	3.6	11.4	17.7	12.3	6.9	4.3	8.5	4.0	3.9	3.3
June	14.7	6.6	4.2	11.5	17.5	12.7	6.6	4.3	8.7	4.3	4.1	3.8
<b>General government deficit (-)/surplus (+) as a % of GDP</b>												
2005	1.8	-3.6	5.0	1.8	-0.4	-0.5	-7.8	-4.3	-1.2	-2.8	2.2	-3.4
2006	3.0	-2.7	4.8	3.4	-0.2	-0.5	-9.2	-3.8	-2.2	-3.6	2.3	-2.6
2007	3.4	-1.6	4.4	2.8	0.0	-1.2	-5.5	-2.0	-2.5	-2.2	3.5	-2.9
<b>General government gross debt as a % of GDP</b>												
2005	29.2	29.7	36.4	4.5	12.4	18.6	61.6	47.1	15.8	34.2	50.9	42.1
2006	22.7	29.4	30.4	4.2	10.7	18.2	65.6	47.6	12.4	30.4	45.9	43.1
2007	18.2	28.7	26.0	3.4	9.7	17.3	66.0	45.2	13.0	29.4	40.6	43.8
<b>Long-term government bond yield as a % per annum, period average</b>												
2008 Jan.	5.07	4.56	4.15	-	5.71	4.73	7.11	5.81	7.15	4.48	4.09	4.26
Feb.	5.24	4.53	4.08	-	5.11	4.51	7.58	5.82	7.29	4.36	4.02	4.45
Mar.	4.85	4.68	4.04	-	5.25	4.36	8.41	5.99	7.34	4.34	3.92	4.42
Apr.	4.80	4.72	4.29	-	5.93	4.59	8.02	5.99	7.35	4.46	4.06	4.62
May	4.95	4.84	4.42	-	5.93	4.80	8.08	6.10	7.26	4.52	4.18	4.84
June	5.17	5.13	4.82	-	6.25	5.33	8.50	6.42	7.15	4.94	4.43	5.16
<b>3-month interest rate as a % per annum, period average</b>												
2008 Jan.	6.55	3.96	4.73	7.03	9.01	5.69	7.78	5.64	8.43	4.32	4.52	5.66
Feb.	6.65	3.94	4.61	6.62	7.52	4.90	-	5.74	9.67	4.28	4.62	5.64
Mar.	6.68	4.04	4.81	6.35	6.49	4.82	8.21	6.03	10.54	4.29	4.84	5.89
Apr.	6.77	4.11	5.00	6.33	5.96	5.05	8.54	6.29	11.59	4.28	4.86	5.92
May	6.88	4.14	5.14	6.39	5.74	5.17	8.40	6.41	10.87	4.32	4.96	5.83
June	7.02	4.21	5.32	6.41	6.15	5.45	8.87	6.58	11.29	4.34	5.02	5.93
<b>Real GDP</b>												
2006	6.3	6.8	3.9	11.2	12.2	7.7	3.9	6.2	7.9	8.5	4.1	2.9
2007	6.2	6.6	1.7	7.1	10.3	8.8	1.3	6.7	6.0	10.4	2.7	3.1
2007 Q4	6.9	6.3	1.5	4.8	8.1	8.5	0.5	6.7	6.6	14.3	2.4	2.8
2008 Q1	7.0	5.3	-0.6	0.1	3.3	6.8	0.8	6.4	8.2	8.7	1.9	2.3
Q2	.	.	.	.	.	5.7	.	.	.	.	1.0	1.6
<b>Current and capital accounts balance as a % of GDP</b>												
2006	-17.1	-2.9	2.9	-13.2	-21.3	-9.6	-5.4	-2.1	-10.5	-7.1	7.8	-3.8
2007	-20.3	-2.0	1.1	-16.6	-20.9	-11.9	-3.8	-2.7	-13.5	-4.7	8.1	-4.1
2007 Q3	-11.8	-4.4	2.1	-16.5	-24.5	-10.1	-2.8	-2.0	-10.8	-6.3	7.0	-5.2
Q4	-25.1	-2.1	1.7	-14.2	-13.2	-10.2	-2.4	-1.9	-13.5	-6.8	9.1	-2.5
2008 Q1	-22.7	3.8	-2.1	-11.2	-18.3	-14.0	-1.3	-3.3	-14.1	-0.5	10.4	-2.2
<b>Unit labour costs</b>												
2006	4.4	1.2	1.7	8.1	15.3	8.8	1.4	0.2	.	1.7	-0.2	2.6
2007	14.2	2.3	3.7	18.9	24.9	7.0	6.8	.	.	0.2	4.3	1.3
2007 Q3	16.7	2.5	4.2	20.7	-	5.9	-	-	-	0.3	3.6	2.1
Q4	14.5	1.1	3.5	19.1	-	7.9	-	-	-	-1.6	5.3	1.4
2008 Q1	16.8	5.1	6.8	19.1	-	13.1	-	-	-	5.5	1.8	2.4
<b>Standardised unemployment rate as a % of labour force (s.a.)</b>												
2006	9.0	7.2	3.9	5.9	6.8	5.6	7.5	13.9	7.3	13.4	7.0	5.4
2007	6.9	5.3	3.8	4.7	6.0	4.3	7.4	9.6	6.4	11.1	6.1	5.3
2007 Q4	6.1	4.9	3.4	4.2	5.6	4.2	7.8	8.5	6.2	10.6	6.0	5.1
2008 Q1	6.2	4.5	3.0	4.2	6.1	4.6	7.6	7.8	6.0	10.4	5.7	5.1
Q2	5.7	4.4	2.7	4.1	5.6	4.4	7.6	7.5	.	10.5	5.3	.
2008 Feb.	6.2	4.5	3.0	4.3	6.0	4.6	7.6	7.8	6.0	10.4	5.7	5.1
Mar.	6.1	4.4	2.9	4.2	6.0	4.6	7.6	7.5	6.0	10.3	5.6	5.2
Apr.	5.7	4.4	2.7	4.2	5.6	4.5	7.5	7.6	.	10.5	5.5	5.1
May	5.7	4.4	2.7	4.1	5.6	4.4	7.6	7.5	.	10.5	5.3	.
June	5.7	4.3	2.6	4.1	5.7	4.3	7.6	7.3	.	10.5	5.1	.

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

## 9.2 In the United States and Japan

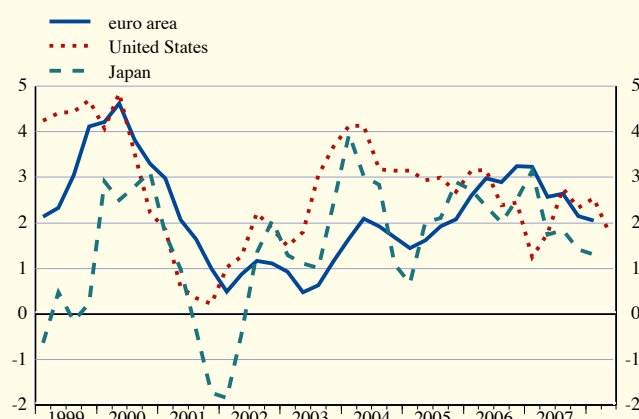
(annual percentage changes, unless otherwise indicated)

### 1. Economic and financial developments

	Consumer price index	Unit labour costs <sup>1)</sup>	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>	10-year zero coupon government bond yield <sup>3)</sup> end-of-period	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	0.8	3.6	3.1	5.5	4.7	1.62	4.80	1.2439	-4.4	48.9
2005	3.4	2.1	2.9	4.2	5.1	4.4	3.56	5.05	1.2441	-3.6	49.2
2006	3.2	2.9	2.8	2.8	4.6	4.8	5.19	5.26	1.2556	-2.6	48.6
2007	2.9	3.2	2.0	1.8	4.6	5.9	5.30	4.81	1.3705	-3.0	49.2
2007 Q2	2.7	4.3	1.8	1.8	4.5	6.1	5.36	5.78	1.3481	-2.7	48.3
Q3	2.4	2.8	2.8	2.2	4.7	6.3	5.45	5.34	1.3738	-3.1	48.7
Q4	4.0	1.4	2.3	2.5	4.8	5.8	5.02	4.81	1.4486	-3.3	49.2
2008 Q1	4.1	0.7	2.5	2.0	4.9	6.5	3.26	4.24	1.4976	.	.
Q2	4.4	.	1.8	-0.1	5.3	6.3	2.75	4.81	1.5622	.	.
2008 Mar.	4.0	.	.	1.4	5.1	7.0	2.78	4.24	1.5527	.	.
Apr.	3.9	.	.	0.1	5.0	6.5	2.79	4.59	1.5751	.	.
May	4.2	.	.	-0.1	5.5	6.4	2.69	4.82	1.5557	.	.
June	5.0	.	.	-0.4	5.5	6.1	2.77	4.81	1.5553	.	.
July	.	.	.	.	5.7	.	2.79	4.80	1.5770	.	.
Japan											
2004	0.0	-3.2	2.7	4.8	4.7	.	0.05	1.53	134.44	-6.2	156.8
2005	-0.3	-2.1	1.9	1.4	4.4	1.8	0.06	1.66	136.85	-6.7	163.2
2006	0.2	-0.6	2.4	4.5	4.1	1.0	0.30	1.85	146.02	-1.4	159.5
2007	0.1	-1.7	2.0	2.8	3.8	1.6	0.79	1.70	161.25	.	.
2007 Q2	-0.1	-1.4	1.7	2.3	3.8	1.5	0.69	2.11	162.89	.	.
Q3	-0.1	-1.5	1.8	2.6	3.8	1.9	0.89	1.88	161.90	.	.
Q4	0.5	-2.0	1.4	3.4	3.8	2.0	0.96	1.70	163.83	.	.
2008 Q1	1.0	.	1.3	2.3	3.9	2.2	0.92	1.48	157.80	.	.
Q2	1.4	.	.	1.0	4.0	2.1	0.92	1.88	163.35	.	.
2008 Mar.	1.2	.	.	-0.6	3.8	2.2	0.97	1.48	156.59	.	.
Apr.	0.8	.	.	1.9	4.0	1.9	0.92	1.76	161.56	.	.
May	1.3	.	.	1.1	4.0	2.0	0.92	2.00	162.31	.	.
June	2.0	.	.	0.2	4.1	2.3	0.92	1.88	166.26	.	.
July	.	.	.	.	.	.	0.92	1.77	168.45	.	.

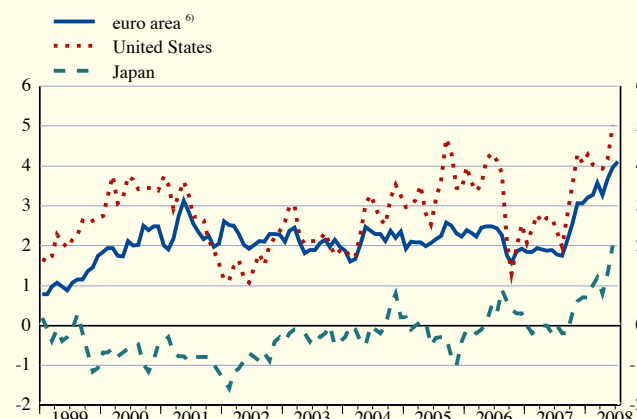
### C37 Real gross domestic product

(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) Seasonally adjusted. The data for the United States refer to the private non-agricultural business sector.
- 2) Average-of-period values; M2 for US, M2+CDs for Japan.
- 3) Percentages per annum. For further information on 3-month interbank deposit rate, see Section 4.6.
- 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.

4 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 August 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 15 (i.e. the Euro 13 plus Cyprus and Malta) 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

<sup>3</sup> Svensson, L. E., 1994, "Estimating and Interpreting Forward Interest Rates: Sweden 1992-1994", Centre for Economic Policy Research, Discussion Paper No 1051.

car registrations are adjusted for the variations in the number of working days.

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. The series for the euro area excludes Cyprus and Malta.

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

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.

seeking work as a share of the labour force, using harmonised criteria and definitions. The labour force estimates underlying the unemployment rate are different from the sum of the employment and unemployment levels published in Section 5.3.

## GOVERNMENT FINANCE

Sections 6.1 to 6.5 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

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.

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 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. 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. 4 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). Part of the difference arises from the inclusion of insurance and freight services in the recording of goods imported.

## 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, 7 FEBRUARY, 6 MARCH, 10 APRIL,  
8 MAY AND 5 JUNE 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.

### **3 JULY 2008**

The Governing Council of the ECB decides to increase the minimum bid rate on the main refinancing operations by 25 basis points to 4.25%, starting from the operation to be settled on 9 July 2008. In addition, it decides to increase by 25 basis points the interest rates on both the marginal lending facility and the deposit facility, to 5.25% and 3.25% respectively, with effect from 9 July 2008.

### **7 AUGUST 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 4.25%, 5.25% and 3.25% 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 May and July 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).

For a complete list of documents published by the European Central Bank and by the European Monetary Institute, please visit the ECB's website (<http://www.ecb.europa.eu>).

### ANNUAL REPORT

- "Annual Report 2006", April 2007.
- "Annual Report 2007", April 2008.

### CONVERGENCE REPORT

- "Convergence Report May 2007".
- "Convergence Report May 2008".

### MONTHLY BULLETIN SPECIAL EDITION

- "10th anniversary of the ECB 1998-2008", May 2008

### 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.
- "Output growth differentials in the euro area: sources and implications", April 2007.
- "From government deficit to debt: bridging the gap", April 2007.
- "Measured inflation and inflation perceptions in the euro area", May 2007.
- "Competition in and economic performance of the euro area services sector", May 2007.
- "Determinants of growth in the EU Member States of central and eastern Europe", May 2007.
- "Share buybacks in the euro area", May 2007.
- "Interpreting monetary developments since mid-2004", July 2007.
- "Oil-exporting countries: key structural features, economic developments and oil revenue recycling", July 2007.
- "Adjustment of global imbalances in a financially integrating world", August 2007.
- "The financing of small and medium-sized enterprises in the euro area", August 2007.
- "Leveraged buyouts and financial stability", August 2007.
- "Long-term developments in MFI loans to households in the euro area: main patterns and determinants", October 2007.
- "The collateral frameworks of the Federal Reserve System, the Bank of Japan and the Eurosystem", October 2007.
- "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.
- “The introduction of quarterly sectoral accounts statistics for the euro area”, November 2007.
- “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.
- “Securitisation in the euro area”, February 2008.
- “The new euro area yield curves”, February 2008.
- “Business investment in the euro area and the role of firms’ financial positions”, April 2008.
- “Short-term forecasts of economic activity in the euro area”, April 2008.
- “Developments in the EU arrangements for financial stability”, April 2008.
- “Price stability and growth”, May 2008.
- “The Eurosystem’s open market operations during the recent period of financial market volatility”, May 2008.
- “One monetary policy and many fiscal policies: ensuring a smooth functioning of EMU”, July 2008.
- “Euro area trade in services: some key stylised facts”, July 2008.
- “The Eurosystem as a provider of technical assistance to EU neighbouring regions”, July 2008.
- “The external dimension of monetary analysis”, August 2008.
- “The role of banks in the monetary policy transmission mechanism”, August 2008.

#### **STATISTICS POCKET BOOK**

Available monthly since August 2003.

#### **LEGAL WORKING PAPER SERIES**

- 4 “Privileges and immunities of the European Central Bank” by G. Gruber and M. Benisch, June 2007.
- 5 “Legal and institutional aspects of the currency changeover following the restoration of the independence of the Baltic States” by K. Drėviņa, K. Laurinavičius and A. Tupits, July 2007.
- 6 “The legal implications of the prudential supervisory assessment of bank mergers and acquisitions under EU law”, June 2008.
- 7 “Electronic money institutions: current trends, regulatory issues and future prospects” by P. Athanassiou and N. Max-Guix, July 2008.

#### **OCCASIONAL PAPER SERIES**

- 55 “Globalisation and euro area trade: interactions and challenges” by U. Baumann and F. di Mauro, February 2007.
- 56 “Assessing fiscal soundness: theory and practice” by N. Giammarioli, C. Nickel, P. Rother and J.-P. Vidal, March 2007.
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- 58 “Long-term growth prospects for the Russian economy” by R. Beck, A. Kamps and E. Mileva, March 2007.

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- 922 “A review of nonfundamentalness and identification in structural VAR models” by L. Alessi, M. Barigozzi and M. Capasso, July 2008.

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“A single currency: an integrated market infrastructure”, September 2007.

“The European Central Bank, the Eurosystem, the European System of Central Banks”, 2nd edition, May 2008.

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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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